

Preliminary Phonology of Mufian (Southern Arapesh)

by

Bob Conrad, Joshua Lukas and John Alungum

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2. Introduction

The Muhiang (Southern Arapesh) language is spoken by approximately 10,000 people living to the west of Maprik in the East Sepik Province of Papua New Guinea. It continues with dialect chaining northward and north-eastward until it finally merges with Bukip (Mt. Arapesh) on the east and Coastal Arapesh on the north. The three principal dialects of Muhiang are Betegef (also called Supari' or Northern dialect), Central (Balif dialect), and Southern (also called Ilahita or Filifita). Other named dialects in the northern dialect chain are Iwam and Bolan (literally 'talk' or 'language'.) The dialect described in this paper is the Central or Balif dialect. The data comes from Mr. Joshua Lukas of Albinama 3.

For ease in typing, the following typographical conventions will be used: @ represents ə, and ? represents glottal stop.

Non-contrastive length on the nuclei of one-syllable words is not recorded.

Stress is not usually written, since it is generally predictable. Penultimate stress is found in the great majority of the words. When it is necessary to write stress, a ' is placed before the stressed syllable. In describing intonation and the relation of tone to intonation, high tone is indicated by ´ and low tone by ` . These marks are placed over the vowels which carry these respective pitches.

3.2 Description of contrastive features:

Contrastive features in manner of articulation of consonants are stops, non-resonant continuants, and resonant continuants. Stops occur at bilabial, alveolar, velar and glottal points of

CHART OF PHONEMES

The phonemes of Muhiang is as follows:

CONSONANTS

	<i>Labial</i> <u>Bi-labial</u>	<u>Labio-dental</u>	<u>Alveolar</u>	<u>Velar</u>	<u>Glottal</u>
STOPS V/ls	p		t	k	ʔ
V/d	b		d	g	

NON-RESONANT-CONTINUANTS

	<i>f</i>	s		h
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RESONANT CONSONANTS

Nasal	m		n
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Non-nasal	w		l
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VOWELS

	<u>Front</u>	<u>Central</u>	<u>Back</u>
High	i		u
Mid	e	ə	o
Low	æ	a	

(Section 3.2 continued)

articulation. Non-resonant continuants contrast at labio-dental, alveolar, and glottal points of articulation. Resonant consonants contrast at bi-labial and alveolar points of articulation.

Contrastive features of the vowels are expressed by a 3 by 3 matrix. Vowels contrast between high, mid and low, and between front, central and back. The exception is that the low back vowel and the high central vowel do not occur.

4. Interpretation

4.1 Status of items which may be either a consonant or a vowel:

4.1.1 /w/ is interpreted as a consonant because it is non-syllabic and parallels the occurrence of other consonants: ^{syllabic}

/waf/ (waf) 'custom'

/bol/ (bol) 'pig'

/wanembəh/ (wanembəh) 'three nights'

/dindiŋgim/ (dindiŋgim) 'rigor mortis has set in, (in a dead person)

/waluf/ (waluf) 'mist', 'fog'

~~/gənat/~~ (^gənat^h) 'inner head, bones and brains'

/dowaf/ (dowaf) 'just being or existing, without doing anything'

/dətip/ (dət^hip^h) 'wild palm shovel'

4.1.2 /h/ is interpreted as a consonant because it is non-syllabic and parallels the occurrence of other consonants:

/holof/ (holof) 'generic name for tambera^h spirits'

/nalof/ (nalof) 'tooth' (sg.)

/hiŋgata/ (hiŋgat^ha) 'thorn'

/nambati[?]/ (nambat^hi[?]) 'yesterday' /ikwi^hef/ (ikwi^hef) 'I dive (into water)'

/ənis hiahaos/ (ənis hiahaos) 'some things'

4.1.3 /y/ is interpreted as a vowel because it is syllabic and parallels the occurrence of other vowels.

/ian/ (ian) 'frog species'

/dao?/ (dao?) 'it's ok; all right'

/dei?/ (dei?) 'now; today'

/iahe?is/ (iahe?is) 'cooked food'

/ae? and a? iaf/ (ae? and a? iaf) 'I will laugh'

/i@nguf/ (i@nguf) 'roads'

4.2 Status of items which may be either sequences or units:

A. ~~kwaw~~, (kw) and (w) are interpreted as two phonemes
(gw)

because:

(1) Although there are no non-suspect consonant clusters, each of these suspect clusters can be interpreted as two phonemes in order to reduce the number of phonemes by 3. Note that /g/, /k/ and /ʔ/ ~~are~~ and /w/ are all separate phonemes anyway.

(2) Each of these phonemes contrast with their respective unlabialized counterparts. Therefore it is clear that the labialization is not transition nor is it predictable.

/gwal/ (gwal) 'head spirit'

/gani/ (gani) 'over there'

/kwap@ni/ (kwap^h@ni) 'she stayed (somewhere else)'

/kofemb^hh/ (k^hofemb^hx) 'eggs plural'

/kwa?wi/ (kwa?wi) 'she (distant)'

/kwa?i/ (kwa?i) 'she likes/says'

(2) continued:

/gãŋgi/ (gãŋgi) 'that (tree) (distant)'

/gwãŋgi/ (gwãŋgi) 'those (chickens) (distant)'

B. (mb), (nd) and (ŋg) are interpreted as single phonemes because:

(1) They are in complementary distribution with their non prenasalized counterparts. Non prenasalized counterparts occur word initial but the prenasalized occur word medial.

examples: /bol/ (bol) 'pig'

/aṃbuta/ (ambut^h^) 'rat'

/dɛndɛl/ (dɛndɛl̠) 'always'

/gãŋgi/ (gãŋgi) 'that (tree) (distant)'.!

(2) (mb) and (ŋg) have voiceless aspirated counterparts occurring word final. Examples:

/owamb/ (owamp^h) 'night'

/wang/ (wank^h) 'deep water hole'

C. Slight labialization on (b)^{anl(p)} preceding front vowels is interpreted as transition. Example:

/@sis bias/ (@sis b^wias) 'they (mixed gender) dual'

D. Vowel Clusters. ^(papi/) ^(papwi) 'that (knife) (distant)'

All suspect sequences of two vowels are interpreted as two phonemes because:

(1) Non-suspect vowel clusters do occur: examples:

/ae/: /ae?/ (ae?) 'I'

/ao/: /aof/ (aof) 'garden'

/aolap/ (aolap^h) 'bush house'

/dao?/ (dao?) 'it's ok; all right'

/ea?/ (ea?) 'finish, and, enough'

/aol/ (aol) 'fish sg.'

(2) There are some vowel sequences which, if interpreted as a unit, would result in more phonemes because of contrast with single vowels:

/ao/ vs /o/: (ofe?) /ofe?/ 'We (excl) will go'

(aof) /aof/ 'garden'

(aol) /aol/ 'fish singular'

(olomahe) /olomahe/ 'I am hungry'

/ea/ vs /a/ (ea?) /ea?/ 'finish, and, enough'

(a?) /a?/ 'past tense or completed action'

(3) There are some vowel sequences with reverse clusters.

/ea/ and /ae/. (ea?) /ea?/ 'finish'

(ae?) /ae?/ 'I'

/ao/ and /oa/ (aof) /aof/ 'garden'

(oamena) /oamena/ 'his younger brother'

List of two-vowel sequences so far observed:

/ao/ (aof) /aof/ 'garden'

(dao?) /dao?/ 'ok, all right'

(aolap^h) /aolap/ 'garden shelter'

(baop^h) /baop/ 'village area belonging to one man'

/ea/ (ea?) /ea?/ 'finish, and, enough'

/ae/ (naep^h) /naep/ 'eyes'

/oa/ (oamen^h) /oamena/ 'your younger brother'

/ae/ (ae?) /ae?/ 'I'

(awahinaewi) /awaninaewi/, 'I am a little better from an illness'

(naep^h) /naep/ 'eye'

- /ie/ (hiesi) /hiesi/ 'many (people'
 /iə/ (iəŋguf) /iaguf/ 'roads'
 (aliəŋk^h) /aliəg/ 'breadfruit skin'
 /əi/ (phifi?i mai ae?) /pifi?i mai ae?/ 'You come to me.'
 (gwə?əisi) ~ /gwə?əisi/ ~ 'food (cooked or ready to cook)'
 (gwə?eisi) /gwə?eisi/
 (nambəi? nifi?i) /napəi nifi?i/ 'When will he come?'
 /ia/ (nia?) /nia?/ 'You (sg) drink (or eat)'
 (lufia?) /lufia?/ 'one bird flies'
 (nandə?iaf əməin) /nadə?iaf əm məin/ 'Why did you laugh?'
 /au/ (bol auna) /bol auna/ 'very good/fat pig'
 /ei/ (dei?) /dei?/ 'now, today'
 (alinei) /alinei/ 'dead tree'
 /ai/ (k^hu'phai?) /kupai?/ 'popo' (Ilahita only)
 (basef mailən) /basef mailən/ 'It is his fault'
 (mai?una) /mai?una/ 'large pidgeon'

E. Sequences of V₁?V₂ . These are interpreted as V₁CV₂.

Because it results in fewer phonemes and because of the audible double chest pulse (sylcabicim) which can be heard.

The following combinations have been observed so far:

- /i?u/ (mai?una) /mai?una/ 'large pidgeon'
 (ae?x anggi?u) /ae? agi?u/ 'I will come later.'
 /u?u/ (lu?unei) /lu?unei/ 'large size man'
 /a?a/ (a?a) /a?a/ 'or'
 (ba?anga) /ba?aga/ 'foot'
 x (fa?ami) /fa?ami/ 'bring it'
 (wa?aph wa?aph) /wa?ap wa?ap/ 'From side to side.'

^{Xa}
 /əʔa/ (at^hesindəʔam) /atesindəʔam/ '(You do it)later'
 /uʔe/ (buʔwen) /buʔenʔen/ 'clean'
 /iʔi/ (iʔi) /iʔi/ 'conditional'
 (fiʔi) /fiʔi/ 'come'
 (iahiʔis) /iahiʔis/ 'cooked (ffod)'
 (hiʔilam) /hiʔilam/ 'all (unreal aspect)'
 /eʔi/ (ineʔikwi) /ineʔikwi/ 'your (fem)'
 (aməŋga aeʔingei) /aməga aeʔigei/ 'my face'
 /aʔi/ (wal^haʔita) /walaʔita/ 'food'
 (isilaʔi) /isilaʔi/ 'I will go down (from the tree)'
 (naʔias) /naʔias/ 'he said/talked'
 /oʔo/ (ifoʔo) /ifoʔo/ 'I will come (to where you will be)'
 (boʔwoni) /boʔoni/ 'good (man)'
 /aʔə/ (nuwasaʔəm) /nuwasaʔəm/ 'he will throw away (something bad)'
 (kwaʔə^X) /kwaʔəh/ 'she sleeps'
 /əʔi/ (nandəʔiaf) /nadəʔiaf/ 'you laugh'
 /əʔə/ ~
 (gwəʔəisi) ~ (gwəʔeisi) /gwəʔəisi/ /gwəʔeisi/ 'food'
 /əʔe/

F. Vowel length.

Vowel length occurs infrequently. Because there are non-suspect sequences of two vowels, vowel length is interpreted as two identical phonetic vowels.

/ee/ (agwafe:) /agwafee/ 'these (pigs)'
 /aa/ (k^hola:s) awəsi bwias)
 /ko^hlaas awəsi bias/ '(The woman) will give birth to two children.'

/ææ/ (inΛ lomææn pwe) /ina lomææn pwe/ 'You stay with him.'

/ii/ (isi:) /isii/ 'these (children)'

G. Sequences of three vowels.

All sequences of three vowels so far observed have been separated by a glottal stop. Examples:

(mai?una) /mai?una/ 'large pidgeon'

(gw@?eisi) ~ (gw@?@isi) /gw@?eisi/ ~ /gw@?@isi/ 'food'

H. Word Final ?W

Since ?^w has already been interpreted as two phonemes, so in ?^w.

Examples: (həngatho?W) /həgato?w/ 'broom'

(nɛmatho?W) /nɛmato?w/ 'woman'

(map^hæ?W) /mapæ?w/ 'frog' species

I. Word final (ŋg) and (ŋgw).

These are interpreted as two and three consonants respectively, B. + 6. since we have already decided that /n/, /g/, and /w/ are separate phonemes and that (ŋg) and (g^w) are consonant clusters.

Examples:

(lowaŋk^h) /lowag/ 'tree'

(utaŋk^w) /ut@gw/ 'doors'

(nombaŋk^w) /nobagw/ 'dogs'

(ali?əŋk^h) /ali?əg/ 'breadfruit skin'

5. Description of Phonemes:

5.1 Consonants

Bilabial Labio-Dental Alveolar Velar Glottal

ph
p

th
t

k^h
k

?

mb
mph
b

nd
d

ng
ŋk^h
ŋ

f

s

x

h

m

n

ŋ

w

l

5.1.2

DESCRIPTION: (These include all non-vocoids, and all non-syllabic vocoids of a vocoid cluster. All of these are with egressive lung air.)

/p/ (p) Voiceless unaspirated bi-labial stop. Occurs word initially and medially.

(opax) /opah/ 'bananas'

(papi) /papi/ 'those' (eyes)

(ph) Voiceless bilabial aspirated stop
occurs finally

(opap^h) /opap/ 'banana'

(naep^h) /naep/ 'eyes'

/b/ (b) Voiced bi-labial stop
occurs initially

(bol) /bol/ 'pig'

(mb) Voiced bi-labial nasalized stop
occurs medially

(ambuta) /abuta/ 'rat'

(mp^h) Voiceless bilabial nasalized aspirated stop
occurs word finally

(owamp^h) /owab/ 'night'

(usimp^h) /usib/ 'crested pigeon'

/t/ (t) Voiceless alveolar unaspirated stop
occurs word initially, medially

(tata) /tata/ 'Steep cliff-like mountain'

(th) Voiceless alveolar aspirated stop
occurs word finally

(atæt^h) ~~/atæt/~~ 'that dog'

/atæt/

/d/ (d) Voiced alveolar ^{STOP} ~~STB~~. Occurs word initially.

(dindingina) /didigina/

'dead, rigid, lifeless (referring to rigor mortis with a dead body)'

(nd) Voiced alveolar NASALIZED STOP. Occurs word medial.

(d@nd@l) /d@d@l/ 'always'

(kwanda? m@in) /kwada? m@in/ ~

(kwanda? moin) /kwada? moin/

'What is she doing?'

(ondop^h) /odop/ 'wild palm type'

[nɛʰ] finally?

/k/ (k) Voiceless velar stop. Occurs word initial and medial.

(ako?w) /ako?w/ 'she'

(kɛ?ɛp^h) /ke?ep/ 'sand fly'

[kʰ] finally?

/g/ (g) Voiced velar stop. Occurs word initially.

(gangi) /gagi/ '!(that) tree (distant)'

(gani) /gani/ 'there'

(ŋg) Voiced velar prenasalized stop. Occurs word medially.

(alinga) /aliga/ 'ear, dead tree'

(amŋga) /amaga/ 'face, forehead'

(ae? aŋgi?u) /ae? aɡi?u/ 'I will come later.'

(nk^h) Voiceless velar prenasalized aspirated STOP. Occurs word final.

(isank^h) /isag/ 'net bag'

(wan^h) /wag/ 'deep water hole'

(lawan^h) /lawag/ 'tree'

- /ʔ/ (ʔ) Voiceless glottal stop. Occurs word medial and word final.
 (naʔa) /naʔa/ 'here'
 (maiʔuna) /maiʔuna/ 'large pidgeon'
 (aeʔ) /aeʔ/ 'I'
 (deiʔ) /deiʔ/ 'now, today'
- /f/ (f) Voiceless labio-dental fricative. Occurs word initial, medial, and final.
 (faf) /faf/ 'finger'
 (afaʔ) /afaʔ/ 'we exclusive'
 (nufiaʔ) /nufiaʔ/ 'he flies'
 (n@maf) /n@maf/ 'day'
- /s/ (s) Slightly fronted voiceless alveolar grooved fricative. Occurs word initially, medially and finally.
 (@sis) /@sis/ 'they!'
 (soʔutip^h) /soʔutip/ 'fruit (pl)!'
 (isilaʔi) /isilaʔi/ 'I will come down (from a tree)'
 (nɿlaʔas) /nilaʔas/ 'He digs out ripe garden food!'
 (safeʔ) /safeʔ/ 'they went'
- /h/ (h) Voiceless glottal fricative. Occurs word initial and medial.
 (hahi) /hahi/ 'those (knives)(distant)!'
 (hahe) /hahe/ ~
 (hiesi) /hiesi/ 'many (people)'

- (x) Voiceless velar fricative. Occurs word final.
 (lawax) /lawah/ 'trees'
 (naox) /naoh/ 'salt water, ocean'
- /m/ (m) Voiced bilabial nasal. Occurs initial, medial, and final.
 (mami) /mami/ 'those (men) (distant)'
 (nam) /nam/ 'eye'
 (nengam@n@) /negam@n@/ 'his sons'
 (owangama) /owagama/ 'later, indefinite'
- /n/ (n) Voiced alveolar nasal. Occurs initial, medial and final.
 (nani) /nani/ 'he (distant)'
 (nomon) /nomon/ 'inside'
 (naep^h) /naep/ 'eyes'
 (nam~~an~~) /nam~~an~~/ 'tomorrow'
- /l/ (l) Voiced alveolar lateral. Occurs word initial, medial and final.
 (@lae) /@lae/ 'that (bottle)'
 (laf~~el~~) /lafel/ 'under, down below'
 (lu?unei) /lu?unei/ 'Big, large'
 (bol) /bol/ 'pig'
- /w/ (w) Voiced bilabial non-syllabic semivowel.
 Occurs word initial and medial.
 (wawi) /wa^wi/ 'those (women) (distant)'
 (waulu?m^wan^w) /waulu?mana/ 'his wife'

(W) Voiceless bilabial non-syllabic semivowel.

Occurs word final, usually following /ʔ/, /g/, or /k/ *cf. 1.2.1.4*

(nimatoʔW) /nimatoʔw/ 'woman'

(wambeʔW) /wambeʔw/ 'duck type'

(hangath^hW) /həgateʔw/ 'brush broom'

(wambaʔW) /wabaʔw/ 'spear'

(aŋgonkW) /agogw/ 'these (dogs)'

5.1.3 Contrastive sets of consonants

/p/-/b/-/w/

Should be [papu] according to 4.2. c p6
 (papi) /papi/ 'that (knife) (distant)'
 (bambwi) /babi/ 'that (night) (remote)'
 (wawi) /wawi/ 'those (women) (distant)'

(owaph) /owap/ 'bird's nest'

(owamp^h) /owab/ 'night'

(wambaʔW) /wabaʔw/ 'spear'

/t/-/d/-/s/ Note that /d/ does not occur word final.

(at^h) /ata/ 'yet'

(asaf) /asaf/ 'rain'

(andəʔ) /adəʔ/ 'outside'

(tətəl) /tətəl/ 'quickly'

(dəndəl) /dəndəl/ 'always'

(sasi) /sasi/ 'they (distant) mixed gender'

(səlas) /səlas/ 'Beaks'

(atəth) /atət/ 'that (dog)'

(naʔias) /naʔias/ 'he said'

/k/-/g/-ʔ/-/h/ Note /ʔ/ does not occur word initial and/k/
does not occur word final

(akoʔw) /akoʔw/ 'she'

(ingaʔ) /igaʔ/ 'I will die'

(angonk^h) /agog/ 'those (dogs) (distant)'

(foʔo) /foʔo/ 'go (imperative)'

(ahoʔ) /ahoʔ/ 'it is all right'

(kafotʌ) /kafota/ 'long-necked bird'

(k@mon) /komon/ 'hawk'

(gani) /gani/ 'there'

(hahi)ʌ (hahe) /hahi/ʌ /hahe/ 'those (knives) (distant)'

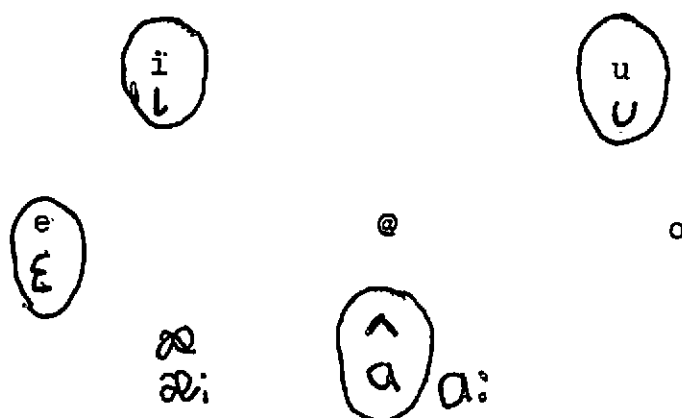
(lowanj^h) /lowag/ 'tree sg.'

(niaʔ) /niaʔ/ 'you drink (or eat)'

(lawax) /lawah/ 'trees'

5.2 Vowels

5.2.1 Vowel chart



5.2.2 Description

General?

All vowel phonemes seem to have slightly long allophones which occur in one-syllable words and on stressed syllables of polysyllabic words. These slightly long allophones will not be indicated in the phonetic transcription. These allophones are not as long as the long vocoids, which will be written (v:) and /vv/.

/i/ (ɪ) High open front unrounded voiced vocoid. Tends to word medial contiguous to /n/, /m/ and preceding word medial /g/.

(nɪthi) /niti/ 'you look'

(nɪlaʔas) /nilaʔas/ 'he will dig out garden food'

(umbɛlɪŋa) /ubeliga/ 'many'

(i) High close front unrounded voiced vocoid. Occurs elsewhere word initial, medial and final.

(ilif) /ilif/ 'above'

(fiʔi) /fiʔi/ 'come (imperative)'

(isilaʔi) /isilaʔi/ 'I will come down (from a tree)'

/e/ (ɛ) Mid open front unrounded voiced vocoid.

Occurs word initial and medial, where it tends to fluctuate with (e) in some environments.

(bɛmpʰ) /beb/ 'betel nut'

(ɛlif) /elif/ 'inedible wild sugar cane'

(efɛʔ) ~ (ɛfeʔ) /efeʔ/ 'I will go'

(e) Mid close front unrounded voiced vocoid. Occurs word initial, medial, where it tends to fluctuate with (ɛ) in some environments. Also occurs word final.

(ea?) /ea?/ 'finished'

(ikwihef) /ikwihef/ 'I dive'

(ape?amph) /ape?ab/ 'fire, firewood (sg)'

(umbel make) // ubel / make / 'I am afraid'

(efe?) ~ (Efe?) /efe?/ 'I will go'

/æ/ (æ) Low close front unrounded voiced vocoid. Occurs word medially and infrequently. Fluctuates with /a/ in some speakers.

(afa?W) ~ (afæ?W) /afæ?w/ 'coconut'

(aman) ~ (amæ) /amæ/ 'man, male'

/ə/ (ə) Mid close central unrounded voiced vocoid.

Occurs initial medial and final.

(dəkə ingil) /dəkə ingil/ 'last year'

(dəndəl) /dəndəl/ 'always'

(əol) /əol/ 'fish'

(wa?əl) /wa?əl/ 'over there'

(nəŋgəmə) /nəŋgəmə/ 'his sons'

/u/ (U) High open back rounded voiced vocoid.

Occurs word initial and medial usually preceding /g/.

(Unguf) /uguf/ 'snakes'

(ambUŋkW) /abugw/ 'soup'

(u) High close back rounded voiced vocoid.

Occurs word initial, medial and final, but not preceding /g/.

(usu) /usu/ 'you sg. go inside imperative'

(ululal) /ululal/ 'quickly'

/o/ (o) Mid open back rounded voiced vocoid.

Occurs word initial, medial and final.

(ondo?w) /odo?w/ 'star'

(ongonkw) /ogogw/ 'these (dogs)'

(fo?o) /fo?o/ 'go (imperative)'

/a/ (ʌ) Mid open central unrounded voiced vocoid.

Tends to occur word initial, medial and final in free fluctuation with (a) in unstressed syllables and word initial.

(nɛnga:manɛ) ~ (nɛnga:mɛnɛ) /nɛgamɛnɛ/ ~ /nɛgamane/

'his sons'

(ut^hʌ) ~ (ut^ha) /uta/ 'door'

(at^hʌ?) (at^ha?) /ata/ 'first'

(ambangof) ~ (ʌmbangof) /abagof/ 'spirits'

(a) Low open central unrounded voiced vocoid. Occurs word initial, medial and final, tending toward free fluctuation with (ʌ) in unstressed syllables and word initial.

(na?a) /na?a/ 'here'

(ʌsaf) ~ (asaf) /asaf/ 'rain'

(ambangof) ~ (ʌmbangof) /abagof/ 'spirits'

5.2.3 Contrastive Sets of Vowels.

Note that word final contrasts are difficult to find because the majority of words end in a consonant. Also note that no long vowels or /æ/ have been observed word initial or word final.

/ə/-/a/-/e/-/æ/-/aa/- /aɪ/

Initial:

(@ol) /@ol/ 'fish'

(aol) /aol/ 'mosquito'

(ea?) /ea?/ 'finished'

Medial:

(nefal@n) /nefal@n/ 'You call for someone'

(n@maf) /n@maf/ 'day'

(khola:s) /kolaas/ 'she gives birth'

(nam~~an~~) /nam~~an~~/ 'tomorrow'

(am~~an~~) /am~~an~~/ 'man'

(in~~A~~ lom~~an~~:n pwe) /ina lom~~an~~:n pwe/ 'you stay with him'

(and@?) /and@?/ 'outside'

(ande ande?) /ande ande?/ 'all right, ok, good'

Final:

(in~~A~~ lom~~an~~:n pwe) /ina lom~~an~~:n pwe/ 'You stay with him.'

(@mandatalowe) /@mandatalowe/ 'my teeth are loose'

(n~~i~~ math^hawa) /nimatawa/ 'women'

(dele@ ingil) /deke ingil/ 'last year'

(nangam^h@)~ (n@ngam@n@) /n@gamane/~/n@gam@n@/ 'his son'

(mai?una) /mai?una/ 'mai?una/ 'large pādgen'

/i/ - /e/

Initial:

(ilif) /ilif/ 'above'

(Elif) /elif/ 'inedible wild sugar cane'

Medial:

(bEmph) /bemb/ 'betel nut'

(bimph) /bimb/ 'day after tomorrow'

/i/ - /e/

Final:

(umbel bahe) /ubel bahe/ 'I am afraid'

(nafi?i) /nafɪ?i/ 'he came'

/u/ - /o/

Initial:

(uth^h) /uta/ 'door'

(otha?) /ota?/ 'wait'

Medial:

(amb^hŋ^h) /a^hmbug/ 'soup'

(ongonk^W) /ogogw/ 'those (dogs) distant'

Final:

(usu) /usu/ 'go inside'

(fo?o) /fo?o/ 'go (imperative)'

/i/ - /ə/

Initial:

(ina?) /ina?/ 'you sg'

(əŋgiph) /əgip/ 'woven arm band'

(ili?) /ilip/ 'I will go first'

(æ? @lihiwi) /æ? @lihiwi/ 'I am full (of food)'

Medial:

(d@hup^h) /d@hup/ 'lips'

(ding^h) /diga/ 'a vernacular language'

Final:

(wap@ni) /wap@ni/ 'again'

(n@ŋgam@nə) ~ (n@ŋgam@nə) /n@gamanə/ ~ /n@gam@nə/ 'his son'

/a/ - /o/

Initial:

(at@t@mə) /at@t@nə/ 'one (male)'

(otha?) /ota?/ 'wait'

Medial:

(oŋgonk^W) /o^hgogw/ 'those (dogs) distant'

(nanŋgawef) /nagawef/ 'He understands the talk'

Final:

(a?a) /a?a/ 'or'

(fo?o) /fo?o/ 'go (imperative)'

5.3 Suprasegmental Items

5.3.1 Phoemic status of tone, stress, length, and their interrelationships.

Length is considered to be phonemic at the word level, but seems to have a very low functional load. So far no contrastive length has been observed except on /a/ and /ə/. Their lengthened counterparts seem to be quite rare.

Stress and tone are not considered to be phonemic at the word level. In isolation, the majority of words have penultimate stress, and high tone usually occurs on the stressed syllable.

Examples:

Using the frame ^{ae?}
~~ae?~~ ati? 'I saw!'

(^{ae?}
~~ae?~~ 'ati?) bol) /^{ae?}
~~ae?~~ ati? bol/ 'I saw the pig'

(^{ae?} 'ati? 'isak^h) /ae? ati? isag/ 'I saw the net bag.'

(aé? 'āti? a'ling) XXX /ae? ati? aliga/ 'I saw the ear/dry tree!

(aé? 'āti? wam!béle?w) /ae? ati? wabele?w/ 'I saw the duck!

(aé? 'āti? ōnā'hōwā) /ae? ati? onahowa/ 'I saw the cassowaries
(oldest or youngest)!

(aé? 'āti? kōpī'siā'howa) /ae? ati? kopisiahowa/ 'I saw the
grasshoppers!

(aé? 'āti? ālūpū'tínā) /ae? ati? aluptina/ 'I saw the middle son
(neither oldest nor youngest)!

5.3.2 Intonation

A. Pause group

(1) Non-final pause /ɤ/ is marked by approximately level pitch on the final syllable of the pause group.

(2) Final pause /. / is marked by a down-glide on the final syllable of the pause group and also a somewhat relaxed voice quality. Examples:

Text NB by Joshua Lukas:

(Anda? lotu ma belo/ Masta Bob na?ipi/ Alomas indiwasa ipat esis
sangapoma// Ea?/ Apan alomas a gwa'eisi/ ea? sasa?e rom hiahaos/
Ea?/ ape alomas//)

/Ada? lotu ma belo, Masta Bob na?ipi alomas idiwasa ipat esis
sagapoma. Ea? apan alomas a gwa'eisi, ea? sasa?e rom hiahaos, ea?,
ape alomas./

When I finished the worshipping at noon, Mr. Bob told me and I went with them up to the house where they stayed. When we finished (going up), I ate with them and they gave me a room and things (for sleeping~~x~~-sheets etc) and I stayed with them.'

B. Phonological Sentences:

- (1) A statement is indicated by a final pause. (Down-glide on the final syllable of the sentence, plus pause).
- (2) A question is marked by level or slightly rising pitch on the sentence-final syllable. This pitch is similar to non-final pause in Section A above.

Examples:

'nāfē? 'wāmbēl.

inā āp 'nēfē? 'wāmbēl!

inā ā? 'nēfē? 'wāmbēl?

6. Controversial or unsolved issues:

A. Status of rare vowels

/æ/ and its lengthened counterpart /ææ/ are difficult to distinguish from /a/ and /aa/ at times. /æ/ and /ææ/ seem to be very rare. /aa/ also seems very infrequent.

B. Distribution of vowel allophones.

Distribution statements for allophones of phonemes /i/, /e/, and /u/ are incomplete. We can say with confidence that there is no contrast between the sounds we have joined together as allophones.

C. Voiceless vocoids.

Voiceless vocoids have been observed word final on certain classes of nouns. Interpretation is still tentative.

(wamba?WA) ~ (wambæ?WA) /waba?wa/ 'spear'

~ (wamba?W)

(asa?WA) ~ (asa?W) /asa?wa/ 'childless'

D. (W)

(W) following /ʔ/, /k/ and /g/ has been observed word final on certain classes of nouns. The interpretation we have given is tenuous.

(awanineiʔW) /awanineiʔw/ 'she is a little better (recovery from illness)'

(wambeleeʔW) /wambeleeʔw/ 'species of duck'

(həŋgateʔW) /həgateʔw/ 'Bush broom'

(kwaʔəx boʔokW) /kwaʔəh boʔokw/ 'she sleeps well'

(nɛmatoʔW) /nematoʔw/ 'woman'

(map^hæʔW) /mapæʔw/ 'frog species'

(angon^jkW) /agogw/ 'these (dogs)'

(utəŋkW) /utəgw/ 'doors'

E. Interpretation of labialization on velar stops and glottal stop. The interpretation of these as two phonemes does result in a number of consonant clusters even though there are no non-suspect consonant clusters. This preferable to interpreting these as one phoneme.

F. Orthography

Orthographical decisions on the two vowels /æ/ and /ə/ are tentative. /æ/ is written as a and /ə/ is split up, mostly written a and sometimes (in vowel clusters) as e. *Also some times as /o/.*

7. Distribution

7.1 General

An emic syllable is defined as a unit of potential stress placement, consisting of a simple or complex nucleus and an optional preceding or following margin. The simple nucleus consists of any of the seven vowels and the complex nucleus consists of one of the following:

/æ æ/, /a₂/, ai/, /ae/, /ao/, /ia/, /iə/, /ei/, /@i/, /au/, /ea/.

Stress placement on the vowels of a complex nucleus is usually distributed about equally with a tendency to conform to the penultimate stress rule.

CV patterns have been observed so far: Simple Nuclei (syllable division is indicated by a lowered ".")

CV (na.lof) /nalof/ 'tooth'

CVC (ho.lof) /holof/ 'tamberan spirit (generic)'

(bol) /bol/ 'pig'

CCV (kwa.ʔi) /kwaʔi/ 'she likes/says'

CCVC (kwaʔ.wi) /kwaʔwi/ 'she (distant)'

CVCC (hə.nga.təʔw) /həgateʔw/ 'broom

VC (aʔ) /aʔ/ 'completed action'

V (a.mbu.tʰʌ) /abuta/ 'rat'

Complex Nuclei:

CVV (mai.ʔu.na) /maiʔuna/ 'large pidgeon'

CVVC (daoʔ) /daoʔ/ 'ok, all right'

VVC (aol) /aol/ 'fish (sing)'

VV (ao.lapʰ) /aolap/ 'bush house'

The phonological word is defined as the minimal unit that occurs in isolation, and containing one and only one stress. Other characteristics of the phonological word are: Slight length and higher pitch on the stressed nucleus and the following final consonant clusters: /ʔw/, /gw/, /kw/.

All single consonants except /k/ and /d/ have been observed word final. /ʔ/ never occurs word initially.

/æ/ has not been observed word initially or finally.

Of the twelve CV patterns observed so far, only five syllable words have been observed so far in one syllable words.

CVC (bol) /bol/ 'pig'

VC (a?) /a?/ 'completed action'

V (a) /a/ 'and'

CVVC (dao?) /dao?/ 'ok, all right'

VVC (aol) /aol/ 'fish (song)'

The following ten CV patterns have been observed in two-syllable words.

V.CVC /@.saf/ 'rain'

CV.CVCC /mapæ?w/ 'frog species'

CV.CV /na.ni/ 'he'

CV.CVC /no.bat/ 'dog'

CCV.CCV /gwa.gwi/ 'they (dogs) distant'

VV.CVC /ao.lap/ 'garden shelter'

CV.CVVC /ku.pai?/ 'popo'

CV.V /ni.a?/ 'you 'sg' drink'

VCV /a.?a/ 'or'

CVC.CVC /d@l.d@l/ 'always'

The following seven CV patterns have been observed in three syllable words.

V.CV.CV /a.gi.?u/ 'I'll come later'

CV.CV.CV /ba.?a.ga/ 'foot'

CV.CV.CVC /hi.?i.lam/ 'all (unreal aspect)'

CV.CV.CVCC /h@.ga.te?w/ 'broom'

V.CCV.CVC /i.kwi.hef/ 'I dive'

V.CV.CVC /a.pe.?ab/ 'firewood'

7.2 Specific limitations of occurrence

7.2.1 Restrictions with respect to the phonological word.

All phonemes occur word medially. All phonemes except /ʔ/ and /æ/ occur word initial. All phonemes except /d/, /k/ and /æ/ occur word finally.

No more than two successive consonants have been observed word medially.

By interpretation, the following consonant clusters occur: /gw/ and /kw/ occur word initial. /gw/, /kw/, /ʔm/, /ʔl/ and /ʔw/ occur word medially. /gw/ and /ʔw/ occur word finally.

The following vowel clusters have been observed so far:

Initial	Medial	V ₁ V ₂	Final
i@	V ₁	V ₂	@i
a e	i	a,e,o	ei
ia	a	o,a,e,@,i	ae
ea	æ	æ	
oa	@	i	
	e	i	

&

7.2.2 Restrictions with respect to the syllables

The following classes of vowels and consonants describe the restrictions with respect to the emic syllable. The same subscript used for a vowel or consonant class indicates that class membership is identical.

Further expected expansions of the phoneme classes are indicated in parentheses.

Emic Syllable:

C_1V_1

C_1 consists of all consonants

V_1 consists of all vowels except /æ/

$C_2V_2C_3$

C_2 consists of all consonants

except /k/ (Eventually expect $C_2 = C_1$.)

V_2 consists of all vowels (Eventually expect $V_2 = V_1$)

C_3 consists of all consonants except /k/ and /d/. (Eventually expect $C_3 = C_1$).

$C_4C_5V_3$

C_4 consists of /p/, /b/, /k/ and /g/.

C_5 consists of /w/.

V_3 consists of /i/, /e/, /a/, and /ə/.

$C_6C_5V_4C_7$

C_6 consists of /k/ and /g/

(Eventually expect $C_6 = C_4$).

V_4 consists of /a/.

C_7 consists of /l/ and /r/.

$C_8V_2C_9C_{10}$

C_8 consists of all consonants

except /h/, /m/, /n/, /w/ and /r/

C_9 consists of /g/, /m/, /n/ and /r/

C_{10} consists of /b/, /k/, and /w/.

V_5 C_{11}

V_5 consists of all vowels except
/æ/ and /u/. (Eventually
expect $V_5 = V_2$).

C_{11} consists of /p/, /g/, /f/,
/s/, /h/, /n/ and /ʔ/.

V_1

C_{12} V_3 V_7

C_{12} consists of all vowels
except /p/, /t/, /d/, /k/ and
/h/.

V_7 consists of /i/, /e/, /a/,
and /u/. (Eventually expect
 $V_7 = V_3$)

C_{13} V_8 V_9 C_{14}

C_{13} consists of /p/, /d/, /m/
and /l/.

V_8 consists of /e/, /æ/ and /a/.

V_9 consists of /i/, /æ/, /a/ and
/o/.

C_{14} consists of /b/, /f/, /s/,
/n/ and /ʔ/.

V_{10} V_{11} C_{15}

V_{10} consists of /e/, /a/, and /o/.

V_{11} consists of /i/, /e/, /a/
and /o/ (Eventually expect
 $V_{10} = V_{10}$)

C_{15} consists of /f/, /l/ and /ʔ/
(Eventually expect $C_{15} = C_7$)

V_{12} V_{13}

V_{12} consists of /i/ and /a/.

V_{13} consists of /a/, /ə/, /o/
and /u/.

7.2.3 Restrictions of syllable types within the phonological word.

One systematic restriction seems to be that the syllable break within words is always made before rather than after the consonant in VCV sequences. For other restrictions see Section 7.1.

8. Non-contrastive Features.

These involve voiceless vocoids (see section 6), Aspiration and Length on the syllable nucleus in one syllable words.

9. Orthography.

9.1 Suggested orthography:

Phoneme	Suggested symbol
/p/ (p), (p ^h)	p
/b/ (b),	b
(mb)	mb
(mp ^h)	mb
/t/ (t), (t ^h)	t
/d/ (d)	d
(nd)	nd
/k/ (k)	k
/g/ (g)	g
(ŋg)	ng
(ŋk ^h)	ng
/ʔ/	
/f/ (f)	f
/s/ (s)	s

Phoneme	Suggested symbol ¹
	x
/h/ (h), (X)	h
/m/ (m)	m
/n/ (n)	n
/l/ (l)	l
/w/ (w), (W)	w
/i/ (ɪ), (i)	i
/e/ (ɛ), (e)	e
/æ/ (æ)	a
/ə/ (ə)	a, ^o e (in vowel clusters) ²
/u/ (ʊ), (u)	u
/o/ (o)	o
/a/ (ʌ), (a)	æ ɑ
/aa/ (a:)	ɑ ɑ
/æ-æ/ (æ')	ɑ ɑ

9.2 Previous orthography:² (S. J. Matthews 1957)

Note: this orthography is for Supari Dialect, which has an additional /ɹ/ and no vowel length.

Phoneme	Suggested Symbol
/p/	p
/mb/	b
/t/	t
/nd/	d
/k/	k
/kw/	kw
/ng/	g

Addition to Section 9.1 Suggested orthography:

The functional load of phonemes for which the symbolization may be problematic is as follows:

Phoneme:	functional load:
/ʔ/	fairly high
/ʁ/	very low
/ə/	fairly high

Phoneme	Suggested Symbol
/ng ^w /	g ^w
/f/	f
/s/	s
/h/	h
/m/	m
/n/	n
/l/	l
/r̃/	r̃
/w/	w
/i/	i
/ɛ/	e
/æ/	ä
/a/	a
/ə/	ë
/u/	u
/o/	o
/ʔ/	!
/ʔw/	!w

9.3 List of Pidgin words as pronounced in the vernacular. ~~XXXX~~

PIDGIN	MUHIANG
amamas	aməmas
balus	balus
banis	banis
belo	belo
bosboi	bosboi
bulmakau	bulmakau

PIDGIN	MUHIANG
didiman	titiman
dokta	dokta
giris	gris
hama	ham@
kamda	kamda
hos	hos
jas	sas
Jisas	Sisas
kabis	kapis
kagoboi	kagoboi (kangomboi)
kapa	kapa
kiap	kiap
kirismas	krismas
klok	klok
klos	klos
kot rein	kot řen
lok	lok
luluai	luluai
mak	mak
masin	masin
misis	misis
mulu	mulu
nambis	nabis (nambis)
pas	pas
pein	pen
botol	botol
plang	plag (plang)

PIDGIN

pos

skulim

tultul

wel

MUHIANG

pos

skulim

tultul

wel

9.4 Sample Text, by Joshua Lukas:

(Anda? lotu ma belo/ Masta Bob na?ipi/ Alomas indiwasa ipat esis
 sangapoma// Ea?/ Apan alomas a gwa'ëisi/ ea? sasa?e rom hiahaos/
 Ea?/ ape alomas//)

/Ada? lotu ma belo, Masta Bob na?ipi alomas idiwasa ipat esis sagapoma.
 Ea? apan alomas a gwa'ëisi, ea? sase?e rom hiahars, ea?, ape alomas./
 'When I finished the worshipping at noon, Mr. Bob told me and I went
 with them up to the house where they stayed. When we finished
 (going up), I ate with them and they gave me a room and things (for
 sleeping-sheets, etc) and I stayed with them.'

FOOTNOTES

1. The Phonology of Begetof (Supari) has been described by S. J. Matthews in a nine-page manuscript dated 1957. Her analysis does not differ from the present analysis except that there is an additional /f/ and there are three extra phonemes posited: /kw/, /ngw/ and /ʔw/. Her suggested orthography differs from ours in that prenasalization of voiced stops is not symbolized, and two extra vowels /œ/ and /ə/ as well as glottal stop are symbolized.
2. In an effort to make the orthography as much like Pidgin as possible, prenasalization of voiced stops is written word medial and word final in our orthography. Because of relatively low functional load, the two extra vowels /ə/ and /ɤ/ are not symbolized. Also glottal stop is symbolized by a single space. This is a trial solution and it does make shorter words.