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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: /la˥ze˨/; 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: /su˥-gɣ˥˥mi˨/) 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	ɭ 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	—	—	—	
z	—	zæ 火 花	zwæ 飘 动	zwa 努 力	—	—	zy : —	zu 中 午	—	zɹ 山	—	—	zwɣ 养	—	zy 蛇	—	—	—	

	a	æ	wæ	wa	i	ie	y	u	ɔ	u	ɣ	e	wɣ	ɹ	ɻ	jæ	jɣ	ja
ʈʂʰ	ʈʂʰa 铍头	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	—	—	—	—	—	—	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-tsõ1] ‘-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 [nõ1by1tɕ^{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 [fiɬ] and [fvɬ]; 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 [fiɬ], as mentioned in the previous paragraph, initial [f] must be granted phonemic status, and [fvɬ] comes to be interpreted as /fvɬ/ – hence the empty slot at the intersection of initial /h/ and rhyme /v/.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 [dʒɛ]); 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 /hɔːzɯ/ ‘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 /bɔːlɔ/ ‘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 /ɿ/: /tɿ/ vs. /ʈɿ/, and /dɿ/ vs. /ɖɿ/; no example of /t^hɿ/ was observed (only examples of /t^hɿ/), 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^hɑːɿ] ‘书, book’ and [t^hæɿ] ‘冷, cold’ would then be written as /T^hɑːɿ/ and /T^hæɿ/, where T^h stands for the archiphoneme covering [t^h] and [ʈ^h].

The retroflex [ɭ] raises more difficult issues for phonemicisation. The only attested syllable containing [ɭ] is [ɭɔ] (e.g. [ɭɔ] ‘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 [ɣ] 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 /ɿ/ ([ɳæ], [ɳu] and [ɳɿ] are phonemicised as /næ/, /nu/ and /nɿ/).

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	fiɬɬuɬ
太阳	ɲiɬmieɬ	干土	ʈʂuɬzyɬ	白齿 + 后白齿	ɲwɔɬʈæɬmieɬ
光 (阳光)	ɲiɬmieɬuɬ	尘土	pʰyɬhæɬ	牙龈	fiɬʈʂiɬ
月亮	ʰieɬmieɬ	泥巴	dʒaɬqʰæɬ	舌头	ɕiɬmieɬ
星星	tsiɬ	水	iɬʈʂiɬ	舌头的筋	ɕiɬʒæɬ
流星	tsiɬqʰæɬ	洪水, 大水	zɹuɬyɬ	小舌	ɕiɬʒæɬ
风	myɬhæɬ	波浪	iɬʈʂiɬiɬʰieɬsaɬsaɬ	喉咙	qɔɬtsuɬ
雨	fiɬ	水泉, 山泉	zɹuɬqʰɔɬ	喉结	qɔɬtsuɬtuɬɬyɬ
云	tɕiɬsuɬ	温泉	ʈʂʰyɬzɹuɬ	嘴唇	niɬtɕʰɔɬ
雾	qʰɔɬɬɔɬ	泉水	zɹuɬqʰɔɬiɬʈʂiɬ	颧骨	pʰyɬʈsyɬdzɹɬ
彩虹	zɹuɬʂsuɬmyɬʂsuɬ	金子	hæɬ	胡子	myɬtsuɬ
雪	vieɬ	银子	ɲyɬ	连鬓胡	bieɬnaɬ
雷, 霹雷	muɬgyɬ	黄铜	æɬ	颚	taɬɬɔɬ
闪电, 打闪电	byɬbæɬbæɬ	白铜	æɬpʰyɬ	脖子	ɛæɬsuɬɬpaɬ
冰雹	dzyɬ	红铜	æɬhiɬ	甲状腺肿瘤	æɬbæɬ
冰雹块	dzyɬlyɬlyɬ	铁	ʂuɬ	项背	ɣɔɬɬɔɬpaɬ
露水	dʒɹuɬkʰaɬ	锈	ʈʂuɬqʰæɬ	肩膀	hwæɬʈʂuɬ
冰	ɲiɬpʰyɬ	炭	fiɬdziɬ	脊背	ɣyɬsuɬ
火	myɬ	盐	ʈʂʰeɬ	肩胛骨	ʈʂuɬ
火花	myɬʒæɬ	草木灰	lɥeɬ	驼背	duɬqɔɬ
烟	muɬkʰyɬ	桥	dzyɬ	腋下	jaɬdaɬ
(一口)气	saɬ	坟墓	yɬɬyɬ	胸膛	ɲiɬmjæɬqʰɔɬ
堰口	ɛaɬlyɬ	身体	ɬuɬhiɬ	乳房	aɬpuɬ
山	zɹuɬtseɬ	头	uɬtuɬ	奶汁	ɲæɬ
高山	uɬguɬ	脑子, 脑髓	uɬfyɬ	月经	dzuɬɬhɔɬʈʂuɬɬtsuɬ
山坡, 岗	tuɬbieɬ	太阳穴	suɬɬbyɬ	心脏, 性情	ɲiɬmieɬ
山脊	dʒyɬkʰuɬtuɬ	头发	uɬtɕʰyɬ	肚子	haɬmieɬ
山谷	zɹuɬtseɬæɬʈʂuɬ	辫子	ɬɔɬpaɬ	肚脐	tɕʰɔɬpuɬ
山洞	læɬqʰɔɬ	毛	hɔɬ	肚脐	tɕʰɔɬ
森林	syɬzyɬ	人身上的毛	ɲiɬhɔɬ	胆	tsiɬ
地上的小洞	paɬtyɬ	额头	tuɬkɔɬ	胆汁	tsiɬzɹuɬ
洞	qʰɔɬ	眼睫毛	mjæɬtsuɬ	吐酸水	tɕiɬzɹuɬ
河流	zɹuɬmieɬ	眉毛	mieɬtuɬ	腰	iɬtsuɬ
溪流	iɬʈʂiɬqʰæɬluɬ	眼睛	mieɬlyɬ	屁股	qʰæɬsaɬpʰyɬmieɬ
湖	fiɬ	眼 (单音节)	mieɬ	胯	ʈʂuɬmieɬ
海	naɬdziɬ	眼珠	mieɬlyɬnaɬliɬ	尾椎骨	dzyɬɬtuɬ
小型水库	ɬɬ	眼圈骨	mieɬlyɬʂaɬtuɬ	锁骨	læɬɬzɹyɬ
岸	zɹuɬmieɬkʰuɬkʰuɬ	眼泪	mjæɬɬzɹuɬ	肌肉	ʂuɬnaɬ
水坑	paɬtyɬ	鼻子	ɲjɔɬɬɣɔɬ	腿	æɬʈʂuɬ
水沟	qʰæɬluɬ	鼻孔	ɲjɔɬɬɣɔɬqʰɔɬ	大腿	byɬsaɬmieɬ
井	iɬʈʂiɬqʰwæɬ	鼻涕	ɲyɬ	膝盖	ɲwaɬtuɬ
小堤坝	buɬtuɬ	耳朵	ʰieɬtuɬ	膝盖骨	kaɬpʰæɬ
路	læɬɣyɬ	耳孔	ʰieɬzeɬ	关节	tsuɬ
地 (天地的地)	dyɬ	耳垂	ʰieɬtuɬkɔɬbyɬ	小腿	dʒyɬbæɬ
平坝	duɬkʰuɬ	耳垢	ʰieɬqʰæɬbæɬ	胫骨	wɔɬɲjɔɬɬɣɔɬsaɬtuɬ
平地	hæɬduɬ	脸	pʰyɬmieɬ	踝关节	læɬmieɬtsuɬtuɬɬyɬ
田地	liɬ	腮	bjæɬɬɔɬ	脚底	wɔɬtɕʰɔɬ
水田	dzeɬliɬ	嘴, 嘴巴, 口	ɲyɬqʰɔɬ	脚跟	ɣyɬɬuɬ
		嘴巴	kuɬpieɬ	脚背	miɬɣyɬ

主人	daɿpuɿ	丸、小球	tuɿlyɿ		街	ɬuɿfyɿɬɬuɿbieɿ
客人	hiɿtsoɿ	饭	dzeɿ		街	wɿɿbieɿ
寡妇	uɿmieɿtʂʰyɿhiɿ	猪食	wɿɿɬdzeɿ		石墙	luɿwɿɿ
孤儿	zuɿtʂʰyɿ	马料	ɿɿlyɿ		窗户	daɿkʰuɿ
稀饭	hoɿzɿuɿ	线	tʂʰæɿ		柱子	zæɿmieɿ
饭(米饭)	tʂʰæɿpʰyɿɬdzeɿ	布	fiɿtʂuɿ		梁	guɿlyɿɦieɿɿgyɿɿtieɿ
粥	huɿ	丝绸	tʂuɿɿzeɿ		门	kʰuɿbiɿ
面粉	zyɿ	衣服	baɿllaɿ		门	kʰuɿ
浆糊, 浆子	huɿ	蓑衣	tɕaɿɿɿɿ		门槛	kʰuɿtaɿ
馒头	miɿhiɿēɿ	上衣, 衣服	bxɿzeɿ		梯子	dzyɿɿtʂʰyɿ
肉	ʂuɿ	衣领	ɿæɿɦyɿ		天花板	kwxɿɦiɿ
熟肉	ʂuɿlaɿmiɿ	袖子	jaɿqʰoɿ		石头台阶	læɿmieɿɬdzyɿ
生肉	ʂuɿɬdzyɿɬdzyɿɦiɿ	扣子	buɿlyɿ		粮仓	guɿ
瘦肉	ʂuɿnaɿ	裤子	ɦieɿkʰwxɿ		打场	ɦæɿduɿ
肥肉	ʂuɿpʰyɿ	头帕	laɿtʂʰyɿ		篱笆	qʰoɿtaɿ
牲畜前腿的肉	laɿsaɿ	帽子	tʂyɿtʂyɿ		商品	noɿ
牲畜后腿的肉	ʂuɿsaɿpʰyɿmieɿ	斗笠	uɿtuɿ		东西	tɕaɿsuɿ
猪的肚皮的肉	aɿtʂyɿ	梳子(粗)	tʂyɿmieɿ		桌子	ʂaɿlæɿ
层肉		氍毹	tʰuɿliɿ		凳子	qʰoɿ
猪胸股上的肉	ɿɿbiɿ	羊毛裙子	hɿɿtʂuɿkʰwxɿ		床	qoɿ
猪尾部划出来的膘	wɿɿmiɿtsyɿtʰieɿɬdyɿɦiɿ	裙子	ʂuɿkʰwxɿ		箱子	suɿgyɿ
猪身躯带骨头的肉	wɿɿtuɿ	裹腿	tsʰuɿtʰuɿ		扫帚	hwɿɿtʂuɿ
把猪的骨头装在大肠里	buɿkʰuɿtɕʰɿɿtuɿ	鞋垫	sæɿɦæɿtʰæɿ		火绒(把小麻皮捶绒)	tsaɿɿsoɿ
把瘦肉装在肠子里	yɿɦieɿ	鞋, 鞋子	sæɿɦæɿ		火镰	tseɿmieɿ
把猪腿的皮剥下来, 缝成筒形, 塞满瘦肉	wæɿtsʰuɿlaɿlyɿɦiɿ	耳环	ɦieɿkʰyɿ		火把	myɿtɕʰyɿ
猪皮	wɿɿzɿuɿkyɿ	戒指	laɿtʰuɿ		香	syɿɬzyɿ
猪油	kæɿmiɿ	手镯	laɿɬzyɿ		染料	tʂʰyɿɿzɿuɿ
酥油	miɿ	珠, 珠子	qʰoɿzeɿ		锅	yɿmieɿ
油	miɿɿɿ	席子	tɕɿɿgyɿ		锅的盖子	uɿhuɿ
蛋	læɿtmjæɿɿsoɿ	毯子	tɕɿɿɦuɿ		蒸笼	dzeɿbyɿ
蛋黄	lɿjæɿtmjæɿɿsoɿqoɿtʂuɿ	宝贵的毯子	zyɿɬdzyɿ		刀	kwaɿtaɿmieɿ
蛋白	lɿjæɿtmjæɿɿsoɿ-	垫子	qʰoɿɿɿ		菜板, 俎	tsuɿtʂæɿ
汤	kuɿpʰyɿ	枕头	uɿtɿuɿ		把子	qoɿ
酒	zɿuɿɿɿ	褥子	zæɿmieɿ		勺子、瓢	biɿzeɿ
黄酒	pieɿmyɿ	被子	tɕyɿɦuɿ		调羹	biɿzeɿtʰaɿtɕiɿɦiɿ
醋	tɕyɿɦiɿ	蚊帐	tʰaɿɿlaɿtʂuɿɦiɿ		大调羹	biɿzeɿ
开水	iɿtsʰiɿtʂʰuɿtʰyɿ	木头	siɿ		碗	kʰwxɿ
茶	lieɿ	木板, 木板子	siɿpʰæɿ		盘子	ʂwxɿɿpʰieɿ
糖	dzyɿɿzɿuɿ	家, 家庭	yɿɬyɿ		木盘子	siɿkʰwxɿ
烟	jɿɿ	房屋	yɿkʰwxɿ		筷子	dzyɿɿsuɿ
药	tsʰuɿɦiɿ	家	aɿuɿ		瓶子	dzyɿɿ
		座位	dzyɿlæɿ		坛子, 罐子(陶器)	piɿzeɿ
		菜园	uɿtɕʰɿɦiɿ		茶壶	tɿɿɿ
		圈, 牲畜圈	biɿ		大水桶	tɕaɿtaɿ
		土墙	tʂuɿɿbuɿ		过去用杯水的	siɿpuɿtaɿ
		城	luɿwɿɿjyɿkʰwxɿ		背篓	
		城	dzyɿ		桶	zyɿmieɿ
		城里、市上	dzyɿluɿ			
		村寨, 村子	ɬuɿɿbieɿ			

木盆	si+tsɛ+lu]	肥料, 粪	kʰæ+	有区别	tʰa]nie]nie]
脸盆	pʰy+mie+tsʰu+lu+	白[坨坨]	tʂu]mu]		mə+ŋu]
三脚架	ʂu]tsʰi]	杵[捶捶]	lu]dʒu]	一样, 没有区	tʰa+nie]nie]
火塘	kwa]lu]	碓	mu+tsu+	别	
厨房	tsu+kwɔ+	小筛子	mu]tʰa]tci]hi]	渣滓	dzu]mæ]
火钳	mu+ŋy]	筛子 2	bɔ]kʰu]	影子	da]zɣ]
风箱	my+mi+tsu]	筛子 4	i]tʂu]	梦	y]mu]kʰwɔ]
用来背小孩的	za+hu]pa]dʒi]	筛子 5	mu]a]pa]dʒu]hi]	东方	vi]dzy]tʂu]
带子		簸箕(簸粮食	mu]	西方	y]dzy]tʂu]
背带	dzi]	用)		南方	i+tsʰu]mie+
称	sa]	手磨	tɕy+ly+	北方	kʰu]dzy]tʂu]
钱	dʒu]	水磨	i+tsʰi]tɕy+ly+	旁边	bie+ku+
价钱	tɕɔ]hi]	水槽	i+tsʰi]wɔ]gy+	左边	væ+ta+
工资, 工钱	ɛa+pʰy+	织布机	ɹ]da]	右边	i]ta]
马鞍	tci]qʰɔ]	拐棍	mi+tʰy]	前面	u]da]
马笼头	u]ly]	镰刀	hū+gy]	后面	gwɔ+tu]
马肚带	bie]ɔ]	刀鞘	y]	外面	a]pʰy]
马嚼子	kwa+ʂwæ+	枪	my+lie+	里面	ku]lu]
马槽	wɔ]gy]	准星	hie+gy]tie]	周围	kʰu+kʰu+lie+lie+
挽具, 后鞅	mæ]ky]	装火药的皮带	ku]ly]	地界	tʰu]la]tsʰi]
缰绳	ɔ+dzɪ]	枪把	qɔ]	上面	gɔ+tu]
打马的鞭子,	mæ]dʒy]	弩弓	ta+na+	上面	gɔ+by]
马鞭		弓	hie]	下面	y+tsʰæ]
驮架	li+mi+	箭	ɛɔ+by+	中间	dæ]mie]
牛鼻绳	njɔ+gɔ]dʒi]	陷阱	pa]ty]	顶上	ɛɔ+by+
斧头	ly+mie+	毒	dʒy]	上半身	gɔ]dʒu+dæ]
锯	ʂwa+da+	字	tʰa+ɹ+	下半身	y]dʒu+tsɛ+
针	u]	记号	hæ]ty]	时候	dʒu+my]mi]
锥、锥子	tʂu]	纹路	læ+gy]	一夜	dʒu+hiɛ]
凿子	dzy]	话	ʂa+ɔvæ]	一天	dʒu+ŋi+
木锤子	da]ty]	故事	tʂʰæ]	初一	la]tsʰi]dʒu]ŋi]
连枷	ku+ɹ+	舞蹈	tsʰu]	初二	la]tsʰi]ŋi]ŋi]
铁钉	ʂu]qʰɔ]	旗子	tsi+	初三	la]tsʰi]su]ŋi]
钩子	tsæ+qæ]	声音	qʰɔ+	初十	la]tsʰi]tsʰi]ŋi]
剪刀	tsu]tie]	鼓	da]kʰɔ]	十一日	tsʰi]dʒu]ŋi]
锁	tsa]kwa]	钹	by+tsʰu+	十五日	tsʰi]ŋwɔ]ŋi]
钥匙	tse]ci]	笛子	tʂu]ly]	十六日	tsʰi]qʰɔ]ŋi]
犁头	ɔ]gy]	胡琴	zwa]mæ]da]qɔ]	三十日	su]tsʰi]ŋi]
犁头, 犁铧	tʂʰa+	铃铛	tɕy]bu]	今天	tsʰi]ŋi]
耙	dʒɔwɔ]	牛角(用来当	bu]qʰɔ]	昨天	æ]ŋi]
牛鞭(单行)	ɛæ]hwa]	长号角)		前天	ʂu]n]dʒu]ŋi]
牛皮绳, 犁具	dzu+dzu]	神, 菩萨	ga]la]	前几天	ɔ]ŋi]ʂu]ŋi]
连轭之绳		鬼	ŋi]	明天	mi+su]
锄头	tsy+qɔ]	灵魂, 魂魄	ɛɔ]hie]	后天	u]su]
挖锄	bæ+ɔwɔ+	运气	tʂʰa+u]	大后天	u+du]su]
楔子	hɔ]	力气	ɛa]zi]	四天以后	u+ŋi]su]
绳子	dzi+	胆量	ŋi]mie]dʒu]	今晚	tsʰi]hwa]
背篓	kʰɔ]	礼物	tɕʰa]ɔ]	明晚	su]hwa]
袋子	dzi]ku]	名字	hi]	昨晚	a]hwa]

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'tyJ
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)	gwɔ'tuJ	一筐	du'k'hɔ'ɾ
中午饭、中午	zu+, zu'tuJ	今后	k'h'u't'uJ	一捧	du'kwa+
吃中午饭	zu+dze+	夏天、春夏	mu'z'u'bieJ	驮子	du'tu'ly+
下午	zu+dze+gwɔ't	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'JgyJ	一滴水	du'te'h'ue+
吃晚饭	mi'k'h'uJdze+dze+	2	ɲi'JgyJ	一瓶	du'ldzɔ'ɾ
黄昏, 暮	naJp'h'yJts'a'lwɔ't	3	su'Jgy+	升	du'tu+
夜里	sy+qo+tsy+	4	zy'JgyJ	一斤	du'tsaJ
年	k'h'yJ	5	ɲwɔ'JgyJ	一两	du'ty+
今年	ts'h'u+vie+	6	q'h'oJgyJ	一堆(比如:	du'tpu+
去年	æ+vie+	7	su'JgyJ	一堆粮食)	
前年	su'JvieJ	8	ci'JgyJ	一块	du'tp'hæJ
三年以前	su'Jdu'JvieJ	9	gy'JgyJ	一对	du'+dzeJ
明年	su'JvieJ	10	ts'h'i'Jgy+	一双鞋	du'+dzeJ
后年	u+vie+	11	ts'h'i'ldu'JgyJ	一只	du'tp'hɔ'ɾ
鼠年	hwɔ'k'h'yJ	12	ts'h'i'ɲi'JgyJ	一段	du'ts'æJ
牛年	vi'k'h'yJ	13	ts'h'i'su'JgyJ	一庹[一排]	du'tyJ
虎年	la'k'h'yJ	14	ts'h'i'zy'JgyJ	一拃(大拇指	du'tcy+
兔年	t'h'u'lie'k'h'yJ	15	ts'h'i'ɲwɔ'JgyJ	和食指之间的	
龙年	mu'Jgy'k'h'yJ	16	ts'h'i'q'h'oJgyJ	距离、拇指与	
蛇年	zy'k'h'yJ	17	ts'h'i'su'JgyJ	食指平伸量物	
马年	lo'k'h'yJ	18	ts'h'i'ci'JgyJ	之长)	
羊年	y'k'h'yJ	19	ts'h'i'Jgy'JgyJ	一拃(大拇指	tcy+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'Jts'h'i'Jgy+	距离)	
狗年	k'h'u'k'h'yJ	40	zy'Jts'h'i'Jgy+	一架牛	du'tp'hɔ'ɾ
猪年	wɔ'Jk'h'yJ	50	ɲwɔ'Jts'h'i'Jgy+	一张	du'ts'h'uJ
过年	k'h'yJsuJ	60	q'h'oJts'h'i'JgyJ	一元	du'tmæJ
月	ɦie+	70	su'Jts'h'i'Jgy+	一亩	du'tp'hæJ
上半月	ɦie+ph'ɔ't	80	ci'Jts'h'i'JgyJ	一辈子	du'ts'hæJ
正月	du'Jlie+mie+	90	gy'Jts'h'i'Jgy+	一步	du'tt'yJ
二月	ɲi'Jlie+mie+	百	du'Jci'JgyJ	一次	du'tdzɔJ
三月	su'Jlie+mie+	千	du'ty+gy+	(吃的)一口	du'tt'æJ
四月	zy'Jlie+mie+	万	ts'h'i'JtyJ	经常	do'loJ
五月	ɲwɔ'+lie+mie+	一半	du'tdæJ	转回	la+ɦ
六月	q'h'oJlie'JmieJ	一条绳子	du'Jts'hæJ, du'tkɔ'ɾ	又, 再	a+ma+du'JdzɔJ
七月	ɦie+lie+mie+	一根(线)	du'Jts'hæJ	天天晚上	du'+ɦi'e'ldu'+ɦi'e'J
八月	ci'Jlie'JmieJ	一棵树	du'JdzɔJ	每天	du'+ɲi+du'+ɲi+
九月	gy'+lie+mie+	一根(竹子)	du'tuJ	整天	by'Jts'h'u+ɲi+
十月	ts'h'i'lie'JmieJ	一根棍子	du'tkɔ'ɾ	全部, 一切	du'ttaJ
十一月	ts'h'i'ldu'Jlie'JmieJ	个(一个人)	du'+ɦ	都、所有	a+hwɔ'ɾ
十二月	ts'h'i'ɲi'Jlie'JmieJ	一只鸡	du'tp'hɔ'ɾ	自己	ɦ+ts'ɔJ
古时候, 传说	æ+vie'Jsu'JvieJ	一群、一队	du'Jhwɔ'ɾ	这个(近指)	u'Jt'uJ
古代		一把刀	du'JnaJ	这个(近指)	t'e'h'ɔ'Jt'uJ

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 a ^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	læ ^t q ^h ɔ ^t	尖	t ^ɕ h ^w æ ^l	太咸	ts ^h e ^l k ^h a ^t
近	læ ^l 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	læ ^l fy ^l	馋	t ^ç ɤ ^t
厚	a ^l p ^ɤ llu ^t	浸泡 (如: 浸种子)	t ^ç æ ^l læ ^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 ^h ie ^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 ly ^t	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 ɔ ^t
少	d ^ç u ^l mu ^l	松起来	m ^ə ltsi ^l	事务繁忙	lu ^l dzi ^l
少	di ^l h ⁱ l	软, 柔软	ta ^t	富	læ ^l kæ ^t
一些	d ^ç u ^l bæ ^t	黏 (胶)	my ^l h ^æ t	穷	m ^ə dzy ^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 ɤ ^l	熟	dzy ^l dzy ^t	脏	m ^ə lʂu ^l
准	w ^ɤ l	新	mi ^l	乱	kæ ^l ma ^l ɔ ^t zu ^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 lts ^h e ^l
横 (横躺)	d ^ç æ ^l d ^ç æ ^l ll ^æ l	好 (心好)	dzy ^l	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 dzy ^t	干扰、妨碍	h ^{ie} l ^d çɔ ^t
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 ^ɤ 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	bæ ^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 ɤ ^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'tk'ɑŋmɔ'ŋts'heJ	扛	luJ	有(露水)	dzy'tk'ɑ'laa1
装做	tɕɔ'ŋvie'k'hæ'ŋvieJ	驮运	tsi1	发生(打雷)	mu'tɕy'tɕy't
骄傲, 自以为好	dæ'ŋsɿŋ	帮助	ka'ka1	吹(灰)	mi1
凶恶	ma'ŋnuŋ	包	t'hu1	缠线	dzy'ldzyJ
爱破坏	wæ'k'hæ'thiŋ	瞒着别人	na'na1	钓鱼	ŋi'ze'laa1
客气/害羞	hi'tɕɔ'tvie-t	刨	tsaŋ	赶, 打猎	dzi1, hã'dzi1
吝啬	la'tɕ'ɿŋ	比	t'ɑ't'h'ɑ'nie'nieŋ	打散, 驱赶, 撵	q'hæ'li'jhu'tk'huŋ
大方	ɑ'ŋpɔ'ŋjɔ'tku-t	量	læ1	牵(牵牛)	k'h'u'tsæŋ
贪心不足, 贪吃	se'tɕ'hɿŋ	放置	t'ie'tɕu-t	散开	p'hɑJ
懒	mə'ŋhuŋ	提前准备好	tɕɔ'ŋtɕɔ'ŋ	打开(如: 开门)	la'ts'hiJ
多嘴	ɕi'ŋmie'ldziŋ	修牲畜	gɿŋ	张开心心	k'hæ'tk'hæ1
笨拙	mə'tɕ'hæ'tɕ'hæ-t	重新做	k'hɑJ	闭	tæJ
努力	zɯa'ŋvieJ	还东西	li'tie'tvie-t	关(羊)	tæJ
不幸(人)	ma'ldaJ	唱	t'ie'tla'tku-t	锁门	tseŋ
高兴、起劲	læ'p'hi	称	sa1	闭嘴	t'ie'ŋmuŋ
幸福, 安逸	ts'heŋ	完成	la'seJ	眨眼	njæ'ŋmæ1
喜欢, 爱	p'hi	吃	dze-t	闭眼	mjɔ'tɿŋ
爱, 关心	ma'ldaJ	拍(拍桌子)	t'ie'tɕu-t	穿(衣服)	hɿŋ
讨厌	dzyŋ	咬	t'hæ1	脱(脱衣服)	p'hɿŋ
生气	gɿ'ldzɯŋ	嚼	tɕɑ'ŋɕɔJ	佩带	pɔ'ɿŋ
高兴, 心情好	se'tseŋ	吃草	ɛwæŋ	戴手镯	pɔ'ɿŋ
好玩(人)	ts'he'ŋtuŋ	舔	jɔ'ŋ	戴帽子	tɿŋ
安宁	daŋ	含在嘴里	ly-t	挡住	q'hɔŋ
悲哀, 伤心	mə'ŋts'heŋ	吞	ɛɔ	等候	t'ie'hi'e-t
孤单	hi'tɕu-t	呕吐	p'hi'eJ	地震	dy'ldzɯŋ'ldzɯŋ;
陡峭(山)	tu'ŋbieJ	小便, 解溲	dzi'ŋhæŋ	摇	dzɯŋ'ldzɯŋ
安装	tɿŋ	拉屎	k'hæ'ŋhæŋ	摇	dzɯŋ
搬土	dɕuJ	拉肚子	q'hæ'tɕwæ1	凋谢	la'tk'hu1
薅锄、锄草	lwæJ	打喷嚏	ɑ'ŋt'huJ	上吊自杀, 缢	ɛæ'tsu-t
挖	dzɯwæJ	打嗝儿	hu'ŋtɿŋ	冻	la'tɕJ
耙	tsɑ1	打饱嗝儿	ie'ŋp'hɿŋ	爬行, 匍匐	dy-t
扫	væ1	吐(吐口水)	tɕi'ts'huŋ	翻身	t'hu'ŋtɕyŋ
拔、扯(草)	pyJ	喝	ɕyJ	翻过来翻过去	zi'ŋtɕy'ŋp'hɿŋ
获, 割草	zu'ŋts'huŋ	吸吮	ts'hi'ŋts'hiJ	滚(石头滚)	gu'tby'tly-t
压扁	ŋæJ	抽烟	ju'ŋɕyŋ	使滚	la'ŋp'huŋ
弄扁不弄开(竹子)	ta'ŋpie'ŋlæJ	串珠	suŋ	躲藏	t'ie'ŋqæ-t
摆整齐、使均匀	by'tby'ŋlæŋ	穿针	u'tsuŋ	藏	t'ie'tɕ'hwæ1
排列整齐	tɕu-t	穿孔	q'hɔ'ŋt'hɿŋ	藏(一个小的东西)	t'ie'ŋmɿŋ
举、抬起	gɔ'ts'hiŋ	插、戳	tɕ'hu1	动	li'li1
上驮子	gɔ'ts'hiŋ	刺痛	pu1	堵塞	dzyJ
抬(几个人一起)	gɔ'ts'hiŋ	扎(针...扎)	gɿŋ	棍子断	la'ŋq'hæŋ
背柴	paJ	一代, 一世	qu'tɕ'hæŋ	碎	q'hɔŋ
		传染	tɕyJ		
		出来, 刮(风)	t'hɿ-t		
		下(雪)	vie'saŋ		

破、碎（碗、罐子）	q ^h ɔ1	变（蛹变蛾）	tɕɻ1sɔ1væ1	跪下磕头（叩头）	lɔ1pɻ1dɕu1
损坏	wæ1kɛæ1	换	qæ1, qæ1qæ1	咳嗽	tsɻ1
撕（撕纸）	ʃwɻ1	飘动	li1li1ɰzwæ1ɰzwæ1	渴	hwɻ1
拆（线）	ʃwɻ1	挥动	tɕi1tɕi1	困倦	ts ^h e1
拆	q ^h æ1	来	i1	拉（向前拉）	tɕæ1
拆	wæ1q ^h æ1	毁灭	t ^h u1ts ^h u1	拖	gwæ1ʃsæ1
生长	kɻ1pi1	使混合	tʃwæ1tʃwæ1	推	mie1
长大	gɻ1kwɻ1	搀	zæ1zæ1	按（用手）	ŋæ1
发抖，颤抖	tɕ ^h y1tɕ ^h y1	搀	ʃwæ1ʃwæ1	挤压	tɕy1
发烧	tʃ ^h u1	和泥	dzæ1k ^h æ1zæ1	靠	t ^h u1
为别人担心	ŋi1mjæ1hū1	累积	ku1ku1	留下	t ^h ie1dzɻ1tɕu1!
发芽（树）	hŋw1pɻ1i1tjɻ1	记得	ŋi1mie1q ^h ɔ1	遗漏	my1
发芽（种子）	y1	寄存	tɕu1	忘记	læ1my1
开花	væ1	寄信、服送	q ^h ɔ1pɻ1	绑，捆	ts ^h i1
告状	tɕɻ1zɻ1	妒忌	gy1dzɻ1	绑	tsu1tsu1
惩罚	u1dy1	停止	læ1hīē1	系	ty1
掺和	t ^h ie1ts ^h i1	剪	ts ^h i1	勒住	dzɻ1dzɻ1
放牧	dzɻ1dzɛ1lɻ1	砍（树）	da1	漏水	ma1kɛæ1
飞	dzy1	劈、剖	q ^h ɔ1	滤	tsu1
盘旋	q ^h æ1q ^h æ1	剁肉，宰	da1	弄乱	wæ1q ^h æ1
分东西	zy1zy1	切	hæ1	驱逐	q ^h æ1pɻ1hū1!
逢	zy1	断（线）	tʃ ^h u1	埋	ŋy1
孵	zy1	马叫	lwæ1	买卖	zɕu1
符合	q ^h u1	狗吠	ly1	卖	tɕ ^h i1
上街	wɻ1bie1bi1	老虎叫	lwæ1	生意	gɻ1tɕ ^h i1ly1tɕ ^h i1
敢	ŋwɻ1	名字叫	hī1	抿嘴巴	ts ^h i1ts ^h i1
做，工作	vie1	结很多果子	ly1dy1	触碰	gy1
劳动	lu1vie1	结果子	la1dy1ŋa1	磨刀	sy1
给、传	ku1	婚姻	zɕu1ʃy1	拧（拧毛巾）	kæ1ʃy1
喂动物	dze1ku1	向别人借	ŋi1	搓（搓绳子）	zy1
撒（种子）	p ^h a1	借给别人	ts ^h y1, tʃ ^h u1ts ^h y1	缠线	dzɻ1dzɻ1
使钩住	mi1	欠钱	vi1	爬，上山	gɻ1du1
钩住，悬挂	hwa1	递过去	q ^h u1pɻ1thū1	爬，上山	dy1dy1
够	ly1	居住	dzy1	打（如：脱粒）	q ^h u1
为别人打工	hī1k ^h ɻ1ka1lu1vie1	聚集	la1ly1ly1	敲门	ta1ta1
管理庄稼	li1lɔ1	蜷缩	zy1	打（人，钉）	la1
管庄稼	li1tʃ ^h u1	观看	lɔ1	排队	q ^h u1læ1vie1
管理	a1lu1kɛæ1zɕu1	看、看望	lɔ1bi1	跑	dza1
灌溉	li1ʃsu1	听	hā1	碰撞	p ^h je1
害羞	hæ1du1	听见	my1	泼水	ɕy1
害怕	si1	嗅	læ1mi1	欺负	dzɻ1lɔ1ma1hā1
吓	dzy1	闻到	bu1ŋy1	欺骗	qæ1
后悔	p ^h ɻ1	呼吸	sa1se1	垒起来	ɻ1
画、写	tʃu1	烤火取暖	my1kwɻ1	砌墙	tʃu1bu1
刻	q ^h u1	站（站立）	hīē1	骑马	dzɻ1
怀孕一个孩子	za1hu1pɻ1	跪下	ma1ku1t ^h ie1ts ^h y1	起（起床）	gɻ1tɕu1
交换	qæ1qæ1			打招呼	jɻ1ku1k ^h u1dɔ1jæ1?

染	tʂʰyɿ	睡着	ziɿmɿɿziɿ	争夺	dʒæɿdʒæɿ
热饭	tsiɿ	讲	zɿwɿɿɿ	吵架	dʒæɿdʒæɿ
必须	lɔɿ	商量、谈天	ʂɑɿtvæɿ	偷	kʰyɿ
会	kuɿ	讲故事	uɿ	催别人把东西	taɿ
能, 能够	dʒɿwɿɿɿ	问	myɿɿduɿ	交出来	
扔	laɿ	读	ŋiɿtsiɿ	织	daɿ
甩	duɿ	批评	dʒæɿ	编 (竹子)	mæɿdaɿ
掷 (掷石头)	tʂɑɿtsʰiɿ	骂	uɿɿdyɿ	指	gyɿ
散了	pʰyɿ	逃, 逃跑	pʰuɿ	种	tʃɿ
解开, 解绳结	tʂʰuɿ	踢一脚	tsaɿ	抓	dʒɿwɿɿɿ
杀	kʰɑɿ	踩	tʰyɿ	啄	kʰyɿ
筛	lyɿ	剔, 刮	siɿsiɿ	醉	ɿæɿ
射中	zyɿ	满	ʂɿɿ	坐/住	dzyɿ
伸 (伸手)	ɿɿtʂʰuɿ	挑选	siɿ	做梦	yɿɿmuɿkʰwɿɿ
生锈	tʂuɿɿqʰæɿɿɿdʒeɿ	跳舞	tsʰuɿ	暗 (房子)	naɿɿfyɿɿfyɿ
生孩子	zaɿɿhuɿɿdʒyɿ	往后仰	ɿɿɿŋɿɿ	天阴	muɿɿnaɿ
失踪	tʰuɿɿtsʰuɿ	弄弯	tsaɿɿqæɿɿkʰuɿ	瘦 (人瘦)	ʂuɿɿdzaɿ
撑开 (帐篷)	qʰæɿɿqʰæɿ	退后	tieɿseɿ	瘦 (肉)	ʂuɿɿnaɿ
收拾、弄整齐	ʂuɿɿʂuɿ	洗衣服	tsʰuɿ	肥 (肥肉)	ʂuɿɿpʰyɿ
梳	tʂʰwɿɿ	冲水	ɿyɿ	胖	ʂuɿɿdyɿ
梳	siɿsiɿ	下蛋	ɿɑɿɿɿɑɿ	干燥	fyɿ
败、输	mɑɿɿtɿɿhɿɿ	相信	muɿɿguɿɿ	可爱	ɑɿɿliɿ
用手剥	ʂuɿ	醒	tʂyɿ	丑陋	ɑɿɿmɿɿɿliɿ
剥皮	ʂuɿ	学	suɿ	辣	tsuɿɿ
削	ʂuɿ	教	suɿ	活	syɿ
煮熟	tɿɿɿ	写	tʂuɿ	死 (人)	suɿ
煮了一会	dʒuɿɿmɿɿɿmiɿɿtɿɿɿ	知道	suɿ	死	kʰɿɿ
烧开	tɿɿɿ	传闻	ŋɔɿ	合适	dʒuɿ
煨熟	tsiɿ	懂	myɿ	擦	tʂʰyɿ, tʂʰyɿtʂʰyɿ
蒸熟	byɿ	寻找	ʂuɿ	揉	zyɿ
炒 (肉、菜)	hiɿ	抠痒	kwaɿ	呛	ɿɿ
炒 (肉、菜)	tʂʰuɿ	阉割	læɿɿmieɿɿgyɿ	塌毁, 倒塌	dʒɿɿ
干炒 (麦子)	hiɿhiɿ	养 (动物)	zɿwɿɿɿ	错、犯错误	qæɿ
揉面	zyɿ	溢出来	qʰɔɿ	舀水	qwaɿ
搅拌	ʂwaɿ	送行	pyɿ	守卫	tʂʰuɿɿ
尝试、体会、	dʒuɿɿɿɿbiɿ	漂浮	tɿyɿ	带孩子	qæɿ
经过		跨 (跨小沟)	ɿɑɿ	带路	læɿɿɑɿɿsyɿ
烘干	læɿɿfyɿɿkʰuɿ	遇见	ɿɑɿɿpyɿ	骨折	qʰæɿ
弄碎 (用牙	tɿyɿɿlyɿɿtɿyɿ	盖, 覆盖	huɿ	倒	qʰæɿ
齿、手磨)		遮 (云遮月)	kaɿ	掉下	tʂʰuɿ
在磨房里磨	tɿyɿ	挡住去路	kaɿ	掉入、沉下去	tʂʰuɿ
点灯	tʂyɿ	包起来	ʂuɿɿʂuɿ, laɿɿʂuɿ	摔倒, 跌倒	tʰieɿɿdʒuɿ
烧	dʒyɿ	遮蔽	huɿ	(路很滑)	
烧焦	qʰæɿ	使火炉灭了	ŋyɿ	立起来	tʰieɿɿdʒyɿɿkʰuɿ
烧火	tsʰiɿ	灭, 熄	kʰuɿ	到达	tʰyɿ
熏	hwaɿ	振动	dʒyɿ	得到	ɿɿ
一起摔交	ziɿziɿ	震动	dʒyɿɿdʒyɿ	丢失, 遗失	tʰuɿɿtsʰuɿ
甩来甩去	ʂwɿɿɿlieɿɿluɿ	点头	uɿɿtuɿɿgyɿɿgyɿ	捉 (捉鸡)	ziɿ
睡觉	ziɿ	抢	dʒæɿ	握 (握刀把)	tsʰyɿ

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-tdzy]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]lbæ]
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-tɣy]	种公猪	wɔ]sy]	牛	vi]

公牛	viːsyː	糠	tsʰiː	酸菜, 如: 芜	tɕyːlæː
水牛	væː	麦麸	pʰaːdaː	菁叶子	
牦牛/野牦牛	byː	麦秸	zɹuː	根	siːaːtsʰuː
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	dʒɹuːdzeː	大麻	saː	液, 汁	zɹuː, siːzɹuː
野猫	ʃoːmieː	蔬菜	uːtɕʰɹɹɹ	松香	tʰuːtɕæː
松鼠, 灰鼠	hwæːtɹuː	萝卜	lyːbiː	麦苗	dzuːliː
老鼠=耗子	hwɹɹɹ	南瓜	tseːhiːlgwɹɹɹ	种子	læː
黄鼠狼, 黄喉貂	uːpʰyː	黄瓜	tʃyːhwɹɹɹ	叶子	tɕʰɹɹɹ
尖鼠、鼯鼠	ʃoːtɕyːhwɹɹɹ	土豆(马铃薯, 洋芋)	jaːyː	刺	tɕʰiːtuː
飞鼠	ŋyːlqʰoː	树	siːdziː	花	væː
刺猬	ŋiːzeː	松树	tʰuːtsiː	花	aːliːwaː
马鬃	pyː	松明	qʰoːqʰoː	草	zɹuː
蹄子	ʃoːbyːbyː	落叶松	tʰuːtɕɹɹɹ	玉米包	dɹuːlʰyː
奶牛的乳房	kʰwɹɹɹbieː	柳树, 杨柳	zyːsiː	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	laːtɹuː	竹子	tsʰuːtɹyː	树墩、树桩	siːpɹɹɹtʃyː
菌子(蘑菇)	fyː	竹子	mæːtʰæːtɕiːhiː	树瘤	tsuːtuːlyː
果核	muːtɹɹɹwɹɹɹ	甘蔗	kʰaːdzeːpuːtzyː	茎	zɹuːdʒyː
水果	tɕyː	黄豆	ŋyː	我	ŋaː
桃子	siːuːaːliː	豆花	ŋyːhuː	你	nuː
梨子	tsʰuːkyːtaː	豌豆	daːtsʰyː	他	tʰuː
柿子	siːtzyː	豌豆干草	daːtsʰyːzɹuː	咱们	uːmɹɹɹ
大麦	suːtbyː	花椒	dzyː	我们	ŋaːmɹɹɹ
青稞	miːdzeː	野花椒	dzyːbyː	你们	nuːmɹɹɹ
甜荞, 荞麦	tɹɹyːtɹuː	庄稼	kʰyːtɕwaː	他们(对平辈)	tʰuːkʰɹɹɹ
花荞	jaːdʒɹuː	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	muːkɹɹɹ	这样, 这么	uːnieː
米饭	tɹɹæːpʰyːdzeː	核桃	uːduː	越、更	laːhaː
玉米、包谷	kʰaːdzeː	荨麻[和麻]	ŋiːtɹɹɹ	凉山木里县	muːliː
燕麦	myːzɹuː	血满草[臭草]	jaːbyː jaːtsuːtsuː	木里县项脚	hwaːdzɹyː
莜麦	ɹuː	[酸酸草]	hwɹɹɹtɕyː		
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 /wǎŋ/ for ‘to shout, to cry out (of pigs)’; in the dialect described here, this word is realised as /lwǎŋ/.

^⑤ For instance, the form /baŋha˧/ ‘pig swill’, from /buŋ/ ‘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 /buŋha˧/, 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.