Mon-Khmer Studies VIII: 221-93

THE DISTRIBUTION OF THE SOUNDS OF BRUU

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1. *Introduction.*

The analysis presented in this paper is based on the Bruu language spoken at Ban Wœn Buek, Tambon Khong Chiam, Amphœ Khong Chiam, in Ubon Rachathani province. It is a Mon-Khmer language of the Katuic branch.

From the phonological point of view, Ban Wœn Buek Bruu is not the same dialect as the one spoken in Vietnam which was studied by Miller.[1] The dialect in question here was discovered in November 1975 by Mr Jerry W. Gainey while he was working under the auspices of the Indigenous Languages of Thailand Research Project (ILTRP), Central Institute of English Language, Office of State Universities. Gainey carried out a preliminary study of Bruu phonetics. Later on Mr See Puengpa, a native-speaker of Bruu, was brought to Bangkok to work on the Bruu-Thai-English dictionary project. A new analysis of Bruu phonetics and phonology was made and an orthography was invented by the staff of ILTRP. The informant was trained to write his own language under the supervision of Mrs Woranoot Pantupong. However, the conclusions relating to Bruu phonetics and phonology appearing in this paper and in the forthcoming Bruu dictionary are my responsibility.

Concerning the history of the Bruu at Ban Wœn Buek, Mr Sim Puengdong, Mr See's grandfather, has stated that they left Laos between seventy and eighty years ago. Bruu once lived at Ban

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[1]Miller (1967); Phillips and Miller (1976).

Nong Mek, located in Laos on a mountain called kɔh pùmt or 'Big Mountain' in Bruu and phuu kaaŋ hɯən 'Mountain in the Middle of Houses' in the Northeastern Thai (or Lao) dialects. Later they came to settle in Ban Wœn Khan, only to move again to Huay Ben. This time they realized that they no longer had the kind of freedom they used to have when they lived on the mountain: they had to pay taxes or work hard for the French, who ruled Laos. They therefore decided to leave Laos and move to Ban Wœn Buek, located within the boundaries of Thailand. They did not live there happily for very long, however. Because of religious differences they split into two groups. One which had adopted Buddhism stayed on in Ban Wœn Buek while the other, which still believed in spirits, moved on to Ban Hin Khok. They were subsequently reunited by the Royal Thai Government's ordering the latter group to move back to Ban Wœn Buek.

2. *Syllables.*

Bruu syllables may be divided into two types, namely *(a)* the presyllable or minor syllable and *(b)* the main syllable or major syllable.

The structure of presyllables is either N or CV(C), of which N must be one of the syllabic nasals m̩ n̩ ɲ̩ ŋ̩.

Main syllables, of the structure C(C)V(C) or C(C)V̀(C), always receive stress.

The majority of words in Ban Wœn Buek Bruu are either monosyllabic (main syllable) or disyllabic (presyllable + main syllable). Examples:

Monosyllabic:

rɒʔ '(*of a roof*) leaky'.

ʔuujh 'fire'

sil 'to thrust under or into'

kìap 'corpse'

nʌ̀w 'who'.

Disyllabic:

ra'pàŋ 'swamp'

ʔa'kaa 'fish'

sa'wiir 'dizzy'

kan'tɔɔjʔ 'kind of termite'

n'trèe 'pestle (*for pounding rice*)'.

3. *Register system.*

The register contrast in Bruu is between *normal* (sometimes slightly tense) voice quality and *breathy* voice quality.

Normal syllables can have any initial consonant. Breathy syllables can have only initial p-, pr-, pl-, t-, tr-, c-, k-, kr-, kl-, m-, n-, ɲ-, ŋ-, w-, r-, l- and j-. In other words, ph-, b-, th-, thr-, d-, s-, kh-, ʔ- and h- never occur in breathy syllables.[2]

It is interesting to note that Ban Wœn Buek Bruu has developed a contrast between *non-nasalized* (or slightly nasalized) and *nasalized* (or heavily nasalized) voice quality instead of nonbreathy vs. breathy voice quality in syllables beginning with glottal consonants, i.e. ʔ- and h-. The informant seems to equate nasalization with breathiness or non-normality.

On the basis of voice-quality contrast there are hence three types of syllables in Bruu: normal, breathy, and nasalized. Examples:

Normal:

naʔ '*clf. for people*'

pɔk 'to perch'

cɛɛm 'bird'

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[2]Except hìi 'kind of bamboo container', pharhɒʔ-pharhìi 'preserved fish (*elaborate expression*)', and hòoh 'exclamation of surprise'.

ʔɯh 'very heavy'

(ku)ʔɛɛl 'to spit out (*food*)'

hɒɒŋ 'high-frequency sound'

huat 'steamer made of bamboo'

Breathy:

nà̰ʔ 'like, alike'

pɔ̰̀k 'kind of disease'

cɛ̰̀ɛm 'to be loaded almost to the point of sinking'.

Nasalized:

mɯ̃h 'Here it is!'

ʔɛ̃ɛl 'to be interested in the opposite sex'

hɒ̃ɒŋ 'wasp'

hũat 'to pour on top'.

Pairs of words differing only in register have the same pitch, whether uttered in isolation or in connected speech. In breathy syllables certain short vowels (e.g., ɛ, a, ʌ) as well as the long low vowels aa and ɒɒ have onglides, while the height of certain long vowels (e.g., ɤɤ, oo) is raised. Examples:

lɛ̀h [lʲɛ̤h] 'chasm'

là̰t [lʲa̤tˀ] 'to chase'

nlʌ̀ʔ [n̩lᵊʌ̤ʔ] 'to be boiling'

lɤ̀ɤk [lɤ̤ɤ˧kˀ] 'to pull down'

lo̰on [lo̤o˧tn] 'to look'

ŋɔ̀ɔn [ŋᵊɒ̤ɒtn] 'coconut grater'

4. *Consonant system.*

The Bruu consonant system consists of twenty consonants that can occur syllable-initially and twelve that can occur finally.

Every syllable must begin with a consonant — except the syllabic nasals, which function as syllables by themselves.

Not more than two consonants are permitted in the initial position. Only p-, b-, t-, th- and k- can be the first element in consonant clusters, while the second element must be r or l. In final position only four clusters are allowed: -wʔ, -wh, -jʔ, and -jh. To recapitulate,

initial consonants

p-	t-	c-	k-	ʔ-
ph-	th-	-	kh-	
b-	d-	-	-	
m-	n-	ɲ-	ŋ-	
	s-			h-
w-	r-	j-		
	l-			

final consonants

-p	-t	-k	-ʔ
-m	-n	-ŋ	
-w	-r	-j	
	-l		

consonant clusters

initial			final	
pr-	tr-	kr-	-wʔ	-jʔ
pl-	thr-	kl-	-wh	-jh
br-				
bl-				

The following are the phonetic exponents of Bruu consonants. For the distribution of each consonant see the Appendix.

p : [p-] e.g., pàʔ 'to wear over the shoulder'
[-p̚] e.g., pap 'to fine'
[pɾ-] e.g., praʔ 'money; silver'

	[pl-]	e.g., plah 'to break'.
ph:	[pʰ-]	e.g., phaʔ 'to splash'.
b:	[b-]	e.g., baʔ 'to make a vow (*to a spirit*)'
	[br-]	e.g., braʔ 'sound of a tree breaking'
	[bl-]	e.g., sumblan 'cast net'.
m:	[m-]	e.g., maʔ 'Water, please (*children's expression*)'
	[-pm]	e.g., pràm 'to crack'.
w:	[v/ʋ-]	e.g., wàʔ 'to borrow (*food*)'
	[-w]	e.g., kapaw 'sack'
	[-wʔ]	e.g., pʌwʔ 'kind of bird'
	[-wh]	e.g., bʌwh 'to burn'.
t:	[t-]	e.g., taʔ 'to make, do'
	[-t̚]	e.g., pat 'to extinguish'
	[tɾ-]	e.g., ntraʔ 'jungle'.
th:	[tʰ-]	e.g., thaʔ 'frying pan'
	[tʰɹ̥-]	e.g., thraʔ-thraaj 'to be friable'.
d:	[d-]	e.g., daʔ 'to get stuck'.
n:	[n-]	e.g., naʔ '*clf. for people*'
	[-tn]	e.g., pan 'to shoot'.
s:	[s̠-]	e.g., saʔ 'to tattoo'.
r:	[r/ɾ-]	e.g., ràh 'bitter melon'
	[-r]	e.g., par 'to fly'.
l:	[l-]	e.g., làʔ 'to neglect'
	[-l]	e.g., pal 'splinter'.
c:	[tɕ-]	e.g., caʔ 'body'.

ɲ: [ɲ-] e.g., ɲaʔ 'to split (*only at top*)'.

j: [j-] e.g., jaʔ 'to commit suicide'
[-j] e.g., paj 'three'
[-jʔ] e.g., pajʔ 'to make a hole'
[-jh] e.g., rapajh 'to slash'.

k: [k-] e.g., kaʔ 'to estimate'
[-kˀ] e.g., pàk 'layer'
[kr-] e.g., kràk '(*of leaves*) to be old'
[kl-] e.g., klah 'to cut each bunch of bananas off'.

kh: [kʰ-] e.g., khap 'to sing (*folk songs*)'.

ŋ: [ŋ-] e.g., ŋaʔ '(*of buffaloes*) to call loudly'
[-kŋ] e.g., paŋ 'sharp edge of split bamboo'.

ʔ: [ʔ-] e.g., ʔàʔ 'to press together (*as of fat legs*)'
[-ʔ] e.g., pàʔ 'to wear over the shoulder'.

h: [h-] e.g., haʔ '(*of rope, string*) to rub against'
[ɦ-] e.g., hìi 'kind of bamboo container'
[h̃-] e.g., hɛ̃ɛ 'Stop!'
[-h] e.g., pah 'to split open (*e.g., coconuts*)'.

On the basis of the distribution of sounds given in the Appendix, the frequency of each Bruu consonant is as follows:

initial consonants

t-	7.71%
l-	7.71%
p-	7.64%
k-	6.69%
c-	5.91%
r-	4.96%
h-	4.79%
m-	4.45%
n-	4.35%
s-	4.25%

ʔ-	3.80%
j-	3.80%
b-	3.77%
d-	3.50%
ɲ-	3.33%
w-	3.23%
ŋ-	2.51%
ph-	2.48%
tr-	2.41%
kh-	2.24%
pr-	2.17%
th-	1.88%
kl-	1.70%
kr-	1.56%
pl-	1.40%
bl-	0.68%
br-	0.54%
thr-	0.54%

final consonants

-ŋ	11.93%
-ʔ	11.02%
-t	9.25%
-n	8.61%
-Ø	8.54%
-h	6.78%
-j	6.47%
-p	6.37%
-m	6.14%
-l	4.75%
-k	4.68%
-jʔ	4.37%
-r	3.80%
-w	3.70%
-jh	2.64%
-wʔ	0.54%
-wh	0.41%

5. *Vowel system.*

Like a number of other Mon-Khmer languages, Ban Wœn Buek Bruu contains a high incidence of phonological vowel nuclei. Its vowel system consists of eleven basic vowels:

	front		*back*	
close:	i		ɯ	u
half-close:	e		ɤ	o
half-open:	ɛ		ʌ	ɔ
open:		a ɒ		

There are three sets of vowels in Bruu: *normal*, *breathy*, and *nasalized*. Vowel length and nasalization are phonologically significant. The half-close vowels (e ɤ o) of both registers rarely occur. Nasalized vowels occur only after the glottal initial consonants.

Fifty-six monophthongs and twelve diphthongs have been postulated for Bruu. These may be arranged systematically as follows:

monophthongs

short

normal			*breathy*			*nasalized*		
i	ɯ	u	ì	ɯ̀	ù	–	ɯ̃	ũ
e	ɤ	o	è	ɤ̀	ò	–	–	–
ɛ	ʌ	ɔ	ɛ̀	ʌ̀	ɔ̀	ɛ̃	–	ɔ̃
a	ɒ		à	ɒ̀		ã	ɒ̃	

long

normal			*breathy*			*nasalized*		
ii	ɯɯ	uu	ìi	ɯ̀ɯ	ùu	ĩi	–	ũu
ee	ɤɤ	oo	èe	ɤ̀ɤ	òo	–	–	–
ɛɛ	ʌʌ	ɔɔ	ɛ̀ɛ	–	ɔ̀ɔ	ɛ̃ɛ	ʌ̃ʌ	ɔ̃ɔ
aa	ɒɒ		àa	ɒ̀ɒ		ãa	ɒ̃ɒ	

diphthongs

normal	*breathy*	*nasalized*
iə	ìə	-
ia	ìa	-
ɯə	ɯ̀ə	-
uə	ùə	ũə
ua	ùa	ũa

The following are the phonetic exponents of the vowels with examples of each. The details of the distribution of each vowel are given in the Appendix.

i : [i] e.g., tamin 'too close to the rim'
ì : [i̤] e.g., kumìn 'moving with difficulty'
e : [eᵀ] e.g., pheŋ-phew 'to limp'
è : [e̤ˡ] e.g., trèh 'fingernails'
ɛ : [ɛᵀ] e.g., sulɛh 'to come off the hand'
ɛ̀ : [ʲɛ̤ˡ] e.g., lɛ̀h 'cliff'
ɛ̃ : [ɛ̃ᵀ] e.g., hɛ̃ʔ 'to come close (*to shore or mountain*)'
a : [ɐ] e.g., talah '*clf. for bunches of bananas*'
à : [ʲɐ̤] e.g., (ʔeet) là̤h 'to take back'
ã : [ɐ̃] e.g., hãt 'to pick up a bad habit'
ɯ : [ɯ⁻ˡ] e.g., tɯp 'to be thick (*e.g., of cloth*)'
ɯ̀ : [ɯ̤⁻ˡ] e.g., tɯ̀p 'to bury'
ɯ̃ : [ɯ̃⁻ˡ] e.g., ʔɯ̃h 'Here it is!'
ɤ : [ɤ⁻ˡ] e.g., sɤʔ 'to be wasteful'
ɤ̀ : [ɤ̤⁻ˡ] e.g., mɤ̀ʔ 'to carry (*e.g., baby*) on shoulder'
ʌ : [ʌ⁻ˡ] e.g., palʌʔ 'to turn (*something*) over'
ʌ̀ : [ʲʌ̤⁻ˡ] e.g., nlʌ̀ʔ 'to be boiling'
u : [u] e.g., luʔ 'to be torn (*e.g., fish net*)'
ù : [ṳ] e.g., lùʔ 'to mix'
ũ : [ũ] e.g., (maak) hũŋ 'papaya'
ɔ : [ɔ] e.g., nlɔʔ 'bamboo cylinder'

ɔ̀ : [ᵊɔ̤˩] e.g., ʔalɔ̀ʔ 'to make preserved meat'

ɔ̃ : [ɔ̃] e.g., hɔ̃n 'time (*clf.*)'

ɒ : [ɒ˥˧] e.g., salɒh 'humps at both ends of the bamboo pole used for carrying loads on the shoulder'

ɒ̀ : [ᵊɒ̤˥˧] e.g., lɒ̀h 'to go out'

ɒ̃ : [ɒ̃] e.g., hɒ̃ŋ 'hole'

ii : [iː] e.g., saliiŋ 'to be bruised'

ìi : [i̤ː] e.g., ʔalìiŋ 'to pour off slowly and carefully'

ĩi : [ĩː] e.g., mahĩiw 'to be able to cry easily'

ee : [eː˩˧] e.g., tooŋ-leeŋ 'dangling'

èe : [e̤ː] e.g., lèeŋ 'to be hard'

ɛɛ : [ɛː˥˩] e.g., lɛɛŋ 'looking like a line (*the way cloth is torn*)'

ɛ̀ɛ : [˩ɛ̤ː] e.g., lɛ̀ɛŋ 'to be hot and dry'

ɛ̃ɛ : [ɛ̃ː] e.g., hɛ̃ɛk 'to cut open with sharp instrument'

aa : [aː˥˨] e.g., kalaaŋ 'hawk'

àa : [˩a̤ː˥˨] e.g., phaŋ-làaŋ 'iron bell (*at neck of cattle*)'

ãa : [ãː˥˨] e.g., hãaj 'to pour (*e.g., water into kettle*)'

ɯɯ : [ɯː˧˥] e.g., kɯɯl 'to prop up'

ɯ̀ɯ : [ɯ̤ː˧˥] e.g., ʔakɯ̀ɯl 'dandruff'

ɤɤ : [ɤː˧˥] e.g., tɤɤn 'to announce'

ɤ̀ɤ : [ɤ̤ː˩˧] e.g., katɤ̀ɤn 'not enough'

ʌʌ : [ʌː] e.g., tʌʌŋ-lʌʌŋ 'walking-stick'

ʌ̃ʌ : [ʌ̃ː] e.g., pahʌ̃ʌm 'breast, chest'

uu : [uː] e.g., luup 'to leep over'

ùu : [ṳː] e.g., lùup 'to pat fondly'

ũu : [ũː] e.g., hũhũun 'to smell again and again'

oo : [oː] e.g., tooŋ-ʔalooŋ 'kind of wild plant'

òo : [o̤ː˩˧] e.g., lòoŋ 'coffin'

ɔɔ : [ɔː] e.g., palɔɔŋ 'to boast'

ɔ̀ɔ : [ɔ̤ː˩˧] e.g., pɔ̀ɔp 'cry of squirrel'

ɔ̃ɔ : [ɔ̃ː] e.g., ʔɔ̃ɔn 'to give'

ɒɒ : [ɒː˥˧] e.g., ramɒɒn 'niece, nephew; grandchild'

ɒ̀ɒ : [ᵊɒ̤ː˥˧] e.g., mɒ̀ɒn 'coconut fiber wadding (*for musket*)'

õɒ :	[õː˥˩]	e.g., hõɒ 'please; too'
iə :	[i·ə̆]	e.g., kaliət 'to press (*with elbow, knee or heel*)'
ìə :	[i̤·ə̆]	e.g., lìət 'to lick'
ia :	[ĭa·]	e.g., paliaŋ 'to turn (*something*) up'
ìa :	[ĭa̤·]	e.g., lìaŋ '*clf. for dry fields*'
ɯə :	[ɯ·ə̆]	e.g., lɯəm 'overriding slightly at one end or side'
ɯ̀ə :	[ɯ̤·ə̆]	e.g., lɯ̀əm 'to make oneself invisible'
uə :	[u·ə̆]	e.g., paluəj 'to exhale (*tobacco smoke*) slowly'
ùə :	[ṳ·ə̆]	e.g., salùəj 'kind of squirrel'
ũə :	[ũ·ə̆]	e.g., ʔahũər 'nasal mucus'
ua :	[ŭa·]	e.g., luaj 'to snatch'
ùa :	[ŭa̤·]	e.g., lùaj 'to be lucky'
ũa :	[ũa·]	e.g., hũat 'to hit (*e.g., with stick*)'

The following are the percentages of occurrence of the sixty-eight vowels described above:

a	7.70%	ù	1.73%
aa	6.34%	ɯ̀	1.66%
ɒɒ	4.78%	ɯɯ	1.66%
à	3.87%	ùu	1.63%
ɛɛ	3.76%	ì	1.60%
ìa	3.56%	ɤɤ	1.46%
ùa	3.22%	ùə	1.43%
ɔ	3.09%	ìi	1.39%
ii	3.05%	ɤ̀ɤ	1.39%
ɔɔ	2.95%	ɒ̀	1.09%
uu	2.75%	ɯ̀ɯ	1.09%
u	2.55%	ee	0.95%
ia	2.55%	ìə	0.95%
i	2.51%	ɯ	0.92%
oo	2.24%	ɛ̀	0.82%
ɛ	2.14%	ɯə	0.78%
ʌ	2.04%	ɛ̀ɛ	0.73%
ua	2.04%	ɒ̀ɒ	0.73%
èe	2.00%	ʌ̀	0.61%
òo	2.00%	àa	0.58%
ɒ	1.97%	ɯ̀ə	0.44%
ʌʌ	1.97%	ɛ̃ɛ	0.34%
uə	1.93%	ã	0.31%
ɔ̀	1.76%	ãa	0.27%
iə	1.76%	ɒ̀ɒ	0.27%

ɔ̃	0.24%	ɔ̀	0.07%
ɤ	0.17%	ɤ̀	0.03%
ɛ̀	0.10%	ɔ̃	0.03%
ɯ̃	0.10%	ĩi	0.03%
ũ	0.10%	ʌ̃ʌ	0.03%
ũa	0.10%	ũu	0.03%
e	0.07%	ɔ̃ɔ	0.03%
ɛ̃	0.07%	ɔ̀ɔ	0.03%
o	0.07%	ũə	0.03%

6. *Miscellaneous.*

Several phonetic features which do not fit the basic phonological pattern of Bruu have been observed, notably *(a)* tonal contrast in certain pairs of words and *(b)* peculiar consonant clusters in final position. Some of these are presumably innovations due to borrowing from Northeastern Thai (or Lao) dialects. Others should perhaps be treated under what has been proposed by Diffloth as "expressive phonology".[3] Examples:

Ex. 1: ʔɔ̃ɔʔ ˩˧ 'to break';

ʔɔ̃ɔʔ ˩˧˥ 'offering to teacher of mɔ́ɔ lam singers'.

Ex. 2: hɔ̃ɔŋ ˩˧ 'wasp';

hɔɔŋ ˩˧˥ 'high-frequency sound (*e.g., of talking or laughter*)'.

Ex. 3: tarùɯp nʌj ˩˧˩˧ 'tomorrow';

tarùɯp nʌj ˩˧˩˥ 'this morning'.

Ex. 4: kusaw tɯɯl-hɯɯl ˩˧˩˧˩˧ 'red, like the end of penis';

kusaw tɯɯlʔ-hɯɯlʔ ˩˧˥˧˥ 'red, like the inside of an unhealed wound'.

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[3]Diffloth (1979).

Ex. 5: tɯɯl-plɯɯl ├ ├ '*(of the end of the circumcised penis)* sticking out all the time';

tɯ̀ɯl?-tɯ̀ɯl? ├ˆ ├ˆ '*sound of a big drum*'.

Ex. 6: haaw? [ha:u? ├] 'to be in high mettle (*e.g., cattle*)';

?ɛ̃ɛw? [?ɛ̃:v? ├ˆ] 'imitation of cry of a small green frog (*to attract hawk*)'.

7. *Text: The North Wind and the Sun.*[4]

"The North Wind and the Sun were arguing one day about which of them was stronger, when a man came along. They agreed that the one who could make the man take his shirt off would be considered stronger than the other one. Then the North Wind blew as hard as he could, but the harder he blew the tighter the man wrapped his shirt around him and at last the North Wind gave up trying. Then the Sun began to shine as hot as possible and right away the man took his shirt off, and so the North Wind had to admit that the Sun was stronger than he was."

| ˆ ku | jaal | pʌʌŋ kap | màt ma | naaŋ |

| mùj ta | ŋaj | ˆ ku | jaal | pʌʌŋ kap | màt ma | naaŋ

| lòon | hɤɤm | kuaj ta | jah | tʌ̀? | ˆ | wàaw ra | ?aaj kap

| màt ma | naaŋ | ˆ | paaj | ?ʌwh | ˆ | khan ?a | lɛ̀? | ta?

| ?ɔ̃ɔn ?a | jah ?a | cùajh ?a | kìi | ˆ | n | luət | lɔ̀h tɛɛ

| ca? | ˆ kìi | paaj nʌ̀w kìi | keeŋ ra | wàaw ra | ?aaj | cɤ̀ɤ

| ˆ ku | jaal ka | paaj | ˆ | màh kʌw | ɲòoŋ | ˆ | wàaw | sɔt

[4]The vertical line (|) in the Bruu text marks a following stressed syllable. Hence |.....| are the boundaries of the rythmic unit or foot. The lowered circumflex (ˆ) represents phonological pause or "silent stress", which forms an integral part of the rhythmic patterns of Bruu.

pha | lajh | ʌ ku | jaal lɤ̀ɤj | phat | ʌ | phat | rèeŋ tam | rèeŋ | ʌ ku | jaal | phat | rèeŋ ma | lɛ̀ʔ | ʌ ʔa | cùajh ʔa | kìi hɛ̃ɛŋ | dʌwʔ | ʌ ʔa | jɒ̀h | mùut kap | caʔ | ʌ ku | jaal ka | lɤ̀ɤj | paaj | ʌ | ʔawh | ʌ ʔa | tɔɔ | ʔan | ʌ | màt ma | naaŋ | sɒŋ ku | jaal | paaj ŋ | kìʔ | phuaʔ ku | hɛɛ cɔn ku | bɔʔ ʔa | càr ʔa | cùajh ʔa | kìi | pɒʔ | phuaʔ | rɛ̀ŋ | ʌ kìi | wìa ku | taw | plʌʌ | wìa pa | hoor | ʌ kìi | lɤ̀ɤj | tuət ʔa | jɒ̀h | ʌ | nʌ̀w ku | jaal | hɤɤm ʔa | cùajh ʔa | kìi | tuət ʔa | jɒ̀h | ʌ lɤ̀ɤj | ʔɔ̃ɔn | màt ma | naaŋ | keeŋ | lùmm ʔa | tɔɔ | ʌ |

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APPENDIX

p-																											
i	ì	e	è	ɛ	ɛ̀	a	à	ɯ	ɯ̀	ɤ	ɤ̀	ʌ	ʌ̀	u	ù	o	ò	ɔ	ɔ̀	ɒ	ɒ̀	iə	ìə	ia	ìa	wə	ɯ̀ə	
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