A Preliminary reconstruction of Proto-Lakkja (Cha Shan Yao)

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1. Introduction

The Jinxiu Yao Autonomous County (JYAC) of Guangxi Province is located in the area of Ta Yao Shan or the Big Yao Mountain. It is 700-1500 metres above sea level. It has a subtropical climate with an average temperature of around 17°C. The population of JYAC comprises eight nationalities: Zhuang (44.0 %), Yao (33.1 %), Han (22.8 %), and others (0.1 %). The so-called Yao nationality can be divided into five major groups: Pan Yao or Iu Mien (16.4 %), Ao Yao or Bjao Muan (4.6 %), Shan Züe Yao or Kim Di Mun (2.3 %), Hua Lan Yao or Punu (1.4 %), and Cha Shan Yao or Lakkja (8.4 %). According to the latest survey done in 1988, there are about 11,480 Cha Shan Yao speakers. This ethnic group lives only in JYAC. The oldest Cha Shan Yao village is located in downtown Jinxiu. Many thousands of years ago they lived in Guangdong Province. Later on they moved westwards, till they arrived in Guangxi and made Jinxiu their permanent home. They were among the pioneers who opened up the wilderness of Ta Yao Shan.[1]

The Cha Shan Yao call themselves "Lakkja" which means 'mountain people'. The word *lak^{D2S}* means 'person', as can be found in many compound nouns, such as *lak^{D2S} kjei^{A1}* 'man (person+male)', *lak^{D2S} kjã:u^{C1}* 'woman (person+female)', *lak^{D2S} lou^{C2}* 'old person (person+old)', *lak^{D2S} pla^{A1} phaŋ^{C1}* 'a blind (person+eye+unable to see)', and so on. In the Jinxiu dialect, the word *kja^{C1}* means 'mountain' which perhaps is cognate with the Proto-Tai form **phl(r)a^{A}* 'rock, cliff', and *lak^{D2S}* perhaps is cognate with (PT) **lïuk^{D}* 'one's child'. In Siamese *lu:k^{D2L}* also means 'fruit', e.g. *lu:k^{D2L} thɔ:^{C2}*'peach', *lu:k^{D2L} phlap^{D2S}* 'persimmon', etc. This type of compound can also be found in Lakkja, e.g. *lak^{D2S} faŋ^{A1}* 'peach', *lak^{D2S} i:t^{D1L}* 'grape', etc. This ethnic group and their language will be referred to as "Lakkja" (rather than Lakkia) in the rest of this paper.

The Lakkja took up the 'Yao Nationality' because of three reasons. Firstly, they are highlanders like the other Yao groups, e.g. Mien, Muan, Mun, etc. Secondly, because there is a large number of Chinese loanwords (new loans from Mandarin and early loans from Southern Chinese dialects, mostly from Cantonese),

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[1] This information is from a lecture by the Director of Minority Affairs. I asked him for the documents that could be used as references, but he refused to give them to me. He told me to wait for the published version which will appear sometime later.

[2] IPA symbols are used in transcribing consonants and vowels. As for tones, I will follow the Li system.

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the Lakkja and the proper Yao languages seem to have a lot of similar vocabulary. Moreover, similar phonological systems can also blind linguistically naïve people. Thirdly, political benefits are the most important reason. Although the Zhuang are the majority of the Jinxiu population (44.0 %), the Zhuang and the other six nationalities have less chance and in some cases no chance to be the top officials of JYAC. Only those who have Yao nationality are considered. By being a member of the Yao group the Lakkja can gain more advantage.

2. Data

The data on Jintian (JT) and Liula (LL) dialects are from my own field notes collected during my stay in Jinxiu in October, 1989,[3] and the data on the third dialect, Jinxiu (JX), are from the published wordlist found at the back of Mao Zong-Wu et al. (1982).[4] The reconstruction of consonants, vowels and tones in Proto-Lakkja (PL) is based on the comparison of the above three dialects.[5] Forms reconstructed for Proto-Tai (PT) and Proto-Kam-Sui (PKS) are from Li (1977) and Thurgood (1988), respectively; the Hlai data are from Pranee Kullavanijaya et al. (1984) and Matisoff (1988); and the data on Be are from Hansell (1988) and Hashimoto (1980).

3. Proto-Lakkja tone system

Proto-Lakkja has four tones, namely *A, *B, *C and *D like Proto-Tai. In later stages, these four proto-tones split into two series conditioned by the types of initial consonants, i.e. the high series from voiceless initials and the low series from voiced initials. As the result of this splitting, CVØ and CVN syllable types in modern Lakkja dialects have six tones, namely A1, A2, B1, B2, C1 and C2 tones, and checked syllables that used to have proto-tone D have four tones, depending upon the initial and the vocalic length. In Jintian and Liula dialects, tones A2 and B2 are glottalized and laryngealized (creaky), respectively. Tone D1L has merged with C1, D2L with C2, and D1S with B1, whereas D2S still maintains its own identity. The merging of D2S with B2 has not yet occurred. (See the phonetic character of tones in modern dialects in Table 1, and the correspondences of each

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[3] I would like to thank the Guangxi Institute for Nationalities and the Department of Minority Affairs of JYAC for their kind arrangements. Without their assistance, my field research in JYAC would not have been possible. A lot of thanks go to the Toyota Foundation for financial support.

[4] I am grateful to Mr. Korsak Thamcharonkij of the Chinese Section, the Oriental Languages Department, Faculty of Arts, Chulalongkorn University, who kindly translated the Lakkja materials written in Chinese and went through the wordlist with me to draw out Chinese loans in Lakkja. His knowledge of Mandarin, Tae Chew and Cantonese dialects was very useful for my work.

[5] The Jintian dialect seems to be less conservative than the other two dialects. I suspect that perhaps the Lakkja language has only one major dialect, and this one dialect has a few sub-dialects. Thus JT, LL and JX may be regarded as sub-dialects of the same dialect. There are a few differences among them. I could have got more data and done better work if I had prepared myself for Lakkja. I had not known that Cha Shan Yao and Lakkja were the same ethnic group till I arrived in JYAC. An opportunity to work with Lakkja speakers in their hometown during my visit to Jinxiu may be regarded as an accident or as a by-product of my major project on Yao sponsored by the Toyota Foundation. It is also a pity that I did not get hold of the book *Comparative Kadai*, edited by Edmondson and Solnit (1988), till March, 1990.

tone in Table 2.) Syllables having aspirated and fricative initials can have only the high series tones : A1, B1, C1, D1S and D1L.

Table 1: The phonetic character of tones in Jintian, Liula and Jinxiu dialects.

Dialect 1: JT	*A	*B	*C	*D DL	*D DS
1. High series *Voiceless	453	45	33	33	45
2. Low series *Voiced	231ʔ	214~	221	221	11

Dialect 2: LL	*A	*B	*C	*D DL	*D DS
1. High series *Voiceless	453	45	24	24	45
2. Low series *Voiced	231ʔ	214~	221	221	34

Dialect 3: JX	*A	*B	*C	*D DL	*D DS
1. High series *Voiceless	51	55	24	24	55
2. Low series *Voiced	231	214	11	11	24

Table 2: Examples of the tone correspondences.

	PL	**JT**	**LL**	**JX**
*A (>A1)				
'eye'	*plaːA	pjaːA1	plaːA1	plaA1
'fish'	*phlaːA	phjaːA1	phlaːA1	phlaA1
'leaf'	*ʔwaːA	ʋaːA1	ʋaːA1	waA1
*A (>A2)				
'tooth'	*wanA	ʋanA2	ʋanA2	wanA2
'hand'	*miəA	miəA2	miəA2	mieA2
'monkey'	*liŋA	liŋA2	liŋA2	liŋA2
*B (>B1)				
'chicken'	*kaiB	kaiB1	kaiB1	kaiB1
'old (thing)'	*kaːuB	kaːuB1	kaːuB1	kaːuB1
'to sit'	*ʔniŋB	niŋB1	niŋB1	niŋB1

*B (>B2)				
'to scatter'	*waːn^{B}	ʋaːn^{B2}	ʋaːn^{B2}	waːn^{B2}
'dry field'	*diːB	tiːB2	tiːB2	tiB2
'grinding stone'	*muəB	muəB2	muəB2	muəB2
*C (>C1)				
'intestine'	*klaːiC	kjaːiC1	kjaːiC1	kjaːiC1
'rice'	*kouC	kouC1	kouC1	kouC1
'liquor'	*khlaːuC	khjaːuC1	khjaːuC1	khjaːuC1
*C (>C2)				
'water'	*numC	numC2	numC2	numC2
'elephant'	*dzaːŋC	tsaːŋC2	tsaːŋC2	tsaːŋC2
'horse'	*maːC	maːC2	maːC2	maC2
*D (>D1L)				
'to take off'	*thuətD	thuətD1L	thuətD1L	thuəːtD1L
'to tear'	*tsheːkD	tsheːkD1L	tsheːkD1L	tshɛːkD1L
'forehead'	*plaːkD	pjaːkD1L	plaːkD1L	plaːkD1L
*D (>D2L)				
'narrow'	*jeːpD	jeːpD2L	jeːpD2L	jɛːpD2L
'blood'	*liətD	liətD2L	liətD2L	lieːtD2L
'land leech'	*laːkD	laːkD2L	laːkD2L	-
D (>D1S)				
'bite'	*katD	katD1S	katD1S	katD1S
'heavy'	*tsakD	tsakD1S	tsakD1S	tsakD1S
'mountain frog'	*kopD	kopD1S	kopD1S	kopD1S
D (>D2S)				
'to steal'	*glakD	kjakD2S	kjakD2S	kjakD2S
'wash (clothes)'	*wlakD	lakD2S	lakD2S	wakD2S
'ant'	*motD	motD2S	motD2S	motD2S

4. Proto-Lakkja consonant system

4.1 *Stops*

Proto-Lakkja has eleven initial stops. They are as follows :

Labial:	*p-	*ph-	*ʔb-	*b-
Alveolar:	*t-	*th-	*d-	
Velar:	*k-	*kh-	*g-	
Glottal:	*ʔ-			

The correspondences of initial stops in modern dialects are very regular, almost one-to-one correspondences, as can be seen in Table 3.

Table 3: Correspondences of initial stops.

PL	JT	LL	JX
*p-	p-	p-	p-
*ph-	ph-	ph-	ph-
*ʔb-	m-	b-	b-
*b-	p-	p-	p-
*t-	t-	t-	t-
*th-	th-	th-	th-
*d	t-	t-	t-
*k-	k-	k-	k-
*kh-	kh-	kh-	kh-
*g-	k-	k-	k-
*ʔ-	ʔ-	ʔ-	∅-

ʔb-* becomes *m-* in the Jintian (JT) dialect and *b-* in the other two dialects; for example, **ʔbaːnC* > *maːnC1* (JT) and *baːnC1* (LL, JX) 'house'. Unlike Proto-Tai, Proto-Lakkja does not have **ʔd/d-*. Proto-Lakkja **ʔl-* corresponds to Proto-Tai **ʔd-* as in the following reconstructed forms : **ʔlamA* (PL)-ʔdl/ramA* (PT) 'black' and **ʔlaiA* (PL)-**ʔdi/əiA* (PT) 'good'. **ʔ-* becomes *∅-* in Jinxiu dialect. (I suspect that the lack of *ʔ-* in the Jinxiu dialect is caused by the Chinese tradition of transcription.) **d-* is devoiced in modern dialects (>t-), and none of the dialects has *d-*. Examples of the correspondences of labial stops, alveolar stops, velar stops and glottal stop can be found in Tables 4, 5, 6 and 7, respectively.

Table 4 : Examples of the labial stop correspondences.

	PL	JT	LL	JX
	***p-**	**p-**	**p-**	**p-**
'to go'	*paiA	paiA1	paiA1	paiA1
'year'	*peiA	peiA1	peiA1	peiA1
'fire'	*puiA	puiA1	puiA1	puːiA1
'to give'	*pənA	pənA1	pənA1	-
'weep'	*piəA	piəA1	piəA1	pieA1
'to spin'	*panB	panB1	panB1	panB1
'hundred'	*pɛːkD	pɛ(ː)kD1L	pɛːkD1L	pɛːkD1L
'eight'	*paːtD	paːtD1L	paːtD1L	paːtD1L
'duck'	*petD	petD1S	petD1S	petD1S
'foot'	*pukD	pukD1S	pukD1S	pukD1S
	***ph-**	**ph-**	**ph-**	**ph-**
'to spit'	*phuiA	phuiA1	phuiA1	phuːiA1
'to spread out'	*phuːA	phuːA1	phuːA1	phuA1
'to blow'	*phuːB	phuːB1	phuːB1	phuB1
'broken'	*pheːkD	pheːkD1L	pheːkD1L	phɛːkD1L

	***ʔb-**	**m-**	**b-**	**b-**
'sky'	*ʔbənA	mənA1	bənA1	bənA1
'month'	*ʔbiənA	miənA1	biənA1	bieːnA1
'village'	*ʔbaːnC	maːnC1	baːnC1	baːnC1
'well grown, big'	*ʔbokD	mokD1S	bokD1S	bokD1S
	***b-**	**p-**	**p-**	**p-**
'palm (hand)'	*baːnA	paːnA2	paːnA2	paːnA2
'belly'	*bɔːŋA	pɔːŋA2	pɔːŋA2	poːŋA2
'skin'	*beiA	peiA2	peiA2	peiA2
'far'	*baːA	paːA2	paːA2	paːA2
'fat'	*buiA	puiA2	puiA2	puːiA2
'white'	*biəkD	piəkD2L	piəkD2L	pieːkD2L
'to make, to do'	*bokD	pokD2S	pokD2S	pokD2S

Table 5: Examples of the alveolar stop correspondences.

	PL	**JT**	**LL**	**JX**
	***t-**	**t-**	**t-**	**t-**
'to light (lamp)'	*tumA	tumA1	tumA1	tumA1
'door'	*tɔːA	tɔːA1	tɔːA1	toA1
'stool'	*taŋB	taŋB1	taŋB1	taŋB1
'arrow'	*tiːnB	tinB1	tiːnB1	tiːnB1
'to divide'	*teːŋB	teŋB1	teːŋB1	tɛːŋB1
'mortar'	*toiB	tuəiB1	tuəiB1	tuəːiB1
'to weave (cloth)'	*tamC	tamC1	tamC1	tamC1
'to cook'	*tɔːC	tɔːC1	tɔːC1	toC1
'mouth'	*teiC	teiC1	teiC1	teiC1
'to join, to connect'	*tɔːC	tɔːC1	tɔːC1	toC1
'liver'	*tapD	tapD1S	tapD1S	tapD1S
'to put'	*tiɛkD	tɛkD1S	tɛkD1S	tekD1S
	***th-**	**th-**	**th-**	**th-**
'needle'	*themA	themA1	themA1	themA1
'to poke'	*thiːmB	thiːmB1	thiːmB1	thiːmB1
'shallow'	*thiːnC	thiːnC1	thiːnC1	thiːnC1
'to take off'	*thuətD	thuətD1L	thuətD1L	thuəːtD1L
'seven'	*thetD	thetD1S	thetD1S	thetD1S
	***d-**	**t-**	**t-**	**t-**
'copper'	*doŋA	toŋA2	toŋA2	toŋA2
'clf. for animals'	*duːA	tuːA2	tuːA2	tuA2
'dry field'	*diːB	tiːB2	tiːB2	tiB2
'beans, peas'	*douB	touB2	touB2	touB2
'to make (fire)'	*diuC	tiuC2	tiuC2	-
'right'	*dukD	tukD2S	tukD2S	tukD2S
'to forge iron'	*dapD	tapD2S	tapD2S	tapD2S

Table 6: Examples of the velar stop correspondences.

	PL	**JT**	**LL**	**JX**
	***k-**	**k-**	**k-**	**k-**
'bow'	*koŋ^{A}	koŋ^{A1}	koŋ^{A1}	koŋ^{A1}
'crow'	*ka:^{A}	ka:^{A1}	ka:^{A1}	ka^{A1}
'oil'	*ka:u^{A}	ka:u^{A1}	ka:u^{A1}	ka:u^{A1}
'root'	*kan^{A}	kan^{A1}	kan^{A1}	kan^{A1}
'red'	*kɔ:ŋ^{B}	kɔ:ŋ^{B1}	kɔ:ŋ^{B1}	kɔ:ŋ^{B1}
'chicken'	*kai^{B}	kai^{B1}	kai^{B1}	kai^{B1}
'old (thing)'	*ka:u^{B}	ka:u^{B1}	ka:u^{B1}	ka:u^{B1}
'rice'	*kou^{C}	kou^{C1}	kou^{C1}	kou^{C1}
'mountain frog'	*kop^{D}	kop^{D1S}	kop^{D1S}	kop^{D1S}
'to bite'	*kat^{D}	kat^{D1S}	kat^{D1S}	kat^{D1S}
	***kh-**	**kh-**	**kh-**	**kh-**
'thin'	*khuən^{C}	khuən^{C1}	khuən^{C1}	khuə:n^{C1}
	***g-**	**k-**	**k-**	**k-**
'to ask'	*ga:m^{A}	ka:m^{A2}	ka:m^{A2}	ka:m^{A2}
'bitter'	*gom^{A}	kom^{A2}	kom^{A2}	kom^{A2}
'axe'	*guən^{A}	kuən^{A2}	kuən^{A2}	kuə:n^{A2}
'horn'	*gou^{A}	kou^{A2}	kou^{A2}	kou^{A2}
'joint, node'	*gun^{B}	kun^{B2}	kun^{B2}	-

Table 7: Examples of the glottal stop correspondences.

	PL	**JT**	**LL**	**JX**
	***ʔ-**	**ʔ-**	**ʔ-**	**Ø-**
'to take'	*ʔau^{A}	ʔau^{A1}	ʔau^{A1}	au^{A1}
'aunt'	*ʔa:^{C}	ʔa:^{C1}	ʔa:^{C1}	a^{C1}
'to go out'	*ʔuk^{D}	ʔuk^{D1S}	ʔuk^{D1S}	uk^{D1S}

4.2 *Affricates*

Proto-Lakkja has three affricates : **ts*, **tsh* and **dz*. In modern dialects there are only two affricates, because **dz* is devoiced (>ts-). It is noticeable that many words which have one of the low series tones and voiceless unaspirated affricate *ts-* are loans from Chinese, for example:

Mandarin	**Lakkja**	
tsiaŋ^{51}	tsiəŋ^{221} (JT, LL), tsie:ŋ^{11} (JX)	'born' (C2)
tsin^{51}	tsen^{221} (JT, LL), tsɛn^{11} (JX)	'near' (C2)
tshuan^{35}	tsuən^{231} (JT, LL), tsuə:n^{231} (JX)	'boat' (A2)

Cantonese	Lakkja	
sɛ^{21}	tshiə^{214} (JT), tsiə^{214} (LL), tsie^{214} (JX)	'to shoot'(B2)
sap^{22} / sip^{22}	tsep^{11} (JT), tsep^{34} (LL), tsep^{24} (JX)	'ten' (D2S)
sok^{21}	tsok^{11} (JT), tsok^{34} (LL), tsok^{24} (JX)	'cooked, ripe'(D2S)

Early Cantonese loans are also used in reconstructing some of the proto-forms. The affricate correspondences are shown in Table 8.

Table 8: Examples of the affricate correspondences.

	PL	**JT**	**LL**	**JX**
	***ts-**	**ts-**	**ts-**	**ts-**
'to eat'	*tsen^{A}	tsen^{A1}	tsen^{A1}	tsen^{A1}
'tendon'	*tsen^{A}	tsen^{A1}	tsen^{A1}	tsen^{A1}
'road'	*tsaŋ^{A}	tsaŋ^{A1}	tsaŋ^{A1}	-
'wood, tree'	*tsei^{B}	tsei^{B1}	tsei^{B1}	tsei^{B1}
'thorn'	*tsiə^{C}	tsiə^{C1}	tsiə^{C1}	tsiə^{C1}
'nine'	*tseu^{C}	tseu^{C1}	tseu^{C1}	tsɛːu^{C1}
'plate'	*tseːn^{C}	tseːn^{C1}	tseːn^{C1}	tsɛːn^{C1}
'painful'	*tseːt^{D}	tseːt^{D1L}	tseːt^{D1L}	tsɛːt^{D1L}
'heavy'	*tsak^{D}	tsak^{D1S}	tsak^{D1S}	tsak^{D1S}
	***tsh-**	**tsh-**	**tsh-**	**tsh-**
'to hide'	*tsheu^{A}	tsheu^{A1}	tsheu^{A1}	-
'to cough'	*tshuːn^{C}	tshun^{C1}	tshuːn^{C1}	-
'to tear'	*tsheːk^{D}	tsheːk^{D1L}	tsheːk^{D1L}	tshɛːk^{D1L}
	***dz**	**ts-**	**ts-**	**ts-**
'elephant'	*dzaŋ^{C}	tsaŋ^{C2}	tsaŋ^{C2}	tsaŋ^{C2}
'ten'	*dzep^{D}	tsep^{D2S}	tsep^{D2S}	tsep^{D2S}
'ripe, cooked'	*dzok^{D}	tsok^{D2S}	tsok^{D2S}	tsok^{D2S}

4.3 *Fricatives*

There are three voiceless fricatives in Lakkja : *f-*, *s-*, and *h-*, and all of them can occur only in syllables that carry tones A1, B1, C1, D1L and D1S which belong to the high series; hence, they are from **f-*, **s-* and **h-*, respectively. The correspondences of these fricatives in modern dialects are regular, except in some words, for example:

'three'	saːm^{453}	faːm^{453}	faːm^{51}	(A1)	(Cantonese: sam^{55})
'four'	sei^{45}	fei^{45}	fei^{55}	(B1)	(Cantonese: sei^{33})
'heart'	sem^{453}	fem^{453}	fem^{51}	(A1)	(Cantonese: sam^{55}).

The initial *f-* in LL and JX indicates that these words are early loans from Cantonese. A possible explanation for this phenomenon is that the initial *s-* in JT has recently replaced *f-*. This is due to the influence or confusion caused by

language contact. Most of the Lakkja speak some kinds of Southern Chinese dialects in daily life. The fricative correspondences can be found in Table 9.

Table 9: Examples of the fricative correspondences.

	PL	**JT**	**LL**	**JX**
	***f-**	**f-**	**f-**	**f-**
'bamboo'	*fan^{A}	fan^{A1}	fan^{A1}	fan^{A1}
'rain'	*fen^{A}	fen^{A1}	fen^{A1}	fen^{A1}
'stone'	*faŋ^{A}	faŋ^{A1}	faŋ^{A1}	faŋ^{A1}
'to tie'	*fat^{D}	fat^{D1S}	fat^{D1S}	fat^{D1S}
	***s-**	**s-**	**s-**	**s-**
'spirit, ghost'	*siəŋ^{A}	siəŋ^{A1}	siəŋ^{A1}	sieːŋ^{A1}
'steep'	*seːŋ^{C}	seːŋ^{C1}	seːŋ^{C1}	sɛːŋ^{C1}
	***h-**	**h-**	**h-**	**h-**
'to open'	*haːi^{A}	haːi^{A1}	haːi^{A1}	haːi^{A1}
'fear'	*heː^{A}	hɛː^{A1}	hɛː^{A1}	hɛ^{A1}
'to laugh'	*heːm^{C}	heːm^{C1}	heːm^{C1}	hɛːm^{C1}
'two'	*hou^{C}	hou^{C1}	hou^{C1}	hou^{C1}
'to drink'	*hɔːp^{D}	hɔ(ː)p^{D1L}	hɔːp^{D1L}	hoːp^{D1L}
'to sleep'	*hep^{D}	hep^{D1S}	hep^{D1S}	hep^{D1S}

4.4 *Nasals*

Proto-Lakkja has nine nasals, which can be divided into two series, preglottalized and plain, as follows :

Labial:	*ʔm-	*m-
Alveolar:	*ʔn-	*n-
Palatal:	*ʔɲ-	*ɲ-
Velar:	*ʔŋ-	*ŋ-

One may wonder where the voiceless series (*m̥ *n̥ *ɲ̥ *ŋ̊) has gone. Several words in modern dialects have a nasalized vowel, for example, *khũː^{453}* (A1) 'pig', *sãːŋ^{453}* (A1) 'bamboo shoot', and *tsãː^{453}* (A1) 'thick'. There is no need to reconstruct nasalized vowels in Proto-Lakkja. They can be eliminated if the following hypotheses are acceptable :

A. Monosyllabic words that have nasalized vowels used to be two-syllable words or compounds in pre-Proto-Lakkja.

B. The first syllable (pre-syllable or first part of compound) was reduced, then became *C(C)-NV(C) in Proto-Lakkja (e.g. *kh-Nu:^{A1} 'pig' *kl-Nɛ:^{C} 'face', etc.) instead of becoming *hNV(C) as in Proto-Tai (e.g. *hmu^{A} 'pig').[6]

One more nasal *-N- is reconstructed to tackle the problem of nasalization in modern Lakkja dialects. There is no way to know the phonetic character (-m-, -n-, -ɲ-, -ŋ-) of the dummy *-N- unless the reconstructed forms are compared with Proto-Tai and Proto-Kam-Sui cognates. For example, one may guess that *-N- in the reconstructed form *kh-Nu:^{A} 'pig' is *-m- (*kh-mu:^{A} > kh-mũ:^{A} > khũ:^{A1}) because the reconstructed forms in Proto-Tai and Proto-Kam-Sui are *hmu^{A} and *k-hmu^{B}, respectively. Prior to the Proto-Tai and Proto-Kam-Sui period, voicelessness pertaining to the initial of the preceding syllable is transferred to the nasal initial of the following syllable, but in Lakkja *-N- is dropped, and nasality is transferred to the following vowel. (See the examples of the reconstructed forms that have *-N- in Table 10.) It is interesting to point out that all of the reconstructed forms have high series tones except *w-Nai$^{B(2)}$ 'new' because *C- is voiced, whereas *C- in the other reconstructed forms are voiceless consonants. The examples of the nasal correspondences can be found in Table 11.

Table 10: Examples of *N- in Proto-Lakkja

	PL	**JT**	**LL**	**JX**
	*C(C)V-NV(C)	C(C)~V(C)	C(C)~V(C)	C(C)~V(C)
'pig'	*kh-Nu:^{A}	khũ:^{A1}	khũ:^{A1}	khũ^{A1}
'dog'	*kh-Nuə^{A}	khũə^{A1}	khũə^{A1}	khwõ^{A1}
'flea'	*kh-Nuət^{D}	khũət^{D1S}	-	khwõt^{D1S}
'bear'	*k-Nui^{A}	-	kũi^{A1}	kũ:i^{A1}
'thick'	*ts-Na:^{A}	tsã:^{A1}	tsã:^{A1}	tsã^{A1}
'maggot'	*kl-Nu:n^{A}	kjũ:n^{A1}	kjũ:n^{A1}	kjũ:n^{A1}
'bamboo shoot'	*s-Naŋ^{A}	sãŋ^{A1}	sãŋ^{A1}	sãŋ^{A1}
'face'	*kl-Nɛ:^{C}	kjɛ̃:^{C1}	kjɛ̃:^{C1}	kjɛ̃:^{C1}
'urine'	*kl-Niu^{B}	kĩu^{B1}	kĩu^{B1}	kjĩ:u^{B1}
'curved, crooked'	*k-Nau^{C}	kãu^{C1}	kãu^{C1}	kãu^{C1}
'branch'	*tsh-Nɛ:^{B}	tshɛ̃:^{B1}	tshɛ̃:^{B1}	tshɛ̃^{B1}
'mushroom'	*tsh-Nu:n^{C}	tshũ:n^{C1}	tshũ:n^{C1}	tshũ:n^{C1}
'river'	*ts-Niə^{A}	tsĩə^{A1}	tsĩə^{A1}	tsĩe^{A1}
'iron'	*khl-Nak^{D}	khjãk^{D1S}	khjãk^{D1S}	khjãk^{D1S}
'cold'	*khl-Ni:t^{D}	khĩ(:)t^{D1L}	khĩ:t^{D1L}	kjĩ:t^{D1L}
'young female person'	*kl-Na:u^{C}	kjã:u^{C1}	kjã:u^{C1}	kjã:u^{C1}
'new'	*w-Nai^{B}	ʋãi^{B2}	ʋãi^{B2}	wãi^{B2}

[6] The reducing process from two-syllable to one-syllable word by means of transferring some phonetic features is quite common in Mon-Khmer languages. I came across many examples when I worked on Nyah–Kur (Chao Bon), for example, *chənáːm ~ hnáːm* 'year', *chəlóːŋ ~ hlóːŋ*, *chəwáːʔ ~ hwáːʔ* 'meat', etc.

Table 11: Examples of the nasal correspondences.

	PL	JT	LL	JX
	***ʔm-**	**m-**	**m-**	**m-**
'navel'	*ʔmiəA	miəA1	miəA1	-
'stick'	*ʔmi:C	mi:C1	mi:C1	miC1
	***m-**	**m-**	**m-**	**m-**
'hand'	*miəA	miəA2	miəA2	mieA2
'you'	*ma:A	ma:A2	ma:A2	maA2
'meat'	*mɔmB	mɔmB2	mɔmB2	momB2
'grinding stone'	*muəB	muəB2	muəB2	muəB2
'cat'	*meuC	meuC2	meuC2	mɛ:uC2
'horse'	*ma:C	ma:C2	ma:C2	maC2
'ant'	*motD	motD2S	motD2S	motD2S
'full'	*motD	motD2S	motD2S	motD2S
	***ʔn-**	**n-**	**n-**	**n-**
'nose'	*ʔnaŋA	naŋA1	naŋA1	naŋA1
'to sit'	*ʔniŋB	niŋB1	niŋB1	niŋB1
'fruit'	*ʔnamB	-	namB1	namB1
'breast, milk'	*ʔnɛ:nC	nɛ:nC1	nɛ:nC1	nɛ:nC1
	***n-**	**n-**	**n-**	**n-**
'difficult'	*na:nA	na:nA2	na:nA2	na:nA2
'brain'	*nuiA	nuiA2	nuiA2	nu:iA2
'water'	*numC	numC2	numC2	numC2
'younger person'	*nouŋC	noŋC2	noŋC2	nuŋC2
'uncle-in-law'	*na:C	na:C2	na:C2	naC2
	***ʔɲ-**	**ʔ-/j-**	**ɲ-/ŋj**	**ŋj-**
'smoke'	*ʔɲi:nA	ʔi:nA1	ɲi:nA1	ŋji:nA1
'paddy field frog'	*ʔɲai / a:iC	jãiC1	ŋja:iC1	-
	***ɲ-**	**ɲ- / j-**	**ɲ- / ŋj**	**ŋj-**
'silver'	*ɲɛnA	ɲɛnA2	ɲɛnA2	ŋjɛnA2
'human being'	*ɲunA	ɲunA2	ɲunA2	ŋjunA2
'snake'	*ɲiəA	jĩəA2	ŋjiəA2	ŋjieA2
'alive'	*ɲeuA	jẽuA2	ŋje:uA2	-
	***ʔŋ-**	**ʔ-**	**ŋ-**	**Ø-**
'shade'	*ʔŋɛmA	ʔɛmA1	ŋɛmA1	-
'neck'	*ʔŋɛnA	ʔɛnA1	ŋɛnA1	ɛnA1
'one'	*ʔŋinC	ʔinC1	ŋinC1	inC1

	***ŋ-**	**ʔ-**	**ŋ-**	**ŋ-**
'five'	*ŋɔːC	ʔɔːC2	ŋɔːC2	ŋoːC2

4.5 *Approximants*[7]

On the basis of symmetry, Proto-Lakkja should have twelve approximants produced at three places of articulation : labial, alveolar and palatal, with three types of state of the glottis : voiceless (open glottis), preglottalized (closed glottis followed by vibrating glottis), and voiced (vibrating glottis). They are as follows :

Labial :	*hw-	*ʔw-	*w-
Alveolar:	*hl-	*ʔl-	*l-
	*(-)	*(-)	*r-
Palatal:	*(-)	*ʔj-	*j-

However, due to the small corpus of data that I have in hand, **hr-*, **ʔr-* and **hj-* are missing. I hope to obtain more data to have enough evidence to fill these gaps. The examples of the approximant correspondences can be found in Table 12.

Table 12 : Examples of the approximant correspondences.

	PL	**JT**	**LL**	**JX**
	***hw-**	**khw-**	**f-**	**f-**
'cloud'	*hwaːC	khwaːC1	faːC1	faːC1
	***ʔw -**	**ʋ-**	**ʋ-**	**w -**
'leaf'	*ʔwaːA	ʋaːA1	ʋaːA1	waA1
'thin'	*ʔwaːŋA	ʋaːŋA1	ʋaːŋA1	waːŋA1
'to see'	*ʔweiB	ʋeiB1	ʋeiB1	weiB1
'to dig'	*ʔweːtD	ʋe(ː)tD1L	ʋeːtD1L	wɛːtD1L
	*** w -**	**ʋ-**	**ʋ-**	**w -**
'day'	*wanA	ʋanA2	ʋanA2	wanA2
'tooth'	*wanA	ʋanA2	ʋanA2	wanA2
'to hinder'	*weːŋA	ʋeːŋA2	ʋeːŋA2	wɛːŋA2
'kind of big bear'	*waːiA	ʋaːiA2	ʋaːiA2	-
'righthand'	*waːA	ʋaːA2	ʋaːA2	waA2
'to scatter'	*waːnB	ʋaːnB2	ʋaːnB2	waːnB2
'wing'	*wiətD	ʋiətD2L	ʋiətD2L	wieːtD2L
'swollen'	*wokD	ʋokD2S	ʋokD2S	wokD2S
'vegetable'	*wokD	ʋokD2S	ʋokD2S	wokD2S

[7] Approximants are sounds made with an open approximation (type of stricture) of active and passive articulators; [w] = labial-velar approximant, [ʋ] = labial-dental approximant, [l] = alveolar lateral approximant, [ɹ] = alveolar approximant, [j] = palatal approximant, etc. In this paper, the term "approximant" is used instead of the more familiar terms "semi-vowel" and "liquid".

	*hl-	l̥-	l̥-	ɬ-
'much, many'	*hloŋ^{A}	l̥oŋ^{A1}	l̥oŋ^{A1}	ɬoŋ^{A1}
'tired'	*hla:t^{D}	l̥a:t^{D1L}	l̥a:t^{D1L}	ɬa:t^{D1L}
'dark; to extinguish'	*hlap^{D}	l̥ap^{D1S}	l̥ap^{D1S}	ɬap^{D1S}
	*ʔl-	l-	l-	l-
'black'	*ʔlam^{A}	lam^{A1}	lam^{A1}	lam^{A1}
'good'	*ʔlai^{A}	lai^{A1}	lai^{A1}	lai^{A1}
	*l-	l-	l-	l-
'saliva'	*lei^{A}	lei^{A2}	lei^{A2}	le:i^{A2}
'mountain'	*laŋ^{A}	laŋ^{A2}	laŋ^{A2}	-
'son-in-law'	*la:ŋ^{A}	la:ŋ^{A2}	la:ŋ^{A2}	la:ŋ^{A2}
'monkey'	*liŋ^{A}	liŋ^{A2}	liŋ^{A2}	liŋ^{A2}
'parents eld.brother'	*loŋ^{B}	loŋ^{B2}	loŋ^{B2}	loŋ^{B2}
'egg'	*lɔ:m^{B}	lɔ:m^{B2}	lɔ:m^{B2}	lɔ:m^{B2}
'to let go'	*la:ŋ^{B}	la:ŋ^{B2}	la:ŋ^{B2}	la:ŋ^{B2}
'to descend'	*lei^{C}	lei^{C2}	lei^{C2}	lei^{C2}
'blood'	*liət^{D}	liət^{D2L}	liət^{D2L}	lie:t^{D2L}
'land leech'	*la:k^{D}	la:k^{D2L}	la:k^{D2L}	-
'house'	*liək^{D}	liək^{D2L}	liək^{D2L}	lie:k^{D2L}
'six'	*lɔk^{D}	lɔk^{D2S}	lɔk^{D2S}	lok^{D2S}
	*r-	ʔ-	h-	∅-
'sharp'	*rei^{B}	ʔei^{B2}	hei^{B2}	ei^{B2}
'long'	*rai^{A}	ʔai^{A2}	hai^{A2}	ai^{A2}

There are many steps of sound changes here : firstly **r-* > **ɣ-* > **ɦ-* > **h-*; **h-* remains *h-* in LL but has changed to *ʔ-* in JT and has been lost in JX.

	*ʔj-	j-	j-	∅-/j-
'to scratch'	*ʔjau^{A}	jau^{A1}	jau^{A1}	-
'medicine'	*ʔje:^{A}	je:^{A1}	je:^{A1}	ie^{A1}
'to stand'	*ʔju:n^{A}	ju:n^{A1}	ju:n^{A1}	ju:n^{A1}
'name'	*ʔja:n^{A}	ja:n^{A1}	-	ja:n^{A1}
'to vomit'	*ʔjok^{D}	jok^{D1S}	jok^{D1S}	jok^{D1S}
	*j-	j-	j-	j-
'ear'	*ja:^{A}	ja:^{A2}	ja:^{A2}	ja:^{A2}
'wind'	*jom^{A}	jom^{A2}	jom^{A2}	jom^{A2}
'paddy field'	*ja:^{B}	ja:^{B2}	ja:^{B2}	ja^{B2}
'child'	*je:^{C}	je:^{C2}	je:^{C2}	jei^{C2}
'narrow'	*je:p^{D}	je:p^{D2L}	je:p^{D2L}	jɛ:p^{D2L}
'itchy'	*juət^{D}	juət^{D2S}	juət^{D2S}	jwot^{D2S}

4.6 *Consonant clusters*

There are two kinds of consonant clusters in Proto-Lakkja: *Cw- and *Cl-. When *-*w*- is the second element of the *Cw- type, *C- will either be a velar stop or velar nasal, for example, **kw*-, **gw*-, **ʔŋw*-, **ŋw*-, etc. See the examples of the correspondences of the *Cw- type of cluster in Table 13.

Table 13: Examples of *Cw-.

	PL	**JT**	**LL**	**JX**
	***khw-**	**kh-**	**khw-**	**khw-**
'sweet'	*khwa:n^{A}	kha:n^{A1}	khwa:n^{A1}	khwa:n^{A1}
	***gw-**	**kw-**	**kw-**	**kw-**
'excrement'	*gwei^{C}	kwei^{C2}	kwei^{C2}	kwei^{C2}
	***ʔŋw-**	**(ʔ)**	**ŋʊ-**	**ŋw-**
'tick'	*ʔŋwan^{A}	-	ŋʊan^{A1}	ŋwan^{A1}
	***ŋw-**	**ʊ-**	**ŋʊ-**	**ŋw-/w-**
'tongue'	*ŋwa:^{A}	ʊã:^{A2}	ŋʊa:^{A2}	ŋwa^{A2}
'soft'	*ŋwak^{D}	ʊãk^{D2S}	ŋʊak^{D2S}	wãk^{D2S}

The *Cl- type of consonant cluster is more common than the *Cw- type. The first element of the cluster can be a labial or velar consonant. In the Jintian dialect, *-*l*- is dropped or in some cases *-*l*- > -*j*-, but the Liula and Jinxiu dialects retain *-*l*- except when *-*l*- follows a velar sound, in which case *-*l*- > -*j*-. In the Jintian and Liula dialects there is one exception where *-*l*- does not become -*j*-, i.e. *-*l*- is dropped, when it is followed by a high vowel. Based on the available data, eleven consonant clusters of the *Cl- type can be reconstructed: **pl*-, **phl*-, **ʔbl*, **bl*-, **wl*-, **ʔml*-, **ml*-, **mbl*-, **kl*-, **khl*-, *and* **gl*-. All of these can occur only in initial position. Examples of the correspondences of the *Cl- type of cluster can be found in Table 14.

Table 14: Examples of *Cl-.

	PL	**JT**	**LL**	**JX**
	***pl-**	**p/pj-**	**pl-**	**pl-**
'to die'	*plei^{A}	pei^{A1}	plei^{A1}	plei^{A1}
'to sell'	*plɛ:^{A}	pɛ:^{A1}	plɛ:^{A1}	plɛ^{A1}
'to escape'	*plɛ:^{B}	pɛ:^{B1}	plɛ:^{B1}	plɛ^{B1}
'fingernail'	*pli:p^{D}	pi:p^{D1L}	pli:p^{D1L}	pli:p^{D1L}
'eye'	*pla:^{A}	pja:^{A1}	pla:^{A1}	pla^{A1}
'thunder'	*pla:^{B}	pja:^{B1}	pla:^{B1}	pla^{B1}
'forehead'	*pla:k^{D}	pja:k^{D1L}	pla:k^{D1L}	pla:k^{D1L}

	***phl-**	**ph-/phj-**	**phl-**	**phl-**
'to forget'	*phlem^{A}	phem^{A1}	phlem^{A1}	phlɛm^{A1}
'fish'	*phla:^{A}	phja:^{A1}	phla:^{A1}	phla^{A1}
	***ʔbl-**	**ʋ-**	**bl-**	**bl-**
'gall bladder'	*ʔblai^{A}	-	blai^{A1}	blai^{A1}
'star'	*ʔblet^{D}	ʋet^{D1S}	blet^{D1S}	blet^{D1S}
	***bl-**	**p-/pj-**	**pl-**	**pl-**
'moustache'	*blu:t^{D}	pu:t^{D2L}	plu:t^{D2L}	plu:t^{D2L}
'ashes'	*bleu^{C}	pjeu^{C2}	pleu^{C2}	plɛu^{C2}
'to ascend'	*bla:^{A}	pja:^{A2}	pla:^{A2}	-
	***ʔml-**	**mj-**	**ŋml-**	**ml-**
'bird'	*ʔmlok^{D}	mjok^{D1S}	mlok^{D1S}	mlok^{D1S}
	***ml-**	**m-**	**ml-**	**ml-**
'bee'	*mlet^{D}	met^{D2S}	mlet^{D2S}	mlet^{D2S}
	***mbl-**	**b-/bj-/ʋ-**	**bl-**	**bl-**
'water leech'	*mbliŋ^{A}	bĩŋ^{A2}	bliŋ^{A2}	bliŋ^{A2}
'night'	*mblau^{A}	bjãu^{A2}	blau^{A2}	blau^{A2}
'awaken'	*mblen^{A}	lẽn^{A2}	blen^{A2}	blen^{A2}
	***wl-**	**l-**	**ʋ-**	**w-/0-**
'to buy'	*wlei^{C}	lei^{C2}	ʋei^{C2}	wei^{C2}
'to wash (clothes)'	*wlak^{D}	lak^{D2S}	ʋak^{D2S}	wak^{D2S}
'to wash (thing)'	*wluk^{D}	luk^{D2S}	ʋuk^{D2S}	uk^{D2S}
	***kl-**	**k-/kj-**	**k-/kj-**	**kj-**
'head'	*kleu^{A}	kjeu^{A1}	kjeu^{A1}	kjɛu^{A1}
'salt'	*kliə^{A}	kiə^{A1}	kiə^{A1}	kjie^{A1}
'drum'	*kluŋ^{A}	kuŋ^{A1}	kuŋ^{A1}	kjuŋ^{A1}
'to drive away'	*klom^{A}	kjom^{A1}	kjom^{A1}	kjom^{A1}
'round'	*klon^{A}	kjon^{A1}	kjon^{A1}	kjon^{A1}
'tail'	*kliəŋ^{A}	kiəŋ^{A1}	kiəŋ^{A1}	kjieŋ^{A1}
'insect'	*kla:^{A}	kja:^{A1}	kja:^{A1}	kja:^{A1}
'hair'	*kleŋ^{A}	kjeŋ^{A1}	kjeŋ^{A1}	kjɛŋ^{A1}
'finger, toe'	*klaŋ^{A}	kjaŋ^{A1}	kjaŋ^{A1}	kjaŋ^{A1}
'to crow'	*klɛn^{A}	kjɛn^{A1}	kjɛn^{A1}	kjɛn^{A1}
'to cut'	*klam^{B}	kjam^{B1}	kjam^{B1}	kjam^{B1}
'penis'	*klai^{B}	kjai^{B1}	kjai^{B1}	-
'intestine'	*kla:i^{C}	kja:i^{C1}	kja:i^{C1}	kja:i^{C1}

'leftside'	*kleiC	kjeiC1	kjeiC1	kjeiC1
'lightweight'	*kliəC	kiəC1	kiəC1	kjieC1
'rat'	*kliuC	kiuC1	kiuC1	kji:uC1
'to keep'	*klepD	kjepD1S	kjepD1S	kjɛD1S
	***khl-**	**khj-**	**khj-**	**khj-**
'grandchild'	*khla:nA	khja:nA1	khja:nA1	khja:nA1
'high'	*khla:ŋA	khja:ŋA1	khja:ŋA1	khja:ŋA1
'hot'	*khla:nC	khja:nC1	khja:nC1	khja:nC1
'liquor'	*khla:uC	khja:uC1	khja:uC1	khja:uC1
'sour'	*khlomC	khjomC1	khjomC1	khjomC1
'grass'	*khla:kD	khja:kD1L	-	khja:kD1L
	***gl-**	**k-/kj-**	**kj-**	**kj-**
'head hair'	*glomA	kjomA2	kjomA2	kjomA2
'to squeeze'	*glanC	kanC2	kjanC2	-
'to steal'	*glakD	kjakD2S	kjakD2S	kjakD2S

4.7 *Final consonants*

Proto-Lakkja has both open and closed syllables. Closed syllables end with one of the following nasals or stops : **-m*, **-n*, **-ŋ*, **-p*, **-t* and **-k*. In modern dialects, CVØ, CVN and CV:N syllable types can have any of the six tones, but the short checked syllable and the long checked syllable can have only two tones. (See Table 1.) The examples of final consonants in Proto-Lakkja and the one-to-one correspondences of final consonants in modern dialects can be found in Table 15.

Table 15: Examples of the final correspondences.

	PL	**JT**	**LL**	**JX**
	***-m**	**-m**	**-m**	**-m**
'to weave (cloth)'	*tamC	tamC1	tamC1	tamC1
'to poke'	*thi:mB	thi:mB1	thi:mB1	thi:mB1
'bitter'	*gomA	komA2	komA2	komA2
	***-n**	**-n**	**-n**	**-n**
'sweet'	*khwa:nA	kha:nA1	khwa:nA1	khwa:nA1
'to spin'	*panB	panB1	panB1	panB1
'to eat'	*tsenA	tsenA1	tsenA1	tsenA1
	***-ŋ**	**-ŋ**	**-ŋ**	**-ŋ**
'thin'	*ʔwa:ŋA	va:ŋA1	va:ŋA1	wa:ŋA1
'copper'	*doŋA	toŋA2	toŋA2	toŋA2
'elephant'	*dza:ŋC	tsa:ŋC2	tsa:ŋC2	tsa:ŋC2

	***-p**	**-p**	**-p**	**-p**
'dark; to extinguish'	*hlap^{D}	l̥ap^{D1S}	l̥ap^{D1S}	ɬap^{D1S}
'liver'	*tap^{D}	t̥ap^{D1S}	t̥ap^{D1S}	tap^{D1S}
'narrow'	*je:p^{D}	je:p^{D2L}	je:p^{D2L}	jɛ:p^{D2L}
	***-t**	**-t**	**-t**	**-t**
'moustache'	*blu:t^{D}	pu:t^{D2L}	plu:t^{D2L}	plu:t^{D2L}
'to bite'	*kat^{D}	kat^{D1S}	kat^{D1S}	kat^{D1S}
'ant'	*mot^{D}	mot^{D2S}	mot^{D2S}	mot^{D2S}
	***-k**	**-k**	**-k**	**-k**
'iron'	*kl-Nak^{D}	kjãk^{D1S}	kjãk^{D1S}	kjãk^{D1S}
'heavy'	*tsak^{D}	tsak^{D1S}	tsak^{D1S}	tsak^{D1S}
'to tear'	*tshe:k^{D}	tshe:k^{D1L}	tshe:k^{D1L}	tshɛ:k^{D1L}

5. Proto-Lakkja vowel system

5.1 *Monophthongs*

Based on the available data, eight short vowels and six long vowels can be reconstructed. The fourteen monophthongs in Proto-Lakkja are as follows:

Short		**Long**	
*i	*u	*i:	*u:
*ə			
*e	*o	*e:	*(-)
*ɛ	*ɔ	*ɛ:	*ɔ:
*a		*a:	

The correspondences of *i, ɛ, a, u* and *o* in modern dialects are regular and straightforward. These short vowels are from **i, *ɛ, *a, *u* and **o,* respectively. Only **e, *ə* and **ɔ* behave differently, i.e. **e* is *e* in all dialects except JX, where **e* > *ɛ* before labial finals, also in JX, **ə* > *o* and **ɔ* > *o* before all finals.

Regarding long vowels, the correspondences of *i:, ɛ:, a:* and *u:* are one-to-one. **o:* cannot be reconstructed because of the lack of data. **e:* is *e:* in JT and LL, but **e:* >*ei* or *ɛ:* in JX. **ɔ:* is *ɔ:* in JT and LL, but **ɔ:* > *o:* in JX. (See examples of the short vowel correspondences in Table 16 and the long vowel correspondences in Table 17.)

Table 16: Examples of the short vowel correspondences.

	PL	**JT**	**LL**	**JX**
	***i**	**i**	**i**	**i**
'monkey'	*liŋ^{A}	liŋ^{A2}	liŋ^{A2}	liŋ^{A2}
'to sit'	*ʔniŋ^{B}	niŋ^{B1}	niŋ^{B1}	niŋ^{B1}
'water leech'	*mbliŋ^{A}	b̄iŋ^{A2}	bliŋ^{A2}	bliŋ^{A2}
	***e**	**e**	**e**	**e/ɛ**
'rain'	*fen^{A}	fen^{A1}	fen^{A1}	fen^{A1}
'to eat'	*tsen^{A}	tsen^{A1}	tsen^{A1}	tsen^{A1}
'duck'	*pet^{D}	pet^{D1S}	pet^{D1S}	pet^{D1S}
'needle'	*them^{A}	them^{A1}	them^{A1}	thɛm^{A1}
'to forget'	*phlem^{A}	phem^{A1}	phlem^{A1}	phlɛm^{A1}
'to keep'	*klep^{D}	kjep^{D1S}	kjep^{D1S}	kjɛp^{D1S}
	***ɛ**	**ɛ**	**ɛ**	**ɛ**
'silver'	*ɲɛn^{A}	ɲɛn^{A2}	ɲɛn^{A2}	ɲjɛn^{A2}
'to crow'	*klɛn^{A}	kjɛn^{A1}	kjɛn^{A1}	kjɛn^{A1}
'near'	*dzɛn^{C}	tsɛn^{C2}	tsɛn^{C2}	tsɛn^{C2}
	***ə**	**ə**	**ə**	**o**
'sky'	*ʔbən^{A}	mən^{A1}	bən^{A1}	bon^{A1}
'to fly'	*pən^{B}	phən^{B1}	pən^{B1}	pon^{B1}
'to give'	*pən^{A}	pən^{A1}	pən^{A1}	-
	***a**	**a**	**a**	**a**
'to forge iron'	*dap^{D}	tap^{D2S}	tap^{D2S}	tap^{D2S}
'nose'	*ʔnaŋ^{A}	naŋ^{A1}	naŋ^{A1}	naŋ^{A1}
'day'	*wan^{A}	ʋan^{A2}	ʋan^{A2}	wan^{A2}
	***u**	**u**	**u**	**u**
'water'	*num^{C}	num^{C2}	num^{C2}	num^{C2}
'right'	*duk^{D}	tuk^{D2S}	tuk^{D2S}	tuk^{D2S}
'to go out'	*ʔuk^{D}	ʔuk^{D1S}	ʔuk^{D1S}	uk^{D1S}
	***o**	**o**	**o**	**o**
'bird'	*ʔmlok^{D}	mjok^{D1S}	mjok^{D1S}	mlok^{D1S}
'mountain frog'	*kop^{D}	kop^{D1S}	kop^{D1S}	kop^{D1S}
'headhair'	*glom^{A}	kjom^{A2}	kjom^{A2}	kjom^{A2}
	***ɔ**	**ɔ**	**ɔ**	**o**
'meat'	*mɔm^{B}	mɔm^{B2}	mɔm^{B2}	mom^{B2}
'six'	*lɔk^{D}	lɔk^{D2S}	lɔk^{D2S}	lok^{D2S}

Table 17: Examples of the long vowel correspondences.

	PL	**JT**	**LL**	**JX**
	***iː**	**iː**	**iː**	**iː**
'shallow'	*thiːn^{C}	thiːn^{C1}	thiːn^{C1}	thiːn^{C1}
'smoke'	*ʔɲiːn^{A}	ʔĩːn^{A1}	ɲiːn^{A1}	ŋjiːn^{A1}
'fingernail'	*pliːp^{D}	piːp^{D1L}	pliːp^{D1L}	pliːp^{D1L}
	***eː**	**eː**	**eː**	**ei/ɛː**
'medicine'	*ʔjeː^{A}	jeː^{A1}	jeː^{A1}	ei^{A1}
'to laugh'	*heːm^{C}	heːm^{C1}	heːm^{C1}	hɛːm^{C1}
'broken'	*pheːk^{D}	pheːk^{D1L}	pheːk^{D1L}	phɛːk^{D1L}
	***ɛː**	**ɛː**	**ɛː**	**ɛ/ɛː**
'face'	*kl-Nɛː^{C}	kjɛ̃ː^{C1}	kjɛ̃ː^{C1}	kjɛ̃^{C1}
'to fear'	*hɛː^{A}	hɛː^{A1}	hɛː^{A1}	hɛ^{A1}
'breast, milk'	*ʔnɛːn^{C}	nɛːn^{C1}	nɛːn^{C1}	nɛːn^{C1}
'hundred'	*pɛːk^{D}	pɛ(ː)k^{D1L}	pɛːk^{D1L}	pɛːk^{D1L}
	***aː**	**aː**	**aː**	**aː**
'village'	*ʔbaːn^{C}	maːn^{C1}	baːn^{C1}	baːn^{C1}
'bamboo shoot'	*s-Naːŋ^{A1}	sãːŋ^{A1}	sãːŋ^{A1}	sãːŋ^{A1}
'to scatter'	*waːn^{B}	ʋaːn^{B2}	ʋaːn^{B2}	waːn^{B2}
	***uː**	**uː**	**uː**	**uː**
'maggot'	*kl-Nuːn^{A}	kjũːn^{A1}	kjũːn^{A1}	kjũːn^{A1}
'to stand'	*ʔjuːn^{A}	juːn^{A1}	juːn^{A1}	juːn^{A1}
'moustache'	*bluːt^{D}	puːt^{D2L}	pluːt^{D2L}	pluːt^{D2L}
	***ɔː**	**ɔ/ɔː**	**ɔː**	**oː**
'belly'	*bɔːŋ^{A}	bɔːŋ^{A2}	bɔːŋ^{A2}	boːŋ^{A2}
'red'	*kɔːŋ^{B}	kɔŋ^{B1}	kɔːŋ^{B1}	koːŋ^{B1}
'egg'	*lɔːm^{B}	lɔːm^{B2}	lɔːm^{B2}	loːm^{B2}
'to cook'	*tɔː^{C}	tɔː^{C1}	tɔː^{C1}	to^{C1}

5.2 *Diphthongs*

Proto-Lakkja has twelve diphthongs which can be classified into three types:

Type 1: Gliding towards high-front vowel *i* (*ei, *ai, *aːi, *oi, *ui)
Type 2: Gliding towards high-back vowel *u* (*iu, *eu, *au, *aːu, *ou)
Type 3: Gliding towards central vowel *ə* (*iə, *uə)

The diphthong correspondences in modern Lakkja dialects are mostly one-to-one[8] as shown in Table 18.

Table 18: Examples of the diphthong correspondences.

	PL	**JT**	**LL**	**JX**
	***ei**	**ei**	**ei**	**ei**
'year'	*pei^{A}	pei^{A1}	pei^{A1}	pei^{A1}
'saliva'	*lei^{A}	lei^{A2}	lei^{A2}	lei^{A2}
'excremen'	*gwei^{C}	kwei^{C1}	kwei^{C2}	kwei^{C2}
	***ai**	**ai**	**ai**	**ai**
'good'	*ʔlai^{A}	lai^{A1}	lai^{A1}	lai^{A1}
'gall bladder'	*ʔblai^{A}	-	blai^{A1}	blai^{A1}
'long'	*rai^{A}	ʔai^{A2}	hai^{A2}	ai^{A2}
	***aːi**	**aːi**	**aːi**	**aːi**
'to open'	*haːi^{A}	haːi^{A1}	haːi^{A1}	haːi^{A1}
'intestine'	*klaːi^{C}	kjaːi^{C1}	kjaːi^{C1}	kjaːi^{C1}
'kind of big bear'	*waːi^{A}	ʋaːi^{A2}	ʋaːi^{A2}	-
	***oi**	**uəi**	**uəi**	**uəi**
'to retreat'	*thoi^{C}	thuəi^{C1}	thuəi^{C1}	thuəːi^{C1}
'breezy'	*tshoi^{A}	tshuəi^{A1}	tshuəi^{A1}	-
'mortar'	*toi^{B}	tuəi^{B1}	tuəi^{B1}	tuəːi^{B1}
	***ui**	**ui**	**ui**	**uːi**
'fire'	*pui^{A}	pui^{A1}	pui^{A1}	puːi^{A1}
'fat'	*bui^{A}	pui^{A2}	pui^{A2}	puːi^{A2}
'brain'	*nui^{A}	nui^{A2}	nui^{A2}	nuːi^{A2}
	***iu**	**iu**	**iu**	**iːu**
'to light'	*diu^{C}	tiu^{C2}	tiu^{C2}	-
'urine'	*kl-Niu^{B}	kĩu^{B1}	kĩu^{B1}	kjĩːu^{B1}
'rat, mouse'	*kliu^{C}	kiu^{C1}	kiu^{C1}	kjiːu^{C1}
	***eu**	**eu**	**eu**	**ɛu/ɛːu**
'ashes'	*bleu^{C}	pjeu^{C2}	pleu^{C2}	plɛu^{C2}
'head'	*kleu^{A}	kjeu^{A1}	kjeu^{A1}	kjɛu^{A1}
'cat'	*meu^{C}	meu^{C2}	meu^{C2}	mɛːu^{C2}

[8] Length is marked for most of the diphthongs in the JX dialect. I think that it is redundant, except for the two pairs: ai-aːi and au-aːu.

	***au**	**au**	**au**	**au**
'to take (wife)'	*ʔau^{A}	ʔau^{A1}	ʔau^{A1}	au^{A1}
'curved, crooked'	*k-Nau^{C}	kãu^{C1}	kãu^{C1}	kãu^{C1}
'to scratch'	*ʔjau^{A}	jau^{A1}	jau^{A1}	-
	***a:u**	**a:u**	**a:u**	**a:u**
'oil'	*ka:u^{A}	ka:u^{A1}	ka:u^{A1}	ka:u^{A1}
'old thing'	*ka:u^{B}	ka:u^{B1}	ka:u^{B1}	ka:u^{B1}
'liquor'	*khla:u^{C}	khja:u^{C1}	khja:u^{C1}	khja:u^{C1}
	***ou**	**ou**	**ou**	**ou**
'rice'	*kou^{C}	kou^{C1}	kou^{C1}	kou^{C1}
'horn'	*gou^{A}	kou^{A2}	kou^{A2}	kou^{A2}
'two'	*hou^{C}	hou^{C1}	hou^{C1}	hou^{C1}
	***iə**	**iə**	**iə**	**ie/ie:**
'month'	*ʔbiən^{A}	miən^{A1}	biən^{A1}	bie:n^{A1}
'blood'	*liət^{D}	liət^{D2L}	liət^{D2L}	lie:t^{D2L}
'hand'	*miə^{A}	miə^{A2}	miə^{A2}	mie^{A2}
	***uə**	**uə**	**uə**	**uə/uə:**
'to take off'	*thuət^{D}	thuət^{D1L}	thuət^{D1L}	thuə:t^{D1L}
'axe'	*guən^{A}	kuən^{A2}	kuən^{A2}	kuə:n^{A2}
'grinding stone'	*muə^{B}	muə^{B2}	muə^{B2}	muə^{B2}

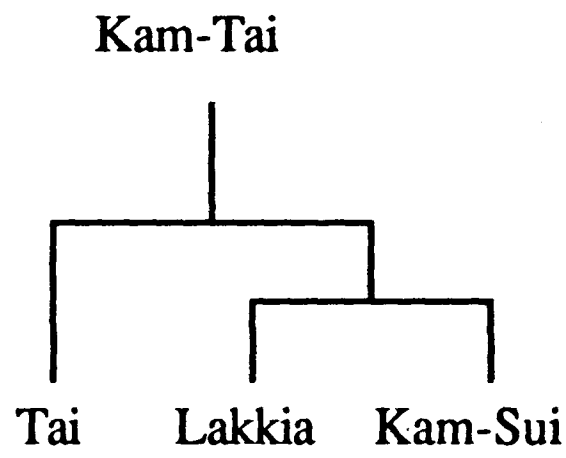
One more vowel *iɛ should be reconstructed for the vowel of the root which means 'to put, to place' (tɛkD1S in JT and LL, tekD1S in JX). Since there is only one example, this matter has to be put aside until more data are available.

6. Comments on the position of Lakkja within Kadai

Solnit (1988: 236-237) concludes that tonal correspondences and the lexical evidence of the numerals are sufficient evidence for grouping Tai, Kam-Sui, Lakkja, and Be together in a group called Kam-Tai. Based on the concept of shared innovation, he places Lakkja somewhat closer to Kam-Sui than to Tai, since Lakkja shares more innovations with Kam-Sui (9 roots) than with Tai (2 roots) out of a total of twenty-five roots. Lakkja splits off from the Kam-Sui line of descent earlier than Kam-Sui proper, as shown in the diagrams below.[9]

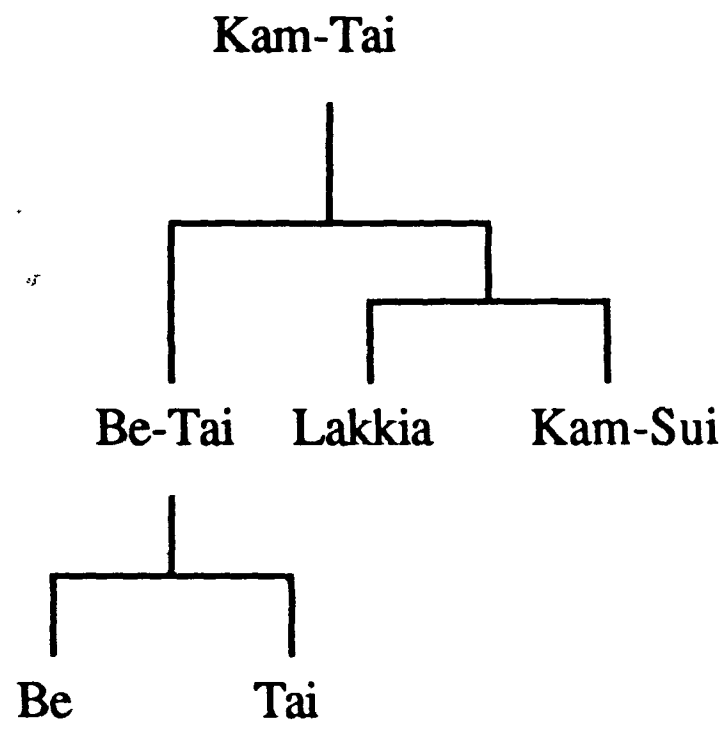
[9] Edmondson and Yung Quan (1988) have a different viewpoint: they place Lakkja within the Kam-Sui branch.

Diagram A



(Solnit, 1988: 237)

Diagram B



(Hansell, 1988: 285)

I am not certain that the above classification should be taken as something definite. To be on the safe side, let us look at the relation of Lakkja, Tai and Kam-Sui again from another angle. Different sets of lexical items and different techniques of comparing can yield different results.

Before presenting another viewpoint, I would like to warn the reader in advance that there are many limitations which can cause defects in the analyses presented in the following section. They are:

1) Lakkja is used as the starting point for any direction of comparing.
2) The comparison is based on only 243 reconstructed roots.
3) Some of the Lakkja roots could have been Zhuang or early Cantonese loans.
4) In searching for cognates, I can be biased because I am a native speaker of Thai (Siamese). Besides, there is more information on the Tai languages than on any of the other languages.
5) In some cases, when reconstructed forms do not exist, words used in modern dialects are used instead.

With the above warnings in mind, we can now start reconsidering the grouping of Tai, Lakkja and Kam-Sui. Lexical evidence (see 6.1) and tonal correspondences (see 6.2) will be used as the basis for grouping.

6.1 *Lexicon*

When the 243 reconstructed Lakkja roots are compared with Tai, Kam-Sui, Be, and Hlai roots, the results can be grouped into 13 sets according to the agreement or disagreement of lexical evidence.

Set 1: Lakkja (# Tai # Kam-Sui # Be # Hlai)44 (See Table 19.)
Set 2: Lakkja = Tai = Kam-Sui (# Be # Hlai)46 (See Table 20.)

Set 3:	Lakkja = Tai = Kam-Sui = Be = Hlai 42	(See Table 21.)
Set 4:	Lakkja = Tai = Kam-Sui = Be (# Hlai)26	(See Table 22.)
Set 5:	Lakkja = Tai (# Kam-Sui # Be # Hlai)25	(See Table 23.)
Set 6:	Lakkja = Tai = Kam-Sui = Hlai (# Be)19	(See Table 24.)
Set 7:	Lakkja = Kam-Sui (# Tai # Be # Hlai)17	(See Table 25.)
Set 8:	Lakkja = Hlai (# Tai # Kam-Sui # Be)11	(See Table 26.)
Set 9:	Lakkja = Tai = Be (# Kam-Sui # Hlai) 5	(See Table 27.)
Set 10:	Lakkja = Tai = Be = Hlai (# Kam-Sui)4	(See Table 28.)
Set 11:	Lakkja = Tai = Hlai (# Kam-Sui # Be) 2	(See Table 29.)
Set 12:	Lakkja = Kam-Sui = Hlai (# Tai # Be) 2	(See Table 30.)
Set 13:	Lakkja = Kam-Sui = Be (# Tai # Hlai)1	(See Table 31.)

From the 13 sets of lexical agreement or disagreement presented above, the evidence can be summarized as follows:

1)	Lakkja innovates on its own	44
2)	Lakkja shares retentions with Tai and Kam-Sui	133
3)	Lakkja shares retentions with Tai	143
4)	Lakkja shares retentions with Kam-Sui	134
5)	Lakkja shares retentions with Be	78
6)	Lakkja shares retentions with Hlai	69
7)	Lakkja shares innovations with Tai	25
8)	Lakkja shares innovations with Kam-Sui	17
9)	Lakkja shares innovations with Hlai	11
10)	Lakkja shares innovations with Be	0

Based on lexical evidence, no matter what criteria are used—either shared innovations or shared retentions—Lakkja should be placed closer to Tai than to Kam-Sui.

Table 19: Set 1: Lakkja (# Tai # Kam-Sui # Be # Hlai).

	Lakkja	**Tai**	**Kam-Sui**	**Be**	**Hlai**
'mouth'	*teiC(1)	-	-	-	-
'neck'	*ʔŋɛnA(1)	-	-	-	-
'palm (hand)'	*ba:nA(2)	-	-	-	-
'finger, toe'	*hlaŋA(1)	-	-	-	-
'breast, milk'	*ʔnɛ:nC(1)	-	-	-	-
'penis'	*klaiB(1)	-	-	-	-
'joint, node''	*gunB(2)	-	-	-	-
'hair'	*kleːŋA(1)	-	-	-	-
'insect'	*kla:A(1)	-	-	-	-
'child'	*-je:C(2)	-	-	-	-
'son-in-law'	*laːŋA(2)	-	-	-	-
'thorn'	*tsiəC(1)	-	-	-	-
'root'	*kanA(1)	-	-	-	-
'mushroom'	*tsh-Nu:nC(1)	-	-	-	-
'grass'	*khla:kD(1)	-	-	-	-
'oil'	*ka:uA(1)	-	-	-	-
'house'	*liəkD(2)	-	-	-	-
'arrow'	*ti:nB(1)	-	-	-	-

	Lakkja	Tai	Kam-Sui	Be	Hlai
'night'	*mblau$^{A(2)}$	-	-	-	-
'mountain'	*laŋ$^{A(2)}$	-	-	-	-
'stone'	*fa:ŋ$^{A(1)}$	-	-	-	-
'smoke'	*ʔɲi:n$^{A(1)}$	-	-	-	-
'shade'	*ʔŋɛm$^{A(1)}$	-	-	-	-
'much, many'	*hloŋ$^{A(1)}$	-	-	-	-
'far'	*ba:$^{A(2)}$	-	-	-	-
'hot'	*khla:n$^{C(1)}$	-	-	-	-
'thin, lean'	*khuən$^{C(1)}$	-	-	-	-
'frightened'	*hɛ:$^{A(1)}$	-	-	-	-
'steep'	*se:ŋ$^{C(1)}$	-	-	-	-
'soft'	*ŋwak$^{D(2)}$	-	-	-	-
'full'	*mot$^{D(2)}$	-	-	-	-
'itchy'	*juət$^{D(2)}$	-	-	-	-
'alive'	*ɲeu$^{A(2)}$	-	-	-	-
'to weep'	*piə$^{A(1)}$	-	-	-	-
'to laugh'	*he:m$^{C(1)}$	-	-	-	-
'to cough'	*tshu:n$^{C(1)}$	-	-	-	-
'to make (fire)'	*diu$^{C(2)}$	-	-	-	-
'to light (lamp)'	*tum$^{A(1)}$	-	-	-	-
'to cook'	*tɔ:$^{C(1)}$	-	-	-	-
'to put, to place'	*tiɛk$^{D(1)}$?	-	-	-	-
'to let go'	*la:ŋ$^{B(2)}$	-	-	-	-
'to escape'	*plɛ:$^{B(1)}$	-	-	-	-
'to drive away'	*klom$^{A(1)}$	-	-	-	-

Table 20: Set 2: Lakkja = Tai = Kam-Sui (# Be # Hlai).

	Lakkja	Tai	Kam-Sui	Be	Hlai
'head hair'	*glom$^{A(1)}$	*phl/rom$^{A(1)}$	*pram$^{A(1)}$	-	-
'forehead'	*pla:k$^{D(1)}$	*phl/rak$^{D(1)}$	*pra:k$^{A(1)}$	-	-
'belly'	*bɔ:ŋ$^{A(1)}$	(Siam: phuŋ^{A2})	*luŋ$^{A(2)}$	-	-
'tendon'	*tsen$^{A(1)}$	(Siam: ʔen^{A1})	(Kam: ɤn^{A1} Sui: jɤn^{A1})	-	-
'skin'	*bei$^{A(2)}$	(Siam: phiu^{A1})	(Kam,Sui: pi^{A2})	-	-
'urine'	*kl-Niu$^{B(1)}$	*ɲ-$^{B(2)}$ (Lao: ɲiəu^{B2})	(Kam: ɲeu^{B1})	-	-
'maggot'	*kl-Nu:n$^{A(1)}$	*hn-n$^{A(1)}$ (*Siam: nɔ:n^{A1}*)	*nu:n$^{A(1)}$	-	-
'crow'	*ka:$^{A(1)}$	*ka$^{A(1)}$	*ka$^{A(1)}$	-	-
'elephant'	*dza:ŋ$^{C(2)}$	*ʃaŋ$^{C(2)}$	(Sui: tsa:ŋ^{C2})	-	-
'clf. for animals'	*du:$^{A(2)}$	*t-$^{A(1)}$ (Siam: tuə^{A1})	(Kam: tu^{A2} Sui: to^{A2})	-	-
'spirit, ghost'	*siəŋ$^{A(1)}$	(Siam: sa:ŋ^{A1})	*mwa:ŋ$^{A(1)}$	-	-
'parent's elder brother'	*loŋ$^{B(2)}$	*luŋ$^{A(2)}$	(Sui: luŋ^{A2})	-	-
'branch'	*tsh-Nɛ:$^{B(1)}$	*ŋa$^{B(2)}$	*ʔŋa$^{B(1)}$	-	-
'beans, peas'	*dou$^{B(2)}$	*thue$^{B(1/2)}$	(Kam,Sui: to^{B2})	-	-
'door'	*tɔ:$^{A(1)}$	*tu$^{A(1)}$	*tu$^{A(1)}$	-	-

	Lakkja	Tai	Kam-Sui	Be	Hlai
'grinding stone'	*muəB(2)	(Siam: moːB2)	(Kam: moB2)	-	-
'needle'	*themA(1)	*khemA(1)	(Kam: tɕhɤmA1)	-	-
'axe'	*guənA(2)	*xwanA(1)	(Kam, Sui: kwaːnA1)	-	-
'iron'	*khl-NakD(1)	*hlekD(1)	*khlitD(1)	-	-
'sky'	*ʔbənA(1)	*ʔbonA(1)	*ɓunA(1)	-	-
'thunder'	*plaːB(1)	*phl/raC(1) (Siam: phaːB1)	*praB(1)	-	-
'wind'	*jomA(2)	*dlomA(2)	*hlwumA(1)	-	-
'eight'	*paːtD(1)	*pɛtD(1)	*pjaːtD(1)	-	-
'nine'	*tseuC(1)	*kiəuC(1)	(Kam, Sui: tɕuC1)	-	-
'ten'	*dzepD(2)	*sipD(1)	(Kam: ɕɤpD2S, Sui: supD2S)	-	-
'hundred'	*pɛːkD(1)	*p-kD(1)	(Sui: pekD1S)	-	-
'righthand'	*waːA(2)	*khwaA(1)	*hwaA(1)	-	-
'heavy'	*tsakD(1)	*hnəkD(1)	*ɗakD(1)	-	-
'sweet'	*khwaːnA(1)	*hwaːnA(1)	*khwaːnA(1)	-	-
'sour'	*khlomC(1)	*somC(1)	*khjumC(1)	-	-
'new'	*w-NaiB(2)	*hmoiB(1)	*hmaiB(1)	-	-
'cold'	*kh-NiːtD(1)	(Wuming: nitD1)	(Sui: ʔɲitD1S)	-	-
'painful'	*tseːtD(1)	(Siam: tɕepD1S, Lungchow: tɕipD1S)	(Sui: tɕitD1S)	-	-
'ripe, cooked'	*dzokD(2)	*sukD(1)	*zukD(2)	-	-
'good'	*ʔlaiA(1)	*ʔdi/əiA(1)	*ɗaːiA(1)	-	-
'difficult'	*naːnA(2)	(Siam: jaːkD2L naːnA2)	(Kam: naːnA2)	-	-
'white'	*biəkD(2)	(Siam: phɯəkD1L)	(Kam,Sui: paːkD2L)	-	-
'to bite'	*katD(1)	*kətD(1)	*katD(1) 'to cut'	-	-
'to tear'	*tsheːkD(1)	*čh-kD(1) (Siam: tɕhiːkD1L)	(Sui: pjaːkD1L)	-	-
'to keep'	*klepD(1)	(Siam: kepD1S)	(Kam: tɕɤpD1S)	-	-
'to open'	*haːiA(1)	*xəi/aiA(1)	(Kam: ɣiA1, Sui: ŋaiA1)	-	-
'to forge iron'	*dapD(2)	(Siam: thupD2S 'to hit')	(Sui: tjapD2S)	-	-
'to hinder'	*weːŋA(2)	(Siam: khwaːŋA1)	(Kam: weŋA2)	-	-
'to weave cloth'	*tamC(1)	*tamC(1)	*tamC(1)	-	-
'to buy'	*wleiC(2)	*ziC(2)	*traiC(1)	-	-
'to have'	*miA(2)	*miA(2)	meA(2)	-	-
'head hair'	*glomA(1)	*phl/romA(1)	*pramA(1)	-	-

Table 21: Set 3: Lakkja = Tai = Kam-Sui = Be = Hlai

	Lakkja	Tai	Kam-Sui	Be	Hlai
'head'	*kleuA(1)	*kləuC(1)	*kruC(1)	(hau33)	(TS: go6, BD: gwou3)
'eye'	*plaA(1)	*traA(1)	*thlaA(1)	(ɗa13)	(tsha1)
'nose'	*ʔnaŋA(1)	*ʔdaŋA(1)	*ʔnaŋA(1)	(loŋ13)	(daŋ1)

'hand'	*miə$^{A(2)}$	*mï$^{A(2)}$	*k-mja$^{A(1)}$	(mo^{55})	(meɯ^{1})
'horn'	*gou$^{A(2)}$	*khəu$^{A(1)}$	*m-kwaːu$^{A(1)}$	(vau^{55})	(hau^{1})
'saliva'	*lei$^{A(2)}$	*ml/r-$^{A(2)}$ (Siam: naːm^{C2} laːi^{A2})	(Kam: ŋwe^{A2})	(məi^{55})	(TS: ɬaːi^{1}, BD: ɬoːi^{1})
'excrement'	*gwei$^{C(2)}$	*xei$^{C(1/2)}$	*ke$^{C(2)}$	(gai^{21})	(haːi^{3})
'flea'	*kh-Nuət$^{D(1)}$	*hmat$^{D(1)}$	*k-hmat$^{D(1)}$	(mat^{33})	(mat^{7}'gnat')
'ant'	*mot$^{D(2)}$	*mot$^{D(2)}$	*mwit$^{D(2)}$	(muʔ^{55})	(TS: put^{7}, BD: putɕ^{7})
'chicken'	*kai$^{B(1)}$	*kəi$^{B(1)}$	*kaːi$^{B(1)}$	(gai^{13})	(khai^{1})
'duck'	*pet$^{D(1)}$	*pet$^{D(1)}$	(Kam: pɤ̃t^{D1S})	(ɓit^{33})	(bet^{7})
'water leech'	*mbliŋ$^{A(2)}$	*pliŋ$^{A(1)}$	*mpliŋ$^{A(1)}$	(ɓiŋ^{13})	(TS: ɬiŋ^{4}, BD: ziŋ^{1})
'fish'	*phlaː$^{A(1)}$	*pla$^{A(1)}$	pa$^{A(1)}$	(ɓa^{13})	(ɬa^{1})
'pig'	*kh-Nuː$^{A(1)}$	*hmu$^{A(1)}$	*k-hmu$^{B(1)}$	(mou^{13})	(TS: pau^{4}, BD: pou^{1})
'dog'	*kh-Nuə$^{A(1)}$	*hma$^{A(1)}$	*k-hma$^{A(1)}$	(ma^{13})	(TS: pa^{4}, BD: pa^{6})
'horse'	*maː$^{C(2)}$	*maː$^{C(2)}$	*maː$^{C(2)}$	(maʔ^{55})	(TS: miu^{5}, BD: ka^{3})
'bear'	*k-Nui$^{A(1)}$	*hmi$^{A(1)}$	*ʔmuːi$^{A(1)}$	(vui^{55})	(mui^{1})
'leaf'	*ʔwaː$^{A(1)}$	*ʔbəï$^{A(1)}$	*pwa$^{B(1)}$	(ɓo^{55})	(beɯ^{1})
'bamboo shoot'	*s-Naːŋ$^{A(1)}$	(Lao: nɛːŋ^{A1}) 'small bamboo shoot'	(Sui: naːŋ^{A1})	(naŋ^{55})	(nɯːŋ^{1})
'medicine'	*ʔjeː$^{A(1)}$	*ʔjaː$^{A(1)}$	*gja$^{A(2)}$	(ʒia^{13})	(TS: za^{4}, BD: za^{1})
'paddy field'	*jaː$^{B(2)}$	*na$^{A(2)}$	*ʔra$^{B(1)}$	(nia^{55})	(TS: ɬai^{4}, BD: zai^{1})
'drum'	*kluŋ$^{A(1)}$	*klɔŋ$^{A(1)}$	(Kam: kuŋ^{A1})	(loŋ^{13})	(laŋ^{1})
'copper'	*doŋ$^{A(2)}$	*d-ŋ$^{A(2)}$ (Siam: thɔːŋ^{A2})	*duŋ$^{A(2)}$	(hoŋ^{55})	(TS: daːŋ^{4}, BD: daːŋ^{1})
'day'	*wan$^{A(2)}$	*ŋwan$^{A(2)}$	*hŋwan$^{A(1)}$	(vən^{55})	(TS: van^{4}, BD: hwan^{1})
'year'	*pei$^{A(1)}$	*pi$^{A(1)}$	*mpe$^{A(1)}$	(vəi^{55})	(TS: pau^{2}, BD: pou^{2})
'cloud'	*hwaː$^{C(1)}$	*fia$^{C(1)}$	*m-xwa$^{C(1)}$	(ɓa^{21})	(fa^{3})
'rain'	*fen$^{A(1)}$	*fuïn$^{A(1)}$	*xwin$^{A(1)}$	(pun^{13})	(fon^{1})
'water'	*num$^{C(2)}$	*nl/r-m$^{C(1)}$ (Siam: naːm^{C2})	*ɲam$^{C(1)}$	(nam^{21})	(TS: nam^{3}, BD: nom^{3})
'fire'	*pui$^{A(1)}$	*vɛiA(2)	*pwai$^{A(1)}$	(vəi^{55})	(fei^{1})
'bitter'	*[illegible]')	*xem$^{A(1)}$	*kam$^{A(1)}$	(gam^{55})	(hoːm^{1})
'old (th[illegible]		*kəu$^{B(1)}$	*kaːu$^{B(1)}$	(gau^{33})	(khau^{2})
[illegible]		*muïn$^{A(2)}$	(Kam: ton^{A2})	(vin^{55})	(TS: lun^{5}, BD: pluːn^{1})
		*hna$^{A(1)}$	*ʔna$^{A(1)}$	(na^{13})	(na^{1})
		*ʔdl/rəm$^{A(1)}$	*ʔnam$^{A(1)}$	(lam^{13})	(TS: dam^{3}, BD: dom^{3})
'S[illegible]					
'pare[illegible] brother'					
'branch'	(shai^{1})				
'beans, peas'	(dan^{1})				
'door'					

	Lakkja	Tai	Kam-Sui	Be	Hlai
'to vomit'	*ʔjok$^{D(1)}$	*ruak$^{D(2)}$	*trwak$^{D(1)}$	(ɗuak^{55})	(feːk^{7})
'to crow'	*klɛn$^{A(1)}$	*xan$^{A(1)}$	(Kam: jan^{A1})	(tan^{13})	(TS: zoːn^{1}, BD: hjoːn^{1})
'to dig'	*ʔweːt$^{D(1)}$	(Siam: khut^{D1S})	(Kam: wet^{D1S}, Sui: tsɤt^{D1S})	(guʔ^{55})	(BD: hjut^{7})
'to steal'	*glak$^{D(2)}$	*dlək$^{D(2)}$	*hjak$^{D(1)}$	(lok^{55})	(TS: ɬok^{8}, BD: zok^{7})
'to stand'	*ʔjuːn$^{A(1)}$	*ʔj-n$^{A(1)}$ (Siam: juːn^{A2})	(Kam: jun^{A1}, Sui: ʔjon^{A1})	(ʒun^{13})	(tsuːn^{1})
'to go'	*pai$^{A(1)}$	*pəi$^{A(1)}$	*paːi$^{A(1)}$	(ɓoi^{13})	(hei^{1})
'to fly'	*pən$^{B(1)}$	*ʔbin$^{A(1)}$	(Kam: pɤn^{B}, Sui: vjɤn^{B1})	(vin^{13})	(ben^{1})
'to take'	*ʔau$^{A(1)}$	*ʔəu$^{A(1)}$	*ʔaːu$^{A(1)}$	(ou^{13})	(deɯ^{1})

Table 22: Set 4: Lakkja = Tai =Kam-Sui = Be (# Hlai).

	Lakkja	Tai	Kam-Sui	Be	Hlai
'face'	*kl-Nɛː$^{C(1)}$	*hna$^{C(1)}$	*ʔna$^{C(1)}$	(na^{33})	-
'ear'	*jaː$^{A(2)}$	*xrïu$^{A(1)}$	*khra$^{A(1)}$	(sa^{13})	-
'moustache'	*bluːt$^{D(2)}$	*hnuət$^{D(1)}$	*m-luːt$^{D(2)}$	(nu^{13})	-
'liver'	*tap$^{D(1)}$	*təp$^{D(1)}$	*tap$^{D(1)}$	(ɗop^{33})	-
'bird'	*ʔmlok$^{D(1)}$	*nl/rok$^{D(2)}$	*mluk$^{D(2)}$	(nok^{55})	-
'snake'	*ɲiə$^{A(2)}$	*ŋu/iu$^{A(2)}$	*dzuːi$^{A(2)}$	(ŋia^{55})	-
'frog'	*kop$^{D(1)}$	*kop$^{D(1)}$	*kup$^{D(1)}$	(gop^{55})	-
'buffalo; big bear'	*waːi$^{A(2)}$	*ɣwai$^{A(2)}$	(Kam: kwe^{A2}, Sui: kui^{A2})	(təi^{33})	-
'human being'	*ɲun$^{A(2)}$	*ɣuïn$^{A(2)}$	(Kam: ɲɤn^{A2}, Sui: zɤnA1)	(von^{55})	-
'one's child; fruit'	*lak$^{D(2)}$	*liïuk$^{D(2)}$	*laːk$^{D(2)}$	(lək^{D55})	-
'grandchild'	*khlaːn$^{A(1)}$	*hlan$^{A(1)}$	*khlaːn$^{A(1)}$	(lan^{13})	-
'stick, wood, tree'	*ʔmiː$^{C(2)}$	*məi$^{C(2)}$	*mai$^{C(2)}$	(mai^{33})	-
'rice'	*kou$^{C(1)}$	*xəu$^{C(1)}$	(Kam: ɣu^{C2}, Sui: au^{C2})	(ŋau^{21})	-
'ashes'	*bleu$^{C(2)}$	*vləu$^{B(2)}$	*phlaːu$^{B(1)}$	(ɗou^{21})	-
'six'	*lɔk$^{D(2)}$	*xrok$^{D(1)}$	*ljuk$^{D(2)}$	(sok^{33})	-
'long'	*rai$^{A(2)}$	*rei$^{A(2)}$	*ʔraːi$^{C(1)}$	(loi^{13})	-
'to die'	*plei$^{A(1)}$	*trai$^{A(1)}$	*pjai$^{A(1)}$	(ɗai^{13})	-
'thin'	*ʔwaːŋ$^{A(1)}$	*ʔb-ŋ$^{A(1)}$ (Siam: baːŋ^{A1})	*ɓwaːŋ$^{A(1)}$	(viaŋ^{13})	-
'narrow'	*jeːp$^{D(2)}$	*g-p$^{D(2)}$ (Siam: khɛːp^{D2L})	(Sui: ʔnjap^{D1S})	(ep^{55})	-
'to eat'	*tsen$^{A(1)}$	*kïin$^{A(1)}$	*caːn$^{A(1)}$	(gon^{13})	-
'to break'	*pheːk$^{D(1)}$	*prɛk$^{D(1)}$	*praːk$^{D(1)}$	(ɗak^{33})	-
'to scatter'	*waːn$^{B(2)}$	*hwan$^{B(1)}$	(Kam: pjaːn^{B2})	(ɓiaŋ^{33})	-
'to spin'	*pan$^{B(1)}$	*pən$^{B(1)}$	(Sui: pan^{B1})	(ɓan^{13})	-

	Lakkja	Tai	Kam-Sui	Be	Hlai
'to wash (clothes)'	*wlak$^{D(2)}$	*zək$^{D(2)}$	*ʔlak$^{D(1)}$	(ɗak^{55})	-
'to extinguish'	*hlap$^{D(1)}$	*ʔdəp$^{D(1)}$	*ɗap$^{D(1)}$	(lap^{33})	-
'to go out'	*ʔuk$^{D(1)}$	*ʔ-k$^{D(1)}$ (Siam: ʔɔ:kD1L)	*ʔu:k$^{D(1)}$	(uk^{33})	-

Table 23: Set 5: Lakkja = Tai (# Kam-Sui # Be # Hlai).

	Lakkja	Tai	Kam-Sui	Be	Hlai
'tail'	*kliəŋ$^{A(1)}$	*thr̈iaŋ$^{A(1)}$	-	-	-
'monkey'	*liŋ$^{A(2)}$	*liŋ$^{A(2)}$	-	-	-
'male person'	*klei$^{A(1)}$	*j̈ai$^{A(2)}$	-	-	-
'young girl'	*kl-Na:uC(1)	*sau$^{A(1)}$	-	-	-
'uncle-in-law'	*na:$^{C(2)}$	(Siam: na^{C2} 'mother's younger brother or sister')	-	-	-
'aunt'	*ʔa:$^{C(1)}$	*ʔa$^{A(1)}$ (Siam: ʔa:A1 'father's younger sister or brother')	-	-	-
'road'	*tsa:ŋ$^{A(1)}$	*daŋ$^{A(2)}$	-	-	-
'dry field'	*di:$^{B(2)}$	*di$^{B(2)}$	-	-	-
'bow'	*koŋ$^{A(1)}$	*k-ŋ$^{A(1)}$ (Siam: koŋ^{A1})	-	-	-
'plate'	*tse:n$^{C(1)}$	*čan$^{C(1)}$	-	-	-
'salt'	*kliə$^{A(1)}$	*klïe$^{A(1)}$	-	-	-
'mountain'	*kla:$^{C(1)}$	*phl/ra$^{A(1)}$ 'rock, cliff'	-	-	-
'one'	*ʔŋin$^{C(1)}$	*hn-ŋ$^{B(1)}$ (Siam: nɯŋ^{B1})	-	-	-
'seven'	*thet$^{D(1)}$	*cet$^{D(1)}$	-	-	-
'curved, crooked'	*k-Nau$^{C(1)}$	(Siam: na:^{C1} ŋau^{C2} 'a face distorted by anger')	-	-	-
'swollen'	*wok$^{D(2)}$	*v-k$^{D(2)}$ (Siam: fok^{D2S})	-	-	-
'well-grown, big'	*ʔbok$^{D(1)}$	(Siam: bɯk^{D1S}bɯn^{A1} tough, strong'; pla:^{A1} bɯk^{D1S} 'a kind of big fish')	-	-	-
'to poke'	*thi:m$^{B(1)}$	(Siam: thim^{B2})	-	-	-
'to take off'	*thuət$^{D(1)}$	*th-t$^{D(1)}$ (Siam: thɔ:t^{D1L})	-	-	-
'to scratch'	*ʔjau$^{A(1)}$	*kəu$^{A(1)}$	-	-	-
'to give'	*pən$^{A(1)}$	*pən$^{A(1)}$ (Siam: pan^{A1} 'to distribute')	-	-	-
'to divide'	*te:ŋ$^{B(1)}$	(Siam: bɛŋ^{B1})	-	-	-
'to join, to connect'	*tɔ:$^{C(1)}$	*t-$^{B(1)}$ (Siam: tɔ:^{B1})	-	-	-
'to cut'	*klam$^{B(1)}$	(Siam: ham^{C1} hanB1 'to hack')	-	-	-
'to sit'	*ʔniŋ$^{B(1)}$	*nəŋ$^{B(2)}$	-	-	-

Table 24: Set 6: Lakkja = Tai = Kam-Sui = Hlai (# Be).

	Lakkja	**Tai**	**Kam-Sui**	**Be**	**Hlai**
'tooth'	*wan$^{A(2)}$	*van$^{A(2)}$	*pjwan$^{A(1)}$	-	fan^{1}
'navel'	*ʔmiə$^{A(1)}$	*ʔbl / rïA(1)	(Sui: dwa^{A1})	-	(TS: feɯ^{4}, BD: veɯ^{1})
'intestine'	*kla:i$^{C(1)}$	*səi$^{C(1)}$	*khja:i$^{C(1)}$	-	(TS: ra:i^{6}, BD: ra:i^{3})
'blood'	*liət$^{D(2)}$	*lïet$^{D(2)}$	*phla:t$^{D(1)}$	-	(ɬla:t^{7}) (ɬla:tɕ^{7})
'cat'	*meu$^{C(2)}$	*mɛu$^{C(2)}$	(Kam,Sui: meu^{C2})	-	(TS: mi:u^{5}, BD: mi:u^{2})
'younger person'	*nouŋ$^{C(2)}$	*nuɔŋ$^{C(2)}$	(Kam: noŋ^{C2})	-	(TS: gu:ŋ^{4}, BD: gu:ŋ^{1})
'you'	*ma:$^{A(2)}$	(Lungchow: maï^{A2})	(Kam,Sui: ɲa^{A2})	-	(meɯ^{1})
'liquor'	*khla:u$^{C(1)}$	*hləu$^{C(1)}$	*khla:u$^{C(1)}$	-	(TS: ŋa:u^{5}, BD: ŋa:u^{2})
'village'	*ʔba:n$^{C(1)}$	*ʔban$^{C(1)}$	*ɓa:n$^{C(1)}$	-	(TS: fa:n^{1})
'stool'	*taŋ$^{B(1)}$	*təŋ$^{B(1)}$	(Kam, Sui: taŋ^{B1})	-	(TS: daŋ^{5}, BD: daŋ^{2})
'silver'	*ɲɛn$^{A(2)}$	*ŋ-n$^{A(2)}$ (Siam: ŋɤn^{A2})	(Kam, Sui: ɲan^{A2})	-	(TS: kan^{4}, BD: kan^{1})
'month'	*ʔbiən$^{A(1)}$	*ʔbl / ïen$^{A(1)}$	*nüa:n$^{A(1)}$	-	(ɲan^{1})
'leftside'	*klei$^{C(1)}$	*zïai$^{C(2)}$	(Kam: ɕeC1, Sui: si:C2)	-	(TS: pha:i^{3}, BD: phai^{3})
'fat'	*bui$^{A(2)}$	*bi$^{A(2)}$	(Kam: pui^{A2}, Sui: pi^{A2})	-	(TS: gu:i^{6}, BD: gwei^{3})
'shallow'	*thi:n$^{C(1)}$	(Siam: tɯ:n^{C1})	*m-hli:n$^{C(1)}$	-	(thɯn^{3})
'to spit'	*phui$^{A(1)}$	(Siam: thui^{A1})	*Kam: phju$^{A(1)}$	-	(TS: phi^{5}, BD: phi^{2})
'to sleep'	*hep$^{D(1)}$	*hləp$^{D(1)}$	*khlap$^{D(1)}$	-	(kɯp7)
'to forget'	*phlem$^{A(2)}$	*lïum$^{A(2)}$	*la:m$^{A(2)}$	-	(TS: lɯ:m^{5}, BD: lɯ:m^{2})

Table 25: Set 7: Lakkja = Kam-Sui (# Tai # Be # Hlai).

	Lakkja	**Tai**	**Kam-Sui**	**Be**	**Hlai**
'brain'	*nui$^{A(2)}$	-	(Kam: ɲui^{A2})	-	-
'tongue'	*ŋwa:$^{A(2)}$	-	*ma$^{A(2)}$	-	-
'tick'	*ʔŋwan$^{A(2)}$	-	*nan$^{A(1)}$	-	-
'bee'	*mlet$^{D(2)}$	-	*mit$^{D(2)}$	-	-
'paddy field frog'	*ɲa:i$^{C(1)}$	-	*k-wai$^{C(1)}$	-	-
'name'	*ʔja:n$^{A(1)}$	-	(Kam: kwa:n^{A1})	-	-
'fruit'	*ʔnam$^{B(1)}$	-	(Sui: lam^{A1})	-	-
'bamboo'	*fan$^{A(1)}$	-	*xwan$^{A(1)}$	-	-
'star'	*ʔblet$^{D(1)}$	-	*hmlut$^{D(1)}$	-	-
'five'	*ŋɔ:$^{C(2)}$	-	*ŋu$^{C(2)}$	-	-
'high'	*khla:ŋ$^{A(1)}$	-	(Kam: pha:ŋ^{A1})	-	-
'sharp'	*rei$^{B(2)}$	-	*hra:i$^{B(1)}$	-	-
'to drink'	*hɔ:p$^{D(1)}$	-	*trwap$^{D(1)}$	-	-

	Lakkja	Tai	Kam-Sui	Be	Hlai
'to wash (things)'	*wluk$^{D(2)}$	-	*zu:k$^{D(2)}$	-	-
'to hide'	*tsheu$^{A(1)}$	-	(Kam: ɕu^{A1})	-	-
'to sell'	*plɛ:$^{A(1)}$	-	*kwe$^{A(1)}$	-	-
'to ascend'	*bla:$^{A(2)}$	-	*cha$^{B(1)}$	-	-

Table 26: Set 8: Lakkja = Hlai (# Tai # Kam-Sui # Be).

	Lakkja	Tai	Kam-Sui	Be	Hlai
'foot'	*puk$^{D(1)}$	-	-	-	khok^{7}
'egg'	*lɔ:m$^{B(2)}$	-	-	-	(TS: zɯ:m^{4}, BD: zɯ:m^{1})
'meat'	*mɔm$^{B(2)}$	-	-	-	(TS: gam^{6}, BD: gom^{3})
'rat'	*kliu$^{C(1)}$	-	-	-	(TS: tiu^{4}, BD: tiu^{1})
'tree'	*tsei$^{B(1)}$	-	-	-	(tshai^{1})
'two'	*hou$^{C(1)}$	-	-	-	(ɬau^{3})
'lightweight'	*kliə$^{C(1)}$	-	-	-	(khaɯ^{3})
'red'	*kɔŋ$^{B(1)}$	-	-	-	(TS:geŋ^{4})
awaken'	*mblen$^{A(2)}$	-	-	-	(ɬɯ:n^{1})
'to make, to do'	*bok$^{D(2)}$	-	-	-	(TS: vok^{8}, BD: vu:k^{7})
'to shoot'	*dziə$^{B(2)}$	-	-	-	(tseɯ^{1})

Table 27: Set 9: Lakkja = Tai = Be (# Kam-Sui # Hlai).

	Lakkja	Tai	Kam-Sui	Be	Hlai
'wing'	*wiət$^{D(2)}$	*pik$^{D(1)}$	-	(ɓit^{13}/ɓik^{33})	-
'vegetable'	*wok$^{D(2)}$	*phl/rək$^{D(1)}$	-	(sak^{33})	-
'right'	*duk$^{D(2)}$	*th-k$^{D(1)}$ (Siam: thu:k^{D1L})	-	(hək^{55})	-
'to tie'	*fat$^{D(1)}$	*ɣ-t$^{D(2)}$ (Siam: kha:t^{D2L})	-	(gat^{55})	-
'to squeeze'	*glan$^{C(2)}$	*gən$^{C(2)}$	-	(tʃan^{21})	-

Table 28: Set 10: Lakkja = Tai = Be = Hlai (# Kam-Sui).

	Lakkja	Tai	Kam-Sui	Be	Hlai
'gall bladder'	*blai$^{A(1)}$	*bl/ri$^{A(1)}$	-	(loi^{33})	(dai^{1})
'fingernail'	*pli:p$^{D(1)}$	*dliep$^{D(2)}$	-	(lip^{55})	(li:p^{7})
'land leech'	*la:k$^{D(2)}$	*dak$^{D(2)}$	-	(ɗak^{33})	(the:k^{7})
'to blow'	*phu:$^{B(1)}$	*p-$^{B(1/2)}$ (Siam: pauB1)	-	(vou^{21})	(TS: ou^{5}, BD: ou^{2})

Table 29: Set 11: Lakkja = Tai = Hlai (# Kam-Sui # Be).

	Lakkja	**Tai**	**Kam-Sui**	**Be**	**Hlai**
'to spread out'	*phu:$^{A(1)}$	*pu$^{A(1)}$	-	-	(TS:bau^{5}, BD: bou^{6})
'to ask'	*ga:m$^{A(2)}$	*thlam$^{A(1)}$	-	-	(TS:ga:m^{4}, BD:ga:m^{1})

Table 30: Set 12: Lakkja = Kam-Sui = Hlai (# Tai # Be).

	Lakkja	**Tai**	**Kam-Sui**	**Be**	**Hlai**
'to see'	*ʔwei$^{B(1)}$	-	*ɗai$^{C(1)}$	-	(la:i^{3})
'to descend'	*lei$^{C(2)}$	-	*hlu:i$^{B(1)}$	-	(TS: ɬu:i^{4}, BD: lu:i^{1})

Table 31: Set 13: Lakkja = Kam-Sui = Be (# Tai # Hlai).

	Lakkja	**Tai**	**Kam-Sui**	**Be**	**Hlai**
'river'	*ts-Niə$^{A(1)}$	-	*ʔnja$^{A(1)}$	(ŋa^{A1})	-

6.2 Tone correspondences

Lakkja has 133 roots that are shared retentions with Tai and Kam-Sui. In general, tones in those roots correspond very well. However, there are nine exceptional cases. The tonal disagreements can be grouped into three sets:

Set 1:	Lakkja = Tai (# Kam-Sui)	3	(See Table 30.)
Set 2:	Lakkja = Kam-Sui (# Tai)	4	(See Table 31.)
Set 3:	Lakkja # (Tai = Kam-Sui)	2	(See Table 32.)

Based on tonal evidence, we might have to conclude that Lakkja is as close to Tai as it is to Kam-Sui.

Table 32: Set 1: Lakkja = Tai (# Kam-Sui).

	Lakkja	**Tai**	**Kam-Sui**
'long'	*rai^{A}	*rei^{A}	*ʔra:i^{C}
'leaf'	*ʔwa:^{A}	*ʔbəï^{A}	*pwa^{B}
'pig'	*kh-Nu:^{A}	*hmu^{A}	*k-hmu^{B}

Table 33: Set 2: Lakkja = Kam-Sui (# Tai).

	Lakkja	**Tai**	**Kam-Sui**
'to fly'	*pən^{B}	*ʔbin^{A}	*-ɤn^{B}
'paddy field'	*ja:^{B}	*na^{A}	*ʔra^{B}
'thunder'	*pla:^{B}	*phl/ra^{C}	*pra^{B}
'cat'	*meu^{C}	*mɛu^{A}	(Kam,Sui: meu^{C2})

Table 34: Set 3: Lakkja # (Tai = Kam-Sui).

	Lakkja	Tai	Kam-Sui
'ashes'	*bleu^{C}	*vləu^{B}	*phla:u^{B}
'parent's elder brother'	*loŋ^{B}	*luŋ^{A}	(Sui: luŋ^{A2})

7. Conclusion

In this paper, the phonological system of Lakkja and 243 Lakkja roots are tentatively reconstructed. In order to confirm the present reconstruction and to give a complete picture of the Proto-Lakkja phonological system, more data are needed. When the reconstructed roots of Proto-Lakkja are compared with those of Proto-Tai and Proto-Kam-Sui, the results of the comparison seem to suggest that Lakkja should be placed closer to Tai than to Kam-Sui. There is little doubt that Lakkja is a language within the Kam-Tai branch of the Tai-Kadai family.

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