

Preliminary statement of Katu orthography in Lao script

Nancy A. COSTELLO and Khamluan SULAVAN

The Katu people are a group of approximately 52,000 people in Quang Nam province in Vietnam, and Xe Kong and Salavan Provinces in the Lao People's Democratic Republic. The language belongs to the Katuic branch of the Mon Khmer language family. The language was analysed in Vietnam by Nancy Costello and Judy Wallace, and 'Katu Phonemes' by Judith M. Wallace appeared in *Mon-Khmer Studies* 3-64-73 (1969).

Nancy Costello worked in Vietnam for thirteen years and published a reading primer in 1967, a revised primer in 1976, a Katu vocabulary in 1971, and a Katu dictionary in 1991. This dictionary contains over 3,500 entries. These used a romanised alphabet. Since 1991 she has worked in the Lao PDR under the Institute for Research on Lao Culture and the Ministry of Information and Culture. Three books on Katu culture have been produced: *Katu Folktales and Society, Belief and Practice in Katu Agriculture*, and *Katu Traditional Medicine*. These three books are in Lao, Katu, and English. This paper describes the Lao script used to write Katu in these culture books, which is an adaptation of the alphabet used for Katu in Vietnam. Further testing is being done since it has only been possible to work extensively with one Katu speaker in Lao PDR, although trips were made to the Katu area in 1993, 1994, and 1995.

This paper covers both the Katu Vietnam and Katu Lao PDR dialects, since there are only a few predictable phonetic differences. The greater differences are vocabulary. There are Lao villages near the Vietnamese border which speak the Vietnamese dialect.

The purpose of this paper is to show some of the complications involved in writing a Mon Khmer language in a Lao-based script and some of the solutions which are being tried. The aim was to produce an orthography which Katu speakers feel represents their language, one which can be typed on a Lao typewriter and which is readable by and acceptable to Lao speakers. The latter is very important. All stages of the orthography were checked with Dr. Thongpheth Kingsada of the Institute of Research on Lao Culture, and the Ministry of Information and Culture.

It is important in formulating any orthography to take note of the readers' reactions. The most scientific orthography may be rejected if the readers are not happy. The authors were constantly balancing the scientific solution with the readers' reactions.

1. Initial single consonant phonemes with suggested Lao script orthography.

	bilabial	alveolar	alveopalatal	velar	glottal
stops aspirated	vl. p ປ	t ຕ	c (tʃ) ຈ	k ກ	
	ph ພ	th ທ	s (s) ຊ	kh ຄ	
	vd. b ບ	d ດ	j (dʒ) ງ		
preglottalized	ʔb ຜ	ʔd ຖ			ʔ ອ*
nasals	m ມ	n ນ	ɲ ຍ	ŋ ງ	
continuants					h ສ
laterals		l ລ			
vibrants		r ຣ			
semivowels	v ວ		y ຍ	ɤ	
			ʔy ງ		

* Lao script for Katu marks all initial (and medial) glottal stops (ie. initial vowels) with ອ, following Lao conventions. Please refer to the vowel chart for presentation of final glottal stop.

Notes on single consonants:

/c/ [tʃ] is a voiceless alveopalatal affricate.

/s/ in the Lao dialect is a voiceless alveopalatal fricative. In the Vietnam dialect it is pronounced as

/ch/ [tʃh], a voiceless aspirated alveopalatal affricate.

The Lao dialect does not have /g/, although the Vietnam dialect does.

Katu has four consonant sounds which Lao does not have. They are /ʔb/, /ʔd/, /ʔy/ and /j/. At first the authors thought of using existing Lao signs to represent these, and adding a feature, such as [---] for /ʔb/, but creating new signs causes problems when using typewriters. They therefore decided to use signs which are on Lao typewriters, and were the closest phonetically, and so are representing the new consonants as follows:

/ʔb/	ຜ	This sound is a preglottalized voiced bilabial stop. In Lao it is [ph].
/ʔd/	ຖ	This sound is a preglottalized voiced alveolar stop. In Lao it is [th].
/ʔy/	ງ	This is a preglottalized voiced alveopalatal affricate. In Lao it is [ja].
/j/	ງ	This is a voiced alveopalatal affricate [dʒ]. This sound is not found in Lao, so we have used a sign which is found on Lao typewriters, the sign for etc. since the Katu would probably not use it.

The sign for /ɲd/ was used in the past (1975) for the Love language, a Mon Khmer language close to Katu. The above signs are being checked with other speakers and may need to be changed later.

A word in Katu of Lao PDR has a maximum of two syllables, a main syllable and a presyllable which may be an affix. The main syllable may consist of C1C2V, C1V, C1VC, C1C2VC3. C1 may be filled by any initial consonant except in a C1C2 cluster. C2 can only be filled by /r/ or /l/.

Examples of single initial consonant phonemes:

/p/	paʔ	ປະ	'to save'
/t/	tak	ຕັກ	'to spear'
/c/	cha	ຈາ	'to eat'
/k/	kiaŋ	ກຽງ	'to want'
/b/	bas	ປັຂ	'to sacrifice'
/d/	di:k	ດິກ	'to wear headband'
/j/	jaʔ	ແຈັຕ	'ten'
/s/	seŋ	ແຂັງ	'to hear'
/ʔb/	ʔbɔŋ	ຜັອັງ	'hole'
/ʔd/	ʔdoŋ	ຖອງ	'tree'
/ʔy/	ʔyaŋ	ງຽງ	'spirits in trees, air, ground'
/ph/	phare	ພະເຣ	'danger'
/th/	thiar	ເຫືອຣ	'generous'
/kh/	khe	ເຄ	'top end (of field)'
/ʔ/	ʔaʔa:p	ອະອາປ	'to yawn'
/m/	meh	ແມັຮ	'to wake up'
/n/	nak	ນັກ	'classifier for people'
/ñ/	ñan	ຍັນ	'to ask for something'
/ɲ/	ɲin	ງິນ	'wind'
/h/	hiap	ຮຽປ	'to cheat'
/l/	ly	ແລັຍ	'to see'
/r/	riaʔ	ເຣັຍຂ	'salty'
/v/	ve:il	ແວລ	'village'
/y/	yaʔ	ຢະ	'self'

2. Initial consonant clusters

A number of consonants may occur in clusters with /l/ and /r/. They are:

/pr/	prah	ປຣັຮ	'to wash hand'
/br/	briaʔ	ເບຣັຍຂ	'to hang up'
/tr/	trɔŋ	ຕຣັອັງ	'tomato'
/dr/	drɔ	ດຣອ	'one stringed violin'
/cr/	cruah	ຈຣວຮ	'to pound 2nd time'

/sr/	sraŋ	ຊຮາງ	'to lose way'
/pl/	plak	ປລັກ	'to snap'
/bl/	blɔt	ບລັອດ	'dark'
/ʔbl/	ʔblɔ	ຜລອ່	'ashes'
/kl/	kla:ʔ	ກລາ	'sunrise'
/khl/	khlun	ຄລຸງ	'flat ground'

3. Syllabic nasals

One of the most significant differences between the Vietnam and Lao dialects is in the use of syllabic nasals. In the Vietnam dialect, a number of consonants may occur with the syllabic nasals /m/, /n/ and /ŋ/. There can also be a syllabic nasal plus a consonant cluster, such as /mpr/, /ndr/, /ŋkl/. The Katu Lao dialect is losing the syllabic nasal. It is either very light or not pronounced. One Katu speaker does not hear it when he says it lightly, and does not want to write it. In the Lao dialect, the syllabic nasal is replaced by /am/, /an/ or /ang/. The following list shows syllabic nasals in the Vietnam dialect, followed by examples from the Lao dialect.

Vietnam dialect

/mp/	m̩paŋ	'maggot'
/mb/	m̩baŋ	'branch'
/mbl/	m̩blɔ:y	'young man'
/mm/	m̩ma	'seed'
/mph/	m̩pɰe:p	'kind, friendly'
/mr/	m̩rɰh	'sick with worms'
/mpr/	m̩prɰh	'to chop'
/nc/	n̩cay	'body louse'
/nd/	n̩diʔ	'where'
/ndr/	n̩draŋ	'stalk of plant'
/nʔd/	n̩ʔdɔŋ	'chaff'
/nj/	n̩jak	'French person'
/nk/	n̩kir	'to remember'
/nl/	n̩la	'afraid, worried'
/nt/	n̩tat	'torn'
/nth/	n̩tha:m	'greedy (eating)'
/ny/	n̩ya	'rice, manioc wine'
/nʔy/	n̩ʔyal	'loincloth'
/ŋh/	ŋ̩haŋ	'bone'
/ŋj/	ŋ̩jiʔ	'to break crockery'
/ŋk/	ŋ̩kal	'rotten'
/ŋkl/	ŋ̩klɔ:c	'to cut notches in tree'

Lao dialect

?am	?ambe:h	ອຳເບຮ	'goat'
?am	?ammo	ອຳມໍ	'which'
?an	?andai	ອັນໄດ	'by self'
?aŋ	?aŋhi:l	ອັງຮີລ	'light (work)'
?aŋ	?aŋkar	ອັງກຮ	'skin'

4. Final consonant phonemes with suggested Lao script orthography

	bilabial	alveolar	alveopalatal	velar	glottal
stops	p ປ	t ຕ	c ຈ	k ກ	? ອ
nasals	m ມ	n ນ	ɲ ນຍ	ŋ ງ	
continuants			s ຊ		h ຮ
laterals		l ລ			
vibrants		r ຮ			
semivowels	w ວ wʔ ວ້ອວ		y ຍ yʔ ຍ້ອຍ		

Word initial and medial /s/ is complemented by /yh/ word finally. The final /s/ is realized phonetically in the Vietnam dialect by [ih], and in the Lao dialect by [s].

We follow Lao by using /ʋ/ /b/ and /ɔ/ /d/ for /p/ and /t/ word finally because there are no voiced stops word finally. *

Khamluan is not altogether happy about using /s/ for final /h/. He does not think of it as a consonant like other final consonants. It may be better to use a Lao tone for final /h/ as is done for a final glottal with a long vowel.

Lao does not have a final /ñ/, but since Lao uses the symbol which represents /ñ/ initially to represent /y/ finally, it was decided to represent the final /ñ / differently from the initial /ñ/.

In phonemic notation, a final glottal stop is denoted by *q*. In Lao script, a final glottal is inherent for short vowels where there is no following consonant and is thus marked only when it follows a long vowel or i-glide. Please refer to the vowel chart for details.

Examples of single final consonant phonemes:

/p/	kap	ກັບ	'to bite'
/t/	patet	ປະແຕັດ	'joint'
/c/	pac	ປັຈ	'to pull out weeds'
/k/	?asak	ອະແຂັກ	'taboo'
/m/	tam	ດຳ	'black'
/n/	?akan	ອະກັນ	'mother'
/ñ/	pañ	ປັນຍ	'to shoot'
/ɲ/	piɲ	ປິງ	'grave'
/h/	ranah	ຣະນັຮ	'waste'
/l/	bo:l	ເບິລ	'to comfort'
/r/	par	ປັຣ	'to fly'
/u/	ralaw	ຣະເລົາ	'valuable'
/s/	caras	ຈະຣາຊ	'comb, to comb'
/w?/	radaw?	ຣະເດົາ	'to arrange tidily'

5. Presyllables

The Katu word in Lao has a maximum of two syllables, a main syllable which can be preceded by one presyllable. In Vietnam there may be three presyllables, since affixes may be bound to the word as presyllables. In Lao, a presyllable may be filled by C1C2V, CVC or CV. A C1C2V presyllable may be filled by /pra/ or /tra/. A CVC presyllable may be filled by /bar, kar, mar, par, phar, sar, tar, or thar/ or by /lam, ?an, ?aŋ, ?ar/. In the Vietnam dialect this latter group is represented by a syllabic nasal (see Section 3). A CV presyllable may be filled by /ba, cha, ka, la, ma, sa, ta, ya, ?a/. These are also used in Vietnam. The following are peculiar to the Lao dialect: /chi, li, mi, ni, pi, ri, si, ?i/. A few words have a presyllable /lu/. An example of a word is /tarklaaq/ "to shine on."

The most difficult problem in the whole orthography has been how to write the presyllable vowel /a/ in a CV or V syllable. It is not glottalized and is short. At first we used *mai jattawa*, e.g. [ກັ], but have now decided not to use it any more because it is hard for people who read Lao to know how to read it, and it makes many words look different from Lao. Although it is not glottalized as in Lao, it was decided to use [ɛ] for the presyllable vowel in a CV syllable because this is a short vowel sign in Lao, and because Lao people write some unglottalized words with the presyllable this way although they do not say the presyllable with a glottal. For example ຕະຫຼາດ "market." For a CVC presyllable, *mai kan* is used for /a/.

Examples of presyllables:

/la/	?achury	ອະຈູຍ	'small waist basket'
/lar/	?arvary	ອັຣວາຍ	'soul'
/lam/	?am?baŋ	ອັມຜາງ	'sky'
/lan/	?ansuar	ອັນຊຸຣ	'folktale'
/lar/	?anghut	ອັງຊຸດ	'a forge'

/pa/	palu:s	ປະລູຊ	'to celebrate'
/par/	pardomɯŋ	ປັຣໂດງ	'method, way'
/phar/	pharnay	ພັຣນາຍ	'word, speech'
/phan/	phandil	ພັນດິລ	'woman'
/ba/	babən	ບະເບັນຍ	'long fishnet'
/bar/	barbō:k	ບັຣໂບກ	'monkey'
/var/	varvay	ວັຣວາຍ	'carefully'
/i/	idial	ອິດງລ	'wife'
/pi/	pikre	ປິແກຣ	'to make proper'
/di/	didai	ດິດາຍ	'to wear'
/si/	sisō:t	ສິຊອັດ	'to harvest'
/tʃi /	cicat	ຈັແຈັດ	'to plant'
/ti/	tiraŋ	ຕິຣຽງ	'coffin'
/mi/	misi:l	ມິຊີ	'a short time'
/ka/	katas	ກະຕັຊ	'to call'
/kar/	karluh	ກັຣລຸຮ	'quickly'
/sar/	sarvət	ສັຣເວັດ	'to throw'
/tar/	tarnuk	ຕັຣນຸກ	'to mix together'
/sar/	sarli	ສັຣລີ	'even (size)'
/ca/	cabary	ຈະບາຍ	'to strike'
/sa/	salam	ຊະລານ	'long digging stick'
/ya/	yayʌn	ຍະແຢັນ	'to shake about'
/tra/	tratrah	ຕຣະຕຣັຮ	'to fish with net'
/thar/	tharlaŋ	ທັຣລາງ	'between'
/la/	laləw	ລະເລົວ	'young man'
/ra/	ravay	ຣະວາຍ	'soul'
/ta/	tava:k	ຕະວາກ	'alcohol'
/va/	vavay	ວັຣວາຍ	'carefully'
/lu/	lukək	ອູເກັກ	'that'
/mar/	marmonɯŋ	ມັຣນີ	'characteristics of life'
/pra/	praprə	ປຣະເປຣີ	'crazy'

6. Vowel phonemes

Katu has 11 basic vowel phonemes, each of which can be short or long. Katu has two vowels which Lao does not have, /ʌ/ and /ɜ/. For /ʌ/ we chose the symbols which another language (Kmhmu) in Lao PDR is using. The /ɜ/ presented a problem. The first proposal was to use a symbol which was already on a Lao typewriter, so /ə/ was used. The current proposal is to use /ɛ̃/ because this symbol is closer to a Lao /ɛ̃/. This, of course, will need to be tested with readers. The following chart shows the basic vowels with the phonemic symbol and Lao script symbol.

All the Katu vowels can be short or long. Both short and long vowels may be final or non-final. The short final vowels are glottalized. Long vowels may be further divided into glottalised and non-glottalised. Long glottalised vowels are not found in Lao so it was a problem deciding how to symbolise them. The decision was made to use *mai thoo*, e.g. /ṽ/ since the glottal is felt by Khamluan to be like a tone. Another Mon Khmer language, Kui, uses the same sign. Short vowels do not occur in open syllables.

	Lao script symbol				
Roman Sign	short and glottal final	short and non-final	long and final	long and non-final	long and glottal final
i i:	ṽ	ṽx	ĩ	ĩx	ĩ̃
e e:	ɛɛ	ɛ̃x	ɛ	ɛx	ɛ̃
ɛ ɛ:	ɛxɛ	ɛ̃x	ɛx	ɛxx	ɛ̃
i i:	ṽ	ṽx	ĩ	ĩx	ĩ̃
ə ə:	ṽ	ṽx	ĩ	ĩx	ĩ̃
ʌ ʌ:	ɛ̃ɛ	ɛ̃x	ĩ	ĩx	ĩ̃
a a:	xɛ	ĩx	xɣ	xɣx	ĩ̃
u u:	ɣ	ɣx	ɣ	ɣx	ɣ̃
o o:	ṽɛ	ĩx	ṽ	ṽx	ṽ̃
ɔ ɔ:	xɛɛ	ĩx	ĩ	xɛx	ĩ̃
ɔ̃ ɔ̃:	xɔ̃ɛ	ĩx	xɔ̃	xɔ̃x	ĩ̃
ɔ̃ ɔ̃:	xɔ̃ɛ	ĩx	xɔ̃	xɔ̃x	ĩ̃
Diphthongs	Final with glottal	final	non-final		
ia	ɛ̃ɛ	ĩɛ	xɣx		
ia	ṽɔ̃ɛ	ĩɔ̃	ĩ̃ɔ̃x		
ua	ṽɔ̃ɛ	ĩɔ̃	xɔ̃x		

Examples of vowel phonemes:

/i/	piŋ	ប៊ិ	'grave
/iʔ/	piʔ	ប៊ិ	'to squeeze
/i:/	riil	រិល	'to peel
/i:ŋ/	piʔ	ប៊ិ	'yellow fruit
/i:/	pi	ប៊ិ	'to speak
/e/	cet	ចេត	'to die
/eʔ/	neʔ	នេ	'that
/e:/	teŋ	ពេ	'to do, work'
/e:ŋ/	pe:ŋ	ប៊ើ	'banana'
/e:/	?ire	ខិនេ	'to rub'
/ε/	pe:h	បេ	'they'
/εʔ/	leʔ	លេ	'to, towards'
/ε:/	reŋ	រេ	'edge, border'
/ε:ŋ/	ambe:ŋ	ឧំប៉េ	'goat'
/i/	dih	ទិ	'quickly'
/i:ŋ/	kathiʔ	កាទិ	'occurrence'
/i:/	pi:k	ប៊ិក	'to hoe dry field'
/i:ŋ/	ti:ʔ	ទិ	'old'
/i:/	di:	ទិ	'east'
/ə/	ŋəh	ញេ	'edge, opening'
/əʔ/	yəʔ	យេ	'not'
/ə:/	və:c	វេ	'to go'
/ə:ŋ/	prə:ŋ	ប៊ើ	'pepper'
/ə:/	də:	ទេ	'imperative'
/ʌ/	li	លើ	'to see'
/ʌ:ŋ/	cʌʔ	ចើ	'to prevent'
/ʌ:/	?dʌŋ	ទើ	'to bring'
/ʌ:ŋ/	tʌ:ŋ	ទើ	'from'
/ʌ:/	akʌ:	ខេ	'then'
/a/	?dah	តេ	'to eat meat'
/a:ŋ/	taʔ	តេ	'to endure'
/a:/	kalamŋ	កាតេ	'to worry'
/a:ŋ/	taka:ʔ	តាតេ	'to walk, behave'
/a:/	ca:	ចា	'to eat'
/u/	yunŋ	យូ	'foot'
/u:ŋ/	luʔ	លូ	'to pull'
/u:/	katu	កាតូ	'Katu'
/u:/	kruŋ	កូ	'vegetable stew'
/u:ŋ/	luʔ	លូ	'puddle'
/o/	coh	ចូ	'to plant'
/o:ŋ/	loʔ	លូ	'good, beautiful'
/o/	mamonŋ	មូ	'to be alive'

/o:ŋ/	aŋo:yŋ	ອະໂອ້ຍ	'chicken'
/oŋ/	co:	ໂຈ	'to return'
/ŋ/	dŋ	ດ້ອງ	'to give'
/ŋŋ/	kanŋŋ	ກະເມືາຍ	'to think'
/ŋŋŋ/	mamŋŋŋ	ມະມ	'sister of brother'
/ŋŋ/	cŋ:m	ຈອມ	'to be able'
/ŋŋ/	bŋ:	ບອ່	'rain'
/ŋ/	ŋyŋk	ງັອ່ກ	'to climb'
/ŋŋ/	ŋdŋ?	ຖອ່ຍ	'comparative'
/ŋŋ:y/	tamŋŋ:y	ຕະມອ່ຍ	'to visit, visitor'
/ŋŋ/	pathŋ:	ປະທອ່	'to send message'
/ŋŋŋ/	lŋŋ:q	ລ້ອ່	'to peel, husk'
/ŋa/	d̄iar	ດຽຣ	'to go around'
/ŋa/	Bia	ເບຍ	'name of mythological person'
/ŋa/	sia	ເຂືອ	'leftover'
/ŋa/	lian̄	ເລືອງ	'to turn, untwist'
/ŋaŋ/	ciaŋ?	ເຈືອຍ	'pineapple'
/uaŋ/	aruŋ?	ອະຣິວຍ	'painful'
/ua/	pathua	ປະທົວ	'to give in'
/ua/	athuaŋ	ອະທວງ	'bean'

7. Irregular signs

The Katu phonemes have a parallel pattern in which word initial preglottalized /ʎy/ is complemented by post-glottalised /yʎ/. Word final /y/ and post-glottalised /yʎ/ can occur in Katu with both short and long vowels, as the following chart shows. The diphthongs /ia/ and /ua/ can also be followed word finally by /y/ and by /yʎ/. Most vowels followed by /y/ follow the normal convention for vowel plus consonant, except for /ay/ and /oy/.

short and non-final

short and glottal final

long and glottal final

		iyŋ	ᶑᶑy	i:yŋ	ᶑᶑy
		oyŋ	ᶑᶑy	o:yŋ	ᶑᶑy
		ʌyŋ	ᶑᶑy	ʌ:yŋ	ᶑᶑy
ay	ໄx	ayŋ	ໄᶑᶑ	a:yŋ	ໄᶑᶑy
		uyŋ	ᶑᶑy	u:yŋ	ᶑᶑy
oy	ໂᶑᶑy	oyŋ	ໂᶑᶑy	o:yŋ	ໂᶑᶑy
		ŋyŋ	ᶑᶑoy	ŋ:yŋ	ᶑᶑoy
		ŋyŋ	ᶑᶑoy	ŋ:yŋ	ᶑᶑoy

Examples:

/i:y/?	kati:y?	កាតិយ៍	'small'
/i:y/?	masi:y?	មាសិយ៍	'a short time'
/ə:y/?	ka?ə:y?	កាខៀយ	'to burp'
/ə:y/?	kayə:y?	កាយៀយ	'honey'
/ʌ:y/?	lʌy	ឆៀយ	'to see'
/ʌ:y/?	ñʌ:y?	ឆៀយ	'to be humble, unafraid'
/ay/?	pay	បៃ	'to take'
/ay/?	malay?	មាឆៀយ	'wood for crossbow'
/ay/?	tatar:y?	តាតាយ៍	'anus'
/uy/?	payuy?	បាយៀយ	'orange bellied flower pecker'
/oy/?	maloy	មាឆៀយ	'to strive for power'
/oy/?	tangtoy?	តាញ័យ	'dragonfly'
/o:y/?	hamo:y?	ហាម៉យ៍	'instead'
/w̄:y/?	klw̄:y?	ក្ល័យ	'to tie up'
/w̄:y/?	ṅw̄:y?	ញ័យ	'buffalo'
/w̄:y/?	kadw̄:y?	កាដ័យ	'squash plant'

The diphthongs /ia/, /ua/ also occur with word final /y/ and post-glottalized /yʔ/ /am/ follows the Lao symbol /x̄ʔ/.

DIPHTHONGS

non-glottal glottal

ia:y	ឆៀយ	ia:yʔ	ឆៀយ
ua:y	ខាយ	ua:yʔ	ខាយ

/iay/	phiay	ផ្សិយ៍	'thatch'
/iay/?	ja?iay?	ច្រខៀយ	'to burp'
/uay/	haruay	វាខាយ	'to leak'
/uay/?	mbuay?	មប័យ	'to cut up (animal)'

The Katu phonemes fit a parallel pattern in which word initial /b/ and preglottalized /ʔb/ are complemented by word final /w/ and post-glottalised /wʔ/. /i/, /i/, /ə/ and /ʌ/ follow the normal pattern for vowel plus consonant. /aw/ and /ow/ do not follow the normal pattern.

Word final /w/ and post-glottalised /wʔ/ occur in Katu with the following vowel combinations:

short & non-final		short and glottal final		long and glottal final	
		ʌw?	ແ້ວ	ʌ:w?	ແ້ວ
aw	ເ້າ	aw?	ເ້າ	arw?	້າວ
ow	ໂ້ວ	ow?	ໂ້ວ		

Examples:

/ʌw?/	jarʌw?	ງຍເ້າ	'to bury alive'
/ʌ:w?/	ka:w?	ແກ້ວ	'to pull'
/aw/	daraw	ດຍເ້າ	'thing'
/aw?/	saw?	ເ້າ	'to tie'
/arw?/	pada:w?	ປະດ້າວ	'to use people'
/ow/	ha?ow	ຮະໂອ້ວ	'to put up high'
/ow?/	?dow?	ໂ້ວ	'deep'

The diphthongs /ia/, /ia/ and /ua/ can also occur with word final /w/ and with post-glottalized /w?/. /am/ follows the Lao sign /x̣/.

DIPHTHONGS

non-glottal		glottal	
iaw	ຶງວ	iaw?	ັງວ
iaw	ເ້ອວ	iaw?	ັ້ອວ
uaw	ຸວວ	uaw?	ັວວ

Examples:

iaw	hanjiaw	ຮຍງວ	'headcloth (men)'
iaw?	diaw?	ດ້ງວ	'glutinous (rice)'
iaw	janiaw	ງັຍເມ້ອວ	'medicine'
uaw	luaw	ລວວ	'right speed'

Received: 12 June 1995

P.O. Box 4276
Vientiane
LAO PDR