

A TENTATIVE DESCRIPTION OF TINPUTZ PHONOLOGY

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0 INTRODUCTION

This paper is a tentative description of the phonemic system of Tinputz, a Melanesian language of Papua New Guinea. The approximate 1700 Tinputz speakers inhabit the northeast coastal and inland areas of Bougainville Island.

The data for this tentative analysis was collected during 14 months residence in the village of Tsisiko 7 miles inland from the coast. A young Tsisiko man aged 25 named Thomas Metehe has been of invaluable assistance in the tedious checking of a corpus of approximately 900 words. Without the assistance of a fellow colleague Mrs. Joy Lloyd this paper would not yet have been realised.

1 PHONEME CHARTS

1.1 Consonants

	<u>Bilabial</u>	<u>Alveolar</u>	<u>Velar</u>	<u>Glottal</u>
Stops	p	t	k	ʔ
Fricatives	b	s		h
Nasals	m	n		
Lateral		l		
Semi-vowels	w	y		

1.2 Vowels

	Front		Central		Back	
High	i	i [•]			u	u [•]
Mid	e	e [•]			o	o [•]
Low						
Low Central Glide	æ	æ [•]	a	a [•]	ɔ	ɔ [•]
			a ⁱ			

2 INTERPRETATION

2.1 Pre-nuclear Short Vowels

The pre-nuclear short vowels [e], [ɿ], [ʊ], and [ɔ] fluctuate and have been interpreted as /y/ and /w/ respectively.

/yà·/	['ěā [•]]	~ ['ĩā [•]]		'lime'
/kyà·/	['kěā [•]]	~ ['kĩā [•]]		'sweets'
/kyúk/	[''kěú ^h k]	~ [''kĩú ^h k]		'to bear'
/kè [•] kyú [•] /	['kē [•] ."kěú [•] ^h]	~ ['kē [•] ."kĩú [•] ^h]	~	'to shave'
	['kɿ [•] ."kěú [•] ^h]	~ ['kɿ [•] ."kĩú [•] ^h]		
/àtáyà/	['ā."tá.ěā]	~ ['ā."tá.ĩā]		'what'
/pwè/	['pŭē]	~ ['pöē]	~	'ah'
	['pŭɿ]	~ ['pöɿ]		
/pwèn/	['pŭēn]	~ ['pöēn]	~	'night'
	['pŭɿn]	~ ['pöɿn]		
/twá [•] /	[''tŭá [•] ^h]	~ [''töá [•] ^h]		'to cut (sago)'
/bà·wè·/	['bā·.ŭē·]	~ ['bā·.öē·]	~	'to call'
	['bā·.ŭɿ·]	~ ['bā·.öɿ·]		
/kwìàné/	['kŭĩ.à."nén]	~ ['kđĩ.a."nén]	~	'name of village'
	['kŭĩ.à."nɿn]	~ ['kđĩ.à."nɿn]		

2.2 Phonemes /y/ and /w/

The phonemes /y/ and /w/ may occur syllable initially or following a syllable initial consonant. The syllable initial non-suspect sequences /kɿ/ and /pɿ/ occur.

/klús/	['klús] ~ ['křús]	'all'
/plèt/	['plēt ^h] ~ ['přēt ^h] ~ ['pl̥t̥ ^h] ~ ['přt̥ ^h]	'bread'
/plàs/	['plās] ~ ['přās]	'a brush'

2.3 Vowel Sequences

Vowel sequences have been interpreted as nuclei of separate syllables for the following reasons:

- (1) Each vowel in the sequence is syllabic.
- (2) In agreement with stress rules (see Section 3.3.1), if the first vowel in the sequence is also the nucleus of the first syllable in a polysyllabic word, it carries secondary stress.² In other positions either vowel carries potential primary stress.³
- (3) Each vowel in the sequence occurs as a syllable nucleus elsewhere.

2.4 Long Vowels

Long vowels have been interpreted as simple phonemes since no vowel sequences occur within the syllable.

/i·yàn/	['i̇·yàn]	'fish'
/kè·ús/	['kē·"us] ~ ['kī·"ús]	'baby'
/sòǎ·/	['so·"ǎ] ~ ['sō·"ǎ]	'to be strong'
/kèǎ·/	['kē·ǎ] ~ ['kī·ǎ]	'brother'
/bà·niù·/	['bā·nī·ù]	'to budge'
/tiò·/	['tī·ò]	'to spit'
/tàsǐò·/	['tā·"sí·ǒ]	'part of something'

2.5 Sequence /aⁱ/

The sequence /aⁱ/ has been interpreted as a complex phoneme for the following reasons:

- (1) The [a] is syllabic and the [i] is short and non-syllabic.
- (2) The sequence is approximately the same length as the long vowel phonemes.

/nà ⁱ n/	['nā ⁱ n]	'forehead'
/pá ⁱ s/	['pā ⁱ s]	'bitter'
/sùnǎ ⁱ ʔ/	['sū·"nā ⁱ ʔ ^h]	'son'
/kà·tà ⁱ n/	['kā·tā ⁱ n]	'bowels'

2.6 Consonant Sequences in the Word

All consonants except /b/, /l/, /w/, and /y/ have been observed as the first consonant in CC clusters within the word.

/p/ may be followed by /t/, /k/, /s/, /m/, /n/, and /l/.

/pt/	/kòptò·n/	['kōp.tɔ̌·n]		'to brood'
/pk/	/tòpkàʔ/	['tōp.kàʔ ^h]		'to bloom'
/ps/	/nàpsòə·/	['nāp.sò.ə̌·]	~ ['nāp.sò.ɛ·]	'army'
/pm/	/pàpmàtò·/	['pāp.mà.tɔ̌·]		'right handed'
/pn/	/bàpníh/	['bāp.'níx]		'to fill'
/pl/	/tòplèʔ/	['tōp.lèʔ ^h]	~ ['tōp.lìʔ ^h]	'brittle'
		['tōp.řèʔ ^h]	~ ['tōp.řìʔ ^h]	

/t/ may be followed by /b/, /m/, /n/, and /l/.

/tb/	/bàtbús/	['bāt.'bús]		'to beget'
/tm/	/mæt̪mæt̪/	['mēt.mæt̪ ^h]	~ ['mēt.mæt̪ ^h]	'to be sick'
/tn/	/tèt̪nàòn/	['tēt̪.nàòn]	~ ['tūt̪.nàòn]	'a log'
/tl/	/òt̪lòm/	['ōt̪.lòm]	~ ['ōt̪.řòm]	'to intercept'

/k/ may be followed by /p/, /t/, /b/, /s/, /h/, /m/, /n/, and /l/.

/kp/	/hìkpòʔèn/	['hīk.pòʔ.èn]	~ ['hīk.pòʔ.ìn]	'to be finished'
/kt/	/tòktò·n/	['tōk.tɔ̌·n]		'to burden'
/kb/	/tànkek̪bò·/	['tāŋ.kék̪.bɔ̌·]	~ ['tāŋ.kìk̪.bɔ̌·]	'a bee (honey)'
/ks/	/sùksùk/	['sūk.sùk ^h]		'to follow'
/kh/	/hòkhòk/	['hōk.hòk ^h]		'to boil'
/km/	/bák̪mís/	['bāk̪.mís]		'affliction'
/kn/	/tàknìn/	['tāk̪.nìn]		'wall'
/kl/	/tòklùs/	['tōk.lùs]	~ ['tōk.řùs]	'to break'

/ʔ/ may be followed by /p/, /t/, /k/, /s/, /m/, /n/, /l/, and /w/.

/ʔp/	/swàʔpí/	['swāʔ."pí.]	'fog'
/ʔt/	/təʔtòn/	['təʔ.tòn] ~ ['tēʔ.tòn]	'inside'
/ʔk/	/kòʔkòn/	['kōʔ.kòn]	'neck'
/ʔs/	/sùʔsùʔ/	['sūʔ.sùʔ ^h]	'to ring'
/ʔm/	/əkòʔmòn/	['ə.kòʔ.mòn] ~ ['ē.kòʔ.mòn]	'ankle'
/ʔn/	/bàʔnàʔp/	['bāʔ.nà.əp ^h]	'to alarm'
/ʔl/	/bà.kómpəpəʔlàʔ/	['ba·."kóm.pə.pəʔ.làʔ ^h] ~ ['ba·."kóm.pə.pəʔ.řàʔ ^h]	'name of village'
/ʔw/	/kwàʔwétèʔ/	['kwāʔ."wé.tēʔ ^h] ~ ['kwāʔ."wí.tīʔ ^h]	'boy'

/s/ may be followed by /t/, /k/, and /b/.

/st/	/pəstákáh/	['pəs.tà.kàh]	'morning'
/sk/	/pəskòlén/	['pəs.kò."lén] ~ ['pəs.kò."lín] ~ ['pəs.kò."řén] ~ ['pəs.kò."řín] ~	'shoulder'
/sb/	/sùsbèn/	['sūs.bèn] ~ ['sūs.bìn]	'butterfly'

/h/ may be followed by /p/, /k/, /b/, /m/, /n/, and /l/.

/hp/	/pùhpùh/	['pūx.pùx]	'to be wet'
/hk/	/təhkà.k/	['təh.kà.k ^h]	'to be startled'
/hb/	/bəhbàʔ/	['bəx.bàʔ ^h] ~ ['bēx.bàʔ ^h]	'to heat'
/hm/	/məhməh/	['məh.məh]	'to brag'
/hn/	/hàhnà./	['hāh.nà.]	'to go back'
/hl/	/tòlàhlúa./	['tō.làh."lú.ā] ~ ['tō.řàh."řú.ā]	'nut tree (edible)'

/m/ may be followed by /p/, /b/, and /h/.

/mp/	/kòmpòʔ/	['kōm.pòʔ ^h]		'balm'
/mb/	/bù.tóm.bàmèn/	['bū̃."tóm.bā.mèn]	~	'sibling'
		['bū̃."tóm.bā.mìn]		
/mh/	/lòmhìh/	['lōm.hìx]	~ ['ŷōm.hìx]	'name of village'

/n/ may be followed by /p/, /t/, /k/, /b/, /h/, and /m/.

/np/	/tənpùs/	['tæn.pùs]	~ ['tēn.pùs]	'name of village'
/nt/	/pəntòn/	['pæn.tòn]	~ ['pēn.tòn]	'to hear'
/nk/	/tənkə./	['tāŋ.kə̌.]	~ ['tāŋ.kě.]	'spider'
/nb/	/nìnbàn/	['nìn.bàn]		'between'
/nh/	/əpwənpwànhé/	['ā.pwèn.pwàn."hé]	~	'when'
		['ā.pwìn.pwàn."hí]		
/nm/	/bàmàn.màn/	['bā.màn.màn]		'to bribe'

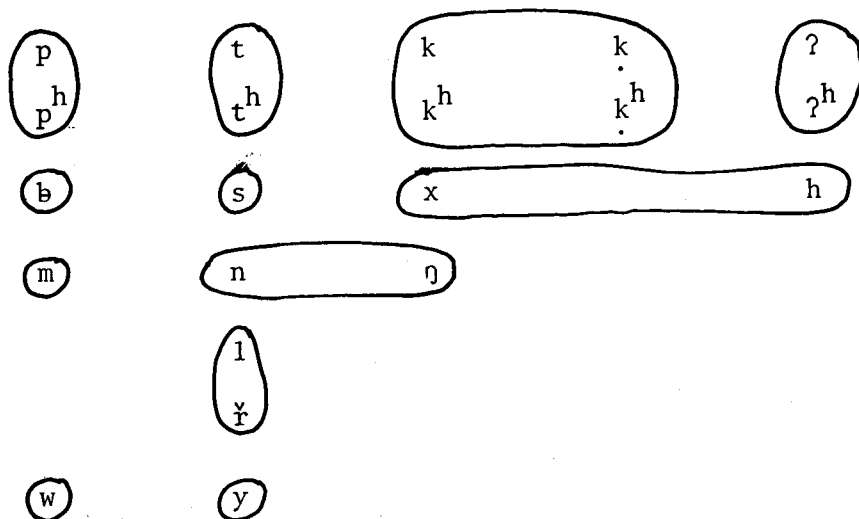
In the sequences, /kpy/, /khy/, /ʔky/, /npw/, /nty/, and /nkw/ the syllable break occurs after the first consonant since the semi-vowels /w/ and /y/ have been interpreted as the second member of a consonant cluster when they occur following another consonant.

/kpy/	/pìkpyúk/	['pīk."pyúk ^h]		'a lie'
/khy/	/hìkhyúk/	['hīk.hyúk ^h]		'to erase'
/ʔky/	/kèʔkyúʔ/	['kēʔ."kyúʔ ^h]	~ ['k̄ʔ."kyúʔ ^h]	'to shave'
/npw/	/əpwənpwànhé/	['ā.pwèn.pwàn."hé]	~	'when'
		['ā.pwìn.pwàn."hí]		
/nty/	/sòntyàʔ/	['sōn.tyàʔ ^h]		'army'
/nk w/	/kùnk wìn/	['kūŋ.kwìn]		'to start'

3 DESCRIPTION OF PHONEMES

3.1 Consonants

3.1.1 Work Chart



3.1.2 Description

/p/ [p] voiceless bilabial unaspirated stop occurs word initially and medially.

/pùh/ ['pūh] 'to plant'

/sùpàk/ ['sūpàk^h] 'bat'

[p^h] voiceless bilabial aspirated stop occurs word finally.

/nèp/ ['nēp^h] ~ ['nṯp^h] 'to plant'

/sìnùp/ ['sīnùp^h]

/t/ [t] voiceless alveolar unaspirated stop occurs word initially and medially.

/tàp/ ['tāp^h] 'to pierce'

/tòtón/ ['tō''tón] 'to brace'

[t^h] voiceless alveolar aspirated stop occurs word finally.

/kìt/ ['kīt^h] 'to be empty'

/pònòt/ ['pōnòt^h] 'thick'

/k/ [k] voiceless velar unaspirated stop occurs word initially and medially.

/kòkò·t/ ['kòkò·t^h] 'short'

/kò·s/ ['kò·s] 'to cut'

[k^h] voiceless velar aspirated stop occurs word finally.

/pìk/ [pìk^h] 'louse'

/hòkhòk/ ['hòkhòk^h] 'to boil (food)'

[ḳ] voiceless backed velar unaspirated stop occurs word initially and medially in non-stressed syllables whose nuclei are filled by high back and mid back vowels.

/kùʔ/ [kùʔ^h] 'pig'

/sìkù / ['sìkù] 'a festival'

/kò· / ['kò·] 'to be afloat'

/kòʔkòʔ/ [kòʔkòʔ^h] 'to capsize'

[ḳ^h] voiceless backed velar aspirated stop occurs word finally in non-stressed syllables whose nuclei are filled by mid back vowel.

/tòk/ [tòk^h] 'to be dull (not sharp)'

/ʔ/ [ʔ] voiceless unaspirated glottal stop occurs word medially.

/sùʔsùʔ/ ['sùʔsùʔ^h] 'to ring'

/bàʔáàs/ ['bāʔ"áàs] 'to aid'

[ʔ^h] voiceless aspirated glottal stop occurs word finally.

/māmèʔ/ ['māmèʔ^h] ~ ['māmìʔ^h] 'yam'

/múʔ/ ['múʔ^h] 'taro'

/b/ [b] voiced bilabial fricative occurs word initially and medially.

/bòs/ [ˈbòs] 'a stone'

/nàbùh/ [ˈnābùx] 'to hit'

/s/ [s] voiceless alveolar fricative occurs word initially, medially, and finally.

/sìbò·/ [ˈsìbò·] 'moon'

/bèsún/ [ˈbēˈsún] ~ [ˈbɪˈsún] 'banana (wild)'

/bòs/ [ˈbòs] 'to arrive'

/h/ [h] voiceless glottal fricative occurs word initially, medially, and finally. It occurs initially in all environments, medially after the low central vocoid and mid and low back vocoids, and finally after the low central and low back vocoids.

/hìk/ [ˈhìk^h] 'not'

/hùlàk/ [ˈhùlàk^h] ~ [ˈhūràk^h] 'to sing'

/bàhìk/ [ˈbāhìk^h] 'to finish'

/òhàn/ [ˈòhàn] 'to be full (not hungry)'

/sìòhàt/ [ˈsìòhàt^h] 'a blunder'

/nàh/ [nàh] 'to chew'

/nòh/ [nòh] 'to cook'

[x] voiceless velar fricative occurs only word medially and finally. It occurs medially after the front vocoids and high back vocoids, finally after the front vocoids and high and mid back vocoids.

/ìhòʔ/ [ˈìxòʔ^h] 'to sit'

/kèhàʔ/ [ˈkēxàʔ^h] ~ [ˈkɪxàʔ^h] 'oyster'

/həhnàn/ [ˈhæxnàn] ~ [ˈhēxnàn] 'name'

/ùhòn/	[ùxòn]		'rain'
/nìh/	[nìx]		'where'
/kéh/	['k'éx]	~ ['k'íx]	'to beg'
/kəh/	['kəx]	~ ['kēx]	'dog'
/hùh/	['hūx]		'to appoint'
/tòh/	['tōx]		'to play'

/m/ [m] voiced bilabial nasal occurs word initially, medially, and finally.

/mànòt/	['mānòt ^h]		'old'
/kāmòt/	['kāmòt ^h]		'to beckon'
/bà·tàm/	['bā·tām]		'little'

/n/ [n] voiced alveolar nasal occurs word initially, medially, and finally.

/nà·pàn/	['nā·pàn]		'people'
/mànù/	['mānù]		'there'
/bàsún/	['bā'sún]		'to assign'

[ŋ] voiced velar nasal occurs only preceding voiceless velar stop.

/kùnkwiñ/	['kūŋkwĩn]		'to start'
/tānkə·/	['tāŋkə·]	~ ['tāŋkē·]	'spider'

/l/ [l], voiced alveolar lateral and [ɺ] voiced alveolar flapped vibrant occurs word initially and medially in non-contrastive free variation.

/lápís/	['lā'pís]	~ ['řā'pís]	'knife'
/kālèʔ/	['kālēʔ ^h]	~ ['kālìʔ ^h]	~ 'centipede'
	['kāřèʔ ^h]	~ ['kārìʔ ^h]	

/w/ [w] voiced bilabial rounded non-syllabic vocoid occurs word initially and medially.

/wà·yáʔ/ ['wā·'yáʔ^h] 'wire'

/bàbwe·/ ['bā''bwe·] ~ ['bā''bwɪ·] 'to whisper'

/y/ [y] voiced palatal unrounded non-syllabic vocoid occurs word initially and medially.

/yà·/ ['yā·] 'lime'

/kyúk/ ['kyúk^h] 'to bear'

3.1.3 Contrasts

/p/ and /b/ contrast in the following identical and analogous environments:

/àpùh/ [àpùx] 'big'

/àbùh/ ['ābùx] 'to smell'

/pàsún/ ['pā''sún] 'head'

/bàsún/ ['bā''sún] 'to assign'

/pàhán/ ['pā''hán] 'to cross'

/bàhàn/ ['bāhàn] 'to hang'

/t/ and /s/ contrast in the following identical and analogous environments:

/tòàʔ/ ['tōàʔ^h] 'chicken'

/sòàʔ/ ['sōàʔ^h] 'bone'

/pòtàn/ [pòtàn] 'sun'

/kòsàn/ [kòsàn] 'white sand'

/àt/ ['æt^h] ~ ['ēt^h] 'covering of heart'

/às/ ['æ̃s] ~ ['ēs] 'to burn'

/t/ and /l/ contrast in the following analogous environments:

/tònú/	['tò'nú]		'back (a person's back)'
/lòmù/	['lòmù]	~ ['řòmù]	'trunk (tree)'
/àtèʔ/	[àtèʔ ^h]	~ [àtìʔ ^h]	'who'
/àlè·/	['ālè·]	~ ['ālì·]	'light (not heavy)'
	['āřè·]	['āřì·]	

/k/ and /ʔ/ contrast in the following identical environments:

/èkè·/	['èkè·]	~ ['ṭkì·]	'with'
/èʔè·/	['èʔè·]	~ ['ṭʔì·]	'they'
/bùk/	[bùk ^h]		'short of breath'
/bùʔ/	[bùʔ ^h]		'to patch'

/k/ and /h/ contrast in the following identical and analogous environments:

/kèʔ/	[kèʔ ^h]	~ [kìʔ ^h]	'yes'
/hèʔ/	['hèʔ ^h]	~ ['hìʔ ^h]	'to give'
/pākòʔ/	['pākòʔ ^h]		'spear (for killing man)'
/bàhòʔ/	[bàhòʔ ^h]		'to put'
/úk/	['úk ^h]		'whimper'
/úh/	['úh]		'to smear, to apply, to anoint'

/ʔ/ and /h/ contrast in the following identical and analogous environments:

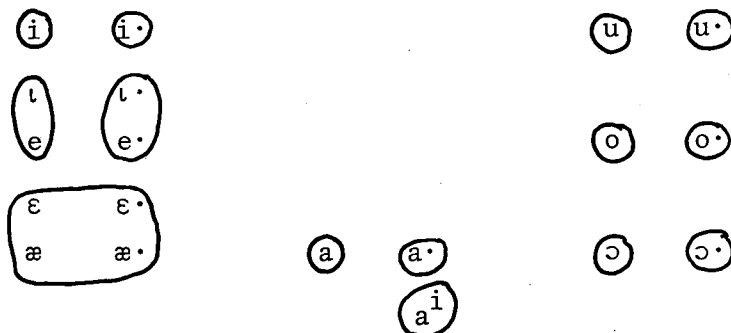
/èʔè·/	['èʔè·]	~ [ṭʔì·]	'they'
/ùhè·/	['ùhè·]	~ ['ùxì·]	'to dam water'
/tàʔ/	[tàʔ ^h]		'to suggest'
/táh/	[táh]		'meat'

/b/ and /w/ contrast in the following identical and analogous environments:

/àtàbà·/	[àtàbæ ^h]	~ [àtàbɛ ^h]	'this'
/tòáwè·/	['tō'áwɛ ^h]	~ ['tō'áwɪ ^h]	'name of person'

3.2 Vowels

3.2.1 Vowel Chart



3.2.2 Description

/i/ [i] voiced high closed front unrounded vocoid occurs word initially, medially, and finally.⁴

/ìhò ^h /	['ìxò ^h]	'to sit'
/bìh/	['bìx]	'good'
/mànì/	['mānì]	'here'

/i·/ [i·] /voiced high closed front unrounded lengthened vocoid occurs word initially and finally.

/ì·yàn/	['i·yàn]	'fish'
/òkàì·/	['òkà'i·]	'name of lagoon'

/e/ [e] voiced mid closed front unrounded vocoid and [ɛ] voiced high open front unrounded vocoid occur word initially and medially in non-contrastive free variation.

/èp/	['èp ^h]	~ ['ɛp ^h]	'to see'
/kèkè·/	['kèkɛ ^h]	~ ['kɛkɛ ^h]	'to walk alongside of'

/e·/ [e·] voiced mid closed front unrounded lengthened vocoid and [ɛ·] voiced high open front unrounded lengthened vocoid occur word initially, medially, and finally in non-contrastive free variation.

/è·yòʔ/	['e·yòʔ ^h]	~ ['ɛ·yòʔ ^h]	'I'
/té·n/	["tē·n]	~ ["tɛ·n]	'rucksack'
/bàbʷé·/	['bā·'bʷē·]	~ ['bā·'bʷɛ·]	'whisper'

/æ/ [æ] voiced low front unrounded vocoid and [ɛ] voiced mid open front unrounded vocoid occur word initially and medially in non-contrastive free variation.

/ækòʔ/	['ækòʔ ^h]	~ ['ɛkòʔ ^h]	'elbow'
/pæʔ/	[pæʔ ^h]	~ [pɛʔ ^h]	'mango'

[æ·] voiced low closed front unrounded lengthened vocoid and [ɛ·] voiced mid open front unrounded lengthened vocoid occur word finally in non-contrastive free variation.

/tànəkə·/	['tānəkə ^ʔ]	~ ['tānke ^ʔ]	'spider'
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/a/ [a] voiced low open central unrounded vocoid occurs word initially, medially, and finally.

/àbùh/	['ābùx]		'to smell'
/kàkòk/	['kākòk ^h]		'nest'
/bìnà/	['bīnà]		'to throw'

/a·/ [a·] voiced low open central unrounded lengthened vocoid occurs word initially, medially, and finally.

/à·sít/	['a·"sít ^h]		'putty'
/bà·æn/	['bā·"æn]	~ ['bā·"én]	'to marry'
/hàhnà·/	['hāhna ^ʔ]		'to go back'

/aⁱ/ [aⁱ] voiced low open central unrounded vocoid gliding to voiced high closed front unrounded vocoid occurs word medially only.

	/nà ⁱ n/	['nā ⁱ n]	'forehead'
	/sùnā ⁱ ʔ/	['sū ⁱ 'nā ⁱ ʔ ^h]	'son'
/u/ [u]	voiced high closed back rounded vocoid occurs word initially and medially.		
	/ùhín/	['ū ⁱ 'hín]	'a cold'
	/kùmà·/	['kūma ⁱ]	'sweet potato'
/u·/ [u·]	voiced high closed backed rounded lengthened vocoid occurs word medially and finally.		
	/bù·tóm̄āmèn/	['bū ⁱ ''tóm̄āmèn] ~ ['bū ⁱ ''tónbāmìn]	'sibling'
	/bà·niù·/	['bā·niù ⁱ]	'to budge'
/o/ [o]	voiced mid closed back rounded vocoid occurs word initially and medially.		
	/òhòp/	['ōhòp ^h]	'clothes'
	/pākòʔ/	['pākòʔ ^h]	'certain kind of palm tree'
/o·/ [o·]	voiced mid closed back rounded lengthened vocoid occurs word initially, medially, and finally.		
	/ò·k/	['ō·k ^h]	'to cry'
	/kó·p/	['kō·p ^h]	'bamboo'
	/bābìo·/	['bābìo ⁱ ·]	'to run'
/ɔ/ [ɔ]	voiced low open back rounded vocoid occurs word initially and medially.		
	/ɔ̀bè/	['ɔ̀bè] ~ ['ɔ̀bè̀]	'in-laws'
	/bɔ́·n/	['bɔ́·n]	'village'
/ɔ·/ [ɔ·]	voiced low open back rounded lengthened vocoid occurs word medially and finally.		

/kɔ̌·bó·/	['kɔ̌·'bó̌]	'woman'
/vànɔ̌·/	['bānɔ̌·]	'to send'

3.2.3 Contrasts

/i/ and /e/ contrast in the following identical and analogous environments:

/íh/	['íx]		'an exclamation'
/éh/	['éx]	~ ['(x]	'to be strong'
/píʔ/	['píʔ ^h]		'a sore'
/pèʔ/	[pèʔ ^h]	~ [pìʔ ^h]	'his/hers'

/i·/ and /e·/ contrast in the following identical environments:

/i·yàn/	['i·yàn]		'fish'
/e·yàn/	['e·yàn]	~ ['i·yàn]	'a fence'
/bì·/	[bǐ]		'to throw'
/bè·/	['bē]	['bē̌]	'dried banana leaf'

/i/ and /æ/ contrast in the following identical and analogous environments:

/is/	['īs]		'to have intercourse'
/æs/	['æ̌s]	~ ['ē̌s]	'to burn'
/bìh/	['bī̌x]		'good'
/bèh/	['bæ̌x]	~ ['bē̌x]	'meat'

/i·/ and /æ·/ contrast in the following identical environments:

/hi·/	['hī̌]		'to ask'
/hæ·/	['hæ̌]	~ ['hē̌]	'to rub'

/e/ and /æ/ contrast in the following identical and analogous environments:

/éh/	['éx]	~ [''lx]	'to be strong'
/əh/	[əx]	~ [èx]	'add'
/pèt/	['pēt ^h]	~ ['p'lt ^h]	'to continue'
/pæt/	['pæt ^h]	~ ['pēt ^h]	'to hold'

/e·/ and /æ·/ contrast in the following analogous environments:

/pé·/	['pē·]	~ [''p'·]	'to bury'
/pæ·/	['pæ·]	~ ['pē·]	'to sharpen'

/æ/ and /a/ contrast in the following identical environments:

/əh/	[əx]	~ [èx]	'add'
/àh/	['āh]		'ah'
/pæʔ/	[pæʔ ^h]	~ [pèʔ ^h]	'a message'
/pàʔ/	[pàʔ ^h]		'father'

/æ·/ and /a·/ contrast in the following identical environments:

/læ·/	[læ·]	~ ['lē·]	'long'
	['ræ·]	~ ['rē·]	
/lā·/	['lā·]	~ ['rā·]	'to smoke (to smoke out)'

/æ/ and /ɔ/ contrast in the following identical environments:

/æt/	['æt ^h]	~ ['ēt ^h]	'covering of heart'
/ɔt/	['ɔt ^h]		'to catch'

/æ·/ and /ɔ·/ contrast in the following analogous environments:

/pæ·/	['pæ·]	~ ['pē·]	'bracelet, arm-let'
/pɔ·/	['pɔ·]		'black'

/a/ and /ɔ/ contrast in the following identical and analogous environments:

/àtán/	['ā'tán]	'to bob'
/ɔ̀tòn/	['ɔ̀tòn]	'to arrest, to stop a moving object'
/pàk/	[pàk ^h]	'to be tired'
/pɔ̀k/	['pɔ̀k ^h]	'two'

/a·/ and /ɔ·/ contrast in the following identical and analogous environments:

/pà·n/	['pā·n]	'bottom'
/bɔ̀·n/	['bɔ̀·n]	'village'
/mā·/	['mā·]	'all'
/mɔ̀·/	['mɔ̀·]	'to be quiet'

/u/ and /o/ contrast in the following identical and analogous environments:

/úk/	[''úk ^h]	'whimper'
/òʔ/	[''òʔ ^h]	'banyan tree'
/kùmà·/	['kūma [!]]	'sweet potato'
/kòmà·/	['kòma [!]]	'a festival'

/u·/ and /o·/ contrast in the following identical and analogous environments:

/bù·ʔ/	[bu [!] ʔ ^h]	'to patch'
/bò·n/	['bō·n]	'new'
/kú·/	[''kū·]	'thorn'
/kó·/	[''kō·]	'adze'

/u/ and /ɔ/ contrast in the following identical and analogous environments:

/úh/	['úx]	'to smear, to apply, to anoint'
/ðh/	[ðh]	'smoke'
/bùs/	[bùs]	'handle (a wooden spoon'
/bòs/	['bòs]	'a stone'

/u·/ and /ɔ·/ contrast in the following identical and analogous environments:

/bù·ʔ/	[bu·ʔ ^h]	'to patch'
/pò·k/	[pò·k]	'two'
/pú·/	['pu·]	'paddle (canoe)'
/pó·/	['pò·]	'black'

/o/ and /ɔ/ contrast in the following identical and analogous environments:

/òʔ/	[òʔ ^h]	'banyan tree'
/òt/	['òt ^h]	'to catch, to take'
/tòk/	['tòk ^h]	'to embark'
/tòk/	['tòk ^h]	'an egg'

/o·/ and /ɔ·/ contrast in the following identical environments:

/bò·n/	['bò·n]	'new'
/bò·n/	['bò·n]	'village'
/nò·/	['nò·]	'mosquito'
/nò·/	['nò·]	'to go, to walk'

/i/ and /i·/ contrast in the following analogous environments:

/iún/	['í·ún]	'a house'
/i·yàn/	['i·yàn]	'a fish'

/si/	['sí]	'to tear'
/bi·/	[bi ^ʔ]	'to throw'

/e/ and /e·/ contrast in the following analogous environments:

/èlèlàʔ/	['ēlèlàʔ ^h] ~ ['ṭlìlìlàʔ ^h] ~ 'red'
	['ēřèřàʔ ^h] ~ ['ṭř'řàʔ ^h]
/è·làʔ/	['ē·làʔ ^h] ~ ['ṭ·làʔ ^h] ~ 'blood'
	['ē·řàʔ ^h] ~ ['ṭ·řàʔ ^h]
/tèbàn/	['tēbàn] ~ ['ṭbàn] 'bed'
/tè·nàn/	['tē·nàn] ~ ['ṭl·nàn] 'ear'

/a/ and /a·/ contrast in the following identical and analogous environments:

/àh/	['āh]	'ah'
/à·h/	[a ^ʔ ·h]	'to scrub'
/bàtòs/	['bātòs]	'to veneer, to join (by touching'
/bà·tòs/	['bā·tòs]	'to slam'
/nòsà/	['nōsà]	'go now'
/nònà·/	['nōna ^ʔ ·]	'go'

/u/ and /u·/ contrast in the following analogous environments:

/bùk/	[bùk ^h]	'a breath'
/bù·ʔ/	[bu ^ʔ ·ʔ ^h]	'to patch'
/mànù/	['mānù]	'there'
/tànú·/	['tā'nū·]	'leaf house'

/o/ and /o·/ contrast in the following identical and analogous environments:

/òʔ/	['òʔ ^h]	'banyan tree'
/ò·k/	['ò·k ^h]	'to cry'
/tòn/	['tòn]	'pipe (bamboo water pipe)'
/tò·n/	['tò·n]	'to throb (heart)'
/àsìó/	['àsì"ó]	'banyan tree'
/àpiò·/	['àpiò·]	'meat'

/ɔ/ and /ɔ·/ contrast in the following analogous environments:

/bòs/	['bòs]	'stone'
/bò·n/	['bò·n]	'village'

/a/ and /aⁱ/ contrast in the following analogous environments:

/pàn/	['pàn]	'a border'
/pá ⁱ s/	['pá ⁱ s]	'bitter'
/nàh/	[nàh]	'to chew'
/ná ⁱ n/	['ná ⁱ n]	'forehead'
/sìnàʔ/	[sìnàʔ ^h]	'mother'
/sùnà ⁱ ʔ/	['sū"ná ⁱ ʔ ^h]	'son'

/a·/ and /aⁱ/ contrast in the following analogous environment:

/pà·n/	['pà·n]	'bottom'
/pá ⁱ s/	['pá ⁱ s]	'bitter'

3.3 Supra-Segmental Features

3.3.1 Stress

3.3.1.1 Phonemic Primary Stress

Phonemic primary stress /' / incorporates high tone.⁵ It does not occur word initially in polysyllabic words and no more than one occurrence per word has been observed. It most commonly occurs word final-

ly. Some words have no primary stress.

Monosyllabic word patterns:

/úk/	['úk ^h]		'to whimper'
/pú/	['pú]		'canoe paddle'
/múʔ/	['múʔ ^h]		'taro'
/pə/	['pə]	~ ['pē]	'bracelet'
/bò/	['bō]		'bench'

Disyllabic word patterns:

/úlís/	['ū'lís]	~ ['ū'řís]	'rope'
/səkáʔ/	['sē'káʔ ^h]	~ ['sī'káʔ ^h]	'boy'
/ihùn/	['īxùn]		'nose'
/kāmòt/	['kāmòt ^h]		'to beckon'

Trisyllabic word patterns:

/pùpùhúk/	['pūpù'xúk ^h]		'a wave'
/ùnúnùn/	['ū'núnūn]		'to assemble'
/tānkèkbò·/	['tāŋkèkbò [!]]	~ ['tāŋkì'kbo [!]]	'bee'

Quadrisyllabic word patterns:

/bàkùkùlúʔ/	['bākùkù'lúʔ ^h]	~ ['bākùkù'řúʔ ^h]	'a bend'
/ðkòkólòh/	['ðkò'kólōx]	~ ['ðkò'kóřōx]	'bedroom'
/bù·tómāmèn/	['bū·'tómāmèn]	~ ['bū'tómāmìn]	'sibling'
/pòkòʔkòbæn/	['pōkòʔkòbæn]	~ ['pōkòʔkòbèn]	'bastard'

Quinsyllabic word patterns:

/bà·kómpòpòʔlaʔ/	['bā·'kómpòpòʔlaʔ ^h]		'name of village'
	['bā·'kómpòpòʔřàʔ ^h]		

/bàtòtòpìnò·/	['bātòtòpino [!]]	'to arrange'
/tèpòmà'nàní?/	['tēpòmàmà'ní? ^h] ~ ['tīpòmànà'ní? ^h]	'name of village'

3.3.1.2 Non-phonemic Secondary Stress

Non-phonemic secondary stress [ˈ] incorporates mid tone. It occurs word initially. It can be thought of as an allophone of non-stress /⁶.

Disyllabic word patterns:

/tàmák/	['tā'mák ^h]	'to be sad'
/nàbùh/	['nābùx]	'to hit'

Trisyllabic word patterns:

/àsímú/	['āsì'mú]	'cucumber'
/bàkítè/	['bā'kítē] ~ ['bākítī]	'ant'

3.3.1.3 Phonemic Non-stress

Phonemic non-stress ˈ incorporates mid-tone when following a primary stressed syllable and a low tone elsewhere.

Trisyllabic word patterns:

/kòkónòn/	['kō'kònōn]	'liver'
/bàtànín/	['bātà'nín]	'black palm'

Quadrisyllabic word patterns:

/bàpítimà?/	['bā'pítīmà? ^h]	'to baptise'
/bàmàmàkús/	['bāmàmà'kús]	'to blink'

3.3.1.4 Tone

The tone on all long vowels tends to glide down. This is more evident in words of three syllables or less. Words with four or more syllables tend to have relatively shorter vowels.

Monosyllabic word patterns:

/kó·/	["kó·]	'adze'
/kó·p/	["kó·p ^h]	'bamboo'

Disyllabic word patterns:

/pà·pǎ/	['pà·"pǎ]	~ ['pā·"pé]	'uncle'
/kǒ·bó·/	['kǒ·"bó·]		'woman'

Trisyllabic word patterns:

/lò·pàkǒ·/	['lò·pàkǒ·]	['rǒ·pàkǒ·]	'bush rat'
/bàkà·pé?/	['bāka·"pé? ^h]	['bāka·"pé? ^h]	'caterpillar'

Quadrisyllabic word patterns:

/bù·tómāmèn/	['bù·"tombāmèn]	['bù·"tombāmèn]	'sibling'
/kākàsìlè·/	['kākàsìlè·]	['kākàsìlè·]	'yellow'
	['kākàsìrè·]	['kākàsìrè·]	

4.3.2 Intonation


Four phonetically distinguishable intonation contours have been observed. The contours are of the level and register types between syllables. The register type indicates a change of relative pitch measuring one step.

The high point of the intonation tends to coincide with the pitch of the syllable ordinarily stressed in that particular word, if it is stressed.

(a) Intonation contours occurring sentence final:

— Rise Interrogative (yes)


/kèn si-kìnkìùn-òm hà·/
 you fut-write-you.pl query word
 'You will write, won't you?'

 Rise and Fall Interrogative (yes, no)


/hìktà nàt-ém-èh/
not know-you.pl-repeated v plus /h/
'Don't you know?'

_____ Level	Declarative
<hr/>	
/è? tò-èn	à kobe? koman iún pà-tànàòn/ he is-digging obj.mrkr. hole inside house instr.mrkr.-stick 'He is digging a hole inside the house with a stick.'

(b) Intonation contours occurring sentence initial:

 Fall Interrogative (yes)

/hà· ètè? væh kù?/
query.word person this pig
'This person is a pig, isn't he.'

 Fall Imperative

/pàntòn-à nèò?/
listen-imper.mrkr. me
'Listen to me.'

Three phonemically contrastive intonation contours may be posited: interrogative, declarative, and imperative.

The interrogative is manifested by three phonetically distinguishable intonation contours. Two occur sentence final and they are of the register type: a rise and a rise and fall. One occurs sentence initial and is of the register type: a fall. Both the rising contours sentence final and the falling contour sentence initial incorporate the query word /hà·/ which expects an affirmative answer. The rise and fall contour sentence final incorporates the repetition of the vowel in the final syllable of the sentence and adding the phoneme /h/. It expects an answer either in the affirmative or the negative.

The declarative is manifested by one phonetically distinguishable intonation contour occurring sentence final. It is of the level type.

The imperative is manifested by one phonetically distinguishable intonation contour occurring sentence initial. It is of the register type: a fall. The imperative contour also incorporates the imperative marker /nà ~ à/.

DISTRIBUTION

4.1 General Distribution of CV Patterns

4.1.1 In the Syllable

The nucleus of a Tinputz syllable consists of a single vowel with optional onset and/or coda. The following CV patterns occur in the syllable.⁷

V	/à·/	'yes'
VC	/əs/	'to burn'
CV	/sì/	'to tear'
CVC	/nòk/	'to do'
CCV	/tlò·/	'cabinet'
CCVC	/klús/	'all'

The V, VC, CV, CVC, and CCVC syllable patterns occur word initially, medially, and finally.

V	/à.lús/	'a fool'
	/bà.ò.nòt/	'agreement'
	/pì.ú./	'to blow'
VC	/òt.lòm/	'to intercept'
	/tò.àp.lì.kà?/	'an African'
	/ò.èh/	'soil'
CV	/pò.ét/	'to be ashamed'
	/bà?.ná.òp/	'to alarm'
	/bà.nò·/	'to send'
CVC	/bàt.bùs/	'to beget'
	/bà.pèn.pèn/	'to fast'
	/bà.bù?/	'to drop'
CCVC	/swà?.pì./	'fog'
	/à.pwèn.pwàn.hé/	'when'
	/ba.ta.myúh/	'a bend'

The CCV syllable pattern occurs word initially and finally only.

CCV	/kwè.lò·/	'bamboo'
	/bà.bà.bwè/	'to be boisterous'

4.1.2 In the Word

The word may consist of from one to five syllables. Following are some examples of syllable combinations that have been observed.

Monosyllabic words: (see examples, Section 4.1.1)

Disyllabic words:

V.V	/ò.é·/	'coconut'
V.VC	/è.òm/	'you (pl)'
V.CV	/ò.lò·/	'a fence'
V.CVC	/è.mòm/	'we (excl.)'
V.CCVC	/ì.hyúk/	'bamboo'
VC.CVC	/òt.lòm/	'to intercept'
CV.V	/pè.ò·/	'plenty'
CV.VC	/mè.àn/	'tongue'
CV.CV	/kù.mà·/	'sweet potato'
CV.CVC	/nò.bàn/	'bird'
CV.CCV	/pì.syù·/	'to plant'
CV.CCVC	/bà.kwàn/	'to hide'
CVC.CV	/bàt.bí·/	'to go around'
CVC.CVC	/nín.bàn/	'between'
CVC.CCVC	/pìk.pyúk/	'to lie'
CCV.CV	/kwè.lò·/	'bamboo'
CCVC.VC	/bwà?.æn/	'to bear (fruit)'
CCVC.CV	/swà?.pí·/	'fog'
CCVC.CVC	/kwà?.mòn/	'girl'

Trisyllabic words:

V.V.CVC	/ì.ò.bàʔ/	'bush fowl'
V.CV.V	/à.tì.à/	'that'
V.CV.VC	/à.nò.èh/	'to wait'
V.CV.CV	/à.sì.mú/	'cucumber'
V.CV.CVC	/è.lè.làʔ/	'red'
V.CVC.CVC	/æ.koʔ.mon/	'ankle'
VC.CV.VC	/àn.tò.èn/	'ample'
VC.CV.CVC	/àn.kè.lòʔ/	'angel'
CV.V.CV	/pì.à.tò/	'sago palm branch'
CV.V.CVC	/bà.ò.nòt/	'agreement'
CV.CV.V	/pà.nè.ò·/	'breadfruit'
CV.CV.VC	/bà.pò.àn/	'alright'
CV.CV.CV	/bà.pè.pè·/	'to cicatrize'
CV.CV.CVC	/bà.tò.tòp/	'a bat'
CV.CV.CCV	/bà.bà.bwè·/	'to be boisterous'
CV.CV.CCVC	/ba.bu.lyah/	'to breathe'
CV.CVC.CV	/kà.kàk.ní/	'to be sharp'
CV.CVC.CVC	/bà.pèn.pèn/	'to fast'
CVC.CV.V	/nàp.sò.ə·/	'army'
CVC.CV.VC	/bàʔ.nà.òp/	'to alarm'
CVC.CV.CV	/pàp.mà.tò·/	'right handed'
CVC.CV.CVC	/pòs.kò.lén/	'shoulder'
CVC.CVC.CV	/tàn.kèk.bò·/	'bee'
CCV.V.CVC	/kwì.à.nín/	'name of village'

CCVC.CV.CVC /kwàʔ.wé.tèʔ/ 'boy'

Quadrisyllabic words:

V.CV.CV.VC	/ù.lú.lù.àn/	'to pity'
V.CV.CV.CVC	/ò.kò.kó.lòh/	'bedroom'
V.CCVC.CCVC.CV	/à.pwèn.pwàn.hé/	'when'
CV.V.CV.VC	/bà.ə.sí.àn/	'to amuse'
CV.V.CV.CV	/bà.ò.tò.tà./	'to adore'
CV.V.CV.CVC	/bà.è.lè.làʔ/	'to bleed'
CV.CV.V.CV	/sí.lí.à.pò./	'name of tree'
CV.CV.V.CVC	/hà.bí.ù.màh/	'near (very)'
CV.CV.CV.V	/bà.bà.sò.è./	'to argue'
CV.CV.CV.VC	/tà.tà.pè.òʔ/	'yellow'
CV.CV.CV.CV	/kà.kà.sí.lè./	'yellow'
CV.CV.CV.CVC	/bà.tò.tò.pín/	'to adjust'
CV.CV.CVC.CVC	/bà.bà.bàʔ.lòp/	'to flicker'
CV.CVC.CV.V	/tò.làh.lú.à./	'nut tree (edible)'
CV.CVC.CV.CVC	/mà.hùn.pù.tòʔ/	'name of person'

Quinsyllabic words:

CV.CV.CV.CV.V	/kè.kè.là.bù.í./	'a bat'
CV.CV.CV.CV.CV	/bà.tò.tò.pí.nò./	'to arrange'
CV.CV.CV.CV.CVC	/tè.pò.mà.nà.níʔ/	'name of village'
CV.CVC.CV.CVC.CVC	/bà.kóm.pò.pòʔ.làʔ/	'name of village'
CVC.CVC.CV.CV.V	/kùʔ.pàʔ.pà.nè.ò./	'name of village'

4.2 Specific Distribution of the Phonemes

4.2.1 Occurrence Restrictions of Phonemes within Syllable Types

V	All vowels except /a ⁱ /
VC	Vowels: /i/, /e/, /æ/, /a/, /a·/, /u/, /o/, /o·/, /ɔ/ Consonants: All consonants except /b/, /l/, /w/, and /y/
CV	Consonants: All consonants except /ʔ/ Vowels: All vowels except /a ⁱ /
CVC	Consonant 1: All consonants except /ʔ/ Vowel: All vowels except /æ·/ Consonant 2: All consonants except /b/, /w/, and /y/
CCV	The following are the only consonant combinations found in this syllable: /py/, /tl/, /kw/, /bw/, /sy/, and /hy/. Vowels: /i/, /i·/, /e/, /e·/, /a/, /a·/, /u/, /u·/, /o/, /o·/, and /ɔ·/
CCVC	The following are the only consonant combinations found in this syllable: /pl/, /pw/, /py/, /tl/, /tw/, /kl/, /kw/, /bw/, /sw/, /hy/, /ly/, and /my/. Vowels: /i/, /e/, /a/, /u/, and /o/ Consonants: /t/, /k/, /ʔ/, /s/, /h/, and /n/

4.2.2 Vowel Sequences in the Word

The vowels /i/, /e/, /e·/, /a/, /a·/, /u/, and /o/ are the only vowels that have been observed as the first vowel in VV clusters within the word.

/i/ may be followed by /a/, /a·/, /u/, /u·/, /o/, /o·/, /ɔ/, and /ɔ·/.

/ia/	/bàpiàh/	['bā.pi.àh]	'to raise'
/ia·/	/kùbià·/	['kū.bi.a ^h]	'rat'
/iu/	/iún/	['ī."ún]	'house'
/iu·/	/bà·niú·/	['ba·.ni.u ^h]	'to budge'
/io/	/siòné/	['sī.ò."né] ~ ['sī.ò."n(n)]	'skin'

/e/ may be followed by /æ/, /a·/, /o/, /o·/, and /ɔ/.

/e·/ may be followed by /u/.

/a/ may be followed by /i·/, /e/, /æ/, /u/, /o/, and /ɔ/.

/a·/ may be followed by /o/.

/u/ may be followed by /i/, /i·/, /e/, /e·/, and /a/.

/ui/	/nùít/	['nū."ít ^h]	'to strip (bowels of dead animals)'
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/ui·/	/hùí·/	['hū."i·]		'to peel'
/ue/	/lùèn/	['lū.èn]	~ ['lū.ìn]	'water'
		['řū.èn]	~ ['řū.ìn]	
/ue·/	/sùè·/	['sū.e [?]]	~ ['sū.ɪ [?]]	'to say'
/ua/	/pùàt/	['pū.àt ^h]		'to leak'

/o/ may be followed by /e/, /e /, /æ·/, /a/, and /a·/.

/oe/	/òèh/	['ō.èx]	~ ['ō.ìx]	'soil'
/oe·/	/òè·/	['ō.e [?]]	~ ['ō.ɪ [?]]	'coconut'
/œ·/	/sòæ·/	['sō."æ·]	~ ['sō."ɛ·]	'to be strong'

5 UNSOLVED ISSUES

5.1 Vowel Length

We would like to reduce the vowel phonemes from fifteen to eight. But so far we have not been able to predict lengthened vowels. With more data, especially from texts, this issue could possibly be resolved.

5.2 Stress

Stress as outlined in this paper has been analysed while working with only one language helper. We will need to check the data with several others from Tsisiko Village and also with other villages in the language area. The man who helped with the analysis stated that in at least two other villages the stress patterns were different in the same words.

5.3 Previous Orthography

Some translation work has been done by Catholic Mission leaders. We understand this translation is mostly in the area of a dictionary and catechism lessons. To our knowledge these materials have not been published.

6 ORTHOGRAPHY

6.1 Suggested Orthography

CONSONANTS

<u>Phoneme</u>	<u>Allophones</u>	<u>Orthographic Symbol</u>
/p/	[p] [p ^h]	p
/t/	[t] [t ^h]	t
/k/	[k] [k ^h] [ḳ] [ḳ ^h]	k
/ʔ/	[ʔ] [ʔ ^h]	ʔ
/b/	[b]	v
/s/	[s]	s
/h/	[h] [x]	h
/m/	[m]	m
/n/	[n] [ŋ]	n
/l/	[l] [ɭ]	l
/w/	[w]	w
/y/	[y]	y

VOWELS

/i/	[i]	i
/i·/	[i·]	i:
/e/	[e] [ɛ]	e
/e·/	[e·] [ɛ·]	e:
/æ/	[æ] [ɛ]	ë
/a/	[a]	a
/a·/	[a·]	a:
/a ⁱ /	[a ⁱ]	ai
/u/	[u]	u
/u·/	[u·]	u:
/o/	[o]	o
/o·/	[o·]	o:
/ɔ/	[ɔ]	ö
/ɔ·/	[ɔ·]	ö:

SUPRA-SEGMENTAL PHONEMES

<u>Phoneme</u>		<u>Allophones</u>	<u>Orthographic Symbol</u>
Length	/·/	[v] Occurs on all vowels except the vowel glide /a ⁱ /	:
Stress	/'/	[" '] Primary stress and high pitch	'
Non-stress	/`/	['`] Secondary stress and mid pitch [`] Low pitch	`
Declarative sentence	/./	[—//] Level contour and pause sentence final	.
Imperative sentence	/./	[// /nà ~ à/] Falling contour plus the imperative marker /nà ~ à/ and pause sentence initial	.
Interrogative sentence	/ʔ/	[/hà·/ //] Rising contour plus the query word /hà·/ and pause sentence final [v+/h/ //] Rise and fall contour plus repetition of vowel in final syllable of sentence, addition of phoneme /h/ and pause sentence final [// /hà·/] Falling contour plus the query word /hà·/ and pause sentence	ʔ

6.2 English Words as Pronounced by Vernacular Speakers

<u>English</u>	<u>Tinputz</u>
nail	/ni/
post	/pö:s/
hammer	/hamá'/'
wire	/wa:yá'/'
salt	/sö:/
rice	/laes/
battery	/patli'/'
motorbike	/motopëk/
motor car	/motoka:/
tractor	/tlakta'/'
truck	/tlak/
guitar	/kita'/'
choir	/kwea'/'
bread	/plet/
brush	/plas/
school	/sikú:/
lolly	/löli'/'
government	/kavman/
council	/kansöl/
anchor	/anka'/'

6.3 Sample Text

Phonetic Transcription: mòm tòbàmàtòp bòlèm pàmàmòèx

Orthographic Transcription: mòm toamatop volem pamamoeh

Literal Transcription: we are.ready finish pl.everything

P: tàm "klús làkàh kùlu' tò'ānòèx 'lō kònèm a'nō'// mòm
 O: tah klús lakah kulu: toanoeh lo konem anö:. möm
 L: something all very now are.wait just and.we to.go we

P: se[!] 'tākàh kòkà'tōyòtà? ùpùn kòbàrà? mòm kèòm 'nō[!] 'pō?èm//
 O: se:takah kokatoyota' upun kovama' möm kemöm nö:po'em.
 L: fut.dawn and.the.Toyota get and.is.come us then.we go.are.we

P: se[!] 'nō[!] kəs kòbèm bæx pàhàrà tò'bīx à'nō[!] làkàh
 O: se:nö: kəs kovem vēh pahanan tovih anö: lakah
 L: fut.go probably will.we because the.road is.good to.go very

P: kulu[!]// 'ē'yò? kulu[!] 'pēlà 'pūàkwà? 'pēò? kèsinànià//
 O: kulu:. e:yö' kulu: pela puakwa' peö' kesinania.
 L: now I now with two.child my and.mother.her

P: mòm se[!] 'nō[!] kòbòsèm 'Pōnùs kò'tē?ènèm 'nān kò'síp pàhàn
 O: möm se:nö: kovosem Ponus kote'enem nēn kosíp pahan
 L: we fut.go and.arrive.we Bonus and.stay.we there and.ship cross

P: àmòm// mòm 'nō[!] èm 'Kāmàlàù? kò'īxò?ènèm kò'ānòèxènèm pà'pālùs//
 O: amöm. möm nö:em Kamalau' koiho'enem koanoehenem papalus.
 L: to.us we go.we Kamalau and.sit.we and.wait.we for.airplane

P: mòm se[!] kəs æ'n tàmà'tāæ'n se[!] 'tōlālà 'nō[!] kòbòèn mà?
 O: möm se:kəs ë:n tamataë:n se:tolala nö: kovoen ma'
 L: we fut.probably eat pl.food fut.European go and.buy come

P: 'Sīnàtàùn kèòm æ'n kəs// 'hīk tànàt kònò?//
 O: Sinataun kemöm ë:n kəs. hik tanat kono'.
 L: Chinatown then.we eat probably not to.know and.I

P: tāsē[!] 'k'lx 'pālùs se[!] 'bū? mà? 'k'lx 'bū?
 O: tase:keh palus se:vu' ma' kéh vu'
 L: something.fut.almost airplane fut.land come almost land

P: kəs pà'wān òklòk kəs 'kē? 'tūəlf òklòk 'hīk
 O: kəs pawan oklök kəs ke' tuëlf oklök hik
 L: probably at,one o'clock probably or twelve o'clock not

P: tənàtnò?// kəmòm 'tòkpò? kò'nò? làkàh kòbèm// se?'nò?
 O: tanatno'. kemöm tokpo' konö: lakah kovem. se:nö:
 L: to.know.I then.we to.on.now and.go very will.we fut.go

P: kò'nò? làkàh kòbèm pàtəm à'læ? 'pālùs se·mìnòndò.
 O: konö: lakah kovem patëm alë: palus se:minönö:
 L: and.go very will.we the.time is.long airplane fut.tired.walk

P: pàhàrààn tò'bālo?// se'kòn làkàhèn pàkùkònà 'àùà? pà'nò?
 O: pahanan tovalo:. se:kon lakahen pakuköna aua' panö:
 L: the.road is.far fut.get very.it for.three.? hour to.go

P: pèmòm// kò'nò? kəs kò'bū? kəs pàò
 O: pemöm. konö: kës kovu' kës paö
 L: poss.mrkr.us and.go probably and.land probably at.there

P: 'nē? se?'nòk kəs a'tānà? pàpòtàn// 'hīk tənàt kònò?//
 O: ne' se:nok kës atana' papotan. hik tanat kono'.
 L: it fut.make probably at.four on.sun not to.know and.I

P: 'sīnùp kòbè se'mòm bòs làkàh kòbèm 'ūkàlàmpà?// 'tē?
 O: sinup kove se:möm vos lakah kovem Ukalampa'. te'
 L: tomorrow will fut.we arrive very will.we Ukarumpa stay

P: 'pō?è'nèm 'nēm 'hīk tənàt bàh kùlu'nò?// 'nò? 'kōmàn
 O: po'enem nem hik tanat vah kulu:no'. nö: koman
 L: are.we there not to.know around now.I go yet

P: kæk kùlu? se?'tē? bà'bīxnòn kəmòm bòs 'pō?nàn// 'hīk
 O: këk kulu: se:te' vavihnon kemöm vos po'nën. hik
 L: will now fut.stay is.good.it then.we arrive are.there not

P: tənàt bàh kùlu'nò?// hànàn kəs tò'bīxènòn kè? 'atīà
 O: tanat vah kulu:no'. hanan kës tovihenon ke' atia
 L: to.know around now.I road probably is.good.it what what

P: 'hīk tənàt "súk kònò?// 'ē? à" kúk kulu! 'sī?ò 'nē?ò
 O: hik tanat súk kono'. e' akúk kulu: si'ö neö'
 L: not to.know follow and.I it but now little.part me

P: se! 'sōe! bà'ōnòt// 'sīnùp se!lò? 'sōe! 'āmèxò//
 O: se:soe: vaonöt. sinup se:lö' soe: amehö.
 L: fut.say is.enough tomorrow fut.I say another.part

P: 'hīkpò?èn//
 O: hikpo'en.
 L: that.is.all

Free Translation:

'We have everything ready and are just waiting now to go. The Toyota is coming to get us at dawn and we will go. We will probably go because the road is very good now. I (along with) my two children and their mother (will go). We will go and arrive at Bonus and stay there (until) the ship comes across (the passage) and carries us across. We will go to Kamalau and sit and wait for the airplane. We will probably eat food (which) the European will go and buy (at) Chinatown. I don't know. The airplane will probably come and land at about twelve o'clock or one o'clock I don't know. Then we will go on (the airplane) and go. We will go a long time (because) the airplane will have a far road to go. It (airplane) will go for three hours. It will probably land there (Ukarumpa at four o'clock. I don't know. We will arrive at Ukarumpa tomorrow. We are staying there (I think) I don't know now. (If) it is good (when) we arrive there we will stay. I don't know now. The road will probably be good to follow I don't know. I have talked enough now. I will say more tomorrow. That is all.'

ABBREVIATIONS

excl.	exclusive
fut.	future
imper.mrkr.	imperative marker
instr.mrkr.	instrument marker
obj.mrkr.	object marker
pl.	plural
poss.mrkr.	possessive marker
sing.	singular

NOTES

- ¹ More grammatical analysis needs to be done before the word stem can be properly identified. In this paper "word" will be used to mean either 'word' or 'stem'.
- ² Please refer to Section 3.3.1.2.
- ³ Please refer to Section 3.3.1.1.
- ⁴ Word final vowels tend to be longer than the same phoneme elsewhere. Vowels are relatively shorter in long words than they are in short words.
- ⁵ In phonemic transcription in this paper the symbol ' is used for primary stress. In publications primary stressed syllables will be marked.
- ⁶ In phonemic transcription in this paper the symbol ` is used for non-stress. In publications non-stressed syllables will be unmarked.
- ⁷ Syllable divisions (indicated by a dot on the line) occur after every vocoid except those vocoids that are followed by the final consonant of the word or by a CC cluster. In the case of a vocoid followed by a CC cluster, the syllable break occurs between the two consonants with the exception when the second member of the cluster is a semivowel and the first member of the cluster is not a voiceless glottal stop.