

Synchronic and diachronic phonology of Lavïa

A Wa language of Yunnan and Myanmar

Jackson T.-S. Sun
Academia Sinica

Lavïa, spoken in a belt across both sides of the Yunnan-Myanmar border, is an under-researched Wa language falling under the Waic subgroup of Palaungic in the Austroasiatic language family. This study investigates the sound system of Lavïa and traces its development from an ancestral Proto-Wa-Lawa phonological system. Modern Lavïa phonology is characterized by well-preserved sesquisyllabic structure, rich inventories of consonant and vocalic clusters, and lack of phonemic tone or phonation. Diachronically, Lavïa shows widely attested Waic sound changes as well as certain distinctive innovations which, among other things, yielded voiceless nasals and caused huge upheavals in its vocalic system. These diagnostic innovations help define Lavïa's unique position within the Wa language cluster.

Keywords: Austroasiatic, Palaungic, Wa cluster, synchronic, diachronic phonology

1. Introduction

Of the vast array of Wa-Lawa languages¹ and dialects spoken in the Yunnan Province of China and neighboring areas in Burma,² one finds in the Chinese sources a heterogeneous “dialect group” called Awa 阿佤, which is said to include four “subdialects”, namely Masan 馬散, Awalai 阿佤來, Damangnuo 大芒糯, and

-
1. Wa-Lawa is one of the two language clusters under Waic (the other being Blang), one of the six sub-branches of the Palaungic branch in the Austroasiatic family (Diffloth 1980: 13–15; ms.).
 2. One reviewer points out that “The number of Wa speakers in Thailand is minimal, and they are all relatively recent arrivals from Burma; there is no distinctive variety of Wa spoken in Thailand”.

Xiyun 細允 (Zhou et al. 2004). This is most misleading. We can now avow that Masan and Xiyun are distinct Wa-Lawa languages, to be renamed Lavìa (*la-viəʔ*) and Va (*vàʔ*; Sun 2018b) based on their autonyms. Moreover, Awalai and Damangnuo may also turn out to be separate languages on a par with Lavìa, in view of their special phonological developments.³

Lavìa is a non-tonal, non-phonational language spoken in a belt of communities (bearing various autonyms like *ʔa vɛʔ*, *ɽɽ viaʔ*, *ʔa vɔʔ*, *viaʔ*, and *vɛʔ*) stretching across northern Ximeng 西盟 County of Pu'er 普洱 City, Yunnan, and adjacent areas in northern Shan State of Myanmar, as shown on the following map:



Figure 1. Map of the Lavìa-speaking area

The first substantial work on this language was Drage (1907), in which an unspecified variety of Lavìa was described using a shaky transcription. Linguistically reliable work on Lavìa was not accessible until the national surveys of minority languages of China conducted in the 1950's, resulting in the publication of good-quality data on the Masan variety of Lavìa (Zhou & Yan 1984: 107–153). Many years afterwards, further data on the Zhongke 中課, Yuesong 岳送, and Yancheng 岩城 varieties of Lavìa also became available (Zhou et al. 2004).⁴

3. For example, these Wa-Lawa languages lost the PWL prenasal (**mpaŋ* 'ladder' > Lavìa *npvŋ*, but Awalai and Damangnuo *pŋ*), and failed to share certain characteristic Lavìa innovations, such as stop epenthesis in PWL nasal+liquid clusters (**ʔmraʔ* 'steal' > Lavìa *nprivʔ*, but Awalai *mriaʔ*, Damangnuo *mrɔʔ*) and certain vowel breaking changes induced by onset voicing (**gaŋ* 'mouse' > Lavìa *kʰivŋ*, but Awalai *kʰaŋ*, Damangnuo *kʰɔŋ*) (Zhou et al. 2004).

4. It is fortunate for our field that Zhou & Yan (2004) decided to include comparative data in their valuable book from the conservative Lavìa variety of Yancheng, now part of Myanmar.

This article presents a phonological sketch of the Lavia variety of Banzhe 班哲 (*pa-cʰək*) Village, Mengka 勐卡 (*məŋkʰa*) Town in Ximeng County, on the basis of firsthand materials collected in Kunming.

This paper is organized as follows: §2 presents the synchronic phonological system of Banzhe Lavia (hereafter: Lavia); §3 discusses the changes which shaped the modern Lavia phonology from the Proto-Wa-Lawa (PWL) sound system as reconstructed by Diffloth (1980; ms.). The salient traits of Lavia synchronic and diachronic phonology, and its typological importance as a Waic language are presented in the concluding section.

2. Synchronic phonology

2.1 Word structure

As is typical in Mon-Khmer languages, well-formed words in Lavia can be monosyllabic or sesquisyllabic, or a compound comprising elements exemplifying either syllable type. In sesquisyllabic words, a phonologically reduced minor syllable precedes a stressed major syllable. The iambic stress pattern also carries over to compound words, although the first compound element is not phonologically reduced; e.g. *kuan ʔiá* ‘chick’; *lai muóʔ* ‘time’; *vu vióʔ* ‘get dark’; *lu lié* ‘swim around’.

2.2 The minor syllable

Seven minor syllables occur in our data: *ʔa-*, *pa-*, *ka-*, *ca-*, *la-*, *ra-*, and *si-*. Minor syllables are unstressed with indistinctly pronounced vowels. The minor syllables, set off by a hyphen in this work, are realized with fully articulated vowels in citation or deliberate speech only. The major functions of minor syllables in Lavia are lexical, as in (1), as well as derivational, as in (2):

- | | | | | |
|-----|---------------|-------------|------------------|--------------|
| (1) | <i>taiʔ</i> | ‘vegetable’ | <i>ka-taiʔ</i> | ‘small hole’ |
| | <i>lian</i> | ‘spindle’ | <i>ʔa-lian</i> | ‘wheel’ |
| (2) | <i>nprivʔ</i> | ‘steal’ | <i>pa-nprivʔ</i> | ‘thief’ |
| | <i>vuok</i> | ‘reap’ | <i>si-vuok</i> | ‘sickle’ |
| | <i>lian</i> | ‘spindle’ | <i>ka-lian</i> | ‘spin’ |
| | <i>si-tɛʔ</i> | ‘eight’ | <i>ʔa-tɛʔ</i> | ‘eighty’ |

2.3 The major syllable

The Lavia syllable canon can be formulated as (C)C(C)-V(V)(V)(C), which is further analyzable into onset (C)C(C) and rhyme V(V)(V)(C) portions. The theoretically possible sequence CCCVVVC is not attested. The other syllable types licensed by this canon are illustrated below:

- (3)
- | | |
|--------|---|
| CV | <i>ŋu</i> ‘earthworm’; <i>ʔa</i> ‘smegma’ |
| CVC | <i>kap</i> ‘chin’; <i>ʔem</i> ‘raw, uncooked’ |
| CVV | <i>lai</i> ‘squirrel’; <i>ʔai</i> ‘first male child’ |
| CVVC | <i>kias</i> ‘serow’; <i>ʔauk</i> ‘chest’ |
| CVVV | <i>ŋuai</i> ‘thirty’; <i>muai</i> ‘heal, recover’ |
| CVVVC | <i>kən ɲiauʔ</i> ‘some’; <i>piauk</i> ‘tie up (animals or people)’ |
| CCV | <i>kla</i> ‘testicle’; <i>plv</i> ‘expand’ |
| CCVC | <i>pʰroʔ</i> ‘blanket’; <i>klap</i> ‘stick to [v]’ |
| CCVV | <i>plai</i> ‘liquor’; <i>ncʰai</i> ‘estimate’ |
| CCVVC | <i>pʰries</i> ‘wild boar’; <i>kʰruoʔ</i> ‘thin (of one’s body)’ |
| CCVVV | <i>pluai</i> ‘bead’; <i>pʰriau</i> ‘fierce’ |
| CCVVVC | <i>npiaunʔ</i> ‘gourd flute’ |
| CCCv | <i>nkwi</i> ‘bamboo mat’; <i>npʰla</i> ‘waste time’ |
| CCCVC | <i>nkʰloc</i> ‘trigger’; <i>nkʰwac</i> ‘hiccup’ |
| CCCvV | <i>nprie</i> ‘dirty’; <i>nkʰwia</i> ‘hover, walk in circles’ |
| CCCvVC | <i>nkwiʋŋ ɲiʋʔ</i> ‘foundation (of house)’; <i>nkʰlauŋ</i> ‘height’ |
| CCCvVV | <i>npʰluai</i> ‘switch on (light), set afire’ |

2.3.1 Onsets

2.3.1.1 Simple onsets

Lavia has twenty-five simplex onset consonants:

- (4)
- | | | | | |
|-----------|-----------|-----------|-----------|----------|
| <i>p</i> | <i>t</i> | <i>c</i> | <i>k</i> | <i>ʔ</i> |
| <i>pʰ</i> | <i>tʰ</i> | <i>cʰ</i> | <i>kʰ</i> | |
| <i>m</i> | <i>n</i> | <i>ɲ</i> | <i>ŋ</i> | |
| <i>ɱ</i> | <i>ɳ</i> | <i>ʃ</i> | <i>ʝ</i> | |
| <i>f</i> | <i>s</i> | | | <i>h</i> |
| <i>v</i> | <i>z</i> | | | |
| | <i>r</i> | | | |
| | <i>l</i> | | | |
| <i>w</i> | | | | |

The affricate series symbolized here as *c*, *cʰ*, *nc*, and *ncʰ* are realized as alveolopalatals [tɕ], [tɕʰ], [ɲtɕ], and [ɲtɕʰ] before *i*; elsewhere, pronunciation varies between alveolar and alveolopalatal. The dental fricatives *s* and *z* are also pro-

nounced as prepalatals before *i*. Velar and palatal nasals contrast before *i*, as shown by minimal pairs like the following:

- (5) *ŋi* 'gums'
ɲi 'second male child'

The voiceless continuents *ɲ*, *ɳ*, *ɲ̥*, *ɳ̥* are a notable feature, absent from most Waic languages.⁵ The phoneme *h*- is usually pronounced as a velar [x] or uvular [χ]. The phoneme *r* is normally a tap, often pre-voiced in word-initial position [ʳ-]. The voiced labial fricative *v*, varying in realization between a labiodental [v] and a bilabial [β], is distinct from the glide *w*, a marginal onset which occurs in Chinese loans only:

- (6) *va* 'a personal name'
wa 'tile < Chinese 瓦'

The glottal stop /ʔ/ does not contrast with its absence at the syllable onset position.

Examples of these onset consonants are given below:

- (7) *p*- *ʔa-pac* 'bridge'; *pak* 'bald, barren'
p^h- *p^hɔm* 'fart'; *p^hak* 'wash (something hard, with a brush or scrubber)'
m- *ma* 'dry field'; *mək* 'mince'
ɲ- *ɲa* 'bamboo strip'; *ɲɔŋ* 'hear'
f- *faʔ* 'monkey'; *fap* 'yawn'
v- *ʔa-vie* 'tiger'; *vum* 'scar'
t- *tau* 'weasel'; *tək* 'kindle'
t^h- *t^hu* 'peak'; *t^ha* 'ignore'
n- *nim* 'urine'; *nɔh* 'laugh'
ɳ- *ɳam* 'blood'; *ɳən* 'topple'
s- *sup* 'tobacco'; *sak* 'full (with food)'
z- *ʔa-zuonɲ* 'thunder, dragon'; *zuonɲ* 'know'
l- *la* 'tea'; *luom* 'sharp'
r- *rɔŋ* 'pole'; *raiʔ* 'far, deep'
c- *cak* 'sambhar deer'; *cək* 'buy'
c^h- *c^hə* 'bag, pocket'; *c^ha* 'poor'
ɲ- *ɲivʔ* 'house'; *ɲies* 'smile, sneer'
ɲ̥- *ɲ̥ak ɲai* 'eye secretions'; *ɲ̥up* 'catch'
k- *kak* 'branch'; *kɔi* 'have, exist'
k^h- *k^hauʔ* 'tree'; *k^hat* 'rough, coarse'
ŋ- *ŋuo* 'fire'; *ŋuom* 'sit'

5. The Paraok Wa, for example, has breathy-aspirated nasals rather than voiceless nasals (Watkins 2002: 117).

ŋ-	ŋɔʔ 'rice plant'; ŋɛ 'pregnant'
h-	hoc 'muscle'; hauk 'ascend'
ʔ-	ʔak ʔom 'crossbow'; ʔiaŋ 'return'

2.3.1.2 Cluster onsets

A Lavia cluster onset is of the structure (C₁)C₂(C₃)-. The C₁ slot can be filled only by a prenasal *n*- (see below), whereas the C₃ (or medial) slot only by *-r*-, *-l*- and *-w*-. Bilabial and velar stops combine with the two liquid medials *l* and *r* to form a major type of cluster initials. The medial *-w*- is phonetically labiodental. Velar stops in combination with *l* are often realized as uvulars:

(8)	<i>pl</i>	<i>pr</i>	<i>kl</i>	<i>kr</i>	<i>kw</i> [kv]
	<i>p^{hl}</i>	<i>p^{hr}</i>	<i>k^{hl}</i>	<i>k^{hr}</i>	<i>k^{hw}</i> [k ^{hf}]

Another major cluster type consists of stops or stop-liquid clusters preceded by a homorganic nasal, represented herein by /n/. These segment sequences are not treated as unitary *prenasalized stops* in our analysis since, at least in some cases, the prenasal element is a separate morpheme serving a derivational function (e.g. *hlaun* 'high' *nk^{hl}laun* 'height'). Unaspirated stops in these clusters are redundantly voiced, e.g. *npruon* [mbruon] 'horse'. The prenasal element is however always voiced, even before voiceless aspirated stops, e.g. *np^{hl}la* [mp^{hl}la] 'waste time'.

(9)	<i>np</i>	<i>nt</i>	<i>nc</i>	<i>nk</i>
	<i>np^h</i>	<i>nt^h</i>	<i>nc^h</i>	<i>nk^h</i>
	<i>npl</i>			<i>nkl</i>
	<i>np^{hl}</i>			<i>nk^{hl}</i>
	<i>npr</i>			<i>nkr</i>
	<i>np^{hr}</i>			<i>nk^{hr}</i>
				<i>nk^w</i>
				<i>nk^{hw}</i>

(10)	<i>np</i> -	<i>npa</i> 'thigh'; <i>npoŋ</i> 'dam up'
	<i>np^h</i> -	<i>np^{hi}v</i> 'cut diagonally'; <i>np^hok</i> 'ride'
	<i>pl</i> -	<i>plɛʔ</i> 'fruit'; <i>plɔk</i> 'boil [v]'
	<i>p^{hl}</i> -	<i>p^{hl}lən</i> 'sprout [N]'; <i>p^{hl}ivk</i> 'blind'
	<i>npl</i> -	<i>nplɛʔ tɛʔ</i> 'arm'; <i>nplɔc</i> 'deceive'
	<i>np^{hl}</i> -	<i>np^{hl}en</i> 'convex'; <i>np^{hl}la</i> 'waste time'
	<i>pr</i> -	<i>prɛ</i> 'hail'; <i>prɛm</i> 'old (as of things)'
	<i>p^{hr}</i> -	<i>p^{hr}is</i> 'rash, measles'; <i>p^{hr}ivʔ</i> 'eat (meal)'
	<i>npr</i> -	<i>npruon</i> 'horse'; <i>nprivʔ</i> 'steal'
	<i>np^{hr}</i> -	<i>np^{hr}an</i> 'hoe'; <i>np^{hr}o</i> 'blow (air)'
	<i>nt</i> -	<i>ntɔŋ</i> 'head'; <i>ntɔk</i> 'install'
	<i>nt^h</i> -	<i>nt^huok</i> 'corner, angle, country'; <i>nt^hə</i> 'put down'

<i>nc-</i>	<i>ncauk</i> ‘spoon’; <i>ncət</i> ‘put out (fire)’
<i>nc^h-</i>	<i>nc^{hi}</i> ‘declivity’; <i>nc^{hun}</i> ‘wait’
<i>nk-</i>	<i>nkəs</i> ‘porcupine’; <i>nkaŋ</i> ‘tie (knot)’
<i>nk^h-</i>	<i>nk^hɛŋ</i> ‘gall’; <i>nk^həʔ</i> ‘glad’
<i>kl-</i>	<i>klaŋ</i> ‘eagle, hawk’; <i>kliɑŋ</i> ‘twist’
<i>k^hl-</i>	<i>k^hlaʔ</i> ‘trousers’; <i>k^hlap tɛʔ</i> ‘clap’
<i>nkl-</i>	<i>nkluoʔ</i> ‘mud’; <i>nklus</i> ‘explode’
<i>nk^hl-</i>	<i>nk^hluop</i> ‘scale’; <i>nk^hlat</i> ‘frighten’
<i>kr-</i>	<i>kraʔ</i> ‘road, way’; <i>krəi</i> ‘wither’
<i>k^hr-</i>	<i>k^hrəŋ</i> ‘object, possession’; <i>k^hrep</i> ‘cut with scissors’
<i>nkr-</i>	<i>nkriŋ</i> ‘termite’; <i>nkruoʔ</i> ‘burp’
<i>nk^hr-</i>	<i>nk^hrəŋ</i> ‘small bamboo basket’; <i>nk^hrak</i> ‘snore’
<i>kw-</i>	<i>kwe</i> ‘stir’
<i>k^hw-</i>	<i>k^hwit</i> ‘stir’
<i>nkw-</i>	<i>nkwiʋʔ niaʔ</i> ‘foundation of house’; <i>nkwi^h</i> ‘crack [v]’
<i>nk^hw-</i>	<i>nk^hwia</i> ‘hover’; <i>nk^hwac</i> ‘hiccup’

A number of additional clusters, *hl-*, *hr-*, and *mr-*, are also attested; their usual phonetic realizations being *hl-* ([ɬ]), *hr-* ([χr]), *mr-* ([m̄r]). That is, the /h/ element in /hl/ and /hr/ is always voiceless.

- (11) *hl-* *hlaʔ* ‘leaf’; *hlak* ‘intelligent’
hr- *hraŋ* ‘tooth’; *hre* ‘thin (as of books)’
mr- *mrɛʔ* ‘quantity, amount’; *mraŋ* ‘tattered’

2.3.2 Rhymes

2.3.2.1 Nuclear vowels

2.3.2.1.1 Simplex vowels

Lavía distinguishes the following monophthongal vowels:

- (12)
- | | | |
|----------|----------|----------|
| <i>i</i> | <i>i</i> | <i>u</i> |
| <i>e</i> | | <i>o</i> |
| | <i>ɛ</i> | <i>ɔ</i> |
| | <i>a</i> | <i>ɐ</i> |

The lower central vowel phoneme *ə* is phonetically [ʌ]. The language makes elaborate distinctions among back vowels. In addition to *u*, *o*, and *ɔ* common in Waic languages, *ɐ* is also additionally distinctive, as shown by these minimal sets:

- (13) *som* ‘want, desire’ *ʔoʔ* ‘crow (as of rooster)’
sɔm ‘night’ *ʔɔʔ* ‘bamboo’
sɐm ‘eat (rice)’ *ʔɐʔ* ‘flaunt, show off’
sum ‘till, plough’

Vowels in open syllables are markedly lengthened. The higher mid vowels *e*, *o*, *ə* tend to be realized as falling diphthongs, especially in open syllables; e.g. *le* [lei] ‘cup’, *po* [pou] ‘fly [v]’, *klə* [klai] ‘tadpole’. Another notable allophonic rule is glide insertion between a velar onset and the vowel *a*; e.g. *kaʔ* ‘fish’ [k^ɛaʔ].

- (14)
- | | |
|----------|---|
| <i>a</i> | <i>ma</i> ‘dry field’; <i>hak</i> ‘skin’ |
| <i>i</i> | <i>mi</i> ‘rich’; <i>lik</i> ‘pig’ |
| <i>u</i> | <i>mu</i> ‘crawl’; <i>p^huk</i> ‘scoop’ |
| <i>e</i> | <i>me</i> ‘retreat’; <i>ɲem</i> ‘nail, claw’ |
| <i>ɛ</i> | <i>mɛʔ</i> ‘bleat’; <i>si-kɛ</i> ‘be blocked’ |
| <i>o</i> | <i>mo</i> ‘refine (ore)’; <i>ntok</i> ‘lead (the way)’ |
| <i>ɔ</i> | <i>mɔʔ</i> ‘hide something’; <i>lɔk</i> ‘(of water) boil’ |
| <i>v</i> | <i>mɔ</i> ‘broadcast (seeds)’; <i>ɲvək</i> ‘hat’ |
| <i>ə</i> | <i>mə</i> ‘boundary’; <i>ncək</i> ‘key’ |
| <i>i</i> | <i>mi</i> ‘silver, money’; <i>nk^his</i> ‘badger’ |

2.3.2.1.2 Vowel clusters

Lav̄ia has an extensive inventory of vowel clusters in three types: (a) rising diphthongs *ia*, *ie*, *iə*, *iɐ*, *ua*, *uo*; (b) falling diphthongs *ai*, *ui*, *oi*, *ɔi*, *vi*, *əi*, *ii*, *au*, *iu*; (c) triphthongs *iau*, *uoi*, *uai*.

The rising diphthongs *ie* and *iə* are interchangeable in closed syllables (phonemicized as *ie*) but contrastive in open ones, as shown by the minimal pair *ɲie* ‘pregnant’ vs. *ɲiə* ‘thrust forcibly’.

The offglides *-i* and *-u* in the falling diphthongs could alternatively be treated as consonantal codas *-j* and *-w*, and in so doing simplify the rhyme system by eliminating all falling diphthongs. Little can be gained by this analysis for a diphthong-rich language like Lav̄ia, however, as some of these complex vocoids themselves take consonantal codas (e.g. *la-ʔaih* ‘sweat’, *ka-taiʔ* ‘hole’, *kən ɲiauiʔ* ‘some’). The consonantal-coda analysis of the offglides would create *cluster codas*, violating the typical Mon-Khmer syllable canon.

Of the triphthongs, the sequence *uoi*, distinct from *ui*, is another characteristic sound of the language. The contrast is established by minimal sets like the following: *lui* ‘swim’ vs. *luoi* ‘make same mistake again’; *ɲui* ‘lower (head)’ vs. *ɲuoi* ‘fifth child’; *mui* ‘large tree sp. with edible berries’ vs. *muoi* ‘common cattle’.

Examples of the attested vowel clusters are:

- (15)
- | | |
|-----------|--|
| <i>ia</i> | <i>kia</i> ‘look’; <i>tiak</i> ‘lose, away’ |
| <i>ie</i> | <i>t^hie</i> ‘duck’; <i>k^hiec</i> ‘shy, ashamed’ |
| <i>iə</i> | <i>ɲiə</i> ‘littered (with corpses)’; <i>ɲiə</i> ‘thrust forcibly’ |
| <i>iɐ</i> | <i>nt^hiɐ</i> ‘dike’; <i>vⁱvʔ</i> ‘bring back’ |
| <i>ua</i> | <i>kua klan</i> ‘rapids’; <i>suat</i> ‘prick’ |
| <i>uo</i> | <i>nk^huo</i> ‘brain, marrow’; <i>np^huoʔ</i> ‘increase’ |

<i>ai</i>	<i>ŋai</i> ‘eye’; <i>saiʔ</i> ‘ache, be ill’
<i>ui</i>	<i>nk^hui ʔia</i> ‘cockscorn’; <i>p^hrui</i> ‘catch fire’
<i>oi</i>	<i>ʔoi</i> ‘eighth female child’; <i>koi</i> ‘Lahu’
<i>ɔi</i>	<i>mɔi</i> ‘axe’; <i>kɔi</i> ‘have, exist’
<i>vi</i>	<i>kvi</i> ‘cicada species’; <i>ŋviʔ</i> ‘moo (of female buffaloes)’
<i>əi</i>	<i>kəi</i> ‘thread’; <i>nk^həiʔ</i> ‘torch’
<i>ii</i>	<i>p^hii</i> ‘person, human’; <i>t^hii</i> ‘take’
<i>au</i>	<i>ka-ŋau</i> ‘lungs’; <i>zaʊŋ</i> ‘village’
<i>iu</i>	<i>si-kliu</i> ‘willow’; <i>liuŋ</i> ‘graze [VT]’
<i>iau</i>	<i>miau</i> ‘cat’; <i>piauk</i> ‘tie up (animal)’
<i>uoi</i>	<i>juoi</i> ‘waist’; <i>k^huoi</i> ‘cautious’
<i>uai</i>	<i>ŋuai</i> ‘thirty’; <i>tuai</i> ‘strike (match)’

2.3.2.2 Codas

Lavía distinguishes the following consonantal codas:

(16)	<i>-p</i>	<i>-t</i>	<i>-c</i>	<i>-k</i>	<i>-ʔ</i>
	<i>-m</i>	<i>-n</i>	<i>-ŋ</i>	<i>-ŋ</i>	
		<i>-s</i>	<i>-h</i>		

Stop codas are unreleased. Between certain vowels and the coda *-n*, a transitional schwa is inserted; e.g. *ʔa-pon* [ʔapoən] ‘female’; *hɔn* [xɔən] ‘Chinese yam’. Between *i* and velar codas, the vowel *i* is automatically inserted, creating a phonetic-level diphthong [ii], e.g. *t^hiŋ* [t^hi:iŋ] ‘big’; *lik* [li:ik] ‘pig’. Velar codas are conspicuously labialized after *u*, a feature reminiscent of Vietnamese: *auk* [ʔauk^w] ‘chest’; *zaʊŋ* [zaʊŋ^w] ‘village’. After high front vowels, *-h* is realized as a palatal [ç].

(17)	<i>-p</i>	<i>kap</i> ‘chin’
	<i>-t</i>	<i>kat</i> ‘blocked’
	<i>-c</i>	<i>pac</i> ‘dig with hand’
	<i>-k</i>	<i>kak</i> ‘branch’
	<i>-ʔ</i>	<i>kāʔ</i> ‘fish’
	<i>-m</i>	<i>kam</i> ‘husk’
	<i>-n</i>	<i>nkan</i> ‘ramie’
	<i>-ŋ</i>	<i>kaŋ</i> ‘paddy field’
	<i>-ŋ</i>	<i>kaŋ</i> ‘bolt (door)’
	<i>-s</i>	<i>nkas</i> ‘foot’
	<i>-h</i>	<i>kah</i> ‘untie’

3. Phonological history

In this section, the sound changes that molded the modern Laviá phonological system out of the ancestral PWL system are identified.

3.1 Sound changes affecting onsets

3.1.1 Simplex onsets

The PWL simple onset inventory contained the following twenty-three consonants:

- (18)
- | | | | | |
|------|------|------|------|-----|
| *p- | *t- | *c- | *k- | *ʔ- |
| *ph- | *th- | *ch- | *kh- | |
| *b- | *d- | *j- | *g- | |
| *m- | *n- | *ɲ- | *ŋ- | |
| | | *s- | | *h- |
| | | *r- | | |
| | | *l- | | |
| *w- | *y- | | | |

Most of these survived as such in Laviá, except for the voiced stops and the glides. The plain voiced stops *b-, *d-, *g-, *j- transformed into voiceless aspirated stops, while the glides *w- and *y- strengthened to voiced spirants v- and z-:

- (19)
- | PWL | Laviá | | PWL | Laviá | |
|--------------|---------------------|----------------|--------|--------------------|-----------------|
| *pon | pɔn | ‘four’ | *cak | cak | ‘sambhar deer’ |
| *phvɔn | p ^h uan | ‘five’ | *chyɔŋ | c ^h auŋ | ‘light(weight)’ |
| *bɛʔ | p ^h eʔ | ‘goat’ | *jeŋ | c ^h eŋ | ‘sew’ |
| *maʔ | maʔ | ‘mother’ | *naʔ | ɲivʔ | ‘house’ |
| *wak | viɔk | ‘insect, worm’ | *yaʔ | zaʔ | ‘grandmother’ |
| *tɔŋ | tɔŋ | ‘roast’ | *koh | kauh | ‘get up’ |
| *th(ə)y | k ^h auʔ | ‘plough’ | *khiʔ | k ^h eʔ | ‘firewood’ |
| | t ^h ai | [N]’ | | | |
| *daŋ | t ^h ivɔŋ | ‘cross’ | *gic | k ^h ic | ‘burn [vT]’ |
| **()nim/*nim | nim | ‘urine’ | *lɔŋaʔ | la-
ɲivʔ | ‘sesame’ |
| *siʔ | seʔ | ‘head louse’ | *ʔip | ʔəp | ‘cooked rice’ |
| *rep | rip | ‘grass’ | *hum | hoŋ | ‘bedbug’ |
| *les | les | ‘six’ | | | |

3.1.2 Complex onsets

PWL had a rich system of cluster onsets. Several distinct types are recognized (Diffloth 1980: §4).

3.1.2.1 Preglottalized sonorants

The PWL preglottalized sonorants merged into the corresponding plain sonorants. The erstwhile preglottality had however triggered different vowel developments from PWL plain sonorant onsets, see §3.2.1 below:

(20)	PWL	Lavía		PWL	Lavía	
	*ʔmoʔ	mauʔ	‘rope’	*ʔrɔŋ	rɔŋ	‘house-pole’
	*ʔlaŋ	laŋ	‘long’	*ʔyoŋ	zauŋ	‘village’

3.1.2.2 Preaspirated sonorants

PWL clusters of this type were composed of sonorants preceded by an *h*-like element. The preaspiration is generally preserved in Lavía, but the actual realizations differ according to the sonorant type.

Preaspirated nasals became fused into unitary *voiceless nasals* in Lavía, creating an innovative manner type among onset consonants. The PWL *h+w* combination also turned into a distinct fricative *f*, further enriching the onset inventory. The PWL cluster **hr-* and **hl-* remained as complex onsets in Lavía – direct evidence that the so-called ‘preaspirated’ consonants in PWL were once true clusters:

(21)	PWL	Lavía		PWL	Lavía	
	*hnam	ɲam	‘blood’	*hraŋ	hraŋ	‘tooth’
	*hwaʔ	faʔ	‘monkey’	*hloŋ	hlaŋ	‘high’

3.1.2.3 Post-glottalized liquids

Certain PWL sesquisyllabic forms were reconstructed with liquid-onset minor syllables in combination with ʔ-onset major syllables. These forms are preserved as such in Lavía. Interestingly, simplification by way of syllable coalescence has already set in, and alternative monosyllabic pronunciations with simple liquid onsets are also permitted:⁶

(22)	PWL	Lavía	
	*rəʔom	ra-ʔɔm ~ rɔm	‘water’
	*ləʔa	ra-ʔa ~ ra	‘two’
	*ləʔy	la-ʔuai ~ luai	‘three’

6. Some exceptions are found; e.g. *la-ʔɔs* ~ **lɔs* ‘grease’ and *ra-ʔaŋ* ~ **raŋ* ‘rock’

3.1.2.4 Stop or nasal plus liquid clusters

With PWL onsets of the nasal+liquid type, stop epenthesis occurred after the nasal element, whereas in the case of the stop+liquid type, the liquid element survived as such:

(23)	PWL	Lavïa		PWL	Lavïa	
	*ʔmraʔ	npriʋʔ	‘steal’	*prem	prem	‘old, used’
	*səŋroŋ	nkruoŋ	‘knee’	*braʔ	p ^h riʋʔ	‘eat (juicy food)’

3.1.2.5 Other consonant cluster types

A number of other complex onset types are posited for PWL, including prenasalized stops, *s+nasal, *r+consonant, *stop+stop sequences, and even more complicated combinations.

The prenasal element is well attested in Lavïa.⁷

(24)	PWL	Lavïa		PWL	Lavïa	
	*mpɔŋ	npɔŋ	‘ladder’	*ndəut	nt ^h ut	‘snap (of a thread)’
	*mper	npiu	‘gourd’	*ndah	nt ^h iʋh	‘slap’
	*ntiŋ	ntiaŋ	‘wall’	*(r)ŋ- goŋ	nk ^h uoŋ	‘pillow’
	*ntak	ntak	‘tongue’	*ŋgoʔ	nk ^h uoʔ	‘embers’
	*mboh	np ^h uoh	‘face’		ŋuo	

The other PWL clusters appear to be sesquisyllabic in nature, involving minor syllables containing *sa-, *ra-, and others, some of which are directly kept in the Lavïa reflexes:

(25)	PWL	Lavïa	
	*sə-ma	si-mia	‘seed’
	*rə-pon	ra-pɔn	‘forty’
	*kə-tɔm	ka-tɔm	‘egg’

But in some cases, the Lavïa forms contain minor syllables different from those posited in the PWL reconstructions (especially *rə-):⁸

7. In a number of cases the Lavïa forms do not reflect any nasal element in the protoforms; e.g. PWL *(n)tay > Lavïa tai ‘skirt’; PWL *rndak > Lavïa t^hiʋk ‘palm, sole’. As pointed out by one reviewer, the change of voiced (and nasal+voiced) to voiceless aspirated stops (e.g. PWL *mb- > /np^h/ [mp^h]) must be chronologically ordered before the change of *nasal+voiceless unaspirated to phonetically voiced stops (e.g. PWL *mp- > /np/ [mb]).

8. However, even closely related Lavïa varieties sometimes show divergent minor syllables for the same root. Consider the word for ‘tiger’: Banzhe ʔa-vie, Masan ʔa-vi, Zhongke ra-ve, Yancheng si-vvi.

(26)	PWL	Lavïa		PWL	Lavïa	
	*rə-way	ʔa-vie	‘tiger’	*rə-waʔ	la-viaʔ	‘Lavïa (autonym)’
	*rə-mpik	ʔa-pac	‘bridge’	*rə-mɔs	la-muos	‘banana’
	*rə-den	ka-t ^h ep	‘navel’			

3.2 Sound changes affecting nuclei

3.2.1 PWL vowels

The vocalic inventory of PWL contained nine vowels, with no length distinction:

(27)	*i		*i	*u
		*e		*o
		*ɛ		*ɔ
			*a	*v

Almost all these proto vowels underwent splitting conditioned by voicing of the proto onsets, or articulation places of the proto codas, or both. It should be noted that onset voicing as a conditioning factor for vowel splitting refers to voicing of a voiced consonant with or without a prenasal or liquid medial; in other words, *b(r)-, m(r)- and *mb- are ‘voiced’ in this sense but *hm-, *ʔm- and *mp- are not.⁹

3.2.1.1 PWL *a

The unrounded low vowel *a continued unchanged in Lavïa when the proto onset was a voiceless obstruent, or a preglottalized or preaspirated sononant:

(28)	PWL	Lavïa		PWL	Lavïa	
	*paʔ	paʔ	‘you [DU]’	*()-ŋ-ʔar	ŋa	‘twenty’
	*klaŋ	klaŋ	‘eagle’	*hnaŋ	naŋ	‘wear around neck’
	*sak	sak	‘sated’	*ʔmar	<u>ma</u> ruok	‘dry field’

When the proto onset was voiced, *a underwent breaking into *iv* or *ie* depending on the proto coda: *iv* if the coda was a guttural (i.e. velar or glottal) (29), and *ie* otherwise (30):¹⁰

(29)	PWL	Lavïa		PWL	Lavïa	
	*braʔ	p ^h riʔ	‘eat’	*rak	riʔk	‘call (as of an animal)’
	*naʔ	niʔ	‘house’	*gaŋ	k ^h ivŋ	‘mouse, rat’
	*wah	viʔh	‘wide’	*səŋa	si-ŋiv	‘green’

9. For extended discussion of the notion of voicing “permeability” with reference to tonogenesis, register genesis, and vowel breaking in modern Waic languages, see Diffloth (1980: 33ff).

10. Similar differentiation of diphthongs conditioned by different proto codas could also be at work in Drage’s Wa data. Owing to the erratic transcription in this source, however, this fact escaped Diffloth’s notice (1980: 38–39).

(30)	PWL	Lavïa		PWL	Lavïa	
	*bam	p ^h iem	‘chew’	*kənas	nies	‘sneer’
	*yam	ziem	‘weep’	*wac	viec	‘knife’
	*sənat	si-niet	‘gun’	*gac	k ^h iec	‘shy’
	*gat	k ^h iet	‘very’	*baŋ	p ^h iɛŋ	‘white’
	*wan	vien	‘tie up’			

3.2.1.2 PWL *i

The PWL high front vowel *i is kept unchanged in Lavïa with a voiced onset:¹¹

(31)	PWL	Lavïa		PWL	Lavïa	
	*lih	lih	‘go down’	*diŋ	t ^h iŋ	‘older paternal uncle’
	*lik	lik	‘pig’	*(kə)-bit	p ^h ic	‘glutinous’
	*gis	k ^h is	‘salt’	*ŋgri?	ŋkri?	‘pestle’
	*gin	k ^h in	‘draw (water)’	*ŋgi?	ŋk ^h i?	‘pine’

After voiceless onsets, *i diphthongized to *ia* before *-ŋ (32),¹² and lowered to *ɛ* otherwise (33):¹³

(32)	PWL	Lavïa		PWL	Lavïa	
	*ʔiŋ	ʔiaŋ	‘return’	*ntiŋ	ntiaŋ	‘wall, partition’
	*s(ŋ)kiŋ	si-kiaŋ	‘ginger’	*kliŋ	ka-lian	‘spin (yarn)’
(33)	PWL	Lavïa		PWL	Lavïa	
	*khi?	k ^h ɛ?	‘firewood’	*kli?	k ^h ɛ?	‘penis’
	*khi?	k ^h ɛ?	‘moon’	*pli?	p ^h ɛ?	‘fruit’
	*mpi	m ^h ɛ	‘mattress’	*hri	h ^h ɛ	‘thin (of a book)’

3.2.1.3 PWL *i

With voiced onsets, the vowel *i exhibits two reflexes depending on the coda. It lowered and moved further backed to *ə* (phonetically [ʌ]) before a guttural coda (34), and stays as *i* after other codas (35):

11. Exceptions: PWL *kədi? > t^he? ‘one’.

12. The generalization cannot extend to all velar codas, as no PWL etyma were found with a voiceless onset and an *-ik rhyme.

13. Exceptions: PWL *si? > se? ‘head louse’; PWL *kris > kres ‘black bear’; PWL *s(ŋ)krit > si-kret ‘cricket’; PWL *(-)bi? > si-p^he? ‘job’s tear millet’; PWL *ʔin > ʔien ‘this’; PWL *phi? > p^hi? ‘otter’.

- (34) PWL Lavïa PWL Lavïa
 **ɲiʔ* *ɲəʔ* ‘drink’ **grɪŋ* *kʰrəŋ* ‘things’
 **klbiʔ* *ka-pʰəʔ* ‘soul’ **bliŋ* *pʰləŋ* ‘shoot (of plant)’
- (35) PWL Lavïa PWL Lavïa
 **bis* *pʰis* ‘resin’ **ʔɪrɪŋ* *nkriŋ* ‘termite’
 **nim* *nim* ‘urine’ **jrim* *kʰrim* ‘soya bean’

With voiceless PWL onsets, Lavïa likewise shows two-way splitting conditioned by the proto coda. Before a guttural coda, PWL **i* diphthongized to *ai* (36),¹⁴ and lowered to *ə* after other codas (37):

- (36) PWL Lavïa PWL Lavïa
 **siʔ* *kuan saiʔ* ‘grandchild’ **rəmpik* *ʔa-pac* ‘bridge’
 **ʔriʔ* *raiʔ* ‘deep’ **kiŋ* *kaŋ* ‘field’
 **ləʔih* *la-ʔaih* ‘sweat’ **piŋ* *paŋ* ‘blow’
- (37) PWL Lavïa PWL Lavïa
 **him* *həm* ‘bathe’ **pi* *pə* ‘grey’
 **hlit* *hlət* ‘deaf’ **kir* *kə* ‘wind’
 **tis* *təs* ‘breast’

3.2.1.4 PWL **u*

The high back vowel **u* generally lowered to *o*:¹⁵

- (38) PWL Lavïa PWL Lavïa
 **bruʔ* *pʰroʔ* ‘blanket’ **tun* *nton* ‘stew, boil over slow fire’
 **nsum* *ncʰom* ‘plant [v]’ **sut* *sot* ‘pick up’
 **ntum* *ntom* ‘soak’ **kus* *kos* ‘boil (rice)’
 **pur* *po* ‘fly [v]’ **klun* *klon* ‘python’

3.2.1.5 PWL **o*

The PWL back vowel **o* underwent multiple splitting. After a voiced onset and followed by a coronal coda, **o* raised to *u*:

- (39) PWL Lavïa PWL Lavïa
 *(*rə*)-*moŋ* *ʔa-muŋ* ‘wife’ **bon* *pʰun* ‘(day-)time’
 **no* *nu* ‘guest’ **broy* *pʰrui* ‘catch fire’
 **nor* *nu* ‘wax’ **jos* *cʰus* ‘sell’

14. The palatal codas in examples like ‘bridge’ stem from a further development; i.e. **rəmpik* > **ʔa-paik* > *ʔa-pac*.

15. Exceptions where **u* is kept as such: PWL **kədu* > *ka-tʰu* ‘belly’; **ʔuc* > *ʔuc* ‘be finished’.

After a voiced onset and before other codas, *o underwent diphthongization to uo:

(40)	PWL	Lavìa		PWL	Lavìa	
	*boʔ	<u>p^huoʔ</u> nkruom	‘friend’	*mrok	npruok	‘dhole’
	*sə-moʔ	si-muoʔ	‘stone’	*ɲom	ɲuom	‘sit’
	*roh	ruoh	‘bark [v]’	*ɲop	p ^h un ɲuop	‘early morning’

With a voiceless onset and a guttural coda, *o lowered and diphthongized into au:

(41)	PWL	Lavìa		PWL	Lavìa	
	*hoŋ	hauŋ	‘steam [v]’	*ʔmoʔ	mauʔ	‘rope’
	*hok	hauk	‘climb’	*rəŋkoʔ	nkauʔ	‘husked rice’
	*koŋ	kaun	‘dig’	*croʔ	si-rauʔ	‘new’

With a voiceless onset and other codas, *o lowered to ɔ:¹⁶

(42)	PWL	Lavìa		PWL	Lavìa	
	*rənsom	sɔm	‘night’	*rhom	ra-hɔm~hrɔm	‘heart’
	*hon	hɔn	‘tuber’	*pon	pɔn	‘four’
	*hoc	hɔc	‘arrive’	*ɲkos	nkɔs	‘porcupine’
	*r/ləʔos	la-ʔɔs	‘grease’			

3.2.1.6 PWL *ɔ

With plain voiced onsets, PWL *ɔ underwent raising and diphthongization into uo:¹⁷

(43)	PWL	Lavìa		PWL	Lavìa	
	*ɲɔk	si-ɲuok	‘neck’	*ɲɔŋ	nk ^h uon	‘mountain’
	*mɔŋ	muon	‘mouth’	*rɔɣ	ruoi	‘fly (insect)’
	*kəmɔɣ	muoi	‘common cattle’	*pəryɔŋ	ʔa-zuon	‘rainbow’
	*jɔs	chuos	‘large black ant’			

With voiceless onsets, PWL *ɔ became lowered and diphthongized to ua before a coronal coda (44),¹⁸ lowered to ɔ before a velar coda (45), and remained as ɔ otherwise (46):¹⁹

(44)	PWL	Lavìa		PWL	Lavìa	
	*kɔn	kuan	‘child’	*ʔmɔc	muac	‘broken rice’
	*hɔt	<u>huat</u> k ^h ɛʔ	‘follow’	*sɔc	nc ^h uac	‘whistle’
				*ɲɔɣ	ɲuai	‘thirty’

16. With an important exception PWL *kol > kau ‘ten’, noted by Diffloth with reference to Drage’s Lavìa data (1980: 54).

17. Exceptions: PWL *bɔʔ > p^hoʔ ‘younger sibling’; *-lɔʔ > loʔ ‘snail’; *ɲɔl > ɲu ‘earthworm’.

18. Exception: PWL *ntɔt > tɔt ‘smoke (a cigarette)’.

19. Exception: PWL *krɔ > krɔ ‘cotton tree (*Bombax ceiba*)’, PWL *kəɔm > ka-tɔm ‘liver’.

(45)	PWL	Lavïa		PWL	Lavïa	
	<i>**hmək</i>	<i>ηvək</i>	‘hat’ ²⁰	<i>*mpəŋ</i>	<i>npəŋ</i>	‘ladder’
	<i>*kək</i>	<i>kək</i>	‘call, shout’	<i>*kləŋ</i>	<i>kləŋ</i>	‘river’
	<i>*(rə)ʔwək</i>	<i>vək</i>	‘crooked’	<i>*ʔəŋ</i>	<i>ʔəŋ</i>	‘large wasp sp.’
				<i>*krəŋ</i>	<i>si-krəŋ</i>	‘spine’
(46)	PWL	Lavïa		PWL	Lavïa	
	<i>*ʔəʔ</i>	<i>ʔəʔ</i>	‘bamboo’	<i>*-ʔləh</i>	<i>ʔa-ləh</i>	‘exchange’
	<i>*hləʔ</i>	<i>hləʔ k^hauʔ</i>	‘tree bark’	<i>*sʔəh</i>	<i>si-ʔəh</i>	‘dry’
	<i>*səʔ</i>	<i>səʔ</i>	‘dog’	<i>*hŋəʔ</i>	<i>ŋəʔ</i>	‘rice plant’

3.2.1.7 PWL *v

With plain voiced onsets *v, like *ɔ, also became raised and diphthongized into uo:

(47)	PWL	Lavïa		PWL	Lavïa	
	<i>*mrəŋ</i>	<i>npruəŋ</i>	‘horse’	<i>*ləm</i>	<i>luom</i>	‘sharp’
	<i>*rəmvəs</i>	<i>la-muəs</i>	‘banana’	<i>*rəs</i>	<i>ruəs</i>	‘choose’
	<i>*ŋv</i>	<i>ŋuo</i>	‘fire’	<i>*yəŋ</i>	<i>zuəŋ</i>	‘know’
	<i>*gəv</i>	<i>k^huot</i>	‘old, elderly’			

With voiceless, preaspirated or preglottalized onsets, *v generally merged into ɔ (48), except before a coronal proto coda where it became diphthongized to ua (49):

(48)	PWL	Lavïa		PWL	Lavïa	
	<i>*ʔv</i>	<i>ʔə</i>	‘elder sister’	<i>*hləŋ</i>	<i>hləŋ</i>	‘cool’
	<i>*mpv</i>	<i>pə</i>	‘mortar’	<i>*pləŋ</i>	<i>pləŋ</i>	‘thatch grass’
	<i>*kətəvm</i>	<i>ka-təvm</i>	‘egg’	<i>*sʔəh</i>	<i>si-ʔəh</i>	‘dry’
	<i>*kləvm</i>	<i>kləvm</i>	‘carry on shoulder’			
(49)	PWL	Lavïa		PWL	Lavïa	
	<i>*kəv</i>	<i>kuat</i>	‘cold’	<i>*ʔvs</i>	<i>uas</i>	‘swell’
	<i>*phəvn</i>	<i>p^huan</i>	‘five’	<i>*ʔənsəvs</i>	<i>ka-suas</i>	‘charcoal’
	<i>*səv</i>	<i>sua</i>	‘civet’	<i>*ʔləs</i>	<i>luas</i>	‘loud’

20. The vowel *o in the pw and PWL form **hmok* posited in Diffloth ms. was marked as doubtful. The Lavia evidence points rather to ***hmək*.

3.2.1.8 PWL *e

With voiced onsets, *e normally stayed as such:

(50)	PWL	Lavìa		PWL	Lavìa	
	*rædeŋ	ka-t ^h eŋ	‘navel’	*greh	reh	‘spill our’ ²¹
	*breʔ	p ^h reʔ	‘weather’	*səŋeʔ	si-ŋeʔ	‘sun’
	*get	k ^h et	‘bite’	*meʔ	meʔ	‘you [SG]’
	*beh	p ^h eh	‘spit out’			

With voiceless onsets, *e typically lowered to ε:²²

(51)	PWL	Lavìa		PWL	Lavìa	
	*preʔ	preʔ	‘spicy’	*het	hec	‘dried, parched’
	*hreŋ	hreŋ	‘thousand’	*prem	prem	‘old, used’
	*-seh	seh	‘down’	*səntem	si-təm	‘nine’
	*ʔem	em	‘alive’	*rəhmeŋ	ŋeŋ	‘male’
	*kheʔ	k ^h εʔ	‘back(side)’	*(ŋ)-khen	nk ^h eŋ	‘gall bladder’

3.2.1.9 PWL *ε

With voiced onsets, *ε became raised to e, merging with *e in this phonological context:

(52)	PWL	Lavìa		PWL	Lavìa	
	*bεʔ	p ^h eʔ	‘goat’	*les	les	‘six’
	*rem	rem	‘weed [v]’	*ʔεʔ	ʔeʔ	‘we [INCL]’ ²³
	*res	res	‘root’			

With voiceless onsets, *ε generally underwent lowering and diphthongization to ia (53), except when followed by a guttural coda, where it remained as ε (54):

(53)	PWL	Lavìa		PWL	Lavìa	
	*ʔet	ʔiat	‘small’	*p(-)-her	hia	‘bee’
	*ŋken	nkian teʔ	‘finger’	*ʔer	ʔia	‘chicken’
	*tεp	tiap	‘flea’	*hrem	hriam	‘iron’

(54)	PWL	Lavìa	
	*ʔeŋ	ʔeŋ	‘excrement’
	*hleʔ	hleʔ	‘rain’
	*kætεʔ	ka-tεʔ	‘earth’

21. The r- onset is irregular.

22. A handful of exceptions with unaltered vowel e are found: PWL *pes > pes ‘sweep’; PWL *tes > tes ‘mushroom’; PWL *mhem > ŋem ‘nail (body part)’; PWL *ses > ses ‘write’; PWL *peʔ > peʔ ‘you [PL].’

23. The vowel of the root *ʔεʔ posited in Diffloth ms. was marked as doubtful.

3.2.2 Summary and generalizations

As demonstrated above, the nine PWL vowels went through a full range of conditioned splits in Lavía. The observed historical changes are typologically unusual in that, unlike the celebrated cases of Labovian vowel shifts, Lavía vowel shifting was conditioned by onset voicing and articulation place of codas rather than by quantity differences in the rhymes. Moreover, the direction of shifting may differ for the same proto vowel (e.g. PWL **o* could raise to *u* or lower to *ɔ*) depending on the conditioning factors. In the following table, the reflexes of the nine PWL vowels are given with their conditioning environments:

Table 1. Lavía vowel splits and their conditioning

	*ONSET VOICING	*CODA	LAVÍA REFLEXES
* <i>a</i>	+	guttural	<i>iv</i>
		other	<i>ie</i>
	–	regardless	<i>a</i>
* <i>i</i>	+	regardless	<i>i</i>
		*- <i>ŋ</i>	<i>ia</i>
		other	<i>ε</i>
* <i>ĩ</i>	+	guttural	<i>ə</i>
		other	<i>i</i>
	–	guttural	<i>ai</i>
		other	<i>ə</i>
* <i>u</i>	±	regardless	<i>o</i>
* <i>o</i>	+	coronal	<i>u</i>
		other	<i>uo</i>
		guttural	<i>au</i>
	–	other	<i>ɔ</i>
		regardless	<i>uo</i>
* <i>ɔ</i>	+	regardless	<i>uo</i>
		velar	<i>v</i>
	–	coronal	<i>au</i>
		other	<i>ɔ</i>
* <i>v</i>	+	regardless	<i>uo</i>
		coronal	<i>ua</i>
	–	other	<i>ɔ</i>
* <i>e</i>	+	regardless	<i>e</i>
	–	regardless	<i>ε</i>
* <i>ε</i>	+	regardless	<i>e</i>
		guttural	<i>ε</i>
	–	other	<i>ia</i>

A number of generalizations present themselves in the table above.

First, all the PWL vowels except **u* underwent diversification conditioned by onset voicing (as defined in §3.2.1 above) and articulation place of the codas. In view of the insightful generalization “...phonation types (registers) affect vowel systems by causing diphthongization, but tones have little effect on vowel quality and do not create diphthongs...” (Diffloth 1980:36), Lavīa may have once had a clear (from PWL voiceless stops) vs. slack (from PWL voiced stops) phonation distinction which, after triggering the observed massive vowel shifts, was subsequently lost in Banzhe and the other known Lavīa varieties, save for a trace of slack phonation in the guise of secondarily aspirated stops.

Second, in the process of vowel splitting, most PWL vowels after voiced onsets shifted higher or, in the case of the PWL high vowels, stayed high. As discussed in Diffloth (1980:37ff.) concerning the proto low vowel **a*, raising may take the form of a high onglide in a diphthong, as in the case of **a* becoming *ia* and **o* becoming *uo*. Notably, raising and vowel breaking led to near-total merger of the PWL non-high back rounded vowels after voiced onsets. The converse process of lowering occurred with all PWL vowels after voiceless onsets, with the exception of the rounded low vowel *v*, for which further lowering would not be possible. Again, vowel lowering may be direct (**i > ε; *i > ə; *o > ɔ; *ɔ > v; *e > ε*) or realize by a low component vowel in a diphthong (**i > ia; *i > ai; *o/ɔ > au; *ε > ia*). These facts fall in well with Thurgood (2002)’s prediction regarding the effects of voice quality on vowel height and fronting, such that breathy phonation conditions vowel raising and backing, while tense phonation conditions vowels lowering and fronting.

Third, the convoluted developments of proto vowels added many innovative vocoid clusters (*au, ua, uo, ie, and ia*) to the modern Lavīa system, without diminishing the number of contrastive monophthongs and vocoid clusters inherited from the PWL nucleus inventory.

Fourth, regarding syllable codas, the gutturals and coronals are natural articulation-place classes that play the most prominent role in conditioning vowel splits.

3.3 Sound changes affecting codas

All its onset consonants, except *-l*, and *-w* and the voiced stops, could serve as syllable codas in PWL.

(55)	<i>*-p</i>	<i>*-t</i>	<i>*-c</i>	<i>*-k</i>	<i>*-ʔ</i>
	<i>*-m</i>	<i>*-n</i>	<i>*-ɲ</i>	<i>*-ŋ</i>	
		<i>*-s</i>			<i>*-h</i>
		<i>*-r</i>			
			<i>*-y</i>		

The attested codas fall under three natural classes: labial (*-p, *-m), coronal (*-t, *-n, *-s, *-r, -c, *-ɲ, *-ɣ), and guttural (*-k, *-ŋ, *-ʔ, *-h). As we have seen in previous sections, codas belonging to the same natural class frequently patterned together in sound changes.

Lavía generally preserves the PWL stop and nasal codas, except that proto dental and velar codas became palatals after front vowels:

(56)	PWL	Lavía		PWL	Lavía	
	*ʔet	ʔɛc	‘sleep’	*hwek	fɛc	‘dark’
	*(kə)-bit	pʰic	‘glutinous (rice)’	*ʔɛŋ	ʔɛŋ	‘excrement’
	*ʔɛk	ʔɛc	‘elder brother’	*jɛŋ	cʰɛŋ	‘sew’

Palatalization of dental and velar codas, for obvious reasons, did not apply where diphthongization had turned *i into (phonetic-level) *ii* (e.g. PWL *diŋ > tʰiiŋ [tʰiiŋ] ‘father’s elder brother’; PWL *lik > lik [liik] ‘pig’), *ia* (e.g. PWL *ntiŋ > ntiaŋ ‘wall’) and *ie* (e.g. PWL *ʔin > ʔien ‘this’).

Of the PWL continuant codas, *-s (57) and *-h (58) are preserved as such, making Lavía one of the few Waic languages where both contrastive Austroasiatic spirant codas are directly attested:

(57)	PWL	Lavía		PWL	Lavía	
	*tes	tes	‘mushroom’	*ʔvs	uas	‘swell’
	*les	les	‘six’	*ʔansvs	ka-suas	‘charcoal’
(58)	PWL	Lavía		PWL	Lavía	
	*lih	lih	‘exit’	*rntah	ʔa-tah	‘medicine’
	*koh	kauh	‘get up’	*ləʔih	la-ʔaih	‘sweat’

PWL -y has also been retained in Lavía, interpreted here as a vocalic glide -i:

(59)	PWL	Lavía		PWL	Lavía	
	*ʔlay	lai	‘squirrel’	*broy	pʰrui	‘catch fire’
	*ɲɔy	ɲuoi	‘waist’	*kiy	kəi	‘thread’

On the other hand, PWL *-r was elided without a trace, constituting another source of modern open syllables:

(60)	PWL	Lavía		PWL	Lavía	
	*ʔmar	ma ruok	‘dry field’	*kir	kə	‘civet’
	*sɔr	sua	‘civet’	*mor	mu	‘crawl’

4. Concluding remarks

This article delineates the phonological patterns and sound changes of Lavïa, a Waic language of southwestern Yunnan and eastern Myanmar.

Synchronically, the Lavïa sound system features a well-preserved sesquisyllabic structure, abundant consonant and vocalic clusters, and total absence of contrastive tone or phonation.

The innovations that shaped modern Lavïa phonology include a number of developments commonly attested in Waic languages, such as devoicing and aspiration of proto voiced stops, loss of marked glottality in the preglottalized consonants, and strengthening of glide **y-* to fricative *z-*. On the other hand, certain more distinctive phonological innovations are also found, such as transformation of **h*+nasal clusters into voiceless nasals and, in particular, prolific vowel shifts via raising, lowering and diphthongization which caused huge upheavals in the vocalic system.

The complete lack of either tone or register distinctions makes Lavïa typologically unusual among Waic languages.²⁴ On the other hand, Drage (1907) apparently heard multiple tones in the Lavïa dialect(s) he worked on (for discussions, see Diffloth 1980: 23–26). Could these simply be impressionistic whims of an untrained transcriber, or are they clues pointing to an earlier tonal or phonation stage still extant in some Lavïa dialects?

The foregoing generalizations are drawn on the basis of primary data from a single variety of Lavïa: Banzhe. A systematic comparison of the many local Lavïa varieties (Masan, Yuesong, Yancheng, and others) remains to be undertaken, but the internal diversity of Lavïa can be appreciated by noting that, for example, PWL **-s* merged into **-h* in Masan whereas PWL **-r*, dropped in Banzhe, still survives in the Yuesong (Yunnan) and Yancheng (Myanmar) varieties. Much further work needs to be done to document and analyze the more diverse forms of Lavïa in Yunnan and Myanmar, in order to identify significant innovations that are shared across the whole Lavïa dialect complex, which will be indispensable for a proper characterization of Lavïa as a distinct member among the Waic language cluster.

24. This is true of Banzhe (our target Lavïa variety) as well as the Masan, Zhongke, Yuesong, and Yancheng varieties reported in Zhou et al. (2004). On the other hand, many Waic languages make contrastive use of tones (e.g. all the Blang languages, such as Pang reported Sun (2018a), and the Wa-Lawa language Vá?) or phonation (e.g. Paraok (Watkins 2002) and Phalok (Diffloth, ms.)).

Acknowledgements

The material in this article is based on fieldwork with Sai Kai (*sai kai*) 岩改, a college student from Banzhe Village, Mowo Township, Ximeng County, Pu'er City, Yunnan Province. I owe him a debt of gratitude for his friendship and capable assistance. I extend my sincere thanks to Prof. Jingliu Wang 王敬驩, Prof. Aishe Zhao 趙岩社, and my other hosts at the Department of Nationality Languages, Yunnan Minzu University for their hospitality and assistance during my research visits. This paper has benefited much from very detailed and enlightening comments from Prof. Weera Ostapirat and the two anonymous reviewers. The errors that remain are my own responsibility.

Abbreviations

PWL Proto-Wa-Lawa

References

- Diffloth, Gérard. 1980. The Wa languages. *Linguistics of the Tibeto-Burman Area* 5(2). 1–182.
- Diffloth, Gérard. *Etymological lexicon of Wa, Lawa, and Bulang*. (Manuscript.)
- Drage, Godfrey. 1907. *A few notes on Wa*. Rangoon: Superintendent, Government Printing.
- Sun, Jackson T.-S. 2018a. Pang phonology and vocabulary. In Ho, Dah-An & Yiu, Yuk-man Carine & Sun, Jingtao & Chen, Zhongmin & Cheung, Hung-Nin Samuel (eds.), *Frontiers in the study of Sinitic and Sino-Tibetan linguistics: Festschrift in honor of Professor Ting Pang-Hsin on his 80th birthday*, vol. 2, 888–919. Beijing: Social Sciences Academic Press.
- Sun, Jackson T.-S. 2018b. The synchronic and diachronic phonology of Va: A Wa-Lawa language of Yunnan. *Linguistics of the Tibeto-Burman Area* 41(2). 133–174. <https://doi.org/10.1075/ltba.18010.sun>
- Thurgood, Graham. 2002. Vietnamese and tonogenesis: Revising the model and the analysis. *Diachronica* 19(2). 333–363. <https://doi.org/10.1075/dia.19.2.04thu>
- Watkins, Justin. 2002. *The phonetics of Wa: Experimental phonetics, phonology, orthography and sociolinguistics*. Canberra: Pacific Linguistics.
- Zhou, Zhizhi & Yan, Qixiang (eds.). 1984. *Wayu jianzhi* [A brief description of Wa language]. Beijing: Publishing House of Minority Nationalities.
- Zhou, Zhizhi & Yan, Qixiang & Chen, Guoqing. 2004. *Wayu fangyan yanjiu* [Research on Wa dialects]. Beijing: Publishing House of Minority Nationalities.

Appendix. English-Lavía Vocabulary

- 10th year, chicken; *num ʔia*
 11th year, dog; *num sɔʔ*
 12th year, pig; *num like*
 1-litre-volume measuring container; *sej*
 1st day of the lunar month; *lās kʰeʔ ta-səm*
 2nd day of the lunar month; *ntʰis kʰeʔ ra-səm*
 2nd year, ox; *num krak muoi*
 3rd year, tiger; *num ʔa-vie*
 4th year, rabbit; *num ka*
 5th year, dragon; *num ʔa-zuonj*
 6th year, snake; *num si-ʔonj*
 7th year, horse; *num npruonj*
 8th year, ram; *num pʰeʔ*
 9th year, monkey; *num faʔ*
 a (bamboo) tube for blowing on a fire; *npʰaŋ ɲuo*
 a few, several; (few) *kən ɲiaʊʔ*; *ra-luai*
 a lifetime; *ncʰu*
 a piece of cloth with straps for carrying a toddler on the back; *nivʔ*
 a section of bamboo used as a container; (small) *npʰəʔ ʔəʔ*; (shorter) *si-tʰuoʔ*; (longer) *ncʰv*
 a unit of dry measure for grain (=1 decaliter); *kʰra*
 a vertical bamboo flute; *ncʰu*
 a while; *kən ti vut*
 abdomen; *kej paʊj*
 abstain from eating certain foods; *tʰuos*
 accomplish, succeed; *huac zuh*; *ʔuc zuh*
 accomplished; *huac*; *ʔuc*
 accumulate; *ntʰuŋ*
 accustomed to, have the habit of; *mit*; *rian*
 ache, be painful; *saiʔ*; (of teeth from eating sour food); *saiʔ ke hraj*
 Adam's apple; *nkʰɔt*
 add; *npʰuoʔ*; *nauk*
 add (water), dilute; *pləm*
 admire, envy; *kɔi/npʰaŋ ra-həm*
 adult; *pʰii tʰij*
 advantage, benefit; *kaʔ/krɔŋ-ŋəm*
 advise, counsel; *kleh*
 affectionate, intimate; *ʔa-cʰaŋ*
 afraid, fear; *hlat*
 again; *npʰuoʔ*
 age; *num*
 agree on, arrange; *huac nəʔ/ʔəh*
 agree, consent; *ɲiat*
 aim [v]; *si-təŋ ɲəm*
 alcoholic beverage; *plai*
 alkali; *ka-ʔat*
 all of us; *nkəm mau*; *kʰu kaiʔ/pʰii*
 all, everything; *nkəm mau/kʰu kaiʔ*
 alone; *noŋ*
 alter; *ʔa-tʰivʰ*
 aluminum; *nprak*
 ancestors, forebears; *taʔ-ntu zaʔ-luan*
 and; *mii*
 angle [v]; *met kaʔ*
 angry, take offence; *si-kʰic ra-həm*; *npʰrus ra-həm*; *rau ra-həm*
 animal fat, grease; *la-ʔəs*
 animal, beast; *neʔ pʰreʔ*
 ankle; *ncʰonj cʰuoŋ*; (ankle bone) *ɲai cʰuoŋ*
 answer, reply; *pək*; (respond to calling) *luos*
 ant; *məc*; (large, black sp.) *cʰuos*
 ant-lion; *nkrij məc*
 anus; *ka-taiʔ kre*
 anxious; *kʰie ra-həm*
 appearance, shape; *kʰauʔ ncʰonj*
 apply (ointment); *kreʔ*; *pʰə*
 arm; *npleʔ (teʔ)*
 armband; *nple teʔ*
 armpit; *klec*
 armspan, fathom; *təp*
 arrive; *hɔc*; (arrive for the first time) *lās*
 arrogant, conceited; *ʔa-miv*
 arrow; *tʰe*; (~ groove) *nkʰuoŋ ʔak*; (~ poison) *ʔom*
 ashes; *ɲuoʔ*
 ask to come, summon; *kəp*
 ask (a question); *ɲaŋ*
 askew, wry, slanting, too much weight on one side; *nkʰej*; *hlai*
 assemble, muster [VT]; (n) *kʰrɔm*
 assess, estimate; *ncʰai*; *si-pək*
 astringent; *kren*
 at present; *lai ʔien*
 at the bottom of (a hill); *ncʰuoŋ ra-ʔaŋ*
 audit, check (accounts); *səp kia*
 aunt (mother's brother's wife); *mivʔ/tʰij*
 aunt (mother's sister), (older than mother) *tʰij*; (younger than mother) *mivʔ*
 aunt (wife of father's elder brother); *tʰij*
 aunt (wife of father's younger brother); *mivʔ*
 awl; *ntəh*; *ncaih*
 awn of wheat; *ʔa-ŋəc (pleʔ nkauʔ)*
 ax; *mɔi*
 baa/bleat; *npɛʔ*; *mɛʔ*
 baby; *kuan ɲa*
 baby food; *mam*
 back; *si-ʔaŋ kʰeʔ*; *kaʔ kʰeʔ*
 back door; *ʔa-vivʔ lies*
 back of hand; *npriʔ teʔ*
 back of head; (ntəŋ) *npluok*
 back up, retreat; *me*; *me tə zauŋ*; *me tə ɲivʔ*; *me kaʔ-kʰeʔ*
 bad; *lut*
 badger; *nkʰis*
 bag; *hə*
 bald, bare; *pak*

- baldhead; *pa-pak*
 bamboo; ʔ; (very strong sp., good for building houses) *ries*; (a single ~) *paŋ ʔʔ?*
 bamboo basket; (large, fine-meshed) *kʰra*; (smaller) *lan*; *nkʰrɔŋ*
 bamboo bell; *rɔh*
 bamboo cluster; *tʰiɔk ʔʔ?*
 bamboo flute; *ncʰu*
 bamboo food steamer; *hauŋ*
 bamboo knob; *ncʰɔŋ*; *keŋ pauŋ*
 bamboo mat; *vi ~ nkwi*
 bamboo partition in house; *ntiaŋ si-tʰiɔŋ*
 bamboo partridge; *pʰreh*
 bamboo rat; *npəi*
 bamboo section; *ncʰɔŋ*; *npʰəʔ*
 bamboo shoot; *ŋɛm*; (on the ground) *pʰlɔŋ ʔʔ?*
 bamboo strip; *ŋa*
 bamboo or twig fence; *si-pa*
 ban, forbid, prohibit; *ʔaŋ lət*
 banana; *la-muos*; (wild ~) *paŋ hlaʔ*
 bang, strike; (with palm) *kʰlap*; (with fist) *tʰup*; (pat) *ntʰih*
 bank (of river); *plak klɔŋ*; *keh klɔŋ*
 banyan; *paŋ rɛʔ*
 Banzhe; *pa-cʰək*
 bark [N]; *hɔʔ kʰauʔ*
 bark [V]; *ruoh*
 barren, sterile; *neh*
 basket carried on back; *lan*; *nkʰrɔŋ*
 bat; *nplivk*; (bat sp.) *ncʰɔs*; *nkʰak*
 be; *mɔh*
 be at a location; *ʔt*
 be broken (of a bowl); *nkruaŋ*
 be burnt (e.g. finger); *haʔ*
 be called/named; *mɔh (ŋai)*
 be complete; *kʰup*
 be familiar with, know well; *mit*; (very much so) *hliau*; *hliu*
 be hooked; *vɛc*; *vɔk*
 be left over, remain; *prah*
 be on the other side of (river); *ʔa-liap*
 be poisoned; *ʔɔp*
 be one's turn; *hɔc (nah)*
 be startled; *hlat*
 bead; *pluai*
 beak; *nkʰuoh sem*
 beam; *praj*; (one of the two main horizontal beams) *nok*
 bean; *tʰo*
 bear; *kres*
 bear (fruit); *plɛʔ (plɛʔ-kʰauʔ)*
 beard; *hac kap*; (moustache, goatee) *hac nkʰis*; *hac ntɔt*
 beat (drum); *taih*
 beat up; *ŋoh*
 beat with fist; *tʰup*
 beautiful; *ŋɔm*
- beckon; *nkʰe*
 become blocked; *si-kiat*; *si-ke*; *kat*; (clogged) *ntʰɔʔ*; *kʰən*; *nkʰən*; *si-kʰən*
 become crazy; *laŋ*; *hiɔt*
 become curved/bent; *vɔk*
 become full/filled up; *nuok*; *reh*
 become loose (of ropes); *npʰac*
 become mixed, blended; *ʔa-neʔ*
 become torn apart (of a family); *ncas jivʔ*
 bed; *nkʰruon*; *npɛ*
 bedbug; *hoŋ*
 bee; (small sp.) *hia*; (sp. in the mountain areas producing honey) *ʔa-ŋəʔ*
 bee larva; *kuan hia*
 beehive; *jivʔ hia*
 beeswax; *la-hauŋ*
 beetle; *si-re*
 before, long ago; *nɔ-nɔʔ*; *ncʰu ka(-nɔʔ)*
 beg (for food); *pua (pʰrivʔ)*
 beggar; *pʰii pua*; *pa-pua*
 belch, burp; *nkruoʔ*
 believe, trust; *ŋiat*; (trust) *kaiʔ ra-hɔm*
 bell; *si-pʰuok*; *ʔleŋ*
 bellows; *səs*
 belly; *ka-tʰu*
 belly bend; *mauʔ huat npruonŋ*
 below, under; (under) *plak/kaʔ nkrəm*; (river, mountain) *plak/kaʔ-seh*
 belt, girdle; *mauʔ si-nu*
 bend; *nkɔvɔk*
 bend body; *kɔʔ*
 bet; *zuh ləʔ*
 betel; *po*
 between; *ʔa-liap*
 bid somebody welcome, greet; *ʔa-taih (tʰii)*
 big, large; *tʰiŋ*
 bigger, more [V]; *npls*
 bind, tie up; (~ an animal) *piauk*; (~ an animal, ~ limbs) *ʔa-pauŋ*; *vien*; (~ objects) *ŋuat*
 bird; *sem*
 bird (crop-eating sp.); *sem-sac*
 bird (small sp.); *ruc*
 bird sp.; *sem sua*
 bird's nest; *kʰək sem*; *ŋəm sem*
 birthday; *si-ŋeʔ kʰeh*
 bite; *kʰet*; (of a poisonous snake) *tos*; (of a bee) *hɔc*
 bitter; *sɔŋ (ʔa-tah)*
 black; *loŋ*
 black drongo; *tij tia*
 blacksmith; *cau mo*
 bladder; *nplaj*
 blind; *pʰlivk*; *njet ŋai*
 blind person; *pa-pʰlivk*
 blink, wink; *cʰiap ŋai*
 blissful; *ŋɔm pʰrivʔ*; *num mɔvɔk*
 blister; *lim (= pus)*

- block (wind); *nt^hiv*; *ʔa-t^hiv*
 block up, plug; *t^hʔ=nt^hiv* [vT]; *nt^hʔ=t^hiv* [vI]
 block view; *nt^hiv*; *ntian*
 block [vT]; *nkiat*; *nke*; (clogged) (*n*-)*t^hʔ*; *k^hən*
 blood; *ŋam*
 blossom [vI]; *pros*
 blow; *paj*; *np^hruo*; *np^hrias*
 blow (as of wind); *paj*/*klay kə*
 blow (~ one's nose); *hə mis t^heʔ*
 blow (~ trumpet); *paj*
 blue; *si-ŋa*
 blunt, dull; *nk^hu*
 boar; *lik ŋa*
 boat, ship; *rə*
 boatman; *cau p^hat rə*
 body; *kaiʔ*
 body filth; *kəm*; *riet*; *ka-məʔ*
 body hair; *hac hua*
 boil; (generic) *plək*; (~ rice) *kos ʔəp*; (~ gruel) *hrɔŋ*; (~ something hard) *nto*; (~ over slow fire, simmer, stew) *təŋ*; (~ water); *lək*
 boiled water; *ra-ʔəm lək*
 bolt (a door); *si-kaŋ ʔa-vivʔ*
 bone; *si-ʔaŋ*
 book; *lie*
 boot; *nten laŋ*
 bored; *lu-lah*
 bored, impatient; *ʔes*
 borrow; (~ what to be returned in kind) *npa*; (~ a tool) *vie*
 bothersome, disagreeable; *aŋ sɔm zuoʔ*; *k^huŋ*
 bottle; *kəŋ*
 bottle gourd; *si-kec t^huoŋ*
 boundary; *mə*
 boundary line, demarcation line; *mə*
 bowl; *kləŋ*
 box; *ləŋ*
 box, case; *ziap*
 boy friend; *ʔa-meʔ fe*; *k^hun-mii-siam*
 bracelet; *nple teʔ*
 brag; *p^hiu*
 braid, plait; *hac kian*
 brains; *nk^huo*
 branch off; *nk^hries*
 branch, twig; *kak k^hauʔ*
 bray; *np^hris*
 bread; *npləh*; *ka-puk*
 break earth and come out (as of bamboo shoot); *nk^his*
 break earth lumps; *p^həh*; *ncos*
 break up, scatter; *zuh...t^huo*; *zuh...nk^hries*; *p^hu p^hre*
 break up, end (of a meeting); *rie*; *nk^hries*
 break, smash (a bowl); *nkruaŋ*
 break, snap; *nkwes*; *pət*; *npok*
 breast; *təs*
 breath; *np^həm*
 breathe; *np^həm*
- brick; **cuaŋ*
 bridge; *ʔa-pac*
 bright; *nplaj*; *riwŋ*; *npləs*
 bring; *ʔa-pauʔ*
 bring back; *vivʔ*
 broad bean; *t^ho k^hauʔ*
 broadcast (seeds); *ruot*; *ruat*; *t^hivʔ*; *mə*
 broaden; *kauiŋ*; *nk^hua*
 broken, smashed; *nkruaŋ*
 broom; *npes*
 brother; *p^hoʔ ʔec*
 bruise; *ŋut*
 bucket; *suoŋ*
 buckle up, button up; *nkaŋ cah*
 buckwheat; *ka-muiŋ*
 bud; *hləm pros*
 buffalo; *krak*
 bugs (including lice, ticks, fleas, and bedbugs); *ʔas seʔ ʔas npriŋ*
 build a fire; *paj ŋuo*
 build by laying bricks, stones, etc.; (~ a wall) *roʔ*; (~ a house) *taj*; *zuh*
 bulbul; *zuo ŋwək*; (red-whiskered sp.) *zuo liau*; (yellow-vented sp.) *zuo pə*
 bull; *muoi ŋeŋ*
 bullet; *luk si-niet*
 bullet shell; *t^huoŋ si-niet*
 bully, treat roughly; *ka-c^hec*
 bumblebee; *hia kres*
 bumpy road; *ca-lək*
 bunch/bundle (of vegetable); *nkwiən*; *nc^hop*
 Burmese; *man*
 burn; *ra-ʔək*; *tək*
 burn the grass on wasteland; *k^hic/np^hruai ma*
 burn [vT]; *k^hic*
 burnt, scorched; *haʔ*
 burnt rice stuck on bottom of pot; *háʔ ʔip*
 burr; *ros*
 burst, burst open (baloon, ripe fruit); *npeh*; (when rice, etc. is popped) *ʔa-t^huos*
 bury; *ʔa-paj*
 busy; *k^hie*
 busy, noisy; *ŋauŋ*; *nk^həʔ*
 butterfly; *p^huiŋ p^hivŋ*
 buttocks; *kre*
 button; *nkaŋ cah*
 buy; *cək*
 cabbage; *taiʔ p^hieŋ*
 cackle (of hens); *ka-tvət*
 calculate; *sum*
 calculating; *ʔa-kuas*
 calf (young cattle); *kuan muoi*
 calf (of leg); *npleʔ c^huoŋ*
 call together, convene; *nk^hrəm*
 can; *p^hun*
 can hold; *p^hun/k^hup ʔən*

- cane, rattan; *ŋo*
cannon; *muok*
capable; *npraʔ*
capital, principal; *nom mi*
careful; (attentive) *kʰrim*; (cautious) *kʰuoi*
carp; *kaʔ nplah*
carpenter; *cau cʰiʔ*
carry; (~ load, of a pack animal) *taŋ*; (~ money on one);
pɛŋ; (~ on back) *pʰoʔ*; (~ firewood with forehead
strap) *kʰuok*; (without forehead strap) *klec*; (carry
with pole on shoulder) *klɔm*
carrying pole, shoulder pole; *kʰauʔ nklɔm*
cartilage; *si-ʔaŋ kruc*
carve, engrave; *sec*
cast iron; *hriam ʔem*
cast light on; *san*
castrate; *seh*
cat; *miau*
catch and take away (as of tiger); *nkeʔ*
catch cold; (*ʔeh*) *saiʔ pʰəh*
catch fire, be on fire; *haʔ*; *pʰrui*
catch fish by damming up creek; *npoŋ kaʔ*
catch nothing; *nprah*
catch up with; *krɔp*
catch, capture; *nkeʔ*
caterpillar; *kʰuonŋ hac*; (black sp.) *kʰuonŋ haʔ*; (red, long-
haired sp.) *kʰuonŋ tɔp*; (small grey sp.) *kʰuonŋ ŋivʔ*;
(edible sp.) *si-ŋjie*
cattle; *krak muoi*
cattle illness (kind); *rau*
catty (=0.5 kg.); *kin*
cave in, sink; *ntʰuoh*; (landslide) *nkʰrac*; (foot sinking
in mud) *pʰluon*
cave, hole; *ka-taiʔ*
celebrate (New Year); *vuo*
centipede; *si-ʔoŋ ʔia*
chaff, bran; (coarse) *kam kʰuot*; (fine) *kam pa-zua*
change; *tʰivh*
chaotic, disorderly, messy; *tʰəh tiak*; *su-sec*; *kʰuŋ kʰan*
character, word; *ŋai lie*
charcoal; *ka-suas*
charge, sprint; *pʰət*
chase after; *ʔa-vaŋ*; (~ around) *nkwia*
chat; *ʔa-pʰivk*
chat, shoot the breeze; *fɛ*; *ʔa-pʰivk*
cheap; *ziv*
cheek; *si-paʔ*
cherish; *mɔʔ*
cherry; *kʰauʔ ko*
chess; *si-pvk*
chest; *ʔauk*; *nauk*
chest, box, trunk; *ʔa-ŋjaih*
chestnut; *pleʔ tias*; (small sp.) *kʰauʔ toŋ*
chew; *pʰiem*; *pʰim*
chew, gnaw; *kʰrej*; (~ betel) *si-ceh*
chew up and feed; *pʰiem*
- chick; *kuan ʔia*; (*ʔia*) *ŋac*
chicken; *ʔia*
chicken coop; (basket for chicks) *nkʰrɔŋ ʔia*; *ntaŋ ʔia*;
luok ʔia; (*hen*) *kʰək ʔia*
chicken feed; *kʰuoh*
chicken louse; *ŋeʔ ʔia*
chicken pen; *luok-ʔia*; *ntaŋ ʔia*
child; *kuan ʔiat*; *kuan ʔom*
chin; *kap*
Chinese chestnut; *paŋ li* (< Chinese 板栗)
Chinese ink; *məʔ* (< Chinese 墨)
Chinese yam; *hɔn mauʔ*
chip (the rim); *ka-veh*
chirp; *nprieŋ*; (of chicks) *cip*; (of mice) *cic*
chisel [N]; *ncʰec*
chisel, bore [V]; *sec*; *təh*
chive; *ka hvʔ*
choke (on food); *kʰɔm*
choke (on water); *la-hək*
choose, select; *soʔ*; *ruos*; (~ good ones) *lək*
chop; *nplak*; (~ bones) *nkam*; *kep*; *mok*; (~ in two) *lok*;
(cut into small pieces) *nkam*; *ŋe*; (~ down) *nkʰo*;
(~ small tree) *tuas*
chopper; *ŋau*; *ŋoŋ*
chopsticks; *si-kiaŋ*
churn; *ka-ve*; *kʰwit*
churning rod; *nkwit*; *nkwɛ*
cicada; *lu(k)-let*; (colored sp.) *kvi*
cigarette, tobacco; *sup*
circle, hover; *nkʰwia*; *pai liuŋ*
civet; *sua*
CL (day); *si-ŋeʔ*
CL (month); *kʰeʔ*
CL (night); *npʰu*
CL (year); *num*
CL (of a single shoe); *mau*
CL (of an ax); *npləʔ*
CL (backload of firewood); *npʰos*
CL (basketful of vegetable); *lan/kʰra*
CL (of a bird); *mau*
CL (of a bolt of cloth); *npua*
CL (of a bottle); *kɔŋ*
CL (of a bowl); *klɔŋ/mau*
CL (of a bridge); *nkɔŋ*
CL (of a broom); *mau*
CL (of a bucket); *suonŋ/si-tʰuoi*
CL (of a bundle, parcel); *nkʰiv*
CL (of a bundle, sheaf); *nkwien*; *pʰus*
CL (of length of dry field); *npʰv ma*
CL (of a drop of oil); *nceh*
CL (of ears of maize); *nkɔŋ*
CL (of eggs); *mau*
CL (of flags); *nkɔŋ/nplah*
CL (of flocks); *tʰi*
CL (of flowers); *nkɔŋ*
CL (of forests); *tʰivk*

- CL (of garments); *nplah*
 CL (of grain of rice); *sək; mau*
 CL (of grass); *nkɔŋ*
 CL (handful, with hands cupped); *nt^huom*
 CL (of hats); *mau*
 CL (verbal classifier, times); *ntɔm*
 CL (of a knife); *nk^hiɔŋ*
 CL (lap, section of road); *nt^həh*
 CL (of a leaf); *nplah*
 CL (of a letter); *nplah*
 CL (of loads on animal's back); *lan*
 CL (of meals); *ntɔm*
 CL (of tobacco); *k^hiɔ; ntət*
 CL (page); *nplah*
 CL (pair); *nprɔm*
 CL (of pants); *mau*
 CL (of a patch of field); *nkwiɔŋ*
 CL (of a pen); *nkrɔŋ/mau*
 CL (of a person); *kai?*
 CL (pile); *nkro?*
 CL (of a puddle); *nt^huŋ*
 CL (of a river); *t^huoh*
 CL (of a rock, stone); *mau*
 CL (of a room); *nc^hɛ*
 CL (of a rope); *mau/nkɔŋ*
 CL (row of houses); *hlan; pran*
 CL (of a section of bamboo); *ŋɛ; nc^hɔŋ*
 CL (sheet); *nplah*
 CL (of a song); *mau; krɔŋ; c^hi*
 CL (of a square of cloth); *nplah*
 CL (stack of hay); *nkɔm*
 CL (step); *nt^hiɔŋ*
 CL (of a stick); *mau; nkɔŋ; k^hau?*
 CL (of a string of beads); *nc^hies*
 CL (of a stroke with knife); *ntuas*
 CL (of a team of oxen); *nprɔm*
 CL (of a team of people and horses); *t^hi*
 CL (of a tree); *nkɔŋ; mau; nk^huo*
 CL (of an utterance, sentence); *npɔk; muŋ*
 claw, talon; *ras*
 clean; *si-ŋa(?)*
 clear (water); *si-ŋa(?)*
 clear, lucid; *si-klah*
 clear/sunny; *kɔc/viec/ŋɔm p^hre?*; (become sunny again)
təh p^hre?
 clever; *hlak; hlak hɔ? hlak siam*; (in compound) *p^hii*
hlak p^hii heŋ
 cliff; *tu-tat*
 climb (mountain); *hauk nk^hoh*
 climb up (tree); *hauk*
 clitoris; *hlian*
 close (mouth) lightly; *ŋiep*
 close (a book); *nt^huop; k^hlɔp*
 close (an umbrella); *zip; nɔp*
 close (eye); *zip*
 close (mouth); *ŋep*
- close (the door); *nc^hɔŋ*
 cloth; *man*
 cloth stretcher (in weaving); *npla? taj*
 clothes, garment; *cah*
 cloud; *(ta-)?ɔm*
 cloudy/overcast; *ka-?ɔm/zim/ka-ma p^hre?*
 cluck (of hen); *ka-tɔt*
 clumsy, awkward; *?a-vu; nt^hok*
 coax; *nplac; ?a-mən; ncəm*
 cobweb; *ŋiv? p^hris*
 cock; *?ia ?a-me?*
 cockscomb; *nk^hui ?ia*
 coffin; *lɔŋ*
 cold (weather, water); (weather) *kuat*; (water) *si-k^het*;
 (of boiled water) *hlɔŋ*; (feel freezing) *ka-mieŋ*
 collapse, cave in, fall down; (earth sunken) *nk^hrac*;
nklot; (wall, house) *nkrop*
 collar; *si-ŋuok cah*
 collect (grain or clothes); *kəh*
 collide, run into, bump against; (into each other) *?a-*
k^hləh; ?a-k^hliŋ; (ram against door) *ntɔŋ; si-t^hiŋ*
 comb; *si-kah*; (=comb [N]) *si-kat*
 combine; *?a-nɛ?*
 come; *hau ka? ?ien*
 come from, originate from; *tom; nom*
 come loose; *nkah; ntaŋ*; (completely untied)
np^həc~npəc; (not yet completely untied) *hlua*
 come out; *lih ka? ?iəŋ*
 come out (of the sun); *lih*
 comfortable; *ŋum*
 commend, praise; *?a-miv; zuo*
 common cattle; *muoi*
 common cold; *sai? p^həh*
 common people; *kuan kai*
 compare, compete; *?a-lah*
 compensate; *pɔ*
 complain to his superior; *ŋau?*
 connect, join; *?a-ti*
 consult, discuss; *sum; lie ŋaŋ t^hɛ? ŋɔŋ*
 converge (cf. roads); *?a-kap*
 cook [VT]; *pɔk p^hriɔ?*; (~ rice) *kos ?əp*
 cooked; (dried rice) *run*; (over-done) *ŋeŋ*; (ready to
 eat) *seŋ*; (main ingredients of gruel) *t^heh*
 cooking stove, fireplace; *npia?*
 cool; *np^haq; hlɔŋ p^hre?*
 copper; *la-vun*
 coriander; *hoŋ*
 corner, angle; *nt^huok*
 corpse; *pa-zum*; (resp.) *kai? pa-zum*
 corsac fox; *nc^həs*
 cotton; *pros ka-t^hie*
 cotton tree (Bombax ceiba); *krɔ*
 cough; *ŋauk*
 count; *?a-men*
 country; *nt^huok*
 cover (the mouth); *nt^huop nk^his*

- cover up (objects); *t^huop*; *rup*; (with hands) *nt^huop*
 cover, cover with lid; *t^huop*
 covered with corpses and blood (of battle-grounds); *niə*
 cow; *muoi c^haj*
 cow dung; *ʔeɲ muoi*
 cowshed, ox fence; *luok* (~ *muoi*)
 crab; *ka-tam*; (small sp.) *ka-tam hram*
 crack (on ceiling); *ntəh*
 crack in two [VT]; *nkuauh*
 crack [VT]; *ka-t^hoh*
 cramped, narrow; *kəp*
 crawl; *mu*
 cricket; (large) *ka-t^huon*; (small) *si-kret*
 crisp, brittle; *k^hrec*
 crops; *pleʔ p^hriəʔ*
 cross (a river); *t^hiəŋ*
 cross (bridge); *nt^huo/hau nkuai ʔa-pac*
 cross, pass; *luan*
 crossbow; *ʔak ʔom*; (front part of ~) *ntəŋ ʔak*; (~ bow) *moŋ ʔak*; (~ hook) *nk^hloc ʔak*; (~ string) *las ʔak*; (~ stock) *paŋ*; (~ trigger) *nk^hloc ʔak*
 crow; *la-ʔak*
 crow [V]; (of a cock) *ra-ʔoʔ*; (of crows) *la-ʔak*
 crowded; *ʔa-k^hloʔ*
 crowded, disorderly; *su-sak*
 crown of head; *k^huan ntəŋ*; *ka-p^hiəŋ ntəŋ*
 crupper-strap; *mauʔ huat kre npruəŋ*
 crush to pieces; *nkruaŋ*
 cry, weep; (of a baby) *ŋa*; *ziem*; (~ loudly) *riəʔk*; (~ bad-temperedly) *ŋəh, si-keʔ*
 cry, yell, shout; *kəʔk*; *ka-tauʔ*
 cubit, length from elbow to hand; *nc^həŋ tɛʔ*
 cuckoo; *sem ʔəp p^hi:c*; *kuk ku*
 cucumber; *la-ke*
 cuddle, embrace; *ruom*; (hold in bosom) *t^him*
 cultivate, reclaim wasteland; *hrəm*
 cunt lips (labium); *hləʔ sək/pe*
 cup; *le*
 cupboard, cabinet; *ɲiəŋ*
 curious; *rian ra-həm*
 curse; *tuok*
 curved, crooked, bent; *vək*
 cut; (~ diagonally) *np^hiəʔ*; (~ downward) *k^hlaʔ*; (~ grass) *səh*; (~ grass with sliding motion) *vuok*; *rih*; (~ many trees) *nta*; (~ meat into slices or chunks) *sɛ*; *set*; (~ thatch) *tuas*; (~ rope) *pias*; (~ into sections) *ŋe*; *kep*; *nje*; (~ with scissors) *k^hrep*; (~ down branch) *kleh*; (~ in half) *mak*; (~ off, sever) *tuas/pias nt^hut*; (~ a slit) *pet*; (~ or rip open) *peh*; (disenbowl) *liəh*; (remove bark or unwanted parts of log) *hlah*
 cut in; *tos nk^hi:s*
 cut/gouge out; *kuac*
 cymbals; *c^hɛŋ*
 dagger; *nkuan*
 dam up (a creek); *npoŋ*
 damage, spoil; ([v1]) *ləʔ*; ([vT]) *nkləʔ*
 dance; *pəi/pəi*; (~ around fire) *nkrauh*
 dandruff; *ka-məʔ*
 danger; *ʔa-k^hiəʔ*
 dare; *p^hun*
 dark; *fec*
 daughter; *kuan ʔa-pon*
 daughter-in-law; *kuan ʔəŋ*
 dawn; *npləs/riəŋ p^hreʔ*
 day after tomorrow; *ʔa-kauʔ*
 day before yesterday; *si-ŋeʔ ʔua*
 daybreak; *npləs p^hreʔ*
 daytime; *p^hun si-ŋeʔ*
 deaf; *hlət*
 deaf person; *pa-hlət*
 decay (tooth); *nkrec hray*
 deceive, cheat; *npləc*
 declivity; *nc^hi*; (~ on a barren hill) *nciə*
 decoct; (~ herbal medicine) *hrəŋ*; (boil water) *ŋo*; (reheat) *si-ʔo*
 deep; *raiʔ*
 deep hole in field, underground cave; *ka-taiʔ pəŋ*
 deity; *ʔa-zivəʔ*; *muc*
 delicious; *ɲum*
 deposit, leave with; *nt^həh*; *cəʔ*
 descend; *lih*
 deserve; *pai ləʔ*
 destroy, exterminate; *si-tec*; *si-tap*
 devil's tongue; *taiʔ nkaɦ*
 dew; *c^hiəʔ*
 diaper; *ha*
 dibble; *ʔa-p^hit*; (its business end) *ntəŋ ʔa-p^hit*; (stick) *nkɔŋ*
 die, dead; *zum*
 die out (of fire); *zət*; (cause to die out) *ncət*
 difficult; *no*
 dig or break through; *ntəh*; (~ out, e.g. of hot ash) *kuas*; (~ out with finger) *kuac*; (~ with hand or paw) *pac*; (of animals, ~ with hind legs) *ras*; (~ something out with a tool, excavate) *kaun*; (~ with snout, of pigs) *k^hi:s*; (~ out a tuber) *luoh*
 dike, embankment; *nt^hiəʔ*
 direction, orientation; *plak*
 dirt, filth; *kəm*
 dirty; *nprie*
 disappear, vanish; *nkrai*
 disheveled; *zu-zah*
 dislocate (a joint); *ʔa-luc*
 disorderly; *nk^həŋ*
 distinction, difference; *ʔa-lah*
 disturb; *zu-zah*
 ditch, gully; *rə*
 divide up family property & live separately; *nk^hiəh ɲiəʔ*
 divide/share (things); *nk^hiəh*
 do; *zuh*
 do business; *zuh li*

- do not have; *ʔaŋ kɔi*
 doctor; *pa-zuh ʔa-tah*
 dodge; *veh*
 dog; *səʔ*
 don't; *pʰəʔ*
 donkey; *la*
 door; *ʔa-viəʔ*
 doubt; *kʰauʔ mɔh*
 dove; *ku-ke*
 down, hair; *hac*
 downstairs; *nkrəm nkʰrim*
 downstream; *ncʰuəŋ kləŋ*
 downwards; *plak (ka-)seh; plak ka-sic*
 dowry; *kʰrəŋ ntas*
 doze off; *tac ʔai*
 drag, lead (a cow) along; *viəʔ*; (drag along with force)
tok
 dragon; *ʔa-zuəŋ*
 Dragon King (the god of rain); *ʔa-zuəŋ*
 dragonfly; *nkrəŋ mɔi*
 drain, strain; *ncʰuo*
 draw (bow); *luot*
 draw (crossbow); *vec*
 draw a picture; **hua*
 draw out (sword), stretch; *luot*
 draw water; *kʰin/taun/kləm ra-ʔəm*
 dream; *ʔa-muoʔ*
 dredge; *pək*; (with tool) *vec*
 dregs, sediment; *la-hauk*
 drench; *ncʰəʔ/ntom nah hleʔ*
 drift, float; *(ca)-loi*
 drill; (bore) *təh*; (auger) *ncʰec*
 drink; *ʔəʔ*; (~ soup) *si-rot*
 drive; (~ a car) *pʰat*; *nkʰra*; (~ animals); (~ out to pas-
 ture) *npleh*; (~ back to fold) *nplec*
 drive in by pounding; *tʰet*; *kom*
 drive out, expel; *nkʰrə*; *ʔa-vəŋ*
 drop, fall; *krəc*; [CAUS] *nkrəc*; (of leaves) *krəi~nkrəi*
 drop by; *veh*
 drop [v] (as of water); *cu-cəh*
 drum; *krəŋ*
 drunk; *zoc*
 dry; *si-ʔəh*; (of water drying up) *hec*
 dry [VT]; (~ by airing) *nta*; *hək*; (~ by fire) *ka-ʔa*
 dry field; *ma ruok*; *tʰaiʔ ti*
 dry season; *lai rəŋ*
 duck; *tʰie*
 dulap; *təŋ tai*
 dumb, mute; *pa-ntʰiv*
 dusk, twilight; *vu viəʔ*
 dust; *ʔa-kə*; (~ on ground) *ka-təʔ nprie*
 dust off; *pes*; *pu-pes*; (~ lightly) *puas*
 dye; *kreʔ*
 dye [v]; *ka-saiʔ*
 each, every; *kʰu kaiʔ*
 eagle; *kləŋ*
- ear; *la-hiauk*
 ear, spike; *pleʔ ʔəʔ*
 early; *ntʰuok*; (~ to arrive) *kʰrat*
 earrings; *npə (la-hiauk)*
 earth, ground; *ka-təʔ*; (earth, globe) *hak təʔ*
 earth lump; *klən ka-təʔ*
 earthen jar; *si-kʰəŋ*
 earthworm; *ŋu*; (large sp.) *la-vun*
 earwax; *ʔeŋ la-hiauk*; *ŋak*
 east; *kaʔ lih si-ŋeʔ*
 easy; *ziv*
 eat; *ʔeh*; (~ rice) *səm*; (~ a meal) *pʰrivʔ*; (~ something
 juicy) *pʰivʔ*; (~ melon seed) *sep*
 eaves; *ncʰuo nprəʔ*; (its short edge) *ʔa-pʰus*; (its long
 edge) *tʰus nprəʔ*
 edge, rim, margin; *npv*; (~ of a knife) *luom viec*
 edible; *ŋəm tʰeʔ ʔeh*
 egg; *ka-təm*
 egg shell; *hləʔ ka-təm*
 eggplant; *mak kʰə*
 eight; *si-təʔ*
 eighteen; *kau-si-təʔ*
 eighty; *ʔa-təʔ*
 elapse, pass; *luan*
 elbow; *ncʰu (təʔ)*
 elder brother; *ʔec*
 elder sister; *ʔə*
 elephant; *ka-səŋ*
 eleven; *kau-tʰeʔ*
 embrace, hug; *ruom*
 embroider; *taŋ*; *cʰeŋ*
 empty; *pʰiv*
 empty out; *tʰək*; *ŋəŋ*
 empty the bowels; *ʔeŋ*; *muəŋ*
 enclose; *nfiə*
 enclosure; *ʔa-viə*
 end, extremity; *tʰus*
 endure; *nkeʔ ra-həm*; *laŋ ra-həm*
 enough; *kʰup*; *nəʔ*
 entangled; *zu-zah*; *kʰuŋ-kʰən*
 enter (a house); *lec*; *hauk*
 enter a hole; *lec nuəŋ*
 envy; *pə ra-həm*
 epilepsy; *saiʔ zum pʰi*
 err, make a mistake; *lut*
 escape, run away; *npriəʔ tʰeʔ ʔa-vit*; (cattle, horse) *luan*
 esophagus; *krauŋ ʔəʔ*
 evening; *(pʰun) npʰu*
 everybody; *kʰu-kaiʔ (kʰu pʰii)*; *ti kaiʔ pʰii*
 everyday; *kʰu si-ŋeʔ*
 evil spirit, demon; *pa-caih*
 exchange; *ʔa-ləh*
 excrement; *ʔeŋ*
 excuse, pretext; *npləc*
 exhale; *npʰro npʰəm*
 exist; *kɔi*

- exit; *lih*; (of mice) *lus*
 expand, swell; *plv*; *plej*
 expensive; *no*
 explode; *nklus*
 extinguish [VT]; *ncət*
 extinguished [VI]; *ɲət*
 extra, excessive; *hauh*
 extract; *ntep*
 eye; *ɲai*
 eye secretion; *ɲak/ruoŋ ɲai*
 eyebrow; *hac keŋ-re*
 eyelash; *hac ɲai*
 eyelid; *hak ɲai*
 face; *np^huoh*
 fade (as of color); *npah*
 faint; *zum p^hi*
 fall (of rain); (*lih*) *hle?*
 fall asleep; *t^hiecc*; *ɲum ɲec*
 fall down, topple; *nkrop*; *ncac*; *nk^hrac*
 fall off (hair); *nkric*
 fall down; (generic) *nk^hus*; (tumble down) *krəc*; (slip
 and ~) *si-klə*; (trip over something and ~) *ɲa-vu*
 fall, autumn; *lai ple? p^hriw?*
 fallow land; *ma npre?*
 fan fire; *np^haŋ ɲuo*
 fan [N]; *pa-zip*
 far edge (esp. of basking platform); *zus*
 far, distant; *rai?*
 fart; *p^həm*
 fat [ADJ]; *np^heŋ*; *kloŋ*
 fat meat; *ne? la-ɲos*
 father; (address) *nəŋ*; (reference) *kəŋ*
 father-in-law; *pau?*
 feather, plume; *hac*
 feed, breast-feed; *tw?/krəŋ p^hə?*; (~ other food) *krəŋ*; (~
 chicken) *tw?...k^huh*; (~ other animals) *tw?...svm*
 feed [N]; *nc^həm*
 feel bloated; *puoŋ puoh*; *pleŋ ka-t^hu*
 feel dizzy; *pai liuŋ ntəŋ*
 feel strange; *miu*
 felt blanket; *p^hro?*
 female (animal); *miw?*
 female child; (1st) *zε?*; (2nd) *ɲe*; (3rd) *ɲam*; (4th) *ɲək*;
 (5th) *ɲip*; (6th) *ɲiat*; (8th) *ɲoi*
 ferment; *həc*
 fern; *hla? viw?*
 fertilizer, manure; *nk^həŋ*
 festival; *lai ɲeh npləh*
 fever; *sai? ka-luas*
 few, little; *zəm*
 fierce, ferocious; *p^hriau*
 fifteen; *kau-p^huan*
 fifty; *ra-huan*
 fig; (large sp.) *kros*; (small sp.) *ka-t^huc*
 fight; (between two people) *ɲa-zuh*; (one side stronger
 than the other) *ləh = lii*; (a group of people) *ɲiaŋ*
- fight/vie for; *ɲa-cia?*
 file; *k^han saŋ*
 fill, put into; (~ with food) *p^huk*; (~ with water) *prək*
 fill up (hollow); *riw*; *ntan*
 filter/strain; *si-k^hit*; *nc^hiəh*
 find; *zuo?*
 finger; *nkian tε?*; (middle finger) *nkian laŋ*; (index fin-
 ger) *nkian c^hi*; (little finger) *nkian leh*
 fingerprint; *k^huan tε?*
 fingerspan; (tip of thumb to tip of middle finger) *nt^hiəw?*;
 (tip of thumb to tip of index finger) *nkauiŋ*
 finish, be over; *ɲuc*
 fire; *ɲuo*
 fireplace rack; *nkriw?*
 fire-tongs; *nkiap*
 firewood; *k^hε?*
 first; *pa-ka*; *nt^ha*
 first day of the month; *ləs k^hε?*
 fish; *met ka?*
 fishing rod; *k^hau? met*
 fish-poison; *k^hε?*; *le?*
 fish-trap; *nk^hrəŋ ka?*
 fishy; *si-ɲai ka?*; *ɲec*
 fist; *tε? nc^həp*
 five; *p^huan*
 flat (and shallow); *ntap*
 flat (of a ball or tire); *təp*
 flatland; *npes priat*
 flatten; *ntiap*; *tap*
 flattened bamboo used to make floor; *ka-mus*
 flea; *tiaŋ*
 flesh, muscle; *hoc*
 flight (of steps); *npəŋ*
 fling, toss; *si-vun*
 flint; *si-muo? ka-tuai*; *si-mu? ɲuo tuai*
 flip (finger); *t^het*
 float; *si-liuŋ*
 flock; (of chickens) *ka?*; (~ of sheep) (*n*)*t^hi*
 flood; *ra-ɲəm ruoh*
 floor; *nk^hrim*
 flour; *ɲwəŋ*
 flow; *lih*
 flower; *pros*
 flower sp.; *pros krw*
 fluttered; *su-sak ra-həm*
 fly [N]; *ruoi*
 fly [V]; *po*
 flying fox; *hlauk*
 foam; *ɲia*
 fodder, horse feed; *svm npruoŋ*; *nc^həm npruoŋ*
 fog, mist; (*t*-)*ɲəm*
 fold, time; *nap*; *son*
 fold one's arms around chest; *klaŋ tε?*; *ruom tε?*
 fold up (a quilt); *niap~nep*; *pua*
 follow; *huat k^hε?*
 food; *pa-ɲeh*; *p^hriw?*

- foodstuff, grain; *p^hriɔʔ*
 fool, blockhead; *p^hii ʔɔ*
 foot; *nkas (c^huoŋ)*
 foot (=1/3 meter); *sivk*
 for the first time; *lai*
 force, compel; *nk^hraʔ; si-k^hət*
 forehead; *keŋ-re*
 forehead strap; *ntua*
 foreskin; *ra-həm*
 forest, jungle; (distant virgin forest) *nɔŋ*; (close to vil-
 lages) *ruok k^hauʔ*; (close to village but more exten-
 sive) *t^hivk k^hauʔ*
 forget; *p^hi*
 forty; *ra-pɔn*
 foundation (of house); *nkwiɔŋ niɔʔ*
 four; *pən*
 fourteen; *kau-pɔn*
 fowl; *sem-sai sem-sac*
 fox; (also: wild dog) *sɔʔ p^hreʔ*
 fragment, broken piece; *nplias*
 fragrant (smell); (*num*) *ŋəi*
 freeze; *t^hieɕ si-tap*
 fresh; *np^həʔ; ŋəi*
 friend; *p^huoʔ nkruom*
 frighten, scare; *nk^hlat*
 frog; *si-puan*; (bull frog) *nkris; si-puan num*; (small ~)
ka-noh
 front; *kaʔ ka*
 front door, entrance door; *ʔa-vivʔ lauŋ*
 frost; *si-tap*
 frostbitten; *zu ze*
 fruit; *pləʔ*
 fruit sp. (oval, tart-sweet); *ŋo nkɔs*
 fruit sp. resembling a mango but tastes like a papaya;
ka-vak
 fry; *t^hivk*
 frying wok; *k^haŋ le*
 full; *nuok; nēh*
 full (from eating), sated; *sak*
 fully recover (from an illness); *muai*; (partially, able to
 move about) *vu-vies*
 gadfly; *prɔp*
 gall bladder; *nk^hɛŋ*
 game (animal); *nəʔ poŋ*
 gap, crevice; *nc^he; ʔa-liap*
 garbage, rubbish; *pa-nprie*
 garden (of vegetables); *ʔa-p^him*
 garlic; *ru hv*
 gaseous; inclined to break wind; *tɔʔ*
 gather firewood; *reʔ k^hɛʔ*; (search for) *sɔp k^hɛʔ*; (cut dried
 braches into smaller sections) *kep k^hɛʔ*; (cut down
 the whole tree to dry) *nk^ho k^hɛʔ*
 gather, assemble [VI]; *ʔa-num*
 gather/build up (of water); *nt^huŋ ra-ʔɔm*
 gecko; *nkɔi*
 geld, castrate; *sēh*
- gem; *si-re*
 generous; *si-riv*
 germinate, sprout; *p^hləŋ*
 gesticulate; *nplas tēʔ; zuok tēʔ*
 get accidentally separated from and lose contact with;
 (village dispersed because of war, disease) *t^huo*;
k^hraʔ; (a group of people) *ru-rie*
 get close, approach; *ʔa-t^heʔ*
 get dark; *vu-vivʔ (p^hreʔ)*; *fɛɕ (p^hreʔ)*; (sunset) *klep si-ŋeʔ*
 get together, assemble; (*n*) *k^hrvəm*
 get up; *kauh*
 get, gain, fetch; *p^hun t^hii*
 ghost, spirit; *si-caʔ*; (invisible living in leaves) *t^hoŋ-t^hoʔ*;
 (apparition) *c^hiv*
 gift, present; *pa-səʔ; k^hrəŋ tɔʔ*
 ginger; *si-kiaŋ*
 girl; *kuan si-nuo ʔa-pɔn*
 girl friend; *ʔa-pɔn fɛ; laiʔ mii nan*
 give; *tɔʔ*
 give birth to; *k^heh*
 gizzard; *nple*
 glans penis; *ntɔŋ kleʔ*
 glass; *si-liɔŋ*
 glib; *vaʔ*
 glutinous rice; *ŋɔʔ p^hic*
 gluttonous; *ʔa-c^hoʔ*
 gnaw, nibble; *k^hreŋ*; (~ wood) *k^het*; (~ hard) *k^hiu*
 go downstairs; *lih kaʔ-sēh*
 go out to work in the early morning; *np^həi~np^hiəi*;
ŋəi~ŋiəi
 go to market/a fair; *lec las*
 go to stool; *muoŋ*
 go to war, do battle; *zuh/poŋ nieŋ*
 go up, ascend; *hauk*
 go up/rise (of water level); *huan (klɔŋ)*
 go, leave; *hau kaʔ ʔua*
 goat; *p^heʔ*
 goiter; *rɔh*
 gold; *si*
 gong; *ʔa-p^hivŋ*
 good; *ŋɔm*
 good, well-behaved; *t^hum*; (tame) *ŋe*
 good-for-nothing; *p^hii ləʔ*
 goods, merchandise; *pa-c^hus pa-ʔeŋ*
 goose; *han*
 gore; *ʔa-vus*
 gossip; *ʔa-p^hivk*
 gourd (gen.); *npiu*
 gourd flute; *npiaŋ*
 gourd ladle, wooden dipper; *np^huk*
 government official; (*ʔa*) *mivŋ*
 grab, seize, catch; (grab) *si-p^hin*
 grader; *nc^həs*
 grain left unhusked in the mortar; *ʔem nkauʔ*
 granary; *niɔʔ nkrauk*
 granddaughter; *kuan saiʔ ʔa-pɔn*

- grandfather; *taʔ*
 grandmother; *zaʔ*
 grandson; *kuan saiʔ ʔa-meʔ*
 grasp with the fingers of both hands; *vih*
 grass; *rip*
 grass sp.; *mak*
 graze; *ɲəm; liuŋ*
 greasy, oily; *la-ɲiec*
 greedy; *tij ra-həm*
 green; *si-ɲiv*
 grey; *pə*
 grind; (~ flour) *kʰrit*; (~ with grader) *səs*
 grinding stone; *leŋ*
 grip, handle (of cup); *nkrɔŋ*
 groan; *ɲivh; ɲiu; ɲəi; ɲəi*
 groin; *ʔa-liap ntʰivŋ*
 groove in crossbow; *ntvŋ ʔak*
 grope; *pu-piu*
 grope for fish; *pək*
 grow; *huan*; (emerge out of earth) *kʰuos*
 grow (a boil); *ka-muat*
 grow up; *huan*
 growl (of a tiger); *ɲvək*
 gruel, porridge; *kləm*; (watery) *hrɔŋ*
 grunt (of a pig); *ɲek*
 guard, defend; (e.g. tend sheep) *ɲəm; kʰuon*
 guess at; *si-pvək*
 guest; *ɲu*
 gums; *ɲi*
 gun, rifle; *si-niet*
 gunpowder; *ʔa-nie*
 gut (fish); *livh*
 hail; *pre*
 hair; *hac ntɔŋ*
 hair whorl; *kʰuan*
 half; *plak*
 halter, bridle; *kə npruon*
 hammer; *nkʰoh*
 hammer in (a nail); *kom; tʰet*
 Han Chinese; *hʋʔ*
 hand; *tɛʔ*
 hand down (to posterity); *prah; ʔən ʔeh; ʔa-liet*
 handful (of rice); *ncʰop*
 handicapped; *vək*
 handle, hilt; *si-tʰoʔ*
 hang; *vək; tac*
 hang (on the wall); (~ painting) *kʰlaʔ; hɔp*; (~ mirror, sword, bag, etc.) *vək, piə*
 hang down, droop; *tak ta; prun pranj; prun pʰreŋ*;
 (beautifully) *ncʰivh*
 happy and excited; *nkʰəʔ; (nkʰəʔ) pʰit*
 hard; *krɔh*
 hard, laborious; *si-tʰiep*
 hardworking; *rian*
 harvest, reap; *vuok*
 harvested but not replanted (as of fields); *npreʔ*
- hat; *ɲvək*
 hat made of bamboo strips; *neʔ*
 hatch [v1]; *nkweh*
 hatch, incubate; (sit on egg) *ka-num*; (hatch [v1])
nkuah
 hate; *si-ɲiv/kʰuŋ ɲai*
 have, possess; *kɔi; ʔən*
 have (eyes); *kɔi*
 have a fever; *ra-ʔauh/kɔc kaiʔ; saiʔ hɔc; kɔc ntɔŋ*
 have cramps; *rən si-nivək; tos kuan ʔia*
 have diarrhea; (*saiʔ*) *pʰrah; saiʔ vec*; (*saiʔ*) *si-kʰət*
 have goosebumps; *ros kaiʔ*
 have guessed right; *rok (si-pvək)*
 have pins and needles; *ka-mieŋ*
 have sex; *ʔa-pət*
 have stuffed nose; *ntʰuk*
 have taken hold of/gotten; *huac tʰii*; (have caught) *huac nkeʔ*
 hay (of rice); *nkaih*
 he; *nvh*; (at SAL: *ɲuom*; (dist) *ɲuom ʔuan*; (prox) *ɲuom ʔien*); (anaphoric) *hah*
 head; *ntɔŋ*
 head-cloth, turban; (male) *si-kruat*; (female) *kun keŋ*
 headman, chieftain; *pʰii hraŋ*
 headwaters; *tʰuoh klɔŋ*
 heal (of a wound); *muai*
 heap/stack; (stacks of hay) *roʔ*; (loose grass) *nkom/ muoʔ*
 hear; *ɲvɔŋ*
 heart; *ra-həm-hrɔm*
 heavy; *cʰen*
 heel; *nkɔc cʰuon*
 height; *nkʰlauŋ*
 help; *ʔa-zuŋ*
 helper; *npʰiʔ*
 hemp; *kaiʔ-hɔc*
 hen; *ʔia miʋʔ*
 here; *tʰoʔ ʔien*
 hereafter, from now on; *kʰeʔ ʔian; kʰeʔ ʔuan*
 hew (with jungle knife); *mok*
 heystack; *nkaih*
 hiccup; *si-ʔəʔ; nkʰwac*
 hide (something); *mɔʔ*; ([v1]) *mɔʔ tʰeʔ*
 hide oneself; *mɔʔ tʰeʔ*
 high building; *ɲivʔ hlaun ɲivʔ tʰiŋ*
 high, tall; *hlaun*
 hill; *tʰuo*
 hire, empty; *vie*
 hit, beat; *zuh*; (beat up) *ləh/lii; pʰəh*; (~ with thick plank or log) *tuai*; (~ with small rod) *tʰes*; (~ with log) *pʰəh*; (~ with knuckle) *kʰuoh*; (~ target) *ɲəh; krɔʔ*
 hoe [N]; *npʰraŋ*
 hoe up (weeds); *kʰras*; (with hoe) *kʰruas*; (with hands)
rem
 hoe [V]; *kʰruok*; (~ horizontally) *npʰuok; cauk*

- hold, grasp; *si-p^hin*; *nkeʔ*; (~ hidden in the fist) *nchəp*
 hold danglely in the mouth; *k^het*
 hold out hands to catch or receive something; *t^huəŋ*
 hold in mouth; *mi*
 hold in the arms, hug; *neŋ*; *t^him*; (hug) *ruom*
 hold one's chin; *t^hu kap*
 home; (*nuoŋ*) *niwʔ*
 honest person; *p^hii cəŋ*; *p^hii cək*
 honest, well-behaved; *cək*; *p^hii cək p^hii rian/nč^həs*
 honey; *ra-ɔm keŋ hia*
 hoof; *ŋem*
 hook [N]; *met*
 hook up [V]; (with a hook) *ka-vec*; (with other tools)
kuas
 hope; *ɔa-miw*
 horizontal; *nke*; *kuŋ ke*
 horn; *roŋ*
 horse; *npruoŋ*; (mare) *npruoŋ c^haŋ*; (colt) *kuan npruoŋ*
 horse dung; *ʔeŋ npruoŋ*
 horse mane; *hac npluok*
 horseshoe; *si-t^he c^huoŋ npruoŋ*
 hospitable; *nu*
 host; *cau* (*niwʔ*)
 hot; (of weather) *hlok*; *ra-ɔauh*; (of water) *kəc*
 hot pepper, chili; *ma(k)-kriəm*; *p^hret*; *p^hret*
 hot, spicy; *preʔ*
 hound; *səʔ hək*
 house; *niwʔ*
 household; *niwʔ p^hii*
 house-pole; *rəŋ*; (central~) *rəŋ t^hiŋ*
 how; *hlək muoʔ/ hlək p^həh*
 how many/much; *mreʔ muoʔ* (*kaiʔ*)
 howl (of a wolf); *npruoh*
 huddle/curl up; *rət*; *kək kəm*; *rək rən*
 human being; *p^hii*
 hunchback; *p^hii kəʔ*
 hundred; *keŋ*
 hungry; *vuk vec*
 hunt; (alone) *nč^huom*; (in a group) *hək*; (for a few days)
 in mountain) *ŋec*
 hunt (for some time in the hills); *k^huon*; *ŋec*
 hunter; *cau nč^huom*; *pa-hək*
 huqin (a two-stringed bowed instrument); *si-coŋ*
 hurriedly, hastily; *k^hie*
 husband; *ɔa-meʔ*
 hush-money; *sum*
 husk; (separated from grain) *kam*; (still on grain); *ləŋ*
 husk powder; *ŋwŋ*
 I; *ɔəʔ*
 ice; *pre*
 idea, opinion; (*pa-*) *nč^hem*
 idiot; *p^hii nt^hək*
 idle, unoccupied; *p^hiv*
 if; *k^heŋ*
 ignore; *t^ha*
 ill/sick; *saiʔ*
- immerse, submerge; *nč^həʔ*
 impatient; *ɔah*
 in (the sky); *nkuai ka-ma*
 in a low voice; *k^hre*
 in ancient times; *nč^hu ka*
 in shambles, ruined; *hram*
 in the future; *k^heʔ ɔien saʔ*
 in the past; *kaʔ ka nɔʔ*; *nč^hu ka*
 incisor; *hraŋ vui*
 increase; *np^huoʔ*; *nauk* (*hon*)
 industrious, hardworking; *rian*; *k^hi*; *lom ŋem*
 infect; *hauk*
 inhale; *zua t np^həm t^heʔ*
 initially, in the beginning; *lai ɲai*
 injure/hurt; *mat*
 inside; *nuoŋ*
 install; *ntək*
 interest; *ru mi*
 interrogative marker; *həʔ*
 interstice; *ɔa-liap*
 intestine; *vec*
 invite; *hak*
 invite (someone in a crowd of people secretly home
 for a meal); *kuas*
 iron; *hriam*
 itch/tickle; *niwʔ*; (when tickled) *la-ŋic*; *la-ŋiec*
 ivory; *hraŋ saŋ*
 jab, poke, stab; *suat*; (~ with great force) *npluŋ*; (prick
 with needle) *sət*
 jackfruit; *mak nun*
 January; *k^heʔ t^heʔ*
 Jingpo; *k^haŋ*
 job's tears millet; *si-p^heʔ*
 joint; *si-ɔaŋ ruc*
 joke, jest; *ləŋ*
 jump, leap; (~ up, ~ up and down) *ca-loŋ*; (of a frog) *ca-*
pos; (~ over a ditch) *pos*; (~ while running) *p^huos*
 just now; *nəʔ*
 justle; *k^huk k^hat*
 keep secret; *məʔ*
 keep, take care of; *preʔ*
 kernel, pit; *sək*
 kettle, teapot; *ka-təŋ la*
 key; *ncək*
 kick; (with tip of foot) *t^het*; (with entire surface of foot)
si-ton
 kidney; *sək-len*; *sək-laʔ*
 kill; *plaiʔ*; (slit throat) *ŋiu*; (chicken, cut throat and
 then singe off feather) *təŋ*; (butcher cattle) *p^həh*;
 (butcher pig) *suat*
 kill oneself; *plaiʔ t^heʔ zum*; *zum ca*
 kind [N]; *ʔə*; *c^hi*
 kindle; *tək*; (switch on light) *np^hluai təŋ/tiŋ*
 king; (*ɔa-*) *miwŋ zaŋ*
 kiss; *ʔəŋ*; *zua t nk^his/si-pa*
 kitchen; *niwʔ p^hriwʔ/səm*

- knead (dough); *tʰic*; *pua*; *zuh*; *mian*
 knee; (*mus*) *nkruoŋ*
 kneel; *ʔoŋ*; *kʰrik kʰrin*
 knife; *viec*; (battle knife) *viec niep*; (long ~) *viec laŋ*;
 (small ~) *nkuan*
 knock; *kʰoh*
 know, recognize, know through learning; *zuoŋ*
 knuckle; *ncʰoŋ tɛʔ*
 lack, want; *cʰut*
 lad, young chap; *kuan si-nuo ʔa-meʔ*
 ladder; *npvŋ*
 ladle; (water) *npʰuk*; (for food) *lak tʰoh*
 lag behind; *ntʰai*
 Lahu; *koi*
 lake; *ntʰuŋ*
 lamb; *kuan pʰeʔ*
 lame person; *pa-vnk*
 land, descend; *krɛc* [VI]; *nkrɛc* [VT]
 lap; *nkuai npa*
 large intestines; *vec tʰiŋ*
 last month; *kʰɛʔ ka*
 last night; *npʰu pa-kauʔ*
 last year; *num kauʔ*
 late; *liɑŋ*
 laugh, smile; *nvh*; (without sound, sneer) *jies*
 lay (eggs); (*lih*) *ka-tɔm*
 lazy; *ka-nivh*; *ʔas seʔ ʔas nprij*
 lead; *hraf*
 lead (metal); *la-vun*
 lead (the way), guide; *ntok kraʔ*
 lead to; *nplɔs*
 leader; *pʰii nkʰraf*
 leaf; *hlaʔ kʰauʔ*
 leak; *cʰiu*; *ruac*;
 lean meat; *hoc*
 learn; *nkʰi*
 leave, depart, set out; *zuok*; (leave, walk away, move
 away, dodge) *nkas*
 leave (home) in anger; *ŋvʰ*
 leave behind; *pʰi*; *prah*
 leave behind, push away, jilt; *kʰɛn*
 leave fallow; *vaŋ*
 leave home; *prah zauŋ*
 leech (land); *nplɔm*
 left; *kaʔ veʔ*
 leftover; *pʰrivʔ hlɔŋ/hauh*
 leg; *cʰuoŋ*
 legendary ancestor of the Wa; *si-kaŋ lih*
 length of fist; *ncʰɔp*
 leopard; *ʔa-vie si-ʔoŋ*; *ʔa-vie ka-suas*
 leprosy; *saiʔ nkrec*
 let up (rain); *hec*
 letter; *lie* (*tʰʔ ~ ʔa-pauʔ*)
 level, flat; *nke*; (obsolete) *tʰuoŋ*
 lick, lap; *let*
 lid, cover; *ntʰuoŋ*
- lie; *ŋiat pɔt tʰeʔ*; (~ on one's back) *ʔec lup lak*; (~ on one's
 side) *ʔec lup liap*; (~ on one's stomach) *ʔec nkoŋ*;
 (~ down) *ŋiat*
 lie (speak falsehood); *pʰiu*
 lie scattered on the ground (of trees, corpses, etc.); *nai*
 life line on palm; *kraʔ tɛʔ*
 life-span; *ncʰu*
 lift (lids); *fak*
 lift up, carry; *zuok*; *neŋ*
 light; *kɔc*
 light (a fire); *tok*
 light (weight); *cʰauŋ*
 light, lamp; **təŋ*
 lighten; *ʔa-sas*
 lightning; *ŋivʔ cʰus kʰraf*
 like [+COMP CLAUSE]; *rian*; *mit*
 like, love; *mit*; *ŋɔm/tʰum ra-hɔm.nah*; *rian...nah*; *sɔm*
ʔɔt.mii; (like to do something) *rian...nah*
 lime; *ra-ʔɔm si-muʔ*
 line (of wheat); *lvʔ*
 line up; *ntia*; (Indian file) *ntia kʰɛʔ ka*; *ntia ncʰoŋ*;
 (shoulder agaist shoulder) *ntia ti plak*; *ntia kəŋ ke*
 lip; *hlɔʔ nkʰis*; *ntɔt nkʰis*
 listen; *ŋiat*
 litre; *seŋ*
 live coal; *nkʰuoʔ ŋuo*
 live, reside; *ʔɔt*; (move and live at a place permanently)
kat; (~ at a place temporarily) *npaŋ*
 liver; *ka-tɔm*
 livestock, domestic animal; *kʰraf ʔai*
 living, alive; *ʔem*
 lizard; *ka-lu*
 loach; *kaʔ nkluoʔ*
 lobed Kudzu vine root; *ra-heʔ*
 lock; *suo* (< Chinese 鎖)
 locust, grasshopper; *si-tʰu*
 lonely; *ncʰi/npʰvŋ ra-hɔm*
 long; *laŋ*
 long (time); *ntʰuok*
 long ago; *nvʔ*
 look like, resemble; *hlɔk* (*ʔa-tʰu* = identical)
 look up; *ŋiet*
 loom; *kʰraf taŋ*
 loose, slack; *ntah*; *hlua*; (loosen) *npʰlv*; *la-hv*
 loquat; (large sp.) *krɔs*; (small sp.) *ka-tʰuc*
 lose (something); *tiak*; *nkrat zuh*; (~ a game, be
 defeated) *pʰɛk*; (~ a finger/toe/limb) *kʰo*
 loud; *luas*; (of voice) *lvʔ tʰiŋ*
 loufah; *tʰuoŋ*
 louse; (body ~) *nprij*; (head ~) *seʔ*
 love, like; *ʔauʔ*; (~ a child, ~ to eat certain foods) *mit*
 low; *tʰem*
 lower body; *cʰuoŋ*
 lower head; *ŋui/ʔoŋ/ntʰem ntɔŋ*
 lower lip; *nkʰis seh*
 lukewarm; *si-ʔo*

- lunatic; *pa-lan*; *pa-hiət*
 lungs; *ka-ŋau*
 machete; *pa-kəm*; *ma-kəm*; (with curved blade) *ŋau*
 maggot; *nkrec*
 magpie; *nprieŋ*
 maize, corn; *vuon*
 make (prepare food); (~ bread) *zuh*; (~ tea) *ntom (la)*;
 (~ cold dishes) *sa*
 make a row/racket; *riək*; *ʔa-caiʔ*
 make friends; *səp*; *zuh tʰeʔ məh (pʰuoʔ nkruom)*
 make a mark; *zuh niat*
 make way, give way, step aside; *zak*; *nkas*; *nkleh*
 make (something happen), cause; *zuh*
 malaria; *saiʔ prəh*
 male (animal); *ŋeŋ*
 male child; (biggest) *ʔai*; (2nd) *ŋi*; (3rd) *soi*; (4th) *sai*;
 (5th) *ŋuoi*; (6th) *ŋuoʔ*; (7th) *se*; (8th) *lok*
 man; *ʔa-meʔ*
 manage, control; *kʰam*; *preʔ*; (watch over object) *kia*
 mane; *hac npluok*
 manger; *ntəŋ səm npruon*
 mango; *pə*
 mantis; *ʔak-səʔ*
 many, much; *hon*; *hlə*; *ne*
 mark, sign; *ŋai*
 marriage ceremony; *pʰriʔ kən caŋ*
 marrow; *nkʰuo*
 marry; *kən caŋ*; (~ a woman) *tʰii*; (~ a husband) *hau*
ŋiəʔ
 marten; *ka*
 mat; *npe*; *ka-ne*; *npe ka-ne*
 match; *ka-tuai*
 matter, affair; *si-vai*
 means, solution; *krəŋ*
 measles; *təŋ*; *pʰris*
 measure; *hiat*
 meat; *neʔ*
 medicine; *ʔa-tah*
 meet, come across; *ʔa-taih*; *təh ŋai*
 melt, dissolve [vi]; *liec*
 melt, dissolve [vt]; *nkriak*; *nkliec*
 men's sarong; *kʰlaʔ tʰiŋ*
 menses; *kʰeʔ ŋam*
 meow; *nprum*
 merchant; *pa-li*
 mess up; *kʰuŋ kʰan*; *tʰu tʰia*
 messy, chaotic; *su seʔ*
 middle; *ka-piaŋ*; *npiaŋ*
 midge; *meŋ*; (smaller sp.) *mu*
 midnight; *ka-piaŋ səm/npʰu*
 milk; *ra-ʔəm təs*
 millet; *kʰəʔ*
 millstone; *nkʰrit*
 mimic; *təi*
 mince; *mək*
 mirror; *si-liəŋ*
- miss [vt]; *mos ~ mus*; *ntʰut ra-həm*
 mistake, error; *lut*
 mix (powder) with water; *si-kaʔ*; *nfit*
 mix [vt]; *zuh ʔa-neʔ*; (stir) *si-kaʔ*; *ku-kaʔ*
 molar; *hraiŋ kʰie*
 moldy; *ʔa*
 mole (body part); *ŋai ʔa-zivʔ*; *mu*
 mole (animal); *kli*
 mole cricket; *ntʰi ʔeŋ*
 money; *mi*
 monk; *vat*
 monkey; *fəʔ*
 month; *kʰeʔ*
 moo (of cattle calves) *npeʔ*; (of female cattle) *məh*; (of
 male cattle) *npəh*; (of female buffalos) *ŋviʔ*; (of
 male buffalos) *ʔviʔ*
 moon; *kʰeʔ*
 more; *ntə*
 morning; *pʰun ŋuop*
 mortar; *pə*
 mosquito; *meŋ*; (large sp.) *praiŋ*; (~ larva) *nkrec*
 moss; *ʔeŋ ʔak*
 mother; (term of address) *maʔ*; (reference) *miʔ*
 mother-in-law; *tʰiŋ*
 mountain; *nkəŋ (ra-ʔaiŋ)*; *nkʰuon (ra-ʔaiŋ)*; (peak) *tʰu*
 mountain cave; *ka-taiʔ ra-ʔaiŋ*
 mouse; *kʰiəŋ*; (~ sp.) *nkʰuos*
 mouth; *nkʰis*; *ntət*; (oral cavity) *muon*
 move; *ʔa-səh*; *luas*; *ʔa-tʰiəh*; (~ objects closer to one-
 self) *kuas*; (~ house) *tʰiəh/nkas ŋiəʔ*
 Mowo 莫窩 (village to the north of Banzhe); *məŋ-ŋau*
 mu (unit of area; = 667 square meters); *kau kʰauʔ*
 mud; *nkluoʔ*
 muddle (the water); *ku-kaʔ...si-ka*
 muddy pool; *ləh*; *npʰiəŋ*
 muddy, turbid; *si-ka*
 mulberry; *kʰauʔ lias*
 multicolored; *pʰris*; (as of chicken and clothes, black
 and yellow) *si-krak*
 mung bean; *ʔian*
 muntjac, barking deer; *pəs*
 mushroom; *tes*
 mute; *pʰii ʔə*
 nail (body part); *ŋem*
 nail, tack; *si-tʰe*
 naked; *nkaun*
 naked (as of mountain); *tʰu-pak*
 name; *ŋai*
 nape; *npluok*
 narrow; *kəp*; *kləʔ*; *kləp*
 nasal mucus; *mis*; *nkʰuo mis*
 nauseous; *si-rəŋ*
 navel; *ka-tʰeŋ*
 near, close; *tʰeʔ*
 neck; *si-ŋuok*
 necklace; (*pa-ŋaiŋ*)

- needle; *ka-niʔ*
 neigh; *npʰros*; *npʰris*; *riʋk*
 neighbor; *pʰuoʔ niʋʔ*
 nephew (brother's son); *kuan taŋ*
 net; *rup*
 net fish; *rup kaʔ*
 new; *si-rauʔ*
 New Year's Day; *num si-rauʔ*
 New-Rice Festival; *npʰoŋ ɲɔʔ*
 news, message; *lɔʔ ʔa-pauʔ*
 next year; *num saʔ*
 night; *npʰu*; *sɔm*
 nimble; *si-klah*
 nine; *si-tem*
 nineteen; *kau si-tem*
 ninety; *ʔa-tem*
 nipple; *nkon tɔs*
 nit; *ka-tɔm seʔ/npruŋ*
 nod; *ʔiʔ ntɔŋ*; *ɲəh ntɔŋ*
 noisy, make noise; *nkʰəʔ*
 noon; *ka-pianʔ(lai) nɔʰoŋ si-ŋeʔ*
 nose; *mis*
 nose ridge; *nkʰuoŋ mis*
 nostril; *ka-taiʔ mis*
 not at all; *ʔaŋ tu*
 not busy, idle; *ɲic*
 notify, inform; *ɲauʔ*
 numb; *zum pʰi*; (sore) *ka-mieŋ*
 obverse; *nkuai*
 occur, happen; *kɔi*
 offer (food, drink) respectfully; *lus*
 offer, dedicate; *sət*
 often; *npraʔ*
 old, used; *prɛm*; *cʰuoʔ*
 old lady; *zaʔ kʰuoʔ*; *kʰuoʔ ʔa-pon*
 old man; *kʰuoʔ ʔa-meʔ*; *taʔ kʰuoʔ*
 old, elderly; *kʰuoʔ*
 olive; *si-me*
 on; (~ a roof) *npraʔ niʋʔ*; (~ a table) *nkuai*; (~ a wall) *nkuai (ntianʔ)*
 one; *tʰeʔ*; (in numerical phrases) *ti ~ tɔ*
 one hundred and one; *tɔ keŋ mii tɔ mau*
 oneself; *tʰeʔ*
 onion, scallion; *ka num*
 open; (~ a door) *pauh*; (~ eyes) *nplies*; *kʰu-kʰries*; (~ mouth) *ʔaŋ/vies nkʰis*; (~ wide) *viʋh nkʰis*; (~ an umbrella) *pləs*; *npləs*
 open water conduit; *ntʰuoh ra-ʔɔm*; *ntʰuŋ ra-ʔɔm*
 oppose; *ʔa-tʰe*; (*ʔa-tʰe*) *ʔa-tʰiʋ*
 orange; *mak ɲe*
 order, command; (request) *nəʔ*; *nkʰrə*
 origin; *tom*; *nom*
 orphan; (*kuan*) *ntɔi*
 other; *nplah heʔ*
 other side; *lak*; (turn over to the other side) *ʔa-l(i)ak*
 other person(s); *pʰii piauŋ*; *pʰii nplah*
- otter; *pʰiʔ*
 out of order; *lɔʔ*
 outside; *nprauʔ*; (of utensil) *nkuai*; (of house) *klaj ka-tɛʔ*
 over, above; *plak lauŋ*
 overeat; *si-tap*
 overflow, spill; *reh*
 owe (money); *npa*
 owl; *plɔŋ plɔh*
 oxhide string; *mauʔ hak*
 pack rack; *lay/taŋ muoi*
 pad; *ha*; *tʰom*
 pad, cushion; *ha nkʰuoŋ*
 paddle, row; *pas*
 paddy field; *kaŋ*
 paddy rice; *ɲɔʔ kaŋ*
 pail (of bamboo); *si-tʰuoi*
 pain, agony; *saiʔ*
 painting; **hua*
 pal, partner; *pʰuoʔ hau*
 palate; *ntʰiʋŋ hraŋ lauŋ*
 palm; *ka-tʰiʋk tɛʔ*
 palm tree; *kʰruai*; *sək*
 pancreas; *la-vuot*
 pangolin; *ʔa-pʰuoʔ*
 pant, be out of breath; *hə npʰɔm*
 pants, trousers; *kʰlaʔ*
 papaya; *si-vuok*
 paper; *ce*
 parakeet, parrot; *le*
 pare/peel with a knife; (peel) *kʰes*; (to sharpen) *npʰuac*;
 (twittle into round shape) *ruon*; (twittle into flat shape) *tah*
 part company; *nkʰries*
 pass, exceed; *luan*
 pass, go by; *hɔc...tʰoʔ/pʰiv*; (*hau*) *prah...*
 paste, glue; *ju-juʔ*; *hluop*; *kʰlɔp*
 pat (e.g. head); *ntʰih*
 patch (clothing); *ʔa-pʰuoʔ*
 patient; *pa-saiʔ*
 pave, lay; (~ road) *ntʰien kraʔ*; (~ bed) *tʰom npe*
 pea; *tʰo mauʔ*
 peach; *ka-tʰiʋ*
 peacock; *kauŋ*
 peanut; *kʰrim ka-tɛʔ*
 peck; *tos*
 peel off; *ntak*; (bark, leaves) *ka-rəi*; (old paint~) *npas*
 pen; *nkrɔŋ lie*
 pen in, drive back to fold; *nplec*
 penis; *kleʔ*
 pepper; *si-ləʔ*
 perch, rest for the night; *npan*
 perch, light [v]; *pan*
 permit, allow; *tvʔ*
 persimmon; *kʰauʔ nkrɔŋ mɔi*
 persist; *kʰin*

- person with pock-marked face; *p^hris np^huoh*
 personal enemy, antagonizer; *p^hii k^huon*; *p^hii si-ŋiv ŋai*;
p^hii nc^huo?
 perspire; *lās/lih/np^hras la-ŋaih*
 pestle; *nkri?*
 pestle/pound; *taih*
 photo; *c^hiv*
 physical strength; *si-nivk*; *npra?*
 pick up; *sot*
 pick up food with chopsticks; *kiap*
 pickled bamboo shoot; *ŋa-niv?*
 pierce; *suat ntəh*
 pig; *lik*; (piglet) *kuan lik*
 pig dung; *ŋɛn lik*
 pig feed, pigwash; *səm lik*
 pigsty, hogpen; *luok lik*
 pile/stack up; *ro?*; *nkəp*
 pillar, house-pole; *rəŋ*; (central) *ruoŋ*; *rəŋ pran*
 pillow; *nk^huoŋ*
 pine, pine torch; *nk^hi?*
 pineapple; *nkrac*
 pipe; *lək sup*
 piss, urinate; *nim (nim)*
 pit; *nt^huoh*; (small pit made by cows stepping on it)
k^hlək; *nk^hlək*; *nklək*
 pit, stone; *sək*
 pitchfork; *k^hau? p^həp*
 pitchfork (weapon); *k^hau? npluŋ*
 pitiable, pitiful; *c^huo? p^həm*; *sai? ra-həm*
 place; *t^ho?*
 place, location; *taŋ* (cf. *taŋ ət me?* 'place where you are')
 place for hen to lay eggs; *k^hək ŋia*
 place frequented by animals or people; *nkləh*
 placenta; *hrəm*
 plait; *kian*
 plane [N]; *nc^həs*
 plane [V]; *səs*
 plank, board; *tap*
 plant [V]; (plant seedling) *nc^hom*; (by casting seeds)
ruot
 plant [N]; *k^hau? ʔə?*
 plant sp. with edible pith; *klunŋ*
 plate, dish; *nt^hivŋ*
 platform for drying grain; *nkras*
 play, amuse oneself; *klian*
 pleasant to the ears; *num/ŋəm t^he? ŋiat*
 pleasant to the eyes, beautiful; *num/ŋəm t^he? kia*
 plough [N]; *k^hau? t^hai*
 plough [V], till; *sum*; *k^hruok*
 ploughshare; *hriam t^hai*
 pluck, pick; *cɛc*; (~ fruit) *pɛh*
 plum; *plɛ? hak ra-ŋaŋ*
 pocket; *t^həŋ*
 point at/to/out; *c^hi*
 point, tip; *ru*
 poison, toxin; *ŋa-tah ʔəp*
- poke (a sign into earth), insert; *npluŋ*
 polite, courteous; *ŋa-t^hiv*
 pond; *nt^huŋ*
 pool (money); *ŋa-p^hən*
 poor; *c^ha*; *hət*
 poor (land); *(k^hru) k^hrec*
 pop open; *ŋa-t^huos*
 popped maize; *vuoŋ np^hros*
 porcupine; *nkəs*
 pot, jar; *si-k^hoŋ*; (pots in general) *ka-təŋ*; (large iron
 pot) *k^hatəŋ*
 potato; *ka-len*
 pound to pieces; *npluoŋ*; (emph) *si-tec*
 pound with force; *nklu?*
 pound with pestle (first round); *ŋa?*
 pound with pestle (second round); *sək*
 pour into; *rək*
 pour out; *klop tiak*; (pour out a little) *nkreh*; (~ water)
c^hit
 pour water on; *sə*
 pregnant; *ŋɛ*
 prepare, make ready to do something; *prɛ?*
 press, squeeze; *npiat*
 press, push down; *niap*; (with palm or finger) *zin*; *niap*
nah tɛ?; (with something heavy) *nkot*
 pretend; *ŋə* (e.g. *ŋə t^he? ziem* 'pretend to weep')
 price, wages; *ŋuos*; *ris*
 prick; *suat*; *cək*
 prison; *ŋiv? lə? kai*
 promise, consent; *ŋi?*; *ŋiat*
 prop, support; *t^hu*
 protect; *ŋəm*
 protruding tooth; *hraŋ nkəp*; *hraŋ p^hries*
 protruding, raised; *np^hlen~nplen*; *tən*
 proverb, saying; *lə? k^huo?*
 provoke, seek trouble; *hak*
 pry; *vies*
 pubic hair; (of a male) *hak kle?*; (of a female) *hak sək/pe*
 pull (e.g. a quilt) over oneself; *ʔəm*
 pull (trigger); *k^hluc*
 pull down (a house); *zivh*
 pull open (drawer); *pauh*
 pull out (weeds, turnip); *ric*; **nploh*
 pull, draw (sword); *luot*
 pull, tug, drag; *k^hrut*
 pulse, beat; *ca-ləh*
 pumpkin; *npiu num*
 puncture [VT]; *təh*
 punish; *zuh lə?*
 pupil (of eye); *kuan ŋai*
 pus; *lim*
 push (grass) aside with both hands; *vias*
 push, shove; *cot*; (topple) *ŋən*; (awake so.) *ŋa-səh*
 put (rice) into pot; *ta?*
 put (soil) on; *nt^hien*; *kəm*
 put away with care; *cə?*

- put hands on the hips, hands akimbo; *ruom te?*
 put in (salt); *tā?*; (~ round rim of pot) *nkruoi/nkræc*
 put in order, arrange; *ntia*
 put in order, tidy; *prē? kʰrim*
 put into a container, pack; (into pocket, bag) *ɲəh/nplec/*
səm/ʔən nuoy; (into bowl/plate) *ɲəh/ʔən nuoy*
 put on; *ʔəm*; (~ pants, shoes, etc.) *ʔeh; cəp*; (~ another
 layer of clothing) *npʰuo? ʔəm*
 put hand(s) on something for support; *nkē? kra?*
 put something somewhere; (put down) *ntʰəh*; (put
 away carefully) *ʔən/cə?*; (~ in container) *səm*
 put stopper in; *tʰə?*
 puttee; *man huat (cʰuoy)*
 python; *klon*
 quail; *kʰit*
 quake of earth; *kla rim*
 quarrel; *ʔa-cə*
 quick, fast; *cʰauy; npra?*; (horse) *cʰauy*
 quilt; *pʰro?*
 quit (bad habit); *tʰuos*
 rabbit; *mo*
 rafter; *si-ʔə?*
 rain; *hlē?*
 rainbow; *ʔa-zuoy*
 rainy season; *lai rə?*
 raise, heave; *zuok*
 raise, keep; *ʔai*
 raise (head); *ɲiet*
 raise (tail); *ncʰəy; zuok*
 rake; *nkʰət*
 rake (the fields); *kʰot; ku-ka?*
 rake and spread (grain) for drying; *ra(s)*
 rake [v]; *kʰot*
 ram, butt; (with bead) *si-tʰijɲ*; (fight with horn) *si-tʰit*;
 (with head tilted to one side) *ʔa-vus*
 ramie; *nkan*
 ramie bag; *cʰə*
 rape; *lit*
 rapid; *kua kləy*
 reach for; *cəs*
 read; *nkʰi; kia*
 recall, recollect; *ncʰem*
 recall, remember; (think of, figure out) *ntəh ncʰem*;
 (recall) (*zuoy...tʰe?*) *me ncʰem*
 receive; *huac tʰii*
 recently, lately; *si-rau? ʔien*
 recognize; *zuoy*
 red; *leh*
 red jungle fowl; *ʔia pʰre?*
 reduce; *zəm; nteh*; ([vT]) *nteh; zuh zəm*
 refine (iron); *sah; mo; sec*
 refuse by making excuses; *ʔa-tʰiv*
 regret; *ntʰivəh ra-həm; kles (ra-həm)*
 reheat; *si-ʔo*
 reins; *kə npruoy*
- relatives; *pa-ɲiv?*; (paternal relatives) *nta? ntʰuoy*; (in-
 laws) *tʰun*
 release, set free; *npʰluai; npʰla*
 rely on; *si-tʰuoy; tʰu*
 remember; (*kʰən*) *niat*; (*kʰən*) *zuoy*
 remove, move out of the way; *zak*
 repay; *prə npa*
 request; *maɲ*
 rescue, save; *ʔa-cʰuo*
 reserve (seeds); *cə?*; *ʔən*
 resin; *pʰis nkʰi?*
 respective, individual, each; *noy*
 rest; *lai?*
 return; *ʔiaɲ*; (return halfway) *me*
 return (blow); *tv? te?*
 return [vT]; *prə*
 return, retreat; *ntʰəs*
 reverse [ADJ]; *nkrəm*
 reverse [v]; (*ʔa-*)*lak*; (*ʔa-*)*liak*
 rheumatism; *sai? kʰreɲ*
 ribs; *si-ʔay prauk*
 rice; (rice plant) *ɲə?*; (unhusked ~) *ɲə? (kaɲ)*; (husked
 ~) *nkau?*; (cooked ~) *ʔəp*; (non-glutinous ~) *ɲə?*
ʔah; (crushed ~) *muac*; (early ~) *ɲə? ka-luas*
 rich; *mi; zuo?*; *mie*
 rich person; *pa-mi*; *pʰii ʔas mə?*
 riddle; *si-pək*
 ride (a horse); *npʰok*
 rift, crack, fissure; *ntəh*
 right(side); *ka-təm*
 right away; *kən ʔa-vut*
 right, correct; *rok*
 ring; *nple nkian*
 rinse (mouth); *pʰak*
 rinse, flush; *si-kra*
 ripe; (of fruit) *tʰim*; (of crops) *kai?*
 rise, go up; (of the sun) *lih*; (of a flag) *zuok*
 rise/stand up; *zuok (tʰe? cʰuoy)*; (get up from bed) *kauh*
 river; *kləy*
 road; *kra?*
 roar; *ɲək; npʰris; nprɪh*
 roast; (on live charcoal) *təy*; (over fire) *ka*
 rob; *ca?*
 robber; *pa-ca?*
 rock; *ra-ʔay*
 rock, sway; *zuɲ zay; puk-plak*
 rod with flat end for churning rice in the pot; *nkwe*
 rod, stick; *kʰau?*; (thin rod) *si-vat; si-vet*
 roll; *lu-liu*; ([vT]) *pa-liu*; (~ something downhill) *paɲ*
liu
 roll up (cloth); *pua*
 roof; *nprə?*; (top rim) *praɲ ɲiv?*; (side roof) *vui hv*
 roof-top; *si-ta? ɲiv?*
 root; *res kʰau?*
 rope, string; *mau?*
 rot; *si-ʔom*

- rough, coarse; *kʰat*; *npʰruj*; *npʰruoŋ*
round, circular; *pai vit*
rub (hands); *puai tɛʔ*
ruin, render out of order; *npləh*
ruler; *sək*
ruminate; *kleŋ niu tʰeʔ*; *ʔeŋ le*; (rare) *pʰiem sɔm tʰeʔ*
run; *ʔa-vit*; *tɔ*
rust; *hram*; *kram*
sacrifice [N]; *hlaʔ tauh*
sad; *saiʔ ra-hɔm*; *ntʰut ra-hɔm*; *cʰuoʔ ra-hɔm*
saddle; *taŋ npruoŋ*
safe and sound; *ŋɔm ʔɔt*
saliva; *nia*
salt; *kʰis*
salty; *səŋ kʰis*
sambhar deer; *caŋ*
sand; *ŋac*
sap, juice; *pʰis*
satiated; *ʔas*
satisfy, meet (a condition); *kʰup*
save (something); *preʔ*; *cɔʔ*
saw; *npias*; *pias*
scabies; *saiʔ ŋivʔ*; *saiʔ pʰrəs*
scald/burn; (by boiling water) *hlac*; (by fire) *tok*; (by hot metal, etc.) *pʰiet*
scale (of pangolin); *nkʰluop*
scalp; *hak ntɔŋ*
scar; *vum*; *nproʔ*; *nkuai mat*
scarab; *ntʰiv ʔeŋ*
scent; *si-ʔɔi*
school (of fish); *ŋac kaʔ*
scissors; *nkʰrep*
scold; (with bad language) *ka-cʰak*; *ka-cʰec*; *kluan*;
(scold) *ʔəh*; *ʔən*; (~ each other) *ʔa-mah*
scoop up; *pʰuk*
scorching (sun); *kla*
scratch (an itch against something); *kuk-kat*; *kʰuk-kʰat*
scratch (an itch); *pac*; *krem~krem*
scratch earth (as of fowl); *ras*
scream; *riɔk (si-rut)*
scrotum; *kla*
search, look for; *kʰu-kʰras*; *kʰries*; *sɔp*
second; *pa-ra*
second male child; *ni*
section (of bamboo); *ncʰɔŋ*
see; *zuoʔ*
see (doctor); (see doctor, see a patient) *kia saiʔ*; (see a doctor) *tʰii ʔeh ʔa-tah*
see off; *tau*
seed; *si-miv*
seed of Chinese prickly ash; *ʔa-cʰep*
seedling (of rice); *ŋɔʔ lu*
seep into, permeate; *lec*
sell; *cʰus*
semen; *ŋivŋ*
send (letters); *ʔa-pauʔ*
- send, dispatch; *tɔʔ.hau*; (by force) *nkʰrə*; *nəʔ*
separate [V1]; *nkʰries*
separate [VT]; *zuh...nkʰries*
serow (Capricornis sumatraensis); *kias*
servant; *cʰuoŋ*
sesame; *la-ŋivʔ*
set (of the sun); *lec*; *klep*
set (trap); *tauŋ*
set on fire; *npʰluai/kʰic ŋuo*
set out; *zuok*
seven; *ʔa-les*
seventeen; *kau ʔa-les*
seventy; *ʔa-nkles*
severe, fierce, sharp; *npraʔ*
sew; *cʰeŋ*
shadow; (=shade) *npɔi*
shady side; *kaʔ ntʰiv si-ŋeʔ*
shake (as of limb in a fit of disease); *ca-ruas*
shake body (to chase off bugs); *ka-ruas*
shake head; *vuk vat/(animals, child) pluas ntɔŋ tʰeʔ*
shake, quake; *ʔa-səh*; *zuj zaŋ*; (quake with a lot of noise) *ʔa-ləh*
shallow; *tʰeʔ*; *tʰɔ*
shank; *ŋuoŋ*; *npʰəʔ*
shard of earthen pot; *ntʰivŋ*
share [N]; *pun*
share, portion, part; *kroʔ*
sharp; *luom*
sharp (shooting); *rəh*; *ŋɔm ʔiaŋ*
sharp-pointed; *ncʰuac*
shave; *kʰrivk*
shave (hairs), scrape; *kʰət~kʰɔt*
sheath, scabbard; *nkʰivŋ vic*
shed (tears, blood); *lih/ruac (ra-ʔɔm ŋai/ŋam)*
shed skin (snake); *pəc si-ʔoŋ hak tʰeʔ*
sheep; *pʰeʔ (lay hac)*
sheep dung; *ʔeŋ pʰeʔ*
sheepfold, sheep pen; *luok-pʰeʔ*
shell; *ntʰuoŋ*
shell, peel [VT]; *pas*
shepherd boy; *kuan ŋɔm*
shin; *nkʰuoŋ*; *npraʔ ŋuoŋ*
shiver, tremble; *la-kʰuo*; (shudder) *ka-zuat*; (shake body intentionally to get rid of bugs) *kruas*
shoe; *nten (cʰuoŋ)*
shoot; *poŋ*; *kʰluc (si-niet)*
shooting star; *si-ʔoŋ po*
short; *ŋeŋ*
shoulder; *si-plan*
shoulder bag; *ʔa-miŋ klec*
shoulderblade; *ruoŋ*
shout, yell; *riɔk*; (call someone) *kɔk*
show; *tɔʔ kia*
shrew (Apodemus sylvaticus); *loh*
shrimp; *ntaŋ*
shrivel up, wither; *krəi*

- shriveled, shrunken; *təp; fɛc*
 shy, bashful; *k^hieç*
 sickle; *si-vuok*
 side; *nɸ*
 side (of body); *prauk*
 sideburns; *hac si-pa?*
 sieve, sifter; *nk^hrəŋ*
 sift; *k^hrəŋ*
 silk; *kəi luat*
 silk fabric; *luat*
 silver; *nk^hri; mi*
 silver coin; *mi hriam*
 silver grey (hair); *kra*
 silver pheasant; *tuai*
 sing; *nc^hau?*
 sing (cicada); *viaŋ*
 singe (food) in hot ash; *p^hɔ?*
 singe (off hair); *np^hrui*
 sink; *ka-rəç; (~ on purpose) lec*
 sister-in-law (elder brother's wife); *ʔ*
 sisters; *p^ho?* *ʔ*
 sit; (posture) *ŋuom pət; (~ down) ŋuom*
 sit on egg; *ka-num*
 six; *les*
 sixteen; *kau les*
 sixty; *nkles*
 skeleton; *si-ʔaŋ k^hrec*
 skilled; *kət*
 skim; *fiu*
 skin; *hak*
 skin [VT], strip bark; *lit; tak*
 skirt; *tai*
 skull; *si-ʔaŋ ntəŋ*
 sky; *ka-ma; (and earth) p^hre?*
 slanting, leaning; *vək; si-viu; (miss) lus*
 slap, clap; (slap) *nt^hiəh, k^hlap; (clap) k^hlap tɛ?*
 slave; *ç^huoŋ*
 sleep; *ʔɛç*
 sleep with eyes half open; *ʔɛç ʔia*
 sleepy; *ta(c) ŋai*
 sleeve; *ntɛ?* *cah*
 slice; *pias; (on chopping board) set*
 slingshot; *mau?* *ʔa-tok*
 slip off, become loose; *np^həç*
 slippery; *si-tah; ju*
 slit on the side of skirt; *np^hrak tai*
 slit open; *si-re*
 slope, acclivity; *nk^həh; (steeper) npluoŋ*
 slough off; *pəç*
 slow; *ŋieç; (of a horse) ŋɛ; (of a car) hau ŋieç*
 slowly, carefully; *k^huoi*
 sluggish, too slow in action; *ju-nie*
 sly, cunning; *lu(k)-liak*
 small; *ʔiat*
 small intestines; *veç ʔiat*
 small of the back, back of waist; *ŋuon*
- smear; *kre?*
 smegma; *ʔa*
 smell; *hət; ŋət*
 smoke; *mət (ŋuo)*
 smoke (a cigarette); *tət*
 smoke, fumigate; *si-tə?*; *nk^hrəh; (to drive animals out of den) plə; pləŋ; mət*
 smooth, glossy, sleek; *si-tah*
 snack; *npruan*
 snail; *lo?*
 snake; *si-ʔoŋ*
 snap (a thread) [VT]; *rut*
 snap (of a thread) [VI]; *nt^hut*
 snap (of something stiff) [VI]; *pok*
 snap, break; (by holding both ends) *ves; (by holding one end) pok; (break branch from tree) leh*
 snare, trap; *nkiap; (long, of bamboo) k^hiə*
 snatch; *təç; si-p^hut*
 sneeze; *ŋuas*
 sniff; *hət*
 snore; *nk^hrak*
 snot; (dry) *ŋɛ?* *mis; (snot) nk^huo mis, mis; (nasal mucus) ra-ʔəm mis*
 snow; *si-tap*
 soak, steep; *ntom*
 soap; *ʔa-tah si-tai?*
 sob; *si-cok; (choking with emotion, weep but no sound comes out) ziem la-ʔət*
 sock, stocking; *nk^huat*
 soft; *pa-zua; cua*
 soil, earth; *ka-tɛ?*
 soldier; *ç^hau; len*
 solid, sturdy; *kai?*
 solidify/congeal; *run; klən*
 some; *kən niau?*
 son; *kuan ʔa-mɛ?*
 song; *nc^hau?*
 son-in-law; *kuan ʔi*
 soot; *pəŋ (ka-təŋ)*
 sore, boil; *ka-muat*
 sorghum; *ka-səŋ*
 soul, spirit; *ka-mivəŋ; ka-p^hə?*
 sound; *lɔ?*
 soup; *ra-ʔəm hrəp*
 sour; *niv?*
 sow; *lik miv?*
 sow again (at places where broadcast seeds fail to grow up); *p^hum*
 soy bean; *k^hrim*
 spacious, commodious; *viəh*
 sparrow; *sac*
 speak; *ʔah (sai); ʔa-kah*
 spear; *p^hles*
 spear fish; *con ka?*
 spear-trap; *nc^hua*
 speech, words; *lɔ?*

- spend night; *krəh; pan; nkʰɛŋ*
 spheric; *ca-luk*
 spider; *pris*
 spin; *kian/ka-liəŋ kai*
 spindle; *npləʔ taŋ*
 spine, backbone; *si-krəŋ; si-ʔaŋ krəŋ*
 spit; (spit out) *pʰeh; (~ spit) npʰɛc; (~ sputum) nkʰak*
 splash, sprinkle; *ka-lop; (pour out downward) npʰivh*
 splashing sound; *va*
 split open, rend; (clothing at seams) *ntak; (wall) ka-tʰoh*
 split up (bamboo); (into halves) *lok; (into strips) pʰivk*
 spoon; *ncauk*
 spout, burst forth; *ca-loŋ; ca-pos*
 spread (blanket) on the ground; *tʰom; nies; las*
 spread out [v1]; *ru-rie*
 spring; *lai roŋ*
 spring (water); *ra-ʔom nəŋ*
 sprinkle, spray; *ncʰəʔ*
 sprout, shoot; *pʰləŋ*
 spur; *nkʰluoc tuai ʔia*
 sputum; *nkʰak*
 square, rectangular; *kʰlap; ntəp*
 squat; *cʰuok-cʰuo*
 squeeze (for milk); *npiat*
 squirrel; *lai*
 stable, horse fence; *luok-npruoŋ*
 stallion; *npruoŋ məŋ*
 stamp (foot); *si-ton/ca-ruas cʰuoŋ; (less forcibly) ncʰəh*
 stand; *cʰoŋ; (~ up) zuok*
 star; *sem-ʔoŋ*
 stare; *nple; nplin*
 start, begin; *tom; (~ to work) lih*
 startle, disturb; *nkʰlat*
 stay behind; *kət*
 stay motionless; *mək*
 stay temporarily at a place; *npan*
 steal; *npriəʔ*
 steam [N]; *npʰauŋ ra-ʔom*
 steam [V]; *hauŋ*
 steamer; *paŋ hauŋ*
 steelyard, scales; *ncʰivŋ*
 steep, precipitous; *nkʰoh; (steep and wide) rivh*
 step across; *tʰivŋ*
 step on, trample, stamp; *cʰic; (~ loose earth) nkrauʰ*
 stepfather; *kəŋ; pauʔ; kəŋ kʰɛʔ*
 stepmother; *miəʔ (kʰɛʔ)*
 stick, paste [VT]; *kʰlop*
 stick down; *kʰlaʔ; hləp*
 stick in; *tʰəʔ*
 stick into, stab; *suat; npluŋ*
 stick to [v1]; *klap*
 sticky, glutinous; *pʰic*
 sting; *həc*
 sting [N]; *ʔa-ŋic*
 stinging; *ʔa-pʰen; ven*
- stinking, smelly; *si-ʔi; si-ʔom; (fishy) ɲɛc*
 stir, mix; *kʰwit; kwe; (~ liquid) ku-kaʔ; (~ rice on a
 basking basket) nkreh*
 stir-fried maize; *vuoy tʰivk*
 stirrup; *ncʰan*
 stomach; *pləʔ*
 stone; *si-muoʔ*
 stool, bench; *ɲət; nkʰuoŋ*
 stop, cease; *laiʔ*
 storey; *nkrauʰ*
 story; *npin*
 straight; *npləŋ; rəh*
 straighten; *npləŋ*
 strangle, choke; *ruot*
 strangle, rein in; *mian; (~ one's neck) ruot si-ɲuok; (rein
 in) tok*
 straw or palm-bark rain cape; *cah kʰruai; cah sək*
 strawberry; *hak ra-ʔaŋ*
 street; *(kra) las*
 stretch oneself; *luot juoi*
 stretch out (arm); *təʔ; pʰla tɛʔ; (reach for something)
 pʰla/zuok tɛʔ*
 strike (match); *tuai*
 strike (of thunderbolt); *(tos) ʔa-sas*
 strike down with fist; *tʰuoŋ*
 string (of musical inst.); *las*
 string bean; *ʔa-pʰie mauʔ*
 stroke, touch; (gently) *si-pə; (caress) (pu)-piu; (touch)
 piu; (touch invol.) məŋ*
 strong; (~ nation, healthy and of great physical strength)
npraʔ; (tall and powerful-looking) ku-klih kʰauʔ
 strong (as of liquor); *npraʔ*
 strong (as of tea); *səŋ*
 struggle; *ca-ruas (zum); (pu)-pluas*
 stuffy; *la-ʔət*
 stumble over; *si-tʰəh*
 stump of tree; *nom; (unburnt portion from a fire) ɲu*
 stupid; *ʔv; ʔv la-vivʔ ʔv koi*
 stutterer; *kle*
 subside (of a swelling); *nlep; tɔp; ntɛh; fɛc*
 suck; (suck juice while eating fruit, smoke) *zuat; (with
 straw, smoke) tət; (~ milk) pəʔ*
 suckle [v1]; *pʰəʔ*
 suffer losses (in business); *nai; ləʔ*
 sugar; *nam ʔvi*
 sugarcane; *la-meʔ*
 suitable; *lət; ʔa-pʰiep; kʰup*
 summer; *lai rəʔ*
 sun; *si-ɲeʔ*
 sunbathe; *cʰu; si-ʔo; hək*
 sunflower; *preh ʔak*
 sunflower seed; *sək preh-ʔak*
 sunken, dented; *ntʰuoh*
 sunny side; *kaʔ san si-ɲeʔ*
 suona; *hrauŋ*

- support; *ʔa-zuok*; (support with one's hands) *tok*; (help to stand up) *zuok*; (raise) *ruoʔ*
- surname, family name; *nt^huoŋ*
- surroundings; *nprauʔ*
- swallow; *mic*
- swallow [N]; *si-vec*
- swear, vow; *ʔauʔ muc ʔa-zivʔ ʔuŋ*
- sweat; *la-ʔaih*
- sweep; *pes*
- sweet; *te*
- swell; *ʔuas*
- swelling, bump; *ʔuas*
- swim; *lui*; (of fish swim around) *lu-lie*
- swing, sway; *pu-pɔi*; (leaves/flag in wind) *pu-poi*; ([VT]) *vuk-vat*
- table; *p^hən*
- taboo; *t^huos*
- tadpole; *ka-lə*
- tael (=50 grams); *ruoŋ*
- Tai; *siam*
- tail; *si-taʔ*
- take; *t^hii*; (hold) *nkeʔ*
- take care of (children); *p^hoʔ*
- take out of container; *haih*
- take off (clothes, hats); *pəc*; (cf. come off) *np^həc ~ npəc*
- take off (handle); *kəh*
- take out, draw; *luot*
- tame (animal); *ŋe*
- tangerine, orange; *mak-cok*; (large sp.) *mak-ŋe*
- tap lightly with rod; *t^hes*
- tapeworm; *vuk vas*
- tares; *rip*
- taro; *krauʔ*; (different sp.) *krauʔ num*; *krauʔ hvʔ*
- tartar; *ʔeŋ hraŋ*
- taste, try the flavor of; *c^him*
- tasteless, bland; *npec*
- tasty, delicious; *num t^heʔ ʔeŋ*
- tattered; *liʔ*; *mraŋ*
- tea; *la*
- teach; *ntok*; *nk^hi*
- teach, admonish; *təm*
- tear up, rip; *cias*; *res*; *nkrias*
- tears; *ra-ʔəm ʔai*
- tease, play prank on; *ləŋ*
- tell; *ʔauʔ ʔuŋ*
- tell (a story); *ʔa-p^hivək*
- temple; *niivʔ muc*
- ten; *kau*
- ten cents; **coʔ*
- ten thousand; *vaŋ*
- tender; *pa-zua*
- tendon, sinew; *si-nivək*
- tense, tight, taut; *sat*; *kaiʔ*; (clothing) *k^həm*
- termite; *nkriŋ*
- testicle; *kla*
- tether; *si-kaŋ*
- that; *ʔua*; *ʔuah*; (gen) *ʔuan*; (that on the same level) *tiat*; (those on the same level) *ntəh*; (that down there) *sic*; (that up there) *luoŋ*; (yon) *ʔuá ʔua*; *ʔuáh ʔuah ʔuah*; (gen) *ʔuan ʔuan*; (that on the same level) *tiát tiat*; (those on the same level) *ntəh nteŋ*; (that down there) *síc sic*; (that up there) *luoŋ luoŋ*
- that (way), (like) that; *hlək ʔua*
- that side, there; *kaʔ ʔua*
- thatch grass; *ploŋ*; (wide-leaved sp.) *t^hivʔ*
- thatch-grass mat (used for roof); *ka-tiap*
- the beginning of a month; *lai nt^his k^heʔ*
- the end of a month; *lai ʔiat k^heʔ*
- the lower part of, lower reaches; *kaʔ seŋ*
- the middle of a month; *ka-piaŋ k^heʔ*
- the upper part of, upper reaches; *kaʔ lauŋ*
- then, afterwards; *kaʔ k^heʔ*; *p^hun k^heʔ*; *np^huoʔ k^heʔ ʔiən*
- there; (generic) *t^hoʔ/kaʔ ʔua*; (on the same level) *kaʔ/t^hoʔ nteŋ*; (down there) *kaʔ/t^hoʔ sic*; *t^hoʔ-luoŋ*; (up there) *kaʔ lauŋ*
- these; *heʔ ʔien*
- they; *heʔ*
- they two; *haʔ*
- thick (as of books); *p^hu*
- thick (in diameter); *t^hiŋ*
- thick (of liquid foods); *p^hic*
- thief; *pa-np^hivʔ*
- thigh; *npa*
- thin; *k^hruoʔ*; *k^hrvp*
- thin, sparce; *c^hiu*; *c^hu(ŋ)-c^hivŋ*
- thin (e.g. book); *hre*
- thin (in diameter); *ʔiat*
- thin (of body); *k^hruoʔ*; (become thin) *k^him k^hruoʔ*
- thing; *k^hrəŋ*
- think; *nc^hem*
- thirsty; *hət*; (emph) *si-ʔəh krauŋ*
- thirteen; *kau-(la-)uai*
- thirty; *ŋuai*
- this; *ʔien*; *ʔiə*; *ʔiəh*
- this (way), (like) this; *hlək ʔien*
- this side, here; *kaʔ ʔien*
- this year; *num ʔien*
- thorn; *kat*
- those; *heʔ ʔua*
- thou; *meʔ*
- thousand; *hreŋ*
- thread; *kəi*
- thread (a needle); *c^hies*
- three; *luai ~ la-ʔuai*
- three days ago; *si-ŋeʔ ʔua nvʔ*
- three days from now; *ʔa-kec*
- three-stringed instrument; *si-coŋ hvʔ*
- thresh grain; (the event) *t^hic*; (the particular action) *puat*
- threshing staff (with curved and flatten end); *npuat*
- threshold; *nt^hivŋ (ʔa-) vivʔ*
- throat; *krauŋ*

- throw out (one's chest); *nat ʔauk*
 throw out sidewise; *nc^həi*; *ncəi*
 throw, hurl, toss; *vun*; (~ at) *tɛŋ*; (~ a spear) *p^huos*; (~ out something unwanted) *tiak*; (~ or toss up) *caloŋ*
 thrush (*Garrulax canorus*); *c^ha*
 thrust; *suat*
 thumb; *nkon*; *nkian t^hiŋ*
 thunder; *ka-num*
 tick; (buffalo ~) *seʔ krak*; (large cattle ~) *tvp*; (dog ~) *npaʔ*
 tickle; *la-ŋic*
 ticklish; *hlat la-ŋic*
 tidy, orderly; *si-ŋaʔ~si-ŋaʔ*
 tie (knot); *nkaŋ*; *ʔa-zvok*
 tiger; *ʔa-vie*
 tight (of shoes); *k^hɔm*
 tightly-woven (fabric), dense; *p^hu*
 time; *lai muoʔ*
 time before daybreak; *ka nplas p^hreʔ*
 timid, cowardly; *hlat sɔʔ*
 tinea; *saiʔ həc*
 tinker (pans); *ʔa-p^hluoʔ*
 tip, sharp end; *ru*
 tired; *ri*; *t^hɔʔ*
 tit; *ntvŋ tas*; *nkon*
 toad; *ruok*
 tobacco ash; *ŋiu sup*
 today; *ra-ʔien ~ rien*
 tomb, grave; *ʔa-mic*
 tomorrow; *pa-saʔ*
 tomorrow night; *np^hu pa-saʔ*
 tongue; *ntak*
 tonight; *np^hu neh*; *np^hu ra-ʔien*
 too, exceedingly; *luan*
 tool; *k^hrəŋ nteʔ*
 tooth; *hraj*; (incisor) *hraj nc^hɔŋ*; (canine) *hraj kap*; (molar) *hraj nk^hiʔ/t^hiŋ*
 topple [VT]; *ziɔh*; (tree) *zuh nkrop*
 torch; *nk^hiʔ*; *nk^həiʔ*
 torn; *nkres*
 tortoise, turtle; *ris*
 tough; *k^huot*; *vɔŋ*
 trace, track; *si-krvʔ*; (animal track) *nkas*; *krvŋ*
 transplant (rice seedlings), insert; *nc^hom*
 trap; *ntəm*
 trap fish; *nk^hrəŋ kaʔ*
 trap, pitfall; *ka-taiʔ kauŋ*
 treasured object, treasure; *si-re*
 tree; *k^hauʔ*; *paŋ k^hauʔ*
 tree sp.; *hraʔ*
 trickle; *nchu*
 trigger; *nk^hluc*
 trivet; *np^haiʔ hriam*
 trough; (for water) *nt^hoŋ ra-ʔɔm*; (for pigwash) *ntvŋ sɔm lik*
- true, real; *rok*
 trunk (of a tree); *ruoŋ k^hauʔ*
 try, attempt; *zuh t^heʔ kia*
 tuberculosis; *hra*
 tuck, lead by hand; *tok*
 turn, spin [VT]; (e.g. ~ a millstone) *ʔa-lian*; (cause to spin) *ka-lian*; (~ something small) *ʔa-zet*
 turn (a corner); *(ʔa-)vɔk*
 turn (clothing) inside out, or the reverse; *(ʔa-)lak*
 turn (page); *fak*
 turn around; *ʔa-liak (kaiʔ)*
 turn head; (turn body) *ʔa-liak ntɔŋ*; *plak/ʔaliak kaiʔ*; *nk^he*; *plak*
 turn over (in bed); *(ʔa-)liak*; *(ʔa-)t^hiɔh*; *(ʔa-)lak*; (toss and turn) *ʔa-liak ʔa-le*
 turn, hand over, consign; *preʔ*
 turnip; *taiʔ ka-lauʔ*
 twelve; *kau ra*
 twenty; *ŋa*
 twist; *kliay*; *puai*; *si-vet*; *ʔa-zet*; (~ hands) *puk pec teʔ*; (pinch and twist) *si-kliat*
 two; *ra ~ ra-ʔa*
 ugly; *c^huoʔ*
 umbrella; *neʔ hvʔ*; *neʔ zɔŋ*
 uncle; (father's elder brother) *t^hiŋ*; (father's younger brother) *kəŋ*; (mother's brother/father's sister's husband/mother's sister's husband) *pauʔ*
 unclog; (water pipe, toilet) *pas ra-ʔɔm*; (pipe) *cək*
 uncooked, raw; *ʔem*
 under; *nkrəm*
 understand; *si-klah*; *zuoŋ*
 united; *nkrum*
 unload burden and rest; *tah*
 unripe (fruit); *k^hok*
 unseam; (~ clothes) *ziɔh*; (~ seam) *luot*; (~ quilt) *t^hɔk*
 untie, undo; *kah*; *pəc*; (*n*)*tah*
 upper back; *nk^huok*
 upper body; *kaiʔ*
 upper lip; *nk^his lauŋ*
 upper part of dry field; *kɛŋ*
 uproot; *luoh*; (pull up grass) *ric*
 upstairs; *nkuai nk^hrim*
 upstream; *kaʔ t^huoh kləŋ*
 upward; *ka-lauŋ*; *ka-nkluoŋ*
 upwards; *plak lauŋ*
 urge, hurry, speed up; *ra-ʔan*; *nauk*
 urine; *nim*
 use; *nteʔ*; (instrument) *ʔeh*
 use or lean on (a walking stick); *nk^hiʔ k^hauʔ nk^hiʔ*
 used, old; *preŋ*; *c^huoʔ*
 useful; *kɔi pa-nteʔ*
 uterus; *ŋivʔ nkuan*
 uvula; *ŋen liat*
 valley; *ntvŋ*; *nt^huoh*
 vegetable; *taiʔ*
 vegetable oil; *la-man*

- vein; *si-niɔk*
 vertical; *nc^hɔŋ*
 very; *k^hiɛt*
 vicinity; *nprauʔ*
 village; *zauŋ*
 violate, breach; *ʔa-lak*
 visit; *lɔŋ*
 visit around and gossip; *fɛ*
 voice, sound; *loʔ*
 vomit; *k^huoʔ*
 vulva, vagina; *sɔk; pɛ*
 waist; *juoi*
 wait; *ŋɔm; nc^hun*
 wake up; *fah*; (recover conscious-ness or waken up by noise, etc.) *si-t^heh*; (stay awake, stay up) *heŋ*
 wake up [VT]; *ʔa-sɔh; zu-zah*
 walk; *hau nah c^huoŋ t^heʔ*
 walk around something; *nk^hwe*
 walk in circles around something; *nk^hwia*
 walk with body bent; *k^hii*
 wall; *ntiaŋ*
 walnut; *k^hauʔ mak-man*
 want [+COMP CLAUSE]; *som; sɔŋ*
 want, need; *som*; (taking a complement clause) *saj*
 war, battle; *nieŋ*
 warehouse, storehouse; *niɔʔ nkrauk; niɔʔ krau*
 warm; *si-ʔo p^hreʔ*
 warm oneself by (a fire); *c^hu ŋuo*
 wash; (~ part of body) *k^hoc*; (~ clothing) *si-taiʔ*; (bathe) *həm*; (~ something hard, with brush or scrubber) *p^hak*; (~ hair, rice, meat, vegetable) *si-kra*; (~ by rubbing, rice, a lot of vegetables, etc.) *npac*; (~ by rubbing) *t^hic*
 wash away (e.g. bridge by flood); *tas*
 wasp; (low, cone-shaped hives) *ka-p^huoʔ*; (large, in underground holes) *ʔvŋ*; (round hives in bushes) *preh ʔak*; (black head, grey body, builds cone-shaped hives in high trees) *ka-ʔaŋ*; (in underground holes) *hia-ka-teʔ*; (lives in tree-holes) *hia k^hauʔ*
 waste time; *np^hla*
 waste [VT]; *hiap*; (on purpose) *nai*
 watch, look; *kia*
 watch over fire; *rum*
 water; *ra-ʔɔm ~ ɔɔm*
 water, sprinkle, irrigate; *nc^həʔ*
 water snail; *si-ŋeʔ*
 watery/thin (porridge); *t^heh; si-tec; hrɔŋ; plu-play*
 wave; *ʔa-zajŋ ra-ʔɔm*
 wave, wield; *vuk-vat*
 wax; *ju*
 we; [EXCL, PL]; *ziʔ*; [INCL, PL] *ʔeʔ*; [EXCL, DU] *zāʔ*; [INCL, DU]; *ʔaʔ*
 weak; *k^hraup k^hauʔ*
 weapon; *k^hrəŋ poŋ nieŋ*
- wear; (~ a sword at hip) *si-kiap*; (~ with strap on shoulder or across chest) *klec*; (~ around neck) *ŋaj*; (~ bracelets) *nple*; (~ pants, rings, bracelets) *ʔeh*; (~ earrings) *(n)c^hies*; *ʔeh*; (~ hats) *cəp*; *ʔeh*; (~ turbans, of a woman) *huat kuŋ-keŋ*; (~ turbans, of a man) *huat si-kruat*
 weasel; *tau*
 weather; *p^hreʔ*
 weave, knit; *taj*; (~ a basket, a shoulder bag) *taj*; *vok*
 wedge; *nklaʔ*
 weigh; *c^hiɔŋ*
 weight unit (=0.1 tael); *t^he*
 weld, solder; *ʔa-tɔi*
 well; *nt^huŋ ra-ʔɔm*
 welt; *si-krɔk*
 west; *kaʔ klep si-ŋeʔ*
 wet; *c^həʔ; hlən*
 what; *p^həh ~ p^hɔh*
 wheat; *pleʔ nkauʔ*
 wheat straw; *nkɔŋ*
 wheel; *ʔa-liaj*
 when; *lai muoʔ*
 where; *t^hoʔ muoʔ*
 whet, sharpen; *kleŋ*
 whip; *mauʔ si-vat/si-vet*
 whip, thrash; *si-vat; si-vet*
 whirlpool; *kləŋ kwit*
 whirlwind; *kə pai liuŋ*
 whistle; *nchuaç*
 white; *p^hieŋ*
 white (of egg); *k^huat ka-tɔm ʔia*
 white grub; *mu*
 who; *p^hii*
 wide, broad; *viɔh*
 widow; *miɔʔ ntɔi*; *miɔʔ mie*
 widower; *ʔa-meʔ ntɔi*
 width of finger; *nplah; nkian*
 wife; *ʔa-muŋ*
 wild boar; *p^hries*
 wild dog, dhole; *npruok*
 wild goose; *ʔa-kaiʔ*
 willow; *si-klui*
 win; *p^heʔ; pɛ*
 wind; *kə*
 wind (thread onto a keel); *mu*
 window; *ʔa-viɔʔ riɔŋ*
 windpipe; *krauŋ np^hɔm*
 wine jar; *le*
 wine lees; *ka-c^hiɔh*
 wine yeast; *ʔa-seʔ*
 wing; *proc*
 winnow; *k^him*
 winnowing basket; *npia*
 winter; *lai kuat*
 winter gourd; *npiu po*

wipe (the table); (with soft instruments) <i>ʔuat</i> ; (with hard instruments) <i>kat</i>	wrinkle; <i>ʔa-vəm hak re</i> ; <i>rak run</i> ; (on forehead) <i>kaŋ hak re</i>
wipe away, erase; <i>ʔuat tiak</i>	wrinkled, creased; <i>ʔa-vəm</i> ; <i>ŋom ŋem</i>
wire, electric cord; <i>mauʔ hriam</i>	wrist; <i>ncʰəŋ/npʰəʔ tɛʔ</i>
witch, sorcerer; <i>pa-ncʰai</i>	wrist pulse; <i>si-nivk</i>
withdraw, take out; (from pocket, bag) <i>luot</i> ; (from drawer, boxes) <i>iʰii</i>	write; <i>ses</i>
wither; (<i>n</i>) <i>ta</i> ; <i>krəi</i> ; (~ slightly) <i>fec</i>	wrong; <i>lut</i>
withhold the facts, conceal; <i>məʔ</i>	Ximeng; <i>məŋ-kʰa</i>
wizard, sorcerer; <i>pa-ncʰai</i>	yam; <i>hən</i> ; (yam sp.) <i>kʰaiʔ</i>
woman; <i>ʔa-pon</i>	yawn; <i>fap</i>
womb; <i>ŋivʔ nkuan</i>	year; <i>num</i>
wood ear; <i>tes kruc</i>	year after next; <i>num ʔa-kec</i>
wood, log; <i>kʰauʔ</i> ; (log) <i>kʰauʔ cʰiʔ</i> ; <i>kʰrəŋ ŋivʔ</i>	year before last; <i>num ka</i>
wood-borer; <i>ka-muat</i>	yellow; <i>si-ŋiu</i>
wooden tray; <i>*pʰəŋ</i> ; (platter) <i>tʰuok kʰauʔ</i>	yen; <i>zen</i>
woodpecker; <i>nkək</i> ; <i>sem tos kʰauʔ</i>	yesterday; <i>pa-kauʔ</i>
wool, fleece; <i>hac pʰeʔ</i>	yield; <i>təʔ</i>
work/labor; <i>zuh si-vai</i>	yoke; <i>kʰauʔ kʰuok</i>
worm; (caterpillar) <i>kʰuon</i> ; <i>viək</i> ; <i>kʰuon mu</i>	yolk; <i>kʰuan ka-təm</i>
worn through/torn; <i>ncias</i> ; (at seams) <i>nkres</i> ; (worn out) <i>ntəh</i> ; <i>ləʔ</i>	you [SG]; <i>meʔ</i>
worry; <i>ʔa-kʰivʔ ra-həm</i>	you [PL]; <i>pɛʔ</i>
worry, be anxious; <i>fiə ŋai</i>	you [DU]; <i>paʔ</i>
wound; <i>taŋ mat</i>	young; <i>si-nuo</i>
wound [v]; <i>mat</i>	younger brother; <i>pʰoʔ ʔa-meʔ</i>
wrap; <i>kʰiv</i>	younger sister; <i>pʰoʔ ʔa-pon</i>
	yuan (= Chinese dollar); <i>van</i>

Author's address

Jackson T.-S. Sun
 Institute of Linguistics
 Academia Sinica
 No. 128, Sec. 2, Academia Road
 Nangang District, Taipei City 11529
 Taiwan, R.O.C.
 jscaodeng@gmail.com

Publication history

Date received: 16 April 2018
 Date accepted: 27 July 2018
 Published online: 2 April 2020