Yòng xiēzi qiào kāi wèntí

(Wedge issues)

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1.0 Introduction

When I elicited the Pumi word **tsó** 'wedge' in Kunming (March 1996), I was struck by its resemblance to Lahu **jû** 'wedge'. Since the Qiangic languages are not particularly close to Loloish on the TB family tree, this apparent cognate for an item of non-core vocabulary was of interest. The first task in establishing a relationship between the Pumi and the Lahu forms was to reconstruct the PLB ancestor of Lahu **jû**. Then possible cognates to the Pumi form in other Qiangic languages had to be examined. Given our present rudimentary knowledge of comparative Qiangic, could parallel examples establish a Proto-Qiangic reconstruction resembling our newly reconstructed PLB form?

As it turns out, the Pumi and Lahu forms are not cognate after all. Still, this study has unearthed several new etyma for WEDGE, and clarified some Qiangic rhyme developments, especially as concerns the fate of PTB ***-am** and ***ap**. Finally, it raises some cautionary issues in comparing sets of forms across distant subgroups of the vast TB family.

2.0 The PLB provenience of Lahu jû : PLB *N-džam[2]

Lahu **jû** (N; Mpfx) 'wedge; shim; stake' is both a free noun (N) and a morpheme prefixable by **ɔ̀-** (Mpfx), occurring in collocations like:

chɛ-kə-**jû** (N)	shim used in a rice-pounder
jû dɔ̂ʔ ve (OV)	drive in a wedge/stake
jû šɛ ve (OV)	insert a wedge; insert a wooden pin into a prepared hole
ɔ̀-jû ka ve (OV)	drive in a wedge/stake

No etymology was offered for this morpheme in Matisoff 1988:163, 568. The abundant new Lolo-Burmese data provided in Sun et al, 1991 (henceforth ***ZMYYC***), and Dai et al, 1992 (henceforth ***TBL***), now allows us to reconstruct a PLB root with confidence.

2.1 Burmish reflexes

Achang (Longchuan)	a³¹çe⁵¹	wedge	ZMYYC #413, p. 783; TBL #620, p. 207
Bola	sɔ̃³⁵ **tʃɛ̃³¹**	wedge	TBL #620, p. 207
Langsu (=Maru)[1]	saŋ³⁵**tʃɛ̃³¹**	wedge	ZMYYC #413, p. 783; TBL #620, p. 207
Zaiwa (=Atsi)	siŋ²¹**tʃạm²¹**	wedge	ZMYYC #413, p. 783; TBL #620, p. 207

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[1]The first syllables in the Langsu and Zaiwa forms apparently do not mean 'wood', the morphemes for which are Langsu **sạk** and Zaiwa **sik⁵⁵**.

The Burmish reflexes are crucial, pointing unmistakably to a nasal-finalled rhyme. The Zaiwa form narrows it down to ***-am**. In WB itself, the reflex of ***-am** is **-am**, but there is no apparent Burmese cognate to this set.[2] The Achang (Longchuan) form **a^{31}çe^{51}** cited above (2.01) is not cognate, since the regular Achang reflex of ***-am** is also **-am** (see sets below).

The dozen or so best-attested ***-(w)am** etyma in Lolo-Burmese, and their WB reflexes, are as follows:

	PLB	WB
BEAR	*d-wam^1 ✕ ^{2}	(wak-)wam
BELLY	*p-wam^2	wâm
BRIDGE	*dzam^1	tsam
DARE	*wam^3	wam'
EAR/SPIKE of GRAIN	*s-nam^1	hnam
FATHOM/CORD	*s-lam^1 ✕ ^{2}	lam ✕ hlâm^3
FENCE/GARDEN	*kram^1	khram
FLY (v.)	*byam^1	pyam
HAIR (head)	*cham^1	tsham
IRON	*syam^1	sam
OTTER	*syam^1 ✕ *pyam^1 < PTB *sram	phyam
ROAD	*lam^2 ✕ ^{3}	lam
SESAME	*s-nam^2	hnâm
SMELL	*nam^1 ✕ ^{2} ✕ ^{3}	nam, nâm, nam'

Reflexes of these etyma in other Burmish languages are quite regular:

	Achang	*Zaiwa*	*Leqi*	*Langsu* [4]	*Bola*
BEAR	ɔm^{55}	vam^{51}	wɔm^{31}	vɛ̃^{31}	vɛ̃^{55}
BELLY	ɔm^{31} tau^{31}	vam^{21}	wɔm^{33} tou^{33}	vɛ̃^{35} tuk^{31}	vɛ^{31} tau^{31}
BRIDGE	tçam^{55}	tsam^{51}	tsam^{31}	tsɛ̃^{31}	tsɛ̃^{55}
DARE	--	vam^{55}	wuːm^{55}	vɛ̃^{55}	vɛ̃^{35}
FATHOM	lam^{55}	lam^{51}	lam^{31}	lɛ̃^{31}	lɛ̃^{55}
EAR/SPIKE (grain)	tçɔ^{55} ŋam^{55}	a^{21} nam^{51}	a^{55} nam^{33}	kauk^{31} nɛ̃^{31}	nɛ̃^{55}
FLY	tʂam^{55}	[taŋ^{21}]	[taːŋ^{33}]	[tɔ̃^{35}]	[tɔ̃^{31}]
GARDEN/FENCE	--	khjam^{51}	khjam^{33}	khjɛ̃^{31}	khjɛ̃^{55}
HAIR (of head)	--	u^{21} tsham^{51}	tsham^{33}	tshɛ̃^{31}	tshɛ̃^{55}

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[2]See below 4.2 for a discussion of WB **sap** and its possible cognates.

[3]The aspirated allofam means 'to stretch out the arm'; the ***s-** prefix is also reflected in Yi Mile **ɬɯ^{33}** and Jinuo **ɬɛ^{33}**.

[4]The Bola forms given in TBL (Language #32 of 50) are virtually identical to these Langsu (Maru) forms (Lg. #31 in TBL).

IRON	ʂam⁵⁵	ʃam⁵¹ tɔʔ⁵⁵	[tʃɔʔ³¹ tɔʔ⁵⁵]	ʃɛ̃³¹ tɔʔ⁵⁵	ʃɛ̃⁵⁵-tḁʔ⁵⁵
OTTER	sam⁵⁵	xam⁵¹	ʃa̰m³³	xɛ̃³¹	xɛ̃⁵⁵
SMELL	nam³¹	nam⁵¹	naːm³¹	nɛ̃³¹	nɛ̃⁵⁵
WEDGE	[a³¹ çe⁵¹]	siŋ tʃa̰m²¹	--	saŋ³⁵ tʃɛ̃³¹	sɔ̃³⁵ tʃɛ̃³¹

These Burmish reflexes may be tabulated as follows:

PLB	Achang (Longchuan)	Zaiwa (Atsi)	Leqi (Lashi)	Langsu (Maru)	Bola
*-am	-am, -ɔm	-am	-am, -ɔm, -um	-ɛ̃	-ɛ̃

2.2 Loloish reflexes

Gazhuo	sɿ³⁵ tsɛ³¹	wedge	TBL #620
Hani (Lüchun)	tsha³¹ tshɔ³¹	wedge	TBL #620
Hani (Mojiang)	tɔ³¹ tʃu³¹	wedge	TBL #620
Hani (Shuikui)	tɔ³¹tʃhu³¹	wedge	ZMYYC #413
Lahu (Black)	dzu⁵³	wedge	ZMYYC #413
Lisu	dʒo³¹tʃhɛ⁵⁵	wedge	ZMYYC #413
Lisu (Northern)	nɔ⁵⁵dzɔ²¹	wedge	DB-Lisu⁵
Naxi (Lijiang)	ʂuɑ⁵⁵	wedge	ZMYYC #413; TBL #620
Nusu (Bijiang)	tɕɑ⁵⁵	wedge	ZMYYC #413
Nusu	tʂa⁵⁵	wedge	TBL #620
Sani	sz̩ dʐɤ¹¹	wedge	TBL #620
Yi (Mile (Axi))	dʑi̯²¹bṵ³³	wedge	ZMYYC #413
Yi (Mojiang)	çi̯³³dʑe³³	wedge	ZMYYC #413
Yi (Nanjian)	dʑy²¹	wedge	ZMYYC #413
Yi (Nanhua)	çi̯³³dʐɯ²¹	wedge	ZMYYC #413
Yi (Weishan)	bɑ²¹ dʑy²¹	wedge	TBL #620
Yi (Wuding)	ŋtʂhe³³	wedge	TBL #620
Yi (Xide)	ndʐo³³	wedge	ZMYYC #413; TBL #620

At first glance, some of these forms look like possible loans from Chinese (cf. Mandarin **xiēzi**), especially Yi Nanhua **çe²¹ tsɿ³³** (TBL #620, p. 207). On the other hand, the first syllables might be reduced forms of morphemes meaning WOOD (< PTB ***sik ⪥ *siŋ**). To ascertain whether, e.g. the Gazhuo, Sani, Mojiang, and Nanhua (ZMYYC) forms are loans from Chinese or not, we shall have to look at other cognate sets reflecting the rhyme ***-am**.

2.3 The PLB *initial

The voicedness of the initial in Lahu **jû** points unmistakably to a *prenasalized prototype.⁶ The Chinese Lahu source has **dz-**, probably inaccurately recorded; but in any case there is no contrast in Black Lahu between dentals and palatals. The palatal phonemes /c ch j š y/ have dental allophones before -ɨ:

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⁵This form is not from either ZMYYC or TBL, but rather from Bradley 1994.
⁶See Matisoff 1972:15-16.

$$\text{/c ch j š y/} \ \text{--->} \ \text{[ts tsh dz s z] / ---------ɨ}^7$$

The prenasalization of the PLB initial is directly confirmed by the Yi Wuding and Yi Xide reflexes.

2.4 The PLB *tone

Since Lahu **jû** is from PLB Tone *2, we expect that its LB cognates will also reflect that tone. To check that out, all we need do is compare the tones for WEDGE in these languages with the tones of the reflexes of an "exemplary" Tone *2 etymon. In the case of the Burmish forms we should select a non-verbal[8] etymon, e.g. PLB ***sum²** THREE:

	Tone of WEDGE	*Tone of THREE*
Burmish		
Achang (Longchuan)	--	31 **sum³¹**
Bola	31	55 **sam⁵⁵** [9]
Zaiwa (Atsi)	21	21 **sum²¹**
Langsu (Maru)	31	31 **sam³¹**
Leqi (Lashi)	--	55 **sɔm⁵⁵**
WB	--	^ **sûm**

In the case of Loloish, THREE will not do as a comparison, since etyma with voiceless sibilant initials often acquire special tones. Better would be BITTER (PLB ***ka²**):

	Tone of WEDGE	*Tone of BITTER*
Loloish		
Gazhuo	31	31 **kha³¹**
Hani (Lüchun)	31	31 **xa³¹**
Hani (Mojiang)	31	31 **xɔ³¹**
Hani (Shuikui)	31	31 **xɔ³¹**
Lahu (Black)	53	53 **qha⁵³**
Lisu	31	31 **khuɑ³¹**
Lisu (Northern)	21	21 **hkwa²¹**
Nusu (Bijiang)[10]	55	53 **khɑ⁵³**
Sani	11	11 **qhɒ¹¹**
Yi (Dafang)	--	33 **khu³³**
Yi (Mile (Axi))	21	21 **kha²¹**
Yi (Mojiang)	33	33 **khɒ³³**
Yi (Nanhua)	21	21 **kha²¹**
Yi (Nanjian)	21	21 **khɑ²¹**
Yi (Weishan)	21	21 **khɑ²¹**
Yi (Wuding)	33	33 **khɒ³³**
Yi (Xide)	33	33 **khɯ³³**

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[7]See Matisoff 1973/1982, pp. 6-8.

[8]As Burling (1968:57-8, 69) demonstrated, Atsi and Maru tonal reflexes of PLB Tone *2 are different for verbs as opposed to non-verbs.

[9]I cannot explain why this form has tone 55, since many other Tone *2 etyma give Bola tone 31: BONE ***rəw²** > Bo. **ʃă-u³¹**, FOUR ***b-ləy²** > Bo. **məi³¹**, FIVE ***ŋa²** > Bo. **ŋa³¹**, NINE ***gəw²** > Bo. **kau³¹**. Furthermore, other Tone *2 etyma with initial ***s-** develop Bola tone 35: BLOOD ***swəy²** > Bo. **sui³⁵**, MEAT ***sa²** > Bo. **ʃa³⁵**.

[10]The conditioning for the reflexes of Tone *2 in Nusu are not yet clear. Other Tone *2 etyma do give Nusu 55, e.g. FIVE PLB ***ŋa²** > Nusu **ŋɑ⁵⁵**.

2.5 The PLB *rhyme

When you have widely divergent rhyme reflexes in cognates from language to language, it's a good bet that it's a closed syllable rhyme (i.e. one with a final stop or nasal). As we shall see, Loloish reflexes of **-am** go all over the map:

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i      y              ɿ      ɯ      ɥ      u

ɪ                            ʏ      uɑ

e                                   o

ɛ                                   ɔ

          a              m̩         ɑ
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*Loloish sets with the *-am rhyme*

	BEAR *d-wam^1 ⪤ ^{2}	BELLY *p-wam^2	BRIDGE *n-dzam^1
Lahu (Black)	yɛ̀-mí-**tɔ̄**	ğô-pè / **ɣu**^{53} pe^{31} [11]	**cɔ̀**
Yi Xide	**ɣo**^{33} (T *1)	[i^{21} mo^{21}] [12]	**dzi**^{33}
Yi Nanjian			ɣo^{21} **dʐy**^{55}
Yi Nanhua	**ɣɯ**^{33}mA^{21}		**dzɯ**^{33}
Yi Mile (Axi)			**tsi**^{33}
Yi Mojiang			**dzɯ**^{21} gɯ^{21}
Yi Dafang	**ɣɯ**^{21}	**ɣɔ**^{13} mo^{55}	**thɯ**^{33} [13]
Lisu	**ɣo**^{33} / **vɛ**-ti^{55} [14]	[he^{31} khi^{31}]	kho^{31}**dze**^{33}
Naxi Lijiang˅	**gv**^{31}		**ndzo**^{31}
Naxi Yongning			**dzo**^{33}
Hani Biyue	ɔ^{31} **je**^{55}		**tse**^{33} kv^{31}
Hani Dazhai (Luchun)	xa^{31} **ɔ**^{55}		lɔ^{55} **dzɔ**^{55}
Hani Shuikui (Mojiang)	xɔ^{31} **v**^{55}	**ɣu**^{31} mɔ^{33}	**tɕhɔ**^{31}
Akha	k'a˯ **hm**˅		law˅ **dzm**˅
Jinuo	a^{33} **ø**^{44}		khʁa^{33} **tshɛ**^{33}
Gazhuo			**tsɛ**^{33}
Yi Sani	**ɣɯ**^{33}	[ɿ^{11} pɿ^{44}]	**tsɤ**^{33}
Yi Wuding	**je**^{11} mɒ^{55}		**ntshe**^{11}
Yi Weishan		[hɿ^{21} mɑ^{33} dzɿ^{33}]	ɣo^{21} **dʐy**^{55}
Nusu (Bijiang)	**ua**^{33}	**va**^{31} lɔ^{53}	gu^{55} **dza**^{33}

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[11]Lahu here has initial **ɣ-**, instead of the usual **v-** reflex of ***w-**, since Lahu does not tolerate syllables of the shape **vo**. Several Lahu words (including some loans from Burmese) show alternation between **ɣ-** and **v-**. See Matisoff 1973:9.

[12]There is a separate root PLB ***ʔwik** 'stomach' [TSR #176] that may underlie the Xide, Lisu, Weishan, and Sani forms for BELLY.

[13]Note the deaffrication of the initial, as in Mpi (see Matisoff 1978). But HAIR in Dafang is affricated.

[14]The former form is from ZMYYC, the latter from TBL. Both are varieties of the Lisu of Fugong District, Nujiang County.

	EAR/SPIKE/PANICLE of GRAIN[15] *s-nam¹	DARE[16] *wam³
Lahu (Black)	ɔ̀-**nu**	
Yi Xide	**n̥i**³³	
Yi Nanjian	**ny**⁵⁵	
Yi Nanhua	**nɯ**³³	
Yi Mile (Axi)		
Yi Mojiang	**ne**⁵⁵	
Yi Dafang	**nɯ**³³	
Lisu	e⁵⁵ **ni**³³, e⁵⁵ **ne**³³	
Naxi Lijiang˘		
Naxi Yongning	**n̡u**³¹	
Hani Biyue	ɔ³¹ **ne**⁵⁵	
Hani Dazhai (Luchun)	a⁵⁵ **nɔ**⁵⁵	
Hani Shuikui (Mojiang)	tʃhɛ⁵⁵ **n̥ʅ**⁵⁵	
Akha		
Jinuo	ko³³**nɛ**⁴⁴	
Gazhuo	tshɛ³³ **nɛ**²⁴	
Yi Sani	**nɤ**⁴⁴	
Yi Wuding	**ne**³³	
Yi Weishan	**ʔny**⁵⁵ / ʔy⁵⁵	
Nusu (Bijiang)	**n̥a**³³	**va**³¹

	FATHOM *s-lam¹	FENCE/GARDEN *kram¹	FLY (v.) *byam¹
Lahu (Black)	**lɔ̀**	**kho**	**pɔ̀**
Yi Xide	**li**³³	**xo**³³gu⁴⁴	**dʑi**³³
Yi Nanjian		**tɕhy**⁵⁵	**by**⁵⁵
Yi Nanhua	**lɯ**³³		**dɯ**³³ (also biu³³)
Yi Mile (Axi)	**ɬɯ**³³	gu⁵⁵ **khɯ**³³	**ʈi**³³
Yi Mojiang	**le**²¹	go²¹ **tsho**²¹	**be**²¹
Yi Dafang	**lɯ**²¹		**ɖʐ**²¹
Lisu			**dʒe**³³ (also bi³³)
Naxi Lijiang	**ly**³¹	xo³¹phe⁵⁵**kho**³¹	**mbi**³¹
Naxi Yongning		tsha³³ **khuɑ**¹³	**dze**¹³
Hani Biyue	**le**⁵⁵	ja⁵⁵ **khe**⁵⁵	**pe**⁵⁵
Hani Dazhai (Luchun)	**lɔ**⁵⁵		**bjɔ**⁵⁵
Hani Shuikui (Mojiang)	**lu**⁵⁵	xɔ⁵⁵ **khu**⁵⁵	**pu**⁵⁵
Akha	**lm**˘	**km**˘ ceh˘	
Jinuo	**ɬɛ**³³	a³³ke³³ **khɛ**³³	**pʁɛ**³³
Gazhuo	**lɛ**²⁴		**phɤ**³¹
Yi Sani	**lɤ**³³	**khɯ**³³ ɚ³³	**tɬʅ**³³
Yi Wuding	**le**¹¹		**ɖe**¹¹
Yi Weishan		**chy**⁵⁵	**by**⁵⁵
Nusu (Bijiang)	**la**³³	**khɹa**³³	**bia**³³

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[15]This is an excellent etymon that must be set up at the PTB level. Cf. Proto-Tamang-Gurung-Thakali-Manang **ᴬʰnam** (Mazaudon 1996).

[16]This etymon is sparsely attested in Loloish.

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	HAIR (head) *cham^1	IRON *syam^1	OTTER[17] *s-/p-yam^1 < PTB *sram
Lahu (Black)	[cɨ-khɛ-mu]	šo	g̈ɨ-šo-lo
Yi Xide		ʂɯ^{33} du^{33}	ʂo^{33}
Yi Nanjian	u^{21} tɕhy^{55}	xy^{55}	
Yi Nanhua	u^{55}tshɯ^{33}	xɯ^{33}	zi^{21} ʂi^{33}
Yi Mile (Axi)	o^{55}tshi^{33}	xɯ^{33}	
Yi Mojiang	ŋu^{33} tɕhe^{21}	ɕe^{21}	zi^{21} ɕe^{55}
Yi Dafang	o^{33}tshɯ^{33}	xɯ^{21}	zi^{21} sɹ^{33}
Lisu	o^{55}tshe^{44}	xo^{44}	
Naxi Lijiang		ʂu^{31}	ʂu^{31}
Naxi Yongning		ʂe^{33}	ʂuɑ^{33}
Hani Biyue	tshe^{55} khɣ^{55}	se^{55}	ɣ^{55} se^{55}
Hani Dazhai (Luchun)[18]	tshe^{55} kho^{55}	sɔ^{55}	ɯ^{55} sɔ^{55}
Hani Shuikui (Mojiang)	tshe^{55} khu^{55}	ʃu^{55}	ɣɯ^{55} ʃu^{55}
Akha		shm˅	uǐ shm˅ ~ ǐ shm˅
Jinuo	tshɛ khɯ^{33}	ɕɛ^{42}	ɕɛ^{42}
Gazhuo		sɛ^{33}	
Yi Sani	o^{55} tshɣ^{33}	xɯ^{33}	z̊^{33} ʂɣ^{44}
Yi Wuding		ɕe^{11}	ji^{11} se^{33}
Yi Weishan	ʔy^{21} tɕhy^{55}	ɕy^{55}	
Nusu (Bijiang)	tsha^{33}	ʂa^{33}	ŋa^{55} dza^{55}

Hani Dazhai and Shuikui HAIR is apparently not from ***tsam**, but from the cognate to Lahu **cɨ-**.

	ROAD *lam^2 ⚔ ^{3}	SESAME[19] *s-nam^2	SMELL *nam^1 ⚔ ^{2} ⚔ ^{3}
Lahu (Black)	[lo 'loc. prt. < *^{3}]	nū	nù
Yi Xide			ni^{21}
Yi Nanjian			ny^{21}
Yi Nanhua			nɯ^{55}
Yi Mile (Axi)			nɯ^{21}
Yi Mojiang			nɯ^{21}
Yi Dafang			bi^{55}nɯ^{33}
Lisu			tʃhɹ^{31}nu^{33}
Naxi Lijiang			nv^{31}
Naxi Yongning			bv^{33} nv^{33}
Hani Biyue			ne^{55}
Hani Dazhai (Luchun)			nɔ^{55}
Akha		nm˰ [20]	
Jinuo			nɛ^{42} tjɛ^{33}
Gazhuo			nɛ^{31}

[17]The first elements in all the compounds except Nusu mean WATER < PLB ***rəy^1**.

[18]The bolded syllables in Hani Dazhai and Shuikui are apparently not from ***tsam**, but rather from ***n-dzi-k**.

[19]Unfortunately this item is missing both from ZMYYC and TBL.

[20]The tone here is irregular, pointing to a *LOW stopped provenience instead of *2 (as elsewhere in LB).

Yi Sani	nɣ¹¹
Yi Weishan	ny²¹
Nusu (Bijiang)	nɔ³³

2.51   BRIDGE and WEDGE

In most Loloish languages the reflexes for WEDGE are very similar to those for BRIDGE, except for tone and the manner and/or position of articulation of the initial affricate: Identical reconstructions except for tone and (I now believe) type of affricate:

	BRIDGE *n-dzam¹	WEDGE *n-džam²
Lahu (Black)	cò	jû
Yi Xide	dzi³³	ndʐo³³
Yi Nanjian	ɣo²¹ dʑy⁵⁵	dʑy²¹
Yi Nanhua	dzɯ³³	çi̯³³ dʐɯ²¹
Yi Mile (Axi)	tsi³³	dʐi²¹ bu̯³³
Yi Mojiang	dzɯ²¹ gɯ²¹	çi̯³³ dʑe³³
Yi Dafang	thɯ³³²¹	
Lisu	kho³¹dze³³	dʒo³¹ tʃhɛ·⁵⁵
Naxi Lijiangˇ	ndzo³¹	
Naxi Yongning	dzo³³	
Hani Biyue	tse³³ kv³¹	
Hani Dazhai (Luchun)	lɔ⁵⁵ dzɔ⁵⁵	tsha³¹ tshɔ³¹
Hani Shuikui (Mojiang)	tɕɛ³³ kv̩³¹	tɔ³¹ tʃhu³¹ (ZMYYC); tɔ³¹ tʃu³¹ (TBL)
Akha	lawˇ dzmˇ	
Jinuo	khʁa³³ tshɛ³³	zɛ⁴² (ZMYYC); zɛ³¹ (TBL)
Gazhuo	tsɛ³³	sɿ³⁵ tsɛ³¹
Yi Sani	tsɣ³³	sz̩⁴⁴ dʐɣ¹¹
Yi Wuding	ntshe¹¹	ŋtʂhe³³
Yi Weishan	ɣo²¹ dʑy⁵⁵	bɑ²¹ dʑy²¹
Nusu (Bijiang)	gu⁵⁵ dza³³	tʂa⁵⁵

For some speculations as to a possible semantic interconnection between WEDGE and BRIDGE, see below.

2.6   Lahu Reflexes of *-am etyma

BEAR	[yɛ̀-mí-tɔ́]
BELLY	ğɔ̂-pè
BRIDGE	cò
DARE	----
EAR/SPIKE (of grain)	ɔ̀-nu
FATHOM	lò
FLY	pò
GARDEN/FENCE	kho
HAIR (of head)	----
IRON	šo
OTTER	ğɨ-šo-lo

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[21]Note the deaffrication of the initial, as in Mpi (see JAM 1978). But HAIR is affricated. Could there be a typo?

ROAD	[lo 'locative particle' < *³]
SESAME	nū
SMELL	nù
WEDGE	jû

The most common Black Lahu reflex of ***-am** is **-o**. However, the regular reflex of ***-am** after **n-** is clearly **-u**, with three excellent examples (SESAME, SMELL, EAR/SPIKE of GRAIN).[22] Furthermore, exactly paralleling WEDGE is the word **jū-qō ~ jō-qō** 'blacksmith's bellows' [DL 569, 574], with **j-** initial and variation between **-o** and **-u**. In fact there is considerable alternation between Black Lahu **-o** and **-u** (e.g. **tòʔ** 'burn' ≍ **tú** 'set on fire', etc.; see GL, pp. 12-13). Even the ethnonym for Lahu is often written Ladhol (i.e. Lâhō) in China.

The rhyme of BEAR is irregular, perhaps because of the preempted **-w-** (<PTB ***d-wam**).

2.7   *Reflexes in other Loloish languages (in alphabetical order)*

Akha	-m̩	BEAR, BRIDGE, FATHOM, GARDEN/FENCE, IRON, OTTER, SESAME
Gazhuo	-ɛ	BRIDGE, EAR/SPIKE, FATHOM, IRON, SMELL, **WEDGE**
	-ɣ	FLY
Hani Biyue	-e	BEAR, BRIDGE, EAR/SPIKE, FATHOM, FLY, GARDEN/FENCE, HAIR, IRON, OTTER, SMELL
Hani Dazhai (Lüchun)	-ɔ	BEAR, BRIDGE, EAR/SPIKE, FATHOM, FLY, IRON, OTTER, SMELL, **WEDGE**
Hani Shuikui (Mojiang)	-u	FLY, EAR/SPIKE, GARDEN/FENCE, IRON, FATHOM, OTTER, **WEDGE**
	-ɣ̩	BEAR
Jinuo	-ɛ	BRIDGE, EAR/SPIKE, FATHOM, FLY, GARDEN/FENCE, HAIR, IRON, OTTER, SMELL, **WEDGE**
Lisu	-o	BEAR, IRON, **WEDGE**
	-u	SMELL
	-e	BRIDGE, EAR/SPIKE, FLY, HAIR
Naxi Lijiang	-u	IRON, OTTER
	-v	BEAR, SMELL
	-o	BRIDGE, GARDEN/FENCE
	-y	FATHOM
	[-uɑ	**WEDGE**]

One might think this form for WEDGE comes from ***sap** [see 4.2 below], but two forms from ***-am** in Naxi Yongning have the same reflex:

Naxi Yongning	-o	BRIDGE
	-e	FLY, IRON
	-uɑ	GARDEN/FENCE, OTTER
	-v	SMELL
	-u	EAR/SPIKE

---

[22]A fourth example is SNOT (Lh. nú) from a stopped prototype ***s-nap**, with the high-rising tone /´/ derived by dissimilation from a doubly glottalized pre-Lahu ***ʔ-naʔ**. The usual Lahu reflex of ***-ap** is **-oʔ**. See Matisoff 1972, p. 61.

Nusu (Bijiang)	-a	BEAR, BELLY, BRIDGE, DARE, EAR/SPIKE, FATHOM, FLY, GARDEN/FENCE, HAIR, IRON, OTTER, **WEDGE**
	-ɔ	SMELL
Yi Dafang	-ɯ	BEAR, BRIDGE, EAR/SPIKE, FATHOM, HAIR, IRON, SMELL
	-ɔ	BELLY
	-ɭ	FLY, OTTER
Yi Mile (Axi)	-i	BRIDGE, FLY, HAIR, **WEDGE**
	-ɯ	FATHOM, GARDEN/FENCE, IRON, SMELL
Yi Mojiang	-e	EAR/SPIKE, FATHOM, FLY, HAIR, IRON, OTTER, **WEDGE**
	-ɯ	BRIDGE, SMELL
	-o	GARDEN/FENCE
Yi Nanhua	-ɯ	BEAR, BRIDGE, EAR/SPIKE, FATHOM, FLY, HAIR, IRON, SMELL, **WEDGE**
	-i	OTTER
Yi Nanjian	-y	BRIDGE, EAR/SPIKE, FLY, GARDEN/FENCE, HAIR, IRON
Yi Sani	-ɤ	BRIDGE, EAR/SPIKE, HAIR, FATHOM, OTTER, SMELL, **WEDGE**
	-ɯ	BEAR, IRON, GARDEN/FENCE
	-ɿ	FLY
Yi Weishan	-y	BRIDGE, EAR/SPIKE, FLY, GARDEN/FENCE, HAIR, IRON, **WEDGE**
Yi Wuding	-e	BEAR, EAR/SPIKE, BRIDGE, FATHOM, FLY, IRON, OTTER, **WEDGE**
Yi Xide	-o	BEAR, GARDEN/FENCE, OTTER, **WEDGE**
	-i	BELLY, BRIDGE, EAR/SPIKE, FATHOM, FLY, SMELL
	-ɯ	IRON

Eleven languages/dialects have quite regular phonological developments here. Seven others (Lisu, Naxi Lijiang, Naxi Yongning, Yi Mile, Yi Mojiang, Yi Sani, Yi Xide) have some unexplained phonological developments of the ***-am** rhyme. As adumbrated above, there are no fewer than 15 Loloish reflexes of this rhyme, sprawled all over vocalic space:

i	y		ɭ	ɯ	ʅ	u	uɑ
ɪ				ɤ			
e						o	
ɛ						ɔ	
		a			m̩		

3.0   *Etymological possibilities for Pumi* tsó 'wedge'

We are on much shakier ground when trying to deal with Qiangic words for WEDGE. Forms for WEDGE have been recorded for at least five dialects of Pumi:

Pumi (Dàyáng)	**tsó** [ts^{w}o^{55}]	JAM fieldnotes
Pumi (Jinghua)	**tso^{55}**	ZMYYC, p. 783
Pumi (Jiulong)	**tso^{35}**	TBL, p. 207
Pumi (Lanping)	**siɛ̃^{13} dzə^{55}**	TBL, *ibid.*
Pumi (Taoba)	**sɛ̃^{35} kuɛi^{53}**	ZMYYC, *ibid.*

The latter two are obvious loans from Chinese, the Lanping form apparently from the SW Mandarin pronunciation of **xiēzi** 'wedge', and the Taoba form perhaps from a compound like Mand. **xiē-guǐ** 'wedge gauge'.[23] It is the other, presumably native word (e.g. Dayang **tsó**) that is of particular interest in connection with the Lolo-Burmese forms just discussed:

Taking what one might call the "bottom-up" approach, one could look at other Dayang words with the **-o** rhyme and see where they come from. Here too, however, the situation is not clear, with at least four attested velar-rhyme proveniences:[24]

*-ak	CHICKEN	PTB ***k-rak**	(STC p.88; TSR #184)	Dayang **ró**
	BOIL/COOK	PTB ***s-klak**	(STC #124; TSR #61)	Dayang **xó**, **χqó**
	RAT	PTB ***k-r-wak**	(STC p.107; TSR #188)	Dayang **wó**
*-ok	YEAR	PTB ***kok**	(TSR #34)	Dayang **kó**
	BACK	PTB ***s-nok/ŋ**	(STC #354; TSR #155)	Dayang **nǒ**
*-oŋ	TIGER	PTB ***s-roŋ**	(STC p. 107)	Dayang **wǒ**
	PEACOCK/ PHEASANT	PTB ***m-doŋ**	(STC #341)	Dayang **qò dǒ** 'pheasant'
*-aŋ	MOUNTAIN	PTB ***s-gaŋ**	(DL, p. 299)	Dayang **gǒ**

But can Pumi Dayang **tsó** be related to PLB ***N-džam²** ? Several other Qiangic languages have words for WEDGE that are phonologically similar to the Pumi and LB forms, e.g. Namuyi **ʂo^{35}** / **ʂuo^{35}**, Lusu **ndze^{35}**, Queyu **tsə^{53}**, etc. Are these relatable to Pumi **tsó** and/or to our LB etymon ***N-džam²** ?

In order to decide these questions, we will have to figure out what the regular reflexes of the PTB ***-am** rhyme are in Pumi and the other Qiangic languages.

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[23]It is not clear why the first syllables of these words have nasalized vowels.

[24]Note that the three examples of ***-ak** > Pumi **-o** are all etyma with **-r-** or **-l-** in the initial cluster, and -- apparently more importantly -- are all in the high tone (symbolized by the acute accent). The most frequent Dayang reflex of ***ak** seems to be **-ɒ**, with at least nine examples, all of them under the low tone (symbolized by a wedge): ASHAMED ***g-yak ≍ *s-rak** > PD **ʃtʃhǒ;** BOWL/CUP ***kwak** > PD **qhwǒ**; DIRTY ***tšak** > PD **tʃǒ**; DROP ***N-dzak** > PD **sthǒ**; HAND ***g-lak** > PD **ʐǒ**; LEAF ***r-pak** > PD **ɸpǒ**; LICK ***m-lyak** > PD **ɖǒ**; PIG ***p-wak** > PD **ptʃhǒ**; WEAVE ***t-(r)ak** > PD **tʂǒ** .

3.1   Qiangic reflexes of exemplary PTB *-am* etyma

Data on the following Qiangic languages and dialects are available:[25]

PT	Pumi (Taoba)	ZMYYC #10
PJH	Pumi (Jinghua)	ZMYYC #11
PJL	Pumi (Jiulong)	TBL #10
PLP	Pumi (Lanping)	TBL #9
PD	Pumi (Dayang)	JAM fieldnotes
QM	Qiang (Mawo)	ZMYYC #8
QT	Qiang (Taoping)	ZMYYC #9
QA	Qiang (Mao, Aba Prefecture)	TBL #8
RGB	rGyalrong (Benzhen)	Jackson Sun fieldnotes
RGC	rGyalrong (Caodeng)	Jackson Sun fieldnotes
RGS	rGyalrong (Suomo)	ZMYYC #12
RGM	rGyalrong (Maerkang)	TBL #11
DF	Daofu (=Horpa = Stau)	TBL #12
EG	Ergong	ZMYYC #14
MYS	Muya (Kangding, Shade)	ZMYYC #15
MYG	Muya (Kangding, Ganzi)	TBL #15
QYY	Queyu (Yajiang) ["Zhábā"]	ZMYYC #16
QYX	Queyu (Xinlong)	TBL #13
ZB	Zhábà	TBL #14
GQY	Guiqiong (Kangding, Yutong)	ZMYYC #17
GQG	Guiqiong (Kangding, Ganzi)	TBL #16
ES	Ersu	ZMYYC #18
LS	Lüsu	TBL #18
NML	Namuyi Muli Luobo	ZMYYC #19
NMM	Namuyi Muli	TBL #46
SXS	[26]Shixing (Shuiluo River)	ZMYYC #20
SXM	Shixing (Muli, Liangshan)	TBL #17

BEAR (ZMYYC #125; TBL #311)[27]   **PTB *d/g-wam**

PT	gũẽ⁵⁵	PJH	uɜ̃⁵⁵	PJL	ŋuẽ³⁵	PD	wéN

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[25]The crosshatched numbers in this list refer to the position of the particular language among all those cited in the sources, e.g. "ZMYYC #10" means that Pumi Taoba is the tenth out of the 52 languages cited in the synonym sets of ZMYYC; "TBL #9" means that Pumi Lanping is the ninth out of the 50 languages cited in the sets of TBL, etc.
[26]These two Shixing dialects are virtually identical.
[27]Here the crosshatched numbers refer to the position of the particular synonym set among the 1004 presented in ZMYYC and the 1822 sets of TBL.

RGM	tə wɑm	RGB	tə-wam?	RGC	preʔ **tom**	DF	dəm
EG	wo	MYS	ʐe³⁵**we**⁵⁵ 28	MYG	re³³ **we**⁵⁵	QYY	wua³⁵
QYX	wɛr¹³	ZB	ȵi⁵⁵ vʐʌ⁵⁵	GQY	ɛ³³**ngui**⁵³	GQG	ã³¹ **gui**⁵⁵
NM	vu⁵⁵	SXS	gĩ⁵⁵	SXM	gĩ³⁵		

BELLY (ZMYYC # 260; TBL # 96)   PTB ***p-wam**

DF	vo	EG	vɛu	MYS	vu³⁵ lø⁵³	MYG	βə³³ lø⁵³
QYY	bu⁵⁵	QYX	lvu⁵⁵ / rvu⁵⁵	ZB	vei¹³		

BRIDGE (ZMYYC #477; TBL #70   **PTB *n-dzam**

PT	dzã³⁵	PJH	dziãu¹³	PJL	dzã³⁵	PD	dzǒuN
QM	tshi	QT	tshie³³dɑ²⁴¹	QA	tshuɑ	RGS	ta **ndzam**
RGM	tɑ **ndzam**	RGB	tɐ-**ndzɐm**	RGC	**ndzem**	DF	dzo
EG	dzo	MYS	ndzo³⁵	MYG	ndzo²⁴	QYY	dzã⁵⁵
QYX	tso⁵⁵	ZB	ptsI⁵⁵	GQY	zɔ̃³³pũ⁵³	GQG	zã pʉ⁵⁵
ES	dzi⁵⁵	LS	dʑe³⁵	NM	dzo⁵⁵	SXS/SXM	zɛ̃⁵⁵

Note that in BRIDGE, **-o** *is* the reflex of ***-am** for several of these languages (Daofu, Ergong, Muya, Queyu Xinlong, Namuyi) - but not for Pumi!

DARE   (ZMYYC #731; TBL #1335)   PQiangic ***s-n-wam** [JAM][29]

PT	wã⁵⁵	PJH	nuɑ⁵⁵	PJL	nuɑ⁵⁵	PD	nóN
RGS	kha **nos**	RGM	kɑ **nos**	RGB	ka-**noʔs**	RGB	kɐ/nɐ-**nos**
DF	znə	EG	snɯu	MYS	nɐ⁵⁵	MYG	nø⁵³
QYY	ŋu⁵³	ZB	nʌ¹³	GQY	ji⁵⁵ ȵyi³⁵	GQG	ȵy³⁵
ES	ȵo⁵⁵	LS	ʂu⁵³ 30	NM	ŋa³³	SXS	ɦɔ̃³⁵
SXM	ɦõ⁵³						

The rGyalrong forms may not be cognate: why final **-s** instead of **-m**?

EAR/SPIKE of GRAIN   (ZMYYC #229; TBL #407)   PTB ***s-nam**

RGB	khə-**ʃnɐm**	RGC	kə-**ʃnəm?**	QYX	çnoŋ¹³		
PT	ŋi⁵³	PJH	ȵiə⁵⁵	PLP	ŋiə⁵⁵	PJL	ŋɛ̃⁵⁵
EG	sno-ʐmɛ	ES	ndzo³³ ndzo⁵⁵				

There is another root ***s-nye** (cf. WT **snye**-ma ⋉ **snyi**-ma), which may underlie the following syllables:

QYY	ʂa³⁵ ȵe⁵³	ZB	ne³³ dʑi⁵⁵	SXM	hã⁵³ ȵi³³	SXS	hɑ⁵⁵ nɯi³³

FATHOM   (ZMYYC #959; TBL #899)   **PTB *lam** *(perhaps > PQiangic *g-lam)*

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[28]For thefirst syllable of MY ʐè³⁵ we⁵⁵ see the first syllable of Lahu **yὲ**-mí-tɔ̄.

[29]This etymon is reconstructed as PTB ***hwam** in STC #216, on the basis of forms from Lushai, Jingpho, and WB. The root is also represented by Proto-Tamang ***wam** 'coax' (Mazaudon **REF**.)

[30]Perhaps with preemption by the outer, sibilant prefix (i.e. < ***s-wam**).

PT	tə³⁵**ji⁵⁵**	PJH	tə⁵⁵**iɛ̃⁵⁵**	PJL	tə⁵⁵**iɛ̃⁵⁵**	PD	**yíN**
QM	**zɣ**	QT	**ʐi²⁴¹**	QA	ɛ **zɛ**	RGS	tə kc**çam**
RGM	kc**çam**	DF	a **çho**	EG	**gʐɛl** (? < gʐɛ-l)		
MYS	tɛ³⁵**de³⁵**	MYG	tʋ **de⁵³**	QYY	tə³⁵**lõ⁵⁵**	QYX	tɯ⁵⁵ **lu⁵⁵**
ZB	tɛ⁵⁵ **li⁵⁵**	GQY	tɑ³³**xɔ̃⁵³**	GQG	tɑ³¹ **hõ⁵⁵**	ES	**lio⁵⁵**
LS	te⁵⁵ **liu⁵³**	NML	**ɬy⁵⁵**	NMM	**ɬu⁵³**	SXS	**ji⁵⁵**
SXM	dzi³³ **jɛ̃⁵⁵**						

FLY/RUN [31] (ZMYYC #782; TBL #1318) PTB ***byam** > PQiangic ***N-byam**

PT	khə³⁵ **bẽ³⁵**	PJH	khə¹³ **bʒɛ̃¹³**	PJL	**bʒɛ̃¹³**	PD	**b(d)ʒiN**
QM	**gzi**	QT	**dʐe²⁴¹**	RGS	ka **bjam**	RGM	kɑ **bjam**
RGB	**ka-nbjam**	RGC	kʋ-qʋ-**lnbjəm?**	DF	**bjo**	EG	**bʐo** la
MYS	**ndʑye³⁵**	MYG	thi³³ **ndʑue⁵⁵**	QYY	tə³⁵ **de⁵⁵**	QYX	**rde¹³**
ZB	tə⁵⁵ **mdzI⁵⁵**	GQY	**phʉ⁵⁵**	GQG	**phu³¹**	LS	**bʐe³⁵**
SXS	bu³³ **zĩ⁵⁵**	SXM	**dʑɛ̃⁵⁵**	NMM	mi³³ **ndʐu⁵⁵ ndʐu⁵⁵**		

GARDEN (ZMYYC #366; TBL #522) **PTB *kram**

PT	**kho⁵⁵**rɛ⁵³	PJH	ŋɑ¹³**qhe¹³**	PJL	**gi¹¹** tsˌ⁵⁵	PD	**ʈhɔ̆** [32]
QM	**ku**z (< ku-z)	QT	tshie⁵⁵ **kie³³**	QA	tsɛ **kʉ**	DF	skə∘**rjo**
ZB	**xo⁵⁵** ji⁵⁵	NM	dzɛ³³ **ntshu⁵⁵** qhɛ꜒⁵⁵			SXS	**hɔ̃⁵⁵**jĩ³³

FENCE (bamboo, twig) (TBL #521) /same etymon as GARDEN/

DF	**rjo**	MYG	**tʂhæ⁵³**	QYX	**ntʂho⁵⁵**	LS	**tʂhɯ⁵³** dzʉ⁵³
SXM	**qu⁵⁵**						

HAIR (ZMYYC #234; TBL #75) **PTB *tsam**

ES	**tsi⁵⁵**	ZB	gu³³ **tshɿ⁵⁵**	LS	**tɕe³¹**

Most Qiangic words for HAIR descend from other roots, e.g. ***skra** (STC #115), ***ney** (STC #292), ***mul** (STC #2).

IRON (ZMYYC #38; TBL #54) **PTB *syam**

PT	**çi⁵⁵**	PJH	**ʂɔ̃⁵⁵**	PJL	**ʂɛ̃⁵⁵**	PD	**ʃiN**
QM	**su¹** mu	QT	**çi⁵⁵**	QA	**su:¹** mu	RGS	**ʃam**
RGM	**ʃam**	RGB	**ʃam?**	RGC	**ʃəm?**	DF	**tɕo**
EG	**tɕo**	MYS	**çe⁵³**	MYG	**çe⁵³**	QYY	**çã⁵⁵**
QYX	**ço⁵⁵**	ZB	**çi⁵⁵**	GQY	**ʃɔ̃⁵³**	GQG	**ʃã³¹**
ES	**ʂɛ⁵⁵**	LS	**ʂɯ⁵³**	NM	**ʂu⁵³**	SXS	**ʂã³⁵**
SXM	**ʂõ³⁵**						

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[31]This root often means RUN in Qiangic.

[32]The initial reflex here is quite regular (see Matisoff 1996 for many parallel examples); but the rhyme is irregular with respect to all the other ***-am** reflexes in Dayang.

OTTER (ZMYYC #133, TBL #317) PTB ***sram**

PT	**x$\tilde{\text{i}}^{55}$**	PJH	**skhɛ̃^{55}**	PJL	**ʂɛ̃^{55}**	QM	**ɣdʐi**

PT **x$\tilde{\text{i}}^{55}$** PJH **skhɛ̃^{55}** PJL **ʂɛ̃^{55}** QM **ɣdʐi**

QT [tsuə^{33}ma^{31}n̠y^{33}] ^{33} QA **ɣdʐ əɚ** RGS tʃə **ʃram** RGM tʃhə **sram**

RGB **ʃram** RGC **ʃəm?** DF **ʂsəm** EG **sʐɛm**

MYS **dzyə̠^{35}** MYG **dzuə̠^{24}** QYY **sõ^{53}** QYX **ʂsɛ^{55}**

ZB tʌ^{33} **ʂi^{33}** GQY wi^{55}**zɿ^{53}** GQG tʃhə^{55} **sã^{55}** ES **ʂɿ^{55}** ji^{55} ^{34}

LS **ʂe^{35}** SXS **ʂɛ̃^{55}** SXM **ʂɛ̃^{55}**

SMELL V. (ZMYYC #548; TBL #1707) PTB ***s-nam**

PT **xə^{35}n̥õ^{35}** PJH **xə^{13}ɲiə^{55}** PJL **xə^{13}ɲiə^{55}** PD **m̥ɛ́N**

RGC kɐ-nɐ-**mnəm?** DF **no** EG **snɯ** no MYS khɯ^{55}**nɯ^{53}**

MYG khi^{33} sø^{55} **næ^{33}** QYY tə^{35}lu^{55}**nũ^{55}** QYX **ʂnoŋ^{13}** ZB ŋʌ^{33} **mnI^{55} mnI^{33}**

SXS by^{55}**n̥o^{55}** SXM hũ^{55} **nu^{55}**

The SXM form seems to indicate that a number of other syllables in **h-** belong to a different etymon than ***s-nam**:

GQY **xũ^{55}xũ^{33}** GQG ji^{35} **hɔ̃^{55}** ES **hĩ^{55}hĩ^{55}** LS te^{53} **hũ^{53} hũ^{31}**

NM **hĩ^{33}hĩ^{55}**

WHITE (ZMYYC #840; TBL #1006) PQiangic ***pram** ^{35}

PT **phʐã^{55}** mə^{53} PJH **phʐɔ̃^{55}** PLP **phʂɔ̃^{55}** PJL **phʐi^{55}** lø^{55} lø^{11}

PD **phʂɛ́N** QM **phi** QT **phʐi^{55}** QA **phɹɪʂ** (< phɹɪ-ʂ)

RGS kə **pram** RGM kə **pram** RGB kə-**pram** RGC kə-**ɣrəm?**

ZB **ptʂhi^{55} ptʂhi^{55}**

The following forms look as if they descend from a distinct etymon, PTB ***plu** [STC pp. 60-1].

DF **phru phru** EG **phʂɯ phʂu** MYS **tʂhø^{55} tʂhø^{33}** MYG **tʂhø^{53} tʂhø^{33}**

QYY **tʂhõ^{55} tʂhõ^{55}** QYX **ptʂho^{55} ptʂho^{33}** GQY **ʂɔ̃^{55}** ma^{55} GQG **ʂã^{55}** ma^{55}

NM **phu^{55}** lu^{55} SXS **phu^{33}** SXM **phu^{33} tɕi^{33} tɕi^{55}** SXM **phu^{33}** tɕi^{33} tɕi^{55}

3.2 *Pumi reflexes of exemplary PTB *-am sets*

A quick look at the Pumi reflexes of these etyma from PTB ***-am** makes it clear that Pumi **tso** cannot possibly be related to PLB ***N-džam²**, thus answering in the negative the question posed above in 3.0 (a):

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[33]This compound means literally "water-cat" (pers. comm., Jonathan P. Evans).

[34]Judging from the Lusu and Shixing forms, it is the first syllable of this compound which is the cognate; but it is apparently the Guiqiong second syllables which are cognate.

[35]This root has not been discovered in Lolo-Burmese.

PT (Taoba); PJH (Jinghua); PJL (Jiulong); PLP (Lanping); PD (Dayang)

BEAR   PTB ***d/g-wam**

PT   **guẽ⁵⁵**   PJH   **uə̃⁵⁵**   PJL   **ŋuẽ³⁵**   PD   **wέN**

BRIDGE   PTB ***n-dzam**

PT   **dzã³⁵**   PJH   **dziᾶu¹³**   PJL   **dzã³⁵**   PD   **dzŏuN**

DARE   PQiangic ***s-n-wam**

PT   **wã⁵⁵**   PJH   **nuɑ⁵⁵**   PJL   **nuɑ⁵⁵**   PD   **nóN**

DRAW WATER   PTB ***kam ≍ *kap**[36]

PJL   **tʃə⁵⁵ khẽ⁵⁵**

EAR/SPIKE of GRAIN   PTB ***s-nam**

PT   **ŋi⁵³**   PJH   **ŋ̩iə⁵⁵**   PLP   **ŋ̩iə⁵⁵**   PJL   **ŋ̩ẽ⁵⁵**

FATHOM   PTB ***lam** *(perhaps > PQiangic *g-lam)*

PT   **tə³⁵ji⁵⁵**   PJH   **tə⁵⁵iẽ⁵⁵**   PJL   **tə⁵⁵iἕ⁵⁵**   PD   **yíN**

FLY/RUN   PTB ***byam**

PT   **khə³⁵ bẽ³⁵**   PJH   **khə¹³ bʒẽ¹³**   PJL   **bʒẽ¹³**   PD   **b(d)ʒĩN**

IRON   PTB ***syam**

PT   **çi⁵⁵**   PJH   **ʂə̃⁵⁵**   PJL   **ʂẽ⁵⁵**   PD   **ʃĩN**

OTTER   PTB ***sram**

PT   **xi⁵⁵**   PJH   **skhẽ⁵⁵**   PJL   **ʂẽ⁵⁵**

SMELL   PTB ***s-nam**

PT   **xə³⁵ŋ̩õ³⁵**   PJH   **xə¹³ŋ̩iə⁵⁵**   PJL   **xə¹³ŋ̩iə⁵⁵**   PD   **m̥έN**

WHITE   PQiangic ***pram**

PT   **phʐ̩ã⁵⁵ mə⁵³**   PJH   **phʐ̩ə̃⁵⁵**   PLP   **phʂə̃⁵⁵**   PJL   **phʐ̩ĩ⁵⁵ lø⁵⁵ lø¹¹**

PD   **phʂέN**

      As these sets show, almost all Pumi reflexes of ***-am** etyma have nasalized vowels. In Dayang, the reflexes include **-eN** (BEAR; DRAW WATER; WHITE), **-iN** (FATHOM; FLY/RUN; IRON), **-εN** (SMELL), and **-ouN** (BRIDGE). Dayang forms are lacking for

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[36]See STC #336 and n. 226; TSR #39. STC only sets up the allofam with final stop ***kap** (underlying, e.g. WB **khap**); the variant ***kam** is directly attested by forms like Lahu **qho** and Zaiwa **kham⁵¹**.

EAR/SPIKE and OTTER, but the Jiulong dialect has **-eN** (written **-ẽ**) for both. The Dayang form for DARE has **-ɒN**, but that set is a bit problematical.

3.3   Other Qiangic words for WEDGE

Several other forms for WEDGE in Qiangic languages bear a surface similarity to Pumi **tso**, but they must be individually scrutinized, since several etymological possibilities exist for each one of them. First let us just present them in an alphabetical list[37] :

Daofu	(DF)	**zav**
Ersu	(ES)	**ndzi⁵⁵**
Guiqiong[38]	(GQG)	**ze³⁵**
Lusu	(LS)	**ndze³⁵**
Muya (=Minyak)	(MYS)	**tshɯ³³** *zɐ⁵⁵*
Muya	(MYG)	**tshə³³** zɐ̰⁵³
Namuyi Muli Luobo	(NML)	**ʂo³⁵**
Namuyi Muli	(NMM)	**ʂuo³⁵**
Pumi (Lanping)	(PLP)	siɛ̃¹³ **dzə⁵⁵**

/Despite the nasalization of the first syllable, his form looks like a loan from Chinese (Mand. **xiēzi**)./

Qiang Aba	(QA)	qɛ **sɛ**
Qiang (Taoping)	(QT)	sie³³ **tɕhy³³**
Queyu Yajiang ("Zhábā")	(QYY)	**tsə⁵³**
Queyu Xinlong	(QYX)	**ʂsa³⁵**
rGyalrong	(RGS; RGM))	**tɐ cɕhə**
rGyalrong Benzhen	(RGB)	**tɐ-tʃhə**
rGyalrong Caodeng	(RGC)	**tɐ-mtʃʰi**
Shixing	(SXS)	**ʂɑ̃⁵⁵**
Shixing	(SXM)	**ʂõ⁵³**
Zhábà	(ZB)	**cɕhʌ¹³**

Several of these forms bear a *prima facie* resemblance to PLB ***N-džam²** (above), especially those with prenasalized initials (Ersu, Lusu, rGyalrong Caodeng):

*Lusu **ndze³⁵**   'wedge'*
        The same reflex **-e** occurs in Lusu BRIDGE, FLY, HAIR, OTTER:
                Lusu **dʑe³⁵**   'bridge'
                Lusu **bʑe³⁵**   'fly'
                Lusu **tɕe³¹**   'hair'

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[37]forms taken from ZMYYC #413 (p. 783) and TBL #620 (p. 207).
[38]The Guiqiong form cited in ZMYYC (GQY), **ɕe³³ tsɿ³³**, is an obvious loan from Chinese (cf. Mand. **xiēzi**).

Lusu **ʂe³⁵** 'otter'

Other Lusu reflexes of ***-am** etyma include: **ɯ** (IRON, FENCE) and **iu** (FATHOM).
For another possible etymology of Lusu **ndze³¹**, see below.

Ersu **ndzi⁵⁵** *'wedge'*

The same reflex **-i** occurs in Ersu BRIDGE:

Ersu **dzi⁵⁵** 'bridge'

However, other Ersu reflexes of ***-am** etyma include: **ɻ** (OTTER), **o** (EAR/SPIKE), **io** (FATHOM), and **ɛ** (IRON).

The *rGyalrong* forms, despite the prenasalization in Caodeng, cannot be related to our PLB etymon, since ***-am** is generally preserved as such in rGyalrong dialects.

The rhymes of the *Namuyi* forms are also consistent with an ***-am** origin:

Namuyi Muli Luobo (NML) **ʂo³⁵**, *Namuyi Muli* (NMM) **ʂuo³⁵** [39]

The same reflex **-o** occurs in Namuyi BRIDGE:

Namuyi **dzo⁵⁵** 'bridge'

Other Namuyi reflexes of ***-am** etyma include: **u** (IRON, BEAR, GARDEN), and **-y** (FATHOM).

The *Guiqiong* (GQG) form **ze³⁵** looks very much like Lusu **ndze³¹**, that we have already assigned to ***N-dzam**. However, Guiqiong does not have **-e** as the reflex of any other ***-am** etymon. Rather, the unruly Guiqiong reflexes of ***-am** include **ɔ̃** (BRIDGE, FATHOM, IRON), **ɻ** (OTTER), **ui** (BEAR), and **ʉ** (FLY). An alternative proposal for the origin of this Guiqiong form is given below.

The remaining forms for WEDGE in our list (Muya, Qiang, Queyu, Shixing, Zhaba) similarly show no particular rhyme similarities to established ***-am** etyma:

Muya (MYG) **tshə³³** zɐ⁵³ , (MYS) **tshɯ³³** zɐ⁵⁵

The same MYS reflex **-ɯ** occurs in only one ***-am** etymon:

Muya (MYS) khɯ⁵⁵ **nɯ⁵³.**

Muya reflexes of ***-am** etyma include: **-e** (BEAR, FATHOM, FLY, IRON), **-o** (BRIDGE), **ɐ** / **ə** (OTTER).

Qiang (QA) qɛ **sɛ**, (QT) sie³³ **tɕhy³³** [40], Qiang (QM) sa **səɹ**

The most frequent QM reflex of ***-am** seems to be **-i** (BRIDGE, FLY, OTTER, SMELL, WHITE). QT reflexes are all over the place, including **-ie** (BRIDGE,[41] GARDEN), **-e** (FLY), **-i** (IRON), **-ɿ** (WHITE). QA reflexes range from **-uɑ** (BRIDGE), to **-ɚ** (OTTER), to **-i** (WHITE).

The QM and QA forms for IRON are transcribed with a rhotic offglide (written above the line in the sources): QM **suɹ** mu, QA **suːɹ** mu. It is possible that these descend from PTB ***syiːr ≍ *syaːl** (STC #372), but note that the QM word for WEDGE (QM sa **səɹ**) and the QA word for OTTER (QA **ɣdz̩ əɚ**) show similar rhotacization. In the case of QM 'wedge' there is a possible explanation (see below).

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[39]The **-u-** in the NMM form may represent an allophonic labialization of the initial consonant before the vowel **-o**. As similar labialization occurs automatically in Pumi Dayang before **-o** (Matisoff 1996).

[40]The first syllable of this form looks like a loan from Chinese (Mand. **xiē**).

[41]If it is the *first* syllable of QT **sie³³** tɕhy³³ that is being compared, its rhyme **-ie** would agree with BRIDGE and GARDEN.

Queyu Yajiang ["Zhábā"] (QYY) **tsə⁵³**, Queyu Xinlong (QYX) **ʂsa³⁵**

    QYY reflexes of ***-am** etyma include **-ua** (BEAR), **-ã** (BRIDGE, IRON), **-õ** (FATHOM, OTTER), **-ũ** (SMELL), **-e** (FLY)

    QYX reflexes of ***-am** etyma include **-ɛ** (OTTER), **-ɛr** (BEAR) [again note the rhotacization], **-o** (BRIDGE, IRON, FENCE/GARDEN), **-u** (FATHOM), **-e** (FLY)

Shixing (SXS) **ʂɑ̃⁵⁵**, (SXM) **ʂõ⁵³**

    SXS reflexes of ***-am** etyma include **-ĩ** (BEAR, FATHOM, FLY), **-ẽ** (BRIDGE), **-ɛ̃** (OTTER), **-ɑ̃** (IRON), **-o** (SMELL), **-ɔ̃** (DARE)

    SXM reflexes of ***-am** etyma include **-ĩ** (BEAR), **-ɛ̃̀** (BRIDGE, FATHOM, FLY, OTTER), **-õ** (IRON, DARE), **-u** (SMELL)
    The irregularity of these reflexes makes it less impressive that the SXS reflexes of IRON and WEDGE are the same, or that the SXM reflexes of IRON, DARE, and WEDGE are all the same.

Zhábà (ZB) **cçhʌ¹³**

    Zhaba reflexes of ***-am** etyma include **-ʌ** (BEAR, DARE), but also especially **-ɪ** (BRIDGE, FLY, SMELL, WHITE), and **-i** (IRON, FATHOM, OTTER).

    In general, then, these Qiangic forms do not seem unequivocally relatable to our PLB root in ***-am**. There are, however, several other possibilities.

4.0   Tibetan and Burmese forms, and their possible relationship to Qiangic ones

*4.1   Tibetan **gzer ✕ ḫdzer** 'peg; wedge' and its possible congeners*

    Most of the Qiangic forms for WEDGE we have cited bear a strong resemblance to forms from Tibetan dialects. Jäschke (pp. 495, 489) cites WT **gzer ✕ zer** 'nail; tack', which appears together with **lćags** 'iron' and **śiŋ** 'wood' in compounds meaning 'iron nail' (**lćags-gzer**) and 'wooden nail' (**śiŋ-gzer**), the latter elsewhere glossed 'peg' (p. 559). This morpheme can also be used verbally (**gzer-ba** 'bore into, drive or knock into'), and has developed some interesting extensions of meaning as a noun, including 'mnemonic verse' (presumably intended to knock a text into one's head); 'ray, beam (e.g. of sunlight)', perhaps because of the elongated shape; and 'pain, ache' (maybe by association with sharp or pointed objects). TBL (p. 207) cites a Written Tibetan form **çiŋ ḫdzer** 'wedge' (not to be found in Jäschke),[42] with the *a-chung* prefix; this is confirmed by forms in several Tibetan dialects with prenasalized initials[43]:

Tibetan (Batang)	xhĩ³⁵ **ndze⁵⁵**	wedge	TBL #620
Tibetan (Amdo:Zeku)	**ndzer** ma	wedge	ZMYYC #413

This now raises the strong possibility that our best Qiangic candidates for relationship with PLB ***n-džam**, i.e. Lusu **ndze³⁵** and Ersu **ndzi⁵⁵** (above 3.3), are to be related instead to this Tibetan morpheme.

    Other Tibetan dialect forms include:

Tibetan (Lhasa)	çiŋ⁵⁵**se¹⁵**	wedge	ZMYYC #413

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[42]ZMYYC #413 has çiŋ **gzer** 'wedge'.

[43]For the connection between a-chung and prenasalization, see e.g. Matisoff 1975. It is possible that this nasal prefix arose secondarily in the compound for WEDGE by assimilation to the final of the first syllable **śiŋ** 'wood'.

Tibetan (Lhasa)	$çiŋ^{55}$**se:**^{55}	wedge	TBL #620
Tibetan (Khams:Dege)	$çhin^{55}$**dze**^{55}	wedge	ZMYYC #413
Tibetan (Amdo:Bla-brang)	**tɕhə**	wedge	ZMYYC #413
Tibetan (Alike)	**tɕhə**	wedge	TBL #620

The Monpa Tshona (Mama = Takpa) form $çeŋ^{55}$**zer**^{13} (ZMYYC #413; TBL #620) also has the morphemic structure WOOD + PEG, and is obviously closely related to or borrowed from Tibetan.[44] The same may now be said for the Muya forms: (MYS) tshɯ^{33} **zɐ**^{55}, (MYG) tshə^{33} **zɐ**^{53} (cf. Muya **tshɐ**^{55} rø^{53} 'wood' TBL #511). Pumi Lanping (PLP) ʂɔ̃^{55} **ze**^{55} 'nail' contains the same second element, though as the gloss implies, the first syllable ʂɔ̃^{55} means IRON, not WOOD.[45]

Also possibly related to the Tibetan forms is Lepcha **ză** 'a wedge (for placing in eye of hatchet etc. to render tight the handle, or for splitting wood', **kuň-ză** 'wooden wedge', **ză kyóp** 'fix in a wedge' (Mainwaring 1898:313-4).

Several other Qiangic languages have forms for WEDGE very similar to those of Amdo Tibetan, including rGyalrong (RGS; RGM) **tɐ cɕhə**[46], (RGB) **tɐ-tʃhə**, (RGC) **tɐ-mtʃʰi** (with prenasalization); Zhábà (ZB) **cɕhʌ**^{13}; Queyu (QYŸ) **tsə**^{53}, (QYX) **ʂsa**^{35}; and Qiang (QA) qɛ **sɛ**, (QT) sie^{33} **tɕhy**^{33} .[47]

Finally, a few more miscellaneous wedge-words (from ZMYYC #413 and/or TBL #620) from languages whose phonological history is quite obscure, but which also have affricate initials: Bai (Dali) **tɕi**^{35} , Bai (Jianchuan) *tɕĩ*^{55} **ne**^{21} (for the second element see below 5.2); Tujia **tɕhi**^{55} .

4.2   Written Burmese *sap* and its possible congeners

Quite a separate root is represented by WB **sap** 'wedge'[48], which surprisingly has a perfect cognate in Tshangla Monpa (Menba Cangluo Motuo) **sap** 'wedge' (ZMYYC #413, p. 783; TBL #620, p. 207). The form cited in the *Menba Jianzhi* (**REF**.) is the compound çeŋ^{55} **sɑp**^{55}, with 'wood' as its first element, contrasting etymologically with Monpa Tshona çeŋ^{55}**zer**^{13}, cited above 4.1.

A Qiangic form which certainly appears cognate is Daofu **zav** 'wedge' (TBL #620), with the unusual rhyme **-av** paralleled in at least two other unimpeachable ***-ap** etyma:

SNOT	PTB ***s-nap** [STC #102]	>	Daofu **snav**	(ZMYYC #278; TBL #157)
REPAY	PTB ***tsap** [STC #63]	>	Daofu **xshav**	(TBL #1183)
			⋊ **xsav**	(TBL #1381)

The closely related Ergong language has similarly parallel forms for WEDGE and SNOT:

| Ergong | **sɯ zau** 'wedge' | (ZMYYC #413) | **snau** | 'snot'[49] |

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[44]Other Tshona (= Cuona) forms reflect a distinct etymon *sap found also in Burmese (see below 4.2).

[45]Despite its superficial similarity to these forms, Jinuo (aberrant Loloish) zɛ^{42} / zɛ^{31} has been assigned to PLB ***N-džam** because of parallel reflexes in several other ***-am** etyma (above 2.34).

[46]It is hard to be sure of the actual phonetic realization of this cluster "cçh-". The Qiangic languages are remarkable for their profusion of fricatives and affricates, difficult for the non-native to produce and to distinguish. See Matisoff 1996.

[47]The first syllable of this QT form looks like Mand. **xiē**.

[48]This is mistranscribed as **thɑp** in ZMYYC #413.

[49]The Muerzong dialect of Ergong also has a labiodental reflex of ***-ap**, e.g. NEEDLE ʁɐf (< ***k-rap**), FOLD ltɐf (< ***l-tap**). [Personal communication, Sun Tianshin].

A strong Kamarupan cognate is Tangkhul Naga **thiŋ-*tap*** 'wedge' [Pettigrew 1918:211, 456]. Like other Kuki-Chin-Naga languages (e.g. Mizo, Lai), Tangkhul has developed dental stops from PTB ***s-*** [see STC p.28], e.g. 'die' ***səy*** > TN **thi**, 'wood' ***siŋ*** > TN **thiŋ** [this is the first element in the compound for 'wedge' just cited]. The lack of aspiration in the second syllable of **thiŋ-tap** is perhaps due to its non-initial position as a bound constituent of the compound (**tap** does not appear as a head entry in Pettigrew).

I have just learned that another Kamarupan language, Lai Chin, has an obviously cognate form, **tsop** [personal communication, Kenneth Vanbik].

Another possible reflex of ***sap*** is Naxi (Lijiang) **ʂuɑ⁵⁵** 'wedge' (but see 2.34 above).

Since this etymon must now definitely be set up for PTB, this leads us to a new question. Could Dayang Pumi **tsó**, which started this whole investigation, perhaps come from ***sap*** instead of ***N-džam***? There is actually one shred of evidence that this might be so: the Pumi word for NEEDLE (< PTB ***k-rap***; see TSR #191) has the same rhyme as Pumi WEDGE. As a matter of fact, the Namuyi words for NEEDLE and WEDGE also have the same rhyme **-o**:

NEEDLE	PTB ***k-rap***	WB **ʔap**	Pumi Dayang **qhǒ**	Namuyi **ʁo³³**
WEDGE	PTB ***sap***	WB **sap**	Pumi Dayang **tsó**	Namuyi **ʂo³⁵**

Unfortunately, however, no further examples of Dayang **-o** < PTB ***-ap*** have yet been uncovered.[50] Dayang reflexes of etyma in ***-ap*** include **-a** (WEEP ***krap*** > PD **χqwá**), and **-ɒ** (SHOOT ***gaːp*** > PD **ʈhǒ**).[51]

5.0 *Words for WEDGE in other branches of Tibeto-Burman; other etyma for WEDGE*

Several forms in the little-known Abor-Miri-Dafla (Mirish) branch of TB have forms for WEDGE with affricate initials and non-front vowels that look superficially very much like our Pumi **tsó**, but which remain equally obscure in origin (data from ZMYYC #413; TBL #620):

Darang Deng (=Taraon)	tɑ³¹**tsɑu⁵³**
Geman Deng (=Kaman)	dɑ³¹**tsɯu⁵⁵**
Idu (Luoba)	ɑ⁵⁵**tsu⁵⁵**

A few other new etyma for WEDGE may perhaps be reconstructible, though the evidence is still scattered:

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[50]Except perhaps for Dayang **nɔ̀ sĩN** 'morning' < PTB ***m-nap***. This root also has a well-attested variant ***m-nak*** in Lolo-Burmese (see TSR #131).

[51]Although there are over 30 cognate sets reconstructed with PTB and/or PLB ***-ap*** in STC and TSR, only a handful of them have so far been shown to have solid Qiangic cognates.

5.1   ***san**

The Akha (S. Loloish) word for **seh⌣** 'wedge' cannot be from ***-am** , since the regular Akha reflex of ***-am** is definitely syllabic /-m̥/ (see above **2.3**), but might be from PLB ***san²** (cf. LOUSE PLB ***san¹/²** > Ak. **sheh˘**).[52] [53]

This would make the Akha form a perfect cognate to Dulong (Nungish group) **sɑn⁵⁵** 'wedge' (TBL #620). We should probably also include another Nungish form in this set, Anong **gɑ³¹san⁵⁵** (ZMYYC #413; TBL #620), despite the difference in position of the final nasal.

Less secure would be an attempt to relate Qiangic forms like Shixing (SXS) **ʂɑ̃⁵⁵** (SXM) **ʂɔ̃⁵³** to this root, though anything is possible.

In any event, this new etymon seems quite distinct both from ***džam** and ***sap**.

5.2   ***-n(y)e**

This flimsily attested item occurs as the second syllables of compounds in Apatani (Tani group of Mirish) and Bai, two languages whose geographic separation precludes contact with each other:

Apatani	pɯ-**ñe**	wedge	J. Sun 1993
Apatani	ú-**ñe**	wedge	*ibid.*
Bai (Jianchuan)	tɕĩ⁵⁵**ne²¹**	wedge	ZMYYC #413, p. 783

5.3   ***ka**

This equally flimsy prospective etymon occurs only in the (unclassified) Tujia language and in Tibetan:

Tujia (Northern)	**ko²¹**	wedge/clip	JZ-Tujia **REF.**
Tujia (Southern)	**kha³³**	wedge/clip	JZ-Tujia **REF.**
Tibetan (Written)	**ka**-ru	wedge	Jäschke, p. 2

The non-aspirated Tibetan initial immediately stamps this lexical item as somehow aberrant, perhaps a loanword, since non-prefixed WT syllables with voiceless obstruent initials are overwhelmingly aspirated in native vocabulary.

6.0   *Conclusions*

Although we have not achieved our original goal of etymologizing Pumi **tsó** 'wedge', the attempt to do so has yielded a number of side benefits. We have reconstructed several new roots for WEDGE, including PLB ***N-džam²**, Proto-Himalayish ***-zer**, and PTB ***sap**, clarifying in the process the fate of the rhymes ***-am** and ***-ap** in both Lolo-Burmese and Qiangic. A number of other forms have not been assigned with certainty to any of these etyma, but at least some of the difficulties involved have been expounded.

It will be challenging to work out Qiangic phonological developments in sufficient detail to establish the exact nature of the relationship of this branch of TB to the other subgroups of the

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[52]But HAWK ***dzwan¹** gives Ak. **k'a⌣** *dze˘*.

[53]The Akha compound for 'nail' is **shm˘ seh⌣** (IRON + WEDGE, with the first syllable < ***syam**). This compound thus has the same *semantic* structure as WT **lćags-gzer** 'nail', though both syllables are *etymologically* distinct in the two languages. Thefirst syllable of the Lahu compound**šo-chû** 'nail' reflects the same etymon for IRON as the Akha compound, though the second element means THORN < PTB ***tsow** [STC # 276].

family. Although Qiangic initial consonants are justly famous for their manifold complexities, the rhymes of Qiangic languages (except for the rGyalrong/Ergong group) are often just as depleted as those of Loloish, with total loss of post-vocalic consonants. The phonological evolution of originally *closed syllables in Qiangic seems particularly intricate.[54] Compounding the comparativist's headaches is the high degree of dialectal differentiation within individual Qiangic languages. Some of the invaluable data provided in recent Chinese sources may be insufficiently phonemicized, so that certain reflex-patterns appear more complicated than they actually are. Despite the copiousness of these published sources, many key cognate forms are undoubtedly still lacking, not because they do not exist, but simply because they were accidentally not recorded, in favor of a more or less synonymous form. It behooves us then to approach comparisons between Qiangic and other branches of TB with due humility.
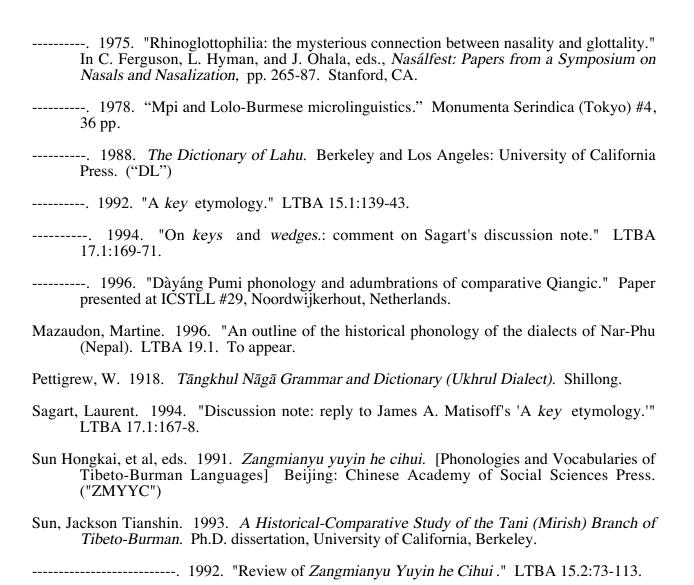
In closing, I cannot resist one speculative semantic sally. We have seen that the PLB root ***N-džam²** 'wedge' is almost identical (except for tone) with PLB ***N-dzam¹** 'bridge'. Could there be some intrinsic semantic connection between the two concepts? Wedges have both splitting and joining functions: they can be used to pry things apart,[55] or conversely to bridge the gap between objects that are too far apart (in the manner of a shim). The 'bridge' of a violin wedges the strings apart from the sounding-board, while simultaneously connecting the four strings together by causing them to vibrate over the same thin piece of wood.

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[54]Not that the evolution of *open syllables is straightforward either! Even ***-a**, the most common of all TB rhymes, has complex conditioned reflexes in Dayang Pumi, with the most common reflex being ***-i**. See Matisoff 1996.

[55]Cf. Jingpho **sùm-pràt** 'wedge' (< **phràt** "split').

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