

PHOM PHONOLOGY AND WORD LIST

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1.0. INTRODUCTION

The Tibeto-Burman languages that are often referred to as the *Northern Naga* or *Konyak* languages are spoken along the extreme northeastern border of India on both sides of the boundary that divides the Indian states of Nagaland and Arunachal Pradesh.¹ From north to south, this group of languages includes Tangsa, Nocte and Wancho in Arunachal Pradesh, and Konyak, Phom, and Chang just to the southwest in Nagaland. Starting, it seems, with Shafer (1955), a number of linguists have noted resemblances that suggest a special relationship between these Northern Naga languages and the Bodo-Koch languages. The latter (which have often, though misleadingly, been referred to as the “Bodo-Garo” group) are scattered to the west and south of the Northern Naga area, primarily in the northeast Indian states of Assam, Meghalaya, and Tripura.² In addition, several linguists have suggested that Jingphaw also has a special tie with both the Northern Naga and the Bodo-Koch groups (Benedict 1972, 1976; Burling 1971, 1983). Jingphaw is found primarily in northern Myanmar but the language is spoken all the way from Yunnan in southwest China to northeastern India (where it is known as “Singpho”). The evidence for the historical grouping of Northern Naga, Jingphaw and the Bodo-Koch languages within the larger Tibeto-Burman family has been marshaled most thoroughly and persuasively by Walter French

¹ Burling would like to express his thanks to the Fulbright Foundation which gave generous support for a period of teaching and research in northeastern India between November 1996 and May 1998.

² The Bodo-Koch languages, also sometimes called *Barish*, include three main subgroups: 1. **Koch** (including Atong, Rabha and Koch itself), 2. **Bodo** (including Kachari, Kokborok, Lalung and Bodo proper), and 3. **Garo**. It is clear that the Garo and Bodo branches are more closely related to each other than either is to the Koch branch, and if “Bodo-Garo” is to be used at all, it should refer to the subgroup that does not include Koch (Burling 1959). In northeast India, all of these languages, including Koch, are generally referred to simply as the “Bodo” group.

(1983), and the evidence now seems to be sufficiently strong that any remaining skeptics must assume the burden of disproof. We believe the Northern Naga languages are substantially closer to Jingphaw and to the Bodo languages than to other Tibeto-Burman languages. The Northern Naga group is less closely related even to the other so-called "Naga" languages than it is to Bodo-Koch and Jingphaw.

The study of the Northern Naga languages, and their comparison with other languages, has been hampered by the lack of good descriptions of their phonology and by the unclear transcriptions used in the available dictionaries and word lists. French had to use transcriptions that, among other things, completely failed to show distinctions of tone. Indeed, his sources did not always even indicate whether or not the languages have contrasting tones. Since French presented his study, Nagaraja (1994) has given us the first description of a Northern Naga language where tones are shown, and the purpose of this paper is to give (somewhat more limited) data for a second Northern Naga language. The next article in this issue (Burling and Wangsu) gives similar data for a third Northern Naga language, Wancho.

One of us (it will come as no surprise to readers to learn that it is Phom) is a native speaker of the Phom language. He has participated for several years in efforts by his community to standardize Phom orthography, and his special concern is effective Bible translation. Burling has long had an interest in the Bodo-Koch languages, and has wanted to extend his investigations to the Northern Naga languages. Together, we have worked out an analysis of the phonological system of Phom and assembled a list of core vocabulary. It is this material that we now present. We hope it will provide a better basis for future comparative work than the materials that have previously been available.

Phom does turn out to be a tone language, and like many such languages of East and Southeast Asia, its sound system is most easily described in terms of its syllables and their parts: 1. Initial consonants, 2. Vowels, 3. Final consonants, 4. Tones. Phom has many one-syllable words and it is easy to find minimal pairs that illustrate most phonological contrasts. Longer words are also found in abundance, but adjacent syllables have only limited phonological influence upon one another; for the most part the phonology of polysyllables can easily be described in terms of their constituent syllables. We find no evidence of limitations on the kinds of syllables can stand beside one another.

Thus, for example, word-initial and word-final consonant clusters are all but nonexistent in Phom (but see below), but a wide range of consonant sequences can be found in the middle of words. All these apparent "medial clusters", however, are simply formed from the final consonant of one syllable followed by the initial consonant of the next. We have found no restriction on

which consonants can occur together across a syllable boundary, except for the limitations set by the range of initial and final consonants that can occur in a single syllable. A modest amount of assimilation occurs across syllable boundaries (see below), but a description of the phonology of the syllable goes a long way toward describing the phonology of words as well. In the following paragraphs we consider, in turn, the four constituents of the syllable.

2.0. SYLLABLE-INITIAL CONSONANTS

The distinctive consonants that can occur as syllable initials are shown in Table 1. It is also possible for a syllable to have no initial consonant at all.

p ^h	t ^h		k ^h
b	d	č	g
m	n	ñ	ŋ
		ʃ	h
w	y	ʒ	l

Table 1. Syllable-initial consonants.

Phom has two series of stops, voiceless aspirated and unaspirated. These appear at the bilabial, apical (immediately post-dental), and velar positions. As word initial, the unaspirated stops are somewhat less voiced than the voiced stops of English. More precisely, voice onset time is just a bit later than in English. When following a voiced sound in the previous syllable of the same word, however, these stops may be fully voiced, and to emphasize their contrast with the aspirated series, we symbolize the unaspirated series as /b, d, g/. Symbolizing the unaspirated stops in this way would permit us to omit the explicit indication of aspiration in the other series, but aspiration is strong, and we continue to indicate it both as a way of emphasizing the contrast and of showing the difference between syllable-initial and syllable-final stops.

In addition to its stops, Phom has an unaspirated palatal affricate, symbolized here as /č/. This has the same conditions for voicing as the unaspirated stops. An expectation of symmetry leads one to look for an aspirated affricate as well, but there is none.³ Four nasal consonants can also occur as initials. They are articulated in the same positions as the stops and the affricate, and we symbolize them as /m, n, ñ, ŋ/.

³ This same asymmetry exists in standard Jingpho. [Ed.]

/ʃ/ is a voiceless palatal spirant very similar to the initial of English *shadow* and *shoe*.

/ʒ/ is the voiced equivalent of /ʃ/ but the tongue is drawn so far back that it can sound quite rhotic. It has somewhat less friction than /ʃ/ but decisively more than /y/. We do not have examples of /ʒ/ before /o/ or /ɔ/.

/w/ is a bilabial continuant virtually identical to English /w/. In all of our examples it occurs before either /o/ or /ɔ/. This means that it is in complementary distribution with /ʒ/ and, strictly speaking, [w] and [ʒ] could be considered to be allophones of the same phoneme. We keep them separated here because they are strikingly different phonetically, and because L. Amon Phom finds it difficult to think of them as the "same" sound.

/y, h/ and /l/ are all very similar to the English phones that are usually represented by the same letters.

In addition to these simple consonants, a handful of Phom words begin with sequences that could be heard as clusters. These all have /l/ as the second consonant. These apparently adjacent consonants are less tightly fused than the constituents of English clusters, however, and they are quite rare. We interpret them as two consonants separated by a very short /ɛ/: **bɛ⁵⁵lɔŋ⁵⁵** 'jackfruit'; **mɛ⁵⁵li⁵⁵** 'medicine'.

3.0. VOWELS

The vowels of Phom are more difficult than either the consonants or tones, but the language can be described as having ten simple vowels and six diphthongs. See Table 2.

3.1. Simple vowels

/i/. High, front, unrounded. This vowel is higher in open syllables and before /l/ than in syllables closed with other consonants. **i³³** 'blood'; **ʃin³³** 'turn'; **ni⁷³³** 'day'.

/e/. Higher mid, front, unrounded. **e³³** 'speak'; **ɕæŋ⁵⁵nen⁵⁵** 'turtle'; **e⁵⁵** 'see'.

/ɛ/. Lower mid, unrounded. This vowel is a bit front of central, but not so far front as /e/. It can sound a bit like an English schwa, though it can be more strongly accented than the English vowel, and it is a bit further front. **nɛ³³** 'not'; **mɛ³³lay⁵⁵** 'where?'; **yoŋ⁵⁵yɛn³¹** 'stream'.

/æ/. Low, front-central, unrounded. This vowel is slightly farther front than the vowel that most English speakers use in *father*, but by no means as far front as the vowel of such English words as *hat*. We symbolize it here by /æ/ in order to differentiate it from another vowel which is a bit further back, and for which we need to reserve /a/. **ɕæ⁵⁵** 'new'; **læŋ⁵⁵** 'dyed cane'; **niæ⁷³³** fish.

/ɯ/. Very high and far back. The lips are usually somewhat everted but not rounded. This vowel does not give the acoustic impression of being rounded and it contrasts clearly with the high back rounded /u/. /ɯ/ is very tense. **ɟu**⁵⁵ 'pull'; **huŋ**⁵⁵ 'ginger'; **mu:k**⁵⁵ 'eye'.

i	ɯ	u	ɤy	oy
e	ʌ	o	ay	
ɛ		ɔ	au	
æ	a		aui	aw

Simple vowels.

Diphthongs.

Table 2. *Phom vowels.*

/ʌ/. A vowel that is a bit higher and further back than mid central, but not so high or so far back as /ɯ/. The lips are often slightly spread. It is less tense than /ɯ/. Unwary speakers of other languages than Phom can easily confuse /ɯ/ and /ʌ/, but many minimal pairs demonstrate the need to distinguish them: **ʃʌ**³³ 'forest' vs. **ɟu**³³ 'nine'; **laŋ**³¹ 'row' vs. **luŋ**³¹ 'crack'.

/a/. This vowel is realized in several different ways that depend upon the consonant that immediately follows and that ends the syllable. Before /ŋ/ and /k/ it is a low central or somewhat backed central vowel. It resembles the first vowel of English *father*: **ʒaŋ**⁵⁵ 'rain'; **čak**³³ 'burn'. Before /m/ and /p/ it is a bit higher than before /ŋ/ and /k/: **čam**⁵⁵ 'three'; **ŋap**³³ 'buttocks'. In open syllables and before a syllable-final /n/ or /t/ it may be still higher and a bit fronted. Here it gets close to the vowel of English *but* and it can even approach the vowel of English *bet*: **ña:t**³³ 'seven'; **an**³¹ 'ten'. This vowel is unrounded in all positions. Depending upon which of these variants occurs, /a/ is in danger of being confused with /æ/, /ʌ/, or /ɛ/. The following minimal pairs show that it must be distinguished from all three: **maŋ**⁵⁵ 'corpse', **mæŋ**⁵⁵ 'not yet'; **laŋ**⁵⁵ 'straw', **laŋ**⁵⁵ 'bed'; **haŋ**³³ 'basket', **heŋ**³³ 'exhort'.

/u/. High, back, rounded. This vowel is similar to the vowel of English *moon*, but with no diphthongization. **ɟu**⁵⁵ 'head hair'; **kʰuŋ**³³ 'bag'; **ɟuk**³³ 'grasshopper'.

/o/. Mid, back, rounded. **goŋ**³³ 'empty'; **o**³³ 'folk song'; **ok**⁵⁵ 'pig'.

/ɔ/. Low, back, rounded. This is similar to the vowel in *paw* in many dialects of English. **ɟɔ**⁵⁵ 'skin'; **tʰɔŋ**³³ 'ear'; **wɔk**³³ 'six'. The three back

rounded vowels are shown to be in contrast by many sets of words such as: **u**³³ 'bird'; **o**³³ 'folk song'; **ɔ**³³ 'fire'. They are unlikely to be confused with any other vowel.

3.2. *Diphthongs*

In addition to the simple vowels, Phom has six distinctive diphthongs. As will be explained in the next section, syllables with simple vowels can be followed by one of seven final consonants. The only syllable-final consonant that can follow a diphthong, however, is the glottal stop and even that is not common (see below).

/ay/. A diphthong that starts low and unrounded and moves toward a high front unrounded position. It is very similar to the vowel of English *my*, *time*, *fight*. **p^hay**⁵⁵ 'meat, flesh'; **lay**⁵⁵ 'book'.

/ɛy/. A diphthong that starts in between a mid central and mid front unrounded position and moves toward high front unrounded. To the foreign ear this can sound quite similar to /ay/, but /ɛy/ begins with the tongue in a slightly higher position than /ay/ though further back than the starting point of the English vowel of *pay* or *game*. **ɛay**³³ 'I'; **lay**⁵⁵ 'come back'.

/aw/. A diphthong that starts low and unrounded and moves toward a high back unrounded position. It is not remotely like anything in English.⁴ **law**³¹ 'correction'; **haw**⁵⁵ 'hot, spicy'.

/ɛw/. Another diphthong that is quite unlike anything in English. It starts about where /ɛy/ starts, somewhere between mid front unrounded, and mid central unrounded, but then moves toward high back unrounded. **ɛw**³¹ 'fat, grease'; **law**³³ 'dedicate (a church)'.

/aw/. A diphthong that starts low, central, and unrounded and that moves in the direction of a higher-mid back rounded vowel. It is quite similar to the vowel of American English *cow*. **gɔw**⁵⁵**aw**⁵⁵ 'squirrel'; **daw**³¹ 'grab and pull'.

/oy/. A diphthong that moves from mid back rounded toward a high front unrounded position. It is eerily like the vowel of English *boy*. **moy**³¹ 'blessing'; **hoy**³³ call; **goy**³³ 'thin'.

4.0. SYLLABLE-FINAL CONSONANTS

Only seven consonants can occur as syllable finals. Many syllables are open, having no final consonants at all. See Table 3.

/-p/, /-t/, and /-k/ are similar to the unaspirated initial stops, but they are even

⁴ A similar diphthong used to exist in Siamese, and still occurs in Shan. [Ed.]

less voiced. They are generally unreleased, and they bring the syllable to an abrupt conclusion. Vowels in stopped syllables are shorter than in open

-p	-t	-k	-ʔ
-m	-n	-ŋ	

Table 3. Syllable-final consonants.

syllables. /-ʔ/ is a glottal stop and it is found only in syllable-final position. Vowels that precede /-ʔ/ are even shorter than those that come before other stops. /-m/, /-n/, and /-ŋ/ are pronounced much as they are at the beginning of a syllable. They shorten the preceding vowels slightly, but not as much as syllable-final stops. The nasals are otherwise unremarkable. Except for /-ʔ/, consonants do not occur after diphthongs.

5.0. TONES

Three distinct tones can occur with most types of syllables and they are quite transparent. Syllables ending with /ʔ/, however, show no tonal contrast. The shortness of the vowels that occur before /-p -t -k/ gives the tones on such syllables less time to be clearly or fully expressed and they have less resonance than unstopped syllables. Nevertheless, there is no serious difficulty about assigning syllables stopped with /-p -t -k/ to the same three tones that are found in open and nasal syllables.

/⁵⁵/. In open and nasal syllables this tone is quite high and level and it has a rather resonant or “sung” quality. It is shorter and less resonant in stopped syllables. It is also rarer than tone /³³/ in stopped syllables. **ʃi**⁵⁵ ‘millet’; **maŋ**⁵⁵ ‘corpse’; **op**⁵⁵ ‘land leech’; **p^hak**⁵⁵ ‘horn shaped hook for hanging things’; **at**⁵⁵ ‘beyond’.

/³³/. Like tone /⁵⁵/, this tone is quite level, but with a mid level pitch it is decisively lower than /⁵⁵/. The majority of stopped syllables have this tone; as with tone /⁵⁵/, stopped syllables under tone /³³/ are less resonant than the corresponding open and nasal syllables. Although syllables ending with the glottal stop show no contrast in tones, Amon Phom’s firm intuition is that they should be assigned to tone /³³/ along with the largest number of other stopped syllables. **ʃi**³³ ‘dog’; **maŋ**³³ ‘dream’; **huək**³³ ‘one’.

/³¹/. This is a falling tone that drops decisively from a mid pitch to low. It is distinctly less resonant than the other two tones. Tone /³¹/ is somewhat unusual with stopped syllables, but not unknown: **maŋ**³¹ ‘evil spirit’; **p^hak**³¹ ‘sit idly’; **at**³¹ ‘drive (animals)’.

A number of intransitive verbs have transitive or causative partners that differ only in tone. Intransitive verbs with tone /⁵⁵/ or /³³/ correspond to transitive or causative verbs with tone /³¹/:

<i>Intransitive</i>		<i>Transitive/Causative</i>	
lɔy ³³	'come, return'	lɔy ³¹	'bring'
u ⁵⁵	'sit'	u ³¹	'cause to sit'
ʒɔ ⁵⁵	'fall down'	ʒɔ ³¹	'let fall'
ywɨ ⁵⁵	'drink'	ywɨ ³¹	'feed liquid'
fɔ ⁵⁵	'enter'	fɔ ³¹	'insert'
fɛ ³³	'rot'	fɛ ³¹	'cause to rot'

6.0. ASSIMILATION ACROSS SYLLABLE BOUNDARIES

Some modest assimilation occurs across the syllable boundaries of polysyllabic words. This is most easily recognized in compounds that are constructed from shorter, often one-syllable, morphemes that can occur as words by themselves. Comparisons between the pronunciation of these syllables as separate words and as components of compounds is straightforward.

The least problematic type of assimilation is the more complete voicing shown by the unaspirated initial stops when they follow a voiced vowel or consonant in the preceding syllable. Stops that are barely voiced or even unvoiced when they occur at the beginning of words, are generally fully voiced when they directly follow a voiced phone.

An only slightly more complex type of assimilation occurs when a final stop of one syllable immediately precedes an initial /h/ of the next. When, for example, **lak**³³ 'hand' joins with **hw**?³³ 'wash' to yield a collocation meaning 'wash the hands', the result, phonetically, is [lak³³k^hw³³]. This assimilation appears to be automatic and regular.

A more complex and less predictable type of assimilation can occur when a final nasal of one syllable is followed by a syllable that, on etymological grounds, can be shown to be derived from a form that lacks any initial consonant at all. In such cases, a nasal consonant that duplicates the final consonant of the first syllable is sometimes, though not always, added to the beginning of the second syllable. The fact that this does not always happen is shown by such words as **goŋ**⁵⁵**aw**⁵⁵ 'squirrel', in which the /ŋ/ is clearly confined to the first syllable. There is, in fact, a very slight glottal onset to the second syllable. This is decisively less strong than the phonologically distinct

syllable-final glottal stop, but it forms an effective barrier between the /ŋ/ and the following syllable.

In **čẽm³³mi⁵⁵** ‘with; together’, on the other hand, not only does the second syllable not start with any sort of glottalization, but careful articulation suggests that the second syllable actually begins with an /m/. The syllable transition in **čẽm³³mi⁵⁵** appears to be identical to the syllable transition of **fẽm⁵⁵m̩ɔy⁵⁵** ‘rich, wealthy’, where both syllables have underlying /m/s: **fẽm⁵⁵** ‘house, home’; **m̩ɔy⁵⁵** ‘good’. (Phom is not the only language in this part of the world where the phrase “good home” carries the sense of “wealthy”.) The second syllable of **čẽm³³mi⁵⁵** does not have an underlying /m/, however, as shown by **ŋɔy³³i⁵⁵** ‘by me’, where the same suffix is found without an initial /m/. Thus, if **čẽm⁵⁵mi³³** has two /m/s like **fẽm⁵⁵m̩ɔy⁵⁵**, the second /m/ is added by assimilation, but **gɔŋ⁵⁵aw⁵⁵** shows that assimilation is not automatic. Different words appear to act in varied ways but we have not been able thoroughly to explore the conditions under which assimilation takes place. All we can do is note the existence of assimilation and record the pronunciation that is actually used in each word. Further study of this type of assimilation is needed.

Except for this relatively modest amount of assimilation, we have found no other ways in which syllables influence their neighbors. So far as we have discovered, any type of syllable can follow any other type. There appear to be no restrictions on tone sequences, and we have had no difficulty in identifying the tones of polysyllabic words with the tones found on one-syllable words. Nor does the Phom language have the kind of “half” or “minor” syllables that characterize many of the Tibeto-Burman languages spoken further to the east, in which the initial syllables of many words have restricted phonological complexity compared with the “full” syllables that follow. Phom does have a few initial syllables that share some characteristics with the “prefixed” half-syllables of some other Tibeto-Burman languages. For example, **a³³** occurs as the first syllable of many names of bird species. These initial “prefixes” do not seem to be phonologically reduced or restricted in Phom, however, and they are not very common.

Syllable boundaries are important in Phom. Vowels in closed syllables are pronounced somewhat shorter than those in open syllables. This means that two-syllable words that have a medial stop or nasal between the two vowels are pronounced differently when the consonant is the final of the first syllable than when it is the initial of the second. By placing the tone marks at the end of the syllable, as we have done, the boundary is made unambiguous. If however, tones were indicated earlier in the syllable, as with accents over the vowels, or if, as would be convenient in a practical orthography, one tone was left

unmarked, some ambiguities would arise unless syllable boundaries were explicitly marked in some other way.

7.0. RHYMES

The Phom language has some rather eccentric limitations on which rhymes (combinations of a vowel and final consonant) can occur. Even among rhymes that do occur, some are far more common than others. Table 4 gives the number of examples of each rhyme that is found in the words we have transcribed. Thus, an /-it/ rhyme (the combination of /i/ with the final consonant /t/) appears in five examples in our data. Diphthongs, as previously noted, never occur with any final consonant except the glottal stop.

We have tried to count each morpheme just once, even if it appears in several words of our sample, but the sample is hardly "random". Indeed, it is hard to know what would constitute a "random" sample in a case like this. Our intention is only to offer an impression of the far from random association of vowels with final consonants. It is quite likely that some of the gaps in Table 4 are accidental and that a larger collection of words would provide examples that would fill some of these gaps, but it is unlikely that the markedly uneven distribution of rhymes would be eliminated. Indeed, by searching for rare cases, we may even have biased the sample in favor of the less common rhymes.

8.0. ALTERNATIVE TRANSCRIPTIONS

Both Marrison (1967) and French (1983) give numerous Phom forms and a small dictionary has now been published (Kumar et al. 1973) with additional vocabulary. French gives a phonemic inventory of the language, and inventories can be constructed from the examples given by Marrison and by Kumar et al.⁵ French cites Marrison as the sole source of his Phom data (he used not only Marrison 1967 but also other, unpublished work), so it is to be expected that their data and analyses will be similar, although French does alter the transcription in some minor ways. The data in Kumar et al. is, presumably, independent, but it does not appear to be very different. All of these transcriptions differ from that used here in a number of respects.

All three sources recognize three series of initial stops, written as if they are aspirated, voiceless unaspirated, and voiced (i.e. <ph, p, b>, etc.), while we find only two series. Phom spelling is not well standardized, but when native

⁵ For a phonetic inventory of Marrison's Phom data, see *Phonological Inventories of Tibeto-Burman Languages* (ed. Ju Namkung), STEDT Monograph Series 3 (1996), p. 321. [Ed.]

Vowel	Final Consonant								Total
	-p	-t	-k	-ʔ	-m	-n	-ŋ	-#	
i		5		8	1	11	2	42	69
e				1		6	1	32	40
ɛ	1	4	1	1	2	2	2	20	33
æ	7	3	9	19	9	12	33	61	153
u	3		7	11	9		32	43	96
ʌ	4		12	1			12	42	71
a	14	8	16	10	21	15	35	13	132
u	1		5	5			11	36	58
o	3	2	10	1	18	2	42	7	85
ɔ			11	5			34	42	92
ay								36	36
ʌy				6				35	41
au								17	17
ʌu								13	13
aw				1				30	32
oy				2				13	15

Table 4. Rhymes.

speakers write their own language they usually write <ph>, <th>, and <kh> for the aspirated series because this is the way similar sounds are written for neighboring languages. All three sources follow this practice. Phom writers are inconsistent in their choice between <p, t, k>, and <b, d, g>, and indeed there is some allophonic variation that could lead them to vary their choice. This may have misled Marrison and French into believing that a contrast had to be recognized. Kumar et al. generally use <p>, <t>, and <k>, but , <d>, and <g> are used occasionally, often in borrowed words.

Marrison and French transcribe the nasals just as we do. Kumar et al. differ only in using <ny> and <ng> where the rest of us use <ñ> and <ŋ>. All of us agree on <l> and <y> and on <h> when used initially. Our <ʃ> becomes <š> for French, <sh> for Kumar et al., and remains <ʃ> for Marrison. Our <č> becomes <j> for French, while Kumar et al. vacillate between <ch> and <j> on no grounds that we are able to discern, and Marrison vacillates between <c> and <j>. Among initial consonants, this leaves only our <w> and <ʒ>.

We have pointed out that the phones we write as <w> and <ʒ> are in complementary distribution, and French and Marrison use <v> for both the allophones. The choice of <v> for this phoneme may seem odd, but some

Phom speakers use <v> for our <ɜ>. This is probably why Marrison and French used <v>. (Phom speakers generally use <w> where we do). <v> does not usually represent a somewhat rhotic palatal fricative, which is the way Phom speakers pronounce their <v>, but it is an entirely satisfactory letter for a practical orthography, since it has no other use. Rather mysteriously, Kumar et al. sometimes use <v> and sometimes <vg> where we use either <ɜ> or <w>. Occasionally they even use <w>. The choice between <v> and <vg> appears to be quite arbitrary (and even inconsistent for the same morpheme).

French remarks that, like neighboring Konyak and Chang, Phom lacks an /r/ (p. 99). In fact, our /ɜ/ has a rather rhotic quality, and it is cognate to the /r/ that is found in a number of related languages. Phom **ɜang**⁵⁵, a common first syllable in words for weather and the sky, for example, is clearly cognate to **rang**, with the same meaning, in several Bodo-Koch languages. While our /ɜ/ (<v> as written by many Phom speakers) is phonetically very different from the flapped /r/ that is more typical of northeast Indian Tibeto-Burman languages, it is no more different than the various flapped, retroflex, and uvular “/r/s” that are found in European languages are from each other. French is correct to point out that Phom does not have an /r/ if that means a flap, but /ɜ/ clearly corresponds to the /r/ that is found elsewhere.

Transcription of syllable-final stops is straightforward in all the sources. French and Marrison transcribe them exactly as we do. Kumar et al. use <ng> finally as well as initially. They also use <h> for the glottal stop. This is a common convention among the “Naga” languages, and it is satisfactory for word-final position, since nothing like the initial /h/ occurs at the end of a word. Unfortunately, both /h/ and /ʔ/ occur medially, however, and since Kumar et al. use <h> for both phonemes, it is sometimes impossible to tell whether a medial <h> stands for /ʔ/ or for /h/.

Unlike the transcription of consonants, the transcription of the vowels in the earlier sources verges on the chaotic. All three sources recognize only six simple vowels, written with the usual five vowel letters plus <ə>, <ə>, and <ü> in French, Marrison, and Kumar et al. respectively. <ü> is a common way to represent high back unrounded vowels in the orthographies used in the Naga hills, and the “sixth” vowel used in all three of these sources is used for both our /ʌ/ and our /u/. As already pointed out, numerous minimal pairs leave no doubt that these represent contrasting phonemes in the dialect of Phom spoken by L. Amon Phom, but none of the other sources recognize this contrast. Our <æ> is fairly consistently transcribed as <a> elsewhere, but our <a> (which is allophonically quite variable) shows up sometimes as <a> and at other times as <e>. Both our <e> and our <ɛ> are most often represented by

<e> in the other sources. There are, however, a great many irregularities that make it difficult to predict what will be found in any particular instance.

Oddly, perhaps, there seems to be more consistency in the transcription of diphthongs. Clear examples are difficult to find, but where we write <ay>, <ɛy> and <oy> Marrison and Kumar et al. seem most often to write <ai>, <ei>, and <oi>. Our <aw> shows up as <ou> in Marrison and in Kumar et al. The latter use <aʉ> in a few examples where we, recognizing an extra contrast, write either <aaw> or <ɛaw>.

None of these authors records tones.

The remainder of this paper consists of a list of Phom words that illustrate the phonology that we have described.

WORD LIST

NATURE

Sky and Weather

cloud	phom ⁵⁵
earthquake	be ⁵⁵ di ³¹ ʒuk ⁵⁵
fog / mist	ñau ³³
lightning	ge ³³ lan ³³
moon	len ³¹ ñu ³³ (len ³¹ 'month'; ñu ³³ 'mother')
rain	ʒaŋ ⁵⁵
sky	phom ⁵⁵ faŋ ³³
snow	ʃa ⁵⁵
star	lit ³³ hæ ³³
sun	ʒaŋ ⁵⁵ he ⁵⁵
thunder	ʒaŋ ⁵⁵ muk ³³
wind (air)	ʒaŋ ⁵⁵ lwk ³³

Land and Water

dust	phi ⁷³³ læ ³¹ (phi ⁷⁵⁵ 'sand')
earth / soil	ga ⁷³³ dok ³³
lake	ʃam ⁵⁵ yoŋ ⁵⁵ (ʃam ⁵⁵ 'house'; yoŋ ⁵⁵ 'water')
mountain	gæ ⁷³³ faŋ ³³
mud	ñau ⁵⁵ hot ⁵⁵
puddle	phi ³³ yoŋ ⁵⁵
river (large)	yoŋ ⁵⁵ ñu ³³
river (small)	yoŋ ⁵⁵ yɛn ³¹
saline spring	ʃu ³¹
sand	phi ⁷³³
sea / ocean	yoŋ ⁵⁵ čwaŋ ³³
spring (for water)	yoŋ ⁵⁵ lok ³³
stone	yoŋ ³³
valley	gæ ⁷³³ či ⁵⁵
water	yoŋ ⁵⁵
waterfall	yoŋ ⁵⁵ lon ³¹

ANIMALS

Mammals (Domestic)

animal	yam ³¹ hi ³³ mæk ⁵⁵
buffalo (of the plains)	ʃak ⁵⁵
camel	ot ³¹
cat	mæ ⁵⁵ ʃi ⁵⁵
cattle / cow / ox	mo ³³ ho ⁷³³
dog	ʃi ³³
goat	yom ⁵⁵
horse	gɔ ⁵⁵ yay ⁵⁵
mithun (water buffalo)	ñæ ³¹
pig	ok ⁵⁵
sheep	mi ⁵⁵

Mammals (Wild)

bat (animal)	ap ³³ bak ³³
bear	ʃap ³³ daw ⁵⁵
deer (barking)	ma ³¹ ʃi ³¹
deer (big horned)	ʃok ³³
elephant	ma ³¹ ñu ³³
gibbon (black)	hu ⁵⁵ lu ³³
gibbon (brown)	ʃi ³³ ŋæ ⁵⁵
jackal / fox	mæ ³¹ hu ³¹
mole	ʒu ³¹
monkey (long- tailed langur)	hap ³³
monkey (macaque)	ma ³¹ ʃi ³¹ æŋ ⁵⁵
mountain goat	ma ³¹ yay ⁷³³
rabbit	yɛ ³³ phɛ ⁷³³ oŋ ⁵⁵
rat	yup ³³ hu ⁷³³
squirrel	goŋ ⁵⁵ aw ⁵⁵
tiger	ʃa ⁷³³ ñu ³³
wolf	ʃɔ ⁵⁵

Birds

bird (general term) / fowl	u ³³
cock / rooster	u ³³ bɔŋ ⁵⁵
crow	a ³³ fæ ⁵⁵
dove	a ³³ thu ⁵⁵
duck	bat ⁵⁵ æk ⁵⁵
eagle	a ³³ læŋ ⁵⁵
goose	hæn ³³
myna	a ³³ foŋ ⁵⁵
owl	a ³³ fɯ ⁷³³ lɔŋ ³³ gɔŋ ³¹
peacock	a ³³ dɿ ⁵⁵
vulture	læŋ ⁵⁵ dæ ³¹
woodpecker	a ³³ ñæŋ ⁵⁵

Reptiles, Fish, and Miscellaneous

fish	ñæ ⁷³³
frog	luk ³³
house lizard	kʰaŋ ⁵⁵ hæ ³³
shrimp / prawn	fok ³³ ʒæŋ ⁵⁵
snail	fap ³³ foŋ ⁵⁵ (fap ³³ 'bear'; foŋ ⁵⁵ 'shell')
snake	bɯ ³¹
tortoise	fok ⁵⁵ yæŋ ⁵⁵
turtle (water)	čæŋ ⁵⁵ nen ⁵⁵

Insects and Worms

ant	mæ ⁵⁵ law ⁵⁵
bedbug	lɒŋ ⁵⁵ hɒŋ ⁵⁵ , hɒŋ ⁵⁵ hɒŋ ⁵⁵ (lɒŋ ⁵⁵ 'bed')
bee	ñæ ⁷³³ ñɯ ³³
butterfly	bi ³³ fok ⁵⁵
centipede	lak ³³ hak ³³ læ ³³ hak ³³ (lak ³³ 'arm'; hak ³³ 'red'; læ ³³ 'leg')
cockroach	yɯp ³³ fo ⁵⁵
dung beetle	i ⁷³³ thu ⁵⁵ (i ⁷³³ 'dung'; thu ⁵⁵ 'dove')

firefly	ɔ ³³ læ ⁷³³ (ɔ ³³ 'fire')
fly	mæn ⁵⁵ hæ ³³
flying insect	bi ⁵⁵ bɿ ³³
grasshopper	fuk ³³
honey bee	ñæ ⁷³³ fay ³¹
insect / bug	yam ³¹ hæ ³³ mæk ⁵⁵ hæ ³³
leech (land)	op ⁵⁵
leech (water)	dæk ⁵⁵
louse	dat ³³
mosquito	maw ⁷³³ don ³³
spider	mæk ⁵⁵
tick (insect)	pʰæ ³¹ pʰæ ³¹
white ant / termite	mɛ ³¹ thə ⁷³³
worm	lɔŋ ³³

Animal Parts, Products, Calls

bark (dog)	hun ³¹
goat's hair (dyed red, used for decoration)	mu ⁵⁵
egg	a ³³ di ⁵⁵
egg shell	a ³³ di ⁵⁵ fop ⁵⁵
feather	yan ⁵⁵
growl (animal)	ŋɯŋ ⁵⁵
honey	ñæ ⁷³³ čɯ ⁵⁵ (ñæ ⁷³³ 'bee'; čɯ ⁵⁵ 'juice')
horn (of animal)	wɔŋ ⁵⁵
nest	čap ³³
path of an animal	fo ³³
shell (e.g. turtle's)	foŋ ⁵⁵
spider web	mæk ⁵⁵ ñim ⁵⁵ (mæk ³³ 'spider')
sting	ñɯ ⁷³³ fɿ ³¹
tail	mɿ ³³
trunk (elephant)	fam ³³

tusk (elephant) mɔy³¹ñw³³pʰæ³¹
 wing / feather yaŋ⁵⁵

PLANTS, FOODS

Trees, Forest, Fruit

forest / jungle pʰaw³³, ʃɔ³³
 tree bɔ⁵⁵
 areca nut gɔ⁵⁵čɔk⁵⁵
 bamboo wɔŋ⁵⁵
 banana ŋu³³
 jackfruit bɛ⁵⁵lɔŋ⁵⁵
lime (fruit) tʰj⁵⁵ɣɔk⁵⁵hæŋ⁵⁵baw⁵⁵
 mango a³³ʃɔy³¹
 orange ʒwɔŋ⁵⁵ñan⁵⁵hæŋ⁵⁵baw⁵⁵
 papaya am⁵⁵mi⁵⁵tʰæ³³
 pomelo yæ⁵⁵liŋ⁵⁵hæŋ⁵⁵baw⁵⁵

Grain

maize ɔŋ⁵⁵čɔk⁵⁵
 millet ʃi⁵⁵
 rice (cooked) nɔk³³
 rice (husked) ɔŋ⁵⁵
 rice plant /
 paddy ha⁷³³
 rice (sticky) nɔk³³čaw⁵⁵

Tubers

arum doŋ³³
 ginger hwɔŋ⁵⁵
 manioc /
 tapioca bɔ⁵⁵ʃɛ⁵⁵
 potato ʃɛ⁵⁵čɔk⁵⁵
 sweet potato mɛ³³lɔŋ³³ʃɛ⁵⁵
 yam ʃɛ⁵⁵

Vegetables and Miscellaneous Plants

bamboo shoots mɔy³³ʃɔy⁵⁵
 (dry)

bamboo shoots mɔy³³ci⁵⁵
 (juice from)
 bamboo shoots mɔy³³ʃɔŋ⁵⁵
 (crushed)
 beans (green) li³³haw⁵⁵
 betel leaf, *pan* bɛ⁵⁵lu⁵⁵
 cane ʒɔy⁵⁵
 chili peppers tʰɔŋ⁵⁵hæŋ⁵⁵
 cotton pʰwɔm⁵⁵pʰa⁷³³
 dyed cane læŋ⁵⁵
 eggplant /
 brinjal bin⁵⁵do⁵⁵
 garlic a³³ʃɛ⁷³³
 gourd law³³
 grass tʰwɔŋ⁵⁵
 mushroom goŋ⁵⁵æŋ⁵⁵
 straw læŋ⁵⁵
 sugarcane yæŋ⁵⁵

Foods

bread æn⁵⁵
 cooked food læŋ³¹
 curry haw³³
 dried fish ñæ⁷³³ʒæn³¹ (ñæ⁷³³
 ‘fish’; ʒæn³¹ ‘dry’)
 fat / grease čɔw³¹
 feast mɔ⁵⁵
 meat / flesh pʰay⁵⁵
 oil (cooking) may⁵⁵ŋæ⁵⁵
 salt hwɔm³³
 wine / liquor /
 rice beer yw³¹
 yeast dɔ³³

Plant Parts

bark ʃɔ⁵⁵
 branch gaw³³
 flower čw³³
 fruit bɛt³³čɔk⁵⁵

joint (of bamboo)	won ⁵⁵ ma ³³ (won ⁵⁵ 'bamboo'; ma ³³ 'eye'); won ⁵⁵ ʃw ³³
juice	ču ⁵⁵
poison	la ³³ w ³¹
root	dwaŋ ⁵⁵ læŋ ⁵⁵
seed	ʒæŋ ³³
stick	laŋ ³³
thorn	hu ³³
trunk (of tree)	ba ⁵⁵ ñu ³³ bum ³¹ (ba ⁵⁵ 'tree'; ñu ³³ 'mother')
vine	ña ⁵⁵ lwaŋ ⁵⁵ ɲa ⁵⁵ bay ⁵⁵

Plant Maturation and Stages

bloom	boŋ ⁵⁵
decay	ʃe ³³
ripe	ʃum ³³
ripe / mature	li ³¹
rot (v.i.)	ʃe ³³
rot, cause to (v.t.)	ʃe ³¹
seedling	li ⁵⁵
shoot of plant	ʃuŋ ³¹
spoil	mæŋ ³³
sprout (n.) / germinate (v.)	in ³¹
unripe / green	thwaŋ ⁵⁵

BODY PARTS

body	haŋ ⁵⁵
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Head

cheek	om ³¹ thɔŋ ³³ (thɔŋ ³³ 'ear')
chin	ʃa ³³ ʒæŋ ³³
ear	thɔŋ ³³
eye	mu ³³
face	thə ³¹

forehead	ʃaŋ ⁵⁵ bæ ³¹
head	ʃaŋ ⁵⁵ ču ⁵⁵
lip	ču ⁵⁵ ban ³³
mouth	ču ⁵⁵
neck	waŋ ³³
nose	ʃoŋ ³³
tongue	ya ⁵⁵
tooth	phæ ³¹

Torso

back (of body)	dək ³³
belly	wom ³³
breast / milk	am ⁵⁵ mæ ⁵⁵
chest	čæ ⁵⁵ bæ ³¹
navel	huŋ ³³
nipple	am ⁵⁵ mæ ⁵⁵ ču ⁵⁵ (am ⁵⁵ mæ ⁵⁵ 'breast'; ču ⁵⁵ 'mouth')
waist	ʃaŋ ³³
anus	gom ⁵⁵
buttocks	ŋap ³³
clitoris	hɔ ³³
penis	daŋ ³³
testicle	daŋ ³³ a ³³ di ⁵⁵
vulva	ʃw ³³

Arms, Hands

arm / hand	lak ³³
armpit	phak ³³ ʃæ ⁵⁵
elbow	lak ³³ naw ³³
finger	lak ³³ čæŋ ⁵⁵
hand	lak ³³ hæp ⁵⁵
nail (finger)	lak ³³ than ³¹
palm (of hand)	lak ³³ phæ ³¹
shoulder	phak ³³ čɔŋ ³³

Legs, Feet

instep	læ ³³ dək ³³ (dək ³³ 'back')
footprint	læ ³³ men ⁵⁵

heel	læ ³³ oŋ ⁵⁵
knee	læ ³³ fʉ ⁷³³
leg / foot	læ ³³
thigh / lap	fʌŋ ⁵⁵ , fʌŋ ⁵⁵ goŋ ⁵⁵

Hair

bald	fʌŋ ⁵⁵ bæŋ ⁵⁵
beard / mustache	čʉ ⁵⁵ mom ⁵⁵
eyebrow	mʉk ³³ mom ⁵⁵
hair (body)	mom ⁵⁵
hair (head)	fʉ ⁵⁵
hair (underarm)	pʰak ³³ fæ ⁵⁵ mom ⁵⁵

Liquids and Miscellaneous

blood	i ³³
dirt / feces	nʉ ³¹ hi ³³ næm ³³
fart	iʔ ³³ du ³¹ (iʔ ³³ 'feces'; du ³¹ 'blow')
fart slowly	lʉ ⁵⁵
feces / dung	iʔ ³³
milk / breast	am ⁵⁵ mæ ⁵⁵
nose dirt / snot	u ³¹
placenta	lam ³³
pus	mæ ³¹ fʉ ³³
scars	gɔ ³³
skin	fɔ ⁵⁵
spit / saliva	yo ³³ up ⁵⁵
sweat	lam ⁵⁵ ɔ ³¹
tears	mʉk ³³ pʰi ³¹
urine	fɛn ³¹
vomit	pʰay ³¹

Internal Organs, Bones

bladder	fom ⁵⁵ bu ⁵⁵
brain	fʉ ⁵⁵ li ⁵⁵
flesh / meat	pʰay ⁵⁵
gall bladder	yʉ ³¹
guts / intestines	lʌy ³³

heart	moŋ ⁵⁵ daŋ ³³
kidney	fɛ ³³
liver	tʰan ³³
muscle	yʉ ⁵⁵
stomach	wom ³³
womb / uterus	naw ⁵⁵ u ⁵⁵ fʉŋ ³³ (naw ⁵⁵ 'baby'; u ⁵⁵ 'sit'; fʉŋ ³³ 'place')
bone	ʒæŋ ³³
backbone	dɔk ³³ ʒæŋ ³³
jawbone	fæ ⁷³³ ʒæŋ ³³
marrow	ʒæŋ ³³ ni ⁵⁵
rib	hæm ⁵⁵ bæt ⁵⁵ ʒæŋ ³³
skull	fʌŋ ⁵⁵ ʒæŋ ³³

PEOPLE

Pronouns

I	ŋʌy ³³
you (sg.)	nʉŋ ³³
she	bin ³³ nʉ ⁵⁵
he	bʌ ³³ bæ ⁵⁵
we (exclusive)	hæm ³³ pʰoŋ ³³
we (dual, inclusive)	či ⁵⁵
you (pl.)	æm ³³ pʰoŋ ³³
they	čom ⁵⁵ pʰoŋ ³³
self	nʉŋ ³¹ nʉŋ ³¹

Age, Gender, Occupational Categories

adolescent boy	nɛ ³³ tʰɛ ⁵⁵
adolescent girl	nɛ ³³ læ ⁵⁵
baby	naw ⁵⁵
bastard	fʌŋ ³¹ hæ ³³
boy	ba ³³ hæ ⁵⁵ naw ⁵⁵
child (young person)	hæ ³³ fʉ ⁷³³
girl	nʉ ³³ hæ ⁵⁵ naw ⁵⁵
guest	yan ³³
king	oŋ ⁵⁵

lover	may ³³
man (male person)	ba ³³ hæ ⁵⁵
old man	ʒu ³¹ bæ ³³
old woman	ʒu ³¹ ñu ³³
person	ʃan ³¹ ñak ³³
poor man	daw ⁵⁵ bæ ³³
settler from outside	ban ³¹
slave	æ ⁵⁵
subjects (of a king, etc.)	loŋ ³³
thief	gu ⁷³³ bæ ³³ (gu ⁷³³ 'steal')
widow	ʒam ⁵⁵ ñu ³³
widower	ʒam ⁵⁵ bæ ³³
woman	ñu ³³ hæ ⁵⁵
young people / youth	the ⁵⁵ hi ³³ læ ⁵⁵ (cf. 'adolescent boy, girl')

Kinship Terms

grandfather	o ³³ bu ³³
grandmother	o ³³ bi ³³
father	bæ ³³
father's older brother	bæ ³³ ba ⁷³³ he ³³ bæ ⁵⁵
father's sister	ñay ³³
father's younger brother	bæ ³³ nau ⁵⁵ e ⁵⁵ bæ ³³
mother	ñu ³³
mother's brother	gu ³³
older brother	čay ³³
older sister	ñæ ³³
younger sibling	nau ⁵⁵ baw ³¹
child (kin term)	hæ ³³ baw ³¹

daughter	yuk ³³ hæ ³³
nephew / niece	li ³¹ baw ³¹
son	ye ⁵⁵ ʃaŋ ⁵⁵
grandchild	hu ³³ baw ³¹

Illness

sick / ill	ʃaŋ ³¹ , duŋ ⁵⁵
constipation	maw ³³
deaf	æŋ ⁵⁵ , hɿ ³¹
injury	mæ ³¹ yæ ⁷³³
itch	ŋu ⁷³³
shock with depression	khaw ⁵⁵ de ³³ ge ³³
swell up	bok ⁵⁵ , daw ³³

ARTIFACTS

Cooking and Eating Equipment

container for paddy (made from a mat)	hæ ⁷³³ ʌ ⁵⁵
curry pot	haw ³³ dak ³³ (haw ³³ 'curry')
mortar (for pounding rice)	ʃam ³³ ʃak ³³
pestle	ma ⁵⁵
rice plate	na ³³ ʃoŋ ⁵⁵ (na ³³ 'rice'; ʃoŋ ⁵⁵ 'shell')
rice pot	na ³³ dak ³³ (na ³³ 'rice')

Basketry, Cloth, Clothing

bag	khun ³³
basket (general term)	dɔ ⁵⁵
basket (winnowing)	om ⁵⁵
bird basket / bird cage	u ³³ dɔ ⁵⁵ (u ³³ 'bird')

carrying strap / tump line	bak ³³
cloth	p ^h om ⁵⁵
clothing	ɔ ³¹
jute cloth	thoy ³¹ læ ³³ ɜw ³³
mat	am ⁵⁵
rope	ɜw ³³
thread	ɜi ³³
tying strips (flexible bamboo)	luŋ ⁵⁵

Tools and Weapons

arrow	læ ⁷³³ hæn ⁵⁵
axe	æ ³¹
bow (n.)	b ³³ læ ⁷³³ , won ⁵⁵ læ ⁷³³ (b ³³ 'tree, wood'; won ⁵⁵ 'bamboo')
knife	lon ³³ k ^h oy ⁷³³
knitting	hu ³³
ladder / bridge	thay ⁵⁵
large knife / sword / dao	yæn ⁵⁵
needle	ñam ⁵⁵ met ³³ (ñam ⁵⁵ 'iron')
shield (n.)	i ⁵⁵
snare (n.)	day ⁵⁵
spear (n.)	ŋɔ ³³
tongs	a ³³ čap ⁵⁵
trap (n.)	čun ⁵⁵

Buildings and their Parts, Furniture

bed	lan ⁵⁵
bird coop / chicken coop (placed high as in a tree, but made by people)	čon ³³

door	ʃæ ³¹ dan ³¹
dormitory for young men or women	yɔ ³¹
fireplace	ɔ ³³ dap ³³ (ɔ ³³ 'fire'; dap ³³ læ ³¹ 'ashes')
granary	buŋ ⁵⁵
horn-shaped hook for hanging things	p ^h æk ⁵⁵
house	ʃam ⁵⁵
pen for animals (on the ground)	u ³³ k ^h ɔk ³³
roof	ʃam ⁵⁵ a ³³ dɔk ³³ (ʃam ⁵⁵ 'house'; dɔk ³³ 'back')
sitting platform	dɔ ³¹
thatch	yu ⁷³³
village meeting house	bæn ³³
wall	p ^h æm ³³

Village, Countryside, Fields

bridge / ladder	thay ⁵⁵
fields	gæ ⁷³³
garden / fence	bɛ ⁵⁵
retaining log to hold back dirt	ɔw ³¹
road / path	lam ⁵⁵
village	čun ³³
well	yon ⁵⁵ gok ⁵⁵ (yon ⁵⁵ 'water')

Miscellaneous Artifacts

boat made from bamboo	ay ³¹
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book lay⁵⁵
 flute (musical) li⁵⁵biŋ³¹
 umbrella p^hu³¹

NOUNS, ABSTRACT AND MISCELLANEOUS

ashes ɔ³³ni⁷³³, dap³³læ³¹ (ɔ³³
 'fire')
 bride price mΛ⁵⁵
 chips (from
 chopping) p^hu⁵⁵
 clan (kin
 group) p^haŋ⁵⁵
 corpse maŋ⁵⁵
 correction yaŋ³¹, lau³¹
 cultivation ʒaŋ³¹
 dirt mak³³

evil spirit maŋ³¹
 fragrance /
 perfume woŋ³¹
 fire ɔ³³
 firewood bΛ⁵⁵
 flood buŋ³¹,
 buŋ³¹hi³³yaŋ⁵⁵
 folk song ɔ³³
 force / power /
 strength (e.g.
 of a man,
 elephant) wɔŋ³¹ (cf. *difficult*)
 gold hon³¹
 hole ʃæ⁵⁵
 iron ñam⁵⁵
 joint / seam boŋ³¹
 (e.g. between
 cloth, boards)
 language ʃa⁷³³ (cf. *chin*)
 lime (mineral) t^hoŋ³³
 medicine mɛ⁵⁵li⁵⁵
 money lop³¹

name (n.) mɛn³¹
 pit / trench baŋ³³
 place (n.) ʃuŋ³³
 property mark p^hu⁵⁵
 remainder /
 remnant aw³³bΛ³³
 row / line /
 queue lΛŋ³¹
 rust du³³
 shade / shadow t^hu³³m³¹
 silver ŋin⁵⁵
 sin mæŋ³³ (cf. *spoil*)
 smoke ɔ³³ʃit³³ (ɔ⁵⁵ *fire*)
 sneeze (n.) ha⁷³³ʃΛ⁵⁵ [two
 words]
 soul / spirit læ⁷³³æŋ³³hæ⁵⁵
 wisdom gon³¹

TIME EXPRESSIONS

after p^hΛy⁵⁵gΛ³³
 after a while æŋ³³
 again ʃaw⁵⁵
 again / right
 after nΛŋ⁵⁵Λy³³
 always dΛŋ³¹
 before ʃe⁵⁵gΛ³³
 cold season hoŋ³¹
 day (not night) ñi⁷³³nɯŋ³³ (cf.
 morning)
 day (unit of
 time) ñi⁷³³
 evening om³¹
 every day ñi⁷³³ʒΛy⁷³³
 last ʃom³¹
 late gæ⁵⁵
 month len³¹ (cf. *moon*)
 morning nap³³nɯŋ³³ (cf. *day*
 [*not night*])
 night ʒaŋ⁵⁵ñak³³ (ñak³³
 'dark')

not yet	mæŋ ⁵⁵
now	ʃæ ⁷³³ æŋ ⁵⁵
suddenly	ŋæ ³³ ŋæ ³³ huk ³³
summer	ʃaw ³¹
today	ʃin ³¹ ni ⁷³³
tomorrow	ŋin ³¹ ni ⁷³³
winter	ʌ ³¹ ni ³¹
year	ʒaŋ ⁵⁵ bo ³¹
yesterday	min ³¹ ni ⁷³³

NUMERALS

one	huk ³³
two	ni ³¹
three	čam ⁵⁵
four	a ⁵⁵ li ⁵⁵
five	ŋæ ³¹
six	wɔk ³³
seven	ni ³³
eight	ʃat ³³
nine	ʃu ³³
ten	an ³¹
zero	goŋ ³³
twenty	guk ⁵⁵ hæ ⁵⁵
one hundred	k ^{h33} huk ³³ (huk ³³ 'one')

ADJECTIVES

Color

black	niak ³³ læ ⁵⁵
dark	ʒaŋ ⁵⁵ niak ³³ (niak ³³ 'black')
green	thwŋ ⁵⁵ læ ⁵⁵
light (not dark)	ʒaŋ ⁵⁵ ŋay ³¹
red	hak ³³ læ ⁵⁵
white	ʃu ³³ læ ⁵⁵
yellow	won ⁵⁵ læ ⁵⁵

Taste

bitter	ʃæ ⁷³³ yæk ⁵⁵
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hot / spicy	haw ⁵⁵
sour	thi ⁵⁵
sour thing	thi ⁵⁵ yɔk ⁵⁵
sweet	ʒawŋ ⁵⁵ naŋ ⁵⁵

Size

big	loŋ ⁵⁵
deep	čw ³³
far	day ⁵⁵
fat (of people)	nit ³³
high	ʃaw ³¹
long	mon ³¹
long (time, roads)	lu ³³
narrow	ʃɔ ³³ ʃwɔp ³³
shallow	phay ³³ le(?) ⁵⁵ , phoy ³³ le ⁷⁵⁵
short (people)	ʃaw ³¹ ʃɔ ⁷³³
short (time, roads)	ʃɔ ⁷³³ lɔ ⁷³³
small	mæn ⁵⁵
tall (people)	ʃaw ³¹ lu ³³ (lu ³³ 'long')
tall (objects)	ʃaw ³¹
thick	čat ³³ lɔ ³³
thin	baw ³¹ ni ³³ naŋ ³³
thin (people)	goy ⁷³³
wide	bæ ³¹ loŋ ⁵⁵ (loŋ ⁵⁵ 'big')

Miscellaneous Adjectives

afraid / fearful	niam ³¹
alive	yam ³¹
all	balw ³¹
angry	mon ⁵⁵ ʃi ⁷³³ (mon ⁵⁵ 'heart')
ashamed	ʒaw ³¹
bad	ne ³³ maly ⁵⁵
bent / crooked	gɔk ³³
careful	li ³¹

clean	dau ³³ laŋ ⁵⁵	other	lep ³³ bu ³³
cold	ʒuŋ ⁵⁵ mæk ⁵⁵	perceptive /	yaw ³¹
different /	law ⁵⁵ law ⁵⁵	discerning	
distinct		poor	dau ⁵⁵
difficult	wɔŋ ³¹	portion / share	han ³¹
dirty	mak ³³ hat ³³	pregnant	nau ⁵⁵ gɔ ³³
dull / blunt	næ ⁷³³ ʔɕaŋ ⁵⁵		(nau ⁵⁵ ‘baby’)
easy	yɔ ⁵⁵ bay ⁵⁵	raw / uncooked	thuw ⁵⁵
empty	goŋ ³³	rich / wealthy	ʃam ⁵⁵ ma ⁵⁵ y ⁵⁵
extreme / too	loy ³³		(ʃam ⁵⁵ ‘house’;
much			ma ⁵⁵ y ⁵⁵ ‘good’)
fast / quick	ʃæ ⁵⁵	right side	lak ³³ dæ ⁷³³ (lak ³³
fed up / tired	dɛŋ ⁵⁵		‘hand, arm’)
of		right / correct	ʃu ⁵⁵
full	mæ ³¹	rough	phæ ⁵⁵ phæ ⁵⁵ læ ⁵⁵
good	ma ⁵⁵ y ⁵⁵	round	doy ⁵⁵ laŋ ⁵⁵
guilty	ʃay ³³	royal	uŋ ³³
happy / joyful	mɔŋ ⁵⁵ ɔŋ ³³	same	ay ³¹ hək ³³
	(mɔŋ ⁵⁵ ‘heart’;	separate / apart	lu ⁵⁵ lu ⁵⁵
	ɔŋ ³³ ‘climb, go up’)	/ in different	
hard (firm)	ʒæn ⁵⁵	places	
heavy	ʒi ⁷³³	sexy	law ⁵⁵
hot / warm	ʃæm ⁵⁵ lok ⁵⁵	sharp	næ ⁷³³
hungry	ay ³¹	sincere	ʃʌ ³³
identical	le ⁵⁵	slow	maŋ ⁵⁵
lazy	ʒæk ³³	slowly	yɔŋ ³¹ ma ³³
left side	lak ³³ hɔŋ ³¹ (lak ³³	smart	na ³³
	‘hand, arm’)	smooth /	ñʌ ³³ lak ⁵⁵
less	gom ³¹	slippery	
light (weight)	æŋ ³³ khæ ⁷³³	soft	in ³³
male (animal)	bɔŋ ³³	some	hæn ⁵⁵ na ⁵⁵ y ³³
many / very	lɔŋ ⁵⁵ ŋi ³³	steep	thɔŋ ³¹ (cf. <i>step</i>
	(lɔŋ ⁵⁵ ‘big’)		<i>down</i>)
near	yɔ ⁵⁵	sticky	kham ⁵⁵
new	ʃæ ⁵⁵	straight	law ³¹ lak ⁵⁵
next	ne ³³ yay ³³	strong	wɔŋ ³¹ gɔ ⁷³³ (wɔŋ ³¹
not cautious of	ne ⁵⁵ hæ ⁵⁵ gæ ⁵⁵		‘power; difficult’)
not eloquent	uŋ ⁵⁵	stupid	yoy ³¹
old (people)	ʒu ³¹	swept clean (of	gʌ ⁵⁵
old (things)	ʃaŋ ³³	dirt, water)	

true / correct	hʉŋ ³³ mʌy ⁵⁵	bring / bring	lʌy ³¹
unhappy / sad	mɔŋ ⁵⁵ mæŋ ³³ (mɔŋ ⁵⁵ 'heart'; mæŋ ³³ 'spoil')	back	
weak	dak ³³ , wɔŋ ³¹ nɛ ³³ gɔŋ ³³ (wɔŋ ³¹ gɔŋ ³³ 'strong'; nɛ ³³ 'negative')	burn (v.i.)	bæ ²³³
whole / entire	gam ³³	burn (v.t.)	čak ³³
wrong / at fault	boŋ ⁵⁵	burst	pʰaw ³¹
		bury (the dead)	ʒʌ ⁵⁵
		bury (in ground)	duŋ ³¹
		buy	ʃak ³³
		call / cry out	hoy ³³
		care for / foster	uŋ ³¹
		carry from a tump line	gɔ ⁵⁵
		carry in the arms (esp. baby)	bam ⁵⁵
		carry in the hand	yʌŋ ³³
		carry on the shoulder	bay ⁵⁵
		chew	ʃay ⁵⁵
		climb / go up	ɔŋ ³³
		close (box, etc.) / cover	gap ³³
		close (mouth)	kʰwɪm ³³
		come	hʌy ²³³
		come / return	lʌy ⁵⁵
		cook	čʌw ³¹
		cough	gay ⁵⁵
		crack (v.i.)	lʉŋ ³¹
		crawl	ʃom ⁵⁵
		cry / weep	ʰap ³³
		cut with an axe	hay ⁵⁵
		cut with a knife	ʒet ³³
		damage	den ³³
		dance	pʰɔk ⁵⁵ dʌy ⁵⁵ (dʌy ⁵⁵ 'mutual, reciprocal')
		deceive	lɔ ⁵⁵
able to earn livelihood	læŋ ³¹		
accompany / go with	mɔŋ ⁵⁵		
accuse	noŋ ³¹		
agree	ɔ ⁵⁵		
anoint / apply ointment	pʰɔ ⁵⁵ (cf. <i>wash face</i>)		
arrive / reach	ŋoy ⁵⁵		
ask	pʰe ⁵⁵		
attend	haw ⁵⁵		
bathe / take a bath	haŋ ⁵⁵ hæ ⁵⁵ lak ³³ (haŋ ⁵⁵ 'body')		
be born	aŋ ³¹		
beckon / wave	lak ³³ yʌp ³³ (lak ³³ 'hand, arm')		
bend	yɔ ³³		
bend by force	gʉ ³³		
bite	gat ³³		
bless / touch	moy ³¹		
blow (with mouth)	du ³¹		
boil	ʃæm ³¹		
borrow	lu ³³		
bow down	ʰɔŋ ⁵⁵		
break (e.g. glass)	pʰaw ³¹ dʌk ⁵⁵		
breathe	ŋʌ ³¹ hɛ ⁵⁵		

dedicate (church)	lɿw ³³	feed liquid / make drink	ywɿ ³¹
defile	ʃɿy ⁷³³	feel very cold	ton ⁵⁵
depend on others	ɔŋ ³¹	fight	ɿp ³³ dɿy ⁵⁵ (dɿy ⁵⁵ ‘mutual, reciprocal’)
descend / go down a little way	yw ³¹	float	phoŋ ³³
descend / go down a long way	ʃæ ³³	flow	yan ⁵⁵
die	di ³¹	fly	bi ⁵⁵
dig	ʃu ³³	follow (v.t.)	mɿ ³³
disappear, cause to (v.t.)	ʃu ³¹	forget	be ³¹
disappear / melt (v.i.)	ʃu ⁵⁵	freeze	ʰan ⁵⁵
dive / sink	a ³¹ yɿp ³³ ʃɿ ⁵⁵	frighten (of animals)	baw ³¹
do	dɿk ³³	gather / collect	ʰay ³³
dream	maŋ ³³	get up from bed	bu ³³
drink	ywɿ ⁵⁵	give	ʃu ⁷³³
drive (animals)	æt ³¹	give birth	bu ⁷³³
drown	laŋ ³³	give shelter / take into one's home	loy ³¹
dry (v.i.)	ʒæn ³³	go / leave	day ³³ , lɿ ⁵⁵ day ³³
dry (v.t.)	ʒæn ³¹	gossip	læ ³¹
eat	ha ⁷³³	grab and pull	daw ³¹
embrace	kʰay ⁵⁵ , ak ³³ kʰay ⁵⁵	grind (e.g. spices)	ŋwɿm ⁵⁵
emerge / come out gradually	ʒæm ³³	handle	ʃoŋ ³¹
emerge / come out suddenly	law ³¹	hear	dæn ³¹
encroach (as into a bordering field)	len ³³	help	gæp ³¹ , ʃaw ³³
enter	ʃɿ ⁵⁵	hide	ʃɔ ³¹
exhort	heŋ ³³	hit	gɔŋ ³¹
extinguish	mat ³³	hit / beat	ɿp ³³
fall	dɔ ⁵⁵	hold in hand	nɔ ³³
fall down	ʒɿ ⁵⁵	imagine	le ⁵⁵
		inject	ʃuŋ ³³
		insert	ʃɿ ³¹
		insert a stick	law ³³
		insert / put between	it ³³

itch / scratch	ŋwʔ ³³	open (door)	fæ ³¹ æp ⁵⁵
join together	beŋ ³¹	open (door, box)	ap ⁵⁵
(as bringing in an accomplice, putting meat on a rod)		open (earth, mouth)	gæ ³¹
join / connect	kʰay ⁵⁵	overtake / run ahead	yʌy ³¹
jump down	lɔŋ ³¹	pass through	bʌyʔ ³³
keep	duʔ ³³	pile up in an orderly way	pʰɔŋ ³¹
keep orderly / put neatly	hɛŋ ⁵⁵	pile up / heap up	lon ³¹
kick	haw ³¹	pile up / heap up messily	fʷŋ ³¹
kill	cʌ ³¹	play	ŋæʔ ⁵⁵
know / learn / imitate	ñwŋ ³¹	play (musical instruments)	ʒwŋ ³¹
laugh	ñi ⁵⁵	point	fʷŋ ⁵⁵
leave / go	lʌ ⁵⁵ day ³³	pound (rice)	fʷ ³³
let fall / cause to fall	ʒʌ ³¹	praise	du ³³
let go / set free	dʌy ³¹ dʌk ⁵⁵	prevent	baŋ ³¹
let loose	lay ³¹ , lay ³¹ dʌk ⁵⁵	pull	fʷ ⁵⁵
lick	lay ³³	pull up	daw ³¹
lie down	lam ³¹	push	hoŋ ⁵⁵
life	yaŋ ⁵⁵ ñu ³³	push down	lʌ ³¹
listen	bæŋ ³³	slanting	
make	lʷŋ ³³	put (inside)	ʃi ³³
make a bamboo wall	æ ³³	put in	hʌ ³³
make a hole through	lɔ ³¹	put on / place	haw ³¹
match / be alike	gʌ ³³	quarrel (with words)	de ³¹
melt / dissolve (e.g. water, wax, fat)	ñaw ⁵⁵	read / count	e ³¹
miss the target	čay ³³	redeem / accept back smn. who has done wrong	an ³³ ŋʌy ³³ , an ³³ ʌy ³³
mourn / lament	yɔŋ ³¹	remove from mouth	yay ³³ du ³³
move restlessly	bɔ ⁵⁵	resist	dʌŋ ³¹
need / want	næ ⁵⁵	return / come	lʌy ⁵⁵
news	fæʔ ³³ çæŋ ³³		

roam	la ⁵⁵ da ⁵⁵ , la ⁵⁵ ba ⁵⁵	spill / overflow	laŋ ³³
roll down (v.i.)	ŋɔ ³¹	/ pour down	
roll up	da ³³	split	gæk ⁵⁵
run / flee	mɔk ³³	squeeze / rub	noy ⁵⁵
sag (as strung up wires)	nay ⁵⁵	on body	
say / speak / talk	e ³³	stab (with spear)	huɯ ³¹
scatter	hay ³¹ , yæn ³¹	stab (with large knife, dao)	bap ³³
scream	ʒau ³³	stand	yɔŋ ³³
see	e ⁵⁵	stand in line	luŋ ⁵⁵ ay ³³ yɔŋ ³³ (luŋ ⁵⁵ ay ³³ 'line, queue'; yɔŋ ³³ 'stand')
sell	yu ³¹	start	baŋ ⁵⁵
send a message to someone	phɔŋ ³¹	steal (theft)	gaw ³³
set up (as a post)	hɔŋ ³³	step down	thɔŋ ³¹
sew / stitch	thuw ⁵⁵	stir (as curry)	laɯ ⁵⁵ le ⁵⁵
shake (v.i.)	k ^h laɯ ⁵⁵	stretch by bending (body, stick)	gaŋ ³³ ŋay ³³ , gaŋ ³³ ay ³³
shake (v.t.)	thi ³¹	suck	ʃap ³³
shine	k ^h an ⁵⁵	swim	ɔ ³¹
shoot (as a gun)	laɣ ³³ gæp ⁵⁵	taboo	ʃay ³¹
show	hu ³¹	take	yæ ³³
sing	lɔk ³³	take shelter	loy ⁵⁵
sit	u ⁵⁵	(e.g. from rain) / become a member	
sit, cause to (e.g. baby, chicken)	u ³¹	teach	ʒan ³¹
sit idly	phæk ³¹	tear off	lay ³¹
sleep	ʃi ³¹	think / remember	da ³³ y ³³
smell (notice smell)	ba ³³	throw	ʃak ⁵⁵
smell (test by smelling)	duɯ ³¹	throw away	yak ³³ da ⁵⁵ k ⁵⁵
smell bad	ʃe ³¹ ba ³³ (ʃe ³¹ 'rot')	throw spear from a distance	ʃaw ³³
smell good	ŋa ³¹ ma ⁵⁵ y ⁵⁵ (ŋa ³¹ 'breathe'; ma ⁵⁵ y ⁵⁵ 'good')	throw upward	dom ³¹ do ³³
sneeze	ʃa ⁵⁵		
snore	ʃɔŋ ³³ hɔk ⁵⁵		

tickle	du ⁵⁵
tie a knot	hin ³¹
tie (with bamboo strips) / bind / wrap / bind (of law)	ʃæ ³¹
tired	ñɔ ⁵⁵
torture	ʒin ³¹
touch	hon ³³
try	khɛ ⁵⁵
turn	ʃin ³¹
untie	ʃe ³³
use up / run out	ʃɔ ⁵⁵
wake up (v.i.)	baw ³³
wake up (v.t.)	phok ⁵⁵
walk	gæm ³³
want / need	næ ⁵⁵
warm at fire (e.g. hands, food)	gan ³¹
wash face	the ³¹ phɔ ⁵⁵ (the ³¹ 'face')
wash hands	lak ³³ hɔ ³³ (lak ³³ 'arm / hand')
weave	dak ³³
welcome	om ³³ bom ³¹
warmly	
wipe / rub off dirt	thit ³³
wrestle	phɔ ³¹
yawn	ɛ ³³ hɛm ³³ ʃɔ ³³

FUNCTION WORDS AND AFFIXES

Classifiers

classifier for animals	gok ⁵⁵
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classifier for long things	yan ³¹
classifier for people	bæ ³³ (cf. <i>father</i>)
classifier for short things	ʃɔ ³¹
classifier for thin things, paper	phæ ⁵⁵

Question Words

how much?	me ³³ ʃuɔk ³³
how?	mek ³³ kɔy ³³
what?	me ³³ he ⁵⁵
when?	met ³³ ʃam ⁵⁵
where?	me ³³ lɔy ⁵⁵
who?	u ³¹ bæ ³³

Noun Suffixes, Postpositions

above	ʃan ³³ ɔy ⁵⁵
between	æ ⁵⁵ gɔ ³³
beyond	æt ⁵⁵
from (suffix)	-lɔy ⁵⁵
in front of	daw ³³ ɔy ⁵⁵
inside	mɔŋ ⁵⁵ ɔy ⁵⁵
possessive (suffix)	-ɔy ³¹
side / at the side	haw ⁵⁵
through	hom ³¹
with / together	ʃem ³³ mi ⁵⁵

Verb Suffixes

imperative suffix	-du ⁷³³
mutually / reciprocally	-dɔy ⁵⁵
not / negative	nɛ ³³

Demonstratives,***Miscellaneous***

also (n. suffix)	-aw ⁵⁵	if	čɛ ⁵⁵ ma ³³
and	ha ³³ dʌ ³³	that	an ⁵⁵ de ⁵⁵ ba ³³
because	me ³³ he ⁵⁵ næŋ ³¹ gʌ ³³	there	an ⁵⁵ de ⁵⁵ lɔy ⁵⁵ ,
here	ham ³¹ mʌ ³³	this	an ⁵⁵ do ⁵⁵ lɔy ⁵⁵
			hæ ⁵⁵ , hap ³³ ba ³³

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