
The phonology of Laze: phonemic analysis, syllabic inventory, and a short word list*

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Abstract: Laze is a Sino-Tibetan language spoken in the county of Muli, in Sichuan, by a population of less than 1,000. The article proposes a synchronic account of Laze phonology, supplemented by a list of about 1,400 words in the Appendix. A phonemic analysis is proposed, with an inventory of syllables that brings to light the synchronic distributional properties of Laze onsets and rhymes – properties that are crucial to ongoing research into the historical phonology of the subgroup of Sino-Tibetan to which Laze belongs.

Introduction

This article focuses on Laze (autonym: /laːlzeː/; referred to in China as Muli Shuitian 木里水田话 or Lare 拉热话), as spoken in Xiangjiao township, Muli prefecture, Sichuan, China (四川凉山州木里县项脚乡). Laze has fewer than 300 proficient speakers, and is little documented; see Huang Bufan 2009 for an introduction to a neighbouring dialect. The first author of this article conducted fieldwork on Laze in 2008 and 2009.

The article provides a synchronic analysis of Laze; a Chinese-Laze word list is provided in the Appendix. A phonemic analysis is proposed, with a discussion of issues encountered in phonemicisation, and an inventory of syllables that brings to light the synchronic distributional properties of Laze onsets and rhymes – properties that are crucial to ongoing research into the historical phonology of the subgroup of Sino-Tibetan to which Laze belongs: see Jacques et al. 2011.

The phonemic system of Laze is analysed here following the classical methods developed in the Prague school of phonology, as set out, for instance, by Martinet (1956, 1980 [1960]:61–82).

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1. *Syllable structure and inventory of syllables*

Laze, like Naxi and Yongning Na, has a simple syllabic structure: (C)(G)V + T, where C is a consonant, G an on-glide, V a vowel, and T a tone. Brackets indicate optional constituents. There are neither initial clusters nor final consonants. Table 1 provides a syllabic inventory. For the sake of convenience, glides have been considered as part of the rhyme: thus, there are separate columns for /æ/, /wæ/ and /jæ/. Tones are not included because in synchrony they combine freely with all syllable types.¹ The table is phonemicised: for instance, ‘ɥwɣ’ in the cell corresponding to initial /h/ and rhyme /wɣ/ indicates that the combination /hwɣ/ is attested, and that its phonetic realisation can be approximated as [ɥwɣ], i.e. the consonant /h/ undergoes allophonic rounding in this context. Explanations on the phonemicisation process will be provided below (section 3).

Each cell contains (i) the phonetic realisation of the syllable and (ii) at least one example in Chinese translation. A long dash (—) indicates an unattested combination. In addition to these two clear cases (existence vs. nonexistence), there exist a few borderline cases, essentially consisting of borrowings and of syllables resulting from vowel harmony. ‘B’ indicates a recent borrowing from Chinese, e.g. ‘B’ in the cell corresponding to initial /f/ and rhyme /ɑ/ means that the syllable /fɑ/ is only found in recent Chinese borrowings; an example is 发, Pinyin: fā. (A description of the essentials of the Chinese dialect of Muli, the most important donor dialect from the 1950s to recent years, is provided by Li Lan 2010.) ‘VH’ indicates that the combination at issue is very likely to be the result of vowel harmony: that it is only found as the first syllable within disyllables whose two syllables have the same rhyme. This important phenomenon is described in section 2 below.

¹ In Laze, there are three lexical tones for nouns: High, Mid and Low, and four for verbs (including stative verbs): again, High, Mid and Low, and Mid-to-High, the latter consisting of a sequence of two tonal levels (see Michaud 2009 for an analysis of this tone system).

Table 1. An inventory of the syllables of Laze. The two words glossed as ‘（虚词）’(‘function words’) are the accomplished, /tjɣ-/ and the mirative, /ljɣ-/.²

	a	æ	wæ	wa	i	ie	y	u	ɔ	u	ɣ	e	wɣ	ɿ	ɤ	jæ	jɣ	ja
zero	ʔa 家	—	wæ 猪崽	wa 花	ʔi 水	ʔie 打饱嗝儿	jy 梦, 坟	ʔu, u 咱们	—	—	ɣɣ 肚带	—	wɣ 猪	ɿ 书, 笑, 石	ɤ 肠	—	jɣ 奶奶	ja 袖子
h	xa 难	hæ 害羞	ɣwæ 肩膀	ɣwa 挂	ci 舌头	—	cy 痔	ɣu 孩子	xɔ 楔子	xu 晚上	—	—	ɣwɣ 渴	—	—	—	—	—
f	B	—	—	—	fi 雨	—	—	—	—	—	—	—	—	—	fɤ 脑子	—	—	—
v	—	væ 左	—	—	vi 牛	vie 雪	—	—	—	—	—	—	—	—	cf zero + ɤ	—	—	—
k ^h	q ^h a 露水	q ^h æ 沟	—	—	tɕ ^h i 卖	—	tɕ ^h y 头发	k ^h u 坝	q ^h ɔ 雾	k ^h u 狗	k ^h ɣ 背篓	—	k ^h wɣ 房屋	—	k ^h ɤ 烟	—	tɕ ^h ɣ 蔬菜	tɕ ^h a 礼物
k	qa 遮	qæ 换	—	qwa 痒, 晋	tɕi 云	tɕie 痰	tɕy 压	ku 这里	qɔ 喉咙	ku 能	kɣ 额头	—	kwɣ 黎明	—	kɤ 皮肤	tɕæ 湿	tɕɣ 煮	tɕa 蓑衣, 嚼
ɣ	ka 埡口	kæ 富	k ^w æ 反刍	k ^w a 庄稼	—	—	—	—	kɔ 吞, 客气	—	—	—	—	—	—	—	—	—
g	VH	—	VH	—	dzi 袋子	—	dzy 手镯	gu 妹妹	—	gu 弟弟	gɣ 上	—	gwɣ 下午	—	gy 雷	dzæ 泥巴	dzɣ 美	dza 泥巴
	a	æ	wæ	wa	i	ie	y	u	ɔ	u	ɣ	e	wɣ	ɿ	ɤ	jæ	jɣ	ja
t ^h	t ^h a 书	—	—	—	—	t ^h ie 聪明	—	t ^h u 牙齿	—	—	—	—	—	—	—	—	—	—
t ^h	—	t ^h æ 冷	—	—	—	—	—	—	—	t ^h u 这	—	—	—	—	t ^h ɤ 出	—	—	—
t	ta 全部	—	—	—	B	tie (退)后	ty 系	tu 哄	—	—	tɣ 茶壶; 那里	—	—	—	tɤ 洞	—	tjɣ (虚词)	—

² Throughout the article, tones are indicated by means of Chao tone-letters: 1 for H(igh), 2 for M(id), 3 for L(ow), 4 for MH.

t	—	tæ 白齿	—	—	—	—	—	—	—	tu 雾	—	—	—	tɥ 皱	tɥ 骨髓	—	—	—
d	da 砍	—	—	—	di 少	die 浅	dy 地, 户	du 害羞	—	—	dy 围起来	—	—	—	dy 翅膀	—	—	—
ɖ	—	dæ 涉过去	dɥwæ 狐狸	—	—	—	—	—	—	ɖtu 刻	—	—	—	ɖɥ 湖	ɖy 坟	—	—	—
	a	æ	wæ	wa	i	ie	y	u	ɔ	uu	ɣ	e	wɣ	ɥ	ɥ	jæ	jɣ	ja
p ^h	p ^h a 狼	p ^h æ 块	—	—	p ^h i 高兴	p ^h ie 蝴蝶	—	p ^h u 逃跑	—	—	p ^h ɣ 后悔	—	—	—	p ^h ɥ 霜	—	—	—
p	pa 洞	—	—	—	pi 长大	pie 嘴	—	pu 一堆	—	—	pɣ 拿	B	—	—	pɥ 祈祷	pjæ 半	—	—
b	ba 衣服	bæ 蠢	—	—	bi 门	bie 旁	—	bu 闪电	bɔ 苍蝇 (VH)	—	bɣ 普米	—	—	—	bɥ 臭	bjæ 腮	—	—
ɬ	—	—	—	—	ɬi 天花板	ɬie 月	ɬy 庚	ɬu 肋骨	—	—	—	—	—	—	—	—	—	—
l	la 手	læ 洞	lwæ 叫	—	ɬi 田	ɬie 茶	ɬy 果子	ɬu 扛	ɬɔ 马	—	—	—	—	—	ɬɥ 含	—	lɣ (虚词)	—
s	sa 气	sæ 鞋 (VH)	—	—	si 怕	—	sy 公 (马...)	su 明天	—	sɥ 知道	—	se 凉快	—	—	sɥ 磨刀	—	—	—
z	za 孩子	—	—	—	zi 睡觉	—	zy 林	zu 孤儿	—	zɥ 疹子	—	ze 儿子	—	—	zy 揉	—	—	—
ʃ	ʃa 话	ʃæ 拖	ʃwæ 马嚼子	ʃwa 搅拌	—	ʃie 七月 VH	ʃy : —	ʃu 铁	—	ʃɥ 跳蚤	—	—	ʃwɣ 盘子	ʃɥ 水獭	ʃy 喝	—	—	—
ʒ	—	zæ 火花	zwæ 飘动	zwa 努力	—	—	zy : —	zu 中午	—	zɥ 山	—	—	zwɣ 养	—	zy 蛇	—	—	—
	a	æ	wæ	wa	i	ie	y	u	ɔ	uu	ɣ	e	wɣ	ɥ	ɥ	jæ	jɣ	ja
tʃ ^h	tʃ ^h a 铍头	tʃ ^h æ 代	tʃ ^h wæ 快	—	—	—	—	tʃ ^h u 炒	—	tʃ ^h ɥ 掉	—	—	tʃ ^h wɣ 梳	—	tʃ ^h ɥ 染料	—	—	—
tʃ	tʃa 掷	tʃæ 段	tʃwæ 搅拌	—	—	—	—	tʃu 锥	—	tʃɥ 画	—	B	tʃwɣ 数	—	tʃɥ 传染	—	—	—

dz	dza 干 扰	dzæ 抢	dzywæ 挖	—	—	—	—	dzu 痛	—	dzu 下 (雨)	—	—	dzywɣ 抓	—	dzy 燃烧	—	—	—
ts ^h	ts ^h a 蚂 蚁	—	—	—	ts ^h i 剪	—	ts ^h y 冬 天	ts ^h u 跳	—	ts ^h ɿ 一 张	—	ts ^h e 盐	—	—	ts ^h y 拣	—	—	—
ts	tɕa 刨	tɕæ 钩子 (VH)	—	—	tɕi 星	—	—	tɕu 火塘	—	tɕɿ 黏	—	tɕe 山	—	—	tɕy 咳嗽	—	—	—
dz	dza 跑	—	—	—	dzi 海	—	dzy 缠, 桥	—	—	dzɿ 勒住	—	dze 吃	—	—	dzy 凿 子	—	—	—
	a	æ	wæ	wa	i	ie	y	u	ɔ	ɯ	ɣ	e	wɣ	ɿ	ɤ	jæ	jɣ	ja
m	ma 士兵	mæ 大 竹子	—	—	mi 酥油	mie 太 阳	—	mu 天	—	—	— (neg)	—	—	—	mɯ 天	mjæ 眼 泪	—	—
n	na 海	næ 挤压	—	—	ni 嘴唇	—	—	nu 你	—	nɯ 由	—	—	—	—	nɯ 臭	njæ 眨 眼	njɣ 鼻	nja 苋米
ŋ	ŋa 我	—	—	ŋwa 膝 盖	ŋi 太阳	ŋie 霜	ŋy 火钳	—	—	ŋw 是	ŋɣ 跌	—	ŋwɣ 白 齿	—	ŋɯ 银	—	—	—

To the onsets and rhymes in Table 1 must be added some phonemes that are so restricted in their distribution that it is simpler to present them separately. These are (i) a neutral vowel, /ə/, appearing in some function words such as the negation, /məɬ/, and taking on its quality from the vowel that follows; and (ii) as many as nine nasal rhymes, shown in Table 2.

Table 2. Laze syllables containing nasal rhymes (in phonemic notation).

syllable	hṽa	hṽ	hṽe	hṽ	hṽ	hṽɣ	hṽ	hṽe	
example	绿豆	听	锯, 毛 金		走	慢	人	站, 面包	
syllable			ṽe	ṽ					ṽ
example			铜	呛					螳螂, 自己, 驴

Most syllables with nasal vowels are made up of an initial [h] and a nasal vowel: nasality runs throughout the syllable. They can be analysed synchronically in either of two ways: as /hṽ/, where /ṽ/ is a nasal vowel, in which case a large set of nasal vowels must be granted phonemic status; or as /hṽ/, recognising an additional consonant: a nasal fricative, /h/. The latter solution, adopted by Bradley 2003:224 for similar examples in Lisu, is more economical in terms of number of phonemes.

These sounds originate diachronically in initial consonantal clusters CN-, where C is an obstruent and N a nasal consonant.¹ There are also three syllables without an initial /h/, consisting simply of a nasal vowel: [ṽ], [ṽe] and [ṽɣ]². Examples include:

(i) [ṽeɬ] ‘brass’

(ii) [ṽɣ] ‘to irritate (e.g. smoke irritates the eye)’; Huang Bufan also reports [ṽɣ]

¹ See Michaud 2006 for Naxi, Michaud 2008 for Yongning Na, and Michaud et al. submitted for a cross-linguistic study.

² Pr. Huang also noted /wṽeɬ/ for ‘to shout, to cry out (of pigs)’; in the dialect described here, this word is realised as /lwṽeɬ/.

(original transcription: [ʔ̃³¹]) for ‘goose’, a word for which the language consultants in the valley of Xiangjiao now use a Chinese borrowing.

(iii) [la.lmie.lla.ʔ̃ʔ̃] ‘praying mantis’, [ʔ̃ʔ̃-tsʔ̃] ‘-self (*in*: myself, yourself)’, and two likely borrowings from Pumi/Prinmi, which up until the middle of the 20th century was the lingua franca of Muli (about the history of Muli, see Wellens 2006): [tʔ̃.lby.l] ‘donkey, ass’ and [nʔ̃.lby.ltɕ^{hi}.l] ‘elephant’.

These syllables raise an issue for phonemicisation. Those with an initial glottal stop can be interpreted phonemically as simple vowels, the phonetic glottal stop being an empty-onset filler, on the analogy of other cases such as /i/, realised as [ʔ̃i]. Pushing further the logic of descriptive economy, in the absence of any [ʔ̃æ] or [ʔ̃ɔ] syllables, the syllable [ʔ̃æ] could be interpreted as the phonetic realisation of a simple /æ/, and [ʔ̃ɔ] as /ɔ/; but this option, which would be costly in terms of phonetic plausibility, is not open for [ʔ̃ɿ], since that syllable contrasts with [ɿ]. We propose to analyse [ʔ̃ɿ], [ʔ̃æ] and [ʔ̃ɔ] as /ɿ/, /æ/ and /ɔ/, a decision which is consistent with the recognition of the phonemic nasal rhymes /ã/, /ɿ/, /wã, /ã/, /ũ/, /wɿ/, /ĩ/ and /ĩe/ after /h/.

2. A note about vowel harmony and sandhi phenomena in Laze

Some syllables in Table 1 carry the mention ‘VH’, indicating that they are probably the result of vowel harmony. Some explanations about this phenomenon are in order.

Sporadic anticipatory vowel harmony (‘right-to-left’ harmony) is common in Laze in connected speech: for instance, /i.tdy.t/ ‘family’ is sometimes realised close to [y.tdy]. Phenomena such as vowel harmony and the voicing of intervocalic voiceless consonants are cross-linguistically common in connected speech; however, the extent to which these phonetic tendencies manifest themselves and eventually become lexicalised or even generalised as phonological rules is highly language-specific. Of the three Naish languages studied here (Laze, Na and Naxi), Naxi is least prone to the lexicalisation of such phenomena, and Laze most prone to it.¹ Vowel harmony is lexicalised in some disyllabic words, along with other processes such as the voicing of

¹ For instance, the form /bu.lha.t/ ‘pig swill’, from /bu.t/ ‘pig’ and /ha.t/ ‘food’, is reported by He Jiren and Jiang Zhuyi 1985 and confirmed by He Jiren (p.c. 2002) for his own native dialect: Yangxi 漾西; however, other dialects of the Lijiang plain retain the form /bu.lha.t/, without vowel harmony.

intervocalic voiceless consonants (and tone sandhi, about which see, again, Michaud 2009). A typical example is /ʃie-ɦie-ɦmie-ɦ/ ‘seventh month’, from /ʃur-ɦ/ ‘seven’ and /ɦie-ɦmie-ɦ/ ‘month’: in addition to the change in the vowel of the first syllable, note the voicing of /ɦ/ to /ɦ/. Importantly, processes of categorical, lexicalised vowel harmony are sporadic: they are not the result of regular phonological sandhi rules.

Lexicalised cases of vowel harmony are still relatively few; however, this is an important phenomenon, which in the course of language evolution has the potential for filling any of the gaps in Table 1.

3. Remarks on phonemicisation

The phonemicisation process that led to the creation of Table 1 brought out the following facts, arranged from the most obvious to the most problematic:

3.1. The labial-dental fricatives /f/ and /v/, and the allophones of the glottal fricative /h/

The labial-dental fricative initials /f/ and /v/ are phonemic in Laze. Examples include /fiɦ/ ‘rain’, /fiɦts^{hi}ɦ/ ‘gingiva’, /fiɦdziɦ/ ‘charcoal’, /fiɦ/ ‘lake’; /viɦdzuɦ/ [tuɦ] ‘East’, /viɦ/ ‘cow’, and /viɦ/ ‘to owe’. In front of /i/, they contrast with /h/ (realised as [ç]) and with the absence of any initial, e.g. /hiɦmieɦ/ ‘tongue (body part)’, /iɦts^{hi}ɦ/ ‘water’.

In Laze, the two syllables containing /f/, leaving aside Chinese borrowings, are [fi] and [fɣ]; the initial [f] in the latter syllable could be treated as an allophone of /h/ (as is the case in Naxi and Yongning Na), but since this option is not open for [fi], as mentioned in the previous paragraph, initial [f] must be granted phonemic status, and [fɣ] comes to be interpreted as /fɣ/ – hence the empty slot at the intersection of initial /h/ and rhyme /ɣ/.¹

Initial [ç] and [h] are analysed as allophones of /h/; the situation is one of perfect complementary distribution, unlike in Naxi, where gap-filling processes have disrupted this pattern (Michaud 2006).

¹ From a comparative point of view, some of the words with initial /f/ or /v/ in Laze correspond to stop-initial words in Naxi and Na (see Jacques et al. 2011 for details). A look at comparanda in conservative languages suggests that the fricatives in the Laze words result from spirantisation: pre-initials can be reconstructed for the Proto-Naish stage. In Laze, these pre-initials caused a lenition of the following stop – a phenomenon akin to that observed in Vietnamese, where medial consonants were spirantised (Ferlus 1982; about the term “spirants”, see Martinet 1981, 1985).

3.2. *The fronting of velar stops in front of high, front rhymes*

Alveolo-palatal affricates /dz/, /tʃ/ and /tʃʰ/ are analysed as allophones of velar stops /g/, /k/ and /kʰ/ in front of high vowels or rhymes starting with a palatal on-glide. These syllables are much more fronted than in Naxi, where the allophones of velar stops in this context are palatal, not alveolo-palatal. This results phonetically in two sets of well-differentiated initials – a situation which holds a potential for systemic gap-filling, whereby velars and alveolo-palatals would cease to be in neat complementary distribution. The only example observed so far is [tʃɔ], in [wɣɿmieɿtʃɔɿɿ] ‘cicada’: this syllable can be phonemicised as /kjɔ/, postulating an otherwise unattested /-jɔ/ rhyme, or as /tʃɔ/, granting phonemic status to the alveolopalatal initial. In this case, the new syllable appears to result from vowel harmony, the /ɔ/ rhyme of [ɿ] being copied onto the previous syllable.

3.3. *The palatalisation of the velar nasal in front of high, front rhymes¹*

Since there exists a contrast between /n/ and /ɲ/ (the latter realised as palatal) in front of /i/, there is no obvious reason why this contrast should be neutralised in front of the other high, front rhymes, /ie/ and /y/. The combinations [ɲie] and [ɲy] are therefore analysed here as /ɲie/ and /ɲy/, on the analogy of the analysis of [ɲi] as /ɲi/, even though no contrast has been found between alveolar and (palatalised) velar nasals in front of /ie/ and /y/. At present, it is not possible to rule out entirely the possibility that some [ny] and [nie] syllables do exist, and that the words in which they appear are missing from our lists (or even that they were mistakenly bunched together with the [ɲy] and [ɲie] syllables in our transcriptions, though this is less likely).

3.4. *The rhyme [e] and its possible phonemic analyses*

The rhyme [e] is so infrequent – appearing only after coronal fricatives and affricates – that it could actually be said to be in complementary distribution with any of the following rhymes: /ɣ/, /wɣ/, /ɿ/, /jæ/, /jɣ/, /jɑ/, /ɔ/, /ie/, /wæ/, /wɑ/, and even /æ/. The first (/ɣ/) is a plausible choice, since the only difference between the two allophones would consist in the frontness of the allophone [e]. An indirect argument pointing to a

¹ Note that the symbol /ɲ/ for a palatal nasal, used here in accordance with the International Phonetic Alphabet, is strictly equivalent with the symbol /ɲ/ which is more commonly used in China.

special closeness between [ɣ] and [e] comes from the fact that the rhyme /wɣ/ is sometimes realised close to [we], but this argument is less than conclusive. Given this high degree of uncertainty, it appeared safest to let [e] appear on its own in Table 1.

3.5. *The rhyme [-ɥe]*

The rhyme [-ɥe] appears in only two syllables: [lɥe] (more precisely [ɣɥe]), and [tɕ^hɥe]. Only one example of each was observed: [lɥe] 草木灰 ‘ashes (of wood)’, and [tɕ^hɥe] 滴 ‘classifier for drops (of liquid)’. The word for ‘ashes’ is plausibly a borrowing from the Pumi /lyɜ/ (recall that up until the middle of the 20th century Pumi was the lingua franca of Muli), or a borrowing from another language of the area. A similar word is found in Shuiluo Na (a dialect of Na spoken in Shuiluo township, Muli county; 2009 fieldwork data): /lɥə/, which is likewise marginal in the phonological system, and could likewise be put down to borrowing. The latter may likewise call for a special explanation, but so far we have not been able to clarify this point. The rhyme [-ɥe] could in principle be treated as an allophone of /-wɣ/; after an alveolo-palatal initial /tɕ^h/, a fronted allophone of /wɣ/ would make good phonetic sense. However, there are reasons to treat this syllable as a marginal case (such as the absence of syllables with other initials of the same series: [tɕɥe] and [dʒɥe]); as a consequence, it is provisionally considered as a rhyme on its own, /ɥe/. (For reasons of space, this rhyme was not included in Table 1.)

3.6. *Uvular initials and the vowel [ɔ]*

The contrasts between [k^hu] and [q^hɔ], [ku] and [qɔ], [gu] and [ɣɔ] could be put down to the initial, recognising a series of uvular initials that are contrastive only in front of /-u/: /k^hu/ vs. /q^hu/, /ku/ vs. /qu/, and /gu/ vs. /ɣu/. Or they could be put down to the rhyme: /k^hu/ vs. /k^hɔ/, etc. Support for the latter option comes from the fact that /ɔ/ contrasts with /u/ in another context: after /h-/. The examples are /hɔ/ ‘wedge’, and /hɔ-ɬɯ-ɬ/ ‘watery rice gruel, 稀饭’, vs. /hu-ɬ/ ‘gruel, 粥’. Moreover, processes of vowel harmony involving [ɔ] tend to consolidate the phonemic status of this vowel: in addition to the syllable /tɕɔ/ mentioned in (ii), there exists a syllable /bɔ/ in /bɔ-ɬɔ/ ‘fly’.

The interpretation of [ɣ] as an allophone of /g/ would further simplify the synchronic picture: [ɣɔ] would be interpreted as /gɔ/, and [ɣɑ], [ɣæ] and [ɣwæ] as /gɑ/, /gæ/ and /gwæ/, respectively. However, the complementary distribution between [ɣ] and [g] is not complete: processes of vowel harmony have introduced the combinations [gɑ] and [gwæ], which now contrast with [ɣɑ] and [ɣwæ]. The initial [ɣ] is therefore granted phonemic status.

3.7. Retroflex initials

Retroflex initial stops contrast with coronal stops in front of /y/: /tɣ/ vs. /tʃ/, and /dɣ/ vs. /dʃ/; no example of /tʰɣ/ was observed (only examples of /tʰɣ/), but this is likely to be an accidental gap rather than a systemic one. These contrasts lead to the recognition of a series of retroflex stops. The contrast is neutralised in all other contexts. This situation is somewhat complex, but it can easily be handled in synchronic description: under a strict approach to phonemic description, in all the contexts where coronal and retroflex stops do not contrast, they can be subsumed under the same archiphoneme. The words [tʰɑɫɫɪ] ‘书, book’ and [tʰæʎ] ‘冷, cold’ would then be written as /Tʰɑɫɫɪ/ and /Tʰæʎ/, where Tʰ stands for the archiphoneme covering [tʰ] and [tʰɣ].

The retroflex [ɭ] raises more difficult issues for phonemicisation. The only attested syllable containing [ɭ] is [ɭɔ] (e.g. [ɭɔɪ] ‘horse’): the retroflex initial [ɭ] is only found in this syllable. In Naxi, the syllable [ɭɔ] is phonemicised as /ɭɔ/: retroflex and coronal initials contrast only in front of /o/ (Michaud 2006). However, this option is not open in Laze, since this language does not have an /o/. The only back rounded vowel in Laze is /u/, and there exists a /lu/ syllable (realised close to [ɭu]); phonemicising [ɭɔ] as /ɭu/ is not entirely convincing. Alternatively, it could be phonemicised as /ɭɔ/; the /ɭ/ would then have allophones ranging from [ɭ] to [ɭɣ] through [ɭɪ]. This phonemic solution receives support from two facts: first, there are some reasons to grant phonemic status to /ɔ/, as was mentioned in (vi); second, retroflex allophones of coronal initials are found elsewhere in the system: the nasal initial /n/ is realised [ɳ] in front of /æ/, /u/ and /y/ ([ɳæ], [ɳu] and [ɳy]) are phonemicised as /næ/, /nu/ and /ny/).

4. A brief note on Pr. Huang Bufan's notations concerning a close dialect

Pr. Huang Bufan (2009) provides a similar but not entirely identical phonemic inventory for another dialect of Laze, spoken in the township of Bowa (二区博瓦乡达瓦村).

(i) Pr. Huang presents a nasal rhyme, /ŋ/, which is absent from our inventory. The ninth nasal rhyme is in fact the product of coalescence with a /hĩ/ syllable: the phrase ‘the day before yesterday, 前天’, transcribed by Pr. Huang as [ʃĩ³³dzĩ⁵³ŋi⁵³], is [ʃuɿŋɿɿɿdzuɿŋiɿ] in our data, where the nasal tail [ŋ] after the first syllable can be analysed as a reduced form of /hĩ/.

(ii) Pr. Huang reports a contrast between retroflex /dʒ/ and postalveolar /ɖʒ/, and between /tʃ/ and /tʃʰ/, for items all of which have retroflex initials in our data, as shown in Table 3 below.

Table 3. Some words transcribed with postalveolar initials by Pr. Huang.

meaning	Pr. Huang's transcription	A. Michaud's transcription
to suffer, to be ill	ɖʒu ⁵³	dʒuɿ
earthen wall	ɖʒu ³³ bu ³³	tʃuɿɿbuɿ (cp. /tʃuɿɿ/ ‘earth’)
to fall (rain, hail...)	ɖʒi ⁵³	dʒuɿ

This may be a case of dialectal difference; on the other hand, Pr. Huang (p.c.) indicated that her Laze data were collected over a relatively short period of time, and as part of an extremely crowded fieldwork agenda, so that not all notations could be fully verified at the stage of phonemicisation.

Conclusion and perspectives for future research

This article aimed to contribute both to the synchronic study of Laze and to a better understanding of its historical phonology as a member of the Naish branch of Sino-Tibetan.

Laze has a relatively large phonemic inventory, with massive neutralisations of the contrasts. As is customary, synchronic statements about restricted distributions flip

diachronic statements around. For instance, synchronically, the contrast between /e/ and other vowels is neutralised in all positions except TS-; diachronically, /e/ appeared in a single context: *TS-, from former *TSa. The features analysed as redundant in phonemic analysis constitute important cues to diachronic developments.

While Laze is similar with Na and Naxi in many respects, including its present-day syllable structure, using Laze data in the comparison brings out a larger number of correspondences than those that exist between Na and Naxi alone; in turn, conservative languages provide useful indications for interpreting these correspondences between short forms. For instance, the initial /f/ and /v/ of Laze lead to postulate earlier consonant clusters, and evidence from conservative Sino-Tibetan languages suggests plausible hypotheses about the nature of these clusters.

Our long-time project is to document the entire phonological history of the Naish languages. Ultimately, it should be possible to account for all synchronic restrictions on combinations of onsets and rhymes. There remains a long way to go; however, on a positive note, a good degree of certainty is now being reached on some parts of the system.

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Appendix: A short Chinese-Laze glossary, arranged semantically

This short list, arranged by semantic field, is based on a subset of the first author's field notes (heretofore unpublished). Despite its shortcomings, such as the lack of proper definitions and example sentences, it appeared useful to publish it as an illustration of the analyses presented in this article. A longer list (slightly above 2,000 items, with English and Chinese glosses) was deposited with the Sino-Tibetan Etymological Dictionary and Thesaurus (STEDT) project in February 2011 for open access online.

天	mu˩	彩虹	zɯ˩ʃsu˩mɣ˩ʃsu˩	垭口	ɛa˩ly˩
天空	mu˩tu˩	雪	vie˩	山	zɯ˩tse˩
天地	mu˩dy˩	雷, 霹雷	mu˩gy˩	高山	u˩gu˩
太阳	ɲi˩mie˩	闪电, 打闪电	bɣ˩bæ˩bæ˩	山坡, 岗	tu˩bie˩
光 (阳光)	ɲi˩mie˩tu˩	冰雹	dzy˩	山脊	dzy˩kʰu˩tu˩
月亮	ʃie˩mie˩	冰雹块	dzy˩ly˩ly˩	山谷	zɯ˩tse˩.ɬæ˩tsʰu˩
星星	tsi˩	露水	dʒɯ˩kʰa˩	山洞	læ˩qʰɔ˩
流星	tsi˩qʰæ˩	冰	ɲi˩pʰy˩	森林	sy˩zy˩
风	mɣ˩hæ˩	火	mɣ˩	地上的小洞	pa˩ty˩
雨	fi˩	火花	mɣ˩lzæ˩	洞	qʰɔ˩
云	tɕi˩su˩	烟	mu˩kʰy˩	河流	zɯ˩mie˩
雾	qʰɔ˩pɔ˩	(一口) 气	sa˩	溪流	i˩tsʰi˩qʰæ˩lu˩

湖	fiJ	眉毛	mie-tu1	胆汁	tsi-tzu1
海	na1dziJ	眼睛	mie-ly1	吐酸水	tci-tzu1
小型水库	q11	眼（单音节）	mie1	腰	i1tsu1
岸	zu1mie1khu1ku1	眼珠	mie-ly1na1li1	屁股	q1æ1sæ1p1y1mie1
水坑	pa1ty1	眼圈骨	mie-ly1sɑ1tu1	胯	ts1u1mie1
水沟	q1æ1lu1	眼泪	mjæ1dzu1	尾椎骨	dzy1tu1
井	i1ts1i1qwæ1	鼻子	nj1x1gx1	锁骨	læ1dzy1
小堤坝	bu1tu1	鼻孔	nj1x1gx1q1h1o1	肌肉	su1na1
路	læ1gy1	鼻涕	ny1	腿	æ1ts1u1
地（天地的地）	dy1	耳朵	hie1tu1	大腿	by1sa1mie1
平坝	du1k1u1	耳孔	hie1ze1	膝盖	ɲwa1tu1
平地	hæ1du1	耳垂	hie1tu1kɔ1by1	膝盖骨	ka1p1æ1
田地	li1	耳垢	hie1q1æ1bæ1	关节	tsu1
水田	dze1li1	脸	p1y1mie1	小腿	dzy1bæ1
石头	læ1t1mie1	腮	bjæ1lo1	胫骨	w1x1nj1x1gx1sɑ1tu1
粉，粉末	zy1	嘴，嘴巴，口	ny1q1h1o1	踝关节	læ1mie1tsu1tu1ly1
土	tsu1	嘴巴	ku1pie1	脚底	w1x1tɕ1x1
干土	tsu1zy1	嘴巴里面	ku1pie1ku1lu1	脚跟	gy1t1u1
尘土	p1y1hæ1	牙齿	fi1t1u1	脚背	mi1gy1
泥巴	dza1q1æ1	牙齿	fi1t1u1	下半身	y1d1u1tsæ1
水	i1ts1i1	白齿 + 后白齿	ɲw1x1t1æ1mie1	上半身	gx1d1u1tsæ1
洪水，大水	zu1ly1	牙龈	fi1ts1i1	四肢，手脚	zy1ts1u1
波浪	i1ts1i1t1hie1sa1sa1	舌头	ci1mie1	胳膊	la1p1hie1
水泉，山泉	zu1q1h1o1	舌头的筋	ci1zæ1	胳膊	la1bu1ly1
温泉	ts1y1tzu1	小舌	ci1zæ1	肘	la1tu1
泉水	zu1q1h1o1li1ts1i1	喉咙	qo1tsu1	臂弯	tsæ1qæ1
金子	hæ1	喉结	qo1tsu1tu1ly1	手掌	la1kw1x1hie1gy1tci1
银子	ɲy1	嘴唇	ni1tɕ1x1	手纹	la1p1hie1læ1gy1
黄铜	æ1	颧骨	p1y1sy1dzy1	手背	la1gy1
白铜	æ1p1y1	胡子	my1tsu1	拳	la1ky1ty1
红铜	æ1hi1	连鬓胡	bie1na1	手腕	la1tsu1
铁	su1	颚	ta1to1	手指	la1ɲi1
锈	tsu1q1æ1	脖子	kæ1tsu1pa1	大拇指	la1ɲi1a1mie1
炭	fi1dzi1	甲状腺肿瘤	æ1bæ1	指甲	la1tsu1
盐	ts1e1	项背	gx1to1pa1	肛门	k1æ1q1h1o1
草木灰	lu1e1	肩膀	hwæ1ts1u1	男生殖器	ɲi1tsi1
桥	dzy1	脊背	gy1tsu1	皮肤	zu1ky1
坟墓	y1dy1	肩胛骨	ts1u1	皱纹	zu1ky1t1
身体	q1u1ti1	驼背	du1qo1	黑痣	cy1
头	u1tu1	腋下	ja1da1	疮	mi1
脑子，脑髓	u1fy1	胸膛	ɲi1mjæ1q1h1o1	伤口	mi1pa1pa1
太阳穴	su1by1	乳房	a1pu1	癣	la1li1k1w1x1
头发	u1tɕ1y1	奶汁	ɲæ1	血	su1
辫子	lo1pa1	月经	dzu1h1v1ts1u1tsu1	血管	su1by1
毛	h1v1	心脏，性情	ɲi1mie1	骨头	sa1tu1
人身上的毛	ɲi1h1v1	肚子	ha1mie1	骨髓	tsi1ty1
额头	tu1k1x1	肚脐	tɕ1x1pu1	脊椎骨	gy1tsu1sɑ1tu1
眼睫毛	mjæ1tsu1	肚脐	tɕ1x1	肋骨	tu1
		胆	tsi1	肺	ts1y1

肝	siɬ	女儿	myɹ	贵族, 奴隶主	suɹɹpʰieɹ
肾	ɥɹliɹ	儿子	zeɹ	木匠	siɬgyɹhɨɹ
胃	qyɹmieɹ	孩子们, 子女	zeɹɹmyɹɹ	编竹子的工匠	mæɹɹdaɹhɨɹhɨɹ
鸡胃	læɹɹpjæɹɹɹɹ	姨母 (比母亲大)	aɹɹpaɹ	铁匠	ʂuɹɹlaɹhɨɹhɨɹ
肠	ɥɹnaɹ	姨母 (比母亲小)	æɹɹtɹeiɹ	打铁	ʂuɹɹlaɹ
膀胱	suɹɹɹpyɹɹ	母亲的所有姐妹	aɹɹɹpaɹlæɹɹtɹeiɹ	喇嘛	laɹɹmaɹ
屎	qʰæɹ	姑母	æɹɹtɹjiɹ	尼姑	myɹɹɹkʰɹɹɹɹɹdaɹɹɹɹ
尿	dziɹ	舅舅、舅父 (比母亲大)	æɹɹɹɹɹ	达巴, 巫	daɹɹɹɹɹ
大小便的统称	aɹɹɹpʰuɹɹɹɹɹɹ	伯伯	aɹɹɹpaɹ	乞丐	dzeɹɹɹmieɹɹhɨɹ
屁	kʰæɹɹtsʰiɹ	叔父	aɹɹɹɹbuɹ	强盗	kʰɹɹɹɹmaɹ
汗 (单音节)	tɹɹɹɹ	侄子	zeɹ	病人	hɨɹɹɹɹɹɹɹ
痰	tɹeiɹɹkʰæɹɹɹbæɹ	侄女	myɹ	朋友, 伙伴	tɹɹɹɹɹɹɹmieɹ
口水, 唾	tɹeiɹ	侄子女	zeɹɹzeɹɹmyɹɹmyɹ	瞎子	mɹɹæɹɹɹæɹ
脓	bæɹ	孙子	iɹɹɹɹ	跛子	buɹɹɹɹɹɹɹ
天花	tsʰuɹɹɹɹɹɹɹ	孙女	myɹ	聋子	tɹeiɹɹbuɹ
麻疹, 疹子	byɹɹɹzuɹɹɹzuɹ	孙子孙女	zeɹɹzeɹɹmyɹɹmyɹ	秃子	wɹɹɹɹɹɹɹɹ
感冒	tsʰaɹɹɹɹɹɹɹ	重孙, 曾孙	iɹɹɹɹɹ	傻瓜	zyɹɹɹbæɹ
发烧	tɹɹɹɹuɹ	重孙女, 曾孙女	iɹɹɹɹmieɹ	疯子	ɥɹɹɹɹ
尸体	hɨɹɹɹɹuɹ	重孙女, 曾孙女	iɹɹɹɹɹɹmieɹ	结巴	ɹeiɹɹɹɹɹ
生命	hɨɹɹɹɹɹuɹɹ	女	iɹɹɹɹɹɹ	主人	daɹɹɹuɹ
人	hɨɹ	重孙与重孙女	iɹɹɹɹɹɹɹɹɹɹ	客人	hɨɹɹɹɹ
藏族	kaɹɹmiɹ	哥哥	maɹɹɹmyɹ	寡妇	uɹɹɹmieɹɹɹɹɹɹɹ
彝族	leɹæɹhɨɹɹɹɹ	弟弟	gɹɹɹɹzuɹ	孤儿	zuɹɹɹɹɹɹɹ
普米族	bɹɹ	兄弟 (哥哥们与弟弟们)	aɹɹɹɹɹɹɹɹɹ	稀饭	hɹɹɹɹɹuɹ
纳西族	naɹɹhɨɹ	姐姐	aɹɹɹɹ	饭 (米饭)	tɹɹɹɹæɹɹɹɹɹɹɹɹ
自称	laɹɹzeɹ	姐姐	tɹeiɹɹtɹeiɹ	粥	huɹ
木里县的纳人	naɹɹɹzuɹ	妹妹	guɹɹmieɹ	面粉	zyɹ
汉人	hæɹ	妹妹	guɹɹɹmieɹ	浆糊, 浆子	huɹ
苗族	mɹɹɹɹɹ.tsuɹ	姐妹	aɹɹɹɹɹguɹɹmieɹ	馒头	miɹɹɹhiɹɹ
孩子	zaɹɹɹhuɹ	姐妹	gɹɹɹɹzuɹɹguɹɹmieɹ	肉	ʂuɹ
儿童	zaɹɹɹhuɹɹɹɹɹɹɹɹɹ	弟+妹妹	mæɹɹɹɹ	熟肉	ʂuɹɹɹlaɹɹmiɹ
老人	hɨɹɹɹɹmyɹɹɹɹɹ	女婿	tsʰuɹɹɹmieɹ	生肉	ʂuɹɹɹɹɹɹɹɹɹɹ
老太太	aɹɹɹɹɹɹɹmieɹ	媳妇, 儿媳	miɹɹtɹɹɹiɹ	瘦肉	ʂuɹɹɹnaɹ
妇女, 女人	myɹɹɹɹɹuɹɹhɨɹ	嫂子	aɹɹɹɹɹɹ	肥肉	ʂuɹɹɹpʰɹ
女人 (已婚)	myɹɹɹɹɹɹɹɹɹɹ	祖母, 奶奶	aɹɹɹɹɹɹ	牲畜前腿的肉	laɹɹɹɹɹ
男人	zeɹɹɹkʰɹɹ	姥姥	aɹɹɹɹuɹɹmieɹ	牲畜后腿的肉	ʂuɹɹɹɹɹɹɹɹɹɹ
小伙子	zeɹɹɹkʰɹɹɹɹɹɹ	舅舅的舅舅	æɹɹɹɹɹɹ	猪的肚皮的肉	aɹɹɹɹɹɹ
小姐	hæɹɹɹkʰwɹɹɹmieɹ	父子	əɹɹɹdaɹɹɹɹɹ	层肉	
少爷	hæɹɹɹkʰwɹɹɹzeɹ	母亲与孩子们	æɹɹɹɹmieɹɹɹɹɹzeɹ	猪胸股上的肉	ɹɹɹɹɹiɹ
妻子	myɹɹɹkʰɹɹ	父亲与母亲	aɹɹɹdaɹɹɹɹɹmieɹ	猪尾部划出来的膘	wɹɹɹɹmiɹɹtsɹɹɹɹɹɹɹɹɹ
丈夫	zeɹɹɹkʰɹɹ	叔叔侄子	aɹɹɹɹbuɹɹɹɹɹzeɹ	的膘	ɹhɨɹ
一户人	dyɹ	叔叔侄女	aɹɹɹɹbuɹɹɹɹɹɹmyɹ	猪身躯带骨头的肉	wɹɹɹɹɹuɹ
家人	aɹɹɹuɹɹhɨɹ	劳动人民	luɹɹɹvieɹɹhɨɹ	把猪的骨头装在大肠里	buɹɹɹɹkʰuɹɹɹtɹɹɹɹɹɹɹ
亲戚	tɹɹwɹɹɹtɹɹwɹɹɹhɹɹɹhɹɹ	士兵	maɹɹɹmiɹ	把瘦肉装在肠子里	ɥɹɹɹɹɹɹ
母亲	æɹɹɹmieɹ	商人	gɹɹɹɹtɹɹɹiɹɹɹɹɹɹɹ	把猪腿的皮剥下来, 缝成筒	wæɹɹɹtsʰuɹɹɹɹɹɹɹɹɹ
母亲 (孩子对母亲的称呼)	æɹɹɹɹɹiɹ	医生	tsʰuɹɹɹɹɹɹɹ		
父亲	aɹɹɹdaɹ	寨首	ɹæɹɹɹɹuɹɹhɨɹ		
后妈	aɹɹɹmieɹɹɹɹɹɹɹɹɹ				

形, 塞满瘦肉		宝贵的毯子	zy˩dzu˩	蒸笼	dze˩by˩
猪皮	wɔ˩tzu˩ky˩	垫子	qʰɔ˩lɔ˩	刀	kwa˩ta˩mie˩
猪油	kæ˩mi˩	枕头	u˩tɕu˩	菜板, 俎	tsu˩tʃæ˩
酥油	mi˩	褥子	zæ˩mie˩	把子	qɔ˩
油	mi˩lɪ˩	被子	tɕy˩hu˩	勺子、瓢	bi˩ze˩
蛋	le˩æ˩mjæ˩ɬɔ˩	蚊帐	tʰa˩tɪ˩la˩lʃsu˩hɪ˩	调羹	bi˩ze˩tʰa˩lʃɪ˩hɪ˩
蛋黄	ljæ˩tmjæ˩ɬɔ˩lqɔ˩tʃsu˩	木头	si˩	大调羹	bi˩ze˩
蛋白	ljæ˩tmjæ˩ɬɔ˩lku˩tpʰ	木板, 木板子	si˩pʰæ˩	碗	kʰwɔ˩
	ɣ˩	家, 家庭	y˩lɔ˩	盘子	ʃwɔ˩lpʰie˩
汤	zu˩ŋɪ˩	房屋	y˩lkʰwɔ˩	木盘子	si˩lkʰwɔ˩
酒	zu˩	家	a˩u˩	筷子	qzɪ˩tʃsu˩
黄酒	pie˩my˩	座位	dzy˩læ˩	瓶子	dʒɔ˩
醋	tɕy˩hɪ˩	菜园	u˩tɕʰɔ˩li˩	坛子, 罐子	pi˩ze˩
开水	i˩tʃɪ˩lʃtsʰu˩lʃtʰy˩	圈, 牲畜圈	bi˩	(陶器)	
茶	lie˩	土墙	tʃsu˩bu˩	茶壶	tɔ˩lɪ˩
糖	dzy˩tzu˩	城	lu˩wɔ˩tjy˩lkʰwɔ˩	大水桶	tɕa˩ta˩
烟	jɔ˩	城	qzɪ˩	过去用杯水的	si˩tpu˩ta˩
药	tsʰu˩tʃi˩	城里、市上	qzɪ˩lu˩	背篓	
丸、小球	tu˩ly˩	村寨, 村子	qtu˩bie˩,	桶	zy˩mie˩
饭	dze˩		qtu˩lʃy˩lqtu˩bie˩	木盆	si˩tse˩lu˩
猪食	wɔ˩dze˩	街	wɔ˩bie˩	脸盆	pʰy˩mie˩tsʰu˩lu˩
马料	lɔ˩ly˩	石墙	lu˩wɔ˩	三脚架	ʃu˩lʃɪ˩
线	tʃʰæ˩	窗户	da˩kʰu˩	火塘	kwa˩lu˩
布	fi˩tʃsu˩	柱子	zæ˩mie˩	厨房	tsu˩kwx˩
丝绸	tʃsu˩ze˩	梁	gu˩ly˩hie˩gy˩tie˩	火钳	mu˩ŋy˩
衣服	ba˩la˩	门	kʰu˩bi˩	风箱	my˩mi˩tsu˩
蓑衣	tɕa˩lɔ˩	门	kʰu˩	用来背小孩的	za˩thu˩pa˩dʒi˩
上衣, 衣服	bx˩ze˩	门槛	kʰu˩ta˩	带子	
衣领	ɬæ˩hɪ˩	梯子	dzy˩lʃtʰy˩	背带	dzi˩
袖子	ja˩lqʰɔ˩	天花板	kwx˩hi˩	称	sa˩
扣子	bu˩ly˩	石头台阶	læ˩mie˩dzy˩	钱	qzɪ˩
裤子	kie˩lkʰwɔ˩	粮仓	gu˩	价钱	tɕɔ˩hi˩
头帕	la˩lʃtʰy˩	打场	hæ˩du˩	工资, 工钱	ka˩pʰy˩
帽子	tʃy˩tʃy˩	篱笆	qʰɔ˩ta˩	马鞍	tɕi˩lqʰɔ˩
斗笠	u˩tmu˩	商品	no˩	马笼头	u˩ly˩
梳子(粗)	tʃy˩mie˩	东西	tɕa˩tsu˩	马肚带	bie˩ɬɔ˩
毡毯	lʰu˩li˩	桌子	ʃa˩læ˩	马嚼子	kwa˩tʃwæ˩
羊毛裙子	hɪ˩ʃsu˩lkʰwɔ˩	凳子	qʰɔ˩	马槽	wɔ˩gy˩
裙子	ʃu˩lkʰwɔ˩	床	qɔ˩	挽具, 后鞅	mæ˩ky˩
裹腿	tsʰu˩lʃtʰu˩	箱子	su˩tgy˩	缰绳	lɔ˩dʒi˩
鞋垫	sæ˩hæ˩lʃtʰæ˩	扫帚	hwɔ˩tʃsu˩	打马的鞭子,	mæ˩lqzy˩
鞋, 鞋子	sæ˩hæ˩	火绒(把小麻皮捶绒)	tsa˩ɬɔ˩	马鞭	
耳环	kie˩kʰy˩	火镰	tse˩mie˩	驮架	li˩mi˩
戒指	la˩lʃtʰu˩	火把	my˩lʃtʰy˩	牛鼻绳	njɔ˩tgy˩lɔ˩dʒi˩
手镯	la˩dzy˩	香	sy˩dzy˩	斧头	ly˩mie˩
珠, 珠子	qʰɔ˩ze˩	染料	tʃʰy˩lzu˩	锯	ʃwa˩da˩
席子	tɕɔ˩tgy˩	锅	y˩mie˩	针	u˩
毯子	tɕɔ˩hu˩	锅的盖子	u˩thu˩	锥、锥子	tʃu˩
				凿子	dzy˩

木锤子	daɫɥɿ	故事	tʂʰæɿ	初一	laɫsʰiɿdɥuɿŋiɿ
连枷	kuɫɥɿ	舞蹈	tsʰuɿ	初二	laɫsʰiɿŋiɿŋiɿ
铁钉	ʂuɿqʰɔɿ	旗子	tsiɿ	初三	laɫsʰiɿsuɿŋiɿ
钩子	tsæɿqæɿ	声音	qʰɔɿ	初十	laɫsʰiɿtsʰiɿŋiɿ
剪刀	tsuɿtiɿ	鼓	daɿkʰɿɿ	十一日	tsʰiɿŋdɥuɿŋiɿ
锁	tsaɿkwaɿ	钹	byɿtsʰuɿ	十五日	tsʰiɿŋwɿŋiɿ
钥匙	tseɿɕiɿ	笛子	tʂʰuɿɿ	十六日	tsʰiɿŋqʰɔɿŋiɿ
犁头	ɭɿŋɥɿ	胡琴	zwæɿmæɿdaɿqɔɿ	三十日	suɿtsʰiɿŋiɿ
犁头, 犁铧	tʂʰaɿ	铃铛	tɕyɿɿ	今天	tsʰiɿŋiɿ
耙	dzɿwɿɿ	牛角 (用来当 长号角)	buɿqʰɔɿ	昨天	æɿŋiɿ
牛轭 (单行)	ɿæɿhwaɿ	神, 菩萨	gaɿllaɿ	前天	ʂuɿŋɿdɥuɿŋiɿ
牛皮绳, 犁具	dzuɿɿdzuɿ	鬼	ŋiɿ	前几天	ɔɿŋiɿʂuɿŋiɿ
连轭之绳		灵魂, 魂魄	ɿɔɿŋiɿ	明天	miɿsuɿ
锄头	tsɿɿqɔɿ	运气	tʂʰaɿuɿ	后天	uɿsuɿ
挖锄	bæɿwɿɿ	力气	ɿaɿziɿ	大后天	uɿdɥuɿsuɿ
楔子	hɔɿ	胆量	ŋiɿmieɿdzuɿ	四天以后	uɿŋiɿsuɿ
绳子	dziɿ	礼物	tɕʰaɿɿ	今晚	tsʰiɿhwaɿ
背篓	kʰɿɿ	名字	hiɿ	明晚	suɿhwaɿ
袋子	dziɿkuɿ	有区别	tʰaɿnieɿnieɿ	昨晚	aɿhwaɿ
肥料, 粪	kʰæɿ	一样, 没有区 别	məɿŋuɿ tʰaɿnieɿnieɿ	早晨	daɿnaɿ
白[坨坨]	tʂuɿmuɿ			黎明	pʰɥɿkwɿɿ
杵[捶捶]	luɿdɥuɿ			今天早上	tsʰiɿŋsuɿ
碓	muɿtʂuɿ			早点	daɿnaɿdzeɿdzeɿ
小筛子	muɿtʰaɿtɕiɿhiɿ	渣滓	dzuɿmæɿ	白天	mieɿlieɿɣɥɿ
筛子 2	bɿɿkʰuɿ	影子	daɿzɥɿ	中午饭、中午	zuɿ, zuɿtuɿ
筛子 4	iɿtʂuɿ	梦	yɿmuɿkʰwɿɿ	吃中午饭	zuɿdzeɿ
筛子 5	muɿaɿpaɿdzuɿhiɿ	东方	viɿdzyɿɿ	下午	zuɿdzeɿɣwɿɿ
簸箕 (簸粮食 用)	muɿ	西方	yɿdzyɿɿ	晚上	miɿkʰuɿ
手磨	tɕyɿɿ	南方	iɿtʂʰuɿmieɿ	晚饭	miɿkʰuɿdzeɿ
水磨	iɿtsʰiɿtɕyɿɿ	北方	kʰuɿdzyɿɿ	吃晚饭	miɿkʰuɿdzeɿdzeɿ
水槽	iɿtsʰiɿwɿŋɥɿ	旁边	bieɿkuɿ	黄昏, 暮	naɿpʰɥɿtsʰaɿwɿɿ
织布机	ɿɿdaɿ	左边	væɿtaɿ	夜里	syɿqɔɿtsɥɿ
拐棍	miɿtʰɥɿ	右边	iɿtaɿ	年	kʰɥɿ
镰刀	hūɿɣɥɿ	前面	uɿdaɿ	今年	tsʰuɿvieɿ
刀鞘	yɿ	后面	ɣwɿtuɿ	去年	æɿvieɿ
枪	myɿŋiɿ	外面	aɿpʰɥɿ	前年	ʂuɿvieɿ
准星	ŋiɿɣɥɿtieɿ	里面	kuɿluɿ	三年以前	ʂuɿdɥuɿvieɿ
装火药的皮带	kuɿɿ	周围	kʰuɿkʰuɿlieɿlieɿ	明年	suɿvieɿ
枪把	qɔɿ	地界	tʰuɿllaɿtsʰiɿ	后年	uɿvieɿ
弩弓	taɿnaɿ	上面	ɣɿtʂuɿ	鼠年	hwɿkʰɥɿ
弓	ŋiɿ	上面	ɣɿbyɿ	牛年	viɿkʰɥɿ
箭	ɿɔɿbyɿ	下面	yɿtʰæɿ	虎年	laɿkʰɥɿ
陷阱	paɿɿ	中间	dæɿmieɿ	兔年	tʰuɿlieɿkʰɥɿ
毒	dɥɿ	顶上	ɿɔɿbyɿ	龙年	muɿŋɥɿkʰɥɿ
字	tʰaɿɿ	上半身	ɣɿdɥuɿdæɿ	蛇年	zɥɿkʰɥɿ
记号	hæɿɿ	下半身	yɿdɥuɿtʂæɿ	马年	ɭɿkʰɥɿ
纹路	læɿɣɥɿ	时候	dɥuɿmiɿ	羊年	yɿkʰɥɿ
话	ʂaɿvæɿ	一夜	dɥuɿhiɿ	猴年	zyɿkʰɥɿ
		一天	dɥuɿŋiɿ	鸡年	læɿkʰɥɿ

狗年	k ^h u ^l k ^h y ^l	40	zy ^l ts ^h i ^l gy ^l	一架牛	ɖu ⁺ p ^h ɣ ^l
猪年	wɣ ^l k ^h y ^l	50	ŋwɣ ^l ts ^h i ^l gy ^l	一张	ɖu ⁺ ts ^h u ^l
过年	k ^h y ^l ʃu ^l	60	q ^h ɔ ^l ts ^h i ^l gy ^l	一元	ɖu ⁺ mæ ^l
月	ɦie ⁺	70	ʃu ^l ts ^h i ^l gy ^l	一亩	ɖu ⁺ p ^h æ ^l
上半月	ɦie ⁺ p ^h ɣ ⁺	80	ɕi ^l ts ^h i ^l gy ^l	一辈子	ɖu ⁺ ts ^h æ ^l
正月	ɖu ⁺ lie ⁺ mie ⁺	90	gy ^l ts ^h i ^l gy ⁺	一步	ɖu ⁺ t ^h y ^l
二月	ŋi ⁺ lie ⁺ mie ⁺	百	ɖu ⁺ ɕi ^l gy ^l	一次	ɖu ⁺ dzɣ ^l
三月	su ⁺ lie ⁺ mie ⁺	千	ɖu ⁺ tɣ ⁺ gy ⁺	(吃的) 一口	ɖu ⁺ t ^h æ ^l
四月	zy ⁺ lie ⁺ mie ⁺	万	ts ^h i ^l ɣ ^l	经常	do ⁺ ɔ ^l
五月	ŋwɣ ⁺ lie ⁺ mie ⁺	一半	ɖu ⁺ dæ ^l	转回	la ⁺ ɦ
六月	q ^h ɔ ^l lie ⁺ mie ⁺	一条绳子	ɖu ⁺ ts ^h æ ^l , ɖu ⁺ kɣ ^l	又, 再	a ⁺ ma ⁺ ɖu ⁺ ldzɣ ^l
七月	ʃie ⁺ lie ⁺ mie ⁺	一根(线)	ɖu ⁺ ts ^h æ ^l	天天晚上	ɖu ⁺ ɦi ⁺ ɕ ^l ɖu ⁺ ɦi ⁺ ɕ ^l
八月	ɕi ^l lie ⁺ mie ⁺	一棵树	ɖu ⁺ ldzi ^l	每天	ɖu ⁺ ŋi ⁺ ɖu ⁺ ŋi ⁺
九月	gy ⁺ lie ⁺ mie ⁺	一根(竹子)	ɖu ⁺ tu ^l	整天	by ⁺ ts ^h u ⁺ ŋi ⁺
十月	ts ^h i ^l lie ⁺ mie ⁺	一根棍子	ɖu ⁺ kɣ ^l	全部, 一切	ɖu ⁺ ɦu ⁺
十一月	ts ^h i ^l ɖu ⁺ lie ⁺ mie ⁺	个(一个人)	ɖu ⁺ ɦi ⁺	都, 所有	a ⁺ ɦwɣ ^l
十二月	ts ^h i ^l ŋi ⁺ lie ⁺ mie ⁺	一只鸡	ɖu ⁺ p ^h ɣ ^l	自己	ʃɦtsɔ ^l
古时候, 传说	æ ⁺ vie ⁺ ʃu ⁺ lie ⁺	一群、一队	ɖu ⁺ ɦwɣ ^l	这个(近指)	u ⁺ l ^h u ^l
古代		一把刀	ɖu ⁺ na ^l	这个(近指)	tɕ ^h ɣ ⁺ l ^h u ^l
从前	a ⁺ ʃu ^l	一粒(米)	ɖu ⁺ li ^l	那个(远指)	u ⁺ l ^h u ^l
以前	u ⁺ da ^l	一个碗	ɖu ⁺ k ^h æ ^l	这里	tɕ ^h ɣ ⁺ ku ^l
近来	a ⁺ ɦu ⁺	一件衣服	ɖu ⁺ ly ^l	那里	ɣ ⁺ ku ^l
近来	a ⁺ ŋi ⁺ ts ^h u ⁺ ŋi ⁺	一包、一卷	ɖu ⁺ tu ⁺	谁	k ^h a ⁺ si ^l
后(后去)	gwx ⁺ tu ^l	一筐	ɖu ⁺ k ^h ɣ ^l	什么	a ⁺ tsu ^l
今后	k ^h u ⁺ l ^h u ^l	一捧	ɖu ⁺ kwa ⁺	怎么样	a ⁺ ŋie ⁺ vie ⁺ ɦi ⁺ ?
夏天、春夏	mu ⁺ zɣ ⁺ lie ⁺	驮子	ɖu ⁺ tu ⁺ ly ⁺	哪里	ɦɣ ⁺ ku ^l
冬天	mu ⁺ ts ^h y ⁺ ɦie ⁺	一串	ɖu ⁺ kwɣ ^l	什么时候	k ^h a ⁺ t ^h a ^l
婚姻	ts ^h u ⁺ ɦie ⁺ k ^h y ^l	一滴	ɖu ⁺ tɕ ^h ɣe ^l	多少	k ^h a ⁺ ɦɣ ^l
1	ɖu ⁺ gy ^l	一滴水	ɖu ⁺ tɕ ^h ɣe ^l	几个	k ^h a ⁺ ɦi ^l
2	ŋi ⁺ gy ^l	一瓶	ɖu ⁺ dzɣ ^l	粗(树粗大)	a ⁺ ɦɣ ⁺ bu ⁺ ɦi ⁺
3	su ⁺ gy ⁺	升	ɖu ⁺ tu ⁺	细(树)	t ^h a ⁺ tɕ ^h y ⁺ ɦi ⁺
4	zy ⁺ gy ^l	一斤	ɖu ⁺ sa ^l	高	a ⁺ ɦa ⁺ ɦu ⁺
5	ŋwɣ ⁺ gy ^l	一两	ɖu ⁺ ty ⁺	低	t ^h a ⁺ ɦy ⁺ ɦi ⁺
6	q ^h ɔ ^l gy ^l	一堆(比如:	ɖu ⁺ pu ⁺	长	ɦæ ⁺ ɦi ⁺
7	ʃu ⁺ gy ^l	一堆粮食)		短	dæ ⁺
8	ɕi ^l gy ^l	一块	ɖu ⁺ p ^h æ ^l	远	læ ⁺ q ^h ɔ ⁺
9	gy ⁺ gy ^l	一对	ɖu ⁺ dze ^l	近	læ ⁺ ŋy ^l
10	ts ^h i ^l gy ⁺	一双鞋	ɖu ⁺ dze ^l	宽(布, 纸)	a ⁺ ɦa ⁺ ldzɣ ^l
11	ts ^h i ^l ɖu ⁺ gy ^l	一只	ɖu ⁺ p ^h ɣ ^l	窄	t ^h a ⁺ ɦi ⁺
12	ts ^h i ^l ŋi ⁺ gy ^l	一段	ɖu ⁺ ts ^h æ ^l	宽敞	a ⁺ ɦɣ ⁺ ɦwɣ ⁺
13	ts ^h i ^l su ⁺ gy ^l	一庹[一排]	ɖu ⁺ ɦy ^l	挤(房子)	ku ⁺ ku ⁺
14	ts ^h i ^l zy ⁺ gy ^l	一拃(大拇指	ɖu ⁺ ɦɣ ⁺	厚	a ⁺ ɦɣ ⁺ ɦu ⁺
15	ts ^h i ^l ŋwɣ ⁺ gy ^l	和食指之间的		薄	t ^h a ⁺ ɦie ^l
16	ts ^h i ^l q ^h ɔ ^l gy ^l	距离、拇指与		浅(水浅)	die ^l
17	ts ^h i ^l ʃu ⁺ gy ^l	食指平伸量物		深(水深)	ɦa ^l
18	ts ^h i ^l ɕi ^l gy ^l	之长)		过于, 太	ko ⁺ ɦy ^l
19	ts ^h i ^l gy ⁺ gy ^l	一拃(大拇指	tɕy ⁺ ɦɣ ⁺	多	dzi ^l
20	ŋi ⁺ tsi ⁺ gy ⁺	和中指之间的		多	a ⁺ ɦɣ ⁺ ɦɣ ⁺
30	su ⁺ ts ^h i ^l gy ⁺	距离)		少	ɖu ⁺ ɦu ⁺

少	di'hiŋ	硬, 坚硬	uŋ	富	læ'kæ'ɪ
一些	q̄u'ɪbæ'ɪ	紧	tsiŋ	穷	mə'ɪdzy'ɪ
圆形 (球)	gwx'ɪdie'llæ'hiŋ	松	mə'ɪtsiŋ	很穷	dzy'ɪdzy'ɪ
秃	byŋ	松起来	ta'ɪ	干净	ʃwx'ɪʃwx'ɪ
皱 (衣服)	t̄ɪ'ɪ	软, 柔软	my'ɪŋæ'ɪ	脏	mə'ɪʃuŋ
准	wx'ɪ	黏 (胶)	tʰie'ɪtsuŋ	乱	kæ'ɪmæ'ɪzu'ɪ
不对	mə'ɪwx'ɪ	光滑 (路)	kæ'ɪ	痛, 病 (生病)	dzy'ɪ
歪, 偏 (帽子)	la'taŋ	生	dzy'ɪdzy'ɪ	觉得不舒服	mə'ɪtsʰe'ɪ
横 (横躺)	dæ'ɪdæ'llæ'ɪ	熟	miŋ	肿, 膨胀	t̄su'ɪ
竖	t̄y't̄y'llæ'ɪ	新	ʃu'ɪtsaŋ	(肚子) 胀	t̄su'ɪ
直 (站直)	t̄y't̄y'llæ'ɪ	陈旧	tsu'ɪziŋ	着凉	tsʰa'ɪdza'ɪzu'ɪ
伸直	t̄y'ɪ	好	dzy'ɪ	干扰、妨碍	t̄ie'ɪdzy'ɪ
弯	la'ɪgy'ɪ	好 (心好)	nuŋ	好 (技巧好)	vie'ɪdzy'ɪ
颜色	t̄ʃʰy'ɪzɪu'ɪ	稳重、谨慎	t̄ʃʰa't̄ʃʰa'ɪ	勤快	hu'ɪ
黑 (颜色)	na'ɪ	坏	mə'ɪdzy'ɪ	聪明	tʰie'ɪ
黑 (颜色)	na't̄ʃʰæ'llæ'ɪ	贵	pʰy'ɪdzu'ɪ	傻、笨、蠢	bæ'ɪ
白 (脸、衣服)	pʰy'ɪ	便宜	pʰy'ɪŋ	狡猾	t̄ɕx'ɪ
白 (脸、衣服)	pʰy'ɪt̄ɕæ'llæ'ɪ	年老	my'ɪ'ɪ'ɪ	一条心, 想得	q̄u'ɪ'ɪ
白 (头发)	u'ɪt̄ɕy'ɪpʰy'ɪhiŋ	年轻	pʰæ'ɪt̄ɕi'ɪ	一致	
红	wæ'ɪsu'ɪŋjie'hiŋ	温暖, 暖和	ly'ɪ	和气、和睦	wx't̄u'ɪ
黄	ʃu'ɪ'ɪq̄o'llæ'ɪ	冷 (天气..)	dzy'ɪ	安静	hi'ɪkʰa'ɪmx'ɪtsʰe'ɪ
绿 (布)	zu'ɪh'wə'ɪŋjie'hiŋ	冷 (水)	tʰæ'ɪ	装做	t̄ɕx'ɪvie'ɪkʰæ'ɪvie'ɪ
灰	pʰu'ɪdu'llæ'ɪhiŋ	难作	lu'ɪha'ɪ	骄傲, 自以为	dæ'ɪʃy'ɪ
灰	pʰy'ɪhæ'llæ'ɪhiŋ	辛苦	t̄ʰu'ɪ	好	
暗, 黑 (天)	na'ɪfy'ɪfy'ɪ	容易, 容易做	lu'ɪʃu'ɪ	凶恶	ma'ɪnuŋ
花的 (蛋、鸟)	fi't̄ʃu'ɪhwa'ɪhwa'ɪ	轻松	pʰa'ɪla'ɪ	爱破坏	wæ'ɪkʰæ'ɪhiŋ
重	a'ɪla'hiŋ	香 (气味)	suŋ	客气/害羞	hi'ɪkʰo'ɪvie'ɪ
轻	pʰa'ɪla'ɪ	香 (气味)	yŋ	吝啬	la't̄ʃʰy'ɪ
快 (动作)	t̄ʃʰwæ'ɪ	香 (吃得香)	suŋ	大方	a'ɪpʰx'ɪʃx'ɪku'ɪ
快	la'ɪkwx'ɪ	臭	by'ɪŋy'ɪ	贪心不足, 贪	se'ɪt̄ɕy'ɪ
迟	h'w'ɪ	腐烂	la'ɪby'ɪ	吃	
慢	æ'ɪze'ɪ	酸	t̄ɕy'ɪ	懒	mə'ɪhu'ɪ
(起得) 早	t̄ʃʰwæ'ɪ	甜	tsʰiŋ	多嘴	ɕi'ɪmie'ɪdziŋ
尖	u'ɪt̄ɕy'llæ'ɪ	苦	kʰa'ɪ	笨拙	mə'ɪt̄ʃʰæ't̄ʃʰæ'ɪ
锋利	tʰa'ɪ	咸	tsʰe'ɪsuŋ	努力	zy'ɪ'ɪvie'ɪ
清 (水)	ʃwx'ɪʃwx'ɪhiŋ	太咸	tsʰe'ɪkʰa'ɪ	不幸 (人)	ma'ɪda'ɪ
浑浊 (水)	zy'ɪ'ɪdzwæ'ɪ	食物变味, 人	tsu'ɪ'ɪby'ɪŋy'ɪ	高兴、起劲	læ'ɪpʰi'ɪ
干燥	læ'ɪfy'ɪ	虚弱、瘦		幸福, 安逸	tsʰe'ɪ
湿	t̄ɕæ'ɪlæ'ɪ	腻 (食物)	q̄y'ɪ	喜欢, 爱	pʰi'ɪ
浸泡 (如: 浸种子)	tʰie'ɪt̄u'ɪ	饿 (饭)	dze'ɪmi'ɪ	爱, 关心	ma'ɪda'ɪ
稠 (粥)、黏	ma'ɪfy'ɪ'ɪmx'ɪ'mie'ɪ	馋	t̄ɕx'ɪ	讨厌	dzy'ɪ
(比较干)		需要	ŋi'ɪ	生气	gy'ɪdzy'ɪ
稀 (粥, 汤)	hæ'ɪ	申请, 要	mie'ɪ	高兴, 心情好	se'ɪse'ɪ
结实	t̄ʃʰa't̄ʃʰa'ɪ	讨饭	dze'ɪmie'ɪ	好玩 (人)	tsʰe'ɪt̄u'ɪ
		感谢	kʰa'ɪmie'ɪ	安宁	da'ɪ
		饱	ŋu'ɪ	悲哀, 伤心	mə'ɪtsʰe'ɪ
		休息, 松懈	hi'e'ɪ	孤单	hi'ɪt̄u'ɪ
		忙	ŋi'ɪtsʰi'ɪ	陡峭 (山)	tu'ɪbie'ɪ
		事务繁忙	lu'ɪdziŋ		

安装	tɥt	拉肚子	q ^h æ-tɕwæ1	摇	dzɥ1
搬土	qɥ1	打喷嚏	a1t ^h ɥ1	凋谢	la-k ^h ɥ1
薅锄、锄草	lwæ1	打嗝儿	hu1tɥ1	上吊自杀, 缢	ɛæ-tsu1
挖	dzywæ1	打饱嗝儿	ie1p ^h ɥ1	冻	la1tɥ1
耙	tsa1	吐(吐口水)	tɕi-tɕ ^h ɥ1	爬行, 匍匐	dy1
扫	væ1	喝	ɕɥ1	翻身	t ^h u1tɕy1
拔、扯(草)	py1	吸吮	ts ^h i1ts ^h i1	翻过来翻过去	zi1tɕy1p ^h ɥ1
获, 割草	zu1ts ^h ɥ1	抽烟	ɕɥ1ɕɥ1	滚(石头滚)	gu1by1ly1
压扁	ŋæ1	串珠	su1	使滚	la1p ^h u1
弄扁不弄开 (竹子)	ta1pie1læ1	穿针	u1tsu1	躲藏	t ^h ie1ŋæ1
摆整齐、使均 匀	by1by1læ1	穿孔	q ^h ɔ1t ^h ɥ1	藏	t ^h ie1tɕ ^h wæ1
排列整齐	tɥ1	插、戳	tɕ ^h u1	藏(一个小的 东西)	t ^h ie1mɥ1
举、抬起	ɕɥ1ts ^h i1	刺痛	pu1	动	li1li1
上驮子	ɕɥ1ts ^h i1	扎(针...扎)	gy1	堵塞	dzy1
抬(几个人一 起)	ɕɥ1ts ^h i1	一代, 一世	qu1tɕ ^h æ1	棍子断	la1q ^h æ1
背柴	pa1	传染	tɕɥ1	碎	q ^h ɔ1
背水	i1ts ^h i1pa1	出来, 刮 (风)	t ^h ɥ1	破、碎(碗, 罐子)	q ^h ɔ1
背孩子	za1hu1pa1	下(雪)	vie1sa1	损坏	wæ1ɛæ1
扛	lu1	下(雨)	fi1dqɥ1	撕(撕纸)	ɕwɥ1
驮运	tsi1	下(冰雹)	dzy1la1	拆(线)	ɕwɥ1
帮助	ka1ka1	有(露水)	dzy1k ^h a1la1	拆	q ^h æ1
包	t ^h u1	发生(打雷)	mu1gy1gy1	拆	wæ1q ^h æ1
瞒着别人	na1na1	吹(灰)	mi1	生长	kɥ1pi1
刨	tsa1	缠线	dzy1dzy1	长大	ɕɥ1kwɥ1
比	t ^h a1t ^h a1nie1nie1	钓鱼	ŋi1ze1la1	发抖, 颤抖	tɕ ^h y1tɕ ^h y1
量	læ1	赶, 打猎	dzi1, hã1dzi1	发烧	tɕ ^h u1
放置	t ^h ie1tɥ1	打散, 驱赶, 撵	q ^h æ1li1hu1k ^h u1	为别人担心	ŋi1mjæ1hũ1
提前准备好	tɕɥ1tɕɥ1	牵(牵牛)	k ^h u1tɕæ1	发芽(树)	hã1pɥ1i1tɕɥ1
修理	gy1	散开	p ^h a1	发芽(种子)	y1
宰牲畜	k ^h a1	打开(如: 开 门)	la1ts ^h i1	开花	væ1
重新做	li1tie1vie1	张开心	k ^h æ1k ^h æ1	告状	tɕɥ1zɥɥ1
还东西	t ^h ie1la1ku1	闭	tæ1	惩罚	u1dɥ1
唱	ɕwɥ1	关(羊)	tæ1	掺和	t ^h ie1ts ^h i1
称	sa1	锁门	tse1	放牧	dzy1dze1ly1
完成	la1se1	闭嘴	t ^h ie1mu1	飞	dzy1
吃	dze1	眨眼	ŋjæ1mæ1	盘旋	q ^h æ1q ^h æ1
拍(拍桌子)	t ^h ie1tɥ1	闭眼	mɕɥ1ly1	分东西	zy1zy1
咬	t ^h æ1	穿(衣服)	hɥ1	逢	zy1
嚼	tɕa1qɔ1	脱(脱衣服)	p ^h ɥ1	孵	zy1
吃草	ɛwæ1	佩带	pɥ1	符合	qu1
舔	ɕɥ1	戴手镯	pɥ1	上街	wɥ1bie1bi1
含在嘴里	ly1	戴帽子	tɥ1	敢	ŋwɥ1
吞	ɛɔ1	挡住	q ^h ɔ1	做, 工作	vie1
呕吐	p ^h ie1	等候	t ^h ie1hi1	劳动	lu1vie1
小便, 解溲	dzi1hæ1	地震	dy1dqɥ1dqɥ1;	给、传	ku1
拉屎	k ^h æ1hæ1	摇	dzy1dqɥ1	喂动物	dze1ku1

撒 (种子)	p ^h aJ	借给别人	ts ^h yJ, tʂ ^h uJts ^h yJ	爬, 上山	gɣ ^h -duJ
使钩住	mi ^h	欠钱	viJ	爬, 上山	dy ^h -dy ^h
钩住, 悬挂	hwaJ	递过去	ɬu ^h -pɣ ^h -thūJ	打 (如: 脱粒)	ɬuJ
够	lyJ	居住	dzyJ	敲门	ta ^h -ta ^h
为别人打工	hi ^h -k ^h ɣ ^h -ka ^h l ^h u ^h -vie ^h	聚集	la ^h -ly ^h -lyJ	打 (人, 钉)	la ^h
管理庄稼	li ^h lɔJ	蜷缩	zyJ	排队	ɬu ^h -la ^h -vie ^h
管庄稼	li ^h -tʂ ^h u ^h	观看	lɔJ	跑	dzaJ
管理	a ^h l ^h u ^h lɣ ^h -tzu ^h	看、看望	lɔ ^h biJ	碰撞	p ^h je ^h
灌溉	li ^h ʂu ^h J	听	hāJ	泼水	ɕyJ
害羞	hæ ^h duJ	听见	my ^h	欺负	dzyJlɔ ^h ma ^h hā ^h J
害怕	si ^h	嗅	la ^h -mi ^h	欺骗	qæJ
吓	ɬzy ^h	闻到	bu ^h -ŋy ^h	垒起来	ɣ ^h J
后悔	p ^h ɣ ^h	呼吸	sa ^h seJ	砌墙	tʂu ^h l ^h buJ
画、写	tʂu ^h J	烤火取暖	my ^h lkwɣ ^h J	骑马	dzu ^h J
刻	ɬuJ	站 (站立)	hi ^h l	起 (起床)	gɣ ^h -t ^h u ^h
怀孕一个孩子	za ^h -th ^h l ^h pɣ ^h	跪下	ma ^h -ku ^h l ^h ie ^h -ts ^h y ^h	打招呼	ɣ ^h -k ^h u ^h l ^h u ^h lɔ ^h je ^h -t ^h ?
交换	qæ ^h -lqæ ^h	跪下磕头 (叩头)	lɔ ^h -p ^h y ^h lɬuJ	染	tʂ ^h y ^h J
变 (蛹变蛾)	tɕɣ ^h lɣ ^h -væ ^h J	咳嗽	tsy ^h	热饭	tsi ^h
换	qæ ^h , qæ ^h -lqæ ^h	渴	hwɣ ^h	必须	lɔ ^h
飘动	li ^h -li ^h -tʂwæ ^h lɣwæ ^h J	困倦	ts ^h e ^h J	会	kuJ
挥动	tɕi ^h -tɕi ^h	拉 (向前拉)	tæ ^h	能, 能够	ɬz ^h wɣ ^h J
来	i ^h	拖	gwæ ^h lɣsæ ^h J	扔	la ^h
毁灭	t ^h u ^h l ^h ts ^h u ^h J	推	mie ^h J	甩	duJ
使混合	tʂwæ ^h -tʂwæ ^h	按 (用手)	ŋæ ^h J	掷 (掷石头)	tʂa ^h l ^h ts ^h i ^h J
搀	zæ ^h lɣzæ ^h J	挤压	tɕy ^h	散了	p ^h y ^h J
搀	ʂwæ ^h -ʂwæ ^h	靠	t ^h u ^h J	解开, 解绳结	tʂ ^h u ^h J
和泥	dzæ ^h l ^h hæ ^h lɣzæ ^h J	留下	t ^h ie ^h -ɬzy ^h -t ^h u ^h !	杀	k ^h aJ
累积	ku ^h -ku ^h	遗漏	my ^h J	筛	lyJ
记得	ŋi ^h mie ^h l ^h q ^h ɔ ^h J	忘记	la ^h lmy ^h J	射中	zy ^h
寄存	t ^h u ^h	绑, 捆	ts ^h i ^h J	伸 (伸手)	ɣ ^h l ^h tʂ ^h u ^h J
寄信、服送	q ^h ɔ ^h -pɣ ^h	绑	tsu ^h -tsu ^h	生锈	tʂu ^h -l ^h q ^h -æ ^h -n ^h -ɬze ^h
妒忌	g ^h y ^h lɬz ^h uJ	系	ty ^h J	生孩子	za ^h -th ^h l ^h ɬzy ^h J
停止	la ^h -hi ^h l	勒住	dzu ^h lɬdzu ^h J	失踪	t ^h u ^h l ^h ts ^h u ^h J
剪	ts ^h i ^h J	漏水	ma ^h lɣæ ^h J	撑开 (帐篷)	q ^h -æ ^h -l ^h q ^h -æ ^h J
砍 (树)	da ^h J	滤	tsu ^h J	收拾、弄整齐	su ^h lɣsu ^h J
劈、剖	q ^h ɔ ^h J	弄乱	wæ ^h l ^h q ^h -æ ^h J	梳	tʂ ^h h ^h wɣ ^h J
剁肉, 宰	da ^h J	驱逐	q ^h -æ ^h -pɣ ^h -hū ^h !	梳	si ^h -si ^h J
切	hæ ^h J	埋	ŋy ^h	败、输	mæ ^h -tɕ ^h ɣ ^h
断 (线)	tʂ ^h u ^h J	买	z ^h u ^h	用手剥	ʂu ^h J
马叫	lwæ ^h	卖	tɕ ^h i ^h	剥皮	ʂu ^h J
狗吠	ly ^h J	生意	gɣ ^h -tɕ ^h i ^h l ^h ɣ ^h -tɕ ^h i ^h J	削	ʂu ^h J
老虎叫	lwæ ^h	抿嘴巴	ts ^h i ^h l ^h ts ^h i ^h J	煮熟	tɕɣ ^h J
名字叫	hi ^h J	触碰	g ^h y ^h J	煮了一会	ɬu ^h -l ^h my ^h l ^h mi ^h l ^h tɕɣ ^h J
结很多果子	ly ^h l ^h dy ^h J	磨刀	sy ^h J	烧开	tɕɣ ^h J
结果子	la ^h l ^h dy ^h l ^h ɣa ^h J	拧 (拧毛巾)	ɣæ ^h -tʂy ^h J	煨熟	tsi ^h J
婚姻	z ^h u ^h lɣʂy ^h J	搓 (搓绳子)	zy ^h J	蒸熟	by ^h J
向别人借	ŋi ^h	缠线	dzy ^h lɬdzy ^h J	炒 (肉、菜)	hi ^h J
				炒 (肉、菜)	tʂ ^h u ^h J

干炒 (麦子)	hī-thī	养 (动物)	zɿwɿ	错、犯错误	qæ1
揉面	zy1	溢出来	qʰɔ1	舀水	qwa1
搅拌	ʃwa1	送行	py1	守卫	ʃʰu1
尝试、体会、	qʉ1 pʉ1bi1	漂浮	tɕy1	带孩子	qæ1
经过		跨 (跨小沟)	ɛa1	带路	læ1ɬɔ1ʃy1
烘干	læ1fy1kʰu1	遇见	ɛɔ1py1	骨折	qʰæ1
弄碎 (用牙	tɕy1ly1tɕy1	盖, 覆盖	hu1	倒	qʰæ1
齿、手磨)		遮 (云遮月)	ka1	掉下	ʃʰu1
在磨房里磨	tɕy1	挡住去路	ka1	掉入、沉下去	ʃʰu1
点灯	ʃy1	包起来	ʃu1ʃu1, la1ʃu1	摔倒, 跌倒	tʰie1dqʉ1
烧	dzy1	遮蔽	hu1	(路很滑)	
烧焦	qʰæ1	使火炉灭了	ny1	立起来	tʰie1dzy1kʰu1
烧火	tsʰi1	灭, 熄	kʰu1	到达	tʰy1
熏	hwa1	震动	dzy1	得到	ɹ1
一起摔交	zi1zi1	震动	dzy1dqʉ1	丢失, 遗失	tʰu1tsʰu1
甩来甩去	ʃwɿ1lie1u1	点头	u1tu1gy1gy1	捉 (捉鸡)	zi1
睡觉	zi1	抢	dzy1	握 (握刀把)	tsʰy1
睡着	zi1my1zi1	争夺	dzy1dqʉ1	拣, 拾, 取	la1tsʰy1
讲	zɿwɿ	吵架	dzy1dqʉ1	捡起来, 拾	ku1
商量、谈天	ʃa1væ1	偷	kʰy1	摘	ʃʰu1
讲故事	u1	催别人把东西	ta1	拿过来	y1
问	my1du1	交出来		赠送	py1
读	ŋi1tsi1	织	da1	哄	tu1tu1
批评	dzy1	编 (竹子)	mæ1da1	抱起小孩子	tu1, tu1tu1
骂	u1dy1	指	gy1	亲吻	bu1bu1
逃, 逃跑	pʰu1	种	tʰy1	铺 (铺床)	kʰu1
踢一脚	tsa1	抓	dzy1wɿ	去	bi1
踩	tʰy1	啄	kʰy1	去	ɬy1
剔, 刮	si1si1	醉	ɛæ1	去 (过去式)	hu1
满	ʃi1	坐/住	dzy1	走路	se1
挑选	si1	做梦	y1mu1kʰwɿ	散步	ga1lɔ1y1lɔ1bi1
跳舞	tsʰu1	暗 (房子)	na1fy1fy1	走 (离开)	hū1
往后仰	ɟɿ1ɟɿ1	天阴	mu1na1	喊 (大声叫)	ku1
弄弯	tsa1qæ1kʰu1	瘦 (人瘦)	ʃu1dza1	笑	ɹ1
退后	tie1se1	瘦 (肉)	ʃu1na1	玩笑	a1zɿ1ʃa1væ1
洗衣服	tsʰu1	肥 (肥肉)	ʃu1pʰy1	逗弄 (话)	ze1kʰwɿ1vie1
冲水	ɕy1	胖	ʃu1dy1	玩, 玩耍	a1zɿ1
下蛋	ɛɔ1ɬɔ1	干燥	fy1	玩具	a1zɿ1tsu1
相信	mu1gɿ1	可爱	a1li1	哭	ny1
醒	ʃy1	丑陋	a1mɿ1li1	过去 (时间)	gy1
学	su1	辣	tsu1	数	ʃwɿ1tʃwɿ1
教	su1	活	sy1	跳	tsʰu1
写	ʃsu1	死 (人)	su1	过河	dzy1
知道	su1	死	kʰy1	贴	zu1zɿ1
传闻	ŋɔ1	合适	dzy1	想	ʃɹ1dqʉ1
懂	my1	擦	ʃʰy1, tʃʰy1tʃʰy1	愿意	lwæ1
寻找	ʃu1	揉	zy1	请	lwæ1
搔痒	kwa1	呛	ɿ1	接	ʃy1, tʃy1tʃy1
阉割	læ1mie1gy1	塌毁, 倒塌	dzy1	游泳、漂浮	dzy1, zɿ1dqʉ1

苦荞	jaɪkʰɑɪ	菁叶子	
稻子	dzeɪsyɿ	根	siɪɑɪtsʰuɿ
米	tɕʰiɿ	树枝	mæɿdyɿ
米饭	t͡sʰæɿpʰyɿdzeɿ	树枝	siɿkaɿllaɪ
玉米、包谷	kʰɑɿdzeɿ	树干	siɪdziɪ
燕麦	myɿzɔɿ	液, 汁	zɔɿɪ, siɪzɔɿɪ
莜麦	ʂuɿ	松香	tʰuɪɪɬæɿ
苋米	njaɿllaɪmaɪ	麦苗	dzuɿliɿ
糠	tsʰiɪ	种子	læɿ
麦麸	pʰɑɪdaɿ	叶子	tɕʰyɿ
麦秸	zuɪ	刺	tɕʰiɪtuɿ
麦芒	mieɪ	花	væɿ
小麦	dzeɿ	花	aɿliɿwaɿ
火麻	saɪɑɪ	草	zuɪ
大麻	saɿ	玉米包	qɔɿɿtʰyɿ
蔬菜	uɿtɕʰyɿ	杉树果	siɪliɿ
萝卜	lyɿbiɿ	豆类的粗糠	nyɪtsaɿ
南瓜	tseɿhiɿgɔɿɿ	秕, 喂牛	
黄瓜	tʰyɿhwɿɿ	树墩、树桩	siɪpɿɿtʰyɿ
土豆 (马铃薯, 洋芋)	jaɿyɿ	树瘤	tsuɿtuɿlyɿ
树	siɪdziɪ	茎	zuɪdqɿɿ
松树	tʰuɪsiɪ	我	ŋɑɿ
松明	qʰɔɪqʰɔɿ	你	nuɪ
落叶松	tʰuɪɬɿɿ	他	tʰuɪ
柳树, 杨柳	zɿɿsiɿ	咱们	uɪmɿɿ
柏树	syɿ	我们	ŋɑɪmɿɿ
大竹子	mæɿ	你们	nuɪmɿɿ
竹子	tsʰuɪt͡sɿɿ	他们 (对平辈)	tʰuɪkʰyɿ
竹子	mæɿtʰæɿtɕiɿhiɿ	你们俩	nuɿdziɿ
甘蔗	kʰɑɪdzeɿpuɪzyɪ	不	məɪ
黄豆	ŋyɿ	是 (这是什么)	ŋuɪ
豆花	ŋyɿhuɿ	这样, 这么	uɿnieɿ
豌豆	daɿtsʰyɿ	越、更	laɪhaɿ
豌豆干草	daɿtsʰyɿzɔɿɪ	凉山木里县	muɿliɿ
花椒	dzyɿ	木里县项脚	hʰwɑɿdzyɿ
野花椒	dzyɿɿbyɿ		
庄稼	kʰyɿɿɬwaɿ		
庄稼 (未收)	ɬɔɿɿbieɿ		
藤子	ŋyɿɿbæɿ		
辣椒	læɿtsuɿ		
四川桦树, 白桦树	muɿkɿɿ		
核桃	uɿduɿ		
荨麻 [和麻]	ŋiɿt͡sʰuɿ		
血满草 [臭草]	jaɿɿbyɿ jaɿtsuɿtsuɿ		
[酸酸草]	hwɿɿtɕyɿ		
大蒜的根	fɿɿtuɿtuɿ		
酸菜, 如: 芜菁	tɕyɿɿlæɿ		