Southern Sui: A fourth Sui dialect?

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Summary

This paper presents a historical comparison of previously published Sui dialect data with new data collected by the author, using Thurgood's (1988) Proto-Kam-Sui (PKS) and data from Kam varieties to track phonemic innovations. Shared innovations indicate that southern Sui varieties form a distinct dialect cluster, referred to here as "Southern Sui". Interestingly, and surely not coincidentally, the geographical area covered by Southern Sui largely corresponds with the homeland of a subset of Sui people who celebrate the "Mao" festival instead of the "Duan" New Year festival celebrated by almost all other Sui.

1 Introduction

The Sui live in south-eastern Guizhou province, China, centred in Sandu Sui Autonomous County and its locale. A typical classification: Sui < Kam-Sui < Kam-Tai < Kadai. It has two closely related "sister languages": Mak and Maonan (Thurgood 1988:180 and others).

Sui is typically divided into three dialects: Sandong dialect, with the most number of speakers and considered the "standard dialect"; Pandong dialect in the northwest; and Yang'an dialect in the west. All three dialects are considered mutually intelligible (Zhang 1980).

In a recent Sui dialect study (Stanford forthcoming), Stanford examines the phonetic features in the speech of 33 Sui speakers from 17 locations. He finds the following distinctions:

- preglottalised onsets (Sandong) v. no preglottalised onsets (Pandong & Yang'an)
- voiceless nasals (Sandong & Pandong) v. $hw + \tilde{V}$ (Yang'an)
- x^w (Pandong, cf. Zhang 1980:82) v. f (all other lects)
- 1 (Yang'an) v. x, h or f (all other lects)
- Tone 6: 55 (south-eastern Sandong lects) v. 24 (all other lects)
- ua, ia (east) v. uə, iə (west)

He concludes: "These results confirm a stable three-way distinction of major Sui dialects, as found in prior literature. The 'northwest' locations correspond to the 'Pandong dialect' region.... The 'west' corresponds to the Yang An dialect. 'Central' corresponds to the Sandong dialect." (Stanford forthcoming:32) This study and others also present weighty evidence to show that dialect distinctions in Sui (including slight phonetic differences among different Sui clans) are maintained very carefully over many generations, partly due to a Sui culture of clan loyalties (Stanford 2007, 2008, 2009 and forthcoming).

1.1 A fourth Sui "dialect": Southern Sui

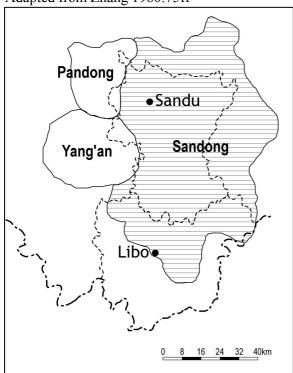
Four types of evidence come together to show that the southern area of the Sandong dialect area forms a distinct dialect cluster in its own right, called here "Southern Sui".

1. Anecdotal reported intelligibility

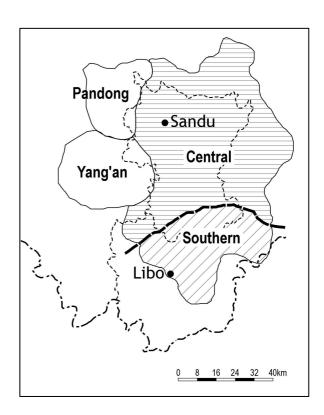
Survey team in Shuiyao (just east of Libo): "During our survey we found the situation to be a little different [from Zhang (1980)'s description of three mutually intelligible dialects]. The Sui in Shuiyao consider that their own language is clearly different from Sandong Sui and they say they can only understand 60%-70%." A retired first school teacher from Shuiyao said, 'Shuiyao Sui people who have never been to Sandong find Sandong Sui extremely difficult to understand.' (Zhang 2009:52)

- 2. Shared phonemic innovations
- 3. Lexical similarity
- 4. Shared cultural traditions: Duan and Mao festivals

<u>Traditional grouping of Sui dialects:</u> (Two county towns are shown: Sandu and Libo) Adapted from Zhang 1980:75ff



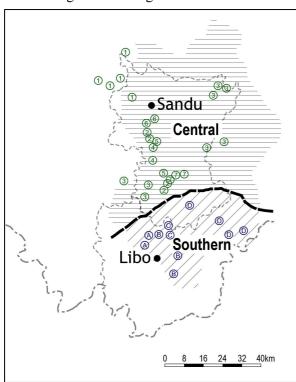
Proposed grouping based on this study:



Hillsides for festival celebrations

Duan (horse-riding), Oct-Nov: 1234567

Mao (antiphonal singing), Jun-Jul: (ABC) D Locations given in Weng 2001.



Data points for this study

Other data sources: Kam (Guangxi etc. 2008); other Kam varieties (Lin & Strange 2003); PKS (Proto-Kam-Sui) (Thurgood 1988); LMC (Pulleyblank 1991).



Data sources:

Abbrev.	Location	Sui loconym	Source of data
TP	Tingpai, Sandu	pjo ²	author's field notes
JQ	Jiuqian, Sandu	mu:i ⁶	author's field notes
SY	Shuiyao, Libo	līk ⁷ ?ja:ŋ¹	author's field notes
NL	Shuili, Libo (Ngam-Li)	ŋɐm² & li ⁶	Li (1965)
PY	Tingpai, Sandu (Pyo)	pjo ²	Li (1965)
RJ	Rongjiang county	?	Li (1965)
SD	Sandong, Sandu	tວ:ŋ ⁶	Zhang (1980)
SQ	Shuiqing, Maolan, Libo	?	ILCRD (Mahidol University) et al. (1996)
ND	Liuzhai, Nandan	?	Guangxi Zhuang Minority Language Commission, ed. (2008)

Notes on source data:

- TP: Over 500 words collected from an 18 year old girl, born and raised in a village near Tingpai township.
- JQ: Over 1,000 words collected from a 30 year old man, born and raised in Shuimei, east of Jiuqian township. His speech is typical of older speakers and does not exhibit any sound changes observed among younger speakers in his village. Shuimei village does not celebrate Mao or Duan instead, it celebrates Chinese New Year. All the villages around it, though, celebrate Mao.
- SY: Around 600 words collected from a 78-year old man, born and raised in a village next to Shuiyao township. In Shuiyao and its surrounds, speakers under the age of 40 almost uniformly exhibit certain regular sound changes which are not reflected in this data. In particular, "d > 1, "b > v, h > f _ u, ?b > ?m and ¢ > çj or hj (the latter seems unlikely but has been observed by the author; it possibly happens in order to accentuate the auditory difference between /sj/ and /¢/).
- NL, PY, RJ: Only 314 words, which are listed in order to highlight certain sound changes. Li Fangkuei only provides supposed cognates for each gloss and gives very few alternative forms (when he does give alternative forms, he specifies neither semantic distinctions nor differences in usage). The author therefore did not include this data in lexical similarity counting.
- SQ: Around 2,400 words with narrow definitions. The native speaker, being a Sui intellectual, was also aware of "Standard Sui" (i.e. Sandong Sui) pronunciation, thus for some words he gives two pronunciations, one for his own village and one for Sandong (although not indicated).
- ND: Source includes 4,480 words with narrow definitions. Migrant community from Sandu county, moved here in 1930s and 1940s (Guangxi etc. 2008:780). Their use of yai² for "1S I, me" and a low, rising tone for Tone 6 indicates that these data represent someone who originated from southwest of Sandong in the present-day Tingpai (Pyo) area.

2 Phonemic innovations

2.1 PKS labiovelars

*gw-, *kw-

	Central Sui			Southern Sui					
Gloss	PKS	ND	SD	TP	SQ	JQ	SY	LN	Kam
'to sharpen'*	*gwan²	pan ²	pan ²	-	-	pen ²	pen ²	pan ²	pan ²
'dove'	*gwau²	-	pau ²	p _Λ u ²	qau ²	q _A u ²	qou²	qau ²	pau ²
'horn'	*m-kwa:u¹	pa:u¹	pa:u¹	pa:u¹	-	qa:u¹	qa:u¹	qau ¹	pa:u¹
'leg'	*kwa¹	pa ¹	pa ¹	pa ¹	-	qa ¹	qa¹	qa¹	pa ¹
'to sell'	*kwe¹	pe^1	pe^1	$p\epsilon^1$	qe ¹	qe ¹	qe1	qe1	pe ¹

^{*} The Mulam reflex of 'to sharpen', kwan², leads Thurgood to this reconstruction. He lacked Southern Sui or Mak (*gw- > k) data.

Thus, two different mergers:

PKS		Central Sui	Southern Sui			
*kr-	k-	ka³ 'to wait'	k-	ka³ 'to wait'		
*k-	q-	qa¹ 'crow'	q-	qa¹ 'crow'		
*gw-, *kw-, *m-kw-	p-	pa¹ 'leg'	q-	qa¹ 'leg'		
*p-	p-	pa³ 'aunt'	p-	pa³ 'aunt'		

*khw-, *xw-

Central Sui			Southern Sui							
Gloss	PKS	ND	SD	TP	PY	SQ	JQ	SY	LN	Kam
'tired'	*khwe³	-	fe³	fe³	-	we³, fe³	we ³	we³	-	-
'delayed'	*khwe¹	-	fe¹	ve ¹	we ¹	fe¹	fe ¹	$f\epsilon^1$	fe ¹	we¹'
'sweet'	*khwa:n¹	fa:n¹	fa:n1	fa:n1	fan¹	fa:n¹	fa:n¹	fa:n¹	fan¹	khwa:n1
'cloud'	*m-xwa ³	fa³	fa³	fa³	fa³	wa³	wa³	wa³	wa³, fa³	ma³
'rain'	*xwin ¹	fən¹	fən¹	fən¹	fən¹	wən¹	wən¹	wən ¹	fən¹, wən¹	pjən¹
'bamboo'	*xwan¹	fan¹	fan¹	fen1	-	wen ¹	wen1	(kwi¹)	-	pan ¹
'bean pod'	*pwak ⁷	-	-	-	fek ⁷	-	-	-	wek ⁷	-

The Sui data suggest a reconstruction of *xwe³ for 'tired'. *xw- > w-, f- are both common sound changes in Chinese, e.g. 欢 'to be happy' LMC *xuan¹; 花 'flower' LMC *xwa:¹; 华 "Chinese" Early Mandarin *xwa² etc.

Thus, two different mergers:

PKS		Central Sui	Southern Sui		
*hw-, *γw-	f-	fa¹ 'right'	f-	fa¹ 'right'	
(*khw-), *m-xw-, *xw-	f-	fa³ 'cloud'	w-	wa³ 'cloud'	
*pw-	v-	va ⁵ 'wing'	w-	wa ⁵ 'wing'	

2.2 PKS bilabial clusters with *-w- medial

	Central Sui					Southern Sui				
Gloss	PKS	ND	SD	TP	PY	RJ	SQ	JQ	SY	LN
'wing'	*pwa ⁵	va ⁵	va ⁵	va ⁵	va ⁵	va ⁵	wa ⁵	υa ⁵	wa ⁵	wa ⁵
'seed'	*pwan¹	van ¹	van ¹	ven ¹	wan ¹	wan ¹	wan ¹	uen1	wen ¹	wen ¹
'leaf'	*pwa ⁵	va ⁵	va ⁵	va ⁵	va ⁵	wa ⁵	-	υa ⁵	wa ⁵	wa ⁵
'dream'	*pwjan¹	jan ¹	vjan ¹	-	va ⁵	wa ⁵	wjan ¹	vjen ¹	vjen ¹	-
'palm (of hand)'	*phwa³	fa³	-	-	-	-	wa³	υa³	wa³	wa³
'ashes'	*phwu:k ⁷	vuk ⁷	vuk ⁷	vuk ⁷	-	-	wuk ⁷	vuk ⁷	γυk ⁷	-

w-, v- distinction in Sui varieties is often not clear. v > w is too common a sound change for this to be taken as good evidence for proposing a Central/Southern dialect division. In Shuiyao, all prenasalised bilabial stops (from PKS *mp-) are pronounced as v- (or even v- or w-) by the younger generation, which would compound any difficulties they have in comprehending Central Sui.

2.3 PKS alveolar lateral clusters

The two contrasting developments of PKS lateralised stops are particularly significant in Shuiyao in terms of affecting comprehension between the dialects. Shuiyao Sui is currently undergoing a sound change by which all prenasalised alveolar stops [nd] are becoming alveolar laterals [1]. Comprehension difficulties between Central and Shuiyao are therefore likely to be even greater, as the [1] in Central Sui is interpreted as /nd/ (or /l/) in Shuiyao. For example, 'dry field' /ndaii⁵/ becomes [laii⁵] for most young people in Shuiyao, whereas [laii⁵] (from *?dla:i⁵) means 'wild boar' in Central Sui. 1-, nd- and ?d- are all common initials in Sandong Sui.

		C	entral Su	i		South	ern Sui		
Gloss	PKS	ND	SD	TP	SQ	JQ	SY	LN	Kam
'bone'	*tla:k ⁷	la:k ⁷	la:k ⁷	la:k ⁷	?da:k ⁷	?da:k ⁷	?da:k ⁷	?dak ⁷	la:k ⁹
'lightning'	*?dla:p ⁷	la:p ⁸	la:p ⁷	-	?da:p ⁷	?da:p ⁷	?da:p ⁷	-	la:p ⁹
'boat'	-	lwa^1	lwa¹	lua ¹	-	?da¹	?da¹	-	lo^1
'to turn inside out'	-	lin³	-	lın³	-	?dın³	?din³	-	ljin³
'wild boar'	*?dla:i ⁵	la:i ⁵	-	-	-	?da:i ⁵	?da:i ⁵	-	la:i ⁵
'hornet'	*?dlu¹	-	lu¹	lu^1	-	?du¹	?du¹	-	la:u¹
'to wake up'	-	lju¹	lju ¹	lju¹	-	?dju¹	?djɔ¹	-	lhjo¹'
'fingernail'	*?dlyap ⁷	ljap ⁷	ljap ⁷	ljep ⁷	?djap ⁷	?djep ⁷	?njep ⁷	?djep ⁷	љәр ⁷
'to drag'	*?dla:k ⁷	?da:k ⁷	?da:k ⁷	?dak ⁷	qa:k ⁷	qa:k ⁷	qa:k ⁷		kwa:k ⁹

The reconstruction for 'to drag' is questionable. Thurgood only had data for Maonan. *kla:k⁷ seems more likely (see **2.4** below).

Thus, two different mergers:

PKS		Central Sui	Southern Sui			
*d-	?d-	?da:i¹ 'good'	?d-	?da:i¹ 'good'		
*tl-, *?dl-	1-	la:i ⁵ 'wild boar'	?d-	?da:i ⁵ 'wild boar'		
*hl-, *l-	1-	la:i¹ 'back(-bone)'	1-	la:i¹ 'back(-bone)'		

2.4 PKS velar lateral clusters

*kl-, **kr-

			Central Sui			Souther	n Sui		
Gloss	PKS	ND	SD	TP	SQ	JQ	SY	LN	Kam
'far'	*kla:i³	?di¹	?di¹	-	qa:i¹	-	qa:i¹	-	lja:i¹
'left over'	*kla¹	?dje⁵	?dja¹	-	-	-	-	ka ¹	ka ¹
'seedling'	*kla³	?dje³	-	?di:ɛ³	ka³, tça³	tça³	ka³	ka³	ka³
'clothes'	-	?duk ⁷	?duk ⁷	?duk ⁷	kuk ⁷	qok ⁷	kuk ⁷	-	quk ⁹
'salt'	-	?dwə¹	?dwa¹	?dua¹	kwa¹	kwa¹	kwa¹	-	-
'hard'	**kra³	?da³	?da³	-	qa³	-	qa³	-	kwa³
'(fish) scales'	**krin ⁵	-	?djən⁵	-	kin ⁵	tçın ⁵	kən ⁵	kən ⁵	kwan ⁵
'bright'	**kra:ŋ¹	?da:ŋ¹	?da:ŋ¹	-	qa:ŋ¹, kwa:ŋ¹	qa:ŋ¹	qa:ŋ¹	-	kwa:ŋ¹
'to drag'	*?dla:k ⁷	?da:k ⁷	?da:k ⁷	?dak ⁷	qa:k ⁷	qa:k ⁷	qa:k ⁷	-	kwa:k ⁹
'often'	-	?nam³	?nam³	?nem³	kem³	kem³		-	-

^{**} indicates that a word is borrowed (according to Thurgood).

Thus, two different mergers:

PKS		Central Sui	Southern Sui				
*d-	?d-	?da:i¹ 'good'	?d-	?da:i¹ 'good'			
*kl-, **kr-	?d-	?dje³ 'seedling', ?da³ 'hard'	q-, k-	ka ³ 'seedling', qa ³ 'hard'			
*kr-	k-	ka³ 'to wait'	k-	ka³ 'to wait'			
*k-	q-	qa¹ 'crow'	q-	qa¹ 'crow'			

The [t¢] variant for /k/ seen in Shuiqing and Jiuqian is common in Chinese words which have descended from *kj-. For example, 家 'family' LMC *kja:¹, 街 'street' LMC *kja:j¹, 景 'scenery' LMC *kiajn³, 强 'strong' LMC *kĥian⁴, 区 'district' LMC *kʰyĕ.

The k-, q- alternation could be a result of conditioning, where $q > k / \underline{\hspace{1cm}}$ short or labialised vowel. JQ qok⁷ 'clothes' would be an exception.

*khl-, *khr-

*khl-> q- (SQ, JQ, SY and two Kam varieties) > k^h - / _ ə, although LN *khl- > k^h . Considered in isolation, Sui data would suggest Proto-Sui * q^h -, which affricated in Central Sui to χ - (which is often the actual pronunciation of what is transcribed here as h-).

			Central Sui			South	ern Sui		
Gloss	PKS	ND	SD	TP	SQ	JQ	SY	LN	Kam
'iron'	*khlit ⁷	hjət ⁷	¢ət ⁷	çet ⁷	k ^h ət ⁷	t¢ ^h ət ⁷	k ^h ət ⁷	k ^h ət ⁷	k ^h wət ⁷ '
'liquor'	*khla:u³	ha:u³	ha:u³	ha:u³	q ^h a:u ³	q ^h au ³	q ^h a:u ³	k ^h au ³	k ^h wa:u³
'to fear'	-	ho¹	ho¹	ho¹	q^ho^1	q^ho^1	$q^h o^1$	kho1	-
'lazy'	*khlut ⁷	hat ⁷	hət ⁷	hət ⁷	k ^h ət ⁷	q ^h ət ⁷	k ^h ət ⁷	k ^h ət ⁷	k ^h ut ⁷ '
'earth'	*khlum ⁵	hum ⁵	hum ⁵	hom ⁵	kʰəm⁵	q ^h om ⁵	k ^h əm ⁵	k ^h um ⁵	-
'grandchild'	*khla:n¹	ha:n1	ha:n¹	-	q ^h a:n ¹	q ^h a:n ¹	q ^h a:n ¹	k ^h an ¹	kʰwaːn¹'
'river snail'	*khru:i¹	q ^h ui¹	q ^h ui¹	q ^h u:i ¹	q ^h ui ¹	q ^h o:i ¹	k ^h ui¹	-	-
'ear'	*khra¹	q ^h a ¹	q ^h a ¹	q ^h a ¹	q ^h a ¹	q ^h a ¹	q ^h a ¹	q ^h a ¹	k ^h a¹'
'to bark'	*khrau ⁵	k ^h au ⁵	k ^h au ⁵	k ^h ∧u ⁵	k ^h au ⁵	k ^h ∧u ⁵	k ^h ɔu ⁵	k ^h au ⁵	k ^h au ⁵
'centipede'	*khryap ⁷	k ^h up ⁷	k ^h up ⁷	kup ⁷	kəp ⁷	k ^h υp ⁸	kəp ⁷	-	k ^h əp ⁷ '

Thus, two different mergers:

PKS		Central Sui	Southern Sui		
*khr-	q ^h -, k ^h -	q ^h a ¹ 'ear'	q ^h -, k ^h -	q ^h a¹ 'ear'	
*khl-	h-	ha:n¹ 'grandchild'	qh-,kh-	q ^h a:n¹ 'grandchild'	
*khj-	h-	ha:n³ 'red'	h-	ha:n³ 'red'	

2.5 Voiceless velar fricatives in Sui

Data from JQ and SY showing pre-palatal, velar and uvular contrasts:

ça:ŋ¹	"heat of the sun"	t ^h a:ŋ¹	"handsome"
$xa:\mathfrak{y}^1$	"to roast (sticks of meat over a fire)"	k^{h} a: \mathfrak{y}^{1}	"to fry (lightly in oil)"
χαιη ¹ (or haιη ¹)	"root (of a tree)"	q ^h a:ŋ¹	"rafter"

x- in Southern Sui often corresponds to k^h - in Central Sui and j- in most varieties of Kam. Thurgood does not reconstruct the PKS form due to lack of examples. k^h - is generally reconstructed as *khr- for PKS, but there is no obvious way of explaining a conditioned split from *khr- into x- and k^h - in Southern Sui. Instead, Central Sui has probably seen a merger, both > k^h -.

Correspondences:

1	Central Sui			Southern Sui				
Gloss	ND	SD	TP	SQ	JQ	SY	LN	Kam
'crispy'	khim5	-	khim1	-	xim ¹	xim ¹	-	jim¹'
'net (for catching fish)'	-	-	$k^h\epsilon^1$	xə ¹	xe ¹	xe ¹	xe ¹	je¹'
'diligent'	?yak ⁷	k ^h ak ⁷	-	xak ⁷	xek ⁷	xek ⁷	-	jak ⁷ '
'maple'	fu ¹	k ^h a:u ¹	-			xo ¹		ja:u¹'
'to roast (meat sticks			k ^h a:ŋ¹		vom1	vom1		
over a fire)'	-	-	Kaij	-	xa:ŋ¹	xa:ŋ¹	-	-

x- also occurs as a reflex of *khj-, *dz-, conditioned by a central vowel:

		Central Sui			Southern Sui				
Gloss	PKS	ND	SD	TP	SQ	JQ	SY	LN	Kam
'tail'	*khjut ⁷	hət ⁷	hət ⁸	hət ⁸	hət ⁸	xət ⁸	xət ⁸	zət ⁸	sət ⁷
'sour'	*khjum³	hum³	hum³	hom³	xəm³	χom³	xəm³	fum ⁴	səm³
'intestines'	*khja:i³	ha:i ⁴	ha:i ⁴	ha:i ⁴	ha:i ⁴	χa:i ⁴	ha:i ⁴	hai ⁴	sa:i³
'to give'	*khja:i¹	ha:i¹	ha:i¹	ha:i¹	ha:i¹	χa:i¹	ha:i¹	-	sa:i¹
'to blow'	*dzup ⁸	hup ⁸	hup ⁸	hop ⁸	xəp ⁸	χop ⁸	xəp ⁸	fup ⁸	səp ⁸
'worm'	*dzan ⁴	han⁴	-	hen ⁴	han ⁴	χen⁴	hen ⁴	-	san ⁴
'snake'	*dzu:i ²	hui ²	hu:i²	hui ²	fui ²	χu:i²	hui ²	fui ²	sui ²
'to sit'	*dzu:i ⁶	hui ⁶	hui ⁶	hu:i ⁶	fui ⁶	χui ⁶	hui ⁶	fui ⁶	sui ⁵

In SQ and LN, h > f ___ u. The author has observed the same thing among younger speakers in Shuiyao, except that [u] is lost entirely, for example: hui⁶ 'to sit' > fi⁶; hui² 'snake' > fi². In view of the general "confusion" among many southerners between [f] and [hu] (see **2.1** above), this does not represent a significant sound change for dialect groupings.

2.6 Tones

Only one regular tone innovation. In Central Sui (and all varieties of Kam), Tone 2 appears to have been assigned to words with *hr- after the initial became voiced, whereas Southern Sui has retained the original Tone 1 associated with voiceless initials.

		Central Sui			Southern Sui				
Gloss	PKS	ND	SD	TP	SQ	JQ	SY	LN	Kam
'house, home'	*hra:n¹	γa:n²	γa:n²	γa:n²	γa:n¹	γæn¹	γa:n¹	γan¹	ja:n²
'two'	*hra¹	γa^2	γa ²	γa ²	γa¹	γa¹	γa¹	γa¹	-
'pear'	-	γai ²	γai ²	γεi ²	γai¹	γei¹	γεί¹	-	jai ²
'to drink'	-	-	γum ⁴	γom⁴	γəm³	γυm³	γυm³	-	hum ⁴
'trace, footprint'	*hru:i¹	ŋui²	-	γui ²	-	-	-	γi^1	-
'to swim'	-	-	-	lu:i²	γi^1	γi^1	γi^1	-	-
'sharp'	*hra:i ⁵	-	-	-	-	-	-	-	ja:i ⁶

Thurgood (1988:191) notes this delayed tone-assignment phenomenon for Mulam, Kam and Then, but assumes that the Central / Southern Sui discrepancy is an aberration (he only had data for two of these words for both LN and SD). Our data show that the differing tones are consistent within Southern Sui and Central Sui. If the "delayed tone assignment" explanation is correct, it would indicate that Central and Southern Sui dialect clusters split relatively early on.

2.7 Other phonemic variation

- a) PKS *?- is usually retained across the board, although on occasion it is replaced by a velar nasal, for example *?u:m³ 'to hold (a baby)' > ?ŋum³ (SY, SQ). Libo and Sandu Chinese dialect often pronounces an initial ?- in Late Middle Chinese (and in modern Mandarin) as [ŋ] (see Ceng 2010:43-47), e.g. 安 LMC *?an¹ > ŋan³³; 爱 LMC *?ai⁴ > ŋai²¹;
- b) There is inconsistent alternation between \mathfrak{e} -, \mathfrak{te} -, \mathfrak{q} and \mathfrak{k}^h for some (often probable loan) words, for example: *khlit⁷ 'iron' > $\mathfrak{e}\mathfrak{e}t^7$ (SD, TP), $\mathfrak{k}^h\mathfrak{e}t^7$ (SQ, SY, LN), $\mathfrak{te}^h\mathfrak{e}t^7$ (JQ); 'pointed, sharp' (not reconstructed) > $\mathfrak{e}\mathfrak{a}^1$ (SD, SQ), $\mathfrak{e}\mathfrak{i}\mathfrak{e}^1$ (TP), $\mathfrak{k}^h\mathfrak{a}^1$ (SY), $\mathfrak{te}^h\mathfrak{a}^1$ (JQ); 'congee' (not reconstructed) > $\mathfrak{te}\mathfrak{i}\mathfrak{g}^1$ (TP), \mathfrak{tsin}^5 (ND), $\mathfrak{q}\mathfrak{e}\mathfrak{m}^1$ (others); 'arrow' (not reconstructed) > $\mathfrak{q}^h\mathfrak{a}\mathfrak{m}^3$ (SQ, JQ, SY), $\mathfrak{e}\mathfrak{m}^3$ (SD);
- c) All prenasalised voiced stops have merged with preglottalised stops in Nandan;
- d) The phoneme which is pronounced [¢] in most dialects is transcribed as [hj] (or just [h] before –i) in Rongjiang and Nandan. Thurgood reconstructs this as PKS *hj- (e.g. *hjit⁷ 'morning'). The author has observed that while older speakers in SY and JQ retain a clear pre-palatal [¢] in these words, younger speakers tend to pronounce the same sound as [¢j], [xj] or [hj] (auditarily these are very close and the relative lack of friction often makes it hard to distinguish between them), which indicates a ¢ > hj sound change, contrary to directionality of change which would suggest hj > ¢;
- e) In most cases, the lateral in *phl- has become a palatal e.g. *phlatt⁷ 'blood' > phjatt⁷; *phlai⁵ 'near, close' > phjai⁵; and presumably phjatm¹ 'to disappear', phjatu¹ 'to warm (by a fire)' and phjuŋ¹ 'steam' are further examples (although not reconstructed by Thurgood). There is, however, sporadic deletion of the [j], e.g. phatt¹ 'blood' (SQ, SY, JQ); phatm¹ 'to disappear' (SY); phei⁵ 'near, close' (TP); photŋ¹ 'steam' (JQ, SY).

2.8 Divergence in Jiuqian and Tingpai

There are some regular sound changes specific to Tingpai, and others specific to Jiuqian, which show they have both diverged slightly from Central Sui and Southern Sui respectively, which may compound comprehension difficulties between them. These are:

- a) *mpr-, which becomes mbj- in most varieties (while retaining the original tone category), undergoes lenition in TP and PY, becoming mj-, e.g. *mpra:ŋ¹ > mjaŋ², *mpra¹ > miɛ². In these cases, it appears that there has been a switch in tone category (possibly indicating that the change in initial occurred before the great tone split, similar to *hr- words cited in 2.6);
- b) The deletion of the [w] in *6w- (*6wa:ŋ¹ 'thin, flat' > ?ba:ŋ¹) results in a merger with *6- (also > ?b-) in most Sandong Sui varieties. In TP, however (but not in PY as recorded by Li 1965), this seems to have initiated a mini-chain shift, with *6- consistently becoming ?m-, for example *6a:n³ 'village' > ?ma:n³ (TP), ?ba:n³ (elsewhere); *6un⁵ 'well' > ?mən⁵ (TP), ?bən⁵ (elsewhere); and *6un¹ 'sky' > ?mən¹ (TP), ?bən¹ (elsewhere);
- c) In most varieties of Sandong Sui, the voicing from both the rhotic in *thr-/*tr- and the lateral in *thl- have been transferred to the beginning of the word in the form of a nasal (metathesis), for example: *thram⁵ 'low, short' > ndam⁵; *tra:i⁵ 'dry field' > nda:i⁵; *thla¹ 'eye' > nda¹ (an unconditioned merger). In JQ, only the lateral has undergone this metathesis, whereas the rhotic release in *thr-/*tr- has been deleted entirely, thus *thram⁵ 'low, short' > tam⁵ (JQ); *tra:i⁵ 'dry field' > ta:i⁵ (JQ); but *thla¹ 'eye' > nda¹ (JQ). Thus *thr- and *tr- have merged entirely with *t-

and *d- in JQ. The same is true across the board of palatalised alveolar stops, which emerged from the same series of initials (how this came about is unclear). A full set of correspondences for this sound change is given in the Appendix.

3 Lexical similarity

In Heggarty's (2010:307) words, lexicostatistical-type cognate counts can give us "measures ... of divergence between given languages" based on the suppositions that: a. they are all descended from one proto language; and b. the more two varieties have diverged, the more cognates inherited from their common ancestor language will have been lost. The latter perceived "loss" could occur either due to: a. the replacement of older words by loan-words (Heggarty assumes this on the most part); or b. meanings of cognate words diverging (semantic shift) such that they are no longer elicited for the same meaning slots.

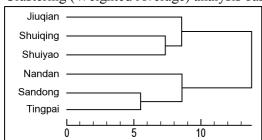
For the lexical similarity count, data from six data points were compared: SD, TP, ND, JQ, SY and SQ. Only items which occurred in all six word lists were used, amounting to a total of 314 items. Two words were counted as similar if there was reasonable evidence to indicate that they were historical cognates.

Counting lexical similarity to find out degrees of relatedness requires narrow meaning slots for each item in order to ensure that words with equivalent meanings are being compared. Both the SQ and ND data had tight meaning slots for each word (the former has lengthy explanations in English of the meanings covered, the latter, with a total of 4,488 items, also had narrowly defined meanings and fine distinctions between different senses), as did the author's own word lists. The SD data are relatively vague. Li's (1965) data could not reliably be used for these calculations due to reasons cited in 1.1 above (under "notes on data sources).

Results (scores of over 90% are shaded):

Nandan					
91.4	Tingpai				
91.4	94.5	Sandong			
85.8	89.9	90.6	Jiuqian		
84.5	86.5	89.4	91.6	Shuiqing	
81.5	83.2	84.8	91.3	92.6	Shuiyao

Clustering (Weighted Average) analysis based on these percentages (Gabmap 2011):



Out of a total of 314 lexical items, there are at least 15 words used exclusively by all three Southern Sui lects (JQ, SQ, SY) which do not appear to be used in the three Central Sui lects (ND, SD, TP) for the same meaning slots. Many of them do not appear in the Central Sui word lists at all. These include: BE:p7 'narrow' (Central Sui: ?njep7); qhan5 'beautiful' (Central Sui: kin3); ta1 'insect' (Central Sui: nuii²); ?njin1 'smelly' (Central Sui: nuil); khan1 'to fry' (Central Sui: saiu3); qEiu6 'to chat with friends' (Central Sui: fjen3, although this word is used by Southern Sui in traditional Sui antiphonal singing only); and the modal particle yain3 (Central Sui: ljeu²).

SQ and SY also share several words that are not cognate with the other varieties, perhaps reflecting a certain "Libo county Sui" distinctiveness.

Overall, lexical similarity provides further evidence for a clear distinction between Southern and Central Sui varieties and a certain degree of homogeneity within both clusters.

4. Conclusions

This study shows that, based upon a) regular diachronic sound changes, b) reported comprehension difficulties encountered between speakers from the two dialect areas, c) lexical similarity, d) shared cultural traditions (Mao festival), Southern Sui is a distinct dialect cluster in its own right.

Given the phonetic stability of regional dialects and clan-lects shown by Stanford (2009), a comprehensive survey of clan-lects across the Sui region, including those spoken in the Pandong and Yang'an dialect areas, would provide invaluable data for a thorough reconstruction of Proto-Sui which, in turn, could be used as a basis for a vastly improved Proto-Kam-Sui reconstruction. A closer examination of current sound changes among young people across the Sui region could also shed light on the development of certain sounds through Sui history.

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