

The Lawu languages: footprints along the Red River valley corridor

Andrew Hsiu (andhsiu@gmail.com)

<https://sites.google.com/site/msealangs/>

Center for Research in Computational Linguistics (CRCL), Bangkok, Thailand

Draft published on December 30, 2017; revised on January 8, 2018

Abstract

In this paper, Lawu (Yang 2012) and Awu (Lu & Lu 2011) are shown to be two geographically disjunct but related languages in Yunnan, China forming a previously unidentified sub-branch of Loloish (Ngwi). Both languages are located along the southwestern banks of the Red River. Additionally, Lewu, an extinct language in Jingdong County, may be related to Lawu, but this is far from certain due to the limited data. The possible genetic position of the unclassified Alu language in Lüchun County is also discussed, and my preliminary analysis of the highly limited Alu data shows that it is likely not a Lawu language. The Lawu (alternatively *Lawoid* or *Lawoish*) branch cannot be classified within any other known branch or subgroup of Loloish, and is tentatively considered to be an independent branch of Loloish. Further research on Lawu languages and surrounding under-documented languages would be highly promising, especially on various unidentified languages of Jinping County, southern Yunnan.

Table of contents

Abstract

1. Introduction
2. Lawu
3. Awu
4. Lewu Yao: a possible relative of Lawu
5. Alu: a Lalo language rather than a Lawu language
6. Conclusions
7. Final remarks: suggestions for future research

References

Appendix 1: Comparative word list of Awu, Lawu, and Proto-Lalo

Appendix 2: Phrase list of Lewu Yao

Appendix 3: Comparative word list of Yi lects of Lüchun County

1. Introduction

This paper suggests that the Loloish (Ngwi) languages Lawu and Awu form a previously unrecognized branch of Loloish, and also looks into whether Lewu and Alu, two other little-known Loloish languages of Yunnan, fit within this new branch constituting Lawu and Awu. This new branch will be named *Lawu*, *Lawoish*, or *Lawoid*. The Lawu languages are clearly belong to the Loloish branch, but as noted by Yang (2012), the classification of Lawu with Loloish is still uncertain.

These languages were previously often confused with languages that had similar or nearly identical names, including the Central Loloish (Lisoish) languages (or language clusters) *Lalo* and *Lavu*, and the Northern Loloish (Nisoish) language *Northern Awu* (likely related to Nuosu) and the Southeastern Loloish language *Southern Awu*, which is also called Lope and is closely related to Nisu. However, Lawu of Xinping County is clearly a very different language from Lavu of northwestern Yunnan, and Awu of Yuanyang County and neighboring areas is clearly completely distinct from other language called *Awu* spoken further to the north and northwest.

Up until now, Lawu and Awu are unclassified within the Lolo-Burmese branch of the Sino-Tibetan language family. They were both previously undocumented prior to Yang's (2012) description of Lawu and Lu & Lu's (2011) word list of Awu. Lewu, an extinct language of Jingdong County located just to the northwest of Lawu, only had data come out in Jingdong (2012) despite being documented by a short word list that was collected in 1985. Apart from a short word list written using Chinese characters in the Lüchun County Gazetteer (1992), Alu is still undocumented, and its classification cannot be ascertained.

Four Loloish languages, Lawu, Awu, Lewu, and Alu, are discussed in this paper, with one section each devoted to each one of these languages. In each section, the classifications of each language within Loloish are discussed, and whether these languages are more closely related to Lawu or Lalo.

Since Awu phonology has not been adequately described yet, comprehensive historical-comparative work on Proto-Awu-Lawu will have to wait until further lexical and phonological data can be obtained for Awu. This paper lists various similar-looking forms among languages,

but does not delve into detailed analyses of sound correspondences, tonal evolution, and other detailed historical linguistic phenomena.

2. Lawu

Lawu was documented by Cathryn Yang (2012), with a short Lawu word list also available in the *Xinping County Ethnic Gazetteer* (1992:79-80). Yang (2012) reports Lawu as a moribund Loloish language spoken by about 50 people in Jiuha village cluster 旧哈村, Shuitang Town 水塘镇, Xinping County, Yunnan, although Yang notes that there could also be some speakers in neighboring Jiujia Town 九甲乡, Zhenyuan County. Audio recordings for the word list in Yang (2012) have also been made available online.

Yang (2012) provides a lengthy word list of about 1,000 items, with English glosses, Chinese glosses, Proto-Ngwi reconstructions, and Proto-Lalo reconstructions also provided. The Proto-Lalo reconstructions tabulated along with the Lawu words demonstrate that Lawu is not a Lalo language or any other language closely related to Lalo, such as Lisu, Lolopo, Lipo, Lavu, or Talu. Yang (2012) considers Lawu to be unclassified within Loloish, and suggests that Lawu may affiliate with Central Loloish but not closely with any other known Central Loloish language.

3. Awu

Awu 阿鄂 is documented in Lu Peng & Lu Wei (2011), which is part of a 2011 series of ethnographies on Hani subgroups in Yunnan called *Guoji Hani-Aka quyu wenhua diaocha* 国际哈尼/阿卡区域文化调查. Lu & Lu (2011) is an ethnography of the Awu people of Xiaopingzi 小坪子 village in Daping Township 大坪乡, Yuanyang County, Yunnan. Just over 200 Awu words have been collected by Lu & Lu (2011). The Awu refer to themselves as [*ju33 ju33 za33*], but are called [*la31 wu33 za31*] by the Nuobi, a large Hani subgroup that refers to itself as [*xa31 ni31*]. Despite being officially classified as ethnic Hani, the Awu consider themselves to be a completely separate ethnic group from the Hani, and claim that they are more related to the Kucong, who speak a language closely related to Lahu. However, the Awu language is not closely related to Lahu.

Awu is in fact a Han Chinese exonym, and appears to have been adapted from the Hani (Nuobi) exonym [*la31 wu33 za31*]. In order to avoid confusion with the other Awu who speak languages distinct from the Awu of Xiaopingzi, *Luyu* (from the autonym [*ju33 ju33 za33*]) may be a better name for the language.^H However, I will use the name *Awu* in this paper in order to

be consistent with the various Chinese sources that list the name of this group as *Awu* or *Laowu*. Furthermore, before deciding to use the name *Luyu*, it would be best to check the autonyms of *Awu* speakers in various locations to see if they are indeed also *Luyu* or similar names.

Lu & Lu (2011) notes that *Awu* has a three-way voicing contrast (for example, among *ph*, *p*, and *b*), and observes only 3 tones, namely the high-level [55], mid-level [33], and low-falling tones. *Awu* also displays nasalization. Word order, like all other Lolo-Burmese languages, is SOV (subject-object-verb).

3.1. Other possible locations of *Awu*

Chinese government gazetteers of Yuanyang, Jinping, and Jiangcheng counties list *Awu*, *Lawu*, *Laowu* or other similar names as subgroups of *Yi* or occasionally *Hani* people. As Lüchun County is located in between Jinping County to the east and Jiangcheng County to the west, the *Lawu* may also be found in Lüchun County, although the Lüchun County Gazetteer (1994) has not listed the name of such a group.

The *Jinping County Ethnic Gazetteer* (2013:101) reports a *Yi* subgroup called *Laowu* 老乌 (autonym: *Laoyong* 老涌) living in Laojizhai 老集寨, Laomeng 老勐, Yingpan 营盘, and Mengla 勐拉 townships of Jinping, and is located in a total of 29 villages. Pelkey refers to this group as *Lawu Yi*. However, there is currently no linguistic data for *Lawu* (or *Laowu*, *Laoyong*) of Jinping County, and it is uncertain whether this group speaks the same language as the *Awu* of Xiaopingzi reported in Lu & Lu (2011). The *Jiangcheng County Gazetteer* (1989) also reports *Laowu* 老乌 (or *Lawu* 拉乌) in Jiangcheng County as belonging to the *Awu* 阿武 branch (*zhixi* 支系) of the greater *Yi* ethnic group, rather than the *Lalu* 腊鲁 branch. Likewise, no linguistic data is available for *Awu* of Jiangcheng County.

An online source by Long (2007) reports a group called *Awupo* 阿务颇 [*a55 yu55 pho21*] or *Awu* 阿乌 living in the following locations of southern Yunnan. It is not known whether the *Awu* living in these locations speak the same *Awu* language documented in Lu & Lu (2011).

- Mengzi County
- Nansha 南沙, Yuanyang County
- Dawuzhai 大乌寨, Yuanyang County

- Xiaozhai 小寨, Tuanjie 团结, Jinping County

3.2. Awu's lexical similarity with Lawu

The following tables, organized by semantic domain, demonstrate the genetic proximity of Awu to Lawu rather than to Proto-Lalo. The Awu forms and Chinese glosses are from Lu & Lu (2011), while the Lawu and Proto-Lalo forms are from Yang (2012). The Proto-Lalo reconstructions cited in Yang (2012) are in turn sourced from Yang's (2010) doctoral dissertation on Lalo internal classification. English glosses in each table are my own translations. The tables below contain comparisons for selected words where the Awu and Lawu forms are clearly closely related, but the Proto-Lalo forms are not closely related or cognate with the Awu and Lawu forms. Related syllables in Awu and Lawu are highlighted are highlighted in bold. The vocabulary shown below is by no means exhaustive. For a longer comparative word list of Awu, Lawu, and Proto-Lalo, please consult Appendix 1.

I have selected a total of 40 similar words that are shared by Lawu and Awu, but exclude Proto-Lalo due to lack of cognacy or divergent reflexes if the Proto-Lalo form is cognate with the Lawu and Awu forms. Words with similar forms in Lawu, Awu, and Proto-Lalo have been excluded. As Lu & Lu (2011) contains just over 200 words for Awu, there are definitely many more cognates exclusively shared between Awu and Lawu that have not been found yet.

Below, Table 1 shows 18 similar words between Awu and Lawu for vocabulary relating to natural phenomena, animals, and plants. For 'moon', Awu *pa³³la³³ma³³* has undergone metathesis of the first two syllables (as compared to Lawu *la³³pa³³*) due to influence from Hani, since Southern Loloish languages have all metathesized syllables for 'moon' as Lama (2012) has noted. Lawu, however, does not appear to display Southern Loloish influence due to its much more northerly location, where Nisu is the dominant Loloish language. Yang (2012) also reconstructs *ku¹li¹ 'stone' for Proto-Lawu.

In Table 1, za³³ is often used as a suffix with animal names, and is comparable to Mandarin *zi* 子. Hence, it been excluded for etymological comparisons.

Table 1: Awu and Lawu lexical parallels: natural phenomena, animals, and plants

<i>English gloss</i>	<i>Chinese gloss</i>	<i>Awu</i>	<i>Lawu</i>	<i>Proto-Lalo</i>
moon	月	pa ³³ la ³³ ma ³³	la ³³ pa ³³	*xa ³ ba ³ k ^h i ¹
wind	风	mu ³¹ lo ³¹	mi ²¹ li ⁵⁵	*a ¹ mo ² hi ¹
stone	石	la ³¹ ku ³³ si ³³	li ⁵⁵ ku ⁵⁵	*ka ¹ lu ^H
earth	土	mo ³¹ t ^{sa} ⁵⁵ ki ⁵⁵	mə ³³ ts ^h a ³³	*e ² ts ^h i ²
tiger	老虎	k ^h a ³³ la ³³	k ^h a ⁵⁵ la ²¹	*la ² pa ^L
snake	蛇	ve ³¹ ma ³³	pe ³³	*la ¹ ʃe ¹
bird	鸟	a ³¹ za ³³	k ^h a ^{j55} ja ²¹	*ŋja ^H
fish	鱼	ŋu ³¹ ʃa ³³ za ³³	ŋa ²¹ sa ³³	*ʔŋa ²
pig	猪	va ³³	və ³¹	*a ¹ ve ^L
dog	狗	k ^h u ⁵⁵ zu ⁵⁵	k ^h ə ³³	*a ¹ k ^h i ²
goat	羊 ¹	tʃu ⁵⁵ me ³³ za ³³	tʃ ^h i ³³	*a ¹ tʃ ^h i ^L
chicken	鸡	ʎa ³¹ za ³³	za ³³	*a ¹ ʎe ^H
cat	猫	ɕ ³¹ mi ⁵⁵	ma ³³ mi ⁵⁵	*a ¹ mi ¹
vegetables	菜	ko ³³ pɣ ⁵⁵	ko ²¹ pi ⁵⁵	*ʎaŋ ² tʃe ^L
gourd	葫芦	mu ³¹ p ^h u ⁵⁵ pae ³¹	a ⁵⁵ p ^h u ³³	*p ^h y ²
cucumber	黄瓜	se ⁵⁵ gu ³³ se ³³	sɿ ³³ k ^h u ³³	*sa ² kje ²
fruit	果	a ⁵⁵ se ³³	i ⁵⁵ sɿ ²¹	*se ²
tobacco	烟	m ³³ k ^h o ³³	za ³³ xəŋ ²¹	-

Table 2 shows 10 words for body parts. As with ‘moon’, Awu has metathesized the words for ‘head’ and ‘ear’ due to Southern Loloish influence. Proto-Lawu reconstructions by Yang (2012) include *ku² ‘head’ and *ʔla² ‘ear.’

¹ This is the term for ‘goat’ (山羊) rather than ‘sheep’ (绵羊), a semantic distinction that is typical of Burmo-Qiangic languages. Special to Guillaume Jacques for pointing this out.

Table 2: Awu and Lawu lexical parallels: body parts

<i>English gloss</i>	<i>Chinese gloss</i>	<i>Awu</i>	<i>Lawu</i>	<i>Proto-Lalo</i>
head	头	ka ⁵⁵ lu ³¹	la ⁵⁵ ku ⁵⁵	*nu ² kaŋ ²
face	脸	p ^h u ³³ ça ³³	ma ³³ p ^h u ³³	*p ^h jaŋ ² ŋmje ^H
eye	眼睛	mu ³¹ tça ⁵⁵	ma ³³ tsɿ ³³	*p ^h jaŋ ² ŋmje ^H
eyebrow	眉毛	mu ³¹ tça ⁵⁵ mɔ ³³	ma ³³ tsɿ ³³ məŋ ³³	*ŋmjeHts ^h am ¹
nose	鼻子	le ³¹ me ³¹	na ⁵⁵ mi ⁵⁵	*ŋna ¹ k ^h aŋ ^{2/3}
ear	耳朵	mu ³³ pu ³³ lu ³³	la ³³ pu ³³	*ŋna ² paŋ ¹
mouth	嘴	mɛ ⁵⁵ po ³³	mɛ ³¹ ni ³³	*k ^h a ² pe ^L
hand	手	a ⁵⁵ la ³³	la ³¹	*le ^L
leg	腿	a ⁵⁵ ko ³¹ pe ³¹	k ^h ə ⁵⁵ çi ²¹ pi ³³	-
foot	脚	a ⁵⁵ ko ³¹ p ^h ia ³³	k ^h ə ⁵⁵ p ^h a ²¹ tu ²¹	*k ^h i ¹ p ^h e ^H

Table 3 lists 12 parallels between Awu and Lawu for words belonging to other semantic domains such as numerals and other words.

Table 3: Awu and Lawu lexical parallels: other words

<i>English gloss</i>	<i>Chinese gloss</i>	<i>Awu</i>	<i>Lawu</i>	<i>Proto-Lalo</i>
people	人	ts ^h ə ³³	ts ^h u ⁵⁵	*ts ^h aŋ ¹
man, male	男人	za ³³ k ^h a ⁵⁵ za ³³	za ²¹ k ^h a ³³	*ʒo ^L
boy	男孩	za ³³ k ^h a ⁵⁵ za ³³	za ²¹ k ^h a ³³	*su ¹ le ^L pa ^L
girl	女孩	za ³³ mi ³³	za ²¹ mi ²¹	*su ¹ le ^L ma ³
you (sg.)	你	nɔ ³³	nu ³³	*ni ¹
POSS, of	的	va ⁵⁵	ya ³³	*yi ²
three	三	sɔ ³³ (mɔ ³¹)	su ³³	*sa ^{1/3}
seven	七	çi ³³ (mɔ ³¹)	sɿ ³³	*xi ²
hundred	百	ja ³¹	za ³³	*ha ¹
walk	走	du ⁵⁵	to ²¹	*sy ²

bowl (classifier)	碗	k ^h o ³³	k ^h u ³³	*kje ²
cold day	冷天	mu ³³ tɕa ⁵⁵ tɕa ³³	tɕu ³³ 'cold (body)'	*gjaŋ ¹ 'cold (body)'

4. Lewu Yao: a possible relative of Lawu

The *Jingdong County Gazetteer* (1994:519) reports that the Lewu 乐舞 people, who are officially classified as ethnic Yao, had a population of 3,889 as of 1990. The Lewu are found mostly in Chaqing 岔箐 and Dasongshu 大松树 village clusters of Taizhong Township 太忠乡, Jingdong County. The Lewu were likely classified as Yao instead of Yi since their identity, culture, and language were likely highly distinct from those of neighboring Yi subgroups, such as Lolopo speakers.

16 Lewu words and phrases were recorded in 1985 and transcribed in pinyin by the *Jingdong County Ethnic Gazetteer* (2012). The informant interviewed was the last rememberer of the Lewu language named Zhu Zhaojin 祝兆金, who was 85 years old as of 1985. Appendix 2 contains the original Lewu phrase list from *Jingdong County Ethnic Gazetteer* (2012). In this section, individual words have been isolated from the original phrases (see Appendix 2).

Since the Lewu words were transcribed using pinyin by a non-linguist, the data should be treated with caution. Given that Lewu is now already extinct, further data collection on Lewu will not be possible. Comparative tables showing are given below showing parallels with Lawu (Yang 2012) and Proto-Lalo (Yang 2010). Some Lewu words have parallels with Lawu, others with both, and a few apparently with only Proto-Lalo.

The following Lewu words that have parallels with Lawu, but not with Proto-Lalo, as shown below in Table 4.

Table 4: Lewu words that have parallels with Lawu, but not Proto-Lalo

<i>English gloss</i>	<i>Chinese gloss</i>	<i>Lewu</i>	<i>Lawu</i>	<i>Proto-Lalo</i>
heart	心	cī	əŋ ⁵⁵ ma ³³ ɕi ³³	*ŋi ^H ma ³

knife (kitchen)	刀	biě tuo	pi⁵⁵to⁵⁵	*a¹t^ha²ba²
thing	(什么)东西	māi yuō	mu²¹ja²¹	*dʒe¹ku¹
There is no more.	没有(了)	mā ia (lāi)	ma²¹vu³³	*ma²dʒaŋ¹
come back	回来	gǔ lāi	ku²¹li³³	*ty¹

Other Lewu words that have parallels with both Lawu and Proto-Lalo, as shown in Table 5.

Table 5: Lewu words that have parallels with both Lawu and Proto-Lalo

<i>English gloss</i>	<i>Chinese gloss</i>	<i>Lewu</i>	<i>Lawu</i>	<i>Proto-Lalo</i>
eat	吃	zuó	tʂa²¹	*dʒa²
lung	肺	ber	i³³p^ho³³	*ts^hε²ma³p^hu²
come (from) here	这里来	wū lài lai	la³³	*la¹
broad bean	蚕豆	nuó suō	nie³³sɿ³³	*nu^H
pea	豌豆	nuó sǎi	nie³³sɿ³³	*nu^H
liquor	白酒	zhī zhí	tʂi³³pa²¹	*dʒi¹
rice wine	清酒	a zhì	tʂi³³pa²¹	*dʒi¹

The following three Lewu words that have parallels with Proto-Lalo but not with Lawu, as shown in Table 6.

Table 6: Lewu words that have no parallels with Proto-Lalo, but not with Lawu

<i>English gloss</i>	<i>Chinese gloss</i>	<i>Lewu</i>	<i>Lawu</i>	<i>Proto-Lalo</i>
chopsticks	筷子	a zhu	tʂi³³ta⁵⁵	*a¹dʒu³
rice	饭	zuǒ	xəŋ³³	*dʒa¹
axe	斧子	shì cuo	pa²¹t^həŋ⁵⁵	*a¹ts^ho^H

Finally, a few other Lewu words do not appear to have cognates in either Lawu or Proto-Lalo, although the second syllable of Lewu *lin hua* ‘bowl’ may possibly be connected with Lawu *k^hu³³* ‘bowl’ (Table 7).

Table 7: Lewu words that have no parallels with either Lawu or Proto-Lalo

<i>English gloss</i>	<i>Chinese gloss</i>	<i>Lewu</i>	<i>Lawu</i>	<i>Proto-Lalo</i>
bowl	碗	lin hua	k ^h u ³³	*a ¹ kjɛ ²
to hit	打	ch wō	ti ²¹	*dɛ ²

5. Alu: a Lalo language rather than a Lawu language

The *Lüchun County Gazetteer* (1992) provides a short word list of Alu of Dashuigou District 大水沟区 (now Dashuigou Township 大水沟乡) transcribed in Chinese characters. It also provided word lists of Achang 阿常 (of Niukong 牛孔) and Pulian 普连 (of Qimaba 骑马坝, Daxing 大兴, and Gekui 戈奎) transcribed in Chinese characters. Achang and Pulian are evidently Nisu dialects. Yang (2009) has also reported the location of a Southern Nisu dialect in Niukong 牛孔 Township, Lüchun County, where Achang is reported by the *Lüchun County Gazetteer* (1992). The complete comparative word list of Achang, Pulian, and Alu is available in Appendix 3.

Long (2007) instead refers to Alu as *Luopo* 倮颇 (IPA: *lo55 pho21*), and gives the locations of Luopan Shangzhai 罗盘上寨 of Jinping County and in Zhongzhai 中寨, of Dashuigou 大水沟 Township, Lüchun County. Both locations are listed as Alu villages in the Jinping County and Lüchun County gazetteers. The Luopo of Jinping claim to have migrated Pu'er and Mojiang County, and the Luopo of Lüchun claim to have migrated from Dali. Similarly, the Lalo-speaking Mangdi of Gengma County refer to themselves as *lo21 lo33 pa21*.

The *Jiangcheng County Gazetteer* (1989) reports that Alu 阿鲁 of Jiangcheng County belong to the Lalo 腊鲁 branch of the Yi ethnic group, and reports Xiangtang 香堂 as another group belonging to the Lalo 腊鲁 branch. A Yi group called Menghua 蒙化 is also listed, and this group may well be Lalo, as Menghua is a former name for the Lalo-speaking Weishan County area (Yang 2012). Below, Table 8 shows Alu words with Proto-Lalo parallels, with pinyin transcriptions given for Alu.

Table 8: Alu words with Proto-Lalo parallels

<i>English gloss</i>	<i>Chinese gloss</i>	<i>Alu</i>	<i>阿鲁 [Alu]</i>	<i>Proto-Lalo</i>	<i>Lawu</i>
person	人	cha	叉	*ts^haj¹	ts ^h u ⁵⁵
hand	手	lian e	连额	*le^t	la ³¹
horse	马	a mu	阿木	*a¹mju²	mə ²¹ tu ²¹
field	田	deng mi	灯咪	*de¹mi¹	za ⁵⁵
work	劳动	mi ga	咪嘎	*mja²ni²ʔmu¹	-
have	有	zao	早	*dʒaj¹	vu ³³
high	高	mou	某	*ʔmu¹	na ³³
who?	谁	a sa	阿洒	*a²sa²	a ²¹ sɿ ³³
ten	十	cheng	称	*ts^he¹	tɕ ^h i ⁵⁵

Table 9 lists Alu words with both Proto-Lalo and Lawu parallels.

Table 9: Alu words with both Proto-Lalo and Lawu parallels

<i>English gloss</i>	<i>Chinese gloss</i>	<i>Alu</i>	<i>阿鲁 [Alu]</i>	<i>Proto-Lalo</i>	<i>Lawu</i>
come	来	la	拉	*la¹	la ³³
go	去	yi	衣	*ʒe¹	ʒɿ ³³
one	一	tie	铁	*t^hi²	t ^h i ³³

Table 10 lists Alu words with unclear parallels.

Table 10: Alu words with unclear parallels

<i>English gloss</i>	<i>Chinese gloss</i>	<i>Alu</i>	<i>阿鲁 [Alu]</i>	<i>Proto-Lalo</i>	<i>Lawu</i>
ear	耳	long ba	竜巴	*ʔna²paŋ¹	la ³³ pu ³³
water	水	yi ci	依此	*yi¹; gie^H	ŋ ²¹ ka ⁵⁵

eat	吃	zhu	竹	*dza ²	tsa ²¹
walk	走	ge	戈	*sy ²	to ²¹
grow	生长	en dong	恩冻	*yε ²	yə ³³
stop	停止	tang ge	堂戈	*na ²	wo ⁵⁵
thousand	千	hong	烘	*tu ¹	-
I	我	me	么	*ŋa ¹	ŋa ³³
self	自己	chang bai	常白	*ε ¹ mε ³	i ³³ mu ³³
where?	哪里	na bai	哪白	*a ² di ¹	a ²¹ təŋ ⁵⁵
very	很	nong	农	-	kai ³³
often	常	zao shi	早施	*bi ¹	t ^h i ³³ ɕa ³³

Some of these words have parallels with individual Lalo languages, particularly some of the more divergent Lalo varieties such as Mangdi (*lo21 lo33 pa21*), Eka (*la21 lu33 po21*), and Xuzhang (*la21 lu33*), but not Proto-Lalo. Some comparisons from Yang's (2010) word list appendix are given below. Rhotic vowels have been transcribed as - *Vɿ* for visibility.

- 'to eat': Alu *zhu* (竹); East Lalo (Dali) *dzo21*; Xuzhang, Mangdi, Eka *dzo21*
- 'hand': Alu *lian'e* (连额); Mangdi *li21 yi21*; Xuzhang *lei33 vɿɿ21*
- 'self': Alu *chang bai* (常白); Mangdi *dʒəŋ21*; Eka *dza24*
- 'thousand': Alu *hong* (烘); Mangdi *xen55*; Eka *ε21 xĩn53*
- 'walk': Alu *ge* (戈); East Lalo (Dali) *ge21*; Xuzhang *geɿ21*; Mangdi *je33*

Furthermore, it is highly likely that Alu *me* (么) 'I (1st singular pronoun)' actually begins with an initial velar nasal *ŋ-* (Mandarin lacks an initial velar nasal).

The lexical evidence suggests that Alu may be an early split from Proto-Lalo, and arrived at its current location by migrating down the Red River valley from southern Dali area.

6. Conclusions

In this paper, the three Loloish languages Awu, Lewu, and Alu have been analyzed on whether they are more closely related to Lawu or Proto-Lalo.

- **Awu** of Xiaopingzi, Yuanyang County is shown to be related to Lawu, with 40 exclusively shared forms that are not reflexes of Proto-Lalo.
- **Lewu** of Puya, Jingdong County is likely related to Lawu, but this cannot be ascertained due to the non-IPA transcription and limited, poor-quality data. There are 5 forms shared between Lewu and Lawu, while 7 forms are common to Lewu, Lawu, and Proto-Lalo.
- **Alu** of Dashiugou, Lüchun County appears to be related Lalo rather than to Lawu, but this is uncertain due to the scant, poor-quality Alu data, which was transcribed using Chinese characters.

Hence, a tentative internal classification of the *Lawu* branch is shown below.

Lawu languages

1. Lawu [+ Lewu?]
2. Awu

Alternatively, this branch can be called *Lawoid* following Bradley's (2007) nomenclature of Loloish (Ngwi) language clusters, as Bradley (2007) also uses the names *Laloid*, *Lahoid*, *Lisoid*, *Nasoid*, *Nosoid*, and so forth. Using Lama's (2012) nomenclature for Lolo-Burmese branch names, the Lawu group of languages can be called *Lawoish*.

The Lawu languages do not appear to show any strong similarities with any other Lolo-Burmese branch. Using Lama's (2012) classification, Lawu (or Lawoish) may best classified as its own independent branch within Lolo-Burmese. Following Bradley's (2007) classification, the Lawu languages may belong to the Central Loloish branch, which has been considered by Lama (2012) to be paraphyletic (i.e., split up into multiple separate primary branches). It remains to be seen whether Central Loloish (inclusive of Lisu, Lahu, Nusu, and various other languages that Lama (2012) considers to be separate branches) is a Sprachbund (linguistic area) or a valid genetic branch, or none of the former. Combining Bradley's (2007) and Lama's (2012) classifications gives us the following internal classification of Loloish, with the *Lawoish* (Lawu) branch tentatively placed within Central Loloish as well.

Lolo-Burmese

Loloish

1. Southern Loloish
2. Central Loloish (?) [Sprachbund ?]
 - a. Lahoish: Lahu, Kucong
 - b. Nusoish: Nusu, Rouruo
 - c. Lisoish
 - i. Lisoid
 - ii. Laloid
 - iii. Taloid
 - d. **Lawoish**: Lawu, Awu
3. Nisoish (Northern Loloish + Southeastern Loloish)²

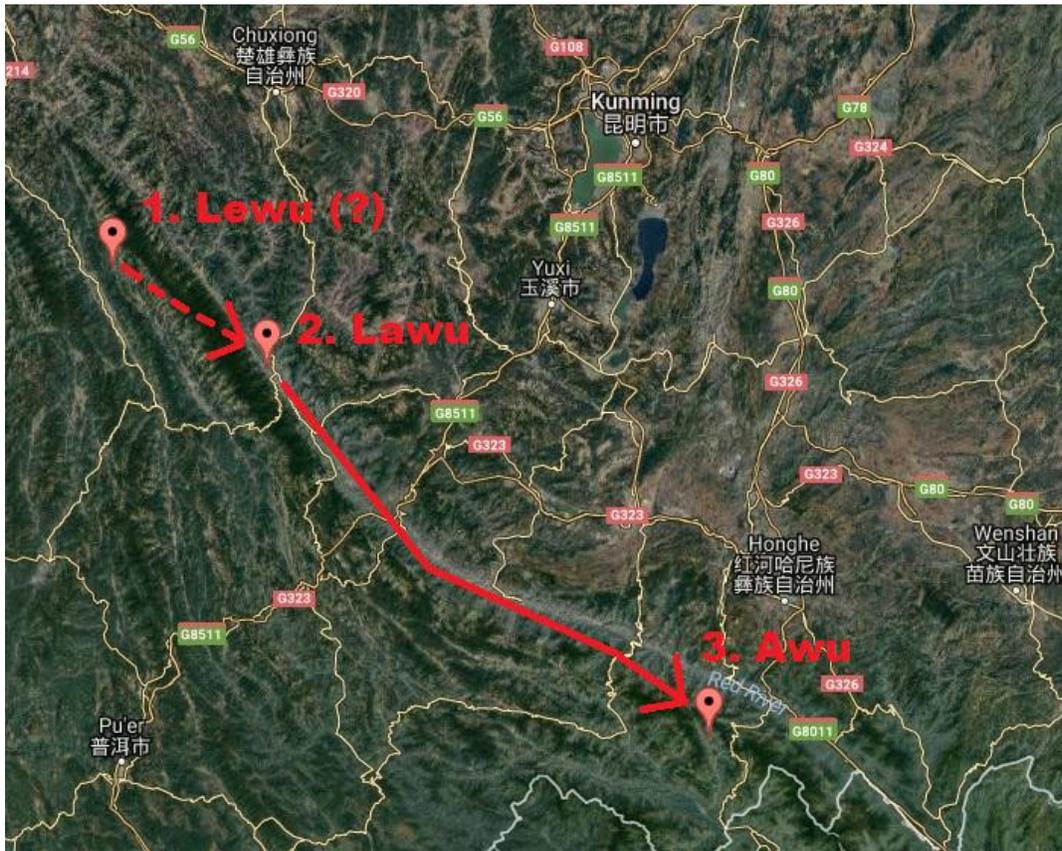
The following decimal geographical coordinates have been plotted onto Google Maps, and labeled with arrows showing the probable historical migration route of speakers of the Lawu language branch (Map 1).

- 22.909678, 103.101616 (Awu of Xiaopingzi)
- 24.133967, 101.498807 (Lawu of Jiuha)
- 24.466184, 100.939042 (Lewu Yao of Puya)

Due to the uncertain genetic affiliation of Lewu, Lewu has been marked using dashed arrows and is labeled with a question mark.

² Pelkey (2011) also notes that Northern Loloish and Southeastern Loloish share various similarities, and may together form a single branch of Loloish. This was been later proposed by Lama (2012) as being the *Nisoish* branch. Lama's (2012) Nisoish branch is divided into the *Axi-Puoid* branch and *Nisoid* branch, which roughly correspond to Bradley's *Southeastern Ngwi* (Loloish) and *Northern Ngwi* branches. Bradley (2007) and Lama (2012) also agree on *Southern Loloish*, which Lama (2012) calls *Hanoish*. However, Lama (2012) classifies *Jinuo* as Southern Loloish, while Bradley classifies *Jinuo* as an independent branch of *Central Ngwi*. Lama and Bradley differ mainly on their acceptance of the Central Ngwi as a valid genetic grouping.

Map 1: Locations of Lawu languages



Map 1 shows that the Lawu languages had migrated down the southern side of the Red River valley, perhaps from Jingdong County all the way down to Jinping County, and perhaps even into Vietnam. Due to the proximity of Mengla Township, Jinping County (where Awu people have been reported) to Vietnam, it may certainly be possible that there could be unreported populations of Awu people living in neighboring Lai Chau Province, Vietnam.

Yang (2010) and Pelkey (2011) have also noted that Loloish speakers have been migrating southward for centuries due to political turmoil that had occurred in Yunnan through the past 1,000 years. Southeastern Loloish speakers had generally migrated from the shores of Lake Dian near Kunming towards the southeast, while Lalo speakers had been continually migrated southward from their original homeland in and around Weishan County, located just to the south of Dali. Generally, migrations of ethnic minorities in China have tended to move towards the south rather than the north in order to escape^Han domination. Edmondson (1998) has also noted that the southward migration of Kra-Dai and^Hmong-Mien speakers can be

traced in the locations of languages that have been displaced towards the south, forming a “language corridor.” In the case of the Lawu languages, we have seen that Awu is descended from Lawu languages that had been spoken further up northwest along the Red River valley. The displacement of Lawu languages from Jingdong County to Xinping County and down towards Jinping County by the Vietnamese border is evidence of a “language corridor” along the Red River valley showing the footprints, or rather “voiceprints,” of a historical population migration away from political control centered in Kunming and Dali.

7. Final remarks: suggestions for future research

Since the Lawu languages have just been discovered and documented recently during the 2010’s, they remain very poorly understood. Many language varieties and ethnic subgroups remain un-researched, unknown, and undiscovered. The following languages and locations that are reported in various Chinese gazetteers would be worth researching, and could be crucial for understanding the linguistic prehistory of Yunnan and the Lolo-Burmese languages. The names and locations reported in the gazetteers of the respective counties where they are spoken, unless cited otherwise.

- **Awu** 阿乌 of Xiaozhai 小寨, Tuanjie 团结, Jinping County (Long 2007)
- **Alou** 阿楼 of Duoyishu 多衣树 and Xinjie 新街, Yuanyang County (Yunnan 2009). This group is classified as Hani rather than Yi.
- **Alu** 阿鲁 of Yakouzhe Village 丫口遮村, Laojizhai Township 老集寨乡, Jinping County
- **Tulao** 土老, a Yi subgroup of Yugadi 鱼嘎底, Xinzhai Village 新寨村, Mengqiao Township 勐桥乡, Jinping County; and Laowangzhai 老王寨, Qingjiao Village 箐脚村, Dazhai Township 大寨乡, Jinping County. It is listed as separate from Nisu and Alu. My best guess is that the Tulao may speak (1) a language related to Lolopo since some Lolopo have similar exonyms such Tuzu 土族, (2) a language related to Awu, or (3) a previously unknown Loloish language.

Lengthier and improved word lists of Awu of Xiaopingzi need to be collected, as well as word lists of Alu of Dashuigou Township, Lüchun County need to be collected. Further historical-comparative analysis of the Lawu languages will improve our understanding of how this enigmatic Loloish branch should be classified. Since some of these languages may be highly endangered and moribund, fieldwork on the Tibeto-Burman languages of southern Yunnan remains an urgent priority.

References

- Bradley, David. 1997. "Tibeto-Burman languages and classification". In *Tibeto-Burman languages of the Himalayas, Papers in South East Asian linguistics*. Canberra: Pacific Linguistics.
- Bradley, David. 2007. East and Southeast Asia. In Moseley, Christopher (ed.), *Encyclopedia of the World's Endangered Languages*, 349-424. London & New York: Routledge.
- Edmondson, Jerold A. 1998. "The Language Corridor: New Evidence From Vietnam." In *The International Conference on Tai Studies*, edited by Somsongke Burusphat. Bangkok, Thailand, 129-150. Institute of Language and Culture for Rural Development, Mahidol University.
- Lama, Ziwo Qiu-Fuyuan. 2012. *Subgrouping of Nisoic (Yi) Languages*. Ph.D. thesis, University of Texas at Arlington.
- Long Luogui 龙保贵. 2007. Honghe Yizu zuyuan zucheng ji renkou fenbu 红河彝族族源族称及其人口分布.
- Lu Peng 卢鹏; Lu Wei 路伟. 2011. *Guoji Hani-Aka quyue wenhua diaocha: Zhongguo Yuanyangxian Daping Hanizu Awuren wenhua shilve* 国际哈尼/阿卡区域文化调查: 中国元阳县大坪哈尼族阿鄂人文化实录. Kunming: Yunnan People's Press 云南人民出版社. ISBN 978-7-222-07999-1
- Pelkey, Jamin. 2011. *Dialectology as Dialectic: Interpreting Phula Variation*. Berlin: De Gruyter Mouton.
- Yang, Cathryn. 2009. *Nisu dialect geography*. SIL Electronic Survey Reports 2009-007.
- Yang, Cathryn. 2010. *Lalo regional varieties: Phylogeny, dialectometry, and sociolinguistics*. Melbourne: La Trobe University PhD dissertation.
- Yang, Cathryn. 2012. "Phonology sketch and classification of Lawu, an undocumented Ngwi language of Yunnan." In *Linguistic Discovery*, Volume 10, Issue 2, Year 2012. Hanover, NH: Dartmouth College.
- Yunnan Provincial Editorial Committee 云南省编辑委员会编 (ed). 2009. "Yuanyangxian Hanizu qingkuang suoji 元阳县哈尼族情况琐记." In *Hanizu shehui lishi diaocha* 哈尼族社会历史调查, p.80-83. Beijing: Ethnic Publishing House 民族出版社. ISBN 9787105087754

- Chinese gazetteers (xianzhi 县志) cited [authored by the governments of the respective counties]
- Jiangcheng County Ethnic Gazetteer Editorial Committee (ed). 1989. *Jiangcheng County Ethnic Gazetteer* 江城哈尼族彝族自治县志. Kunming: Yunnan People's Press 云南民族出版社.
- Jinping County Ethnic Gazetteer Editorial Committee (ed). 2013. *Jinping County Ethnic Gazetteer* 金平苗族瑶族傣族自治县民族志. Kunming: Yunnan People's Press 云南民族出版社.
- Jingdong County Ethnic Gazetteer Editorial Committee (ed). 2012. *Jingdong County Ethnic Gazetteer* 景东彝族自治县民族志. Kunming: Yunnan People's Press 云南民族出版社.
- Jingdong County Gazetteer Editorial Committee (ed). 1994. *Jingdong County Gazetteer* 景东彝族自治县志. Chengdu: Sichuan Reference Book Press 四川辞书出版社.
- Lüchun County Gazetteer Editorial Committee (ed). 1992. *Lüchun County Gazetteer* 绿春县志 (1992). Kunming: Yunnan People's Press 云南民族出版社.
- Xinping County Ethnic Gazetteer Editorial Committee (ed). 1992. *Xinping County Ethnic Gazetteer* 新平彝族傣族自治县民族志. Kunming: Yunnan People's Press 云南民族出版社.
- Yuanyang County Gazetteer Editorial Committee (ed). 1990. *Yuanyang County Gazetteer* 元阳县志. Guiyang: Guizhou People's Press 贵州民族出版社.

Appendix 1: Comparative word list of Awu, Lawu, and Proto-Lalo

The following comparative word list of selected words in Awu, Lawu, and Proto-Lalo has been based on the Awu word list given in Lu & Lu (2011: 246-256). Lawu and Proto-Lalo forms are cited from Yang (2012). Page numbers are for the Awu forms in Lu & Lu (2011), and Chinese glosses are also from Lu & Lu (2011). English glosses are my own translation. Lu & Lu (2011) contains many entries that are numerals and names of days and months; these have been excluded except for the cardinal numerals one to ten.

<i>Chinese gloss</i>	<i>English gloss</i>	<i>Awu</i>	<i>Lawu</i>	<i>Proto-Lalo</i>	<i>Page</i>
洗	wash	tɕ ^h õ ³³	ts ^h ɿ ³³	ts ^h i ²	246
天（今天、明天）	day (24 hours)	no ⁵⁵	ni ³³	ʔni ³	246
刀	knife	ɔ ³¹ ba ³³	p ^h iŋ ³³	a ¹ t ^h a ² ba ²	247
叫	call	ka ⁵⁵	ku ³³	ku ¹	247
看	look	ŋo ³¹	ni ⁵⁵	ʔni ¹	247
绳子	rope	ka ³¹ ni ³³	ŋ ²¹ tsa ⁵⁵		247
母鸡	hen	ɣa ³¹	za ³³ ma ³³ ke ⁵⁵	a ¹ ɣe ^h ma ³ ko ^h	247
小	small	za ³³	i ⁵⁵	ɲa ¹	247
红	red	ma ³³	ni ⁵⁵	ʔni ¹	247
碗	bowl	k ^h o ³³	k ^h u ³³	kje ²	247
进来	come, enter	va ³¹	ni ²¹ li ³³	dy ²	248
拿	take, hold in hands	ŋa ⁵⁵	vi ³³	vu ¹	248
雨	rain	muw ⁵⁵ fu ³¹	mi ²¹ ji ³³	a ¹ mo ² ha ¹	248
天	sky	muw ⁵⁵	məŋ ³³	mo ² di ² ma ³	248
地	ground	mo ³¹	mə ³³ ts ^h a ³³	ʔmi ¹ di ²	248
日	sun	muw ³³ no ⁵⁵ ma ³³	mə ²¹ t ^h a ⁵⁵	a ¹ mo ² yi ¹	248
月	moon	pa ³³ la ³³ ma ³³	la ³³ pa ³³	xa ³ ba ³ k ^h i ¹	249
云	cloud	vu ³³ tɕi ⁵⁵ vu ³³ ma ⁵⁵	tɕo ²¹ ku ³³	a ¹ mo ² ti ¹	249
风	wind	mu ³¹ lo ³¹	mi ²¹ li ⁵⁵	a ¹ mo ² hi ¹	249
雾	fog	muw ³³ wu ³³ muw ³³ la ⁵⁵	tɕo ²¹ ku ³³	mu ¹	249
山	mountain	pɔ ³¹ la ⁵⁵	kə ²¹ ma ³³	k ^h u ¹ dʒe ²	249

水	water	ɣa ³³ dza ³³	ŋ ²¹ ka ⁵⁵	ɣi ¹ ; gje ^H	249
石	stone	la ³¹ ku ³³ si ³³	li ⁵⁵ ku ⁵⁵	ka ¹ lu ^H	249
土	earth	mo ³¹ tsa ⁵⁵ ki ⁵⁵	mə ³³ ts ^h a ³³	e ² ts ^h i ²	249
树	tree	tɕi ³¹ ka ³¹ tso ³¹	sɿ ⁵⁵ tsəŋ ⁵⁵	si ^H dze ¹	249
老虎	tiger	k ^h a ³³ la ³³	k ^h a ⁵⁵ la ²¹	la ² pa ^L	249
猴子	monkey	miu ³³ za ³³	mɔ ³¹	mjo ^L	249
兔子	rabbit	tɔ ⁵⁵ lo ³¹ za ³³	ka ³³ t ^h u ²¹	hɛ ^H t ^h a ³ la ³	249
豹子	leopard	k ^h a ³³ la ³³ tɕi ³¹ za ³³	k ^h a ⁵⁵ la ²¹	zi ^L	249
蛇	snake	ve ³¹ ma ³³	pe ³³	la ¹ ʃɛ ¹	249
乌鸦	crow	lo ³³ ma ³³	a ⁵⁵ na ³³	a ¹ ne ^H	249
鹰	eagle	tse ³¹ ma ³³	za ³³ ta ²¹	a ¹ dzy ¹	249
老鼠	rat, mouse	m ³³ tu ³³	u ⁵⁵ sa ³³	hɛ ^H	249
鸟	bird	a ³¹ za ³³	k ^h a ^{j55} ja ²¹	ŋja ^H	249
鱼	fish	ŋu ³¹ ɕa ³³ za ³³	ŋa ²¹ sa ³³	ŋa ²	249
水牛	water buffalo	ŋu ³³ pe ³³	ɣə ³³ ni ²¹	ɣo ¹ ni ²	249
黄牛	cattle	ŋu ³³ ŋɛ ³¹	ŋ ²¹ ni ⁵⁵	a ¹ ni ² ʃɛ ¹	249
马	horse	ŋo ³³	mə ²¹ tu ²¹	a ¹ mju ²	249
猪	pig	va ³³	va ³¹	a ¹ ve ^L	249
狗	dog	k ^h u ⁵⁵ zu ⁵⁵	k ^h ə ³³	a ¹ k ^h i ²	249
羊	sheep	tɕu ⁵⁵ me ³³ za ³³	tɕ ^h i ³³	a ¹ tʃ ^h i ^L	250
鸡	chicken	ɣa ³¹ za ³³	za ³³	a ¹ ɣe ^H	250
鸭	duck	ɣo ³³ ba ³¹	a ²¹ pi ³³	a ¹ be ²	250
鹅	goose	ɣo ³³ ma ⁵⁵		a ¹ ŋwa ¹	250
猫	cat	ɔ ³¹ mi ⁵⁵	ma ³³ mi ⁵⁵	a ¹ mi ¹	250
菜	vegetables	ko ³³ pɣ ⁵⁵	ko ²¹ pi ⁵⁵	ɣaŋ ² tʃɛ ^L	250
葫芦	gourd	mu ³¹ p ^h u ⁵⁵ pae ³¹	a ⁵⁵ p ^h u ³³	p ^h y ²	250
黄瓜	cucumber	se ⁵⁵ gu ³³ se ³³	sɿ ³³ k ^h u ³³	sa ² kje ²	250
茄子	eggplant	a ⁵⁵ tɕ ^h i ³³ bia ⁵⁵ se ³³	ka ³³ tu ²¹ sɿ ³³	ga ¹ zi ³	250
蒜	garlic	ɕo ³³ mio ³¹ ma ⁵⁵	k ^h a ³³ ɕi ⁵⁵	k ^h a ² sy ¹	250
花生	peanut	mu ³¹ te ⁵⁵ se ³³	mi ⁵⁵ su ²¹ sɿ ³³	(loanword)	250
果	fruit	a ⁵⁵ se ³³	i ⁵⁵ sɿ ²¹	se ²	250
姜	ginger	tɕi ⁵⁵ ka ³³ lu ⁵⁵	ts ^h ə ³³	tʃ ^h aŋ ²	250

辣椒	chili	tɕi ⁵⁵ ja ³³	la ⁵⁵ p ^h i ⁵⁵	p ^h e ¹	250
人	people	ts ^h ɔ ³³	ts ^h u ⁵⁵	ts ^h aŋ ¹	250
男人	man, male	za ³³ k ^h a ⁵⁵ za ³³	za ²¹ k ^h a ³³	ʒo ^l	250
女人	woman, female	mu ³¹ jo ³¹ ma ⁵⁵	mi ²¹ ni ³³	za ² mɛ ²	250
男孩	boy	za ³³ jo ⁵⁵ , za ³³ k ^h a ⁵⁵ za ³³	za ²¹ k ^h a ³³	su ¹ le ^l pa ^l	250
女孩	girl	za ³³ mi ³³ , mu ³¹ jo ³¹ ma ⁵⁵	za ²¹ mi ²¹	su ¹ le ^l ma ³	250
头	head	ka ⁵⁵ lu ³¹	la ⁵⁵ ku ⁵⁵	nu ² kaŋ ²	250
身体	body	a ⁵⁵ mu ³³ ma ⁵⁵		gu ¹ ts ^h ɿ ^{2/3}	250
头发	hair	ts ^h i ³¹ ta ³¹	tsa ⁵⁵ k ^h əŋ ⁵⁵	ŋ ² ts ^h y ¹	250
脸	face	p ^h u ³³ ɕa ³³	ma ³³ p ^h u ³³	p ^h jaŋ ² ʔmjeH	251
眼睛	eye	mu ³¹ tɕa ⁵⁵	ma ³³ tsɿ ³³	p ^h jaŋ ² ʔmjeH	251
眉毛	eyebrow	mu ³¹ tɕa ⁵⁵ mɔ ³³	ma ³³ tsɿ ³³ məŋ ³³	ʔmjeHts ^h am ¹	251
鼻子	nose	le ³¹ me ³¹	na ⁵⁵ mi ⁵⁵	ʔna ¹ k ^h aŋ ^{2/3}	251
耳朵	ear	mu ³³ pu ³³ lu ³³	la ³³ pu ³³	ʔna ² paŋ ¹	251
嘴	mouth	mɛ ⁵⁵ po ³³	mɛ ³¹ ni ³³	k ^h a ² pɛ ^l	251
肩膀	shoulder	la ⁵⁵ ba ³¹ ba ³¹	p ^h i ²¹ ma ³³	p ^h a ¹ k ^h ɛ ² dʒɿ ³	251
手	hand	a ⁵⁵ la ³³	la ³¹	le ^l	251
大拇指	thumb	la ³³ ma ⁵⁵	la ³¹ ma ³³	ma ³	251
其他手指	finger	la ³³ nu ³¹	la ³¹ ni ⁵⁵	ʔni ¹	251
腿	leg	a ⁵⁵ ko ³¹ pɛ ³¹	k ^h ə ⁵⁵ ɕi ²¹ pi ³³		251
脚	foot	a ⁵⁵ ko ³¹ p ^h ia ³³	k ^h ə ⁵⁵ p ^h a ²¹ tu ²¹	k ^h i ¹ p ^h e ^H	251
我	I	ŋa ³¹	ŋa ³³	ŋa ¹	251
我们	we	ŋɣ ³³ ɣ ³¹	ŋa ³³ xə ³³	ŋa ¹ tsa ³	251
你	you (sg.)	no ³³	nu ³³	ni ¹	251
你们	you (pl.)	ny ³³ ɣ ³¹	nu ³³ xə ³³	ɲa ²	251
他	he	no ⁵⁵	i ³³	(ʒ)aŋ ^{2/3}	251
他们	they	no ⁵⁵ ɣ ³¹	i ³³ xə ³³	ʒaŋ ³ tsa ³	251
的	POSS, of	va ⁵⁵	ya ³³	ɣi ²	251
今天	today	te ³³ no ⁵⁵	je ³¹ ni ³³	i ² ni ³	251
明天	tomorrow	ni ³³ no ⁵⁵	sa ³³ na ²¹	a ² gy ¹ ni ³	251

昨天	yesterday	lɔ ³³ nɔ ⁵⁵	mi ⁵⁵ tɕ ^h i ³³	a ² ŋi ³	251
前天	day before yesterday	sɔ ³³ nɔ ⁵⁵	su ³³ mi ⁵⁵ tɕ ^h i ³³	ʃi ^h ŋi ³	252
热天	hot day	mu ³³ sa ³¹ lo ⁵⁵	vu ⁵⁵	ts ^h a ¹	252
冷天	cold day	mu ³³ tɕa ⁵⁵ tɕa ³³	tɕu ³³ 'cold (body)'	gjaŋ ¹ 'cold (body)'	252
今年	this year	ɣa ⁵⁵ me ³³ ni ⁵⁵	tɕi ⁵⁵ k ^h u ³³	tʃ ^h i ² ni ^h	252
一	one	ti ³³ (mɔ ³¹)	t ^h i ³³	t ^h i ²	253
二	two	ni ³³ (mɔ ³¹)	ŋ ²¹	ni ²	253
三	three	sɔ ³³ (mɔ ³¹)	su ³³	sa ^{1/3}	253
四	four	lɔ ³³ (mɔ ³¹)	pi ²¹	ŋli ³	253
五	five	ŋa ³³ (mɔ ³¹)	ŋa ²¹	ŋa ²	253
六	six	tɕ ^h u ³³ (mɔ ³¹)	k ^h u ³³	k ^h ɔ ^ɹ	253
七	seven	ɕi ³³ (mɔ ³¹)	ʃi ³³	xi ²	253
八	weight	ɛ ³³ (mɔ ³¹)	xɛ ³³	hɛ ^ɹ	253
九	nine	gɔ ³³ (mɔ ³¹)	ku ²¹	ko ^{1/3}	253
十	ten	ts ^h ae ³³ (mɔ ³¹)	tɕ ^h i ⁵⁵	ts ^h e ¹	253
一百	hundred	ti ³³ ja ³¹ pa ³¹	za ³³	ha ¹	254
吃饭	eat	xo ³³ tɕa ⁵⁵			256
吃菜	eat vegetables	ko ³³ p ^h ɔ ³³ sa ⁵⁵			256
吃烟	smoke tobacco	m ³³ k ^h o ³³ do ⁵⁵			256
吃	eat	tɕa ⁵⁵	tɕa ²¹		256
饭	rice	xo ³³	xəŋ ³³		256
菜	dish	ko ³³ p ^h ɔ ³³	ko ²¹ pi ⁵⁵		256
烟	smoke	m ³³ k ^h o ³³	za ³³ xəŋ ²¹		256
吸烟筒	smoking tube	m ³³ k ^h o ³³ bo ³³ do ⁵⁵			256
喝酒	drink	tɕɔ ³¹ do ⁵⁵			256
喝茶	drink tea	ko ³¹ p ^h a ³³ do ⁵⁵			256
喝水	drink water	ɣa ³¹ dza ³¹ do ⁵⁵			256
喝汤	drink soup	a ⁵⁵ ɣɔ ³¹ do ⁵⁵			256
烟筒	smoking tube	m ³³ k ^h o ³³ bo ³³	za ²¹ ko ³³		256
喝	drink	do ⁵⁵	tu ³³		256

酒	liquor, wine	tɕɔ ³¹	tɕi ³³ pa ²¹		256
茶	tea	ko ³¹ p ^h a ³³		la ²	256
汤	soup	a ⁵⁵ ɣɔ ³¹	ko ²¹ pi ⁵⁵ ɣə ³³	ɣaŋ ² yi ¹	256
走路	walk on road	li ³¹ k ^h a ³¹ du ⁵⁵			256
路	road	li ³¹ k ^h a ³¹	ka ³³ ma ³³	gja ¹ ma ³	256
走	walk	du ⁵⁵	to ²¹	sy ²	256
你去哪?	Where are you going?	no ³³ ta ⁵⁵ ji ³¹			256
去	go	ji ³¹	ɟɿ ³³	ʒe ¹	256
哪	where?	ta ⁵⁵	a ²¹ təŋ ⁵⁵	a ² di ¹ 'where'	256

Appendix 2: Phrase list of Lewu Yao

The original phrase list of Lewu Yao from Jingdong (2012: 144-145) is reproduced below. English glosses are my own translation. Each entry has been numbered for reference.

No.	Chinese gloss	English gloss	Lewu	Page
1	吃饭	eat rice	zuǒ zuó liē	144
2	猪心肺	pig heart and lungs	cī ber	144
3	这里来	come (from) here	wū lài lai	144
4	什么东西	What thing?	māi yuō	144
5	蚕豆	broad bean (<i>Vicia faba</i>)	nuó suō	144
6	豌豆	pea (<i>Pisum sativum</i>)	nuó sǎi	144
7	回来, 回来 你回来	come back, come back, you come back	gǔ lāi gǔ lai gǔ lāi	144
8	白酒	liquor	zhī zhí	144
9	清酒	rice wine	a zhì	144
10	筷子	chopsticks	a zhu	144
11	刀	knife	biě tuo	145
12	斧子	axe	shì cuo	145
13	碗	bowl	lin hua	145
14	勺	spoon	yì geu	145
15	打	to hit	ch wō	145
16	没有了	There is no more.	mā ia lāi	145

Glossed phrases

Below are my best guesses for how each individual word in the phrases should be glossed. Note that these are simply educated guesses based on the cognates from other Loloish languages as well as inferences made from syntactic features typically found in Loloish languages of central Yunnan.

- (1) zuǒ zuó liē
 rice eat PST
 ‘ate rice’

- (2) cī ber
heart lung
'heart and lungs'
- (3) wū lài lai
here come
'come (from) here'
- (4) māi yuō
thing
'(what) thing'
- (5) nuó suō
bean broad
'broad bean'
- (6) nuó sǎi
bean pea
'pea'
- (7) gǔ lāi gǔ lai gǔ lāi
return return return
'come back, come back, come back'
- (16) mā ia lāi
NEG have PST
'There is no more.'

Appendix 3: Comparative word list of Yi lects of Lüchun County

The following word list of Yi lects of Lüchun County is from the *Lüchun County Gazetteer* (1992: 136-137), which transcribed words and phrases for three lects (Achang, Pulian, and Alu) in Chinese characters. I have also transliterated the Chinese characters using pinyin. Tones are not provided for the pinyin transliterations, as tones can vary significantly among Mandarin dialects of Yunnan and standard Mandarin.

The gazetteer identifies these lects as Southern Yi, although this paper shows that Alu is in fact most likely to be a Central Loloish (Lisoish) language. The original glosses are in Chinese, while the English glosses are my own translation.

<i>Chinese gloss</i>	<i>English gloss</i>	阿常	<i>Achang</i>	普连	<i>Pulian</i>	阿鲁	<i>Alu</i>	<i>Page</i>
人	person	查	cha	查	cha	叉	cha	136
手	hand	连	lian	连	lian	连额	lian e	136
耳	ear	聋巴	long ba	聋巴	long ba	竜巴	long ba	136
马	horse	摸	mo	摸	mo	阿木	a mu	137
水	water	一见	yi jian	一见	yi jian	依此	yi ci	137
田	field	灯咪	deng mi	咪	mi	灯咪	deng mi	137
吃	eat	棕	zong	棕	zong	竹	zhu	137
劳动	work	耐木	nai mu	耐木	nai mu	咪嘎	mi ga	137
走	walk	收	shou	收	shou	戈	ge	137
来	come	联	lian	联	lian	拉	la	137
去	go	勒	le	勒	le	衣	yi	137
生长	grow	恩联	en lian	恩联	en lian	恩冻	en dong	137
停止	stop	农握	nong wo	农握	nong wo	堂戈	tang ge	137
有	have	早	zao	早	zao	早	zao	137
高	high	么	me	么	me	某	mou	137
一	one	铁	tie	铁	tie	铁	tie	137
十	ten	泽	ze	泽	ze	称	cheng	137
千	thousand	多	duo	多	duo	烘	hong	137

万	ten thousand	年	nian	万	wan			137
个	classifier (general)	勒	le	勒	le	洒	sa	137
我	I	鹅	e	鹅	e	么	me	137
自己	self	阿扞	a men	阿扞	a men	常白	chang bai	137
哪里	where?	哈拉	ha la	哈拉	ha la	哪白	na bai	137
谁	who?	阿书	a shu	阿书	a shu	阿洒	a sa	137
很	very	阿弱	a ruo	阿弱	a ruo	农	nong	137
常	often	泡习	pao xi	泡习	pao xi	早施	zao shi	137
都	even	的底	de di	的底	de di	忙	mang	137