# A PHONOLOGY AND LEXICON OF KHANG IN VIETNAM 

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#### Abstract

This paper provides a phonological and phonetic description of a variety of the Khang language spoken in Nam Mu village, Phinh Sang commune, Tuan Giao district, Dien Bien province (and also Son La, Dien Bien, Lai Chau provinces). It is an under-described Palaungic language of Vietnam. The language is largely monosyllabic and has a complex tonal system. An appendix of over 900 lexical items is included.


Keywords: tonal phonology, Palaungic, lexicon
ISO 639-3 language codes: kjm

## 1 Introduction

This paper provides a phonological inventory and tonal description of Khang based on a 916 -word lexicon collected by the author. Khang people live primarily in three provinces: Son La, Dien Bien, and Lai Chau of Việt Nam. Two Khang informants assisted me: Lò Hồng Nhung (female), 54 years old, in Nam Mu village, Phinh Sang commune, Tuan Giao district, Dien Bien province; Quàng Thị Mây (female), 57 years old, in Nam Mu village, Phinh Sang commune, Tuan Giao district, Dien Bien province.

The wordlist was recorded in 2017 using a Zoom H2 Handy recorder, processed in $44,100 \mathrm{~Hz}$, 16-bit, mono format as a .wav file. The phonetic and phonemic descriptions are based on the results of the acoustic analysis using the following programs: WINCECIL, Speech Analyzer.

## 2 Previous studies

Existing linguistic works on the phonological features of Khang language include Huy (1975), Mikami (2003), and Edmondson (2010).

Huy (1975) discussed Khang and the closely related Quang Lam language. The phonological adaption of Thai loan words in Khang and Quang Lam are discussed, though further research is called for. Huy found that although according to Việt Nam official statistics until 1975, Khang Quang Lam and Cống people belong to the same ethnic group, it is obvious that there is a similarity in language between Quang Lam and Khang. To illustrate, Huy (1975:431) provides some examples in his original notes. Note that the notations are Huy's, IPA values are not precisely explained.

| Gloss | Quang Lam | Khang |
| :---: | :---: | :---: |
| 'intestines' | s'rêng | hiêng |
| 'blood' | s'num | num |
| 'water' | rơ om | om |
| 'moon' | ch'rêng | khiêng |
| 'bird' | k'chiêm | chêm... |

According to Huy (1975), in Khang Quang Lam, two-consonant clusters occur that are similar to Khang such as $k l, p l, b l$, and $n g$. Khang Quang Lam also has its own consonant clusters which are not in Khang: $s n, p x$,
$p s, p k, p r, t h l$, chorr, sch, s'i, $k^{\prime} r, k^{\prime} c h, m^{\prime} r, l ' m, r v, d d, r l$ as well as final consonants including fricatives, trills, and $t s$ (in the word 'nose'), $r$ (in nor 'neck', bar 'flower'), $n r$ (in ponr 'to fly').

Also in that paper, Huy claimed that both languages are affected by Thai in Sơn La and Điện Biên province. The influence of the Tai Dam language on Khang Quang Lam is less than the influence of the Tai Dam language on Khang. There are many borrowed words in Khang in Thuận Châu district, whereas in Khang Quang Lam, more native lexical items remain. Table 1 contains examples collected by Huy (1975) in his original notations.

Table 1: Quang Lam words compared to Tai Dam loans in Khang (Huy 1975432)

| Gloss | Quang Lam | Tai Dam loans in Khang |
| :---: | :---: | :---: |
| day | m'ni | $n u ̛ ̣$ |
| lung | chà số | pơt, pốt |
| skin | tal nu | nưg |
| stomach | kelung | pun |
| breast | đo | ức |
| branch | dến | nga |
| root | rơ't's | hịa |
| tree | dông | nạt may |
| to dig | púcc | khút |
| to split | lơr | phá |
| to nuthatch | bó | khưn |
| to turn | klíc | pán |
| to smoke | tênh | hộp, hiệt... |

On the other hand, there are some borrowed words in Khang Quang Lam, whereas in Khang of Thuận Châu, there remain native words for corresponding items in Table 2.

Table 2: Tai Dam loans in Quang Lam compared to the Khang lexicon (Huy 1975:432)

| Gloss | Tai Dam loans in Quang Lam | Khang |
| :---: | :---: | :---: |
| tall | xung | dao |
| low | tow | xi, dim |
| rounded | mŏn | pom |
| core | ken | nuông |
| a tuber | b $t$ | p $t$ |
| near | chăm | phămber |
| the door | t'tu | b'tudo |
| to listen | po $l$ | chiêng... |

Papers by Mikami (2003) and Edmondson (2010) focused on two different varieties of Khang. Both authors provide useful phonetic analyses; as a result of different of types of data input (Mikami reported on Khang spoken in Thuận Châu, Sơn La, whereas, Edmondson described Khang spoken in Than Uyên, Lai Châu) those descriptions differ in their accounts of syllable structure and the number of tonemes. Mikami described four tonemes, while Edmondson described six tonemes. Regarding syllable structure, Mikami finds that Thuận Châu Khang has monosyllabic structure $C(C) V(C) / T$. By contrast, Edmondson finds that in Than Uyên Khang, there is sesquisyllabic word structure in addition to monosyllabic forms. Mikami posited that glottal stop / $\mathrm{R} /$ is a final consonant in syllable structure, while Edmondson considered glottal stop/R/ as a feature of tones.

## 3 Phonological word structure

Based on the Nam Mu variety studied here, Khang phonological words are mostly unlike general Austroasiatic word structure in being monosyllabic. The Khang phonological word can be summarized as follows.

$$
\begin{gathered}
\left(\mathrm{C}_{1} \mathrm{a} / \mathrm{a}\right) . \mathrm{C}_{2}\left(\mathrm{C}_{3}\right) \mathrm{V}\left(\mathrm{C}_{4}\right)^{\mathrm{T}} \\
\mathrm{C}=\text { consonant } \\
\mathrm{V}=\text { vowel } \\
\mathrm{T}=\text { tone }
\end{gathered}
$$

Examples of the full range of Khang phonological word structures are given here.

| Structure | Item | Gloss |
| :---: | :---: | :---: |
| $\mathrm{C}_{1}$ /̌ă. $\mathrm{C}_{2} \mathrm{VC}_{3}{ }^{\text {T }}$ | sǎ?un ${ }^{44}$ | 'sky' |
| $\mathrm{C}_{1} \mathrm{C}_{2} \mathrm{VC}_{3}{ }^{\text {T }}$ | $\mathrm{klak}^{43}$ | 'head' |
| $\mathrm{C}_{1} \mathrm{VC}_{3}{ }^{\text {T }}$ | $\mathrm{lak}^{43}$ | 'stork' |
| $\mathrm{C}_{1} \mathrm{C}_{2} \mathrm{~V}^{\mathrm{T}}$ | $\mathrm{ple}{ }^{44}$ | 'fruit' |
| $\mathrm{C}_{1} \mathrm{~V}^{\text {T }}$ | $\mathrm{ti}^{44}$ | 'hand' |

In fact, the maximal structure is only found in five in 917 words. Thus, in my data set, only $0.55 \%$ are sesquisyllabic words, while $99.45 \%$ are monosyllabic words. Within the limited data available, pre-syllable consonant clusters are not allowed, and the only occurring segments in the five words with presyllables are limited to onsets/s, k, m, 1/ and vowels/ă/ or/ž/. The five sesquisyllabic words in available Khang data are the following.

| Item | Gloss |
| :---: | :---: |
| sǎPun ${ }^{44}$ | 'sky' |
| lǎlan ${ }^{44}$ | 'lightning' |
| cǎlrp ${ }^{43}$ | 'bright' |
| kăl ${ }^{359}$ | 'hiccups' |
| mǎḑk ${ }^{43}$ | 'gum' |

## 4 Consonants

### 4.1 Main syllable onsets and complex onsets

Khang has 20 distinctive main syllable onsets, as presented in Table 3.
Table 3: Khang main syllable onsets

|  | Bilabial | Alveolar | Alveopalatal | Velar | Glottal |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Voiceless stops | p | t | c | k | p |
| Voiceless aspirated stops | $\mathrm{p}^{\mathrm{h}}$ | $\mathrm{t}^{\mathrm{h}}$ |  | $\mathrm{k}^{\mathrm{h}}$ |  |
| Voiced stops | b | d |  |  |  |
| Nasals | m | n | n | y |  |
| Voiceless fricative |  | s |  |  | h |
| Voiced fricative | w | l | j |  |  |

A limited number of consonant clusters are permitted. Only $/ \mathrm{p}, \mathrm{k}, \mathrm{k}^{\mathrm{h}}, \mathrm{m}, \mathrm{h} /$ take the position of the first consonant in a onset cluster, and they can only be followed by consonants $/ \mathrm{w} /$ or $/ \mathrm{l} /$. Examples of the complex onsets in context are given in Table 4.

Table 4: Complex onsets in Khang

| Cluster | Example | Gloss |
| :---: | :---: | :---: |
| $k l$ | $\mathrm{klak}^{43}$ | head |
| $p l$ | $\mathrm{pl} \mathrm{\varepsilon}^{44}$ | fruit |
| $m l$ | $\mathrm{mly}^{44}$ | buttocks |
| $k w$ | $\mathrm{kwa}^{35 ?}$ | to mix |
| $k{ }^{h} w$ | $\mathrm{k}^{\mathrm{h}} \mathrm{way}^{44}$ | to lay a bet to catch fish |
| $h w$ | $\mathrm{hwaj}^{35 ?}$ | tiger |

### 4.3 Main syllable codas

Main syllable codas are restricted to voiceless unaspirated stops, nasals, and approximants, as summarized in Table 5.

Table 5: Main syllable codas in Khang

|  | Bilabial | Alveolar | Alveopalatal | Velar |
| :---: | :---: | :---: | :---: | :---: |
| Stop | $p$ | $t$ |  | $k$ |
| Nasal | $m$ | $n$ |  | $\eta$ |
| Approximant | $w$ |  | $j$ |  |

In regard to Khang codas, there is disagreement between Mikami (2003) and Edmondson (2010) about the phonological status of the glottal stop. Mikami (2003) increases the size of the Khang coda inventory with
 considers glottal stop as a tonal feature, and as a result, he posits more tones and fewer codas than Mikami does.

In the development of Austroasiatic languages, glottal stop / $/$ / plays an important role in tonogenesis. In Vietic languages, according to Lợi (1993:43), Arem is analyzed as retaining glottal stop coda $/ \mathrm{P} /$ and postglottalized codas: $/ \mathrm{m}^{2}, / \mathrm{n}^{2} /, / \mathrm{y}^{2} /, / \mathrm{w}^{2}, / \mathrm{j}^{2} /$. However, Arem does not have a phonological tone system. In other Vietic languages, such as Rục, Mường, and Vietnamese, glottal stop codas and post-glottalized codas $/ \mathrm{mP} /$, $/ \mathrm{n} / /, \mathrm{y} \mathrm{P} /, / \mathrm{w} 2 /, / \mathrm{j} \mathrm{F} /$ were restructured in the development of complex tone systems, conditioning differences in pitch contours.

Lexical comparison with Palaungic languages (with data extracted from Sidwell 2015) demonstrates that words with historical glottal stop codas are reflected by forms with open syllables and non-level tones, specifically low tones, in Khang, as in Table 6. If we take a historical perspective then, it is reasonable to characterize the phonetic glottal stop in Khang codas as a tonal rather than a segmental feature, which matches Edmondson's description.

Table 6: Selected lexical correspondence between Khang and other Palaungic languages

|  | $\begin{aligned} & \text { B } \\ & \text { Iた } \\ & \text { In } \end{aligned}$ |  |  | $\begin{aligned} & \text { 莵 } \\ & \end{aligned}$ | $\begin{aligned} & \lambda \\ & \frac{d}{\pi} \\ & \end{aligned}$ |  |  |  |  | $\begin{aligned} & \text { e. } \\ & \stackrel{y}{\tilde{K}} \\ & \text { تَ } \end{aligned}$ | $\underset{i}{\pi}$ |  | $\stackrel{\tilde{3}}{\underset{\sim}{3}}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| goat | $\mathrm{bo}^{4} \mathrm{be}$ | $\mathrm{p} \dot{\mathrm{c}} \mathrm{p}^{2}$ | p ¢ ${ }^{1}$ |  | $\mathrm{b} \varepsilon$ | be | $\mathrm{p} \varepsilon^{2}$ | $\mathrm{p} \varepsilon^{93}$ | $\mathrm{p} \Lambda$ ? | pe? ${ }^{1}$ | pe? |  | $\mathrm{p} \varepsilon$ ? |  | $6 \varepsilon^{212}$ |
| ashamed | kăts ${ }^{\text {b }}{ }^{1}$ | $\begin{aligned} & \mathrm{k} \breve{\gamma}^{2} \\ & \mathrm{~s}^{\text {hé }}{ }^{1} \end{aligned}$ | $\begin{gathered} \mathrm{k}^{2}{ }^{2} \\ \mathrm{~s}^{\mathrm{h}} \mathrm{e}^{1} \end{gathered}$ |  |  | kə.se |  |  |  |  | rạ tca | $\underset{\mathrm{a} \mathrm{n}^{55}}{ }$ |  | $\begin{aligned} & \mathrm{Pol}^{2} \\ & \mathrm{c}^{2} \varepsilon^{2} \end{aligned}$ | $\begin{aligned} & \text { جă }{ }^{44} \\ & c \varepsilon^{111} \end{aligned}$ |
| sesame | $\begin{aligned} & \operatorname{lon}^{2} \\ & \mathrm{ya} \mathrm{P}^{3} \end{aligned}$ | $\begin{gathered} 1 \gamma^{2} \\ \mathrm{yaP}{ }^{2} \end{gathered}$ | $\begin{aligned} & \mathrm{luk}^{2} \\ & \mathrm{yaP}^{2} \end{aligned}$ | $1.1 . \mathrm{a}^{51}$ | yad | nəm <br> ya | t.ya: ${ }^{2}$ | $\begin{gathered} a \\ \text { yă }{ }^{53} \end{gathered}$ | yá: | aya ${ }^{2}$ | ๆદ̌? |  | ləya? |  | $\mathrm{ya}^{212}$ |
| uncle |  | pop ${ }^{1}$ | pop ${ }^{1}$ | pr ${ }^{51}$ |  | pu |  |  | pí:? |  | pao? |  |  |  | $60^{212}$ |

## 5 Main syllable nuclei

Khang has eight monophthongs without contrastive length, and there are two contrastive pairs /a/ with /ǎ/ and $/ \gamma /$ with $/ \gamma / /$ Short vowels are transcribed with a breve $/ \%$. In addition, there are three diphthongs: /ir/, $/ \mathrm{ur} /$ and $/ \mathrm{ur} /$. The complete inventory of fourteen vowels is shown in Table 7.

Table 7: Khang main syllable nuclei

|  | Front | Central | Back |
| :---: | :---: | :---: | :---: |
| Close | $i$ | $u$ | $u$ |
| Mid | $e$ | $\check{r} / \gamma$ | $o$ |
| Open | $\varepsilon$ | $\check{a} / a$ | $\partial$ |
| Diphthongs | $i \gamma$ | $u r$ | $u \gamma$ |

## 6. Tone

The tone inventory of Khang consists of eight tones, six of which appear in sonorant-final syllables (i.e., open syllables or syllables ending in $/ \mathrm{w}, \mathrm{j} /$ and sonorants: $/ \mathrm{m}, \mathrm{n}, \mathrm{y} /$ ), and two tones which only occur in syllables with final oral stops $/ \mathrm{p}, \mathrm{t}, \mathrm{k} /$.

### 6.1. Tones in live syllables

The following are descriptions of the properties of Khang tones in live syllables (i.e., not those with final voiceless stops). I use the system of numbers for pitch height, with 1 being the lowest and 5 being the highest, with the two numbers indicating starting and ending points.

1. The first tone begins at high-level $4(43$ semitones) and ends at high-level 4 ( 45 semitones), marked as [ ${ }^{44}$ ], for example, $p \varepsilon^{44}$ or $p l \varepsilon^{44}$ 'fruit', $k v^{44} k \varepsilon^{44}$ 'pigeon', co ${ }^{44}$ 'grandchild', and $m a^{44}$ 'father's sister'.
2. The second tone begins at low-level 1 ( 35 semitones) and also ends at low-level 1 ( 36.5 semitones). It is marked as [ ${ }^{11}$ ], for example, $\mathrm{ks}^{112}$ 'to carry on one's back', co ${ }^{112}$ 'to chew (horse)', and ma ${ }^{112}$ 'horse'.
3. The third tone begins at mid-level 3 ( 43.5 semitones), rises, and ends at high-level 5 ( 52.1 semitones). There is glottal stop voice quality at the end, so it is marked [ ${ }^{35 ?}$ ], for example, $p \varepsilon \eta^{35 ?}$ ' expensive' and $k o^{35 ?}$ 'un-cooked rice'.
4. The fourth tone begins at mid-level 3 ( 44.6 semitones), falls, and ends at low-level 1 ( 34.4 semitones). There is a glottal stop voice quality at the end, and it is thus marked [ ${ }^{31 ?}$ ], for example, $p \varepsilon^{3 I ?}$ 'to put' and no ${ }^{312}$ 'breast'.
5. The fifth tone begins at mid-level 3 ( 43 semitones), falls at the middle of the syllable at level 2 (41 semitones), but then rises and ends at mid-level 3 ( 45.1 semitones), marked [ ${ }^{323}$ ], for example, $p \varepsilon^{323}$ 'to grind', $m a^{323}$ 'rice', $k i^{323}$ 'field (upland/terraced)', and $d 5^{323}$ 'brain'.
6. The sixth tone begins at level 2 ( 40.2 semitones), falls gradually in the middle of the syllable at lowlevel 1 ( 36.4 semitones), then rises and ends at level 2 ( 39.2 semitones), marked [ $\left.{ }^{212}\right]$, for example, $s u^{212}$ 'broken (of string, thread, rope)', $k^{h} u n^{212}$ 'dust', and $k o^{212}$ 'night'.

Figure 1 summarizes the tone system of Khang in syllables ending in sonorants, analyzed with WIN CECIL in semitones.

Figure 1: Khang tones in sonorant final syllables


### 6.2. Tones in dead syllables (stop final)

There are two tones occurring in syllables ending in voiceless stops. They are described as follows:

- Tone 7 begins at level 4 ( 46 semitones), falls at level 3 ( 44.5 semitones), marked [ ${ }^{43}$ ], for example, $k l a k^{43}$ 'head', sak $^{43}$ 'deer', $k^{h}$ ak $^{43}$ 'buffalo', hap ${ }^{43}$ 'to burden', and pup $^{43}$ 'body's back'.
- Tone 8 begins at level 1 ( 35.4 semitones), rises at level 2 ( 41 semitones), marked $\left.{ }^{[12}\right]$, for example, $p o k^{l 2}$ 'to open, to peel' and $h u k^{12}$ 'greedy'. Figure 2 summarizes the tones in Khang in syllables ending in final stops, analyzed by WIN CECIL in semitones.

Figure 2: Khang tones in syllables ending in final stops

## Khang tones in syllables ending final stops



### 6.3. Voice register

In Khang, there are three types of voice quality: modal voice, creaky voice and glottal stop. The first tone [44] and the fifth tone [323] has modal voice. This is shown in the wave form and F0 tracks in Figure 3 and Figure 4.

Figure 3: The syllable ti4 'hand'


Figure 4: The syllable da ${ }^{323}$ 'black'


Creaky voice appears in tone [212]. Figure 5 show a sample wave form, F0 track and spectrum of tone [212].
Figure 5: The syllable $6 a^{212}$ 'sour'


Tones [11?], [35?] and [31?] end in a final glottal stop. Figures 6, 7, 8 show forms of wave forms, F0 tracks of tones [11?], and [35?] and [31?] with a final stop [?].

Figure 6: The syllable ko ${ }^{357}$ 'rice'


Figure 7: The syllable no ${ }^{312}$ 'woman's breast'


Figure 8: Soundwave, spectrogram of the syllable ha ${ }^{1 l ?}$ 'pebble stone'


### 6.4. Historical aspect of Khang tones

It is apparent that although Khang is an Austroasiatic language, it has borrowed many Tai words, and with them, their tonal values. Examples in Table 8 are given of Tai loanwords in Khang compared with and ProtoTai values (Li 1977 and Pittayaporn 2009). The tone categories of these Tai loanwords in Khang match Proto-Tai tone categories. However, how tonal assignments to indigenous Austroasiatic words are governed is not clear at this time and is a question for further analysis.

Table 8: Khang tones in loanwords

| Meaning | Proto-Tai tone categories | Proto-Tai (Pittayaporn 2009) | Proto-Tai <br> (Li 1977) | Khang Tones | Khang Words |
| :---: | :---: | :---: | :---: | :---: | :---: |
| skin | A1 | *hnay A | *nay A1 | 44 | num ${ }^{44}$ |
| garden |  | *swu:n A | *suan A1 |  | surn ${ }^{44}$ |
| year |  | *pi: A | *pii A1 |  | $\mathrm{pi}^{44}$ |
| rattan |  | *C..wa.j A | * waai A1 |  | waj ${ }^{44}$ |
| bag |  | * croy A | *thuy A1 |  | $1 \varepsilon^{44} \mathrm{t}^{\mathrm{h}} \geqslant \mathrm{y}^{44}$ |
| door |  | *tu: A | *pra-tuu A1 |  | păk ${ }^{43}$ tu ${ }^{44}$ |
| fragrant |  | *ho:m A | *hoom A1 |  | $\mathrm{Paj}^{44}$ hom $^{44}$ |
| high |  |  | *suuy A1 |  | sug ${ }^{44}$ |
| medicine |  | * juə A | *jaa A1 |  | $\mathrm{ja}^{44}$ |
| net |  |  | *hec A1 |  | $1 \mathrm{an}^{44} \mathrm{~h} \varepsilon^{44}$ |


| Meaning | Proto－Tai tone categories | Proto－Tai （Pittayaporn 2009） | Proto－Tai （Li 1977） | Khang Tones | Khang Words |
| :---: | :---: | :---: | :---: | :---: | :---: |
| three | A2 | ＊sa：m A | ＊saam A1 | 35？ | sam ${ }^{44}$ |
| sand |  | ＊zwuəj A | ＊saai A2 |  | saj ${ }^{35}$ |
| mountain |  | ＊Ç．do：j A | ＊phuu A2 |  | $\mathrm{pu}^{35}$ |
| field |  | ＊na：A | ＊naa A2 |  | na ${ }^{35}$ |
| gold |  |  | ＊kham A2 |  | kăm ${ }^{359}$ |
| drunk／intoxicated |  | ＊maw A | ＊mau A2 |  | mă ${ }^{359}$ |
| expensive |  | ＊be：y A | ＊phecy A2 |  | $\mathrm{pen} \mathrm{y}^{35}$ |
| silver |  |  | ＊ əən A2 |  | y $\mathrm{yn}^{352}$ |
| low | B1 |  | ＊tam B1 | 212 | tăm ${ }^{212}$ |
| bean |  |  | ＊thua B1 |  | $\mathrm{t}^{\text {h }}{ }^{212}$ |
| empty |  | ＊plrw B | ＊plau B1 |  | pă ${ }^{212}$ |
| to release |  |  | ＊plosi B1 |  | plj ${ }^{212}$ |
| mother | B2 | ＊me：B | ＊me ${ }^{\text {B }}$ 2 | $31 ?$ | $\mathrm{m} \varepsilon^{317}$ |
| branch |  |  | ＊ naa B2 |  | na ${ }^{31 ?}$ |
| cotton | C1 |  | ＊faai C1 | 323 | $\mathrm{cuy}^{212} \mathrm{faj}{ }^{323}$ |
| wide |  |  | ＊kwaay C1 |  | kway ${ }^{323}$ |
| cave |  | ＊cram C | ＊tham C1 |  | thăm ${ }^{323}$ |
| crossbow |  | ＊hnwuə C | ＊naa C1 |  | na ${ }^{323}$ |
| five |  | ＊ha：C | ＊haa C1 |  | ha ${ }^{323}$ |
| nine |  | ＊krw C | ＊kau C1 |  | kă ${ }^{323}$ |
| pot |  | ＊hmo：C | ＊mos C1 |  | mo ${ }^{323}$ |
| to carry hanging from hand |  | ＊tri：w C | ＊hiu C1 |  | hiw $^{323}$ |
| to enter |  | ＊$\chi$ aw C | ＊khau C1 |  | $\mathrm{k}^{\text {hă }}{ }^{323}$ |
| wood | C2 | ＊mwaj C | ＊mai C2 | 11？ | mă ${ }^{117}$ |
| to buy |  | ＊z．ju：C | ＊siï C2 |  | sum ${ }^{117}$ |
| elephant |  |  | ＊čhaay C2 |  | $\mathrm{can}^{112}$ |
| hammer |  | ＊ $\mathrm{ro:l}$ C | ＊khoon C2 |  | $\mathrm{k} ⿰ 丿 ⺄^{112} \mathrm{ti}^{44}$ |
| to chew |  | ＊giəw C | ＊khiau C2 |  | k\＆w ${ }^{117}$ |
|  |  | Dead syllables | op final） |  |  |
| iron | D1 | ＊hlek D | ＊lek D1S | 12 | $\mathrm{lik}^{12}$ |
| chest |  | ＊ $2 r \mathrm{k}$ D | ＊2ok D1S |  | Prk ${ }^{12}$ |
| cockroach |  | ＊sa：p D | ＊saap D1L |  | $\mathrm{m} \varepsilon \mathrm{y}^{352} \mathrm{sap}^{12}$ |
| cloud，fog |  | ＊hmo：k D | ＊mook D1L |  | murk ${ }^{12}$ |
| frog |  |  | ＊khiat D1L |  | $\mathrm{k}^{\mathrm{h} i \gamma \mathrm{t}^{12}}$ |
| seven |  | ＊cet D | ＊čet D1S |  | $\mathrm{cet}^{12}$ |
| ten |  |  | ＊sip D1S |  | sip $^{12}$ |
| to dig |  |  | ＊khut D1S |  | $\mathrm{k}^{\mathrm{h}} \mathrm{ut}^{12}$ |
| to peel |  | ＊po：k D | ＊pook D1L |  | pok ${ }^{12}$ |
| ant | D2 | ＊mrc D | ＊mot D2S | 43 | $\mathrm{mot}^{43}$ |
| narrow |  | ＊gap D | ＊khap D2S |  | kă ${ }^{43}$ |
| to change |  |  | ＊leck D2L |  | $1 \mathrm{kk}{ }^{43}$ |
| to love |  |  | ＊mak D2S |  | măk ${ }^{43}$ |
| to wipe／clean |  | ＊〕et D | ＊čhet D2S |  | $\mathrm{cut}^{43}$ |

## 7. Conclusion

This paper has provided a summary of segmental and tonal phonology and lexicon of Nam Mu Khang. It is an Austroasiatic language under strong Tai influence in Vietnam, and it has become strongly monosyllabic and tonal, which may be a result of typological influence. Dialect comparison, especially the case of Khang Quang Lam phonology mentioned by Nguyen Van Huy, would be potentially interesting, but it remains to be fully researched. The phonological impact of Tai and Vietnamese loanwords in Khang dialects is clearly significant, and this language contact is also a significant prospect for further research.

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## Appendix: Khang Wordlist

(916 entries)
Data collector: Tạ Quang Tùng

| Kháng | Gloss |
| :--- | :--- |
| $6 \mathrm{a}^{212}$ | mute/stupid |
| $6 \mathrm{a}^{212}$ | sour |
| $6 \mathrm{a}^{212}$ murn $^{323}$ | mango |
| $6 \mathrm{a}^{212} \mathrm{yaj}^{44}$ | face |
| $6 \mathrm{ak}^{43} \mathrm{k}^{h} \mathrm{cn}^{44}$ | ring |
| $6 \mathrm{an}^{212}$ | flower |
| $6 \mathrm{an}^{323}$, murry ${ }^{357}$ | village |


| Kháng | Gloss |
| :---: | :---: |
| 6an ${ }^{44} \mathrm{ho}^{44}$ | pannier |
| $\operatorname{ban}^{44} 1 \mathrm{lj}{ }^{44}$ | fan |
| $6 \mathrm{an}^{44} \mathrm{ne}^{117}$ | comb |
| 6ăy ${ }^{44}$ | bamboo sprout |
| 6ăt ${ }^{12}$ măj ${ }^{31 ?}$ | greenery |
| $6 \mathrm{t}^{43}$ | wound |
| $60^{212}$ | uncle |
| $69^{212} \mathrm{Pom}^{323}$ | water source |
| $6 \mathrm{j}^{317}$ | to cook sticky rice |
| $60 \mathrm{k}^{43}$ | teach |
| $60 y^{323}$ | blunt |
| $60 \mathrm{y}^{44}$ | below |
| $60 \eta^{44} \mathrm{ku}^{35}$ | back of the head |
| $60 \eta^{44} \mathrm{ku}^{35 ?}$ | to crow |
| $60 \square^{44} 10^{44}$ | armpit |
| $6 \cot ^{43}$ | pointed |
| $6 \varepsilon^{212}$ | goat |
| $6 \varepsilon^{212} \mathrm{di}^{357}$ | goat kid |
| $6 \varepsilon^{212} \mathrm{pa}^{323}$ | male goat |
| $6 \varepsilon \mathrm{k}^{12}$ | to carry |
| $6 \varepsilon n^{212}$ | to shoot |
| $6 \mathrm{n}^{44}$ | long time |
| $6 r n^{44} \mathrm{brn}^{44}$ | sometime |
| 6irn ${ }^{212}$ | sea |
| 6irw ${ }^{44}$ | deformed (become) (object) |
| 6urm ${ }^{212}$ ?om ${ }^{323}$ | puddle |
| 6 wry ${ }^{11 ?}$ | foot, hand |
| 6ury ${ }^{112} \mathrm{ti}^{44}$ | arm |
| 6 uk $^{43}$ | snot |
| $6 \mathrm{o}^{212}$ | animal |
| $60^{212}$ bon ${ }^{44}$ | pangolin |
| $6 \mathrm{o}^{212}$ căn${ }^{212}$ | cicada |
| $60^{44}$ | owl |
| $6 \cot ^{43}$ | near |
| 6ur ${ }^{323}$ | ash |
| 6ur ${ }^{44}$ | to pack |
| burn ${ }^{212}$ | nappies |
| 6urn ${ }^{212}$ | spoon |
| 6uk ${ }^{12}$ | white |
| 6ut ${ }^{12}$ | blanket |
| căm ${ }^{35}$ | to burry |
| cam ${ }^{44}$ | sneeze |
| can ${ }^{117}$ | lazy |
| căn ${ }^{323}$ | pretty |
| can ${ }^{44}$ | thorn |
| cay ${ }^{117}$ | elephant |
| $\mathrm{cay}^{212}$ | tasteless |
| că ${ }^{44}$ | bitter |
| căp ${ }^{12}$ | to tuck |


| Kháng | Gloss |
| :---: | :---: |
| căt ${ }^{12}$ | to scatter |
| căw ${ }^{11 ?}$ | early/soon |
| căw ${ }^{44} \mathrm{na}^{44}$ | host |
| coj ${ }^{323}$ | to help |
| $\operatorname{cok}^{43}$ | hoe |
| ce ${ }^{117}$ | to tear to pieces |
| $\mathrm{ce}^{44}$ | headlouse |
| cem ${ }^{323}$ | bird |
| cem $^{323} \mathrm{jăn}^{212}$ | sparrow |
| cet $^{12}$ | seven |
| $\mathrm{cen}{ }^{44}$ | to fry |
| $\mathrm{cr}^{44} \mathrm{~Pa}^{323}$ | always |
| $\mathrm{cr}^{44} \mathrm{~Pa}^{323}$ | when |
| $\mathrm{cr}^{44} \mathrm{~Pa}^{323}$ | while |
| cǒlrp ${ }^{43}$ | bright |
| $\mathrm{ci}^{11 ?}$ | string |
| $\mathrm{ci}^{212}$ | uncle (mother's younger brother) |
| $\mathrm{ci}^{212}$ | young man |
| cirm ${ }^{44}$ | Thai |
| ciry ${ }^{212}$ | to divide |
| ciry ${ }^{35}$ | to listen |
| $\operatorname{cin}^{44}$ | to play |
| $\operatorname{cin}^{44}$ yăn ${ }^{44}$ | to dry (food) |
| $\operatorname{cin}^{357}$ yăn ${ }^{44}$ | fire/kitchen/stove |
| $\mathrm{cwl}^{323}$ | name |
| $\operatorname{curr}^{212} 6 \mathrm{in}{ }^{11 ?}$ | healing |
| $\mathrm{curry}^{35 ?}$ | bed |
| curry ${ }^{44} \mathrm{tu}^{357}$ | food |
| $\mathrm{co}^{11 ?}$ | to chew (horse) |
| $\mathrm{co}^{212}$ | ill/painful |
| $\mathrm{co}^{323}$ | to copulate |
| $\mathrm{co}^{357}$ | joyful |
| $\mathrm{co}^{44}$ | grandchild |
| $\mathrm{co}^{44} \mathrm{kurn}^{44}$ | offspring |
| cur ${ }^{44}$ | dog |
| $\mathrm{cur}^{44} \mathrm{ni}^{212}$ | wolf |
| cum $^{44}$ | to sink |
| $\mathrm{cuy}^{212} \mathrm{faj}^{323}$ | cotton plant |
| $\mathrm{cuy}^{212} \mathrm{ple}^{44} \mathrm{ko}^{44}$ | gourd |
| cuy $^{352}$ nek $^{43}$ | goitre |
| cut ${ }^{43}$ | to wipe/clean |
| $\mathrm{da}^{212} \mathrm{klo}^{323}$ | footprint |
| $\mathrm{da}^{323}$ | black |
| daj ${ }^{11 ?}$ | to run |
| dăk ${ }^{43}$ | thickened |
| dăn ${ }^{44}$ | young |
| dan ${ }^{44} \mathrm{k}^{\mathrm{h}} \mathrm{ur}^{44}$ | bridge |
| dan ${ }^{44} \operatorname{pan}^{357}$ | table |
| $\mathrm{d} 5^{323}$ | brain |


| Kháng | Gloss |
| :---: | :---: |
| don ${ }^{44}$ jur $^{44}$ | cornflower |
| ¢⿹弔 ${ }^{44}$ | egg |
| djy ${ }^{44}$ | feather |
| ¢Jy ${ }^{44}$ klak $^{43}$ | hair |
| d⿹y ${ }^{44} \mathrm{mom}^{44}$ | beard |
| doy ${ }^{44}$ yaj $^{44}$ | eyelash |
| $\mathrm{de}^{44}$ | we |
| $\mathrm{d} \varepsilon^{44}$ | to give |
| drk ${ }^{12}$ | to take（things），to get married |
| dřk ${ }^{12} \mathrm{jum}^{323}$ | to bring |
| drn ${ }^{44} \mathrm{klo}^{35 ?}$ | heel |
| $\mathrm{di}^{212}$ | uncle（father＇s older brother） |
| di ${ }^{35}$ | small／little |
| $\mathrm{di}^{44}$ | noon |
| dirt ${ }^{43}$ | short |
| $\mathrm{dum}^{44} \mathrm{~d} \varepsilon^{44}$ | to bring back |
| $\mathrm{dum}^{44} \mathrm{se}^{44}$ | to deviate |
| duk $^{12} \mathrm{jur}^{323}$ | pregnant |
| duy ${ }^{44}$ | big／huge |
| do ${ }^{323}$ | out |
| $\mathrm{dok}^{12}$ | boiling pot |
| dok ${ }^{12}$ | warm |
| dom ${ }^{44}$ | ripe |
| $\mathrm{du}^{44}$ | to hide |
| dur ${ }^{212}$ | muscles（flesh） |
| $\mathrm{fa}^{323}$ | to dry |
| $\mathrm{faj}^{212} \mathrm{de}^{44}, \mathrm{p}^{\mathrm{h}}$ ¢n ${ }^{44} \mathrm{jir}^{44}$ | we（inclusive） |
| faj ${ }^{44}$ | dam |
| $\mathrm{f} \varepsilon \mathrm{w}^{323}$ | to sweep |
| fřw ${ }^{212}$ yăn ${ }^{44}$ | ashes of burnt grass |
| funn ${ }^{44}$ fuk ${ }^{43}$ | mat |
| fur ${ }^{35 ?}$ | lake |
| ha ${ }^{11 ?}$ | stone，pebble stone |
| ha ${ }^{317} \mathrm{wo}^{212}$ | ice |
| ha ${ }^{323}$ | five |
| ha ${ }^{35}$ | to wash（dishes） |
| ha ${ }^{323} \operatorname{sip}^{12}$ | fifty |
| hai ${ }^{35 ?}$ kurn ${ }^{44}$ | uterus |
| haj ${ }^{112} \operatorname{srm}^{44}$ năk ${ }^{12}$ | hard to breath |
| haj ${ }^{312} \mathrm{srm}^{44}$ | to breath |
| ham ${ }^{44}$ | to carry with another person |
| hăn ${ }^{212}$ | to slice |
| han ${ }^{317}$ | floor |
| hăg ${ }^{323}$ | rich |
| hăg ${ }^{35 ?} \mathrm{na}^{44}$ | pillar |
| hap ${ }^{43}$ | to burden |
| hap ${ }^{43}$ | wall |
| hat ${ }^{43}$ | rough |
| hoj ${ }^{11 ?}$ | hundred |


| Kháng | Gloss |
| :---: | :---: |
| hoj ${ }^{44} \mathrm{bat}^{12}$ | scar |
| hom ${ }^{44}$ | onions |
| hom ${ }^{44}$ ki:p ${ }^{43}$ | garlic |
| hon ${ }^{44}$ | crest |
| hop ${ }^{43}$ | to have |
| he ${ }^{357}$ | mortar (wooden) |
| $\mathrm{he}^{352} \mathrm{cew}^{212}$ | pestle |
| hřm ${ }^{323}$ | shade |
| hir ${ }^{117}$ | root |
| $\mathrm{hir}^{357}$ | ginger |
| hiry ${ }^{35}$ | intestine |
| hiw ${ }^{323}$ | to carry hanging from hand |
| humy ${ }^{35}$ | tooth |
| hum ${ }^{352}$ neq ${ }^{44}$ | canine tooth |
| hum ${ }^{352}$ n $\mathrm{g}^{44}$ | fang |
| ho ${ }^{312}$ | to bark |
| hok ${ }^{12}$ | six |
| hom ${ }^{323}$ | to cover |
| hot ${ }^{43}$ | to smoke |
| huk ${ }^{12}$ | greedy |
| huy ${ }^{212}$ | papaya |
| hwaj ${ }^{35}$ | tiger |
| $\mathrm{ka}^{212} \mathrm{ts}^{323}$ | all |
| $\mathrm{ka}^{44}$ | fish |
| kaj ${ }^{112}$ | to deny |
| $\mathrm{kam}^{352}$ | bran |
| kăm ${ }^{352}$ | gold |
| kăm ${ }^{352} \mathrm{p}^{\mathrm{h}}{ }^{312}$ | blade |
| kăm ${ }^{44}$ | to throw |
| kă ${ }^{117}$ | to squeeze |
| kă ${ }^{352}$ | field bank |
| kă ${ }^{352}$ | people |
| kăn ${ }^{352}$ haj ${ }^{312}$ | enemy |
| kăn ${ }^{352}$ haj ${ }^{312}$ | invader/enemy |
| kăn4 | wife |
| kăn ${ }^{44}$ di ${ }^{\text {35 }}$ | second wife |
| $k_{\text {an }}{ }^{44}$ duug ${ }^{44}$ | wife (first) |
| kan ${ }^{44}$ hap $^{43}$ | yoke |
| kăn ${ }^{44} \mathrm{ku}^{323}$ | you (same age) |
| kăn ${ }^{44} 1 i^{44}$ | bee |
| $\mathrm{kan}^{44}$ păj ${ }^{312}$ | broom |
| kay ${ }^{35 ?}$ | hawk |
| kan ${ }^{44}$ | beak, mouth |
| $\mathrm{kay}^{44}$ wen ${ }^{352}$ | mirror |
| kăp ${ }^{12}$ | and, with |
| kap ${ }^{43}$ | duck |
| kăp ${ }^{43}$ | narrow |
| kăp ${ }^{43} \mathrm{fa}^{44}$ | turtle |
| kă ${ }^{323}$ | nine |


| Kháng | Gloss |
| :---: | :---: |
| ko ${ }^{117}$ | to carry on one's back |
| ks ${ }^{357}$ | un-cooked rice |
| $\mathrm{kg}^{44} \mathrm{k}^{44}$ | pigeon |
| $\mathrm{kjj}^{44}$ | horn |
| kok ${ }^{43}$ | crippled |
| kok ${ }^{43}$ | worm (on leaf) |
| kon ${ }^{44}$ | to scrabble |
| $\mathrm{kon}^{117} \mathrm{ti}^{44}$ | hammer |
| $\mathrm{kon}^{44} \mathrm{tu}^{44}$ | latch |
| $\mathrm{kon}^{112}$ 6วn ${ }^{44}$ | lizard |
| kăl3 ${ }^{35}$ ? | hiccups |
| $\mathrm{k} \varepsilon^{212}$ | uncle |
| $\mathrm{k} \varepsilon^{323}$ | to undress |
| kem ${ }^{35}$ ? | river bank |
| $\mathrm{k} \mathrm{n}^{212}$ | hard |
| ken ${ }^{35 ?}$ | trumpet |
|  | congee |
| $\mathrm{kg}^{44} \mathrm{p}^{\text {ha }}{ }^{317}$ | to shape a knife |
| k $\varepsilon p^{43}$ | restricted |
| k $\mathrm{p}^{43}$ | to grill |
| ket ${ }^{43}$ | to forget |
| kew ${ }^{117}$ | to chew |
| $\mathrm{kew}^{44}$ | Viet |
| křm ${ }^{212}$ | to ban |
| $\mathrm{k}^{\mathrm{h}}{ }^{112}$ năj ${ }^{\text {35? }}$ | now |
| $\mathrm{k}^{\mathrm{h}}{ }^{212}$ | lesser galangal |
| $\mathrm{k}^{\mathrm{h}} \mathrm{a}^{323}$ | alcohol |
| $\mathrm{k}^{\mathrm{h}}{ }^{44}$ | mouse |
| $\mathrm{k}^{\mathrm{h}} \mathrm{j}^{212}$ | to pour (water from small cup) |
| $\mathrm{k}^{\mathrm{ha}} \mathrm{j}^{323}$ | healthy |
| $\mathrm{k}^{\mathrm{h}} \mathrm{k}^{12}$ | other |
| $\mathrm{k}^{\mathrm{ha}} \mathrm{k}^{43}$ | buffalo |
| $\mathrm{k}^{\mathrm{h}} \mathrm{k}^{43} \mathrm{t}^{\text {hr }} \mathrm{k}^{12}$ | bull |
| $\mathrm{k}^{\text {han }}{ }^{44}$ | to answer |
| khăn ${ }^{44}$ | towel |
| $\mathrm{k}^{\text {han }}{ }^{44} \mathrm{tur}^{212} \mathrm{naj}^{44}$ | face towel |
| $\mathrm{k}^{\text {ha }}{ }^{212}$ | to drain |
| $\mathrm{k}^{\text {hă }}{ }^{44}$ | dry |
| $\mathrm{k}^{\text {hă }}{ }^{12}$ | to sing |
| $\mathrm{k}^{\text {hă }}{ }^{323}$ | to enter |
| khă ${ }^{44}$ | sharp |
| $\mathrm{k}^{\mathrm{h}} \mathrm{V}^{323}$ | poor |
| $\mathrm{k}^{\mathrm{h}}{ }^{44}$ | bent |
| $\mathrm{k}^{\mathrm{h}} \mathrm{k}^{43}$ | toad |
| $\mathrm{k}^{\mathrm{h}} \mathrm{k}^{12}$ | guest |
| $\mathrm{k}^{\mathrm{h}} \mathrm{n}^{44}$ | to praise/speak highly of |
| $\mathrm{k}^{\mathrm{h}} \mathrm{i}^{317}$ | crab |
| $\mathrm{k}^{\text {hiry }}{ }^{44}$ | month |
| $\mathrm{k}^{\text {hist }}{ }^{12}$ | frog |


| Kháng | Gloss |
| :---: | :---: |
| $\mathrm{k}^{\mathrm{h}} \mathrm{U}^{358}$ | same |
| $\mathrm{k}^{\mathrm{h}} \mathrm{u}{ }^{323}$ | to ascend |
| $\mathrm{k}^{\mathrm{h}} \mathrm{min}^{44}, \mathrm{tck}^{43} \mathrm{yaj}^{44}$ | to grow (tree) |
| $\mathrm{k}^{\mathrm{h}} \mathrm{O}^{35}$ ? | termite |
| $\mathrm{k}^{\text {h }} \mathrm{r}^{44}$ | ladder |
| $\mathrm{k}^{\mathrm{h}} \mathrm{rr}^{44}$ | to scrape |
| $\mathrm{k}^{\mathrm{h}} \mathrm{uj} \mathrm{j}^{352}$ | fly (insect) |
| $\mathrm{k}^{\mathrm{h}} \mathrm{wir}^{212}$ | to stir |
| $\mathrm{k}^{\mathrm{h}} \mathrm{j}^{212}$ | to ride |
| $\mathrm{k}^{\mathrm{h}} \mathrm{un}^{212}$ | dust |
| $\mathrm{k}^{\mathrm{h}} \mathrm{ut}^{12}$ | to dig |
| $k^{\text {h }}$ wăn ${ }^{352}$ hirt ${ }^{43}$ | drugs (smoking) |
| $\mathrm{k}^{\mathrm{h}} \mathrm{wann}^{357} 1 \mathrm{lt}^{43}$ | cigarette |
| $\mathrm{k}^{\mathrm{h}}$ way ${ }^{44}$ | to lay a bet to catch fish |
| ki ${ }^{323}$ | field (upland/terraced) |
| kirn ${ }^{35}$ | cucumber |
| kiry ${ }^{44}$ | pineapple |
| $\operatorname{kim}^{35 ?}$ | salty |
| kin $^{317}$ hoy ${ }^{359}$ | knee |
| $\mathrm{kin}^{323}$ | full |
| kit $^{12}$ | to harvest |
| klak $^{43}$ | head |
| klap ${ }^{43}$ | bark (noun) |
| $\mathrm{klo}^{323}$ | leg |
| klon ${ }^{44}$ | to call |
| klog ${ }^{44}$ ăn $^{352}$ | earrings |
| k18 ${ }^{44}$ | penis |
| $\mathrm{klcn}^{212} \mathrm{kla}^{44}$ | testes/testicles |
| $\mathrm{klcg}^{44}$ | grass/thatchgrass |
| klep ${ }^{43}$ | rice husk |
| klrj ${ }^{117}$ | squirrel |
| klı̆w ${ }^{44}$ | Khmu |
| $\mathrm{klir}^{317}$ | parrot |
| klir ${ }^{44}$ | rain |
| klir ${ }^{44}$ kă $^{44} 1 \gamma^{44}$ | hail |
| klir $^{44} \mathrm{p}^{\text {hăa }}{ }^{44}$ măn $^{212}$ | drizzle |
| kliry ${ }^{44}$ | orange |
| klirp ${ }^{43}$ | locust |
| $\mathrm{klin}^{44}$ | fat (adjective) |
| $\mathrm{klin}^{35 ?}$ | to roll |
| klip ${ }^{12}$ | scale |
| klum ${ }^{323}$ | mushroom |
| $\mathrm{klu}^{44}$ | ox |
| $\mathrm{klu}^{44} \mathrm{~m} \varepsilon^{212}$ | cow |
| klurm ${ }^{44}$ | liver |
| kur ${ }^{212}$ | eggplant |
| kum ${ }^{117}$ | to hope |
| kum ${ }^{117}$ | to wait |
| kun ${ }^{44}$ | before |


| Kháng | Gloss |
| :---: | :---: |
| kum ${ }^{212}$ | to push |
| $\mathrm{kuw}^{212}$ | to secure |
| $\mathrm{ko}^{212}$ | night |
| ko ${ }^{44}$ | it (people) |
| $\mathrm{ko}^{44} \mathrm{di}^{352}$ | girl (little) |
| ko ${ }^{44}$ măj ${ }^{317}$ | forest |
| $\mathrm{ko}^{44} \mathrm{p}^{\mathrm{h}}{ }^{\text {35 }}$ | old woman |
| $\mathrm{kot}^{43}$ | shrimp |
| $\mathrm{ku}^{323}$ | to lend |
| kur ${ }^{212}$ | wet |
| kurn ${ }^{44}$ | child |
| kurn ${ }^{44}$ di ${ }^{357}$ | children |
| kurn ${ }^{44}$ kăn $^{44}$ | daughter |
| $\mathrm{kurn}^{44} \mathrm{k}^{\text {h }} \mathrm{urj}{ }^{44}$ | son-in-law |
| kurn ${ }^{44}$ kon $^{44}$ | boy |
| kum ${ }^{44} \mathrm{na}^{44}$ | roof |
| kwa ${ }^{35 ?}$ | to mix |
| kwaj ${ }^{44}$ | potato/manioc |
| kwaj ${ }^{44}$ ho ${ }^{323}$ | sweet potato |
| kwaj ${ }^{44} \mathrm{k}^{\mathrm{h}} \mathrm{j}^{121}$ | yam |
| kway ${ }^{323}$ | wide |
| kwen ${ }^{44}$ | bowl |
| $1 \mathrm{la}^{212}$ | smooth |
| $1 \mathrm{a}^{212} \mathrm{doj}^{44}$ | couple |
| $1 \mathrm{a}^{212} \mathrm{t}^{\mathrm{t}} \mathrm{y}^{212}$ | half |
| $1 a^{323}$ | who |
| $1 \mathrm{laj}^{117}$ | to kneel |
| lăk ${ }^{12}$ | to wise |
| $1 \mathrm{la}^{43}$ | crow |
| $1 \mathrm{la}^{43}$ | stork |
| lak ${ }^{43}$ | to draw (water) |
| lălan ${ }^{44}$ | lightning |
| lăm ${ }^{352}$ | trunk |
| $1 \mathrm{ăm}{ }^{352} 6 \mathrm{o}^{212}$ | body |
| lăm ${ }^{352} \mathrm{pan}^{352}$ | thigh |
| 1 lăm ${ }^{357}$ tirg ${ }^{44}$ | areca |
| lan ${ }^{44}$ | orchid |
| $1 a^{352}$ măm $^{117}$ | last year |
| $\operatorname{lan}^{352} \mathrm{Pe}^{44}$ | this year |
| lăn ${ }^{44}$ | delicate |
| $1 \mathrm{lag}^{44} \mathrm{c}^{44}$ | net |
| $1 \mathrm{la}^{44} \mathrm{mon}^{352}$ | fishing net |
| law ${ }^{112}$ | to wring |
| law ${ }^{44}$ | to cultivate virgin lands (on the mountain slope) |
| $10^{44}$ | to worry |
| $10 j^{357}$ | to swim |
| $1 \mathrm{k}{ }^{43}$ | coop (chicken, duck) |
| $10 y^{352}$ | to descend |
| 19044 | vegetables |


| Kháng | Gloss |
| :---: | :---: |
| $1 \mathrm{l}^{44}$ | husband |
| lem ${ }^{212}$ | needle (for sewing) |
| $1 \varepsilon^{212}$ | much |
| $1 \varepsilon^{323}$ | broken (hard and long things) |
| $1 \varepsilon^{35 ?}$ | to look |
| $1 \varepsilon^{44} \mathrm{da}^{212}$ | gallbladder |
| $1 \varepsilon^{44}$ dan ${ }^{212}$ | shanty |
| $1 \varepsilon^{44}$ di ${ }^{35}$ | plate (small) |
| $1 \varepsilon^{44} \mathrm{dur}^{212}$ | banana flower |
| $1 \varepsilon^{44} \mathrm{~kg}^{112}$ | gong |
| $1 \varepsilon^{44} \mathrm{kir}^{44}$ | vulva |
| $1 \varepsilon^{44}$ klurj $^{44}$ | bamboo basket with shoulder strap |
| $1 \varepsilon^{44}$ kluy $^{212}$ | drum |
| $1 \varepsilon^{44} \mathrm{luj}{ }^{12}$ | whistle |
| $1 \varepsilon^{44} \mathrm{~m}{ }^{323}$ | pan |
| $1 \varepsilon^{44}$ murn ${ }^{44}$ | basket |
| $1 \varepsilon^{44}$ pluj ${ }^{31 ?}$ | umbilical |
| $1 \varepsilon^{44} \mathrm{t}^{\mathrm{h}} \mathrm{\eta}^{44}$ | bag |
| $1 \varepsilon^{44} \mathrm{t}^{\text {h }} \mathrm{g}^{35}$ | bamboo basket |
| $1 \varepsilon^{44} \mathrm{jaj}^{352}$ | beads |
| $1 \varepsilon^{44} \mathrm{jo}^{44}$ | boil |
| $1 \varepsilon \mathrm{k}^{43}$ | to change |
| $1 \mathrm{~lm}{ }^{212}$ | to sleep |
| $1 \varepsilon \mathrm{~m}^{212} \mathrm{j} 0^{352}$ | to awake |
| $1 \varepsilon m^{44} \operatorname{pot}^{43}$ | arrow |
| $1 \varepsilon g^{44} \mathrm{li}^{44}$ | honey |
| $1 \mathrm{rp}{ }^{43}$ | morning |
| $1 i^{352}$ | corn |
| $\operatorname{lirn}^{323}$ | salt |
| $\mathrm{lik}^{12}$ | iron, nail made from iron |
| lurnn ${ }^{323}$ | smooth and shining |
| luk ${ }^{12}$ | blind |
| lun ${ }^{44}$ | to lick |
| lom ${ }^{44}$ | to suck |
| lurn ${ }^{35}$ | dragon |
| lup ${ }^{43}$ | to spread on |
| $\mathrm{ma}^{117}$ | horse |
| $\mathrm{ma}^{112}$ yă ${ }^{43}$ | ghost |
| $\mathrm{ma}^{323}$ | rice |
| $\mathrm{ma}^{44}$ | father's sister |
| măj ${ }^{112}$ | stick (noun) |
| măj ${ }^{112}$ | tree, wood |
| măj ${ }^{312} \mathrm{k}^{\mathrm{h}} \mathrm{wir}^{212} \mathrm{t}^{\text {han }}{ }^{44}$ | fire poker |
| maja ${ }^{317}$ ttk ${ }^{43} \mathrm{naj}^{44}$ | shoot |
| măk ${ }^{43}$ | to love |
| $\mathrm{mak}^{43} 6 \mathrm{it}{ }^{12}$ | hook |
| măk ${ }^{43}$ kă $^{44}$ | girl |
| măk ${ }^{43}$ kăn ${ }^{44}$ | woman |
| măk ${ }^{43}$ k $\mathrm{w}^{323}$ | scissors |


| Kháng | Gloss |
| :---: | :---: |
| măk ${ }^{43} \mathrm{k}^{\text {ha }}{ }^{44}$ | ethnic name |
| măk ${ }^{43} \mathrm{k}^{\mathrm{h}}$ wan ${ }^{44}$ | axe |
| măk ${ }^{43} \mathrm{kon}^{44}$ | man |
| $\mathrm{mak}^{43} \mathrm{lem}^{212}$ | needle (for injection) |
| $\mathrm{mak}^{43} \mathrm{not}^{43}$ | chisel |
| $\mathrm{mak}^{43}$ thăj ${ }^{\text {44 }}$ | plough |
| măm ${ }^{117}$ | to finish |
| $\operatorname{man}^{44}$ | to ask |
| măn ${ }^{44}$ | older sister-in-law |
| măn ${ }^{44}$ | snake |
| măn ${ }^{44}$ Pun ${ }^{44}$ | python |
| man ${ }^{44}$ | fin |
| măt ${ }^{12}$ | to take |
| mat ${ }^{43}$ | tick (parasite) |
| măw ${ }^{112}$ măn ${ }^{212}$ | brown |
| maw $^{31 ?}$ | color |
| mă ${ }^{35}$ | drunk/intoxicated |
| $\mathrm{mo}{ }^{323}$ | pot |
| mon ${ }^{44}$ | pillow |
| $m \mathrm{n}^{44}$ | to know |
| $\mathrm{me}^{112} \mathrm{ye}{ }^{112}$ | yesterday |
| $\mathrm{me}^{112}$ Pe ${ }^{44}$ | today |
| mǎdrk ${ }^{43}$ | gum |
| mep ${ }^{43}$ | to smell |
| $\mathrm{met}^{43}$ | to paddle |
| $\mathrm{met}^{43} \operatorname{lon}{ }^{352}$ | to dive |
| $\mathrm{mew}^{212}$ | cat |
| $\mathrm{m} \varepsilon^{317}$ | female |
| $\mathrm{m} \varepsilon^{317}$ | mother |
| $\mathrm{m} \varepsilon^{312} 6 \mathrm{p}^{43}$ | wife's mother |
| $\mathrm{m} \varepsilon^{312} \mathrm{ma}^{44}$ | husband's mother |
| $\mathrm{m} \varepsilon^{312} \mathrm{man}^{44}$ | soul |
| $\mathrm{m} \varepsilon^{312} \mathrm{murn}^{44}$ | daughter in law |
| $\mathrm{m} \mathrm{n}^{323}$ | correct |
| $m \varepsilon n^{44} \mathrm{to}^{317}$ | wrong |
| mey ${ }^{357} \mathrm{kuw}^{35}$ | dragonfly |
| $\mathrm{men} \mathrm{y}^{357} \mathrm{yam}^{35}$ | spider |
| $\mathrm{m} \varepsilon \mathrm{y}^{352} \mathrm{sap}^{12}$ | cockroach |
| $m \varepsilon y^{352} \operatorname{tep}^{43}$ | flea (dog) |
|  | mosquito |
| m ¢ ${ }^{352} \mathrm{jam}^{44}$ | cricket |
| $\mathrm{m} \varepsilon \mathrm{w}^{117}$ | Hmong |
| mri ${ }^{35 ?}$ | to invite |
| $\mathrm{mi}^{117}$ | finger (hand, foot) |
| $\mathrm{mi}^{117}$ | jackfruit |
| $\mathrm{mi}^{112} \mathrm{ni}^{323}$ | day before yesterday |
| $\mathrm{mi}^{44}$ | you, thou (male) |
| mir $^{212}$ | new |
| mir ${ }^{44}$ | sugarcane |


| Kháng | Gloss |
| :---: | :---: |
| $\mathrm{mit}^{12} \mathrm{moj}^{44}$ | day after tomorrow |
| $\mathrm{mit}^{12} \mathrm{mrp}^{43}$ | tomorrow |
| mlon ${ }^{44}$ | ass |
| mul ${ }^{117}$ | day |
| muri ${ }^{44}$ | dewdrop |
| murij ${ }^{44}$ | frost |
| murrj ${ }^{44} \mathrm{p}^{\text {hăn }}{ }^{323}$ | snow |
| mury ${ }^{44}$ | drain |
| $\mathrm{mun}^{212} \mathrm{mu}^{35}$ | small bracelet |
| mutt ${ }^{43}$ | dark |
| $\operatorname{moj}^{112}$ | nose |
| mom ${ }^{44}$ | grandfather |
| $\mathrm{mot}^{43}$ | ant |
| $\mathrm{mu}^{117}$ | hat |
| $\mathrm{mu}^{212}$ | to blow (fire) |
| mur ${ }^{35}$ ? | season |
| murk ${ }^{12}$ | cloud |
| murk ${ }^{12}$ | fog |
| muj ${ }^{44}$ | fat (noun) |
| mup ${ }^{43}$ | to claw |
| na ${ }^{358}$ | field |
| $\mathrm{na}^{323}$ | crossbow |
| $\mathrm{na}^{44}$ | leaf |
| na ${ }^{44}$ | home |
| na ${ }^{44}$ han $^{317}$ | house on stilts |
| na ${ }^{44} \mathrm{kam}^{323}$ | hip |
| $\mathrm{na}^{44} \mathrm{k}^{\text {hak }}{ }^{43}, \mathrm{kvk}^{43}$ | shed (pigs, buffalo) |
| $\mathrm{na}^{44} \mathrm{mum}^{44}$ | grave |
| $\mathrm{na}^{44} \mathrm{pur}^{44} \mathrm{pur}^{44} / \mathrm{na}^{44} \mathrm{pu}^{44} \mathrm{li}^{352}$ | storehouse |
| $\mathrm{na}^{44} \mathrm{srm}^{44}$ | heart |
| $\mathrm{na}^{44} \mathrm{~d} \mathrm{\varepsilon n}^{212}$ | forehead |
| naj ${ }^{117}$ | to laugh |
| năj ${ }^{44}$ | angry |
| nak ${ }^{43}$ | otter |
| nak ${ }^{43}$ | skin of fruit |
| nam ${ }^{44}$ | to cry |
| nan ${ }^{352}$ | slow |
| nan ${ }^{44}$ dan ${ }^{323}$ | late |
| nă ${ }^{44}$ | wing |
| năt ${ }^{12}$ | difficult |
| $\mathrm{n} 0^{212}$ | at |
| $\mathrm{no}{ }^{212} \mathrm{ni}^{323}$ | there (final particle) |
| $\mathrm{n} 5^{212} \mathrm{~Pa}^{323}$ | where |
| no ${ }^{212} \mathrm{Pe}^{323}$ | here |
| no ${ }^{44}$ | colony/ nest |
| n $\mathrm{n}^{44}$ | neck |
| non ${ }^{44}$ sur $^{358}$ | collar |
| nэワ ${ }^{44}$ | pond |
| nэŋ ${ }^{44}$ păn $^{35 ?}$ | marsh |


| Kháng $\operatorname{noŋ}^{44} \operatorname{tr}^{44}$ | Gloss <br> clear |
| :---: | :---: |
| $\mathrm{n} \varepsilon^{44} \mathrm{~Pa}^{323}$ | how |
| ň̆m ${ }^{323}$ | blood |
| $n i^{323}$ | that, there |
| nirp ${ }^{43}$ | bat |
| nip ${ }^{43}$ | to sew |
| nur ${ }^{312}$ | plastic |
| nur ${ }^{323}$ | meat |
| nur ${ }^{323}$ | one |
| num ${ }^{357}$ | if |
| num ${ }^{44}$ | skin |
| no ${ }^{31 ?}$ | breast |
| no ${ }^{44} \mathrm{n} \varepsilon^{44}$ | jar |
| no ${ }^{44} \mathrm{n} \varepsilon^{44}$ | to crumple |
| nok ${ }^{12}$ | to kiss |
| jon ${ }^{44}$ | to sit |
| nurn ${ }^{44}$ | boat, to float |
| nury ${ }^{44}$ | core |
| 19 ${ }^{35}$ | itchy |
| 7a ${ }^{212}$ | sesame |
| $\mathrm{ya}^{31 ?}$ | branch |
| $\mathrm{ya}^{44}$ | it (plant and animal) |
| yaj ${ }^{44}$ | eye |
| ¢aj ${ }^{44} \mathrm{ka}^{44}$ | ankle |
| 1aj ${ }^{44} \mathrm{k}^{\mathrm{h} i r \eta^{44}}$ | moon |
| yaj ${ }^{44} \mathrm{ye}^{44}$ | sun |
| yăm ${ }^{212}$ | to think |
| yăm ${ }^{212}$ haj $^{112}$ | to plot |
| yăn ${ }^{44}$ | fire kitchen |
| yap ${ }^{43}$ | gill |
| yap ${ }^{43}$ | to yawn |
| yă ${ }^{12}$ | dead, to die |
| yăt ${ }^{12}$ ? $\mathrm{m}^{323}$ | to drown |
| yaw ${ }^{212}$ | to scratch |
| yom $^{44} \mathrm{liry}{ }^{44}$ | shoulder |
| ye ${ }^{44}$ | sunny |
| $\mathfrak{y} \varepsilon^{323}$ | to kill |
| $\mathrm{y} \mathrm{t}^{43}$ | to break off |
| yช̌n ${ }^{35}$ | silver |
| yin ${ }^{44}$ | base of tree |
| $\mathrm{yo}^{212}$ | bad |
| yot ${ }^{43}$ | to drink |
| jur ${ }^{44}$ | paddy |
| yur ${ }^{44} \mathrm{~s} \varepsilon^{323}$ | rice (glutinous) |
| yur ${ }^{44}$ jum $^{44}$ | sticky rice |
| ywăj ${ }^{35 ?}$ | fast, quick |
| $\mathrm{pa}^{11 ?}$ | to flow (waterway in general) |
| $\mathrm{pa}^{31 ?} \mathrm{~m} \varepsilon^{31 ?}$ | parents |
| $\mathrm{pa}^{317} \mathrm{ju}^{44}$ | father-in-law |


| Kháng | Gloss |
| :---: | :---: |
| $\mathrm{pa}^{317}$ | father |
| $\mathrm{pa}^{44}$ | to stick |
| $\mathrm{pa}^{44}$ | you, thou (fem.) |
| paj ${ }^{117}$ | to wash (clothes) |
| pak ${ }^{43} \mathrm{mlon}{ }^{44}$ | buttocks |
| pak ${ }^{43}$ | dock |
| pă ${ }^{43}$ | to cut |
| pă ${ }^{43}$ | to tight |
| păk ${ }^{43}$ tu ${ }^{44}$ | door |
| păm ${ }^{352} \mathrm{pj}^{212}$ | butterfly |
| pam ${ }^{44}$ kă $^{12}$ | to trap |
| păn ${ }^{35}$ | thousand |
| păn ${ }^{352}$ | to wrap/to tie (round) |
| păy ${ }^{212} \tan ^{212}$ | window |
| păy ${ }^{357}$ | mud |
| pă ${ }^{44}$ | to pay |
| păt ${ }^{12}$ | to catch |
| pă ${ }^{212}$ | empty |
| paw ${ }^{352} \mathrm{pu}^{212}$ | ancestor |
| p ${ }^{323}$ | to complete |
| $\mathrm{pa}^{357} \mathrm{yaj}^{44}$ | eyebrow |
| pj ${ }^{112}$ | muntjac |
| pok ${ }^{12}$ | to open, to peel |
| pok ${ }^{43}$ | waist |
| pom ${ }^{212}$ | bulb |
| pom ${ }^{323}$ | round |
| pom ${ }^{44}$ purk $^{43}$ | sponge |
| pon ${ }^{35}$ | claw/nail (finger, toe) |
| pen ${ }^{357}$ | corn pumpkin |
| $\mathrm{p} \varepsilon^{317}$ | to put |
| $p \varepsilon^{323}$ | to grind |
| $\mathrm{p} \varepsilon \mathrm{y}^{352}$ | expensive |
| $\mathrm{p} \mathrm{t}^{12}$ | eight |
| $\mathrm{p}^{\mathrm{h}} \mathrm{a}^{212}$ | to split |
| $\mathrm{p}^{\mathrm{h}} \mathrm{a}^{317}$ | knife |
| $\mathrm{p}^{\mathrm{h}}{ }^{312} \mathrm{sa}^{44}$ | head cold |
| $\mathrm{p}^{\mathrm{h}} \mathrm{a}^{357}$ | old (people) |
| $\mathrm{p}^{\text {ha }}{ }^{44}$ | push button |
| $\mathrm{p}^{\mathrm{h}} \mathrm{aj}^{212} \mathrm{pir}^{44}$ | you all |
| $\mathrm{p}^{\mathrm{h}} \mathrm{j}^{212}{ }^{212} \mathrm{kan}^{44}$ | wife's family |
| $\mathrm{p}^{\mathrm{h} a j^{212}} 1 \mathrm{e}^{44}$ | husband's family |
| $\mathrm{p}^{\mathrm{h}} \mathrm{j}^{323}$ | cloth |
| $\mathrm{p}^{\text {h }} \mathrm{a}^{12} \mathrm{k}^{\text {h }} \mathrm{ur}^{212}$ | tortoise |
| $\mathrm{p}^{\mathrm{h}} \mathrm{ak}^{43}$ | to send |
| $\mathrm{p}^{\mathrm{h}} \mathrm{an}^{323}$ | to spin |
| $\mathrm{p}^{\mathrm{h}} \mathrm{a}^{212} \mathrm{sa}^{212}$ | soot |
| $\mathrm{p}^{\mathrm{h}} \mathrm{n}^{44}$ | limestone |
| $\mathrm{p}^{\text {hem }} \mathrm{m}^{44}$ | old (thing) |
| $\mathrm{p}^{\mathrm{h}} \varepsilon \mathrm{n}^{44} \mathrm{n}{ }^{212}, \mathrm{p}^{\mathrm{h}} \mathrm{n}^{44} \mathrm{ko}^{44}$ | they |


| Kháng | Gloss |
| :---: | :---: |
| $\mathrm{p}^{\mathrm{h}} \mathrm{in}^{35}$ | louse |
| $\mathrm{p}^{\mathrm{h}} \mathrm{Ot}^{43}$ | to take out |
| $\mathrm{p}^{\mathrm{h}} \mathrm{ur}^{44} \mathrm{Pom}^{323}$ | river |
| $\mathrm{p}^{\mathrm{h}} \mathrm{ur}^{44} \mathrm{Pom}^{323}$ | stream |
| pi ${ }^{117}$ | to kick |
| $\mathrm{pi}{ }^{44}$ | year |
| $\mathrm{pi}^{44} \mathrm{mir}^{212}$ | next year |
| pin ${ }^{212}$ | to fly |
| pin ${ }^{357}$ | thick |
| $\mathrm{pin}^{44} \mathrm{djj}{ }^{323}$ | diarrhea |
| $\mathrm{pin}^{44} \mathrm{kurt}^{43}$ | cough |
| $\mathrm{pin}^{44} \mathrm{naj}^{212}$ | crazy |
| piy ${ }^{44}$ | leech |
| pit ${ }^{12}$ | to get |
| plaj ${ }^{44}$ | top of tree |
| plăw ${ }^{212}$ | hollow |
| ploj ${ }^{212}$ | to release |
| ple ${ }^{212}$ | flute/panflute |
| $\mathrm{pl} \varepsilon^{212}$ | to break |
| $\mathrm{pl} \varepsilon^{44}$ | fruit |
| $\mathrm{pl} \varepsilon^{44} \mathrm{com}^{44}$ | lemon |
| ple ${ }^{44} \mathrm{mak}^{43}$ sală ${ }^{44}$ | kidney |
| $\mathrm{pl} \varepsilon^{44} \mathrm{pom}^{212}$ | button |
| $\mathrm{pl} \varepsilon^{44} \mathrm{ti}^{212}$ | banana |
| plrm ${ }^{44}$ | leech (jungle type) |
| pul ${ }^{323}$ | to place |
| $\mathrm{p} \mathrm{u}^{44} \mathrm{~d} \varepsilon^{44}$ | to let, allow |
| purn ${ }^{44}$ ngur ${ }^{44}$ | straw |
| pun ${ }^{44}$ | to crawl |
| $p u^{35 ?}$ | mountain/slope |
| $p u^{35 ?}$ | to float |
| purk ${ }^{43}$ | bamboo (dendrocalamus munro) |
| purt ${ }^{43} \mathrm{pu}^{35}$ | lung |
| puk ${ }^{43}$ | pomelo |
| pum ${ }^{44}$ | stomach |
| pum ${ }^{44} \mathrm{ba}^{212}$ | abdomen |
| puy ${ }^{44}$ | to blow (pan flute) |
| pup ${ }^{43}$ | back |
| $p^{2}{ }^{43} \mathrm{pa}^{312}$ | back of knife blade |
| $\mathrm{sa}^{44}$ | monkey |
| saj ${ }^{357}$ | sand |
| săj ${ }^{35 ?}$ | good |
| $\mathrm{saj}^{44}$ | fiber/rope |
| $\mathrm{saj}^{44} \mathrm{bit}^{12}$ | fishing line |
| saj ${ }^{44} \mathrm{Pom}^{323}$ | spring line |
| $\mathrm{sak}^{43}$ | deer |
| săk ${ }^{43} \mathrm{lak}^{43}$ | group (more than two) |
| sam ${ }^{44}$ | three |
| $\operatorname{sam}^{44} \operatorname{sip}^{12}$ | thirty |


| Kháng | Gloss |
| :---: | :---: |
| săn ${ }^{323}$ | to vibrate |
| săn ${ }^{44}$ | bear |
| săn ${ }^{44}$ | to steal |
| săy ${ }^{212} \mathrm{pu} u^{323}$ | to promise |
| say ${ }^{357}$ | bamboo |
| săg ${ }^{44} \mathrm{~min}^{44}$ | star |
| saw ${ }^{212} 1 \mathrm{laj}^{44}$ | equal |
| saw ${ }^{212} \mathrm{~Pa}^{323}$ | how many/much (more than 10) |
| saw ${ }^{212} \mathrm{~Pa}^{323} \mathrm{Po}^{352}$ | how many (less than 10) |
| să ${ }^{323}$ | to shake |
| saw ${ }^{35}$ ? | twenty |
| saw ${ }^{352}$ Pet $^{12}$ | twenty-one |
| sǎPan ${ }^{44} /$ š̌ $^{\text {anan }}{ }^{44}$ | sputum |
| s ${ }^{212}$ | red |
| son ${ }^{44}$ | two |
| se ${ }^{44}$ | behind |
| sǒ?un ${ }^{44}$ | sky |
| sǒPun ${ }^{44} \mathrm{tur}^{44}$ | thunderstorm |
| s $\varepsilon^{35 ?}$ | to jump/dance |
| s $\varepsilon^{44}$ | firewood |
| $\mathrm{s} \varepsilon^{44} \mathrm{ma}^{44}$ | cheek |
| scw ${ }^{44}$ | to follow |
| $\mathrm{srm}^{44} \mathrm{dumg}^{44}$ | bravery |
| $\mathrm{srn}^{44}$ | to vomit |
| š̌n ${ }^{44}$ | yard |
| $\mathrm{si}^{352}$ | four |
| $\mathrm{sir}^{212}$ | sweet |
| sirt ${ }^{43}$ | muck worm |
| $\mathrm{sip}^{12}$ | ten |
| $\mathrm{sip}^{12} \mathrm{cet}^{12}$ | seventeen |
| $\mathrm{sip}^{12} \mathrm{ha}^{323}$ | fifteen |
| sip $^{12}$ hok $^{12}$ | sixteen |
| sip ${ }^{12}$ kă ${ }^{323}$ | nineteen |
| $\mathrm{sip}^{12} \mathrm{pst}{ }^{12}$ | eighteen |
| $\mathrm{sip}^{12} \mathrm{sam}^{44}$ | thirteen |
| $\mathrm{sip}^{12} \operatorname{son}^{44}$ | twelve |
| sip ${ }^{12} \mathrm{si}^{357}$ | fourteen |
| $\mathrm{sip}^{12} \mathrm{ett}^{12}$ | eleven |
| $\mathrm{sum}^{11}$ ? | to buy |
| $\mathrm{suf}^{323}$ | honest |
| sur ${ }^{323}$ | shirt |
| summ ${ }^{44} \mathrm{k}^{\mathrm{h}} \varepsilon^{44}$ | to want |
| so ${ }^{212}$ | raw |
| $\mathrm{so}^{212}$ | unripe |
| som ${ }^{44}$ | to bathe |
| sot ${ }^{43}$ | porcupine |
| $\mathrm{su}^{212}$ | broken (of string, thread, rope) |
| surn ${ }^{44}$ | garden |
| sury ${ }^{323}$ | trousers |


| Kháng | Gloss |
| :---: | :---: |
| sun ${ }^{44} \mathrm{si}^{44}$ | storm |
| suy ${ }^{44}$ | high |
| $\mathrm{ta}^{212} \mathrm{ko}^{212}$ | or |
| $\mathrm{ta}^{35}$ | tail |
| taj ${ }^{117}$ | for (because) |
| taj ${ }^{44} \mathrm{haj}^{117}$ | poisoned |
| tăk ${ }^{12}$ | to spoon up |
| tăk ${ }^{12}$ t $\varepsilon^{35 ?}$ | gecko |
| $\operatorname{tak}^{43}$ | tongue |
| $\operatorname{tam}^{212}$ | to light candle |
| tăm ${ }^{212}$ | low |
| tăm ${ }^{44}$ | heavy |
| tăm ${ }^{44}$ | right (side) |
| tăm ${ }^{44}$ păt ${ }^{43}$ | to boil |
| tăm ${ }^{44}, \mathrm{cc}^{323}$ | to shrink |
| tă ${ }^{357}$ | ear |
| tăn ${ }^{357} \mathrm{lut}^{43}$ | deaf |
| $\tan ^{44}$ | to knit |
| $\tan ^{112}$ ? $\mathrm{mm}^{323}$ | waterfall |
| tă ${ }^{323}$ | to hit |
| tăp ${ }^{12}$ | to flap |
| tăp ${ }^{43}$ | to beat (a drum) |
| tăp ${ }^{43}$ di ${ }^{11 ?}$ | to fight/combat |
| tăp ${ }^{43}$ nan ${ }^{44}$ | centipede |
| tap $^{43}$ yaj ${ }^{44}$ | eyelid |
| tăt ${ }^{12}$ | to tear |
| tăt ${ }^{12} \mathrm{la}^{44}$ | specie of bamboo |
| taw ${ }^{317}$ | God |
| to ${ }^{317}$ | to stab |
| $\operatorname{ton}^{212} \mathrm{drp}{ }^{43}$ | lip |
| $t 0 y^{35}$ | section of field |
| tey ${ }^{35}$ ? | road (way) |
| $\operatorname{ten}^{352} \mathrm{jul}^{323}$ | track |
| $\mathrm{t}^{312} \mathrm{ca}^{323}$ | why |
| $\mathrm{t} \varepsilon^{31 ?} \mathrm{ma}^{323}$ | to cook |
| $\mathrm{t} \varepsilon^{312} \mathrm{po}{ }^{357}$ | dream/to dream |
| t $\varepsilon^{35}$ | to work |
| t $\varepsilon \mathrm{k}^{43}$ | broken (glass) |
| tck ${ }^{43}$ | to explode |
| t $\mathrm{Em}{ }^{44}$ | to write |
| $\mathrm{tr}^{44}$ | that (far from speaker and hearer) |
| $\mathrm{t}^{\text {hăj }}{ }^{44}$ | to plough |
| $t^{\text {hăja }}{ }^{44}$ t $\varepsilon^{312} \mathrm{~h} \supset \mathrm{y}^{323}$ | to plough into lines |
| $\mathrm{t}^{\text {hăm }}{ }^{323}$ | cave |
| thăm ${ }^{44}$ | cliff (wall) |
| $\mathrm{t}^{\text {h }} \mathbf{}^{323}$ | rabbit |
| $\mathrm{t}^{\text {b }} \mathrm{k}^{43}$ | to pour |
| $\mathrm{t}^{\text {h }} \mathrm{m}^{212}$ | to search |
| $\mathrm{t}^{\mathrm{h}} \mathrm{m}^{212} \mathrm{p} \mathrm{s}^{31 ?}$ | to look for |


| Kháng | Gloss |
| :---: | :---: |
| $\mathrm{t}^{\text {h }} \mathrm{yy}^{212}$ | to sink down (of water) |
| $\mathrm{t}^{\text {h }} 9 \mathrm{y}^{44}$ sur $^{323}$ | pocket |
| $\mathrm{t}^{\text {h }} \mathrm{r} \mathrm{k}^{12}, \mathrm{kon}^{323}, \mathrm{pa}^{323}$ | male |
| $\mathrm{t}^{\mathrm{h}}{ }^{\mathbf{2} 12}$ | stingy |
| $\mathrm{t}^{\text {h }} \mathrm{u}^{212}$ | chopstick |
| $\mathrm{t}^{\text {h }} \mathrm{ur}^{212}$ | bean |
| $\mathrm{t}^{\text {h }} \mathrm{ur}^{212} 10 \mathrm{k}^{43}$ | peanut |
| $\mathrm{t}^{\mathrm{h}} \mathrm{uk}^{12} ; \mathrm{ha}^{35}$ ? | to rub |
| $\mathrm{ti}^{323}$ | location |
| $\mathrm{ti}^{323}$ | to fall |
| $\mathrm{ti}^{44}$ | hand |
| $\mathrm{ti}^{44} \mathrm{~m} \varepsilon^{212}$ | thumb |
| $\mathrm{ti}^{44} \mathrm{t}^{35 ?}$ pok $^{12}$ | to drip |
| tir ${ }^{44}$ | land |
| tirk ${ }^{43}$ | to lie |
| tiry ${ }^{44}$ | betel |
| $\mathrm{tim}^{44}$ | astringent |
| $\operatorname{tin}^{357}$ dury ${ }^{44}$ | stairs |
| $\operatorname{tin}^{44} \mathrm{ha}^{117}$ | cliff (in cave) |
| tin $^{44}$ hur $^{11 ?}$ | fence |
| $\mathrm{tig}^{212}$ | to count |
| $\mathrm{tu}^{212}$ | smoke |
| tum ${ }^{44}$ | to howl/scream |
| tuk ${ }^{43}$ | roundworm (in stomach) |
| tum ${ }^{44}$ | to scratch off/strip |
| to ${ }^{35}$ | to speak |
| to ${ }^{35}$ 6aj ${ }^{35}$ | to talk/tell a story |
| toj ${ }^{312}$ | crime |
| tok ${ }^{12}$ | to rope |
| tok ${ }^{12}$ | to tie |
| tot ${ }^{43}$ | to light |
| $\mathrm{tu}^{323}$ | tattered |
| $\mathrm{tu}^{35}$ | hole |
| $\mathrm{tu}^{35 ?}$ | to eat/to feed |
| $\mathrm{tu}^{44}$ nun ${ }^{44}$ | throat |
| tur ${ }^{44}$ | to spit out |
| tury ${ }^{212}$ | big bracelet |
| tum ${ }^{35}$ | on/above |
| tun ${ }^{44}$ | to burn |
| $\mathrm{wa}^{212} \mathrm{jum}^{323}$ | to step |
| waj ${ }^{44}$ | rattan |
| wak ${ }^{43}$ | earthworm |
| wăn ${ }^{11 ?}$ | to twist |
| wan ${ }^{44}$ ? $\mathrm{m}^{323}$ | whirlpool |
| $w \mathrm{e}^{44}$ | left (side) |
| wəŋ ${ }^{44}$ | chin |
| $w \varepsilon^{212}$ | to paint |
| $\mathrm{w} \varepsilon \mathrm{n}^{44}$ | to sell |
| wřw ${ }^{312}$ năg ${ }^{35 ?}$ | to insult |


| Kháng | Gloss |
| :---: | :---: |
| win ${ }^{44}$ | wind |
| $\mathrm{ja}^{212}$ | internal grandmother |
| ja ${ }^{44}$ | medicine |
| $\mathrm{ja}^{44} \mathrm{cok}^{43}$ | poison |
| jan ${ }^{44}$ | light |
| jăı ${ }^{112}$ | to rest |
| jăn ${ }^{312} \mathrm{k}^{\mathrm{h}} \mathrm{j}^{323}$ | rested |
| jă ${ }^{44}$ | snail |
| jăn ${ }^{44}$ jăn ${ }^{44}$ | rainbow |
| jaw ${ }^{35 ?}$ | long |
| jo ${ }^{44}$ | I |
| joj ${ }^{117}$ | to stream |
| jom ${ }^{323}$ | to hunt |
| jon ${ }^{112}$ | to borrow |
| $\mathrm{j} \varepsilon^{212}$ | cheap |
| $\mathrm{j} \varepsilon^{212} \mathrm{cut}^{43}$ | rag for cleaning |
| $\mathrm{j} \varepsilon \mathrm{y}^{44}$ | to stand |
| jirk ${ }^{43}$ | excrement |
| jirk ${ }^{43}$ tăn ${ }^{35}$ | earlobe |
| jirk ${ }^{43} \mathrm{tan}^{35}$ | earwax |
| jirn ${ }^{212}$ | eel |
| jirn ${ }^{44}$ | chicken |
| $\mathrm{jirn}^{44} \mathrm{di}^{35}$ | chick |
| jirn ${ }^{44}$ kon $^{44}$ | cock |
| jirn ${ }^{44} \mathrm{~m} \varepsilon^{212}$ | hen |
| jiry ${ }^{212}$ | well |
| jin ${ }^{44}$ | afternoon |
| $\mathrm{jur}^{212}$ | far |
| $\mathrm{jum}^{323}$ | to go |
| jurr ${ }^{117}$ | coconut |
| jurm ${ }^{44}$ | easy |
| jun ${ }^{44}$ | soft |
| $2 \mathrm{a}^{352}$ | spicy |
| $\mathrm{Pa}^{44} \mathrm{de}^{312}$ | final particle (contrasting opinion) |
| Pai ${ }^{44} \mathrm{Prj}^{112}$ | stink |
| Păa ${ }^{323}$ | swollen |
| Paj ${ }^{352}$ | older brother |
| Paj ${ }^{44}$ bu:t ${ }^{43}$ | stale |
| Paj ${ }^{44}$ hom $^{44}$ | fragrant |
| Păj ${ }^{44} \mathrm{mlan}^{44}$ | fetid |
| Yăk ${ }^{12}$ | to bite |
| Pă ${ }^{12}$ | to chew (cow, buffalo) |
| Păm ${ }^{44}$ | clean |
| Păm ${ }^{44}$ | kind |
| Pă ${ }^{212}$ ?umn ${ }^{44}$ | shy |
| Păn4 | to hear |
| アă ${ }^{44} \mathrm{ca}^{323}$ | what |
| Păn ${ }^{44}$ căj ${ }^{35}$ | to hate |
| Pă ${ }^{44} \mathrm{c} \varepsilon^{11 ?}$ | ashamed |


| Kháng | Gloss |
| :---: | :---: |
| Pă ${ }^{44} \mathrm{humg}^{44}$ | jealous |
| Păn ${ }^{44}$ kat $^{\text {t2 }}$ | cold |
| Păn ${ }^{44}$ măk ${ }^{43}$ | to like |
| Păn ${ }^{44} \mathrm{mom}^{323}$ | sad |
| Păn ${ }^{44}$ murn $^{35}$ | to be delighted |
| Pă ${ }^{44}$ săn ${ }^{323}$ | urgent |
| Pă ${ }^{44}$ to ${ }^{212}$ | to miss |
| วă ${ }^{44} \mathrm{t}^{212}$ | to remember |
| Pan ${ }^{44} \mathrm{kan}^{44}$ | to open mouth |
| Păn ${ }^{44} \mathrm{mom}^{44}$ | grandparents |
| Pat ${ }^{43}$ | older brother-in-law |
| Păw ${ }^{323}$ | hot |
| P3j ${ }^{212}$ | bait/lure |
| P3j ${ }^{212}$ yă ${ }^{44}$ | to light (stove, fire) |
| $2 \mathrm{j}{ }^{44}$ | infant (human) |
| Poj ${ }^{44} \mathrm{kan}^{44}$ | younger sister |
| P>j ${ }^{44} \mathrm{k}^{\text {h }} \mathbf{u r j}{ }^{44}$ | younger brother-in-law |
| $2 \mathrm{j}{ }^{44} \mathrm{kon}^{44}$ | younger brother |
| Poj ${ }^{44}$ murn $^{44}$ | younger sister-in-law |
| P3k ${ }^{43}$ | to exit |
| ? $3 \mathrm{~m}^{323}$ | water |
| ${ }^{3} 9 \mathrm{~m}^{323} \mathrm{dom}^{323}$ | mucus |
| Pom ${ }^{323} 1 a^{43}$ | flood |
| $23 \mathrm{~m}^{323} \mathrm{no}{ }^{317}$ | milk |
| P9m ${ }^{323}$ nom ${ }^{323}$ | urine |
| $30 \mathrm{~m}^{323} \mathrm{yaj}^{44}$ | tear |
| Pom ${ }^{323} \mathrm{jurn}^{44}$ | saliva |
| 20m ${ }^{44} \mathrm{pu}^{323}$ | to keep |
| 2om ${ }^{44}$ Purt ${ }^{43}$ | blue |
| Pon ${ }^{44}$ | mother's younger sister |
| Pon ${ }^{44} \mathrm{jum}^{323}$ | to guide |
| P9n ${ }^{323}$ | external grandmother |
| $\mathrm{Pe}^{212}$ nom ${ }^{323}$ | to urinate |
| Pe ${ }^{212}$ jirk ${ }^{43}$ | to excrete |
| Pe ${ }^{44}$ | this (distal) |
| Pem ${ }^{323}$ | alive |
| Pen ${ }^{44}$ | to please |
| 2ck ${ }^{43}$ | pig |
| Pek ${ }^{43} \mathrm{di}^{35 ?}$ | piglet |
| Pek ${ }^{43} \mathrm{kon}^{323}$ | boar |
| Pek ${ }^{43} 10 \mathrm{j}^{44}$ | wild boar |
| Pek ${ }^{43} \mathrm{~m} \varepsilon^{212}$ | sow |
| Pep ${ }^{12}$ | learn |
| $\mathrm{Pr}^{212}$ | final particle to make question |
| $\mathrm{Pr}^{212}, \mathrm{j} 0^{357}$ | yet |
| Prj ${ }^{112}$ summ $^{44}$ | to decay |
| Prj ${ }^{117}$ | rotten |
| Prj ${ }^{117}$ sum $^{44}$ | decomposed (become) |
| Prk ${ }^{12}$ | chest |


| Kháng | Gloss |
| :---: | :---: |
| Prn ${ }^{44}$ | to wear |
| Prp ${ }^{43}$ yăn ${ }^{44}$ | charcoal |
| Pirw ${ }^{212}$ | weak |
| Pirw ${ }^{212}$, $\mathrm{kcm}^{212}$ | terrible |
| Pin ${ }^{44}$ | ablaze |
| Pin ${ }^{44}$ | cooked (already) |
| Pum ${ }^{212}$ | pumpkin |
| Pum ${ }^{212}$ | thin |
| Pu ${ }^{44}$ | yes |
| Purj ${ }^{323}$ | older sister |
| Purt ${ }^{43}$ | chilly |
| Pun ${ }^{44}$ | afraid |
| Pum ${ }^{44}$ | bone |
| Puy ${ }^{44} \mathrm{p}^{\text {hr }}{ }^{43}$ | ribs |
| Puy ${ }^{44}$ pup $^{43}$ | backbone |
| Pupp ${ }^{43}$ yăn ${ }^{44}$ | crib |
| ? ${ }^{212}$ | aunt |
| Purj ${ }^{212}$ | dirty |
| Purj ${ }^{323}$ | guava |
| Purt ${ }^{43}$ | green |
| Pum ${ }^{323}$ | to hug |
| Pum ${ }^{44}$ | to leave |
| Pum ${ }^{44}$ | to return |
| Pun ${ }^{44}$ | dress |
| Puy ${ }^{212}$ | gun |
| Puy ${ }^{212}$ | to shut mouth |
| Pug ${ }^{44}$ | to come/arrive |

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