Notes on the Finals of a Northwest Dialect of Tang Times*

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This paper is a companion and sequel to an earlier study, which dealt with the initials of a late Tang Chinese dialect of the Shazhou area. The name chosen for this hypothetical dialect is "Shazhou T". The present paper deals with the finals of the dialect. The primary basis for the sound categories of this language is Shao Rongfen's study of loangraph substitutions in Buddhist-oriented colloquial texts of late Tang Shazhou. The actual sound values reconstructed for this dialect are considered to be backward projections of the sound systems of certain modern northwest dialects. Specific information on the sound values is gleaned from the Tibetan transcriptions of the *Dasheng zhongzong jianjie*, which is widely referred to in Tibetological circles as "Text T".

1. Introduction.

This paper is a companion and sequel to an earlier study (Coblin, Forthcoming), which dealt with the initials of a late Tang Chinese dialect of the Shazhou 沙州 area (the region around and to the west of modern Dunhuang 敦煌). The name chosen for this hypothetical dialect is "Shazhou T" (SZT). The present paper deals with the finals of the dialect. The

* A familiar goal of the academic is to achieve some degree of recognition in a particular field of scholarly endeavor. One of the most striking characteristics of the late Professor F. K. Li was the fact that within the space of one lifetime he reached the pinnacle of achievement and international fame in four different fields. During the last twenty years of Professor Li's life this writer studied with and worked under him in two of these areas—Chinese and Tibetan. The paper offered here draws on and combines material from both fields. May it in some small measure be worthy of the memory of this great scholar and teacher.

primary basis for the sound categories of this language is Shao Rongfen's study of loangraph substitutions in Buddhist-oriented colloquial texts of late Tang Shazhou (Shao 1963). The actual sound values reconstructed for this dialect are considered to be backward projections of modern northwest dialects, as represented in the following materials:

A. General Survey. Gansu fangyan gaiyao (Gaiyao)

B. Specific Dialect Studies

1. Dunhuang Zhang (1985)
2. Lanzhou Gao (1980)
3. Zhangyi Liu (1986)
4. Xining Zhang (1980)

Specific information on the sound values is gleaned from the Tibetan transcriptions of the Dasheng zhongzong jianjie 大乘中宗見解 (Text T; IOL C93), which I believe represents a Chinese dialect very similar to that reflected by the majority of Shao Rongfen's data. That the two types of data originated in the Buddhist community of Shazhou is clear at the outset. That they were written by persons of similar education and background is suggested by the fact that the same types of miswritings, graphic variants, and erroneous loangraph substitutions occur in both bodies of material.

Occasional reference is also made here to other such transcriptional texts, which after Takata (1981a, 1981b) are cited according to the following abbreviations:

K Jingangjing 金剛經 (IOL C129)
O Emituojing 阿彌陀經 (IOL C130)
C Qianziwen 千字文 (P. T. 1046)
P Bore boluomiduo xinjing 般若波羅蜜多心經 (P. T. 448)
DA Dao-an fashi nianfo zan 道安法師念佛讚 (P. T. 1253)
TD Tiandi bayang shenzhoujing 天地八陽神呪經 (P. T. 1258)

In attempting to interpret the transcriptions it is fruitful to compare the Old Tibetan (OT) writing system of the transcriptional texts with material

from modern Tibetan dialects. This is done here by using the modern data to reconstruct proto-forms which are labled "Common Tibetan" (CT). These CT reconstructions are then used to throw light on the probable sound values underlying the letters of the OT script.

Karlgren's Qieyun System (QYS) reconstructions are cited here as emended by F. K. Li, with the exception that third and fourth division chongniu 重紐 forms are given added superscripts, 3 and 4. The QYS forms are not starred. They are used for convenience in reference and citation, but no assumptions are made about the historical or genetic relationships between our SZT dialect and the QYS.

A complete listing of the data, together with the suggested SZT reconstructions, is given in the Appendix.

2. Phonological Reconstructions.

2.1 Final Consonants: *-k, *-p, *-r, *-ng, *-m, *-n. Tibetan -g and -b are commonly used as syllable final consonants in the transcriptions of text T. These two Written Tibetan (WT) letters correspond to CT *-k and *-p, as can be reconstructed on the basis of examples such as the following: (Jin 1983: 138-140)

WT 'brog (-pa) "nomad"

Central Dialects		Kham Dialects		Amdo Dialects	
Lhasa	tʂok ˩	Chamdo	ndʐo? ˩	Rma-chu	ndʐokpa
Pengbo	ntʂək ˩	Derge	ndʐo ˩	Rong-po	ndʐok-kwa
Longzi	ntʂok ˩	Gam-rtse	ndʐo ˩ pa˥	Ledu	ndʐok-kwa
Shigetse	tʂok ˩			Alike	ndʐok-kwa
Gyantse	tʂok ˩			Rta-bo	mbropA

WT nub "west"

Lhasa	nu? ˩	Chamdo	nø ˩	Rma-chu	nəp
Pengbo	nup ˥	Derge	nu? ˥	Rong-po	nəp
Longzi	nup ˥	Gam-rtse	nə? ˥	Ledu	nə

Shigatse	nup ˥˩	Xiangcheng	nu? ˥˩	Alike	nəp
Gyantse	nu? ˥˧	Zhongdian	nu? ˥˩	Rta-bo	nəp

The dialect data suggest that *-k and *-p were unreleased stops in CT, and it seems probable that the Chinese consonants represented by WT -g and -b in text T should also be reconstructed as SZT *-k and *-p.

In parallel to *-k and *-p, a CT dental stop, *-t, can be posited, as in the following case: (Jin, ibid.)

WT brjed "to forget"

Lhasa	tɕe? ˥˧	Chamdo	ʨe ˥˧	Rma-chu	dʑet
Pengbo	tɕe? ˥˩	Derge	ʑe? ˥˧	Rong-po	rdʑet
Longzi	tɕe? ˥˧ pa ˧˥	Gam-rtse	ʑe? ˥˩	Alike	wdʑet
Shigatse	tɕe wa ˧˥	Xiangcheng	dʐe? ˥˩	Rta-bo	wdʑE
Gyantse	tɕe ˥˩	Zhongdian	dʐɯ ˥˩		

This consonant corresponds to WT -d, which is, however, not used in the text T transcriptions. On the other hand, WT -r is quite common in the text. This letter corresponds to CT *-r, as can be reconstructed for examplse such as the following: (Jin, ibid.)

WT gtsir "to squeeze, press"

Lhasa	tsir ˥˥	Chamdo	tɕe ˧˥	Rong-po	tsər
Pengbo	tsi: ˥˥	Derge	tɕi ˧˥	Ledu	tsər
Longzi	tsi:r ˥˥	Gam-rtse	tɕe: ˥˥	Rta-bo	rtɕər
Shigatse	tsi:r ˥˥	Xiangcheng	tɕɯ ˥˥		
Gyantse	tsi:r ˥˥	Zhongdian	ntʂy ˥˥		

WT mar "butter"

Lhasa	ma ˩˧	Chamdo	mA ˩˧	Rma-chu	mar
Peng-bo	ma: ˩˧	Derge	mɐ ˩˧	Rong-po	mar
Longzi	ma: ˧˩	Gam-rtse	ma: ˩˧	Ledu	mar
Shigatse	ma: ˩˧	Xiangcheng	me: ˩˧	Alike	mar
Gyantse	ma: ˩˧			Rta-bo	mAr

Final -r in Lhasa dialect is described by Jin (1983:9) as a retroflex trill. In

the pronunciation of Mr. N. L. Nornang, a Lhasa speaker, it is reported by Professor Jerry L. Norman (personal communication) to be voiced and to vary between a dental flap [ɾ] and a slight trill [r]. In certain words, however, it is found to be consistently a voiceless flap [ɾ̥]. Ms. Huang Bufan (personal communication) states that she has observed Lhasa final -r to vary between a flap [ɾ] and a trill [r]. She further remarks that in most Amdo dialects final -r is either a trill [r] or a retroflex fricative [ʐ]. In a recent study of Amdo Ndzorge phonology Sun (1986: 29, 40-41) describes postvocalic -r in this dialect as "a flap or even a light trill" which may undergo optional devoicing. Among western dialects final -r is described for Balti as a "voiced alveolar flap" (Rangan 1975: 42), while in Ladakhi it is characterized as a "voiced alveolar trill" (Koshal 1976: 40). Phonemically CT *-r was quite distinct from CT *-t. Phonetically it may have been a flap or a slightly trilled consonant. The Tibetan transcribers of text T consistently used WT -r to render the Chinese consonant which corresponds to QYS -t. No other Tibetan letter was used by them for this purpose. Interestingly, in the well-known Sino-Tibetan Treaty Inscription of 821-822 (North Face) the Chinese used the sound corresponding to QYS -t to render WT -d, -r, and -l. WT final -l was never used by the Tibetans to transcribe any Chinese sound. It corresponds to CT *-l, a plain lateral, as for example in WT dngul Lhasa ŋy ˥, Spu-hreng ŋul ˥, Rta-bo rŋəl; see Jin 1983: 141-142. To summarize, the Chinese consonant in question was felt by the text T scribes to be unlike Tibetan -d [-t] or -l [-l]. For the Chinese who composed the Treaty Inscription it was their best possible equivalent for Tibetan -d [-t], -r [ɾ and/or r], and -l [-l]. A guess would be that the SZT consonant was a flap or trill, [ɾ] or [r]. The evidence for supposing it was a fricative [ð], as has sometimes been suggested, is not particularly strong in my opinion. What it most certainly cannot have been was an unreleased dental stop [t]. For this reason I prefer to transcribe it here as *-r.

WT -ng, -m, and n correspond to CT *-ng, *-m, and *-n, for which dialect evidence can be found in Jin (1983: 138-139). The SZT sounds they transcribe can be assumed to have been *-ng, *-m, and *-n respectively.

2.2 Final Groups

2.2.1 Group 1. The finals reconstructed for this group, together with their corresponding QYS forms and Tibetan transcriptional equivalents are as follows:

	SZT	QYS	Text T
(1)	*-â	-â	-a
(2)	*-uâ	-uâ	-wa
(3)	*-a	-a, -ja	-a
(4)	*-ua	-wa	-wa
(5)	*-ia	-ja	-ya

The main vowels of the two final sets, (1)-(2) and (3)-(4), are all rendered by Tibetan a in text T. However, these sets never interchange in the loangraph data, and their development to the modern dialects is different, e. g.

	SZT	Text T	Modern Dialects	
火	*huâ	hwa	Lanzhou	xuɤ
			Xining	xu
化	*hua	hwa	Lanzhou	xua
			Xining	xua

The two sets must therefore be reconstructed differently for SZT. Our â is adopted from Karlgren's QYS reconstruction in place of IPA ɑ. Final (5) *-ia occurs only after *ɸ- and the sibilants in the text T data and is consistently rendered by Tibetan -ya.

2.2.2 Group 2. This group consists of two finals, which are kept apart in Shao's loangraph data. Final (1) comprises the QYS finals -je[3], -jie[4], -ji[3], -i[4], -ï, and -jei, which interchange freely in the loangraph materials. After all initials but the SZT labials, labiodentals, and *ɸ- this final is

usually transcribed in text T as Tibetan -i. An exception is 既 kjei-, which is rendered both as gi and as gyi. After labials and labiodentals final (1) is usually transcribed as -yi:

	QYS	Text T
鼻	bi-[4]	phyi, (pyi)
非	pjwei	phyi
味	mjwei-	'byi, byi
悲	pjwi[3]	pyi

The following form is exceptional:

彼	pjwe:[3]	bi

The tendency to add -y- here is probably to be explained as a reflection of the syllabic inventory of OT and its attendant scribal conventions. The syllables *pi, *phi, *bi, and *'bi do not occur in native (i. e. nontranscriptional) OT texts for which indexes are available. In the WT lexicon they are rare and almost invariably appear in late forms or loanwords. It is unlikely that OT had such syllables at all. On the other hand, the forms phyi (~pyi) "outside" and byi "rat" are well attested in OT texts, and 'byi-ba "to be wiped away" is a common WT word. For a Tibetan scribe of the OT period to write a form such as bi must have been a departure from common practice, and whether or not he could have actually pronounced this differently from byi seems very uncertain.

The insertion of -y- in forms such as those discussed here has been given considerable weight by some scholars, who hope to find in it hints of distinctions in the underlying Chinese forms. This stance seems unwarranted. The same intrusive -y- occurs in transcriptions of forms from languages other than Chinese where there was surely no y-like sound at all in the underlying words, e. g.

Sanskrit	OT
bhikṣu	byig-shu (Macdonald 1971: 370-4; Stein 1981: 272)
vijaya	byi-dza-ya (Emmerick 1967: 78, line 3)

kauśāmbī ke'u-shan-(')byi (Emmerick 1967: 85, line 62)

The same types of syllables can sometimes also be seen transcribed without -y- in the same materials, e. g.

Sanskrit	OT
vīrya	bi-rya (Emmerick 1967: 79, line 6)
Khotanese	
ttrivīlai~ttṛvīlei	dri-bi-le~dir-bi-le (Emmerick 1967: 86, lines 69-70)

The presence or absence of -y- in such forms can hardly be taken as indicative of any distinction in Sanskrit or Khotanese. To assign it such a role in transcriptions of Chinese seems rather forced.

After *ɸ- final (1) is usually transcribed yi, but in the case of the word 以 ï: it is sometimes rendered as 'i. There is no evidence in Shao's data or, so far as I know, in any other Chinese sources, ancient or modern, for different pronunciations of 以. The difference in the text T renderings must have been introduced by the Tibetan scribes. Now it should be noted that, while the syllable yi could appear initially in OT, as in yi-ge "letter", 'i could occur only enclitically as a postvocalic genitive suffix. It seems possible that the way 以 was read aloud in connected or continuous speech induced the scribe to write 'i rather than yi in certain cases.

In conclusion, final (1) can be reconstructed as *-i in all environments for SZT.

Final (2) comprises the QYS finals -jwe[3], -jwie[4], -jwi[3], -wi[4], and -jwei, all of which interchange freely in Shao's data. Text T is fairly consistent in transcribing this final as -u. An exception is 軌 kjwi:[3], which is rendered as gu, gu'i, or gu'u. Among other transcriptional texts K and O consistently write -u for this final, while C vacillates among -u, -we, -wɨ, and -u'i. Interestingly, the Sino-Tibetan Treaty Inscription reveals a similar uncertainty:

South Face, line 29	韋	jwei	'wu'i
West Face, line 45	水	świ:	shu

To begin, we must consider the possibility that the Tibetan transcribers encountered two dialect pronunciations, one ending in a high front offglide -i and the other lacking such a final sound. The internal support for such an hypothesis is weak. In Shao's data the word 雖 swi is used seven times to gloss 須 sju. Shao (1963: 205) feels that this must be due to some peculiarity in the pronunciation of one or the other of these words rather than to a more general feature in the language. (須 is transcribed as su in text T and various other texts. 雖 does not, to my knowledge, appear in published transcriptional texts.) A further example in Shao's material is 誅 ṭju -- 追 ṭwi (one case). Against this we may cite as counterevidence 1) that the modern northwest Chinese dialects all have -uei (or in some cases -uɛ) for such examples, suggesting the presence of a final *-i or the like, and 2) that the text T scribes rendered one and the same word 軌 as both gu~gu'u and gu'i. The latter point in particular suggests that we are dealing here with a sound combination which the Tibetans found peculiar and had difficulty perceiving and transcribing. The combination -u'i occurs in OT and WT in genitives formed on roots ending in -u. On the basis of certain western dialect forms it is possible to reconstruct a corresponding CT diphthong *ui:

WT chu "water"		chu'i "of the water"	
Lhasa	tɕ'u ˥	tɕ'y: ˥	
Zangskar	čhu	čhui	(Hoshi and Tondup 1978: 7-8)
Balti	chhu	chhu-i	(Read 1934: 7)

The western dialects suggest that the element *-u- of CT *-ui was a high back rounded vowel, while *-i was high, front, and unrounded. The corresponding Chinese entity would presumably have been similar in shape but different enough that the Tibetans often failed to hear the final i-like element. That this element was simply *-i is suggested by the modern northwest dialect evidence and by the fact that our problematical final could rime in popular Dunhuang poetry with our final (1) *-i: (example after

Sakai 1958: 9) 維摩詰經菩薩品變文：

慈 dzï　　微 mjwei　　虧 khjwe[3]　　知 ṭje　　尼 ṇi

This then focuses our attention on the preceding rounded element, which is transcribed as Tibetan u. A possibility here is that the Chinese sound in question was not a back vowel like Tibetan u, but a fronted one, y. Perhaps the transition from such a foreign front rounded vowel to a following *-i would at times have been difficult for the Tibetans to perceive, resulting in confusion and a suppression or "swallowing" of the *-i. This hypothesis is tentatively adopted here, and I shall for the nonce reconstruct final (2) as SZT *-yi.

When final *-yi follows initial *ø- it is transcribed in Tibetan as 'u or yu:

違	jwei	'u (3x)	維	jiwi	yu (2x)
謂	jwei-	'u	惟	jiwi	yu (2x)
爲	jwe	'u (15x)			

The use of the two different forms here is interesting because it corresponds to the difference between the QYS initial configurations j- (yusan 喻三) and ji- (yusi 喻四). Do the Tibetan forms indicate that this distinction was present in SZT? In considering this question we must begin by noting that Shao's loangraph data do not reflect this difference at all, e. g. (Shao 1963: 202-3)

爲	jwe	——	惟	jiwi
唯	jiwi	——	爲	jwe
違	jwei	——	惟	jiwi

On the other hand, there seems to be nothing on the Tibetan side to account for why the Tibetan scribes might themselves have introduced such a distinction. Initial 'u and yu contrast in OT, though 'u- is somewhat rare in this position. While the Tibetans might have experimented with 'u and yu in trying to render a vowel which was unfamiliar to them (i. e. our *y), it is unlikely that random efforts of this type would correspond perfectly to the

j-/ji- distinction of the QYS. Here we may profitably compare the following examples from text T:

遠	jwᵉn:	wan (2x)	緣	jiwän	ywan (17x)
		wen (1x)			

In these cases we again find Tibetan spellings which seem to reflect the QYS j-/ji- distinction; and here again we note that this distinction is absent from Shao's data: (1963: 200)

員	jwän	——	緣	jiwän
圓	jwän	——	緣	jiwän

The most reasonable conclusion seems to be that the Chinese dialect underlying the text T transcriptions maintained here a distinction which was absent from at least some of the dialects reflected in Shao's material. In other words, the fit between the two types of material is not perfect at this point. The case resembles that of SZT *ng-, which corresponds without exception to QYS *ng- in the text T data but was apparently lost in certain environments in at least some dialects reflected in Shao's data (see Coblin, Forthcoming, section 2.10).

In summary, we can reconstruct our problematical words as follows:

	Text T Dialect	Loangraph Dialect (s)
違，謂，爲	*yi	*yi
維，惟	*iyi	*yi

Consequently, after initial *ø- final (2) has two forms in certain dialects:

(2a) yi (2b) iyi

2.2.3 Group 3. This group contains six finals. In Shao's data final (1) comprises the QYS finals -ậi and -âi. It is transcribed in text T as Tibetan -e, with one exception:

愛	ʔậi-	e (2x)
		e'i (1x)

Its reflex in all modern northwest dialects is -ɛ, suggesting that the main

vowel in SZT was *ɛ̲. Whether or not final *-i̲ was also present seems uncertain. Vacillation by the scribe in the case of 愛 may indicate that such an element was in place but difficult to hear. We shall tentatively add it here and reconstruct the final as *-ɛi̲. It is interesting to note that among the other Tibetan transcriptional texts C always writes -a'i̲ for this final, while O always has -e̲ and P and DA have -e'i̲. Text K usually writes -e'i̲ but vacillates between le'i̲ and le̲ for the word 來 lə̂i̲. In the Sino-Tibetan Treaty Inscription final (1) is always transcribed as Tibetan -a'i̲. The original draft of this treaty was negotiated in 820 at the Hall of the Imperial Secretariat in Chang-an by the Chinese ministers of state and the Tibetan envoys (Li 1980: 123). It is therefore very probable that its transcriptions represent the standard dialect pronunciation used by the officialdom of the Chinese capital. For this reason we may suspect that Tibetan -a'i̲ reflects the standard pronunciation of our final, while -e'i̲ and -e̲ are based on northwest dialect readings of the time. It has sometimes been suggested that OT -a'i̲ in such examples as these may represent a vowel such as e̲, because of the current readings of WT -a'i̲ in many modern dialects of Tibet. This reservation seems unwarranted. Tibetan dialect materials from outside the central area enable us to reconstruct a CT diphthong *ai̲ corresponding to WT -a'i̲, e. g. (Qu and Tan 1983: 190, 346)

WT	nga̲ "I"	nga'i̲ "my"
Lhasa	ŋa ˩	ŋɛ: ˧
Ru-thog	ŋa ˩	ŋɛ: ˧
Sger-rtse	ŋa ˥˩	ŋe: ˧
Mtsho-chen	ŋa ˩	ŋai ˩

Final (2) includes the QYS finals -ăi̲ and -aï̲. (QYS final -ai̲ is not represented in the loangraph or text T data.) The usual text T transcription is -e̲. There are the following exceptions:

戒 kăi- ke (8x)
kye (1x)

解　γaï:　　he (5x)
　　hya (1x)

As regards the first example, we may note that in certain OT dialects of the Dunhuang area -e- alternated with -ye- after gutturals (see Thomas 1957: 18). Such alternations may have been in play here. For the second example we note that Shao (1963: 207) found a number of cases where QYS -aï exchanged not with QYS -ăi but with -a (i. e. our SZT *-a). These examples seem to represent a different dialect sub-type which is actually reflected in the transcriptions of texts C and K:

解　kaï:, γaï:　　C ga' (1x)
　　K ka (2x)
　　he'i (1x)

Our text T reading, hya, may reflect a pronunciation from this second type of sub-dialect. Alternatively, it may simply be a case where the Tibetan superscript e has been mistakenly left out or somehow effaced from the manuscript.

In the text T data and the other materials studied by Luo (1933) and Csongor (1960) final (2) occurs only after gutturals. In this position its usual modern reflex in the northwest dialects is -ie. From this we may infer that its main vowel was *e in SZT. The text T data never add final -'i and one could consequently reconstruct *-e. However, I prefer to posit *-ei because, according to Sakai (1958: 10), final (2) occasionally rimed with finals (1) *-ɛi, (3) *-(i)ei, etc. in rimed passages from certain Dunhuang bianwen. Final (2) occurs after a labial in the so-called "Tibetan-Chinese Phrasebook" (hereafter: "Phrasebook") cited here after Huang (1984: 303):

埋　măi　　'be' i

A further example can be found in text DA, line 10:

買　maï:　　'be' i

The usual modern dialect reflex in this position is -ɛ. We may guess that our SZT reconstruction *-ei would be appropriate in this environment.

Final (3) includes the QYS finals -jäi[3], -jiäi[4], and -iei. Its value in the modern dialects is usually -i. In text T it is rendered as -ye in the following example after a guttural initial:

計 kiei- kye (14x)

The use of -y- here can be questioned because of the above-mentioned alternation between -e- and -ye- after gutturals in OT northeast dialects. But the consistent writing of kye fourteen times in the text argues in favor of accepting -y- as representing a real sound in the Chinese original. This can be supported by comparable forms from text C, which is also fairly consistent here:

稽 khiei: khye (1x)

溪 khiei khya'i (1x)

啟 khiei: khye (1x)

翳 ʔiei ye'i (1x)

An exceptional case in text C is 藝 ngjiäi-[4]—Tib. 'ge'i (1x). Interestingly, the combination 'gy- does not occur at all in text C and is very rare elsewhere, its only occurrence being in two variant spellings in text T (see Csongor 1960: 127, no. 263 and our Appendix no. 263), The form khya'i above is helpful, for no -ya- ~ -a- alternation is known for the early northeast Tibetan dialects. It is probably safe to posit (3a) *-iei after gutturals in SZT. After palatals final (3) is rendered as -e or -e'i and can be reconstructed as (3b) *-ei. The same Tibetan spelling is found after dentals and sibilants, and here too we could posit *-ei for SZT. However, there remains the possibility that the actual value was *-iei in such cases and that the Tibetans were unwilling or unable to write such foreign combinations as *tye, *lye, etc., which do not occur in OT texts and are consistently avoided in transcriptional materials. I shall in fact adopt this view here and reconstruct *-iei in all environments except after palatals.

In one case the Tibetan spelling of this final is irregular:

細 siei- si (1x)

The appearance of the form si, rather than the expected se or se'i for 細 is interesting. Several possibilities suggest themselves. 1) The Tibetans might have simply misheard our *-iei as -i. 2) Shao (1963: 205) found a small number of cases where QYS final -iei words interchange with syllables having our Group 2 final (1) *-i; and this parallels a regular tendency in certain of Takata's later transcriptional texts for QYS -iei to be rendered as Tibetan -i (examples from text P can be seen in Zhou 1982, e. g. 帝 tiei- transcribed as ti). It is possible that our text T example presages this development. 3) In certain OT dialects of the Dunhuang area the vowels e and i were confused, e. g. WT rtsi "juice" is written both as rtsi and as rtse in IOL v. 56, no. 57, lines 2 and 12 (for further examples of this sort, see Luo and Huang 1983: 88). It is difficult to reach a definite conclusion on the question in the absence of further examples.

Final (4) includes QYS finals -uậi and -uâi. In text T it is represented as -we, with one possible exception:

對 tuậi- dwe (6x)
deu (1x)

The second form here is transcribed as de'u by Thomas et al. (1929: 59, line 16) and as deu by Csongor (1960: 126, no. 203). If Csongor is correct, then his transliteration presumably indicates the syllable da with superscript e and subscript u in the original. Such a combination, which violates the spelling canons, could perhaps be read due as well as deu. The modern reflex of final (4) is usually -uei, with a few points reading -uɛ. Paralleling final (1), we shall restore it as *-uɛi.

Final (5) corresponds to QYS -wăi. The text T transcriptions yield one example of it:

壞 γwăi- hwe (1x)

The modern reflex is -uɛ for all dialects. Comparing final (2), I suggest *-uei for the SZT value.

In parallel with final (3), final (6) may have included the QYS finals

-iwei, -jwäi[3], and -jwiäi[4]; but Shao's data are silent here. Only one pertinent example occurs in text T:

惠 riwei- hwe (3x)
hywe (3x)

The modern dialect reflex is -uei. The vacillation in the transcriptional forms between -w- and -yw- may point to *-y- as the value for the labial element in final (6). I shall consequently reconstruct it as *-yei.

2.2.4 Group 4. This group contains three finals. Final (1) includes the QYS finals -ậm and -âm. Gaiyao reports modern -æ̃ for all Gansu points, but Zhang (1985: 135) gives -an for Dunhuang; and for Xining Zhang (1980: 287) gives -ã. Text T renders this final as -am. We can reconstruct it as -âm. A subtype is represented in the word 感 kậm:, which text T spells as gwam. The word is sometimes written as 敢 kâm:, also spelled as gwam, indicating in effect a sort of loangraph substitution. And, in fact, these two graphs are virtually interchangeable in Shao's data, indicating that they must have been homophonous (1963: 209). Their common final could perhaps be reconstructed as -uâm, but I prefer to restore it as -âm and assume that the presence of -w- in the transcriptional forms is an effort to capture some quality of the Chinese vowel, perhaps slight rounding, which was not present in Tibetan -a-. Examples of this use of Tibetan -w- are found in text DA. Compare, for example,

line 5 好 xâu: he'u
line 13 好 xâu- hwa'u
line 11 遭 tsâu tse'u
line 15 早 tsâu: dzwa'u

The use of -wa- in these forms seems to have been an effort to override the OT a>e morphophonemic change normally triggered by the suffix -'u (cf. section 2.2.10 below). It is improbable that it represented a real -ua- combination in the underlying Chinese forms. Cf. Group 14, final (1) below.

Final (2) includes the QYS finals -ăm and -am. It occurs only once in text T:

咸	γăm	ham

In the modern dialects its reflex after gutturals is -ian, -iã, -iæ̃, or -iɛ̃. We can reconstruct it as *-am.

Final (3) may have included QYS -j(w)ɐm, -jäm[3], -jiäm[4], and -iem, but Shao's data do not throw light on it. In the text T data it is transcribed as -am after palatals and labiodentals, as -yam after *n-, and as yyam (sic!) after *ɸ-. I shall reconstruct it as (3a) *-am and (3b) *-iam.

2.2.5 Group 5 consists of the QYS final -jəm[3]. Whether or not it also contains final -jiəm[4] is not determinable from the data. In text T it is transcribed -yim after *ɸ- and usually as -im elsewhere. Exceptions occur for the word 甚 źjəm:, źjəm-, which has the following transcriptions (one occurrence each): shim, shyim, zhim, shin, shib. All of these occur in the interrogative word which corresponds to modern Mandarin shemma 什麼. Shyim and shin occur as monosyllabic variants of this word. The other forms are found in disyllabic compounds. Shin is thought by Csongor (1960: 116) to be a graphically "mutilated" form. Our SZT final can be reconstructed as *-im.

2.2.6 Group 6 contains six finals. Final (1) corresponds to QYS -ân and is transcribed in text T as -an. Its modern reflexes are -an, -ã, -æ̃, and -ɛ̃. It will be reconstructed here as *-ân.

Final (2) includes QYS *-an and *-ăn. In the text T data it occurs in two words:

間	kăn	ken (4x)
眼	ngăn	'gen (4x, after Thomas et al. 1929)
		'gyen (1x)
		'gyan (1x)

Its modern reflexes are *-ian, *-iã, *-iæ̃, and *-iɛ̃. It seems clear that the usual text T spelling of this final is -en. The variant -yen may reflect the

Tibetan -e- ~ -ye- dialect alternation alluded to earlier (section 2.2.3). The -yan variant may really point to a different Chinese sub-dialect reading, presaging modern forms such as Dunhuang -ian. For SZT it seems best to reconstruct *-en here.

Final (3) includes the QYS finals -jän[3], -jiän[4], -ien, and -jᵉn. After palatals it is transcribed in text T as -an. Here it can be reconstructed as *-an. After other consonants it is often transcribed as -yan but has variant renderings in -yen and -en, e. g.

免	mjän:[3]	men (1x)
		mye (1x)
言	ngjᵉn	'gen (3x)
堅	kien	kyan (1x)
		k( )en (1x)
見	kien-	kyan (8x)
		kyen (1x)
先	sien	syan (1x)
		sen (1x)

It seems probable that Tibetan -y- in such forms represents a real element in the Chinese forms. The alternation of -e- with -ye- after gutturals is attributable to northeast Tibetan dialect influence. There was no contrast between -ye- and -e- after m- in OT. The element -y- in syllables such as OT mye "fire" was probably present phonetically in the OT period but was lost by the early ninth century. Spellings such as mye were then changed to WT me, etc. by the orthographic reforms of Khri-gtsug-lde-brtsan. I cannot explain the absence of -n in the form 免 mye; cf. also final (4) below. Modern reflexes such as -iã, -iæ̃, and -iɛ̃, as opposed to Dunhuang -ian, reflect such changes in the area. The alternations between a and e in the transcriptions may indicate that the Chinese vowel in question was phonetically something like [æ]. But phonemically it can be taken as /*a/, and we can reconstruct final (3) as *-ian.

Final (4) corresponds to QYS -uân. Its modern reflexes are -uan, -uã, -uæ̃, -uɛ̃, etc. In text T it is transcribed as -wan, with one exception:

喚	xuân	hwan (3x)
		hwa (1x)

We shall reconstruct final (4) as -uân.

Final (5), which corresponds to QYS -wan and -wăn, is not distinguished from (4) in the modern dialects; but the two do not mix in Shao's data. Final (5) is transcribed as -wan in text T. We shall reconstruct it as *-uan

Final (6) corresponds to QYS -jwän[3], -jiwän[4], -jwᵉn, and -iwen. After labial initials it is represented in text T as -yan or -yen and can be reconstructed as *-ian. After labiodentals its spelling is -an, suggesting SZT *-an. As pointed out under 2.2.2 above, after *ɸ- it seems to preserve a distinction corresponding to that between the QYS j- and ji- initials. In Shao's data this distinction is absent, as is also true of the modern dialect data, where we find yan, yã, yæ̃, or yɛ̃ for both types. The suggested reconstructions for SZT can be illustrated as follows:

			Text T type	loangraph type
遠	jwᵉn:	wan (2x)	*yan	*yan
		wen (1x)		
緣	jiwän	ywan (17x)	*iyan	*yan

2.2.7 Group 7 contains four finals. Final (1) corresponds to QYS -ən. It occurs in only one word in text T:

根	kən	kin (4x)

The modern reflexes are -əŋ, -əŋ, -ən, and -ə̃. We may suspect that the SZT form was *ən and that Tibetan -i- was used to represent the unfamiliar vowel *ə.

Final (2) includes the QYS finals -jen[3], -jien[4], and -jən. In text T it is transcribed as yin after *ɸ- and as -in elsewhere. Its modern reflexes are -iŋ, -in, -iŋ, and -iə̃, except after modern retroflexes, where the reflexes are the same as those for final (1). It would seem to be reconstructable either

as *-in or *-iən. I shall choose the former representation here, while conceding that the final might have been phonetically something like [iən]. Such a phonetic value accounts better for a single contact between finals (1) and (2) in the rimes of the Dunhuang bianwen (Sakai 1958: 6).

Final (3) corresponds to QYS -uən. In Tibetan transcriptional materials classed by Takata as earlier than text T it is rendered consistently as -on, but in text T its representations are more complex, i. e.

(1) After *ʔ- it is transcribed as -on:

溫	ʔuən	on (2x)

The modern reflexes in this position are vəŋ, və̃, vən, uə̃, etc.

(2) After labials one finds -on, -un, and -in:

本	puən:	bun (2x)
		bin (1x)
門	muən	mon (1x)
		min (2x)

The modern reflexes are -əŋ, -ə̃, etc.

After gutturals final (3) may have been phonetically something like [-o^{ə}n]. The only other published example I know of it in this position is in text C:

鶤	kuən	kuon~koun (i. e. superscript -o-, subscript -u-; see Luo 1933, plate VI, line 37, no. 7)

Two further cases occur in text TD (unpublished):

婚	xuən	hon (2x)

Sakai (1958: 6) finds it riming with final (4a) *-yn [-y^{ə}n] in bianwen verse. We can reconstruct it as (3a) *-on.

After labials final (3) may have been phonetically [-uən]. with the Tibetans perceiving alternatively [-u^{ə}n] rendered as -un, or [-^{u}ən] spelled as -in. Such differences in perception are not unexpected. For example, compare the following different modern renderings by linguistic field workers of syllables such as Mandarin hun 昏, 婚, etc. in certain northwest dialects:

	Gaiyao	Gao (1980)
Lanzhou	xũn	xuə̃
		Zhang (1985)
Dunhuang	xũŋ	xuəŋ

We shall reconstruct (3b) *-un [-uən] here. Sakai (1958: 5) finds that this final rimes with final (2) in the bianwen materials.

Final (4) probably includes QYS -jwen[3], -jiwen[4], and perhaps also -juən. Shao's data are too scant here to clarify the matter. After *ø- and *ʔ- this final is transcribed in text T with Tibetan -un, while after *l- both -in and -un are used. In these positions most of the modern dialects have finals such as -yŋ, -yn, -yə̃, etc., e. g.

	云	輪
Dunhuang	yŋ	lyŋ
Lanzhou	yə̃	nʟyə̃
Xining	yə̃	lyə̃

We can suspect that the value in SZT was (4a) *-yn. After palatals final (4) is transcribed in text T as Tibetan -un. In this position its modern reflexes are usually -ə̃, -əŋ, -uə̃, -uŋ, etc. Here we can perhaps reconstruct (4b)* -un. After labiodentals text T again uses only -un, while the modern dialects usually have -əŋ or -ə̃. If the modern initial is ø-, the dialect in question normally has uə̃, uəŋ, etc. For example, compare

		Lanzhou	Xining
聞	mjuən-	və̃	uə̃

The Tibetan spellings point to a rounded vowel, while the modern forms provide no evidence for fronting (i. e. y). We can therefore reconstruct *-un again here.

Sakai (1958: 5-6) finds finals (4a) and (4b) in riming contact with finals (2) and (3) above, suggesting that the actual phonetic values in question here may have been: (4a) [yən] and (4b) [uən].

2. 2. 8 Group 8. This group contains four finals. Final (1) corresponds

to QYS -əng. It is rendered in text T as -ing, and its modern reflexes are -əŋ, -ə̃, -ə̃n, etc. We can reconstruct it as *-əng.

Final (2) contains QYS -ᵾng and perhaps also -ɛng, though Shao's data are silent here. The final is usually transcribed as -eng in text T, though one case of -e' is attested. In the modern dialects its reflex is usually -iŋ or -iə̃ after SZT gutturals and -əŋ or -ə̃ elsewhere. We can reconstruct this final as *-eng. The single -e' form, i. e. 硬 ngɛng --- text T 'ge', may represent a tendency in SZT to alternate between the pronunciations [-eng] and [-ẽ] in finals ending in *-eng; cf. the following paragraph.

Final (3) includes the QYS finals -jäng, -ieng, and -jᵾng. Its modern reflexes are -əŋ, -ə̃, etc. after SZT palatals and -iŋ or -iə̃ elsewhere. After the palatals its text T spelling is -eng, and we can reconstruct it as (3a) *-eng there. Elsewhere it is spelled -eng, -yeng, or -ing in Tibetan, with variants lacking final -ng, e. g.

性	sjäng-	seng (3x)
		syeng (3x)
		sing (1x)
形	rieng	hyeng (1x)
		heng (1x)
命	mjwᵾng-	me (2x)
明	mjwᵾng	mye (1x)

Variations such as those found for 性 suggest Tibetan responses to an unfamiliar sound or sound combination. Alternation between -ye- and -e- after gutturals may indicate northeast Tibetan dialect interference (cf. section 2. 2. 3 above), while that after m- probably arises from the well-known lack of contrast between -ye- and -e- in this environment in OT (see section 2. 2. 6). Forms lacking final -ng are found to occur only and exclusively in the presence of initial *m-. The SZT finals can be reconstructed as (3b) *-iẽ after *m- and as *-ieng elsewhere.

Final (4) corresponds to QYS -jəng. In text T it is transcribed as -ing.

Its modern reflexes are -əŋ or -ə̃ after SZT palatals and -iŋ or -iə̃ elsewhere. We shall reconstruct it as *-ing. Sakai (1958: 5) finds this final in rime contact with final (1) in the bianwen poetry, suggesting that the phonetic value may have been [-iəng].

2.2.9 Group 9 includes four finals. These finals usually end in -ong in the text T transcriptions, though several cases spelled -ang are found; and there is one instance of -o. Comparing usage in other texts, K and O strongly prefer -ang, while C and DA usually have -o. Text TD and the Sino-Tibetan Treaty Inscription always have -ang, which may be taken to reflect the pronunciation of the capital area. Among modern dialects many areas have -ã, but some have -ɔŋ or -ɔ̃, e. g.

		Lanzhou	Dunhuang	Xining
桑	sâng	sã	sɔŋ	sɔ̃

It seems possible that the Tibetans were confronted by a complex cross-hatching of dialect pronunciations not unlike that found in Gansu today. First of all there was an -*âng pronunciation which probably represented the standard dialect of the times. Then there were local pronunciations, *-ɔng and *-ɔ̃. Many speakers who normally said *-ɔng or *-ɔ̃ may on occasion have attempted the more elegant -*âng, with varying success, resulting in alternate pronunciations in single ideolects.

Final (1), corresponding to QYS -âng (and to post-labial -wâng), is represented in a single text T word:

謗	pwâng-	bong (2x)

This final can be reconstructed as *-ɔng, by comparison with the modern Dunhuang reflex -ɔŋ.

Final (2) corresponds to QYS -jang. After SZT palatals and retroflexes it is spelled as -ong in text T, with one possible exception:

常	źjang	shong (7x)
		sh(y)ong (1x)

Its Dunhuang reflex is -ɔŋ, except after SZT retroflexes, where it yielded

modern -uɔŋ. It can be reconstructed as (2a) *-ɔng. After *l- and *ɸ- final (2) is spelled in text T as -yong, while after sibilants it has variants in both -yong and -yang. I prefer to reconstruct SZT (2b) *-iɔng here (paralleling modern Dunhuang -iɔŋ) and assume that the -yang forms reflected standard dialect influence. After gutturals final (2) is spelled in text T as -ong, with one case of -o. The modern reflexes are usually -iɔŋ, -iɔ̃, or -iã, and Shao's data do not suggest any merger with final (1). It seems clear that we must reconstruct a form which differs from final (1), and the modern evidence points to *-iɔng. But we are left with the question of why the Tibetans never indicated the presence of a *-i- by adding their -y- here. Csongor (1960: 131) lists only text T forms for final (2) after gutturals, but Thomas and Clauson (1926: 512, 1. 12) and 1927: 290, line C. 10) give hang for 香 xjang in texts K and O; and similar examples can be found in other materials, e. g.

Text P, line 6	香	xjang	ho
P. T. 1239, line 2	向	xjang-	ho
P. T. 1258, line 8	香	xjang	hang
P. T. 1236	姜	kjang	kang

It seems clear that whatever element distinguished final (2) here, the Tibetans could not hear it.

Final (3) corresponds to QYS -uâng. It is transcribed as -wong in text T, and its Dunhuang reflex is -uɔŋ. It can be reconstructed as *-uɔng.

Final (4), which corresponds to QYS -jwang, occurs only after labiodentals in text T, where it is transcribed as -ong. Its modern reflexes are -ɔŋ, -ɔ̃, and -ã. We can reconstruct it as *-ɔng, e. g.

		Text T	SZT	Dunhuang	Xining	Lanzhou
忘	mjwang-	bong (3x) 'ong (2x)	*vɔng	vɔŋ	uɔ̃	vã

2. 2. 10 Group 10 contains three finals. Final (1) corresponds to QYS -âu. Its reflex in the modern dialects is -ɔ. In text T it is transcribed as

-e'u, except for one case in -e, which may be a scribal error for -e'u. Among other texts, K and O agree with T in writing -e'u, while C varies between -e'u and -a'u. Luo (1933: 50-51 and n. 1), following a suggestion of F. K. Li, has noted that the diphthong -a'u, which would result from the addition of the diminutive suffix -u (< bu) to stems in -a, was normally changed by umlaut to -e'u. A full study of this process in WT has since been done by Uray (1950). It is also well attested in OT sources including folk-literary texts of the Shazhou area (Thomas 1957: 29). It would seem that the Tibetans were at a loss to override the -a'u > -e'u shift in transcribing "au-like" sounds. The insertion of -w- before -a'u was tried in text DA, as mentioned under 2.2.4 above; but in the end -a'u ~ -e'u remained the preferred if less than satisfactory rendering, e. g.

Sanskrit	OT
kauśāmbī	ke'u-sham-byi (Emmerick 1967: 85, 1. 62)

That the Chinese diphthong in question was probably "au-like" is confirmed by Uighur transcriptions of Chinese from Dunhuang (Csongor 1955: 116). Final (1) will be restored here as *-âu.

Final (2) corresponds to QYS -au. It is transcribed in text T as -e'u, but is more often rendered in C as -a'u, the situation being similar to that of final (1). In text T it occurs only after gutturals. In this position its modern reflex is -iɔ in most dialects. We can reconstruct it as *-au.

Final (3) corresponds to QYS -jäu[3], -jiäu[4], and -ieu. After SZT palatals it is transcribed in text T as -e'u, paralleled by -a'u in C. Its modern reflex here is -ɔ. We can reconstruct it as (3a) *-au. Elsewhere its usual text T rendering is -ye'u, paralleling text C's -ya'u. The modern reflex is -iɔ. We can reconstruct SZT *-iau.

2.2.11 Group 11 contains three finals. Final (1) corresponds to QYS -əu. It is transcribed in text T as -i'u. Its reflex in the modern Gansu dialects is either -əu or -ou. Xining has -ɯ. Assuming that Tibetan -i- was used for unfamiliar *ə here, we can reconstruct *-əu.

Final (2) corresponds to QYS -jəu and -jiəu. After *ø- it is represented in text T as yi'u, and its modern reflexes in the Gansu dialects are -iəu or -iou. In Xining it became -iɯ. We can reconstruct it here as (2a) *-iəu. Elsewhere its text T rendering is usually -i'u. After SZT palatals its modern reflexes are -əu, -ou, or -ɯ, and it can be reconstructed as (2b) *-əu. In other positions it became -iəu, -iou, or -iɯ and can be restored as *-iəu.

Final (3) corresponds to QYS -jəu after labiodentals. It is transcribed in text T as -u. The modern reflex in the Gansu dialects is -u, while Xining has -ɣ. We can reconstruct this final as *-u. (Cf. Group 12, final (2a) below.) There is a possibility that this final also occurs in the following word:

不 pjəu, pjəu:, pjəu- 'bu (56x)

The simple verbal negative is pu° in the modern Gansu dialects and pɣ° in Xining; and the form 'bu in text T, which parallels pu in other transcriptional texts, is probably ancestral to these modern forms. It can be reconstructed in SZT as *pu. Its historical relationship to the QYS readings for the graph 不 remains problematic in my opinion.

2.2.12 Group 12 consists of three finals. Final (1) corresponds to QYS -uo. After labials it is transcribed in text T as -u, while its rendering elsewhere is -o. Its modern dialect reflex is -u (Gansu dialects) or -ɣ (Xining) in all environments. We shall reconstruct it as (1a) *-u after labials and as (1b) *-o elsewhere.

Final (2) corresponds to QYS -ju. It is transcribed in text T as -u. After the SZT labiodentals and palatals its modern reflex is -u or -ɣ, and we can reconstruct it as (2a) *-u. If this is correct, then labiodental syllables having final (2a) would have been homophonous with similar words having final (3) of Group 11, i. e. *-u. Shao's loangraph data do in fact point to complete merger of the two types (1963: 207). After velars and sibilants the reflex of final (2) is generally -y. We can reconstruct it as (2b) *-y here.

Final (3), which corresponds to QYS -jwo, has long been something of a riddle, for it is rendered by both -i and -u in the Tibetan transcriptional texts, and sometimes even by -e, -e'i, -u'i, or -a. A number of earlier investigators have supposed that its phonetic value was some sound which the Tibetans found difficult to spell with their alphabet. Shao (1963: 204-205) found that in the loangraph data final (3) interchanges both with our group 2, final (1) *-i, and with final (2) *-y/-u of the present group. As he has noted, this situation seems to parallel that found in the Tibetan transcriptions. But the implications here are actually quite different. For while it would be understandable that the Tibetans might render a difficult Chinese sound in various different ways, it seems unlikely that the Chinese themselves would consistently confuse independent phonemes in their own language in such a promiscuous manner. Shao sets forth the entire corpus of loangraph examples but proposes no solution to the problem. In examining his data closely, however, we note several significant points. To begin, we see that interchanges between final (3) and our final *-i of Group 2 are quite numerous and occur in a large number of different texts. On the other hand, contacts with our *y/-u are rather less common and are limited to only six texts. Of these, five contain no cases of *-i contacts at all. The sixth source, the Da Muqianlian mingjian jiu mu bianwen 大目乾連冥間救母變文 (abbreviated by Shao as Damu 大目), contains numerous *-i contacts but only a single *-u contact. In effect, then, the two types of material are mutually exclusive. On the one hand we have a smaller set of *-y/-u texts and on the other a larger corpus of *-i texts. The Damu is basically an *-i text with a single intrusive *-u interchange. This state of affairs points clearly to dialect difference. For Shao's material we can suppose that the more common, colloquial pronunciation of final (3) in the Shazhou area was *-i, indicating complete merger with our Group 2, final (1). A less common pronunciation was *-y, reflecting merger with final (2) *-y/-u of the present group. The two pronunciations probably competed as variants

in the Shazhou area. With these points in mind we can now turn to the Tibetan transcriptional material. Here we note that text K uses -i and occasionally -e to transcribe final (3). (An exception is the word 所 ṣjwo, which K transcribes as shi, shu, shu'i, she, sha, se'i, and se.) Text K can be said to represent an "-i dialect". In texts C and O the renderings are mixed, sometimes having -i or -e, sometimes -u. T is also a mixed text of this type; but, as noted by Csongor (1960: 118), it strongly prefers -u. The three exceptions to this are the following:

(1) The grammatical particle 於 ʔjwo is spelled twice as i, as against ten cases of u.

(2) The conjunction 與 jiwo: occurs four times in the text, always spelled yi.

(3) The word 據 kjwo- occurs once, spelled gi.

It seems probable that text T represents an "-y/-u dialect", with a few intrusive cases of -i readings. Referring to the "Phrasebook" we find that final (3) is rendered in this text as -i, -e, -e'i, etc., e. g.

箸	ḍjwo-	che'i
去	khjwo-	khi, khe
如	ńźjwo	zhi
鋸	kjwo-	gi'e
鼠	śjwo:	shi
梳	ṣjwo	she

(The "Phrasebook" also uses spellings of this type to render our final *-i of Group 2.)

Since the "Phrasebook" is almost certainly based on the ordinary speech of the Shazhou area, these examples suggest that the local dialect reading of final (3) was an unrounded sound. Conversely, we can compare the transcriptions of the Sino-Tibetan Treaty Inscription. Here final (3) is spelled with Tibetan -u, e. g.

書	śjwo	shu
御	ngjwo-	'gu
孺	ńźjwo	zhu
於	ʔjwo	u

From these examples we may infer that in Chang-an final (3) had a rounded vowel. These points coincide with our conclusions regarding Shao's data. The unrounded reading reflected in the "Phrasebook" was in fact the vowel *-i we have posited for the colloquial pronunciation represented in the loangraphs. The less common *-y/-u reading was that of the Chang-an language and probably also of other dialects further east. For no dialect represented in our various types of data is it necessary to set up final (3) as an independent rime. We can assume complete merger with *-i of Group 2 in the local dialects of Shazhou, and complete merger with final (2) of the present group for the standard language. The regular modern reflexes of final (3) are -y or -u ~ -ẏ, with distribution parallel to that for final (2) above. Shao (1963: 205) has remarked that there is in the modern data no evidence for an earlier *-i here, but this is not entirely true. For example, in a number of the dialects the word 去 khjwo- has -y in its literary readings but -i in its colloquial forms:

	Literary	Colloquial
Dunhuang and Lanzhou	tɕ'y	tɕ'i
Xining	tɕ'y	tɕ'j

It is possible that more detailed study of literary/colloquial variants in these dialects might produce further examples of this type. In any case, we can guess that the earlier *-i pronunciation of the Shazhou dialects was eroded by pressure from more prestigious *-y dialects further east, resulting in survival of the unrounded reading only in relic forms in the colloquial layers of the modern dialects. The mixture of -i and -u forms in texts such as C and O may be the result of such influence from the prestigious capital pronunciation. It is possible that under the pressure of reading a text aloud

for transcription speakers of the Shazhou area inadvertently vacillated between rounded (standard) and unrounded (local) readings for final (3), in the same way that some Southern Min speakers of Taiwan Mandarin are prone to alternate, for example, between tɕ'y ㄟ and tɕ'i ㄟ in pronouncing the word qu 去.

In summary, final (3) is given no independent status in the system reconstructed here. In the Shazhou dialect it is to be combined with Group 2, final (1) and reconstructed as *-i. By the same token it can be said to have been totally independent of Group 12, final (2), in this dialect. In the prestige pronunciation reflecting the capital language, final (3) was, on the contrary, combined with final (2); and we restore it as *-y/-u.

2.2.13 Group 13 contains three finals. Final (1) corresponds to QYS -ung and -uong. It is transcribed in text T as -ong. Its usual modern reflexes are -uəŋ and -uə̃. In dialects like Lanzhou, which have labiodental affricate initials instead of retroflexes here, -uə̃ is reduced to -ə̃. We can reconstruct this final as *-ong.

Final (2) corresponds to QYS -jung and -jwong. It is transcribed in text T as -ung. Its modern reflexes are the same as those of final (1). We can reconstruct it as *-ung.

Shao (1963: 208) notes two interchanges between finals (1) and (2) in his data. A merger of this type is reflected in certain late transcriptional texts such as DA, but it is clear that it had not yet occurred in the dialect underlying text T.

Final (3) corresponds to QYS -jwong after initial *ɸ-. It is transcribed in text T as yong. Its modern reflexes are yŋ or yə̃. We can reconstruct it as *iong.

2.2.14 Group 14 contains three finals. Final (1) corresponds to QYS -ập and -âp. It is usually transcribed as -ab in text T. After dentals its modern reflex is -a. After gutturals it yields -ɣ or -ə in most of the Gansu dialects and -u in Xining. It can be reconstructed as *-âp. The following

is exceptional:

合　ɣập　　hwab (2x)
　　hab (1x)

The case is analogous to that of 感 kậm: ～ 敢 kâm:, transcribed as gwam, as observed in section 2.2.4 above. It seems preferable to reconstruct -âp here rather than to posit an alternate form in *-uâp.

Final (2) includes the QYS finals -jäp[3], -jiäp[4], and -jɐp. After SZT palatals and labiodentals it is transcribed in text T as -ab, and its modern reflexes in these positions are -a and -ɔ̆ or -ɛ respectively. We can reconstruct it as (2a) *-ap here. After SZT *ng- text T renders it as -eb. In this position its modern reflex is usually -iɔ̆, -ie, or -i. In parallel with final (3b) *-iam of Group 4 we can perhaps reconstruct (2b) here as *-iap and assume that the vowel *a was phonetically [æ] or the like.

Final (3) corresponds to QYS -jəp. Its text T transcription is -ib. In the modern dialects its usual reflexes are -i or -ɿ, depending on the nature of the modern initials. We can reconstruct it as *-ip. It is rendered twice in text T as -im, in the expression 十二 źjəp ńźi "twelve". As has been pointed out by Csongor (1960: 112, n. 62) and discussed earlier (Coblin, Forthcoming, section 2.7) this is probably the result of a sandhi change caused by the nasalized initial *nź- in the following syllable, i. e. *śip nźi > *śim nźi.

2.2.15 Group 15 consists of five finals. Final (1) corresponds to QYS -ât. It occurs in text T after dentals and sibilants, where it is transcribed as -ar. Its modern reflex in this position is -a. It can be reconstructed as -âr.

Final (2) corresponds to QYS -(w)at and -ăt. It occurs in text T only after SZT *ṣ- (= QYS ṣ-) and the labials. Its modern reflex in these positions is -a. We can reconstruct it as *-ar.

Final (3) corresponds to QYS -j(w)ɐt, -jät[3], -jiät[4], and -iet. After palatals and labiodentals it is transcribed as -ar in text T. In the former

environment its modern reflexes are -ɤ̆ or -ɛ; in the latter it yields modern -a. We can reconstruct it as (3a) *-ar here. After labials text T usually spells it as -yar or -yer, an alternation reminiscent of Group 6, final (3) *-ian. (An exception is 別 bjät[3], which is spelled bar, par, pyar, and phar.) The modern reflex in the Gansu dialects is usually -ie or -iɤ̆. After SZT *n- it is transcribed in one text T example as -er. Its modern reflex here is -ie in the Gansu dialects and -i in Xining. We can reconstruct the finals in these examples as (3b) *-iar which may sometimes have been realized phonetically as [iær].

Final (4) corresponds to QYS -uât. In the Gansu dialects its reflex is usually -uɤ̆ or -uə, while in Xining it is -u. It occurs once in text T:

		Text T	Lanzhou
脫	thuât, duât	thar	t'uɤ̆

The modern forms point to labialization in this final, though the transcription shows no trace of this. We can perhaps restore it as *-uâr.

Final (5) corresponds to QYS -jwɐt, -jwät[3], and -jwiät[4]. After SZT palatals it is transcribed in text T as -war. Its modern reflexes in this position are -uɤ̆, -uə, etc., except in dialects where the initial has become a modern labiodental. In these dialects the reflexes are -ə, -ɤ̆, -ɔ, etc. We can reconstruct (5a) *-uar here. After SZT sibilants, gutturals, and *l- text T has -ywar or -war. The modern reflex is usually -ye, -yə, or -yɤ̆ in the Gansu dialects and -yu in Xining. The different Tibetan responses may indicate confusion regarding the unfamiliar vowel *y. We can reconstruct *-yar.

Finally, we should note that QYS -iwet is attested in text T in only one word:

血 xiwet (hyar)

Csongor (1960: 136) brackets the Tibetan form, but this spelling for 血 is confirmed in text TD. The modern dialect readings can be illustrated as follows:

	Dunhuang	Lanzhou	Xining
Literary	ɕyɤ̆	ɕye	ɕyu
Colloquial	ɕiɤ̆	ɕie	ɕi

The Tibetan form in texts T and TD should probably be reconstructed as *hiar and can be assumed to be ancestral to the colloquial pronunciation of 血 in the northwest dialects of today. An alternate reading for 血, with rounded (i. e. hekou 合口) final is attested in text DA, i. e. khywar (line 16) and hwar (line 22). The base form for these spellings can be reconstructed as *hyar and is perhaps ancestral to the modern literary readings of 血.

2. 2. 16 Group 16 consists of three finals. Final (1) corresponds to QYS -jet[3] and -jiet[4]. In text T it is usually transcribed as -yir after *ø- and labials and as -ir elsewhere. Csongor (1960: 136) lists two examples in which 一 ʔjet is transcribed as i, but comparing the text of Thomas et al. (lines 22. 3 and 121. 18) it is difficult to determine which cases he means. In the case of 蜜 mjet the word is written a number of times with final -ir but then twice as 'byi. In the Dunhuang Multiplication Table (i. e. P. T. 1256; Spanien and Imaeda 1979, plate 509, recto) the word 一 is regularly transcribed with final -ir in utterance-final position and with -i elsewhere. In the modern dialects this final survives as -i, -ɿ or -l, depending on the nature of the preceding modern initials. We shall reconstruct it as *-ir.

Final (2) corresponds to QYS -uət. It occurs in one text T example:

骨 kuət kor

The modern reflex of this word in the Gansu dialects is usually ku. In Xining it is ky. We shall reconstruct the final as *-or.

Final (3) corresponds to MC -juet and -juət. In text T it is transcribed as -ur and occurs after palatals and labiodentals. Its most common modern reflex in this position is -u. We shall reconstruct it as *-ur.

2. 2. 17 Group 17 consists of five finals. Final (1) corresponds to QYS -ək. In the modern dialects its reflexes are -ei, -ɛ, -ɤ̆, or -ə. In text T it

occurs after dentals and sibilants where it is usually transcribed as -ig. (An exception is 得 tək --- ti (2x).) We can reconstruct it as (1) *-ək.

Final (2) corresponds to QYS -ɐk and -ɛk, and to -jək after SZT retroflex initials (cf. Shao 1963: 212, notes 5 and 6). It is transcribed in text T as -eg. We can restore it as *-ek.

Final (3) includes QYS -jɐk, -jäk, and -iek. In text T it is usually transcribed as -ig. The following exception should be noted:

亦 jiäk yig (3x) Csongor notes two cases. I find three in the text, i. e. 56. 19, 103. 18, 109. 1.
yi (2x)

Perhaps variant readings existed for this word, presaging loss of final -k. The modern reflexes are -i or ɭ, depending on the nature of the modern initial. We can reconstruct *-ik.

Final (4) corresponds to QYS -jək. After palatals it is transcribed in text T as -ig or -eg, and after sibilants as -ig or -yig. Elsewhere it is rendered as -ig. Its modern reflexes are -i or -ɭ, depending on the modern initials. We can restore it as (4a) -ək after palatals and as (4b) -iək elsewhere.

Final (5) corresponds to QYS -wək. It is transcribed in text T as -og. Its modern reflexes in the Gansu dialects are -uɤ̆, -uə, -uo, etc. In Xining it yields -u. We shall reconstruct it as *-uok.

2. 2. 18 Group 18 contains three finals. Final (1) corresponds to QYS -âk. In text T it is rendered as -ag.

In the Gansu dialects the modern reflexes are usually -ɤ̆ or -ə after gutturals and -uɤ̆ or -uə elsewhere. We can reconstruct it as *-âk.

Final (2) corresponds to QYS -jak. In text T it is rendered as yag after *ɸ- and as -ag after palatals. We can reconstruct it as (2a) *-iak in the former environment and (2b) *-ak in the latter.

Final (3) corresponds to QYS -åk. It occurs in only one word in text T:

覺　kåk　　kag (5x)

Its modern reflexes in this environment are -ye, -yə, -iə, -yo, -ie, etc. in the Gansu dialects. In Xining it yields -yu. We shall reconstruct it as *-ak.

2.2.19 Group 19 consists of three finals. Final (1) corresponds to QYS -uk and -uok. It is transcribed in text T as -og. The modern reflex is usually -u in Gansu and -ʯ in Xining. We can reconstruct this final as *-ok.

Final (2) corresponds to QYS -juk. In text T it is transcribed as -ug. We can restore it as *-uk. In one syllable type this may not be appropriate:

六　ljuk "six"　　lug (13x)

The modern dialect forms are typified by the following examples:

Dunhuang	Lanzhou	Xining
liou	liəu	liɯ

These forms suggest that "six" should be reconstructed as *liuk in SZT. However, it is worth noting that syllables of the same sort sometimes have literary readings without -i- in the dialects, e. g. in Dunhuang:

陸　ljuk　　Literary: lu "surname; land"
　　Colloquial: liou "six"

It seems possible that the Chinese form heard by the Tibetans was actually *luk rather than *liuk. Indeed, two different pronunciations for "six" may have been current in the Shazhou area in early times; cf. text DA (lines 14 and 22) which transcribes "six" as lyug.

Final (3) corresponds to QYS -jwok. After *ɸ- text T renders it as yog, and we can reconstruct it as (3a) *iok. After palatals it is transcribed as -og, and we can restore it as (3b) *-ok there. After sibilants the text T transcription is -wog:

俗　zjwok　　Text T: swog　　Dunhuang: ɕy

This suggests a SZT form (3c) *-yok in this environment.

3. Conclusions.

The following vowels and consonants have been proposed here for the finals of SZT:

A. Vowels

i, y		u
e	ə	o
ɛ		ɔ
	a â	

B. Consonants -k, -p, -r, -ng, -m, -n

No separate class of "medials" is posited.

Our study of the initials of SZT (Forthcoming, section 2.1) suggests that this dialect distinguished upper and lower register ping 平 and ru 入 tones. Shao (1963: 216) concludes that both the shang 上 and qu 去 tones had also divided into upper and lower classes and that shang had merged with lower ru.

Appendix: The SZT Data

The data in this appendix are arranged and numbered according to the Index section of Csongor (1960: 121-138), with minor corrections and additions. The following information is given for each entry: Csongor number, Chinese graph, QYS form (unstarred), Tibetan transcriptional form, SZT form (starred). The data are divided into nineteen groups, corresponding to the subsections of Part 2 above.

Csongor	Graph	QYS	Text T	SZT
		Group 1		
4.	我	ngâ:	'ga	*ngâ
5.	何	ɣâ	ha	*hâ
10.	羅	lâ	la	*lâ
11.	多	tâ	ta	*tâ

			dar	? See Csongor, n. 82.
12.	他	thâ	tha	*thâ
19.	假	ka:	ga	*ka
24.	差	tṣha	tsha	*tṣha
27.	耶	jia	ya	*ia
		zja	sya	*sia
28.	也	jia:	ya	*ia
30.	者	tśja:	ja	*tśa
31.	蛇	dźja	sha	*śa
32.	捨	śja:	sha	*śa
34.	且	tshja:	tshya	*tshia
37.	果	kuâ:	gwa	*kuâ
38.	過	kuâ-	kwa	*kuâ
39.	火	xuâ:	hwa	*huâ
40.	和	ɣuâ	hwa	*huâ
42.	波	puâ	pa	*pâ
44.	破	phuâ-	pa	*phâ
47.	摩	muâ	'ba	*mâ
48.	沒	muâ	ma	*mâ
49.	化	xwa-	hwa	*hua

Group 2

52.	幾	kjei:	gi	*ki
53.	旣	kjei-	gi	*ki
			gyi	*ki
55.	依	ʔjei	i	*ʔi
56.	衣	ʔjei	i	*ʔi
63.	視	źi:, źi-	shi	*śi
64.	二	ńźi-	zhi	*nźi
67.	地	di-	di	*ti

68.	資	tsi	tsi	*tsi
70.	自	dzi-	tshi	*tshi
72.	四	si-	si	*si
76.	鼻	bi-[4]	phyi	*phi (?)
			(pyi)	*pi
78.	綺	khje:[3]	khi	*khi
81.	義	ngje-[3]	'gi	*ngi
83.	知	ṭje	ci	*tśi
84.	智	ṭje-	ci	*tśi
86.	支	tśje	ci	*tśi
87.	紙	tśje:	ci	*tśi
89.	施	śje	shi	*śi
90.	是	źje:	shi	*śi
93.	離	lje	li	*li
95.	此	tshje:	tshi	*tshi
100.	起	khjï:	khi	*khi
101.	其	gjï	khi	*khi
103.	喜	xjï:	hi	*hi
104.	意	ʔï-	i	*ʔi
106.	以	jï:	'i	*i
			yi	*i
108.	異	jï-	yi	*i
109.	癡	ṭhï	chi	*tśhi
110.	持	ḍï	chi	*tśhi
111.	治	ḍï	chi	*tśhi
112.	値	ḍï-	chi	*tśhi
113.	之	tśï	ci	*tśi
114.	士	dẓï:	shi	*śi
115.	事	dẓï-	shi	*śi
116.	時	źï	shi	*śi

120.	耳	ńźï:	zhi	*nźi
121.	理	ljï:	li	*li
124.	慈	dzï	tshi	*tshi
125.	思	sï	si	*si
126.	死	sï:	si	*si
127.	似	zï:	si	*si
130.	歸	kjwei	ku	*kyi
132.	畏	ʔjwei	u	*ʔyi
133.	違	jwei	'u	*yi
136.	謂	jwei-	'u	*yi
137.	非	pjwei	phyi	*fi
141.	味	mjwei-	'byi	*vi
			byi	*vi
142.	軌	kjwi:[3]	gu	*kyi
			gu'i	*kyi
			gu'u	*kyi
143.	維	jiwi	yu	*iyi (～ *yi)
144.	惟	jiwi	yu	*iyi (～ *yi)
145.	水	świ:	shu	*śyi
149.	悲	pjwi[3]	pyi	*pi
150.	爲	jwe	'u	*yi
154.	彼	pjwe:[3]	bi	pi

Group 3

155.	礙	ngậi-	'ge	*ngɛi
156.	海	xậi:	he	*hɛi
157.	愛	ʔậi-	e'i	*ʔɛi
			e	*ʔɛi
159.	來	lậi	le	*lɛi
161.	怠	dậi:	de	*tɛi

166.	財	dzậi	tshe	*tshɛi
167.	在	dzậi:	tshe	*tshɛi
168.	蓋	kâi-	(ke)	*kɛi
169.	害	Yâi-	he	*hɛi
171.	大	dâi-	de	*tɛi
174.	皆	kăi	ke	*kei
			he	*kei (?) See Csongor, n. 100.
175.	界	kăi-	ke	*kei
176.	戒	kăi-	ke	*kei
			kye	*kei
177.	解	Yaï:	he	*hei
			hya	(?)
179.	計	kiei-	kye	*kiei
184.	泥	niei	'de	*niei
187.	諦	tiei-	de	*tiei
188.	體	thiei:	the	*thiei
			the'i	*thiei
189.	剃	thiei-	the'i	*thiei
192.	第	diei-	de	*tiei
193.	切	tshiei-	tshe	*tshiei
195.	細	siei-	si	*siei
198.	世	śjäi-	she	*śei
202.	內	nuậi-	'dwe	*nuɛi
203.	對	tuậi-	dwe	*tuɛi
			deu (sic!)	(?)
209.	每	muậi:	'be	*mɛi
210.	外	nguâi-	'gwe	*nguɛi
			gwe	*nguɛi
214.	壞	ɣwăi-	hwe	*huei

216.	惠	ɣiwei-	hwe	*hyei
			hywei	*hyei

Group 4

219.	感	kậm:	gwam	*kâm
220.	龕	khậm	kham	*khâm
224.	貪	thậm	tham	*thâm
227.	三	sâm	sam	*sâm
228.	咸	ɣăm	ham	*ham
231.	炎	jäm	yyam	*iam
235.	染	ńźjᵉm:	zham	*nźam
237.	念	niem-	n-yam	*niam
238.	凡	bjwᵉm	bam	*fam (?)
239.	梵	bjwᵉm-	bam	*fam (?)

Group 5

243.	蔭	ʔjəm	im	*ʔim
244.	婬	jiəm	yim	*im
246.	甚	źjəm:, źjəm-	shim	*śim
			shyim	*śim
			zhim	*śim
			shin	(?)
			shib	(?)
249.	心	sjəm	sim	*sim

Group 6

253.	難	nân	'nan	*nân
257.	壇	dân	than	*thân
262.	間	kăn	ken	*ken
263.	眼	ngăn	'gen	*ngen

			'gyen	*ngen
			'gyan	(?)
268.	禪	źjän	shan	*śan
			zhan	*śan
269.	善	źjän	shan	*śan
274.	遷	tshjän	tshyan	*tshian
281.	免	mjän:[3]	men	*mian
			mye	*mian
283.	言	ngjᵉn	'gen	*ngian
284.	堅	kien	kyan	*kian
			k( )an	*kian
286.	見	kien-	kyan	*kian
			kyen	*kian
289.	現	γien-	hyan	*hian
296.	前	dzien	tshyan	*tshian
297.	先	sien	syan	*sian
			sen	*sian
301.	觀	kuân	kwan	*kuân
		kuân-	gwan	*kuân
304.	喚	xuân-	hwan	*huân
			hwa	*huân (?)
306.	暖	nuân:	'd( )	*n(uân)
307.	亂	luân-	lwan	*luân
308.	斷	tuân-	dwan	*tuân
311.	盤	buân	phan	*phân
312.	幻	γwăn-	hwan	*huan
313.	還	γwan	hwan	*huan
316.	緣	jiwän	ywan	*iyan
319.	變	pjän-[3]	byen	*pian
322.	遠	jwᵉn:	wan	*yan

			wen	*yan
323.	煩	bjwᵾn	phan	*fan
	(This example is missing from Csongor's table.)			
325.	邊	piwen	pyan	*pian
			phyan	*pian

Group 7

326.	根	kən	kin	*kən
329.	因	ʔjen	in	*ʔin
330.	引	jien:	yin	*in
			in (?)	*in
331.	塵	ḍjen	chin	*tśhin
334.	嗔	tśhjen	chin	*tśhin
335.	神	dźjen	shin	*śin
336.	身	śjen	shin	*śin
338.	忍	ńźjen:	zhin	*nźin
339.	津	tsjen	tsin	*tsin
341.	進	tsjen-	tshin	*tsin
			dzin	*tsin
345.	信	sjen-	sin	*sin
348.	溫	ʔuən	on	*ʔon
353.	本	puən:	bun	*pun
			bin	*pun (?)
354.	門	muən	mon	*mun (or: mon ?)
			min	*mun (?)
356.	順	dźjuen-	shun	*śun
357.	潤	ńźjuen	zhun	*nźun
358.	倫	ljuen	lin	*lyn
359.	輪	ljuen	lun	*lyn
365.	蘊	ʔjuən	un	*ʔyn

			'un	*?yn
366.	云	juən	'un	*yn
368.	分	pjuən	phun	*fun
			pun	*fun
			phung	*fun (?)
370.	聞	mjuən	bun	*vun
371.	問	mjuən	bun	*vun

Group 8

373.	能	nəng	ning	*nəng
375.	等	təng:	ding	*təng
			ting	*təng
376.	增	tsəng	tshing	*tsəng
377.	憎	tsəng	tsing	*tsəng
378.	僧	səng	sing	*səng
379.	爭	ʈʂɛng	jeng	*ʈʂeng
381.	硬	ngɛng	'ge'	*ngeng (~ ngẽ)
382.	行	ɣang	heng	*heng
383.	生	ʂᵾng	sheng	*ʂeng
386.	盲	mᵾng	meng	*meng
391.	聲	ɕjäng	sheng	*ɕeng
396.	領	ljäng:	leng	*lieng
397.	令	ljäng-	leng	*lieng
398.	精	tsjäng	tseng	*tsieng
			tsing	*tsieng
399.	情	dzjäng	tsheng	*tshieng
400.	淨	dzjäng-	tsheng	*tshieng
401.	性	sjäng-	seng	*sieng
			syeng	*sieng
402.	姓	?	sing	*sieng (?)

404.	名	mjäng	mye	*miẽ
			myi	*miẽ
407.	境	kjᵉng:	keng	*kieng
			heng	*kieng (?) See Csongor n. 100.
408.	竟	kjᵉng-	keng	*kieng
410.	慶	khjᵉng-	kheng	*khieng
413.	經	kieng	kyeng	*kieng
415.	形	γieng	hyeng	*hieng
			heng	*hieng
419.	定	dieng-	deng	*dieng
420.	青	tshieng	tsheng	*tshieng
425.	證	tśjəng-	cing	*tśing
			jing	*tśing
427.	乘	dźjəng-	shing	*śing
429.	勝	śjəng-	shing	*śing
434.	命	mjwᵉng-	me	*miẽ
437.	平	bjwᵉng	pheng	*phieng
438.	明	mjwᵉng	mye	*miẽ

Group 9

447.	強	gjang	khong	*khiɔng
448.	香	xjang	hong	*hiɔng
			ho	*hiɔng (～ hiɔ̃ ?)
449.	向	xiang-	hong	*hiɔng
450.	陽	jiang	yong	*iɔng
454.	長	ḍjang	chong	*tśhɔng
459.	狀	dẓjang-	chong	*tṣhɔng
			( )ong	(?)
463.	常	źjang	shong	*śɔng

			sh(y)ong	*śɔng (?)
466.	兩	ljang:	lyong	*liɔng
467.	量	ljang	lyong	*liɔng
471.	相	sjang	syong	*siɔng
			syang	*siɔng (~ siang ?)
472.	想	sjang:	syong	*siɔng
			syang	*siɔng (~ siang ?)
474.	像	zjang:	syang	*siɔng (~ siang ?)
			syong	*siɔng
479.	黃	Ywâng	hwong	*huɔng
480.	謗	pwâng-	bong	*pɔng
491.	忘	mjwang-	bong	*vɔng
492.	妄	mjwang-	bong	*vɔng
			'ong	*vɔng (~ uong ?)

Group 10

499.	惱	nâu:	'de	*nâu (?)
501.	老	lâu:	le'u	*lâu
502.	倒	tâu-	de'u	*tâu
503.	道	dâu:	de'u	*tâu
504.	盜	dâu-	de'u	*tâu
507.	造	dzâu:	tshe'u	*tshâu
508.	寶	pâu:	pe'u	*pâu
			peu	*pâu
509.	交	kau	ke'u	*kau
510.	教	kau-	ke'( )	*kau "doctrine"
513.	要	ʔjiäu-^{4}	e'u	*ʔiau
			ye'u	*ʔiau
516.	迢	ṭhjäu	che'u	*tśhau
520.	少	śjäu:	she'u	*śau

524.	表	pjäu:[3]	bye'u	*piau
526.	妙	mjiäu-[4]	'bye'u	*miau
528.	了	lieu:	le'u	*liau

Group 11

532.	後	ɣəu:	hi'u	*həu
537.	久	kjəu:	gi'u	*kiəu
541.	休	xjəu	hi'u	*hiəu
542.	憂	ʔiəu	i'u	*ʔiəu
544.	有	jəu:	yi'u	*iəu
547.	由	jiəu	yi'u	*iəu
549.	猶	jiəu	yi'u	*iəu
558.	受	źjəu:	shi'u	*śəu
			shu'	*śəu
560.	流	ljəu	l( )u	*liəu (?)
563.	修	sjəu	si'u	*siəu
565.	不	pjəu, pjəu:, pjəu-	'bu	*pu

(This example is missing from Csongor's table.)

566.	否	pjəu:	phu	*fu
568.	覆	phjəu-	phu	*fu

Group 12

574.	故	kuo-	ko	*ko
575.	苦	khuo:	kho	*kho
577.	五	nguo:	'go	*ngo
578.	悟	nguo-	'go	*ngo
581.	汚	ʔuo-	ho	*ʔo
583.	土	duo:	do	*to
589.	麤	tshuo	tsho	*tsho

590.	素	suo-	so	*so
592.	布	puo-	pu	*pu
593.	菩	buo	phu	*phu
597.	舉	kjwo:	gu	*ky
598.	據	kjwo-	gi	*ki (~ ky)
602.	語	ngjwo:	'gu	*ngy
604.	虛	xjwo	hu	*hy
605.	於	ʔjwo	u	*ʔy
			i	*ʔi (~ ʔy)
608.	與	jiwo:	yi	*i (~ y)
610.	諸	tśjwo	cu	*tśu
611.	初	tṣhjwo	chu	*tṣhu
615.	所	ṣjwo:	shu	*ṣu
618.	如	ńźjwo	zhu	*nźu
619.	汝	ńźjwo:	zhu	*nźu
622.	俱	kju	khu (?)	*ky (?)
624.	具	gju-	khu	*khy
625.	愚	ngju	'gu	*ngy
628.	住	ḍju-	chu	*tśhu
630.	殊	źju	shu	*śu
632.	取	tshju:	chu	*tshy
633.	聚	dzju-	su	*tshy (?)
634.	須	sju	su	*sy
635.	夫	pju	phu	*fu
637.	無	mju	'bu	*vu
638.	无	mju	'bu	*vu

Group 13

643.	空	khung	khong	*khong
646.	通	thung	thong	*thong

647.	同	dung	thong	*thong
650.	夢	mung	mong	*mong
652.	宗	tsuong	tsong	*tsong
			tshong	*tsong
653.	恐	khjung	khung	*khung
654.	中	ṭjung	cung	*tśung
657.	種	tśjung:	jung	*tśung
658.	眾	tśjung-	cung	*tśung
			jung	*tśung
660.	風	pjung	phung	*fung
662.	共	gjwong-	khung	*khung
663.	用	jiwong-	yong	*iong

Group 14

666.	合	Yập	hwab	*hâp
			hab	*hâp
667.	納	nập	'dab	*nập
668.	答	tập	tab	*tâp
673.	攝	śjäp	shab	*śap
677.	業	ngjᵉp	'geb	*ngiap
679.	法	pjwᵉp	phab	*fap
681.	及	gjəp	khib	*khip
683.	十	źjəp	shib	*śip
			shim	*śim (<śip)
684.	入	ńźjəp	zhib	*nźip
685.	集	dzjəp	tshib	*tship

Group 15

686.	達	dât	dar	*târ
687.	薩	sât	sar	*sâr

688.	殺	ṣăt	shar	*ṣar
690.	舌	dźjät	shar	*śar
691.	設	śjät	shar	*śar
692.	別	bjät[3]	bar	?
			par	?
			pyar	*piar
			phar.	?
693.	滅	mjiät[4]	'byer	*miar
695.	涅	niet	'der	*niar
698.	脫	duât	thar	*thuâr
701.	八	pwat	par	*par
702.	拔	bwat	phar	*phar
704.	說	śiwät	śwar	*śuar
705.	劣	ljwär	ljwar	*lyar
706.	絕	dzjwät	tshwar	*tshyar
709.	髮	pjwᵉt	pha(r)	*far
711.	血	xiwet	(hyar)	*hiar

Group 16

712.	一	ʔjiet	ir	*ʔir
			i	*ʔi (?)
718.	畢	pjiet[4]	pyir	*pir
719.	蜜	mjiet[4]	'byir	*mir
			byir	*mir
			'byi	*mi (?)
720.	骨	kuət	kor	*kor
721.	出	tśhjuet	chur	*tśhur
724.	佛	bjuət	phur	*fur
726.	物	mjuət	bur	*vur

Group 17

727.	刻	khək	kheg	*khək
728.	得	tək	tig	*tək
			ti	*tə (?)
730.	則	tsək	tsig	*tsək
737.	帛	bᵾk	ph(e)g	*phek
739.	逆	ngjᵾk	'gig	*ngik
740.	益	ʔjäk	ig	*ʔik
742.	亦	jiäk	yig	*ik
			yi	*i (?)
743.	赤	tśhjäk	chig	*tśhik
752.	寂	dziek	tshik	*tshik
753.	極	gjək	khig	*khiək
757.	測	tṣhjək	cheg	*tṣhək
758.	色	ṣjək	sheg	*ṣək
760.	識	śjək	shig	*śək
			sheg	*śək
764.	卽	tsjək	tsig	*tsiək
765.	息	sjək	sig	*siək
			syig	*siək
768.	惑	ɣwək	hog	*huok

Group 18

772.	惡	ʔâk	a( )	*ʔâk
774.	樂	lâk	lag	*lâk
775.	作	tsâk	tsag	*tsâk
			tshag	*tshâk
			dzag	*tsâk
778.	謨	muo (Csongor: mâk)	ma	*ma (?) cf. Csongor note 127.

779.	藥	jiak	yag (?)	*iak (?)
			ag (?)	?
780.	着	ḍjak	jag (?)	*tśak (?)
			tśag (?)	*tśak (?)
785.	覺	kåk	kag	*kak

Group 19

793.	獨	duk	thog	*thok
795.	毒	duok	thog	*thok
796.	竹	ṭjuk	c( )g	*tśuk
801.	肉	ńźjuk	zhug	*nźuk
802.	六	ljuk	lug	*luk (or: liuk ?)
811.	欲	jiwok	yog	*iok
813.	觸	tśhjwok	chog	*tśhok
818.	俗	zjwok	swog	*syok

Signs and Abbreviations

*	Reconstructed Shazhou T forms
CT	Common Tibetan
FY	Fangyan 方言
Gaiyao	Gansu fangyan gaiyao 甘肅方言概要
IOL	India Office Library
OT	Old Tibetan
P. T.	Fonds Pelliot tibétain
"Phrasebook"	the "Tibetan-Chinese Phrasebook" (Stein nos. 2736 and 1000), cited after Huang (1984)
QY	Qieyun 切韵
QYS	Qieyun System
SZT	"Shazhou T", the hypothetical dialect represented in the

Tibetan transcriptions of the Dasheng zhongzong jianjie and the loangraph data of Shao (1963)

WT Written Tibetan

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W, South Coblin

摘　　要

本篇續接已付印的拙著『晚唐西北方言聲母系統研究』來探討唐末「沙州 T」方言的韵母系統。研究方法是依據邵榮芬先生所著『敦煌俗文學中的別字異文和唐五代西北方音』以斷定該方言的韵母歸類；然後用比較語言學方法，從現代西北方言音系追溯至唐末。最後以吐蕃時代藏文轉寫大乘中宗見解 (TextT) 的藏漢對音爲旁證而測定其實際音值。