

TENTATIVE PHONEMIC STATEMENT OF

URAT

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URAT PHONEMES

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0. INTRODUCTION

0.1. Preface

The tentative phonemic papers of Bob and JoAnn Conrad, and of Marilyn Laszlo and Judy Rehburg have been of help in compiling this paper. We are grateful to Bob Conrad and Dorothy Price for their advice and assistance.

0.2. General Information

The Urat language group belongs to the Wapei-Palei stock, Torrecelli phylum¹. It is located in the foothills of the Torricelli Mountains near the western border of the East Sepik Province. It is bordered on the north by Wom and Yanbes; on the west by Urim; on the south by Gwanga and on the east by Bumbita language groups. The government sub-district headquarters at Drekikir on the Nuku-Maprik Highway is in the approximate center of the language group.

The twenty villages are comprised of approximately 5,000 speakers and divided into three main dialects: Urat I, the north-east seven villages; Urat II in the central west area, eleven villages; and Urat III, the south two villages. A relatively even distribution of population is spread over the three dialects.

This study was done with the assistance of the people in the village of Tumam in the central dialect, Urat II, over a

¹Laycock, D.C., 1973. Torrecelli Phylum, Pacific Linguistics B 25, Canberra, A.C.T., Australia: Australian National University.

period of 18 months during 1979-1980. The primary language helpers were Abraham Potai, Joshua Brunga, and Andrew Halpiye. The data consists of approximately 1,000 words.

For ease of typing the following typographical conventions will be used: /?/ represents glottal stop, /ə/ represents /ɔ/, () will be used to indicate phonetic spelling, syllable breaks will be designated by (.), and stress by (') preceding the stressed syllable. Since stress is predictable, it is not usually written.

1. OUTLINE OF PHONEMES

1.1. Chart of Phonemes

Consonants

	<u>Bilabial</u>	<u>Alveolar</u>	<u>Alvo-Palatal</u>	<u>Vocal</u>	<u>Glottal</u>
Stops	v/l's	p	t	k	?
	v/d	b	d	g	
Fricatives			s		
Affricates	v/l's			tš	
	v/d			dž	
Nasals	ŋ	m	n	ŋ	
Laterals	v/l's		l		
	v/d		l		
Vibrant	v/l's		z		
	v/d		z		
Semi-Vowels	v/l's	w	y	h	
	v/d	v	y		

Vowels

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

1.2. Description of Contrastive Features

The segmental phonemes are consonants and vowels.

1.2.1. Consonants

Consonants contrast in manner of articulation between stops, fricatives, affricates, laterals, vibrants, nasals, and semi-vowels. Stops, nasals, semi-vowels contrast at labial, alveolar, and velar points of articulation and with glottal stop. Stops contrast as to voiced and voiceless manner of articulation. Fricatives contrast at alveolar ~~and buccal~~ points of articulation. Affricates occur only at the alveo-palatal point of articulation and contrast as to voiced and voiceless. The laterals and the vibrants occur only at alveolar point of articulation. Bilabial and alveolar semi-vowels and alveolar laterals and vibrants contrast in voiced and voiceless manner of articulation at their respective points of articulation.

1.2.2. Vowels

Vowels contrast as to front, central and back positions and as to high and mid and low tongue positions.

2. INTERPRETATION

2.1. Status of items which may be either consonant or vowel

2.1.1. Semi-vowel /w/

/w/ is interpreted as a consonant because it is non-syllabic and parallels the occurrence of other consonants.

/puy/ (puy) 've'	/mape/ (ma.pε) 'hole'
/wah/ (wah) 'work'	/tuwi/ (tu.wi) 'woman'

2.1.2. Semi-vowel /y/

/y/ is interpreted as a consonant because it is non-syllabic and parallels the occurrence of other consonants.

/tat/ (tat) 'last' /gate/ (gate) 'dut'

/yah/ (yah) 'a fruit' /muyya/ (ju,yo?) 'fight'

2.1.3. Semi-vowel /h/

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

/kin/ (kin) 'he' /luku/ (luku) 'that'

/hip/ (hip) 'a crow' /yehe/ (yo,he) 'wind'

2.2. Status of items which may be either unit or sequence

2.2.1. Non-suspect consonant clusters

The non-suspect consonant clusters which have been found are as follows:

Syllable initial: /pl/, /tl/, /m/, /b/, /kl/

Syllable final: /r/, /t/, /l/

Across syllable boundaries: /pn/, /tm/, /rm/, /lm/, /pt/,

/pk/, /ps/, /tr/, /lp/, /rp/, /rt/, /rd/

2.2.2. Pre-nasalized stops

Pre-nasalized stops are interpreted as complex units being in complementary distribution with voiced stops and affricates: /b/, /d/, /g/, and /dʒ/.

2.2.3. Palatalization and labialization have been interpreted as sequence

Palatalization and labialization have been interpreted as sequences of phonemes because:

2.2.3. Cont.

1. There are non-suspect sequences of consonants
2. /w/ and /y/ fill consonant slots so this does not add a new phoneme.
3. Interpreting palatalization and labialization as complex phonemes would add nine phonemes.

/pwap/ (pwap) 'uncle, aunt'

/pakay/ (pə.kay) 'no'

/kwote/ (kwo.te) 'retarded'

/kate/ (ka.te) 'pull'

/bwakas/ (bwa.kas) 'a mami'

/balawa/ (ba.la.va) 'a shrub'

/gwinim/ (gw..nim) 'ripe'

/ginir/ (g..nir) 'broken'

/mwan/ (mwan) 'grandfather'

/nam/ (nam) 'mother'

/nye?/ (nyɛ?) 'soft'

/nehe/ (nɛ.hɛ) 'sweet'

2.2.4. Vowels

The possibility of the following VV patterns occur: /ɛ u/
/ai/, /ui/, /ɔi/, /au/. Because all of these are considered suspect and since there is no evidence of non-suspect VV combinations the final /u/ and /i/ will be interpreted as /u/ and /y/ respectively. This also completes the patterning of /v/ and

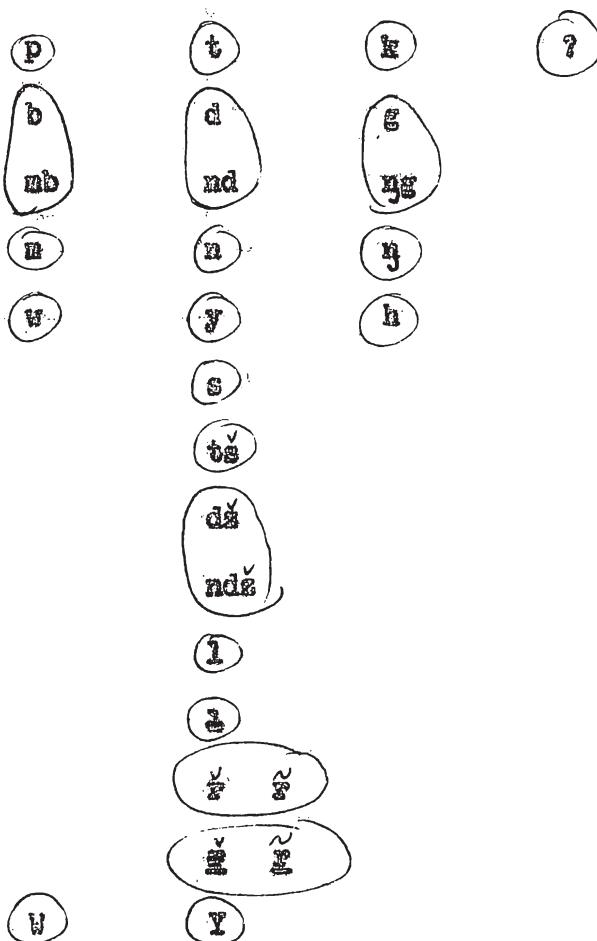
2.2.4. Cont.

/y/ to occur not only initially and medially but also finally.

3. DESCRIPTION OF PHONEMES

3.1. Consonants

3.1.1. Work Chart



3.1.2 Description All consonants are produced with egressive long air.

3.1.2. Description Cont.

/p/ (p) voiceless bilabial stop occurs word initially, medially and finally.

/pilpil/ (p̪il.pil) 'weak'

/hipi/ (hi.pi) 'a bamboo'

/nihip/ (n̪ihip) 'leg'

/b/ (b) voiced bilabial stop occurs word initially.

/boře/ (bo.řɛ) 'good'

(mb) pre-nasalized voiced bilabial stop occurs word medially.

/bube/ (bu.mba) 'middle'

/t/ (t) Voiceless alveolar stop occurs word initially, medially, and finally.

/tup/ (tup) 'leaf'

/vuta?/ (vu.tu?) 'imprint'

/mut/ (mut) 'mouth'

/d/ (d) voiced alveolar stop occurs word initially.

/dilme/ (dil.mɛ) 'straight'

(nd) pre-nasalized alveolar stop occurs word medially.

/mide/ (mi.ndɛ) 'tomorrow'

/k/ (k) voiceless velar stop occurs word initially and medially.

/kekep/ (kɛ.kɛp) 'ground'

/mukup/ (mu.kup) 'female animal'

3.2.2. Description Cont.

/g/ (g) voiced velar stop occurs word initially.

/galat/ (ga.lat) 'armband'

(ng) pre-nasalized voiced velar stop occurs word medially.

/tigíř/ (ti.ngíř) 'nature tree'

/?/ (?) glottal stop occurs word initially, medially and finally.

/?orpe/ (?or.pε) 'hold'

/mu?e/ (mu.?e) 'a coconut'

/na?/ (na?) 'mosquito'

/s/ (s) voiceless alveolar grooved fricative occurs word initially, medially, and finally.

/sipit/ (s̪i pit) 'grasshopper'

/ŋesep/ (ŋɛ sep) 'teeth'

/novas/ (no.vas) 'star'

/tš/ (tš) voiceless alveolar grooved affricate occurs word initially, and medially.

/tšitsúř?e/ (tši.tšúř.?e) 'knead'

/waytšaY/ (way.tšaY) 'guilt'

/dž/ (dž) voiced alveolar grooved affricate occurs word initially.

/džidžane/ (dži.ndža.mε) 'lack knowledge'

(ndž) pre-nasalized voice alveolar grooved affricate occurs word medially.

/yndžet/ (n̪i.ndžet) 'bird'

3.1.2. Descriptions Cont.

/m/ (m) voiced bilabial nasal occurs word initially, medially, and finally.

/nih/ (nih) 'river'

/əomit/ (ə.mit) 'a mani'

/vim/ (vim) 'blood'

/n/ (n) voiced alveolar nasal occurs word initially, medially, and finally.

/nih/ (nih) 'fire'

/vine?/ (vɪ.nɛ?) 'grease'

/hun/ (hun) 'thrice'

/ŋ/ (ŋ) voiced velar nasal occurs word initially, medially, and finally.

/ŋaw/ (ŋaw) 'sun'

/yŋah/ (yŋ.ah) 'trail'

/niŋ/ (niŋ) 'firewood'

/l/ (l) voiced alveolar lateral occurs word initially, medially, and finally.

/luku/ (lu.ku) 'that'

/dululu/ (du.lu.lu) 'thunder'

/ŋilil/ (ŋi.lil) 'cry'

/ɾ/ (ɾ) voiceless alveolar lateral occurs word initially, and medially.

/əomit/ (ə.mit) 'a mani'

/wɔliye/ (wɔ.li.yɛ) 'an orphan'

/r/ (r̩) voiced alveolar flapped vibrant occurs word medially and finally in free fluctuation with

(r̪) voiced alveolar trilled vibrant. The tendency is to the (r̩).

/serepe/ (sɛ.řɛ.pɛ) (sɛ.řɛ,pɛ) 'palm sprout'

/peparar/ (pɛ.pə.řar̩) (pɛ.pə.řar̪) 'full'

/ř/ (ř) voiceless alveolar flapped vibrant occurs word initially, medially, and finally in free fluctuation with

(ř) voiceless alveolar trilled vibrant. The tendency is to the (ř).

/řo?/ (řo?) (řo?) 'pig'

/nřo/ (nɛ.řo) (nɛ.řo) 'nose'

/sor̩/ (sor̩) (sor̩) 'basket'

/v/ (v) voiced bilabial non-syllabic semi-vowel occurs word initially, medially, and finally.

/vuti?/ (vu.ti?) 'cheek'

/yawoř/ (yɛ.woř) 'meat'

/hav/ (hav) 'mami'

/w/ (w) voiceless bilabial non-syllabic semi-vowel occurs word initially, and medially.

/Wate/ (Wa.tɛ) 'mountain'

/tayWunip/ (tay.Wu.nip) 'sap'

/y/ (y) voiced alveolar non-syllabic semi-vowel occurs word initially, medially, and finally.

/yah/ (yah) 'a fruit'

/miye?/ (mi.yε?) 'man'

/yay/ (yay) 'father'

- /t/ (T) voiceless alveolar non-syllabic semi-vowel occurs word initially, medially, and finally.

/yat/ (yat) ' a bamboo'

/ŋiYeme/ (ŋi.Yε.nε) 'skin irritation'

/muY/ (muY) 'woman's brother'

- /h/ (h) voiceless semi-vowel of indeterminate quality occurs word initially, medially, and finally.

/hip/ (hip) 'a crow'

/niha?/ (ni.ha?) 'heel'

/yakoh/ (y@.koh/) 'house'

3.1.3. Contrasts

Contrasts of /p/, /b/, /m/, /v/.

/b/ does not occur word finally.

Word Initially:

/pupua/ (pu[?]pua) 'not good'

/buye/ (bu[?]y^ε) 'two days hence'

/mu?e/ (mu[?]e) 'a coconut'

/vuse/ (vu[?]s^ε) 'sago thatching'

Word Medially:

/tapam/ (t@.pam) 'stomach'

/nabam/ (n@.nbam) 'banana'

/namah/ (n@.nah) 'dead person'

/tuwah/ (tu.wah) 'scrape clean'

Word Finally:

/wusiyep/ (wu.si.yεp) 'speech'

/bixiyem/ (bi.si.yεm) 'type of greens'

/milyew/ (mil.yεw) 'white color'

Contrasts of /t/, /d/, /s/, /ts/, /dz/, /n/.

/d/, /ts/, /dz/ do not occur word finally.

Word Initially:

/sihi/ (s̥ihi) 'near'	/sapot/ (sḁ.pet) 'life-less'
/tihir/ (t̥ihir) 'salt'	/tuwet/ (tu.wet) 'chicken'
/dihi/ (di.hi) 'first'	/dilme/ (dil.me) 'straight'
/nihiyih/ (n̥ih.yih) 'ashes'	/nukup/ (nu.kup) wet ^{'forehead'}
/t̥itsur̥?e/ (t̥i.tsur̥.?e) 'knead'	
/d̥aidžane/ (d̥ai.ndža,n̥e) 'not to know'	

Word Medially:

/?ese/ (?e.s̥e) 'suck'	/wisim/ (wi.sim) 'flea'
/?ede/ (?e.nd̥e) 'do work'	/hudup/ (hu.ndup) 'betel nut Pepper'
/?ete/ (?e.t̥e) 'plant cane'	/wuti?/ (wu.ti?) 'cheek'
/?itše/ (?i.tše) 'dig'	/witšer/ (wi.tšer) 'outside'
/widže/ (wi.ndže) 'vine'	/nidžet/ (ni.ndžet) 'bird'
/gane/ (ga.n̥e) 'cut down'	/penip/ (pe.nip) 'water'

Word Finally:

/tas/ (tas) 'go out'
/tat/ (tat) 'last'
/gan/ (gan) 'state of being'

Contrasts of /m/, /n/, and /ŋ/.

Word Initially:

- | | |
|---------------------------|-------------------------------|
| /nehe?/ (nɛ.hɛ?) 'a frog' | /nuy/ (nuY) 'woman's brother' |
| /nehe/ (nɛ.hɛ) 'sweet' | /nih/ (nih) 'fire' |
| /ŋhe/ (ŋɛ.hɛ) 'hole' | /ŋuY/ (ŋuY) 'heart' |

Word Medially:

- | | |
|--------------------------------|-------------------------------|
| /ŋamah/ (ŋ@.mah) 'dead person' | /simahi/ (sɪ.ma.hɪ) 'dead' |
| /?ana/ (?@.na) 'tell' | /?anope/ (?@.no.pɛ) 'sweeten' |
| /yŋah/ (y@.ŋah) 'trail' | /?ana?e/ (?@.na/?ɛ) 'give' |

Word Finally:

- | |
|------------------------|
| /ŋin/ (ŋɪn) 'knife' |
| /nin/ (nɪn) 'you' |
| /nɪn/ (nɪŋ) 'firewood' |

Contrasts of /l/, /r/, /z/, /v/.

/v/ does not occur word initially. /z/ does not occur word finally.

Word Initially:

/la/ (la) 'where'	/zonit/ (zo.mit) 'a name'
/da?/ (da?) 'on top'	/go?/ (go?) 'pig'

Word Medially:

/vurčoh/ (vu.rčoh) 'flag pole'	/?ara?/ (?a.rča?) 'cock in a leaf'
/bužu?/ (bu.žu?) 'a palm'	/?eŋate/ (?e.ža.?ɛ) 'begin'
/lulu/ (lu.lu) 'hardness in fruit'	/?alalay/ (?a.li.lay) 'drill'
/dayday/ (day.day) 'wander'	/waliyo/ (wə.li.yo) 'an orphen'

Word Finally:

/yer/ (yɛr) 'first'	/nugari/ (nu.ngarɪ) 'faint'
/yer/ (yɛr) 'a small drum'	/tagay/ (tə.ngay) 'bathe'
/selel/ (sɛ.lɛl) 'slippery'	/Yakal/ (yo.kal) 'bow'
/yahor/ (yə.hor) 'place name'	
/?anor/ (?ə.nor) 'put into a container'	
/doldol/ (dol.ndol) 'shiver'	

Contrasts of /v/, /y/, /h/.

Word Initially:

- | | |
|---------------------------------|-----------------------------|
| /vehe/ (ve.hɛ) 'far away' | /vah/ (vah) 'garden' |
| /yehe/ (yo.hɛ) 'wind' | /yap/ (yap) 'digging stick' |
| /hoholi?/ (ho.ho.li?) 'cabbage' | /haw/ (haw) 'mami' |

Word Medially:

- | | |
|-------------------------------------|--|
| /tu <u>v</u> et/ (tu.vɛt) 'chicken' | /nu <u>v</u> uwet/ (nu.vɛwɛt) 'masalai' |
| /nu <u>y</u> e?/ (nu.yo?) 'fish' | /bi <u>y</u> iyem/ (bi.si.yɛm) 'a shrub' |
| /nu <u>h</u> oře/ (nu.hořɛ) 'taro' | /mehe?/ (mɛ,hɛ?) 'a frog' |

Word Finally:

- | |
|-----------------------|
| /yaw/ (yaw) 'cat' |
| /yey/ (yay) 'father' |
| /yah/ (yah) 'a fruit' |

Contrasts of /k/, /g/, /ʔ/, /h/, and /ŋ/.

/k/, /g/ do not occur word finally.

Word Initially:

/kartatega/ (ka.t@.tə.ng)	'run'	/kasar/ (ka.sar)	'build a fire'
/gare/ (g@.r@)	'sprout'	/galat/ (g@.lat)	'arm band'
/ʔaraʔe/ (?@.ra.?@)	'give birth'	/ʔasarme/ (?@.saʔ.m@)	'count'
/herisep/ (hɛr.kɛp)	'pandanus'	/havhi?/ (hav.hi?)	'moss'
/nereh/ (nɛr.ɛh)	'cane'	/ŋahə?/ (ŋa.θə?)	'last'

Word Medially:

/yakate/ (y@.ka.t@)	'itch'	/ʔikil/ (?@.kil)	'lay horizontal'
/ʔagah/ (?@.ngah)	'go down'	/tigir/ (ti.ŋgi)	'nature tree'
/taʔala/ (ta.ʔa.la)	'what?'	/miʔe/ (mi.?@)	'finished'
/ʔahate/ (?@.ha.t@)	'cook in a container'	/nihin/ (ni.hin)	'son-in-law'
/ʔanaʔe/ (?@.na.?@)	'give'	/lunel?/ (lu.ngel?)	'a taro'

Word Finally:

/lo?/ (lo?)	'woman's basket'
/leh/ (leh)	'poles'
/yaron/ (y@.rɔn)	'an iron wood'

Contracts of /v/ and /W/.

/W/ does not occur word finally.

Word Initially:

/va?/ (va?) 'a small tree'

/Wep/ (Wep) 'problems'

/va/ (va) 'source of sickness'

/Wan/ (Wan) 'snake'

/vale/ (va.lε) 'dry coconut'

/Nate/ (Na.tε) 'mountain'

/waybe/ (way.mε) 'rust'

/Way?e/ (Way.?ε) 'dry'

/visim/ (vi.sim) 'flea'

/WiWay/ (Wi.Way) 'quickly'

Word Medially:

/novas/ (novas) 'star'

/holWay/ (ho.Way) 'not heavy'

/tuwah/ (tu.wah) 'scrape'

/taWař/ (T@.Wař) 'anger'

/tuvet/ (tu.vεt) 'chicken'

/tuWim/ (tu.Wim) 'male animal'

/tuvi/ (tu.vi) 'woman'

/tuWař/ (tu.Wař) 'saliva'

/vakave/ (v@.ka.vε) 'white'

/molaWih/ (mo.la.Wih) 'a dove'

Contrasts of /y/ and /Y/.

Word Initially:

- /yah/ (yah) 'a fruit'
- /yat/ (yat) 'a bamboo'
- /yer/ (yɛr) 'first'
- /YerYer/ (Yɛr, Yɛr) 'a rash'
- /yanah/ (yə.nah) 'road'
- /Yanoh/ (Yə.noh) 'small tree'
- /yukur/ (yu.kur) 'negative'
- /Yukut/ (Yu.kut) 'slices of something'
- /yakop/ (ya.kop) 'sawn timber'
- /Yakal/ (Yə.kal) 'bow'

Word Medially:

- /namiye?e/ (nam̥i.yo.?ɛ) 'a vine'
- /tiYo?e/ (t̥i.Yo.?ɛ) 'a taro'
- /siyeba/ (si.yɛmbɛ) 'later'
- /?iyulne/ (?i.yul.mɛ) 'straighten'
- /?ihiyete/ (?i.hi.yɛtɛ) 'care for'
- ^{3. Yen me} /niYene/ (n̥i.Yɛnɛ) ~~'distribute'~~ ~~'skin irritation'~~
- /siyohe/ (s̥i.yo.hɛ) 'sick'
- /tiYobe/ (ti.Yo.mbɛ) 'a burn'
- /niskiye?e/ (n̥i.si.yɛ.?ɛ) 'tickle'
- /?ibiyale/ (?i.mi.yɛ.lɛ) 'get rid of'

Contrasts of /y/ and /Y/ cont.

Word Finally:

- /may/ (muy) 'place'
 /maY/ (maY) 'woman's brother'
 /may?/ (muy?) 'ridge pole'
 /nyuY/ (nyuY) 'heart'
 /?alalay/ (?@.la.lay) 'drill'
 /malaY/ (m@.laY) 'small'
~~/nakay/ (n@.kay) 'no'~~
 /nabay/ (n@.naY) 'grandchild'
 /yuraway/ (yu.r@.way) 'niece, nephew'
 /maraway/ (ma.ra.way) 'beard'

Contrasting /pu/ with /p/.

/pu/ does not occur word finally.

/puap/ (pu.ap) 'uncle, aunt'

/pakay/ (p@.kay) 'no'

/puaypiyah/ (puay.pi.yah) 'a mami'

/poporo?/ (po.po.ɾo?) 'butterfly'

Word Medially:

/pupua/ (pu.pua) 'bad'

/tapam/ (t@.pam) 'stomach'

/tasupwas/ (ta.su.pwas) 'sneeze'

/metapah/ (m@.t@.pah) 'a breadfruit'

Contrasting /bu/ with /b/.

/bu/ does not occur word finally.

Word Initially:

/bwakas/ (bwa.kas) 'a mami'

/bahaleu/ (ba.h@.law) 'a banana'

/buarne/ (bvar.nɛ) 'straight'

/balili/ ba.li.li 'a banana'

/balava/ (ba.le.va) 'a shrub'

Word Medially:

/nabwayp/ (n@.mbwayp) 'lungs'

/nabayh/ (n@.mbayh) 'grandchild'

/?abwah/ (?@.mbwah) 'young animal'

/?aba?e/ (?@.mba.?ɛ) 'get'

Contrasting /kw/ with /k/.

/kw/ does not occur word finally.

Word Initially:

/kwote/ (kwo.tε) 'retarded'

/kate/ (kə.tε) 'pull'

/kwitčeh/ (kwi.tčh) 'land crab'

/kimpis/ (kim/pis) 'green beans'

Word Medially:

/bamakuip/ (ba.mə.kwip) 'a small banana'

/kawiken/ (ka.wi.ken) 'a taro'

/bakwal/ (ba.kwal) 'digging stick'

/Yakal/ (yə.kal) 'bow'

Contrasting /gw/ with /g/.

/gw/ does not occur word finally.

Word Initially:

/gwinim/ (gu.nim) 'ripe'

/ginix/ (gi.nix) 'broken'

Word Medially:

/sugwan/ (su.ngwan) 'leaf stem'

/zagah/ (zə.ngah) 'go down'

/mugvin/ (mu.ngvin) 'ear'

/nagin/ (na.ngin) 'you stand'

Contrasting /mw/ with /n/.

/mw/ does not occur word finally.

Word initially:

/mwan/ (mwan) 'grandfather'

/nam/ (nam) 'mother'

/mwah/ (mwah) 'vine rope'

/nahi?/ (ma.hi?) 'skin'

Word Medially:

/tunvage/ (tu.mwa.ngε) 'post'

/yumine/ (yu.mu.nε) 'green'

/sonwakaw/ (so.mw@.kaw) 'bloodline'

/sumahonne/ (su.m@.hon.nε) 'long ago'

Contrasting /ny/ with /n/.

/ny/ does not occur word finally.

Word Initially:

/nye?/ (nyε?) 'soft'

/nehe/ (nε.he) 'sweet'

/nyen/ (nyεn) 'yan'

/nin/ (nin) 'you'

Word Medially:

/?enyer/ (?ε.nyεr) 'extend'

/?enete/ (?ε.ne.tε) 'plant seeds'

/?enyope/ (?ε.nyo.pε) 'sweeten'

Contrasting /sy/ with /s/.

/sy/ does not occur word finally.

Word Initially:

/syuh/ (syuh) 'sword grass'

/suru/ (su.ru) 'a yam'

Word medially:

/namisyu?/ (na.m .syu?) 'namesake'

/venersep/ (ve.n̥er.sep) 'dance'

Contrasting /ly/ with /l/.

/ly/ does not occur word initially or finally.

Word medially:

/nilyeh/ (n̥i.lyəh) 'one'

/nilil/ (n̥i.lil) 'cry'

/milyew/ (mi.lyəw) 'off white'

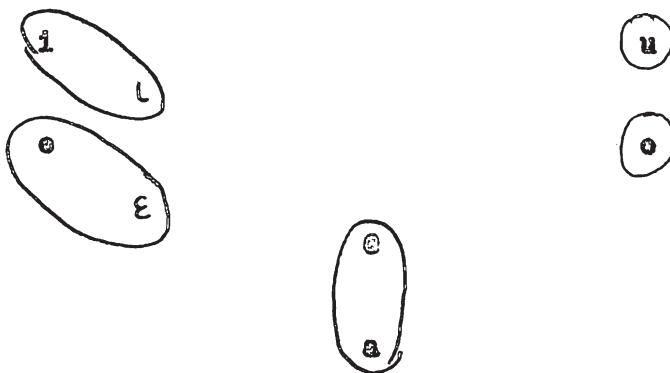
/nalem/ (ne.lem) 'shoulder'

/tigelye?/ (ti.ng̥.lyε?) 'argue'

/vunini?/ (vu.ni.ni?) 'centipede'

3.2. Vowels

3.2.1. Work Chart



3.2.2. Description

All vocoids are voiced and produced with egressive lung air.

- /i/ (i) high open front unrounded vocoid occurs in unstressed syllables only.
- (i) high close front unrounded vocoid occurs in stressed syllables and word finally.

/nimi/ (n̩i'mi) 'friend'

/titirɛ/ (t̩i'tiɻɛ) 'noisy'

/dihɪ/ ('di,hɪ) 'first'

- /u/ (u) high close back rounded vocoid occurs word medially and finally.

/tukwini/ (tu,kw̩i'ni) 'today'

/wuhu/ (wu,hu) 'small drum'

3.2.2. Description Cont.

- /e/ (e) mid close front unrounded vocoid occurs in fluctuation word finally with
 (ɛ) mid open front unrounded vocoid which occurs word medially and finally,

/nabre/ (nə̄.nbrɛ) ~ (nə̄.nbřɛ) 'big'

/kekep/ (kɛ.kɛp) 'ground'

- /o/ (o) mid close back rounded vocoid occurs word medially and finally.

/poporo?/ (po.po.řo?) 'butterfly'

/yave/ (yə̄.vo) 'last'

- /a/ (ə) mid central unrounded vocoid occurs in unstressed syllables.

- (a) low open central unrounded vocoid occurs in stressed syllables word medially and finally.

/naře/ (nə̄.ře) 'vomit'

/nabam/ (nə̄.nbam) 'banana'

/vula/ (vu'lə) 'many'

3.2.3. Contrasts

Contrasts of /ə/, /e/.

- /nam/ (nam) 'I'
 /nem/ (nem) 'sweetness'
 /yap/ (yap) 'digging stick'
 /yop/ (yop) 'spider'
 2 /gala?/ (g@.la?) 'head lice'
 /goloh/ (go.loh) 'sugar'
 /?ana/ (?@.na) 'tall'
 /?ane/ (?@.ne) 'eat'
 /tat/ (tat) 'final'
 /to?/ (to?) 'younger sibling'

Contrasts of /a/, /e/.

- /nam/ (nam) 'I'
 /nem/ (nɛm) 'coconut'
 /wula/ (wu.la) 'many'
 /wale/ (wa.le) 'sprouting coconut'
 /yar/ (yar) 'sorcery'
 /yer/ (yɛr) 'first'
 /naha?/ (n@.ha?) 'last'
 /nehe?/ (nɛ.hɛ?) 'frog'
 /tatame/ (t@.ta.mɛ) 'enough'
 /titeme/ (t̪i.tɛ.mɛ) 'forgot'

3.2.3. Contrasts cont.

Contrasts of /i/, /e/.

- /nim/ (nim) 'knife'
 /nem/ (nem) 'coconut'
 /kasi/ (ka.si) 'leave alone'
 /gase/ (ga.sɛ) 'close a lid'
 /mihin/ (mɪ.hɪn) 'son-in-law'
 /mehe?/ (mɛ.hɛ?) 'a frog'
 /?itše/ (?i.tšɛ) 'dig'
 /?ese/ (?ɛ.sɛ) 'suck'
 /?ini?e/ (?i.ni.?ɛ) 'cook in a munt'
 /?enete/ (?ɛ.nɛ.tɛ) 'plant seeds'

Contrasts of /o/, /u/.

- /kum/ (kum) '#15 greens'
 /nən/ (nən) 'sweetness'
 /du?/ (du?) 'ten'
 /to?/ (to?) 'younger sibling'
 /nup/ (nup) 'night'
 /nop/ (nop) 'widow'
 /luh/ (luh) 'bed'
 /loh/ (loh) 'poles'
 /yohe/ (yo.hɛ) 'wind'
 /yuhe/ (yu.hɛ) 'many colored'

4. SUPRASEGMENTAL ITEMS

4.1. Length and tone

Length and tone are not considered to be pertinent on the phonemic word level.

4.2. Stress

Stress is predictable and therefore non-phonemic. The following rules of stress placement apply to the majority of words:

1. Stress is ultimate if the final syllable of the word is closed.

/mařawai/ (ma.řa'way) 'beard'

/vunini?/ (vu.ni'ni?) 'centipede'

/lunam/ (lu'nam) 'tree root'

/hawhi?/ (haw'hi?) 'a mess'

2. Stress is penultimate if the final syllable of the word is open.

/blohe/ ('blo,hɛ) 'loose'

/late/ ('la,tɛ) 'mountain'

/tumvage/ (tu'mva,ŋgɛ) 'post'

/nilone/ (nɪ'lɪnɛ,ŋɛ) 'skin irritation'

4.3. Intonation

The following intonation patterns have been observed.

4.3.1. Interrogatives

Interrogatives have two types of intonation patterns, one with a fall in intonation utterance finally, the other with a rise in intonation utterance finally. Most questions are distinguished from statements by grammatical markers and thus not dependent on intonation for recognition. These interrogatives generally have a falling intonation utterance finally. Yes-no interrogatives and those without a grammatical marker have a rising intonation utterance finally.

/ney lehmade le?e ſanak/ 'Whose is that?'

/nancra/ 'What did you say?'

/nin ?anage ta?ala/ 'What did you say?'

/detala tiki tawar/ 'Why is he angry?'

/kinarpakay pakay/ 'Is he there?'

/nemate lakey pakay/ 'May I come in?'

/nabam sigwinin/ 'Are the bananas ripe?'

/ni sade var?i? ?atay/ 'Are you tired?'

4.3.2. Answers and Statements

Answers and statements have level or falling intonation utterance finally.

/nam daba?e siye?/ 'I want to buy some.'

/miye? ?ana nyen/ 'The man is eating a yan.'

/nam sigu?sipe/ 'I forgot.'

/nabam puy simi?e/ 'Our bananas are gone'

4.3.2. Answers and Statements cont.

/nam gwarege wusyep nuguwet/ 'I don't want to hear Pidgin!'

/nam džidžane/ 'I don't know.'

/nam eade sikip naney?e/ 'I understand only a little.'

4.3.3. Commands

Imperatives have a fall in intonation utterance finally but are different grammatically from statements or questions. Pronouns are either deleted or the tense is changed to present tense while the verb stem remains future tense.

/tebabə?e/
/te?ahə?/ 'Go get it!'

/pul ?ot/ 'Give it to me.'

/?aba? ?ege ?ot/ 'Get it and bring it here.'

/ni ?egvis nam ?ikir/ 'You help me carry it.'

/ni ?ote?e/ 'You come here!'

/?iayude nam/ 'Listen to me.'

/kate ?ot/ 'Pull it.'

/gise kohnap/ 'Close the door.'

/?apra?e/ 'Cover it.'

5. DISTRIBUTION

5.1. Syllables

The syllable is defined as a unit of potential stress placement with an obligatory margin onset of at least one consonant and optional margin coda of one or more consonants: (C) C V (C) (C).

The following CV patterns have been recorded in one syllable words.

CV	/la/ (la) 'where'
CVC	/kum/ (kum) 'a hawk'
CVCC	/hořp/ (hořp) 'liver'
CCVC	/bržh/ (bržh) 'a nettles'

Two other patterns occur in multiple syllable words.

CCV	/blohe/ (blo.hε) 'leeset'
CCVCC	/nabwayp/ (nə.bwayp) 'lungs'

Syllable type V has not been found as a word and no examples of VC patterning have been found at this point.

All syllable types can occur word initially except CCVC and CCVCC. All syllable types can occur word medially except CCVCC. All syllable types can occur word finally.

5.2. Words

Sixteen types of two syllable words are recorded as follows:

CV.CV	/bile/ (bî.lε) 'a tree'
CV.CVC	/nukup/ (nu.kup) 'female animal'
CV.CVCC	/sikirp/ (sî.kirp) 'a little'
CV.CCV	/?asko/ (?ə.sko) 'remove from container'

5.2. Words cont.

CV.CCVC	/nabřen/ (n@.br̩en) 'new'
CV.CCVCC	/na.bweyp/ (n@.mbweyp) 'lungs'
CVC.CV	/galme/ (gal.mε) 'call'
CVC.CVC	/ŋersep/ (ŋɛr.sεp) 'teeth' <small>tambaran'</small>
CVC.GVCC	/wahtayp/ (wah.tayp) 'year'
CVC.CCVC	/wehnyat/ (wɛh.nyat) 'a bi-valve'
CVCC.CVC	/nay?kir/ (nay?.kir) 'sago grub'
CCV.CV	/plihe/ (pli.hε) 'repeat'
CCV.CVC	/gwinim/ (gwɪ.nɪm) 'ripe'
CCVC.CV	/bwazne/ (bwɑ̄.nɛ) 'straight'
CCVC.CVC	/playgah/ (play.ngah) 'lightening'
CCVC.CCVC	/br̩ipmve?/ (br̩ip.mv@?) 'breast milk'

Three syllable word patterns follow:

CV.CV.CV	/kukářa/ (ku.k@.řa) 'a nettles'
CV.CV.CVC	/temorč/ (tɛ.mɛ.čɛh) 'clear throat'
CV.CV.CVCC	/sugolay?/ (su.ngo.lay?) 'a manit'
CV.CVC.CV	/yipelbe/ (yɪ.pɛl.be) 'dark'
CV.CVC.CVC	/vengərsep/ (vɛ.ngɛr.sεp) 'dance'
CV.CVC.CGVC	/napuřpvar/ (na.puř.pvar) '6 greens'
CV.CVCC.CV	/?adobne/ (?@.ndol?,nɛ) 'shake'
CV.GCV.CV	/?aprəte/ (?@.pr@, ?ɛ) 'cover up'
CV.GCV.CVC	/lugřigříř/ (lu.ngři.ngřiř) 'ladder'

5.2. Word cont.

B	CV.CCVC.CV /?igwisme/ (?i.ngwi.sme) 'help'
	CVC.CV.CV /malmole/ (m@l.mo.l@) 'a mani'
	CVC.CV.CVC /natubur/ (na.tu.mbur) 'this side'
	CVC.CVC.CVC /herkepnip/ (heř.kap.nip) 'gallip nut'
	CVC.CGV.CV /wulpuote/ (wul.pwo.te) 'needle'
	CCV.CV.CV /klohaha/ (klo.ha.ha) 'owenbird'
	CCV.CV.CVC /lahmiye?/ (lah.mi.ye?) 'young man'
	CCVC.CV.CV /bwaytšili/ (bway.tš(.li) 'a yan'
	CCVC.CV.CVC /pwaypiyeh/ (pway.pi.yeh) 'a mani'
	CCVC.CCV.CV /kvičkvara/ (kvič.kva.řa) 'patterned'

Patterns for four syllable words follow.

CV.CV.CV.CV	/neřekase/ (n@.ře.ka.se) 'old garden'
CV.CV.CV.CVC	/bagiliyev/ (ba.ng(.li.yev) 'a nettles'
CV.CV.CVC.CV	/sumahomme/ (su.m@.hon.me) 'long ago'
CV.CV.CCV.CV	/sulugvate/ (su.lu.ngva.t@) 'an area'
CV.CV.CCVC.CV	/lutugvarbe/ (lu.tu.ngvar.b@) 'wooden cross'
CV.CVC.CV.CV	/bayo?medi/ (bayo?.m@.ndi) 'a banana'
CV.CCV.CV.CV	/yukvariye/ (yu.kv@.ři.ye) 'how much'
CV.CVC.CVC.CV	/bani?yuyme/ (ba.ni?.yuy.me) 'a banana'
CV.CVC.CV.CVC	/gala?kakah/ (ga.la?.k@.kah) 'mushroom'
CVC.CV.CVC.CV	/hapkaper?e/ (hap.ka.p@.ře) 'constipation'

5.2. Words cont.

CVC,CV,CV,CV /bursihige/ (bur.sɪ.hi.ngɛ) 'sago stem'

CCV,CV,CV,CVC /brososowar/ (brɔ̄.sə.sə.wař) 'an ant'

CVC,CV,CV,CVC /křikakařav/ (kři.ka.ka.řav) 'foggy'

Patterns for five syllable words follow.

CV,CV,CV,CV,CV /hepatuwige/ (ha.pə.tu.wi.ngɛ) 'chalk'

CV,CV,CV,CCV,CV /mahagogwage/ (mə.hə.ngo.ngwa.ngɛ)
'an insect'

CV,CV,CV,CCVC,CV /basurubwayge/ (ba.su.řu.mbuway.ngɛ)
'a banana'

5.3. Restrictions

5.3.1. Vowel and consonant occurrence in syllables

All vowels occur in all syllable types except the CCVCC pattern. This type syllable is used infrequently and only /ə/ and /e/ have been recorded as filling the vowel slot.

Consonant slots of syllable patterns are filled as follows:

$C_1 V_1$

C_1 : all consonants

V_1 : all vowels

$C_1 V_1 C_2$

C_1 : all consonants except /ts/ and /dʒ/

V_1 : all vowels

C_2 : all consonants except /d/, /g/, /ts/, and /dʒ/

$C_1 V_1 C_2 C_3$

C_1 : all consonants except /r/, and /dʒ/

V_1 : all vowels

C_2 : only /r/, /l/, /y/

C_3 : only /p/, /t/

$C_1 C_2 V_1$

C_1 : only /b/, /g/, /s/, /m/, /p/, and /k/

C_2 : only /w/, /l/, /k/

V_1 : all vowels

5.3.1. Vowel and Consonant Occurrence in Syllables cont.

 $C_1 C_2 V_1 C_3$

C_1 : only /p/, /t/, /b/, /g/,
 /m/, /n/, /h/, /s/

C_2 : only /r̩/, /l/, /w/, /y/

V_1 : all vowels

C_3 : /p/, /t/, /n/, /t/, /m/,
 /y/, /r̩/, /s/

 $C_1 C_2 V_1 C_3 C_4$

C_1 : only /b/ recorded

C_2 : only /w/ recorded

V_1 : only /a/ recorded

C_3 : only /y/ recorded

C_4 : only /p/ recorded*

5.3.2. Vowel and consonant occurrence in words

All consonants except /ř/ occur word initial. All consonants occur word medially. All consonants except voiced stops and voiced and voiceless affricates and voiceless semi-vowel /w/ and voiceless lateral /l/ occur word finally.

Cons.	p	t	k	b	d	g	m	n	ŋ	v	y	h	w	Y	?	tš	dž	s	l	ł	ř	ż
Ini.	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
Med.	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
Fin.	x	x	x				x	x	x	x	x	x	x	x	x			x	x	x	x	

Vowels precede and follow all consonants except /tš/ and /dž/. Because the grooved alveopalatal affricates have a limited usage, only /i/, /e/, and /a/ have been recorded with them.

	i	e	a	u	o
/iš/	preceeds	x	x	x	x
	follous	x			
/dž/	preceeds		x	x	
	follous	x			

All consonants occur in clusters except /d/ and /dž/. No instance of homorganic consonant clusters have been recorded. Consonant clusters of two consonants are found word initially, medially and finally. Consonant clusters of three consonants are always across syllable boundaries.

5.3.2. Vowel and Consonant Occurrence in words

	p	t	k	b	d	g	m	n	n̄	w	y	h	?	ts	dz	s	l̄	l̄	r̄	r̄	ū	ū	ȳ
1st	x	x								x						x	x						
p	x																						
t			x																x				
k											x							x	x				
b				x							x							x	x				
d					x																		
g						x																	
m	x	x									x						x						
n	x						x				x												
n̄								x				x											
w	x									x		x											
y	x		x	x	x	x	x	x	x				x	x	x	x	x	x	x	x	x	x	
h	x				x						x												
?		x				x					x												
ts																							
dz																							
s	x					x					x												
l̄	x	x	x	x	x		x				x	x	x	x	x	x	x	x	x	x	x	x	
l̄	x	x	x	x	x		x				x												
r̄	x	x	x	x	x		x					x			x	x	x	x	x	x	x	x	
r̄	x	x	x	x	x		x					x			x	x	x	x	x	x	x	x	
z̄																							
z̄																							
ū																							
v̄																							

Recorded clusters of three consonants follow:

/vehnyat/ (vəh.nyat) 'food exchange'

/kwirkware/ (kwir.kwa.řε) 'patterned'

/yapuričvar/ (ya.pur.čvar) 'shrub'

/wulpwote/ (wul.pwo.tɔ) 'pig bone'

/?adol?me/ (?@.ndol?,mɛ) 'shake'

/břipmwa?/ (břip.mwa?) 'breast milk'

/salEwai/ (sał.kwai) 'bi-valve'

/nay?kir/ (nay?,kir) 'sago grub'

6. ORTHOGRAPHY

6.1. Suggested Orthography

<u>Phoneme</u>	<u>Suggested Symbol</u>
/p/ (p)	p
/b/ (b)	b
(mb)	mb
/t/ (t)	t
/d/ (d)	d
(nd)	nd
/k/ (k)	k
/g/ (g)	g
(ng)	ng - "ŋ"
/?/ (?)	'
/tš/ (tš)	ch
/dž/ (dž)	j
/s/ (s)	s
/l/ (l)	l
/ž/ (ž)	hl
/m/ (m)	m
/n/ (n)	n
/ŋ/ (ŋ)	ng
/ř/ (ř) ~ (ř̄)	r̄
/ž̄/ (ž̄) ~ (ž̄̄)	hr̄
/v/ (v)	v
/w/ (w)	wh
/y/ (y)	y
/ř̄/ (ř̄)	hy
/i/ (i) (ɪ)	i
/e/ (e) (ɛ)	e
/a/ (a) (ə)	a
/u/ (u)	u
/o/ (o)	o

6.2. Previous Orthography

There is no known orthography.

6.3. Orthography Testing

A simple test involving 8 readers and 32 words was conducted to determine symbol preferences for the orthography. One student was a standard 6 level, but the others had post primary school training.

The phonemes under consideration were: glottal stop /ʔ/, pre-nasalized voiced stops /mb/, /nd/, /ŋ/, voiced and voiceless grooved alveopalatal affricates /tš/, /dž/, /ndž/, and velar nasal /n/.

The words used were spelled in the optional ways, but the arrangement of the options were altered from word to word to increase accuracy of selection.

6.3.1. Glottal Stop

The glottal stop proved the most difficult for the students to symbolize because they had no prior experience of its symbolization. They did feel it should be indicated in some way. The options were: /ʔ/, /k/, /q/, /'/, and /∅/. The order of preference along with comments from other translators indicate the apostrophe as the best choice.

6.3.2. Bilabial and alveolar voiced stops

Bilabial and alveolar voiced stops were shown word initially and medially with and without pre-nasalization. Words in isolation do not have pre-nasalization word initially, but they do

6.3.2. Bilabial and alveolar voiced stops cont.

have pre-nasalization phrase medially. The majority preferred to write pre-nasalization word medially but not word initially. It has been decided to follow these preferences for the tentative orthography suggestions.

6.3.3. The voiced and voiceless grooved alveopalatal affricates

/j/ was unanimously chosen over /dž/ for the voiced alveopalatal affricates, and the /ch/ was given high preference over /ts/ or /j/ for the voiceless affricate. Pre-nasalization /nʒ/ was preferred.

6.3.4. Pre-nasalized voiced velar stop

The preference to write pre-nasalization word medially was evident in the choice to write /ngg/. The readers felt a distinction was needed between the pre-nasalized stop and the velar nasal symbolized by /ng/. Velar nasal is infrequent word medially. The velar nasal plus voiced velar stop is frequent in occurrence.

6.4. List of Pdigin words as pronounced in the vernacular

<u>Tok Pisin</u>	<u>Vernacular pronunciation</u>
anamas	/hamemas/
adde	/?asde/
balus	/balus/
banis	/banis/
bulmaken	/bulmakaw/
abus	/?abus/
dekta	/dota/
gris	/gris/
hana	/hana/
kanda	/kanda/
Jisas	/jisas/ /eisas/
kapis	/kapis/
kiap	/kyap/
kles	/klos/
lok	/lok/
masin	/masin/
muli	/meli/
nambis	/nambis/
pas	/pas/
skulim	/skulim/
wel	/wel/

6.5. SAMPLE TEXT

Phonetic Transcription: ŋam ŋipřip. ŋam ŋipřipmɛ yay.

Proposed Orthography: ngam hriphrip. ngam hriphripme yay.

Free Translation: I am happy. I am happy with God.

Andru sinal wah. yay yapway?ɛ ŋam ?emberčnar̄. yiphindi

Andru sinal wah. yay yapway'ɛ ngam 'amberanar. yiphindi

Andrew went to the garden. God kept me here. You two

yandžɛ . yahay?ɛ Andru, yiphindi selih Andru nar̄p.

yanjere, yahay'ɛ Andru, yiphindi selih Andru narp,

came, You looked for Andrew. You two asked, "Is Andrew here?"

puymənangɛ pakay sinal wah. ŋam topalengge mat. ŋam ŋipřip.

puymənangge pakay. sinal wah. ngam topalengge mat. ngam hriphrip.

We said, "no." He went to the garden." I came with you. I am happy.

ŋam t-tamɛ muhəmbwayp Andru. kin ŋipřip lakay pakay.

ngam titeme nguyhəmbwayp Anfru. kin hriphrip lakay pakay.

I don't know how Andrew feels. Is he happy or not?

7. UNRESOLVED ISSUES

7.1. Vocoids

There is a possibility of two back vocoids which are not included in this analysis. /ʊ/ high open back rounded vocoid occurring in fluctuation with /u/ high close back rounded vocoid following /w/. This fluctuation is from speaker to speaker.

/wʊla/ (wu.la)~(wu.la) 'many'

Low close back rounded vocoid /ɔ/ fluctuates from speaker to speaker in a very limited number of words with /u/ high close back rounded vocoid.

/luh/ (luh)~(lh) 'tree'

/ɔ/ is considered by vernacular speakers to belong to the Urat III dialect. Further investigation should determine whether or not the /ʊ/ is also a loan-phoneme.

7.2. Voicelessness

Further investigation and analysis of voicelessness is intended. The existence of syllabic alveolar nasal /n/ and its voiceless counterpart /N/ is in dialect I. This indicates the possibility of more extensive use of voicelessness than is thus far noted in Urat II.

7.3. Glottal stop

Urat I uses /k/ instead of /ʔ/ but Urat II speakers will not accept the sound

7.3. Glottal stop cont.

of /k/ and the literates refuse the k symbol! ✓ /k/ and /ʔ/ are in contrast in Urat II.

The initial dialect survey indicates the absence of glottal stop in Urat I word initially. In Urat II the glottal occurs word initially in the absence of other consonants. This suggests not writing the glottal stop word initially.

7.4. Pre-nasalized voiced velar stop

Testing indicates that literates hear a difference between / / and /ng/ word medially. Their response to phonetic spelling was strong and so the decision was made to write ngg. This does not follow the English-Tok Pisin orthography. Since the majority of children are or have attended primary school and a tendency for education is noted, an orthography closely paralleling Tok Pisin is desirable. There is also no recorded instances of homorganic consonant clusters in Urat II.