U

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In this article, the name U is proposed for a group of closely related Austroasiatic languages. One of the U languages, spoken in the village Pã Xɛp in Yúnnán province in China, is the main subject of this article. U belongs to the little-known Angkuic group in the Palaungic branch of Mon-Khmer. Its synchronic phonology is described in some detail, as well as the phonological processes that relate it to Proto-Angkuic and Proto-Palaungic. A vocabulary and a short text are given. U tonogenesis is of particular interest since it utilizes unusual mechanisms, such as vowel height and vowel length neutralization.

1. Background

Among the 55 officially recognized minority peoples in China there are four whose languages belong to the Austroasiatic language family. One of them is Gin (京 Jīng), i.e. Vietnamese, who live in Guǎngxī near the Vietnamese border. The other three, Va (佤 Wǎ), Blang (布朗 Bùlǎng) and Ta-ang (德昂 Dé'áng; until 1985 called Bēnglóng 崩龙) are found in the southwestern part of Yúnnán province, as are some other Austroasiatic groups (Kammu, Phsin, Mang, Man Mit and Hu), which are not officially recognized as minority peoples.

   The map on the next page shows the distribution of the Va, Blang and Ta-ang according to a map of Chinese nationalities issued by the Chinese Academy of Social Sciences in 1981. None of these three peoples is linguistically homogeneous, although the different languages spoken by one people are generally referred to as "dialects" by Chinese linguists.

   The Va (Zhōu and Yán 1984) speak at least three mutually incomprehensible languages, Paràuk (Baráog), Lava (Rvia?), and Va proper (Vɔ?). The written language is based on Paràuk as spoken in the village Yaong Soi (岩帅 Yánshuài) in Cāngyuán 沧源 county.

Téngchōng

Nù Jiāng
(Salween)
Bǎoshān

Yíngjiāng

Liánghé

Shǐdiàn

Chāngníng

Lǒngchuān

Lónglíng

Fèngqìng

Jǐngdōng

Lùxī

Yún Xiàn

Sāntáishān

Ruìlì

Wǎndīng

Yǒngdé

Zhēnkāng

Líncāng

Zhènyuán

Gěngmǎ

Bāngxiě

Mòjiāng

Shuāngjiāng

Jǐnggǔ

Yánshuài

Cāngyuán

Láncāng Jiāng
(Mekong)

Pǔ'ěr

 Xīméng

Simáo

Jiāngchéng

Láncāng

Mèng-
lián

SIPSONG

P ANNA
Jǐnghóng

BURMA

Měnghǎi

Bùlǎng-
shān

Měnglà

LAOS

| Va |
| Blang |
| Ta-ang |

0   50   100 km

Map of Mon-Khmer peoples in Yúnnán

The Ta-ang (Palaung; Chén, Wáng and Lài 1986) consist of several rather small groups, who speak different languages, such as Ta-ang (Ang, Palaung), Pale and Rumai.

The majority of the Blang (Lǐ, Niè and Qiū 1986) live in and around Bùlǎngshān 布朗山 commune in Měnghǎi 勐海 county in Sipsong Panna (西双版纳 Xīshuāng Bǎnnà) autonomous prefecture. Their language (Blang or Plàng, also known as Samtau) belongs to the Waic subbranch of the Palaungic branch of Mon-Khmer (see Diffloth 1980, forthc.). For some reason, several scattered groups, who live much further to the north in Yúnnán, are also included among the Blang. The languages of two of these groups have been mentioned briefly in Chinese sources: Wáng and Chén 1982a, 1982b, and also Svantesson, Wáng and Chén 1981 describe the "Blang dialect" spoken in Pèngpàn 碰拼 in Dàfèngshān 大风山 commune in Shuāngjiāng 双江 county, and Zhōu and Yán 1983 describe the "Blang dialect" of Pàngpǐn 胖品 in Yǒnggé 永軍 commune in Shuāngjiāng. Zhōu and Yán use the name U (Wū 乌) for the language described by them, and this name is used for some of these groups in other Chinese sources as well (see *Zhōngguó shǎoshù mínzú*, p. 393 and *Yúnnán shǎoshù mínzú*, p. 203). I will use the names Pèngpàn U and Pàngpǐn U for these two languages. The name Puman (濮曼, 蒲满 or 蒲蛮) is or has been used by the Chinese for these (and for other) minority groups.

The language described here is spoken in the village Pã Xɛp /pã̀ xɛ̀p/ (邦协, Bāngxié in Chinese) in Shāhé 沙河 commune in Shuāngjiāng county, and in one neighbouring village. According to my informant, they have no real ethnonym, but refer to themselves simply as ʔú ʔè "our people". The language shares certain characteristics with the two U languages mentioned above, such as denasalization of final nasals in certain positions. These features are also found in two Angkuic languages described in older sources, namely Pou Ma of Henri d'Orléans 1898 and P'u-man of Davies 1909. (I am very grateful to Gérard Diffloth who called my attention to these older sources and told me that U was related to the languages described in them and to the other Angkuic languages.) In these languages, the word ʔu means "human being", and some of these peoples refer to themselves by this term, so it seems appropriate to use the name U for these languages as well. In all, some 3000-5000 people speak U languages; Pã Xɛp U is spoken by

about 700.

I had the opportunity to work with an informant for this language during a short visit to the Central Institute for Nationalities in Běijīng in May 1982. The informant, Ay Tit Saw, was a 28-year old male native of Pã Xεp, and a fourth-year student at the institute. A vocabulary was recorded and discussed briefly with Ay Tit. The text given in Section 4, (together with a Chinese translation) was also recorded by him, and was re-recorded with him by Lǐ Dàoyǒng, who also helped me with the transcription and translation of it.

A general description of Shuāngjiāng Blang society and history is given by Liú et al. 1981.

2 Synchronic phonology

2.1 Words

Almost all recorded non-compound words are mono- or sesquisyllabic. Sesquisyllabic words consist of an unstressed minor syllable followed by a major syllable. There may be more polysyllabic words than can be inferred from the vocabulary given here, however. One reason for this is that I have not investigated the expressives, a wordclass that is rich in polysyllabic words in other Austroasiatic languages, such as Kammu (see Svantesson 1983).

Examples:

monosyllabic:	vè	"thing"
	sàp	"rotten"
	fìɑ̃	"rice plant"
sesquisyllabic:	saχáɑ̃	"shoulder"
	mpháɑ̃	"place"
	pachìp	"bird"

2.2 Major syllables

A major syllable consists of an onset consonant and a rhyme. The rhyme consists of a vowel kernel and at most one coda consonant. Only a restricted set of consonants occur as codas (see 2.2.2).

Each major syllable has a tone (see 2.2.3). Whether minor syllables have tones or not has not been investigated.

There are some words which consist of a syllabic nasal. Only two have been recorded:

m̀	"one"
ń	in ń saŋǐ "today"

Both these are reduced forms. The full form of "one" is mɔ̀, and the reduced form m̀ is used before classifiers. ń is probably a reduced form of ní "this".

2.2.1 Onset consonants

The following consonants occur major syllable initially:

labial	dental	palatal	velar	uvular	glottal
p	t	c	k	q	?
ph	th	ch	kh	qh	
	ts				
	tsh				
m	n	ɲ	ŋ		
	l				
f	s			χ	h
v					
w	y				

IPA symbols are used, except that *y* = IPA [j].

The notation used is probably somewhat subphonemic. In particular, *c* and *ts*, *ch* and *tsh* seem to be in almost complementary distribution: except in one word, the palatals have been found only before the front vowels *i* and *e*, while *ts* and *tsh* are found only before back vowels. The distribution is perhaps not completely complementary, however, since there are two words, *tsì* "name" and *ncíʕ* "dirty", in which *ts* and *c* occur before the same vowel. The onset consonant *ch* occurs only in sesquisyllabic words, and only three examples have been found: *pachìp* "bird", *nchìp* "nail" and *nchí* "louse (see also 3.3).

There are only two examples of [w] in my data, and one of them occurs before a rounded vowel: *phá wɔ̃́* "window". The other is *wáy* "three". /v/ ([v] or [β]) is found only before unrounded vowels. There is, however, a minimal pair *wáy* "three" and *váy* "after" (cf. also *ʔaváy* "tiger"); consequently, /w/ and /v/ are to be regarded as different phonemes. /w/ and /v/ have different historical origins in the cited words, cf. Lamet *ʔlɔ́ɔy* "three", Kammu *wàay* "after" (and Lamet *rwàay* "tiger").

The phoneme /s/ has the allophone [ç] before *i* and *e*, and before *u* and *ɨ* it is sometimes pronounced as [ʃ]. Otherwise it is [s]:

sì	[çì?]	"tree"
sé	[çé]	"charcoal"
sò	[sò?]	"dog"
súʕ	[súʕ] or [ʃúʕ]	"hair"

/y/ is sometimes pronounced with strong friction, almost like [ʒ].

Examples of all initial consonants:

páy	"spittle"	mâ	"field"
tû	"stomach"	năy	"mother"
cí	"to do"	ɲăʕ	"to laugh"
kí	"pinetree"	ŋây	"eye"
qí	"nature"	láy	"squirrel"
ʔáy	"smoke"	fè	"left"
phăy	"you (dual)"	sò	"dog"
thán	"to weave"	χò	"to wait"
nchìp	"claw"	hò	"to go"
khà	"fish"	váy	"after"
qhà	"soul"	wáy	"three"
tsɔ́	"ant"	yàp	"to die"
tshò	"ten"		

No major syllable initial clusters occur. Words with nasal + consonant have been interpreted as having a nasal minor syllable rather than an initial cluster (see 2.3).

2.2.2 Rhymes

The major syllable rhyme has the structure V(C), i.e. it has a vowel kernel, which can be followed by at most one consonant coda. There is no length distinction in the vowels. The vowel system is as follows:

i	ɨ	u
e	ə	o
ɛ	a	ɔ

As major syllable codas, only the following consonants are found:

|		
p	t	
m	n	ã
w	y	ʕ

I am in some doubt as to the phonetic value of /ʕ/, but it can probably be described as a voiced pharyngeal approximant with an [a]-like quality. I transcribe it with the IPA character /ʕ/ (voiced pharyngeal fricative), although it has only very little fricative noise. Oscillograms of [ʕ] in different tokens of the word súʕ "hair" (Figure 1) show that it can be pronounced with irregular periods, i.e. with creak (ex. a) or with friction noise overlaid on regular periods (ex. b). In the first case it is

a. [ʕ] in *súʕ* "hair"

b. [ʕ] in *súʕ* "hair"
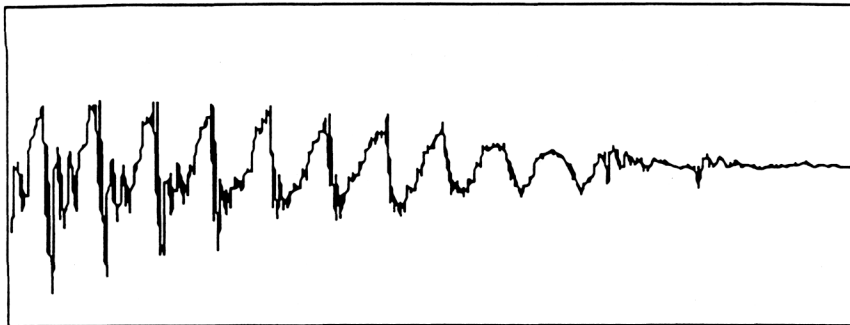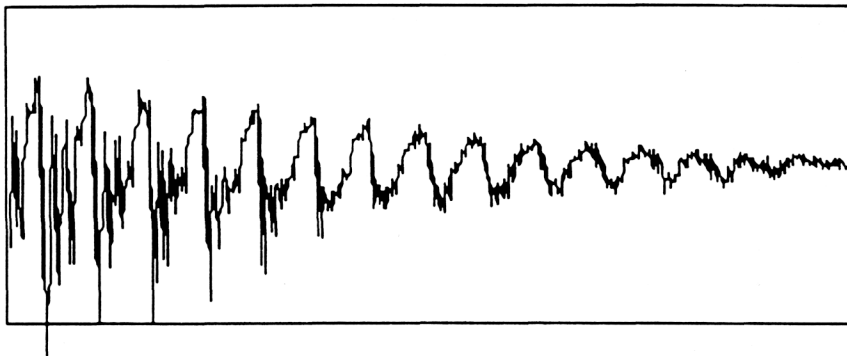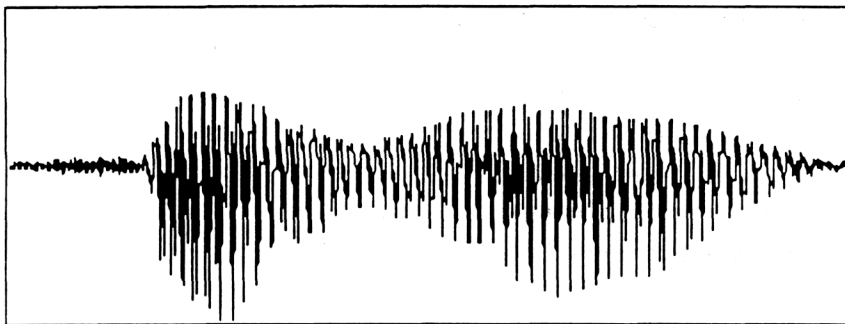
c. *súʕ múʕ* "feather"

Figure 1. Oscillograms of [ʕ] in *súʕ* "hair" (top and middle) and of *súʕ múʕ* "feather" (bottom).

similar to the pronunciation of /ʕ/ in Cairo Arabic (see Norlin 1983), and in the second case it is heard as an [ɑ]-like offglide accompanied by a [h]-like sound, so that the entire word is pronounced something like [suɑh]. The oscillogram of *súʕ múʕ* "feather" (ex. c) shows that [ʕ] is voiced throughout when it is followed by a voiced sound. Historically, ʕ has developed from *k, and phonotactically it still functions as a stop. /ã/ is the corresponding nasal, having the effect of creating nasalized diphthongs [iã̯] etc. Probably the entire diphthong is nasalized, and /aã/ is pronounced [ã]. In open syllables beginning with a nasal consonant, the vowel is nasalized, as is especially noticeable for /a/, which cannot be distinguished from /aã/ in this position. Thus there is no contrast between for instance /ma/ and /maã/, both being pronounced [mã]. I have transcribed such words using the simple vowel *a*.

The following combinations of vowels and coda consonants occur in my data:

	Ø	p	t	m	n	ã	w	y	ʕ
i	+	+	+		+	+	+		+
e	+	+	+	+	+				
ɛ	+	+	+	+	+	+	+		+
ɨ	+	+			+	+			+
ə	+	+	+	+	+				
a	+	+	+	+	+	+	+	+	+
u	+	+	+	+	+	+		+	+
o	+	+	+	+	+			+	
ɔ	+	+	+	+	+	+		+	+

Some of the gaps may be accidental and due to the small size of my material, but some are systematic. Thus there are historical explanations for the absence of the rhymes *im, *im and *um (which occurs only in one Tai loanword) and for the impossibility of combining the mid vowels *e, ə* and *o* with *ã* and *ʕ* (see 3.1(2) and 3.1(4)). It is common in Mon-Khmer languages that front vowels do not combine with final *y* and back rounded vowels do not combine with final *w*.

Examples of each rhyme:

χìp	"village"		–	
khép	"to swallow"		sém	"night"
tèp	"to cut"		mêm	"cat"
χip̀	"to run after"		–	
nàp	"thunder"		sâm	"hungry"
yàp	"to die"		sanàm	"blood"
sanùp	"navel"		ʔapùm	"story"
saphŏp	"lung"		ʔóm	"water"
tŏp	"to answer"		pɔ̂m	"mountain"

ʔavìt	"to run"		pìn	"to forget"
fèt	"flea"		cèn	"sheep"
kèt	"heavy"		saŋên	"green"
–			ŋîn	"silver"
ʔàt	"he"		fán	"child"
ʔàt	"big"		ʔàn	"not"
mút	"grave"		ʔakùn	"finger"
ʔŏt	"to stay"		phón	"four"
fɔ̃t	"to wipe"		món	"son-in-law"

khìʔ	"head"		kíɑ̃	"foot"
–			–	
ʔêʔ	"elder sibling"		fêɑ̃	"lip"
kìʔ	"horn"		fìɑ̃	"rice"
–			–	
sáʔ	"rice"		káɑ̃	"house"
kùʔ	"moth"		qúɑ̃	"knee"
–			–	
fɔ́ʔ	"to crow"		ʔɔ̂ɑ̃	"many"

kíẃ	"mountain pass"		–	
–			–	
péẃ	"monkey"		–	
–			–	
–			–	
ʔáẃ	"saliva"		ʔăy	"we (dual)"
–			qhúy	"broken"
–			khóy	"to have"
–			mŏy	"cow"
síaẃ	"flute"			

ʔí	"others"
ʔè	"we (pl.)"
tὲ	"arrow"
ʔavî	"to throw"
ʔâ	"good"
ʔá	"two"
ʔú	"human being"
ʔò	"I"
só	"bee"

2.2.3 Tones

U has a complicated tone system for an Austroasiatic language, with probably four contrasting tones. I have determined the tones by listening, and then checked them against a pitch recording of my entire tape-recorded material made on a F-J Electronics fundamental frequency meter with a mingograph. In some cases, it was still difficult to classify the tones into categories in a consistent way, and since I had no opportunity to check my tone analysis with the informant, mistakes may remain. In some cases (most often when a word was only recorded in an unstressed position) the tone could not be determined, and this is indicated by the absence of a tone-mark.

I have noted four tones: high level (´), low level (`), falling (^) and rising (ˇ). Syllables with a stop coda cannot have the falling tone, and with very few exceptions this is also true for the coda ʕ. In other types of syllables, i.e. open syllables or those ending in a sonorant *m, n, ã, w* or *y*, the rising tone is rare. The low tone is often accompanied by creak, or, in open syllables, by a final glottal stop. For example, *sì* "tree" is pronounced [çì ʔ] at least when said in isolation. The falling tone is also accompanied by a final glottal stop in open syllables. Since the glottal stop is optional, especially in connected speech, I have regarded it as a concomitant feature of the tone rather than a coda consonant.

2.3 Minor syllables

Only four minor syllables have been found: *ʔə, pə, sə,* and a nasal whose place of articulation depends on the following consonant. The vowel *ə* of the minor syllables *ʔə, pə* and *sə* is written out in the notation used, although it is probably non-phonemic and can be supplied by a rule. It is reduced to [ə] or Ø in running speech.

Examples of non-nasal minor syllables:

ʔaʔáã̃   "rock"
ʔavây   "tiger"
paʔàã̃   "to lie"
pachìp   "bird"
saʔáã̃   "bone"
saŋáy   "far"

There seem to be no systematic restrictions on the combination of non-nasal minor syllables and onset consonants, but only the following combinations of nasal minor syllables and initial consonants have been found (one example of each is given):

mp: mpét   "to spit"
mph: mphà   "to fly"
mm: mmɔ̀ʕ   "road"
ml: mlì   "louse"
nt: ntùt   "mouth"
nth: nthǎʕ   "tongue"
ntsh: ntshǎt   "sand"
nn: nnî   "this"
nɲ: nɲà   "skirt"
nc: ncíʕ   "dirty"
nch: nchí   "louse"
ŋk: ŋkú   "skin"
ŋkh: ŋkhù   "rice grain"
ŋqh: ŋqhà   "to steal"
ŋΧ: ŋΧí   "fruit"

Thus, at least in my data, the nasal minor syllable combines only with major syllable onsets which consist of stops, affricates, nasals, *l* or *χ*. It is realized as *m* if the onset is labial or *l*, as *n* if it is dental or palatal, and as *ŋ* if it is velar or uvular.

3. Diachronic phonology

Thomas and Headley 1970 divided the Austroasiatic (Mon-Khmer) languages spoken in Yúnnán province in China, and in northern Burma, Laos and Thailand into two branches, Palaungic and Kammuic. This classification was made on lexicostatistical grounds and it still remains to be confirmed by strict historical methods. The history and classification of Palaungic has been studied by Wilhelm Schmidt 1905 and Robert Shafer 1952, but no modern study on the entire Palaungic branch has been published. Recently our knowledge about the the history of Palaungic has been increased considerably by the work of Mitani Yasuyuki (1965, 1972, 1978), Michel Ferlus (1974), Gérard Diffloth (1976, 1977, 1980, 1982), and others. According to Diffloth 1982, Palaungic can be divided into West Palaungic (Rumai, Riang and Danaw) and East Palaungic (Lamet, Angkuic and Waic).

The Angkuic group is known from wordlists given in older sources: Lefèvre-Pontalis 1892 (Khas Kon Keu), Lefèvre-Pontalis 1896 (Khas Kiorr), d'Orléans 1898 (Pou Ma), Scott and Hardiman 1900 (A Mŏk, Āng-kú and Möng Lwe) and Davies 1909 (P'u-man). Data from the Angkuic language Mok has been published by Wenk 1965 as "Yǎ Āng Lǎwǎ", and later by Diffloth 1982. To this should be added Pǎ Xɛp U described here, Pèngpàn U and Pàngpǐn U, mentioned above, and Hu (Svantesson forthc.a), another language spoken in Yúnnán province in China.

The Angkuic languages are characterized by a shift in the initial stops, by which originally voiceless unaspirated stops have become aspirated and voiced stops have become voiceless. (In Austroasianist jargon this has been called a shift of the Germanic type (Haudricourt 1965, etc.), a term that may have been rendered unsuitable by recent developments in Indo-European phonology, however; see e.g. Haudricourt 1975 or Gamkrelidze and Ivanov 1984.) Angkuic has also maintained the Proto-Mon-Khmer contrast between *s and *h, which has been lost in other Palaungic and Kammuic languages, except Danaw (Luce 1965).

As mentioned above, Pǎ Xɛp U, Pèngpàn U, Pàngpǐn U, Pou Ma and Davies' P'u-man share the feature that final nasals have become stops in certain environments, and for this reason I propose the name U to be used for all these languages.

Pǎ Xɛp U, Pèngpàn U and Pàngpǐn U also share the development of a complex tone system, which is not common otherwise in Mon-Khmer (the only well-known examples are in the Viet-Muong branch). As to

whether Pou Ma and P'u-man had tones cannot be determined now. Hu has a simple two-tone system, and the only other well-documented Angkuic language, Diffloth's Mok, does not have tones.

Pã Xɛp U differs from other U languages by having developed uvular sounds from r or clusters with r and by having "weakened" the velar codas *k and *ŋ into ʕ and ã̃ (see 3.1(4) below).

The U peoples, like Angkuic peoples in general, are small scattered groups whose languages seem to have diverged from each other rather drastically during a comparatively short time. According to my informant, the people of Pã Xɛp do not know any other group who speak a mutually comprehensible language, and the many changes which have taken place in Pã Xɛp U as compared to other U languages (especially "uvularisation" and reduction of initial clusters) must certainly make mutual comprehension difficult, if not impossible.

In what follows, the main sound changes in U (i.e. Pã Xɛp U if not otherwise specified) will be described. Comparisons are made mainly with Hu (Svantesson forthc.a), with Proto-Waic (PW; Diffloth 1982) and with Lamet (Lindell, Svantesson and Tayanin 1978). Hu is an Angkuic language, and Proto-Waic and Lamet represent the two other branches, which together with Angkuic make up East Palaungic in Diffloth's classification.

The almost identical final consonant systems of Proto-Waic and Lamet appear to reflect Proto-Palaungic (and even Proto-Mon-Khmer) rather faithfully. Proto-Palaungic single-consonant initials are preserved well in Proto-Waic, but in Lamet voiced and voiceless initial consonants have merged, giving rise to lax (`) and tense (´) registers, respectively. The difference between the two registers is most probably one of phonation type, the lax register having relatively breathy, and the tense register relatively creaky phonation. The registers do not differ in fundamental frequency.

The vowels have undergone certain changes in Proto-Waic as compared to Proto-Palaungic (see Diffloth 1980), and the Proto-Palaungic opposition between long and short vowels has disappeared. This opposition is lost in U too, but is retained in Lamet. No detailed studies of the Proto-Palaungic vowels have been published, and such a study is outside the scope of this article; therefore, only some general comments on the relation of U vowels to the vowels of other Palaungic languages will be made here.

Some remarks will also be made on the relation of U to other Angkuic languages, in particular Hu. The only other language for which a fair amount of reliable data is available is Mok (Diffloth 1982; the vocabulary given by Wenk 1965 is not very reliable). All the Angkuic material available to me and related to recorded U words is given in the wordlist in Section 5, where possible Proto-Waic and Lamet cognates are given as well.

3.1 Rhymes

Generally in Mon-Khmer, the most stable part of a word is its final consonant (major syllable coda). In U, however, the final consonants have gone through rather drastic changes, so that the Proto-Palaungic system of final consonants, which was probably (cf. Diffloth 1976):

p	t	c	k	?
m	n	ɲ	ŋ	
	l			
	r			
	s			h
w	y			

has been reduced to

p	t	ˀ
m	n	ã
w	y	

The U vowel system has lost the Proto-Palaungic length opposition but is otherwise quite conservative.

The following phonological processes have been involved in the reshaping of Proto-Palaungic rhymes in U:

(1) The Proto-Palaungic opposition between long and short vowels has been lost in U. This opposition was inherited from Proto-Mon-Khmer and is retained in many languages outside Palaungic, such as Kammu. It has also disappeared in Hu, in some forms of Palaung (Ta-ang), and in all Waic languages. The loss of the length opposition is regarded by Diffloth 1980:92 as an areal feature.

Lamet is spoken in areas completely surrounded by Kammu, and in Lamet the vowel length opposition is fully preserved. Lamet examples

will be used throughout to indicate Proto-Palaungic vowel length.

Although vowel length was lost both in U and in Hu, it has left traces in the tones. In Hu, syllables which had a long vowel have low tone (`) and those with an originally short vowel have high tone (´). In U, tone development is more complicated, as will be described in 3.2 below.

Since Proto-Palaungic high long vowels (*ii, *uu and perhaps *ɨɨ) behave as short vowels in all respects in Hu and U (see (2) and 3.2 below), it must be assumed that the loss of vowel length took place in two steps, so that long and short high vowels had merged already in Proto-Angkuic. Further evidence for this can be found in Mok, a language which retains the Proto-Palaungic length distinction for at least some non-high vowels, but not for high vowels (see the data given in Diffloth 1982). It can also be mentioned that there are relatively few words with short i and u in Lamet, so the functional load of the length opposition in these vowels was probably low in Proto-Palaungic.

(2) Nasal coda denasalization: a final nasal has become the corresponding stop if it was preceded by an etymologically short vowel. Words in which this development has taken place have low tone (this prevents merger with words with original final stops, which have high or rising tone, depending on vowel length; tone development is treated in 3.2 below).

Nasal coda words with high vowel (i, u and perhaps ɨ) have undergone denasalization even in cases where the Lamet, and thus Proto-Palaungic, vowel is long. The Hu cognates of these words have high tone, so Proto-Palaungic long high vowels are treated as short vowels both in Hu and in U, suggesting, as mentioned above, that they had become short already in Proto-Angkuic.

Thus the rule for nasal coda denasalization can be formulated as: a nasal coda has become the corresponding stop if it was preceded by a short vowel in Proto-Angkuic, or, equivalently, by a short non-high or any high vowel in Proto-Palaungic.

The following table shows how combinations of different vowel types with final nasals and stops have developed in U. In this table, A represents a non-high vowel, I, a high vowel, N, a nasal and C, a stop.

Final:			Examples:			
PPal	PAng	U	U	Hu	Lamet	
*AAN	*AAN	´ˆAN	yâm	yàm	yàam	"to cry"
			ʔóm	ʔɔ̀m	ʔóom	"water"
			phón	ʔaphòn	póon	"four"
			pán	pàɲ	pàaɲ	"white"
*AN	*AN	ˋAC	yàp	yám	yàm	"to die"
			kèt	ncén	kcèn	"heavy"
			ŋkhèt	khíŋ	kéɲ	"tooth"
*AAC	*AAC	ˇAC	ʔŏt	ʔòt		"to stay at"
			ntshăt	nθàc	máac	"sand"
*AC	*AC	´AC	khát	khát	kát	"cold" (Hu: "sick")
			mpét	pét	pèc	"to spit"
*IIN	*IN	ˋIC	ʔìp	ʔím	ʔíim	"alive"
			sùp	θúm	húum	"to bathe"
			ŋhùt	maʁúɲ	prùuɲ	"termite"
*IN	*IN	ˋIC	phàt	phín	rmpín	"female"
			samèt	méɲ	krmìɲ	"star"
*IIC	*IC	´IC	sút		húuc	"to sting"

The tone of the *AAN type rhyme depends on the initial consonant. I have no examples of Proto-Palaungic *IC. In the words labeled PPal *IN, vowel height is judged only from Lamet.

Examples of velar nasals, which have undergone the same changes, and then developed further, are given in (4) below.

Nasal coda denasalization explains why there are no rhymes *um, *ɨm or *im in U (except in the Tai loan ʔapùm "story"). The rhymes un and in exist, but in those words which have a clear etymology, n has developed from *l (see (6) below; the word ʔŭn "father" is an exception, cf. Lamet ʔúuɲ). Words with the rhymes iã, ɨã and uã exist in U, but Hu and Lamet cognates show that they originally had non-high vowels (cf. (4) below):

This denasalization rule applies to those languages which I have called U (including Davies' P'u-man and d'Orléans' Pou Ma), although the conditioning environments may be somewhat different in different languages. The process is not found in other Angkuic languages, or other

Palaungic languages in general. Cf. (UW = Pèngpàn U (Wáng and Chén 1982a, 1982b), UZ = Pàngpĭn U (Zhōu and Yán 1983); Hu is taken as an example of Angkuic outside U):

U	UW	UZ	Pou Ma	P'u-man	Hu	
χ̀ip	phrip⁵⁵			p'i	phʁím	"old"
pachìp		tʃ'im⁵¹		si	ʔasím	"bird"
nthàp				t'ai	nthám	"egg"
phàt			pote	p'ö	phín	"female"
sàt				sa	paθán	"five"
khìʔ		k'ik³⁵		ch'i		"head"

(3) Palatal stops and nasals have merged with the corresponding dentals:

	U	Hu	PW	Lamet	
*-ɲ :	pán	pàɲ	*baɲ	pàaɲ	"white"
	thán	thàɲ	*taɲ	táaɲ	"to weave"
	ʔăn	kaʔàɲ	*ʔaɲ	k?áaɲ	"wasp"
	ʔŭn	ʔaʔúɲ		ʔúuɲ	"father"
	ŋghùt	maʁúɲ	*ŋrìɲ	prùuɲ	"termite"
	phèt	phíɲ	*pʁɲ	píɲ	"to shoot"
*-c:	sút		*hìc	húuc	"to sting"
	kùt		*gìc		"to burn"
	ntshăt	nθàc	*hmac	máac	"sand"

Cf.:

	U	Hu	PW	Lamet	
*-n:	phón	ʔaphòn	*pon	póon	"four"
	sàt	paθán	*phʊn	phán	"five"
	phàt	phín	*rmpʁn	rmpín	"female"
*-t:	khát	khát	*kʊt	kát	"cold" (Hu: "sick")
	nát	θanàt	*snat	snàat	"gun"

This merger has left no trace in the tones, except perhaps in a few words, see 3.2(8). Hu retains palatal codas, but in Mok, palatals have in many cases merged with the dentals. The data from other Angkuic languages are not always easy to interpret on this point, but several forms, such as A Mŏk a-paing "white", Khas Kon Keu khègne and A Mŏk kaing "tooth", Pèngpàn U h'pruik⁵⁵ "termite", suggest that palatal codas are at least partially retained.

(4) Velar coda weakening: the Proto-Palaungic velar codas *k and *ŋ have developed into pharyngeal approximants ʕ and ɑ̃ in U. Before these codas, the mid vowels e, ə and o do not occur, being replaced by the corresponding high vowel (i, ɨ or u). Thus, Proto-Palaungic long mid and high vowels have merged before *k (except for the tone which is rising and high, respectively), but not before *ŋ, which became ʕ after the high long vowels. The following table shows how different combinations of vowels and the velar codas have developed. Here, A represents a low vowel, E, a mid vowel and I, a high vowel.

Final:			Examples:			
PPal	PAng	U	U	Hu	Lamet	
*AAŋ	*AAŋ	´ˆAɑ̃	səχáɑ̃	səplàŋ	smplàaŋ	"shoulder"
*Aŋ	*Aŋ	` Aʕ	ŋqhàʕ	maʁáŋ	mràn	"horse"
*AAk	*AAk	ˇAʕ	nthãʕ	nthàk	pltáak	"tongue"
*Ak	*Ak	´Aʕ	káʕ	kák	kàk	"to bite"
*EEŋ	*EEŋ	´ˆIɑ̃	kíɑ̃	cèŋ	cèeŋ	"foot"
			líɑ̃		léəŋ	"yellow"
			qúɑ̃	kòŋ	kròoŋ	"knee"
*Eŋ	*Eŋ	` Iʕ	mìʕ			"town"
*EEk	*EEk	ˇIʕ	qhĭʕ	phʁèk	préek	"chest"
			sŭʕ	nasòk	yóok	"ear"
*Ek	*Ek	´Iʕ	víʕ			"work"
*IIŋ	*Iŋ	` Iʕ	qhìʕ		mplíiŋ	"sky"
*Iŋ	*Iŋ	` Iʕ	khìʕ	θíŋ	kíŋ	"head"
			χɨ̀ʕ		ríŋ	"bamboo"
			phù̀ʕ		púŋ	"to blow"
*IIk	*Ik	´Iʕ	líʕ	lèk	lɨ̀ik	"pig"
*Ik	*Ik	´Iʕ	súʕ	θúk	khúk	"hair"
			ʔəlíʕ		rlɨ̀k	"to boil"

The words *mì ʃ* and *ví ʃ* are Tai loans (Tai Nüa *mɤŋ⁴* and *vek¹*, respectively). In the variety of Tai which is the source of U loans, there is no length opposition except for the vowel *a*.

The velar weakening process is rather late, and seems to be characteristic of Pã Xɛp U as distinguished from other Angkuic and even other U languages:

U	UW	UZ	Pou Ma	P'u-maṅ	Hu	
sŭʃ			ioc	shu	nasòk	"ear"
khìʃ		k'ik³⁵		ch'i		"head"
líʃ		lik³¹	li	li	lèk	"pig"
kɨʃ	krɤk⁵⁵					"horn"
káã	kaŋ⁵¹	kaŋ⁵¹	kang	kan	kàŋ	"house"
kíã			tiang	chin	cèŋ	"foot"

Pèngpàn and Pàngpĭn U have kept final *k* and *ŋ*. In the word for "foot", Pou Ma seems to have diphthongised the vowel (and perhaps nasalized it), and the *-n* rather than expected *-ng* in P'u-man may denote nasalization. Final stops are hardly ever written in the entire P'u-man material, and it is difficult to know if this is a mistake, or if final stops disappeared altogether in this language (which seems less probable to me); thus the P'u-man data is difficult to interpret on this point. The other Ankuic languages generally retain velar codas.

(5) Final **r* has been lost without any segmental trace. The tone has developed somewhat differently in syllables with final **r* and in originally open syllables, however. The following examples have been recorded:

U	PW	Lamet	Hu	Mok	
ʔá	*ʔʔar	ʔláar	kaʔà	ʔaa	"two"
mâ	*ʔmar	màar	mà		"field"
saʔá		sʔáar	θaʔàw		"sour"
yé	*ʔɛr	ʔéɛr	ʔìʁ	ʔɛɛ	"fowl"
mphà	*pɤr	mpír	phíʁ	phaa	"to fly"
pó	*bor	pòor		sapoo	"evening"

Final **r* has been lost at least in some positions in most Angkuic languages.

(6) Words with Proto-Palaungic *l have developed in different ways. The following examples have been noted:

U	PW	Lamet	Hu	Mok	
saŋên	*sŋəl	sŋàal	tsaŋàl		"green"
ʔəkùn		plkùul			"finger"
mphùn		púul			"seven"
mùn	*kmîl	kmùul	mm̥úl	muu	"silver"
pìn					"to forget" (Blang pìl)
ŋàw	*ŋʋl	ŋàl	ŋál	ŋa(h)	"fire"
phəw	*pʋl/r	pál	mphál		"mortar"
nthò		tɔ́ɔl		pəthɔɔ	"six"
hò	*hʋl	hîl			"to go"
tû	*kdʋl	ktîl	kətúl	kətuu	"stomach"

In the examples, *l > n after high vowels and *aa, *l > w after short *ə, and *l has disappeared (perhaps changing the vowel) in other cases. The exact formulation of the conditioning contexts would require more examples and a better understanding of vowel development in Palaungic.

Final *l is retained in Hu, but like final *r, it is lost in Mok. For the other Angkuic languages the data are scanty, but at least in some words in e.g. Pou Ma (*moul* "silver") and Āng-kú (*ka múll* "silver", *ngall* "fire"), *l* is retained, whereas it has disappeared in others.

(7) The following words with the proto-coda *s have been found:

U	PW	Lamet	
ʔáʃ	*ʔʋs	ʔés	"to swell"
ɲǎʃ	*kɲəs	kɲàas	"to laugh"
ʔəqhǎʃ		krsáas	"lightning"
ʔəmɔ̀	*rmʋs		"banana"
sé	*ksʋs	krsás	"charcoal"
χí	*kris	kríis	"bear"
khâ	*kʋs		"to cook"
phì	*pes		"to sweep"
phó	*pos	póos	"barking deer"
kí		krîs	"to count"

Moreover, *sanà* "comb" probably had final *s, since the Kammu cognate is *criəs*, and the Hu form is *nŋàt* (in Hu, *-s regularly becomes -t).

Apparently *s became ʃ after *aa and *a, and disappeared otherwise.

(8) The proto-coda *-h is probably found in:

U	PW	Lamet	
păʃ		pàh	"bright"
tshâ	*ryah		"hundred"
vâ	*wah	wàh	"wide"
ntû	*ndɨh		"to fall"
sê		sʌ́h	"to geld"

Here as well, the reflexes are ʃ or Ø, but the exact conditions for their occurrence cannot be stated. It can be noted that these words (except *păʃ) have falling tone.

(9) The codas *-w and *-y are retained as such (see the vocabulary for examples).

(10) Proto-Waic and Lamet lack open syllables (against a well-established near-universal, see e.g. Greenberg, Osgood and Jenkins 1963:xxv). Syllables with final glottal stop in these languages correspond to open syllables in U and to syllables with glottal stop in Hu and Mok. In U tonogenesis, syllables with this final behave basically like syllables with long vowel and sonorant coda, and I will assume that these syllables were open at some Pre-U stage, before tones developed. As mentioned above (2.2.3), open syllables with low or falling tone have an optional final glottal stop, or creak, but this seems to be a secondary development.

U	Hu	Mok	Lamet	
salè	salé?		slὲɛ?	"rain"
sam̀à	θamá?	sima?	?máa?	"wind"
thè	kathé?	sathɛ?	ktá?	"earth"
sanɪ̆	ŋí?	ŋi?	snìi?	"day"
nchí	nsí?		sí?	"louse"

There are open syllables in Hu and Mok, but they are secondary, due to the loss of final consonants (see examples in (5) and (6) above).

The ordering of the above-mentioned phonological processes is an interesting problem, especially as regards the processes (1), (2), (3) and (4), which involve several phonemes each. These rules can be formulated informally as:

(1) V → [-long]

(2) nasal → stop / [V, -long] ___ *

(3) palatal → dental / V ___ *

(4) velar → pharyngeal / V ___*

Rule (1) must obviously be ordered after (2). Rule (3), which is an area feature found in areas dominated by Tai languages, is completely independent of the other rules. As mentioned above, (2) is regarded as characteristic of U languages, and (4) is characteristic for Pã Xɛp U. The *l > n process, which is also common in areas under Tai influence, must follow (2), since n < *l has not changed into t after short vowels.

3.2 Tones

U has acquired tones in a complicated way. The process will be described here, although it is not fully understood in all details. At least four different factors are involved:

a. Vowel length
b. Vowel quality
c. Final consonant type
d. Initial consonant type

The relevant consonant types are voiceless obstruent vs. voiced sonorant. The Angkuic consonant shift made all obstruents voiceless, so that the distinctive use of the feature "voice" disappeared in the phoneme system, all obstruents being voiceless and all sonorants voiced. For this reason an orthodox tone development based on merger of voiced and voiceless initial consonants, as has taken place in e.g. Kammu and Blang is impossible in Angkuic. U tonogenesis is discussed further in Svantesson forthc.b.

The following tonogenetic rules can be formulated from my data (statements about original vowel length refer to the Proto-Angkuic stage where all high vowels are short, rather than to Proto-Palaungic):

(1) Syllables with an originally short vowel followed by a voiced sonorant coda have low tone in U. (Note that nasals have become stops in this position):

U	Hu	Lamet	
yàp	yám	yàm	"to die"
sùp	θúm	húum	"to wash"
nchìp	nθím	lmhíim	"claw"
sàt	paθán	phán	"five"
kèt	ncɛ́n	kcɛ̀n	"heavy"
phèt	phíɲ	píɲ	"to shoot"
ŋhùt	maʁúɲ	prùuɲ	"termite" (Hu: "ant")
ŋhàⱱ	maʁáŋ	mràŋ	"horse"
qhìⱱ		mplíiŋ	"sky"
ŋàw	ŋál	ŋàl	"fire"
mùn	mɱúl	kmùul	"silver"
mphùn		púul	"seven"
mphà	phíʁ	mpír	"to fly"
ʔùy		ʔúuy	"to smell"

But:
tû	katúl	ktʉ̀l	"belly"
ʔŭn	ʔaʔúɲ	ʔúuɲ	"father"

There are about fifty examples of this tone rule in my data, and the two words given are the only clear exceptions. The word for "father" is exceptional also in another way, since it retains the final nasal; the expected form would be *ʔùt.

There are also several low tone words ending in a nasal or ɑ̃, for instance làm "log", ʔapùm "story", sanàm "blood", cèn "sheep", mɔ̀n "blue", làɑ̃ "cold", fʉ̀ɑ̃ "rice" and thùɑ̃ "bag". Except for words ending in n developed from *l, native words with nasal coda should not have low tone (by the joint effect of rules 3.1(2), 3.2(4) and 3.2(5)), and most of these words are Tai loans. They might have come into the language after nasal coda denasalization, or perhaps the U speakers' knowledge of Tai prevented them from applying the denasalization rule to these words.

(2) Words with an originally short vowel followed by a stop or *-s* have high tone. The following examples have been found:

U	Hu	Lamet	
khát	khát	kát	"cold" (Hu: "sick")
sút		húuc	"to sting"
káʕ	kák	kàk	"to bite"
sáʕ	θák		"rice"
líʕ	lèk	lìik	"pig"
phíʕ		pík	"to break"
ʔalíʕ		rlìk	"to boil"
súʕ	θúk	khúk	"hair"
ʔáʕ	phaʔát	ʔés	"to swell"
sé	khasét	krsás	"charcoal"
xí	ʔaxèt	kríis	"bear"
kí		krìs	"to count"

But:

kùt			"to burn" (PW *gic*, Kammu *kùuc*)
ʔamɔ̀			"banana" (PW *rmʋs*)

(3) Words with an originally long vowel followed by a stop or *-s* have a rising tone. Some fifteen examples occur in my data, e.g.:

U	Hu	Lamet	
lăt		láat	"to fear"
ʔŏt	ʔòt		"to stay"
ntshăt	nθàc	máac	"sand"
qhăʕ	thʋàk	tráak	"buffalo"
yăʕ		kyàak	"sambar deer"
qhíʕ	phʋèk	préek	"chest"
sŭʕ	nasòk	yóok	"ear"
ɲăʕ	nŋàt	kɲàas	"to laugh"
ʔaqhăʕ		krsáas	"lightning"

But:

nát	θanàt	snàat	"gun"
ʔɜ́ʕ		ʔɛ́ɛk	"elder sibling"
phó	phòt	póos	"barking deer" (Hu: "sambar deer")

In these three rules, only vowel length and type of final consonant (voiceless obstruent or voiced sonorant) are relevant, but when there was an open syllable, or a long vowel followed by a sonorant, the tone also depends on the type of initial consonant(s) and vowel quality

according to the following somewhat tentative rules.

(4) Words with an originally open syllable or a long vowel followed by a sonorant have a falling tone if all prevocalic consonants were sonorants. The following examples have been found:

U	Hu	Lamet	
mâ	mà	màar	"field"
ɲâ		yàa	"grandmother"
ŋâ	ŋá?	ŋàa?	"to itch"
vâ			"Va" (PW *(r-)wa?)
?avâ			"door" (PW *r-wa?)
mê			"sugar" (PW rm-me?)
mî	mé?	mìi?	"you"
χâã	ʁàŋ		"flower" (Kammu ràaŋ)
yɔ̂ã	yɔ̀ŋ		"beautiful" (Hu: "good")
yâm	yàm	yàam	"to cry"
?avây		rwàay	"tiger"

The same tone is found in the following words, although at least the second one has a pre-vocalic obstruent:

U	Hu	Lamet	
ŋây	saŋày	ŋàay	"eye"
saŋên	tsaŋàl	sɲàal	"green"

(5) Words with an originally long vowel followed by a sonorant have a high tone if there was a voiceless obstruent (including ? and h) among the prevocalic consonants:

U	Hu	Lamet	
thám		ktáam	"crab"
phón	?aphòn	póon	"four"
pán	pàɲ	pàaɲ	"white"
χáã		ráaŋ	"thorn"
kíã	cèŋ	cèeŋ	"foot"
líã	lèŋ	léeŋ	"high"
sa?á	θa?àw	s?áar	"sour"
?á	ka?à	?láar	"two"
yɛ́	?ìʁ	?ɛ́ɛr	"fowl"
sáw		háaw	"to climb"
wáy	ka?ɔ̀y	?lɔ́ɔy	"three"
khóy	khòy	kóoy	"to have"

In the examples "thorn" and "high", the tense register in Lamet shows that there was an original *h* or *ʔ* cluster (cf. Proto-Waic **hloŋ* "high"). The conditioning segments have sometimes disappeared or been changed because of the phonological development in U. There are about forty examples of this rule in my data, but also some exceptions, including those with falling tone given above, those with rising tone given in (8) below, and some with low tone:

U	Hu	Lamet	
sɑyì ɑ̃		yèeŋ	"light"
sɑnàm	nŋàm	nɑ́ɑm	"blood"
nthò		tɔ́ɔl	"six"

(6) Words with an original open syllable and with a voiceless obstruent among the prevocalic consonants have a high tone if the vowel was high. The following examples have been found:

U	Hu	Lamet	
ʔí	ʔí	ʔíiʔ	"people"
cí			"to do" (PW **g-/jiʔ*)
nchí	nsíʔ	síʔ	"louse"
kí			"pinetree" (PW **ŋgiʔ*)
qí	pʁíʔ	prìiʔ	"nature"
qí	kʁíʔ		"spirit"
sí	pɑsíʔ	plsíʔ	"rope"
thí	thíʔ	tíiʔ	"arm"
ŋkú		ŋkùuʔ	"skin"
pú		mpùuʔ	"breast"
qú	pɑlúʔ	plùuʔ	"salt"
qú			"deep" (Kammu *crùʔ*)
sú		súʔ	"sick"
nthú		ntúʔ	"hole"
thú		túuʔ	"vegetable"

But:

sɑŋǐ	ŋíʔ	sŋìiʔ	"day"

(7) Words with an original open syllable and with a voiceless obstruent among the prevocalic consonants have a low tone if the vowel was non-high. There are about 25 examples of this rule, including:

U	Hu	Lamet	
khà		káa?	"fish"
là	lá?	láa?	"leaf"
ŋqhà	maʁá?	ntràa?	"to steal"
samà	θamá?	?máa?	"wind"
sathà	θathá?	ntá?	"tail"
salè	salé?	slɛ̀ɛ?	"rain"
nè	nŋé?		"meat"
thè	kathé?	ktá?	"earth"
mlì		mplɛ̀?	"louse"
sì	θé?	khée?	"tree"
tì	katá?		"nose"
lì			"penis" (Km *tlé?*)
?ò	?ɔ́?	?ɔ́ɔ?	"I"
sò	sɔ́?	sɔ́?	"dog"
samò	samó?		"stone"
khù	sŋkhó?		"yesterday"
ŋkhù	ŋkhó?		"rice grain"

Words ending in a glottal stop always have high tone in Hu, which explains the apparently irregular Hu tones in these words.

Exceptions to this rule are the pronouns *ké* "they (plural)" and *phé* "you (plural)", as well as *ŋxí* "fruit", where the Hu and Lamet cognates (*phlé?* and *plée?*) indicate that the vowel was originally non-high.

Under unknown conditions, mid vowels have become high, so that the vowel height oppositions *i/e* and *u/o* have been partially replaced by tone oppositions *í/ì* and *ú/ù* (cf. *sí* "rope" vs. *sì* "tree" and *qú* "salt" vs. *khù* "yesterday" etc.). This tonogenetic mechanism is easily explained by the relatively high intrinsic pitch in high vowels, but nevertheless, no clear example of this kind of tonogenesis has been previously given (see Hombert 1978:96).

(8) There are some words which do not end in a stop or ʕ, but which have the rising tone. They include the following with a clear etymology:

U	Hu	Lamet	
saŋǐ	ŋí?	sŋìi?	"day"
?ǎɲ	ka?àɲ	k?áaɲ	"wasp"
?ǔɲ	?a?úɲ	?úuɲ	"father"
nǎy	?anèy		"mother"
?ǎy	?ày	?áay	"we (dual)"
phǎy	pháw	pàar	"you (dual)"
kǎy	káw	kàar	"they (dual)"

All these words have or have had a palatal final consonant or vowel, which might explain the rising tone, although there are several words with *palatal coda and with regular tone development (e.g. *thán* "to weave" and *khóy* "to have").

(9) Most words with final *h* have falling tone (see examples in 3.1(8) above). It is a well-known fact that final *h* lowers fundamental frequency at the end of the preceding vowel (Hombert 1978).

In conclusion, U tonogenesis is unusually complicated and provides clear examples of mechanisms (merger of long and short vowels and merger of high and mid vowels) which until now were not known to cause tone differences in languages. Besides this, familiar microprosodic properties of different consonant types are involved in U tonogenesis. See Svantesson forthc.b for further discussion.

3.3 Single consonant onsets

As mentioned several times, originally voiceless unaspirated stops have become aspirated, and voiced stops have become voiceless unaspirated in the Angkuic languages, including U. For the labial, dental and velar stops, this development is straightforward:

	U	Hu	PW	Lamet	
*p-:	phó	phòt	*pos	póos	"deer"
	phèt	phíɲ	*pɤɲ	píɲ	"to shoot"
	mphà	phíʁ	*pɤr	mpír	"to fly"
*b-:	pú		*bɤʔ	mpùuʔ	"breast"
	pán	pàɲ	*baɲ	pàaɲ	"white"
	mpét	pét		pèc	"to spit"
*t-:	thí	thíʔ	*teʔ	tííʔ	"hand"
	thán	thàɲ	*taɲ	táaɲ	"to weave"
	sathà	θathá?	*sntaʔ	ntáʔ	"tail"
*d-:	tè			tèɛy	"arrow" (Parauk *tè*)
	tû	katúl	*kdɤl	ktɨl	"belly"
	ʔatăʕ	phltàk	*rndak	pltàak	"palm of hand"

*k-:	khà		*kaʔ	káaʔ	"fish"
	khát	khát	*kʋt	kát	"cold" (Hu: "sick")
	ŋkhám		*kam	ŋkáam	"husk"
*g-:	kùt		*gɨc		"to burn" (Kammu kùuc)
	káʕ	kák	*gʋk	kàk	"to bite"
	káã̃	kàŋ	*ŋgaŋ	kàaŋ	"house"

Original voiced and voiceless stops are preserved in Proto-Waic, but have merged and led to the development of lax and tense registers in Lamet.

Before ɔ, *t has usually developed into tsh and *d into ts:

U	Hu	PW	Lamet	
tshɔm	kathɔ̀m	*ktɔm		"liver"
ntshɔ̌t		*ntɔt		"to smoke"
ntshɔ̌ʕ	nthɔ̀k		sntɔ́ɔk	"brain" (Hu: "head")
tsɔ́m		*dɛm	tèɛm	"low"

In the case of palatal stops, the situation is more complicated, and it is convenient to treat them together with s and h. According to Diffloth 1977, Proto-Palaungic had the initials *j- (voiced palatal stop), *ts- (from Proto-Mon-Khmer *c-), *s- and *h- (but not *c-). For *j-, I have only two examples from U:

U	Hu	PW	Lamet	
kíã̃	cèŋ	*joŋ	cèeŋ	"foot"
kɛ̀t	ncɛ́n	*s-jen	kcɛ̀n	"heavy"

Thus *j-, which has the expected reflexes c- in Hu, *j- in Proto-Waic and c- with lax register in Lamet, has the reflex k- in U.

Only Ankuic and Danaw (Luce 1965) have retained the Proto-Palaungic opposition between *s- and *h-. (In Danaw the opposition is realized as one between θ- and h-.) In other branches of Palaungic, including Waic and Lamet, they have merged into h-. On the other hand, U s- is the result of neutralization of the Proto-Palaungic opposition *ts/*s. This opposition is preserved as s/θ in Hu, and as s/h in Waic and Lamet:

	U	Hu	PW	Lamet	
*ts-:	sò	sɔ́ʔ	*sɔʔ	sɔ́ʔ	"dog"
	sém		*som	séem	"night"
	sé	khasét	*ksɒs	krsás	"charcoal"
*s-:	sùp	θúm	*hɨm	húum	"to bathe"
	sìʃ	θáŋ		hɨ́ŋ	"bedbug"
	súʃ	θúk	*hɨk	khúk	"hair"
	sàt	paθán	*phɒn	phán	"five"
*h-:	hò		*hɤl	hɨ́l	"to go"
	hɔt		*hɔc		"to finish"

There are also a few words where some Northern Mon-Khmer languages have *c-* with tense register or high tone, while Waic has *s-*:

U	Hu	PW	Lamet	Kammu	
sú		*sɨʔ	sú?	cú?	"pain"
sàʃ	sáŋ	*sɒŋ	cáŋ	cáŋ	"bitter"

Ferlus 1978 reconstructs *tš-* for these cases, while Diffloth 1977 suggests a cluster *kt-* in "bitter".

There are also some words where U has the major syllable onset *ch*:

U	Hu	PW	Lamet	
nchí	nsí?	*sɨ?	sí?	"louse"
pachìp	ʔasím	*sem	síim	"bird"
nchìp	nθím	*mhem	lmhíim	"nail"

The first two words have Proto-Palaungic *ts-*, from Proto-Mon-Khmer *c-* (cf., from Diffloth 1977, Semai *cɛɛpm* "bird", *cɛɛ* "louse") but the third word must have Proto-Palaungic *s-*. Apparently, the expected reflex *ch* is preserved after minor syllables in U, and furthermore, *s and *ts have merged after the nasal minor syllable by the insertion of a homorganic epenthetic stop (the initial combination *ns-* does not occur in U, see 2.3). The word for "sand", *ntshăt* confirms this, since the Hu cognate *nθàc* and Lamet *máac* (< *mhaac* ?) show that there was a Proto-Palaungic *s.

As mentioned above, Proto-Palaungic does not have *c-*. It is found, however, in at least one Proto-Waic form, *cak* "sambar deer". This corresponds to U *yăʃ*, Lamet *kyàak* and Kammu *tyáak*, and thus Proto-Palaungic had an initial cluster with *y* as second element. (See also

Diffloth 1977:45-46; this word is also an example of an early Austroasiatic loan into Chinese, see Wén 1979.)

Of the remaining single initials, only *r- has undergone any substantial change, having a voiceless uvular fricative χ as its reflex. Similar developments have also taken place in some Lamet ("Khamet") dialects (Mitani 1965, Lindell, Svantesson and Tayanin 1978), in the Bùlǎngshān dialect of Blang proper (Zhōu and Yán 1983, Lǐ, Niè and Qiū 1986), as well as in several Tibeto-Burman languages. This is an areal feature, cutting through genetic classifications, a situation of some general interest in view of the similar development in parts of Europe. Obviously, the development of uvular r has taken place independently in these two areas. From the point of view of distinctive feature theory (as formulated e.g. by Jakobson, Fant and Halle 1952 or Chomsky and Halle 1968), this development should be rather unnatural, most of the distinctive features of r and ʁ (or χ) being different. See Lindau 1985 for a discussion of this (cf. also Maddieson 1980:102).
Examples:

U	Hu	PW	Lamet	
χáã			ráəŋ	"thorn"
χɛ̃ã		*rɛŋ		"strength" (Tai loan)
χɨ̀ʕ	θɨ́ŋ		rɨ́ŋ	"bamboo"
ŋχùp	tŋʁúm	*knrɨm	ntrùum	"under"
χâã				"flower" (Kammu ràəŋ)

3.4 Onset clusters

There were numerous initial clusters in Proto-Palaungic, but in the analysis adopted here no major syllable onset clusters occur in U. Many clusters have been reduced to single consonant onsets, or are partly retained in the form of a minor syllable + major syllable onset.

Onset clusters with a stop as first element have often been simplified by dropping the first consonant; in some cases, however, uvular stops have developed from these clusters. Examples of stop deletion:

U	PW	Lamet	
ʔǎn	*ʔaɲ	kʔáaɲ	"wasp"
kɛ̀t	*s-jen	kcɛ̀n	"heavy"
tû	*kdɤl	ktɤ̀l	"stomach"
thám	*ktam	ktáam	"crab"
thè	*ktɛʔ	ktáʔ	"earth"
tshɔm	*ktɔm		"liver"
mè	*rmeʔ	kmɛ̀ɛʔ	"husband" (PW: "male")
mùn	*kmɨl	km̀uul	"silver"
ɲǎʔ	*kɲas	kɲàas	"to laugh"
lì	*kliʔ		"penis"
χìp	*prem	príim	"old"
χí	*kris	kríis	"bear"
χuʔ			"to fall" (Kammu k'rúk)
yǎʔ	*cak	kyàak	"deer"
sàt	*phɔn	phán	"five"
sì	*khiʔ	khéeʔ	"wood"
sé	*ksɒs	krsás	"charcoal"

Clusters with a stop and *l or *r have most often developed into q (from *voiced stops) or qh (from *voiceless stops):

U	PW	Lamet	
qí	*breʔ	prìiʔ	"nature"
qú		plùuʔ	"salt"
qú	*ʔrɨʔ		"deep" (Kammu crùʔ)
qít		ŋkràac	"to scratch"
qhĭʔ	*prok	préek	"chest"
qhìʔ		mplíiɲ	"sky"
qhǎʔ	*krak	tráak	"buffalo"

When *r was preceded by a minor syllable with a nasal (in which case an epenthetic stop sometimes intervenes), the U reflex is ŋqh:

U	PW	Lamet	
ŋqhàʔ	*mrɒŋ	mràŋ	"horse"
ŋqhi	*ŋriʔ		"pestle"
ŋqhùt	*ŋrɨɲ	prùuɲ	"termite"
ŋqhà	*mraʔ	ntràaʔ	"to steal"

In the other U languages there has been some reduction of onset clusters, but uvularization has taken place only in Pã Xɛp U. Elsewhere in Angkuic, stop clusters are better preserved:

U	UW	UZ	Pm	Pn	Ak	Mok	Hu	
thè		t'ei51	panthaï	t'ui	ka té	saθɛ?	kathé?	"earth"
mùn			moul		ka múll	muu	mmúl	"silver"
tû				tu	tu kún	kətuu	kətúl	"belly"
qhăʕ	thrak51		trac	tsa	kăk		thʁak	"buffalo"
qú			plou		plu		palú?	"salt"
qú	gru51	gru51						"deep"
χìp	phrip55			p'i		phim	phrím	"old"
χìp	rip55			zi	him		ʁím	"village"

3.5 Minor syllables

The history of minor syllables in U is complicated. In Proto-Palaungic there must have been many sesquisyllabic morphemes, some of them with quite complex initial consonant clusters, and furthermore, there must have been a rich morphology, vestiges of which are still found in e.g. Lamet, Parauk and Palaung. Much of this morphology was based on prefixation or infixation of consonants, and thus affected the initial part of a word. Lamet still has a rather complex system of minor syllables, and some major syllable initial clusters, so that complicated initial parts of words can be built, providing a phonotactic domain for the morphological operators to work in.

In U only four minor syllables remain, and major syllable onsets can consist of only one consonant. Thus a great reduction process has taken place, which cannot be described in detail, however, until we have more knowledge about U and about the history of Palaungic in general. Here only an outline of the history of the minor syllables can be given. Since the minor syllable *pa* occurs in just a few words, only the other three will be treated.

3.5.1 The minor syllable sa

There are many different origins for this minor syllable in U:

U	Hu	PW	Lamet	
samà	θamá?	*kma?	?máa?	"wind" (PW: "sky")
sa?á	θa?àw		s?áar	"sour"
savàã	θavàŋ			"to ask"
sathàt	θathán			"old"
sathà	θathá?	*snta?	ntá?	"tail"
saphŏp	θmphúp			"lung"
samò	samó?	*smo?		"stone"
salè	salé?	*hlɛ?	slɛ̀ɛ?	"rain"
saχáã	saplàŋ		smplàaŋ	"shoulder"
saŋên	tsaŋàl	*sŋal	sŋàal	"green" (Kammu cŋáar)
sanàm	nŋàm	*hnam	náam	"blood"
sanàp	nŋím	*nvm	nìm	"year"
sanà	nŋàt			"comb"
sanáy	ŋ?ŋày	*sŋay	sŋàay	"far"
sa?áã	ka?àŋ	*s?aŋ	sŋ?áaŋ	"bone" (Kammu c?áaŋ)
saŋĭ	ŋí?	*sŋe?	sŋìi?	"day"
samèt	méɲ	*s?mvɲ	krmìɲ	"star"

The θ/s contrast in Hu should go back to Proto-Palaungic *s/*ts, which has merged into s in U (see 3.3 above). The U san-/Hu nŋ-correspondence might go back to a *jnh- cluster (see Svantesson forthc.a. for further discussion).

3.5.2 The minor syllable ?a

This minor syllable is the regular reflex of *r; in a few cases it corresponds to other minor syllables:

U	PW	Lamet	
ʔavây	*rwəy	rwàày	"tiger"
ʔavâ	*r-waʔ		"door"
ʔaŋàʃ	*rŋʊŋ	rŋàŋ	"iron"
ʔəmɔ̀	*rmʊs		"banana"
ʔată̆ʃ	*rndak	pltàak	"palm of hand"
ʔəkùn		plkùul	"finger"

3.5.3 The nasal minor syllable

A nasal minor syllable (see 2.3 for its different realizations) regularly corresponds to a minor syllable containing a nasal in other Palaungic languages:

U	PW	Lamet	
mphà	*pɤr	mpír	"to fly"
nthú	*kntɨʔ	ntúʔ	"hole"
ntshɔ̆t	*ntɔt		"to smoke"
nchìp	*mhem	lmhíim	"nail"
ŋkáã	*gaŋ	ŋkàaŋ	"rat"
ŋkhám	*kam	ŋkáam	"husk"
ŋqhàʃ	*mrʊŋ	mràŋ	"horse"

But cf. also:

nchí	*siʔ	síʔ	"louse"
ŋxí	*pliʔ	plée?	"fruit"
nthò		tɔ́ɔl	"six"

3.6 Vocabulary

As seen above, a large part of the basic vocabulary in U is common to the Palaungic languages and many words are inherited from Proto-Mon-Khmer or even Proto-Austroasiatic. There are also words which are specific to Angkuic, and not found elsewhere, e.g. *kháy* "rice" (see Diffloth 1982). There are still other words in the basic vocabulary which I have found only in Pã Xɛp U, and which I cannot identify as loans, e.g. *ʃán* "child", *pɔ̂m* "mountain", *pɛ́w* "monkey" and *mêm* "cat".

According to Liú et al. 1981, the Shuāngjiāng Blang have had much contact with the Tai (傣 Dǎi, i.e. Tai Nüa) people, and have adopted Hinayana Buddhism in its Tai form. The town Měng Měng 勐勐 (*mìʃ mìʃ* in U), the administrative center of Shuāngjiāng county, is inhabited mainly by Tai. There are rather many Tai loans in U, and in the wordlist (Section 5), related Tai words are given, usually from Tai Nüa dialects

described by Gedney 1976 or Harris 1975, which seem to be rather close to the sources of U loans, though they differ in details. The Tai loans have come into U at different times, as can be seen from the forms of the words in U. For instance, in some words the initial stops have not undergone the consonant shift characteristic of Angkuic, but in others they have.

Liú et al. 1981 also say that the Shuāngjiāng Blang have been in contact with the Lahu, but apparently this has had very little influence on the language.

There are very few possible Chinese loans: *pâw* "to protect" (Chinese *bǎo*), *tsǎw* "stove" (Chinese *zǎo*) and *síaw* "flute" (Chinese *xiǎo*). The last-mentioned word violates the usual phonotactic pattern in U by having a diphthong and the coda *w*.

4. Text

The following text, (together with a Chinese translation) was recorded on tape by the informant. Although I have made no systematic investigation of U grammar, some basic facts can be derived from the text and from information gathered informally from the informant.

Morphologically, U is an isolating language, and as might be expected U syntax does not differ basically from the syntax of other Northern Mon-Khmer languages. The basic word order is SVO:

    ʔò ŋê líʕ   "I killed the pig."
    I kill pig

Adjectives are constructed as intransitive verbs, without any copula, but nominal predicates take the copula *mà*:

    ʔóm   qú   "The water is deep."
    water deep

    tsɨ ʔò mà ʔay tìt   "My name is Ay Tit."
    name I is Ay Tit

The order of constituents in a phrase is usually head-modifier. Thus there are prepositions rather than postpositions, and the modifiers in a noun-phrase follow the head noun. This holds for adjectives, possessive nouns, numeral phrases and relative clauses:

    χìp   ʔàt   "big village"
    village big

    năy   ʔò   "my mother"
    mother I

    kíã   pôm   "the foot of the mountain"
    foot   mountain

    ʔú   ʔá ʔí   "two people"
    person two CLF

    ʔapùm ʔí   tò ʔò   "stories that people have told"
    story people tell PERF

Demonstratives are an exception to this, since they precede the head noun:

> ní ŋèp-sì   "this tree"
> this tree

Numerals require a classifier. Some nouns are their own classifiers, e.g. *χìp* "village":

> χìp   m̀   χìp   "one village"
> village one village

U has a three-by-three system of personal pronouns:

	singular	dual	plural
1st person	ʔò	ʔăy	ʔè
2nd person	mî	phăy	phé
3rd person	ʔèt	kăy	ké

4.1 Text

ʔŏt nâw pɔ̂m   yîn-nàn hɔ́ã̀ ŋây-saŋĭ χút   khóy   m̀
Stay in mountain Yúnnán direction sun   go-down there-is one

kén.   Kíã̀ pɔ̂m   khóy   ʔóm   mpéã̀, khìʃ pɔ̂m   khóy
place. Foot mountain there-is water Mpεã̀, head mountain there-is

nìʃ   mpà   sì, nâw thèʃ   pɔ̂m   khóy   χìp   m̀
jungle forest tree, in   middle mountain there-is village one

χìp.   Tsì   ʔí   ten mà pàã̀-χèp. Tà   nnî tu   mà χìp   ʔò.
village. Name people give is   Pã̀-Xεp. At this just is village I.

Χìp   ʔè   yɔ̃ã̀   ku yɔ̃ã̀,   mí ku mí, mà mpháã̀ lâ
Village we beautiful also beautiful, rich also rich, is place tea

kə.   Tham thú-sì   tsó-ʔŭn-tsó-năy na   ʔŏt nnî nâ khéy cí
much. From old-times ancestor   just stay here eat rice do

víʃ   mpɔ́ã̀ χìp   mpɔ́ã̀ kéã̀ tî. Tsó-ʔŭn-tsó-năy thú-sì   khóy
work build village build house REFL. Ancestor   old-times have

ʔəpùm ʔɔ̃̌ ʔɔ̃̌ tɔ̀ lɔ̃̌ lár. Nâw ʔəpùm ʔí tɔ̀ ʔɔ̀,
story many many tell down come. In story people tell PERF,

tsó-ʔŭn-tsó-nău thú-sì ʔŏt tà mpháã sɑŋáy sɑŋáy. Tà nnê
ancestor old-times stay at place far far. At that

khóy tùã ʔàt, ku khóy nìr mpà sì. Yɔ̀ tî
there-is flatlands big, also there-is jungle forest tree. Get REFL

nâ yɔ̀ tî tan, mà ʔú mà khɔ̃̌ã ku vɪn. Váy
eat get REFL sacrifice, be man be livestock also prosper. After

nè khóy ʔú la-ʔəsár tà ʔè. ʔè cí nàn mà ké,
that there-is people jealous at we. We make war with they,

ʔú ké ʔɔ̃̌ã pháw, vɛt pakhɔy χìp, pakhɔy káã
people they many too, surround encircle village, encircle house

ʔè. Cí nàn hɪ́ã, ʔè pa háy pê ké. Nâw khìr χìp
we. Make war long, we not-yet fight win they. In head village

ʔè khóy ŋàp-sì m̀ ŋàp. Tha-vá ʔí kɔ̀ cí nàn, patsaw
we there-is tree one CLF. From people begin make war, Buddha

na pháy thí-thà-qí lár m̀ ʔí. Sém mê sém mê ku lár
then send spirit come one CLF. Night any night any also come

tèp nè ŋàp-sì. Patsaw tɔ̀, ʔàn kɔ̀n sɑŋǐ mê, nté ní thà-qí
cut that tree. Buddha say, not mind day what, if this spirit

lăt qí păr tèp ní ŋàp-sì ten χur, tu mà ʔè ʔàn pê yɔ̀.
before sky bright cut this tree let fall, then is we not win PERF

Patsaw na nɛ ʔè ʔavìt tî mèr. Váy nè ní thà-qí tèp
Buddha then tell we run REFL fast. After that this spirit cut

ní ŋàp-sì, tèp hɪ́ã ʔàn sâã χur. Mpá mà ní thà-qí sém
this tree, cut long-time not can fall. Reason is this spirit night

mê pa yaã tèp hɔt, qí na kuã păr, ní ŋàp-sì
any not-yet ? cut finish, sky then as-soon-as bright, this tree

na kăt yaã-pɪ́ã tî.
then come-out original-shape REFL.

Khóy   m̀ saŋĭ nâw thèʃ sém, lăt   yé ʃɔ́ʃ ní ŋàp-sì
There-is one day in middle night, before cock crow this tree

ná-thɔ-lâ χuʃ ʔɔ̀. ʔú ʔɔ̂ã̄ na yò ní vè ʔàn mà tâã̄
suddenly fall PERF. People many then see this thing not is NOM

ʔâ, na va kăp ʔú sathàt ʔú ŋɛ̆ ʔavìt tî hɔ́ã̄
good, then tell even people old people young run REFL direction

ŋây-saŋĭ kăt. Hò híã́ ʔăt, láʃ χɔt tà pàã̄-χèp ʔàn yé
sun   come-out. Go long-time big come arrive at Pã̄-Xɛp not run

yɔ̀. Pàã̄-χèp lăt ní mà mphéã̄ vâ ʔŏt, ké yò ʔè láʃ
PERF. Pã̄-Xɛp before this is place Va live, they see we come

χɔt,   ké na qú. Vâ lăt ní sâã̄ tèp khìʃ ʔú,   ké
arrive, they then move. Va before this can cut head people, they

ʔàn tèp khìʃ ʔú   ʔè. Mpá mà ʔè ʔŏt tà pàã̄-χèp, nâw
not cut head people we. Reason is we stay at Pã̄-Xɛp, in

pɔ̂m   pàã̄-χèp khóy mút tsó-ʔŭn-tsó-năy ké. Tham mà ʔè
mountain Pã̄-Xép there-is grave ancestor   they. From is we

ʔŏt tà pàã̄-χèp pâw mút tsó-ʔŭn-tsó-năy ké.
stay at Pã̄-Xɛp guard grave   ancestor   they.

4.2 Translation:

In the mountains of western Yúnnán there is one place. At the foot of the mountain is the Mpɛã̄ river, at the top of the mountain there are forests, and in the middle of the mountain there is a village. The name people give to it is Pã̄ Xɛp. Here is my village.

Our village is very beautiful and very rich, it is a place with much tea. From old times the ancestors have been living here, eating rice, working and building their village and houses.

The ancient ancestors had many stories, which they have told down to us. In the stories people have told, the ancient ancestors were living at a place very far away. There were big flatlands and there were also forests. They were able to eat and to sacrifice [to Buddha], and both men and livestock prospered.

Then there were people who were jealous of us. We made war with them, but their people were too many and surrounded our village and houses. We made war for a long time, but still did not defeat them.

Above our village there was a tree. After people started to make war, Buddha sent a spirit. He came each night to cut at that tree. Buddha said that if on some day this spirit had cut this tree and made it fall before dawn, then we would not win. Buddha told us to run fast then.

After that, the spirit cut at this tree, he cut a long time, but could not make it fall, because if the spirit did not cut it down completely during some night, the tree grew out into its original form as soon as daybreak came.

One day, in the middle of the night before cock-crow, the tree suddenly fell. All the people saw that this thing was not a good one, and told both old and young people to run to the east. They went for a very long time, came to Pã Xɛp and did not run any more.

Before this, Pã Xɛp was a place where the Va lived. When they saw us come, they moved. Earlier the Va might cut off people's heads, but they did not cut the heads of our people, because we lived in Pã Xɛp, and in the mountains of Pã Xɛp were the graves of their ancestors. Because it was we who lived in Pã Xɛp who guarded the graves of their ancestors.

5. Wordlist

In this wordlist, all U words known to me are entered in reverse
alphabetical order. Besides the U words, all available words from other
Angkuic languages are given if they have any similarity to the U word.
In addition, possible sources for loanwords, most often related words
in Tai, are given. If available, a form from Gedney's Tai Nüa is given,
otherwise some other Tai form is used. Furthermore, Proto-Waic and
Lamet forms are given (in some cases in spite of the fact that they are
not necessarily cognate to the U word). For Lamet, words from the
more conservative dialect ("Dialect A") in Lindell, Svantesson and
Tayanin 1978 are cited, except in those cases where the other dialect
("Dialect B") has a long vowel and Dialect A a short vowel. Apparently,
Dialect B has preserved Proto-Palaungic vowel length better than
Dialect A. In some cases Lamet words from other sources (see below)
are given. When Proto-Waic or Lamet cognates are not available,
Parauk, Blang or Kammu forms are given for comparison.

The following abbreviations are used:

Tai languages:
    TN   Tai Nüa (Gedney 1976)
    TNH   Tai Nüa (Harris 1975)
    TND   Déhóng Tai (Nüa) (Yù and Luó 1980)
    Lü   Tai Lü (Yù and Luó 1980)
    Thai   Standard Thai

U languages:
    UW   Pèngpàn U (Shuāngjiāng Blang; Wáng and Chén 1982a,1982b)
    UZ   Pàngpĭn U (Shuāngjiāng Blang; Zhōu and Yán 1983)
    Pm   Pou Ma (d'Orléans 1898)
    Pn   P'u-man (Davies 1909)

Other Angkuic:
    Hu   Hu (Svantesson forthc.a)
    Kk   Khas Kon Keu (Lefèvre-Pontalis 1892)
    Ki   Khas Kiorr (Lefèvre-Pontalis 1896)
    Ak   Āng-kú (Scott 1900)
    Ml   Möng Lwe (Scott and Hardiman 1900)
    Am   A Mŏk (Scott and Hardiman 1900)
    M   Mok (Diffloth 1982)
    MW   Mok (Yā Āng Lăwā; Wenk 1965)

Waic:
- PW   Proto-Waic (Diffloth 1980)
- Pr   Paràuk (Va; Yán et al. 1981; phonemic transcription and spelling (within <...>) given)
- Bl   Blang, Bùlǎngshān dialect (own data)

Lamet (Rmèet):
- Lm   Lamet (Lindell, Svantesson and Tayanin 1978, Dialect A)
- LmB   Lamet (Lindell, Svantesson and Tayanin 1978, Dialect B)
- LmD   Lamet (Diffloth 1982)
- LmM   Khamet (Mitani 1965)
- LmL   Lampang Lamet (Charoenma 1980)
- LmW   Wiang Papao Lua (Charoenma 1980)

Kammuic:
- Km   Kammu Yùan (own data)

5.1 U-English Wordlist

ʔá   two; ~ tshò: twenty; ~ tshò χe mò: twenty-one; ʔú ~ ʔí: two people -- Hu kaʔà, Am á, M ʔaa; PW *lʔar, Lm ʔláar

saʔá   sour -- Hu θaʔàw, MW sǎā; Lm sʔáar

fà   magic; cí~: do magic

fà   thùǎ ~: shoulder bag -- TN vaa² "shoulder"; Pn p'a

ŋkà   to dance -- Ml ka

khà   fish -- Pn k'a; Ki kha, Ak hka, Ml ka; PW *kaʔ, LmM káaʔ

là   leaf (~ fá); ~ sì: tree leaf -- Pn hla; Hu láʔ, Ak,Ml,Am la, M laʔ; PW *hlaʔ, LmB láaʔ

là   ~ sì: grass -- Pn la-si

lâ   ná thɔ ~: suddenly

lâ   tea -- TNH laa³

la   ~ ʔasáʕ: jealous

salà   leaf (in: súp ~: tobacco; cf. là)

mà   some; ~ mû: some (things); ~ mû ʔàn ʔâ: some are not good; ʔú ~ ʔí: some people

mà   and, with; ʔò ~ ʔàt: I and he; ʔè cí nàn ~ ké: we made war with them

mâ   field; ~ qhìʕ: dry field -- Hu mà, Ak, Ml ma, Am mé, MW mā; PW *ʔmar, Lm màar

samà   wind; ~ ʔàt: storm; ~ fú: the wind blows -- Pn ma; Hu θamáʔ, Ak si má, Ml sa má, Am ka má, M simaʔ; PW *kmaʔ "sky", Lm ʔmáaʔ

ná   thick -- TN naa⁵

ná   ~ thɔ lâ: suddenly

nà   to (indirect object marker); ʔò cí ʔàt ~: I explain to him; tè mî ~: give to you; tɔ̀ ʔò ~: tell me

nâ to eat, to drink; ~ kháy: eat (rice); ~ ʔóm: drink water -- Pn na; PW *ɲiʔ "to drink"

na then; nté mî láʕ, ʔò ~ χò mî: if you come, I'll wait for ycu

sanà to comb; comb -- Hu nɡ̀at, MW nāt

ɲâ ʔɔ̆ʕ ~: grandmother -- Pn ya; PW *yaʔ, Lm yàaʔ

ɲa ~ nɔ̀ʕ: outside

nɲà skirt -- Ak,Ml nya, Am nga

ŋâ to itch -- Hu ŋáʔ; LmM ŋàaʔ

pà ~ tî: each other -- PW *(boʔ)

pa not yet

mpà ~ sì: forest

phá ~ wɔ́ã̀: window -- TN faa⁵ vɔŋ²

phâ to skin (animal), to bark (tree)

qâ to make fire (~ ŋàw)

qhà soul

ŋqhà to steal; ~ ʔavì t: run away, flee -- Hu maʁá?; PW *mraʔ, Lm ntràa?

tà at; ~ nnî: here; ~ saŋĭ: at noon; ʔè ʔŏt ~ pàã̀ χὲp: we live in Pã Xɛp -- Am ta, MW tĕ̆; Lm taʔ, Km tὰa

tâ to smear

thà eight -- Pn tʼa; Am nʼta; PW *snteʔ, Lm táʔ

thà old man (?) ; ~ mɔ̀ sâ: hunter; ~ qí: spirit -- Pn a-ta "father"; Ki ta "grandfather", M ʔa-thaʔ "father"; PW *taʔ "grandfather, old man", Lm táa? "grandfather"

tha ~ vá: from, since

sathà tail; ~ pachìp: bird's tail -- Hu θathá?, MW sātă̆; PW *sntaʔ, Lm ntáʔ

tshâ hundred (m̀ ~) -- PW *ryah

vá tha ~: from, since

vâ wide -- Pn va; Hu váw, Ak,Ml,Am wa, M waa; PW *wah, Lm wàh

vâ Va (people) -- PW *(r-)waʔ

va to tell -- TN vaa¹ "to speak"

ʔavâ door -- Pn wa; PW *r-waʔ

ʔè we (pl.); χì p ~: our village -- Hu ʔé?, Ml é, Am yi; PW *ʔɛʔ, Lm ʔὲɛ?

ʔe nominalizing particle: ~ ʔâ (~): those which are good; ~ ʔì p (~): those alive; ~ sapò: others

fè left (side) -- Hu vé?; PW *-wɛʔ, LmB wὲɛ?

ké they (pl.) -- UZ kʁi⁵¹; Hu ké?; Bl kè?, Lm kὲe?

khè vulva -- Pr céʔ <jeix>, Km ké?

lè to take, to marry

salè rain; qí ~: it rains -- Pm lé; Hu salé?, Ak si le, Ml sa le, Am ka le, MW sālā̆t; PW *hlɛ?, LmB slὲɛ?

mè husband -- Ml kame, Am me, MW mă̆; PW *rmeʔ "male", Lm kmὲɛ?

mè   new -- Pn *u-hmui*; Hu *thamé?*, M *thəmme?*, MW *thã̆mã̆*; Lm *?máh*, Km *hḿmè?*

mê   sugar (*?óm ~*) -- Kk *khmè*; PW **rm-me?*

mmè   axe -- Hu *mɔ̀*, Ak *mwi*, Ml *mui*, Am *niu*; PW **?mo/ɨy*, Lm *?mɨ́ɨy*, *mùuy*

nè   meat -- Hu *nŋé?*, MW *nä*; PW **(?)ne?*

ŋè   needle -- Ak *s'né*, Ml *si né*, Am *pai ngi*; PW **k-/pŋe?*

ŋê   to hit (with fist), to beat; to kill, to slaughter; *~ líʃ*: slaughter a pig

pè   (wild) goat -- TN *me³*; Pm *pe*, Pn *pie*; Ak *pé*, Am *ə-pi*; PW **bɛ?*, LmB *pà?*

pê   to vomit

sapè   clothes -- PW **(r(m)be?)*

phé   you (pl.) -- UZ *p'ɤi⁵¹*; Hu *phé?*; PW **pɛ?*, Lm *pὲɛ?*

sé   charcoal -- Hu *khasét*; PW **ksʋs*, Lm *krsás*

sê   to geld -- Pr *séh ⟨sieh⟩*, LmL *sᶖh*

tè   to give -- Pr *tɔ́? ⟨dox⟩*

nté   if; *~ mî láʃ*, *?ò na χò mî*: if you come, I'll wait for you

thè   earth -- UZ *t'ei⁵¹*, Pm *panthaï*, Pn *t'ui*; Hu *kathé?*, Kk *kté*, Ki *étè*, Ak *ka té*, Ml *ka te*, Am *ka ti*, M *səthɛ?*, MW *sä̆tĕ̆*; PW **ktɛ?*, Lm *ktá?*

vè   thing

χè   to rise; *~ hò*: go out; *~ tsɔ̀*: to get up

χe   (same as preceding?) *tshò ~ ?á*: twelve -- Am *le*

yê   eldest˚sister (*?Ê̂ʃ ~*) -- Pr *yé? ⟨yeix⟩*

kè   old (of people) -- TN *ke²*

lὲ   few

mê   who?, what?; any; *cín ~*: how?, why?; *mî mὰ ~*: who are you?; *saŋĭ ~*: what day?, any day; *tàm ~*: where?; *χɩ̀p ~*: what village?; *yám ~*: when? -- PW **(mɔ?)*, Lm *mὰ?*

nè   that -- Lm *nὰ?*

nɛ   to tell

nnê   *tὰ ~*: there

ŋέ   dregs

ŋĕ   small; young

pê   to win -- TN *pe⁶*; Bl *pé?*, Pr *pè? ⟨bēix⟩*, Lm *pέɛh*

tὲ   arrow -- Pr *tè ⟨dēi⟩*, Lm *tὲɛy*

tê   *súp ~*: tobacco

yé   fowl ; *~ ʃɔ́ʃ*: the cock crows; cock-crow, early in the morning; *~ khùt*: cock; *~ nây*: hen; *~ sê*: capon -- Pm *ia*, Pn *ya*; Hu *?ìʁ*, Kk *ya*, Ki *èo*, Ak *i-əu*, Ml *e*, Am *ya*, M *?ɛɛ*, MW *ē*; PW **?ɛr*, Lm *?έɛr*

?à   to pull -- Am *yö*

?â   good

ʃá   leaf (*lὰ ~*); *~ sì*: tree leaf -- TN *ʃɤ⁵*

kə   much

khá   to cook; *~ kháy*: cook food -- PW **kɤs*

mà   to be -- Km *màh*

mpá   reason

mphà   to fly -- UZ *p'ɤr⁵¹*, Pn *p'wa;* Hu *phíʁ,* M *phəə;* PW **pɤr,* Lm *mpír*

sâ   *mɔ̀ ~:* to hunt

sə   *nún ~:* happy

tá   to run

tsà   to know -- Pn *chu*

χà   song

χà   to play -- Lm *plɛ̀h*

yá   to run

ʔí   others, people; classifier for people; *ʔú m̀ ~:* one person -- Hu *ʔíʔ,* Ki,Ak,Ml,Am,MW *i;* LmB *ʔíiʔ*

ʔí   *~ ʔɔ̀:* violin

cí   to do, to make; *~ ɾà:* do magic; *~ nàn:* make war -- Ak *kyi,* Ml *hsi,* Am *kyi,* MW *či;* PW **g-/ji?*

cî   to point; to explain -- TN *ci⁶;* Pr *cì ⟨jī⟩*

nchí   head louse -- Hu *nsíʔ;* PW **siʔ,* Lm *síʔ*

kí   pinetree (*sì ~*) -- PW **ŋgiʔ*

kí   to count -- Lm *krɨ̀s*

ʔakhì   day after tomorrow -- Bl *skúʔ*

lì   penis -- UW *li⁵¹;* M *ʔa-li(i);* PW **kliʔ,* Km *tléʔ*

mlì   (body) louse -- LmB *mplɛ̀ʔ*

mí   rich -- TND *mi²*

mî   you (sg.) -- Pm *ni,* Pn *mi;* Hu *méʔ,* Ak,Ml *mi,* Am *mu,* MW *mūi;* PW **meʔ,* Lm *mìiʔ*

ní   this; *~ vè:* this thing

ʔanì   this

nnî   this; *tà ~:* here

ŋì   ashes

saŋǐ   day, noon; *ń ~:* today; *tà ~:* at noon -- Pm *seugni,* Pn *nyi;* Hu *ŋíʔ,* Kk *ni,* Ki *ngi,* Ml *nyi,* Am *ngi,* M *ŋiʔ,* MW *ṅi;* PW **sŋeʔ,* Lm *sŋìiʔ*

phì   to sweep; *~ káá:* sweep the house -- PW **pes*

qí   heaven; nature, wilderness; *~ salè:* it rains -- Pm *pri* "mountain", Hu *pʁíʔ,* Ak *pri,* Ml *pwi,* Am *pri;* PW **breʔ,* LmB *prìiʔ*

qí   spirit (*thà ~*) -- Hu *kʁíʔ,* Ak *plit,* Am *pa kri,* MW *phiki*

qí   pupa -- MW *pi* "worm"

ŋqhi   pestle -- UW *gri⁵¹;* Hu *ŋʁíʔ;* PW **(ŋriʔ),* LmB *ntróoʔ*

sí   rope, string; *~ ŋkú:* leather rope; *~ táy:* thread; *~ thɛ̌p:* rope -- Hu *pasíʔ,* Ak *pu hsi,* Ml *pi si,* Am *pa si,* MW *pāsi,* *pǎchi;* Lm *plsíʔ*

sì   wood, tree (ŋèp ~); stick; ~ satàw: walking-stick -- Pm *si*, Pn *si* "stick", *zie* "tree"; Hu θé?, Ki *teseu*, Ak *kisu*, Ml *ka hsü*, Am *su*, *hsu*, M *se?* "stick", MW *sĕ*; PW *khi?* "wood", *kho?* "tree", LmB *khée?*

sì   *là ~*: grass

sì   *thú ~*: old times

tì   nose -- Pn *mu-ti*; Hu *katá?*, Ki *keteu*, Ak *kattú*, Ml *ka tú*, Am *ka tu*, M *kta?*, MW *kătō̆*

tî   oneself (reflexive pronoun); *qít ~*: scratch oneself; *sùp ~*: bathe -- Pr *tí?* ⟨dix⟩, Lm *tìi?*

thí   hand, arm -- Pm *ti*, Pn *ch'i*; Hu *thí?*, Kk,Ki *ti*, Ak *hti*, *ti*, Ml,Am *ti*, MW *ti*, *thi*, *phi*; PW *te?*, Lm *tíi?*

thí   *~ thà qí*: spirit

thì   to beat, to play; *~ ?í ?ɔ̀*: play violin; *~ sathùʃ*: play drum; *~ tíã̆*: play lute -- Thai *tii*

?athî   to sneeze

χí   bear -- Hu *?aχèt*; PW *kris*, Lm *kríis*

ŋχí   fruit -- Pn *p'i*; Hu *phlé?*, M *phe?*; PW *pli?*, Lm *plée?*

sì   straight -- TN *suɯ¹*

tsì   name -- TN *cɯ¹*; Ak *sü*, Ml *hsü*; LmM *cù̈ɯ*

?avî   to throw; *~ phɔã̆*: throw away

?ò   I; *tsì ~*: my name -- Pm,Pn *ao*; Hu *?ɔ́?*, Ak *aw*, Ml *aw* "we", Am *aw*, M *?ɔʔ*, MW *ŏ̆*; PW *?ɨ?*, Lm *?ɔ́ɔ?*

?ô   face -- MW *ɒ* "cheek"

hò   to go -- Pn *zao*; Hu *ʋɨ̀*, PW *hʋl*, Lm *hɨ́l*

ŋkó   ear (of grain); *~ sáʃ*: ear of rice

mò   one (cf. *m̀*) -- UZ *mu³¹*; Hu *?amò*, Am *mo*, MW *mō̆*; Lm *mòoh*

mò   second sister (*?ɛ̂ʃ ~*)

mo   round; *ntshɔ ~*: moon -- Ak,Ml,Am *mun*; PW *?()mʋl/r*, Lm *mòn*

samò   stone -- Pm *simou*, Pn *mung*; Hu *samó?*, Kk *chémo*, Ki *samoc*, Ak *s'mo*, Ml *se mó*, Am *kamu*; M *smo?*, MW *sămo*; PW *smo?*

samò   fragrant

pó   evening, night; *tà ~*: in the evening -- Pm *pour*, Pn *a-pu*; Am *pwe*, M *sapoo*, MW *pō̆*; PW *bor*, Lm *pòor*

sapò   other -- LmB *rpò?*

phó   barking deer -- Hu *phòt* "sambar deer", Ak,Ml *pwe* "sambar deer", Am *poë* "sambar deer", MW *phō̄t* "deer"; PW *pos*, Lm *póos*

qó   to sew -- Hu *klùʋ*

qhó   wine -- UZ *p'lʋu⁵¹*; PW *play*

sò   dog; *~ qí*: fox -- Pm *tcho*, Pn *shaw*; Hu *só?*, Kk *chio*, Ak *saw*, Ml *hsaw*, Am *so*, M *sɔ?*, MW *sŏ̆*; PW *sɔ?*, Lm *só?*

tó   body; animal; *~ khùt*: male animal; *~ qí*: wild animal; *~ sàt*: animal -- TN *to¹*; UZ *to³¹* "classifier for animals"; Ak,Ml,Am *to* "classifier for animals", MW *tō̆*; Lm *tóo?*

nthò   six -- Pn *t'ao*; Am *tall*, M *pathɔɔ*; Lm *tɔ́ɔl*

tsó   generation; ~ ʔŭn ~ năy: ancestors; ~ ʔŭn mà năy: ancestors -- Thai *chía*

tsó   to sell

tshò   ten; ~ χe ʔá: twelve; ~ χe mò: eleven -- Pn *ch'ao;* Am *n'kyu;* PW **kol,* Lm *kéel*

patshó   wing

χò   clothes -- TN xo^4 "things"; PW **brʁʔ*

χò   to wait for

yò   to see; ~ ʔâ: be happy -- Pn *yow;* PW **yoʔ*

yò   to get, to manage; ~ tî: get

ʔò   ʔí ~: violin

ʔò   (perfective?) particle (cf. yò); ní vè pòt ~: this thing was broken; *qí salè* ~: it has started to rain; *sapè χìp* ~: the clothes have become old

hò   to trace

hô   to hunt (game) (~ tó qí) -- MW *hǫ*

kò   to begin -- LmB *kóɔh*

salò   to flow; to roll (down a hill)

mò   ~ sâ: to hunt; *thà* ~ *sâ*: hunter

ʔamò   banana -- PW **rmʋs*

pó   to help

pò   fat (adj.)

qò   headman of village (*thà* ~)

só   bee -- MW *kăsāi;* PW **phɛr/l*

tò   to talk, to tell; ~ ʔapăʃ: to talk; ~ ʔapùm: tell a story -- Km *trtòh*

thò   sing alternating song (~ χò)

thɔ   ná ~ lâ: suddenly

tsó   ant -- MW *čǫt*

tsò   to stand -- Pn *nchi*

tsò   to hit (target etc.); *khát* ~ *tî*: catch a cold; *phèt* ~: shoot and hit -- TND tso^3

ntshɔ   moon (~ mo) -- Pm *nikia,* Pn *ch'a-pa;* Ki *tchèo,* Ak *ché,* Am *n'kya*

χò   right, correct

yò   (perfective?) particle (cf. ʔò); ʔàn yá ~: not run any more

yô   root; ~ sì: tree root

yô   to carry -- Am *yaw* "to lift"

ʔú   person, human being; ~ khá kháy: cook -- Pn *u;* Ak,Ml,Am *u* "father", M *ʔa-ʔuu*

ʔù   to speak, to sing; ~ ʔapăʃ: talk; ~ χò: sing a song -- Km *ʔùu*

fú   to blow (of the wind)

hú   male; ʔêʃ ~: elder brother -- Kk *hu,* Ak *hu*

kú   in, at; ~ nâw: inside; ~ thèʃ: between, in the middle; ~ thèʃ sém: midnight

ku   also; *mí* ~ *mí*: very rich

ŋkú   skin, hide -- Ak,Ml *pong ku*, Am *ang gu*; LmB *ŋkùu?*

khù   yesterday -- Hu *sŋkhó?*, MW *uṅkhō*; PW **N-ko?*

ŋkhù   rice grain -- Pn *'n-k'u*; Hu *ŋkhó?*, Ki *ounkho*, Ak *n'ko*, Ml *un-ko*, Am *n'ku*, M *kho?*; PW **rŋko?*

mû   *mà ~*: some (things)

pú   breast (of woman) -- Ak,Ml *pu*; PW **bɤ?*, Lm *mpùu?*

pù   younger sibling; *?êʃ ~*: sibling -- PW **bɤ?*

?aphú   dung

qú   salt (*?óm ~*) -- Pm *plou*; Hu *palú?*, Kk *klou*, Ki *plou*, Ak,Ml *plu*, Am *ru*, MW *pu*; PW **gis*, Lm *plùu?*

qú   deep -- UW,UZ *gru⁵¹*; MW *ku*; PW **?rɨ?*, LmW *cɣu?*, Km *crù?*

qú   to move

ŋqhû   to walk; *~ mmɔ̀ʃ*: walk

sú   sick, hurt; pain, disease; *khóy ~*: be ill -- Pn *shu*; Ak,Ml *su*, Am *hsu*, M *su?*, MW *su*; PW **sɨ?*, Lm *sú?*

tû   belly, stomach -- Pn *tu*; Hu *katúl*, Ak *tu kún*, Ml *kutú*, Am *ka tú*, M *katuu*, MW *khãtu*; PW **kdɤl*, Lm *ktɨ̀l*

tu   then, just

ntû   to fall -- Pn *tia*; PW **ndɨh*

thú   vegetables -- MW *thu*; PW **tɨ?*, LmD *túu?*

thú   *~ sì*: old times

nthú   hole -- PW **kntɨ?*, Lm *ntú?*

sathú   to wash; *~ χò*: wash clothes -- Pr *sntái?* <si ndaex>

?áʃ   to swell -- Hu *pha?át*; PW **?ʋs*, Lm *?és*

?ǎʃ   bow, crossbow -- Hu *?àk*, Ki *ak*, Ak,Ml,Am *āk*; PW **?ak*, LmL *?áak*

káʃ   to bite -- Hu *kák*, M *kak*; PW **gʋk*, Lm *kàk*

láʃ   to come -- Pn *la*

làʃ   black -- UZ *lak³³*, Pn *la*; Ak,Ml *lang*, Am *a-lang*, M *laŋ*, MW *laṅ*; PW **lʋŋ*, Lm *làŋ*

?alâʃ   to change, to exchange -- TN *lɛk¹*; PW **()lɔh*, Lm *lɛɛk*

máʃ   *~ tsɔ̌ʃ*: orange -- TN *maak²* "fruit"

sanàʃ   blood vessel -- PW **snak*

ɲǎʃ   to laugh -- Pn *hnia*; Hu *nɲàt*, M *ɲat*, MW *yak*; PW **kɲas*, Lm *kɲàas*

ŋàʃ   *nây ~*: daughter-in-law

?aŋàʃ   iron -- Pm *angac*, Pn *nga*; Hu *kaɲáŋ*, Ak *ka ngang*, Ml *ku ngăng*, Am *se ngang*, M *laŋaŋ*, MW *lãñãṅ*; PW **rŋʋŋ*, Lm *rŋàn*

pǎʃ   bright, light; *qí ~*: dawn -- Ak *hpai*, Ml,Am *pai*; LmM *pàh*

?apǎʃ   speech -- Pn *hnin-pa* "speak"; PW **bɔŋ* "speak"

qhǎʃ   buffalo -- UW *thrak⁵¹*, Pm *trac*, Pn *tsa*; Hu *thʁàk*, Kk *trac*, Ki *khrac*, Ak *kāk*, Ml *tāk*, Am *krāk*, MW *khã*; PW **krak*, Lm *tráak*

?aqhǎʃ   lightning; *qí ~*: lightning flashes -- Ak,Ml *klük*, Am *pa lek*, Lm *krsáas*

ŋqhàʃ   horse -- Pm *bra*; Hu *maʁáŋ*, Kk *mgagne*, Am *m'lang*, MW *maṅ*; PW **mrʋŋ*, Lm *mràŋ*

sá ʔ   seed, kernel -- Pr sók <soug>

sá ʔ   rice (in the husk), paddy -- Hu θák, Kk sak, Am sāk

sà ʔ   knife; ~ tèp: machete -- Pm sac, Pn sa

sà ʔ   bitter -- Hu sáŋ; PW *sʋŋ, Lm cán

sa ʔ   to wash; ~ tɔ́ʔ: wash dishes -- TN sak¹; PW *phak, Lm pháak

ʔasá ʔ   heart -- Ak ök

tá ʔ   kɔ̀n ~: how many?

tâ ʔ   back (of person) -- Pn an-tai

ʔatä ʔ   palm of hand (~ thí), sole of foot (~ kíā) -- Hu phltàk; PW *rndak, Lm pltàak

ntá ʔ   what?

nthǎ ʔ   tongue -- Pn t'a; Hu nthàk, Kk taak, Ak,Ml tāk, Am pāk, M thaak; PW *k-l/n-tak, Lm pltáak

tsǎ ʔ   to dig

ntshǎ ʔ joint (of body)

yǎ ʔ   sambar deer -- Pm iak; PW *cak, Lm kyàak

ʔê ʔ   elder sibling; ~ hú: elder brother; ~ pù: sibling -- PW *ʔek "elder brother", Lm ʔéɛk

lè ʔ   to buy -- TN lɛk¹ "to exchange"; UZ liak⁵¹; Pr lìak <līag>, Lm lɛɛk "to exchange"

mè ʔ   quick; ʔavìt tî ~: run quickly

nè ʔ   leg; ~ ʔàt: thigh -- Ak puyāng, Ml pu nyang, Am nyang

thè ʔ   middle; kú ~: in the middle; nâw ~: in the middle -- Lm ntí?

khì ʔ   head; ~ pɔ̂m: top of a mountain; -- UZ k'ik³⁵, Pn ch'i; Ki kigne, Ak,Ml ching, Am kung, M khiŋ, MW khiñ; PW *keŋ, Lm kíŋ

lí ʔ   pig -- UZ lik³¹, Pm,Pn li; Hu lèk, Kk lék, Ki lek, M leek, MW lēk; PW *lik, LmB lìik

qhì ʔ   sky -- Pm plip, Pn p'i; Lm mplíŋ

qhĭ ʔ   chest, ribs -- Hu phʁèk; PW *prok, Lm préek

sĭ ʔ   full (with food) -- PW *sak, Lm sáak

nthì ʔ   wall -- PW *(ntiŋ)

ví ʔ   work; cí ~: to work -- TN vek¹; MW wēk; Lm wèek

ncí ʔ   dirty -- Lm kcò?

kì ʔ   horn -- UW krʁk⁵⁵; PW *ʔrʋŋ, Lm krìŋ

ʔalí ʔ   to boil -- Pr lók <loug>; LmB rlìk

mì ʔ   ~ ~: Měng Měng (administrative center of Shuāngjiāng county) -- TN mʁŋ⁴ "town"; Pr màŋ màŋ <mēng mēng>

nì ʔ   jungle -- PW *(ʔnʋŋ)

phí ʔ   to break (tr., itr.) -- PW *m-pʁk, Lm pík

sì ʔ   bedbug -- Hu θáŋ; Lm híŋ

thî ʔ   ~ ʔasém: to breathe

χì ʔ   bamboo -- Hu θíŋ, Ml kung, Am krong; Lm ríŋ, Km rháaŋ

ʔɔ́ ʔ   grandmother; ~ ɲâ: grandmother; ~ tsây. grandfather

fɔ́ ʔ   to crow

ŋkhɔ̌ ʔ   neck; nthú ~: throat -- MW klʋk; PW *ŋɔk, Lm krkɔ́?

lɔ́ ʔ   enough, satisfied

mmɔ̌ꞁ road -- Pm *ngroang*

nɔ̌ꞁ outside; hɔ̃̌ ɲa ~: outside -- TN *nɔkⁱ*; Am *nawk* "in front"

ʔaŋɔ̌ꞁ to nod; ~ khì ꞁ: nod one's head

sɔ̌ꞁ elbow -- TN *sɔk²*

tɔ́ꞁ tray -- PW *dok*

tɔ̌ꞁ to sting

ntɔ̌ꞁ to rise

tsɔ̌ꞁ *máꞁ* ~: orange

ntshɔ̌ꞁ brain (~ khì ꞁ) -- Hu *nthɔ̀k* "head", Kk *thok* "head"; Lm *sntɔ́ɔk*

saχɔ̌ꞁ bark (~ sì) -- Hu *θaklɔ̌ʔ*

yɔ̌ꞁ weak, sickly; worn out, broken

kùꞁ moth

múꞁ feather (*súꞁ* ~)

muꞁ *mún* ~: dust

núꞁ breast, chest -- Pr *náuk* ⟨naog⟩

pùꞁ to meet -- Pr *smpùk* ⟨si nbūg⟩

mpǔꞁ to prick, to pierce -- PW *(mbok)*

phùꞁ to blow (of person); ~ *síaw*: play flute -- PW *piŋ*, Lm *pún*

qùꞁ *ʔáy* ~: cloud

súꞁ hair; ~ khì ꞁ: hair on head; ~ *múꞁ*: feather -- Pn *su*; Hu *θúk*, Kk *souk*, Ak *(ka) hsuk*, Ml,Am,M,MW *suk*; PW *hɨk*, Lm *khúk*

sǔꞁ ear -- Pm *ioc*, Pn *la-shu*; Hu *nasɔ̀k*, Kk *lichauk*, Ak *chok*, Ml,Am *la sok*, M *kasook*, MW *kǎsōk*; PW *hyok*, Lm *yóok*

thúꞁ bridge -- Lm *rɲtɔ́ɔŋ*

sathùꞁ drum -- LmM *sàntún*

χuꞁ to fall -- Am *kru* "to drop"; Km *kʼrúk*

ʔaʔáɑ̃ rock -- PW *(rʔaŋ)*, Lm *rʔáaŋ*

paʔàɑ̃ to lie (down)

saʔáɑ̃ bone; ~ qhì ꞁ: ribs -- Hu *kaʔàŋ*, Ak,Ml,Am *ka-ang*, MW *sǎān*; PW *sʔaŋ*, Lm *sɲʔáaŋ*

fáɑ̃ to throw

káɑ̃ house, home, room -- UW,UZ *kaŋ⁵¹*, Pm *kang*, Pn *kan*; Hu *kàn*, Kk,Ki *kagne*, Ak,Ml,Am *kāng*, M *ka-kaan*; PW *ŋgaŋ*, LmD *kàaŋ*

ŋkáɑ̃ rat -- PW *gaŋ*, Lm *ŋkàaŋ*

làɑ̃ cold (of water); ʔóm ~: cold water -- PW *hlʋŋ*

pàɑ̃ ~ χèp: Pã Χɛp (Bāngxié) village

mpháɑ̃ place

sâɑ̃ can, be able -- TND *tsaːŋ⁶*

tâɑ̃ nominalizing particle: ~ *cí*: work; ~ *ʔâ*: good thing

ntáɑ̃ to ford, to wade(~ ʔóm) -- PW *(daŋ)*

váɑ̃ thin -- TN *vaaŋⁱ*

savàɑ̃ to ask -- Pn *van*; Hu *θavàŋ*

χáɑ̃ thorn -- Lm *ráaŋ*

χáɑ̃ shadow

χâɑ̃ flower; ~ ʔamɔ̀: banana flower; ~ fá: leaf bud -- Hu *ʁàn*; Km *ràaŋ*

χâᾶ morning; *tà ~*: in the morning -- PW *raŋ* "light, clear"

ŋχâᾶ tomorrow -- Hu *paván*

saχáᾶ shoulder -- Hu *saplàŋ*; Lm *smplàaŋ*

ʔêᾶ strong

fêᾶ lip (~ *ntùt*)

pêᾶ third sister (*ʔɛ́ʃ ~*)

mpéᾶ name of a river (*ʔóm ~*)

χèᾶ strength; *khóy ~*: strong -- TND *hɛŋ²*; Ak *keng*, Ml *heng*; PW *rɛŋ*

kíᾶ foot; *~ pɔ̂m*: foot of the mountain -- Pm *tiaŋ*, Pn *chin*; Hu *cèŋ*, Kk *tièŋne*, Ki *khieu*, Am *chung*, M *ceeŋ*, MW *čēŋ́*; PW *joŋ*, Lm *cèeŋ*

kìᾶ tripod -- TN *ceŋ⁴*

líᾶ high, tall -- Pn *hlöng*; Hu *lèŋ*, Ak *lüng*, Ml,Am *lung*, MW *lēŋ́*; PW *hloŋ*, Lm *léeŋ*

nîᾶ to listen; *ʔò ~ ʔàt tɔ̀ ʔapǎʃ*: I listen to him talking

nnìᾶ to lean

tíᾶ lute -- TND *tiŋ⁵*; Bl *tíŋ*, Pr *tíŋ* <ding>

fìᾶ rice plant -- TND *faŋ²*

híᾶ long (time) -- TN *hɤŋ⁵*; PW *ʔliŋ*, Lm *léeŋ*

lǐᾶ yellow -- TN *lɤŋ⁵*; Ak,Ml *löng*; Bl *hlǎŋ*, Lm *láaŋ*

píᾶ basket (big) -- Lü *buŋ¹*

pîᾶ mud -- PW *(mbiŋ)*, Km *pùŋ*

sìᾶ Mekong (*ʔóm ~*)

tìᾶ pond -- Pr *ntùŋ* <ndūng>, Lm *tíŋ*

satíᾶ to snore (~ *tî*) -- Lm *stìr*

χíᾶ warm -- Am *rŏn*

sayìᾶ light (in weight) -- Pn *ing*; M *kayaaŋ*, MW *kǎyŏŋ́*; PW *(c)yoŋ*, LmB *yèeŋ*

ʔɔ̂ᾶ many

hɔ́ᾶ direction; *~ maw*: above, on top of; *~ ɲa nɔ̀ʃ*: outside; *~ ŋây saɲĭ kǎt*: east; *~ ŋây saɲĭ χút*: west; *~ ŋχùp*: down(ward) -- MW *üŋ̆lǫŋ́*; Lm *loŋ*

kɔ̂ᾶ *~ háw*: sky -- Hu *kaŋ χáw*, Am *kāng rao*; PW *raw*

kɔ̂ᾶ bottle -- Lü *kɔŋ³*; Lm *kɔ́ɔŋ*

khɔ́ᾶ tame animal, livestock

lɔ́ᾶ boat -- UW *ʔluaŋ⁵¹*; Am *la-ŏng*; Lm *slɔ̀ɔŋ*

lɔ́ᾶ to go down; *~ hò*: go down; *~ láʃ*: come down -- TN *loŋ⁴*

nɔ́ᾶ lake -- TNH *nɔŋ⁵*; Bl *hnɔ́n*, Pr *hnɔ́ŋ* <hnong>

ɲɔ́ᾶ sweet -- Ak *t'ngān*, Ml *sa nāng*, Am *nyum*, MW *ngāng*; PW *ɲom*

pɔ́ᾶ worm; *~ súʃ*: caterpillar

mpɔ́ᾶ to build

phɔᾶ away; *ʔavî ~*: throw away; *pê ~*: vomit

qɔ̂ᾶ (bamboo) tube; *~ ʔóm mê̂*: sugar cane

patshɔ́ᾶ fat, grease

wɔ́ᾶ *phá ~*: window

χɔ̃ã basket (small) -- TNH *xɔŋ³* "fish basket"

yɔ̃ã beautiful -- Pn *juan* "good"; Hu *yɔ̀ŋ* "good", Am *yawng* "good", M *yɔɔŋ*, MW *yɔ̯ŋ̇*

hũã eagle -- TND *hoŋ⁴*

kùã bent, crooked -- Thai *khɔ́oŋ*

kuã already, as soon as

qúã knee -- Hu *kòŋ*, MW *sakɔ̯ŋ̇*; PW *sŋroŋ*, Lm *kròoŋ*

tùã flatlands (in river valley) -- TND *toŋ⁶*

thũã bag; ~ *fà:* shoulder bag -- Thai *thŭŋ*; Pn *t'oŋ*; Lm *thóŋ*

khàm to fight (of animals), to butt

ŋkhám husk, bran -- PW *kam*, Lm *ŋkáam*

làm trunk, log (~ *sì*) ; *sàt* ~: five logs -- TN *lam⁴*

sanàm blood -- Hu *nŋàm*, Ak *si-nãm*, Ml *se nàm*, Am *nãm*, MW *nãm*; PW *hnam*, Lm *náam*

sâm to tattoo; ~ *tó tî̊:* tattoo one's body -- TNH *sam⁴*

tàm ~ *mÊ:* where? (Cf. *tà*)

thám crab -- PW *ktam*, Lm *ktáam*

thâm cave -- TN *tham³*; Lm *thám*

tham from, since; ~ *thú sì:* since old times

yám ~ *mÊ:* when? -- TN *yaam⁴* "season"; Ak *yãm*

yâm to cry, to weep -- Pn *yang*; Hu *yàm*, M *ɲaam*; PW *yam*, Lm *yàam*

sém night, evening -- Ki *sune*, Ak *sum*, MW *sēŋ̇*; PW *som*, Lm *séem*

ʔasém breath; *thîʕ* ~: to breathe -- Ak *pu sum* "soul"; Bl *mphúm* "to breathe", Pr *mphɔ́m* <*npom*>, Lm *phéem*

kèm to hold (in one's hand)

mêm cat

làm smooth

sâm hungry (~ *vè*)

ʔóm water, liquid, river; ~ *ʔàt:* river; ~ *nɔ́ã sɔ́:* honey -- UZ *ʔom⁵¹*, Pm *om*, Pn *ong, ung*; Hu *ʔɔ̀m*, Kk,Ki *ôme*, Ak,Ml,Am *om*, M *ʔoom*, MW *ōm*; PW *r?om*, Lm *ʔóom*

nthóm to burn

χòm shade -- TN *hom¹*

pɔ̀m fourth sister (*ʔÊʕ* ~)

pɔ̂m mountain

tsɔ́m low -- Pn *t'ien*; Hu *tèn*, Ak,Ml *ten* "short", Am *tem* "short"; PW *dɛm*, LmM *tèem*

tsɔ̂m to sit

tshɔm liver -- UW *dhuam⁵¹*; Hu *kathɔ̀m*, MW *kãthɔm*; PW *ktɔm*, LmW *ntɔ́ɔm*

ʔapùm story -- TND *ə⁶ pum⁵*

ʔàn not; ~ *ʔâ:* not good; ~ *hò:* not go; ~ *mà:* is not -- Bl *ʔún*, PW *(ʔaŋ)*

ʔăn wasp (*nêy* ~) -- Hu *kaʔàɲ*; PW *ʔaɲ*, Lm *kʔáaɲ*

mán rattan

nàn	*yîn ~:* Yúnnán
nàn	war; *cí ~:* make war -- PW *(naɲ)*
pán	white -- Pn *paŋ;* Hu *pàɲ,* Am *a-paing,* M *pɛn;* PW **baɲ,* Lm *pàaɲ*
tan	to sacrifice (to Buddha)
thán	to weave -- Hu *thàɲ,* MW *thān;* PW **taɲ,* Lm *táaɲ*
cèn	sheep -- TN *cen¹*
khen	most (in comparisons); *~ ʔɔ̃ã̃:* most
sèn	to split
ten	to give, to let, to cause
saŋên	green -- Hu *tsaŋàl* "blue"; PW **sŋal,* Lm *sŋàal*
fán	child (*~ ʔú),* young (of animal); *~ kíã̃:* little toe; *~ khùt:* man; *~ʔɔ́m:* brook; *~ phàt:* woman; *~ sàʃ:* small knife; *~ thí:* little finger
kán	place; *m̀ ~:* one place
lân	stupid; *ʔú ~:* fool
mân	day before yesterday *(saŋǐ ~)*
cín	*~ mɛ̂:* how?, why? (Cf. *cí)*
pín	to get, to harvest
pìn	to forget -- Pr *pì <bĩ>,* Bl *pìl*
sìn	mosquito; fly
yîn	*~ nàn:* Yúnnán
ŋîn	silver -- TN *ɲɤn⁴*
vìn	prosperous
ʔapón	roof (*~ kɛ́ɑ̃)*
phón	four -- Pn *p'un;* Hu *ʔaphòn,* Am *pun,* M *phoon;* PW **pon,* Lm *póon*
kɔ̀n	*~ táʃ:* how many; *ʔàn ~:* no matter
mɔ́n	son-in-law
mɔ̀n	blue -- Thai *mòn* "grey"; Ak *mun* "grey"
patsɔ̌n	to spin (round) -- TND *tsɔn⁵*
ʔǔn	father; *~ thí:* index finger -- Pm *ounia;* Hu *ʔaʔúɲ,* Kk *ougnè,* Ki *ouigne;* PW **kiɲ,* Lm *ʔúuɲ*
ʔakùn	finger (*~ thí),* toe (*~ kíɑ̃);* *~ thí kú thèʃ:* middle finger -- Lm *plkùul*
mún	*~ muʃ:* dust -- TND *moŋ⁶ mot⁸;* Lm *ʔmíl*
mùn	silver, money -- Pm *moul,* Pn *hmwa;* Hu *mmúl,* Ak *ka múll,* Ml *ka mún,* Am *mwi,* M *muu,* MW *mū;* PW **kmil,* Lm *kmùul*
nún	to love, to like; happy; *~ sa:* happy; *~ ~ sa sa:* very happy
mphùn	seven -- Pn *p'ua;* Am *n'pwi;* LmB *púul*
ŋhùn	to tie
khap	jaw -- Hu *khàp,* Ak,Ml,Am *kāp;* PW **kap,* Lm *káap*
saqǎp	to catch (sth)
nthàp	egg -- Pn *t'ai;* Hu *nthám,* Kk *tam,* M *tham,* MW *tham;* PW **ktʋm,* Lm *ntám*
χàp	right (side) -- Pm *sap;* Hu *ʔaθém;* Lm *hám*
χàp	to borrow; *ʔò ~ mùn mî̃:* I borrow your money

yàp   to die -- Pn *ya;* Hu *yám,* Ak,Ml *yăm,* Am *yɛm,* M *yɛm,* MW *yīom;* PW **yɤm,* Lm *yàm*

khép   to swallow -- Bl *χíp,* Pr *hríp* <hreeb> "to drink"

tèp   to cut

thĕp   *sí ~:* rope

χèp   see: *pàã̃ ~*

kăp   even

nàp   thunder; *qí ~:* it thunders -- Am *pa nom;* PW **(rnɤm),* LmM *kàlnɯ̀m*

sanàp   year -- MW *nam;* Hu *nŋím,* PW **nɤm,* Lm *nìm*

ŋàp   classifier for trees; *~ sì:* tree; *~ sì sàt ~:* five trees -- PW **(?)nɤm* "plant"

sàp   rotten -- PW **s?ɤm*

tàp   barn (*káã̃ ~*)

?ìp   alive -- Hu *?ím,* Ki *im;* PW **?em,* LmB *?íim*

nchìp   nail, claw; *~ thí:* finger nail -- UW *dʒhip^{55};* Hu *nθím;* PW **hmem/mhem,* Bl *ŋhím,* Lm *lmhíim*

pachìp   bird -- UZ *tʃ'im^{51},* Pn *si;* Hu *?asím,* Kk *chim,* Ki *sim,* M *?a-sim,* MW *kăsīm, sim;* PW **sem,* LmB *síim*

thìp   nine -- Pn *t'i;* Am *n'tum;* PW **s(n)tem,* Lm *tíim*

χìp   village; *~ m̀ ~:* one village -- UW *rip^{55},* Pn *zi;* Hu *ʁím,* Ki *khim,* Ak *him,* Ml *kim,* Am *rum*

χìp   old (of things) -- UW *phrip^{55},* Pn *p'i;* Hu *phʁím,* M *phim;* PW **prem,* Lm *príim*

χìp   to run after

saphŏp   lung -- Hu *θmphúp*

tŏp   to answer -- Lü *tɔp^9;* Bl *tɔ́p,* Lm *tɔ́ɔp*

lúp   to enter

lùp   to piss (*~ tî*); piss (*?óm ~*) -- Hu *núm,* MW *yum;* PW **()nim,* Lm *nùum*

sanùp   navel

súp   tobacco (*~ salà, ~ tɛ̂*), cigarette; *ntshɔ̆t ~:* smoke tobacco; -- TN *sup^5;* Pm *soup;* Pr *sùp* <sūb>

sùp   to wash, to bathe (*~ tî*); *~ khìʃ:* wash one's hair -- Hu *θúm,* M *çum,* MW *sŭm;* PW **him,* Lm *húum*

ŋχùp   under -- Hu *tŋʁúm;* PW **(knrim),* Lm *ntrùum*

?àt   big; very, much; *pɔ̀t ~:* very short; *?ùy ~:* smell much -- Pn *up;* Ki *ak* "much", Am *on,* M *?ɔn,* MW *ɒn;* Bl *hɔ́n*

kát   hot -- MW *kat* "to burn"; PW **koc*

ŋkàt   footprint (*~ kíã̃*)

khát   cold (weather); to freeze; *~ tsɔ̀ tî:* catch a cold -- TN *kat^2;* UZ *k'at^{31},* Pn *k'a;* Hu *khát* "sick", Kk *khat,* Am *kyet,* M,MW *khat;* PW **kʊt,* LmB *kát*

lăt   to fear -- MW *lāt;* PW **hlat,* Lm *láat*

lăt   before; *~ qí pắʃ:* before dawn

nát   gun -- TN *naat¹*; UZ *nat³³*; Hu *θanàt*, Kk *senate* "bow"; PW **snat*, Lm *snàat*

sàt   five -- Pn *sa*; Hu *paθán*, Am *(pa) hsen*, M *pasan*; PW **phɔn*, Lm *phán*

sàt   *tó ~:* animal -- Thai *sàt*; Pr *sát <sad>*, LmB *sát*

sathàt   old (person) -- Pn *t'a*; Hu *θathán*, Am *tan*, MW *sătān*

ntshăt   sand -- Pn *nts'a*; Hu *nθàc*; PW **(hmac)*, Lm *máac*

fèt   flea -- Hu *θakwíŋ*, Ak *si kweng*, Ml *s'kwen*, Am *s'koin*

ŋkhèt   tooth -- Pn *an-ch'ei*; Hu *khíŋ*, Kk *khègne*, Ak *kyaing*, Ml *kain*, Am *kaing*, M *khɛn*, MW *khɔ̇ṅ*; Lm *kɛ́ɲ*

samèt   star; *~ mphà:* meteor -- Pn *mö*; Hu *méɲ*, Kk *meugne*, Ki *khemeng*, Ak *sa mēn*, Ml *sa min*, Am *a moin*, M *siɲmɛɲ*, MW *sămān*; PW **sʔmɤɲ*, Lm *krmìɲ*

saɲét   rank (smell)

mpét   to spit (*~ ʔóm páy*) -- Hu *pét*; Pr *mpàc <nbāig>*, Lm *pèc*

phèt   to shoot -- Hu *phíɲ*, MW *phōn*; PW **pɤɲ*, Lm *píɲ*

sét   to stab, to pierce -- LmW *sét*

sèt   snake -- Hu *paθéɲ*, Kk *pseugné*, Ki *peseng*, MW *(pō) sōm*; PW **sʔɤɲ*, Lm *phíɲ*

vét   to cut -- Bl *vùc*, Pr *vɔ̀k <vog>*

yèt   bad, broken, worn out

kèt   heavy -- Pn *chie*; Hu *ncɛ́n*, M *kacɛn*, MW *k(ă)čan*; PW **s-jen*, Lm *kcèn*

khét   frog -- TNH *xet²*; Pr *khét <keid>*

pét   duck -- TN *pet⁵*; Lm *pét*

vɛt   to surround (*~ pakhɔy*) -- Lü *vɛt⁸*

yĕt   to sleep -- Hu *ʔèt*, Ak,Ml,Am *et*; PW **ʔit*, Lm *ʔíit*

ʔàt   he, she, it -- Pm *i*; Hu *ʔán*; PW **ʔin* "this", Bl *ʔán*, Lm *ʔéen*

kát   to think -- Lü *kɯt⁸*; Bl *kkɨt*, Pr *kàt <gēd>*, Lm *lmkɨt*

kăt   to be born, to come out, to rise (of the sun) -- Lü *kat⁹*

phàt   female, wife; *fán ~:* woman -- Pm *pote*, Pn *p'ö*; Hu *phíɲ*, Kk *peune*, Ki *kheune*, Ak,Ml *kön*, Am *fŏn, kŏn*, M *phan*, MW *phŏn*; PW **rmpɤɲ*, Lm *rmpíɲ* "woman", *kpíɲ* "wife"

săt   to wash; *~ ɲăy tî:* wash one's face -- PW **khoc*, Lm *khóoc*

qít   to scratch -- TN *xit⁵*; PW **(hac)*, Bl *kχàc*, Pr *kràc <grāig>*, Lm *ŋkràac*

tìt   See: *ʔay ~ sáw*

ʔavìt   to run (*~ tî*)

ʔŏt   to stay, to live, (to be) at; *~ ʔê̂:* be happy; *~ hɔ́ã̂ maw:* above; *~ tà nnî̂:* be here -- Hu *ʔòt*, MW *ōt*; PW **(ʔot)*

not   beard (*súɾ ~*) -- TN *not⁵*

pŏt   to catch, to seize (person)

fɔ̌t   to wipe, to rub -- Bl *ʔót*, Pr *ʔɔ́t <od>*, Lm *ʔɔ́ɔt*

hɔt   finished -- PW **hɔc*, Km *hóoc*

lɔ̀t   to penetrate

pɔ̀t   short; to break (itr.) -- Pn *tua;* M *toot,* MW *tōt;* Pr *ntɔ̀t* ‹*ndōd*›, Lm *tə̀t*

thɔ̀t   near -- Pn *tie*

ntshɔ̌t   to smoke (cigarette); ~ *súp:* smoke cigarettes -- Kk *toot,* Am *tawt;* PW *(ntɔt)*

χɔ̌t   to tie (a knot) -- Thai *khɔ̀ɔt;* LmB *rɔ́ɔt*

χɔt   to arrive -- Am *roit;* PW *hoc,* Km *rɔ̀ɔt*

kùt   to burn -- PW *gic,* Km *kùuc*

khút   to dig -- TNH *xut⁵*

khùt   male; *fán ~:* man; *tó ~:* male animal -- Pm *coute,* Pn *k'u;* Hu *khúɲ,* Ki *kouine, kouigne,* Ak *kuwin,* Ml *kwĩn,* Am *kuwin,* M,MW *khun;* PW *kiɲ* "father", LmD *kúuɲ*

mút   grave -- PW *(rmic)*

samùt   angry

ŋqhùt   termite -- UW *h'pruik⁵⁵;* Hu *maʁúɲ* "ant"; PW *ŋriɲ,* Lm *prùuɲ*

sút   to sting -- PW *hic,* Lm *húuc*

ntùt   mouth, snout -- Pm *dote,* Pn *mua;* Hu *ntúɲ,* Kk *togne,* Ki *moeng,* Ak,Ml *moin,* Am *en twin;* PW *mɔɲ,* Bl *ntùɲ,* Km *hɲtòoɲ*

χút   to go down; set (of the sun) -- Ak *kut*

yùt   to push

ʔáw   saliva (*ʔóm ~*)

háw   see: *kɔ̂ã ~*

kàw   to hear -- Pn *chia*

kâw   owl (*~ mɛ̂m*)

khàw   to enter -- TN *xaw³*

maw   above, overside

nâw   in, inside; *~ káã:* in the house, at home

ŋàw   fire -- Pm *nao,* Pn *ngao;* Hu *ŋál,* Kk,Ki *ngal;* Ak,Ml *ngall,* Am *ngé,* M *ŋa(h),* MW *ŋ́ã;* PW *ŋʊl,* Lm *ŋàl*

pâw   to guard, to protect -- Chinese *bǎo;* TND *paw²*

pháw   too (much); *ʔɔ̂ã ~:* too many

phaw   mortar -- Hu *mphál;* PW *(pʊl/r),* Lm *pál*

sáw   to climb; *~ ŋə̀p sì:* climb a tree; *~ pɔ̂m:* climb a mountain -- Lm *háaw*

sáw   See: *ʔay tìt ~*

satàw   to limp -- TN *taw⁶*

tsăw   stove -- Chinese *zào*

patsaw   Buddha -- Thai *phrácâaw* "God"; Am *pa hsaw* "God"

χâw   ground

ʔêw   blind (*ŋây ~*)

péw   monkey

kíw   mountain pass -- Thai *kìw;* Bl *kìw*

tíw   trousers -- TN *tew²;* Ki *téou,* Ak,Ml *teo*

síaw   flute -- Chinese *xiāo*

ʔáy   smoke (*~ ŋàw*), smell (*~ vè*); *~ qùʃ:* cloud -- TN *ʔaay¹* "steam, vapour"

ʔăy   we (dual) -- Hu ʔày; Bl ʔáʔ, LmB ʔáay

ʔay   prefix in men's names; ~ tìt sáw: name of informant -- TN ʔaay³ "man"

háy   to fight; ~ nàn: fight a war; ~ pà tî: fight each other

kăy   they (dual) -- Hu káw; Bl kàʔ, Lm kàar

kháy   cooked rice; food; ~ saŋĭ: lunch -- Pn k'ai; Hu khày "eat", Kk khai "eat", Ki khay "eat", Ak,Ml kai "eat", Am kyé "eat", M khaay "eat", MW khāi "eat"

láy   squirrel -- Hu ʔalày; PW *ʔlay, LmB lèey

nây   female; ~ ʔăn: wasp; ~ kíã: big toe; ~ nàʃ: daughter-in-law; ~ thí: thumb; ~ ʔú: (old) woman; yé ~: hen

năy   mother; ~ ʔè: our mother -- Pm nai, Pn a-nai; Hu ʔanày, Kk noè, Ki neuille, Ak nwe, Ml nwé, M ʔa-naay, MW nui; Lm nèeʔ

ŋây   eye; ~ saŋĭ: sun; ~ χãã: flower bud -- Pm,Pn ngai; Hu saŋày, Kk segnaie, Ki saknay, Ak,Ml ngai, Am hsu ngé, M si-ŋaay, MW sāñāi; PW *ʔŋay, Lm ŋàay

saŋáy   far -- Pn ngai; Hu ŋʔŋày, Ki segnay, Ak s'ngai, Ml é, Am ngé, MW ñāi; PW *sŋay, Lm sŋàay

páy   spittle (ʔóm ~)

pháy   to wash; ~ ŋkhù: wash rice; ~ thú: wash vegetables

pháy   to send

phăy   you (dual) -- Hu pháw; Bl páʔ, Lm pàar

ʔaqày   to turn

táy   cotton -- TN taay¹; Pm tai; MW pătāi

tsây   ʔ˘ʃ ~: grandfather -- TN caay⁴ "male"

váy   after; ~ nè: after that, later

ʔavây   tiger -- Pm avai, Pn vai; Kk kheuvai, Ki khavay, M lwaay, MW lăwāi; PW *rway, LmD rwàay

wáy   three -- Hu kaʔɔy, Am wé, MW ǫi; PW *lʔɔy, Lm ʔlɔ́ɔy

khóy   to have, there is; ~ sú: be ill -- UZ k'oi⁵¹; Hu khòy, Kk kouille "to be", MW khui; PW *koy, Lm kóoy

hɔ̀y   to hang

pakhɔy   to encircle

lɔ́y   to float -- TN lɔy⁴; Lm lèɛy "to flow"

mɔ́y   cattle, cow -- UZ ɱuai³¹, Pm mouei, Pn hmui; Kk moè, Am mwe, M muay, MW mui, mǫi, mōi; PW *(k)mɔy

mɔ̀y   tired -- TNH moy¹

mɔ̂y   dusk; tà ~: at dusk

ŋɔ́y   to look

sɔ̀y   to slice -- TN sɔy⁴

ʔùy   to smell (sth.); to smell (itr.); to stink; ~ ʔàt: stink much; ~ samò: smell good; lè ní vè láʃ ~: take this thing and smell it; vè ~: stinking thing; -- MW ui; PW *sʔoy, Lm ʔúuy

qhúy   worn out, broken

 m̀ one (reduced form of *mò,* used before other numerals and classifiers); ~ *tshâ:* one hundred; *ʔú ~ ʔí:* one person

ń (reduced form of *ní* "this" ?); ~ *saŋĭ:* today

5.2 English-U index

above	(hɔ́ɑ̃) mɐw	before	lɐ̆t
after	vɐ́y	begin	kɔ̀
after that	vɐ́y nɛ	belly	tû
alive	ʔìp	bent	kùɑ̃
already	kuɑ̃	between	kú thɛ̀ɾ
also	ku	big	ʔɐt
ancestors	tsɔ́ ʔŭn tsɔ́/mà nɐ̆y	bird	pɐchìp
and	mà	bite	kɐ́ɾ
angry	sɐmùt	bitter	sɐ̀ɾ
animal	tɔ́ sɐ̀t	black	lɐ̀ɾ
animal, tame	khɔ́ɑ̃	blind	ʔɛ̂w
answer	tɔ̆p	blood	sɐnɐ̀m
ant	tsɔ́	blood vessel	sɐnɐ̀ɾ
any	mɛ̂	blow	fú, phùɾ
arm	thí	blue	mɔ̀n
arrive	χɔt	boat	lɔ́ɑ̃
arrow	tɛ̀	body	tɔ́
as soon as	kuɑ̃	boil	ʔɐlɔ́ɾ
ashes	ŋì	bone	sɐʔɔ́ɑ̃
ask	sɐvɐ̀ɑ̃	born	kɐ̆t
at	kú, tà	borrow	χɐ̀p
at home	nɐ̂w kɐ́ɑ̃	bottle	kɔ́ɑ̃
away	phɔɑ̃	bow	ʔɐ̆ɾ
axe	mmɛ̀	brain	ntshɔ̆ɾ
back	tɐ̂ɾ	bran	ŋkhɐ́m
bad	yɛ̀t	break	pɔ̀t, phíɾ
bag	thùɑ̃	breast	núɾ, pú
bamboo	χìɾ	breath	ʔɐsém
banana	ʔɐmɔ̀	breathe	thîɾ ʔɐsém
bark (n.)	sɐχɔ̆ɾ	bridge	thúɾ
bark (v.)	phɐ̂	bright	pɐ̆ɾ
barking deer	phɔ́	broken	qhúy, yɛ̀t, yɔ̀ɾ
barn	kɐ́ɑ̃ tɐ̀p	brook	fɐ́n ʔɔ́m
basket	pɐ́ɑ̃, χɔ̂ɑ̃	brother	ʔɐ̀ɾ hú
bathe	sùp tî	Buddha	pɐtsɐw
be	mà	buffalo	qhɐ̆ɾ
be able	sɐ̂ɑ̃	build	mpɔ́ɑ̃
be at	ʔɔ̆t	burn	kùt, nthɔ́m
bear	χí	butt	khɐ̀m
beard	súɾ not	buy	lɛ̀ɾ
beat	ŋɛ̂, thì	can	sɐ̂ɑ̃
beautiful	yɔ̂ɑ̃	capon	yé sê
bedbug	sɐ̀ɾ	carry	yɔ̂
bee	sɔ́	cat	mɛ̂m

catch	saqǎp, pǒt	direction	hɔ̃ã
catch a cold	khát tsɔ̀ tî	dirty	ncíʃ
caterpillar	pɔ̃ã súʃ	disease	sú
cattle	mɔ́y	do	cí
cause	ten	dog	sò
cave	thâm	door	ʔɑvâ
change	ʔɑlâʃ	downward	hɔ̃ã ŋxùp
charcoal	sé	dregs	ŋɛ́
chest	núʃ, qhǐʃ	drink	nâ
child	ʃán ʔú	drum	sathùʃ
cigarette	súp	duck	pét
claw	nchìp	dung	ʔɑphú
climb	sáw	dusk	mɔ́y
clothes	sapè, xò	dust	mún muʃ
cloud	ʔáy qùʃ	each other	pà tî
cock	yɛ́ khùt	eagle	hûã
cold	khát, làã	ear	sǔʃ
comb	sanà	ear (of grain)	ŋkɔ́
come	láʃ	earth	thè
come down	lɔ̃ã láʃ	east	hɔ̃ã ŋây saŋǐ kǎt
come out	kǎt	eat	nâ
cook (n)	ʔú khá kháy	egg	nthàp
cook (v)	khá	eight	thà
correct	xɔ̀	elbow	sɔ̌ʃ
cotton	táy	eleven	tshò xe mò
count	kí	encircle	pakhɔy
cow	mɔ́y	enough	lɔ́ʃ
crab	thám	enter	khàw, lúp
crooked	kùã	even	kǎp
crossbow	ʔǎʃ	evening	sém, pó
crow	ʃɔ́ʃ	exchange	ʔɑlâʃ
cry	yâm	explain	cî
cut	tèp, vét	eye	ŋây
dance	ŋkà	face	ʔô
daughter	nây ŋàʃ	fall	ntû, xuʃ
-in-law		far	saŋáy
dawn	qí pǎʃ	fat (n)	patshɔ̃ã
day	saŋǐ	fat (a)	pò
day after	ʔakhì	father	ʔ ǔn
tomorrow		fear	lǎt
day before	saŋǐ mân	feather	súʃ múʃ
yesterday		female	nây, phàt
deep	qú	few	lè
deer	yǎʃ, phó	field	mâ
die	yàp	field (dry)	mâ qhìʃ
dig	khút, tsǎʃ	fight	háy, khàm

finger	ʔakùn thí	grandmother	ʔɔ̌ʔ (ɲâ)
finger, index	ʔǔn thí	grass	là sì
finger, little	fán thí	grave	mút
finger, middle	ʔakùn thí kú thèʔ	grease	patshɔ̃̂
finished	hɔt	green	saŋên
fire	ŋàw	ground	χâw
fish	khà	guard	pâw
five	sàt	gun	nát
flatlands	tùã̀	hair	súʔ
flea	fèt	hand	thí
flee	ŋqhà ʔavìt	hang	hɔ̀y
float	lɔ́y	happy	nún sə, ʔɔ̌t ʔâ,
flow	salɔ̀		yò ʔâ
flower	χâã̀	harvest	pín
flower bud	ŋây χâã̀	have	khɔ́y
flute	síaw	he	ʔàt
fly (n)	sìn	head	khìʔ
fly (v)	mphà	headman	(thà) qɔ̀
food	khɔ́y	hear	kàw
fool	ʔú lân	heart	ʔasáʔ
foot	kíã̀	heaven	qí
footprint	ŋkàt kíã̀	heavy	kèt
ford	ntáã̀	help	pɔ́
forest	mpà sì	hen	yɛ́ nây
forget	pìn	here	tà nnî
four	phón	hide (n.)	ŋkú
fowl	yɛ́	high	líã̀
fox	sò qí	hit	tsɔ̀, ŋê
fragrant	samɔ̀	hold	kèm
freeze	khát	hole	nthú
frog	khɛ́t	home	káã̀
from	thə vá, tham	honey	ʔɔ́m ɲɔ̃́ sɔ́
fruit	ŋχí	horn	kìʔ
full	sǐʔ	horse	ŋqhàʔ
(with food)		hot	kát
geld	sê	house	káã̀
generation	tsó	how	cín mễ
get	yò (tî), pín	how many	kɔ̀n táʔ
get up	χè tsɔ̀	human being	ʔú
give	ten, tè	hundred	(m̀) tshâ
go	hò	hungry	sâm (vè)
go down	lɔ̃́ (hò), χút	hunt	mɔ̀ sâ, hâ
go out	χè hò	hunter	thà cɔ̀ sâ
goat	pè	hurt	sú
good	ʔâ	husband	mè
grandfather	ʔɔ̌ʔ tsây	husk	ŋkhám

I	ʔò	lunch	kháy sɑŋǐ
if	nté	lung	sɑphǒp
ill	khóy sú	lute	tíã
in	kú, nâw	machete	sàɾ tèp
inside	(kú) nâw	magic	fà
iron	ʔɑŋàɾ	make	cí
it	ʔàt	make fire	qâ (ŋàw)
itch	ŋâ	male	khùt, hú
jaw	khɑp	man	fán khùt
jealous	lɑ ʔɑsáɾ	manage	yò
joint	ntshǎɾ	many	ʔɔ̃́ɑ̃
jungle	nɨ̀ɾ	marry	lè
just	tu	meat	nè
kernel	sáɾ	meet	pùɾ
kill	ŋê	Mekong	ʔóm sɨɑ̃
knee	qúɑ̃	meteor	sɑmèt mphà
knife	sàɾ	middle	thèɾ
knife, small	fán sàɾ	midnight	kú thèɾ sém
know	tsà	money	mùn
lake	nɔ́ɑ̃	monkey	péw
later	váy nè	moon	ntshɔ mo
laugh	ɲǎɾ	morning	χâɑ̃
leaf	là (fá), fá	mortar	phɑw
leaf bud	χâɑ̃ fá	mosquito	sìn
lean	nnìɑ̃	most	khen, khen ʔɔ̃́ɑ̃
left	fè	moth	kùɾ
leg	nèɾ	mother	nǎy
let	ten	mountain	pɔ̂m
lie	pɑʔàɑ̃	mountain pass	kíw
light	pǎɾ	mouth	ntùt
light (weight)	sɑyɨ̃ɑ̃	move	qú
lightning	ʔɑqhǎɾ	much	kɑ, ʔàt
like	nún	mud	pɨ̂ɑ̃
limp	sɑtàw	nail	nchìp
lip	fêɑ̃ ntùt	name	tsɨ̀
liquid	ʔóm	nature	qí
listen	nîɑ̃	navel	sɑnùp
live	ʔǒt	near	thɔ̀t
liver	tshɔm	neck	ŋkhɔ̌ɾ
livestock	khɔ́ɑ̃	needle	ŋè
log	làm sì	new	mè
long (time)	hɨ́ɑ̃	night	sém, pó
look	ŋóy	nine	thìp
louse	mlì, nchí	nod	ʔɑŋóɾ
love	nún	noon	sɑŋǐ
low	tsɔ́m	nose	tì

not	ʔàn	rice, plant	fìã̀
not yet	pə	rich	mí
old	səthàt, kè, χìp	right (side)	χàp
old times	thú sì	right	χɔ̀
on top	hɔ́ã̀ məw	rise	ntɔ̀ʕ, χè, kăt
one	mò, m̀	river	ʔóm ʔàt
oneself	tî	road	mmɔ̀ʕ
orange	máʕ tsɔ̆ʕ	rock	ʔaʔáã̀
other	səpò	roll	səlɔ̀
others	ʔí	roof	ʔapón (káã̀)
outside	(ɲa) nɔ̀ʕ	room	káã̀
overside	məw	root	yɔ̂
owl	kâw mêm	rope	sí (thĕp)
paddy	sáʕ	rotten	sàp
pain	sú	round	mo
palm of hand	ʔatăʕ thí	rub	fɔ̆t
penetrate	lɔ̀t	run	tá, yá, ʔavìt tî
penis	lì	run after	χìp
people	ʔí	run away	ŋqhà ʔavìt
person	ʔú	sacrifice	tan
pestle	ŋqhi	saliva	ʔóm ʔáw
pierce	mpŭʕ, sét	salt	ʔóm qú
pig	líʕ	sambar deer	yăʕ
pinetree	sì kí	sand	ntshăt
piss (n.)	ʔóm lùp	satisfied	lɔ́ʕ
piss (v.)	lùp tî	scratch	qít
place	mpháã̀, kán	see	yò
play	thì, phùʕ, χà	seed	sáʕ
point	cî	seize	pɔ̆t
pond	tìã̀	sell	tsó
prick	mpŭʕ	send	pháy
prosperous	vɨn	set	χút
protect	pâw	(of the sun)	
pull	ʔà	seven	mphùn
pupa	qí	sew	qó
push	yùt	shade	χòm
quick	mèʕ	shadow	χáã̀
rain	səlè	she	ʔèt
rank	səɲét	sheep	cèn
rat	ŋkáã̀	shoot	phèt
rattan	mán	short	pɔ̀t
reason	mpá	shoulder	səχáã̀
ribs	(səʔáã̀) qhǐʕ	shoulder bag	thùã̀ fà
rice, cooked	kháy	sibling	ʔêʕ pù
rice, grain	ŋkhù	sibling, elder	ʔêʕ
rice, in husk	ʔáʕ		

sibling, younger	pù	stand	tsɔ̀
		star	samèt
sick	sú	stay	ʔŏt
sickly	yɔ̀ʕ	steal	ŋqhà
silver	mùn, ŋîn	stick	sì
since	tha vá, tham	sting	tŏʕ, sút
sing	thɔ̀, ʔù (χè)	stink	ʔùy
sister, eldest	ʔêʕ yê	stomach	tû
sister, second	ʔêʕ mò	stone	samò
sister, third	ʔêʕ pêã̀	storm	samã ʔàt
sister, fourth	ʔêʕ pɔ̀m	story	ʔapùm
sit	tsɔ̂m	stove	tsǎw
six	nthò	straight	sɨ̀
skin (n.)	ŋkú	strength	χèã̀
skin (v.)	phâ	string	sí
skirt	nɲà	strong	khóy χèã̀, ʔêã̀
sky	kôã̀ háw, qhìʕ	stupid	lên
slaughter	ŋê	suddenly	ná thɔ lâ
sleep	yět	sugar	ʔóm mê
slice	sɔ̀y	sugar cane	qôã̀ ʔóm mê
small	ŋě	sun	ŋây saŋĭ
smear	tâ	surround	vet pakhɔy
smell (n.)	ʔáy	swallow	khép
smell (v.)	ʔùy	sweep	phì
smoke (n.)	ʔáy ŋàw	sweet	ɲóã̀
smoke (v.)	ntshŏt	swell	ʔáʕ
smooth	làm	tail	sathà
snake	sèt	take	lè
sneeze	ʔathî	talk	tɔ̀ ʔapǎʕ, ʔù ʔapǎʕ
snore	satíã̀ tî	tall	líã̀
snout	ntùt	tattoo	sâm
sole of foot	ʔatǎʕ kíã̀	tea	lâ
some	mà	tell	nɛ, tɔ̀, va
son-in-law	mɔ́n	ten	tshò
song	χè̀	termite	ŋqhùt
soul	qhà	that	nè
sour	saʔá	then	na, tu
speak	ʔù	there	tà nnê
speech	ʔapǎʕ	there is	khóy
spin	patsǎn	they (dual)	kǎy
spirit	(thí) thà qí	they (pl.)	ké
spit	mpét	thick	ná
spittle	ʔóm páy	thigh	nèʕ ʔàt
split	sèn	thin	váã̀
squirrel	láy	thing	vè
stab	sét	think	kát

this	ní, nnî, ʔanì	wash	sathú, saʕ, sùp, sĕt,
thorn	χáɑ̃		pháy
thread	sí táy	wasp	nây ʔăn
three	wáy	water	ʔóm
throat	nthú	we (dual)	ʔăy
throw	fáɑ̃, ʔavî	we (pl.)	ʔè
thumb	nây thí	weak	yɔ̀ʕ
thunder	nèp	weave	thán
tie	χɔ̆t, ŋhùn	weep	yâm
tiger	ʔavây	west	hɔ́ɑ̃ ŋây saŋĭ χút
tired	mɔ̀y	what	mê, ntáʕ
to	nà	when	yám mê
tobacco	súp (tê)	where	tàm mê
today	ń saŋĭ	white	pán
toe	ʔakùn kíɑ̃	who	mê
toe, big	nây kíɑ̃	why	cín mê
toe, little	fán kíɑ̃	wide	vâ
tomorrow	ŋχàɑ̃	wife	phàt
tongue	nthăʕ	wilderness	qí
too	pháw	win	pê
tooth	ŋkhèt	wind	samà
trace	hɔ̀	window	phá wɔ́ɑ̃
tray	tɔ́ʕ	wine	qhó
tree	ŋèp sì	wing	patshó
tripod	kìɑ̃	wipe	fɔ̆t
trousers	tíw	with	mà
trunk	làm	woman	nây ʔú, fán phàt
turn	ʔaqày	wood	sì
twelve	tshò χe ʔá	work (n.)	víʕ
twenty	ʔá tshò	work (v.)	cí víʕ
two	ʔá	worm	pɔ́ɑ̃
under	ŋχùp	worn out	qhúy, yèt, yɔ̀ʕ
Va	vâ	year	sanèp
vegetables	thú	yellow	líɑ̃
very	ʔàt	yesterday	khù
village	χìp	you (sg.)	mî
violin	ʔí ʔɔ̀	you (dual)	phăy
vomit	pê (phɔɑ̃)	you (pl.)	phé
vulva	khè	young	ŋĕ, fán
wade	ntáɑ̃ ʔóm	Yúnnán	yîn nàn
wait for	χɔ̀		
walk	ŋqhû (mmɔ̀ʕ)		
walking-stick	sì satàw		
wall	nthìʕ		
war	nàn		
warm	χíɑ̃		

References

Charoenma, Narumol. 1980. *The sound systems of Lampang Lamet and Wiang Papao Lua.* MA Thesis, Mahidol University, Bangkok.

Chén Xiāngmù, Wáng Jìngliú and Lài Yǒngliáng. 1986. *Dé'ángyǔ jiǎnzhì.* Běijīng: Mínzú chūbǎnshè.

Chomsky, Noam and Morris Halle. 1968. *The sound pattern of English.* New York: Harper and Row.

Davies, Henry Rodolph. 1909. *Yün-nan: the link between India and the Yangtze.* Cambridge: Cambridge University Press.

Diffloth, Gérard. 1976. "Proto-Mon-Khmer final spirants". In Hashimoto Mantarō (ed.), *Genetic relationship, diffusion and typological similarities of East & Southeast Asian languages,* 210-29. Tōkyō: The Japan Society for the Promotion of Science.

Diffloth, Gérard. 1977. "Mon-Khmer initial palatals and 'substratum-ized' Austro-Thai". In Philip Jenner (ed.), *Mon-Khmer Studies* 6, 39-57. Honolulu: University Press of Hawaii.

Diffloth, Gérard. 1980. *The Wa languages.* (=*Linguistics of the Tibeto-Burman Area* 5:2).

Diffloth, Gérard. 1982. "Subclassification of Palaungic and notes on 'P'uman'" Paper presented at the 15th Sino-Tibetan Conference, Běijīng, August 1982.

Ferlus, Michel. 1974. "Les langues du groupe austroasiatique-nord". *Asie du Sud-Est et Monde Insulindien* 5:1, 39-68.

Ferlus, Michel. 1978. "Reconstruction de /TS/ et /TŠ/ en Mon-Khmer". In Philip Jenner (ed.), *Mon-Khmer Studies* 7, 1-38. Honolulu: University Press of Hawaii.

Gamkrelidze, Tamaz and Vjačeslav Ivanov. 1984. *Indoevropejskij jazyk i indoevropejcy.* Tbilisi: Izd. Tbilisskogo universiteta.

Gedney, William. 1976. "Notes on Tai Nuea". In Thomas Gething, Jimmy Harris and Pranee Kullavanijaya (eds.), *Tai linguistics in honor of Fang-Kuei Li,* 62-102. Bangkok: Chulalongkorn University Press.

Greenberg, Joseph, Charles Osgood and James Jenkins. 1963. "Memorandum concerning language universals". In Joseph Greenberg (ed.), *Universals of language,* xv-xxvii. Cambridge: M.I.T. Press.

Harris, Jimmy. 1975. "A comparative word list of three Tai Nüa dialects". In Jimmy Harris and James Chamberlain (eds.), *Studies in Tai linguistics in honor of William J. Gedney,* 202-30. Bangkok: Central Institute of English Language.

Haudricourt, André-Georges. 1965. "Les mutations consonantiques des occlusives initiales en Mon-khmer". *Bulletin de la Société de Linguistique de Paris* 60, 160-72.

Haudricourt, André-Georges. 1975. "Les mutations consonantiques (occlusives) en indo-européen". In Françoise Bader et al. (eds.), *Mélanges linguistiques offerts a Émile Benveniste,* 267-72. Louvain: Peeters.

Hombert, Jean-Marie. 1978. "Consonant types, vowel quality, and tone". Chapter 3 in Victoria Fromkin (ed.), *Tone. A linguistc survey*, 77-111. New York: Academic Press.

Jakobson, Roman, Gunnar Fant and Morris Halle. 1952. *Preliminaries to speech analysis*. 2nd printing. Cambridge, Mass.: MIT Press.

Lefèvre-Pontalis, Pierre. 1892. "Notes sur quelques populations du nord de l'Indochine". *Journal Asiatique* 8e série: 19, 237-69.

Lefèvre-Pontalis, Pierre. 1896. "Notes sur quelques populations du nord de l'Indochine (2e série)". *Journal Asiatique* 9e série: 8, 129-54, 291-303.

Lǐ Dàoyǒng, Niè Xīzhēn and Qiū Éfēng. 1986. *Bùlǎngyǔ jiǎnzhì*. Běijīng: Mínzú chūbǎnshè.

Lindau, Mona. 1985. "The story of /r/". In Victoria Fromkin (ed.), *Linguistic phonetics. Essays in honor of Peter Ladefoged*, 157-68. Orlando: Academic Press.

Lindell, Kristina, Jan-Olof Svantesson and Damrong Tayanin. 1978. "Two dialects of the Rameet (Lamet) language". *Cahiers de linguistique Asie Orientale* 4, 5-22.

Liú Guāngcái et al. 1981. "Shuāngjiāng xiàn Bāng xiāng Bùlǎngzú shèhuì diàochá". In *Bùlǎngzú shèhuì lìshǐ diàochá*, Vol. 1, 79-97. Kūnmíng: Yúnnán rénmín chūbǎnshè.

Luce, Gordon. 1965. "Danaw, a dying Austroasiatic language". *Lingua* 14, 98-129.

Maddieson, Ian. 1980. "A survey of liquids". *UCLA Working Papers in Phonetics* 50, 93-112.

Mitani Yasuyuki. 1965. "Kamētogo onso taikei no kijutsu to hikaku gengogakuteki kōsatsu" (A descriptive and comparative study of the Khamet phonology). *Tōnan Ajia Kenkyū* (South East Asian Studies) 3:3, 25-51.

Mitani Yasuyuki. 1972. "Studies in the Lawa phonology". *Tōnan Ajia Kenkyū* (South East Asian Studies) 10, 174-96.

Mitani Yasuyuki. 1978. "Problems in the classification of Palaungic". ms.

Norlin, Kjell. 1983. "Acoustic analysis of fricatives in Cairo Arabic". *Working Papers* (Institute of Linguistics, Lund) 25, 113-37.

d'Orléans, Henri. 1898. *From Tonkin to India by the sources of the Irawadi*. Transl. by Hamley Bent. London: Methuen.

Schmidt, Wilhelm. 1905. "Die Palaung (Rumai)-, Wa- und Riang-Sprachen des mittleren Salwin-Gebietes". *Abhandlungen der philosophisch-philologischen Klasse der königlich bayerischen Akademie der Wissenschaften* (München) 22, 778-805.

Scott, George and J.P. Hardiman. 1900. *Gazetteer of Upper Burma and the Shan States,* Part 1, Vol. 1. Rangoon: Superintendent, Government printing.

Shafer, Robert. 1952. "Études sur l'Austroasien". *Bulletin de la Société de Linguistique de Paris* 48, 111-58.

Svantesson, Jan-Olof. 1983. *Kammu phonology and morphology.* Lund: Gleerup.

Svantesson, Jan-Olof. forthc.a. "Hu, a language with unorthodox tonogenesis". In Jeremy Davidson (ed.), *Contributions to Mon-Khmer studies: essays in honour of Professor H.L. Shorto.* London: SOAS.

Svantesson, Jan-Olof. forthc.b. "Tonogenesis in Northern Mon-Khmer". ms.

Svantesson, Jan-Olof, Wáng Jìngliú and Chén Xiāngmù. 1981. "Mon-Khmer languages in Yunnan". *Asie du Sud-Est et Monde Insulindien* 12:1-2, 91-99.

Thomas, David and Robert Headley. 1970. "More on Mon-Khmer subgroupings". *Lingua* 25, 398-418.

Wáng Jìngliú and Chén Xiāngmù. 1982a. "Lùn Mèng-Gāomiányǔ yǔ Dòng-Táiyǔ de 'cūnzhài', 'xìngshì', 'jiā' de tóngyuán guānxì". *Mínzú yǔwén* 1982:3, 12-24.

Wáng Jìngliú and Chén Xiāngmù. 1982b. "XIshuāng Bǎnnà lǎo Dǎiwén wǔshíliù zìmǔ kǎoshì". Paper presented at the 15th Sino-Tibetan Conference, Běijīng, August 1982.

Wén Yòu. 1979. "Hēilù shìmíng". *Mínzú yǔwén* 1979:1, 21-24.

Wenk, Klaus. 1965. "Drei 'Lǎwǎ'-Vokabularien aus Nordthailand". *Oriens Extremus* 12, 107-27.

Yán Qíxiāng et al. 1981. *Pug lǎi cix ding yĩie si ndong lǎi Vax mai lǎi Hox / Wǎ-Hàn jiǎnmíng cídiǎn.* Kūnmíng: Yúnnán mínzú chūbǎnshè.

Yù Cuìróng and Luó Měizhēn. 1980. *Dǎiyǔ jiǎnzhì.* Běijīng: Mínzú chūbǎnshè.

Zhōu Zhízhì and Yán Qíxiāng. 1983. "Bùlǎngyǔ gàikuàng". *Mínzú yǔwén* 1983:2, 71-81.

Zhōu Zhízhì and Yán Qíxiāng. 1984. *Wǎyǔ jiǎnzhì.* Běijīng: Mínzú chūbǎnshè.

Yúnnán shǎoshù mínzú. 1980. Kūnmíng: Yúnnán rénmín chūbǎnshè.

Zhōngguó shǎoshù mínzú. 1981. Běijīng: Rénmín chūbǎnshè.