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*On the Genetic Position of Bai within Tibeto-Burman*

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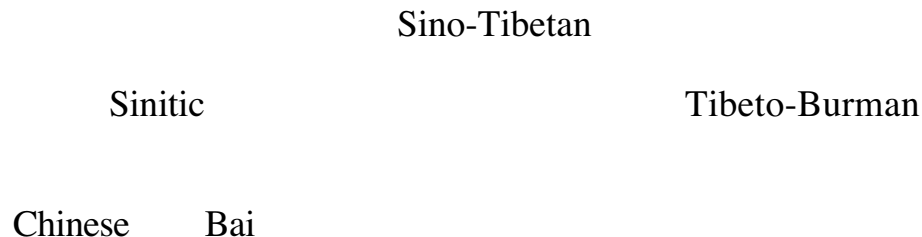
## Introduction

The especially difficult problem of distinguishing cognates from borrowings from a related language.

Also difficult to distinguish native etyma from items borrowed from a language of similar phonological typology, e.g. distinguishing native Hmong-Mian etyma from Chinese borrowings.

Different views as to the genetic affiliations of Bai:

(a) that it belongs with Chinese in a branch of ST called "Sinitic", to be set off from TB proper. Benedict adopted this view in the last couple of years of his life:



(b) that it is a member of the Lolo-Burmese subgroup; this view is subscribed to by many linguists in China; cf. the MS by Shearer and Sun (to appear)

(c) that Baic constitutes a separate co-equal subgroup of TB, but one that has undergone exceptionally intense Chinese influence.

My own view was (c). Then I was stimulated by Laurent Sagart's interesting study (1998) "The strata of Bai", in which he distinguished three rough historical strata of Chinese loans into Bai on tonal grounds; after which he compared the tones of 38 putatively inherited TB items in Bai (i.e. those which do not follow the tonal patterns characteristic of Chinese loanwords) with those of PLB. His data consisted of PLB forms as reconstructed in Bradley 1979, and Bai forms from the variety of the

Jianchuan dialect to be found in Dai and Huang 1992 (TBL). His general conclusion was that "Bai is a TB language (prob. Loloish) having borrowed heavily from Chinese". By his reckoning, of the 100-word Swadesh list, only 15 Bai items seemed like inherited TB etyma, while as many as 44 were borrowed from Chinese.

Sagart's correspondence tables of Chinese and TBL Bai tones in borrowed vocabulary:

I. The Old Layer ("old, complex, includes material from late Old Chinese to Middle Chinese, with no clear break-off point:

	<i>Ping</i>	<i>Shang</i>	<i>Qu</i>	<i>Ru</i>
<i>yin</i>	55 (21)	33	21 (33)	33c
<i>yang</i>	42	33	21 (33)	21c (33c)

II. Southwest Mandarin (A: "local")<sup>1</sup>

	<i>Ping</i>	<i>Shang</i>	<i>Qu</i>	<i>Ru</i>
<i>yin</i>	33	21	55c	35
<i>yang</i>	21c	21	55c	35

III. Southwest Mandarin (B: "regional")

	<i>Ping</i>	<i>Shang</i>	<i>Qu</i>	<i>Ru</i>
<i>yin</i>	55	21	33c	55
<i>yang</i>	55	21	33c	55

The present study uses material from the STEDT database compiled from five sources, from a total of 9 slightly different Bai dialects. There is considerable overlap in the sources, though differences both phonological and lexical exist even among subvarieties of the same dialect (e.g. among different patois of the Jianchuan dialect), as well as between the three major dialects appearing in ZMYYC and Xu and Chao 1984 (Baiyu Jianzhi). Sometimes only a single dialect seems to preserve an inherited TB item, while all the others have switched to Chinese loans.

### *Tonal inventories of the dialects studied*

<sup>1</sup>This corresponds exactly (except for the *rùshēng*) with the correspondences given in TBL:676:

<i>Chinese</i>	<i>TBL</i>
yin ping	33 non-constricted
yang ping	21 constricted
shang	21 non-constricted
qu	55 constricted
ru	33 constricted ~ 35

Jianchuan (TBL p. 676): a member of the Central group of Bai dialects; spoken in Dali Prefecture, Jianchuan County, Mǎdēng Township, Zhongyuan village.

5 tones: 55, 42, 35, 33, 21

but the three basic tones are 55, 33, 21 (some transcribe the latter as 31). Only these three tones may be constricted.

### ZMYYC (3 dialects)

Representative of Central dialect group: Jianchuan County, Chengjinhua town: p. 288:

8 tones: 4 are level, 3 are falling, 1 is rising

Plain	Constricted
55	55c [only in Chinese loans]
33	44c
31	42c
35	21c

Representative of Southern Dialect group: Dali Prefecture, Xizhou town : p. 290

8 tones: 3 are level, 4 are falling, 1 is rising<sup>2</sup>

Plain	Constricted
55	44c
33	42c
31	21c
53	
35	

Representative of Northern dialect group: Nujiang Prefecture, Bijiang County, Siqu variety: Bijiang p. 293

6 tones: 3 level, 2 falling, 1 rising

Plain	Constricted
55	44c
33	42c
35	21c

JZ (3 dialects) p. 12

8 tones:

Plain	Constricted
33	42c
31	44c
55	21c
35	55c

### Differences in transcription

<sup>2</sup>TBL:290 mistakenly says there are 4 level and 3 falling tones.

--JZ, ZYS, TBL often record constriction, where ZMYYC does not.

From the STEDT database I have extracted the best examples I could find of Bai items that seemed close phonosemantically to forms in other TB languages, especially those of the Lolo-Burmese group. I arranged these first according to the phonological shapes of the LB comparanda; then I rearranged them according to the tonal correspondences shown by the three dialects recorded in ZMYYC and JZ. Many of these items are certainly Chinese loanwords, but I included them as a control; among the many Chinese loans I have included only those that have a fairly close TB phonosemantic comparandum.

Sagart, on the basis of his limited data, made a few tentative correlations between Bai forms from TBL and PLB roots (though there are several errors on the PLB side), as follows:

PLB	Bai (TBL-Jianchuan)
*1	33 21 55 (42)
*2	42 55 (33)
*3	33
HS	21c 33c
LS	55 (33c)

Did any clear patterns emerge from the additional data I brought to bear?

Complicating our comparisons are the many cases of genuine allofamic tonal variation, both in LB and in Baic.

When D, B, and J all have the same tone, the chances seem especially good that the item is a recent borrowing from Chinese.

<i>Gloss</i>	<i>PLB Tone</i>	<i>Dali</i>	<i>Bijiang</i>	<i>Jianchuan</i>	<i>TBL</i>	<i>ZYS</i>	<i>FD</i>
<b>break/snap/sever</b>	<b>HS</b>	<b>33</b>	<b>55</b>	<b>42</b>	<b>33c</b>		
tse <sup>33</sup>		break (v.i. of rope, etc.)	(ZMYYC) (Dali)				
tse <sub>r</sub> <sup>55</sup>		break (v.i. of rope, etc.)	(ZMYYC) (Bijiang)				
tse <sup>42</sup> tshu <sup>55</sup>		break (v.i. of rope, etc.)	(ZMYYC) (Jianchuan)				
(xə <sup>55</sup> xə <sup>33</sup> ) tse <sub>r</sub> <sup>33</sup>		snap (thread)	(TBL)				
to <sup>42</sup> tse <sub>r</sub> <sup>33</sup>		snap (a thread)	(TBL)				
(kuq <sup>21</sup> ) tse <sub>r</sub> <sup>33</sup>		break / snap (stick)	(TBL)				
to <sup>42</sup> tse <sub>r</sub> <sup>33</sup>		snap / break (a stick)	(TBL)				
<b>cold</b>	<b>HS ɤ*1</b>	<b>35</b>	<b>55</b>	<b>55</b>	<b>42? 55?</b>		
ku <sup>35</sup>		cold	(ZMYYC)	(Dali)			
ku <sup>55</sup>		cold	(ZMYYC)	(Bijiang)			
ku <sup>55</sup>		cold	(ZMYYC)	(Jianchuan)			
kw 6		cold	(FD)				
ka <sup>42</sup>		cold (weather, water)	(TBL)				
ka <sup>55</sup>		cold (water)	(TBL)				
<b>collapse</b>	<b>HS</b>	<b>44</b>	<b>55</b>	<b>44</b>	<b>33c</b>		
pa <sup>44</sup> xu <sup>55</sup>		collapse (ZMYYC)	(Dali)				
pũ <sup>55</sup>		collapse (ZMYYC)	(Bijiang)				
pa <sup>44</sup>		collapse (ZMYYC)	(Jianchuan)				
nə <sup>33</sup> pa <sup>33</sup>		fall down (a wall) / topple	(TBL)				
to <sup>42</sup> pa <sup>33</sup>		topple / tear down (a wall)	(TBL)				
<b>cubit</b>	<b>HS</b>					<b>42c</b>	
a <sup>31</sup> tca <sup>42</sup>		cubit (elbow to fingers)	(ZYS)				
tca <sup>42</sup>		cubit (elbow to fingers)	(ZYS)				
<b>deer</b>	<b>HS</b>				<b>33c</b>		
tsha <sup>33</sup> vu <sup>21</sup>		muntjac / deer (barking)	(TBL)				
	/PLB *tsat (TSR #10)/						
<i>Gloss</i>	<i>PLB Tone</i>	<i>Dali</i>	<i>Bijiang</i>	<i>Jianchuan</i>	<i>TBL</i>	<i>ZYS</i>	<i>FD</i>
<b>drip/drop</b>	<b>HS</b>		<b>44</b>				
tie <sup>42</sup>	drip	(ZMYYC)	(Dali)				
tca <sup>44</sup>	drip	(ZMYYC)	(Bijiang)				
to <sup>44</sup>	drip	(ZMYYC)	(Jianchuan)				
(a <sup>31</sup> )to <sup>44</sup>	drop (n.)	(ZMYYC)	(Dali)				
to <sup>55</sup>	drop (n.)	(ZMYYC)	(Bijiang)				
to <sup>44</sup>	drop (n.)	(ZMYYC)	(Jianchuan)				
(a <sup>21</sup> ) tĩ <sup>33</sup>	drop (of oil)	(TBL)	< Chinese diǎn				
(a <sup>21</sup> ) teĩ <sup>33</sup>	drop (of oil)	(TBL)	< Chinese				

<b>expensive</b>	<b>HS</b>	<b>42</b>	<b>42</b>	<b>42</b>	<b>21</b>		
ke <sup>42</sup> to <sup>31</sup>	expensive	(ZMYYC)	(Dali)				
qa <sup>42</sup>	expensive	(ZMYYC)	(Bijiang)				
kɛ <sup>42</sup> to <sup>42</sup>	expensive	(ZMYYC)	(Jianchuan)				
ka <sup>21</sup> to <sup>21</sup>	expensive	(TBL)					
<b>eye/tears</b>	<b>HS</b>	<b>42</b>		<b>42(c)</b>	<b>21c</b>	<b>42c</b>	
mi <sup>42</sup> ji <sup>42</sup>	tear (n.)	(ZMYYC)	(Dali)				
mi <sup>42</sup> ci <sup>42</sup>	tear (n.)	(ZMYYC)	(Jianchuan)				
mĩ <sup>42</sup> cĩ <sup>42</sup> <tĩ <sup>33</sup> >	tears	(ZYS)					
mi <sup>42</sup> ci <sup>42</sup>	tears	(JZ)	(Jianchuan)				
mi <sup>42</sup> ji <sup>42</sup>	tears	(JZ)	(Dali)				
mi <sup>21</sup> ji <sup>21</sup>	tears	(TBL)					
<b>insipid</b>	<b>HS</b>				<b>21c</b>		
piã <sup>21</sup>	tasteless / insipid	(TBL)					
	/not in TSR, but cf. Lahu pɛ̃?, Mpi pjaʔ <sup>3</sup> (DL, p. 855/						
<b>kick</b>	<b>HS</b>	<b>44</b>	<b>55</b>	<b>44</b>	<b>33c</b>		
tɕhe <sup>44</sup>	kick	(ZMYYC)	(Dali)				
tho <sup>55</sup>	kick	(ZMYYC)	(Bijiang)				
tɕhe <sup>44</sup>	kick	(ZMYYC)	(Jianchuan)				
tɕhã <sup>33</sup>	kick	(TBL)					
	/cf. Lahu thê?, Lisu hti <sup>2</sup> , WT rdeg, Garo ga-tek, Tangkhul kəkəthek; reconstructed as PLB *tek in TSR #14; but cf. also Chinese 踢 (Mand. tī)/						
<b>layer/fold</b>	<b>HS</b>				<b>33c</b>		
tho <sup>33</sup>	put on (another layer of cloth	(TBL)					
	/not in TSR, but cf. WB thap, Lahu thô?, WT ltab ~ ldab./						
<b>pluck/pick</b>	<b>HS</b>				<b>33c</b>	<b>2/3</b>	
tɕiœ <sup>2</sup>	pick, pluck	(FD)	(Dali)				
tɕi <sup>3</sup>	pinch	(FD)	(Dali)				
tse <sup>33</sup>	pluck (flowers)	(TBL)					
tsia 6	pinch	(FD)	< Chinese 夾 (Mand. jiā).				
	/cf. Lahu cɛ̃?/						
<i>Gloss</i>	<i>PLB Tone</i>	<i>Dali</i>	<i>Bijiang</i>	<i>Jianchuan</i>	<i>TBL</i>	<i>ZYS</i>	<i>FD</i>
<b>satiated</b>	<b>HS</b>	<b>33</b>	<b>33</b>	<b>33</b>			
pu <sup>33</sup>	full / satiated	(ZMYYC)	(Dali)				
bu <sup>33</sup>	full / satiated	(ZMYYC)	(Bijiang)				
pu <sup>33</sup>	full / satiated	(ZMYYC)	(Jianchuan)				
by <sup>33</sup>	full, satiated	(JZ)	(Bijiang)				
pu <sup>33</sup>	full, satiated	(JZ)	(Jianchuan)				
pu <sup>33</sup>	full, satiated	(JZ)	(Dali)				

/cf. PLB \*N**bu**p TSR #86; but also Chinese 飽 (Mand. bǎo)/

<b>undress/release</b>	<b>HS</b>	<b>35</b>	<b>55</b>	<b>55</b>	<b>55/33c</b>
lue 6	undress / remove, to	(FD)			
lui <sup>35</sup> ji <sup>35</sup>	take off (clothing)	(ZMYYC)	(Dali)		
lui <sup>55</sup>	take off (clothing)	(ZMYYC)	(Bijiang)		
lui <sup>55</sup>	take off (clothing)	(ZMYYC)	(Jianchuan)		
lue <sup>55</sup> (ji <sup>55</sup> )	take off (clothes)	(TBL 1695)			
luq <sup>33</sup>	untie, undo	(TBL 1600)			

### Where Loloish has **LOW STOPPED**

<b>boil</b>	<b>LS</b>	<b>44</b>	<b>44</b>	<b>44</b>	<b>33c</b>	<b>2</b>
xua <sup>44</sup>	boil (v.i.)	(ZMYYC)	(Dali)			
xua <sup>44</sup>	boil (v.i.)	(ZMYYC)	(Bijiang)			
xua <sup>44</sup>	boil (v.i.)	(ZMYYC)	(Jianchuan)			
xua2 sy 3	water (boiled)	(FD)				
xuq <sup>33</sup> cy <sup>33</sup>	water (boiled)	(TBL)				
(cy <sup>33</sup> ) xuq <sup>33</sup> (lq <sup>21</sup> )	boiling, be (water)	(TBL)				

/perhaps cognate with PLB \*(?)glak (TSR #61); see STC #124/

<b>close/extinguish</b>	<b>LS ≈ HS</b>	<b>35</b>	<b>55</b>	<b>55</b>	<b>55</b>
me <sup>35</sup>	close (eye)	(ZMYYC)	(Dali)		
mi <sup>55</sup>	close (eyes)	(JZ)	(Bijiang)		
me <sup>55</sup>	close (eyes)	(JZ)	(Jianchuan)		
me <sup>35</sup>	close (eyes)	(JZ)	(Dali)		
mi <sup>55</sup>	close (the mouth)	(TBL)			
mi <sup>55</sup>	close (the mouth) lightly	(TBL)			

/< PTB/PLB \*s-mi:t; see DL, p. 1008; GSTC #43; cognate to Chinese 滅 /

<b>connect/join</b>	<b>LS</b>	<b>44</b>	<b>44</b>	<b>44</b>	<b>33c</b>
tq <sup>44</sup> xu <sup>44</sup>	connect	(ZMYYC)	(Dali)		
so <sup>55</sup> tq <sup>44</sup>	connect	(ZMYYC)	(Bijiang)		
tq <sup>44</sup>	connect	(ZMYYC)	(Jianchuan)		
tq <sup>33</sup> kq <sup>33</sup> sā <sup>55</sup> tci <sup>21</sup>	connect / join	(TBL)			

<i>Gloss</i>	<i>PLB Tone</i>	<i>Dali</i>	<i>Bijiang</i>	<i>Jianchuan</i>	<i>TBL</i>	<i>ZYS</i>	<i>FD</i>
<b>crooked</b>	<b>LS</b>	<b>44(c)</b>	<b>55/44</b>	<b>44</b>	<b>33c</b>		<b>2</b>
khv <sup>44</sup>	crooked	(ZMYYC)	(Dali)				
jo <sup>21</sup> kho <sup>55</sup> ti <sup>42</sup> kho <sup>55</sup>	crooked	(ZMYYC)	(Bijiang)				
khv <sup>44</sup>	crooked	(ZMYYC)	(Jianchuan)				
k'uo <sup>8</sup>	crooked, on its side	(FD)					
kh <sup>44</sup> q <sup>44</sup>	crippled / lame	(ZYS)					

tse <sup>42</sup> ko <sup>44</sup>	lame person	(ZMYYC)	(Dali)			
tɕɛ <sup>8</sup> kɔ <sup>2</sup>	lame person	(FD)	(Dali)			
tse <sup>44</sup> kɔ <sup>44</sup>	lame person	(JZ)	(Dali)			
tɕɛ <sup>8</sup> kɔ <sup>2</sup>	lame	(FD)				
ko <sup>44</sup> qhe <sup>44</sup>	lame person	(ZMYYC)	(Bijiang)	ko <sup>44</sup>	'foot'	
khe <sup>44</sup> ko <sup>44</sup>	lame person	(ZMYYC)	(Jianchuan)	ko <sup>44</sup>	'foot'	
kɔ <sup>44</sup> qhe <sup>44</sup>	lame person	(JZ)	(Bijiang)			
khe <sup>44</sup> kɔ <sup>44</sup>	lame person	(JZ)	(Jianchuan)			
kɔ <sup>33</sup> khe <sup>33</sup> ni <sup>21</sup>	lame person	(TBL)				
<b>cut open</b>	<b>LS</b>	<b>44</b>		<b>44</b>		<b>33c</b>
pheɿ <sup>44</sup>	cut open (fish)	(ZMYYC)	(Dali)			
phiɛ <sup>44</sup>	cut open (fish)	(ZMYYC)	(Jianchuan)			
pha <sup>33</sup>	cut / rip open	(TBL)				
	/Lh. ʃʃʔ-phè? 'perform an operation'; WB <b>prat</b> , <b>phrat</b> ; see GSTC/					
<b>dry in sun</b>	<b>LS</b>	<b>31</b>	<b>42</b>	<b>31</b>		<b>21</b>
xo <sup>31</sup>	dry in the sun	(ZMYYC)	(Dali)			
xo <sup>42</sup>	dry in the sun	(ZMYYC)	(Bijiang)			
xo <sup>31</sup>	dry in the sun	(ZMYYC)	(Jianchuan)			
xo <sup>21</sup> (ji <sup>55</sup> pe <sup>21</sup> )	dry (clothes) in the sun	(TBL)				
xo <sup>21</sup> (ni <sup>33</sup> tsɔ <sup>33</sup> )	sunbathe	(TBL)				
<b>enough</b>	<b>LS</b>					<b>55</b> <b>6</b>
lu <sup>6</sup>	enough	(FD)				
lu <sup>55</sup>	enough, be	(TBL)				
<b>hungry</b>	<b>LS</b>					<b>21c</b>
ŋɔ <sup>21</sup>	hungry, be	(TBL)				
	/Cf. WB mwat, ŋat; TSR #132 *mwat/					
<b>joint</b>	<b>LS</b>	<b>44</b>	<b>33</b>	<b>33</b>		<b>33c</b> <b>44c/</b> <b>2/1</b> <b>31</b>
su <sup>33</sup> kue <sup>31</sup> tsi <sup>44</sup>	elbow	(ZMYYC)	(Dali)			
ʃi <sup>33</sup> tɕe <sup>33</sup> tɕi <sup>33</sup>	elbow	(ZMYYC)	(Bijiang)			
su <sup>33</sup> kue <sup>31</sup> tsi <sup>33</sup>	elbow	(ZMYYC)	(Jianchuan)			
ɕi <sup>33</sup> tɕe <sup>33</sup> kɔ <sup>33</sup> tɕe <sup>33</sup>	joint	(TBL)				
(tsɔ <sup>33</sup> a <sup>21</sup> ) tɕe <sup>33</sup>	section (of bamboo between 2 joints)	(TBL)				
kɔ <sup>33</sup> ci <sup>33</sup> tɕe <sup>33</sup>	ankle	(TBL)				
ɕi <sup>33</sup> tɕe <sup>33</sup> tsɕi <sup>33</sup> tɕe <sup>33</sup>	elbow	(TBL)				
su <sup>33</sup> tɕe <sup>44</sup> kɔ <sup>44</sup> tɕe <sup>44</sup>	joint	(ZYS)				
khua <sup>31</sup> tsɕi <sup>33</sup> te <sup>44</sup>	knee	(ZYS)				
su <sup>33</sup> tshuã <sup>44</sup> tsɕi <sup>33</sup>	wrist	(ZYS)				
kɔ <sup>44</sup> tɕe <sup>44</sup> tsɕi <sup>33</sup>	ankle	(ZYS)				
kɔ <sup>44</sup> tɕe <sup>44</sup> tsɕi <sup>33</sup> kɔ <sup>33</sup>	ankle bone	(ZYS)				
su <sup>33</sup> kuã <sup>31</sup> tsɕi <sup>33</sup>	elbow	(ZYS)				



su <sup>33</sup> kh <sub>Y</sub> <sup>44</sup> ts <sub>ɿ</sub> <sup>33</sup>	inner elbow / crook of elbow (ZYS)
khua <sup>2</sup> tœ <sup>3</sup> tsɛ <sup>2</sup>	knee (FD) (Dali)
k'ua <sup>2</sup> tō <sup>3</sup> tsɛ <sup>2</sup>	knee (FD)
sø <sup>2</sup> tœ <sup>2</sup> tɕ <sub>ɿ</sub> <sup>1</sup>	elbow, wrist (FD) (Dali)
sø <sup>2</sup> uɛ <sup>2</sup> tɕ <sub>ɿ</sub> <sup>1</sup>	wrist (FD) (Dali)
sō <sup>2</sup> uɛ <sup>2</sup> tsw <sup>1</sup>	wrist (FD)

*Gloss*                      *PLB Tone*    *Dali*                      *Bijiang*                      *Jianchuan*    *TBL*    *ZYS*    *FD*

<b>night</b>	<b>LS</b>	<b>31</b>	<b>42</b>	<b>31</b>	
jo <sup>53</sup> xw <sup>31</sup>	night (ZMYYC)	(Dali)			
jo <sup>42</sup> xw̃ <sup>42</sup>	night (ZMYYC)	(Bijiang)	[rhinoglottophiliac nasalization?]		
jo <sup>31</sup> xw <sup>31</sup>	night (ZMYYC)	(Jianchuan)			
io 5	night (FD)		[prob. < Chinese 夜 (Mand. yè)]		

<b>poison</b>	<b>LS</b>	<b>53</b>	<b>33</b>	<b>55</b>	<b>21c</b>
tv <sup>53</sup> poison	(ZMYYC)	(Dali)			
du <sup>33</sup> poison	(ZMYYC)	(Bijiang)			
tu <sup>55</sup> poison	(ZMYYC)	(Jianchuan)			
tə <sup>21</sup> poison	(TBL)				

/cf. PTB \*duk ɤ \*tuk (STC #472), PLB \*dok ɤ \*N/?-dok (TSR #113); but cf. also Chinese 毒 (Mand. dú)./

<b>six</b>	<b>LS</b>	<b>44</b>	<b>44</b>	<b>44</b>	
fv <sup>44</sup> six	(ZMYYC)	(Dali)			
fv <sup>44</sup> six	(ZMYYC)	(Bijiang)			
fv <sup>44</sup> six	(ZMYYC)	(Jianchuan)			
fv 2 six	(FD)				
fū <sup>33</sup> six	(TBL)				

<b>stomach</b>	<b>LS</b>	<b>44</b>		<b>44</b>	<b>44c</b>
<b>(a) &lt; PTB</b>					
fv <sup>44</sup> khuo <sup>44</sup>	belly			(ZMYYC) (Dali)	
fv <sup>44</sup>	belly			(ZMYYC) (Jianchuan)	
f <sub>Y</sub> <sup>44</sup> k <sub>h</sub> o <sup>33</sup>	belly / abdomen (external bulge)			(ZYS)	
f <sub>Y</sub> <sup>44</sup>	belly			(JZ) (Jianchuan)	
f <sub>Y</sub> <sup>44</sup>	belly			(JZ) (Dali)	
<b>(b) &lt; Chinese</b>		<b>42</b>	<b>42</b>	<b>42</b>	
v <sup>42</sup>	stomach	(ZMYYC)	(Dali)		
v <sup>42</sup>	stomach	(ZMYYC)	(Jianchuan)		
v <sub>u</sub> <sup>42</sup>	stomach	(ZYS)			
v <sub>u</sub> <sup>42</sup>	stomach	(JZ)	(Jianchuan)		
v <sub>u</sub> <sup>42</sup>	stomach	(JZ)	(Dali)		
fū <sup>33</sup>	belly (TBL)				

/Some of these forms look cognate to PLB \*?wik (TSR #176) or \*wam<sup>2</sup>, while others are apparently loans < Chinese 腹 (Mand. fù)./

<i>Gloss</i>	<i>PLB Tone</i>	<i>Dali</i>	<i>Bijiang</i>	<i>Jianchuan</i>	<i>TBL</i>	<i>ZYS</i>	<i>FD</i>
<b>suck/kiss</b>	<b>LS</b>				<b>33c</b>	<b>44c/ 21c</b>	
tɕi <sup>33</sup> suck	(TBL)						
tɕi <sup>44</sup> suck	(ZYS)						
tɕui <sup>21</sup> kiss	(ZYS)						
<b>vagina</b>	<b>LS</b>					<b>44c</b>	
pi <sup>44</sup> ʔuĩ <sup>33</sup> vagina	(ZYS)						
pi <sup>44</sup> vulva / labia	(ZYS)						
<b>wall</b>	<b>LS</b>	<b>33</b>		<b>33</b>	<b>33</b>		<b>3/4</b>
ou <sup>33</sup> phie <sup>155</sup> wall	(ZMYYC)		(Dali)				
ɣo <sup>33</sup> wall	(ZMYYC)		(Jianchuan)				
o 3/4 wall (n.)	(FD)						
ŋo <sup>33</sup> wall	(TBL)						

*Where Loloish shows HIGH & LOW variation*

<b>milk</b>	<b>HS ≠ LS</b>	<b>44</b>	<b>44</b>
tsue <sup>44</sup> milk (v.)	(ZMYYC)	(Dali)	
tsui <sup>44</sup> milk (v.)	(ZMYYC)	(Jianchuan)	

*Stopped syllables which look like Chinese loans*

<b>lung</b>	<b>---</b>	<b>44(c)</b>	<b>44(c)</b>	<b>44</b>	<b>33c</b>	<b>44c</b>
tɕhua <sup>44</sup> ku <sup>55</sup> lung	(ZMYYC)	(Bijiang)				
tɕhua <sup>44</sup> lung	(JZ)	(Bijiang)				
phia <sup>44</sup> lung	(ZMYYC)	(Jianchuan)				
phia <sup>44</sup> lung	(ZYS)					
phia <sup>44</sup> lung	(ZMYYC)	(Dali)				
phia <sup>44</sup> lung	(JZ)	(Jianchuan)				
phia <sup>44</sup> lung	(JZ)	(Dali)				
phia <sup>33</sup> lung	(TBL)					

/All but the Bijiang forms look like loans from Chinese 肺 (Mand. fèi); cf. OC \*p̥i̯wǎd (GSR 501g). The Bijiang form looks like a genuine cognate to Lushai t̥suap < PTB tsywap (STC #239); cf. the extended analysis in Matisoff 1978, (VSTB), where the reconstruction is revised to \*tsi-wap), but there is one other example of a Bijiang palatal affricate corresponding to palatalized labials in the other dialects (EIGHT, below). /

<i>Gloss</i>	<i>PLB Tone</i>	<i>Dali</i>	<i>Bijiang</i>	<i>Jianchuan</i>	<i>TBL</i>	<i>ZYS</i>	<i>FD</i>
<b>eight</b>							
tɕua <sup>44</sup> eight	(ZMYYC)	(Bijiang)					

piɑ <sup>44</sup>	eight	(ZMYYC)	(Dali)
piɑ <sup>44</sup>	eight	(ZMYYC)	(Jianchuan)
piɑ 2	eight	(FD)	
piɑ <sup>33</sup>	eight	(TBL)	
	/Chinese 八 /		

**emerge**

tshuɑ <sup>33</sup>	come out (the sun)	(TBL)	
tshɑ <sup>33</sup>	come out (the sun)	(TBL)	
pe <sup>44</sup> tchi <sup>44</sup>	exit	(ZMYYC)	(Dali)
tʂhe <sup>144</sup>	exit	(ZMYYC)	(Bijiang)
ŋɛ <sup>21</sup> tchi <sup>44</sup>	exit	(ZMYYC)	(Jianchuan)
	/Cf. PLB *?twak <sup>H</sup> (TSR #102); but this is probably from Chinese 出 /		

**fist**

		<b>55</b>		<b>21</b>	<b>55</b>	<b>55</b>
su <sup>33</sup> tʂhue <sup>55</sup> thou <sup>55</sup>	fist	(ZMYYC)	(Dali)			
tɕi <sup>21</sup>	fist	(ZMYYC)	(Jianchuan)			
su <sup>33</sup> tʂhu <sup>155</sup> tho <sup>55</sup>	fist	(ZYS)				
sɿ <sup>33</sup> tʂhu <sup>55</sup> to <sup>55</sup> ne <sup>42</sup>	fist	(TBL)				
	/< Chinese 拳頭 (Mand. quántou) /					

**horn**

		<b>44</b>	<b>44</b>	<b>44</b>	<b>33c</b>	<b>44</b>
kv <sup>44</sup>	horn	(ZMYYC)	(Dali)			
qõ <sup>44</sup>	horn	(ZMYYC)	(Bijiang)			
kv <sup>44</sup>	horn	(ZMYYC)	(Jianchuan)			
kv <sup>44</sup> «tsã <sup>21</sup> »	horn	(ZYS)				
qõ <sup>44</sup>	horn	(JZ)	(Bijiang)			
kÿ <sup>44</sup>	horn	(JZ)	(Jianchuan)			
kÿ <sup>44</sup>	horn	(JZ)	(Dali)			
kõ <sup>33</sup>	horn	(TBL)				
kv <sup>44</sup>	antler	(ZYS)				

/Cf. PLB \*krəw<sup>1</sup>, but prob. < Chinese 角 (Mand. jiǎo); OC kŭk (GSR 1225a) /

<i>Gloss</i>		<i>PLB Tone</i>	<i>Dali</i>	<i>Bijiang</i>	<i>Jianchuan</i>	<i>TBL</i>	<i>ZYS</i>	<i>FD</i>
<b>kill</b>		<b>LS</b>	<b>44</b>	<b>44</b>	<b>44</b>	<b>33c</b>		<b>2</b>
ɕɑ <sup>44</sup>	kill	(ZMYYC)	(Dali)					
ɕɑ <sup>44</sup>	kill	(ZMYYC)	(Bijiang)					
ɕɑ <sup>44</sup>	kill	(ZMYYC)	(Jianchuan)					
sia 2	kill, to	(FD)						
ɕɑ <sup>33</sup>	kill	(TBL)						
	/cf. PTB *g-sat (STC #58), PLB *C-sat (TSR #124), but probably < Chinese 殺 (Mand. shā) /							

**moon**

		<b>44</b>	<b>55</b>	<b>44</b>	<b>33c</b>	<b>2</b>
mi <sup>55</sup> uɑ <sup>44</sup>	moon	(ZMYYC)	(Dali)			
ŋu <sup>55</sup> ŋu <sup>55</sup>	moon	(ZMYYC)	(Bijiang)			

mi <sup>55</sup> ŋuq <sup>44</sup>	moon (ZMYYC)	(Jianchuan)
mi <sup>1</sup> ua <sup>2</sup>	moon (FD)	
mi <sup>55</sup> ŋuq <sup>33</sup>	moon (TBL)	
ɣo <sup>21</sup> ŋuq <sup>33</sup>	summer (lit. 'hot moon')	(TBL)
ə <sup>21</sup> ŋuq <sup>33</sup>	summer	(TBL)
tchə <sup>55</sup> ŋuq <sup>33</sup>	fall / autumn	(TBL)
tō <sup>55</sup> ŋuq <sup>33</sup>	winter (TBL)	
	/cf. Chinese 月 /	

**turbid/muddy**

tsv <sup>42</sup>	turbid / muddy	(ZMYYC)	(Dali)
tsɔ <sup>21</sup>	muddy / turbid	(TBL)	
dzo <sup>42</sup> de <sup>433</sup> ɕui <sup>33</sup>	turbid / muddy	(ZMYYC)	(Bijiang)
tsv <sup>42</sup>	turbid / muddy	(ZMYYC)	(Jianchuan)
	/prob. < Chinese 濁 (Mand. <b>zhuó</b> ) GSR 1224p: OC <b>*tũk</b> ./		

**weep**

kho <sup>44</sup>	weep	(ZMYYC)	(Dali)
qho <sup>55</sup>	weep	(ZMYYC)	(Bijiang)
kho <sup>44</sup>	weep	(ZMYYC)	(Jianchuan)
qho <sup>44</sup>	cry, weep	(JZ)	(Bijiang)
khɔ <sup>44</sup>	cry, weep	(JZ)	(Jianchuan)
khɔ <sup>44</sup>	cry, weep	(JZ)	(Dali)
khɔ <sup>44</sup>	cry / weep	(ZYS)	
khɔ <sup>2</sup>	weep	(FD)	(Dali)

/Cf. PTB **\*krap**, but prob. < Chinese 哭 (Mand. **kū**) /

**Etyma with nasal finals****Where PLB has Tone \*1**

Gloss	PLB Tone	Dali	Bijiang	Jianchuan	TBL	ZYS	FD
<b>bear (n.)</b>	<b>*1</b>			<b>33</b>			
tɕe <sup>35</sup>	bear (n.)	(ZMYYC)	(Dali)				
tsẽ <sup>55</sup>	bear (n.)	(ZMYYC)	(Bijiang)				
<b>khuã<sup>33</sup>tɕi<sup>55</sup></b>	bear (n.)	(ZMYYC)	(Jianchuan)				
tɕi <sup>55</sup>	bear	(TBL)					

/The 1st syll. of the Jianchuan form is perhaps < **\*k-wam** (cf. WB **wak-wam**, Bisu **?ə-wám**, Phunoi **?ám**), PTB **\*d-wam** (cf. WT **dom**) /

**grill/roast** \*1 3/4  
 k'o 3/4 grill, to (FD)  
 /PTB \*kaŋ (STC #330); cf. WB kaŋ, Lahu qɔ (the latter from \*ʔgaŋ)./

**have/be** \*1 33 33 33 3  
 tso<sup>33</sup> be / copula (ZMYYC) (Dali)  
 d̥õ<sup>33</sup> be / copula (ZMYYC) (Bijiang)  
 tsu<sup>33</sup> be / copula (ZMYYC) (Jianchuan)  
 tsu<sup>33</sup> have (ZMYYC) (Dali)  
 dzi<sup>33</sup> have (ZMYYC) (Bijiang)  
 tsu<sup>33</sup> have (ZMYYC) (Jianchuan)  
 tsö 3 have / be (FD)

**house** \*1 31 42 31 21 3/4  
 xo<sup>31</sup> house (ZMYYC) (Dali)  
 ʃu<sup>21</sup>xo<sup>42</sup> house (ZMYYC) (Bijiang)  
 xo<sup>31</sup> house (ZMYYC) (Jianchuan)  
 xo<sup>31</sup>tv<sup>35</sup> home (ZMYYC) (Dali)  
 po<sup>55</sup>xo<sup>42</sup> home (ZMYYC) (Bijiang)  
 xo 3/4 house / room (FD)  
 ji<sup>42</sup>xo<sup>21</sup> household (TBL)  
 xo<sup>21</sup> house (TBL)  
 /perhaps < PTB \*k-yum/

**run/flee** \*1 33 33 4  
 phõ<sup>33</sup> run (ZMYYC) (Jianchuan)  
 p'o 4 run (FD)  
 phõ<sup>33</sup> run (TBL)  
 /cf. PTB \*ploŋ (STC #140); Lahu phɔ; Jingpho phrõŋ/

**knife** \*1 35 55 55 55 6  
 ji<sup>35</sup>ta<sup>35</sup> knife (ZMYYC) (Dali)  
 e<sup>55</sup>ti<sup>55</sup> knife (ZMYYC) (Bijiang)  
 ji<sup>55</sup>tã<sup>55</sup> knife (ZMYYC) (Jianchuan)  
 zi<sup>2</sup>ta<sup>6</sup> knife (FD)  
 ji<sup>55</sup>tã<sup>55</sup> knife (TBL)  
 /cf. Lahu á-thɔ < PLB \*taŋ<sup>1</sup>/

<i>Gloss</i>		<i>PLB Tone</i>	<i>Dali</i>	<i>Bijiang</i>	<i>Jianchuan</i>	<i>TBL</i>	<i>ZYS</i>	<i>FD</i>
<b>pair</b>		<b>*1 ɰ *3</b>	<b>33</b>		<b>33</b>	<b>33</b>		
(a <sup>31</sup> )tɕe <sup>33</sup>	pair	(ZMYYC)	(Dali)					
tɕi <sup>33</sup>	pair	(ZMYYC)	(Jianchuan)					
(ŋe <sup>42</sup> a <sup>21</sup> ) tɕi <sup>33</sup>	pair (of shoes)		(TBL)					

ɕõ<sup>55</sup> pair (ZMYYC) (Bijiang) [prob. < Chinese 雙 (Mand. shuāng)]  
/cf. Lahu ɕe 'a pair' ≠ ɕè 'to be doubled'; Akha dzm (mid-tone); WB chum 'come together'/

<b>sheep</b>	<b>*1</b>	<b>21</b>		<b>21</b>	<b>42</b>	<b>7</b>
jou <sup>21</sup>	goat / sheep (generic)	(ZMYYC)		(Dali)		
ŋo <sup>21</sup>	goat / sheep (generic)	(ZMYYC)		(Bijiang)		
jõ <sup>21</sup>	goat / sheep (generic)	(ZMYYC)		(Jianchuan)		
io 7	sheep	(FD)				
no <sup>42</sup>	sheep (general)	(TBL)				
no <sup>42</sup> ɣu <sup>21</sup>	sheepfold	(TBL)				

xu <sup>44</sup> jou <sup>21</sup>	goat	(ZMYYC)		(Dali)		
qo <sup>42</sup> ŋo <sup>21</sup>	goat	(ZMYYC)		(Bijiang)		
ko <sup>21</sup> jõ <sup>21</sup>	goat	(ZMYYC)		(Jianchuan)		
kõ <sup>21</sup> no <sup>42</sup>	goat	(TBL)				

/cf. PLB \*yan<sup>1</sup>; but possibly a loan from Chinese 羊 (Mand. yáng); the 1st syllables of the words for 'goat' may mean 'mountain' (cf. WB khaŋ, Lahu qhɔ < PLB \*kaŋ/

<b>strain/filter</b>	<b>*1</b>		<b>44</b>			
tɕu <sup>44</sup> strain (tea)	(ZMYYC)		(Bijiang)			
	/cf. DL p. 533; Lahu che, WB kyan ≠ khyan/					

<b>thread</b>	<b>*1</b>	<b>33</b>	<b>33</b>	<b>33</b>	<b>33</b>	
xo <sup>35</sup> xu <sup>33</sup>	thread	(ZMYYC)		(Dali)		
xu <sup>33</sup>	thread	(ZMYYC)		(Bijiang)		
xu <sup>33</sup>	thread	(ZMYYC)		(Jianchuan)		
xə <sup>55</sup> xə <sup>33</sup>	thread	(TBL)				
	/PLB *kriŋ <sup>1</sup> ; cf. Lahu khe, WB khrañ/					

<b>tree</b>	<b>*1</b>	<b>31</b>	<b>42</b>	<b>31</b>	<b>21</b>	<b>3</b>
tsu <sup>31</sup>	tree	(ZMYYC)		(Dali)		
ɖu <sup>42</sup>	tree	(ZMYYC)		(Bijiang)		
tsu <sup>31</sup>	tree	(ZMYYC)		(Jianchuan)		
tsɿ <sup>21</sup>	tree	(TBL)				
(ɑ <sup>31</sup> )tsu <sup>31</sup>	classifier for trees	(ZMYYC)		(Dali)		
ɖu <sup>42</sup>	classifier for trees	(ZMYYC)		(Bijiang)		
tsu <sup>31</sup>	classifier for trees	(ZMYYC)		(Jianchuan)		
tsö 3	classifier for trees	(FD)				
(tsɿ <sup>21</sup> ɑ <sup>21</sup> ) tsɿ <sup>21</sup>	classifier for trees	(TBL)				
	/cf. Lahu šɿ?-cè 'tree', cè 'clf. for plants', prob. < PLB *dzum <sup>1</sup> /					

<i>Gloss</i>	<i>PLB Tone</i>	<i>Dali</i>	<i>Bijiang</i>	<i>Jianchuan</i>	<i>TBL</i>	<i>ZYS</i>	<i>FD</i>
<b>weigh</b>	<b>*1</b>	<b>55</b>	<b>55</b>	<b>55</b>	<b>55</b>		<b>1</b>
tɕhue <sup>55</sup>	steelyard		(ZMYYC)	(Dali)			
tɕhui <sup>55</sup>	steelyard		(ZMYYC)	(Bijiang)			
tɕhui <sup>55</sup>	steelyard	(	ZMYYC)	(Jianchuan)			

t̥hue <sup>55</sup> tiu <sup>31</sup>	metal weight on steelyard	(ZMYYC)	(Dali)
t̥hui <sup>55</sup> to <sup>42</sup>	metal weight on steelyard	(ZMYYC)	(Bijiang)
t̥hui <sup>55</sup> tiu <sup>31</sup>	metal weight on steelyard	(ZMYYC)	(Jianchuan)
t̥hui <sup>55</sup>	weigh (v.t.)	(ZMYYC)	(Dali)
tshui <sup>55</sup>	weigh (v.t.)	(ZMYYC)	(Bijiang)
t̥hui <sup>55</sup>	weigh (v.t.)	(ZMYYC)	(Jianchuan)
ts'y 1	weigh, to	(FD)	
t̥hue <sup>55</sup>	weigh (food)	(TBL)	

/cf. PLB \*k(y)i:n<sup>1</sup> (DL p. 555, STC #369); cf. Jg. *sin* ≠ *sen* ≠ *t̥sen*; but perhaps < Chinese 稱 'weigh' (Mand. chēng) or 秤 'scale' (Mand. chènɡ)/

<b>you/thou</b>	<b>*1</b>	<b>31</b>	<b>55</b>	<b>31</b>	<b>21</b>	<b>3/4</b>
no <sup>31</sup> you (sg.)	(ZMYYC)	(Dali)				
na <sup>55</sup> you (sg.)	(ZMYYC)	(Bijiang)				
no <sup>31</sup> you (sg.)	(ZMYYC)	(Jianchuan)				
no 3/4 you (sg.)	(FD)					
no <sup>21</sup> you	(TBL)					

**Where LB shows variation between \*1 and \*3**

<b>name</b>	<b>*1 ≠ *3</b>	<b>35</b>	<b>55</b>	<b>55</b>	<b>55</b>
me <sup>135</sup> name	(ZMYYC)	(Dali)			
no <sup>55</sup> name	(ZMYYC)	(Bijiang)			
mie <sup>55</sup> name	(ZMYYC)	(Jianchuan)			
mia <sup>55</sup> name	(TBL)				
ə <sup>55</sup> (mia <sup>55</sup> )	called, be / named	(TBL)			

/cf. PTB \*r-miŋ (STC #83), but also Chinese 名 (Mand. míng)/

**Where PLB has Tone \*2**

<b>braid/plait</b>	<b>*2</b>	<b>35</b>	<b>42</b>	<b>55</b>	<b>55</b>	<b>6</b>
pi <sup>35</sup>	braid	(ZMYYC)	(Dali)			
pĩ <sup>55</sup>	braid	(ZMYYC)	(Jianchuan)			
tiē <sup>21</sup> mie <sup>55</sup> pē <sup>142</sup>	braid (hair)	(JZ)	(Bijiang)			
t̥u <sup>21</sup> ma <sup>55</sup> pĩ <sup>55</sup>	braid (hair)	(JZ)	(Jianchuan)			
t̥u <sup>21</sup> ma <sup>35</sup> pi <sup>35</sup>	braid (hair)	(JZ)	(Dali)			
pi 6	braid	(FD)				
tiə <sup>42</sup> ma <sup>55</sup> pĩ <sup>55</sup>	braid / plait	(TBL)				

/cf. Lahu *phê* (DL, p. 903); cf also Chinese 辮 (Mand. biàn) and 編 biān) /

<i>Gloss</i>	<i>PLB Tone</i>	<i>Dali</i>	<i>Bijiang</i>	<i>Jianchuan</i>	<i>TBL</i>	<i>ZYS</i>	<i>FD</i>
<b>ear/spike (of grain)</b>	<b>*2</b>	<b>33</b>	<b>33</b>	<b>33</b>	<b>33</b>		
tsue <sup>133</sup>	ear (of grain-producing plant)		(ZMYYC)	(Dali)			
t̥ō <sup>33</sup>	ear (of grain-producing plant)		(ZMYYC)	(Bijiang)			
tsuē <sup>33</sup>	ear (of grain-producing plant)		(ZMYYC)	(Jianchuan)			
tsuā <sup>33</sup>	ear / spike		(TBL)				

## /cf. Lahu cē/

<b>earring</b>	<b>*2</b>	<b>44</b>	<b>21</b>	<b>21</b>	<b>42</b>
ŋo <sup>33</sup> ku <sup>21</sup> ku <sup>44</sup>	earring	ZMYYC	Bai (Dali)		
ẽ <sup>42</sup> kõ <sup>21</sup>	earring	ZMYYC	Bai (Bijiang)		
jĩ <sup>33</sup> kõ <sup>21</sup>	earring	ZMYYC	Bai (Jianchuan)		
ɲi <sup>55</sup> kõ <sup>42</sup>	earrings	TBL			

/cf. WB kwâŋ 'bend into a ring', nâ-kwâŋ 'earring'/

<b>horse</b>	<b>*2</b>	<b>33</b>	<b>33</b>	<b>33</b>	<b>33</b>	<b>3</b>
me <sup>33</sup>	horse (ZMYYC)	(Dali)				
mo <sup>33</sup>	horse (ZMYYC)	(Bijiang)				
mẽ <sup>33</sup>	horse (ZMYYC)	(Jianchuan)				
moe 3	horse (FD)					
ma <sup>33</sup>	horse (TBL)					
ma <sup>33</sup> ɣu <sup>21</sup>	stable / fence (horse) (TBL)					
ma <sup>33</sup>	year of the horse (TBL)					
ma <sup>33</sup> pã <sup>42</sup>	horseshoe (TBL)					

/PLB \*mraŋ<sup>2</sup>; cf. also Chinese 馬 (Mand. mǎ)/

<b>nail/claw</b>	<b>*2</b>		<b>42(c)</b>	<b>21(c)</b>
tẽĩ <sup>42</sup>	claw (ZMYYC)		(Bijiang)	
tẽui <sup>21</sup>	claw (ZMYYC)		(Jianchuan)	
tẽĩ <sup>42</sup>	claw (JZ)		(Bijiang)	
tẽui <sup>21</sup>	claw (JZ)		(Jianchuan)	

/PTB \*m-(t)sin ɤ \*m-tsyen (STC #74)/

The following are from Chinese 爪子 (Mand. zhuāzi):

tsua <sup>31</sup> tsɿ <sup>33</sup>	claw (ZYS)		
tso <sup>31</sup> tsi <sup>44</sup>	claw (ZMYYC)	(Dali)	
tso <sup>31</sup> tsi <sup>44</sup>	claw (JZ)	(Dali)	
tsuc <sup>21</sup> tsɿ <sup>33</sup>	claw / talon (TBL)		

<i>Gloss</i>	<i>PLB Tone</i>	<i>Dali</i>	<i>Bijiang</i>	<i>Jianchuan</i>	<i>TBL</i>	<i>ZYS</i>	<i>FD</i>
<b>narrow</b>	<b>*2</b>	<b>44</b>	<b>44</b>	<b>44</b>	<b>44</b>		
tse <sup>144</sup> narrow	(ZMYYC)	(Dali)					
tɕe <sup>144</sup> narrow	(ZMYYC)	(Bijiang)					
tse <sup>44</sup> narrow	(ZMYYC)	(Jianchuan)					
tsoe 2 narrow	(FD)						
tsa <sup>33</sup> narrow	(TBL)						

/cf. Lahu cē, WB kyañ ɤ khyañ; but cf. also Chinese 窄 (Mand. zhǎi)./

<b>pointed</b>	<b>*1 ɤ *2 ɤ *3</b>	<b>35</b>	<b>55</b>	<b>55</b>	<b>55</b>
tẽe <sup>35</sup>	pointed (ZMYYC)		(Dali)		
tẽẽ <sup>55</sup>	pointed (ZMYYC)		(Bijiang)		
tẽĩ <sup>55</sup>	pointed (ZMYYC)		(Jianchuan)		
tẽĩ <sup>55</sup>	pointed (TBL)				



tɕĩ<sup>55</sup>ne<sup>42</sup> point / tip (TBL)  
/PLB \*kywan (WB khywan (\*1) ≠ khywân (\*2); Akha t̪hɛ, Mpi t̪she (\*3), Lahu che (\*1 or \*3); but cf. also Chinese 尖 (Mand. jiān); see DL, p. 533/

**right/upright/correct \*2 33 35**

tso<sup>33</sup> right / correct (ZMYYC) (Dali)  
tsũ<sup>55</sup>tsho<sup>35</sup> right / correct (ZMYYC) (Jianchuan)  
/Lahu c̆, Bola t̪ʂ<sup>21</sup>; see DL p. 489/

**speech \*2 21 21 21 42**

t̪ō<sup>21</sup> speech (JZ) (Bijiang)  
t̪ō<sup>21</sup> speech (JZ) (Jianchuan)  
t̪ō<sup>21</sup> speech (JZ) (Dali)  
t̪ō<sup>42</sup> speech / words (TBL)

**use \*2 31 3/4**

zv<sup>31</sup> use (ZMYYC) (Dali)  
zv 3/4 use / utilize (FD)  
zv3 ts'v3 usefulness / utility (FD)  
/PLB \*zum<sup>2</sup> (WB sũm, Lahu yê)/

The following are from Chinese 用 (Mand. yòng):

ŋo<sup>42</sup> use (ZMYYC) (Bijiang)  
jō<sup>42</sup> use (ZMYYC) (Jianchuan)

**wedge \*2 35 55 55**

tɕi<sup>35</sup> wedge (ZMYYC) (Dali)  
tɕĩ<sup>55</sup>ne<sup>21</sup> wedge (ZMYYC) (Jianchuan)  
tɕĩ<sup>55</sup>ne<sup>42</sup> wedge (TBL)  
/Cf. Lahu jũ, Zaiwa siŋ<sup>21</sup>t̪ʃam<sup>21</sup>, Langsu saŋ<sup>35</sup>t̪ʃɛ<sup>31</sup>/

**Where LB has tone \*3**

Gloss	PLB Tone	Dali	Bijiang	Jianchuan	TBL	ZYS	FD
<b>powder/flour</b>	<b>*3 ≠ *1</b>	<b>42</b>		<b>42</b>	<b>21</b>		
mu <sup>55</sup> mi <sup>42</sup>	flour	(ZMYYC)	(Dali)	[mu <sup>55</sup> 'wheat']			
mu <sup>55</sup> yo <sup>21</sup>	flour	(ZMYYC)	(Bijiang)				
mu <sup>44</sup> mi <sup>42</sup>	flour	(ZMYYC)	(Jianchuan)				
moe2 mi 5	wheat flour	(FD)					
mi <sup>21</sup>	flour	(TBL)					

/cf. WB **mun'** ~ **hmun'** 'be small, minute' ≠ **?əmun'** ~ **?əhmun'** 'pulverized matter, powder'  
≠ **?əhmun'** 'fine dust' ; Lh. **mə** ≠ **mə** ≠ **məy'**/

**Nasal-final etymon not attested in LB**

<b>testicle/egg</b>				<b>33</b>	<b>33</b>	
kuã <sup>33</sup>	testicle	(TBL)				
kuã <sup>33</sup>	testicle	(ZYS)				
kuã <sup>33</sup> lǒ <sup>21</sup>	scrotum	(ZYS)				

/cf. WT sɲoŋ-ŋa 'egg', Hayu kuŋ-sit 'id.', Tsangla khong-lung 'testicle'/

***Probable Chinese loans with nasal finals***

<b>bee</b>			<b>55</b>	<b>55</b>	<b>55</b>	<b>55</b>	<b>1</b>
fv <sup>55</sup>	honeybee	(ZMYYC)		(Dali)			
xũ <sup>55</sup>	honeybee	(ZMYYC)		(Bijiang)			
fṽ <sup>55</sup>	honeybee	(ZMYYC)		(Jianchuan)			
fv 1	bee	(FD)					
fv1 mi 2	honey	(FD)					
tsã <sup>55</sup> fã <sup>55</sup> tsɿ <sup>33</sup>	bee	(TBL)					
fã <sup>55</sup>	bee	(TBL)					

/< Chinese 蜂 (Mand. fēng)./

<b>brain</b>			<b>33</b>	<b>33</b>	<b>33</b>	<b>33</b>	<b>33</b>
nɿ <sup>33</sup> cui <sup>33</sup>	brain (JZ)	(Bijiang)					
no <sup>33</sup>	brain (JZ)	(Jianchuan)					
nɿ <sup>33</sup> cui <sup>33</sup>	brain (JZ)	(Dali)					
no <sup>33</sup> cy <sup>33</sup>	brains (TBL)						
nõ <sup>33</sup> khɿ <sup>31</sup>	brain (ZYS)						
nõ <sup>33</sup> «khɿ <sup>31</sup> »	brain (ZYS)						

/Cf. PLB \*s-nuk, but prob. < Chinese 腦 (Mand. nǎo)/

<b>dog/dhole</b>			<b>33</b>	<b>33</b>	<b>33</b>	<b>33</b>	<b>3</b>
khuã <sup>33</sup>	dog	(ZMYYC)		(Dali)			
qhõ <sup>33</sup>	dog	(ZMYYC)		(Bijiang)			
khuã <sup>33</sup>	dog	(ZMYYC)		(Jianchuan)			
k'ua 3/4	dog (general)	(FD)					
k'ua3 mɔ3	dog (f.)	(FD)					
k'ua3 to6	dog (m.)	(FD)					
khuã <sup>33</sup>	dog	(TBL)					
kuã <sup>33</sup>	year of the dog	(TBL)					

/cf. \*k-y-wal 'wild dog, wolf, dhole' (GSTC #17); but prob. < Chinese 犬 (Mand. quǎn; OC k'iwən)/

<i>Gloss</i>	<i>PLB Tone</i>	<i>Dali</i>	<i>Bijiang</i>	<i>Jianchuan</i>	<i>TBL</i>	<i>ZYS</i>	<i>FD</i>
<b>dream</b>		<b>53</b>	<b>42</b>	<b>31</b>	<b>21</b>		
mu <sup>53</sup>	dream	(ZMYYC)	(Dali)				

muw <sup>42</sup>	dream (ZMYYC)	(Bijiang)
muw <sup>31</sup>	dream (ZMYYC)	(Jianchuan)
tsu <sup>55</sup> mũ <sup>31</sup> ŋ̃ <sup>42</sup>	dream (ZYS)	
mũ <sup>31</sup>	dream (ZYS)	
mũ <sup>42</sup>	dream (JZ)	(Bijiang)
muw <sup>31</sup> ŋ̃ <sup>42</sup>	dream (JZ)	(Jianchuan)
muw <sup>42</sup>	dream (JZ)	(Dali)
mə <sup>21</sup>	dream (TBL)	
mə <sup>21</sup>	dream (TBL)	

/usually with **\*-k** in LB, but there is a tone \*1 WB allofam in **-ŋ**; prob. < Chinese 夢 /

<b>garlic</b>		<b>31</b>	<b>42</b>	<b>31</b>	<b>21</b>	<b>4</b>
suɑ <sup>31</sup>	garlic (ZMYYC)	(Dali)				
suɑ̃ <sup>42</sup>	garlic (ZMYYC)	(Bijiang)				
suɑ̃ <sup>31</sup>	garlic (ZMYYC)	(Jianchuan)				
suɑ̃ <sup>21</sup>	garlic (TBL)					
sua 4	garlic (FD)					

/PLB **\*swa<sup>2</sup>** (Lahu šũ) ≈ **\*swan<sup>1</sup>** (WB **krak-swan**); but prob. < Chinese 蒜 (Mand. suàn)/

<b>new</b>		<b>35</b>	<b>55</b>	<b>55</b>		<b>6</b>
ci <sup>35</sup>	new (ZMYYC)	(Dali)				
sẽ <sup>55</sup>	new (ZMYYC)	(Bijiang)				
çĩ <sup>55</sup>	new (ZMYYC)	(Jianchuan)				
si 6	new (FD)					

/< Chinese 新 (Mand. xīn)/

<b>onion</b>		<b>55</b>	<b>55</b>	<b>55</b>	<b>21</b>	<b>5</b>
tshi <sup>55</sup>	onion (green)	(ZMYYC)	(Dali)			
tsho <sup>55</sup>	onion (green)	(ZMYYC)	(Bijiang)			
tshĩ <sup>55</sup>	onion (green)	(ZMYYC)	(Jianchuan)			
tsw 1	onion	(FD)				
tshõ <sup>55</sup>	onion / scallion	(TBL)				

/cf. WT **btsong**, but prob. < Chinese 蔥 (cf. Mand. cōngtóu) /

<i>Gloss</i>	<i>PLB</i>	<i>Tone</i>	<i>Dali</i>	<i>Bijiang</i>	<i>Jianchuan</i>	<i>TBL</i>	<i>ZYS</i>	<i>FD</i>
<b>plant (v.)</b>			<b>42</b>	<b>55</b>	<b>42</b>	<b>21</b>		
tsv <sup>42</sup>	plant (v.)	(ZMYYC)	(Dali)					
tɕu <sup>55</sup>	plant (v.)	(ZMYYC)	(Bijiang)					
tsĩ <sup>42</sup>	plant (v.)	(ZMYYC)	(Jianchuan)					
tsv 5	plant, to	(FD)						
tsõ <sup>21</sup>	plant (trees)	(TBL)						

/prob. < Chinese 種 (Mand. zhòng)/

<b>scatter/broadcast</b>	<b>*2</b>	<b>44</b>	<b>44</b>	<b>44</b>		
sa <sup>44</sup> tsv <sup>33</sup>	scatter / broadcast	(ZMYYC)	(Dali)			

sq <sup>44</sup>	scatter / broadcast	(ZMYYC)	(Bijiang)			
sq <sup>44</sup>	scatter / broadcast	(ZMYYC)	(Jianchuan)			
tã <sup>33</sup> sã <sup>21</sup>	break up / scatter	(TBL)				
pe <sup>33</sup> sã <sup>21</sup>	get separated accidentally and lose contact with		(TBL)			
sq <sup>33</sup>	scatter (seeds) (TBL)					
	/PTB *san ≠ *sat (cf. Lahu šẽ 'sow broadcast!'); but cf. Chinese 散 (Mand. sàn) and 撒 (Mand. sǎ < OC *sât)/					

**soak**

tsi <sup>21</sup>	soak / immerse(e.g. seed)	(ZMYYC)	(Dali)			
tse <sup>21</sup>	soak / immerse(e.g. seed)	(ZMYYC)	(Bijiang)			
tsu <sup>21</sup>	soak / immerse(e.g. seed)	(ZMYYC)	(Jianchuan)			
	/prob. < Chinese 浸 (Mand. jìn)/					

<b>three</b>	<b>*2</b>	<b>55</b>	<b>55</b>	<b>55</b>	<b>55</b>	<b>1</b>
sq <sup>55</sup>	three (ZMYYC)	(Dali)				
sã <sup>55</sup>	three (ZMYYC)	(Bijiang)				
sã <sup>55</sup>	three (ZMYYC)	(Jianchuan)				
sa 1	three (FD)					
sã <sup>55</sup>	three (TBL)					
	/PLB *sum <sup>2</sup> ; but prob. < Chinese 三 (Mand. sān)/					

<b>wood/firewood</b>	<b>35</b>	<b>55</b>	<b>55</b>	<b>55</b>	<b>2</b>	
çi <sup>35</sup>	firewood (ZMYYC)	(Dali)				
sẽ <sup>55</sup>	firewood (ZMYYC)	(Bijiang)				
çĩ <sup>55</sup>	firewood (ZMYYC)	(Jianchuan)				
si 6	fire wood (FD)					
çĩ <sup>55</sup>	firewood (TBL)					
sv2 lv2	wood (FD)					
	/< Chinese 薪 (Mand. xīn); LB reflects the stop-finalled allofam *sik/					

***Etyma with final \*-a*****With Tone \*1 in PLB**

<i>Gloss</i>	<i>PLB Tone</i>	<i>Dali</i>	<i>Bijiang</i>	<i>Jianchuan</i>	<i>TBL</i>	<i>ZYS</i>	<i>FD</i>
<b>grain (Clf)/rice</b>	<b>*1</b>	<b>33</b>	<b>33</b>	<b>33</b>			
(ɑ <sup>31</sup> )kho <sup>33</sup>	classifier for grains	(ZMYYC)	(Dali)				
qho <sup>33</sup>	classifier for grains	(ZMYYC)	(Bijiang)				
kho <sup>33</sup>	classifier for grains	(ZMYYC)	(Jianchuan)				
	/cf. Lahu cà-qha tê qha 'one grain of rice' (DL p. 264)/						

<b>handspan</b>		<b>*1</b>	<b>31</b>	<b>42</b>	<b>31</b>	<b>21</b>	<b>31</b>
tho <sup>42</sup>	handspan	(ZMYYC)		(Bijiang)			
tho <sup>31</sup>	handspan	(ZMYYC)		(Jianchuan)			
a <sup>31</sup> tho <sup>31</sup>	hand span	(ZYS)					
tho <sup>42</sup>	span	(JZ)		(Bijiang)			
tho <sup>31</sup>	span	(JZ)		(Jianchuan)			
thuo <sup>31</sup>	span	(JZ)		(Dali)			
(a <sup>21</sup> ) tho <sup>21</sup>	span	(TBL)					

/The Dali form (a<sup>31</sup>)thou<sup>33</sup> (ZMYYC #960) is apparently a misprint./

<b>hoof/foot</b>		<b>*1</b>	<b>44</b>	<b>44(c)</b>	<b>44(c)</b>
ko <sup>44</sup> le <sup>31</sup>	foot	(ZMYYC)		(Dali)	
ko <sup>44</sup>	foot	(ZMYYC)		(Bijiang)	
ko <sup>44</sup>	foot	(ZMYYC)		(Jianchuan)	
ko <sup>44</sup> pa <sup>21</sup>	hoof	(ZMYYC)		(Dali)	
ko <sup>44</sup> po <sup>21</sup>	hoof	(ZMYYC)		(Bijiang)	
ko <sup>0</sup>	foot,/ hoof	(FD)		(Dali) [tone unknown to Dell]	
ko <sup>44</sup>	foot	(ZYS)			
ko <sup>44</sup>	foot	(JZ)	(Bijiang)		
ko <sup>44</sup>	foot	(JZ)	(Jianchuan)		
ko <sup>44</sup>	foot	(JZ)	(Dali)		
ko <sup>33</sup>	foot	(TBL)			

/These forms are apparently not related to PLB \*krəy<sup>1</sup> 'foot', but rather to PLB \*kwa<sup>1</sup> 'hoof' (WB khwa, Yi Xide kha<sup>33</sup>, etc.; cf. Matisoff 2000, #12); cf. also Chinese 脚 (OC kjak, Mand. jiǎo)./

ko<sup>44</sup> to<sup>42</sup> pe<sup>42</sup> instep (ZYS)

/This form resembles Lahu khɿ-tɔ-pe 'whole foot'; khɿ-tɔ-pɔ [RL] 'sole', khɿ-tɔ-pɔ=thà?-phô 'instep'./

<b>I/me</b>		<b>*1</b>	<b>31</b>	<b>42</b>	<b>31</b>	<b>21</b>
ŋo <sup>31</sup>	I	(ZMYYC)	(Dali)			
ŋo <sup>42</sup>	I	(ZMYYC)	(Bijiang)			
ŋo <sup>31</sup>	I	(ZMYYC)	(Jianchuan)			
ŋo <sup>21</sup>	I	(TBL)				

<b>Gloss</b>		<b>PLB Tone</b>	<b>Dali</b>	<b>Bijiang</b>	<b>Jianchuan</b>	<b>TBL</b>	<b>ZYS</b>	<b>FD</b>
<b>laugh</b>		<b>*1</b>	<b>31</b>	<b>42</b>	<b>31</b>	<b>21</b>	<b>31</b>	<b>4</b>
so <sup>31</sup>	laugh	(ZMYYC)	(Dali)					
su <sup>42</sup>	laugh	(ZMYYC)	(Bijiang)					
so <sup>31</sup>	laugh	(ZMYYC)	(Jianchuan)					
so <sup>31</sup>	laugh	(ZYS)						
sȳ <sup>42</sup>	laugh	(JZ)	(Bijiang)					
so <sup>31</sup>	laugh	(JZ)	(Jianchuan)					
so <sup>31</sup>	laugh	(JZ)	(Dali)					
so 4	laugh, to	(FD)						
so <sup>21</sup>	laugh / smile	(TBL)						

/cf. PTB \*s-rya-t ≈ \*g-rya-t (revised reconstruction of STC #202), PLB \*rya ≈ \*ray;

but cf. also Chinese 笑 (Mand. xiào)./

<b>rain</b>	<b>*1</b>	<b>33</b>	<b>42</b>	<b>42</b>	<b>33</b>	<b>3</b>
v <sup>33</sup> ci <sup>44</sup>	rain	(ZMYYC)	(Dali)			
v <sup>33</sup> cui <sup>33</sup>	rain	(ZMYYC)	(Jianchuan)	[2nd. syll. < 水 ]		
vu <sup>33</sup> ci <sup>44</sup> o <sup>42</sup>	rain (v.)	(ZMYYC)	(Dali)			
dz <sup>e</sup> i <sup>33</sup> u <sup>42</sup>	rain (v.)	(ZMYYC)	(Bijiang)			
yo <sup>42</sup>	rain (v.)	(ZMYYC)	(Jianchuan)			
v3 si 2	rain (n)	(FD)				
za <sup>33</sup> cy <sup>33</sup>	rain	(TBL)				
va <sup>33</sup> cy <sup>33</sup>	rain	(TBL)				
	/PTB *r-wa (STC #443)/					

<b>slap/hammer</b>	<b>*1</b>	<b>44</b>				
tɑ <sup>44</sup>	hammer (nail in)	(ZMYYC)	(Bijiang)			
tɑ <sup>44</sup>	strike with open palm	(ZMYYC)	(Bijiang)			
	/Lahu tha 'slap', tha-tu 'hammer'; but cf. also Chinese 打 (Mand. dǎ)/					

<b>sparrow</b>	<b>*1</b>					
lo <sup>35</sup> tsu <sup>31</sup> tso <sup>44</sup>	sparrow	(ZMYYC)	(Dali)			
lo <sup>55</sup> dzo <sup>21</sup> tso <sup>55</sup>	sparrow	(ZMYYC)	(Bijiang)			
so <sup>44</sup> tsi <sup>33</sup>	sparrow	(ZMYYC)	(Jianchuan)			
sɔ 2	sparrow	(FD)				
sq <sup>33</sup> ts <sup>1</sup> <sup>33</sup>	sparrow	(TBL)				
	/PLB *N-dža <sup>1</sup> (WB ca, Lahu jà)/					

<b>what</b>	<b>*1</b>	<b>31</b>	<b>42</b>	<b>21</b>	<b>3</b>	
xe <sup>31</sup> le <sup>31</sup>	what	(ZMYYC)	(Dali)			
ɑ <sup>55</sup> xã <sup>42</sup>	what	(ZMYYC)	(Bijiang)			
ɑ <sup>55</sup> xã <sup>21</sup>	what	(TBL)				
xa3 le7	what / which	(FD)				
xa3 ni 7	which	(FD)				
	/Lahu qha ɤ qhà 'interrogative morpheme'/					

### With Tone \*2 in PLB

<i>Gloss</i>	<i>PLB Tone</i>	<i>Dali</i>	<i>Bijiang</i>	<i>Jianchuan</i>	<i>TBL</i>	<i>ZYS</i>	<i>FD</i>
<b>agentive suffix</b>	<b>*2</b>	<b>21</b>		<b>21</b>	<b>42</b>		<b>7</b>
kv <sup>35</sup> tu <sup>21</sup> po <sup>21</sup>	deaf person	(ZMYYC)	(Dali)				
kv <sup>55</sup> tu <sup>21</sup> po <sup>21</sup>	deaf person	(ZMYYC)	(Jianchuan)				
ky <sup>1</sup> tɔ <sup>2</sup> pɔ <sup>7</sup>	deaf	(FD)	(Dali)				
ky <sup>1</sup> nio <sup>3</sup> tɔ <sup>4</sup>	deaf	(FD)	(Dali)				
kỹ <sup>55</sup> tũ <sup>21</sup> pɔ <sup>21</sup>	deaf person	(JZ)	(Jianchuan)				
ky <sup>35</sup> tũ <sup>21</sup> pɔ <sup>21</sup>	deaf person	(JZ)	(Dali)				
kv1 tɔ2 pɔ7	deaf	(FD)					

kõ<sup>55</sup>tiə<sup>42</sup>po<sup>42</sup> deaf person (TBL)  
 /Cf. Lahu **pā**. Contra appearances, this etymon does not represent PLB \***ban**<sup>2</sup> 'deaf', which is the meaning of the 1st syllables in the above compounds; cf. also the following:

kỹ <sup>55</sup>	deaf		(ZYS)	
kỹ <sup>55</sup> ẽ <sup>33</sup> tɕui <sup>21</sup>	deaf person	(JZ)	(Bijiang)	
kũ <sup>55</sup> ẽ <sup>44</sup> tɕui <sup>21</sup>	deaf person	(ZMYYC)	(Bijiang)	
kv1 nio3 tɔ4	deaf	(FD)		
kõ <sup>55</sup>	deaf, be	(TBL)		/

<b>cattle</b>	<b>*2</b>	<b>55/21</b>	<b>21</b>	<b>55/21</b>	<b>42</b>	<b>7</b>
tsi <sup>55</sup> ŋu <sup>55</sup>	cattle (common)	(ZMYYC)	(Dali)			
lɔ <sup>42</sup> ŋo <sup>21</sup>	cattle (common)	(ZMYYC)	(Bijiang)			
tsu <sup>55</sup> ŋu <sup>55</sup>	cattle (common)	(ZMYYC)	(Jianchuan)			
ŋə <sup>42</sup>	cattle	(TBL)				
tsɔ̃ <sup>55</sup> ŋə <sup>42</sup>	cattle (common)	(TBL)				
ngö7	bovine (n)	(FD)				

ŋu <sup>21</sup>	bovine	(ZMYYC)	(Dali)			
ŋu <sup>21</sup>	bovine	(ZMYYC)	(Bijiang)			
ŋu <sup>21</sup>	bovine	(ZMYYC)	(Jianchuan)			
ɕui <sup>33</sup> ŋu <sup>21</sup>	water buffalo	(ZMYYC)	(D, B, J)	/< Chinese 水牛/		
ɕy <sup>33</sup> ŋə <sup>42</sup>	buffalo	(TBL)				

/PTB \*ŋwa (STC #215); but cf. also Chinese 牛 (Mand. niú)/

<b>ear</b>	<b>*2</b>	<b>33</b>		<b>55</b>	<b>3</b>
nv <sup>33</sup> to <sup>42</sup>	ear	(ZMYYC)	(Dali)		
ŋy <sup>33</sup> to <sup>31</sup>	ear	(JZ)	(Dali)		
ŋi <sup>55</sup> kõ <sup>42</sup>	earrings	(TBL)			
nio3 tɔ4	ear	(FD)			

/LB shows \*1 × \*2 variation: ear (\*2) / hear (\*1)/

<i>Gloss</i>	<i>PLB</i>	<i>Tone</i>	<i>Dali</i>	<i>Bijiang</i>	<i>Jianchuan</i>	<i>TBL</i>	<i>ZYS</i>	<i>FD</i>
<b>fall over</b>	<b>*2</b>							<b>2</b>
pa <sup>2</sup> fall over	(FD)		(Dali)					

/cf. Lahu **pā** (DL p. 809)/

<b>fish</b>	<b>*2</b>	<b>35</b>	<b>55</b>	<b>55</b>	<b>55</b>	<b>6</b>
ŋv <sup>35</sup>	fish	(ZMYYC)	(Dali)			
ŋu <sup>55</sup>	fish	(ZMYYC)	(Bijiang)			
ŋv <sup>55</sup>	fish	(ZMYYC)	(Jianchuan)			
ngv 6	fish	(FD)				
ŋo <sup>55</sup>	fish	(TBL)				

<b>five</b>	<b>*2</b>		<b>33</b>	<b>33</b>	<b>33</b>
ŋv <sup>33</sup> five	(ZMYYC)	(Bijiang)			
ŋv <sup>33</sup> five	(ZMYYC)	(Jianchuan)			

ŋo<sup>33</sup> five (TBL)

/The following forms are < Chinese 五 (Mand. wǔ):

mu<sup>33</sup> five (ZMYYC) (Dali)  
mu 3 five (FD) /

<b>forehead</b>	<b>*2</b>	<b>44c</b>	<b>44c</b>	<b>44</b>	<b>33</b>	<b>44</b>	<b>8</b>
ŋe <sup>44</sup> te <sup>44</sup> tu <sup>21</sup>	forehead	(ZMYYC)	(Dali)				
ŋa <sup>44</sup> te <sup>44</sup> pe <sup>21</sup>	forehead	(ZMYYC)	(Bijiang)				
ŋe <sup>44</sup> te <sup>44</sup>	forehead	(ZMYYC)	(Jianchuan)				
ŋɛ <sup>44</sup> te <sup>44</sup> «k <sup>h</sup> ui <sup>55</sup> »	forehead / brow	(ZYS)					
ŋa <sup>44</sup> te <sup>44</sup> pɛ <sup>21</sup>	forehead	(JZ)	(Bijiang)				
ŋe <sup>44</sup> te <sup>44</sup>	forehead	(JZ)	(Jianchuan)				
ŋe <sup>44</sup> te <sup>44</sup> tu <sup>21</sup>	forehead	(JZ)	(Dali)				
ngoe8 te2 tö7	forehead	(FD)					
ŋa <sup>33</sup> te <sup>33</sup>	forehead	(TBL)					

/PLB \*ʔna<sup>2</sup> (Lahu nā); cf. DL, pp. 741-2; the constriction in Dali and Bijiang might be due to a prototype with glottalized initial/

<b>hail</b>	<b>*2</b>		<b>42</b>		<b>21</b>	
sue <sup>44</sup> ua <sup>42</sup>	hail	(ZMYYC)	(Bijiang)			
sue <sup>33</sup> uq <sup>21</sup> ts <sup>33</sup>	hail	(TBL)				

/PLB \*wa<sup>2</sup> < PTB \*s-p<sup>w</sup>al; see Matisoff 2000, #8; the 1st syllables in the above compounds are < Chinese (Mand. xuě

<b>love/desire/want</b>	<b>*2</b>		<b>21</b>	<b>21</b>	<b>42</b>
ko <sup>21</sup> love	(ZMYYC)	(Bijiang)			
ko <sup>21</sup> love	(ZMYYC)	(Jianchuan)			
ko <sup>42</sup> love / like	(TBL)				

/PLB \*N-ga<sup>2</sup>; cf. Lahu gâ 'desiderative particle' (DL, p. 399-400)./

<b>nose</b>	<b>*2</b>		<b>21 + 33/44</b>	<b>21 + 44</b>	<b>21+44</b>
ŋv <sup>21</sup> khv <sup>33</sup> tu <sup>21</sup>	nose	(ZMYYC)	(Jianchuan)		
ŋỹ <sup>21</sup> khv <sup>44</sup> tu <sup>21</sup> «ne <sup>21</sup> »	nose	(ZYS)			
ŋỹ <sup>21</sup> khv <sup>44</sup> tu <sup>21</sup> ʔu <sup>33</sup>	nostril	(ZYS)			
ŋỹ <sup>21</sup> khv <sup>44</sup> tu <sup>21</sup> xu <sup>3</sup>	nose hair	(ZYS)			
ŋỹ <sup>21</sup> khv <sup>44</sup> tu <sup>21</sup>	nose	(JZ)	(Jianchuan)		

/This is a striking example of a binome paralleled in LB; cf. Lahu nā-qhō, WB hna-khâuŋ < PLB \*ʔna<sup>1/2</sup> + koŋ<sup>2</sup>; the 2nd element means 'hollow; cavity'./

<i>Gloss</i>	<i>PLB</i>	<i>Tone</i>	<i>Dali</i>	<i>Bijiang</i>	<i>Jianchuan</i>	<i>TBL</i>	<i>ZYS</i>	<i>FD</i>
<b>strength</b>	<b>*2</b>			<b>42(c)</b>	<b>42(c)</b>	<b>21</b>		
ɣu <sup>42</sup>	strength	(ZMYYC)	(Bijiang)					
ɣu <sup>42</sup>	strength	(ZMYYC)	(Jianchuan)					
ɣu <sup>42</sup>	strength	(JZ)	(Bijiang)					
tchi <sup>44</sup> ɣu <sup>42</sup>	strength	(JZ)	(Jianchuan)					
tchi <sup>33</sup> ɣe <sup>21</sup>	strength	(TBL)						



/PLB \*k-ra<sup>2</sup> (WB ?â, Lahu yâ)/

<b>thin</b>		<b>*2</b>	<b>42</b>	<b>42</b>	<b>42</b>	<b>21c</b>	<b>8</b>
po <sup>42</sup>	thin	(ZMYYC)	(Dali)				
po <sup>42</sup>	thin	(ZMYYC)	(Bijiang)				
po <sup>42</sup>	thin	(ZMYYC)	(Jianchuan)				
po <sup>21</sup>	thin	(TBL)					
po 8	thin	(FD)					

/PLB \*ba<sup>2</sup> (WB pâ, Lahu pâ)/

<b>tiger</b>		<b>*2</b>	<b>21</b>	<b>21</b>	<b>21</b>	<b>42</b>	<b>7</b>
lo <sup>21</sup>	tiger	(ZMYYC)	(Dali)				
lo <sup>21</sup>	tiger	(ZMYYC)	(Bijiang)				
lo <sup>21</sup>	tiger	(ZMYYC)	(Jianchuan)				
lo <sup>42</sup>	tiger	(TBL)					
lo <sup>42</sup>	year of the tiger		(TBL)				
lo 7	tiger	(FD)					

<b>win</b>		<b>*2</b>			<b>21</b>	<b>42</b>	<b>6</b>
yo <sup>21</sup>	win / triumph	(ZMYYC)	(Jianchuan)				
yo <sup>42</sup>	win	(TBL)					

/cf. Lahu yâ (DL 1117-8)/

**With Tone \*3 in PLB**

<b>bright</b>		<b>*3</b>		<b>42</b>			
pa <sup>42</sup>	bright	(ZMYYC)	(Bijiang)				

/PLB \*N-ba<sup>3</sup> (WB pa', Lahu ba); cf. DL p. 927./

<b>dance</b>		<b>*3</b>		<b>33</b>		<b>33</b>	
ta <sup>42</sup> go <sup>33</sup>	dance	ZMYYC	Bai (Bijiang)				
ta <sup>42</sup> ko <sup>33</sup>	dance	ZMYYC	Bai (Jianchuan)				
ta <sup>21</sup> ko <sup>33</sup>	dance	TBL					

/cf. Lahu qa 'sing', qā-qhê? 'dance'; WB ka' 'dance'/

<i>Gloss</i>		<i>PLB Tone</i>	<i>Dali</i>	<i>Bijiang</i>	<i>Jianchuan</i>	<i>TBL</i>	<i>ZYS</i>	<i>FD</i>
<b>elephant</b>		<b>*3</b>	<b>21</b>			<b>42</b>		
jou <sup>21</sup>	elephant	(ZMYYC)	(Dali)					
jō <sup>42</sup>	elephant	(TBL)						

/PLB \*?ya<sup>3</sup> (Yellow Lahu ya-ma, Lisu h'a<sup>4</sup>-ma<sup>3</sup>, Bisu hja-ba, Mpi jo<sup>4</sup>, Akha ya-ma (see Bradley 1979, pp. 294-5, DL p. 1092). The nasalization in the TBL (J) form may be rhinoglottophiliaic./

**Probable loans in \*-a**

<b>axe</b>			<b>33</b>	<b>33</b>	<b>33</b>	<b>33</b>	<b>3</b>
pu <sup>33</sup> tshv <sup>31</sup>	ax	(ZMYYC)	(Dali)				

pu <sup>33</sup>	ax	(ZMYYC)	(Bijiang)
pu <sup>33</sup>	ax	(ZMYYC)	(Jianchuan)
fv3 tō7	axe	(FD)	
pu <sup>33</sup>	axe	(TBL)	

/Although this is a good PTB root **\*p<sup>w</sup>a** (see Matisoff 2000, #1), these Bai forms are probably borrowed < Chinese 斧 (Mand. fū)./

<b>big</b>	<b>*1</b>	<b>53</b>	<b>42</b>	<b>42</b>	<b>21</b>	<b>4</b>
to <sup>53</sup>	big	(ZMYYC)	(Dali)			
do <sup>42</sup>	big	(ZMYYC)	(Bijiang)			
to <sup>42</sup>	big	(ZMYYC)	(Jianchuan)			
tō 4	big	(FD)				
to <sup>21</sup>	big / large	(TBL)				

/PTB **\*da-y** (cf. WB tai 'very'; see STC #299); but this is probably a loan < Chinese 大 (Mand. dà); see also Matisoff 1995 "ST palatal suffixes revisited", #6/

### medicine

jo <sup>44</sup>	medicine	(ZMYYC)	(Dali)
jo <sup>44</sup>	medicine	(ZMYYC)	(Bijiang)
jo <sup>44</sup>	medicine	(ZMYYC)	(Jianchuan)
io 2	medicine	(FD)	
jo <sup>33</sup>	medicine	(TBL)	

/Possibly a loan < Tai (cf. Siamese **jaa**); but cf. also Chinese 藥 (Mand. yào)/

## ***Etyma with front vowels, including falling diphthongs with palatal offglide***

Gloss	PLB Tone	Where LB has Tone *1					
		Dali	Bijiang	Jianchuan	TBL	ZYS	FD
<b>die</b>	<b>*1</b>	<b>33</b>	<b>33</b>	<b>33</b>	<b>33</b>	<b>33</b>	<b>3/4</b>
ci <sup>33</sup>	die	(ZMYYC/JZ)	(Dali)				
ci <sup>33</sup>	die	(ZMYYC/JZ)	(Bijiang)				
ci <sup>33</sup>	die	(ZMYYC/JZ)	(Jianchuan)				
si <sup>4</sup>	die	(FD)	(Dali)				
si <sup>3</sup>	die	(FD)	(Dali)				
ci <sup>33</sup> la <sup>42</sup>	die	(ZYS)					
ci <sup>33</sup>	die	(TBL)					
si 3/4	die, to	(FD)					

/PLB **\*səy<sup>1</sup>**; Sagart (1998:10) copies the error in Bradley (1979:350), where this etymon is labelled as PLB tone \*2. Cf. the Chinese cognate 死 (Mand. sǐ)./

<b>liquor</b>	<b>*1</b>	<b>33</b>	<b>33</b>	<b>33</b>
tsi <sup>33</sup>	liquor	(ZMYYC)	(Dali)	

tsõ<sup>33</sup> liquor (ZMYYC) (Bijiang)

tsṽ<sup>33</sup> liquor (ZMYYC) (Jianchuan)

/Cf. PLB \*N-dzəy<sup>1</sup> (Lahu j̃), but why the nasalization in B and J? The likely Chinese cognate to the PLB form, 酒 (Mand. jiǔ) also lacks a nasal final./

<b>nest/placenta</b>	<b>*1</b>	<b>31</b>	<b>31</b>	<b>21</b>	<b>33</b>
tso <sup>44</sup> khv <sup>31</sup>	nest	(ZMYYC)	(Dali)		
khv <sup>31</sup>	nest	(ZMYYC)	(Jianchuan)		
tso <sup>33</sup> ts <sub>1</sub> <sup>33</sup> khua <sup>21</sup>	nest (bird)		(TBL)		
ũ <sup>33</sup> khō <sup>33</sup>	placenta / afterbirth		(ZYS)		

/PLB \*k<sup>w</sup>əy<sup>1</sup> (cf. Lahu ph̃, Mpi khur<sup>6</sup>); see DL, pp. 917-8./

<b>snake</b>	<b>*1</b>	<b>33</b>	<b>33</b>	<b>33</b>	<b>33</b>	<b>3</b>
k'v 3	snake	(FD)				
khv <sup>33</sup>	snake	(ZMYYC)	(Dali)			
f <sup>v</sup> <sup>33</sup>	snake	(ZMYYC)	(Bijiang)			
khv <sup>33</sup>	snake	(ZMYYC)	(Jianchuan)			
khua <sup>33</sup>	snake		(TBL)			
khua <sup>33</sup>	year of the snake		(TBL)			

/PLB \*m-r-wəy<sup>1</sup> (WB mrwe, Lahu ṽ) < PTB \*s-b-rul; these Bai forms might be < \*k-wəy, with the velar animal prefix./

<b>sour</b>	<b>*1</b>					<b>1</b>
ts'i 1	sour	(FD)				

/Cf. Lahu ci ≠ ce; WB khyañ; PTB \*kri(y) STC #413; see DL p. 459/

Most Baic forms with this meaning are from Chinese 酸 (Mand. suān):

suɑ <sup>55</sup>	sour	(ZMYYC)	(Dali)		
tẽã <sup>55</sup>	sour	(ZMYYC)	(Bijiang)		
suã <sup>55</sup>	sour	(ZMYYC)	(Jianchuan)		
suã <sup>55</sup>	sour	(TBL)			/

<i>Gloss</i>	<i>PLB Tone</i>	<i>Dali</i>	<i>Bijiang</i>	<i>Jianchuan</i>	<i>TBL</i>	<i>ZYS</i>	<i>FD</i>
<b>sun/day</b>	<b>*1 ≠ *3</b>	<b>44</b>	<b>44</b>	<b>44</b>		<b>33c</b>	
ɲe <sup>44</sup> phi <sup>31</sup>	sun	(ZMYYC)	(Dali)				
ɲi <sup>44</sup>	sun	(ZMYYC)	(Bijiang)				
jĩ <sup>44</sup> phĩ <sup>31</sup>	sun	(ZMYYC)	(Jianchuan)				
ɲi <sup>44</sup>	day (24 hours)	(ZMYYC)	(Dali)				
ɲi <sup>44</sup>	day (24 hours)	(ZMYYC)	(Bijiang)				
ɲi <sup>33</sup> phĩ <sup>21</sup>	sun	(TBL)					
ɲi <sup>33</sup> tsõ <sup>33</sup>	light	(TBL)					
(ɑ <sup>21</sup> ) ɲi <sup>33</sup>	day's (work)	(TBL)					
niɛ2 p'i 4	sun	(FD)					
ni2	day	(FD)					
ni2 sioe2	day	(FD)					

/PLB **\*nəy<sup>1/3</sup>**; this etymon shows **\*1** ≠ **\*3** variation in PLB (WB **ne** 'sun' [**< \*1**] ≠ **ne** 'day' [**< \*3**]); the constriction in some of these Baic forms (J-TBL) suggest that they might be borrowed < Chinese 日 (OC **ńiĕt** [GSR 404a], Mand. **rì**)/

<b>ten</b>		<b>*1</b>	<b>42</b>	<b>42</b>	<b>42</b>	<b>21c</b>	<b>8</b>
tsi <sup>42</sup>	ten	(ZMYYC)	(Dali)				
tʂeɿ <sup>42</sup>	ten	(ZMYYC)	(Bijiang)				
tsɛ <sup>42</sup>	ten	(ZMYYC)	(Jianchuan)				
tsw <sup>8</sup>	ten	(FD)					
tsa <sup>21</sup>	ten	(TBL)					

/cf. PLB **\*tʂay<sup>1</sup>** (WB **chay**, Lahu **chi**), but the constriction in J-TBL suggests borrowing from Chinese 十 (OC **điəp**; Mand. **shí**)/

<b>tooth</b>		<b>*1</b>	<b>33</b>	<b>33</b>	<b>33</b>	<b>33</b>	<b>33</b>	<b>2</b>
tsi <sup>33</sup> pa <sup>44</sup>	tooth	(ZMYYC)	(Dali)					
tʂo <sup>33</sup> pa <sup>44</sup>	tooth	(ZMYYC)	(Bijiang)					
tsi <sup>33</sup> pa <sup>44</sup>	tooth	(ZMYYC)	(Jianchuan)					
tʂɿ <sup>2</sup> pa <sup>2</sup>	tooth	(FD)	(Dali)					
khuã <sup>33</sup> tsɿ <sup>33</sup> pa <sup>44</sup>	eyetooth / canine tooth / fang	(ZYS)						
tsɿ <sup>33</sup> pa <sup>44</sup> kho <sup>33</sup>	tooth	(ZYS)						
tʂo <sup>33</sup> pa <sup>44</sup>	tooth	(JZ)	(Bijiang)					
tsw <sup>pa 22</sup>	tooth	(FD)						
tsɔ <sup>33</sup> pa <sup>33</sup>	tooth	(TBL)						

/PLB **\*dʒway<sup>1</sup>** (WB **cwai**, Lahu **cì**); see DL, p. 462/

### Where LB has Tone \*2

<b>ant/bug</b>		<b>*2</b>	<b>21</b>	<b>21</b>	<b>21</b>
pi <sup>21</sup> pu <sup>21</sup>	ant	(ZMYYC)	(Dali)		
tʂi <sup>21</sup> pu <sup>21</sup>	ant	(ZMYYC)	(Bijiang)		
pi <sup>21</sup> po <sup>21</sup> tsi <sup>33</sup>	ant	(ZMYYC)	(Jianchuan)		

/cf. perhaps PLB **\*bəw<sup>2</sup>** 'insect', **\*bəw-rwak** 'ant' /

<i>Gloss</i>		<i>PLB Tone</i>	<i>Dali</i>	<i>Bijiang</i>	<i>Jianchuan</i>	<i>TBL</i>	<i>ZYS</i>	<i>FD</i>
<b>copper</b>		<b>*2</b>	<b>33</b>					
ke <sup>33</sup> copper		(ZMYYC)	(Dali)					

/cf. PLB **\*grəy<sup>2</sup>** (WB **krê**, Lahu **kĕ**); see STC #39 and DL p. 350.

The following are loans < Chinese 銅 (Mand. **tóng**):

tʂ <sup>21</sup>	copper	(ZMYYC)	(Jianchuan)
tv <sup>7</sup>	copper	(FD)	
tō <sup>42</sup>	copper	(TBL)	/

<b>fertilizer/dung/shit</b>		<b>*2</b>	<b>55</b>	<b>55</b>	<b>55</b>	<b>55</b>
tʂi <sup>55</sup>	dung / manure	(ZMYYC; JZ)	(Dali)			
tʂi <sup>55</sup>	dung / manure	(ZMYYC; JZ)	(Bijiang)			

tchi <sup>55</sup>	dung / manure	(ZMYYC; JZ)	(Jianchuan)
tchi <sup>55</sup> pha <sup>44</sup>	fertilizer	(ZMYYC)	(Bijiang)
tchi <sup>55</sup> pha <sup>44</sup>	fertilizer	(ZMYYC)	(Jianchuan)
tchi <sup>55</sup> pha <sup>44</sup>	fertilizer	(JZ)	(Bijiang)
tchi <sup>55</sup> tshu <sup>33</sup>	fertilizer	(JZ)	(Jianchuan)
tchi <sup>55</sup>	fertilizer / manure	(TBL)	

/PLB \*kləy<sup>2</sup> (WB khyê)/

<b>left side</b>	<b>*2</b>	<b>*1</b>	<b>35</b>	<b>35</b>	<b>55</b>	<b>55</b>
pi <sup>35</sup>	left		(ZMYYC; JZ)	(Dali)		
pi <sup>35</sup>	left		(JZ)	(Bijiang)		
pi <sup>55</sup> fv <sup>33</sup> (no <sup>33</sup> )	left		(ZMYYC; JZ)	(Jianchuan)		
pi <sup>55</sup>	left		(TBL)			
pi <sup>55</sup> su <sup>33</sup>	left hand		(ZYS)			
pi <sup>55</sup> fy <sup>33</sup>	side (left)		(ZYS)			

/PLB \*bay<sup>1/2</sup> (WB bhai 'left' < \*1 ≠ lak-wâi 'left hand', wâi 'speak with a brogue' < \*2); < PTB \*b<sup>w</sup>ay (Matisoff 2000, #14)./

<b>stuff up/block/obstruct</b>	<b>*2</b>	<b>55</b>	<b>55</b>	<b>55</b>	<b>55</b>	<b>1</b>
tshu <sup>55</sup>	stuff (hole) up		(ZMYYC)	(Dali)		
tchi <sup>55</sup> vu <sup>55</sup>	stuff (hole) up		(ZMYYC)	(Bijiang)		
tshu <sup>55</sup>	stuff (hole) up		(ZMYYC)	(Jianchuan)		
tshɿ <sup>55</sup>	block up / plug		(TBL)			
ts'ö 1	block / obstruct, to		(FD)			

/Lahu **chî** ; see DL pp. 556-7)/

<b>sweet potato/yam</b>	<b>*2</b>	<b>33</b>
a <sup>55</sup> mu <sup>33</sup>	sweet potato	(ZMYYC) (Bijiang)

/Cf. Lahu **m̄** < \*m-n(w)ay; see GSTC #165, DL p. 1049/

<i>Gloss</i>	<i>PLB Tone</i>	<i>Dali</i>	<i>Bijiang</i>	<i>Jianchuan</i>	<i>TBL</i>	<i>ZYS</i>	<i>FD</i>
<b>tail</b>	<b>*2</b>	<b>42/31 + 35</b>	<b>33</b>	<b>33 + 55</b>	<b>33 + 55</b>		<b>2 + 6</b>
mi <sup>42</sup> tu <sup>35</sup>	tail	(ZMYYC)	(Dali)				
mi <sup>31</sup> tu <sup>35</sup>	tail	(JZ)	(Dali)				
me <sup>33</sup> qua <sup>55</sup>	tail	(ZMYYC)	(Bijiang)				
ŋv <sup>33</sup> tṵ <sup>55</sup>	tail	(ZMYYC)	(Jianchuan)				
ŋa <sup>33</sup> tu <sup>55</sup>	tail	(TBL)					
ŋy <sup>33</sup> tṵ <sup>55</sup>	tail	(ZYS)					
mi <sup>2</sup> tu <sup>6</sup>	tail	(FD)	(Dali)				

/This is another striking example of a binome that also occurs in Loloish: cf. Lahu **m̄-tu** (DL, p. 1019); PTB \*r-may > PLB \*ʔ-m(r)ay<sup>2</sup>; the 1st syllables of these Baic binomials seem clearly to be cognate to rather than borrowings from Chinese 尾 (OC **m̄jwər** GSR 583a-b; Mand. **wěi**)./

<b>urine/urinate</b>	<b>*2</b>	<b>33</b>	<b>42</b>	<b>31</b>	<b>55</b>	<b>31</b>	<b>4</b>
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ɑ <sup>35</sup> si <sup>33</sup>	urine	(ZMYYC; JZ)	(Dali)
ɑ <sup>55</sup> ʂe <sup>142</sup> tʂe <sup>144</sup>	urine	(ZMYYC; JZ)	(Bijiang)
so <sup>31</sup>	urine	(ZMYYC; JZ)	(Jianchuan)
sa <sup>55</sup>	urine	(TBL)	
ʂɿ <sup>55</sup> khɿ <sup>31</sup>	urinate	(ZYS)	
so <sup>31</sup>	urine	(ZYS)	
a <sup>6</sup> ʂɿ <sup>4</sup>	urinate	(FD)	(Dali)
a6 sw4	urinate	(FD)	

/PTB \*tʂi (STC #77); PLB \*N-ts(y)i<sup>2</sup> (WB chî 'urinate', Lahu jî) ≈ \*zəy<sup>2</sup> (WB sê 'piss!'); see DL p. 582./

### Where LB has Tone \*3

<b>grandmother</b>	<b>*3</b>	<b>42</b>
ɑ <sup>55</sup> jo <sup>42</sup> grandmother	(ZMYYC)	(Bijiang)
/PTB *(y)ay 'mother/grandmother/maternal aunt', PLB *yay <sup>3</sup> (Lahu e, Nasu je <sup>33</sup> , Hpun äyi <sup>1</sup> 'mother')/		

<b>know/understand</b>	<b>*3 ≈ *2</b>	<b>44</b>	<b>44/33</b>	<b>33</b>
si <sup>44</sup>	understand	(ZMYYC)	(Bijiang)	
su <sup>44</sup>	understand	(ZMYYC)	(Jianchuan)	
sẽ <sup>33</sup>	know	(ZMYYC)	(Jianchuan)	
sẽ <sup>33</sup>	know/understand	(J-TBL)		

/cf. PTB \*ʂey (STC #182); this root shows \*2 ≈ \*3 variation in LB: WB si<sup>1</sup> (< \*3), Lahu šī (< \*2). The nasalization of certain forms is unexplained./

<b>read/count</b>	<b>*3 ≈ *1</b>	<b>42(c)</b>	<b>42(c)</b>	<b>42(c)</b>	<b>21c</b>	<b>8</b>
ɣu <sup>42</sup>	read	(ZMYYC)	(Dali)			
ɣu <sup>42</sup>	read	(ZMYYC)	(Bijiang)			
ɣu <sup>42</sup>	read	(ZMYYC)	(Jianchuan)			
ɣu <sup>42</sup>	read	(JZ)	(Bijiang)			
ɣu <sup>42</sup>	read	(JZ)	(Jianchuan)			
ɣu <sup>42</sup>	read	(JZ)	(Dali)			
ɣə <sup>21</sup>	read	(TBL)				
w 8	study / read	(FD)				

/Lahu ɣɔ (< \*3), WB re (< \*1) < PLB \*rəy<sup>1/3</sup>; PTB \*r-tsəy (STC #76)/

### Probable loans < Chinese

Gloss	PLB Tone	Dali	Bijiang	Jianchuan	TBL	ZYS	FD
<b>blood</b>	<b>*2</b>	<b>44</b>	<b>44(c)</b>	<b>44(c)</b>	<b>33c</b>	<b>44c</b>	
suɑ <sup>44</sup>	blood	(ZMYYC)	(Dali)				
suɑ <sup>44</sup>	blood	(ZMYYC)	(Bijiang)				
suɑ <sup>44</sup>	blood	(ZMYYC)	(Jianchuan)				
suɣ <sup>44</sup>	blood	(JZ)	(Bijiang)				

sug <sup>44</sup>	blood	(JZ)	(Jianchuan)
sug <sup>44</sup>	blood	(JZ)	(Dali)
sug <sup>33</sup>	blood	(TBL)	
sua <sup>44</sup>	blood	(ZYS)	

/PLB \*swəy<sup>2</sup> (WB swê, Lahu šī; see DL p. 1237) < PTB \*s-h(y)wəy (STC #222); but the constriction in some of these forms suggests an early borrowing < Chinese 血 (OC xiwet [GSR 410a-c]; Mand. xuè)./

### comb

kho <sup>55</sup> sv <sup>35</sup>	comb (n.)	(ZMYYC)	(Dali)
ɣv <sup>55</sup> tū <sup>21</sup>	comb (n.)	(ZMYYC)	(Bijiang)
sv <sup>55</sup>	comb (n.)	(ZMYYC)	(Jianchuan)
sv <sup>31</sup>	comb (v.)	(ZMYYC)	(Dali)
ɣu <sup>42</sup>	comb (v.)	(ZMYYC)	(Bijiang)
sv <sup>31</sup>	comb (v.)	(ZMYYC)	(Jianchuan)
su <sup>55</sup> phī <sup>21</sup>	comb (TBL)		
su <sup>21</sup>	comb (TBL)		

/cf. PTB \*m-si(y) (STC #466), but these forms are clearly loans < Chinese 梳 (Mand. shū)./

### daughter-in-law

tsi <sup>44</sup> v <sup>33</sup>	daughter-in-law	(ZMYYC)	(Dali)
tsi <sup>33</sup> vu <sup>33</sup>	daughter-in-law	(ZMYYC)	(Jianchuan)
tsɿ <sup>33</sup> va <sup>33</sup> ɲi <sup>21</sup>	daughter-in-law	(TBL)	

/cf. PLB \*krwəy<sup>2</sup> (WB khrwê-ma', Lahu khî-ma); but prob. < Chinese 兒媳婦 (Mand. (ér)xífū)/

<b>earth</b>	<b>*1</b>	<b>31</b>	<b>42/33</b>	<b>31</b>	<b>21</b>
tɕi <sup>31</sup>	earth	(ZMYYC)	(Dali)		
dzi <sup>42</sup>	earth	(ZMYYC)	(Bijiang)		
tɕi <sup>31</sup>	earth	(ZMYYC)	(Jianchuan)		
tɕi <sup>21</sup>	earth / ground	(TBL)			
tɕui <sup>33</sup> qa <sup>55</sup>	skin	(ZMYYC)	(Bijiang)		

/cf. Lahu gî 'skin', mî-gî 'earth' ("earth-skin"), WB re 'skin', perhaps < PLB \*k-rəy<sup>1</sup>; see DL, p. 418; but prob. < Chinese 地 (OC d'ia [GSR 4b']; Mand. dì)/

<i>Gloss</i>	<i>PLB Tone</i>	<i>Dali</i>	<i>Bijiang</i>	<i>Jianchuan</i>	<i>TBL</i>	<i>ZYS</i>	<i>FD</i>
<b>market</b>		<b>33</b>	<b>33</b>	<b>33</b>			
tsi <sup>33</sup>	marketplace	(ZMYYC)	(Dali)				
dze <sup>133</sup> tchu <sup>55</sup>	marketplace	(ZMYYC)	(Bijiang)				
tsi <sup>33</sup>	marketplace	(ZMYYC)	(Jianchuan)				

/Lh. cɿ (DL p. 497) is itself perhaps a loan < Chinese 市 shì /

<b>open</b>		<b>55</b>	<b>55</b>	<b>55</b>	<b>55</b>	<b>1</b>
khui <sup>55</sup>	open (eye)	(ZMYYC)	(Dali)			
khui <sup>55</sup>	open (eye)	(ZMYYC)	(Bijiang)			

khur <sup>55</sup>	open (eye)	(ZMYYC)	(Jianchuan)
khur <sup>55</sup>	open (door)	(ZMYYC)	(Dali)
qū <sup>55</sup>	open (door)	(ZMYYC)	(Bijiang)
khur <sup>55</sup>	open (door)	(ZMYYC)	(Jianchuan)
khə <sup>55</sup> (me <sup>42</sup> )	open (a door)	(TBL)	
k'w 1	open, to	(FD)	
	/cf. Chinese 開 (OC <b>k'ər</b> [GSR 548f]; Mand. <b>kāi</b> )/		

<b>rice</b>		<b>33</b>	<b>33</b>	<b>33</b>	<b>33</b>	<b>3</b>
me <sup>33</sup>	rice (uncooked)	(ZMYYC)	(Dali)			
mi <sup>33</sup>	rice (uncooked)	(ZMYYC)	(Bijiang)			
me <sup>33</sup>	rice (uncooked)	(ZMYYC)	(Jianchuan)			
sɿ <sup>33</sup> me <sup>33</sup>	rice (glutinous)	(TBL)				
me <sup>33</sup>	rice	(TBL)				
me <sup>3</sup>	hulled rice	(FD)				
sw <sup>3</sup> me <sup>3</sup>	sticky rice	(FD)				

/There is a Bodo-Garo root **\*may** or **\*mey** (STC p. 65, etc.), with scattered TB cognates elsewhere (Matisoff 1995, #14), but these Baic forms seem clearly to be loans < Chinese 米 (OC **miər** [GSR 598a-c], Mand. **mǐ**

## ***Etyma with back vowels, including falling diphthongs with labial offglide***

### ***Where PLB has tone \*1***

<b>chop</b>	<b>*1</b>	<b>44</b>		<b>44</b>		
tso <sup>44</sup>	chop (tree)	(ZMYYC)	(Dali)			
tso <sup>44</sup>	chop (tree)	(ZMYYC)	(Jianchuan)			
tsɔ <sup>33</sup> tsɿ <sup>21</sup>	chop down (trees)	(TBL)				
	/cf. Lahu <b>chɔ</b> , perhaps < PLB <b>*tsəw</b> <sup>1</sup> /					
<b>cry out/call/yell</b>	<b>*1</b>	<b>35/55</b>	<b>55</b>	<b>55</b>	<b>55</b>	<b>6</b>
kv <sup>35</sup>	cry out / yell	(ZMYYC)	(Dali)			
ky <sup>55</sup>	cry out	(JZ)	(Dali)			
xu <sup>55</sup>	cry out	(JZ)	(Bijiang)			
kv <sup>55</sup>	cry out / yell	(ZMYYC)	(Jianchuan)			
ky <sup>55</sup>	cry out	(JZ)	(Jianchuan)			
ky <sup>55</sup>	cry / weep	(ZYS)				
kv 6	yell / shout / cry, to	(FD)				
ky <sup>6</sup>	call, halloo	(FD)	(Dali)			
w 6	call, to	(FD)				
	/cf. <b>Lahu kù</b> (DL p. 337-8/					



*Where PLB has tone \*2*

<i>Gloss</i>	<i>PLB Tone</i>	<i>Dali</i>	<i>Bijiang</i>	<i>Jianchuan</i>	<i>TBL</i>	<i>ZYS</i>	<i>FD</i>
<b>abscess/ulcer</b>	<b>* 2</b>		<b>44c</b>			<b>31</b>	
qui <sup>21</sup> le <sup>21</sup> tchi <sup>44</sup>	ulcer, sore		(JZ)	(Bijiang)			
sỹ <sup>31</sup> tshy <sup>31</sup>	abscess / ulcer / open wound		(ZYS)				
	/cf. Lahu šá-chû; Mpi tcaŋ <sup>2</sup> -tchu <sup>2</sup> ~ ŋ <sup>2</sup> -tchu <sup>2</sup> (DL p. 1163)/						
<b>crazy/mad/insane</b>	<b>* 2</b>	<b>21</b>	<b>21(c)</b>	<b>21(c)</b>	<b>42</b>		<b>7</b>
pe <sup>42</sup> v <sup>21</sup>	mad person	(ZMYYC)	(Dali)				
vu <sup>21</sup> ŋi <sup>21</sup>	mad person	(ZMYYC)	(Bijiang)				
vu <sup>21</sup>	mad person	(ZMYYC)	(Jianchuan)				
pe <sup>42</sup> vu <sup>21</sup>	insane person	(JZ)	(Dali)				
vu <sup>21</sup> ŋi <sup>21</sup>	insane person	(JZ)	(Bijiang)				
vu <sup>21</sup> tsi <sup>33</sup>	insane person	(JZ)	(Jianchuan)				
vv <sup>42</sup>	crazy, become	(TBL)					
v 7	madman	(FD)					
	/PLB *ru <sup>2</sup> (WB rû, Lahu yû)./						
<b>grandfather</b>	<b>* 2</b>		<b>55</b>				
a <sup>55</sup> pu <sup>55</sup>	grandfather	(ZMYYC)	(Bijiang)				
	/PTB *pəw (STC #23) > PLB *ʔbəw <sup>2</sup> (WB phûi, Lahu pû);						
	other Baic forms are loans < Chinese 爺 (Mand. ):						
	ε <sup>44</sup> ji <sup>42</sup>	grandfather	(ZMYYC)	(Jianchuan)			
	a3 iε8	grandfather (maternal)		(FD)			
	a <sup>55</sup> ji <sup>21</sup>	grandfather	(TBL)				
	a <sup>31</sup> je <sup>42</sup>	grandfather	(ZMYYC)	(Dali)			/
<b>tender/soft</b>	<b>*2</b>	<b>31</b>	<b>21</b>	<b>21</b>	<b>42</b>		
ŋu <sup>31</sup>	tender	(ZMYYC)	(Dali)				
ŋi <sup>21</sup>	soft	(ZMYYC)	(Bijiang)				
jũ <sup>21</sup>	tender	(ZMYYC)	(Jianchuan)				
ŋə <sup>42</sup>	tender/young (plant)	(TBL)					
	/PTB *now (STC #274) > PLB *nu <sup>2</sup> (WB nû, Lahu nû)./						
<b>pumpkin/cucumber</b>	<b>*2/HS</b>	<b>44</b>	<b>44</b>	<b>44</b>			
pho <sup>44</sup>	pumpkin	(ZMYYC)	(Jianchuan)				
pho <sup>44</sup>	cucumber	(ZMYYC)	(Dali)				
pho <sup>44</sup>	cucumber	(ZMYYC)	(Bijiang)				
pho <sup>44</sup>	cucumber	(ZMYYC)	(Jianchuan)				
	/cf. Lahu phəʔ-má, phə-má, phî-mí 'pumpkin; cucurbitaceous plant'/						
<b>thorn</b>	<b>*2</b>	<b>31</b>	<b>42</b>	<b>31</b>	<b>21</b>		

tchi <sup>31</sup>	thorn	(ZMYYC)	(Dali)
tshe <sup>42</sup>	thorn	(ZMYYC)	(Bijiang)
tchi <sup>31</sup>	thorn	(ZMYYC)	(Jianchuan)
tchi <sup>21</sup>	thorn / splinter	(TBL)	

/cf. PTB **\*tsow** (STC #276) > PLB **\*tsu<sup>2</sup>** (WB **chû**, Lahu **chû**); but these Baic forms appear to be loans < Chinese 刺 (Mand. **cì**)/

### *Etyma not attested in LB*

<i>Gloss</i>	<i>PLB Tone</i>	<i>Dali</i>	<i>Bijiang</i>	<i>Jianchuan</i>	<i>TBL</i>	<i>ZYS</i>	<i>FD</i>
<b>fry</b>			21				
ŋo <sup>21</sup>	stir-fry	(ZMYYC)	(Bijiang)				
	/PTB <b>*r-ŋaw</b> (STC #270); the following seem to be loans < Chinese 炒 (Mand. <b>chǎo</b> ):						
	tshu <sup>33</sup>	stir-fry	(ZMYYC)	(Dali)			
	tshu <sup>33</sup>	stir-fry	(ZMYYC)	(Jianchuan)			

### **penis/vagina**

33

tu <sup>33</sup>	penis	(ZYS)				
tu <sup>33</sup> tu <sup>21</sup> po <sup>21</sup> kho <sup>33</sup>	glans penis	(ZYS)	[tu <sup>21</sup> po <sup>21</sup> 'head']			
	/This root (PTB <b>*s-tu</b> ) generally means 'vagina', but has occasionally developed the meaning 'penis' via "genital flipflop"; cf. STEDT etymon #3420/					

### *Probable Chinese loans*

<b>back</b>	<b>*2</b>	<b>33</b>	<b>33</b>	<b>33</b>	<b>33</b>
ɣu <sup>33</sup>	back (direction)	(ZMYYC)	(Dali)		
ɣu <sup>33</sup>	back (direction)	(ZMYYC; JZ)	(Bijiang)		
ɣu <sup>33</sup> no <sup>33</sup>	back (direction)	(ZMYYC)	(Jianchuan)		
ɣə <sup>33</sup>	back	(TBL)			

/cf. Lahu ð-**ɣû**-šĕ 'in front of; henceforth; before' (a "Janus-word"); but these forms seem to be loans < Chinese 後 (OC **g'u** [GSR 115a-c]; Mand. **hòu**./

<b>bitter</b>	<b>*2</b>	<b>33</b>	<b>33</b>	<b>33</b>	<b>33</b>
khu <sup>33</sup>	bitter	(ZMYYC)	(Dali)		
khu <sup>33</sup>	bitter	(ZMYYC)	(Bijiang)		
khu <sup>33</sup>	bitter	(ZMYYC)	(Jianchuan)		
khu <sup>33</sup> kv <sup>21</sup>	buckwheat (bitter)	(ZMYYC)	(Dali)		
khv <sup>33</sup> ku <sup>21</sup>	buckwheat (bitter)	(ZMYYC)	(Bijiang)		
khu <sup>33</sup> kv <sup>21</sup>	buckwheat (bitter)	(ZMYYC)	(Jianchuan)		
khu <sup>33</sup>	bitter	(TBL)			

/prob. < Chinese 苦, rather than PTB **\*ka** /

<i>Gloss</i>	<i>PLB Tone</i>	<i>Dali</i>	<i>Bijiang</i>	<i>Jianchuan</i>	<i>TBL</i>	<i>ZYS</i>	<i>FD</i>
<b>boil/cook</b>		<b>33/42</b>	<b>33</b>	<b>33/42</b>			
tsv <sup>33</sup>	cook / boil (rice)	(ZMYYC)	(Dali)				
tsu <sup>33</sup>	cook / boil (rice)	(ZMYYC)	(Bijiang)				
tsv <sup>33</sup>	cook / boil (rice)	(ZMYYC)	(Jianchuan)				
tsv <sup>42</sup>	cooked	(ZMYYC)	(Dali)				
tsv <sup>42</sup>	cooked	(ZMYYC)	(Jianchuan)				
	/cf. Chinese 煮 (Mand. zhǔ)/						

<b>cloth</b>		<b>31</b>					<b>3/4</b>
phio <sup>31</sup>	cloth (ZMYYC)	(Dali)					
p'iə 3/4	cloth (FD)						
	/This could be a loan < Tai (cf. Siamese <b>phâa</b> > Lahu <b>pha</b> ), but is more likely from Chinese 布 (Mand. bù)/						

<b>float</b>		<b>21</b>	<b>21</b>	<b>21</b>	<b>42</b>		
pu <sup>21</sup>	float (ZMYYC)	(Dali)					
pu <sup>21</sup>	float (ZMYYC)	(Bijiang)					
pu <sup>21</sup>	float (ZMYYC)	(Jianchuan)					
pu <sup>42</sup>	float (TBL)						
	/cf. Lahu <b>phû</b> ~ <b>fû</b> , prob. < Tai (cf. Shan phúu, Siamese fuu); but these Baic forms are prob. < Chinese 浮 (Mand. fú)/						

<b>hatch/incubate</b>	<b>*3</b>	<b>44(c)</b>	<b>44(c)</b>	<b>44(c)</b>	<b>33</b>		
yü <sup>44</sup>	hatch	(ZMYYC)	(Dali)				
ue <sup>44</sup>	hatch	(ZMYYC)	(Bijiang)				
vu <sup>44</sup>	hatch	(ZMYYC)	(Jianchuan)				
vü <sup>44</sup>	sit on (egg)	(JZ)	(Dali)				
ue <sup>44</sup>	sit on (egg)	(JZ)	(Bijiang)				
vü <sup>44</sup>	sit on (egg)	(JZ)	(Jianchuan)				
ua <sup>33</sup>	hatch / incubate	(TBL)					
y	hatch / incubate	(TBL)					
	/cf. PLB <b>ʔu<sup>3</sup></b> 'hatch; egg' (WB <b>ʔu<sup>1</sup></b> , Lahu <b>u</b> ; see DL. p. 112); but these Baic forms look like loans < Chinese 孵 (Mand. fū)/						

<b>patch</b>		<b>33</b>	<b>33</b>	<b>33</b>	<b>33</b>		
pu <sup>33</sup>	patch (ZMYYC)	(Dali)					
pu <sup>33</sup>	patch (ZMYYC)	(Bijiang)					
pu <sup>33</sup>	patch (ZMYYC)	(Jianchuan)					
pu <sup>33</sup>	patch (clothing)	(TBL)					

/Cf. Chinese 補 (Mand. bǔ) There is a good PTB etymon \*p<sup>w</sup>a; see Matisoff 2000, #22/

<b>pigeon</b>	<b>*2</b>	<b>55</b>	<b>55</b>	<b>55</b>	<b>55</b>	<b>6</b>	
tɕi <sup>55</sup> ku <sup>55</sup>	pigeon	(ZMYYC)	(Dali)				
tɕi <sup>55</sup> ku <sup>55</sup>	pigeon	(ZMYYC)	(Bijiang)				
tɕi <sup>55</sup> ku <sup>55</sup>	pigeon	(ZMYYC)	(Jianchuan)				
kɔ̃ <sup>6</sup> tsw <sup>2</sup>	pigeon	(FD)					

**ko<sup>55</sup>tsɿ<sup>33</sup>** dove (TBL)  
/cf. PLB \*N-krəw<sup>2</sup> (WB **khruì**, Lahu **gû**); but these Baic forms seem clearly to be loans < Chinese 鸽子 (Mand. **gēzi**)/

<i>Gloss</i>		<i>PLB Tone</i>	<i>Dali</i>	<i>Bijiang</i>	<i>Jianchuan</i>	<i>TBL</i>	<i>ZYS</i>	<i>FD</i>
<b>thick</b>		<b>*1</b>	<b>55</b>	<b>55</b>	<b>55</b>			
shu <sup>55</sup> thick	(ZMYYC)		(Dali)					
chu <sup>55</sup> thick	(ZMYYC)		(Bijiang)					
shu <sup>55</sup> thick	(ZMYYC)		(Jianchuan)					

/cf. PLB \*tu<sup>1</sup> (Lahu **thu**, WB **thu**) < PLB \*tow (STC #319); but these Baic forms seem to be loans < Chinese 粗 (Mand. **cū**)/

### *Etyma with final liquids*

<b>blunt/dull/heel/buttock</b>		<b>31</b>		<b>31</b>	<b>21</b>
tui <sup>31</sup> blunt	(ZMYYC)		(Dali)		
tua <sup>31</sup> blunt	(ZMYYC)		(Jianchuan)		
tua <sup>21</sup> blunt / dull	(TBL)				

/PTB \*r-tul (WT **rtul-po** 'dull'; Meithei **məthun**, Abor-Miri **ko-dun** 'heel'; Lisu **khi<sup>21</sup>du<sup>21</sup>** 'buttock', Phunoi **pi<sup>33</sup>tun<sup>11</sup>** 'heel' (see Matisoff 1994b); there are several Chinese comparanda, including 鈍 (Mand. **dùn**) 'dull', from which these Baic forms may be borrowed./

<b>hair/fur/feather</b>	<b>*2 ≠ *3</b>	<b>21(c)</b>	<b>21(c)</b>	<b>21(c)</b>	<b>55/42</b>	<b>21c</b>	<b>6/7</b>
ma <sup>21</sup> hair / fur		(ZMYYC)		(Dali)			
mie <sup>21</sup> hair / fur / feather		(ZMYYC)		(Bijiang)			
ma <sup>21</sup> hair / fur / feather		(ZMYYC)		(Jianchuan)			
tsou <sup>44</sup> ma <sup>21</sup> feather		(ZMYYC)		(Dali)			
mie <sup>21</sup> fur		(JZ)		(Bijiang)			
mq <sup>21</sup> fur		(JZ)		(Jianchuan)			
mq <sup>21</sup> fur		(JZ)		(Dali)			
tu <sup>21</sup> ma <sup>35</sup> hair of head		(ZMYYC)		(Dali)			
te <sup>21</sup> mie <sup>55</sup> hair of head		(ZMYYC)		(Bijiang)			
tu <sup>21</sup> ma <sup>55</sup> hair of head		(ZMYYC)		(Jianchuan)			
tie <sup>21</sup> mie <sup>55</sup> hair (head)		(JZ)		(Bijiang)			
tɯ <sup>21</sup> ma <sup>55</sup> hair (head)		(JZ)		(Jianchuan)			
tɯ <sup>21</sup> ma <sup>35</sup> hair (head)		(JZ)		(Dali)			
tiə <sup>42</sup> ma <sup>55</sup> hair (head)		(TBL)					
ma <sup>42</sup> hair / down		(TBL)					
mq <sup>21</sup> hair / fur / feather		(ZYS)					
ma <sup>7</sup> hair / fur		(FD)		(Dali)			
tø <sup>7</sup> ma <sup>6</sup> hair of head		(FD)		(Dali)			

/Cf. PTB \*r/s-mil ≠ -mul > PLB \*mwəy<sup>2/3</sup> (WB **mwê** < \*2); contra the reconstruction in DL:990, Lahu **mu** is from \*məw<sup>3</sup> (not < \*ʔ-məw<sup>1</sup>); cf. Akha cà?-**hm**, unambiguously < Tone \*3 (Bradley 1979:302-3). These

Baic forms might be borrowed < Chinese 毛 (Mand. **máo**)/

<i>Gloss</i>	<i>PLB</i>	<i>Tone</i>	<i>Dali</i>	<i>Bijiang</i>	<i>Jianchuan</i>	<i>TBL</i>	<i>ZYS</i>	<i>FD</i>
<b>louse</b>	<b>*1</b>	<b>ɤ</b>	<b>44/33</b>	<b>44/33</b>	<b>44</b>	<b>33c</b>		
ɕe <sup>44</sup>	louse	(ZMYYC)		(Dali)				
ɕi <sup>44</sup>	louse	(ZMYYC)		(Bijiang)				
ci <sup>44</sup>	louse	(ZMYYC)		(Jianchuan)				
ci <sup>33</sup>	louse	(TBL)						
pa <sup>21</sup> ci <sup>33</sup>	nit	(TBL)						
pho <sup>44</sup> suo <sup>33</sup>	flea	(ZMYYC)		(Dali)				
qhõ <sup>33</sup> ɕu <sup>33</sup>	flea	(ZMYYC)		(Bijiang)				
khua <sup>33</sup> ci <sup>44</sup> tsi <sup>33</sup>	flea	(ZMYYC)		(Jianchuan)				
khuã <sup>33</sup> ci <sup>33</sup>	flea	(TBL)						

/PTB \*s(y)ar > PLB \*s(y)an<sup>1/2</sup> (WB sân (< \*2; the tone is miscited in STC, pp. 15, 84); Lahu še (< \*1). The Baic forms might be loans from the Chinese cognate 虱 (Mand. shī). If the 2nd elements in the words for 'flea' (the first elements mean 'dog') also mean 'louse', the apparent doublets in D and B may represent an inherited TB form vs. a Chinese loan. The morphemes in 'louse' and 'flea' are identical in Jianchuan./

<b>oil/grease</b>	<b>*1</b>	<b>55/35</b>	<b>55</b>	<b>55</b>	<b>55</b>	<b>55</b>
tsi <sup>55</sup>	oil		(ZMYYC)	(Dali)		
tɕe <sup>155</sup>	oil		(ZMYYC)	(Bijiang)		
tɕe <sup>155</sup>	oil, fat		(JZ)	(Bijiang)		
tsi <sup>55</sup>	oil, fat		(JZ)	(Jianchuan)		
tsi <sup>35</sup>	oil, fat		(JZ)	(Dali)		
tɕa <sup>55</sup>	oil (animal)		(TBL)			
tsɿ <sup>55</sup>	oil / grease (for cooking)		(ZYS)			
tsɿ <sup>55</sup> xo <sup>55</sup>	fat around intestines/omentum		(ZYS)			

/PTB \*tsil (WT tshil) > PLB \*ts(y)i (WB tshi), perhaps cognate to Chinese 脂 (Mand. zhī), from which these Baic forms may be borrowed./

<b>spit/saliva</b>		<b>55/44(c)</b>	<b>44/55/42(c)</b>	<b>55/44(c)</b>	<b>55/33c</b>	<b>55/54c 2</b>
<b>tshi<sup>55</sup></b>	spit	(ZMYYC)	(Dali)			
tsi <sup>55</sup> tɕhi <sup>44</sup>	spit	(JZ)	(Dali)			
ci <sup>55</sup> ŋv <sup>44</sup> tsi <sup>44</sup>	saliva / spittle	(ZMYYC)	(Dali)			
ci <sup>55</sup> ŋv̄ <sup>44</sup> tsi <sup>44</sup>	saliva	(JZ)	(Dali)			
si1 ngv2 <b>zw2</b>	saliva	(FD)				
si <sup>1</sup> ŋ <sup>2</sup> <b>zɿ<sup>2</sup></b>	saliva	(FD)	(Dali)			
tɕha <sup>44</sup>	spit	(ZMYYC)	(Bijiang)			
tɕha <sup>55</sup>	spit	(JZ)	(Bijiang)			
tɕue <sup>142</sup>	saliva / spittle	(ZMYYC)	(Bijiang)			
tɕue <sup>142</sup>	saliva	(JZ)	(Bijiang)			
tshi <sup>55</sup>	spit	(ZMYYC)	(Jianchuan)			

tshi <sup>55</sup>	spit	(JZ)	(Jianchuan)
ɕi <sup>55</sup> ŋv <sup>33</sup> tse <sup>44</sup>	saliva / spittle	(ZMYYC)	(Jianchuan)
ɕi <sup>55</sup> ŋv̄ <sup>44</sup> tsɛ <sup>44</sup>	saliva	(JZ)	(Jianchuan)

tsha <sup>55</sup> (tho <sup>21</sup> )	spit	(TBL)
ɕi <sup>55</sup> m̄i <sup>21</sup> tsa <sup>33</sup>	saliva	(TBL)

tsh <sub>l</sub> <sup>55</sup>	spit	(ZYS)
ɕi <sup>55</sup> ŋv̄ <sub>l</sub> <sup>44</sup> tsɛ <sup>44</sup> «ku <sub>l</sub>	saliva	(ZYS)

/cf. Lahu **cí-kh̄**; PTB **\*m-ts(y)il** or **\*m-tsril** (STC #231). Evidently more than one Baic morpheme are reflected in the above forms./

<b>sweat</b>		<b>21(c)</b>	<b>21(c)</b>	<b>21(c)</b>	<b>42</b>
ŋa <sup>21</sup>	sweat	(ZMYYC)	(Dali)		
ŋa <sup>21</sup>	sweat	(ZMYYC)	(Bijiang)		
ŋa <sup>21</sup>	sweat	(ZMYYC)	(Jianchuan)		
ŋa <sup>21</sup>	sweat	(JZ)	(Bijiang)		
ŋa <sup>21</sup>	sweat	(JZ)	(Jianchuan)		
ŋa <sup>21</sup>	sweat	(JZ)	(Dali)		
ŋa <sup>42</sup>	sweat	(TBL)			

/yã<sup>21</sup> 'sweat / perspiration' (ZYS) is a clear loan < Chinese 汗 (OC g'ân [GSR 139t], Mand. hàn), but the other forms seem inherited < PTB **\*s-ŋar** (STEDT #801; cf. WT **rŋul**, Lhoba **fioŋ-ŋar**, Tib. Xiahe **hŋəl tchə** ./







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