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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.

Keywords: Muli Shuitian; Laze; phonemic analysis; word list; syllabic inventory

木里水田话（拉热话）音系分析：音位归纳与音节盘点

提要：木里水田话（拉热话）是四川凉山州木里县的一种语言，使用人口不到一千人。本文是对拉热话音系的共时分析，附录一个 1,400 词左右的词汇表。通过音位分析表这个归纳工具，可以看出拉热话声母与韵母的分布特征。这些特征对拉热话、纳西语、纳语等纳语组语言的历史研究有较为重要的意义。

关键词：木里水田话，拉热话，音位归纳，词汇表，音节分析表

0. Introduction

This article focuses on Laze (autonym: /laːze-/; 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 and Michaud 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).

* The Laze data were collected by Alexis Michaud in Muli in 2008 and 2009. Many thanks to Mrs. Tian Xiufang (田秀芳女士; in Laze: /suːlɣɿˈmiː/) and her family. Many thanks to our colleagues Katia Chirkova, Huang Xing, Latami Dashi, Lurong Duoding and Sun Hongkai for their help and support, and to an anonymous reviewer for helpful and encouraging comments; errors are our own responsibility. Fieldwork was funded by the Agence Nationale de la Recherche (France) as part of the research project “What defines Qiang-ness? Towards a phylogenetic assessment of the Southern Qiangic languages of Muli” (ANR-07-JCJC-0063; acronym: PASQi).

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 are 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, ‘wɿɿ’ in the cell corresponding to initial /h/ and rhyme /wɿ/ indicates that the combination /hwɿ/ is attested, and that its phonetic realisation can be approximated as [wɿɿ], 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 /a/ means that the syllable /fa/ 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.

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	ɟ	ɣ	jæ	jɣ	ja
zero	ʔa 家	—	wæ 猪崽	wa 花	ʔi 水	ʔie 打饱嗝儿	ʔy 梦, 坟	ʔu, u 咱们	—	—	ɣɣ 肚带	—	wɣ 猪	ɟ 书, 笑, 石	ɣ 肠	—	jɣ 奶	ja 袖子
h	xa 难	hæ 害羞	ɣwæ 肩膀	ɣwa 挂	ɕi 舌头	—	ɕy 痔	ɣu 孩子	xɔ 楔子	xu 晚上	—	—	ɣwɣ 渴	—	—	—	—	—
f	B	—	—	—	fi 雨	—	—	—	—	—	—	—	—	—	fɣ 脑子	—	—	—
v	—	væ 左	—	—	vi 牛	vie 雪	—	—	—	—	—	—	—	—	cf zero + ɣ	—	—	—
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 ɣ 烟	—	tɕ ^h ɣ 蔬菜	tɕ ^h a 礼物
k	qa 遮	qæ 换	—	qwa 痒, 晋	tei 云	teie 痰	tey 压	ku 这里	qɔ 喉咙	ku 能	kɣ 额头	—	kwɣ 黎明	—	ky 皮肤	tɕæ 湿	tɕɣ 煮	tɕa 蓑衣, 嚼
ɕ	ɕa 埕口	ɕæ 富	ɕwæ 反刍	ɕwa 庄稼	—	—	—	—	ɕɔ 吞, 客气	—	—	—	—	—	—	—	—	—
g	VH	—	VH	—	dzi 袋子	—	dzy 手镯	gu 妹妹	—	gu 弟弟	gɣ 上	—	gwɣ 下午	—	gɣ 雷	dzæ 泥巴	dzɣ 美	dza 泥巴
	a	æ	wæ	wa	i	ie	y	u	ɔ	u	ɣ	e	wɣ	ɟ	ɣ	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 ɣ 出	—	—	—
t	ta 全部	—	—	—	B	tie (退)后	ty 系	tu 哄	—	—	tɣ 茶壶; 那里	—	—	—	ty 洞	—	tjɣ (虚词)	—
t	—	tæ 臼齿	—	—	—	—	—	—	—	tɣ 雾	—	—	—	tɟ 皱	tɣ 骨髓	—	—	—

	a	æ	wæ	wa	i	ie	y	u	ɔ	u	ɣ	e	wɣ	ɹ	ɣ	jæ	jɣ	ja	
d	da 砍	—	—	—	di 少	die 浅	dy 地, 户	du 害 羞	—	—	dɣ 围 起来	—	—	—	—	dy 翅 膀	—	—	—
ɖ	—	ɖæ 涉 过去	ɖwæ 狐狸	—	—	—	—	—	—	ɖu 刻	—	—	—	—	ɖɹ 湖	ɖɣ 坟	—	—	—
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 ɣ 霜	—	—	—
p	pa 洞	—	—	—	pi 长 大	pie 嘴	—	pu 一 堆	—	—	pɣ 拿 B	—	—	—	—	pɣ 祈 祷	pjæ 一 半	—	—
b	ba 衣 服	bæ 蠢	—	—	bi 门	bie 旁	—	bu 闪 电	bɔ 苍 蝇 (VH)	—	bɣ 普 米	—	—	—	—	bɣ 臭	bjæ 腮	—	—
t	—	—	—	—	tɹ 天 花板	tɹie 月	tɹy 庚	tɹu 肋 骨	—	—	—	—	—	—	—	—	—	—	—
l	la 手	læ 洞	lwæ 叫	—	li 田	lie 茶	ly 果 子	lu 扛	lɔ 马	—	—	—	—	—	—	ly 含	—	ljɣ (虚 词)	—
s	sa 气	sæ 鞋 (VH)	—	—	si 怕	—	sy 公 (马 天)	su 明	—	sɹ 知 道	—	se 凉 快	—	—	—	sy 磨 刀	—	—	—
z	za 孩 子	—	—	—	zi 睡 觉	—	zy 林	zu 孤 儿	—	zɹ 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	—	ʃɹ 跳 蚤	—	—	ʃwɣ 盘 子	ʃɹ 水 獭	ʃɣ 喝	—	—	—	
ʒ	—	zæ 火 花	zɣwæ 飘 动	zɣwa 努 力	—	—	zy : —	zu 中 午	—	zɹ 山	—	—	zɣwɣ 养	—	zy 蛇	—	—	—	

	a	æ	wæ	wa	i	ie	y	u	ɔ	u	ɣ	e	wɣ	ɹ	ɻ	jæ	jɣ	ja
ʈʂʰ	ʈʂʰa 铤头	ʈʂʰæ 代	ʈʂʰwæ 快	—	—	—	—	ʈʂʰu 炒	—	ʈʂʰɿ 掉	—	—	ʈʂʰwɣ 梳	—	ʈʂʰɻ 染料	—	—	—
ʈʂ	ʈʂa 掷	ʈʂæ 段	ʈʂwæ 搅拌	—	—	—	—	ʈʂu 锥	—	ʈʂɿ 画	—	B	ʈʂwɣ 数	—	ʈʂɻ 传染	—	—	—
ʈʂɹ	ʈʂa 干扰	ʈʂæ 抢	ʈʂwæ 挖	—	—	—	—	ʈʂu 痛	—	ʈʂɹ 下(雨)	—	—	ʈʂwɣ 抓	—	ʈʂɻ 燃烧	—	—	—
ʈʂʰ	ʈʂʰa 蚂蚁	—	—	—	ʈʂʰi 剪	—	ʈʂʰy 冬天	ʈʂʰu 跳	—	ʈʂʰɿ 一张	—	ʈʂʰe 盐	—	—	ʈʂʰɻ 拣	—	—	—
ʈʂ	ʈʂa 刨	ʈʂæ 钩子(VH)	—	—	ʈʂi 星	—	—	ʈʂu 火塘	—	ʈʂɿ 黏	—	tʂe 山	—	—	ʈʂɻ 咳嗽	—	—	—
dʂ	dʂa 跑	—	—	—	dʂi 海	—	dʂy 缠, 桥	—	—	dʂɿ 勒住	—	dʂe 吃	—	—	dʂɻ 凿子	—	—	—
	a	æ	wæ	wa	i	ie	y	u	ɔ	u	ɣ	e	wɣ	ɹ	ɻ	jæ	jɣ	ja
m	ma 士兵	mæ 大竹子	—	—	mi 酥油	mie 太阳	—	mu 天	—	—	— (neg)	—	—	—	mɻ 天	mjæ 眼泪	—	—
n	na 海	næ 挤压	—	—	ni 嘴唇	—	—	nu 你	—	nɿ 由	—	—	—	—	nɻ 臭	njæ 眨眼	njɣ 鼻	nja 苋米
ŋ	ŋa 我	—	—	ŋwa 膝盖	ŋi 太阳	ŋie 霜	ŋy 火钳	—	—	ŋɿ 是	ŋɣ 跌	—	ŋwɣ 白齿	—	ŋɻ 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, /mə-/ , and taking on its quality from the vowel that follows; and (ii) as many as nine nasal rhymes, shown in Table 2.

syllable	h̃wa	h̃a	h̃æ	h̃v	h̃u	h̃wɣ	h̃i	h̃e	
example	绿豆	听	锯, 金	毛	走	慢	人	站, 面包	
syllable			ã	ỹ					õ
example			铜	呛					螳螂, 自己, 驴

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

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 /hV/, 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.^③ There are also three syllables without an initial /h/, consisting simply of a nasal vowel: [ʔỹ], [ʔã] and [ʔõ]^④. Examples include:

(i) [ʔã-] ‘brass’

(ii) [ʔỹ1] ‘to irritate (e.g. smoke irritates the eye)’; Huang Bufan also reports [ʔỹ1] (original transcription: [ʔỹ³¹]) for ‘goose’, a word for which the language consultants in the valley of Xiangjiao now use a Chinese borrowing.

(iii) [la1mie1la1ʔõ1ʔõ1] ‘praying mantis’, [ʔõ-tõ1] ‘-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): [tõ1by1] ‘donkey, ass’ and [nõ1by1tõ^{hi}1] ‘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 [ʔi]. Pushing further the logic of descriptive economy, in the absence of any [ʔæ] or [ʔo] syllables, the syllable [ʔã] could be interpreted as the phonetic realisation of a simple /æ/, and [ʔõ] as /o/; but this option, which would be costly in terms of phonetic plausibility, is not open for [ʔỹ], since that syllable contrasts with [v]. We propose to analyse [ʔỹ], [ʔã] and [ʔõ] as /ỹ/, /ã/ and /õ/, a decision which is consistent with the recognition of the phonemic nasal rhymes /ã/, /ỹ/, /wã, /ã/, /ũ/, /wɣ/, /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, /iɬdyɬ/ ‘family’ is sometimes realised close to [yɬdy]. 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.⁵ Vowel harmony is lexicalised in some disyllabic words, along with other processes such as the voicing of intervocalic voiceless consonants (and tone sandhi, about which see, again, Michaud 2009). A typical example is /ɕieɬlieɬmieɬ/ ‘seventh month’, from /ɕuɬ/ ‘seven’ and /ɬieɬmieɬ/ ‘month’: in addition to the change in the vowel of the first syllable, note the voicing of /ɬ/ to /l/. 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 /fiɬ/ ‘rain’, /fiɬts^hiɬ/ ‘gingiva’, /fiɬdziɬ/ ‘charcoal’, /fiɬ/ ‘lake’; /viɬdzuɬɬtuɬ/ ‘East’, /viɬ/ ‘cow’, and /viɬ/ ‘to owe’. In front of /i/, they contrast with /h/ (realised as [ɕ]) and with the absence of any initial, e.g. /hiɬmieɬ/ ‘tongue (body part)’, /iɬts^hiɬ/ ‘water’.

In Laze, the two syllables containing /f/, leaving aside Chinese borrowings, are [fi] and [fɤ]; 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 [fɤ] comes to be interpreted as /fɤ/ – hence the empty slot at the intersection of initial /h/ and rhyme /ɤ/.⁶

Initial [ɕ] 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).

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 [wɣlmie.tʃɔ.lɔ] ‘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 [lɔ] being copied onto the previous syllable.

3.3. *The palatalisation of the velar nasal in front of high, front rhymes*^⑦

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/, /ɹ/, /jæ/, /jɣ/, /ja/, /ɔ/, /ie/, /wæ/, /wa/, 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 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 [ɬɥe]), and [tʃʰɥe]. Only one example of each was observed: [lɥe] 草木灰 ‘ashes (of wood)’, and [tʃʰɥe] 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): /lɥɔ/, 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 /tʃʰ/, 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: [tɕɛ] and [dzɕɛ]); as a consequence, it is provisionally considered as a rhyme on its own, /ɕɛ/. (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 /hɔɪzɯ/ ‘watery rice gruel, 稀饭’, vs. /hu/ ‘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 /bɔɪɔ/ ‘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 /ɻ/: /tɻ/ vs. /tʃ/, and /dɻ/ vs. /dʃ/; no example of /t^hɻ/ was observed (only examples of /t^hɻ/), 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 [t^hɑɪɪ] ‘书, book’ and [t^hæɪ] ‘冷, cold’ would then be written as /T^hɑɪɪ/ and /T^hæɪ/, where T^h stands for the archiphoneme covering [t^h] and [t^hɻ].

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 /ɭo/: 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 /lɔ/: the /l/ would then have allophones ranging from [ɭ] to [ɭ] through [l]. 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 as retroflex [ɳ] in front of /æ/, /u/ and /ɻ/ ([ɳæ], [ɳu] and [ɳɻ] are phonemicised as /næ/, /nu/ and /nɻ/).

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

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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 (some 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	muɬ	石头	læɬɬmieɬ	嘴巴里面	kuɬpieɬkuɬluɬ
天空	muɬtuɬ	粉, 粉末	zyɬ	牙齿	fiɬ
天地	muɬdyɬ	土	ʈʂuɬ	牙齿	fiɬtɕuɬ
太阳	ŋiɬmieɬ	干土	ʈʂuɬzyɬ	白齿 + 后白齿	ŋwɔɬʈʂæɬmieɬ
光 (阳光)	ŋiɬmieɬuɬ	尘土	pʰyɬhæɬ	牙龈	fiɬtsɕiɬ
月亮	ʰieɬmieɬ	泥巴	dʒaɬqʰæɬ	舌头	ɕiɬmieɬ
星星	tsiɬ	水	iɬtsɕiɬ	舌头的筋	ɕiɬʒæɬ
流星	tsiɬqʰæɬ	洪水, 大水	zɕuɬyɬ	小舌	ɕiɬʒæɬ
风	myɬhæɬ	波浪	iɬtsɕiɬhɕieɬsaɬsaɬ	喉咙	qɔɬtsuɬ
雨	fiɬ	水泉, 山泉	zɕuɬqʰɔɬ	喉结	qɔɬtsuɬtuɬɬyɬ
云	tɕiɬsuɬ	温泉	ʈʂɕyɬzɕuɬ	嘴唇	niɬtɕɕɕɕɬ
雾	qʰɔɬɬɔɬ	泉水	zɕuɬqʰɔɬiɬtsɕiɬ	颧骨	pʰyɬɬsyɬdzyɬ
彩虹	zɕuɬʂsuɬmyɬʂsuɬ	金子	hæɬ	胡子	myɬtsuɬ
雪	vieɬ	银子	ŋyɬ	连鬓胡	bieɬnaɬ
雷, 霹雷	muɬgyɬ	黄铜	æɬ	颚	taɬɬɔɬ
闪电, 打闪电	byɬbæɬbæɬ	白铜	æɬpʰyɬ	脖子	ɕæɬsuɬɬpaɬ
冰雹	dzyɬ	红铜	æɬhiɬ	甲状腺肿瘤	æɬbæɬ
冰雹块	dzyɬlyɬlyɬ	铁	ʂuɬ	项背	gɔɬɬɔɬpaɬ
露水	dʒuɬɬkʰaɬ	锈	ʈʂuɬqʰæɬ	肩膀	hwæɬtsɕuɬ
冰	ŋiɬpʰyɬ	炭	fiɬdziɬ	脊背	gyɬsuɬ
火	myɬ	盐	tsɕeɬ	肩胛骨	tsɕuɬ
火花	myɬʒæɬ	草木灰	lɕeɬ	驼背	duɬqɔɬ
烟	muɬkʰyɬ	桥	dzyɬ	腋下	jaɬdaɬ
(一口) 气	saɬ	坟墓	yɬɬɕyɬ	胸膛	ŋiɬmjæɬqʰɔɬ
堰口	ɕaɬlyɬ	身体	ɬuɬhiɬ	乳房	aɬpuɬ
山	zɕuɬtseɬ	头	uɬtuɬ	奶汁	ŋæɬ
高山	uɬguɬ	脑子, 脑髓	uɬfyɬ	月经	dzuɬɬhɕɕtsɕuɬtsuɬ
山坡, 岗	tuɬbieɬ	太阳穴	suɬɬbyɬ	心脏, 性情	ŋiɬmieɬ
山脊	dzyɬɬkʰuɬtuɬ	头发	uɬtɕɕyɬ	肚子	haɬmieɬ
山谷	zɕuɬtseɬæɬtsɕuɬ	辫子	ɬɔɬpaɬ	肚脐	tɕɕɕɕɬpuɬ
山洞	læɬqʰɔɬ	毛	hɕvɬ	肚脐	tɕɕɕɕɬ
森林	syɬzyɬ	人身上的毛	ŋiɬhɕvɬ	胆	tsiɬ
地上的小洞	paɬtyɬ	额头	tuɬkɕɬ	胆汁	tsiɬzɕuɬ
洞	qʰɔɬ	眼睫毛	mjæɬtsuɬ	吐酸水	tɕiɬzɕuɬ
河流	zɕuɬmieɬ	眉毛	mieɬtuɬ	腰	iɬtsuɬ
溪流	iɬtsɕiɬqʰæɬluɬ	眼睛	mieɬlyɬ	屁股	qʰæɬsaɬpʰyɬmieɬ
湖	fiɬ	眼 (单音节)	mieɬ	胯	tsɕuɬmieɬ
海	naɬdziɬ	眼珠	mieɬlyɬnaɬliɬ	尾椎骨	dzyɬɬtuɬ
小型水库	ɬɕɬ	眼圈骨	mieɬlyɬʂaɬtuɬ	锁骨	læɬɬɕyɬ
岸	zɕuɬmieɬkʰuɬkʰuɬ	眼泪	mjæɬɬdzyɬ	肌肉	ʂuɬnaɬ
水坑	paɬtyɬ	鼻子	ŋjɕɕɕɕɬ	腿	æɬtsɕuɬ
水沟	qʰæɬluɬ	鼻孔	ŋjɕɕɕɕqʰɔɬ	大腿	byɬsaɬmieɬ
井	iɬtsɕiɬqʰwæɬ	鼻涕	ŋyɬ	膝盖	ŋwaɬtuɬ
小堤坝	buɬtuɬ	耳朵	ʰieɬtuɬ	膝盖骨	kaɬpʰæɬ
路	læɬgyɬ	耳孔	ʰieɬtzeɬ	关节	tsuɬ
地 (天地的地)	dyɬ	耳垂	ʰieɬtuɬɕaɬbyɬ	小腿	dzyɬɬbæɬ
平坝	duɬkʰuɬ	耳垢	ʰieɬqʰæɬbæɬ	胫骨	wɕɕŋjɕɕɕɕɬsaɬtuɬ
平地	hæɬduɬ	脸	pʰyɬmieɬ	踝关节	læɬmieɬtsuɬtuɬɬyɬ
田地	liɬ	腮	bjæɬɬɔɬ	脚底	wɕɕtɕɕɕɕɬ
水田	dzeɬliɬ	嘴, 嘴巴, 口	ŋyɬqʰɔɬ	脚跟	gyɬɬtuɬ
		嘴巴	kuɬpieɬ	脚背	miɬgyɬ

下半身	ɤ̃lɔu-tʂæ1	生命	hĩlɔuɔiɔ	孙子孙女	i-tɥ-i-tmie1
上半身	gɤ̃lɔu-tʂæ1	人	hĩ1	重孙, 曾孙	i-tɥ-tɥ1
四肢, 手脚	zɥ1tsʰu1	藏族	ka-tmi1	重孙女, 曾孙女	i-tmie1
胳膊	laɔpʰie1	彝族	leæɔhĩɔsaɔ	女	
胳膊	laɔbuɔɔɥ1	普米族	bɤ̃1	重孙与重孙女	i-tɥ-tɥ-i-tmie1
肘	laɔtuɔ	纳西族	na-tɥĩ1	哥哥	maɔɔmɥ1
臂弯	tsæ-tqæ1	自称	la-tze1	弟弟	gɤ̃-tzu1
手掌	laɔkwɤ̃ɔhĩeɔgɥ1tɕi1	木里县的纳人	naɔɔzuɔ	兄弟(哥哥们与弟弟们)	a-ti-tgɤ̃ɔzuɔ
手纹	laɔpʰieɔlæ-tgɥ1	汉人	hæɔ	姐姐	a-tɥ1
手背	laɔgɥ1	苗族	mɔ̃jen.tsuɔ	姐姐	tɕi1tɕi1
拳	laɔkɥ1ɔɥ1	孩子	za-tɥu1	妹妹	gu-tmie1
手腕	laɔtsuɔ	儿童	za-tɥu1tʰæ1tɕi1hĩ1	姐妹	a-tɥ-tgɥ1mie1
手指	laɔɔiɔ	老太太	a-tɥɤ̃-tmie1	弟弟+妹妹	gɤ̃-tzu1tgu-tmie1
大拇指	laɔɔiɔa-tmie1	妇女, 女人	mɥ1ɔzuɔhĩ1	女婿	mae-tɥ1
指甲	laɔtʂuɔ	女人(已婚)	mɥ1ɔkʰɤ̃ɔkʰɤ̃ɔ	媳妇, 儿媳	tsʰuɔɔmie1
肛门	kʰæ1qʰɔ1	男人	zeɔkʰɤ̃ɔ	嫂子	mi1tɕʰi1
男生殖器	ɔi1tʂi1	小伙子	zeɔkʰɤ̃ɔɔzeɔhĩ1	祖母, 奶奶	a-tɥɤ̃1
皮肤	zɥu-kɥ1	小姐	hæ1kʰwɤ̃ɔmie1	姥姥	a-tzuɔmie1
皱纹	zɥu-kɥ1tɥ1	少爷	hæ1kʰwɤ̃ɔzeɔ	舅舅的舅舅	æɔpʰɥ1
黑痣	ɕɥ1	妻子	mɥ1ɔkʰɤ̃ɔ	父子	ɔ-ta-tɔ-tzu1
疮	mi1	丈夫	zeɔkʰɤ̃ɔ	母亲与孩子们	æɔɔmieɔseɔzeɔ
伤口	mi1paɔpaɔ	一户人	dy1	父亲与母亲	a-ta-tæ-tmie1
癣	la-tli1kʰwɤ̃ɔ	家人	aɔu1hĩ1	叔叔侄子	a-tbu1se-tze1
血	su1	亲戚	tʂwɤ̃-tʂwɤ̃-tɥṽ1h̃ṽ1	叔叔侄女	a-tbu1se-tmɥ1
血管	su1bɥ1	母亲	æ-tmie1	劳动人民	lu-tvie-tɥĩ1
骨头	ʂaɔtu1	母亲(孩子对母亲的称呼)	æ-tɔi1	士兵	ma1mi1
骨髓	tsi-tɥ1	父亲	a-ta1	商人	gɤ̃-tɕʰi1ɥ1tɕʰi1hĩ1
脊椎骨	gɥ1-tsu1tʂaɔtu1	后妈	a-tmie1-tʰæ1tɕi1hĩ1	医生	tsʰu1-tɥi-tvie1
肋骨	tɥ1	女儿	mɥ1	寨首	kæ-tzu1hĩ1
肺	tsʰɥ1	儿子	ze1	贵族, 奴隶主	su1pʰie1
肝	si1	孩子们, 子女	ze1mɥ1	木匠	si-tgɥ1hĩ1
肾	ɥ1li1	姨母(比母亲大)	aɔpa1	编竹子的工匠	maeɔdaɔhĩ1hĩ1
胃	ɔɥ1mie1	姨母(比母亲小)	æ1tɕi1	铁匠	ʂu1laɔhĩ1hĩ1
鸡胃	læ1pɔæɔɔɔ	母亲的称呼	aɔpa1æ1tɕi1	打铁	ʂu1la1
肠	ɥ1na1	妹	æ-tɔi1	喇嘛	la-tma1
膀胱	su1tɥ1	姑母	æ-tɔi1	尼姑	mɥ1ɔkʰɤ̃ɔɔda-tɥɤ̃1
尿	qʰæ1	舅舅、舅父(比母亲大)	æ-tɥ1	达巴, 巫	da-tɥɤ̃1
尿	dzi1	伯父	aɔpa1	乞丐	dze1mieɔhĩ1
大小便的统称	a-tɥu1ɔzy1	叔父	a-tbu1	强盗	kʰɥ1-tmae1
屁	kʰæ1tsʰi1	侄子	ze1	病人	hĩ1ɔzu1hĩ1
汗(单音节)	tʂɥ1	侄女	mɥ1	朋友, 伙伴	tɕʰɥ-tmie1
痰	tɕieɔkʰæɔɔbæ1	侄子侄女	ze-tze-tmɥ1mɥ1	瞎子	mɔ̃jæ-tkæ1
口水, 唾	tɕi1	孙子	i-tɥ1	跛子	bu1ɔɥ1hĩ1
脓	bæ1	孙女	i-tmie1	聋子	tie-tɥ1
天花	tsʰu1-tʰɥ1			秃子	wɤ̃-tɥ1-tɥ1
麻疹, 疹子	bɥ1-tzu1-tzu1			傻瓜	zy1tɕæ1
感冒	tsʰa-tɔzaɔzu1			疯子	ɥ1ɔɔ
发烧	tʂʰu1			结巴	ɕi1tʰæ1
尸体	hĩ1mu1				

主人	daɿpuɿ	丸、小球	tuɿlyɿ		街	ɬuɿfyɿɬquɿbieɿ
客人	hiɿkɔɿ	饭	dzeɿ		街	wɿɿbieɿ
寡妇	uɿmieɿtʂʰyɿhiɿ	猪食	wɿɿɬdzeɿ		石墙	luɿwɿɿ
孤儿	zuɿtʂʰyɿ	马料	ɿɔɿlyɿ		窗户	daɿkʰuɿ
稀饭	hoɿzɿuɿ	线	tʂʰæɿ		柱子	zæɿmieɿ
饭(米饭)	tʂʰæɿpʰyɿɬdzeɿ	布	fiɿtʂʰuɿ		梁	guɿlyɿɦieɿɬgyɿɦieɿ
粥	huɿ	丝绸	tʂʰuɿzeɿ		门	kʰuɿbiɿ
面粉	zyɿ	衣服	baɿllaɿ		门	kʰuɿ
浆糊, 浆子	huɿ	蓑衣	tɕaɿɿɔɿ		门槛	kʰuɿtaɿ
馒头	miɿhiɿēɿ	上衣, 衣服	bɿɿzeɿ		梯子	dzyɿɿtʂʰyɿ
肉	ʂuɿ	衣领	ɿæɿɦyɿ		天花板	kʰwɿɿɦɿ
熟肉	ʂuɿlaɿmiɿ	袖子	jaɿqʰɔɿ		石头台阶	læɿmieɿɬdzyɿ
生肉	ʂuɿɬdzyɿɬdzyɿɦɿ	扣子	buɿlyɿ		粮仓	guɿ
瘦肉	ʂuɿnaɿ	裤子	ɦieɿkʰwɿɿ		打场	ɦæɿduɿ
肥肉	ʂuɿpʰyɿ	头帕	laɿtʂʰyɿ		篱笆	qʰɔɿtaɿ
牲畜前腿的肉	laɿsaɿ	帽子	tʂʰyɿtʂʰyɿ		商品	noɿ
牲畜后腿的肉	ʂuɿsaɿpʰyɿɦieɿ	斗笠	uɿɦuɿ		东西	tɕaɿsuɿ
猪的肚皮的肉	aɿtʂʰyɿ	梳子(粗)	tʂʰyɿɦieɿ		桌子	ʂaɿlæɿ
层肉		氍毹	tʰuɿɦɿ		凳子	qʰɔɿ
猪胸股上的肉	ɿɔɿbiɿ	羊毛裙子	ɦyɿtʂʰuɿkʰwɿɿ		床	qɔɿ
猪尾部划出来的膘	wɿɿmiɿtsyɿtʰieɿɬdyɿɦɿ	裙子	ʂuɿkʰwɿɿ		箱子	suɿgyɿ
猪身躯带骨头的肉	wɿɿɦuɿ	裹腿	tsʰuɿtʰuɿ		扫帚	ɦwɿɿtʂʰuɿ
把猪的骨头装在大肠里	buɿkʰuɿtɕʰɿɿtuɿ	鞋垫	sæɿɦæɿtʰæɿ		火绒(把小麻皮捶绒)	tsaɿkɔɿ
把瘦肉装在肠子里	yɿɦieɿ	鞋, 鞋子	sæɿɦæɿ		火镰	tseɿɦieɿ
把猪腿的皮剥下来, 缝成筒形, 塞满瘦肉	wæɿtsʰuɿɦlaɿlyɿɦɿ	耳环	ɦieɿkʰyɿ		火把	myɿtɕʰyɿ
猪皮	wɿɿzɿuɿkʰyɿ	戒指	laɿtʰuɿ		香	syɿɬzyɿ
猪油	kæɿɦmiɿ	手镯	laɿɬzyɿ		染料	tʂʰyɿɬzɿuɿ
酥油	miɿ	珠, 珠子	qʰɔɿzeɿ		锅	yɿɦieɿ
油	miɿɦɿ	席子	tɕɿɿgyɿ		锅的盖子	uɿɦuɿ
蛋	læɿɦmjæɿkɔɿ	宝贵的毯子	zyɿɬdzyɿ		蒸笼	dzeɿɦyɿ
蛋黄	lʂæɿɦmjæɿkɔɿqɔɿtʂʰuɿ	垫子	qʰɔɿɿɔɿ		刀	kwaɿtaɿɦieɿ
蛋白	lʂæɿɦmjæɿkɔɿ	枕头	uɿtʂʰuɿ		菜板, 俎	tsuɿtʂæɿ
汤	kuɿpʰyɿ	褥子	zæɿɦieɿ		把子	qɔɿ
酒	zɿuɿɦɿ	被子	tɕyɿɦuɿ		勺子、瓢	biɿzeɿ
黄酒	pieɿɦyɿ	蚊帐	tʰaɿɦlaɿtʂʰuɿɦɿ		调羹	biɿzeɿtʰaɿɦɿɦɿ
醋	tɕyɿɦɿ	木头	siɿ		大调羹	biɿzeɿ
开水	iɿtsʰiɿɦtsʰuɿtʰyɿ	木板, 木板子	siɿpʰæɿ		碗	kʰwɿɿ
茶	lieɿ	家, 家庭	yɿɬyɿ		盘子	ʂwɿɿpʰieɿ
糖	dzyɿɬzɿuɿ	房屋	yɿkʰwɿɿ		木盘子	siɿkʰwɿɿ
烟	jɿɿ	家	aɿluɿ		筷子	dzyɿɦuɿ
药	tsʰuɿɦɿ	座位	dzyɿɦæɿ		瓶子	dzyɿɦuɿ
		菜园	uɿtɕʰɿɦliɿ		坛子, 罐子(陶器)	piɿzeɿ
		圈, 牲畜圈	biɿ		茶壶	tɿɦɿ
		土墙	tʂʰuɿɦuɿ		大水桶	tɕaɿtaɿ
		城	luɿwɿɿɦyɿkʰwɿɿ		过去用杯水的	siɿɦpuɿtaɿ
		城	dzyɿ		背篓	
		城里、市上	dzyɿɦuɿ		桶	zyɿɦieɿ
		村寨, 村子	ɬuɿɦieɿ			

木盆	si+tsɛ+lu]	肥料, 粪	k'hæ+	有区别	t'ɑJnie]nie]
脸盆	p'hɣ+mie+ts'hu+lu+	白[坨坨]	tʃu]mu]		mə+ŋu]
三脚架	ʃu]ts'hil	杵[捶捶]	lu]dɣu]	一样, 没有区	t'ɑ+nie]nie]
火塘	kwa]lu]	碓	mu+tsu+	别	
厨房	tsu+kwɔ+	小筛子	mu]t'ɑ]tci]hi]	渣滓	dzu]mæ]
火钳	mu+ŋɣ]	筛子 2	bɔ]k'hɔ]	影子	da]zɣ]
风箱	my+mi+tsu]	筛子 4	i]tʃu]	梦	y]mu]k'hwɔ]
用来背小孩的	za+hu]pa]dzi]	筛子 5	mu]la]pa]dzu]hi]	东方	vi]dzy]tɣu]
带子		簸箕(簸粮食	mu]	西方	y]dzy]tɣu]
背带	dzi]	用)		南方	i+ts'hɔ]mie+
称	sa]	手磨	tɛy+ly+	北方	k'hɔ]dzy]tɣu]
钱	dɣu]	水磨	i+ts'hilɛy+ly+	旁边	bie+ku+
价钱	tɔ]hɔ]	水槽	i+ts'hilwɔ]gy+	左边	væ+ta+
工资, 工钱	ɛɑ+p'hɣ+	织布机	ɹ]da]	右边	i]ta]
马鞍	tci]q'hɔ]	拐棍	mi+t'hɣ]	前面	u]da]
马笼头	u]ly]	镰刀	hū+gy]	后面	gɔɔ+tu]
马肚带	bie]ɔ]	刀鞘	y]	外面	ɑ]p'hɣ]
马嚼子	kwa+ʃwæ+	枪	my+lie+	里面	ku]lu]
马槽	wɔ]gy]	准星	hie+gy]tie]	周围	k'hɔ+k'hɔ+lie+lie+
挽具, 后鞅	mæ]kɣ]	装火药的皮带	ku]ly]	地界	t'hu]la]ts'hɣ]
缰绳	ɔ+dzɣ]	枪把	qɑ]	上面	gɔɔ+tu]
打马的鞭子,	mæ]dɣɣ]	弩弓	ta+na+	上面	gɔɔ+by]
马鞭		弓	hie]	下面	ɣ+te]æ]
驮架	li+mi+	箭	ɛɔ+by+	中间	dæ]mie]
牛鼻绳	njɔ+gɔ]dzi]	陷阱	pa]ty]	顶上	ɛɔ+by+
斧头	ly+mie+	毒	dɣ]	上半身	gɔɔ]dɣu]dæ]
锯	ʃwa+da+	字	t'hɑ+ɹ+	下半身	ɣ]dɣu]tʃɛ+
针	u]	记号	hæ]ty]	时候	dɣu+miɔ]mi]
锥、锥子	tʃu]	纹路	læ+gy]	一夜	dɣu+hiɛ]
凿子	dzy]	话	ʃɑ+ɣæ]	一天	dɣu+ŋi+
木锤子	da]ty]	故事	tʃ'hæ]	初一	la]ts'hɣ]dɣu]ŋi]
连枷	ku+ɣ+	舞蹈	ts'hu]	初二	la]ts'hɣ]ŋi]ŋi]
铁钉	ʃu]q'hɔ]	旗子	tsi+	初三	la]ts'hɣ]su]ŋi]
钩子	tsæ+qæ]	声音	q'hɔ+	初十	la]ts'hɣ]ts'hɣ]ŋi]
剪刀	tsu]tie]	鼓	da]k'hɔ]	十一日	ts'hɣ]dɣu]ŋi]
锁	tsa]kwa]	钹	by+ts'hu+	十五日	ts'hɣ]ŋwɔ]ŋi]
钥匙	tse]ci]	笛子	tʃ'hɔ]ly]	十六日	ts'hɣ]q'hɔ]ŋi]
犁头	ɔ]gy]	胡琴	zwæ]mæ]da]qɑ]	三十日	su]ts'hɣ]ŋi]
犁头, 犁铧	tʃ'hɑ+	铃铛	tɛy]bu]	今天	ts'hɣ]ŋi]
耙	dɣɔɔ]	牛角(用来当	bu]q'hɔ]	昨天	æ]ŋi]
牛鞭(单行)	ɛæ]hwa]	长号角)		前天	ʃu]n]dɣu]ŋi]
牛皮绳, 犁具	dzu+dzu]	神, 菩萨	ga]la]	前几天	ɔ]ŋi]ʃu]ŋi]
连轭之绳		鬼	ŋi]	明天	mi+su]
锄头	tsɣ+qɑ]	灵魂, 魂魄	ɛɔ]hie]	后天	u]su]
挖锄	bæ+ɔɔ+	运气	tʃ'hɑ+u]	大后天	u+ɣu]su]
楔子	hɔ]	力气	ɛɑ]zi]	四天以后	u+ŋi]su]
绳子	dzi+	胆量	ŋi]mie]dzu]	今晚	ts'hɣ]hɔ]
背篓	k'hɔ]	礼物	tɔ'hɑ]ɔ]	明晚	su]hwa]
袋子	dzi]ku]	名字	hi]	昨晚	ɑ]hu]

早晨	da'naJ	从前	aJsuwJ	一粒(米)	du'liJ
黎明	ph'ylkwɔ'ɾ	以前	u'ldaJ	一个碗	du+k'hæJ
今天早上	ts'h'iJsuJ	近来	a'tmu+	一件衣服	du+lyJ
早点	da'naJdze+dze+	近来	a'tɲi+ts'h'u+ɲiJ	一包、一卷	du+tu+
白天	mie+lie+gy+	后(后去)	gwx+tuJ	一筐	du+k'hɔ'ɾ
中午饭、中午	zu+, zu+tuJ	今后	k'h'u'lh'uJ	一捧	du+kwa+
吃中午饭	zu+dze+	夏天、春夏	mu'zɔ'ɾbieJ	驮子	du'tu'ly+
下午	zu+dze+gwx+	冬天	mu+ts'h'y+bie+	一串	du'kwɔ'ɾ
晚上	mi'k'h'uJ	婚姻	ts'h'u+mie'k'h'yJ	一滴	du+te'h'ueJ
晚饭	mi'k'h'uJdze+	1	du'lyJ	一滴水	du+te'h'ue+
吃晚饭	mi'k'h'uJdze+dze+	2	ɲi'lyJ	一瓶	du'ldzɔ'ɾ
黄昏, 暮	naJp'h'yJts'a'lwɔ'ɾ	3	su'ly+	升	du+tu+
夜里	sy+qo+tsy+	4	zy'lyJ	一斤	du+saJ
年	k'h'y+	5	ɲwx'lyJ	一两	du+ty+
今年	ts'h'u+vie+	6	q'h'oJgyJ	一堆(比如:	du+pu+
去年	æ+vie+	7	su'lyJ	一堆粮食)	
前年	su'JvieJ	8	ci'lyJ	一块	du+p'hæJ
三年以前	su'Jdu'JvieJ	9	gy'lyJ	一对	du+dzeJ
明年	su'lieJ	10	ts'h'ilgy+	一双鞋	du+dzeJ
后年	u+vie+	11	ts'h'ildu'lyJ	一只	du+p'hɔ'ɾ
鼠年	hwɔ'k'h'yJ	12	ts'h'ilɲi'lyJ	一段	du+tsæJ
牛年	vi'k'h'yJ	13	ts'h'il'su'lyJ	一庹[一排]	du'tyJ
虎年	la'k'h'yJ	14	ts'h'il'zy'lyJ	一拃(大拇指	du+tey+
兔年	l'h'u'lie'k'h'yJ	15	ts'h'il'ɲwx'lyJ	和食指之间的	
龙年	mu'ly'k'h'yJ	16	ts'h'il'q'oJgyJ	距离、拇指与	
蛇年	zy'k'h'yJ	17	ts'h'il'su'lyJ	食指平伸量物	
马年	lo'k'h'yJ	18	ts'h'il'ci'lyJ	之长)	
羊年	y'k'h'yJ	19	ts'h'il'gy'lyJ	一拃(大拇指	tey+ze+
猴年	zy'Jk'h'yJ	20	ɲi+tsi+gy+	和中指之间的	
鸡年	læ'k'h'yJ	30	su'ltsh'ilgy+	距离)	
狗年	k'h'u'k'h'yJ	40	zy'ltsh'ilgy+	一架牛	du+p'hɔ'ɾ
猪年	wɔ'Jk'h'yJ	50	ɲwx'ltsh'ilgy+	一张	du+ts'h'uJ
过年	k'h'yJsuJ	60	q'h'oJts'h'iJgyJ	一元	du+tmæJ
月	lie+	70	su'ltsh'ilgy+	一亩	du+p'hæJ
上半月	lie+p'hɔ'ɾ	80	ciJts'h'iJgyJ	一辈子	du+ts'hæJ
正月	du+lie+mie+	90	gy'ltsh'ilgy+	一步	du+te'h'yJ
二月	ɲi+lie+mie+	百	du'ci'lyJ	一次	du+dzɔJ
三月	su'lie+mie+	千	du+ty+gy+	(吃的)一口	du+te'hæJ
四月	zy'lie+mie+	万	ts'h'il'tyJ	经常	do+loJ
五月	ɲwx+lie+mie+	一半	du+qæJ	转回	la+it
六月	q'h'oJlieJmieJ	一条绳子	du+ts'hæJ, du+kɔ'ɾ	又, 再	a+ma+du'ldzɔJ
七月	ɲie+lie+mie+	一根(线)	du+ts'hæJ	天天晚上	du+hi'eJdu+hi'eJ
八月	ciJlieJmieJ	一棵树	du'ldziJ	每天	du+ɲi+du+ɲi+
九月	gy+lie+mie+	一根(竹子)	du+tuJ	整天	byJts'h'u+ɲi+
十月	ts'h'il'lie'lieJ	一根棍子	du+kɔ'ɾ	全部, 一切	du+taJ
十一月	ts'h'il'du'lie'lieJ	个(一个人)	du+it	都、所有	a+hwɔ'ɾ
十二月	ts'h'il'ɲi'lie'lieJ	一只鸡	du+p'hɔ'ɾ	自己	ʒ+tsɔJ
古时候, 传说	æ+vie'lysu'lieJ	一群、一队	du'lhwx'ɾ	这个(近指)	u'le'uJ
古代		一把刀	du'lnaJ	这个(近指)	te'h'ɔ'ɾuJ

那个 (远指)	u ^l h ^u l	白 (脸、衣服)	p ^h y ^l t ^æ ll ^æ t	温暖, 暖和	ly ^t
这里	t ^ç h ^ɤ lku ^l	白 (头发)	u ^l t ^ç h ^ɤ l ^p h ^ɤ l ^h i ^l	冷 (天气..)	dzu ^t
那里	t ^ɤ lku ^l	红	w ^æ l ^s u ^l h ^ɤ ie ^l h ⁱ l	冷 (水)	t ^h æ ^t
谁	k ^h a ^l si ^l	黄	ʂu ^t q ^o ll ^æ l	难作	lu ^l ha ^t
什么	a ^l tsu ^l	绿 (布)	zu ^l h ^w ə ^l h ^ɤ ie ^l h ⁱ l	辛苦	t ^h u ^l
怎么样	a ^l h ^ɤ ie ^l v ^{ie} li ^l ?	灰	p ^h u ^l du ^l ll ^æ l ^h i ^l	容易, 容易做	lu ^l ʂu ^t
哪里	ʂ ^ɤ lku ^l	灰	p ^h y ^l h ^æ ll ^æ l ^h i ^l	轻松	p ^h a ^l la ^l
什么时候	k ^h a ^l t ^h a ^l	暗, 黑 (天)	na ^l fy ^l fy ^l	香 (气味)	su ^l
多少	k ^h a ^l ʂ ^ɤ l	花的 (蛋、鸟)	fi ^l ʂu ^l h ^w a ^l h ^w a ^l	香 (气味)	y ^l
几个	k ^h a ^l ti ^l	重	a ^l la ^l h ⁱ l	香 (吃得香)	su ^l
粗 (树粗大)	a ^l p ^ɤ lbu ^l h ⁱ l	轻	zu ^t	臭	by ^l h ^ɤ t
细 (树)	t ^h a ^l t ^ç h ^ɤ l ^h i ^l	快 (动作)	p ^h a ^l la ^l	腐烂	la ^l by ^l
高	a ^l pa ^l hu ^t	快	t ^ɕ h ^w æ ^l	酸	t ^ç y ^l
低	t ^h a ^l ty ^l h ⁱ l	迟	la ^l kw ^ɤ t	甜	ts ^h i ^l
长	h ^æ l ^h i ^t	慢	h ^w ɤ ^l	苦	k ^h a ^t
短	d ^ç æ ^t	(起得) 早	æ ^l ze ^t	咸	ts ^h e ^l su ^l
远	l ^æ t ^q h ^ɔ t	尖	t ^ɕ h ^w æ ^l	太咸	ts ^h e ^l k ^h a ^t
近	l ^æ h ^ɤ l	锋利	u ^l t ^ç y ^l ll ^æ l	食物变味, 人	tsu ^l by ^l h ^ɤ t
宽 (布, 纸)	a ^l pa ^l dz ^u l	清 (水)	t ^h a ^t	虚弱、瘦	
窄	t ^h a ^l t ^ç i ^l	浑浊 (水)	ʂw ^ɤ lʂw ^ɤ l ^h i ^l	腻 (食物)	d ^ç y ^t
宽敞	a ^l p ^ɤ lhw ^ɤ t	干燥	zu ^l d ^ç wæ ^l	饿 (饭)	dze ^l mi ^l
挤 (房子)	ku ^l ku ^t	湿	l ^æ l ^ç y ^l	馋	t ^ç ɤ ^t
厚	a ^l p ^ɤ llu ^t	浸泡 (如: 浸种子)	t ^ç æ ^l l ^æ t	需要	h ^ɤ t
薄	t ^h a ^l bie ^l	稠 (粥)、黏 (比较干)	t ^h ie ^l tu ^t	申请, 要	mie ^l
浅 (水浅)	die ^l	稀 (粥, 汤)	ma ^l fy ^l tm ^ɤ l ^{mie} l	讨饭	dze ^l mie ^l
深 (水深)	ha ^l	结实	h ^æ t	感谢	ka ^l mie ^t
过于, 太多	ko ^l y ^l	硬, 坚硬	t ^ɕ h ^a t ^ɕ h ^a t	饱	h ^ɤ t
多	dzi ^l	紧	u ^l	休息, 松懈	h ^{ie} t
多	a ^l p ^ɤ l ^ɤ t	松	tsi ^l	忙	h ^ɤ ts ^h i ^t
少	d ^ç u ^l mu ^l	松起来	m ^ə l ^{tsi} l	事务繁忙	lu ^l dzi ^l
少	di ^l h ⁱ l	软, 柔软	ta ^t	富	l ^æ t ^ɕ æ ^t
一些	d ^ç u ^l b ^æ t	黏 (胶)	my ^l h ^ɤ t	穷	m ^ə l ^d zy ^t
圆形 (球)	g ^w ɤ ^l die ^l ll ^æ l ^h i ^l	光滑 (路)	t ^h ie ^l tsu ^l	很穷	dzy ^l dzy ^l
秃	by ^l	生	ka ^l	干净	ʂw ^ɤ lʂw ^ɤ l
皱 (衣服)	t ^ɕ l	熟	dzy ^l dzy ^t	脏	m ^ə l ^ɕ u ^l
准	w ^ɤ l	新	mi ^l	乱	ka ^l ma ^l tzu ^t
不对	m ^ə l ^w ɤ ^l	陈旧	ʂu ^l tsa ^l	痛, 病 (生病)	dzy ^l
歪, 偏 (帽子)	la ^l ta ^l	好	tsu ^l zi ^l	觉得不舒服	m ^ə l ^{ts} h ^e l
横 (横躺)	d ^ç æ ^l d ^ç æ ^l ll ^æ l	好 (心好)	d ^ç ɤ ^t	肿, 膨胀 (肚子) 胀	ʂu ^l
竖	ty ^l ty ^l ll ^æ l	稳重、谨慎	t ^ɕ h ^a t ^ɕ h ^a t	着凉	ts ^h a ^l dza ^l zu ^l
直 (站直)	ty ^l ty ^l ll ^æ l	坏	m ^ə l ^d zy ^t	干扰、妨碍	h ^{ie} l ^d çat
伸直	ty ^t	贵	p ^h y ^l dz ^ɤ t	好 (技巧好)	v ^{ie} l ^d çw ^ɤ l
弯	la ^l gy ^l	便宜	p ^h y ^l l	勤快	hu ^l
颜色	t ^ɕ h ^ɤ l ^ç zu ^l	年老	my ^l ty ^t	聪明	t ^h ie ^t
黑 (颜色)	na ^t	年轻	p ^h æ ^l t ^ç i ^l	傻、笨、蠢	b ^æ t
黑 (颜色)	na ^l t ^ɕ h ^æ ll ^æ l			狡猾	t ^ç ɤ ^l
白 (脸、衣服)	p ^h y ^l			一条心, 想得	d ^ç u ^l ti ^l

一致		背水	i'ts'hi'paJ	下(雨)	fi'ldzɯŋ
和气、和睦	wɔ'tɕuŋ	背孩子	za'hu'ŋpaJ	下(冰雹)	dzy'laa1
安静	hi'k'a'lmɔ'ts'heJ	扛	luJ	有(露水)	dzy'k'a'laa1
装做	tɕɔ'lvie'k'hæ'lvieJ	驮运	tsi1	发生(打雷)	mu'gy'gy'ŋ
骄傲, 自以为好	dæ'ɕyŋ	帮助	ka'ka1	吹(灰)	mi1
凶恶	ma'nuŋ	包	t'hu1	缠线	dzy'ldzyJ
爱破坏	wæ'k'hæ'hiŋ	瞒着别人	na'na1	钓鱼	ŋi'ze'laa1
客气/害羞	hi'tɕɔ'vieŋ	刨	tsaŋ	赶, 打猎	dzi1, hã'dzi1
吝啬	la'tɕ'ɕyŋ	比	t'h'a't'h'a'nie'nieŋ	打散, 驱赶, 撵	q'hæ'li'jhu'k'huŋ
大方	a'pɔ'jɔ'kuŋ	量	læ1	牵(牵牛)	k'h'u'ɕæŋ
贪心不足, 贪吃	se'tɕ'ɕyŋ	放置	t'ie'tuŋ	散开	p'h'aJ
懒	mə'huŋ	提前准备好	tɕɔ'tɕɔ'ŋ	打开(如: 开门)	la'ts'hiJ
多嘴	ɕi'lmie'dziŋ	修理	gyJ	张开手心	k'hæ'tk'hæ1
笨拙	mə'tɕ'hæ'tɕ'hæŋ	宰牲畜	k'h'aJ	闭	tæJ
努力	zwa'vieJ	重新做	li'tie'vieŋ	关(羊)	tæJ
不幸(人)	ma'ldaJ	还东西	t'ie'la'kuŋ	锁门	tseŋ
高兴、起劲	læ'p'hi	唱	gwɔ'ŋ	闭嘴	t'ie'lməŋ
幸福、安逸	ts'heŋ	称	sa1	眨眼	njæ'lmæ1
喜欢, 爱	p'hi	完成	la'seJ	闭眼	mjɔ'tlyŋ
爱, 关心	ma'ldaJ	吃	dzeŋ	穿(衣服)	hɔ'ŋ
讨厌	dzyŋ	吃	t'ie'tuŋ	脱(脱衣服)	p'h'y1
生气	gy'ldzɯŋ	拍(拍桌子)	t'hæ1	佩带	pɔ'ŋ
高兴, 心情好	se'tseŋ	咬	t'æ1	戴手镯	pɔ'ŋ
好玩(人)	ts'he'ŋuŋ	嚼	tɕa'qɔJ	戴帽子	tɕ'ŋ
安宁	daŋ	吃草	ɛwæŋ	挡住	q'h'aŋ
悲哀, 伤心	mə'ts'heŋ	舔	jɔ'ŋ	等候	t'ie'hi'eŋ
孤单	hi'tuŋ	含在嘴里	ly'ŋ	地震	dy'ldzɯŋ'ldzɯŋ;
陡峭(山)	tu'bieJ	吞	ɛɔŋ	摇	dzɯ'ldzɯŋ
安装	tɕ'ŋ	呕吐	p'hi'eJ	摇	dzɯŋ
搬土	q'uJ	小便, 解溲	dzi'lhæŋ	凋谢	la'k'huŋ
薅锄、锄草	lwæJ	拉屎	k'hæ'lhæŋ	上吊自杀, 缢	ɛæ'tsuŋ
挖	dzɔwæJ	拉肚子	q'hæ'ɕwæŋ	冻	la'tɕJ
耙	tsa1	打喷嚏	a't'huŋ	爬行, 匍匐	dy'ŋ
扫	væ1	打嗝儿	huŋ'tɕ'ŋ	翻身	t'hu'tɕyŋ
拔、扯(草)	pyJ	打饱嗝儿	ie'p'h'y1	翻过来翻过去	zi'tɕy'p'h'y1
获, 割草	zu'ts'huŋ	吐(吐口水)	tɕi'ts'huŋ	滚(石头滚)	gu'tby'tlyŋ
压扁	ŋæJ	喝	ɕyJ	使滚	la'p'huŋ
弄扁不弄开(竹子)	ta'pie'laeJ	吸吮	ts'hi'ts'hiJ	躲藏	t'ie'ŋæŋ
摆整齐、使均匀	by'tby'laeŋ	抽烟	jɔ'ŋɕyŋ	藏	t'ie'tɕ'hwæŋ
排列整齐	tɕuŋ	串珠	suŋ	藏(一个小的东西)	t'ie'lmɔ'ŋ
举、抬起	gy'ts'hiŋ	穿孔	u'tsuŋ	动	li'li1
上驮子	gy'ts'hiŋ	插上戳	q'h'a't'p'h'yŋ	堵塞	dzyJ
抬(几个人一起)	gy'ts'hiŋ	刺痛	tɕ'h'u1	棍子断	la'q'hæŋ
背柴	paJ	扎(针...扎)	pu1	碎	q'h'aŋ
		一代, 一世	gyJ		
		传染	qu'tɕ'hæŋ		
		出来, 刮(风)	tɕyJ		
		下(雪)	t'hyŋ		
			vie'saŋ		

破、碎（碗、罐子）	q ^h ɔ ¹	变（蛹变蛾）	tɕɤ ¹ ʂa ¹ væ ¹	跪下磕头（叩头）	ʂɔ ¹ ɸy ¹ ɫɕu ¹
损坏	wæ ¹ ʂæ ¹	换	qæ ¹ , qæ ¹ qæ ¹	咳嗽	tsy ¹
撕（撕纸）	ʂwɤ ¹	飘动	li ¹ li ¹ ɫz ¹ wæ ¹ ɫz ¹ wæ ¹	渴	hwɤ ¹
拆（线）	ʂwɤ ¹	挥动	tɕi ¹ tɕi ¹	困倦	ts ^h e ¹
拆	q ^h æ ¹	来	i ¹	拉（向前拉）	tʂæ ¹
拆	wæ ¹ q ^h æ ¹	毁灭	t ^h u ¹ ɫts ^h u ¹	拖	gwæ ¹ ʂæ ¹
生长	kɤ ¹ pi ¹	使混合	tʂwæ ¹ tʂwæ ¹	推	mie ¹
长大	gɤ ¹ kwɤ ¹	搀	zæ ¹ ɫzæ ¹	按（用手）	ŋæ ¹
发抖，颤抖	tɕ ^h y ¹ tɕ ^h y ¹	搀	ʂwæ ¹ tʂwæ ¹	挤压	tɕy ¹
发烧	tʂ ^h u ¹	和泥	dzæ ¹ k ^h æ ¹ zæ ¹	靠	t ^h u ¹
为别人担心	ŋi ¹ mjæ ¹ hū ¹	累积	ku ¹ ku ¹	留下	t ^h ie ¹ dz ¹ ɸ ¹ u ¹ !
发芽（树）	hŋw ¹ a ¹ ɸɤ ¹ i ¹ ɫjɤ ¹	记得	ŋi ¹ mie ¹ q ^h ɔ ¹	遗漏	my ¹
发芽（种子）	y ¹	寄存	tʂu ¹	忘记	læ ¹ my ¹
开花	væ ¹	寄信、服送	q ^h ɔ ¹ ɸɤ ¹	绑，捆	ts ^h i ¹
告状	tɕɤ ¹ ɫz ¹ wɤ ¹	妒忌	gy ¹ ɫzɸ ¹ u ¹	绑	tsu ¹ t ^h su ¹
惩罚	u ¹ ɫdy ¹	停止	læ ¹ hīē ¹	系	ty ¹
掺和	t ^h ie ¹ ts ^h i ¹	剪	ts ^h i ¹	勒住	dz ¹ u ¹ ɫdz ¹ u ¹
放牧	qz ¹ u ¹ ɫdze ¹ ɫy ¹	砍（树）	da ¹	漏水	ma ¹ ʂæ ¹
飞	dzɸ ¹	劈、剖	q ^h ɔ ¹	滤	tsu ¹
盘旋	q ^h æ ¹ q ^h æ ¹	剁肉，宰	da ¹	弄乱	wæ ¹ q ^h æ ¹
分东西	zy ¹ zy ¹	切	hæ ¹	驱逐	q ^h æ ¹ ɸɤ ¹ hū ¹ !
逢	zy ¹	断（线）	tʂ ^h u ¹	埋	ŋy ¹
孵	zy ¹	马叫	lwæ ¹	买卖	zɸ ¹ u ¹
符合	q ^h u ¹	狗吠	ly ¹	卖	tɕ ^h i ¹
上街	wɤ ¹ ɫbie ¹ ɫbi ¹	老虎叫	lwæ ¹	生意	gɤ ¹ tɕ ^h i ¹ ɫy ¹ tɕ ^h i ¹
敢	ŋwɤ ¹	老虎叫	lwæ ¹	抿嘴巴	ts ^h i ¹ ɫts ^h i ¹
做，工作	vie ¹	名字叫	hī ¹	触碰	gy ¹
劳动	lu ¹ vie ¹	结很多果子	ly ¹ ɫdy ¹	磨刀	sy ¹
给、传	ku ¹	结果子	la ¹ ɫdy ¹ ŋa ¹	拧（拧毛巾）	ʂæ ¹ ɫʂy ¹
喂动物	dze ¹ ku ¹	婚姻	zɸ ¹ u ¹ ɫʂy ¹	搓（搓绳子）	zy ¹
撒（种子）	p ^h a ¹	向别人借	ŋi ¹	缠线	dz ¹ ɸ ¹ ɫdz ¹ ɸ ¹
使钩住	mi ¹	借给别人	ts ^h y ¹ , tʂ ^h u ¹ ɫts ^h y ¹	爬，上山	gɤ ¹ ɫdu ¹
钩住，悬挂	hwa ¹	欠钱	vi ¹	爬，上山	dy ¹ ɫdy ¹
够	ly ¹	递过去	q ^h u ¹ ɫɸɤ ¹ thū ¹	打（如：脱粒）	q ^h u ¹
为别人打工	hī ¹ ɫk ^h ɤ ¹ ka ¹ ɫlu ¹ vie ¹	居住	dz ¹ ɸ ¹	敲门	ta ¹ ɫta ¹
管理庄稼	li ¹ ɫɔ ¹	聚集	la ¹ ɫly ¹ ɫly ¹	打（人，钉）	la ¹
管庄稼	li ¹ tʂ ^h u ¹	蜷缩	zy ¹	排队	q ^h u ¹ ɫlæ ¹ vie ¹
管理	a ¹ ɫu ¹ ɫʂæ ¹ ɫz ¹ u ¹	观看	ɫɔ ¹	跑	dz ¹ ɸ ¹
灌溉	li ¹ ɫʂu ¹	看、看望	ɫɔ ¹ ɫbi ¹	碰撞	p ^h je ¹
害羞	hæ ¹ ɫdu ¹	听	hā ¹	泼水	ɕy ¹
害怕	si ¹	听见	my ¹	欺负	dz ¹ ɸ ¹ ɫɫɫma ¹ hā ¹
吓	qz ¹ ɸ ¹	嗅	læ ¹ ɫmi ¹	欺骗	qæ ¹
后悔	p ^h ɤ ¹	闻到	bu ¹ ɫŋy ¹	垒起来	ɸ ¹
画、写	tʂu ¹	呼吸	sa ¹ ɫse ¹	砌墙	tʂu ¹ ɫbu ¹
刻	q ^h u ¹	烤火取暖	my ¹ ɫkwɤ ¹	骑马	dz ¹ u ¹
怀孕一个孩子	za ¹ ɫhu ¹ ɫɸɤ ¹	站（站立）	hīē ¹	起（起床）	gɤ ¹ ɫt ^h u ¹
交换	qæ ¹ qæ ¹	跪下	ma ¹ ɫku ¹ ɫt ^h ie ¹ ts ^h y ¹	打招呼	jɤ ¹ ɫku ¹ ɫk ^h u ¹ ɫɫɫjæ ¹ ?

染	tʂʰy˧	睡着	zi˧lmy˧zi˧	争夺	dzæ˧tɕzæ˧1
热饭	tʂi˧	讲	zwx˧	吵架	dzæ˧tɕzæ˧1
必须	lɕ˧	商量、谈天	ʂa˧tva˧	偷	kʰy˧
会	ku˧	讲故事	u˧	催别人把东西	ta˧
能, 能够	dzwx˧	问	my˧du˧	交出来	
扔	la˧	读	ŋi˧tʂi˧	织	da˧
甩	du˧	批评	dzæ˧	编 (竹子)	mæ˧da˧
掷 (掷石头)	tʂa˧tʂi˧	骂	u˧dy˧	指	gy˧
散了	pʰy˧	逃, 逃跑	pʰu˧	种	tʂy˧
解开, 解绳结	tʂʰu˧	踢一脚	tʂa˧	抓	dzwx˧
杀	kʰa˧	踩	tʰy˧	啄	kʰy˧
筛	ly˧	剔, 刮	si˧si˧	醉	ɤæ˧
射中	zy˧	满	ʂy˧	坐/住	dzy˧
伸 (伸手)	y˧tʂʰu˧	挑选	si˧	做梦	y˧lmu˧kʰwx˧
生锈	tʂu˧tɕʰæ˧n˧tɕzɛ˧	跳舞	tʂʰu˧	暗 (房子)	na˧lɸy˧lɸy˧
生孩子	za˧hu˧dzɤ˧	往后仰	ɤ˧ɤ˧	天阴	mu˧na˧
失踪	tʰu˧tʂʰu˧	弄弯	tʂa˧tɕæ˧kʰu˧	瘦 (人瘦)	ʂu˧dzɛ˧
撑开 (帐篷)	qʰæ˧tɕʰæ˧	退后	tie˧tɛ˧	瘦 (肉)	ʂu˧na˧
收拾、弄整齐	ʂu˧ʂu˧	洗衣服	tʂʰu˧	肥 (肥肉)	ʂu˧pʰy˧
梳	tʂʰwx˧	冲水	ɕy˧	胖	ʂu˧dy˧
梳	si˧si˧	下蛋	ɤ˧ɤ˧	干燥	ɸy˧
败、输	mə˧tɕʰɤ˧	相信	mu˧tɕu˧	可爱	a˧li˧
用手剥	ʂu˧	醒	tʂy˧	丑陋	a˧mɤ˧li˧
剥皮	ʂu˧	学	su˧	辣	tʂu˧
削	ʂu˧	教	su˧	活	sɸ˧
煮熟	tɕɤ˧	写	tʂu˧	死 (人)	su˧
煮了一会	dɸu˧mɤ˧mi˧tɕɤ˧	知道	su˧	死	kʰɤ˧
烧开	tɕɤ˧	传闻	ŋɕ˧	合适	dɸu˧
煨熟	tʂi˧	懂	my˧	擦	tʂʰy˧, tʂʰy˧tʂʰy˧
蒸熟	by˧	寻找	ʂu˧	揉	zy˧
炒 (肉、菜)	hi˧	抠痒	kwa˧	呛	ɕy˧
炒 (肉、菜)	tʂʰu˧	阉割	læ˧mie˧gy˧	塌毁, 倒塌	dzɤ˧
干炒 (麦子)	hi˧hi˧	养 (动物)	zwx˧	错、犯错误	qæ˧
揉面	zy˧	溢出来	qʰɕ˧	舀水	qwa˧
搅拌	ʂwa˧	送行	pɸy˧	守卫	tʂʰu˧
尝试、体会、	dɸu˧lɕ˧bi˧	漂浮	tɕy˧	带孩子	qæ˧
经过		跨 (跨小沟)	ɤa˧	带路	læ˧ɤ˧sɸy˧
烘干	læ˧ɸy˧lkʰu˧	遇见	ɤ˧pɸy˧	骨折	qʰæ˧
弄碎 (用牙	tɕy˧ly˧tɕy˧	盖, 覆盖	hu˧	倒	qʰæ˧
齿、手磨)		遮 (云遮月)	ka˧	掉下	tʂʰu˧
在磨房里磨	tɕy˧	挡住去路	ka˧	掉入、沉下去	tʂʰu˧
点灯	tʂy˧	包起来	ʂu˧ʂu˧, la˧ʂu˧	摔倒, 跌倒	tʰie˧dɸu˧
烧	dzɤy˧	遮蔽	hu˧	(路很滑)	
烧焦	qʰæ˧	使火炉灭了	ŋy˧	立起来	tʰie˧dzɤy˧lkʰu˧
烧火	tʂʰi˧	灭, 熄	kʰu˧	到达	tʰy˧
熏	hwa˧	振动	dzɤu˧	得到	ɤ˧
一起摔交	zi˧zi˧	震动	dzɤu˧dzɤu˧	丢失, 遗失	tʰu˧tʂʰu˧
甩来甩去	ʂwx˧lie˧lu˧	点头	u˧tu˧lgy˧lgy˧	捉 (捉鸡)	zi˧
睡觉	zi˧	抢	dzæ˧	握 (握刀把)	tʂʰy˧

拣, 拾, 取	la'ts ^h y]	老鹰	ka'lna-tmie]	猪崽	wæ:by]
捡起来, 拾	ku]	"小鹰"	tswɔ-tla-tswɔ]	野猪	wɔ:ltu]
摘	tʂ ^h u]	乌鸦	la-tɛæ]	马	lɔ]
拿过来	y]	喜雀	læ]se]	公马	lɔ]sy]
赠送	pɔ]	鸚 (鸚)	dʒwɔ-tmie]	母马	lɔ]mie]
哄	tu-tu]	鸚鵡	a]qæ]	驢马	lɔ-tɛɔ]
抱起小孩子	tu-t, tu-tu]	羽毛	hɔ]	马驹子	lɔ-tza-t ^h u]
亲吻	bu-tbu]	翅膀	dɣ]ts ^h u]	马鹿	tʂ ^h æ]
铺 (铺床)	k ^h u]	龙	zɣ]bæ]	鹿	tʂ ^h æ-tby]
去	bi]	蝙蝠	dʒy]wɔ]	母鹿	tʂ ^h æ-tmie]
去	bɔ]	虫	dzi-t ^h i]	狗	k ^h u]
去 (过去式)	hu]	蜈蚣	tɣ-tɕi]	母狗	k ^h u-tmie]
走路	se]	蚊子	i-tsu]	流浪的狗	tʂ ^h ã]la]
散步	ga]lɔ]y]lɔ]bi]	跳蚤	k ^h u-tsu]	看门狗	a]u]k ^h u]
走 (离开)	hũ]	虱子	ʂu-tmie]	早獭	dzi]hwɔ]
喊 (大声叫)	ku]	虻子	ʂu]ʂu]lɔ]	熊	u]
笑	ɹ]	臭虫	qɔ-tsu]	熊胆	u-tsi]
玩笑	a-tzɔ]ʂa-tvæ]	象鼻虫	bɣ]tʂ ^h æ]	猫	hwɔ-tlie]
逗弄 (话)	ze]k ^h wɔ-tvie]	毛虫	sa]da]bɣ-t ^h y]	公猫	hwɔ-tlie-tby]
玩, 玩耍	a]zɔ]	瓢虫	dzi-t ^h i]tɛæ]tsu]læ]	母猫	hwɔ-tlie-tmie]
玩具	a]zɔ]tsu]		hĩ]	山羊	ts ^h u]
哭	ŋy]	四脚蛇	za]mɔ-tby]	公山羊	ts ^h u]by]
过去 (时间)	gy]	蚂蟥, 水蛭	i-t ^h i]dzɔ]hĩ]	麝香	lie-t ^h u]
数	tswɔ-tswɔ]	马蜂 (黄蜂)	dzy]	山羊羔	ts ^h u]t ^h u]
跳	ts ^h u]	蚯蚓	njɔ-tgɔ]dzɔ]hĩ]	绵羊	y]
过河	dæ]	蚂蚁	ts ^h a-tzy]	公绵羊	y-tby]
贴	zɔ]zɔ]	蚂蚁巢	ts ^h a-tzy]q ^h ɔ]	母绵羊	y-tmie]
想	ʂ-tɕu]	蜜蜂	dzy]	绵羊羔	y-tza-t ^h u]
愿意	lwæ]	蜂蜜	dzy-tzɔ]	羊毛	ts ^h u]hɔ]
请	lwæ]	蜂窝	dzy-tgu]	岩羊[青羊]	se]
接	tʂy-t, tʂy-tʂy-t	蛆	mu-tk ^h ɣ]ly]	狐狸	dɣwæ-tmie]
游泳、漂浮	dʒy], zɔ-tdʒy]	苍蝇	bɔ-tɔ]	青蛙	pɔ-tmie]
有	dʒy]	大苍蝇	fɣ]mie]k ^h æ]	蝌蚪	pɔ-tzy]ly]
没有	mɔ-tdʒy]	蝉	wɔ]mie]tɕɔ]lɔ]	鱼	ŋi]ze]
大	a]pa]dzɔ]	蜘蛛	ba-tla-tmie]	兔子	t ^h u-tlie]
小	tɕi]	大蜘蛛	ba-tla-tmie-ta]pa]dz	蛇	zɣ]bæ]
交配 (动物)	ly]		u]hĩ]	蛇的蜕皮	ky-tqæ]
鸟	u]i]	蜘蛛网	ba-tla-tmie-tk ^h u]	壁虎	lie-ta]
鸡	læ]	蜗牛, 螺螄	njɔ-tkɔ]sy]	水獭	ʂɹ]
公鸡	læ-t ^h y]	蜚螋[牛屎	wɔ]mie]k ^h æ]hĩ]tu	野兽的洞	q ^h ɔ]
母鸡	læ-tmie]	虫、粪虫]	ly]	鸟窝, 鸟巢	k ^h u]
鸭子	bæ-tmie]	蝴蝶	p ^h ie-tlie]	骡子	da]u]
雉	t ^h u-ty]	螳螂	la]mie]la]dɔ]dɔ]	獐子	lie]
雉	tʂ ^h a-tmɣ-tʂ ^h a-tʂ ^h a-t	蝗虫	ŋi-tby-tkwa]ta]mie]	麂子	ts ^h i]
雉, 鹑	kɔ]pi]	小的树枝虫	si-tdze-tdze]hĩ]	猴子	y]
啄木鸟	t ^h u-tbie-t ^h u-ta-ta]	象	nɔ]bɣ]tɕ ^h i]	老虎	la]
鹤	ɛɔ]	猪	wɔ]	豹子	zæ]
雁	mu-tze-t ^h æ-tze]	母猪	wɔ]mie]	狼	p ^h a]
梟	bu-tlu-tfy]	种公猪	wɔ]sy]	牛	vi]

公牛	viːsyː	糠	tʰiː	酸菜, 如: 芜	tɕyːlæː
水牛	væː	麦麸	pʰaːdaː	菁叶子	
牦牛/野牦牛	byː	麦秸	zuː	根	siːaːtʰuː
驴子	tõːbyː	麦芒	mieː	树枝	mæːdyː
野驴子	iːlbæː	小麦	dzeː	树枝	siːkaːllaː
藏羚	seː	火麻	saːaː	树干	siːdziː
牲畜	dʒuːˈdzeː	大麻	saː	液, 汁	zuː, siːzuː
野猫	ʃoːmieː	蔬菜	uːtɕʰɿː	松香	tʰuːtʰæː
松鼠, 灰鼠	hwæːtʒuː	萝卜	lyːbiː	麦苗	dzuːliː
老鼠=耗子	hwɿː	南瓜	tseːhiːˈgwxː	种子	læː
黄鼠狼, 黄喉貂	uːpʰyː	黄瓜	tʃyːhwɿː	叶子	tɕʰɿː
尖鼠、鼯鼠	ʃoːtɕyːhwɿː	土豆(马铃薯, 洋芋)	jaːyː	刺	tɕʰiːtuː
飞鼠	ŋyːlqʰoː	树	siːdziː	花	væː
刺猬	ŋiːzeː	松树	tʰuːsiː	花	aːliːwaː
马鬃	pyː	松明	qʰoːqʰoː	草	zuː
蹄子	ʃoːbyːbyː	落叶松	tʰuːbɿː	玉米包	dʒuːlʰyː
奶牛的乳房	kʰwɿːbieː	柳树, 杨柳	zɿːsiː	杉树果	siːliː
犄角	viːaːpuː	柏树	syː	豆类的粗糠	ŋyːtsaː
瓜子	qʰoː	大竹子	mæː	秕, 喂牛	
大蒜	laːtʃuː	竹子	tsʰuːtʃyː	树墩、树桩	siːpɿːtʃyː
菌子(蘑菇)	fyː	竹子	mæːtʰæːtɕiːhiː	树瘤	tsuːtuːlyː
果核	muːtʃʰwɿː	甘蔗	kʰaːdzeːpuːtʃyː	茎	zuːdʒyː
水果	tɕyː	黄豆	ŋyː	我	ŋaː
桃子	siːtuːaːliː	豆花	ŋyːhuː	你	nuː
梨子	tsʰuːkyːtaː	豌豆	daːtsʰyː	他	tʰuː
柿子	siːtʃyː	豌豆干草	daːtsʰyːˈzuː	咱们	uːmɿː
大麦	suːbyː	花椒	dʒyː	我们	ŋaːmɿː
青稞	miːdzeː	野花椒	dʒyːbyː	你们	nuːmɿː
甜荞, 荞麦	tʃʰyːtʒuː	庄稼	kʰyːtʃwaː	他们(对平辈)	tʰuːkʰɿː
花荞	jaːdʒuː	庄稼(未收)	ɛːɔːbieː	你们俩	nuːdziː
苦荞	jaːkʰaː	藤子	ŋyːlbæː	不	məː
稻子	dzeːsyː	辣椒	læːtsuː	是(这是什么)	ŋuː
米	tɕʰiː	四川桦树, 白桦树	muːkɿː	这样, 这么	uːnieː
米饭	tʃʰæːpʰyːˈdzeː	核桃	uːduː	越、更	laːhaː
玉米、包谷	kʰaːdzeː	荨麻[和麻]	ŋiːtʃʰuː	凉山木里县	muːliː
燕麦	myːzuː	血满草[臭草]	jaːbyːˈjaːtsuːtsuː	木里县项脚	hʰwāːdʒyː
莜麦	ʃuː	[酸酸草]	hwɿːtɕyː		
苋米	ŋjaːlaːmaː	大蒜的根	fyːtuːtuː		

^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).

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

^③ See Michaud 2006 for Naxi, Michaud 2008 for Yongning Na, and Michaud et al. 2012 for a cross-linguistic study.

^④ Pr. Huang also noted /wæ̃/ for ‘to shout, to cry out (of pigs)’; in the dialect described here, this word is realised as /lwæ̃/.

^⑤ For instance, the form /baɭha/ ‘pig swill’, from /bu/ ‘pig’ and /ha/ ‘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 /buɭha/, without vowel harmony.

^⑥ 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).

^⑦ 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 the People’s Republic of China.