

A sketch of the phonology of a Lamet dialect

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0. Introduction

0.1 Language identification

Lamet is a Mon-Khmer language of the Palaungic branch.¹ There are approximately 10,000 speakers in the mountains of northern Laos near the Chinese border, along with about 100 in Thailand. There are a few families in the United States and France. In addition, a comparison of word lists indicates there may be people speaking Lamet in China as well (Svantesson et al. 1981). The people are called Lamet in Laos and Khamet in Thailand. Those with whom I work in Seattle are originally from Laos. They pronounce the name of their language as [χəmə:t] or, less frequently, as [k^həmə:t].²

The existence of several dialects of Lamet has been noted by Ferlus, Svantesson, Lindell et al., and others. A comparison of our data collected from refugees in America with information gathered by Narumol (1980), Svantesson (1988), and others indicates significant differences among these varieties of Lamet in terms of how the Mon-Khmer register complex is manifested within the same language.³

¹My wife Jeannette and I began studying Lamet in September 1992 with the aid of a community of refugees living in Seattle, Washington. Our research is being carried on under the auspices of the Summer Institute of Linguistics. Many people have provided financial and technical support as we have begun this language project. We are especially grateful for generous assistance given by David Thomas, who not only introduced us to the previous research done on Lamet, but also continues to provide much wisdom and encouragement. We are of course thankful to our Lamet friends who have welcomed us with hospitality, flexibility, humor, and great patience. This report is based on work in progress; I claim full responsibility for all errors in transcription or analysis.

²Many of the Lamet we have met are married to speakers of Khmu'. The two groups are somewhat close linguistically and very close culturally. Khmu' is the language spoken in the mixed Lamet/Khmu' households. A preliminary—and quite superficial—analysis of sound differences between the two languages indicates that in cognate words where Lamet has an initial /r/, that consonant is often [k^h] in Khmu'. The Khmu' would thus pronounce /rəmə:t/ [χəmə:t] as [k^həmə:t], and it has been our observation that the Lamet who sometimes use this pronunciation are in many cases those who speak Khmu' at home.

³See especially Sec. 6.2, on the relationship of tone and register. Due to the preliminary status of this research, I will refer to *varieties* of Lamet, rather than using the more technical term *dialect*.

0.2 Methods: data sources and transcription conventions

Our primary language teacher has been Mansak, a Lamet man in his early 40s, married, with four teenage children. He and his family have lived in Seattle since May 1981, coming there from a refugee camp in Thailand. Mansak received three years of formal education in Luang Prabang under the auspices of the Catholic Church. He and his wife Plekeao are the only couple in Seattle where both spouses are Lamet. In addition to his native Lamet, he speaks (and reads) Khmu', Lao, and English.

We have also received language assistance from other members of the Seattle Lamet community. Three widows have been of particular help: Taen, age ca. 55; Plekeao's mother, Pang, a woman about 70 years old, who is addressed by the entire community as Neethaaw ('grandmother'); and Sii, age ca. 65.

There is no written form of the Lamet language in popular use. Data is presented herein in a modified IPA phonemic transcription, e.g., /k^hó:c/ 'to wash (hands, etc.)'. Phonetic descriptions, where necessary, will be indicated by square brackets, e.g., [k^hó:c]. Vowel length is contrastive; long vowels are marked by the symbol [:] following the vowel. There is a pitch contrast between high and low tone, which are marked [´] and [] respectively.⁴

0.3 Organization of analysis

This sketch is organized hierarchically, with successive sections treating progressively smaller units of the sound system: the word, the syllable, and then the consonant and vowel phonemes. These sections are followed by a discussion of suprasegmental features of the language: vowel length, tone, and register. The last section outlines some issues for further research; following it as an appendix is a word list illustrating tone pairs.

1. The Word

1.1 Words with one syllable

The strong tendency in Mon-Khmer languages, as in many of the language groups of mainland Southeast Asia, is toward monosyllabic words. This also holds for Lamet. As described in §2.1 below, the typical Lamet syllable begins with any consonant or a cluster of two consonants, and contains as its nucleus either a long or short vowel.⁵ The syllable may either be closed by one of the eligible final consonants (§3.0 below), or it may be open.⁶ Canonical monosyllables are thus #CV#, #CVC#, #CCV#, and #CCVC#, of which #CVC# appears to be the most common.⁷

⁴Tone is only marked on the ultimate syllable vowel of multi-syllable words. At this point in my research, words not marked for tone should be understood as those for which I have yet to verify the correct tone value. (Tone pair examples are listed in the appendix.)

⁵See also §2.3, which discusses syllables with nuclei consisting of syllabic consonants.

⁶As described in §2.1 below, all open main syllables contain a long vowel.

⁷In formulas presented in this paper, "C" represents any consonant, "V" any vowel,

#CV#

/cí:/	‘to remember’	/cò:/	‘life’
/lè:/	‘parakeet’	/mà:/	‘rice field’
/rò:/	‘to beg, ask’	/t ^h ú:/	‘to blow’

#CCV#

/plù:/	‘betel (leaf)’	/ʔjá:/	‘medicine’
/plà:/	‘to chop (s.t. on cutting board); meat that has been chopped’		

#CVC#

/càn/	‘to weigh (s.t.)’	/pò:k/	‘to stab (with knife)’
/nè:l/	‘thread’	/sá:j/	‘to know how (to do s.t.)’
/ɲà:ʔ/	‘to itch’	/mù:j/	‘axe’
/p ^h íj/	‘snake’	/tà:w/	‘to run’

#CCVC#

/klá:j/	‘to return’	/kwè:n/	‘to feel better’
/plóʔ/	‘to do, make’	/pró:t/	‘a kind of bee’
/cràn/	‘bristles’	/p ^h rú:m/	‘nest’
/tró:ɲ/	‘throat’	/prà:s/	‘wild boar’

1.2 Words with more than one syllable

There are also a great many words in Lamet consisting of more than a single syllable. This class of words, widely noted in Mon-Khmer languages, has the following structure: a stressed main syllable (§2.1) preceded by an unstressed and otherwise phonologically reduced presyllable (§2.2). This type of word structure is often called “sesquisyllabic,” in that these words have, in effect, one and a half syllables.

In a sesquisyllabic word, stress will always fall on the main syllable. That this is a strong characteristic in Lamet is evidenced by the adjustment of loan words to this pattern, given sufficient time.⁸ Stress may also be useful as a diagnostic tool to distinguish sesquisyllabic words from compound constructions (i.e., words), which would have stress on both “syllables.”

parentheses indicate optional elements, the symbol “#” represents a word boundary, and “-” is a syllable boundary.

⁸/k^hənó:m/ and /k^hjè:n/ are loan words from Lao which appear to be in transition to a more Lamet structure. The Lamet use /k^hənó:m/ (from the Lao for ‘candy’) for a variety of sweets and snack food items. In Lao, the final syllable has a short vowel; among Lamet speakers the vowel is long, perhaps to reinforce the strongly stressed final syllable. /k^hjè:n/ ‘to write’ has largely displaced the old Lamet /kó:c/ ‘to write’. In Lao, the word has a complex off-glided vowel nucleus; among Lamet speakers that vowel is being reanalyzed as a simple vowel /ɛ:/ with a consonant cluster /k^hj/ onset.

Following are examples of sesquisyllabic Lamet words (syllable boundaries shown here and throughout for illustrative purposes):

/mə-kà:m/	‘tamarind’	/pə-jà:w/	‘rambutan’
/sim-túh/	‘to giggle’	/rəw-ké:w/	‘sickle’
/kən-và:/	‘orchard’	/ki-tú:t/	‘to cackle’

2. The Syllable

There are two units with significant structural differences at this level of Lamet phonology: the main syllable, and a smaller unit known as the presyllable. In this paper, the term *syllable* is reserved for reference to the main syllable; *presyllable* is used when the smaller unit is under examination.

2.1 Main Syllables

The structure of Lamet syllables may be described by the following formula:

$$C_1(C_2)V(C_3)\#$$

which defines the required elements in the syllable as an initial consonant C_1 and a vowel V . Optional elements include a second consonant C_2 (which with C_1 forms an initial cluster) and a final consonant C_3 . The smallest expansion of this formula is a syllable with the structure $CV\#$; the largest expansion is a syllable with the structure $CCVC\#$. (Note that a syllable or word boundary precedes C_1 .)

The consonants occurring as C_1 and C_3 are displayed in Figs. 1 and 2, respectively, and are discussed in §3.0. Those which may occur as C_2 (second element in a cluster) are the “liquids” from Fig. 1 (/w, l, j, r/). A syllable which is closed by C_3 may contain either a long or a short vowel, but in an open syllable the vowel is always [+long].⁹

2.2 Presyllables

In several respects Lamet presyllables are similar in form to main syllables. Recalling the formula $C_1(C_2)V(C_3)\#$ from §2.1, the presyllable has the formula

$$\#C_1(C_2)V(C_3)-$$

Its required elements are also (usually) an initial consonant C_1 , plus a vowel V as the nucleus, along with the optional consonants C_2 and C_3 .¹⁰ The presyllable, however, is a much more restricted phonological unit.¹¹ These restrictions are described below.

⁹As noted by Narumol (1980:31).

¹⁰The presyllable vowel “slot” may also be filled by a syllabic nasal or liquid (§2.3). It also appears that C_2 and C_3 do not both occur in the same presyllable; i.e., I have examples of $\#CCV-$ and $\#CVC-$, but not $\#CCVC-$. Additional research is necessary to determine whether this omission is systematic.

¹¹This kind of reduced element has been identified for many Mon-Khmer languages, as well as in other language families in Southeast Asia. It has also been called by names other than presyllable: minor syllable, half syllable, etc. Thomas 1992 provides a helpful typology of these sesquisyllabic structures based on the specific restrictions placed upon the reduced element.

The inventory of consonants which may fill the C₃ slot in presyllables is more limited than those which can be final consonants in main syllables (see Fig. 2). Specifically, only the nasals and the liquids /w, l, j/ can be final in presyllables. There are a number of apparent counterexamples to this assertion, however, i.e., words where the presyllable C₃ is one of the voiceless stop phonemes /p, t, c, k/. Many of these words may be readily identified as either loans from Lao, or as onomatopoetic words (e.g., /likʔà:k/ ‘a crow’, where /ʔà:k/ is identified as the sound this bird makes). Cross-linguistically, it is not surprising to find phonological “exceptions” from within these word categories (i.e., loans and onomatopoetic words).

By far the largest group of exceptions to this pattern of a restricted C₃ comprise a set of morphologically complex Lamet words, specifically words containing a derivational prefix (nominalizer or causative). With both of these prefixes, there is a kind of reduplication in which the final consonant (C₃) of the prefix “echoes” the final consonant of the stem, as shown below:

/màl/	‘to strike (with club)’	/rəlmàl/	‘a club or bat’
/còp/	‘to pick up w/two fingers’	/rəpcòp/	‘a pinch (of s.t.)’
/ràn/	‘to hurry (INTRANS)’	/pənràn/	‘to hurry (s.o./s.t.)’
/lá:t/	‘to be afraid’	/pətlá:t/	‘to frighten (s.o.)’ ¹²

Vowels have several restrictions in presyllables. First, there are no [+long] vowels in this position; the complex vowels /iə, iə, uə/ do not occur, as they are by definition long vowels. Second, it appears that not all eleven of the simple vowels (Fig.3) occur in this position with equal frequency: /æ/ does not occur in the slot #C₁(C₂)_(C₃)- at all, and /e/ occurs here mostly in loan words from Lao. (Note also that because the presyllable is always unstressed, many vowels in this position sound like [i] or [ə] in normal paced speech.)

Words with #CV- presyllables:

/ki-mí:m/	‘claw, nail’	/ki-cím/	‘to be tired’
/la-ʔà:/	‘two’	/la-ʔò:j/	‘three’
/ʔə-ŋú:n/	‘grape’	/k ^h i-sá:p/	‘to hold in closed hand’
/si-cò:k/	‘to be wet’		

Words with #CCV- presyllables:

/tri-júŋ/	‘to carry between two people’
/pri-jò:ŋ/	‘dragon’

Words with #CVC- presyllables:

/ŋəj-ŋéc/	‘to flinch, twitch’	/kin-t ^h rì:ŋ/	‘tools, equipment’
/pən-típ/	‘to flatten (s.t.)’	/rən-jò:m/	‘to be soft’
/səŋ-ra:j/	‘an evil spirit that possesses a person’		

¹² Obviously, /rəlmàl/ and /pənràn/ are *not* exceptions to this phonological rule, but are shown here to further illustrate this reduplication process.

2.3 Syllabic consonants

In a number of Lamet words, the presyllable vowel slot is filled by a syllabic nasal or the liquid /l/. In fact, there are many examples where the syllabic nasal constitutes the entire presyllable (i.e., there is no C₁ or C₃):

/mpè:t/	‘beer or wine’	/ŋkék/	‘a kind of bird’
/mpíə/	‘squash, pumpkin’	/ŋkòk/	‘hornbill (bird)’
/mplí:ŋ/	‘sky’	/ŋká:l/	‘over’ (PREP)
/ntù:m/	‘to be ripe’	/ŋklí:l/	‘chipmunk’
/ntrù:ŋ/	‘ceiling’	/ŋkùə/	‘cane; head (of grain)’ ¹³

Otherwise, there is an initial consonant preceding the syllabic consonant:

/sm̩pá:ŋ/	‘winnowing tray’	/p̩tá:k/	‘tongue’
/sŋʔà:ŋ/	‘bone’	/k̩hóʔ/	‘shake (s.t.) up and down’
/sm̩piə/	‘a kind of vegetable’		

Manner of Articulation	Points of Articulation				
	Labial	Alveolar	Palatal	Velar	Glottal
Stop [-voiced]	p	t	c	k	ʔ
Stop [+asp.]	p ^h	t ^h	c ^h	k ^h	-
Implosive	b	d	-	-	-
Fricative	-	s	-	-	h
Nasal	m	n	ɲ	ŋ	-
Liquid ¹⁴	w	l	j	r	-

Figure 1. Initial consonants

3. Consonants

There are significant distributional contrasts between those consonants which occur in word-- or syllable--initial position and those which appear in final position. The initials may be considered the “complete” set of consonants (Fig.1), with a more restricted set appearing as finals (Fig.2).

¹³There is strong evidence thus far to suggest that all of these syllabic nasals may be represented as /N/, i.e., an unspecified nasal segment which assimilates to the point of articulation of the following consonant (cf. Narumol 1980:29). Further research is necessary to rule out the existence of counterexamples to this pattern (e.g., words containing sequences such as /nk/).

¹⁴I use *liquid* here to refer to all the sonorant non-nasal consonants in Lamet, i.e., including both those which are usually called liquids ([l], [r]) and glides ([w], [j]). According to Thomas (p.c.), the four consonants [w,l,j,r] are generally treated as a set in the Indic-based alphabets of Southeast Asia.

/p, t, c, k/ are voiceless unaspirated stops at the bilabial, alveolar, palatal, and velar points of articulation respectively.

In initial position:

<i>/p/</i>	<i>/pá:t/</i>	'to cut (into large pieces)'
	<i>/pæ:m/</i>	'to carry on the back (e.g., a baby)'
	<i>/pí:ŋ/</i>	'basket for carrying rice'
<i>/t/</i>	<i>/tà:w/</i>	'to run'
	<i>/tæ:ŋ/</i>	'to drink'
	<i>/tíʔ/</i>	'hand'
<i>/c/</i>	<i>/cí:/</i>	'to remember'
	<i>/cé:k/</i>	'to tear (paper, leaf, etc.)'
	<i>/cók/</i>	'to touch, to poke'
<i>/k/</i>	<i>/kàk/</i>	'to bite'
	<i>/kù:c/</i>	'to burn (a field)'
	<i>/káŋ/</i>	'to carry by strap on shoulder'

In final position, */p, t, c, k/* are unreleased:¹⁵

<i>/p/</i>	<i>/k^hisá:p/</i>	'to hold (in closed hand)'
	<i>/kí:p/</i>	'chin'
	<i>/há:p/</i>	'to visit'; 'basket for dried meat'
<i>/t/</i>	<i>/sikí:t/</i>	'spider'
	<i>/pút/</i>	'to pick (a flower)'
	<i>/kát/</i>	'to be cold (weather)'
<i>/c/</i>	<i>/klú:c/</i>	'to be bald'
	<i>/timè:c/</i>	'to sigh (from fatigue)'
	<i>/rəmú:c/</i>	'ant'
<i>/k/</i>	<i>/múk/</i>	'fur, body hair'
	<i>/súk/</i>	'a kind of bamboo'
	<i>/rì:k/</i>	'to carry (s.t.) inserted in one's belt'

/ʔ/ is a glottal stop. Vowel-initial words are not attested in our data.

¹⁵There is some indication of simultaneous glottal closure with these final stops. Further investigation is necessary to determine whether or not this feature, found in various Southeast Asian languages (Thomas, p.c.), is present in Lamet.

In initial position:

/ʔi:t/	‘to sleep’
/ʔò:m/	‘water’
/ʔù:ŋ/	‘male, father’

In final position:

/tʔ/	‘hand’
/ŋkòʔ/	‘skin (of person or animal); to put (s.t.) on one’s head’
/kitèʔ/	‘ground, earth’

Manner of Articulation	Points of Articulation				
	Labial	Alveolar	Palatal	Velar	Glottal
Stop [-voiced]	p	t	c	k	ʔ
Fricative	-	s	-	-	h
Nasal	m	n	ɲ	ŋ	-
Liquid	w	l	j	-	-

Figure 2. Final consonants

/p^h, t^h, c^h, k^h/ are voiceless aspirated stops at the bilabial, alveolar, palatal, and velar points of articulation respectively. These occur only initially:

/p ^h /	/p ^h iséʔ/	‘rope, string’
	/p ^h íŋ/	‘snake’
	/p ^h é:m/	‘heart’
/t ^h /	/t ^h ú:/	‘to blow’
	/t ^h æ:m/	‘again, once again, more’
	/t ^h ó:ŋ/	‘unmarried person’
/c ^h /	/c ^h əmà:j/	‘rambai fruit’
	/c ^h ripàj/	‘to carry (s.t.) across the shoulder’
	/c ^h ripà:j/	‘bean’
/k ^h /	/k ^h á:l/	‘bamboo strips (to make baskets)’
	/k ^h ó:c/	‘to wash (vegetables, hands)’
	/k ^h isá:p/	‘to hold (in closed hand)’

Narumol does not posit aspirated stop phonemes, but rather clusters of /p, t, c, k/ + /h/. Her strongest argument is economy: “two-consonant clusters /ph, th, ch, kh/ are available and allowed by the syllable pattern of CCVC (consonant clusters in initial position)”, so “there is no need to invent new phonemes /p^h, t^h, c^h, k^h/” (1980:78). As support for this analysis she cites the presence of /h/ as C₂ in

another two-consonant cluster, /nh/ in /nhoon/ ‘rice-steaming kettle’ (79). However, treating /nh/ as a sequence parallel to /ph/, etc., overlooks the syllable boundary between /n/ and /h/ in her example--at least as this word would be pronounced by the speakers with whom I work. As discussed previously, designating a nasal as *syllabic* means that the segment in question forms the nucleus of its own syllable in the same way a vowel usually does.

Treating /p^h, t^h, c^h, k^h/ as clusters /ph, th, ch, kh/ also forces increased complexity onto the analysis of syllable structure. In her conclusions about the Lamet phonemic system, Narumol states “every syllable must begin with one or two consonants” (77), yet she presents numerous charts (43–48) describing three-consonant clusters. I suggest this anomaly disappears when syllabic nasals are recognized as separate syllables and the aspirated stops are granted phonemic status.

/b, d/ are voiced implosive stops [ɓ, ɗ] at the bilabial and alveolar points of articulation respectively. These occur only syllable- or word-initially.

/b/	/bó:ŋ/	‘to blaze a trail’
	/bàn/	‘to stir (food)’
	/bák/	‘to notch (wood)’
	/bilí:/	‘cigar’
	/bisé:/	‘stick to prod animals’
/d/	/dè:/	‘also, too’
	/dék/	‘to throw (s.t.)’
	/dí/	‘to break (s.t. soft)’

/s/ is a voiceless alveolar fricative.

In initial position:

/sòj/	‘to cut (into small pieces)’
/səpà:w/	‘papaya’
/sŋʔà:ŋ/	‘bone’

In final position:

/mù:s/	‘nose’
/tibés/	‘to sneeze’
/cɛwɛs/	‘a type of insect’

With some speakers, final /s/ is realized as a voiceless palatal or alveopalatal fricative (transcribed phonetically herein as [y̥]). This occurs primarily after long vowels.

/kɪnà:s/	[kɪnà:y̥]	‘to laugh, laugh at’
/pó:s/	[pó:y̥]	‘deer (smaller kind)’

/ŋkò:s/	[ŋkò:y̥]	‘weevil’
/rò:s/	[χò:y̥]	‘to be angry’
/prà:s/	[pχà:y̥]	‘wild boar’

/h/ is a voiceless glottal fricative.

In initial position.

/hó:m/	‘onion’
/haʔà:m/	‘to pity, to comfort, to feel sorry for’
/hít/	‘to knit’

In final position:

/ntòh/	‘head’
/rənà:h/	‘rice paddy’
/tòh/	‘to come’

/m, n, ɲ, ŋ/ are voiced nasals at the bilabial, alveolar, palatal, and velar points of articulation respectively.

In initial position:

/m/	/má:ʔ/	‘wind, air’
	/mè:l/	‘to play (musical instrument, cards)’
	/múk/	‘fur, body hair’
/n/	/nè:ʔ/	‘mother’
	/nù:t/	‘to push (s.t. large)’
	/nó:ŋ/	‘lake (with no rivers coming in or out)’
/ɲ/	/ɲàʔ/	‘house’
	/ɲò:k/	‘to stab (with a knife)’
	/ɲàŋ/	‘to be straight’
/ŋ/	/ŋìh/	‘to put, to place, to leave (s.t. at a place)’
	/ŋó:ʔ/	‘rice plant, uncooked rice’
	/ŋà:j/	‘eye’

In final position:

/m/	/səlà:m/	‘spear’
	/pú:m/	‘peach’
	/sí:m/	‘bird’

/n/	/p̀̀:~n/	‘navel’
	/ká:~n/	‘stripes (on animal’s skin)’
	/ć:~n/	‘thief, robber’
/ɲ/	/rə~mí~ɲ/	‘star’
	/kÉ~ɲ/	‘tooth’
	/silà:~ɲ/	‘electric eel’
/ŋ/	/ŋkl̀̀:~ŋ/	‘to be knocked over’
	/kí:~ŋ/	‘hair’
	/tró:~ŋ/	‘throat’

As mentioned in §2.3 above, /m/, /n/, and /ŋ/ also have syllabic allophones [m̩], [n̩], and [ŋ̩], which may occur either as the nuclei of various presyllables of sesquisyllabic words or as the entire presyllable:

/mp̀̀ik/	[m̩p̀̀ik]	‘to pour’
/mp̀̀ò:j/	[m̩p̀̀ò:j]	‘to complain’
/ntríp/	[n̩tríp]	‘to collapse’
/ntám/	[n̩tám]	‘egg’; ‘to lay an egg’
/ŋkà:~ŋ/	[ŋ̩kà:~ŋ]	‘rat’
/ŋkìə/	[ŋ̩kìə]	‘to warm up oneself’

/w/ is a voiced labial continuant. In initial position, its surface forms range from [w] (labio-velar glide), to [v] (labiodental fricative).¹⁶

In initial position:

/wà:j/	‘to buy’
/ẁ̀:l/	‘to call’
/wà:n/	‘to tie together’

In final position, /w/ is the voiced labio-velar glide [w]:

/tà:w/	‘to run’
/rè:w/	‘to raise (children, animals)’; ‘a kind of snare’
/ʔì:w/	‘to grind (grain)’

/l/ is a voiced alveolar lateral.

In initial position:

/l̀̀:j/	‘to swim’
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¹⁶When followed by a [+round] vowel, it may even become [vw] for some speakers. I have no indication that there is any contrast between these various pronunciations.

/lám/	‘to carry on shoulder (e.g., a pole)’
/láʔ/	‘leaf’

In final position:

/wò:l/	‘to call’
/ŋàl/	‘fire’
/k ^h á:l/	‘bamboo strips (to make baskets)’

As mentioned in §2.3 above, /l/ also has a syllabic allophone [l̩] which forms the nucleus of the presyllables of various sesquisyllabic words:

/k̩pòʔ/	‘spirit (of living person)’
/p̩kó:j/	‘a kind of lizard’
/p̩júʔ/	‘langsát (a fruit)’

Placing /r/ in the same row as /w, l, j/ in Fig.1 implies that /r/ is also a sonorant non-nasal consonant. However, in my data it is realized phonetically as [χ], a voiceless velar fricative (i.e., [-sonorant]).¹⁷ This phoneme may be shown to be cognate with /r/ in related languages in some instances. Lamet /r/ occurs only in initial position (different from /w, l, j/, which also occur finally), or as the second element in an initial consonant cluster:

/rənà:h/	‘rice paddy’
/ráŋ/	‘thorn’; ‘to lock up, incarcerate’
/rəlè:j/	‘joint’
/trá:k/	‘buffalo’
/pré:s/	‘to lift up, to reach up’

/j/ is a voiced palatal glide.

In initial position:

/jèh/	‘to answer (a question)’
/jà:m/	‘to cry’
/jòk/	‘to lift up’

In final position:

/kí:j/	‘buttocks’
/rəwá:j/	‘tiger’
/kló:j/	‘too young to eat (of fruits and vegetables)’

¹⁷Lindell et al. and Svantesson transcribe this sound as /r/. Narumol (1980) describes it as a “voiced dorso-velar fricative” (1980:68) several pages after placing it on the consonant chart as a voiced velar semivowel (61). I am gratified that she also hears this as a fricative, although it is clearly [-voiced] for the speakers with whom I work.

		Front	Central	Back
COMPLEX VOWELS:		iə	iə	uə
SIMPLE VOWELS:	High	i	i	u
	Mid-High	e	-	ʊ
	Mid-Low	ɛ	ə	o
	Low	æ	a	ɔ

Figure 3. Vowels in Lamet

4. Vowels

The inventory of fourteen vowel phonemes includes eleven simple and three complex vowels. Vowel length is contrastive in the main syllable, with long or short possible for all vowels. As mentioned above, I have chosen to indicate long vowels by the symbol [:].

4.1 Simple vowels

/i/ is a short, high front vowel, realized as [ɪ]:

- /cìŋ/** [cìŋ] ‘to sew’
- /rís/** [χís] ‘a bear’
- /trití:l/** [tχití:l] ‘to be blinded by a bright light’

/i:/ is a long, high front vowel:

- /cì:m/** ‘to taste’
- /sikít/** ‘spider’

/e/ is a short, mid-high front vowel:

- /k^hé?/** ‘wood, pole’
- /plèh/** ‘to push out’

/e:/ is a long, mid-high front vowel:

- /pijè:n/** ‘to change’
- /rəmè:?/** ‘to dream’

/ɛ/ is a short, mid-low front vowel:

- /téc/** ‘to sell’
- /kéŋ/** ‘tooth’

/ɛ:/ is a long, mid-low front vowel:

- /kəŋké:ŋ/** ‘elbow’
- /lè:/** ‘parakeet’

/æ/ is a short, low front vowel:

- /sæp/** ‘to be hurt’
- /sənsæŋ/** ‘mole (animal)’

/æ:/ is a long, low front vowel:

/sæ:ŋ/ ‘cymbals’ **/læ:ŋ/ ‘to lick’**

/i/ is a short, high central vowel:

/p^hrím/ ‘a field that has had all the crops harvested’

/tikíł/ ‘to carry on top of the head’

/i:/ is a long, high central vowel:

/criŋí:l/ ‘tree stump’ **/sí:ŋ/ ‘stringed instrument’**

/ə/ is a short, mid-low central vowel:

/trám/ ‘to sink’ **/wəh/ ‘to be wide’**

/ə:/ is a long, mid-low central vowel:

/mè:l/ ‘to play (instrument)’

/lá:/ ‘to be more of’; ‘to not listen to’

/a/ is a short, low central vowel:

/càn/ ‘to weigh (s.t.)’ **/nà?/ ‘house’**

/a:/ is a long, low central vowel:

/ʔà:n/ ‘to count’ **/klá:j/ ‘to return’**

/u/ is a short, high back vowel:

/kú?/ ‘a seed’ **/lúk/ ‘pen, enclosure (for animals)’**

/u:/ is a long, high back vowel:

/laŋlù:t/ ‘firefly’ **/silú:ʔ/ ‘leg’**

/ʊ/ is a short, mid-high back vowel:

/ʔnsú?/ ‘to move, to beat’ **/kùt/ ‘to pick from garden’**

/ʊ:/ is a long, mid-high back vowel:

/kitú:t/ ‘to cackle’ **/hú:n/ ‘to mate’**

/o/ is a short, mid-low back vowel:

/bón/ ‘to be empty’ **/ʔo?/ ‘I, me’**

/o:/ is a long, mid-low back vowel:

/ʔò:m/ ‘water, river’ **/kló:ʔ/ ‘a large gong’**

Short Vowel**Long Vowel**

/cán/	‘to taste bitter’	/cá:n/	‘to hire (s.o.)’
/càw/	‘to be early’	/cà:w/	‘to leak, drip’
/háw/	‘a little dried-up’	/há:w/	‘to climb up’
/jàm/	‘to die’	/jà:m/	‘to cry’
/kát/	‘to be cold (weather)’	/ká:t/	‘to scrub, wash (windows)’
/káʔ/	‘to guess’	/ká:ʔ/	‘fish’
/kədát/	‘pineapple’	/kədá:t/	‘paper’
/kùm/	‘to encircle’	/kù:m/	‘to winnow (grain)’
/kón/	‘bow, slingshot’	/kó:n/	‘to pile up (rice) to dry’; ‘a pipe’
/kòŋ/	‘ridge, rim’	/kò:ŋ/	‘to try to’
/làŋ/	‘black’	/là:n/	‘to pretend’; ‘to make, create’
/ŋàn/	‘to hold, carry, take’	/ŋà:n/	‘goose’
/púk/	‘hot (weather/fever)’	/pú:k/	‘to be rotten’
/prók/	‘to throw (sand)’	/pró:k/	‘squirrel’
/ràŋ/	‘to hurry’	/rà:n/	‘to be lazy’
/ráp/	‘a snap-trap’	/rá:p/	‘to drive (vehicle)’
/simàl/	‘to keep (for s.o.)’	/simà:l/	‘seed grain’
/tàn/	‘to have time’	/tà:n/	‘to bring offering’; ‘branch’
/tán/	‘to burn (s.t.)’	/tá:n/	‘to carry (on horse or vehicle)’
/tìʔ/	‘(reflexive pronoun)’	/tì:ʔ/	‘to get, to take from’
/t ^h úk/	‘to brush (teeth)’	/t ^h ú:k/	‘to be cheap’
/wàk/	‘to go’	/wà:k/	‘worm’
/wàt/	‘to sweep’	/wà:t/	‘to pull back (arrow on string)’

5.2 Tone

An examination of published research on various dialects of Lamet shows that the Mon-Khmer register complex is manifesting itself in distinct ways among different groups of speakers of Lamet, sometimes as pitch (tone) and sometimes not. Thomas (personal communication) indicates that this intra-language variation is not an unusual occurrence in Mon-Khmer (and other) languages.

Narumol’s primary Lamet informant perceived two registers distinguished by differences in muscle tension in the tongue; one register was described as “strong”, the other as “soft” (1980:72). Pitch variation, however, was seen as related to syllable structure (open vs. closed, type of final consonant, long vs. short vowel). In that variety of Lamet, “words can be pronounced with other pitches without any effects on their meanings” (74). Narumol’s conclusion was that “tone is not distinctive... and different tones do not give different meanings to a word” (75).

This is clearly not the case with the variety of Lamet spoken by those

individuals with whom I have been working, which does have a pitch contrast between high and low tone. A partial list of pairs of words showing this tone contrast is attached as an appendix.

6. Issues for further research

A number of topics have arisen in this preliminary analysis of the sound system of Lamet which remain to be resolved. Some of these issues are on the level of phonetics (i.e., what exactly is being uttered by the speakers). A more provocative question involves the specific relationship between register and its manifestation as tone in the variety of Lamet I have been studying.

6.1 *Phonetic issues (vowels)*

Not all the vowels shown in Fig. 3 occur with equal frequency. For example, /æ/ and /æ:/ are much less common in my data than any of the other vowels (recall also that /æ/ is the only short vowel that is unattested in the presyllable vowel slot). A complete examination of these, and other, less common vowels is necessary to determine whether they might in fact be allophones of other vowel phoneme(s).

In addition, the long list of sesquisyllabic words where the presyllable vowel has been transcribed as /i/ or /ə/ needs to be reexamined. In many such words, a second look has revealed that other vowels are “hiding” there, camouflaged by the lack of stress in the presyllable position.

6.2 *Voice register and tone*

The initial investigation of Lamet by Lindell, Svantesson, and Damrong did not identify tones or contrastive voice registers in the two dialects they studied. They did, however, conjecture that the existence of tone or voice registers was “reasonable to assume” because of the strong pattern in the related neighboring languages (1978:10). A decade later, in his description of the development of tone among some of these northern Mon-Khmer languages, Svantesson describes the two registers of Lamet in terms of distinct phonation types, “the tense register being relatively creaky and the lax register relatively breathy” (1988:8).

The jury is still out concerning the relationship between voice register and tone in Lamet. The community of speakers with whom I have been working recognizes two tones. As discussed in §5.2, Narumol did not find contrastive tone for the speakers she studied, but she found two contrastive voice registers. It might be helpful to compare Narumol’s word lists with my lexical files to see how voice register for her speakers corresponds to tone for mine. My initial impression is that there is a high correlation between Narumol’s “tense” register and high tone.

In addition, the effects of tone sandhi in Lamet are at this time completely unexplored.

6.3 A final word

This question of the relationship between voice register and tone is a clear example of how theoretical issues can have significant practical implications. In this case, one of the more obvious ramifications will be in the area of orthography development for the Lamet language. Assuming such a task has as one of its goals the production of written materials that as many speakers of the language as possible will be able to use (regardless of dialect background), care will need to be taken to insure that the register complex is not spelled in such a way that speakers of some varieties of the language are inadvertently excluded from access to such materials.

**Appendix:
Tone pair examples**

High Tone	Low Tone
cá: 'to talk about (s.t., s.o.)'	cà: 'to have many holes (e.g., loosely woven cloth)'
cá:w 'to cook (s.t.)'	cà:w 'to scoop up (w/spread fingers)'; 'to leak, drip'
cí:m 'to stick s.t. in post hole to make it tight'	cì:m 'to taste (s.t.)'
cí: 'to remember'	cì: 'name (n.)'
cók 'to touch, poke'	còk 'shelf (for dishes, etc.)'
có:n 'thief, robber'	cò:n 'a kind of basket carried on back'
có:ŋ 'stripes (on animal)'; 'umbrella'	cò:ŋ 'village square'
jé:ŋ 'to be light (not heavy)'	jè:ŋ 'village, town'
jók 'ear'	jò:k 'to pick up, carry (a baby, etc.)'
ká: 'to grill, barbecue (meat)'	kà: 'they (DUAL)'
ká:m 'muscle (e.g., on arm)'	kà:m 'back (of person or animal)'
ká:ŋ 'to put collar on (animal)'	kà:ŋ 'skin, peel (of fruit or vegetable)'
ká:p 'jaw'	kà:p 'to hold in mouth parallel to face'; 'sheath (for knife, sword)'
ká:w 'to let know, to invite'	kà:w 'to wrap (in paper, leaf, etc.)'
káh 'to untie (a shoe)'	kàh 'to give'; 'to cause'
kák 'to stop (s.o. from doing s.t.)'	kàk 'to bite'
kál 'to measure'	kàl 'to be blind'
kát 'to be cold (weather)'	kàt 'to be burned'
ké: 'to be old, past prime'; 'to explain'	kè: 'a trumpet'
kéh 'to wake up, to get up'	kèh 'bright (not dark)'; 'to grow up, to hatch (chicken)'
kéŋ 'tooth'	kèŋ 'row of plants on a farm'
kí:p 'to pinch'; 'pincers'	kì:p '(hair) clip'
kí:j 'buttocks'	kì:j 'ever'
kí:t 'to be born'; 'to happen'	kì:t 'chili pepper'
kín 'old (of a person)'	kìn 'a spirit being'
klíŋ 'to be fat, well-fed'	klìŋ 'to twist s.o.'s skin tightly'
klíp 'wide-brimmed hat'	klìp 'to collapse into the ground'
kók 'to have a limp, not walk correctly'	kòk 'to be curved'

kó:m	'to tie up (hair)'	kò:m	'light, lantern'
kók	'cup'	kòk	'fish basket'
kón	'bow, slingshot'	kòn	'ridge, rim'
kó:	'the first time, to begin to'	kò:	'also'
kó:c	'to write (letter)'	kò:c	'a kind of bird'
kó:p	'a kind of insect (horsefly?)'	kò:p	'to take cutting from tree and start new tree with it'
kúm	'to be enough'	kùm	'to surround'
kú?	'seed'	kù?	'to like, like to do'
kṽtóp	'to bring together cupped hands'	kṽtòp	'to keep limbs crossed so as to remain covered by one's clothes'
lá:t	'to fear, be afraid of'	là:t	'a kind of bracelet'
lé:	'to slice'	lè:	'parakeet'
lé:n	'to be long, to be high'	lè:n	'to tie up (an animal)'
líp	'to sink down, break through'; 'a kind of trap'	lìp	'to be sharp (e.g., a knife)'; 'rash, s.t. wrong with skin'
lóh	'to have a hole (in)'	lòh	'to pound (food)'
ló:n	'public, municipal, government'	lò:n	'to look for'
ló:w	'a kind of leaf'	lò:w	'to lie (to s.o.)'
lú:k	'a kind of animal'	lò:k	'to choose'; 'to go home from (meeting)'
má:k	'to hook s.t. to hang it up'	mà:k	'many, a lot, much'
má:?	'wind, air'	mà:?	'mother of husband'
mó:n	'to be sad, mad, upset'	mò:n	'a long net (to catch fish)'
mpíə	'squash, pumpkin'	mpìə	'the edge (of s.t.)'
mpík	'to break (s.t.)'	mpìk	'to pour (s.t.)'
mpəw	'to fly'	mpəw	'flying insect like ant'
múk	'fur, body hair'	mùk	'a kind of insect'
nán	'movie'	nàn	'to put (s.t.) on fire to cook'
ná:n	'beads on necklace'	nà:n	'term of affection for daughter or young girl'
nó:n	'lake'	nò:n	'still ___'
ntá:w	'strap (of bag)'	ntà:w	'wall'
nté?	'to make noise while dreaming'	ntè?	'into, inside'
ntíə	'to be level'	ntìə	'tube trap snare'
ntrá:n	'frame, structure'	ntrà:n	'to fight, struggle (with s.o.)'
ṽál	'some (thing)'	ṽàl	'fire'
ṽké:n	'a kind of bird'	ṽkè:n	'to carry (child) on back'
pá:n	'camp'	pà:n	'bottle'

pá:k	'to peel (fruit)'	pà:k	'to bring sacrifice'
pá:t	'a yellow frog'	pà:t	'to sharpen'
pá:w	'to roll (up)'	pà:w	'to dry (hair)'
péc	'to make a sharp point'	pèc	'to spit'; 'to be small'
péh	'to open (can, door, window)'; 'to pick (fruit)'	pèh	'to spit out s.t. you have tasted'
pí:n	'in the center of'	pì:n	'floor'
pí:ŋ	'basket for carrying rice'	pì:ŋ	'group (of people), herd (of animals)'
pík	'to snap (s.t.) in two'	pìk	'to ride (vehicle, horse)'
plá:j	'after'	plà:j	'flower'
pláh	'to wash (face)'	plàh	'(animals) get loose'
pənrán	'to scare, surprise'	pənràn	'to hurry (s.o.)'
pó:c	'to massage'	pò:c	'a kind of bamboo'
póh	'to pull off (s.t. stuck)'	pòh	'first'
pré:s	'to lift up, reach up'	prè:s	'sand'
p ^h rí?	'to be hot, spicy'	p ^h rì?	'weather, circumstances'
rəmú:j	'moss'	rəmù:j	'to be foggy, hard to see'
rəŋké:ŋ	'shovel'	rəŋkè:ŋ	'pillow'
róŋ	'jew's harp'	ròŋ	'ditch'
ró:n	'to bring (s.t.) together to make it bigger'	rò:n	'to be angry, frustrated'
rú:	'power (to deal with spirits)'	rù:	'to pull'
sæ:ŋ	'cymbals'	sæ:ŋ	'brightness'
só?	'to be sick, hurting'	sò?	'to want, want to do'
tá:j	'grasshopper'; 'to weave'	tà:j	'a kind of bat'
tá?	'eight'	tà?	'to patch (clothes)'
tí?	'hand'	tì?	'REFLEX. PRON'
tí:l	'to bury'	tì:l	'to prop up'
tóh	'to pull out'	tòh	'to knock or hammer (a surface)'
tó:l	'six'	tò:l	'anvil'
tó:ŋ	'(light) shines through'	tò:ŋ	'to bridge by putting a piece of wood across'
wá:j	'to paddle with hands'	wà:j	'to buy'; 'to be fast'
wá:?	'monkey'	wà:?	'to herd (animals)'
wí:ŋ	'to catch (in a net)'	wì:ŋ	'to return (from far away)'

REFERENCES

- Izikowitz, Karl Gustav. 1951. *Lamet: Hill Peasants in French Indochina*. Goteborg: Etnografiska Museet.
- Lindell, Kristina, Svantesson, Jan-Olof and Damrong Tayanin. 1978. "Two dialects of the Rəmeet (Lamet) language." *CLAO* 4:5-22.
- Narumol Charoenma. 1980. "The sound systems of Lampang Lamet and Wiang Papao Lua." M.A.thesis, Mahidol University.
- Narumol Charoenma. 1982. "The phonologies of a Lampang Lamet and Wiang Papao Lua." *MKS* 11:35-45.
- Svantesson, Jan-Olof. 1988. "Tonogenetic mechanisms in Northern Mon-Khmer." Paper presented at the 21st International Conference on Sino-Tibetan Languages and Linguistics, Lund. Later published in *Phonetica* 46:60-79 (1989).
- Svantesson, Jan-Olof, Jingliu, Wang and Chen Xiangmu. 1981. "Mon-Khmer languages in Yunnan." *ASEMI* 12:91-100.
- Thomas, David. 1992. "On sesquisyllabic structure." *MKS* 21:206-210.

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