Brao-Krung phonology

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1. Introduction

This study is based on the Brao speech variety known as Krung spoken in the province of Ratanakiri in northeastern Cambodia. Members of this speech group sometimes refer to themselves as Krung-Brao or Brao-Krung. Three prominent varieties of Brao within Cambodia are Krung itself, Kavet (sometimes written Kravet), and a type often simply called Brao, which is spoken in most villages of Taveng District in Ratanakiri. The generic form Brao thus designates several very closely related speech varieties.1

Classified by Thomas and Headley (1970:399) as a member of the Western Bahnaric group of Mon-Khmer, Brao was first documented under the ethnonym Kha Palau by Phraya Prachakij, a Thai administrator-scholar, during his travels to southern Laos and northeastern Cambodia between 1891 and 1893 (Phraya, 1919; 1995). Further identified with the Brao are the Lave, who live to the south and east of the Se Kong river where Attopeu Province in Southern Laos shares a border with Cambodia (Lebar, Hickey, and Musgrave, 1964; Matras and Ferlus, 1971). Again, more than one hundred years ago Phraya (1995:56) had located the Kha Rawe (i.e. Lave) in precisely the same locale as noted by modern researchers.

Krun, the dialect described here, is spoken in the region north, west and south of Ban Lung, the administrative and commercial center of Ratanakiri. Kavet speakers are found (see map in the Appendix) northwest of Ban Lung in Voeun Sai District of Ratanakiri and also in the northern part of Stung Treng Province which lies to the west of Ratanakiri. Both of these provinces border Laos on the north. The Brao of Taveng District have villages located along the Se San River which lies upstream and to the east of Voeun Sai District. Krung, Kavet and Brao of Taveng are mutually intelligible dialects.

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1 Earlier study of the language with Krung speakers living elsewhere has been followed by two years residence in the Krung speaking area of Ratanakiri Province. Special thanks for suggestions through the paper to David Thomas and Kenneth Gregerson.
2. Words and syllables

The phonological word in Krung exhibits the familiar Mon-Khmer sesquisyllabic (Matisoff, 1989) structure, in which a strongly stressed Main Syllable (Š) is optionally preceded by a weakly stressed Presyllable (s-), that is:

Phonological Word

(Presyllable: Š) + Main Syllable: Š

2.1 Presyllables

Constructionally, the presyllable in Krung may be represented as:

C¥ (N/R)-

That is, the presyllable is always initiated by a consonant onset (C), including glottal stop [ʔ] and consonant clusters, followed by a short syllabic nucleus as rhyme, which can include V, VN, or syllabic reductions of V, VN or VR, as detailed below. The formula above generates the following types of Krung presyllables:

Open presyllables generally take the following form:

C¥ --> CŠ

?ơnam 'gift' ?ơreek 'carry (things) suspended from both ends of a pole'
?ơniʔ 'age' bơơn 'cocoons'
kơtaar 'board' dơṃaj 'river'
gơmoh 'length' hơraaw 'to howl, cry out'
ơniʔ 'sickness' pơđeh 'ground, land'
pơʔiŋ 'to cause to stop' tơhiʔ 'bad, evil'
tơkien 'lamp' wơwak 'to exchange'

A consonant onset /χ/ becomes syllabic [ç] except when followed by another identical consonant /χ/ which is the initial of the main syllable, e.g. çơơt [çơơt] 'to tremble', çơơt [çơơt] in bơơt çơơt çơơt 'to wear a long necklace', çơơt [çơơt] 'to scratch the ground':

C¥ --> Ç

çơơtien 'food stuffs'
çơơtuj 'to be frayed'
çơơtah 'to pull with a jerk'
çơơtđoo in ruơg çơơtđoo 'big tuskless elephant'
çơơtơơ 'very thin (said of a person)'
çơơtơơ 'small type of mushroom'
çbah
çdaa tŋaan-jrŋ
çgaaw
çgir
çjiir in bak çɔɔɔ çjiir
çkuup
çlaa
çleew
çlik
çmooŋ
çmsii dii
çŋɔɔɔ in kuu çŋɔɔɔ
çŋɔŋ
çniw
çnii
çįį
çpaak
cpaan in nih taa çpaan
çpee{k
çpiŋ
çpoom
çpiŋ in ?ja? çpiŋ
çtor
c tik
çtiŋ in brii ?ja? çtiŋ
çwien ?hɔɔ
çwiw raŋŋ
çŋɔɔɔ in muh mat çŋɔɔɔ

‘to be tired out’
‘to wash dishes’
‘to know by acquaintance’
‘drum’
‘to wear a long necklace’
‘to turn (bowl shaped object) upside down’
‘leaf’
‘to drift’
‘thousand’
‘dusty faced’
‘to be equal to’
‘to be angry (said of a small person)’
‘long reed straw (for drinking from beer jar)’
‘leftover things’
‘thing’
‘a type of fruit’
‘uninhabited beehive’
‘not yet finished’
‘leather’
‘coil spring’
‘to lack night vision’
‘to be proportionate in size’
‘sound of walking on a wooden floor’
‘lake’
‘dense (of forest)’
‘bamboo shavings’
‘to turn ones head and look’
‘a certain facial type’

Nasally closed presyllables (N) with laryngeal and glottal onsets (H, ?) reduce to syllabic nasal syllables, while nasal final presyllables with all other consonant onsets vary between a syllabic nasal and a fuller short shwa-like vowel plus nasal coda, thus:

HŋN --> HN = ǸN (i.e., voiceless nasal + syllabic voiced nasal)

hm̥baan
hm̥bɔɔk
hm̥piet
hm̥puɔt
hn̥dɔɔm
hn̥kɔɔŋ
hn̥kip
hn̥naj dìi
hn̥nuiŋ in çłaa hn̥nuiŋ
hn̥taak toon
hn̥pɔɔt

‘cloth’
‘skin’
‘tongue’
‘to sell’
‘new’
‘type of ant (red, medium-sized)’
‘sleep while sitting’
‘as for’
‘fallen leaves’
‘peanut’
‘to dry by dripping through strainer’
?ṉ → ?ŋ
?mbraa ‘two people (used for 3rd person reference)’
?mbi? ‘late afternoon’
?mkpe‘k ‘to herd’
?mpielp ‘example’
?ŋʔaan ‘infant’
?nduu ‘shortly ago’
?ntoor ‘(a) top (for spinning)’
?ntun ‘afterwards’
?ntook ‘turtle’
?ŋça? ‘to regret’
?ŋcāaj ‘fishing pole and line’
?ŋcicliic ‘(waves) to break’
?ŋjow in dok ?ŋjow ‘to walk about for pleasure’

Čṉ → Čŋ /Čn
ćnduu [ćnduu] / [ćōnduu] ‘mountain’
ćṇhien [ćṇhien] / [ćōṇhien] ‘to listen’
kmbi’ek [kmbi’ek] / [kōmbi’ek] ‘to carry on hip’
kn’duul [kn’duul] / [kōn’duul] ‘stupid’
ŋŋgap [ŋŋgap] / [ŋŋŋgap] ‘to order, to command’
ŋṇhien [ŋṇhien] / [ŋŋṇhien] ‘to teach’
ŋntroŋ [ŋntroŋ] / [ŋŋntroŋ] ‘to straighten’
rnçaal [rnçaal] / [rōnçaal] ‘rice storage basket’

Presyllables with an R coda all reduce to the syllabic [ŋ], that is:

Čvr → Čr
?rjaac ‘to look alike’
?rju? ‘to be bent over’
brbbaw ‘pumpkin’
crlnaap ‘wing’
drnnak ‘journey’
hrgi’jaam ‘blacksmith’
hrmnent ‘yellow’
krpi?’ ‘water buffalo’
prcön ‘to hurry (intrans.)’
pr’dok ‘inheritance’
prkeék ‘to object’
prmēẹŋ ‘(animals) to fight’
(pr)nuul? puuer ‘food (cooked)’
prŋak ‘to try hard’
trcāak ‘to tear (trans.)’

?rjaaw ‘to run’
?rliet ‘castrated animal’
crḥōow ‘young unmarried man’
čŋjuuk ‘to snore’
čŋoŋj ‘shelf’
hrjoöl ‘echo’
krli̯p ‘lid’
ʃrleʔ ʃrluʔ? ‘carelessly’
prdiiw ‘to compare’
prdiŋ ‘width’
prlaap ‘to destroy’
trnɔaw ‘to answer’
trtūuŋ tuuŋ ‘brain’

In terms of Thomas’ 1992 sesquisyllabic structure typology, Krung appears, despite the phonetic predictability of some transitions, as noted above, fundamentally to constitute a type (ii) language, maintaining as it does contrast between vocalic
presyllables (Cɔ-L) in sesquisyllabic words vs. consonant clusters with liquids (CL) in monosyllabic forms, as shown below (see further 2.2.2):

<table>
<thead>
<tr>
<th>Sesquisyllables</th>
<th>Monosyllables</th>
</tr>
</thead>
<tbody>
<tr>
<td>bäuu ‘to play’</td>
<td>bluu ‘thigh’</td>
</tr>
<tr>
<td>gõliim ‘very black’</td>
<td>gliim ‘to be cold’</td>
</tr>
<tr>
<td>kõlam ‘dark’</td>
<td>kõam ‘to sink, hundred’</td>
</tr>
<tr>
<td>kõlanj ‘large recipient to measure unhusked rice’</td>
<td>klañ ‘spirit power’</td>
</tr>
<tr>
<td>kõloñ ‘type of small bird’</td>
<td>kløñ ‘deep pool in river’</td>
</tr>
<tr>
<td>põleep ‘to flood’</td>
<td>plah ‘to break’</td>
</tr>
</tbody>
</table>

In some cases these contrastive presyllable vs. initial cluster sets arelexically or grammatically motivated, e.g.:

| kõloñ ‘male’ | klañ ‘husband’ |
| kõliih ‘to drop’ | kliiñ ‘to fall’ |
| gõlh ‘window opening’ | gloñ ‘doorway’ |

Though not as common as C+L contrasts, forms like the following with C+R also distinguish presyllables from clusters, e.g.:

| çraaw [çraaw] | ‘the popping sound of fast burning forest’ |
| çruk [çruk] | ‘of running swiftly into the woods’ |
| in trjaaw çruk hi? brii | ‘village’ |

It is probably worth noting that this limited set results from contrasts created with oppositions involving adverb-like ideophones (in the sesquisyllabic column).

2.2 Main syllables

2.2.1 Syllable patterns

Main syllables in sesquisyllabic words as well as monosyllabic forms in general take the following shape or some subset thereof:

C(L/N)V(C)

Consonants (C) of an unrestricted set (see Figure 1) occur in the onset of the Main Syllable and a restricted list of C co-occurs in clusters with an optional liquid or nasal (L/N), followed by a rhyme with a strongly stressed vocalic peak of syllabic (V) and optionally closed by a restricted group (see Figure 2) of final consonants (C).2

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2Word final consonant clusters occur rarely. Those that have been found have a glottal stop preceding or following another consonant and often involve ideophone forms:

Main Syllables in Krung are thus of the following types:

CV: Initial consonants of Figure 1 co-occur in open syllables with long vocalics, i.e. long vowels or diphthongs (see Figure 3 Vowels): laa 'to request, which, who', hoo third person singular pronoun, tso 'to extend', tii 'hand', wii 'a space of time, an amount of space', pio 'bait', luo 'a shovel', dso rie 'to move quickly (said of small thing)', cie 'sloping low roof over doorway and porch', tso 'small bowl for drinking & bathing'

CVC: Initial consonants co-occur in closed syllables with vocalics, i.e. short or long vowels or diphthongs, which are followed by a consonant from the set of syllable final consonants: con 'to eat rice', cuuh 'to pierce', dso 'to walk', taj 'to see', duuk 'boat', miir 'planting field', puor tit 'cooked sticky rice', ruot 'to buy', ciij 'to sit back in a relaxed manner', wien 'wall of city, etc.', fence', jip 'exceedingly, excessively'; juij 'to help', ?api 'fire', wan khip 'type of large earthenware jar with small mouth'

CCV: Initial consonant clusters (see 2.2.2 Consonant Clusters) co-occur in open syllables with long vocalics, i.e. long vowels or diphthongs: kree 'sky', klii 'tiger', brii 'forest', droo 'two-string violin', graa 'thin (said of a person)', klco 'husband', ji? ?brie 'to have a stinging painful spot', bruu 'pheasant', proo 'very short rice plant sprout'

CCVC: Initial consonant clusters also co-occur in closed syllables with vocalics, i.e. short or long vowels or diphthongs which are followed by a consonant from the set of final consonants: bluk 'tusk', jiru 'to butt', broj 'box trap with dropping door (for mice and rats)', praj 'to make (someone) do (something)', kloom 'to blow (with ones mouth)', cruk 'village', brooj 'immediately', broh 'to sow', jook 'to take shelter', crual 'chain, to have a convulsion', droor wien 'gate of fence or wall', glogo mat 'blind', grieq 'to make very short stroke marks', jraaw 'medicine'

2.2.2 Consonant clusters

Consonant clusters consist of a stop or affricate followed by /l/ or /r/. It is to be noted that /fl/, /dl/, and /yl/ are by their patterning unit phonemes. The following clusters have been found initially in monosyllabic words:

/fl/ phleen 'wall-eyed', phliow 'very smooth'
/l/ blah 'between, a certain time', qyn blooq 'fire', blooc 'freed, to escape, be past, be gone' bluk 'tusk'
/gl/ glos 'doorway', gliim 'to be cool', glaaaw 'to sharpen'
/k/ klii 'tiger', kloom 'to blow', klom 'to sink, hundred', klco 'husband', klak 'to peck', kloan 'liver', kloq 'to crush with mortar and pestle'

/fl/ doq? 'to fall having had ones feet slip out in front of one', raaq? in creev creip raaq? 'birds to be perched at same height'. hrkoy 'to be spread out evenly'. jiiq? 'with chest thrust out (said of a small person). poo ciiq? how 'his uncles'

/yl/ huoq? 'a sound of flying up', kee?q 'a sound of iron being struck'
plah ‘break’, play piir ‘fruit & flowers’, plooc ‘to hop’, plog ‘to jump’,
dik plaat ‘to jump up onto (porch, etc.), to come up into someone’s
house without being invited’

duuŋ ?briiŋ ‘to be extremely frightened’, ?briiiŋ ‘to be slightly
illuminated’, ?brook ‘sound of object breaking from being bent’, tarii
?bruŋ ‘to break loose simultaneously from something that binds’, ?broy
‘breaking through’

?prüu ‘completely ripe (all the fruit on a tree or plant)’, tih dəhuaw
?prüaw ‘extremely big’

brii ‘forest’, braaj ‘thread’, brah ‘to sow’, braak ‘peacock/ peahen’

čruk ‘village’, čruu puar ‘steam rice’, črah ‘pond’, črap raqet ‘quiet
(not speaking)’, čraa ‘to be thin (said of a person)’, čriŋ ‘the sound of a
sick person moaning’, čraaw ‘crossbow’

cruut ‘to harvest’, cruh ‘to dive, jump’, cruω ‘to predict, suppose’,
crięg ‘to sing’, creew ‘a woman’s close woman friend’

dreh ‘fast’, drook wieŋ ‘gate of fence or wall’, kuu droom ‘to stay and
wait’

grun goo ‘fever & chills’, gree ‘bed’, grięg ‘to make short stroke marks’

kuak ‘immediately’, krii ‘too heavy to lift’, krooj ‘barking deer’

juuw ‘high’, jraŋ ‘post, piling’, jru ‘deep’, peet jriw ‘to drink
leftover beer on the morrow’, jrięg ‘to be refracted into rainbow colors’,
?prü-jriew cəʔ?oŋ ‘flame reaches the rice steaming basket’

priiŋ ‘banana’, praat ‘morning’, pral haral ‘to be well (from
illness/injury)’, pręeg ‘to look after (children)’, piięg pruuŋ ‘(many
insects) to leave (from hole)’

trii ‘fish’, truω ‘hole’, traaj ‘to prune (a vine)’, trac ‘rear’, truu
‘true, correct’, tre ‘floor surface of split bamboo’, traw ‘six’, truuŋ
‘path, road’, trii ‘wife’, truω ‘to push’

3. Consonants

Krungh has twenty-nine consonantal phonemes as charted in Figure 1.

<table>
<thead>
<tr>
<th>Voiceless unaspirated obstruents</th>
<th>Labial</th>
<th>Dental-Alveolar</th>
<th>Palatal</th>
<th>Velar</th>
<th>Glottal</th>
</tr>
</thead>
<tbody>
<tr>
<td>p</td>
<td>t</td>
<td>c</td>
<td>k</td>
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<td>ph</td>
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<tr>
<td>Voiceless aspirated obstruents</td>
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<tr>
<td>b</td>
<td>d</td>
<td>?j</td>
<td>g</td>
<td></td>
<td></td>
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<tr>
<td>Glottalized obstruents</td>
<td>?b</td>
<td>?d</td>
<td>?j</td>
<td>?g</td>
<td></td>
</tr>
<tr>
<td>Plain nasals</td>
<td>m</td>
<td>n</td>
<td>n</td>
<td>nη</td>
<td></td>
</tr>
<tr>
<td>Preaspirated nasals</td>
<td>hm</td>
<td>hn</td>
<td>hŋ</td>
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<tr>
<td>Trill</td>
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<tr>
<td>Approximants</td>
<td>w</td>
<td>l</td>
<td>j</td>
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</tbody>
</table>

Figure 1. Krungh initial consonants
Fifteen of the consonants in Figure 1 also occur in word final position. These are shown in Figure 2.

<table>
<thead>
<tr>
<th>Labial</th>
<th>Dental-Alveolar</th>
<th>Palatal</th>
<th>Velar</th>
<th>Glottal</th>
</tr>
</thead>
<tbody>
<tr>
<td>p</td>
<td>t</td>
<td>c</td>
<td>k</td>
<td>?</td>
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<td>m</td>
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<td>n</td>
<td>n</td>
<td>n</td>
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<tr>
<td>w</td>
<td>l/r</td>
<td>c</td>
<td>h</td>
<td>j</td>
</tr>
</tbody>
</table>

Figure 2. Krung final consonants

3.1 Description of consonants

/p/  Voiceless unaspirated bilabial stop, with no audible release in syllable final position: puor ‘cooked rice’, hap ‘receive’, peer ‘to gore’, plaj ‘fruit’, puun or ‘pig fat’

/t/  Voiceless unaspirated dental stop, with no audible release in syllable final position: tøaa ‘to ask’, tit ‘to stick’ (to something), git ‘from’, pauer ‘star’, keet ‘to die’; it has an alveolar point of articulation in the cluster /tri/: tri ‘fish’

/c/  Voiceless unaspirated palatal affricate/stop; syllable initial, it is an affricate; in syllable final position, it is a stop with no audible release: caa ‘to eat (food other than rice)’, ceh ‘unhusked rice’, ci ‘trac tii ‘to come back’, phaa ‘sand’, juuc ‘wrong’, caw ‘grandchild’, ceem kur ‘dove’


/n/  Voiceless unaspirated glottal stop having no audible release in syllable final position: ?am ‘to give’, ?uu ‘older brother’, fa ‘grandparent’, re ‘to go’

/ph/  Voiceless aspirated bilabial stop, occurring only syllable initial: phur ‘rice’ (husked, uncooked), phaar ‘blood’, ph³aw ‘soul’, phuun yuu ‘relatives’, phe ‘full (no longer hungry)’

/th/  Voiceless aspirated dental stop, occurring only syllable initial: thun ‘season’, thaa ‘eight’, thag ‘strong’, thoot ‘fault, guilt’, thoor ‘to smell by sniffing (e.g. as a dog does)’

/ç/  Voiceless aspirated obstruent, varying from fricative to affricate and from palatal to alveolo-palatal in syllable initial position; it is a lenis unaspirated palatal fricative in syllable final position: çœj ‘five’; çruk ‘village’, çœj ‘tail’, piic ‘to leave, to exit’, ruc ‘elephant’

/kh/  Voiceless aspirated velar stop, occurring only syllable initial: khin ‘dare’, dii khow ‘because’, khaaj ‘moon’, khier ‘to burn (intrans., i.e. food)’, khow ‘pants, slacks’, khou ‘broken’

/h/  Voiceless laryngeal fricative: hap ‘to receive’, hit ‘tobacco’, coh ‘to burn (trans.).’, ceh boh ‘to salt’, pøeh ‘ground, soil’

/b/  Voiced unaspirated bilabial stop, occurring only syllable initial: bu ‘heart (non-physical), baar ‘two’, bønh ‘human’, bøhee ‘goat’, buor ‘mouth’, baak ‘to put out food (for animals), bat ‘grass’, bam ‘to hold (something) in the open mouth’, bij ‘to fall down’, bi ‘to be full (e.g. a container), bøh ‘unmarried young woman’, buut ‘maize’
Voiced unaspirated dental stop, occurring only syllable initial: dok ‘walk’, doóc ‘pointed’, doq ‘hot’, pokaj ‘to show’, duar ‘type of flute’; it has an alveolar point of articulation in the cluster /dr/ droo ‘two-stringed violin’, drook wien ‘gate of fence or wall’


Voiced unaspirated velar stop, occurring only syllable initial: gajiet ‘to itch’, gook ‘land’, grun göc ‘fever & chills’, cgaaw ‘know by acquaintance’, gliim ‘to be cool’, gaar ‘to herd’


Voiced preglottalized palatal stop: jaa ‘we’ (exclusive), jier ‘chicken’, jaa ‘good’, jooj ‘up ‘smoke’


Voiced alveolar nasal: nee ‘this, these, here’; naq ‘still, yet, be at’, noh ‘to know (information), to know how’, niw ‘monkey’, nin ‘up at’, naaj ‘Miss (term of address for young woman)’, hjan ‘sleep’, hmbaan ‘cloth’, ncoo ‘nephew/niece’


Voiced velar nasal: neh ‘cooking pot’, nuč ‘to turn one’s head’, patroŋ ‘make straight’, chr璜 ‘to snore’, raaj ‘to look at’

Bilabial preaspirated nasal: hmeh ‘toward’, hmọ? ‘to be sickened by’, hmooç ‘ant’

Alveolar preaspirated nasal: hnaam ‘house’, hcoo ‘3rd pers. sg. pron. (a variant of hco)’

Velar preaspirated nasal: hjan ‘to sleep’ (no other monosyllabic examples found)

Voiced alveolar trill: rien ‘to say’, ruaj ‘fly’, raaj ‘to look at’, baar ‘two’, cuar ‘to write’

Voiced labial-velar approximant: wiijn ‘to forget; wɔwak ‘to exchange’; waaw ‘to measure (liquids, rice, etc)’, traw ‘six’

Voiced palatal approximant: jii ‘we (dual, exclusive)’, ja? ‘grandparent’, kuaj ‘to carry on shoulder’, taj ‘to see’

4. Vowels

Brao Krung has nineteen vowel phonemes: eight short, eight long, and three long diphthongs, as shown in Figure 3.

<table>
<thead>
<tr>
<th>High</th>
<th>Plain Diphthong</th>
<th>Front</th>
<th>Central</th>
<th>Back</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>i ii</td>
<td>i ii</td>
<td>u uu</td>
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<tr>
<td>Mid</td>
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<td>i o</td>
<td>u o</td>
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<tr>
<td>Low</td>
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<td></td>
<td>a aa</td>
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</tbody>
</table>

*Figure 3. Krung vowels*

4.1 Description of vowels:

**Short Vowels:**

/i/  
High front unrounded vowel, varying between [i] and [i]: *jih ‘to ride’, *jit daak ‘to draw water’, *bih ‘snake’, *niw ‘monkey’, *jiq ‘to sew’, *tih ‘big’, *bic ‘to have’, *phe ‘tit ‘cooked sticky rice’, *jomiw ‘raw’

/e/  
Mid front unrounded vowel: *re ‘to go’, *bre ‘fast’, *me? ‘ja? ‘ancestors’, *peh ‘to pick’, *kaq ‘unripe’, *geh ‘hard’, *del ‘to taste with the tip of the tongue’, *blem *blem ‘watch a moving person from a hiding place’, *leh ‘to untie’, *jel ‘to cut (an object up to about 20 cms. across)’, *kjet pluuj ‘plug of drinking gourd’, *jen ‘to wear on the foot’, *kren ‘to confine’

/a/  

/i/  

/o/  
Mid central unrounded vowel: *ba? ‘carry (a child) in a cloth on back or chest’, *mbi? hnow ‘this coming afternoon’, *peh ‘seven’, *broles ‘to sow’, *kaq ‘to sprain’, *kaq ‘to self’, *pecaq ‘to complete, finish’, *takow ‘knee’, *caw ‘grandchild’, *hnow ‘tomorrow’, *waj ‘INTERJ. (of protest)’, *prabh ‘to praise’, *hnaq ?oan ‘a large number of...’, *cogaw ‘bear’

/u/  
High back rounded vowel varying between [u] and [o]: *mut ‘enter’, *tuc ‘to pull out of (e.g. the ground)’, *tuh ‘ash’, *buk ‘rotten (wood)’, *jirul ‘to butt’, *dum ‘ripe’, *khopun ‘rice noodles with sauce and fresh vegetables’, *buq ‘type of large basket’, *cur ‘pig’, *buq ‘to cook in water’, *mut ‘to enter’, *cu? ‘to put’, *dun ‘long time’

/o/  

/s/  
Low back rounded vowel: *dsn ‘neck’, *kogjoh ‘to break off’, *naj ‘to know’, *baj ‘salt’, *aaj ‘to eat rice’, *kajoh ‘corpse’, *bat ‘to slaughter’, *dsn ‘soft’
Long Vowels:


/oo/ Mid back rounded vowel: hook ‘to be happy’, plooc ‘to hop’, doom ‘to urinate’, toooot ‘to deceive’, hooj endu ‘mountain top’, gonooop ‘friend, associate’, kooodoop ‘to cover’


Diphthongs:


/io/ High central unrounded vowel, gliding to mid central unrounded vowel: khieja ‘customarily (do), (with negative) never (do)’, phio ‘for’, ciio ‘to believe’

/oa/ High back rounded vowel, gliding to mid central unrounded vowel: cuar ‘to write’, cruol ‘chain, to have a convolution’, tuaaj ‘to suppose, predict’, root ‘to buy’, tih dooaw ‘big (viewed from the inside)’, coaj ‘to plant field rice’, cuon ‘to be numb’
REFERENCES


Received: 5 April 1999

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Appendix 1. Map of Krung, Kavet and Brao (Taveng) areas in northeastern Cambodia