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## Kami

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## Phonological Profile of Kami, the Tibetan Dialect of Mùlǐ\*

*Abstract:* This article provides a synchronic and diachronic description of the phonological system of Kami, a Kham Tibetan dialect spoken in Mùlǐ Tibetan Autonomous County (Sìchuān Province). It focuses on characteristic features of Kami that set this variety apart from the best-recorded Kham dialects of Sìchuān (Bātáng and Dégé) and Yúnnán (Zhōngdiàn and Dōngwàng), with which Kami is grouped in one cluster in Qú and Jīn’s (1981) classification. This article presents a wealth of first-hand Kami data, studies these in relation to corresponding phenomena in the neighboring Qiangic languages, and critically evaluates the current subgrouping scheme whereby Kami is grouped together with the dialects of Díqìng Prefecture.

### 1. Introduction

Kami Tibetan (hereafter Kami) is a variety of Tibetan spoken in Mùlǐ Tibetan Autonomous County 木里藏族自治縣, or <mu li rang skyong rdzong> in Written Tibetan (hereafter WT). This county is part of Liángshān Yí Autonomous Prefecture 涼山彝族自治州 in Sìchuān Province of the People’s Republic of China (PRC).

Established in 1953, Mùlǐ Tibetan Autonomous County is a successor to the semi-independent theocratic kingdom of Mùlǐ (variously, <rmī li> or <rmu le>), ruled by hereditary lama kings of the Tibetan-Buddhist dGe lugs pa tradition.<sup>1</sup>

Mùlǐ is one of the religious, cultural, and geopolitical border areas of the Tibetan realm. It is culturally Tibetan, but ethnically and linguistically much less so. Notable ethnic groups residing in Mùlǐ include (linguistic affiliation of the languages they speak is mentioned in brackets):

- Púmǐ 普米 (Qiangic), the ethnic majority and, historically, the ruling elite
- Gāmǐ 嘎米 or Kami Tibetans (Tibetan)
- Xùmǐ 旭米, or Sùmǔ 粟母, /ʃu<sup>55</sup>-hǐ<sup>55</sup>/, a.k.a. Shǐxīng 史興 (Qiangic)

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<sup>1</sup> On the history of Mùlǐ, see Kessler (1986), Mùlǐ Gazetteers (1995), van Spengen (2002), and Wellens (2006).

- Lǐrú 里汝 or Lizu /li<sup>55</sup>-zu<sup>55</sup>/, a.k.a. Ěrsū 爾蘇 (Qiangic)
- Nàmùzī 納木茲 /næ<sup>55</sup>-mu<sup>33</sup>-zɿ<sup>31</sup>/ (Qiangic)
- Nuòsū 诺苏 or Nosu (Northern Yí or Ngwi, Ngwi-Burmese)
- Móxiē 摩些 or Moso (unclassified, but held close to Ngwi-Burmese)
- South-West Mandarin (Sinitic), presently the lingua franca

The county is historically multilingual. Its languages have been in close contact with each other for a long time in a situation of equilibrium. Until recently, no single language enjoyed special prestige or dominated over other languages. Consequently, language contact is likely to have played an important role in the development of local linguistic varieties.

The Kami people are among the oldest inhabitants of the area. It is estimated that they arrived around 680 AD (Kessler 1986: 20, 46). The self-designation of the group is /<sup>l</sup>pe/ <bod>.<sup>2</sup> “Kami” is a common appellation of the dialect in Mùlǐ. This name stems from the Púmǐ speakers who call the Kami /ka<sup>55</sup>-mə<sup>55</sup>/.<sup>3</sup> The latter term is reportedly an abbreviation of a longer expression for ‘helpers’, consisting of the verb /ka<sup>55</sup>ku<sup>35</sup>/ ‘help’ and the noun /mə<sup>53</sup>/ ‘person’. Fearless skillful warriors, the Kami formerly served the ruling Púmǐ elite of Mùlǐ.

### PLACE MAP 1 ABOUT HERE

*Map 1: Location of Kami townships in Mùlǐ*

Kami is spoken by approximately 20,000 people who reside in six townships in the northern part of Mùlǐ. From West to East, these townships are: (1) Shuǐluò 水洛 /<sup>l</sup>co-<sup>h</sup>lo/, (2) Màirì 麥日, (3) Dōngláng 東朗, (4) Tángyāng 唐央, (5) Bówō 博窩 /<sup>l</sup>ba-<sup>h</sup>wu/, (6) Maidìlóng 麥地龍.<sup>4</sup>

<sup>2</sup> I present Kami data in broad phonetic transcription that includes some common allophones, which result from irregular phonological processes, as well as uvular allophones of velar phonemes. Square brackets are used for narrow phonetic transcriptions (surface phonological representations) and slashes for broad phonetic transcriptions (the product of my analysis). Kami register tones are here marked by superscript letters (L for ‘low’ and H for ‘high’) (see §2.4 for discussion). WT forms (in Wylie’s 1959 standard transcription) are provided in angle brackets alongside the corresponding spoken forms.

The following conventions and abbreviations are used: > = changes into; < = develops from; - = syllable boundary within a lexical word; = = clitic boundary; ~ = variation between two forms; ? = a morpheme whose meaning is unclear or, if attached to a word, signals that the meaning or the etymon that this word represents is tentative; \* = unattested form which has been historically reconstructed or, in the word list, a combination of two etymons that is not attested in WT (as based on the Rangjung Yeshe Tibetan-English dictionary, [www.nitartha.org/dictionary.html](http://www.nitartha.org/dictionary.html)); INTR = intransitive; MC = Middle Chinese (in Baxter 1992 notation); SWM = South-West Mandarin, represented by the dialect of Mùlǐ, recorded by Lǐ Lán 李藍 (p.c.); TR = transitive.

<sup>3</sup> Púmǐ data from Lù (2001), from Guillaume Jacques (p.c.), and from personal research. Shìxīng, Lizu and Nàmùzī data throughout the text are from my personal research.

<sup>4</sup> The division into townships dates from 1953. My consultants, all from Shuǐluò, customarily refer to these townships by their Chinese names. Only two non-Chinese names could be elicited.

Here are some explanations for the names of the townships, as gathered from my language consultants, from Kessler (1986), and from Mùlǐ Gazetteers (1995). The name for Shuǐluò, /<sup>l</sup>co-<sup>h</sup>lo/ <sho log>, is a Tibetan rendering of the original Xùmǐ toponym, the Xùmǐ people being the ethnic majority in this township. The first syllable stems from the autonym of the group /<sup>h</sup>ʂu-<sup>h</sup>hǐ/, literally ‘the Shu people’,

In Shuǐluò, the Kami reside in the north of the township, with the Xùmǐ and Púmǐ people as their neighbors. The townships of Mǎirì and Dōngláng are Kami monoethnic. The township of Mǎidilóng is Kami and Chinese mixed. The townships of Tángyāng and Bówō are mixed Kami, Nosu, and Chinese. To their north, the Kami border on the Tibetan-speaking counties of the Gānzī 甘孜 <dkar mdzes> Tibetan Autonomous Prefecture (see Map 1). According to my language consultants, the Kami variety of Shuǐluò is mutually intelligible with the Tibetan dialect of Dàochéng 稻城 <'dab pa>.

Kami speakers are by and large trilingual in Kami, Púmǐ, and South-West Mandarin. Púmǐ used to be the lingua franca of the area, a role that is taken over by Mandarin. In my observation, older people use Púmǐ to speak with others whose mother tongue is different, whereas younger speakers use Mandarin for this purpose. In addition, many Kami also speak the languages of the ethnic groups with whom they share a border, i.e. the Shǐxīng language in Shuǐluò, and the Nosu language in Tángyāng and Bówō.

Based on mutual intelligibility, speakers of Kami recognize two sub-dialects of their language: that of Shuǐluò, Mǎirì, and Dōngláng, on the one hand, and that of Tángyāng, Bówō, and Mǎidilóng, on the other hand. While the precise nature of differences between the two sub-dialects remains to be investigated, it is conceivable that these differences are mainly due to the influence of the languages of the respective ethnic groups, that is, Shǐxīng and Nosu, with which the Kami share a border.

The present work is limited to the sub-dialect of Shuǐluò, Mǎirì, and Dōngláng, as represented by the speech of Shuǐluò. Overall, Kami is inhomogeneous. This is to say that every single Kami-speaking village has its own variety with distinctive phonological, morphological, and lexical features. My work with four language consultants, all from different villages, reveals a wide array of inter-village variation, ranging from different segmental inventories, different tonal patterns in polysyllabic words, to words traceable to different WT etymons (see §2.2 and further).<sup>5</sup>

### 1.1. Kami: Previous Studies, Linguistic Position

Kami was included in the major linguistic survey of China in the 1950s, and it is listed in comprehensive classifications of the Tibetan dialects of the PRC.<sup>6</sup> However, to my knowledge, no linguistic data or analysis of Kami have ever been released.

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whereas the second syllable means ‘valley’, i.e. ‘valleys of the Shu people’ (Mùlǐ Gazetteers 1995: 133). The name for Mǎirì derives from the Tibetan word for ‘sulfer’, <mu zi>, which used to be produced in the area (Mùlǐ Gazetteers 1995: 154). According to Mùlǐ Gazetteers (1995: 153), “Dōngláng” stands for ‘spirit of the tiger’. However, given the Chinese transliteration of the name, it appears to rather derive from <dom bla ma?> ‘spirit of the bear’. “Tángyāng” comes from an earlier “同窩” *tóngwō*, meaning ‘plain, flatlands’, WT <thang pa> (Mùlǐ Gazetteers 1995: 155). “Bówō” allegedly comes from the word for ‘wine jug’, given the elongated shape of this township (Mùlǐ Gazetteers 1995: 156). The Tibetan etymology of this word is unclear to me. Finally, “Mǎidilóng” means ‘valley of Muti Konka’, <mu ti(g) rong> (Mùlǐ Gazetteers 1995: 157). Muti Konka (麥地貢嘎, <mu ti(g) gangs dkar>) is a mountain at the border of Mùlǐ and Jiùlóng counties.

<sup>5</sup> An example of a word that is traceable to different WT etymons in different villages is ‘rust’: /<sup>h</sup>tsɔ/ <gtsa> for my main consultant vs. /<sup>h</sup>zɔ/ <g.ya> for my other consultants.

<sup>6</sup> These comprehensive classifications include Gésāng (1964), and Qú and Jīn (1981). Curiously, Kami is no longer included in the later revised edition of Gésāng (1964), e.g. Gésāng and Gésāng (2002). Neither is it incorporated in the detailed classification in Zhāng (1993).

In Gésāng (1964), Kami belongs to the southern cluster of Kham dialects. Besides Kami, this cluster comprises a large number of dialects, including the dialects of Gānzī Prefecture, the dialects of Dìqìng 迪慶 <bde chen> Tibetan Autonomous Prefecture in Yúnnán Province, and some dialects of Chāngdū 昌都 <chab mdo> Prefecture in Tibet. Bātáng 巴塘 Tibetan <'ba' thang> is held to be representative of this cluster. Hence, references to this dialect, both in terms of data and analysis thereof (Gésāng 1989, Dài and Huáng 1991) will be made throughout the present article.

The southern Kham cluster in Gésāng (1964) corresponds to two distinct clusters in the classification of Qú and Jīn (1981). These clusters are (1) Eastern (including the dialects of Gānzī Prefecture and those of Chāngdū Prefecture), and (2) Southern (including Kami and the dialects of Dìqìng Prefecture). The criteria underlying this classification are supposedly more fine-grained than those in Gésāng (1964), hence yielding a more detailed classification scheme. Unfortunately, as far as I am aware, the precise combination of features underlying either of these two clusters has never been made explicit.

Overall, Kami fits well into the “Kham-profile” in that it combines a number of features that are held to be distinctive of this group, as outlined in Hú (1991: 191-198), Zhāng (1993), and Gésāng and Gésāng (2002: 72-91).<sup>7</sup> The ensuing description and discussion are built against the background of the best-recorded Kham dialects Bātáng and Dégé 德格 <sde dge>, and the documented dialects of Dìqìng Prefecture: Zhōngdiàn 中甸 <rgyal thang> (Lù 1990, Wáng 1996, Hongladarom 1996) and Dōngwàng 東旺 <gtor ba rong> or <rter ma rung> (Bartee, this volume). This procedure, I argue, enables us to (1) situate Kami in a broader regional context, (2) test the assumption that Kami forms one cluster with dialects of Dìqìng Prefecture, and finally, (3) detect possible non-Tibetan, idiosyncronic features of Kami to be potentially interpreted as indicative of contact-induced areal phenomena.

## 1.2. Data Sources and Structure of the Article

The phonological and lexical study of Kami is based on materials I collected during several field trips. I started working on Kami in 2006, in connection with my ongoing work on the Shǐxīng language, with which Kami is in close contact. As my original motivation was essentially to gather supporting data for my study of Shǐxīng, I limited myself to the Kami variety of Shuǐluò. I continued working on Kami in 2008 and 2009 and have so far worked with four speakers: three male, all in their 50s, and one female, in her 40s. The present study is essentially based on my work in 2009 with the language consultant with whom I had the opportunity to work the longest of all consultants, and whose speech, accidentally, maintains more segmental phonemic distinctions than any of the three other consultants: Mr. Yáng Lǚróng Túdīng 楊魯絨圖丁 from the Qílā village (hereafter, the main consultant). His full name (including the house name, see §4.1.1) is

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<sup>7</sup> That said, however, I keep in mind that many a characteristic Kham feature is too general and non-committal to make Kham (which is a rather heterogeneous collection of dialects) a coherent group, see Denwood (1999: 31-32) and Sun (2003: 794-796) for discussion. Nonetheless, in the absence of a more rigorous classification, I will use the proposed characteristic features as indications of most salient regional tendencies, whether retentions (e.g. simplified consonant clusters, voiced obstruent initials) or convergent developments (e.g. syllable canon reduction and tones).

/ʎᵗᵢ-ʰra ʰja-ʎᵗᵢ ʰlu-ʰzũ ʎᵗᵢ-ʰdᵢ/ <blo bzang stobs ldan>. Essential phonological differences between consultants are commented upon throughout the text.

The article is organized as follows. Section 1 is this introduction. Section 2 outlines synchronic Kami phonology. Section 3 traces the origins and developments of this phonological system from Old Tibetan (hereafter OT). The sound system of OT essentially refers to the phonological system underlying traditional Tibetan orthography, which for the most part can be recovered through a comparison of the modern dialectal reflexes of the orthographic forms. Section 4 comments on the idiosyncratic (as seen from Tibetan dialects) lexical and structural features of Kami. Section 5 provides a summary discussion. I conclude this article with an English-Kami word list of approximately 1,500 common words (from my main consultant).

## 2. Synchronic Phonology

### 2.1. Syllable Structure and Word Structure

The canonical Kami syllable minimally consists of an obligatory vowel and a tone. It may also contain up to three optional elements, in the following linear structure: (C)(C)V(V), where C stands for consonant, V stands for vowel, the two vowel-symbol-notation stands for diphthong, and parentheses indicate optional constituents. The only possible initial consonant clusters are prenasalized voiced stops and affricates and the cluster /hʃ/. Vowel-initial words are usually preceded by a non-phonemic glottal stop.

V	/ʎᵗᵢ/ ‘to come’
VV	/ʎue/ ‘light, rays’
CV	/ʎdu/ ‘stone’
CVV	/ʰpᵗᵗ-ʰdui/ ‘blister’
CCV	/ʎNdə/ ‘to exist; to reside; to sit’, /ʰhʃə/ ‘god, Buddha’
CCVV	/ʰNduẽ/ ‘to recite, to chant’

*Table 1. Kami syllable structure*

Similar to its linguistic neighbors, Kami is phonologically monosyllabic with a strong tendency towards disyllabicity in its lexicon. In the surveyed sample of approximately 2,000 lexical items, 27 percent of words are monosyllabic, over 65 percent are disyllabic, and the remainder are trisyllabic and quadrisyllabic. Trisyllabic and quadrisyllabic words tend to be made up of compounds, e.g. /ʎᵗᵢ-ʎgo-ʰwã/ ‘roe of fish’ (< /ʎᵗᵢ/ ‘fish’, /ʎgo-ʰwã/ ‘egg’), /ʎdʒa-ʰʃe ʎxu-ʎwɔ/ ‘traditional Tibetan hat’ (> /ʎdʒa-ʰʃe/ ‘India’, /ʎxu-ʰwɔ/ ‘hat’). A handful of trisyllabic words are also monomorphemic, e.g. /ʰlᵗᵢ-ʰNbu-ʰᵗᵢ/ ‘elephant’, /ʰja-ʰbu-ʰlo/ ‘beige, light blue-grey’.

The disyllabic word is the domain of a number of irregular phonological processes, including spirantization, voicing (which is at times accompanied by spirantization), and resyllabification (see §3.4 for discussion and exemplification). These processes target the initial of a second syllable, resulting in slightly different segmental inventories in the first and the second syllable of the word.

### 2.2. Initials

Kami Tibetan has an elaborate onset system, which comprises forty-seven simple initial consonants and eight complex initials.

### 2.2.1 Simple Initials

Consonant phonemes in Kami represent seven distinct places of articulation and six distinctive manners of articulation. The consonant phonemes are listed in Table 2 according to place and manner of articulation (/r/ is phonetically [ɹ] or [ʒ], in free variation).

Bilabial	Dental	Retroflex	Palato-alveolar	Alveo-palatal	Velar	Glottal
p, p <sup>h</sup> , b	t, t <sup>h</sup> , d				k, k <sup>h</sup> , g	
	ts, ts <sup>h</sup> , dz	tʂ, tʂ <sup>h</sup> , dzʑ	tʃ, tʃ <sup>h</sup> , dʒ	tɕ, tɕ <sup>h</sup> , dʑ		
	s, s <sup>h</sup> , z		ʃ, ʃ <sup>h</sup> , ʒ	ɕ, ɕ <sup>h</sup> , ʑ	x~χ, ɣ~ɣ	h
m, m̥	n, n̥			ɲ, ɲ̥	ŋ, ŋ̥	
	l, l̥					
w	r, r̥			j		

Table 2. Kami consonant phonemes (Main consultant)

All phonemes may appear both in the word-initial and in the second-syllable-initial position, with the exception of /r/, which is restricted to the second-syllable-initial position. This phoneme tentatively results from word-internal mutation, involving rhotacism (see §3.4). The remainder of this section discusses Kami consonant phonemes by place of articulation.

#### (1) Stops

Kami stops are pronounced at three different places of articulation: bilabial, dental, and velar. Kami stops contrast in voicing; voiceless stops are further distinguished by aspiration, e.g.:

- /b/ /<sup>H</sup>bɔ/ ‘to bury’, /<sup>L</sup>tʂi-<sup>H</sup>bə/ ‘bell’, /<sup>L</sup>bu/ ‘breath’
- /p/ /<sup>L</sup>pɔ/ ‘cow’, /<sup>H</sup>pə/ ‘(animal) hair, fur; son’, /<sup>H</sup>pu/ ‘to move’
- /ph/ /<sup>H</sup>p<sup>h</sup>ɔ/ ‘father’, /<sup>H</sup>p<sup>h</sup>ə/ ‘malt dregs after brewing beer’, /<sup>H</sup>p<sup>h</sup>u/ ‘to punch’
- /d/ /<sup>L</sup>da/ ‘to lick’, /<sup>L</sup>du/ ‘to poke, to stab’, /<sup>L</sup>du/ ‘stone’
- /t/ /<sup>H</sup>ta/ ‘tiger’, /<sup>H</sup>tɣ/ ‘to scatter, to cast’, /<sup>H</sup>tu/ ‘to pluck, to pick (flowers)’
- /t<sup>h</sup>/ /<sup>H</sup>t<sup>h</sup>a/ ‘texture, web’, /<sup>H</sup>t<sup>h</sup>ɣ/ ‘fireplace, stove, hearth’, /<sup>H</sup>t<sup>h</sup>u/ ‘grain, crops’
- /g/ /<sup>H</sup>gɔ/ ‘saddle’, /<sup>L</sup>gu/ ‘to wait’, /<sup>H</sup>gu/ ‘door; to divide, to share’
- /k/ /<sup>H</sup>kɔ/ ‘gutter; pillar’, /<sup>H</sup>kɣ/ ‘to cover’, /<sup>H</sup>ku/ ‘to carve, to engrave’
- /k<sup>h</sup>/ /<sup>H</sup>k<sup>h</sup>ɔ/ ‘mouth’, /<sup>H</sup>k<sup>h</sup>ɣ/ ‘needle’, /<sup>H</sup>k<sup>h</sup>u-<sup>H</sup>nbɔ/ ‘house’

#### (2) Affricates

Kami affricates include more contrasts of place of articulation than stops, namely four: dental, retroflex, palato-alveolar, alveo-palatal. Words with palato-alveolar affricates are

infrequent in the surveyed sample. Similar to stops, Kami affricates contrast in voicing; voiceless unaspirated affricates further contrast with their voiceless aspirated counterparts:

/dz/	/ʰti-ʰdza/ ‘saber, small sword’, /ʰdzɔ̃/ ‘county’, /ʰdzui/ ‘to pasture, to herd’
/ts/	/ʰtsa/ ‘to sieve, to sift’, /ʰtso/ ‘root’, /ʰtsu-ʰwo/ ‘grass’
/tsʰ/	/ʰtsʰa/ ‘to marry a woman’, /ʰtsʰɔ̃/ ‘salt’, /ʰtsʰu/ ‘lake; to be busy’
/dz/	/ʰdzɔ̃/ ‘enemy’, /ʰdzɔ̃/ ‘honey; sugar’
/tʂ/	/ʰtʂa/ ‘to fear, to be afraid of’, /ʰtʂɔ̃/ ‘(human) hair’, /ʰtʂɔ̃/ ‘to swell’
/tʂʰ/	/ʰtʂʰa/ ‘blood’, /ʰtʂʰɔ̃/ ‘thin’, /ʰtʂʰɔ̃/ ‘beads, rosary’
/dʒ/	/ʰdʒɔ̃/ ‘Chinese; hundred’, /ʰdʒɔ̃/ ‘intestines, bowels’
/tʃ/	/ʰtʃa/ ‘to weigh’, /ʰtʃɔ̃/ ‘wall’, /ʰtʃuē/ ‘to put on, to wear’
/tʃʰ/	/ʰtʃʰə/ ‘dog’, /ʰtʃʰue/ ‘thou, second person singular pronoun’
/dz/	/ʰdzi/ ‘heavy’, /ʰdza-ʰmu/ ‘heavy’
/tɕ/	/ʰtɕa/ ‘iron’, /ʰtɕɔ̃/ ‘tea’, /ʰsʰu-ʰtɕɔ̃/ ‘hoof, clout’
/tɕʰ/	/ʰtɕʰa ʰtɕi/ ‘one pair’, /ʰtɕʰə/ ‘water’, /ʰtɕʰo/ ‘to be enough’

Kami exhibits a typologically unusual opposition between the palato-alveolar and the alveo-palatal places of articulation for affricates and fricatives. This opposition has been argued to be not optimal in terms of maintaining sufficient perceptual contrast and therefore, if not altogether impossible, then in the least, highly marked (Hall 1997: 66-70).<sup>8</sup>

This opposition in Kami is mostly constrained to the environment before non-high non-front vowels, whereas the two series are not distinguished between front vowels. In addition, before the schwa, the contrast between two series may variously be present (for the initials /tʃʰ/ and /tɕʰ/) or neutralized (for the initials /tʃ/ and /tɕ/). Consider some examples (also as contrasted with retroflex affricates):

/ʰtʃa/ ‘to weigh’	/ʰtɕa/ ‘iron’	/ʰtʂa/ ‘to fear, to be afraid of’
/ʰtʃʰə/ ‘dog’	/ʰtɕʰə/ ‘water’	/ʰtʂʰə/ ‘bed’
/ʰtʃʰue/ ‘thou’	/ʰtɕʰue ʰtʂa/ ‘to be tired’	/ʰtʂʰue/ ‘to meet, to come across’
/ʰNdʒu/ ‘quick’	/ʰNdʒu-ʰwā/ ‘tail’	/ʰNdʒu/ ‘to walk’
/ʰtɕi/ ‘one’ (no contrast with /ʰtʃi/)		/ʰtʂi/ ‘monkey; to ask; to wrap’
/ʰtɕə/ ‘ten; to scoop’ (no contrast with /ʰtʃə/)		/ʰtʂə/ ‘knife; to wash; to write’
/ʰtʃɔ̃/ ‘wall’ (no contrast with /ʰtɕɔ̃/)		/ʰtʂɔ̃/ ‘cold’
/ʰdʒɔ̃/ (no contrast with /ʰdzɔ̃/) <sup>9</sup> ‘bowels’		/ʰdʒɔ̃/ ‘village’

### (3) Fricatives

<sup>8</sup> Among Tibetan dialects, the same opposition is also attested in Báimǎ (Zhāng 1994a, 1994b, 1997, Huáng and Zhāng 1995). The respective OT origins of palato-alveolar and alveo-palatal phonemes in Kami and Báimǎ are, however, distinct. The OT origins of these phonemes in Kami are discussed in §3. Báimǎ palato-alveolar affricates mostly develop from the original OT palato-alveolar affricates, whereas Báimǎ alveo-palatal affricates mostly develop from OT *Ky*- and *Kr*- clusters. (Capital *K*- and *P*- stand for velar and labial stop consonants, respectively.)

<sup>9</sup> There is, however, a prenasalized cluster with this phoneme, i.e. /ʰNdʒɔ̃/ ‘Moso, Na people’.



Kami fricatives are pronounced at five different places of articulation: dental, palato-alveolar, alveo-palatal, velar(-uvular), glottal. Dental, palato-alveolar, alveo-palatal, and velar fricatives contrast in voicing (viz. /s/ vs. /z/, /ʃ/ vs. /ʒ/, /ç/ vs. /ʒ/, /x/ vs. /ɣ/). The voiceless glottal fricative /h/ does not have a voiced counterpart. Consider some examples of the former three voiceless-voiced pairs:

/ <sup>L</sup> sa- <sup>H</sup> mõ/ ‘edibles, food’	/ <sup>L</sup> za- <sup>H</sup> bõ/ ‘deaf’ <sup>10</sup>
/ <sup>L</sup> ʃo/ ‘bird; chicken’	/ <sup>L</sup> ʒo/ ‘spouse’
/ <sup>H</sup> çĩ/ ‘wood’	/ <sup>H</sup> ʒĩ/ ‘later, hereafter’

I analyze the velar fricatives as having two allophonic realizations, viz. [x] and [χ], and [ɣ] and [ʁ]. The uvular pronunciation is common in the word-initial position before back vowels, whereas the velar pronunciation is common in the word-initial position with the front vowel /ɛ/, and in the second-syllable-initial position with all vowels.<sup>11</sup> In the word-initial position, my main consultant accepts [x] and [χ] to be exchanged without a change or loss of meaning, e.g. [<sup>H</sup>xu]~[<sup>H</sup>χu] ‘food, cooked rice’. He also accepts [ɣ] and [ʁ] to be interchanged before /ɛ/ without a change or loss of meaning, e.g. [<sup>L</sup>ɣɛ]~[<sup>L</sup>ʁɛ] ‘to shave’. In other instances (when followed by non-high non-front vowels), the word-initial voiced fricative is distinctly uvular, [ʁ], e.g. [<sup>H</sup>ʁo] ‘rainbow’. In the absence of minimal pairs in my corpus, velar and uvular fricatives can in principle be treated as allophic phonemes. Nonetheless, I argue that uvular allophones deserve a special note, given that (1) uvular phonemes are infrequent in Tibeian dialects, and (2) in Kami, the OT origins of uvular phonemes are distinct from those of velar phonemes. For this reason, I keep velar and uvular allophones distinct in transcriptions, transcribing them as perceived. For example:

/ <sup>L</sup> a- <sup>H</sup> xə/ ‘uncle’	/ <sup>L</sup> ra- <sup>H</sup> ɣə/ ‘sheepfold, pen; downstairs’
/ <sup>H</sup> χo/ ‘to slaughter’	/ <sup>H</sup> ʁo/ ‘rainbow’

The glottal voiceless fricative is infrequent and occurs for the most part in the second-syllable-initial position, where, in some instances, it appears to derive from the lenition of /p<sup>h</sup>/ (see §3.4.1 for further discussion). For example:

/<sup>H</sup>hɔ-<sup>L</sup>ku/ ‘to understand’  
 /<sup>H</sup>hu-<sup>H</sup>h<sup>a</sup>/ ‘diligent, conscientious’  
 /<sup>L</sup>p<sup>h</sup>u-<sup>H</sup>ha/ ‘boar, male pig’ (</p<sup>h</sup>u-/ (bound root) ‘male’, /<sup>H</sup>p<sup>h</sup>a/ ‘pig’)

The dental, the palato-alveolar and the alveo-palatal voiceless fricatives are further distinguished by aspiration, viz. /s/ vs. /s<sup>h</sup>/, /ʃ/ vs. /ʃ<sup>h</sup>/ and /ç/ vs. /ç<sup>h</sup>/. For example:

<sup>10</sup> Some words with the initial /z/ in the speech of my main consultant are pronounced with the initial /dz/ by my other consultants. For example: ‘shoes, boots’: main consultant /<sup>L</sup>za-<sup>H</sup>ku/, other consultants: /<sup>L</sup>dza-<sup>H</sup>ku/.

<sup>11</sup> In fact, in the latter position, velar fricatives are the lenited allophones of the velar stops, e.g. /<sup>H</sup>s<sup>h</sup>o-<sup>H</sup>xõ/ ‘thatched house’ (< /<sup>H</sup>s<sup>h</sup>o/ ‘straw’, /<sup>H</sup>k<sup>h</sup>õ/ ‘house’), /<sup>L</sup>du-<sup>H</sup>ɣɛ/ ‘white stone’ (< /<sup>L</sup>du/ ‘stone’, /<sup>L</sup>ka-<sup>H</sup>kɛ/ ‘white’), see §3.4.1-2 for discussion.

/Lsa-Hmō/ ‘edibles’                      /Ls<sup>h</sup>a-Hmō/ ‘nail, fingernail’  
 /Lfa-Hmō/ ‘hen’                              /L<sup>h</sup>fa-Hmō/ ‘broom’  
 /Hɕi/ ‘louse’                                  /Hɕ<sup>h</sup>i/ ‘to know (to do smth), to be able’

Similar to affricates, Kami fricatives exhibit a typologically unusual contrast between the palato-alveolar and the alveo-palatal places of articulation. Also similar to affricates, this contrast is essentially maintained before non-high non-front vowels (and also before the schwa in the case of /z/ and /ʒ/), whereas it is neutralized before the high front vowel /i/. For example:

/Lɕa-Hpə/ ‘thing, goods’                  /Lfa-Hpə/ ‘feather, plumage’  
 /Lza-HNbɔ/ ‘raw’                              /Lza-Hwɔ/ ‘poplar’  
 /Hzə/ ‘four’                                      /Hʒə/ ‘turquoise’

/Lɕi/ ‘little bird; sparrow’, /Hkō-Hzi/ ‘footprint’

The typologically infrequent opposition between palato-alveolar and alveo-palatal affricates and fricatives has been attested only in the speech of my main consultant. In the speech of the remaining three consultants, words with palato-alveolar affricates in the speech of my main consultant are pronounced with alveo-palatal affricates; whereas words with palato-alveolar fricatives in the speech of my main consultant are rendered as dental fricatives in the speech of my other consultants. For example:

‘dog’: main consultant: /Htʃ<sup>h</sup>ə/, other consultants: /Htɕ<sup>h</sup>ə/  
 ‘bird, chicken’: main consultant: /Lʃɔ/, other consultants: /Lsɔ/

Two exceptions to this generalization can be noted: ‘sour’ and ‘wolf’. In the speech of my main consultant, these words are pronounced with a palato-alveolar voiceless fricative initial: /Hʃu-Hkua/ and /Hʃɔ/, respectively. Instead of having an otherwise regular correspondence with the voiceless dental fricative, these words in the speech of my other consultants feature a distinct initial phoneme, /ʃ/, i.e. /Hʃu-Hkua/ ‘sour’ and /Hʃɔ/ ‘wolf’. The elimination of the palato-alveolar series in the speech of other consultants and the inclusion of a new retroflex phoneme brings the inventory of consonantal phonemes in their speech to a total of 42, as summarized in Table 3:

Bilabial	Dental	Retroflex	Alveo-palatal	Velar	Glottal
p, p <sup>h</sup> , b	t, t <sup>h</sup> , d			k, k <sup>h</sup> , g	
	ts, ts <sup>h</sup> , dz	tʂ, tʂ <sup>h</sup> , dz	tɕ, tɕ <sup>h</sup> , dz		
	s, s <sup>h</sup> , z	ʂ	ɕ, ɕ <sup>h</sup> , ʒ	x~χ, ɣ~ʁ	h
m, m̥	n, n̥		ɲ, ɲ	ŋ, ŋ	
	l, l̥				
w	r, r̥		j		

Table 3. Kami consonant phonemes (Other consultants)

#### (4) Nasals

Kami nasals are pronounced at the bilabial, dental, alveo-palatal, and velar places of articulations.

All Kami nasals show the correlation voiced-voiceless, as the (near) minimal pairs below show. The voiceless nasals, /m̥, n̥, ŋ̥, ɲ̥/ normally have homorganic voiced nasal onsets but voiceless, slightly aspirated release, i.e. respectively, [mm̥ʰ], [nn̥ʰ], [ŋŋ̥ʰ], [ɲɲ̥ʰ].<sup>12</sup>

/ʰmã-ʰŋgi/ ‘chin, jaw’	/ʰmã-ʰχu/ ‘dinner’
/ʰnã/ ‘sky, heaven’	/ʰɲã/ ‘snivel, snot’
/ʰɲi/ ‘eye’	/ʰɲi/ ‘to ripen’
/ʰɲuẽ/ ‘to hunt’	/ʰɲuẽ/ ‘front’

#### (5) Kami liquids and approximants

There are four central approximants and two lateral approximants in Kami: /w/, /j/, /r/, /ʃ/, /l/, /ʎ/. The approximants /l/ and /r/ demonstrate a two-way contrast in voicing. /ʃ/ is restricted to the second-syllable-initial position. Consider these examples:

/w/	/ʰwɔ/ ‘fox’, /ʰwu-ʰli/ ‘cat’
/j/	/ʰjɔ/ ‘hand’, /ʰju/ ‘year’
/l/	/ʰlɔ/ ‘moon; musk deer’, /ʰlu/ ‘bellyband, saddle girth’
/ʎ/	/ʰʎɔ/ ‘water or mountain spirit’, /ʰʎu/ ‘to deceive, to cheat’
/r/	/ʰa-ʰra/ ‘arak, strong liquor, alcoholic drink’, /ʰgu-ʰre/ ‘old’
/ʃ/	/ʰpe-ʰʃra/ ‘Tibetan liquor’, /ʰgu-ʰʃẽ/ ‘doorsill, threshold’

### 2.2.2. Complex Initials

Kami complex initials are prenasalized consonants and the cluster /hʃ/. Only voiced stops and affricates may be prenasalized.<sup>13</sup>

The prenasalized initials are seven voiced compound initials beginning with a homorganic nasal (here notated as “N”):

Nb Nd Ndʒ Ndʒ̥ Ndʒ̣ Ndʒ̤ Ng

Prenasalization is contrastive, as evidenced by the (near) minimal pairs below:

/ʰbõ/ ‘thick, rough, coarse’	/ʰNbõ/ ‘large bamboo basket’
/ʰdɛ/ ‘to brush; to whet (a knife)’	/ʰNdɛ/ ‘to shiver, to tremble’
/ʰdzui/ ‘to herd, to drive (animals)’	/ʰNdzui/ ‘finger’
/ʰdzõ/ ‘village’	/ʰNdzõ/ ‘to have one’s fill’

<sup>12</sup> Voiceless nasals in Shǐxīng (Chirkova 2009) and in Dōngwàng (Bartee, this volume) appear to have similar phonetic values.

<sup>13</sup> I note, however, one exception with a prenasalized voiceless aspirated stop: /ʰta-ʰNtʰui/ [ʰta-ʰŋtʰui] ‘reins’.

/ʌdʒɔ̃/ ‘intestines, bowels’  
 /ʰdʒi/ ‘heavy’  
 /ʰgu/ ‘door’

/ʌNdʒu/ ‘quick’  
 /ʌNdʒi/ ‘penis’  
 /ʰNgu/ ‘head’

The cluster /hʃ/ occurs infrequently, e.g. /ʰhʃo/ ‘god, Buddha’, /ʰhʃã/ ‘shoe’, /ʌja-ʰhʃo/ ‘tool, instrument’, /ʰma-ʌhʃũ/ ‘to drop, to fall’.

Seen in the context of Kham dialects (Zhāng 1993; Hú 1991: 191-198; Gésāng and Gésāng 2002: 73-82), Kami consonant phonemes for the most part conform to the characteristic tendencies displayed by the group, namely: (1) stops, affricates, fricatives, and nasals all contrast in voicing; (2) voiceless stops, affricates and fricatives also contrast in aspiration (with the exception of /x~χ/); (3) consonant clusters are by and large restricted to prenasalized clusters (in Kami, with an additional cluster /hʃ/).

On a more erratic side, Kami (1) has a large number of consonantal phonemes, (2) exhibits the typologically unusual opposition between the palato-alveolar and the alveo-palatal places of articulation, and (3) has rather unusual uvular allophones of velar fricatives.

### 2.3. Rhymes

Kami has ten oral vowel phonemes, six nasal vowel phonemes, and five diphthongs (including one nasal diphthong, viz. /uẽ/), in all 21 finals. The vowel phonemes are charted in Table 4.

<b>oral</b>	i	e	ɛ	a	ə	ʊ	u	ʏ	o	ɔ
<b>nasal</b>	ĩ	ẽ		ã		ũ	ũ			õ
<b>diphthong</b>	ei, ui	ue		ua						
<b>nasal diphthong</b>		uẽ								

Table 4. Kami rhymes (Main consultant)

After palatal initials, phonemes /u/, /ũ/, /ui/, /ue/, and /uẽ/ are phonetically [y], [ỹ], [yi], [ye], and [yẽ], respectively. For example, /ʌju/ [ʌjy] ‘year’, /ʌŋũ-ʰwã/ [ʌŋỹ-ʰwã] ‘bamboo’, /ʌŋue~ʰŋue/ [ʌŋye~ʰŋye] ‘two’.

Of the above phonemes, /a/, /i/, /u/, /ɔ/ and /ue/ have been attested in the word-initial position. Oral, nasal and diphthong phonemes in Kami are discussed presently.

#### (1) Oral vowels

The phoneme /ɔ/ has two allophonic realizations in free variation /ɔ/ and /ɑɔ/, respectively. /o/ is phonetically [ou], /ʊ/ is phonetically [ʊʏ], and /ɤ/ is phonetically [ɤʷ].

Close and close-mid back vowels contrast in rounding, i.e. /u/ vs. /ʊ/, and /o/ vs. /ɤ/. For example:

/u/: /ʰtu/ ‘to cut off’, /ʌdu/ ‘stone’, /ʰku/ ‘to carve, to engrave’, /ʰsu/ ‘tooth’  
 /ʊ/: /ʌtu/ ‘poison’, /ʌdu/ ‘to poke, to stab’, /ʌNgu ʰku/ ‘to nod’, /ʌsu/ ‘to bark’

/o/: /<sup>h</sup>to/ ‘to be hungry’, /<sup>l</sup>t<sup>h</sup>a-<sup>h</sup>ko/ ‘vertical’, /<sup>h</sup>so/ ‘fate’  
/ɤ/: /<sup>h</sup>t<sup>h</sup>ɤ/ ‘fireplace, stove, hearth’, /<sup>h</sup>kɤ/ ‘to cover’, /<sup>h</sup>sɤ/ ‘shallow’

The mid vowels contrast two degrees of vowel height: /e/ vs /ɛ/ and /o/ vs /ɔ/, as in the following examples:

/e/: /<sup>l</sup>te/ ‘to drive away, to chase’, /<sup>h</sup>de/ ‘plate’, /<sup>h</sup>ke/ ‘voice’, /<sup>h</sup>se/ ‘to kill’  
/ɛ/: /<sup>l</sup>tɛ/ ‘flag; to win’, /<sup>h</sup>dɛ/ ‘to rub, to smear’, /<sup>h</sup>kɛ/ ‘fat (meat)’, /<sup>h</sup>sɛ-<sup>h</sup>wɔ/ ‘new’  
/o/: /<sup>h</sup>to/ ‘to be hungry’, /<sup>l</sup>t<sup>h</sup>a-<sup>h</sup>ko/ ‘vertical’, /<sup>h</sup>so/ ‘fate’  
/ɔ/: /<sup>h</sup>tɔ/ ‘horse’, /<sup>l</sup>Ndɔ/ ‘arrow’, /<sup>h</sup>ko/ ‘gutter; pillar’, /<sup>l</sup>ʒu-<sup>h</sup>sɔ/ ‘widow’

Here are examples of the remaining oral vowel phonemes:

/i/: /<sup>l</sup>tɕi/ ‘steelyard’, /<sup>h</sup>di/ ‘cooking pot’, /<sup>h</sup>ki/ ‘thread’, /<sup>h</sup>si/ ‘bright’  
/ə/: /<sup>l</sup>pə-<sup>h</sup>tə/ ‘calf’, /<sup>l</sup>Ndə/ ‘to be; to sit; to dwell’, /<sup>l</sup>ɕi-<sup>l</sup>kə-<sup>h</sup>rə/ ‘fine’, /<sup>l</sup>sə-<sup>h</sup>pɔ/ ‘belly’  
/a/: /<sup>h</sup>ta/ ‘tiger; mark’, /<sup>l</sup>da/ ‘to lick’, /<sup>h</sup>ka (ɕi)/ ‘(one) cent’, /<sup>h</sup>sa/ ‘to burn; hot’

## (2) Nasal vowels

The phoneme /ũ/ is infrequent. /ã/ is phonetically [ã̃]. Consider the following examples of nasal vowels:

/ĩ/: /<sup>h</sup>tĩ/ ‘above’, /<sup>h</sup>dĩ/ ‘to fly’, /<sup>h</sup>ɕĩ/ ‘wood’  
/ẽ/: /<sup>h</sup>tẽ/ ‘cover, quilt’, /<sup>h</sup>dẽ/ ‘seven’, /<sup>h</sup>kẽ/ ‘to chase after’, /<sup>h</sup>sẽ/ ‘to breast-feed’  
/ã/: /<sup>l</sup>tã/ ‘tense’, /<sup>h</sup>dã/ ‘to tie up, to bind up’, /<sup>l</sup>jei-<sup>h</sup>kã/ ‘difficult, hard’, /<sup>h</sup>sã/ ‘otter’  
/ũ/: /<sup>h</sup>tũ/ ‘to drink’, /<sup>l</sup>duũ/ ‘to hit’, /<sup>h</sup>kuũ/ ‘to hide something’, /<sup>l</sup>a-<sup>h</sup>suũ/ ‘aunt’  
/ũ/: /<sup>h</sup>duũ/ ‘weed, grass’, /<sup>h</sup>suũ/ ‘three’  
/õ/: /<sup>l</sup>tõ/ ‘bear’, /<sup>h</sup>dõ/ ‘face’, /<sup>h</sup>kõ/ ‘foot’, /<sup>h</sup>sõ/ ‘hemp’

## (3) Diphthongs

In terms of relative sonority of the two sounds involved, Kami diphthongs distinguish between (1) two falling (or descending) diphthongs, namely /ei/ (/ej/) and /ui/ (/uj/), and (2) three rising (or ascending) diphthongs, namely /ue/ (/we/), /uẽ/ (/wẽ/), /ua/ (/wa/).

The diphthong /ua/ co-occurs only with velar stops, e.g. /<sup>l</sup>gua-<sup>h</sup>fu/ ‘yak’, /<sup>l</sup>k<sup>h</sup>ua-<sup>h</sup>la/ ‘(wooden) basin’, the suffix /kua/ in some adjectives, e.g. /<sup>l</sup>sa-<sup>h</sup>kua/ ‘hard’. Marginally, there is also the diphthong /ie/, attested in a handful of words, e.g. /<sup>h</sup>kie/ ‘ladder’, /<sup>l</sup>p<sup>h</sup>ie/ ‘back, behind, outside’.

Consider examples of the remaining diphthongs:

/ei/: /<sup>l</sup>tei/ ‘that, there’, /<sup>l</sup>kei/ ‘clothes’, /<sup>h</sup>ɕei/ ‘plow’  
/ui/: /<sup>l</sup>mo-<sup>h</sup>t<sup>h</sup>ui/ ‘matches’, /<sup>h</sup>p<sup>h</sup>ɔ-<sup>h</sup>dui/ ‘blister’, /<sup>l</sup>sui/ ‘side’  
/ue/: /<sup>h</sup>p<sup>h</sup>a-<sup>h</sup>tue/ ‘to disappear’, /<sup>l</sup>ja-<sup>h</sup>kue/ ‘bracelet’, /<sup>h</sup>fue/ ‘to use’  
/uẽ/: /<sup>h</sup>Nduẽ/ ‘to read out loud’, /<sup>h</sup>kuẽ/ ‘to wear’, /<sup>h</sup>suẽ-<sup>h</sup>lu/ ‘pea’

The inventory of vowel phonemes in the speech of my main consultant is again the most elaborated among all surveyed consultants. In the speech of my other consultants, /ei/ merges with /e/, and /ü/ merges with /õ/. This yields the inventory of 19 phonemes, as charted in Table 5.

<b>oral</b>	i	e	ɛ	a	ə	u	ʊ	ɣ	o	ɔ
<b>nasal</b>	ĩ	ẽ		ã			ũ			õ
<b>diphthong</b>	ui	ue		ua						
<b>nasal diphthong</b>		uẽ								

Table 5. *Kami rhymes (Other consultants)*

One final point concerning vowel phonemes is that in the majority of cases, vowel phonemes remain unchanged whether in monosyllabic words or, in the same root, in the first syllable of a disyllabic word. One notable exception is /ɔ/, which, in the latter position, frequently changes to /a/. For example, /ʃɔ/ ‘bird’ vs. /ʃa-ʰpə/ ‘feather, plumage’.

Seen against the background of the best-documented Kham dialects (Gésāng 1989; Hú 1991: 192; Qú 1991: 7, 16, 88-89; Zhāng 1993: 303-304; Gésāng and Gésāng 2002: 76-79), Kami vowel inventory again confirms most features that are held as characteristic of the Kham group. In its more extended system (that of my main consultant), Kami has five vowels (/a, i, u, e, o/). It also has many innovative vowels (e.g. /ɛ/ and /ə/) and many diphthongs. Vowel length is not contrastive in this dialect.

On a more erratic side, unlike many Kham dialects (e.g. Gésāng and Gésāng 2002: 77), Kami does not distinguish between the front and back vowels *a*: /a/ vs. /ɑ/. Furthermore, Kami has an unusually large inventory of vowel phonemes. In addition, a striking feature of this dialect is that it does not have the phonemic glottal stop in the coda position.

#### 2.4. Tone and Prosodic Organization

Kami has a simple tonal system, contrasting two tones in monosyllabic words: High vs. Low.<sup>14</sup> This robust opposition is confirmed in the speech of all language consultants. The precise phonetic values of the tones, on the other hand, vary among the consultants. The opposition is (i) between a low rising (13) and a high level tone (55) in the speech of my main consultant, (ii) between a low rising (13) and a high falling tone (53) in the speech of two other consultants, and (iii) between a mid-level (33) and a high falling tone (53) in the speech of the remaining consultant. The binary contrast is here treated as the register opposition, notationally, /L/ vs. /H/.<sup>15</sup> Consider these examples:

<sup>14</sup> In addition a small number of monosyllabic roots with voiced initials have unstable tones, e.g. /ɲue-ʰɲue/ ‘two’, /ɲdẽ-ʰɲdẽ/ ‘seven’ (to be further discussed in §3.3).

<sup>15</sup> In many Tibetan dialects, when uttered in isolation, low-register syllables are characterized by a rise in pitch, whereas high-register syllables are characterized by a fall in pitch (Sun 1997: 491, 499). Low register roots and words in Kami are here analyzed as combining a lexical low tone and a boundary H tone, added post-lexically. The addition of post-lexical H tone stems from the prohibition of all L-words in this

/Lgu/ ‘to kneel’	/Hgu/ ‘to divide, to split’
/Ltu/ ‘poison’	/Htu/ ‘to spurt, to spray’
/Ltʂa/ ‘precipice, cliff’	/Htʂa/ ‘to fear, to be afraid of’
/Lɕi/ ‘field, land’	/Hɕi/ ‘wood, tree’
/Lɲi/ ‘fire’	/Hɲi/ ‘eye’

In lexical words of over one syllable, three tonal patterns are attested. The same three-way distinction in tone patterns is also attested in noun-noun, noun-adjective, and verb-object compounds. The tonal contrasts can be any of the three possibilities:<sup>16</sup>

(1) H tone on all syllables (/H-...-H/), e.g. /Hp<sup>h</sup>a<sup>h</sup>χɔ/ ‘to slaughter a pig’, /Hti<sup>h</sup>-Hdzi/ ‘wine pot’, /Hja<sup>h</sup>-Hbu<sup>h</sup>-Hlo/ ‘beige, light blue-grey’

(2) a sequence of L tones on all syllables up to the penultimate and H on the last syllable (/L-...-H/), e.g. /Lp<sup>h</sup>a<sup>h</sup>χɔ/ ‘pork’, /Lp<sup>h</sup>a<sup>h</sup>gue/ ‘wild pig’, /Lti<sup>h</sup>-Hdzi/ ‘cigarette’, /Lɛ<sup>h</sup>-Lse<sup>h</sup>-Hɕi/ ‘mulberry tree’

(3) a sequence of H tone on the first syllable and L on all following syllables (/H-...-L/), e.g. /Hp<sup>h</sup>a<sup>h</sup>-Lχɔ/ ‘to slaughter’, /Hp<sup>h</sup>a<sup>h</sup>-Lgue/ ‘to turn one’s head, to turn round’, /Hpi<sup>h</sup>-Ltʂ<sup>h</sup>-Lso/ ‘log raft’

Overall in Tibetan, as argued by Sun (1997: 489), the primary register contrast is borne by the word-initial syllable, whereas tone is neutralized on all remaining syllables. Kami appears to partially conform to this generalization. The tonal pattern of at least some polysyllabic words can be analyzed as conditioned by the lexical tone of the first syllable. If the tone of the first syllable is /H/, the tone of all following syllables will also be H. If the tone of the first syllable is /L/, the tone of all following syllables will also be L. In addition, in the latter case, the final syllable of the polysyllabic domain will carry the post-lexical H tone.<sup>17</sup> Here are some examples:

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language. On monosyllabic words with /L/ tone, both the lexical L tone and the boundary H tone crowd on the only syllable there is, e.g. /Lɲi/ ‘fire’. On words and compounds of two syllables or more, the boundary tone is assigned to the final syllable of the word, e.g. /Lɲi<sup>h</sup>Nbɛ/ ‘to catch fire, to be on fire’ (< /Lɲi/ ‘fire’, /LNBɛ/ ‘to catch’).

<sup>16</sup> An additional observation is that compounds of over two syllables often have one of the three tonal patterns on the leftmost two syllables. The remaining syllables lose their tones and are treated here as extrametrical syllables. Phonetically, these syllables are realized on a low pitch. For example, /LNbu<sup>h</sup>ru<sup>h</sup> tɕɔ/ ‘scented tea’ (< /LNbu<sup>h</sup>ru/ ‘flower’, /tɕɔ/ ‘tea’); /Ldʒa<sup>h</sup>ɣɛ<sup>h</sup> Lxu<sup>h</sup>-Lwo/ ‘traditional Tibetan hat’ (> /Ldʒa<sup>h</sup>ɣɛ/ ‘India’, /Lxu<sup>h</sup>-Lwo/ ‘hat’).

<sup>17</sup> Formally, this process (also shared with the neighboring Shīxīng language, Chirkova and Michaud 2009) can be accounted for as left-to-right tone spreading. In this analysis, tonal patterns in polysyllabic domains are phonetic implementation of the lexical H and L tones on monosyllables. In other words, the /H-H/ and the /L-H/ tonal patterns are the extension of the lexical tones /H/ and /L/, respectively. The mode of association of tones to syllables as one-to-one mapping of tones to available syllables, followed by the spreading of the last tone and the addition of a post-lexical boundary H tone.

/<sup>H</sup>kɔ̃/ ‘foot’ + /<sup>H</sup>zi/ ‘trace’ > /<sup>H</sup>kɔ̃-<sup>H</sup>zi/ ‘footprint’  
 /<sup>H</sup>kɔ̃/ ‘foot’ + /<sup>L</sup>Ndzui/ ‘finger’ > /<sup>H</sup>kɔ̃-<sup>H</sup>Ndzui/ ‘toe’  
 /<sup>L</sup>jo/ ‘hand’ + /<sup>H</sup>zi/ ‘trace’ > /<sup>L</sup>ja-<sup>H</sup>zi/ ‘hand print, finger print’  
 /<sup>L</sup>za/ ‘yak’ + /<sup>H</sup>χɔ/ ‘meat’ > /<sup>L</sup>za-<sup>H</sup>χɔ/ ‘yak meat’

Notably, this analysis has many counterexamples, chiefly resulting from a clear preference of my main consultant for the /L-H/ tonal pattern on disyllabic nouns, regardless of the tone of the word-initial syllable. For example:

/<sup>H</sup>p<sup>h</sup>a/ ‘pig’ + /<sup>H</sup>χɔ/ ‘meat’ > /<sup>L</sup>p<sup>h</sup>a-<sup>H</sup>χɔ/ ‘pork’ (expected, /<sup>H</sup>p<sup>h</sup>a-<sup>H</sup>χɔ/)  
 /<sup>H</sup>tɔ/ ‘horse’ + /<sup>L</sup>rɔ/ ‘pen, ring’ > /<sup>L</sup>tɔ-<sup>H</sup>rɔ/ ‘horse corral, stable’ (expected, /<sup>H</sup>tɔ-<sup>H</sup>rɔ/)

Furthermore, the analysis of the tonal pattern in polysyllabic domains as conditioned by the tone of the word-initial syllable falls short of explaining the origin of the third tonal pattern, viz. /H-L/. This tonal pattern by and large occurs on disyllabic verbs (formed with a directional prefix) and verb-object compounds. If the contrastive tonal patterns on polysyllabic domains were directly related to the two lexical tones, disyllabic verbs formed with directional prefixes would exhibit two distinct tonal patterns, correlated with the two contrastive lexical tones of the verb roots, with the surface tones of toneless verbal prefixes conditioned by the lexical tone of the verb root. (Kami verbal prefixes are here analyzed as lexically unspecified for tone, as elsewhere in Tibetan.) This is, however, not the case, as the tonal pattern of disyllabic verbs in the speech of my main consultant is in most instances /H-L/, irrespective of the lexical tone of the root.<sup>18</sup> For example:

/ <sup>H</sup> t <sup>h</sup> ẽ/ ‘to pull’	/ <sup>L</sup> ba/ ‘to put, to place’
/ <sup>H</sup> ja- <sup>L</sup> t <sup>h</sup> ẽ/ ‘to pull up’	/ <sup>H</sup> ja- <sup>L</sup> ba/ ‘to put upward’
/ <sup>H</sup> ma- <sup>L</sup> t <sup>h</sup> ẽ/ ‘to pull down’	/ <sup>H</sup> ma- <sup>L</sup> ba/ ‘to put down’
/ <sup>H</sup> ts <sup>h</sup> a- <sup>L</sup> t <sup>h</sup> ẽ/ ‘to pull towards oneself’	/ <sup>H</sup> ts <sup>h</sup> a- <sup>L</sup> ba/ ‘to put near oneself’
/ <sup>H</sup> p <sup>h</sup> a- <sup>L</sup> t <sup>h</sup> ẽ/ ‘to pull away from oneself’	/ <sup>H</sup> p <sup>h</sup> a- <sup>L</sup> ba/ ‘to put away from oneself’

Altogether, I note that in verbs formed through prefixation, the syllables carrying /L/ tone differ from those carrying /H/ tone in prominence (duration and intensity) in that the syllable carrying /H/ tone is longer and louder than the syllable with /L/ tone in the same word. The distinction in prominence is here taken as indication of the stressed status of the syllable carrying the H tone and the unstressed status of the toneless prefixes carrying the phonological L tone.

To account for these observations, I propose to analyse the prosodic organization of Kami as combining (1) a word-tone system, whereby the primary register contrast is conditioned by the tone of the word-initial syllable, as widespread in Tibetan dialects, with (2) a system of stress accent, iambic, or right-prominent on nominal constructions, and trochaic, or left prominent on verbal constructions, with some instances of lexically marked stress placement.<sup>19</sup>

<sup>18</sup> In careful speech, the verb root may be pronounced with the etymological tone on the verbal root and the high tone on the prefix, e.g. [p<sup>h</sup>a<sup>55</sup>-t<sup>h</sup>ẽ<sup>55</sup>], /<sup>H</sup>p<sup>h</sup>a-<sup>H</sup>t<sup>h</sup>ẽ/, ‘to pull up’, [p<sup>h</sup>a<sup>55</sup>-ba<sup>13</sup>], /<sup>H</sup>p<sup>h</sup>a-<sup>L</sup>ba/, ‘put down’.

<sup>19</sup> A system of stress accent has been described for some Amdo dialects, and Zhongu, Sun (2003: 778).



Seen in an areal context, the prosodic system of Kami is similar to those of neighboring Qiangic languages, all of which, to a different extent, combine a tone system with a stress system. The prosodic system of Kami is particularly close to that of its immediate geographic neighbor Shǐxīng (Chirkova and Michaud 2009). The important dissimilarity between the two languages is the location of stress, which is domain-initial in Shǐxīng and variable in Kami, depending on the syntactic organization of the expression.

Seen against the background of Kham dialects, Kami has a rather impoverished tonal system. For example, Bātáng has been described as having four tones on monosyllables, namely (i) high even (high long, 55), (ii) high falling (high short, 53), (iii) low rising (low long, 13), (iv) low rising-falling (low short, 23), and (v) an additional light tone (11) on extrametrical syllables (Gésāng 1989: 350-351).<sup>20</sup>

A similar tonal system with four contrastive tones on monosyllables, contrasting two level and two contour tones, has also been proposed by Gésāng and Gésāng (2002: 107-110) for Dégé. However, Häsler (1999: 29) reports that in her acoustic study of the tones in the Dégé dialect, she was unable to identify contour differences between the four tones as suggested in the Chinese literature. She furthermore suggests that the distinctive features of the prosodic organization of Dégé are rather syllable length and two register tones, High and Low. The same analysis in terms of syllable length and register distinction is also likely to be applicable to the prosodic organization of Bātáng. In this context, the two conspicuous features of the prosodic organization of Kami are (1) the absence of contrastive length, and (2) the presence of a stress-based system.

### 3. Phonological History

This section presents a phonological history of Kami recovered through a comparison with the phonological structure of OT.

Similar to other Kham dialects, the extremely complicated syllable structure of OT, viz. (b)(Cp)C(M)V(C)(s/d), is depleted to evolve in Kami into a simpler syllable structure of the (C)(C)V(V) type.<sup>21</sup> The major developments include gradual disappearance of both prefixal consonants and consonantal codas (conceivably, through the processes of weakening and assimilation, that are likely to have proceeded through the consecutive stages of devoicing, spirantization, loss of obstruency, and attrition). The elision of prefixal consonants led to the development of high tone, whereas the

<sup>20</sup> For example: /ka<sup>55</sup>/ <ka ba> ‘pillar’, /ka<sup>753</sup>/ <bkaɡ> ‘to hinder’, /ka<sup>13</sup>/ <gar> ‘where’, <gag> /ka<sup>723</sup>/ ‘to abstract, to hinder’ (Gésāng 1989: 350-352, 354-356).

<sup>21</sup> Within the OT syllable canon, (b)(Cp)C(M)V(C)(s/d), according to convention, I distinguish between the following phonological slots: Cp: prefixal consonants, *g-*, *d-*, *b-*, *r-*, *l-*, *s-*, *n-* (WT *a-chung*), of which *r-*, *l-* and *s-* can further be combined with the pre-prefixal consonant *b-*; C: root initial, which can be filled by any WT consonant; M: medials *-w-*, *-y-* and *-r-*; V: nucleus vowel, which may be filled by any WT vowel; C: consonantal codas, *-b*, *-d*, *-g*, *-m*, *-n*, *-ŋ*, *-r*, *-l*, *-s*; of which grave consonants may further combine with *-s*, and coronal consonants may further combine with *-d*. Overall, the development of OT consonantal clusters in the prefixal position (i.e. *bCp-*) and in the coda position (i.e. *-Cs/d*) in Kami is that of a simple consonantal prefix and a simple consonantal coda, respectively. For example, <brgya> ‘hundred’ /<sup>h</sup>dʒo/ vs. <rgya> /<sup>h</sup>dʒo/; <bzang> /<sup>h</sup>zõ/ ‘good’ vs. <zangs> /<sup>h</sup>sõ/ ‘copper’. For this reason, OT consonantal clusters in the prefixal position and in the coda position need not concern us.

disappearance of consonantal codas led to the development of innovative vowels and diphthongs.

One inevitable consequence of the drastic simplification of the OT syllable canon is extensive homophony in Kami monosyllabic words. For example, the words /<sup>h</sup>tsu/ and /<sup>h</sup>tsi/ have three distinct meaning each. /<sup>h</sup>tsu/: (1) ‘top of the head’, <gtsug>; (2) ‘to stick, to set a plant in the ground; to stab’, <btsugs>; (3) ‘to squat’, <tsog?>. /<sup>h</sup>tsi/ (1) ‘monkey’, <spre’u>, (2) ‘to ask’, <’dri>, (3) ‘to wrap around’, <dkri>.

### 3.1. History of Kami Onsets

The main developments of OT onsets are conditioned by the presence or absence of OT prefixes. Unprefixed voiceless stops and affricates remain unchanged and high-toned, whereas unprefixed voiceless fricatives become high toned and aspirated. Unprefixed voiced obstruents become devoiced and low-toned.

The major trend for root initials with oral prefixal consonants (*g-*, *d-*, *b-*, *r-*, *l-*, *s-*) is their disappearance, irrespective of their voicing or of that of the root initial. In addition, the dental spirant prefix *s-* conditions the development of voiceless reflexes of nasal initials. Before being elided, the prefixes acted as a buffer against devoicing of the following root initials, yielding modern voiced obstruents and sonorants. Nasal prefixal consonants (*m-* and *n-*), on the other hand, mostly give rise to modern prenasalized clusters. Altogether, these are common Kham developments, e.g. Hú (1991: 191-198), Zhāng (1993), and Gésāng and Gésāng (2002: 72-91). (A summary table of Kami initial consonants and their OT origins is provided in Appendix 1.)

#### 3.1.1. OT Simple Initials

##### 3.1.1.1. OT Obstruents

OT obstruents include bilabial, dental, velar, and glottal stops; dental and palato-alveolar affricates, and dental, palato-alveolar, and glottal fricatives.

OT syllables with a glottal stop onset (corresponding to syllables with the *a-chung* and *a-chen* as their base in WT, e.g. Beyer 1992: 57, footnote 3) are realized as vowel-initial syllables in Kami, preceded by a non-phonemic glottal stop, unmarked in the transcriptions. For example:

<a ma> /<sup>h</sup>a-<sup>h</sup>m̃/ ‘mother’

<’o ma> /<sup>h</sup>u-<sup>h</sup>̃/ ‘milk’

##### (1) Stops and affricates

The place of articulation of OT stops and affricates remains unchanged in Kami. Unprefixed voiceless stops and affricates remain unchanged and high-toned, whereas unprefixed voiced obstruents become devoiced and low-toned. Consider the following examples:

<ba> /<sup>h</sup>p/ ‘cow’

<pi wang> /<sup>h</sup>pi-<sup>h</sup>wɔ̃/ ‘guitar, lute, violin’  
<spu> /<sup>h</sup>pə/ ‘(animal) hair, fur’  
<phag> /<sup>h</sup>p<sup>h</sup>a/ ‘pig’

<dar> /<sup>l</sup>tɛ/ ‘flag’  
<rdo> /<sup>l</sup>du/ ‘stone’  
<rta> /<sup>h</sup>tɔ/ ‘horse’  
<stag> /<sup>h</sup>ta/ ‘tiger’  
<thab> /<sup>h</sup>t<sup>h</sup>ɣ/ ‘fireplace, stove, hearth’

<ga> /<sup>l</sup>ka~<sup>l</sup>kɛ/ ‘where’  
<sga> /<sup>h</sup>gɔ/ ‘saddle’  
<ka> ‘pillar’, <rka> ‘gully, gutter’, both /<sup>h</sup>kɔ/   
<kha> /<sup>h</sup>k<sup>h</sup>ɔ/ ‘mouth’

<rdzong> /<sup>h</sup>dzɔ̃/ ‘county’  
<tshang> /<sup>h</sup>ts<sup>h</sup>ɔ̃/ ‘household, family; nest’  
<rtsa> /<sup>h</sup>tsɔ/ ‘root’

In addition, the OT initial *dz-* at times develops into /z/ in Kami, e.g. <rdza ma> /<sup>l</sup>za-<sup>h</sup>ɔ̃/ ‘clay baking pot’, <rdzi ma> /<sup>l</sup>zə-<sup>h</sup>ɔ̃/ ‘eyebrow; eyelash’.

<ja> /<sup>h</sup>tɕɔ/ ‘tea’  
<ljid> /<sup>h</sup>dzɪ/ ‘heavy’  
<lcags> /<sup>h</sup>tɕa/ ‘iron’  
<bcu> /<sup>h</sup>tɕə/ ‘to scoop up, to ladle out’  
<cha> /<sup>h</sup>tɕ<sup>h</sup>ɔ/ ‘pair’

## (2) *Fricatives*

The OT unprefixd voiceless dental fricative becomes aspirated in Kami, whereas its voiced counterpart, *z-*, becomes devoiced. Prefixed dental fricatives preserve the original quality of the root initial (in terms of voicing and aspiration) and become high-toned. Consider some relevant Kami examples:

<zag> /<sup>l</sup>sa/ ‘to shed (tears)’  
<bzi> /<sup>l</sup>zə/ ‘to be drunk’  
<sa> /<sup>h</sup>s<sup>h</sup>ɔ/ ‘earth, land’  
<bsad> /<sup>h</sup>se/ ‘to kill’

Some exceptions to this altogether pervasive change include <so> /<sup>h</sup>su/ ‘tooth’ and <so ma> /<sup>h</sup>sɔ̃/ ‘hemp’.

The development of OT palato-alveolar fricatives is extremely variegated among Kham dialects, with at least two distinct paths of development (in all cases, prefixed OT fricatives preserve the original voicing and aspiration quality of the initial):

- (1) velar fricatives, as in Dégé (Häsler 1999: 33, 38) and Bātáng (Gésāng 1989: 339)  
 (2) retroflex fricatives, as in dialects of Dìqīng Prefecture, represented here by Zhōngdiàn (Lù 1990, Wáng 1996, Hongladarom 1996), and Dōngwàng (Bartee, this volume)

In both cases, the development may be complicated by the process of palatalization of the initial before the original OT high front vowels *or* before modern front vowels. This process may be phonologically conditioned, as is the case in some Dégé dialects that have fronted and palatalized allophone phonemes before high vowels, and velarized allophone phonemes before back vowels (Häsler 1999: 15-16; Gésāng and Gésāng 2002: 97). Alternatively, such a split may be phonemicized, as in Zhongu Tibetan 熱務溝 <zho ngu> (Sun 2003: 782). In this dialect, OT palato-alveolar spirants turn into retroflexes in most phonological environments, except before modern front vowels, where they remain palato-alveolar.

The developments of OT palato-alveolar fricatives in Kami are characterized by a similar phonemic split, which turns the original OT palato-alveolar fricatives into alveo-palatal fricatives before the original OT high front vowels and into uvular fricatives elsewhere. Notably, in the latter environment, viz. before non-high non-front vowels, Kami reflexes of OT voiceless aspirated palato-alveolar fricatives are identical to those of OT voiceless plain palato-alveolar fricatives. In addition, the ongoing process of palatalization before modern front vowels continues to transform some words with uvular initials into those with alveo-palatal or velar initials. For example: <bshad> /ʰtʃe/ ‘to speak’, <shad> /ʰtʃe/ ‘to comb’, <bzhar> /ʰtʃɛ/, [ʰtʃɛ]~[ʰtʃɛ] ‘to shave’.<sup>22</sup> For example:

<zhim> /ʰtʃẽ/ ‘tasty, delicious’  
 <bzhi> /ʰtʃə/ ‘four’  
 <shi> /ʰtʃʰə/ ‘to die’<sup>23</sup>

<zho> /ʰxu/, [ʰxu]~[ʰxu] ‘yoghurt’  
 <gzhu> /ʰtʃə/, [ʰtʃə] ‘bow’  
 <sha> /ʰtʃɔ/, [ʰtʃɔ] ‘meat’  
 <bsha> /ʰtʃɔ/, [ʰtʃɔ] ‘to slaughter’

Retroflex reflexes of OT palato-alveolar fricatives in the dialects of Dìqīng Prefecture, together with some sporadic instances of affrication of uvular initials in Kami, e.g. /ʰtʃa/ [ʰtʃʰa] <zhang> ‘night’, suggest that there was some rhotic quality present in the original OT sound.<sup>24</sup> A Qiangic neighbour of Kami, Lizu, evidences a parallel development, whereby uvular phonemes in the Mùlǐ dialect of Lizu correspond to retroflex phonemes

<sup>22</sup> An alternative development, suggested by the anonymous reviewer, would be for the palato-alveolar fricatives to become velar and uvular fricatives. These are to be later palatalized to alveo-palatals before the original OT *-i* (which first becomes Kami /i/ and later /ə/) and OT *ad* (which becomes Kami /e/). This further implies that the palatalization occurred before the change of OT *-i* to Kami /ə/.

<sup>23</sup> Some exceptions include <shig> /ʰtʃi/ ‘louse’, <shing> /ʰtʃi/ ‘wood’, <phyi> /ʰtʃə/ ‘to be late’, in that these words lack aspiration.

<sup>24</sup> For instance, these developments of OT palato-alveolar fricatives in Kami may tentatively be taken as evidence of the postinitial *-r-* occurring after palato-alveolar fricatives in Proto-Tibetan (Beyer 1992: 86).

in another dialect of this language (spoken in the county of Gānlùò) (Chirkova 2008). A similar (conceivably, areal) motivation underlying the development of uvular rather than retroflex reflexes in Kami and Lizu may be called for.

Uvulars have been attested in many peripheral Kham dialects spoken in the multi-lingual historical border areas between Tibet and China that are currently known as the “ethnic corridor” of Sichuān and Yúnnán provinces.<sup>25</sup> Consequently, as argued by Jackson Sun (2003: 782), it remains a possibility, that some instances of these uvulars represent retention of ancient consonantal contrasts which predate standard Written Tibetan. In his discussion of Zhongu uvular phonemes, Sun (2003: 783-783) proposes three test words that often contain uvular onsets in the Tibetan dialects that have phonemic uvulars, namely: ‘snow’, ‘bitter’, and ‘to understand’. Notably, the three words do not have uvular reflexes in Kami, viz. /<sup>h</sup>k<sup>h</sup>a-<sup>h</sup>wɔ/ ‘snow’, /<sup>h</sup>k<sup>h</sup>a-<sup>h</sup>tu/ ‘bitter’, and /<sup>h</sup>hɔ-<sup>h</sup>ku/ ‘to understand’. Neither do the same test words have uvular reflexes in the Qiangic languages of Mùlǐ: Shǐxīng, Púmǐ, Lizu, and Nàmùzī, with the only exception of ‘bitter’, Shǐxīng /<sup>h</sup>q<sup>h</sup>ɔɔ-<sup>h</sup>sɔ̃/, Nàmùzī /luo<sup>31</sup>-q<sup>h</sup>a<sup>31</sup>/ (with the directional prefix /luo-/). At the same time, what appears to be a common areal feature underlying the velar-uvular distinction in Kami and in the Qiangic languages of Mùlǐ is a pronounced tendency to uvularize velars before low vowels, possibly in connection with some rhotic quality of the original rhyme, cf. Púmǐ (Lù 2000: 43-44), Lizu (Sūn 1982: 243). This feature may have been phonemicized in some varieties, giving rise to a full-fledged uvular series, e.g. Shǐxīng (Huáng and Rénzēng 1991).

Finally, OT glottal fricative (WT *h*-) remains unchanged in Kami. For example:

- <ha ko> /<sup>h</sup>hɔ-<sup>h</sup>ku/ ‘to understand’  
 <hur thag> /<sup>h</sup>hu-<sup>h</sup>t<sup>h</sup>a/ ‘diligent, conscientious’  
 <ham> /<sup>h</sup>p<sup>h</sup>a-<sup>h</sup>hã/ ‘to become meldewed’ (with the directional prefix /p<sup>h</sup>a-/ ‘outward’)

### 3.1.1.2. OT Sonorants

OT sonorants include four nasals (*m*, *n*, *ɲ*, and *ŋ*), two liquids (*r*, *l*), and two glides (*w*, *j*).

#### (1) OT nasals

OT simplex nasals are generally kept as such in Kami, unless preceded by the prefixed *s*-, which changes them into voiceless nasals. This appears to be a common development in Kham dialects, all of which have symmetrical pairs of voiced and voiceless nasals at four places of articulation (e.g. Bātáng, Gésāng 1989: 339; Dégé, Häsler 1999: 44; Dōngwàng, Bartee, this volume). This feature is therefore promoted to one of the characteristic traits of the entire group (e.g. Gésāng and Gésāng 2002: 74). For example:

- |                                                            |                                                             |
|------------------------------------------------------------|-------------------------------------------------------------|
| <ma mgal> / <sup>h</sup> mã- <sup>h</sup> ŋgi/ ‘chin, jaw’ | <smag? bshos?> / <sup>h</sup> mã- <sup>h</sup> χu/ ‘dinner’ |
| <gnam> / <sup>h</sup> nã/ ‘sky, heaven’                    | <snabs> / <sup>h</sup> ŋã/ ‘snivel, snot’                   |
| <myig> / <sup>h</sup> ŋi/ ‘eye’                            | <smyin> / <sup>h</sup> ŋi/ ‘to ripen’                       |

<sup>25</sup> For example, Yǎjiāng 雅江 <nyag chu kha>, Acuo (2008); Shíbàzi 石壩子 <kun sngon> (Sōngpān 松潘), Huá and Gǎzàngtā (1997); Zhongu (Sōngpān), Sun (2003: 782-783).

<ngon> /<sup>h</sup>ŋuẽ/ ‘to hunt’

<sngon> /<sup>h</sup>ŋuẽ/ ‘front’

### (2) OT liquids

The development of OT *l-* is conditioned by the presence or absence of a prefixal consonant. Unprefixed *l-* undergoes a relatively unusual development, whereby it becomes /j/ in Kami, e.g.:

<lag> /ljɔ/ ‘hand’

<lo> /lju/ ‘year’

On the other hand, when preceded by an OT consonantal prefix, the root initial *l-* remains unchanged in Kami. For example:<sup>26</sup>

<gla> /<sup>h</sup>lɔ/ ‘musk deer’

<glo> /<sup>h</sup>lu/ ‘bellyband, saddle girth’

While until recently held as infrequent and unusual, the change from OT *l-* to *j-* in unprefixed syllables is being discovered in a growing number of dialects, centering around the historical frontier areas between Tibet and China. Tibetan dialects, in which this change has been documented include Báimǎ (Zhāng 1994a: 13, 1997; Huáng and Zhāng 1995: 91), Dōngwàng (Bartee, this volume), and many dialects of Dìqìng Prefecture and of Déróng 得榮 <sde rong>, Xiāngchéng 鄉城 <phyag phreng>, and Dàochéng <‘dab pa> Counties, as reported by Suzuki (2008).

OT *r-* remains unchanged in Kami, e.g.:

<ra> /<sup>h</sup>rɔ/ ‘sheep; garden’

<bu ram> /<sup>h</sup>pə-<sup>h</sup>rã/ ‘brown sugar’

### (3) OT approximants

The OT glide *w-* remains unchanged in Kami. The glide *y-*, on the other hand, underwent a rather unusual development, whereby it changed to spirant /ʒ/ (/z/ in the speech of my other consultants). (A similar development has also been reported in Zhongu, Sun 2003: 797, and Dōngwàng, Bartee, this volume.) Consider some Kami examples:

<wa> /wɔ/ ‘fox’

<yob> /<sup>h</sup>ʒu/ (/<sup>h</sup>zu/) ‘stirrup, steps’

OT syllables with no consonantal initial (WT *a-chung* and *a-chen*) mostly correspond to syllables beginning with a vowel in Kami. One exception is the root <‘og> ‘low, below, underneath’, Kami /<sup>h</sup>xɔ/. For example:

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<sup>26</sup> The WT *sr-* and *sl-* clusters are traditionally analyzed as the root initial *s-* followed by medials *-r-* and *-l-*. They are therefore discussed in the section on consonant clusters (§3.1.3).

<a ma> /<sup>H</sup>a-<sup>H</sup>m̃/ ‘mother’  
<'ug pa> /<sup>H</sup>u-<sup>H</sup>hu/ ‘owl’  
<'og lpags?> /<sup>L</sup>xɣ-<sup>H</sup>pa/ ‘under lip’

### 3.1.2. OT Cluster Initials

#### 3.1.2.1. OT Clusters with Prefixal *m-* and *n-*

OT nasal prefixes *m-* and *n-* merge before obstruent root initials, resulting in Kami prenasalized consonants.<sup>27</sup> The nasal prefix *m-* elides before another nasal. For example:

<mgo> /<sup>H</sup>Ngʊ/ ‘head’  
<mdzod> /<sup>H</sup>Ndzue/ ‘room, chamber’

<mna'> /<sup>H</sup>ñ/ ‘oath’  
<mnar> /<sup>H</sup>nɛ/ ‘to press’

<'dar> /<sup>H</sup>Ndɛ/ ‘to shiver, to tremble’  
<'bri> /<sup>H</sup>Ndzə/ ‘female yak’

Some additional observations concerning the developments of OT clusters with nasal prefixes in Kami can be made:

(1) When prefixed to a voiceless aspirated stop (and in some instance, also to a voiced stop), *m-* and *n-* often elide without any ostensible trace. Consequently, modern Kami reflexes of such initial clusters exhibit developments of a simple root initial, as if a nasal prefix were not there in the first place. (A similar development has also been reported for Dégé, Häslér 1999: 34; Zhōngdiàn, Wáng 1996: 62; and Dōngwàng, Batee, this volume.) For example:

<'khrud> /<sup>H</sup>tɕə/ ‘to wash’  
<'thung> /<sup>H</sup>tʰũ/ ‘to drink’  
<'phug> /<sup>H</sup>pʰu/ ‘to punch a hole’  
<'bri> /<sup>H</sup>tɕə/ ‘to write’

<mchin pa> /<sup>H</sup>tɕʰi-<sup>H</sup>Nbɔ/ ‘liver’  
<mthong> /<sup>H</sup>tʰɔ̃/ ‘to see’  
<mtsho> /<sup>H</sup>tsʰu/ ‘lake’  
<mkhris pa> /<sup>L</sup>tɕʰi-<sup>H</sup>pɔ/ ‘gall bladder’

(2) In many instances the prefixation of *m-* and *n-* to a voiced root initial fails to condition the development of high tone, as in the following words (to be further discussed in §3.3):

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<sup>27</sup> One exception is the word /<sup>H</sup>ta-<sup>H</sup>Ntʰui/ [ʰta-<sup>H</sup>ŋtʰui] ‘reins’, <rta mthur>.

<'grang> /<sup>l</sup>Ndzõ/ 'to have one's fill'  
 <'bu> /<sup>l</sup>Nbə/ 'insect, bug'  
 <mje> /<sup>l</sup>Ndzi/ 'penis'  
 <mdzub> /<sup>l</sup>Ndzui/ 'finger'

(3) Some reflexes of Tibetan etymons with a prenasalized cluster initial with the prefixed *n-* have a plain nasal initial reflex in Kami. Such reflexes are mostly in free variation with regular reflexes with a prenasalized cluster. For example, <'di> /<sup>h</sup>Nde~<sup>h</sup>ne/ 'this', <'bag> /<sup>l</sup>Nba~<sup>l</sup>ma/ 'mask', <sbrang> /<sup>l</sup>Nbõ~<sup>l</sup>mõ/ 'bee; wasp' (the change from *sbr-* to /Nb~m/ is discussed in §3.1.3).

(4) Finally, some WT words with a plain initial or those with an initial preceded by an oral prefixed consonant have Kami equivalents with a prenasalized initial cluster. For example, <zam pa> /<sup>l</sup>Ndza-<sup>h</sup>Nbo/, <me tog> /<sup>l</sup>Nbu-<sup>h</sup>ru/ 'flower', <thang rag> /<sup>l</sup>Ndu-<sup>h</sup>ra/ 'silver fir', <dgun ka> /<sup>l</sup>Nga-<sup>h</sup>Ngə/ 'winter', <pus mo> /<sup>h</sup>pa-<sup>h</sup>Nbu/ 'knee', <phu thung> or <phu dung> /<sup>l</sup>p<sup>h</sup>ə-<sup>h</sup>Ndũ/ 'sleeve'.

### 3.1.2.2. OT Cluster Initials with Medials (-w-, -r-, -y-)

#### (1) Medial -w- (*wa zur*)

WT *wa zur*, whose precise OT phonetic value remains uncertain, and which at least in some instances appears to be a purely graphic convention to distinguish certain homophones, has zero reflex in Kami, as in most Tibetan dialects. For example:

<dang po> /<sup>l</sup>tõ-<sup>h</sup>Nbu/ 'first'  
 <dwangs mo> /<sup>l</sup>tõ-<sup>h</sup>mo/ 'clear'

<sha> 'meat' /<sup>h</sup>χə/  
 <shwa ba> 'deer' /<sup>l</sup>χə/

#### (2) Medial -r- (*Kr-*, *dr-*, *Pr-*)

OT *Pr-*, *Tr-* and *Kr-* clusters all merge as retroflexes in Kami (the developments of the OT spirant-based clusters *sr-* and *hr-* are considered in §3.1.3). For example:

<skra> /<sup>h</sup>tʂə/ '(human) hair'  
 <khrag> /<sup>h</sup>tʂ<sup>h</sup>a/ 'blood'  
 <gro> /<sup>l</sup>tʂu/ 'wheat'  
 <drug> /<sup>l</sup>tʂu/ 'six'  
 <'phrad> /<sup>h</sup>tʂ<sup>h</sup>ue/ 'to meet'  
 <brag> /<sup>l</sup>tʂa/ 'rock, cliff'  
 <sbrang> /<sup>h</sup>dzõ/ 'honey; sugar'



(3) Medial -y- (Py-, Ky-, my-)

OT palatal medial -y- can combine with bilabial and velar stops, as well as with the bilabial nasal *m-*. The bilabial nasal *m-*, followed by the medial -y-, becomes Kami /ɲ/, as in /<sup>H</sup>ŋi-<sup>H</sup>Nbɔ/ <smyon pa> ‘madman, lunatic’.

OT velar stops taking the -y- medial change into palato-alveolar affricates in the speech of my main consultant and into alveo-palatal affricates in the speech of my other consultants. For example:

<gyang> /<sup>L</sup>tʃɔ/ (/<sup>L</sup>tʃɔ̃/) ‘wall’  
<rgya> ‘Chinese’, <brgya> ‘hundred’: /<sup>H</sup>dʒɔ/ (/<sup>H</sup>dʒɔ/)   
<bkyags> /<sup>L</sup>ja-<sup>H</sup>tʃa/ ‘to lift, to raise’  
<khyod> /<sup>H</sup>tʃue/ (/<sup>L</sup>tʃ<sup>h</sup>e/, note the irregular tone of this form) ‘thou, second person singular pronoun’

OT bilabial stops, on the other hand, change into palato-alveolar fricatives in the speech of my main consultant and into dental fricatives in the speech of my other consultants. For example:<sup>28</sup>

<bya> /<sup>L</sup>ʃɔ/ (/<sup>L</sup>sɔ/) ‘bird; chicken’  
<dbyar ka> /<sup>L</sup>ʒɛ-<sup>H</sup>k<sup>h</sup>ɔ/ (/<sup>H</sup>zɛ-<sup>H</sup>k<sup>h</sup>ɔ/) ‘summer’  
<mar dpyang> /<sup>H</sup>ma-<sup>L</sup>ʃɔ/ (<yar dpyang> /<sup>L</sup>ja-<sup>H</sup>sɔ̃/) ‘to hang’  
<phyags> /<sup>H</sup>ʃa/ (/<sup>H</sup>s<sup>h</sup>a/) ‘to sweep’  
<‘phyen> /<sup>H</sup>ʃɛ̃/ (/<sup>H</sup>s<sup>h</sup>ɛ̃/) ‘fart’

Before the original OT front vowels *i* and *e*, modern reflexes of OT *Ky-* and *Py-* clusters merge with those of OT palato-alveolars. For example:

<bye> or <byi’u> /<sup>L</sup>ʃi/ (/<sup>L</sup>ʃi-<sup>H</sup>ka/ or /<sup>H</sup>ʃi-<sup>H</sup>ka/) ‘little bird; sparrow’  
<phye> /<sup>H</sup>ʃi/ (/<sup>L</sup>ja-<sup>H</sup>si/) ‘to close’  
<shig> /<sup>H</sup>ʃi/ (also /<sup>H</sup>ʃi/ for my other consultants) ‘louse’ (note the irregular lack of aspiration in the latter two words)

In addition, the ongoing process of palatalization before modern front vowels continues to transform some (mostly high frequency) words with palato-alveolar initials into those with alveo-palatal initials. For example: <brgyad> /<sup>H</sup>dze/ ‘eight’, <rgyan bzhag> /<sup>H</sup>tʃɛ̃ ɬɬa/ ‘to place a bet’.

Altogether, it is conceivable that the complex developments attested in the speech of my main consultant reflect a stage predating those in the speech of my other consultants. This would entail that Kami reflexes of OT *Ky-* and *Py-* clusters (i.e. palato-alveolar affricates and fricatives) were originally distinct from those of OT palato-alveolar affricates and fricatives (i.e. alveo-palatal affricates and fricatives and uvular

<sup>28</sup> One exception can be noted, namely <phyi> ‘outside, back’ /<sup>L</sup>p<sup>h</sup>iɛ/. The WT root <phyi> has two reflexes in Kami: (1) /<sup>L</sup>p<sup>h</sup>iɛ/ in the meaning ‘outside, back’, and (2) /<sup>H</sup>ʃɛ/ in the meaning ‘to be late’. Note that the latter reflex is irregular in that it lacks aspiration.

fricatives in Kami). Subsequently, a sound change may have occurred to avoid the typologically highly marked opposition between palato-alveolars and alveo-palatals, a change that converted palato-alveolar affricates into alveo-palatal affricates, and palato-alveolar fricatives into dental fricatives. Tentatively, it is further possible that the latter change (i.e. from palato-alveolar fricatives to dental fricatives) was motivated by the stability of the latter series (i.e. dental fricatives) in terms of the overall number of words with dental fricative initials (so that the motivation was to join the existing series, rather than creating a new series).

### 3.1.3. Miscellaneous Changes of OT Initial Clusters

This subsection is dedicated to the development in Kami of OT initials and clusters that are known for the heterogeneity of their modern reflexes (Zhāng 1996, Sun 2003: 787-790). It includes the WT letter *m-*, the clusters *lh-*, *sl-*, *sr-*, *hr-*, *zl-*, the prefixed *Ky-* and *Py-* clusters and the cluster *sbr-*. The emphasis of the subsection is on comparing Kami reflexes of these clusters with those in Zhōngdiàn and Dōngwàng, as potentially diagnostic of the purported close relationship between these dialects.

#### (1) *m-*

WT *m-* stands in part for an earlier OT cluster *my-*, as reflected in Old Tibetan texts and modern Tibetan dialects. WT *m-* before the original front vowels is realized in Kami as /ɲ/, merging with the reflexes of WT *my-* clusters. Before the original non-front vowels, on the other hand, WT *m-* is realized as Kami /m/. (This is in fact a common development in many Kham dialects, e.g. Dégé, Häsler 1999: 43; Zhōngdiàn, Wáng 1996: 57.) For example:

- <mying> /ɲũ/ ‘name’
- <mye> /ɲi/ ‘fire’
- <mar> /mɛ/ ‘butter’
- <mo khyi> /mu-<sup>h</sup>tʃə/ ‘bitch, female dog’

#### (2) *lh-*

On the basis of dialectal data, the WT script sequence *lh-* has been argued to have once represented a proto-sonorant cluster (Beyer 1992: 46, footnote 9; Zhāng 1996: 23; Sun 2003: 787-788). Kami offers additional evidence to this claim. In this dialect, WT *lh-* has two reflexes: (1) one as a cluster, /ɲj/, and (2) another as a voiceless lateral fricative, /l̥/.<sup>29</sup> Both changes can be observed in the modern Kami reflexes of the WT etymon *lha* ‘god, deity’, representing two distinct lexical layers: (1) one presumably more archaic, <lha> /<sup>h</sup>ɲjɔ/ ‘god, Buddha’, and (2) another, more recent, /<sup>h</sup>ɔ/. The latter word, /<sup>h</sup>ɔ/, refers to ‘lesser’ gods, mountain and water spirits.

<sup>29</sup> This is identical to Dōngwàng (Bartee, this volume), whereas in Zhōngdiàn, WT *lh-* changed to /t/ and /t/ (Wáng 1996: 62).

Overall, /hj/, is attested only in a handful of words, e.g. <lham> /<sup>h</sup>hjä/ ‘shoes, boots’; whereas /l/, is more frequent. For example:

<lhan> /<sup>h</sup>lẽ/ ‘to paste, to stick, to glue’  
 <lhud?> /<sup>h</sup>li/ ‘to take off’<sup>30</sup>  
 <lho> /<sup>h</sup>lu/ ‘south’

(3) *sl-*

Many Kham dialects (e.g. Dégé, Häsler 1999:46) have two reflexes of the OT cluster *sl-*, i.e. *ts-* and *t-* (i.e. in Dégé, <sleb> /tsē/ ‘to arrive’, <slob grwa> /tō:tsā/ ‘school’). Kami, however, has only one reflex of this OT cluster, /l/, hence merging with modern reflexes of the WT *lh-* cluster.<sup>31</sup> Consider the following Kami examples:

<sleb> /<sup>h</sup>le/ ‘to arrive’  
 <bslab> /<sup>h</sup>lɣ/ ‘to teach’

(4) *hr-*

The only example in my data that potentially reflects the OT cluster *hr-*, ‘to tear up, to rip’, WT <hral> or <ral>, yields the initial /r/ in Kami, /<sup>h</sup>p<sup>a</sup>-<sup>h</sup>ri/. (To compare, OT *hr-* becomes /s/ in Zhōngdiàn (Wáng 1996: 62), and /r/ in Dōngwàng (Bartee, this volume).)

(5) *sr-*

The OT cluster *sr-* becomes Kami /s/, hence developing a reflex identical to that of the OT simple initial *z-*, albeit with a different tone.<sup>32</sup> Words related to WT etymons with the *sr-* cluster are high-toned in Kami, whereas words related to WT etymons with the initial *z-* are low toned. For example:

<srab> / <sup>h</sup> sɣ/ ‘shallow’	<zab mo> / <sup>h</sup> sɣ- <sup>h</sup> mu/ ‘deep’
<srog> / <sup>h</sup> so/ ‘life, destiny’	<zug> / <sup>h</sup> su/ ‘to bark’

(6) *zl-*

Similar to the OT cluster *lh-*, the OT cluster *zl-* has two reflexes in Kami: (1) /l/, as in the word for ‘moon’, <zla> /<sup>h</sup>lɔ/; and (2) the cluster /Nd/ for the word ‘month’, <zla ba>

<sup>30</sup> Compare: Bātáng /4y7<sup>53</sup>/, tentatively from <lhud?>, Gésāng (1989: 345).

<sup>31</sup> One more source of Kami /l/ is the OT *rl-* cluster (conceivably, through the intermediate change from OT *rl-* to *sl-*). For example, <rlag> /<sup>h</sup>la/ ‘to take apart, to dismantle’, <rba rlabs> /<sup>h</sup>pa-<sup>h</sup>lɣ/ ‘wave’.

The development of the OT cluster *sl-* in Kami is identical to the development of this cluster in Bātáng (Gésāng 1989: 339), Dégé (Häsler 1999: 46), and Zhōngdiàn (Wáng 1996: 59). In Dōngwàng, on the other hand, *sl-* develops into /ɣ/ and /h/ (Bartee, this volume).

<sup>32</sup> This development is identical to that in Zhōngdiàn (Wáng 1996: 61), Dōngwàng (Bartee, this volume), Bātáng (Gésāng 1989: 339) and Dégé (Häsler 1999: 33).

/<sup>h</sup>Nda-<sup>h</sup>wɔ/. The latter change is a regular development in most varieties of Kham Tibetan. The former change is less frequent. Notably, it is shared by Kami with Dōngwàng (Bartee, this volume), which also has two reflexes of *z/-*, which are furthermore identical to those in Kami.

(7) *Prefixed Ky- and Py- clusters*

OT complex initial *Ky-* and *Py-* clusters with oral prefixes by and large merge in Kami with the reflexes of OT unprefixes *Ky-* and *Py-* clusters. This is to say that they become palato-alveolar fricatives in the speech of my main consultant and dental stops in the speech of my other consultants. For example:

- <skyi> /<sup>h</sup>fə/ (/<sup>h</sup>sə/) ‘to borrow (money)’  
 <skiid po> /<sup>h</sup>ɕi-<sup>h</sup>pu/ (/<sup>h</sup>si-<sup>h</sup>pu/) ‘comfortable’  
 <dpyi> /<sup>h</sup>fə/ (/<sup>h</sup>sə/) ‘hip’  
 <dbyar kha> /<sup>h</sup>ʒɛ-<sup>h</sup>kʰɔ/ (/<sup>h</sup>zɛ-<sup>h</sup>kʰɔ/) ‘summer’

At the same time, some of the OT *Ky-* and *Py-* clusters with the OT prefix *s-* show an irregular development in the speech of my other consultants, whereby they become /ʒ/ instead of the otherwise expected /s/. Compare:

- <bya> /<sup>h</sup>ʒɔ/ ‘bird’ vs. <spyang> /<sup>h</sup>fʒ/ ‘wolf’ (my main consultant)  
 <bya> /<sup>h</sup>sɔ/ ‘bird’ vs. <spyang> /<sup>h</sup>ʒʒ/ ‘wolf’ (my other consultants)  
 <skyr> /<sup>h</sup>fju-<sup>h</sup>kua/ ‘sour’ vs. <skyugs> /<sup>h</sup>fju/ ‘to vomit’ (my main consultant)  
 <skyr> /<sup>h</sup>ʒju-<sup>h</sup>kua/ ‘sour’ vs. <skyugs> /<sup>h</sup>su/ ‘to vomit’ (my other consultants)

The development of OT unprefixes *Ky-* and *Py-* clusters in Kami is mostly identical to that in Zhōngdiàn, as described in Wáng (1990: 62). Dissimilar to Kami, however, the OT *sky-* becomes Zhōngdiàn /tɕ/, whereas *spy-* becomes /ɕ/, and occasionally, also /ɣ/ (Elleen Bartee, p.c.). Dōngwàng (Bartee, this volume) exhibits similar yet distinct developments, whereby (1) OT unprefixes *Ky-* clusters become alveo-palatal fricatives, (2) unprefixes *Py-* clusters become dental fricatives, and (3) prefixed *Ky-* and *Py-* clusters merge into /s/.

(8) *sbr-*

The development of the OT cluster *sbr-* is complex in Kami, with two different types of reflexes. On the one hand, it exhibits the regular development of OT *Pr-* clusters into a retroflex. For example:

- <sbrul> ‘snake’ /<sup>h</sup>dzu-<sup>h</sup>l̥/

On the other hand, in one word, <sbrang ma> ‘bee; wasp’, *sbr-* develops into Kami /Nb̥m̥/, viz. /<sup>l</sup>Nb̥<sup>55</sup>~<sup>l</sup>m̥<sup>55</sup>/. A similar development of the *sbr-* cluster in this word has been attested in a number of peripheral Tibetan dialects, e.g. /Nbuma/ in Dári 達日 <dar lag> (Gogog <mgo log>, Qīnghǎi Province), /Nba<sup>4se3</sup>/ in Déqīn 德钦 <bde chen> (Díqīng) (Zhāng 1996: 24), or /bing<sup>35</sup>ma<sup>55</sup>~bing<sup>55</sup>ma<sup>53</sup>/ in Ménbā 門巴 <mon pa> (Tibet) (Lù 2002: 356).<sup>33</sup> This is, for this reason, an example of retention by periphery.

Similar to the WT words <lha> and <zla>, WT <sbrang> has two reflexes in Kami: /<sup>l</sup>Nb̥<sup>55</sup>~<sup>l</sup>m̥<sup>55</sup>/ for ‘bee; wasp’, and /<sup>h</sup>dz̥<sup>55</sup>/ for ‘honey; sugar’. (To compare, in the neighbouring Zhōngdiàn, Wáng 1996: 62, and Dōngwàng, Bartee, this volume, *sbr-* uniformly becomes a voiced retroflex fricative.)

No characteristic changes of the clusters considered in this section appear to be shared exclusively by Kami, Zhōngdiàn, Dōngwàng, and not by other dialects. Hence, if the three dialects can be grouped into one cluster, as proposed by Qú and Jīn (1981), the considered changes bear no witness to it.

### 3.2. History of Kami Rhymes

In conformity with general Kham developments, the original complex WT rhyme structure, yielding over 70 distinct rhymes, has been drastically simplified in Kami. All original consonantal codas are lost, transforming all closed syllables into open syllables. All OT simple rhymes develop shifted vowel qualities, whereas various OT closed rhymes containing old codas are transformed to replenish the vacated vowel space and to generate innovative vowels or diphthongs. The observed correspondences between OT and modern Kami rhymes in monosyllabic words are summarized in Table 6. The diphthong /ua/ has been attested only in roots of uncertain etymology. For this reason, this diphthong is not included in the table below.

Kami	OT
i	<i>al, ib(s), id, ig(s), il, ir, is, e, el, es, ud, ul, ol</i>
e	<i>ad, eb(s), ed, er, ul, od</i>
ɛ	<i>ar</i>
a	<i>ag(s), eg(s)</i>
ə	<i>i, u, us</i>
ɯ	<i>ug(s), ig(s), ul</i>
u	<i>o, ub(s), ug(s), ob(s)</i>
ɤ	<i>ab(s), og(s), od</i>
o	<i>og(s), ob(s)</i>
ɔ	<i>a, a<sup>34</sup></i>
ĩ	<i>ing, eng</i>
ẽ	<i>an, en, em(s), in, ing, im(s), un, on</i>
ã	<i>am(s), root vowel+-ma</i>
ũ	<i>ung</i>
ũ	<i>um(s)</i>

<sup>33</sup> See also Róna-Tás (1966: 183).

<sup>34</sup> WT *a-chung*, used to write the absence of a consonant in the syllable-initial, word-medial or coda position, is known to have no attestable influence on the development of the rhyme, which is that of a simple nucleus vowel (e.g. Dégé, Häsler 1999: 55; Yùshù <yul shul>, Huáng et al. 1994: 121).

õ	<i>ang(s), om(s), ong, root vowel+/-ma/-mo</i>
ei	<i>as, el, ul, ol, os</i>
ui	<i>ub(s), ur</i>
ue	<i>is, od, or</i>
uẽ	<i>on</i>

Table 6. Kami rhymes and their OT origins

In disyllabic words, sound changes in the first syllable of the word may be distinct from those summarized in Table 6. One reason for this dissimilarity is the process of resyllabification, as discussed in §3.4.3. For example, <skam po> /<sup>H</sup>ka-<sup>H</sup>Nbu/ ‘dry’ or <’khor lo> /<sup>H</sup>k<sup>h</sup>u-<sup>H</sup>lu/ ‘wheel’. In addition, a recurrent yet marginal change observed in the first syllable of disyllabic words is that of the original OT rhyme in the first syllable into Kami /a/. For example, <sen mo> /<sup>L</sup>s<sup>h</sup>a-<sup>H</sup>mõ/ ‘nail, fingernail’, <pus mo> /<sup>H</sup>pa-<sup>H</sup>Nbu/ ‘knee’, <thod pa> /<sup>L</sup>t<sup>h</sup>a-<sup>H</sup>pɔ/ ‘forehead’.

(1) OT simplex vowels

All five OT simple rhymes *a, i, e, u* and *o* develop shifted vowel qualities in Kami. OT *-a* develop into Kami /ɔ/, *-i* to /ə/, *-e* to /i/, *-u* to /ə/ and *-o* to /u/.<sup>35</sup> Conforming to the important areal pattern in the Amdo and Kham regions, Kami merge the OT high vowels *i* and *u* into schwa (cf. a similar development in Zhongu, Sun 2003: 791). For example:

<ba> / <sup>L</sup> pɔ/ ‘cow’	<ra> / <sup>L</sup> rɔ/ ‘sheep; garden’
<’bri> / <sup>H</sup> Ndzə/ ‘female yak’	<ri> / <sup>L</sup> rə/ ‘mountain’
<bye> or <byi’u> / <sup>L</sup> çi/ ‘sparrow’	<spre’u> / <sup>H</sup> tʃi/ ‘monkey’
<bu> / <sup>H</sup> pə/ ‘son’	<lu ba> / <sup>L</sup> jə/ ‘to cough’
<’bo> / <sup>L</sup> pu/ ‘to overflow, to spill’	<ro> / <sup>L</sup> ru/ ‘corpse’

(2) OT syllables with consonantal codas

As in other Kham dialects (Gésāng 1989: 349-350; Gésāng and Gésāng 2002: 78), the depletion of OT consonantal codas in Kami result in the development of (i) innovative vowels, e.g. OT *-ar* > Kami /ɛ/, e.g. <dar> /<sup>L</sup>tɛ/, and *-ang* > /õ/, e.g. <tshang> /<sup>H</sup>ts<sup>h</sup>õ/ ‘family, house; nest’, and (ii) diphthongs. The developments of OT closed rhymes containing consonantal codas are summarized in Table 7. (Table 7 lists modern Kami reflexes supported by the majority of examples. Sporadic sound changes are listed in footnotes.) The variation between the modern reflexes of the OT rhymes *-od, -or* and *-on* (a simple vowel, /e/ and /ẽ/, vs. a diphthong, /ue/ vs. /uẽ/, respectively) appears to be phonologically conditioned by the modern initial of the word. Namely, words with bilabial initials cannot combine with the rising diphthong. For example, <bod> /<sup>L</sup>pə/ ‘Tibet, Tibetan’ vs. <mdzod> /<sup>H</sup>Ndzue/ ‘room, chamber’, <bor> /<sup>L</sup>pə/ ‘to throw, to toss, to discard’ vs. <lag kor> /<sup>L</sup>ja-<sup>H</sup>kue/ ‘bracelet’, <dpon> /<sup>H</sup>pẽ/ ‘official’ vs. <rngon> /<sup>H</sup>ŋuẽ/ ‘to hunt’.

<sup>35</sup> One exception to the *a* to /ɔ/ change is <ga~gar> ‘where’, Kami /<sup>L</sup>ka~<sup>L</sup>kɛ/.

	<b>b(s)</b>	<b>d</b>	<b>g(s)</b>	<b>l</b>	<b>r</b>	<b>s</b>	<b>n</b>	<b>ng(s)</b>	<b>m(s)</b>
<b>a</b>	ɤ	e	a	i <sup>36</sup>	ɛ	ei <sup>37</sup>	ẽ	õ	ã
<b>i</b>	i	i	i <sup>38</sup>	i	i	i <sup>39</sup>	ẽ	ĩ <sup>40</sup>	ẽ
<b>e</b>	e	e	a <sup>41</sup>	ei or i <sup>42</sup>	e	i	ẽ	ĩ	ẽ
<b>u</b>	ui or u <sup>43</sup>	i	u <sup>44</sup>	ei/e/i/u <sup>45</sup>	ui	i or ə <sup>46</sup>	ẽ	ũ	ũ
<b>o</b>	u or o <sup>47</sup>	e or ue <sup>48</sup>	o <sup>49</sup>	ei or i <sup>50</sup>	e or ue	ei	ẽ or uẽ	õ	õ

Table 7. OT rhymes with consonantal codas and their Kami reflexes

The marginally attested diphthong /ie/ is likely to result from the ongoing process of palatalization conditioned by modern Kami front vowels. Hence, <skas> /<sup>H</sup>kie/ ‘ladder’ is likely to have developed through the following stages: <skas> > /kei/ > /kie/.

Overall, the drastic rhyme attrition is considered as one of the characteristic features of Kham dialects (e.g. Gésāng and Gésāng 2002: 78). While the precise developments of OT closed syllables containing codas are extremely variegated in Kham, the major trends, as characteristic for such well documented Kham dialects, as Bātáng (Gésāng 1989: 348) and Dégé (Häsler 1999: 51-75), can be summarized as follows (Hú 1991: 192):

OT -b/-d/-g > V? (short checked syllables)

OT -m/-n/-ŋ > Ǟ (long nasalized syllables)

OT -r/-l/-s > Ø (long open syllables)

<sup>36</sup> Some sporadic examples of the change from OT -al to Kami /e/ have also been attested. For example, /<sup>L</sup>k<sup>h</sup>e-<sup>H</sup>lə/ <mkhal ?> ‘kidney’, /<sup>H</sup>bu-<sup>H</sup>t<sup>h</sup>e/ <sbub chal> ‘cymbals’.

<sup>37</sup> An exception to this change is the word ‘ladder’, <skas>, Kami /<sup>H</sup>ke/ [Hkie].

<sup>38</sup> An alternative development of this OT rhyme in Kami, as attested in one single word, is /u/, <kha tig> /<sup>L</sup>k<sup>h</sup>a-<sup>H</sup>tu/ ‘bitter’.

<sup>39</sup> A different development of this OT rhyme in Kami, attested in one single word, is /ue/, i.e. <gnyis> /<sup>L</sup>ŋ ue-<sup>H</sup>ŋue/ ‘two’.

<sup>40</sup> An alternative development of this rhyme in some Kami words is /ẽ/, e.g. <ring> /<sup>L</sup>rẽ/ ‘long’.

<sup>41</sup> For example, <sreg> /<sup>H</sup>sa/ ‘to burn; hot (as of weather); spicy (as of food)’, <‘dzeg> /<sup>L</sup>Ndza/ ‘to climb’, <‘dreg> or <‘breg> /<sup>L</sup>dza/ ‘to cut one’s hair’.

<sup>42</sup> For example, <shel> /<sup>H</sup>t<sup>h</sup>ei/ ‘glass’, <khrel> /<sup>H</sup>t<sup>h</sup>hi/ ‘shy, bashful’.

<sup>43</sup> For example, <mdzub> /<sup>L</sup>Ndzui/ ‘finger’, <gtub> /<sup>H</sup>tu/ ‘to cut off, to sever; to cut up, to slice’.

<sup>44</sup> Some sporadic exceptions to this sound change include <‘dug> /<sup>L</sup>Ndə/ ‘to be; to sit; to dwell’, and <dbug> /<sup>L</sup>bu/ ‘breath’.

<sup>45</sup> For example, <shul> /<sup>H</sup>t<sup>h</sup>ei/ ‘mark, trace’, <dngul> /<sup>H</sup>ŋe/ ‘silver; money’, <‘gul> /<sup>H</sup>ŋgi/ ‘to push’, <brtul> /<sup>L</sup>tə-<sup>H</sup>tu/ ‘blunt’.

<sup>46</sup> For example, <lus po> /<sup>L</sup>li-<sup>H</sup>pu/ ‘body’, <rus pa> /<sup>L</sup>rə-<sup>H</sup>po/ ‘bone’.

<sup>47</sup> There are only two examples of this rhyme in the sample, <yob> /<sup>L</sup>zu/ ‘stirrup, steps’ and <spobs> /<sup>H</sup>po/ ‘to dare, to have courage’.

<sup>48</sup> A different development of this rhyme is attested in the word /<sup>H</sup>ɣ/ <lhod> ‘relaxed, loose’.

<sup>49</sup> For example, <srog> /<sup>H</sup>so/ ‘life, fate, destiny’. In a small number of words, this regular reflex of the OT rhyme -og, viz. /o/, appears to have followed an additional change, viz. from /o/ to /u/, as in <me tog> /<sup>L</sup>nbu-<sup>H</sup>ru/ ‘flower’, <thog> /<sup>H</sup>t<sup>h</sup>u/ ‘grain, crops’. Finally, some words with this OT rhyme result in Kami /ɤ/, e.g. <‘og> /<sup>L</sup>xɤ/ ‘below’.

<sup>50</sup> For example, <gshol> /<sup>H</sup>t<sup>h</sup>ei/ ‘plow’, <sol ba> /<sup>L</sup>s<sup>h</sup>i-<sup>H</sup>wə/ ‘charcoal’, <skol> /<sup>H</sup>ki/ ‘to boil, to stew’.

In addition, a number of OT closed syllables containing codas develop into modern diphthong finals, e.g. Bātáng /eĩ/ derives from OT *-en* and *-an*; /eiʔ/ from *-ed*, and /auʔ/ from *-ab* and *-ob* (Gésāng 1989: 349).

The number of diphthongs deriving from original OT closed syllables with codas varies considerably among Kham dialects and can thus be of interest for subgrouping purposes. It appears that dialects with large inventories of diphthongs are centered around Gānnán 甘南 <kan lho> Tibetan Autonomous Prefecture in Gānsù Province (represented by such dialects as Zhuóní 卓尼 <co ne> and Zhōuqǔ 舟曲 <'brug chu>) and around Dìqìng Prefecture, with the dialects of which Kami is grouped in one sub-cluster (Qú 1991: 25-26). For example, Zhōngdiàn, one of the best-recorded Dìqìng dialects has, in different analyses, as many of 23 diphthongs (Lù 1990: 150), or 11 or 9 diphthongs (Wáng 1996: 63-64; Hongladarom 1996: 76, respectively). The major source for diphthongs in these dialects is OT rhymes with the codas *-s*, *-l*, *-n*, and *-d*. Consider some examples from Qú (1991: 45-47):

OT *-Vb* > *-Vu*, e.g. Zhōngdiàn <thab> /t<sup>h</sup>ou<sup>53</sup>/ ‘solution, means, method’

OT *-Vl* > *-Vi*, e.g. Zhōngdiàn <skol> /kui<sup>55</sup>/ ‘to boil’, <drel> /tʂui<sup>13</sup>/ ‘donkey’

OT *-Vd* > *-Ve*, e.g. Zhōuqǔ <bdud> /tye<sup>22</sup>/ ‘demon’

OT *-Vn* > *-Ve*, e.g. Zhōuqǔ <gon> /kye<sup>44</sup>/ ‘to put on’, <dran> /tʂie<sup>44</sup>/ ‘to think’

OT *-os* > *-ue/-ui*, e.g. <dgos> ‘to want’: Zhōngdiàn /gue<sup>55</sup>/, Dōngwàng /gui<sup>53</sup>/

The developments of OT rhymes with consonantal codas in Kami are similar to those described in Qú (1991: 25-26). One way to account for these developments in Kami is to hypothesize that *all* OT closed syllables with consonantal codas develop through a stage of diphthong reflexes of the original OT rhymes.<sup>51</sup> In this analysis, the original OT rhymes develop into diphthongs, in which the first target reflects the original OT nucleus vowel, and the second target reflects the original OT coda. In addition, OT rhymes with back rounded vowels *u* and *o* develop into rising diphthongs, e.g. <me thur> /<sup>l</sup>mo-<sup>h</sup>t<sup>h</sup>ui/ ‘matches’, <rna kor> /<sup>h</sup>na-<sup>h</sup>gue/ ‘round earrings’. OT nasal codas contribute to the nasalization of the second target, e.g. <'don> /<sup>h</sup>Nduẽ/ ‘to read out loud, to learn’. Notably, when the trajectory between the two targets in a diphthong is large, the two targets coalesce into one target, resulting in many cases into an innovative vowel, e.g. OT *-ab* > Kami /ɤ/, OT *-ar* > Kami /ɛ/. When, on the other hand, the trajectory between the two targets is short, Kami retains a diphthong, e.g. OT *-el* > Kami /ej/.

Based on the developments as summarized in Table 7, the development of OT rhymes with consonantal codas in Kami can be schematically presented as follows:

(a) rhymes with *-l*, *-r*, *-s* coalesce in /i/, e.g. <ru> /<sup>l</sup>p<sup>h</sup>a-<sup>h</sup>ri/ ‘to rot’ (with the directional prefix /p<sup>h</sup>a-/ ‘outward’), <zur> /<sup>l</sup>sui/ ‘corner’, <? lus> /<sup>h</sup>wu-<sup>h</sup>li/ ‘cat’

(b) rhymes with *-d* develop into /e/, e.g. <red> /<sup>l</sup>re/ ‘copula verb’, whereas *-n* develops into /ẽ/, e.g. <'dren> /<sup>h</sup>Ndzẽ/ ‘to thread (a needle)’

<sup>51</sup> These developments are also seen in other dialects with many diphthong reflexes of OT rhymes with codas (Qú 1991). In Kami, they additionally include (i) many innovative vowels (of which some are phonetically diphthongized), (ii) many diphthongs, (iii) absence of glottal stop codas.



(c) in rhymes with grave codas (-*b*, -*m*, -*g*, -*ng*), the stop finals are lost, while the original OT nasals leave their trace as the nasalization of the vowels. Before these changes, the velar finals conditioned the vowel /u/ to become /u/. In sum, OT -*ub* becomes /u/, -*ug* first becomes -*ug* and then /u/, -*um* becomes /ũ/, and -*ung* first becomes -*ung* and then /ũ/. For example, <gtub> /<sup>h</sup>tu/ ‘to cut off, to sever; to cut up, to slice’, <gtsug> /<sup>h</sup>tsu/ ‘calvaria, top of the head’, <mig btsu> /<sup>h</sup>ni-<sup>h</sup>tsũ/ ‘to blink, to wink’, <dung> /<sup>h</sup>tũ/ ‘conch shell’

The diphthong /ua/ occurs only in words of unclear etymology. For example, /<sup>l</sup>gua-<sup>h</sup>fu/ ‘yak’ and /<sup>l</sup>k<sup>h</sup>ua-<sup>h</sup>la/ ‘basin’, cf. Shǐxīng /<sup>l</sup>q<sup>h</sup>ua-<sup>h</sup>la/, Púmǐ /k<sup>h</sup>ua<sup>35</sup>l<sup>35</sup>/, Lizu /<sup>h</sup>q<sup>h</sup>wa-<sup>h</sup>la/.

The development of OT closed syllables with codas in Kami with no modern glottal stop codas and no feature of length is quite unique both as compared to the best-documented Kham dialects and to the neighbouring dialects of Dìqìng Prefecture. The development of OT rhymes with consonantal codas in Kami is closely related to the development of tones in this dialect, as discussed in the following section.

### 3.3. Development of Tones

Kami tones fall under two registers (High and Low). Their development is conditioned by two factors: (1) desonorization of initial consonants, and (2) the loss of prefixal consonants. Both are among the major trends in the development of tonal registers in Tibetan dialects (cf. Huáng 1995: 50; e.g. Dégé, Häsler 1999: 75).

The main trends in the development of tonal registers in Kami, as elsewhere in Kham, are for OT syllables with obstruent onsets to induce low register when the latter are voiced, and high register otherwise. In addition, OT syllables with sonorant onsets develop low register if OT prefixal consonants are absent and high register otherwise. For example:

<zhang> / <sup>l</sup> çĩ/ ‘land’	<shing> / <sup>h</sup> çĩ/ ‘wood, tree’
<nga> / <sup>l</sup> ŋõ/ ‘I’	<lnga> / <sup>h</sup> ŋõ/ ‘five’
<nyan> / <sup>l</sup> ŋe/ ‘to listen’	<dn gul> / <sup>h</sup> ŋe/ ‘silver; money’

Some of Kami tones appear irregular from the point of view of standard written Tibetan orthography. These irregular cases further fall into three categories:

(1) high tone in words related to WT words with voiced initial in the absence of a prefix, e.g. <myig> /<sup>h</sup>ni/ ‘eye’, <bu> /<sup>h</sup>pə/ ‘son’

(2) low tone in words with a voiceless initial related to WT unprefixal words with a voiceless initial or to WT words with a voiceless prefix, e.g. <char pa> /<sup>l</sup>tç<sup>h</sup>ɔ/ ‘rain’, <shwa ba> ‘deer’ /<sup>l</sup>χɔ/, <sna> /<sup>l</sup>ŋã/ ‘nose’

(3) low tone (or variable tone) in words related to words with a WT voiced prefixal consonant and a voiced initial, e.g. <dbug> /<sup>l</sup>bu/ ‘breath’, <dbun> /<sup>l</sup>dẽ~<sup>h</sup>dẽ/ ‘seven’,

<'grang> /<sup>L</sup>Ndzõ/ 'to have one's fill', <mdzub> /<sup>L</sup>Ndzui/ 'finger', <dgon> /<sup>L</sup>guẽ/ 'abbey'.<sup>52</sup>

These three categories are considered in turn below.

(1) The first category covers those etymons that have a prefix in OT, whereas this prefix is no longer reflected in WT. One of the most frequently quoted examples of such etymons is WT *mig* 'eye'. The reflexes of this word in many dialects point to the OT form \**C-myig*. This word is also attested as *dmyig* or *gmyig* in Dūnhuáng manuscripts (Huáng et al. 1994: 121). In Kham dialects, this word often carries a high tone reflex in Kham dialects, as it does in Kami, hence equally pointing to an earlier prefix.

The same explanation may be in order in the case of the word for 'son', /<sup>H</sup>pə/, WT <bu>, or in the case of the word for 'body', WT <lus po>, variously /<sup>L</sup>li-<sup>H</sup>pu/, for my main consultant, or /<sup>H</sup>li-<sup>H</sup>pu/ for my other consultants. The latter word is irregular both in terms of its initial (for the OT unprefixated root initial /- normally becomes /j/ in Kami) and in terms of its high tone (the /L-H/ tone patten for the main consultant may be due to the iambic stress pattern). An elided prefixal consonant potentially offers an explanation for both the unchanged initial and the high tone.

(2) The second category groups together cases, in which low tone is conditioned by one of the morphologically opaque OT nominal suffixes *-ba*, *-bo*, *-bu*, *-pa*, *-po*, *-ma*, *-mo*, *'i*, and *'u*. Two additional points are in order. First, the initial of all suffixes may lenite to *-w-* (in the case of *-pa*, *-po* through the intermediate stage of voicing, and in the case of *-ma*, *-mo* with an accompanying nasalization). For example:

(i) *-b-* > *-w-*, e.g. <kha ba> /<sup>L</sup>k<sup>h</sup>a-<sup>H</sup>wə/ 'snow'

(ii) *-p-* > *-b-* > *-w-*, e.g. <sgog pa> > \*sgog ba > /<sup>L</sup>gu-<sup>H</sup>wə/ 'garlic', <thag pa> > \*thag ba > /<sup>L</sup>t<sup>h</sup>a-<sup>H</sup>wə/ 'rope'

(iii) *-m-* > *-w-* (+ nasalization), e.g. <tsher ma> /<sup>L</sup>ts<sup>h</sup>ə-<sup>H</sup>wã/ 'thorn', <ba mo> /<sup>L</sup>pã/ 'frost', <so ma> /<sup>H</sup>sõ/ 'hemp'

Second, the outcome of the changes above, i.e. the intervocalic *-w-*, may be further lenited to zero, leading to the coalescence of open root syllable with the prefix into a diphthong, e.g. [əw] as in /<sup>L</sup>t<sup>h</sup>əw/ [t<sup>h</sup>əw<sup>13</sup>] 'rope', or the simple vowel [ə], without a trace of lengthening. For example: <shwa ba> /<sup>L</sup>χə/ 'deer', <char pa> > \*char ba > /<sup>L</sup>t<sup>h</sup>əw/ 'rain', <sna ba> or <sna ma> /<sup>L</sup>ṅã/ 'nose'.<sup>53</sup>

Coalescence of open root syllables with the OT nominal suffixes is the predominant source of modern long tones in Tibetan dialects, analyzed as low register induced by rhyme length (Huáng 1995: 57; Sun 2001: 40). In view of Kami disyllabic examples such as /<sup>L</sup>k<sup>h</sup>a-<sup>H</sup>wə/ 'snow' and /<sup>L</sup>t<sup>h</sup>a-<sup>H</sup>wə/ 'rope', in which low register appears to

<sup>52</sup> The anonymous reviewer notes that this is common in many Southern Kham dialects. The low tone in such cases is attributed to the second syllable that has coalesced with the root. This process is said to drop the tone down.

<sup>53</sup> The nasalization of the rhyme triggered by the nasal onset, as possibly exemplified by <sna> /<sup>L</sup>ṅã/ 'nose', is another idiosyncratic feature of Kami. This development is attested in a considerable number of basic vocabulary words, e.g. <nya> /<sup>L</sup>ṅõ/ 'fish', <ngu> /<sup>L</sup>ṅũ/ 'to cry', <nga> /<sup>L</sup>ṅõ/ 'I', <lnga> /<sup>H</sup>ṅõ/ 'five', <ma> 'mother', <ṛma> 'wound, injury', both /<sup>L</sup>mõ/.

have developed before coalescence, somewhat surprisingly suggests that low register may be induced by a suffix with a voiced initial, with syllable coalescence and length being secondary results in this process.<sup>54</sup> Alternatively, such words may be examples of a contracted syllable expanded again at a later stage (see §3.4.3).

(3) The third category brings together words related to WT etymons with a voiced initial and a WT voiced prefixal consonant. It can be further distinguished into:

(i) words with variable tones, e.g.:

<gnyis> /<sup>l</sup>ɲue~<sup>h</sup>ɲue/ ‘two’

<dbun> /<sup>l</sup>dẽ~<sup>h</sup>dẽ/ ‘seven’

(ii) words with a modern voiced initial and a low tone, e.g.:

<dbugs> /<sup>l</sup>bu/ ‘breath’ (this word is also irregular in terms of the development of the OT rhyme)

<'bu> /<sup>l</sup>Nbə/ ‘insect, bug’

The development of OT clusters consisting of voiced initials and voiced prefixes is known for its heterogeneity in Tibetan dialects. This development, conditioned by the gradual process of devoicing of OT voiced obstruents, in which process prefixed obstruents are affected later than simplex obstruents (Sun 2001: 39), may variously lead to unstable tones, as in Dégé (Gésāng and Gésāng 2002: 109) and Kami, or to a distinct mid register, as in <rdza rdo> Zádūō 雜多 Tibetan of Yùshù in Qīnghǎi Province (Sun 2001: 38), and, possibly, Dōngwàng (Bartee, this volume).

The situation in Kami is characterized by the pronounced tendency to correlate the endpoint of the process of devoicing with a stable low tone (cf. Häslér 1999: 88). Before the process of devoicing is completed, syllables with variable tones in Kami may tentatively be considered as atonal at this point of their development.

### 3.4. Word-internal Phonological Processes

Comparison with WT etymons reveals in Kami a number of phonological processes that target intervocalic consonants in the second-syllable-initial position. These processes include spirantization and voicing, which, in turn, may be accompanied by spirantization and resyllabification. In terms of frequency in the corpus, spirantization and voicing affecting velar stop initials, on the one hand, and resyllabification involving WT nominal suffixes, on the other hand, are most common. Altogether, these processes are not regular in Kami, and for some initials, even marginal and sporadic. All these processes in Kami have close parallels both in the best-recorded Kham dialects (Bātáng,

<sup>54</sup> For some consultants, the process of syllable coalescence does lead to a long vowel, i.e. [k<sup>h</sup>ɔː<sup>11</sup>] ‘snow’. Note that length is not contrastive in this dialect and the number of words undergoing syllables coalescence is restricted (hence precluding such syllables as a source for the rise of contrastive length). It is therefore conceivable that such words with non-phonemic long vowels will lose the feature length to develop into an open syllable with a low tone, similar to the examples above, i.e. /<sup>l</sup>k<sup>h</sup>ɔ/.

Gésāng 1989: 340-342; Dégé, Häslér 1999: 13-16, Gésāng and Gésāng 2002: 99-102) and in the dialects of Díqīng Prefecture (Zhōngdiàn, Lù 1990: 156-158; Dōngwàng, Bartee, this volume).

### 3.4.1. Spirantization

The process of spirantization primarily targets the voiceless aspirated velar stop /k<sup>h</sup>/, which, in the second-syllable-initial position, is often produced as a velar fricative, e.g.:

<sog khang> /s<sup>h</sup>o-<sup>h</sup>xǔ/ ‘thatched house’

<pho khebs> /p<sup>h</sup>u-<sup>h</sup>xε/ ‘quilt, blanket’

<a khu> /a-<sup>h</sup>xə/ ‘uncle’

<dud khug> /ti-<sup>h</sup>xu/ ‘tobacco pouch’

Compared to, for instance, Dégé, where aspirated velar stops in the second-syllable-initial position are exceedingly rare and possibly limited to careful speech (Häslér 1999: 14), this process is irregular in Kami, where aspirated velar stops in the second-syllable position are common. For example:

<sman khang> /m̥ē-<sup>h</sup>k<sup>h</sup>ǔ/ ‘hospital’

<gru khug> /t̥sə-<sup>h</sup>k<sup>h</sup>u/ ‘elbow’

<a ? rang> /a-<sup>h</sup>k<sup>h</sup>ə-<sup>h</sup>rā/ ‘we, first person plural inclusive pronoun’

The remaining examples of spirantization are sporadic. They include the following changes:

(1) /p<sup>h</sup>/ to /h/, e.g.:

<pho phag> /p<sup>h</sup>u-<sup>h</sup>ha/ ‘boar, hog, male pig’

<mo phag> /mu-<sup>h</sup>ha/ ‘sow, swine’

<dpal? phor> /pi-<sup>h</sup>hue/ ‘incense burner, perfuming pan’

(2) /t̥<sup>h</sup>/ to /h/ or /j/, e.g.:

<lag cha> /ja-<sup>h</sup>hja/ ‘tool, instrument’

<mig chu> /ɲi-<sup>h</sup>hja/ ~ /ɲi-<sup>h</sup>t̥<sup>h</sup>ə/ ‘tears’

<rdza chu> /dza-<sup>h</sup>ja/ ~ /dza-<sup>h</sup>t̥<sup>h</sup>ə/ ‘Mekong’

<kha chu> /k<sup>h</sup>a-<sup>h</sup>ja/ ‘saliva’

(3) /n/ or /ɲ/ to /j/

<gnang nyin> /nǔ-<sup>h</sup>ji/ ‘the day after tomorrow’

<na ning> /na-<sup>h</sup>ji/ ‘last year’

### 3.4.2. Voicing and Spirantization

The sporadic process of word-internal voicing changes voiceless unaspirated stops and fricatives into their voiced counterparts, e.g.:

<rna kor> /<sup>H</sup>na-<sup>H</sup>gue/ ‘round earrings’  
<ka to ra> /<sup>H</sup>ka-<sup>H</sup>də-<sup>H</sup>ro/ ‘metal dish, round copper basin’  
<chu bya> /<sup>H</sup>tɕ<sup>h</sup>ə-<sup>H</sup>ʒo/ ‘water bird; crane; swan; goose’

Voiced and, at times, also voiceless unaspirated stops become voiced. The process of voicing can be accompanied by that of spirantization. For example:

<rdo dkar> /<sup>L</sup>du-<sup>H</sup>kɛ~<sup>L</sup>du-<sup>H</sup>γɛ/ ‘white stone’,<sup>55</sup>  
<rgya gar> /<sup>L</sup>dʒa-<sup>H</sup>γɛ/ ‘India’  
<dkyil kung?> or <dkyil gung?> /<sup>H</sup>tɕi-<sup>H</sup>γũ/ ‘center, middle part’

To this category also belongs the word ‘rabbit’. Despite its WT spelling as <ri bong>, dialectal reflexes of this word suggest rather a voiceless velar stop initial in the second syllable. For example, in Lhasa Tibetan /ri<sup>13</sup>koŋ<sup>55</sup>/ (Zhāng 1996: 24), Ménbā /re<sup>35</sup>koŋ<sup>55</sup>~ri<sup>35</sup>koŋ<sup>55</sup>/ (Lù 2002: 354), Bātáng /zɿ<sup>55</sup>-γũ<sup>55</sup>/, Kami /<sup>L</sup>rə-<sup>H</sup>γũ/.

Also to this category belong cases of intervocalic voicing involving OT suffixes, i.e. of *-p-* to *-b-*, with a subsequent spirantization of *-b-* to *-w-*, as discussed above.

The process of the intervocalic voicing of /t/ to /d/ is further followed in a number of words by the rhotacism of /d/ to /r/. Some relevant examples include <mchu to> /<sup>H</sup>tɕ<sup>h</sup>ə-<sup>H</sup>ru/ ‘lips’, <me tog> /<sup>L</sup>Nbu-<sup>H</sup>ru/ ‘flower’, <sgo them> /<sup>L</sup>gu-<sup>H</sup>řě/ ‘doorsill, threshold’, <go thal> ‘ashes/cinders in a hearth’ > Kami /<sup>L</sup>ku-<sup>H</sup>ře/ ‘hearth’.

### 3.4.3 Resyllabification

The process of resyllabification applies with great frequency in Kami disyllabic words. It can be further distinguished into, on the one hand, compressions of earlier disyllabic collocations or expansions of an earlier monosyllabic form, and, on the other hand, syllable boundary re-adjustment, making the original coda part of the following onset syllable. Resyllabification is very common in OT as in modern Tibetan dialects (e.g. OT, Beyer 1992: 96; Bātáng, Gésāng 1989: 340; Zhōngdiàn, Lù 1990: 156).

#### (1) Compressions and expansions

Kami provides additional evidence on the so-called “syllabic cycle” in Tibetan, whereby words alternately compressed and expanded into monosyllabic and disyllabic forms (Beyer 1992: 96). Syllable coalescence involving the open root coalescence with nominal suffixes has been discussed and exemplified in §3.3.

The process of expansion of earlier monosyllabic forms into disyllabic forms in the surveyed sample has been essentially noted in connection with the consonant codas *-r* and *-b*. For example:

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<sup>55</sup> The same development involving the word for ‘white’ <dkar> has been described for Bātáng (Gésāng 1989: 341), Zhōngdiàn (Lù 1990: 156), and Zhongu, (Sun 2003: 793).

<phor> > \*pho ri > /ʰpa-Hrə/ ‘bowl’

<srab leb> > \*sra bi leb > /ʰsə-Hbə-Hle/ ‘flat’

## (2) Syllable boundary re-adjustment

The process of syllable boundary re-adjustment, whereby the original coda forms part of the following onset, creates consonant clusters in the second-syllable initial position. These newly formed initial clusters further follow the regular development of such clusters in non-resyllabified words. A nasal vowel or a nasal coda in the first syllable leads to the formation of prenasalized clusters in the second-syllable-initial position. For example:

<bum pa> > \*bu mba > /ʰpa-HNbɔ/ ‘vase’

<rngon khyi> > \*rngo ngyi > /ʰŋue-HNdʒə/ ‘hunting dog’

An oral coda in combination with the initial *l*- preserves the initial quality of this initial, e.g. <'khor lo> > \*'kho rlo > /ʰkʰu-Hlu/ ‘wheel’.

An oral coda in combination with a voiceless fricative initial acts as a buffer against aspiration of this initial, e.g. <yug sa> > \*yu gsa > /ʰʒu-Hsɔ/ ‘widow’.

An oral coda in combination with the initial *r*- in some cases develops into a retroflex initial, e.g. <phug ron> > \*phu gron > /ʰpʰu-Hdzuẽ/ ‘pigeon’.

Finally, the coda *-d* in combination with the initial *r*- has been attested in one case to develop into Kami /r/, i.e. <bod rag> /ʰpe-Hra/ ‘Tibetan liquor’, cf. <a rag> /ʰa-Hra/ ‘arak, strong liquor, alcoholic drink’.

## 3.5. Irregularities, Dialect Mixture

Most Kami words are readily identifiable with known Tibetan roots with the knowledge of (regular and more sporadic) sound correspondences and phonological processes in disyllabic words as outlined above. The percentage of Kami words of unclear origin is relatively low and makes up approximately 15% in the surveyed sample of ca. 2,000 words. Compared to other peripheral dialects, such as Bāsōng <brag gsum> (Qú et al. 1989), Yùshù (Huáng et al. 1994), Báimǎ (Zhāng 1994, 1997; Huáng and Zhāng 1995), or Zhongu (Sun 2003: 792), this percentage is relatively insignificant.

Kami by and large evidences regular changes with the phonological system of OT. The major source of irregularities and multiple sound correspondences is dialect interference, leading to the stratification of Kami lexicon into at least two basic layers: (1) one indigenous and altogether relatively archaic (and exhibiting such changes as OT *lh*- to Kami /h/, *zl*- to /l/, *sbr*- to /Nb~m/), and (2) one of mostly culturally-bound inter-dialectal loans.<sup>56</sup> The latter layer is further stratifiable into a number of sub-layers as per different sound change, suggesting different donor dialects. Consider some examples:

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<sup>56</sup> The stratification of Kami lexicon is an issue of considerable complexity, given the sheer number of sound changes discussed above. The challenging task of grouping various changes per layer merits a separate study.

<rma bya> /<sup>H</sup>ma-<sup>H</sup>jɔ/ ‘peacock’ (OT *by-* > /j/,<sup>57</sup> Kami *by-* > /ʃ/)  
 <bya ba?> /<sup>L</sup>ca-<sup>H</sup>pə/ ‘thing (to do), activity, task’ (OT *by-* > /ɕ/, Kami *by-* > /ʃ/)  
 <sbrang yab> /<sup>L</sup>dzã-<sup>H</sup>jɣ/ ‘mosquito net’ (OT *y-* > /j/, Kami *y-* > /z/)  
 <g.yung drung> /<sup>H</sup>jũ-<sup>H</sup>dzũ/ ‘swastika’ (OT *g.y-* > /j/, Kami *g.y-* > /z/)  
 <tshe ring zhwa mo> /<sup>H</sup>ts<sup>h</sup>ə-<sup>H</sup>rẽ <sup>L</sup>ca-<sup>H</sup>mu/ ‘traditional Tibetan hat’ (OT *zh(w)-* > /ɕ/, Kami *zh(w)-* > /χ/)

Kami words with unclear etymology, on the other hand, are dispersed all over the lexicon, including:

(1) a small number of basic vocabulary items, e.g. /<sup>H</sup>a-<sup>H</sup>mi/ ‘breast’ (by extension, also ‘milk’), cf. WT <snying ga> or <nu ma>; /<sup>L</sup>a-<sup>H</sup>ju/ ‘good’, cf. WT <bzang po> or <yag po>; /<sup>L</sup>a-<sup>H</sup>bɛ/ ‘bad’, cf. WT <ngan> or <sdug po>

(2) some cultural vocabulary, e.g. /<sup>H</sup>pi/ ‘boat’, cf. WT <gru><sup>58</sup>

(3) a number of kinship terms, e.g. /<sup>H</sup>a-<sup>H</sup>Nbu/ ‘maternal uncle’, cf. WT <zhang> (see §4.1)

(4) some animal and plant names, as common in peripheral dialects, e.g. /<sup>L</sup>p<sup>h</sup>ə-<sup>L</sup>wu-<sup>L</sup>ma-<sup>H</sup>ki/ ‘bat’, cf. WT <lpags bye'u> or <rga wang krad kyi>; /<sup>L</sup>ku-<sup>H</sup>du/ ‘walnut’, cf. WT <star kha>.

The following observations about the Kami words of obscure origin can be made.

(1) Some words of unclear origin (including those that belong to basic lexicon) are shared with the neighbouring dialects of Dìqìng Prefecture. Consider some examples from Kami and Dōngwàng:

‘breast’: Kami /<sup>H</sup>a-<sup>H</sup>mi/, Dōngwàng /mi<sup>753</sup>/

‘good’: Kami /<sup>L</sup>a-<sup>H</sup>ju/, Dōngwàng /a<sup>13</sup>ŋõ<sup>55</sup>/

‘bad’: Kami /<sup>L</sup>a-<sup>H</sup>bɛ/, Dōngwàng /a<sup>55</sup>bæ<sup>755</sup>/

‘maternal uncle’: Kami /<sup>H</sup>a-<sup>H</sup>Nbu/, Dōngwàng /a<sup>55</sup>mbə<sup>55/59</sup>/

(2) Perhaps, somewhat surprisingly, most of remaining words of unclear origin are not shared with the neighboring Qiangic languages. For example, ‘walnut’, Kami /<sup>L</sup>ku-<sup>H</sup>du/, Shǐxīng /<sup>L</sup>q<sup>h</sup>a-<sup>H</sup>ra/, Lizu /<sup>H</sup>k<sup>h</sup>a-<sup>L</sup>ɿ/, Púmǐ /<sup>L</sup>k<sup>h</sup>a-<sup>H</sup>ra/.

Furthermore, local Qiangic languages appear, at times, to have donors for their Tibetan loanwords other than Kami. This is evidenced by the dissimilarity of the loan and

<sup>57</sup> The change from WT *b* to /j/ is attested in a restricted number of Kami basic vocabulary words, e.g. <mtsher pa> /<sup>H</sup>ts<sup>h</sup>a-<sup>H</sup>jɔ/ ‘spleen’, or ‘frog’, <sbal pa> /<sup>L</sup>bi-<sup>H</sup>jɔ/, where the intervocal *-p-*, conceivably, first changed to *-b-*, and then to /j/.

<sup>58</sup> Based on the entry for ‘boat’ in Dài and Huáng (1992: 201), that lists this word in 50 Sino-Tibetan languages, the word for ‘boat’ in Kami bears a surface resemblance with the root ‘boat’ in some little-researched languages of the border areas between China and India, e.g. Taraon /peŋ<sup>35</sup>/, Idu /peŋ<sup>35</sup>/.

<sup>59</sup> Tentatively, this may be an irregular development of WT <zhang bu>, cf. Bātáng /xã<sup>13</sup>mbu<sup>53</sup>/.

the corresponding Kami word, and by sound correspondences of the loan with OT, which are distinct from those in Kami. For example, the word for ‘the universe, the external world’ is /<sup>H</sup>dzi-<sup>H</sup>t̥ɛ-<sup>H</sup>kʰɔ̃/ in Shǐxīng, WT <’jig rten khams>, and /<sup>L</sup>Ndzä-<sup>H</sup>fi/ in Kami, WT <’dzam gling>. The word for ‘flower’ is /<sup>L</sup>Nbu-<sup>H</sup>ru/ in Kami, and /<sup>L</sup>mɛ-<sup>H</sup>t̥ɕo/ or /<sup>L</sup>mɛ-<sup>H</sup>to/ in Lizu, and /mi<sup>55</sup>-t̥ɕo<sup>31</sup>/ in Nàmùzī, WT <me tog>.

#### 4. Areal Lexical and Structural Features

This section focuses on those salient lexical and structural features in Kami, noted in the surveyed sample, that may result from language contact in the area. It essentially focuses on kinship terminology, areal calques, and directional prefixes.<sup>60</sup>

##### 4.1. Lexical Features

###### 4.1.1. Kinship Terminology

A comprehensive account (functional and historical) of the Kami kinship system and associated terminology is beyond the scope of this article, since collecting and interpreting sufficient genealogical data was impossible in the course of my linguistically-oriented fieldwork. Nonetheless, some mention of Kami kinship terms, be it even preliminary, is warranted in the context of the present discussion, given the exceptional status of Kami kinship terminology in the Tibetan context and its clear links to the kinship systems in neighboring languages.

Compared to kinship terminology, as reflected in Written Tibetan, Kami kinships terms are idiosyncratic. While some of them are traceable to WT, e.g. /<sup>H</sup>a-<sup>H</sup>ni/, <a myes> ‘forefather’; /<sup>L</sup>a-<sup>H</sup>xə/, <a khu> ‘paternal uncle’; some appear unrelatable to any Tibetan etymon, e.g. /<sup>L</sup>a-<sup>H</sup>ju/ ‘elder brother’, cf. WT <jo jo>, /<sup>L</sup>a-<sup>H</sup>zi/ ‘elder sister’, cf. WT <gcen mo> or <a cag>.<sup>61</sup>

Altogether, as far as the written language is concerned, WT kinship terms have been analyzed as reflecting a partilineal exogamous social structure with a clear distinction between father’s side and mother’s side, and an emphasis on a continuous vertical line from grandfather to the father’s sons (e.g. Nagano 1994: 105).

At odds with this conclusion, studies on peripheral Tibetan societies in central and southern Tibet (along with Tibetan communities in Nepal and India), reveal rather bilateral kinship systems (e.g. Aziz 1978: 117-122, Goldstein 1971, Levine 1988: 37-61). In these systems, descent reckoning is highly limited in its application, it is not simply patrilineal, and it operates chiefly at the periphery of society, among the nobles and outcasts. It is therefore not surprising that it is the marginal pattern of the society’s elite, related to hierarchy, rank and lineage, that is reflected in the written language.

While our knowledge of Kham and Amdo societies remains sketchy, on-going anthropological and ethnographic work on non-Tibetan societies of South-West China

<sup>60</sup> I use the term ‘calque’ to refer to compounds and phrases shared by a number of Mùlǐ languages that consist of language specific words in conformity with some shared model. For the moment, I leave aside the issue of the source of this model.

<sup>61</sup> The words for ‘older brother’ and ‘older sister’ are shared by Kami with Dōngwàng, /a<sup>13</sup>ɣy<sup>55</sup>/ and /a<sup>13</sup>zj<sup>55</sup>/, respectively (Bartee, this volume), and also with Shǐxīng, /<sup>L</sup>a-<sup>H</sup>ju/ and /<sup>H</sup>a-<sup>H</sup>zi/, respectively.



(the Moso, the Yí, the Púmǐ), including those of Mùlǐ, suggests a high degree of uniformity underlying areal kinship practices (Hsu 1998, McKhann 1998, Lu 2000, Wellens 2006: 117-161). The following characteristics of these societies are most notable:

(1) a substantial degree of bilateral kinship reckoning underlying all local social systems (McKhann 1998: 41)

(2) regional preference for cross-cousin marriage, together with high incidence of polygamous marriage: mainly fraternal or adelphic polyandry (in which two or more brothers take one wife), and to a lesser extent sororal polygyny (where sisters marry one husband) (Wellens 2003: 125)

(3) residentially based principles of social organization, or ‘houses’, which are both residential and kinship groups (Aziz 1978: 117, 122-133; Wellens 2006: 143-149)

(4) interplay of two kinship ideologies: the one bilateral and related to the ‘house’, and the other unilateral (matrilineal or patrilineal depending on the group) and concerned with hierarchy and rank (Hsu 1998: 90)

The social organization of the Kami conforms to this profile. The importance of ‘house’, the residential and kinship group, can be glimpsed through the fact that every house in the Kami area is assigned a name, /ʎi-ʰtsʰɔ̃ ʎũ/ <mi tshong mying> ‘house name’. The name of the house, together with the village name, is ascribed to all its occupants. It is the name of the house by which one is known in one’s own locality and in the wider community. In Shuǐluò, this practice is shared at least by the Kami, the Shǐxīng, and the Púmǐ. Take as an example the full name of my main language consultant, Mr. Yáng Lǔróng Túdīng /ʎẽʰi-ʰra ʰja-ʰlǔ ʰlu-ʰzũ ʎʰu-ʰdī/. His two Tibetan names, /ʰlu-ʰzũ ʎʰu-ʰdī/ <blo bzang stobs ldan>, are preceded by his native village name, /ʎẽʰi-ʰra/ Qílā, and his house name in the village, /ʰja-ʰlǔ/. (In addition, having worked many years in the local administration, my main consultant also has a Chinese family name, Yáng 楊.)

The regional preference for cross-cousin marriage is also reflected in Kami kinship terminology.

The kinship system of the Kami is an ego-focused bilateral kindred simple system with distinctions according to the sex of the kin, according to the relative generation, and according to the age of the kin in relation to ego. Among siblings, the distinction according to the sex of the kin applies only to older siblings, whereas younger siblings are uniformly referred to as /ʎnũ/ (<nu bo>) ‘younger brother or sister’. (The same distinction is also characteristic, among others, for the Shǐxīng, /ʰgɔ̃/ ‘younger brother or sister’.)

Father’s brothers are called /ʎa-ʰxə/, <a khu> regardless of their respective age. The mother’s brothers, again regardless of their respective age, are called /ʎa-ʰNbu/ (<zhang bu?>), which is also the term for father’s sister’s husband. Father’s sister is called /ʰa-ʰrē/ (<a sring?>), which is also the term for mother’s brother’s wife. Finally, mother’s sister is called /ʎa-ʰsũ/ (<a sru mo>), which is also the term for father’s brother’s wife. In sum, in this classification, ego’s mother’s sister’s husband is his father’s brother and his father’s brother’s wife is his mother’s sister. If taken to reflect the

ideal norm, as kinship terminology normally does, the ideal norm for the Kami is cross-cousin marriage, consisting of sister's exchange. In practice, however, it is polygamous marriage that appears most widespread among the Kami.

At odds with the kinship terminology as reflected in WT with its emphasis on a continuous vertical line from grandfather (<mes>) to the father's sons (<pha spun>), the emphasis in the Kami system is rather on the mother's line, with the term /<sup>H</sup>a-<sup>H</sup>mō/ standing for the continuous vertical line from grandmother to sister: 'grandmother', 'father's elder brother's wife' (who at the same time is called /<sup>H</sup>a-<sup>H</sup>rě/) and 'ego's second sister'. /<sup>L</sup>a-<sup>H</sup>suĩ/ is at the same time 'maternal aunt' and '(male) ego's younger sister'.

In sum, Kami kinship terminology reveals a (etymologically) hybrid system, reflecting the areal pattern of social organization shared by all local Mülǐ groups.

#### 4.1.2. Areal Calques

A characteristic areal lexical feature is the high incidence of common patterns in word formation, common semantic distinctions and extensions, and calques. A further distinction may be drawn between those distinctions that are shared by Kami with *all* neighboring Qiangic languages, and those distinctions that are shared by Kami with *some* neighboring Qiangic languages and not with some other Qiangic languages of Mülǐ.

##### (1) Word-formation: Diminutives

A pervasive areal pattern is to form diminutives with the diminutive suffix, derived from the word for 'child'.

In Kami, the word for 'child' is /<sup>L</sup>a-<sup>H</sup>ka/. The Tibetan etymology of this word is not clear.<sup>62</sup> The root /ka/ of this word is used as a diminutive suffix. For example, /<sup>L</sup>tʃə-<sup>H</sup>ka/ 'puppy', <khyi ?>; 'kitten' /<sup>L</sup>wu-<sup>H</sup>ka/, <?>. To compare, in Shǐxīng, the word for '(male) child, man' is /<sup>L</sup>zǒ/. This root is used as a diminutive suffix in a fashion similar to Kami, /<sup>H</sup>k<sup>h</sup>uɜ-l-zō/ 'puppy' (</<sup>H</sup>k<sup>h</sup>uɜ/ 'dog'), /<sup>L</sup>ma-<sup>L</sup>zɹ-<sup>H</sup>zō/ 'kitten' (</<sup>L</sup>ma-<sup>H</sup>zɹ/ 'cat').

Both the WT diminutive root <phrug>, e.g. /<sup>L</sup>wu-<sup>H</sup>tʃə/ 'kitten', and the WT word for 'child' <a wo>, Kami /<sup>H</sup>a-<sup>H</sup>wɔ/, are also attested in the recorded sample. However, they are far less frequent than /<sup>L</sup>a-<sup>H</sup>ka/ and /ka/.

##### (2) Common semantic distinctions and extensions

Here is an incomplete list of characteristic examples of common semantic distinctions and extensions:

The verb 'to float' is a semantic extension of the verb 'to fly' (this homophony is already characteristic of WT). Both verbs are /<sup>H</sup>dī/, WT <lding> in Kami. The same applies to Lizu: /<sup>H</sup>bzɛ/ 'to fly' vs. /<sup>H</sup>dɛ-<sup>L</sup>bzɛ-<sup>L</sup>bzɛ/ 'to float' (</dɛ-/ is a directional prefix, meaning 'upward'). The two verbs are, however, distinct in Shǐxīng: /<sup>H</sup>dzɛ̃/ 'to fly' and /<sup>H</sup>pu/ 'to float'.

<sup>62</sup> This word is shared by Kami with Dōngwàng, /a<sup>13</sup>ka<sup>53</sup>/. However, the root /ka/ does not appear to be used in the formation of diminutives in this dialect. Dōngwàng uses the WT root <phrug> instead, e.g. 'puppy' <khyi phrug> /ɕə<sup>55</sup>tʃ<sup>h</sup>u<sup>55</sup>/, 'kitten' <? phrug> /wu<sup>55</sup>tʃ<sup>h</sup>u<sup>53</sup>-ly<sup>55</sup>tʃ<sup>h</sup>u<sup>53</sup>/.

The noun ‘mute’ (by extension, also ‘dumb person, idiot’) distinguishes between a male mute and a female mute, respectively, Kami: /ʌpə-ʰkw/ <bu skugs> and /ʌmə-ʰkw/ <mu skugs>, Shǐxīng: /ʌzō-ʰtɕɜ/ and /ʰmi-ʌtɕɜ/; or Púmǐ: /dzu<sup>33</sup>ɣiã<sup>55</sup>/ and /m̥ɛ<sup>55</sup>ɣiã<sup>55</sup>/. Conversely, this distinction is not made in Lizu, /ʌzɿ-ʰka/ ‘mute’, or in Nàmùzī, /a<sup>33</sup>-qa<sup>55</sup>/ ‘mute’.

### (3) Calques

The verb ‘to flow’ is a nominal predicate expression consisting of the noun ‘water’ and the verb ‘to go’, e.g. in Kami /ʰtɕʰə ʌNdzu/ <chu 'gro>, in Shǐxīng /ʰdzɜ ʰbi=ʰji/ (< /ʰdzɜ/ ‘water’, /ʌbi/ ‘to walk’, /ji/ is the progressive marker), or in Nàmùzī [ndzɿ<sup>55</sup>=qʰæ<sup>11</sup> bie<sup>55</sup>] (< [ndzɿ<sup>53</sup>] ‘water’; /qʰæ/, (bound root) classifier for elongated objects; [bie<sup>55</sup>] ‘to go, to walk’).

The verb ‘to give birth’ in Kami literally means ‘to see (the child’s) face’, /ʰdõ ʌtʰõ/ (< /ʌdõ-ʰku/ <gdong ?> ‘face’, /ʰtʰõ/ <mthong> ‘to see’). This formation has an exact parallel in Shǐxīng: /ʌza-ʌmi/ ʌpʰã-ʰdõ/ (< /ʌza-ʰmi/ ‘child’, /ʰpʰã/ ‘face’, /ʌdõ/ ‘to see’). On the other hand, this calque is not shared by Lizu, which has a monosyllabic root, /ʰʌdzɿ/, to express the meaning ‘to give birth’.

The few examples mentioned in this section suggest that it is a promising direction to consider Kami lexicon in its areal context in a more systematic fashion.

One more salient areal pattern adapted in the form of morphemic substitution in Kami is the use of verbal directional prefixes, as discussed in the following section.

## 4.2. Directional Prefixes and Miscellaneous Morphosyntactic Innovations

Directional prefixes (topography-based spatial deixis) are one of the essential features probative of the membership in the Qiangic subgroup of the Tibeto-Burman language family. In Huáng Bùfán’s (1994) analysis, the fact that this areally dominant yet strikingly non-Tibetan feature (at least as compared to WT and better-described Tibetan dialects) is also shared by Kami, suggests that its presence in Kami is due to language contact.<sup>63</sup>

The following additional observations concerning the use of directional prefixes in Kami can be made.

(1) The use of directional prefixes is characterized by a certain degree of geographic, temporal and/or individual variation. This is evidenced by dissimilarities between my own recent fieldwork and Huáng’s (1994) Kami data based on her fieldwork in the late 1980s. (Unfortunately, Huáng does not specify which sub-dialect of Kami she worked on.) Notably, of the five Kami directional prefixes quoted by Huáng, only four are shared with my data, namely, (i) /pʰa-/ <phar> ‘away from the speaker’, (ii) /tsʰa-/ <tshur> ‘towards

<sup>63</sup> It is noteworthy that the presence of directional prefixes in Kami is not unparalleled in other Tibetan dialects. A relatively well known case is Báimǎ (Huáng and Zhāng 1995: 112-113), which has as many as 13 directional prefixes. Zhongu, on the other hand, exhibits a development of imperative markers from WT directional terms (Sun 2003: 797, footnote 51). Directional prefixes are also being discovered in a growing number of newly described dialects that are spoken in the historical frontier areas between Tibet and China.

the speaker’, (iii) /ja-/ <jar> ‘upward’, and (iv) /ma-/ <mar> ‘downward’. The fifth prefix quoted by Huáng, /tæ<sup>13</sup>-/ ‘to the place of origin’, which she analyzes as derived from the verb <bsdad> ‘to dwell, to sit’ and which is said to co-occur with verbs of posture, has not been attested in the speech of my language consultants. At the same time, my consultants marginally use one directional prefix that is not attested by Huáng: /nõ-/ ‘inward’, <nang>, as in /<sup>H</sup>nõ-<sup>L</sup>hẽ/ ‘to look inside’.

(2) Dissimilarity of sound changes in Kami basic lexicon and directional prefixes, e.g. /ja-/ ‘upward’, from <yar> ‘upwards, above, up’ vs. <g.yar> /ʌʒɛ/ (/ʌzɛ/) ‘to borrow (objects)’. Conversely, the modern Kami reflex -a of the WT rhyme -ur in the directional prefix <tshur> is conceivably due to analogical leveling with other directional prefixes.

(3) Restricted scope of use and lower degree of grammaticalization, as compared to directional prefixes in the neighboring languages.

In Kami, most verbs do not require a directional prefix when quoted in isolation, e.g. /<sup>H</sup>jõ/ <long> ‘to take, to hold’, /<sup>H</sup>tsʰi/ <khrid> ‘to lead’, /<sup>L</sup>gu/ ‘to kneel’ (the Tibetan etymology of this root is unclear). The use of directional prefixes on verbs serves either (i) to distinguish various meanings correlated with one stem, e.g. <’jus> /<sup>H</sup>Ndzə/ ‘to grab, to seize, to grasp’ vs. /<sup>L</sup>ja-<sup>H</sup>Ndzə/ ‘to pick up’ vs. /<sup>L</sup>tsʰa-<sup>H</sup>Ndzə/ ‘to hold’, or (ii) to denote telicity and perfectivity, e.g. /<sup>L</sup>pʰa-<sup>H</sup>sa/ means both ‘to burn down’ and ‘have burnt down’; or to form imperative, as in /<sup>H</sup>ma-<sup>L</sup>Ndə/, <mar ‘dug>, ‘sit down!’.

To compare, Shǐxīng has a more grammaticalized system of directional prefixes: (i) Shǐxīng has a larger number of directional prefixes (six in total), most of which (five) are used with high frequency, both on verbs in isolation and in connected speech; (ii) Shǐxīng’s directional prefixes are associated with a larger range of contexts; (iii) They are more clearly associated with the grammatical meaning (with one prefix, /lɜ-/ , denoting the perfective meaning exclusively); (iv) The use of directional prefixes in Shǐxīng is more obligatory than optional (see Chirkova 2009 for an overview).

In sum, directional prefixes in Kami are characterized by geographic, temporal and/or individual variation, relatively low degree of grammaticalization and sound correspondences distinct from those in the basic lexicon. Hence, directional prefixes in Kami are altogether a relatively marginal and possibly recent feature.

Some additional distinct morphosyntactic innovations of Kami, as compared to the better-documented Tibetan dialects (such as Dégé or Bātáng), are:

(i) the marginal use of numeral classifiers, /<sup>L</sup>nə-<sup>H</sup>ngu ʰtɕi/ ‘one person’ <mi mgo gcig>, where /<sup>H</sup>ngu/, WT <mgo>, is used as a classifier to count people

(ii) the unusual types of adjective formation; these include (a) extensive use of reduplication (expressing intensification), e.g. /<sup>L</sup>ŋũ-<sup>H</sup>ŋũ/ <sngon sngon> ‘green, blue’, /<sup>L</sup>ʒõ-<sup>H</sup>ʒõ/ <yang yang> ‘light’; (b) adjective formation with the prefix a-, e.g. /<sup>L</sup>a-<sup>H</sup>ŋu/ ‘good’, /<sup>L</sup>a-<sup>H</sup>bɛ/ ‘bad’; (c) formation of adjectives of dimensional extent (i.e. those that form a semantic field of opposites, e.g. *deep-shallow*, *long-short*), whereby the negative extensives are partly or completely replaced by forms derived from the positive ones, e.g.

/<sup>h</sup>tsõ/ <gtsang> ‘clean’, /<sup>l</sup>ma-<sup>h</sup>tsõ/ <mi gtsang> ‘dirty’.<sup>64</sup> Taken in the areal context, all three types are characteristic for the neighboring Qiangic languages as well as Nosu (Bradley 1995)

(iii) finally, one more morphosyntactic innovation of Kami is an elaborate system of existential verbs, reflecting evidentiality distinctions (old knowledge vs. new knowledge). More precisely, Kami has a set of neutral existential verbs (for old knowledge) and a corresponding set of etymologically related verbs (tentatively, with an evidential morpheme coalesced with the verb root) for new knowledge, e.g. /<sup>l</sup>zu/ <yod> ‘to have, to possess (by the speaker)’ vs. /<sup>l</sup>zã/ <yod.?’ ‘to exist out there, beyond the speaker’s control’. (Overall, peculiar forms and functions of existential verbs appear to be a widespread feature of many Kham dialects, see Hongladarom 2007: 123.)

Interestingly, most of these innovative features appear shared by Kami with some neighbouring Southern Kham dialects (e.g. see Hé 1998:431 for numeral classifiers in Zhōngdiàn).

## 5. Summary and Discussion

Characteristics features of Kami as dissimilar from general Kham tendencies (such as the development of OT cluster with the prefixal consonant *s-* and a nasal root initial into voiceless nasals) can be summarized as follows:

(1) Conditioned split of OT palato-alveolars, leading to the development of distinct uvular reflexes before OT non-high non-front vowels

(2) OT *Ky-* and *Py-* clusters become palato-alveolar affricates and fricatives, respectively, for some speakers, and alveo-palatal affricates and dental fricatives, respectively, for some other speakers. For the latter category of speakers, in some words, OT *sky-* becomes /s̺/

(3) OT *y-* becomes /ʒ/ for some speakers and /z/ for some other speakers

(4) The unprefixal OT root initial *l-* becomes /j/

(5) OT *lh-* becomes /hj/ and /j/. In the latter case, some reflexes of OT *lh-* merge with the reflexes of the OT cluster *sl-*

(6) OT *zl-* becomes /l/ and /Nd/

(7) OT *sbr-* becomes /Nb~m/ and /dz/

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<sup>64</sup> The majority of such adjectives are formed with the past (and imperative) negative marker /ma/, as in this example. A handful of adjectives are also formed with the non-past negative marker /mu/, e.g. /<sup>l</sup>mu-<sup>h</sup>gɔ/ ‘disagreeable, disgusting’ (from <mi>, negator, and <dga> ‘to like’).

(8) OT closed syllables with consonantal codas develop into innovative vowels and diphthongs, without glottal stop codas or contrastive vowel length

(9) The development in (8) conditions a simple tone system with the basic register distinction, High vs. Low (and a number of atonal roots from OT prefixed clusters with a voiced initial, undergoing the process of devoicing)

(10) A register tone system is combined in Kami with a system of metrical stress (with a iambic pattern for nominal constructions and a trochaic pattern for verbal constructions)

(11) Presence in Kami of directional prefixes, marginally, also numeral classifiers, non-Tibetan types of adjective formation, an elaborate system of existential verbs reflecting evidentiality distinctions (old knowledge vs. new knowledge).

These characteristic features can be further divided into retentions, such as (5)-(7), and innovations. Innovations can be further divided into those that have so far been documented only in Kami, such as (1) and (8)-(10), and those that are attested in other peripheral Tibetan dialects, such as (3), (4) and (11).

In terms of its connection to the dialects of Dìqìng Prefecture, of which only Zhōngdiàn and Dōngwàng have been documented to date, and with which Kami has been argued to constitute one sub-cluster, the following conclusions can be made. In view of its characteristic developments as summarized above, Kami is highly distinct from Zhōngdiàn. At the same time, Kami is closer Dōngwàng, with which it shares some retentions, i.e. (5) and (6), some innovations, i.e. (3) and (4), and some words of unclear Tibetan etymology. Conversely, the innovative developments, such as (11), as well as also some words of unclear Tibetan etymology, shared by Kami and Dōngwàng, are not restricted to these two dialects, and are being discovered in a growing number of lesser-known Tibetan dialects spoken in the historical frontier areas between Tibet and China.

The two prominent features of Kham dialects are, on the one hand, an unusually high degree of heterogeneity and individual innovation and the lack of common phonological innovations; and, on the other hand, the presence of unusual morphosyntactic innovations, setting these dialects apart from WT and Tibetan dialects outside of the area. In my analysis, both features result from contact-induced change—the defining conditioning factor in the formation of Tibetan dialects of the historically multilingual border areas between Tibetan and China. Hence, the high degree of heterogeneity and the lack of common innovations are attributable to local mechanisms of contact-induced change such as convergence of articulation modes and positions between the individual Kham Tibetan dialects and their respective (non-Tibetan) contact languages, incorporation of new phonemes, reorganization of the phonological system resulting in the substitution of some inherited phonemes by borrowed phonemes, and profound restructuring of the prosodic organization (for discussion, see Chirkova forthcoming). Conversely, the presence of unusual morphosyntactic innovations is equally attributable to contact-induced convergence with local non-Tibetan languages as well as, more broadly, to the transition in the area between distinct language types, namely, between (1) synthetic languages with both inflectional and derivational morphology to the north and northwest (e.g. Altaic, rGyalrongic), and (2) isolating

languages with mostly derivational morphology to the east and south (e.g. Chinese, Ngwi-Burmese). Consequently, further advances in Kham dialect research are critically contingent on careful case studies that delve into the causal contact-induced mechanisms in the area and carefully place each dialect in its immediate linguistic context.

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**Appendix 1**  
**Summary table of Kami initials and their OT origins**

The following additional conventions apply to the summary table of Kami initials (based on the speech of my main consultant) and their OT origins.

“(C)” indicates one or two optional prefixal consonants. For example, “(C)k-” stands for *bk-*, *dk-*, *sk-*, *lk-*, *rk-*, *bsk-* and *brk-*.

If one of a set of possible prefixal consonants triggers changes distinct from the remaining prefixal consonants that may be taken by the same initial, combinations of this prefixal consonant with this initial are listed separately. For example, combinations of the prefixal consonant *s-* with the root initial *n-* (resulting in /ŋ/) are listed separately from those of this initial with the prefixal consonants *g-*, *r-*, and *m-* (all resulting in /n/). In addition, combinations of a root initial with the nasal prefixes *m-* and *n-* (WT ' ') are always listed separately, as Kami reflexes of OT clusters with these prefixal consonants are irregular (§ 3.1.2.1).

“i” stands for high front vowels, “a” stands for non-high, non-front vowels.

A consonant between two dashes, e.g. *-kh-*, stands for the initial of the second syllable of a disyllabic word, as in /<sup>L</sup>a-<sup>H</sup>xə/ <a khu> ‘uncle’.

Kami	OT
∅	∅, [ʔ] (WT <i>a-chen</i> , <i>a-chung</i> )
p	p, (C)p, b, 'b
p <sup>h</sup>	ph, 'ph
b	(C)b
Nb	'b, sbr (as in / <sup>L</sup> Nbõ~ <sup>L</sup> mõ/ <sbrang> ‘bee; wasp’)
t	(C)t, d(w)
t <sup>h</sup>	th, mth, 'th
d	(C)d
Nd	md, 'd, zl (as in / <sup>L</sup> Nda- <sup>H</sup> wə/ <zla ba> ‘month’)
k	(C)k, g(w)
k <sup>h</sup>	kh(w), mkh, 'kh
g	(C)g
Ng	mg, 'g
ts	tsw, (C)ts, (C)tsw, dz
ts <sup>h</sup>	tsh(w), mtsh, 'tsh
dz	(C)dz
Ndz	mdz, 'dz
tʂ	(C)kr, gr(w), (C)gr, 'khr, mkhr, dr, (C)pr, br, 'br, dr, 'dr
tʂ <sup>h</sup>	khr, mkhr, 'khr, phr, 'phr
dẓ	(C)gr, (C)br
Ndẓ	mgr, 'gr, 'br
tʃ	(C)ky+a, 'ky+a, gy+a, 'gy+a
tʃ <sup>n</sup>	khy+a, mkhy+a, 'khy+a
dʒ	(C)gy+a
Ndʒ	mgy+a, 'gy+a
tɕ	(C)c, j, (C)ky+i

tɕʰ	ch, mch, 'ch
dʒ	(C)j
Ndʒ	mj, 'j
s	(C)s, sr, z
s <sup>n</sup>	s
z	(C)z
ʃ	py+a, (C)py+a, by+a, sky+a, spy+a, dpy+a
ʃ <sup>n</sup>	phy+a, 'phy+a
ʒ	(C)by+a, 'by+a, y, g.y
ʂ	(C)sh+i, (C)zh+i, by+i
ʂ <sup>n</sup>	sh+i, phy+i
ʐ	(C)j, (C)zh+i
x	', -kh-
ɣ	-k-, -g-
ɣ	sh(w)+a, (C)sh+a, zh(w)+a
ɣ	(C)zh+a, 'j? (as in / <sup>H</sup> ʂɔ/, from WT <'ja'>, OT <gzha'> 'rainbow')
h	h, h(w)?
ɦj	lh
m	m, (C)m, 'b (as in / <sup>L</sup> Nba~ <sup>L</sup> ma/ <'bag> 'mask'), sbr (as in / <sup>L</sup> Nbõ~ <sup>L</sup> mõ/ <sbrang> 'bee; wasp')
m̥	sm
n	n, (C)n, 'd, md (as in / <sup>L</sup> nã- <sup>H</sup> sõ <sup>H</sup> fə- <sup>H</sup> gə/ <mdang song ?> 'last night')
n	sn
ɲ	ny(w), (C)ny, m+i, (C)m+i, my, (C)my
ɲ	sny, sm+i, smy
ŋ	ng, (C)ng
ŋ	sng
w	w, -b-
r	r(w), hr?, -d-, -t-
ʀ	-th-, -d + -r- (as in / <sup>L</sup> pe- <sup>H</sup> ʀa/ <bod rag> 'Tibetan liquor')
j	l, -w-
l	(C)l, zl
l̥	lh, sl

## Appendix 2 English-Kami Word List

The following English-Kami word list comprises circa 1,500 common lexical items with their suggested etymologies. Following Sun (2003: 803), I provide Tibetan etymologies underlying the modern Kami forms in question rather than their standard Written Tibetan meaning equivalents. Combinations of etymons corresponding to Kami expressions that are not attested in WT, as based on the Rangjung Yeshe Tibetan-English dictionary ([www.nitartha.org/dictionary.html](http://www.nitartha.org/dictionary.html)), are marked with an asterisk. For example, /L<sup>h</sup>a-H<sup>di</sup>/ ‘(swept) garbage, waste’, <\*phyags rdul>; /L<sup>N</sup>bu-H<sup>ru</sup> L<sup>no</sup>/ <\*me tog nad> ‘smallpox, measles’.

Uncertain origins are indicated by question marks in the corresponding syllable slot. For example, /L<sup>j</sup>ju-H<sup>ka</sup>/ <lug ?> ‘lamb, young sheep’, where the etymology of the diminutive root /ka/ is unknown. Alternatively, question marks beside suggested etymons signal that the etymons in question are tentative. For example, /H<sup>d</sup>ö L<sup>h</sup>ö/ <gdong? mthong?> ‘to give birth; child delivery’, is taken to be tentatively related to the etymons <gdong> ‘face’ and <mthong> ‘to see’. This is based on a parallel formation in the neighboring Shixing language, where the meaning ‘to give birth; child delivery’ is denoted by the expression that literally means ‘to see the (child’s) face’ (see §4.1).

Exceptions to the sound correspondences, as discussed in the main part of the article, are highlighted by boldface. For example, the Kami word for ‘mouse, rat’ /L<sup>j</sup>ju-H<sup>w</sup>o/ is likely to be related to <byi ba>, but the first syllable of the Kami word is at variance with the expected correspondence OT -i > Kami /ə/.

abbey; <i>Lguē</i> <dgon>, <i>Lguē-Hbo</i> <dgon pa>	aperture, hole; <i>Hts<sup>h</sup>ö</i> <tshang>
ache, be sick; <i>Lnō</i> <na>; <i>Lze</i> <gzer>	apron; <i>Lhjä-HNge</i> < <b>phang</b> khebs>
adam’s apple, larynx; <i>Lsē-Hkō</i>	arak, strong liquor, alcoholic drink; <i>Ha-Hra</i>
add; <i>Hja-Ldō</i> <yar sdom>	<a rag>; (Tibetan liquor) <i>Lpe-Hra</i> <bod rag>
afternoon, evening; <i>Hjə-Hgə</i> < <b>phyi</b> rgas?>	arm, forearm; <i>Ljə</i> <lag>
again; <i>Lzō</i> <yang>	arrive; <i>Hje Lfū</i> <sleb byung>
agaric, wood ear; <i>Lji-Hgei Hna-Hwu</i> <mi	arrow; <i>Lndo</i> <mda’>
rgas rna bo>, literally, ‘old man’s ears’	arrow head; <i>Lnda-Htsi</i> <mda’ rtse>
air; <i>Llū-Hpə</i> <rlung pa>	arse, buttocks, hinder part; <i>Lts<sup>h</sup>ö-Hro</i>
airplane; <i>Htəa-Hzə</i> <lcags bya>	<tshang ra>
alive (not dead); <i>Lma=Hə<sup>h</sup>ə Lṅō</i> <ma shi	ashes; <i>L<sup>h</sup>i-Hwə</i> <thal ba>
snaŋ>	ask, question; <i>Htsi</i> <’dri>
all; <i>Hts<sup>h</sup>ö-Hmō</i> <tshang ma>	asthma, shortness of breath; <i>Hbu-Lp<sup>h</sup>ö</i>
aluminium; <i>Lji</i> , possibly from Chinese 鋁,	<*d <b>bugs</b> phong>; <i>Hbu Lga</i> <*d <b>bugs</b> ?>
SWM /ny <sup>53</sup> /, MC ljoX. This is an early loan, for	aubergine, eggplant; <i>Lge</i> , cf. Shixing /L <sup>g</sup> ie/,
it followed the change l- > /j/	Púmǐ /giε <sup>35</sup> /, Lizu /L <sup>N</sup> ga-H <sup>ts</sup> l/
angry, take offence; <i>Hṅ<sup>h</sup>Lk<sup>h</sup>ə</i> <snying ?>	aunt (father’s sister); <i>Ha-Hrē</i> <a sring?>
animals; <i>Lrə-Hda</i> <ri dwags>	aunt (wife of father’s older brother); <i>Ha-</i>
ankle; <i>Lts<sup>h</sup>i-Hbo</i> <tshigs pa>	<i>Hmō</i> <a ma>; <i>Ha-Hrē</i> <a sring?>
answer, reply; <i>Ljē-Hte</i> <lan ster>	aunt (wife of father’s younger brother); <i>La-</i>
ant; <i>Ldza-Htsu</i> <? grog>	<i>Hsū</i> <a sru mo?>
anus; <i>Ljō-HNge</i> <bshang ?>	aunt (mother’s sister); <i>Ha-Hrē</i> <a sring?>

aunt (wife of mother's brother); *Ha-Hrē* <a sring?>  
autumn; *Htā-HNgō* <ston ka>  
axe; *Hta-Hrē* <sta re>  
back; *Lce-Hgō* <\*phyi? gong>  
back of hand; *Lja-Hgō* <\*lag gong>  
back up, retreat; *Hci-HNdzei* <\*phyir 'bros>  
bad, evil; *La-Hbε*; *Lma=Hzō* <mi bzang>  
bag, sack; *Lke-Hto* <\*bkal do?>  
balance, scale (large, e.g. for weighing skins); *hsō* <srang>  
balance, steelyard (small); *Ltci* <'jal?>  
bamboo; *Ljū-Hwā* <smyug ma>  
bamboo joint; *Ljū-Hts'i* <smyug tshigs>  
bamboo shoot; *Ljū-Hgō* <smyug ?>  
bank; *Hje-Hk'ō* <dngul khang>  
bark (v); *Lsu* <zug>  
bark (of a tree) (N); *Lci-Hpa* <shing lpags>  
barley; *Lsu-Hwō* <so ba>  
basin (wooden); *Lk'ua-Hla*, cf. Shǐxīng /-q'ua-Hla/, Púmǐ /k'ua<sup>35</sup>lA<sup>35</sup>/, Lizu /Hq'wa-lal/  
basket (for carrying a child); *Ldzā-HNga*  
bat; *Lp'hə-lwu-lma-Hki*  
be, copula verb; *Lre* <red>  
beads, rosary; *Hts'hō* <phreng ba>  
beam, rafter; *Hpho* <phog>  
bean (*Phaseolus vulgaris*); *Hsa-Hmō* <sran ma>  
bear (fruit); *Hshe Lta* <\*sil? (tog?) btag?>  
beard; *La-Hts'hō* <ag tshom>  
beautiful, good-looking; *Ltce-Htsu*  
bed; *Hts'hə* <khri>  
bedbug; *Ltce-Hci* <? shig>  
bee, wasp; *LNbō~Lmō* <sbrang>  
beehive; *LNbō-Hts'hō* <sbrang tshang>  
beer; *Htce'hō* <chang>; (malt dregs after brewing beer) *Hphə*  
beg (for food); *Hlō* <slong>, *Hxu-Llō* <bshos? slong>  
beige, light blue-grey; *Hja-Hbu-Hlo* <skya bo ?>  
bell; *Ltsi-Hbə* <dril bu>

bellows, instrument for blowing a fire; *Hbi-Hpō* <sbud pa>  
belly, abdomen; *Lsə-Hpō* <gsus pa>  
bellyband, saddle girth; *Hlu* <glo>  
below; *Lxy-Hrō* <\*'og ra?>  
bet, place a bet; *Htce Lba* <rgyan bzhag>  
bid sb welcome, greet; *Lga Htsu* <dga' bro?>  
big; *Htce'i* <che>, *Ltce'hə-Hwu* <che ba>  
birch; *Hts'he* <gro ?>  
bitter; *Lk'ua-Htu* <kha tig>  
black; *Lna-Hrā* <nag ?>  
black bear; *Ltō* <dom>  
blacksmith; *LNga-Hrō* <mgar ba>  
bladder; *Lts'a-lmu-Hrō*  
blade of a knife; *Ltsə-Hsu* <gri so>  
blanket, rug; *Lja-Hrō* <phya ra>  
blind; *Lja-Hku* <myig ?>  
blink, wink; *Hni-Htsū* <myig btsum>  
blister; *Hp'ō-Hdui* <phol ?>  
block up, plug; *Hp'a-Lts'hō* <phar tshang>  
blood; *Hts'a* <khrag>  
blossom, bloom; *Hxo* <bzhad?>  
blow (as of wind); *Hlə Lō* <rlung 'ong>  
blow away (as of a speck of dust); *Hpe* <sbar?>  
blue; *Ljū-Hjū* <\*sngon sngon>; (heaven's blue) *Hnā-HNdo* <\*gnam mdog>  
blunderbuss; *Hpā-HNdo* <? mda'>  
blunt, not sharp; *Ltə-Htu* <\*brtul brtul>  
board for kneading dough; *Ltce'a-Hbō* <? gzhong>  
board, plank; *Hpō-Hhe* <spang leb?>  
boat; *Hpi*  
bodkin, awl; *Hnbu-Hlě* <'bur len>  
body; *Li-Hpu* <lus po>  
body (upper part of the body); *Lk'o-Htue* <khog stod>  
body (lower part of the body); *Lk'o-Hmē* <khog smad>  
boil (a porridge), stew; *Lts'ō-Hki* <tsha? bkol>  
Bon priest, dōngbā 東巴; *Ha-Hni* <a myes>; *Lgi-Hlō* <dge slong>

bone; *Lrə-Hpɔ* <rus pa>  
 book; *Hpe-Htɕʰɔ* <dpe cha>  
 borrow (money); *Hfə* <skyi>  
 borrow (objects); *Hʒɛ* <g.yar>  
 bottle; *Lkɛ*, *Hɕʰei-Hgɛ* <shel ?>  
 boundary, border; *Lsʰa-HNdzã* <sa mtshams>  
 bow; *Hbə* <gzhu>; *Hlu*  
 bowl (eating bowl); *Hxu* *Lpʰa-Hrə* <bshos? phor>  
 bowl (one full bowl of smth); *Lpʰa-Hrə* *Hkɔ* <phor gang>  
 box, trunk; *Hgã* <sgam>  
 bracelet; *Lja-Hkue* <lag kor>  
 braid, plait, pigtail; *Lna-Hrɔ*; *Hsʰɔ-HNgu*  
 brains; *Hla-Hpɔ* <klad pa>  
 branch; *Lɕi-Hja* <shing yal?>  
 brass; *Lra* <rag>  
 bread, cake; (baked flat cake) *Lʰa-Hbɔ*; (thin pancake) *Lʰa-Hsa* <? sreg>; (flat bread) *Lkʰa-Hrɔ* <khur> or <khu ra>  
 break (thunderbolt); *Hlu* *LNdzui* <\*glog 'gyur>  
 break, smash (TR); *Lpʰa-Htʂo* <phar dkrog?>  
 break, snap (INTR); *Lpʰa-Htɕʰa* <phar 'chag>  
 breakfast; *Lɕo-Hxu* <zhog bshos?>  
 breast; *Ha-Hmi*  
 breast feed, suckle; *Hsẽ*  
 breath; *Lbu* <dbugs>  
 brick; *Htsi-Hdu* <rtsig rdo>  
 bridge; *LNdza-HNbɔ* <zam pa>  
 bridge of nose; *Lŋã-Hkɔ* <sna sgang>  
 bridle; *Hsɣ* <srab>  
 broom; *Lʰa-Hmɔ* <phyags ma>  
 brother; (older brother) *La-Hju*; *La-Lju-Hka*, cf. Shìxīng /*La-Hju*/; (younger brother) *Lnu* <nu bo>; *Hpẽ-Hʒɔ* <spun skya>  
 brother's wife; *Hna-Hɔ* <mna' ma>  
 brown bear; *Ltʂe* <dred>  
 brown sugar; *Lpə-Hrã* <bu ram>  
 brush, whisk; *Lpʰa-Hzə* <phag ze>  
 brush, paint (v); *Hdɛ* <rdar>

bucket; (metal bucket) *Lzɔ-Hbi* <zom>; (large wooden bucket for fetching water, pail) *Ltɕʰə-Htʰu* <chu ?>; (swill tub) *Lsa-Hla*  
 buckwheat; (sour buckwheat) *Ltsa-Hwu* <bra bo>; (sweet buckwheat) *Lzã*, *Ldza-Hzã* <rgya ?>  
 bud, sprout; *Lgo*, *Lga-Hwo*  
 buffalo; *Htɕʰə-Hlã* <chu glang>  
 build by laying bricks or stones; *Htsi* <rtsig>  
 bull; *Hlã* <glang>  
 bullet; *Hndi* <mde'u>  
 burn (wood); *Htfui*  
 burn incense sticks, make a smoke offering; *Hsɔ-Ltɔ* <bsangs btang>  
 bury (a dead person); *Hbo* <sba>, *Hma-Lbo* <mar sba>  
 businessman; *Htsʰɔ-Hpẽ* <tshong dpon>  
 busy; *Htsʰu*  
 butcher, slaughter; *Hɕɔ* <bsha'>  
 butter; *Lmɛ* <mar>  
 butterfly; *Ljã* *Lka-Hle* <phye ma ? leb>  
 button, clasp; *Ldzo-Hli* <sgrog ril?>  
 buy; *Lɲũ* <nyo>  
 cabbage; *Ltɕʰi-Hɣɛ* *Lkʰa-Htse* <\*che? dkar kha tshal?>  
 calculate, count; *Htse-Htʂu* <rtsi bro?>  
 calf; *Lpə-Htə* <be'u ?>  
 calf of leg; *Lfə-HNbɔ* <byin pa>  
 calvaria, top of the head; *Htsu* <gtsug>  
 camel; *Hŋa-Hmɔ* <rnga mong>  
 candle; *Lma-Hju* <mar rkyong>  
 capital; *Htsʰɔ-Htsɔ* <tshong rtsa>  
 carbon, charcoal; *Lsʰi-Hwo* <sol ba>  
 carpenter; *Hɕi-Hzu* <shing bzo>  
 carry on the back, bear; *LNba* <'ba'>  
 carry on the shoulder; lift with both hands; *Hze*  
 carve, engrave; *Hku* <rko>  
 cast dice, mo divination; *Lmɔ-Htɣ* <mo btab>  
 castrate, sterilize; (pigs) *Htɕe* <gcod pa>; (horses or bulls) *Hmẽ* <sman>  
 cat; *Hwu-Hli* <? lus>  
 cat (female cat); *Lmu-Hli* <mo lus>



cat (tomcat, male cat); *Lp<sup>h</sup>u-Hli* <pho lus>  
 cat (kitten); *Lwu-Hka*; *Lwu-Hts<sup>h</sup>ə* <? phrug>  
 cat (wild cat); *Hsi-Hrō* <bye la?>  
 catch (fire), be on fire; *LNbε* <'bar>, *Lji-HNbε* <mye 'bar>  
 catch a cold / flu; *Ls<sup>h</sup>a-Hsu*  
 catch up; *Lte* <ded>  
 cattle, ox, cow; *Lpa-Hjō* <ba lang>  
 cave (mountain); *Ltsa-Hts<sup>h</sup>u* <brag ?>  
 ceiling; *Hnā-Htōē* <\*gnam gcal?>  
 cent, one cent; *Hka Htōi* <skar (ma) gcig>  
 center, middle part; *Htōi-Hyū* <\*dkyil gung?>  
 central pillar; *Ltōi-Hkō* <dkyil ka>  
 chaff; *Lbe-Hla*, cf. Púmí /be<sup>55</sup>lA<sup>35</sup>/  
 chaff, husk; *LNdzēi-Hxō* <'bras shun>  
 change, exchange; *Lp<sup>h</sup>a-Hzi* <phar brje>  
 chase after; follow after; *Hkē*  
 cheap, inexpensive; *Lkō Hlō* <\*gong sla>; *Lkō Hlā* <gong ?>  
 cheek; *Hna-Htsō* <rna rtsa>; *Lk<sup>h</sup>e-Hlō* <mkhur ?>  
 cheese, milk curd; *Ht<sup>h</sup>i* <thud>, *Lpa-Ht<sup>h</sup>i* <ba thud>  
 chess; *HNdzi Ldzγ* <\*brel rgyab>  
 chest; *Ltsā-HNga* <brang kha>  
 chest, cupboard; *Hta-Hdzō* <sgam sgrom>  
 chew; *Ltō<sup>h</sup>ō* <'cha' ba>  
 chick; *Lōi-Hka* <byi'u ?> or <bye ?>  
 chicken; *Ljō* <bya>  
 chicken (hen); *Lja-Hmō* <bya mo>  
 chicken (cock, rooster); *Lja-Hwu* <bya po>  
 child; *La-Hka*; *La-Hwō* <a wa>  
 chimney, skylight; *Lka-Hxū* <skar khung>  
 China, inland; *Ldza-Hna* <rgya nag>  
 Chinese; *Hdzo* <rgya>  
 Chinese characters; *Ldza-Hzi* <rgya yig>  
 chin, jaw; *Hmā-HNgi* <ma mgal>  
 chisel; *Hzō* <gzong>  
 choke on food; *Hnō* <r nang>  
 choose, select; *Hse* <gsed>  
 chop (firewood) into chunks; *Htso*  
 chop down (trees); *Htsγ* <gtsab>; *Hōi Htsγ* <shing gtsab>

chop, mince, cut (meat); *Htsγ* <gtsab>  
 chopsticks; *Lχə-Hū*  
 churn; *Ltōa-HNdō* <ja mdong>  
 cigarette; *Lti-Hdzi* <du sgril>  
 circle, wheel; turn round; *Hk<sup>h</sup>ue* <'khor>  
 city, town; *Hdza-Hdzō* <rgya grong>  
 clay baking pot; *Lza-Hō* <rdza ma>  
 clean; *Htsō-Hmō* <gtsang>  
 clear (know); *Lku-Hmu* <go ?>  
 clear (water); *Ltō-Hmo* <dwangs mo>  
 clear (weather), sunny; *Hji Hzō* <yul bzang>  
 clever, intelligent; *Lts<sup>h</sup>ō-Hpō* <khram pa?>  
 climb; *LNdza* <'dzeg>  
 clock, hour; watch; *Ltō<sup>h</sup>i-Hts<sup>h</sup>e* <chu tshod>  
 close (the door); *Hti*, possibly related to <rtul> 'gather into a place' or <btus> 'gather together', with a semantic shift from 'collect' to 'close'  
 close (the mouth) slightly; *Hk<sup>h</sup>ō Lma-Ltsō* <kha mar 'dzum>  
 close, near; *Lt<sup>h</sup>a-Ht<sup>h</sup>ū* <thag thung>, *Hka-Htsō* <? rtsa>  
 cloth; *Lrei* <ras>  
 cloth button; *Lrei Ldzo-Hli* <ras sgrog ril?>  
 clothes; *Lkei* <gos>  
 cloud; *Htsē* <sprin>  
 cloudy, overcast; *Hnā Lna* <gnam nag>  
 cobbler, shoemaker; tailor, dressmaker; *Lzu-Hbō* <bzo ba>  
 coffin; *Lru-Hgā* <ro sgam>  
 cold; *Ltsō-Hkua* <grang ?>, with the suffix /kua/  
 collar; *Lkō* <gong>, *Lkō-Hwa* <gong ba>  
 color; (dyestuff) *Hts<sup>h</sup>ei-Hk<sup>h</sup>ō* <tshos kha>; *LNdo-Hk<sup>h</sup>ō* <mdog kha>  
 comb (N); *Hsə-Hū* <shad ma?>  
 comb (V); *Hōe* <shad>, (comb hair) *Htso Lōe* <skra shad>  
 come; *Lō* <'ong>, (IMP) *Hxō* <shog>  
 come loose; *Hp<sup>h</sup>a-Lla* <phar glod?>  
 come out; *Hts<sup>h</sup>a-Lpi* <tshur 'bud>  
 come out (as of the sun); *Ljō Hχε* <nyi ma shar>  
 comet; *Hkē-HNdō* <skar mda'>

comfortable; <sup>H</sup>ci-<sup>H</sup>pu <skyid po>  
 common people; <sup>L</sup>mi-<sup>H</sup>mō <mi dmangs>  
 conch shell; <sup>L</sup>tū <dung>  
 conifer, fir; (Faber's Fir, *Abies fabri*) <sup>H</sup>sō-<sup>H</sup>xə  
 <gsom ?>; (silver fir, *Cathaya argyrophylla*)  
<sup>L</sup>Ndu-<sup>H</sup>ra <thang rag>  
 consciousness; <sup>H</sup>ja-<sup>L</sup>ts<sup>h</sup>ue <yar tshor>  
 cook; <sup>L</sup>zu <bzo>  
 cooked, ripe; <sup>L</sup>ja-<sup>H</sup>ts<sup>h</sup>ei <yar 'tshos>  
 cooking pot; <sup>H</sup>di  
 copper; <sup>L</sup>sō <zangs>  
 copper pot; <sup>L</sup>sō <sup>L</sup>lu-<sup>H</sup>ko <zangs ? ?>  
 corn, maize; <sup>L</sup>k<sup>h</sup>a-<sup>H</sup>č<sup>h</sup>ə  
 corner; <sup>L</sup>sui <zur>, e.g. (corner of the eye)  
<sup>H</sup>ji-<sup>H</sup>zui <myig zur>  
 corpse, carcass; <sup>L</sup>ru <ro>  
 cotton; <sup>H</sup>tsi-<sup>H</sup>Nbi <srin bal>  
 cough; <sup>L</sup>jə <lu ba>  
 country; <sup>L</sup>dza-<sup>H</sup>k<sup>h</sup>u <rgyal khab>  
 county; <sup>H</sup>dzō <rdzong>  
 courtyard; <sup>L</sup>k<sup>h</sup>ue-<sup>H</sup>ro <khor ra>; <sup>L</sup>ta-<sup>H</sup>ro <do  
 ra>  
 cover up; <sup>H</sup>k<sup>h</sup> <bkab>, e.g. cover (the mouth)  
<sup>H</sup>č<sup>h</sup>ə-<sup>H</sup>ru <sup>L</sup>k<sup>h</sup> <mchu to bkab>  
 cover, hide from view; <sup>H</sup>p<sup>h</sup>a-<sup>L</sup>zue <phar  
 byibs>  
 cow; <sup>L</sup>pə <ba>  
 craftsman; <sup>H</sup>k<sup>h</sup>a-<sup>H</sup>mō <mkhan pa?>  
 crawl, crumble off; <sup>L</sup>ko <gog>  
 cremation grounds, cemetery; <sup>L</sup>ti-<sup>H</sup>ts<sup>h</sup>e  
 <dur khrod>  
 cross (a river); <sup>H</sup>Ngō <'gom>  
 crow (sound of chicken); <sup>L</sup>se  
 crow, raven; <sup>L</sup>ja-<sup>H</sup>ro <bya rog>  
 cry, weep; <sup>L</sup>ηū <ngu>  
 cuckoo; <sup>H</sup>ku-<sup>H</sup>ku <ku ku>  
 cucumber; <sup>L</sup>du-<sup>H</sup>kue <rdo gon?>, cf. Shǐxīng,  
 /<sup>H</sup>du3-<sup>L</sup>xu/, Lizu /<sup>H</sup>tɕu-<sup>L</sup>q<sup>h</sup>wa/, Púmǐ  
 /do<sup>35</sup>k<sup>h</sup>A<sup>53</sup>/

cut off, sever (a rope); cut up, slice; <sup>H</sup>tu  
 <gtub>  
 cut one's hair, have one's hair cut; <sup>L</sup>dza  
 <'dreg> or <'breg >  
 cutting board; <sup>L</sup>tsa-<sup>H</sup>tē <gtsab gdan>  
 cymbals; <sup>H</sup>bu-<sup>H</sup>č<sup>h</sup>e <sub chal>  
 cypress; <sup>H</sup>ts<sup>h</sup>ā-<sup>H</sup>dē <tsan dan>  
 dance (N); <sup>L</sup>tsu <bro>  
 dance (V); <sup>H</sup>č<sup>h</sup>ā <'cham>  
 dandruff; <sup>H</sup>lu-<sup>H</sup>gu, with the suffix /gu/  
 dare, have courage; <sup>H</sup>po <spobs>  
 dark; <sup>L</sup>na-<sup>H</sup>gu <nag ?>  
 daughter; young girl, young woman; <sup>L</sup>pə-  
<sup>H</sup>ū <bu mo>  
 daughter-in-law, son's wife; <sup>H</sup>na-<sup>H</sup>ō <mna'  
 ma>  
 dawn (of the day); light (bright); <sup>H</sup>si <gsal>;  
<sup>L</sup>si-<sup>H</sup>tē <gsal ston>; <sup>L</sup>si-<sup>H</sup>mu <gsal mo>  
 day; <sup>L</sup>ŋō <nyi ma>  
 day after tomorrow; <sup>H</sup>ŋō-<sup>H</sup>jī <gnangs nyin>  
 day before yesterday; <sup>L</sup>k<sup>h</sup>a-<sup>H</sup>Nbe <kha ?>  
 day, daytime; <sup>L</sup>ŋū-<sup>H</sup>Ngō <nyin gung>  
 daybreak, dawn; <sup>L</sup>nā-<sup>H</sup>si <gnam gsal>  
 deaf; <sup>L</sup>za-<sup>H</sup>bō, cf. Shǐxīng /<sup>L</sup>z3-<sup>H</sup>bō/, Púmǐ  
 /zē<sup>35</sup>bō<sup>35</sup>/, Lizu /<sup>L</sup>na-<sup>H</sup>Nbo/  
 debt; <sup>L</sup>pu-<sup>H</sup>lē <bu lon>  
 deceive, cheat; <sup>H</sup>lu <slu>  
 deep; <sup>L</sup>s<sup>h</sup>-<sup>H</sup>mu <zab mo>  
 deer; <sup>L</sup>χə <shwa ba>  
 dew; <sup>L</sup>si-<sup>H</sup>hu <zil pa>  
 dhole, wild dog; <sup>H</sup>p<sup>h</sup>a-<sup>H</sup>ro <'phar>  
 diarrhea, have diarrhea; <sup>H</sup>Ndzē <'grim?>;  
<sup>L</sup>sə-<sup>H</sup>pə <sup>L</sup>Ndzē <\*'gsus pa 'grim>  
 die; <sup>H</sup>č<sup>h</sup>ə <shi>  
 die out (as of fire), extinguish; <sup>L</sup>p<sup>h</sup>a-<sup>H</sup>ti  
 <phar gtul?>  
 difficult, hard; <sup>L</sup>jei-<sup>H</sup>kā <las dka' mo?>  
 dig, scoop out, excavate; <sup>H</sup>ku <rko>  
 diligent, conscientious; <sup>H</sup>hu-<sup>H</sup>t<sup>h</sup>a <hur thag>  
 dimple; <sup>L</sup>Ndzē-<sup>H</sup>k<sup>h</sup>u <\*'dzum khug>  
 dinner, supper; <sup>L</sup>Ndu-<sup>H</sup>xu <\*'du? bshos?>;  
<sup>L</sup>mā-<sup>H</sup>xu <\*'smag? bshos?>  
 dirty; <sup>L</sup>ma-<sup>H</sup>tsō <mi gtsang>  
 dirty, muddy water; <sup>H</sup>ja-<sup>H</sup>dū

disagreeable, disgusting; *Lmu-Hgo* <mi dga'>  
 disappear; *Hpa-Htue* <phar gtor?>  
 divide, share (things); *Hgu* <bgo>  
 do, be in business; *Hts<sup>h</sup>ḡ* *Ldzɣ* <tshong rgyab>  
 do, make; *Lje* <byed>; *HNgj* <'gul>  
 dog; *Htj<sup>h</sup>ə* <khyi>  
 dog (bitch, female dog); *Lmu-Htj<sup>h</sup>ə* <mo khyi>  
 dog (male dog); *Lp<sup>h</sup>u-Htj<sup>h</sup>ə* <pho khyi>  
 dog (puppy, pup); *Ltj<sup>h</sup>ə-Hka* <khyi ?>  
 dog (hunting dog); *Hŋue-HNdzə* <rngon khyi>  
 dog tooth, tusk; (human front teeth) *Lŋuē-Hsu* <sngon so>; (fang, canine teeth) *Ltə<sup>h</sup>ui-Hwə* <mche ba>  
 domestic animals, livestock; *Hs<sup>h</sup>ē-Htəē* <sems can>  
 donkey; *Ltəa-Hwu* <rkyang po>  
 door; *Hgu* <sgo>; (inner door) *Lnḡ-Hgu* <nang sgo>; (middle door) *Lpɛ-Hgu* <bar sgo>; (outside door) *Hdzə-Hgu* <\*skyi? sgo>  
 door planks, shutters; *Lgu-Hde* <sgo ?>  
 doorframe; *Hgu-Hrə* <sgo ra?>  
 doorsill, threshold; *Lgu-Hrē* <sgo them>  
 doorway; *Lgu-HNdzā* <sgo ?>  
 doubt; *Ltu-Hpo* <*Lxue* <\*dogs pa 'khur?>  
 doufu, bean curd; *Ls<sup>h</sup>uē-Hdi* <\*son rdul>  
 dove (turtledove); *Htu-Hdu* <dud dud>  
 dove (pigeon); *Lp<sup>h</sup>u-Hdzuē* <phug ron>  
 doze, fall asleep; *Hj<sup>h</sup>i* *Ltṣu* <gnyid bro?>  
 drag for, dredge up; *Lja-Htəw* <yar bcug?>  
 dragon; *LNdz<sup>w</sup>* <'brug>  
 dragonfly; *Ltə<sup>h</sup>ə-LNbə* *Lgu-Hdu* <chu 'bu ?>  
 dream (n); *Hj<sup>h</sup>i-Hja* <rmi lam>  
 dream (v); *Hj<sup>h</sup>ue* *Lj<sup>h</sup>i* <gnyid nyal>  
 dregs, residue; *L<sup>h</sup>a-Hdi* <\*phyags rdul>  
 drink; *Ht<sup>h</sup>ū* <'thung>  
 drop (n); *Ht<sup>h</sup>i* <thigs>; (one drop of water) *Htə<sup>h</sup>ə* *Ht<sup>h</sup>i* *Htəi* <chu thigs gcig>  
 drop (v), fall from a height; *Hma-Lhjū* <mar lhung>  
 drum; *Hŋə* <rnga>

drumstick; *Hŋa-Htəa* <rnga lcags>  
 drunk; *Lzə* <bzi>  
 dry; *Hka-HNbu* <skam po>  
 dry (clothes) in the air; *Hpa-Lkā* <phar skam>  
 dung beetle; *Htja-Hmo* *Hji-Hli* <skiyag ?>  
 dung; manure; *Lpa-Htjə* <ba skyag>  
 dusk, evening, dawn; *Lmā-Hχə* <smag ?>  
 dust; *Lt<sup>h</sup>i-Hwə* <thal ba>  
 dustpan, winnowing fan; *Hŋū-Hgue* <\*snyigs kor?> or <\*smyug kor?>  
 dye; *Hts<sup>h</sup>ei* *Ltḡ* <\*tshos btang>; *Hts<sup>h</sup>ei* *Ltsu* <\*tshos btso>  
 dyestuff, paint; *Hts<sup>h</sup>ei* <tshos>  
 dzo, a male hybrid of a yak and a domesticated cow; (male) *LNdzu* <mdzo>; (female) *LNdzū* <mdzo mo>  
 ear; *Hna-Hwu* <rna po>  
 earlobe; *Hna-Htsə* <rna rtsa>  
 early; *Lŋā* <snga po>  
 earrings; *Hna-Hlū* <rna long>; (round earrings) *Hna-Hgue* <rna kor>; *Hna-Hts<sup>h</sup>e*  
 earth, soil; *Hs<sup>h</sup>ə* <sa>  
 earthquake; *Hs<sup>h</sup>a-HNgj* <sa 'gul>  
 earwax; *Lna-Hpɣ* <rna spabs>  
 east; *Hχɛ* <shar>  
 easy, simple; *Hlei-Llə* <las sla>  
 eat; *Ltə<sup>h</sup>ə* <'cha' ba>, (IMP) *Ltə<sup>h</sup>u* <'chos>  
 edibles, food; *Lsa-Hmḡ* <bza' ma>  
 egg; *Lgo-Hwā* <sgo nga>  
 egg white; *Lgḡ-Htə<sup>h</sup>ə* <sgong chu>  
 egg yolk; *Lgḡ-Hse* <sgong ser>  
 eggshell; *Lgḡ-Hko* <\*sgong lkogs?>  
 egg of a louse; *Hci* *Lgḡ-Lwa* <shig sgo nga>  
 eight; eighth; *Ldze* <brgyad>  
 eight hundred; *Hdza-Hdzə* <brgyad brgya>  
 eighteen; *Htəa-Hdze* <bcu brgyad>  
 eighth day of the month; *Hts<sup>h</sup>e-Ldze* <tshes brgyad>  
 eighth lunar month; *Ldza-Hpə* <brgyad pa>  
 eighty; *Hdza-Hjə* <brgyad cu>  
 elbow; *Ltsə-Hk<sup>h</sup>w* <gru khug>  
 elephant; *Hlḡ-HNbu-Htə<sup>h</sup>i* <glang po che>  
 eleven; *Ltəa-Hji* <bcu gcig>

eleventh lunar month; *Ltə-Hji-Lpɔ* <bcu gcig po>  
 embrace, hug; *Hts<sup>h</sup>a-pɔ̃* <tshur pang>  
 embroider; *LNbu-Hru Hzu* <me tog bzo>  
 emperor; *Lkɔ̃-Hmɔ̃* <gong ma>  
 empty; *Lto-HNbɔ* <stong pa>; empty-handed; *Lja-Htɔ̃* <lag stong>  
 enemy; *Hdzɔ̃* <dgra>, *Hdzə-Hwu* <dgra po>  
 enough; *Htə<sup>h</sup>o* <chog>  
 enter (a house); *Lja-Hɔ̃* <yar 'ong>  
 escape, run away; flee; *HNdzei LNdzu* <'bros 'gro>  
 esophagus, throat; *Lsɛ̃-Hzə* <? yu>  
 everyday; *Ljni-Hmɔ̃* <nyin mo?>  
 excrement; *Htja-Hwɔ̃* <skyag pa>  
 exhale, breathe; *Hbu Lp<sup>h</sup>ɔ̃* <\*dbugs phong>  
 exist, be; (as of oneself) *LNdə* <'dug>; (as of other people) *Hŋɔ̃* <snang>  
 expensive; *Lkɔ̃ Ht<sup>h</sup>u* <gong ?>  
 eye; *Hjni* <myig>  
 eyeball; *Ljni-Hlu* <myig zlum>  
 eyebrow, eyelash; *Lzə-Hɔ̃* <rdzi ma>; *Lzə-Hpɔ̃* <rdzi pa>  
 eyelid; *Ljni-Hpa* <myig lpags>  
 face; *Ldɔ̃-Hku* <gdong ?>  
 faint, lose consciousness; *Lmu=Hts<sup>h</sup>ue* <mi tshor>  
 fall down, collapse; *Ldi* <rdib>  
 fall ill, become sick; *Lnɔ̃* <na>  
 false, fake; *Ldzɛ̃* <rdzun>  
 family, household; *Ljni-Hts<sup>h</sup>ɔ̃* <mi tshang>  
 far, distant; *Ht<sup>h</sup>a-Hrɛ̃* <thag ring>  
 farmland, field; *Lɕĩ* <zhing>; *Hs<sup>h</sup>a-Hzĩ* <sha zhing>; *Lp<sup>h</sup>a-Hzĩ* <? zhing>  
 fart; (N) *Hj<sup>h</sup>ɛ̃* <phyen>; (V) *Hj<sup>h</sup>ɛ̃ Ltɔ̃* <phyen btang>  
 fasten (a belt); *Hdā* <bsdams>  
 fat; *LNdzə-Hpɔ̃* <rgyags pa>  
 fat (meat); *Hkɛ* <(sha) dkar>  
 father; *Hp<sup>h</sup>ɔ̃* <pha>; *Ha-Hba* <a pa>  
 father-in-law; *Ha-Hba* <a pa>  
 fear, be afraid of; *Htsa* <skrag>, *Htsa-Ltsa* <\*skrag drag?>  
 feather, plumage; *Lja-Hpə* <bya spu>

feed; fill in, stuff; (as of people) *Hxu LZɛ̃* <bshos? ?>, (as of animals) *Hju*  
 feeding trough, manger; *Lp<sup>h</sup>a-Hwɔ̃* <? ba>  
 feel dizzy, giddy; *HNgu Lk<sup>h</sup>ue* <mgo 'khor >  
 female genitals, vagina; *Lbɔ̃* <gzhang>  
 fence; *Lra-Hrɔ̃* <ra ra>  
 ferment (as of wine); (literally, 'to boil') *Htə<sup>h</sup>ɔ̃-Htsu* <\*chang btso>; (literally, 'to rise') *Htə<sup>h</sup>ɔ̃ Ljɔ̃* <chang lang>  
 fertile, rich (soil); *Lsɣ-Hmu* <zab mo>  
 fertilizer, manure; *Lji* <lud>  
 fester, suppurate; *Hna Hhji* <\*rnags lhags?>  
 field, rice field; *HNdzei-Hzĩ* <'bras zhing>  
 fifteen; *Htə̃-Hŋɔ̃* <bco lnga>  
 fifth; fifth lunar month; *Hŋa-Hpɔ̃* <lnga pa>  
 fifth day of the month; *Hts<sup>h</sup>e-Hŋɔ̃* <tshes lnga>  
 fifty; *Hŋa-Htə̃* <lnga bcu>  
 fight, wrestle; *Hda-Hduĩ* <rdung rdung?>  
 figure out answer, guess right; *Ht<sup>h</sup>e Ldzi* <? zin>  
 fill in, stuff into, cork; *Hja-Ldzɔ̃* <yar rdzong>, *Hma-Ldzɔ̃* <mar rdzong>  
 filter, strain, sift; *Htsa* <btags>  
 find; *Ljɛ̃* <len?>  
 fine, in small particles; *Lɕi-Lkə-Hrə* <zhib ?>  
 finger; *LNdzui* <mdzub>  
 finger (thumb); *Lt<sup>h</sup>a-Htə<sup>h</sup>ɛ̃* <theb chen>  
 finger (index finger); *Lkɔ̃-HNdzui* <gong mdzub>  
 finger (middle finger); *Lpɛ-HNdzui* <bar mdzub>  
 finger (ring finger); *Ls<sup>h</sup>ɛ̃-Hla* <srin ?>  
 finger (little finger); *LNdzui-Hka* <mdzug ?>  
 finger tip to finger tip of outstretched arms; *LNda-HNbɔ̃ Lkɔ̃* <'dom pa gang>  
 fingerprint; *Lrə* <ri>; *Hts<sup>h</sup>u* <mtsho>  
 finish, exhaust; *Hp<sup>h</sup>a-Lse* <phar zad>  
 fir; *Hsũ-Hxɣ* <som ?>  
 fire; *Ljni* <mye>  
 fireplace, stove, hearth; *Ht<sup>h</sup>ɣ* <thab>; *Lku-Hf* <go thal>  
 firetongs; *Lka-HNbɔ̃* <skam pa>  
 firewood; *Hɕĩ* <shing>

first; *Ltṣ̄-HNbu* <dang po>  
 first day of the month; *Htsʰe-Hji~Htsʰe-Htṣ̄i*  
 <tshes gcig>  
 first lunar month; *Lnda-Hwo Ltṣ̄-HNbu* <zla  
 ba dang po>  
 fish (N); *Lṅṅ* <nya>  
 fish (V); *Lṅa-Hkʰy Lpʰṅ* <nya khab phong>  
 fishbone; *Lṅa-Hrṅ* <nya rus>  
 fisherman; *Lṅa-Hwo* <nya pa>  
 fishing hook; *Lṅa-Hkʰy* <nya khab>  
 fishing net; *Lṅa-Hdzo* <nya rgya>  
 fist; *Lkʰo-Hdā* <? dam?>  
 five; *Hṅṅ* <Inga>  
 five hundred; *Hṅa-Hdzo* <Inga brgya>  
 flag; *Lte* <dar>; (prayer flag) *Lta-Htṣ̄o* <dar  
 lcog>  
 flame; *Lṅi-Htsʰa* <mye tshag?>  
 flat; (as of an object) *Hsə-Hbə-Hle* <srab  
 leb>; (as of a piece of land) *Lda-HNdza*  
 flea; *Ldzi-Hwo* <li ba>  
 fleece, wool; *Lra-Htsi* <ra rtsid>  
 flying, toss, throw (over here); *Htsʰa-Lpʰṅ*  
 <tshur phong>  
 flint; *Ldu-Hyε~Ldu-Hkε* <rdo dkar>  
 float; *Hdī* <lding>  
 floor; *Ltṣ̄ē* <gcal>  
 flour; *Ltsʰa-Hri* <? ril>  
 flow (as of water); *Htṣ̄ə LNdzu* <chu 'gro>  
 flower; *LNbu-Hru* <me tog>. The rhyme of  
 the second syllable of this word possibly  
 results from changes from OT -og > first to  
 Kami /o/ > then to Kami /u/  
 flute; *Htsʰa-Hlī* <'phred gling>  
 fly (N); *Ldzā* <sbrang bu?>  
 fly (V); *Hdī* <lding>  
 foam, bubble; *Lbu-Hru* <lbu ?>  
 fog; *Lṅū-Hzu* <rmug~smug yod?>  
 foggy; *Lṅū-Hzu Htṣ̄i* <rmug~smug ?>  
 fold up (a quilt); *Lja-Htṣ̄a* <yar ?>  
 folk song; *Hzei* <gzhas>  
 food, cooked rice; *Hxu* <bshos?>  
 food steamer; *Hpu-Hrṅ*, cf. Shíxīng /ʰpə/,  
 Púmǐ /bu<sup>35</sup>/  
 foot of a mountain; *Lrə-Htṣ̄o* <ri rtsa>

foot, leg; *Lku-HNbo* <rkang pa>  
 footprint; *Hkṅ-Hzi* <rkang rjes>  
 forehead; *Lta-Hpṅ* <thod pa>  
 foreign county, literally, 'other country';  
*Ldza-Hkʰu Lkʰa-Hxṅ* <rgyal khab ? gzhan?>  
 forest, wood; *Lna* <nags>  
 forget; *Lzə* <rjed>  
 four; *Hzə* <bzhi>  
 four hundred; *Hzə-Hdzo* <bzhi brgya>  
 fourteen; *Htṣ̄ə-Hzə* <bcu bzhi>  
 fourth; fourth lunar month; *Hzə* <bzhi>,  
*Lzə-Hpṅ* <bzhi pa>  
 fourth day of the month; *Htsʰe-Hzə* <tshes  
 bzhi>  
 forty; *Lzə-Htṣ̄ə* <bzhi bcu>  
 fowl, wild bird; *Lfo* <bya>; *Lrə-Hzo* <ri bya>  
 fox; *Lwo* <wa (mo)>  
 frequently, often; *Lā-Hto Lā-Hto* <da lta?>  
 friend, companion, partner; *Lro* <rogs>; *Lro-  
 Hpu* <rogs ?>  
 frighten, scare; *Htṣ̄o* <'drogs>  
 frog; *Lbi-Hjo* <sbal pa>  
 front side, in front of; *Lṅuē-Hʰo* <sngon  
 phyogs>  
 frost; *Lpā* <ba mo>  
 fruit; *Hsʰe-Hru* <sil? tog>. The rhyme of the  
 second syllable of this word possibly results  
 from changes from OT -og > first to Kami  
 /o/ > then to Kami /u/  
 fry, stir fry; *Hṅū* <rnṅo>  
 full, filled up; *Lkṅ* <gang>  
 full, have one's fill; *LNdzṅ* <'grang>  
 fungi, mushroom; *Lχā* <sha mo>  
 gall bladder; *Ltsʰi-Hpṅ* <mkhris pa>  
 gall, bile; *Ltsʰi-Htṣ̄ə* <mkhris chu>  
 garbage, waste, dust; *Ldi* <rdul>; (swept  
 dust) *Lʰa-Hdi* <\*phyags rdul>; (used tea  
 leaves) *Ltṣ̄ə-Hru* <ja ro>  
 garden; *Lrṅ* <ra>; (vegetable garden) *Lkʰa-  
 Htse Lrṅ* <kha tshal? ra>  
 garlic; *Lgu-Hwo* <sgog pa>  
 garrotte, strangle; *Hʰa-Hse* <phar gsod>  
 gather, assemble; *Htsʰā HNdzū* <tshang  
 'dzom>

general; *Hma-Hpē* <dmag dpon>  
 germinate, sprout; *Lgɔ*  
 get, acquire, obtain; *Lra* <rag>, *Hra* *Ljũ* <rag byung>  
 ghost, evil spirit; (male ghost) *Hsi-Hp<sup>h</sup>u* <sre pho>; (female ghost) *Hsi-Hmō* <sre mo>  
 ginger; *Lga-Htɕ* <sga skya>  
 girdle, waistband; (traditional) *Lka-Hrã* <ska/rked rags>; (contemporary) *Htɕa-HNgu* <lcags mgo?>  
 give a name; *Ljũ Hta* <mying btags>  
 give birth; child delivery; *Hdō* *Lt<sup>h</sup>ō* <gdong? mthong?>, cf. Shīxīng /Lp<sup>h</sup>ã-Hdō/ 'to give birth', literally, 'to see (the child's) face'  
 give or have an injection; *Hk<sup>h</sup>ɣ* *Ldʒɣ* <khab rgyab>  
 glasses; *Hji-Hɕ<sup>h</sup>ei* <myig shel>  
 glede, eagle, hawk; *Hja* <glag>  
 glove; *Lja-Hxu* <lag shubs>  
 gnaw, scrape; *LNdze* <'brad>  
 go; *LNdzu* <'gro>, (IMP) *Hs<sup>h</sup>ō* <song>  
 go downstairs; *Hma-LNdzu* <mar 'gro>; *Lma-Hō* <mar 'ong>  
 go upstairs; *Hja-LNdzu* <yar 'gro>; *Lja-Hō* <yar 'ong>  
 go out; *Hp<sup>h</sup>a-Lpi* <phar 'bud> or <phar bud>  
 go to war, battle; *Hdʒɔ-Ldʒɣ* <\*dgra rgyab>  
 goat; *Lrɔ* <ra>  
 goat (she-goat); *Lra-Hmō* <ra mo>  
 goat (he-goat, billy goat); *Lra-Hju* <ra ?>  
 goat (wild goat); *Lra-Hgue* <ra rgod>  
 god, deity, Buddha; *Hhjo* <lha>  
 gold; *Hse* <gser>  
 gong; *Lk<sup>h</sup>ɛ-Hjɔ* <mkhar rnga>  
 good; (a general term) *La-Hju*; (as of people) *Hzō* <bzang>  
 government; *Llei-Hk<sup>h</sup>ō* <las khang>  
 grab, grasp, clasp (hands); *HNdzə* <'ju>  
 grain, crops; *Ht<sup>h</sup>u* <thog>  
 granddaughter; *Hts<sup>h</sup>a-Hã* <tsha mo>  
 grandfather; *Hja-Hji* <a myes>  
 grandmother; *Hja-Hmō* <a mo>  
 grandson; *Lts<sup>h</sup>a-Hwu* <tsha bo>  
 grape; *Lɛ-Hdzj*, cf. Lizu /Hla-LNdzu/

grass; *Htsu-Hwɔ* <rtswa>  
 grassland, meadow; *LNdzo-Hpɔ* <'brog pa>  
 green; *Ljũ-Hjũ* <\*sngon sngon>  
 grey, khaki; *Ls<sup>h</sup>ã-HNdo* <sa mdog>  
 grind (flour); *Ltɕ<sup>h</sup>ə-Hkue* *Lta* <chu 'khor btags>  
 ground, foundation of a building; *Hmi* <rming>  
 group, one group of people; *Ljə* *Lta-Hla* <mi ?>  
 grow (a boil); *Hmō* *Ljũ* <rma byung?>  
 grow up; *Hci* <skye>  
 gruel, porridge; *Lts<sup>h</sup>ɔ* <tsha?>  
 guest; *LNdza-Hmu* <mgron po>  
 guinea pepper; *Hza-Hwō* <ljags pan>  
 guitar, lute, violin; *Hpi-Hwō* <pi wang>  
 gulley, gutter; *Hko* <rka>  
 gums; *Hsu-Hkē* <so rkan>  
 gun; *Lji-HNdo* <mye mda'>  
 gun powder; *HNdzei* <rdzas>  
 hail; *Ls<sup>h</sup>a-Hrɔ* <se ra>  
 hair (of animals), fur; *Hpə* <spu>  
 hair (of humans); *Htɕɔ* <skra>  
 half; *Lj<sup>h</sup>a-Hk<sup>h</sup>ua* <phyed ka>  
 half a day; *Lji-Hj<sup>h</sup>e* <nyin phyed>  
 hammer; *Ht<sup>h</sup>u-Hwɔ* <tho ba>  
 hand; *Ljɔ* <lag pa>  
 hand over, pass, give; *Hte* <ster>  
 handful of rice; *Hpa-Hrə* *Lkō* <spar gang>  
 handle; *Lju* <lung>; *Lju-HNda* <lung ?>  
 hand print, finger print; *Lja-Hzi* <lag rjes>  
 hang (on the wall); *Hma-Ljō* <mar dpyang>  
 happy, glad, comfortable; *HNgə* <mgu>  
 hard; *Lsa-Hkua* <sra ?>, with the suffix /kua/  
 hat; *Lxu-Hwɔ* <zhwa>; straw hat; *Hs<sup>h</sup>o-Hɕɔ* <sog zhwa>  
 hat (traditional Tibetan hat); *Ldza-Hjɛ* *Lxu-Lwɔ* <rgya gar zhwa mo>  
 hat (festive Tibetan hat); *Hts<sup>h</sup>ə-Hrē* *Lɕa-Hmu* <tshe ring zhwa mo>  
 hatch, incubate, sit on eggs; *Lci-Hka* *Lgo* <byi'u ? ?> or <bye ? ?>  
 hate; *Lmu-Hgɔ* <mi dga'>

have, possess; <sup>L</sup>Ndə <'dug>; (old knowledge) <sup>L</sup>ʒu <yod>; (new knowledge) <sup>L</sup>ʒã <yod.ʔ>; (as of others, possess) <sup>H</sup>ŋõ <snang>  
 he, she (third person singular pronoun); <sup>H</sup>kʰə <kho>. The rhyme of this word possibly followed the change from OT -o to /u/, and from /u/ to /ə/.  
 his (GEN); <sup>L</sup>kʰə=<sup>H</sup>i <kho'i>  
 head; <sup>H</sup>Ŋgu <mgo>  
 headache, have a headache; <sup>H</sup>Ŋgu <sup>L</sup>nõ <mgo na>; <sup>H</sup>Ŋgu <sup>L</sup>ze <mgo gzer>  
 heap, stack (hay, grass); <sup>H</sup>ja-<sup>H</sup>põ <yar dpung>  
 hear; <sup>H</sup>tsʰue-<sup>L</sup>ʃũ <tshor byung>  
 heart; <sup>H</sup>ŋĩ < snying>  
 heat up, warm up; <sup>H</sup>ma-<sup>L</sup>sa <mar sreg>  
 heavy; <sup>H</sup>dzi <ljid>, <sup>L</sup>dza-<sup>H</sup>mu <ljid mo>  
 hedgehog, porcupine; <sup>H</sup>gõ <rgang>  
 height, statute, build; <sup>L</sup>pa-<sup>H</sup>Ŋgi <dpangs>  
 help; <sup>L</sup>ro-<sup>H</sup>dě <rogs ram>; <sup>L</sup>ra-<sup>H</sup>ro <\*rogs rogsʔ>  
 hemp; <sup>H</sup>sõ <so ma>  
 hempen cloth, linen; <sup>H</sup>sõ <sup>L</sup>rei <so ras>  
 here (at our place here); <sup>L</sup>ŋe-<sup>H</sup>rã <sup>H</sup>Nde <nga'i rang 'di>  
 hide oneself; <sup>H</sup>pʰa-<sup>L</sup>kʰ <phar gab>  
 hide something; <sup>H</sup>pʰa-<sup>L</sup>kuĩ <phar skung>  
 highland barley (*Hordeum vulgare*); <sup>H</sup>ka-<sup>H</sup>rə <ka ru>  
 hit (a person), beat; <sup>L</sup>duĩ <rdung>  
 hit the mark, strike the target; <sup>H</sup>pʰo <phog>  
 hog pen; <sup>H</sup>pʰa-<sup>H</sup>tsʰõ <phag tshang>  
 hold (one's breath); <sup>H</sup>bu-<sup>H</sup>Ndzã <dbugs ? >  
 hold between the fingers and the thumb, mould; <sup>H</sup>li  
 hole; (ditch) <sup>L</sup>tõ <dong>; (tear on clothing) <sup>L</sup>ke-<sup>H</sup>ke; (trench) <sup>L</sup>pɔ  
 honey; <sup>H</sup>dzõ <sbrang>  
 hoof; (as of a horse or a mule) <sup>H</sup>ŋi-<sup>H</sup>wɔ <rmig pa>; (as of a cow or a bull) <sup>L</sup>sʰu-<sup>H</sup>təo <\*sug lcogʔ>  
 horizontal; <sup>H</sup>tsʰa-<sup>H</sup>tsʰe <\*'phred 'phred>

horn; <sup>L</sup>rə-<sup>H</sup>wɔ <\*ru ba>; <sup>L</sup>rə-<sup>H</sup>təo <\*ru lcogʔ>  
 horse; <sup>H</sup>tɔ <rta>  
 horse (mare); <sup>L</sup>ga-<sup>H</sup>mõ <rgod ma>  
 horse (stallion); <sup>L</sup>sa-<sup>H</sup>təo <gseb ?>; <sup>H</sup>ta-<sup>H</sup>wu <rta po>  
 horse (foal, weanling); (yearling) <sup>L</sup>ti-<sup>H</sup>ka <rte'u ?>; (of 2-3 years of age) <sup>H</sup>ti-<sup>H</sup>ba <rte'u ?>  
 hospital; <sup>H</sup>ŋě-<sup>H</sup>kʰõ <sman khang>  
 host, owner; <sup>L</sup>təʰe-<sup>H</sup>mõ <khyo boʔ>  
 hot; <sup>H</sup>tsʰɔ <tsha>; <sup>H</sup>sa <sreg>  
 house, building; <sup>H</sup>kʰu-<sup>H</sup>Nbɔ <khang pa>  
 house (thatched house); <sup>H</sup>sʰo-<sup>H</sup>kʰõ~<sup>H</sup>sʰo-<sup>H</sup>xõ <sog khang>  
 house name; <sup>L</sup>ŋi-<sup>H</sup>tsʰõ <sup>L</sup>ŋũ <mi tshong mying>  
 how; <sup>H</sup>tse-<sup>H</sup>Ndʒe <sup>L</sup>re, with the copula <red>  
 how many; <sup>L</sup>mõ-<sup>H</sup>juĩ <mang nyung>  
 huddle, curp up; <sup>L</sup>ja-<sup>H</sup>tsi <yar sgrilʔ>  
 hug, embrace; <sup>H</sup>põ <pang>  
 hundred; <sup>H</sup>dʒɔ <brgya>; one hundred and one; <sup>H</sup>dʒɔ <sup>L</sup>ŋi <sup>H</sup>təi <brgya gcig>, numerals above one hundred are formed with the intrusive conjunction /ŋi/. This is identical to numeral formation in Shixing.  
 hundred million; <sup>H</sup>təŋ-<sup>H</sup>tsʰəʊ <sup>H</sup>təi <dung phyur gcig>  
 hungry; <sup>H</sup>tɔ <ltogs>, <sup>H</sup>tɔ <sup>L</sup>tʂa <\*ltogs dragʔ>  
 hunt; <sup>H</sup>ŋuě <rngon>  
 hunter, huntsman; <sup>H</sup>ŋuě-<sup>H</sup>Nbɔ <rngon pa>  
 husband; (spouse) <sup>L</sup>ʒɔ <bza'ʔ>; (husband, literally, man) <sup>L</sup>ŋə-<sup>H</sup>gue <\*mi dgonʔ>, cf. Lizu /<sup>H</sup>tsʰo-<sup>H</sup>sa-<sup>H</sup>pʰa/, literally, 'master, lord'  
 I, first person singular pronoun; <sup>L</sup>ŋõ~<sup>L</sup>ŋɔ <nga>  
 mine, my (GEN); <sup>H</sup>ŋe <nga'i>  
 ice; <sup>L</sup>təʰa-<sup>H</sup>dzõ <chab brom>  
 idea, opinion, view; <sup>L</sup>tsě-<sup>H</sup>gu <dran ?>, with the suffix /gu/  
 idle, have free time; <sup>L</sup>kʰõ <khom>  
 immediately; <sup>L</sup>a-<sup>H</sup>tɔ <da Itaʔ>

in one year; *Hs<sup>h</sup>ṣ* <sang?>  
 in the center, in the middle; *Htṣi-Hke* <dkiyl  
 sked?>, *Lpa-Hla* <bar la>  
 in the future, later, hereafter; *Hṣī* <**phyi**  
 ma>  
 in the past, formerly; *Hṅē* <sngon>  
 incense (white sandal wood) burner,  
 perfuming pan; *Lpi-Hhue* <\*dpal? phor>  
 incisor, front teeth; *Hsu-Hgu* <\*so mgo?>  
 increase; *Hja-Lmṣ* <yar mang>  
 infect; *Lrə-HNbo* <**rim** pa>  
 inhale; *Hbu* *L<sup>h</sup>ē* <**dbugs** 'then>  
 injure, hurt; *Lp<sup>h</sup>a-Hṁē* <phar rmas>  
 ink; *Lṅa-Hts<sup>h</sup>ṣ* <snag tsha>  
 insect, bug; *LNbə* <'bu>  
 inside; *Lnṣ-Hjə* <nang ?>; *Lnṣ-Hṅi* <nang ?>  
 inside, lining of clothing; *Lnṣ-Hpa* <nang  
 lpags?>  
 intestines, bowels; *Ldṣṣ* <rgyu ma>; (large  
 intestine) *Ldṣə-Hyε* <rgyu dkar>; (small  
 intestine) *Ldṣə-Hrā* <rgyu ?> (the second  
 syllable of this word is possibly the same as  
 the second syllable in the word for 'black',  
*Lna-Hrā*)  
 invite (guests); *LNdṣa-Hmu* *LNbei* <mgron  
 po bos>  
 iron; *Htṣa* <lcags>  
 iron pot, frying pan; *Htṣa-Hzṣ* <lcags ?>  
 ivory; *Lpa-Hsu* <ba so>  
 jackdaw, black bird with red beak and feet;  
*Lja-Htṣṣ* *Htṣ<sup>h</sup>ə-Hmε* <bya **skyung** mchu  
 dmar>  
 jar, vat; *Htṣ<sup>h</sup>ə-Hzṣ* <chu zom>  
 joint, section; *Lts<sup>h</sup>a-Hts<sup>h</sup>i* <tshag tshig>  
 jump (down); *Hp<sup>h</sup>i*, possibly related to  
 <'phag>  
 juniper (Himalayan/black; *Juniperus indica*);  
*Lxu-Hwṣ* <shug pa>  
 key; *Lde-Hṅi* <lde mig>  
 kick, striking of feet, horse's hooves; *Hju*,  
*Ldzi-Hdu* *Lju*  
 kidney; *Lk<sup>h</sup>e-Hlə* <mkhal ?>  
 kill (a person); *Hse* <bsad>

kin, relative; *Lk<sup>h</sup>ue-Htṣi* <'khor gcig?>;  
*Lk<sup>h</sup>ue-Htṣi* *Hna-Hsṣ* <'khor gcig ? ?>  
 kiss (v); *Hpu-Lfei*  
 knee; *Hpa-HNbu* <pus mo?>  
 kneel; *Lgu*  
 knife; *Htsə* <gri>; (chopper) *Lla-Hbε*; (small,  
 pocket knife) *Lku-Htsə* <gu? gri>  
 knife handle; *Htsə* *Lzə* <gri yu>  
 knife sheath; *Ltsə-Hxu* <gri shubs>  
 knot; *LNdi-Hpṣ* <mdud pa>  
 know (to do smth), be able; *Hṣ<sup>h</sup>i* <shes>  
 know; *Hho-Lku* <ha go>; (recognize) *Lṅu-*  
*Hṣ<sup>h</sup>i* <ngo shes>  
 kowtow; *Hṅa-Lp<sup>h</sup>i* <phyag phul>  
 ladder; *Hke-Hkie* <skas>  
 ladle; *Lza-Hrə* <za ru>  
 lake; *Hts<sup>h</sup>u* <mtsho>  
 lama; (ordinary) *Ha-Hṅṣ*; Living Buddha; *Hla-*  
*Hmṣ* <bla ma>; *Hku-Hzu* <sku rgyud?>  
 lambswool; *Lju* *Lpi* <lug bal>  
 lameness; *Lṣṣ-Hlε* <zha ?>  
 lamps lighted before deities; *Htṣ<sup>h</sup>a-Hmī*  
 <mchod me>  
 language, speech; *Lk<sup>h</sup>a-Hpi* <kha dpe>; *Hka-*  
*Htṣ<sup>h</sup>ṣ* <skad cha>  
 lard, pig fat; *Lp<sup>h</sup>a-Hts<sup>h</sup>i* <phag tshil>  
 large bamboo wicker basket; *HNbṣ* <'bong>  
 'round?'  
 lasso, noose; *Lt<sup>h</sup>a-Lwṣ* *Hba* <thag (ba)  
 bzhang>  
 last month; *Hhē* *LNda-Hwṣ* *Ltṣi* <? zla ba  
 gcig>  
 last night; *Lnā-Hsṣ* *Hfə-Hgə* <mdang  
 song ? ?>  
 last year; *Lna-Hjī* <na ning>  
 late, to be late; *Hfə* <**phyi**>  
 laugh, smile; *Lgṣ* <dga'>  
 lay eggs; *Hgṣ*, *Lgo-Hwā* *Lgṣ* <sgo nga ?>  
 lazy; *Lma=Hhue* <mi hur>  
 lead (the way); *Hts<sup>h</sup>i* <'khrid>  
 leaf; *Lda-Hma* <'dab>; *Hṣī-Hlu* <**shing** lo>  
 leak; *Lsa* <zag>  
 lean (meat), raw meat; *Hmε* <(sha) dmar>  
 left, leftside; *Lzə-Hwu* <g.yon>



legging, puttee; <sup>H</sup>kõ-<sup>H</sup>tsi <rkang dkris>  
 leopard; <sup>H</sup>zi <gzig>  
 lick; <sup>L</sup>da <ldag>  
 lid, cover; <sup>L</sup>k<sup>h</sup>a-<sup>H</sup>le <kha leb>  
 lie, lie down; <sup>H</sup>p<sup>h</sup>a-<sup>L</sup>ngi <phar 'gul?>  
 life, fate, destiny; <sup>H</sup>so <srog>  
 life, lifespan; <sup>H</sup>ts<sup>h</sup>i <tshe>  
 lift (the lid); <sup>L</sup>p<sup>h</sup>a-<sup>H</sup>kua, cf. Shìxīng /<sup>L</sup>bə-<sup>H</sup>qua/, Lizu /(<sup>H</sup>hja-<sup>L</sup>hja) <sup>L</sup>xwa/  
 lift up, carry, raise; <sup>L</sup>ja-<sup>H</sup>tfa <yar bkyags>  
 lift, raise (head); <sup>H</sup>ngu <sup>L</sup>tfa <mgo bkyags>  
 light (not heavy); <sup>L</sup>zõ <yang>, <sup>L</sup>zõ-<sup>H</sup>zõ <\*yang yang>  
 light a fire; <sup>L</sup>ni-<sup>H</sup>pe <mye spar>  
 light, relaxed, loose; <sup>H</sup>l̥ <lhod po>  
 lightning; <sup>H</sup>lu <sup>H</sup>ndo <glog ?>  
 like, love; <sup>L</sup>gɔ <dga'>; <sup>H</sup>tci <brtse>  
 limbs, arms and legs; <sup>L</sup>kõ-<sup>H</sup>ja <rkang lag>  
 lion; <sup>H</sup>si-<sup>H</sup>ngi <seng ge>  
 lips; <sup>H</sup>tç<sup>h</sup>ə-<sup>H</sup>ru <mchu to>  
 lips (upper lip); <sup>L</sup>t<sup>h</sup>-<sup>H</sup>pa <steng lpags?>  
 lips (lower lip); <sup>L</sup>xɣ-<sup>H</sup>pa <'og lpags?>  
 listen; <sup>L</sup>ŋe <nyan>  
 litter, nest; <sup>L</sup>ja-<sup>H</sup>ts<sup>h</sup>õ <bya tshang>; <sup>L</sup>ci-<sup>H</sup>ts<sup>h</sup>õ <byi'u tshang> or <bye tshang>  
 little, few; <sup>L</sup>ŋũ <nyung>, <sup>L</sup>ŋũ-<sup>H</sup>ŋũ <nyung nyung>  
 live, reside, stay, dwell; <sup>L</sup>ndə <'dug>  
 liver; <sup>H</sup>tç<sup>h</sup>i-<sup>H</sup>Nbɔ <mchin pa>  
 lock; <sup>L</sup>sa-<sup>H</sup>dzi, Chinese 鎖子, swm /so<sup>21</sup>/, MC swaX  
 lock (the door); <sup>H</sup>gu <sup>H</sup>tca <sgo lcags?>  
 loess; <sup>L</sup>s<sup>h</sup>a-<sup>H</sup>se <sa gser>  
 log raft; <sup>L</sup>tõ-<sup>H</sup>so <? gtong sa?>, <sup>H</sup>pi-<sup>L</sup>tõ-<sup>L</sup>so  
 long; <sup>L</sup>rē <ring>, <sup>L</sup>re-<sup>H</sup>Nbu <ring po>  
 look at, watch; <sup>H</sup>to <lta>, (IMP) <sup>H</sup>tei <ltos>  
 look for, search; <sup>H</sup>tsi <btsal>  
 loom; <sup>H</sup>t<sup>h</sup>a-<sup>H</sup>hjo <thags ?>  
 lose (a game); <sup>H</sup>p<sup>h</sup>ã <pham>  
 lose (battle), be defeated; <sup>L</sup>ma-<sup>H</sup>po <mar ?>  
 lose money in business, lose one's capital; <sup>H</sup>p<sup>h</sup>ã <pham>  
 lose, mislay; <sup>H</sup>p<sup>h</sup>a-<sup>H</sup>p<sup>h</sup>õ <phar phong>  
 louse; <sup>H</sup>ci <shig>

low; <sup>H</sup>tç<sup>h</sup>ũ-<sup>H</sup>jũ <chung chung>  
 lower (the head), surrender; <sup>H</sup>ngu <sup>H</sup>ma-<sup>L</sup>gu <mgo mar sgru>  
 lunar eclipse; <sup>L</sup>ndã-<sup>H</sup>ndzē <zla 'dzin>  
 lunch; <sup>L</sup>ndzo <'dzar?>  
 lungs; <sup>H</sup>lu-<sup>H</sup>wɔ <glo ba>  
 madman, lunatic; <sup>H</sup>ŋĩ-<sup>H</sup>Nbɔ <smyon pa>  
 maggot; <sup>H</sup>ɣa-<sup>H</sup>Nbə <sha 'bu>  
 make money, make a profit; <sup>H</sup>k<sup>h</sup>i <khe>  
 malaria; <sup>L</sup>nda-<sup>H</sup>rə <'dar ba>  
 male musk deer; <sup>L</sup>la-<sup>H</sup>wu <gla po>  
 man; <sup>L</sup>ni-<sup>H</sup>gue <\*mi dgon?>  
 mandarine; <sup>H</sup>tçē-<sup>H</sup>du, cf. Shìxīng and Púmǐ /<sup>H</sup>tçĩ-<sup>L</sup>du/  
 mark, sign; (N) <sup>H</sup>ta <rtags>; (V) <sup>H</sup>ta <sup>L</sup>tsu <rtags btsugs>  
 mark, trace, vestige; <sup>H</sup>ç<sup>h</sup>ei <shul>  
 marrow; <sup>H</sup>kõ <rkang>, <sup>H</sup>kõ-<sup>H</sup>ndũ <rkang ?>  
 marry (a woman), take as bride; <sup>H</sup>ts<sup>h</sup>a  
 marry off a woman, be given in marriage; <sup>L</sup>ba <bzhag>  
 marry, marriage; <sup>H</sup>tç<sup>h</sup>õ <sup>L</sup>t<sup>h</sup>ũ <chang 'thung>  
 mask; <sup>L</sup>nba-<sup>L</sup>ma <'bag>  
 matches; <sup>L</sup>mo-<sup>H</sup>t<sup>h</sup>ui <me thur>  
 matter, business; <sup>L</sup>tsu-<sup>H</sup>wɔ <brel ba?> or <spros pa?>  
 mattress; <sup>H</sup>tē <gdan>  
 measure unit for dry things as well as liquids, equal to 2 pints (swm 筒 or 冲); (one measure unit) <sup>L</sup>dzi-<sup>H</sup>kõ <bre gang>, (two measure units) <sup>H</sup>dzi <sup>L</sup>tu <bre do>  
 meat, flesh; <sup>H</sup>ɣɔ <sha>  
 medicine; <sup>H</sup>m̥ē <sman>  
 meet, encounter; <sup>H</sup>ts<sup>h</sup>ue <sup>L</sup>jũ <phrad byung>  
 meldewed, become meldewed; <sup>H</sup>p<sup>h</sup>a-<sup>H</sup>hã <phar ham>  
 melt, dissolve; <sup>H</sup>xə <bzhu>  
 mend, patch; <sup>L</sup>ja-<sup>H</sup>Nba <lhan pa>  
 metal dish, round copper basin; <sup>H</sup>ka-<sup>H</sup>də-<sup>H</sup>rɔ <ka to ra>  
 middle storey of a house; <sup>L</sup>pe-<sup>H</sup>t<sup>h</sup>o <bar thog>  
 midnight; <sup>H</sup>ts<sup>h</sup>uē <mtshan>

milk; *L*u-*H*ṣ <'o ma>; (mother's milk) *H*a-*H*mi  
 mill, watermill; *L*tṣ<sup>h</sup>ə-*H*kue <chu 'khor>  
 millet; *H*tsi-*H*tsi <tsi tse>  
 million; *L*Nbṣ *H*tṣi <'bum gcig?>  
 mirror; *H*ṣ<sup>h</sup>ei-*H*gu <shel sgo>  
 miscarriage, have a miscarriage; (as of  
 people) *H*Ndzē <'grim?>; (as of cattle) *H*p<sup>h</sup>a-  
*L*p<sup>h</sup>ṣ <phar phong>  
 mix (powder) with water, knead dough;  
*H*tṣu <dkrug>  
 molar teeth; *L*p<sup>h</sup>ə-*H*su <sbug so>, from an  
 earlier form <\*phug so>; *L*rṣ-*H*da <'gram ?>  
 mole, freckle; *L*mṣ-*H*ṣ <sme ba>  
 monastery; *L*rə-*H*tṣ<sup>h</sup>ue <ri khrod>  
 money; *H*ṣe <dngul>  
 monk; *L*tṣa-*H*wṣ <grwa ba>  
 monkey; *H*tṣi <spre'u>  
 month; *L*Nda-*H*wṣ <zla ba>  
 month (beginning of a month); *L*Nda-*H*Ngu  
<zla 'go>  
 month (middle of a month); *L*Nda-*H*ke <zla  
sked>  
 month (end of a month); *L*Nda-*H*Ndzu <zla  
mjug>  
 moon; *H*ṣ <zla>; *L*Nda-*H*wa <zla ba>  
 morning; *L*xo-*H*pṣ <zhog pa>; *L*ṣā <snga>  
 mortar; *L*gu-*H*hue <? phor?>  
 Moso, Na people; *H*Ndzṣ <'jang>  
 mosquito; *L*t<sup>h</sup>e-*H*ṣi <? shig>  
 mosquito net; *L*dzā-*H*jy <sbrang yab>  
 mother; *L*mṣ <ma>; *H*a-*H*ma <a ma>  
 mother-in-law; *H*a-*H*ma <a ma>  
 mountain; *L*rə <ri>  
 mountain (midway up a mountain); *L*rə-*H*ke  
<ri sked>  
 mountain peak; *H*gṣ <sgang>  
 mountain slope; *L*rə-*H*ba <ri ?>, cf. Shīxīng  
/*l*-b3-*H*b3/, Púmǐ /*ba*<sup>35</sup>/  
 mountain top, summit; *L*rə-*H*Ngu <ri mgo>  
 mountain valley, ravine; *L*ji-*H*Nbṣ <lung pa>  
 mountain or water spirit; *H*ṣ <lha>  
 mouse, rat; *L*fu-*H*wṣ <byi ba>  
 mouth; *H*k<sup>h</sup>ṣ <kha>  
 mouth organ (bamboo or copper); *L*pē-*H*pṣ

mouthful (of drink), bite (of food) (N); *H*su  
*H*ty <so btab>  
 move; *H*pu <spo>  
 move; stir, budge; *H*Ngī <'gul>  
 much, many; *L*mṣ <mang>, *L*ma-*H*mu  
<mang mo?>  
 mud; *L*Nda-*H*Nba <'dam pa>  
 mulberry (Himalayan; *Morus serrata*); *L*tṣ-  
*H*se, *L*tṣ-*L*se-*H*ṣi <dar ? shing>  
 mule; *L*tṣei <drel>  
 multicolored, variegated, striped; *H*tṣ<sup>h</sup>a-  
*H*tṣ<sup>h</sup>ṣ <khra khra>  
 muntjac; *L*k<sup>h</sup>a-*H*ṣṣ <kha sha>; tufted deer;  
*L*na-*H*ji <nags ?>  
 musk; *H*la-*H*tṣə <gla rtsi>  
 musk deer; *H*ṣ <gla ba>; female musk deer;  
*L*mu-*H*ṣ <mo gla>  
 mute, a stupid person; (male) *L*pə-*H*kw <bu  
lkugs>; (female) *L*mə-*H*kw <mo lkugs>  
 nail (v); beat; strike; *L*du <rdung>  
 nail (N), fingernail; *L*s<sup>h</sup>a-*H*mṣ <sen mo>  
 nail (N), screw; *H*tṣa-*H*Ndze <lcags? gzer?>  
 name; *L*ju <mying>  
 narrow; *L*tṣ<sup>h</sup>ā <'phrang?>  
 navel, belly button; *H*ti-*H*wṣ <lte ba>  
 neck; *L*ki-*H*tṣ<sup>h</sup>i <ske tshigs>  
 needle; *H*k<sup>h</sup>ṣ <khab>  
 needle point, point of a needle; *L*k<sup>h</sup>ṣ-*H*tsi  
<khab rtse>  
 neigh; *H*ts<sup>h</sup>e <mtsher>  
 neighbour; *L*ṣ<sup>h</sup>i-*H*Ndzi <khyim mtshes>;  
*L*dzo-*H*Nbṣ <grong pa>  
 nephew; *L*tṣ<sup>h</sup>a-*H*wu <tsha bo>  
 nest; *H*ts<sup>h</sup>ṣ *H*su <tshang ? >  
 new; *H*se-*H*wṣ <gsar pa>  
 next month; *L*ue-*H*lu *L*Nda-*H*wṣ <? zla ba>  
 next year; *L*ta-*H*ba <da zhag?>  
 niche, shrine; *H*t<sup>h</sup>a-*H*Ngu <thab mgo>; *L*t<sup>h</sup>a-  
*H*ta <thab ?>  
 niece; *H*ts<sup>h</sup>a-*H*ā <tsha mo>  
 nine; *H*gə <dgu>  
 nine hundred; *H*gua-*H*dzo <dgu brgya>  
 nineteen; *H*tṣə-*H*gə <bcu dgu>  
 ninety; *H*gə-*H*tṣə <dgu bcu>

ninth; ninth lunar month; *Lgə-Hpɔ* <dgu pa>  
 ninth day of the month; *Htsʰe Hgə* <tshes dgu>  
 nod; *LNgu-Hku* <mgo gug>  
 noodles; *Ldza-Htʰu* <rgya thug>  
 noon, midday; *LNdzɔ* <'dzar?>; *LNdza-Hrē* <\*'dzar? ran?>  
 north; *Ljɔ* <byang>  
 north side of a mountain, where little light comes; *LSə-Hma* <srib ma?>  
 nose; *Lŋã* <sna>  
 nostril; *Lŋã-Hkʰɔ* <sna khung>  
 Nosu; *Hlu-Hlu*  
 not be, negated copula verb; *Lma-Hre* <ma red>  
 now, at present, nowadays; *La-HtoH* <da lta?>  
 nun; *Hgi-Hwɔ* <dge ma>  
 oak; *Lpi-Hse* <be shing>  
 oats; *Lzə-Hke* <yu khu?>  
 obedient (child); *Lkʰɛ-Hto* <khar?>  
 official; *Hpē* <dpon>  
 oil; *Hŋũ* <snum>  
 old (of an object); *Lgu-Hre* <gog?>; (antique) *Hŋĩ-HNbo* <rnying pa>  
 old person; *Lgē-Hgo* <rgan gog>  
 old, to become old; *Hma-Lgei* <mar rgas>  
 on the top, above; *Hka-Hfĩ* <ka? steng>  
 one; *Htɕi* <gcig>  
 one night (e.g. stay for one night), one day and night; *Lχa* <zhang>  
 open; *Hɕi* <phye>; (open the door) *Hgu Lɕi* <sgo phye>  
 open (e.g. an umbrella); *Hja-Ltʰē* <yar 'then>  
 open (eyes); *Hŋi Hja-Hto* <myig yar lta?>  
 open (the mouth); *Hkʰɔ Ldɔ* <kha gdang>  
 opposite side; *Lpʰa-Hko* <phar?>  
 orchid, literally, 'cuckoo flower'; *Lku-Hku* <ku ku me tog>  
 orphan; *Lta-Hli* <d(w)a?>  
 other, the other one; *Lkʰa-Hxɔ* <? gzhan?>  
 otter, waterdog; *Hsã* <sram>  
 outside; *Lpʰie* <phyi> (this is possibly a recent loan)

outside (of clothing); *Ltɕi-Hpa* <? lpags?>  
 oval; *Ltsʰa-Htsʰe*  
 overflow, spill; *Lpu* <'bo> or <bo>  
 owl; *Hwu-Hhu* <'ug pa>  
 oxters, armpit; *Ltɕʰē-Hla Lxy-Hrɔ* <mchan ? 'og ra?>  
 pack sedal; *Ldzy* <rgyab>  
 pad, cushion, mat; *HNbei* <'bol?>  
 pagoda; *Ltɕʰa-Htē* <mchod rten>  
 pair; *Htɕʰɔ* <cha>, one pair; *Ltɕʰa Htɕi* <cha gcig>  
 palm of hand; *Lja-Hyũ* <lag kung~gung>  
 pan, dish of a scale; *Hsɔ-Hde* <srang sder>  
 pant, gasp; *Hbu Lma-Ltʰē* <dbugs mar 'then>  
 paper; *Lχə-Hwu* <shog bu>  
 parents; *Hpʰa-Hmɔ* <pha ma>  
 paste, stick, glue; *Hlē* <lhān>  
 pay salary; *Hte* <ster>  
 pea; *Hsuē-Hlu* <srān?>  
 peach (*Prunus persica*); *Ldza-Hxã* <rgya kham>; *Lkʰa-Hmbə* <kham bu>  
 peacock; *Hma-Hjɔ* <rma bya>  
 peanut; *LSʰa-Hsʰuē* <sa son>  
 pear; *Hsə-Hli* <? gli>  
 pebble; *Ltɕʰu-Hdu* <chu rdo>  
 peck at (as done by chicken); *HNdzɛi Ldə* <'bras?>  
 pen, cattle shed, barn; *Lra-Hyə* <ra skor?>; (stall for mule) *Ltɕɛi-Hrɔ* <drel ra>; (horse corral, stable) *Lto-Hrɔ* <rta ra>; (goat pen) *Lra-Htsʰɔ* <ra tshang>; (bird's cage) *Lja-Hkʰɔ* <bya khang>  
 penis; *LNdzi* <mje>  
 peppery, spicy, hot; *Hsa* <sreg>  
 perform a shaman's trance dance; *Ltɕʰã-HNbo Ltɕʰã* <'cham po 'cham>  
 person, people; *Lŋə* <mi>  
 pestle; *Lgo-Hdũ* <sgog gtun>  
 petticoat, skirt; (festive) *LNdu-Hhuē* <'dung phon>; (ordinary) *Lna-Hdzu*  
 pick up; *Hjɔ* <lang> (with an irregular tone)  
 pick up (with chopsticks); *Lja-HNdzə* <yar 'ju ba>

pickled vegetables; *Lk<sup>h</sup>a-Htse Ljui* <kha tshal? skyur>  
 pig; *Hp<sup>h</sup>a* <phag>  
 pig (sow, swine); *Lja-Hmu* <? mo>; *Lmu-Hha* <mo phag>  
 pig (boar, hog); *Hgε-Hli*; *Lp<sup>h</sup>u-Hha* <pho phag>  
 pig (piglet); *Lp<sup>h</sup>u-Hka* <phag ?>  
 pig (wild boar); *Lp<sup>h</sup>a-Hgue* <phag rgod>  
 pig bristles; *Lp<sup>h</sup>a-Hpə* <phag spu>  
 pig excrements; *Lp<sup>h</sup>a-Hji* <phag lud>; *Lp<sup>h</sup>a-Htə* <phag lci>  
 pig food; (pollard, bran sifted from flour) *Lp<sup>h</sup>a-Hri* <\*phag ril?>; (pig fodder) *Lp<sup>h</sup>a-Hdō* <phag ?>; (pig swill) *Lp<sup>h</sup>a-Hxu* <phag bshos?>  
 pillar; *Hkə* <ka>  
 pillow; *Hgei* <sgas>  
 pilose antler, deer horn with velvet containing blood; *Lra-Hsā* <rwa ?>  
 pincers, tongs; *Lka-HNbə* <rkam pa>  
 pine; *Lsō-Hgī* <gsom shing>, *Hso-Hmi-Hgī*; *Lt<sup>h</sup>ō-Hgī* <thang shing>, *Lt<sup>h</sup>o-Lmo-Hgī*  
 pine mushrooms; *Lpi-Hχə* <dpal? sha mo>  
 pine needle; *Hsō-HNbi* <gsom bal?>  
 pipe; *Lti-Hrə* <dud ra?>  
 pistil; *LNbu-Hru Ls<sup>h</sup>uē* <me tog son>  
 place; *Hs<sup>h</sup>a-Htə<sup>h</sup>ə-Hs<sup>h</sup>a-Hjə* <sa cha>  
 plant, raise; *Htsu* <btsugs>; (plant trees) *Hgī Htsu* <shing btsugs>  
 plate; *Hde* <sder>  
 play the bamboo flute; *Hts<sup>h</sup>a-Hli Lpε* <'phred gling sbar?>  
 play, amuse oneself; *Htsə-Hmō* <rtse mo>  
 plow (N), till; *Lgī-Hmu* <zhing rmo>  
 plow (V); *Hgei* <gshol>  
 plow handle; *Hgei-HNdə* <gshol mda'>  
 pluck (flowers), pick (fruit); *Htu* <btog>. The rhyme of this word possibly results from changes from OT -og > first to Kami /o/ > then to Kami /u/  
 pocket; *Hpo-Hpo*, swm 包包 /pao<sup>44</sup>pao<sup>44</sup>/  
 point at / to / out; *Htē* <bstan>  
 point of a knife; *Ltsə-Htsi* <gri rtse>

poison; *Ltu* <dug>  
 poke, stab; *Ldu*  
 pool; *LNdzī* <rdzing>  
 poor; *Lt<sup>h</sup>ə-Htə<sup>h</sup>a*  
 poplar; *Lza-Hwə* <sbyar pa>  
 potato; loan from swm 洋芋 /ian<sup>21y</sup>213/  
 pound; (one pound) *Ltəi Hkō* <'jal gang>; (two pounds) *Ltəi Htu* <'jal du>; (three pounds) *Ltəi Hsū* <'jal gsum>. Alternatively, Kami *Ltəi* may be a loan from swm, 斤 /təin<sup>55</sup>/ 'pound'  
 pray; *Lgō-Hpə Ldzy* <\*dgongs pa rgyab>  
 precipice, cliff; *Ltsa* <brag>  
 pregnant; *Ha-Hwə Lk<sup>h</sup>ui* <a wa 'khur?>; *Hli Lma=Hdi* <lus mi bde>  
 press, push down; *Hne* <mnar>  
 price; *Lkō* <gong>  
 prison, jail; *Htsē-Hk<sup>h</sup>ō* <btson khang>  
 prisoner, be imprisoned; *Hts<sup>h</sup>ē-Lp<sup>h</sup>o* <khirms phog>  
 Pteromus volans, flyings quirrel; *Ljā-Hfə* <bya ma byi>  
 pull up; *Hji* <lhud?>; (root out weeds) *Hdū Lji* <? lhud?>, cf. Bātáng /ty<sup>753</sup>/  
 pull, tug; *Ht<sup>h</sup>ē* <'then>  
 Púmī; *Lrō-Hjə* <rang mi>  
 punch a hole, perforate; *Hp<sup>h</sup>u* <phug>  
 punish; *Hts<sup>h</sup>ē* <khirms>  
 pupil (of an eye); *Hhjo La-Hka* <lha a ?>, literally, 'deity's child'  
 pupil, disciple; *Lgi-Hts<sup>h</sup>u* <dge phrug>  
 pus; *Hna* <rnag>  
 push, shove; *Hgi* <sgul>  
 put into a container, pack; *Hju* <'jog?>  
 put out to pasture, herd, drive (animals); *Ldzui* <rdzi?>  
 put, place; *Hma-Lka* <mar bzhag>  
 put, arrange; sway, wave; *Lja Hzu* <lag g.yug>  
 quarrel, have a row; *Lt<sup>h</sup>a-HNdχ* <'thab pa ?>  
 quick, rapid, fast; *LNdzū* <mgyogs>, *LNdzū-Hpə* <mgyogs po>  
 quilt, blanket; *Hp<sup>h</sup>u-Hxe* <pho khebs>

rabbit; *Lrə-Hyuũ* <ri bong>, cf. Bātáng /zɿ<sup>55</sup>-yũ<sup>55</sup>/

radish; *Lla-Hbe* <lab> or, alternatively, SWM 蘿蔔 /lo<sup>21</sup>pu<sup>213</sup>/

rain (N); *Ltə<sup>h</sup>ɔ* <char pa>

rain (V); (*Ltə<sup>h</sup>ɔ*) *LNbə* <char pa 'bab>; (*Ltə<sup>h</sup>ɔ*) *Lɔ̃* <char pa 'ong>

rainbow; *Hbɔ* <'ja'>, OT <gzha'>

raise (the hand); *Ljɔ Hja-Ltjɔ̃* <lag yar kyang>

raw; *Lzē* <rjen>, *Lzə-HNbɔ* <rjen po?>

razor knife for shaving the head; *Htsə-Hyɛ* <\*gri bzhar?>

read; *Lzə-Hgi Htɔ* <yi ge lta>; *Lzə-Hgi LNduē* <yi ge 'don>

read (out loud), learn; *HNduē* <'don>

recall, recollect; *Hja-Ltjē* <yar dran>

recuperate, recover (from illness); *Hja-Ltja* <yar drag>

red; *Hma-Hmɛ* <\*dmar dmar>

redsoil, clay; chalk, white earth; *Ls<sup>h</sup>a-Hmɛ* <sa dmar>; *Ls<sup>h</sup>a-Hyɛ* <sa dkar>

reed, cattail; *Hwu-Hli LNdzū-Hwā* <? lus mjug ma>

reins; *Hta-Hnt<sup>h</sup>ui* <rta mthur>

remember; *Hs<sup>h</sup>e-Lnɔ̃ Hts<sup>h</sup>a-Lri* <sems nang tshur ?>

repair; *Lzu* <bzo>

repay (a debt); *Lp<sup>h</sup>a-Hts<sup>h</sup>ɣ* <phar tshab>

rescue, save; *Hso Hlə* <srog blu>

rest; *Lji-Hsu* <ngal gso>

return, give back; *Lp<sup>h</sup>a-Hte* <phar ster>

return; (come back) *Lts<sup>h</sup>a-Hɔ̃* <tshur 'ong>; (go back) *Hp<sup>h</sup>a-LNdzu* <phar 'gro>

revenge, avenge; *Ljē-Ht<sup>h</sup>e* <lan ?>

reverse, back side; *Lp<sup>h</sup>ie* <**phyi**> (this is possibly a recent loan)

rhododendron (*Rhododendron trichostomum*); *Lsə-Hkɛ* <sur kar>

rib; *Htsi-Hmɔ̃* <rtsib ma>

rice; *HNdzei* <'bras>

rice wine, sweet liquor; *Lbɔ̃* <sbang>

rich, wealthy; *Lzu-Hjā* <phyug po>

ride a horse; *Htɔ Ltjɔ̃* <rta skya>

right, rightside; *Ltsɔ̃-Hja*

ring; *LNdzui-Hts<sup>h</sup>ui* <mdzub rgyus> or <mdzub skyis>

ripen (as of fruit); *Hji* <smyin>

rise, go up (as of the sun from behind mountain peaks); *Ljɔ̃ Hgɔ̃-Lpi* <nyi ma sgang 'bud>

river; *Htə<sup>h</sup>ə* <chu>; (Iron river <lcags chu>, Shuiluò River 水洛河) *Hja-Htə<sup>h</sup>ə* <snag? chu>; (Mekong, Mùlǐ River 木里河) *Hdza-Hjɔ̃-Hdza-Htə<sup>h</sup>ə* <rdza chu>

river (lower reaches of a river); *Ltə<sup>h</sup>ə-HNdzu* <chu mjug>

river (middle reaches of a river); *Ltə<sup>h</sup>ə-Hke* <chu sked>

river (upper reaches of a river); *Htə<sup>h</sup>ə-HNgu* <chu mgo>

road, path; *Ljā* <lam>; mountain path; *Lrə-Hjā* <ri lam>; highway; *Lga-Ltsi Hjā* <**kha khre?** lam>

roe of fish; *Ljɔ̃-Lgo-Hwā* <nya sgo nga>

roll, roll down (as of a stone from a mountain); *Hp<sup>h</sup>e*

roof; *Hk<sup>h</sup>ɔ̃-Htī* <khang steng>

room, chamber; *HNdzue* <mdzod>

root; *Htsɔ̃* <rtsa ba>; (root of a tree) *Lčī-Htsɔ̃* <**shing** rtsa>

rope; *Lt<sup>h</sup>a-Hwɔ̃* <thag pa>

rot (as of food) *Hp<sup>h</sup>a-LNbo* <phar 'bam>; (as of clothes or objects) *Lp<sup>h</sup>a-Hri* <phar rul>

round; *Hgue-Hgue* <sgor sgor>

rub, smear; *Hdɛ* <bdar>

run; *Ldzɔ̃* <rgyug>

rust; *Htsɔ̃* <gtsa'>

saber, small sword; *Hti-Hdza*

saddle and saddle blanket; *Hgɔ̃* <sga>

saddle's crupper (front); *Lkɔ̃-HNda* <gong thag>

saddle's crupper (back); *Hmē* <rmed~smed>

salary, wages; *Hp<sup>h</sup>o* <phogs>

saliva, dribble; *Hk<sup>h</sup>a-Hjə* <kha chu>

salt; *Hts<sup>h</sup>ɔ̃* <tshwa>

salty; *Hts<sup>h</sup>a-Hxə* <tshwa khu>

sand; *Ljɔ̃* <bye ma>

saw; *Hs<sup>h</sup>o-Hji* <sog le>  
 sawdust; *Ls<sup>h</sup>o-Htsā* <sog ?>  
 scallion, onion; *Htsō-Hgu* <tsong ?>, with  
 the suffix /gu/  
 scalp; *LNgu-Hpa* <mgo pags>  
 scarf; (head wrapping cloth) *LNgu-Htsi*  
 <mgo dkris>; (neck wrapping cloth) *Hki-Htsi*  
 <ske dkris>  
 scatter; *Hty* <btab>; (scatter seeds) *Ls<sup>h</sup>uē*  
*Hty* <son btab>  
 school; *Hjy-Hk<sup>h</sup>ō* <\*bslab khang>  
 scissor, cut with scissors; *Hna*  
 scissors; *Ltəa-HNdze*, swm 剪子  
 /təian<sup>53</sup>tsɿ<sup>53</sup>/  
 scold, curse; *Lje Hje-Lje Htje* <byad byed?>  
 scoop up (water), ladle out; *Htəə* <bcu>  
 scratch, scrape; *LNdze* <'brad>  
 script, letter, syllable; *Lzə-Hgi* <yi ge>;  
 Tibetan alphabet *Lpe-Hzi* <bod yig>  
 seal; *Ht<sup>h</sup>i* <the'u> or <thel>  
 second; *Hjue-HNbə* <gnyis pa>  
 second day of the month; *Hts<sup>h</sup>e-Hjue*  
 <tshes gnyis>  
 second lunar month; *Lnda-Hwə Hnā-HNbə*  
 <zla ba gnyis pa>  
 see; *Ht<sup>h</sup>ō-Ljū* <mthong byung>  
 see oneself in the mirror; *Hč<sup>h</sup>ei-Hgu Ltə*  
 <shel sgo lta>  
 seed, seedling; *Ls<sup>h</sup>uē* <son>  
 self, oneself; *Lŋə Hta-Hra* <nga ?>  
 sell; *Htsō* <btsong>  
 separate, divide up; *Hp<sup>h</sup>a-Lči* <phar dbye>  
 set (as of the sun); *Lp<sup>h</sup>a-Ht<sup>h</sup>i* <phar ?>  
 set one's mind at rest, rest assured, feel  
 relieved; *Hs<sup>h</sup>ē Ldi* <sems bde>  
 seven; *Ldē~Hdē* <bdun>  
 seven hundred; *Hdē-Hdzo* <bdun brgya>  
 seventeen; *Htəə-Hdē* <bcu bdun>  
 seventh; seventh lunar month; *Lde-HNbə*  
 <bdun pa>  
 seventh day of the month; *Hts<sup>h</sup>e-Ldē* <tshes  
 bdun>  
 seventy; *Hde-HNdze* <bdun bcu>

sew (up), mend (clothes); *Lkei-Htsē* <gos  
 btsems>  
 shadow; *Lna-HNgo* <nag ?>  
 shake (one's head); *HNgu Lzu* <mgo g.yug>  
 shallow; *Hsy* <srab>  
 sharp (as of a knife); *Hme-Hrā*  
 sharp, pointed; *Hna-Hmu* <rno mo>  
 shave (hairs); *Lye* <bzhar>, (shave the head)  
*Htsə Lye* <skra bzhar>, *HNgu Lye* <mgo  
 bzhar>; (shave the beard) *La-Hts<sup>h</sup>ō Lye* <ag  
 tshom bzhar>  
 shed (tears); *Lsa* <zag>; *LNbə* <'bab>  
 sheep; *Lju* <lug>  
 sheep (ewe); *Lmə-Hju* <mo lug>  
 sheep (ram); *Lp<sup>h</sup>u-Hju* <pho lug>  
 sheep (lamb, young sheep); *Lju-Hka* <lug ?>  
 sheepfold, pen; downstairs; *Lra-Hyə* <ra  
 skor?>  
 shell, peel (v); *Hji* <lhud?>, cf. Bātáng /ty<sup>753</sup>/;  
*Lpa-Hku Lji* <lpags ko lhud?>  
 shiver, tremble; *HNdε* <'dar>  
 shoes, boots; *Hhjā* <lham>; *Lza-Hku* <? ko?>  
 shoes (Tibetan-style shoes); *Lpe-Hhjā* <bod  
 lham>  
 shoes (straw sandals); *Hts<sup>h</sup>a-Hhjā* <rtswa  
 lhan>  
 shoot an arrow; *Hndo Ldzə* <mda' rgyab>  
 shop; *Hts<sup>h</sup>ō-Hk<sup>h</sup>ō* <tshong khang>  
 short; *Lt<sup>h</sup>ū* <thung> (with an irregular tone),  
*Lt<sup>h</sup>ū-Hnə* <thung ?>  
 shoulder; *Lts<sup>h</sup>a-Hwə* <phrag pa>  
 shout, yell; *Hzē*  
 Shuǐluò Township 水洛乡; *Lčo-Hlo* <sho  
 log>; some Kami villages in Shuǐluò: Qílā 其  
 拉 *Ltə<sup>h</sup>i-Hra*; Dōnglā 东拉 *Hdō-Hla*; Dūlǔ 都  
 鲁 *Htu-Hru*  
 shut, close (mouth); *Hk<sup>h</sup>ə Lma-Ltsō* <kha  
 mar btsums>  
 shuttle (device used in weaving); *Ljy*  
 shy, bashful; *Hts<sup>h</sup>i-Ltsa* <\*khrel drag?>  
 sick, invalid; *Lna-Hpə* <nad pa>  
 sickle; *Lsa-Hrə* <zor pa>  
 side, near, in the vicinity; *Hka-Htsə* <? rtsa>  
 sieve (v), sift; *Htsa* <btsag>

sifter, sieve (N); *Ltṣhṣ* <khrol ma>  
silk; *Lkei-Htṣē* <gos chen>  
silver; *Hṅe* <dnṅul>  
sing; *Hṣei-Ltṣ* <gzhas btang>; *Hlṣ Lṣ* <glu len>  
sink; *Lma-Hṅi* <mar snyigs>  
sip, suck (milk); *La-Hmi Lnā*  
sister; (older sister) *Ha-Hmṣ* <a ma>; *La-Hzi*,  
cf. Shīxīng /*Ha-Hzi*/; (sisters) *Lpu Hpē* <bu spun?>; (younger sister) *Lnū* <nu mo>; *Hsə-Hjū* <sring mo>  
sit down; *Hma-LNdə* <mar 'dug>  
six; *Lṣw* <drug>  
six hundred; *Lṣw-Hdzo* <drug brgya>  
sixteen; *Htṣə-Hṣw* <bcu drug>  
sixth; sixth lunar month; *Lṣw-Hpo* <drug pa>  
sixth day of the month; *Hts'e-Hṣw* <tshes drug>  
sixty; *Lṣw-Htṣə* <drug cu>  
skin (as of an animal); *Lku-Hpa* <ko lpags>  
skin color, complexion (human); *Lxa-HNdo* <sha mdog>  
skin, peel (N) (as of fruit or vegetables); *Lpa-Hku* <lpags ko?>  
sky, heaven; *Hnā* <gnam>  
sleep; *Lṅi* <nyal>  
sleepy, tired, fatigued; *Lṅi-Hgi Hsā* <gnyid ?>  
sleeve; *Lp'hə-HNdū* <phu thung> or <phu dung>  
sliding weight of a steelyard; *Lṣi-Hdu* <'jal? rdo>  
slip, glide, trip, stumble; *LNdze* <'gred>; (fall down) *Hma-LNdze* <mar 'gred>; (fall on a flat surface) *Hpa-LNdze* <phar 'gred>  
slow, late; *Hly* <lhod>, *Lja-Hly* <lhod lhod>  
small bag (for carrying rtsam pa); *Htsā-Hgə* <\*rtsam bkal?>  
small, little; *Htṣhū* <chung>, *Htṣhū-Hjū* <chung chung>  
smallpox, measles; *LNbu-Hru Lno* <\*me tog nad>  
smell (N); *Hlū-Hpo* <rlung pa?>

smell (V); *Hṅū* <snom>  
smelt, temper metal; *Htṣa Ldū* <lcags rdung>  
smoke; *Lti-Hpo* <du ba>  
smoke (a cigarette); *Lti-Hpo Ht'ū* <du ba 'thung>  
smoke, fumigate; *Hka*  
snake; *Hdzu-Hlṣ* <sbrul>  
snap (a thread); *Lp'a-Htṣə* <phar gcod>  
snap, break (a stick); *Lp'a-Hṣo* <phar dkrog?>  
sneeze; *Ldzi-Hpo Lfe* <sbrid po byed>  
snivel, snot; *Hṅā* <snabs>  
snore; *Hṅū-Hwo Lṣi* <sngur pa ?>  
snot rag, handkerchief; *Hṅa-Hṣi* <snabs ?>  
snow (N); *Lk'a-Hwo* <kha ba>  
snow (V); *Lk'a-Hwo LNbə* <kha ba 'bab>  
soda; *Lpu-Htu* <bul tog>  
soft; *Lṅa-Hū* <snyan mo?>  
soil, earth; *Hs'ṅ* <sa>  
solar eclipse; *Lṅi-HNdzē* <nyi 'dzin>  
soldier; *Hma-Hṅə* <dماغ mi>  
solution, means, method; *Llu-Hth'x* <\*blo thabs?>  
solve, resolve, settle; *Lka-Hso Lzu* <gzhag ? bzo>  
son; *Hpə* <bu>  
son-in-law; *Lpu-Hsə* <bu ?>  
soul, spirit; *Hla-Hṣ* <bla ma?>  
sound, voice; *Hke* <skad>  
soup; *Lk'u-Hwo* <khu ba>  
soup, meat broth; *Hxa-Hxə* <sha khu>  
sour; *Hju-Hkua* <skyr ?>, with the suffix /kua/  
south; *Hlu* <lho>  
sparrow; *Lṣi* <byi'u> or <bye>  
spatula, ladle; *Htṣa-Hzə* <lcags gzar>  
speak, pike; *HNdū* <mdung>  
speak, talk; *Hṣə* <bshad>; (tell a story) *Htā-Lṣə* <gtam bshad>  
spider; *Hdza-Hgē~Hdza-Hgē* <rgya mkhan>  
spin (into yarn); *Hki* <bkal>; *Lpi Hki* <bal bkal>  
spine, vertebra, backbone; *Hpi-Hli*

spit; *Lpe* <bor?>  
 spittle; *Ltə<sup>h</sup>u-Hwē* <mchil ma>  
 spleen; *Lts<sup>h</sup>a-Hjo* <mtsher pa>  
 split open; *Hpa-LNgei* <phar 'gas>  
 split up; become worn through, torn (as of clothing); *Lp<sup>h</sup>a-Htə<sup>h</sup>a* <phar chag>  
 spoil (as of food), go off, go bad; *Hpa-Hfui* <phar skyur>  
 spoon (wooden); *Lk<sup>h</sup>a-Hdi* <kha thur>, cf. Bātáng /k<sup>h</sup>au<sup>55</sup>d<sup>u</sup><sup>53</sup>/  
 spring; *Ljə-Hk<sup>h</sup>ɔ* <dpyid ka>  
 spurt, spray; *Htu* <gtor?>  
 squat; *Lma-Htsu* <mar tsog?>  
 squeeze (for milk); *Lš-Hbu* <'o bzho>  
 stand; *Ljō* <lang>  
 star; *Hka-Hš~Hka-Hmō* <skar ma>  
 startled, shy (as of animals); *Htšo* <'drogs>  
 steal; *Hki Lje* <brkus byed>  
 steam; *Hpo*, cf. Shīxīng /H<sup>h</sup>pə/, Púmǐ /bu<sup>35</sup>/  
 steamed bread; *Lmo-Hmō*, Chinese 饅頭, <mog mog>  
 steelyard hook; *Ltəi-HNgx* <'jal? khab>  
 steep; *Lma-Hdi*, possibly related to <rdib> 'fall down, collapse'  
 steep cliff, abyss, precipice; *Ltsa-Hnei* <brag ngos?>  
 step (v), take a step; *Lma-Hdzə* <mar rdzi>  
 step over, pass over, cross; *HNgō* <'gom>  
 step, staircase; *Ldu-Hke* <rdo skas>  
 stepfather, foster father; *La-Hxə* <a khu>  
 stepmother, foster mother; *La-Hsū* <sru mo?>  
 stick into, stab; *Htsu* <btsug>  
 stir; *Htsu* <dkrug pa>  
 stirrup, steps; *Lzu* <yob>  
 stomach; *Lja-HNgo* <? khog>  
 stone; *Ldu* <rdo>, *Ldu-Hlu* <rdo ?>, *Ldu-Hbo* <rdo ba>  
 stone (as of fruit); *Lk<sup>h</sup>a-HNdza*; (fruit seed) *Ls<sup>h</sup>uē* <son>  
 storehouse, granary; *Lpō* <bang>  
 story; *Htā-Hpi* <gtam dpe>  
 straight; *Ltsō-HNbu* <drang po> or <'drong po>

straw, rice straw; *LNdzei-Hs<sup>h</sup>o* <'bras sog>  
 street; *Hdza-Hjā* <rgya lam>  
 strength; *Ljā* <nyams>  
 stretch out (the arm); *Hpa-Ltjō* <phar rkyong>  
 strike; *Hju* <'jog?>; *Hjē*  
 stroke, touch; get, obtain; *Lra* <rag>  
 strong; *Lja-Hpu* <yar spobs?>  
 strong tasting (tea); *Lk<sup>h</sup>a-Htu* <kha tig>  
 stupid, foolish; *Lma-Hts<sup>h</sup>ō* <mi khram?>  
 subside (as of a swelling); *Lma-Hdzj* <mar grol>  
 sugar; *Hdzō* <sbrang>  
 sugar cane; *Lpa-Hrā Hs<sup>h</sup>o* <bur ram sog>  
 summer; *Lzε-Hk<sup>h</sup>ɔ* <dbyar kha>  
 sun; *Ljō* <nyi ma>, *Ljə-Hmō* <nyi ma>  
 sunny slope of mountain; *Lni-HNbu* <nyin po?>  
 sunrise; *Ljō Hxε* <nyi ma shar>  
 sunshine, sunray, light; *Lue* <'od>  
 surrender, capitulate; *HNgu Lta* <mgo btags>  
 surround, encircle; *Hja-Lgue* <yar skor>  
 swallow; *Lma-Hjni* <mar mid>  
 swastika, supreme everlasting way; *Hjū-Hdzū* <g.yung drung>  
 swear, vow, oath; *Hnō Lk<sup>h</sup>ui* <\*mna 'khur?>  
 sweat, perspiration; *Lje-Hts<sup>h</sup>ɔ* <rngul ?>  
 sweep; *H<sup>h</sup>a* <phyags>; *H<sup>h</sup>a-Hdi Ldzx* <\*phyags rdul rgyab>  
 sweet; *Hdzō* <sbrang>  
 swell, bulge (as of a tissue); *Htsō* <skrang>; *Hja-Htsō* <yar skrang>  
 swim; *Htə<sup>h</sup>ə Ltəi* <chu rkyal>  
 table, stool, bench; *Ltəx-Htsi* <cog tse>  
 tael, ounce; (one ounce) *Hjō Lkō* or *Hjō Ltəi* <? gang> or <? gcig>; (two ounces) *Hjō Ltu* <? do>  
 tail; *LNdzu-Hwā* <mjug ma>  
 take apart, dismantle; *Hja* <brlag> > <\*slag>  
 take off, undress; *Hji* <lhud?>, cf. Bātáng /t<sup>h</sup>y<sup>753</sup>/; (take off clothes) *Lkei-Hji* <gos lhud?>



take out (from in between, apart from a whole); *Lxw* <shor?>, (as from a sheath) *Lts<sup>h</sup>a-Hxw* <tshur shor?>; (as from a drawer) *Hts<sup>h</sup>a-L<sup>h</sup>ē* <tshur 'then>  
 take, hold, get; *Hjō* <lang> (with an irregular tone); *Hca-Hpə* *Ljō* <bya ba? lang>  
 tall, high; *Ltə<sup>h</sup>ə-Hwu* <che bo>; *Hgō-Hgō* <\*sgang sgang> from <sgang> 'mountain peak'  
 tasteless (not tasty); *Lma=Hcē* <mi zhim>  
 tasty, delicious; *Lcē* <zhim>, *Lce-Hmu* <zhim po>  
 tea; *Ltə* <ja>  
 tea leaves; (scented tea) *LNbu-Hru Ltə* <me tog ja>; (brick tea) *Hzō-Hdzə* <? ja>  
 teach; learn, study; *Hj* <bslab>  
 teacher; *Lgi-Hgē* <dge rgan>  
 tear up, rip; *Lp<sup>h</sup>a-Hri* <phar hral> or <phar ral>  
 tears; *Hji-Htə<sup>h</sup>ə-Hji-Hhja* <myig chu>  
 tell (a story); *Htā-Hpi Lce* <gtam dpe bshad>  
 tell fortune; *Htsi Ldz* <\*rtse rgyab>  
 tell; notify, inform; *Hce* <bshad>, *Hp<sup>h</sup>a-Hce* <phar bshad>  
 ten; *Htə* <bcu>  
 ten cents, dime; *Htō Ltci* <sdong (rtse) gcig>  
 ten million; *Lts<sup>h</sup>ə-Hts<sup>h</sup>u Ltō-Htša* <khri tsho stong phrag>  
 ten thousand; *Lts<sup>h</sup>ə-Hts<sup>h</sup>u Htci* <khri tsho gcig>  
 tent of hay, straw or grass; *Lk<sup>h</sup>a-Hwu*  
 tent, tilt; (cloth tent) *Ljx-Hkε* <yab sgar>; (tent made of yak-hair felt) *Htš* <sbra>  
 tenth; tenth lunar month; *Htə<sup>h</sup>ə-Hpə* <bcu pa>  
 tenth day of the month; *Hts<sup>h</sup>e Htə* <tshes bcu>  
 that; there (over there); *Ltei* <de>  
 these (all of these); *LNde-Hkuē (Hts<sup>h</sup>ō-Hmo)* <'di kun (tshang mo)>  
 they (third person plural pronoun); *Lk<sup>h</sup>ə-Hrā* <kho rang>  
 thick; *Lt<sup>h</sup>a-Hwu* <tha bo>  
 thick, dense, concentrated (as of drinks); *Lkā-Htu* <? stug>

thick, rough, coarse; *Hbō* <sbom>, *Lba-Hbo* <sbom po>  
 thief; *Hki-Hmō* <rkun ma>  
 thigh; *Hjə* <dpyi>  
 thin (as of hair); *Hs* <srab>  
 thin (not fat); *Hs* <srab>  
 thin, emaciated, skinny (person); *Hk<sup>h</sup>a-Hdi* <kha rdib?>; *Htš<sup>h</sup>ə*  
 thing, object, goods; *Hca-Hpə* <bya ba?>  
 think; *Lsā-HNbə Ltō* <bsam pa btang>  
 third; third lunar month; *Hsā-HNbə* <gsum pa>  
 third day of the month; *Hts<sup>h</sup>e-Hsū* <tshes gsum>  
 thirsty; *Hkō Ltša* <skom drag?>  
 thirteen; *Ltə<sup>h</sup>ə-Hsū* <bcu gsum>  
 thirty; *Hs<sup>h</sup>ū-Htə* <sum cu>  
 this; *Hne-HNde* <'di>  
 this month; *La-Htə LNda-Hwə Htci* <da lta? zla ba gcig>  
 this year; *Lta-Hju* <da lo>  
 thorn; *Lts<sup>h</sup>ə-Hwā* <tsher ma>  
 those; *Lte-Hkuē* <de kun>  
 thou (second person singular pronoun); *Ht<sup>h</sup>ue* <khyod>  
 thine, your, yours (GEN); *Lt<sup>h</sup>ə=Hj* <khyod kyi>  
 thousand; *Ltō-Htša Ltci* <stong phrag gcig>  
 thread (a needle); *HNdzē* <'dren>; *Hk<sup>h</sup>ə LNdzē* <khab 'dren>  
 thread, string; *Hki-Hpə* <skud pa>  
 three; *Hsū* <gsum>  
 three hundred; *Hsū Hdzə* <gsum brgya>  
 throat; *Lba-Hzə* <? yu>  
 throw up, vomit; *Hjw* <skyug>  
 throw, toss, discard; *Lpe* <bor>  
 thunder; *HNdzw Ltša* <'brug sgra>  
 Tibet, Tibetan; *Lpe* <bod>  
 Tibetan woolen cloth; *Hts<sup>h</sup>w* <phrug>  
 tie up, bind up, fasten a belt; *Hdā* <sdom>  
 tie, attach, fasten; *Hta* <btags>  
 tiger; *Hta* <stag>, *Ha-Ljə-Hta* <a myes stag>  
 tight, firm; *Ltā* <dam po>  
 timber; *Hdō* <gdung>; *Hcī-Htə* <shing cha>

time, leasure; *Lnã-Hlo* <na(m) ?>  
 tinder; *Htso* <spra>  
 tip of the nose; *Lñã-Hgø* <sna ?>, with the  
 suffix /gu/?  
 tired, fatigued; *Htue* *Ltsa* <\*skyo drag?>  
 tobacco pouch; *Lti-Hxu* <dud khug>  
 today; *Lta-Hji* <de ring>; then, today; *Lta-Hrẽ*  
 <dus deng?>, <de ring> or <da ran>  
 toe; *LNdzui* <mdzub>, *Hkõ-HNdzui* <rkang  
 mdzub>  
 toenail; *Lku-HNbo* *Ls<sup>h</sup>a-Lmu* <rkang pa sen  
 mo>  
 tomorrow; *Lnø-HNbe*  
 tomorrow evening; *Lnø-HNbe* *Hjə-Hgø*  
 <nang ? **phyi** rgas?>  
 tongue; *Htci-Hli* <lce legs>  
 tonight; *Lta-Hrẽ* *Hjə-Hgø* <dus deng? ?>  
 tool, instrument, implements; *Lja-Hhjo* <lag  
 cha>  
 tooth; *Hsu* <so>  
 torch; *Ldzuẽ* <sgron>  
 trachea, windpipe; *Hlu-Hzø* <glo yu>  
 treasured object, treasure; *Lrø-HNbu-Ltø<sup>h</sup>e*  
 <rin po che>  
 treat (illness), cure; *Hmẽ* *Htõ* <sman btang>  
 tree; *Lcĩ-Hmõ* <shing mo>  
 tripod (for cooking); *Htca-Hdze* <lcags  
 sgyid>  
 troublesome, inconvenient; *Hka-Hlei* *Ltø<sup>h</sup>ə-  
 Hwu* <dka' las che bo>  
 trousers, pants; *Lja-HNbo* <snam pa>  
 true, real; *Lde-HNbo* <bden pa>  
 tsampa, roasted (barley) flour; *Htsã-HNbo*  
 <rtsam pa>  
 turn into, become; *Hzi* <brje>, *Hka-Hlo* *Lzi* <?  
 brje>  
 turn one's head to the back; *Hp<sup>h</sup>a-Lgue*  
 <phar 'khor>; *Hts<sup>h</sup>a-Lgue* <tshur 'khor >  
 turn over (on bed), roll back and forth; *Hka-  
 Hlo* *Lzi* <? brje>, *Hts<sup>h</sup>a-Lka-Llo* *Lzi* <tshur ? ?  
 brje>, *Hp<sup>h</sup>a-Lka-Llo* *Lzi* <phar ? ? brje>  
 turquoise; *Hzø* <g.yu>  
 twelfth lunar month; *Htũ-Hjue-Lpø* <bcu  
 gnyis po>

twelve; *Htũ-Hjue* <bcu gnyis>  
 twenty; *Ljə-Hxø* <nyi shu>; twenty-one;  
*Ljə-Htci* <nyi (shu rtsa) gcig>; twenty-two;  
*Ljə-Hjue* <nyi (shu rtsa) gnyis>  
 twist, wring, pinch; *Lp<sup>h</sup>a-Htø* <phar  
 skyogs?>  
 two; *Ljue-Hjue* <gnyis>  
 two hundred; *Ljə* *Hdzø* <gnyis brgya>  
 ugly; *Lma=HNbe* <mi ?>  
 umbilical cord; *Hti-Hwø* <lte ba>  
 umbrella; *Ltø<sup>h</sup>ə-Hdø* <char gdugs>  
 uncle (father's brother regardless of age);  
*La-Hxø* <a khu>  
 uncle (mother's brother regardless of age);  
*La-HNbu* <**zhang bu**?>, cf. Bātáng  
 /xã<sup>13</sup>mbũ<sup>53</sup>/  
 uncle (husband of father's sister); *La-HNbu*  
 <**zhung bo**?>, cf. Bātáng /xã<sup>13</sup>mbũ<sup>53</sup>/  
 uncle (husband of mother's sister); *La-HNbu*  
 <**zhung bo**?>  
 unclear, fuzzy; *Lma=Hku* <mi go>  
 understand (literally, 'have heard'); *Hts<sup>h</sup>ue*  
*Ljũ* <tshor byung>  
 understand (know); *Lku* <go>, *Hku-Ljũ* <go  
 byung>  
 undo a knot, untie, loosen; *Hp<sup>h</sup>a-Ltsei* <phar  
 'grol>  
 upper garment; *Htue-Hli* <stod len>  
 Chinese-style upper garment; *Hdzø* *Htue-Hli*  
 <rgya stod len>  
 Tibetan-style upper garment; *Lpe* *Htue-Hli*  
 <bod stod le>  
 upstairs; *Hk<sup>h</sup>õ-Htĩ* <khang steng>  
 urine; *Htøẽ* <gcin>  
 use, employ; *Hjue* <spyod>  
 useless; *Lzu* *Lme* <yod med>; *Lmu=HNdø*  
 <mi 'dug?>  
 uvula; *Lja-Hkx*  
 vase; *Lpa-HNbo* <bum pa>  
 vegetable oil; *Lje-Hka* <? zhag>  
 vegetable, greens; *Lk<sup>h</sup>a-Htø* <kha tshal?>  
 vehicle, cart; *Lga-Htši* <**kha khre**?>  
 vein; *Lts<sup>h</sup>a-Htso* <khrag rtsa>

vertical; <sup>L</sup>t<sup>h</sup>a-<sup>H</sup>ko, possibly related to <thad kar>  
 very; <sup>H</sup>ka-<sup>H</sup>po, cf. Shǐxīng /<sup>H</sup>ka-<sup>H</sup>po/

vibrissa; <sup>L</sup>ḡā-<sup>H</sup>pə <sna spu>  
 village; <sup>L</sup>dzō <grong>  
 waist; <sup>L</sup>ke-<sup>H</sup>ts<sup>h</sup>i <sked tshigs>  
 wait; <sup>L</sup>gw <sgug>  
 wake sb up (TR); <sup>H</sup>ja-<sup>L</sup>Nbe <yar 'bod>  
 wake up; <sup>H</sup>s<sup>h</sup>e <sad>  
 walk; <sup>L</sup>Ndzu <'gro>  
 walking stick; <sup>L</sup>pa-<sup>H</sup>go <? mkha(r)>, cf. Shǐxīng /<sup>H</sup>pa-<sup>H</sup>go/

wall; <sup>L</sup>tjō <gyang>  
 walnut oil; <sup>L</sup>ku-<sup>L</sup>du <sup>L</sup>je-<sup>H</sup>ba <? ? zhag>  
 walnut tree; <sup>L</sup>ku-<sup>H</sup>du, <sup>L</sup>ku-<sup>L</sup>du-<sup>H</sup>ḡi <? shing>  
 want, need; <sup>H</sup>gei <dgos>; (not need) <sup>L</sup>mu=<sup>H</sup>gei <mi dgos>  
 wart; <sup>L</sup>Ndza-<sup>H</sup>jo <mdzer pa>  
 wash (clothes); <sup>L</sup>kei-<sup>H</sup>tsə <gos 'khru>  
 wash (hands); <sup>L</sup>jo <sup>H</sup>tsə <lag 'khru>  
 wash (oneself), bathe; <sup>L</sup>li-<sup>H</sup>pu <sup>H</sup>tsə <lus po 'khru>  
 water; <sup>H</sup>tə<sup>h</sup>ə <chu>  
 water bird; crane; swan; goose; <sup>H</sup>tə<sup>h</sup>ə-<sup>H</sup>zo <chu bya>  
 water trough, tank; <sup>L</sup>p<sup>h</sup>a-<sup>H</sup>wo  
 water, sprinkle, irrigate; <sup>H</sup>ju <'jug>, <sup>H</sup>tə<sup>h</sup>ə <sup>L</sup>ju <chu 'jug?>  
 watery, thin, weak (liquid); <sup>L</sup>fā  
 wave; <sup>H</sup>pa-<sup>H</sup>lɣ <rba rlabs>, <sup>H</sup>tə<sup>h</sup>ə <sup>L</sup>pa-<sup>L</sup>lɣ <chu rba rlabs>  
 we, first person plural pronoun; (inclusive) <sup>L</sup>a-<sup>L</sup>k<sup>h</sup>ə-<sup>H</sup>rā <? rang>; (exclusive) <sup>L</sup>ḡə-<sup>H</sup>rā <nga rang>  
 weak, feeble; <sup>L</sup>ḡē <zhan>, <sup>L</sup>ḡa-<sup>H</sup>Nbo <zhan po>  
 wear (a hat, gloves, a bracelet); <sup>H</sup>kuē <gon> (with an irregular tone)  
 wear, put on (clothes, shoes); <sup>L</sup>tjuē <gyon>  
 weasel; <sup>H</sup>ke-<sup>H</sup>də  
 weave (basket), plait one's hair; <sup>H</sup>hjo <sle ba> or <lhe ba>, <sup>H</sup>tsō <sup>L</sup>hjo <skra sle> or <skra lhe>

weave, knit, loom (v); <sup>H</sup>t<sup>h</sup>a-<sup>L</sup>ta <thags btags>  
 weigh (on a scale); <sup>H</sup>tfa <bkyags>  
 weigh with a small steelyard (for medicine or jewelry); <sup>L</sup>xu <zho?>  
 well; <sup>L</sup>tə<sup>h</sup>ə-<sup>H</sup>gā <chu sgam?>  
 west; <sup>L</sup>nū-<sup>L</sup>nu <nub>  
 wet; <sup>H</sup>lja-<sup>H</sup>Nbo <rlon pa>  
 what; why; <sup>L</sup>ka-<sup>H</sup>Ndə <ga 'di?>  
 wheat; <sup>L</sup>tsu <gro>  
 wheel; <sup>H</sup>k<sup>h</sup>u-<sup>H</sup>lu <'khor lo>  
 when; <sup>L</sup>nā <nam>  
 where; <sup>L</sup>ka-<sup>L</sup>ke <gar>  
 whet (a knife), sharpen; <sup>H</sup>dε <rdar>, <sup>H</sup>tsə <sup>L</sup>dε <gri rdar>  
 which; <sup>L</sup>ka-<sup>H</sup>tə <ga ?>  
 whip, horse whip; <sup>L</sup>tca-<sup>H</sup>ts<sup>h</sup>ē <lcags tshan>  
 white; <sup>L</sup>ka-<sup>H</sup>ke <\*dka(r) dkar>  
 who; <sup>H</sup>s<sup>h</sup>ə <su>  
 wide, broad; <sup>L</sup>k<sup>h</sup>ua-<sup>H</sup>lə  
 widow; <sup>L</sup>zu-<sup>H</sup>so <yugs sa>; <sup>L</sup>mə-<sup>H</sup>zu <mo yugs>  
 widower; <sup>L</sup>p<sup>h</sup>ə-<sup>H</sup>zu <pho yugs>  
 wife; (spouse) <sup>L</sup>zo <bza'??>; (wife, literally, woman) <sup>L</sup>mə-<sup>H</sup>jō <mo ?>  
 willow; <sup>H</sup>dza-<sup>H</sup>lō <rgya lcang?>  
 win, gain; <sup>H</sup>k<sup>h</sup>i <khe>  
 win, obtain victory; <sup>L</sup>tε <dar?>  
 wind; <sup>H</sup>lū <rlung>  
 window; <sup>L</sup>gu-<sup>H</sup>jū <sgo khung>  
 wine jug; <sup>H</sup>ti-<sup>H</sup>dzi  
 wing; <sup>L</sup>Nda-<sup>H</sup>ts<sup>h</sup>ɣ <'dab gshog>  
 wink, close, shut (eyes); <sup>H</sup>ni-<sup>H</sup>tsū <myig btsum>  
 winter; <sup>L</sup>Nga-<sup>H</sup>Ngō <dgun ka>  
 wipe (a table); <sup>L</sup>tsi  
 wither (literally, 'turn yellow'); <sup>L</sup>p<sup>h</sup>a-<sup>H</sup>s<sup>h</sup>ə <phar ser>  
 wolf; <sup>H</sup>jō <spyang>  
 woman; <sup>L</sup>mə-<sup>H</sup>jō <mo ?>  
 wooden bowl; <sup>L</sup>p<sup>h</sup>a-<sup>H</sup>rə <phor>; <sup>H</sup>po  
 wooden house; <sup>L</sup>pō-<sup>H</sup>guē <bang ?>  
 woodpecker; <sup>L</sup>ḡi-<sup>H</sup>tə <sup>L</sup>k<sup>h</sup>u-<sup>H</sup>lu <shing rta ?>  
 woollen cloth, felt; <sup>L</sup>gu-<sup>H</sup>ḡā <'go snam>

work, labour; *Ljei-HNgi* <las 'gul>  
 world, the external world; *LNdzã-Hlĩ* <'dzam  
 gling>, *LNdza-LNbo-Hlĩ* <'dzam ba gling>  
 worry, feel anxious; *HS<sup>h</sup>ẽ* *Hts<sup>h</sup>u* <\*sems  
 'tshab>  
 worship a god, offerings to divine spirits; *Hlɔ*  
*Hsu* <lha gsol>  
 wound, injury, sore, scar; *Hmɔ̃* <rma>  
 wrap; *Htɔ̃* <bstum>  
 wrap around; *Htsi* <sgril> or <dkri ba>  
 wrist; *Lja-Hki* <\*lag ske>  
 write; *Htsə* <'bri>  
 Xùmǐ; *Hfə-Hŋə* <skyi mi>  
 yak; *Lgua-Hju*; *Lza* <g.yag>; (female yak)  
*HNdzə* <'bri>  
 yawn, gape; *Llũ-Hse* *Lfe* <glal ba byed>  
 year (calendar year; year of age); *Lju* <lo>  
 year after the next; *Lsa-HNbɛ* <sang ?>  
 year before last; *Hze-Hju* <gzhes lo>; three  
 years ago; *Hp<sup>h</sup>e-Hlu* <? lo>  
 yeast, fermenting agent; *Hp<sup>h</sup>ɣ* <phabs>  
 yell, shout; *LNbe* <'bod>  
 yellow; *Ls<sup>h</sup>a-Hs<sup>h</sup>e* <\*ser ser>  
 yesterday; *Lk<sup>h</sup>a-Htsɔ̃* <kha rtsang>  
 yoghurt; *Lxu* <zho>  
 yoke, oxbow; *Hŋa-Hçĩ* <gnya' shing>  
 you, second person plural pronoun; *Lt<sup>h</sup>ə-*  
*Hrã* <khyod rang>  
 young (as of people); *Lju* *Htə<sup>h</sup>ũ* <lo chung>  
 young man, lad, chap; *Lp<sup>h</sup>u-Hsɛ* <pho gsar>  
*yuan* (Chinese dollar); *Hts<sup>h</sup>ə* *Ltçi* <khri gcig>