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KITAN TRANSCRIPTIONS OF CHINESE VELAR INITIALS*

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This paper deals with the transcriptions of Chinese velar initials in the Kitan Small Script. We carried out a phonological analysis of the Kitan language as reflected in the transcriptions by comparing the transcriptions of Chinese words in the Kitan Small Script with those in the Mongolian/Uyghur script. This analysis demonstrates that Kitan has two velar consonants and one uvular consonant, and the transcriptions of the Chinese velar initials found in the Kitan Small Script reflect the distinction between velar and uvular consonants as seen in the Mongolian/Uyghur script.

Key words: Kitan language, Kitan script, linguistic reconstruction, Mongolic languages, historical Chinese phonology.

1. Introduction

According to Chinese historical records, the Kitan people, who established the Liao dynasty (907–1125), created two functionally distinct writing systems designated as the Large Script and Small Script. The Kitan language is thought to be related to the Mongolic languages (Janhunen 2003), and the Kitan Small Script is believed to be a mixture of syllabograms, phonograms, and ideograms (Kara 2005, p. 16). A study by the Kitan Script Research Group in the 1970s and 1980s made significant progress in deciphering the Kitan Small Script. Their work still forms the basis of this field today. In the years following the study by the Kitan Script Research Group, a significant

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number of Kitan epitaphs have been unearthed. These epitaphs have been deciphered to such an extent that today we can more or less grasp the kinship and personal histories of the people described in them.[1] However, the decipherment is far from sufficient, where Kitan has still remained as a hitherto undeciphered language on the whole.

One of the contributions made by the Kitan Script Research Group is the decipherment of Chinese loanwords in the Kitan inscriptions. Thanks to their work, quite a number of Chinese official titles and proper names have been identified so far. However, the research has not been carried out in a systematic way, and has proved to be problematic in certain aspects. It has been common practice for historical linguists to advance the study of an unknown language, along with that of the languages to which the former is believed to be related. In the present paper, we deal with the Kitan transcriptions of the Chinese velar initials – one of the highly controversial issues in the study of the Kitan script and language, by comparing them with the Mongolian/Uyghur transcriptions of the Yuan period.

The present paper is organised as follows. In Section 2, we analyse the Mongolian/Uyghur transcriptions of Chinese words. In Section 3, we point out problems on the interpretations by different scholars with regard to the Kitan transcriptions of the Chinese velar initials, and provide a phonological analysis of our own. Section 4 is the conclusion.

2. Mongolian/Uyghur Transcriptions of Chinese Words in the 14th Century

Many Chinese words are known to be transcribed in the Mongolian/Uyghur script in Late Old Turkic and Middle Mongolian texts as well as in the Kitan script materials. By examining them, we can gain insight into how the loanwords from Chinese were modified to fit the phonology of Altaic languages. There are two types of transcription systems for Chinese words in Old Turkic texts. One is an old system which reflects the northwestern dialect of Middle Chinese. The other is a newer system, which reflects Early Mandarin and was used in Late Old Turkic in the Yuan period (Shōgaito 1987, pp. 116–121). Since the Kitan transcriptions of Chinese reflect Early Mandarin rather than Middle Chinese in terms of phonology, we examine the transcriptions from Mongolian and Late Old Turkic texts where the new transcription system was applied. Table 1 illustrates the collected transcriptions.[2] Chinese words are classified according to their initials in Early Mandarin and the grades of their rhymes in Middle Chinese.

[1] For more general information on the Kitan script and language, refer to Kane (2009).

[2] The data listed here are from Middle Mongolian inscriptions (Cleaves 1949; 1950; 1951; 1952), Old Turkic inscriptions (Röhrborn – Sertkaya 1980; Geng – Hamilton 1981), and Old Turkic texts from Turfan (Rachmati 1936, Nos 14 and 18). Chinese words marked with an asterisk (*) are from Old Turkic written materials.

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Table 1

k-	Grade I		Grade II	
	閣 gaw[3]	K'W	簡 gi̯an	K'N
	管 gon	KWN	間 gi̯an	K'N
	國 guė	KWY	講 gi̯aŋ	K'NK
	官 gon	KWN	嘉 gi̯a	K'
	姑 gu	KWW	監 gem	K'M
	光 gu̯aŋ	KWNK	庚 geiŋ	KYNK
	公 guŋ	KWNK	江 gi̯aŋ	K'NK
	功 guŋ	KWNK	*庚 geiŋ	KYNK
	工 guŋ	KWNK	*甲 gi̯a	K'
	剛 gaŋ	K'NK		
	*高 gaw	K'W	Grades III–V	
	*廣 gu̯aŋ	KWNK	建 gėn	K'N
	*國 guė	KWY	君 geun	KWYN
			軍 geun	KWN
			軍 geun	KWYN
			供 geuŋ	KWNK
			宮 geuŋ	KWNK
			車 geu	KWW
			敬 giŋ	KYNK
			金 gim	KYM
			荊 giŋ	KYNK
			薊 gei	KY
			經 geiŋ	KYNK
			郡 geun	KWYN
			揭 gė	K'
			局 keu	KW
			*巨 keu	KW
			*癸 geuė	KWW
k^h-	Grade I		Grades III–IV	
	庫 k'u	KWW	郤 k'i	KY
			起 k'i	KY
			慶 k'iŋ	KYNK
			卿 k'iŋ	KYNK
			頃 k'ėuŋ	KYNK

[3] For convenience, we have also listed the 'Phags-pa Chinese transcriptions of these words. For more information regarding the transcription and pronunciation of 'Phags-pa Chinese, refer to the recent study of Coblin (2007).

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			(Grades III–IV continued)	
			輕 k'eiŋ	KYNK
			奎 k'euė	KWY
			*卿 k'iŋ	KYNK
			*曲 k'eu	KYW
			*曲 k'eu	KWW
x-	Grade I		Grade II	
	漢 han	Q-'N	學 hi̯aw	K'W
	翰 ɤan	Q'N	行 heiŋ	QYNK
	戶 ɤu	QWW		
	護 ɤu	QWW	Grades III–IV	
	后 ɤiw	QYW	訓 heun	KWYN
	河 ɤo	QW	徽 heuė	KWY
	河 ɤo	QWW	徽 heuė	QWY
	侯 ɤiw	QYW	許 heu	KW
	洪 ɤuŋ	KWNK	興 heiŋ	QYNK
	皇 ɤoŋ	QWNK	縣 hu̯en	K'N
	*湖 ɤu	QWW	賢 heėn	K'N

Middle Mongolian and Old Turkic have vowel harmony, which is generally considered to be palatal (or front/back) harmony: A word can either contain back vowels /a, o, u, ï/, or front vowels /ä, ö, ü, i/ in Old Turkic. In Mongolian, there is no back vowel /ï/, whereas the front vowel /i/ can occur with both front and back vowels, and is therefore considered a neutral vowel. Middle Mongolian and Old Turkic also have two series of guttural stops /k/ and /g/,[4] which are linked to vowel harmony. The /k/ and /g/ have back allophones (uvular [q] and [ɢ])[5] in words containing back vowels, but have front allophones (velar [k] and [g]) in words containing front vowels. The Mongolian/Uyghur script that is used to transcribe Middle Mongolian and Old Turkic has two distinctive graphemes, namely *kaph* <K> and *ḥeth* <Q>, with the former typically being used to transcribe front allophones and the latter to transcribe back allophones in native words.

We see from Table 1 that both Chinese k- and k^h- are usually transcribed with <K>. We assume that the Chinese k- and k^h- were substituted for the front allophones of /g-/ and /k-/, respectively. It can also be seen in Table 1 that the Chinese x- is transcribed with both <K> and <Q>. <Q> is used for Chinese words with Grade I rhymes. With regard to Chinese words with Grades II–IV rhymes, <K> apparently outnum-

[4] East Middle Mongolian is said to have contrast in aspiration, while West Middle Mongolian has contrast in voicing. Here, for convenience of analysis, we assume that Middle Mongolian has a two-way contrast between voiceless and voiced stops.

[5] In the language of the *Secret History of the Mongols*, there is only [q] before or after back vowels.

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bers <Q>. One of the major differences between Grade I rhymes and Grades II–IV rhymes is that in Early Mandarin, Grades II–IV rhymes usually contain the glide -j- or vowel -i-, while Grade I rhymes do not. Because the Chinese initial x- with Grades II–IV rhymes is fronted in its place of articulation due to the glide -j- or vowel -i-, in modern Mandarin it usually becomes [ɕ], while the one with Grade I rhymes which do not contain -j- or -i-, usually becomes [x ~ χ]. The distribution of the graphemes <Q> and <K> for the Chinese initial x- may occur because the Chinese initial x- with Grades II–IV rhymes is fronted in its place of articulation due to the glide -j- or vowel -i-. The Chinese x- has different allophones in Early Mandarin, most probably [χ ~ h] with Grade I rhymes, and [ɕ ~ x] with Grades II–IV rhymes, and they are reflected in different graphemes in the Mongolian/Uyghur script. At this point, we can assume that the Chinese x- with Grade I rhymes is altered to the back allophone of /k/, while the Chinese x- with Grades II–IV rhymes is usually altered to the front allophone of /k/. Chart 1 shows the correspondence between Chinese initials and their Mongolian/Uyghur transcriptions discussed above:

Chart 1

Chinese initials	Grades of rhymes	:	Mongolian consonants	Uyghur graphemes
/k-/ [k ~ g̊ ~ g]	I–IV	:	/g-/	<K>
/k^h-/ [k^h]	I–IV	:	/k-/	<K>
/x-/ [χ ~ h]	I	:	/k-/	<Q>
/x-/ [ɕ ~ x]	II–IV	:	/k-/	<K> (mainly)

3. Kitan Transcriptions

Before proceeding to an analysis of the transcriptions of Chinese words in the Kitan Small Script, it is necessary to set a theoretically idealised status for Chinese in the Liao period, in order to carry out a sound phonological analysis of the Kitan language. Here we presume that the -j- insertion in words with Grade II rhymes and devoicing of initials have already occurred in Chinese during the Liao period.

Most of the Kitan inscriptions were made in the 11th and 12th centuries, which were the transition period from Middle Chinese to Early Mandarin. During this period, the Middle Chinese voiced obstruent initials generally changed into voiceless obstruent initials. Therefore, although the phonology of Chinese in the Liao period is not sufficiently understood today, it is still reasonable to suppose that the voiced initials of Middle Chinese were already devoiced, and there were three voiceless initials (k-, k^h- and x-) in the inventory of velar consonants in Chinese. Apart from that, -j- was inserted in the words with Grade II rhymes.[6]

[6] Shen (2006) examines the Kitan transcriptions of Chinese words as a way to understand Chinese historical phonology, and arrives at nearly the same result.

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We have collected reasonable and reliable data from the well-studied Kitan inscriptions as listed below.

(1) *Epitaph of Yelü Zongjiao* (1053)
(2) *Eulogy for Emperor Xingzong* (1055)
(3) *Epitaph of Yelü Renxian* (1072)
(4) *Eulogy for Empress Renyi* (1076)
(5) *Epitaph of Yelü Dilie* (1092)
(6) *Epitaph of Xiao Dashan and Princess Yongqing* (1095)
(7) *Epitaph of Yelü Nu* (1099)
(8) *Epitaph of Yelü Hongyong* (1100)
(9) *Eulogy for Emperor Dazong* (1101)
(10) *Eulogy for Empress Xuanyi* (1101)
(11) *Epitaph of the Prefect of Zezhou* (1108)
(12) *Epitaph of Prince Xu* (1109)
(13) *Eulogy for the Imperial Grand Uncle* (1110)
(14) *Epitaph of the Imperial Consort of the States of Song and Wei* (1110)
(15) *Epitaph of the Late Mme. Yelü* (1115)
(16) *Record of the Journey of the Younger Brother of the Emperor of the Great Jin Dynasty* (1134)
(17) *Epitaph of Xiao Zhonggong* (1150)
(18) *Epitaph of the Defense Commissioner of Bozhou of the Jin Dynasty* (1170)

In this article, the analysis is based on the decipherment of the Kitan transcriptions from previous studies; however, some uncertain cases are excluded from the data. The collected transcriptions in Table 2 are the Chinese words classified according to their initials and the grades of their rhymes in Middle Chinese.

Table 2

k-	Grade I			Grade II		
	誥 gaw	𐰀𐰴	k-ɑu[7]	校 geu	𐰀𐰭𐰉	k-iɑu-u
	廣 gu̯aŋ	𐰀𐰃	k-uɑŋ	校 geu	𐰀𐰭	k-iɑu
	國 guė	𐰀𐰺	k-uei	耿 geiŋ	𐰀𐰼	k-iɑŋ
	公 guŋ	𐰀𐰆	k-uŋ	江 geŋ	𐰀𐰓	k-ɑŋ
	公 guŋ	𐰀𐰇	k-uŋ	家 gi̯a	𐰀𐰽	k-iɑ
	功 guŋ	𐰀𐰆	k-uŋ	監 gem	𐰀𐰽𐰯	k-iɑ-em
	工 guŋ	𐰀𐰆	k-uŋ	監 gem	𐰀𐰽𐰖	k-iɑ-ɑm
	姑 gu	𐰀𐰉	k-u			
	官 gon	𐰋𐰆	ko-n	Grades III–IV		
	觀 gon	𐰋𐰆	ko-n	貴 guė	𐰀𐰺	k-uei

[7] With regard to the phonetic values for the Kitan graphemes, for the time being we follow Qingge'ertai et al. (1985), which although forming the basis of this field, requires some modifications.

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	(Grade I continued)	*(Grades III–IV continued)*
	觀 gon 八反尔 k-o-ɔn 高 gaw 八夾 k-ɑu 哥 go 八芬 k-ue 哥 go 八夯 k-ue 光 gu̯aŋ 八杰 k-uɑŋ	軍 geun 八亦 k-iun 斤 gin 八雨 k-in 宮 geuŋ 八丙尔 k-iou-uŋ 車 geu 八尖 k-iu 景 giŋ 八用 k-iŋ 九 giw 八丙 k-iou 檢 gėm 八交夫 k-e-em 檢 gėm 八夫 k-em 京 giŋ 八用 k-iŋ 金 gim 八及 k-m 圭 geuė 八火 k-uei 經 geiŋ 八用 k-iŋ 兼 gem 八交夫 k-e-em 郡 geun 八亦 k-iun 郡 geun 八尖亦 k-iu-iun 騎 ki 八爷 k-i 騎 ki 八关关 k-i-i 騎 ki 八交关 k-e-i 騎 ki 勺爷 ?-i
k^h-	Grade I 空 k'uŋ 八太 x/k^h-uŋ 空 k'uŋ 八尔 x/k^h-uŋ 開 k'aj 犮丙 k^h-j 開 k'aj 八丰 x/k^h-ɑi 開 k'aj 犮丰 k^h-ɑi 開 k'aj 八丰 k-ɑi	Grade II 客 k'i̯aj 八东 x/k^h-ɑi Grades III–IV 慶 k'iŋ 八用 x/k^h-iŋ 卿 k'iŋ 八用 x/k^h-iŋ 輕 k'eiŋ 八用 x/k^h-iŋ 期 ki 八关 x/k^h-i 乾 ken 业考 x/k^h-en 權 ku̯en 八奴虫 k-ue-en
x-	Grade I 戶 ɤu 玘只 xu-u 護 ɤu 玘只 xu-u 混 ɤun 刘尖 ɤ-un 和 ɤu̯o 夾 ? 后 ɤiw 介 ɤou 韓 ɤan 巫夬 xɑ-ɑn 黃 ɤoŋ 主 ɤuɑŋ	Grade II 下 hi̯a 不才 ɤɑ-iɑ 下 hi̯a 不 ɤɑ 華[8] hu̯a 又 ? Grades III–IV 徽 heuė 八火 x/k^h-uei 徽 heuė 八关 x/k^h-i

[8] The -j- is not inserted in this word in Early Mandarin.

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	(Grade I continued)			*(Grades III–IV continued)*		
	皇 ɤoŋ	𘓱	ɤuaŋ	徽 heuė	𗼇𗴲	x/k^{h}-uei
	弘 ɤuŋ	𗴲𗵆	xu-ŋ	許 heu	𗼇𗴲	x/k^{h}-iu
	虎 hu	𗴲	xu	禧 hi	𗼇𗵆	x/k^{h}-i
	吼 hiw	𗼇𗱕	x/k^{h}-ou	興 heiŋ	𗼇𗵆𗥃	x/k^{h}-i-iŋ
	行 ɤaŋ	𗹭𗾔	ɤa-aŋ	興 heiŋ	𗼇𗥃	x/k^{h}-iŋ
				休 heiw	𗼇𗰗	x/k^{h}-iou
				縣 hu̯en	𗾔𗿹	x/k^{h}-en
				賢 heėn	𗼇𗍁𗿹	x/k^{h}-e-en
				玄 hu̯en	𗾔𗿹	x/k^{h}-en

Before analysing the data, we first review the previous studies on this issue. As can be seen in Table 2, Qingge'ertai et al. (1985) assigned phonetic values to the related graphemes but no phonological analysis on the correspondence was done in a systematic way in their studies. Given the list of phonetic values assigned to graphemes, it can be assumed that they attribute the graphemic distribution in the transcriptions of Chinese initial x- to the contrast in voicing in Middle Chinese (e.g. 𗰣 ɤ vs. 𗼇 x/k^{h}) on the premise that voiced initials in Middle Chinese were still preserved in the Liao period. However, as Nie (1988, p. 46, n. 3) points out, the devoicing of the Middle Chinese voiced initials was preceded by that of the fricative *ɤ-, and Middle Chinese *ɤ- must had already been devoiced in the Liao period. Thus it is difficult to assign the phonetic value ɤ- to the concerned graphemes. Nie is the first person who tried to analyse the transcription system of the Chinese words in the Kitan Small Script. He claims that the Chinese velar initials were transcribed with Kitan k-, x-, and q-. He further argues that due to the similarity among the sounds [q], [k^{h}], and [x], the phonetic value q- is assigned to the graphemes which are used to transcribe both Chinese initial x- and k^{h}- (e.g. 𗼇). Shen (2007) also addresses the Kitan transcriptions of Chinese words. In contrast to Nie's view, he states that the Kitan language has k-, k^{h}-, and x-. Nie and Shen's interpretations, however, are problematic because both of them fail to explain why the Chinese initial x- is transcribed by the two series of graphemes.

Now we should turn to our interpretation regarding the correspondence. The correspondence in Table 2 can be summarised as follows: i. the Chinese initials k- and k^{h}- are transcribed with different graphemes, being graphemically distinguished (𗼆 for k-, and 𗼇 for k^{h}-); ii. the Chinese initials k^{h}- and x- with Grades II–IV rhymes are not graphemically distinguished; iii. the initial x- with Grade I rhymes and the initial x- with Grades II–IV rhymes are graphemically distinguished. We categorise the graphemes into the following three groups.

Group 1: 𗼆 and 𗼈 etc., which are used to transcribe the Chinese initial k-.
Group 2: 𗼇 and 𗾔 etc., which are used to transcribe the Chinese initials k^{h}- and x- with Grades II–IV rhymes.

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Group 3: 北 and 刊 etc., which are used to transcribe the Chinese initial x- with Grade I rhymes.

Chart 2 gives a list of the Kitan words containing graphemes relevant to this study, and their plausible cognates in Mongolic languages:

Chart 2

Kitan transcriptions		Meanings	Cognates
八 夾	g-ur[9]	'country'	Written Mongolian (WM) gür 'people' cf. Manchu gurun 'country'
永 八 和	tʃə-g-ən[10]	'left'	WM ǰegün 'left' cf. Ewenki ǰegin, ǰewin (Vasilevič 1958, pp. 110–111)
乂 火	k-ui	'to reach, to arrive'	WM kür- 'to reach, to arrive'
乂 永	k-tʃ	'border'	Daur kətʃ 'edge; side; border' (Enhebatu et al. 1984, p. 146)
介 夾	qau-ur	'spring'	WM qabur 'spring'
业 业 夬	qa-'a-an	'khan, king'	WM qaγan 'khan, king'

It is evident that there is a clear correspondence between the graphemes and the Mongolic consonants: Group 1 vs. WM g, Group 2 vs. WM k, and Group 3 vs. WM q. The correspondence sheds light on the analysis of Chinese words transcribed in the Kitan script.

We now turn to Table 2 to look more closely into the phonology of the Kitan language as reflected in the transcriptions of Chinese words. The graphemic distinctions in Groups 1–3 reflect the phonological system of Kitan. The fact that the Chinese k^h- and x- with Grades II–IV rhymes are not distinguished suggests that the Kitan language does not have both of the sounds but rather only one of them. In other words, if the Kitan language had both of them, these initials would have been distinguished graphemically. This also gives substantial support for the hypothesis that the phonological system of Kitan is different from that of Chinese. Also, it is likely that the Chinese sounds that did not exist in the Kitan language were usually substituted

[9] We have assigned phonetic values to the Kitan graphemes. Due to space constraints, the analysis of the phonetic values will be dealt with in an upcoming paper.

[10] This word is the companion to the Kitan word 母 尤 为 灭 b-ar-a-an 'right' (cf. WM bara-γun 'right') and this decipherment is fairly reliable. The velar stops in intervocalic position in Written Mongolian are usually lost in Kitan, e.g. 勇 tʃau 'one hundred' and WM ǰaγu-n 'one hundred', but this word exceptionally preserves intervocalic -g-.

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for similar sounds.[11] Furthermore, we assume that the graphemic distinction between Chinese k- and k^h- is a reflection of the phonemic distinction between voiced and voiceless velar stops (i.e. /g/ and /k/) in Kitan. This graphemic distinction also means that the Kitan speakers interpreted both the Chinese initial x- with Grades II–IV rhymes, and the Chinese initial k^h- as /k/ in Kitan.

Now we turn to the explanation of the Chinese x-, which has been considered rather difficult to deal with. An analysis of the graphemic distinction between the transcriptions of the Chinese x- with Grade I rhymes and those with Grades II–IV rhymes gives further information that is missing from previous studies. As discussed in Section 2, the transcriptions in the Mongolian/Uyghur script have a similar distinction. We have interpreted this in relation to vowel harmony. Many scholars including Qingge'ertai suggest the Kitan language appears to have vowel harmony, although this is not fully understood. Qingge'ertai et al. (1985, pp. 131–146) point out that Kitan has vowel harmony in which verbs show variations in endings according to the vowel of the stem. Moreover, there are two series of verb endings that include the graphemes in this study: 艸 刘 灵 l-ɣ-an and 艸 九 村 l-k-ən, etc. Qingge'ertai et al. also point out the possibility that 刘 (one of the graphemes in Group 3) is a back counterpart of 九 (one of the graphemes in Group 1). This is in line with the correspondence between the graphemes and the Mongolic consonants that we showed earlier.

Given the previous discussions, we suggest that the initial sound of the graphemes in Group 3 is the back counterpart of those in Groups 1 and 2. The fact that the graphemes in Group 3 are used to transcribe the Chinese voiceless fricative x- suggests that there is only [q] as a back allophone in Kitan like in the language of the *Secret History of the Mongols*. Like the Mongolians, it is possible that the Kitan speakers transcribed Chinese initial x- with two series of graphemes, because its allophones were distinctive in Kitan. Below is the correspondence between Chinese initials and their Kitan transcriptions discussed above:

Chart 3

Chinese initials	Grades of rhymes	:	Kitan consonants	Kitan graphemes
/k-/ [k ~ ǥ ~ g]	I–IV	:	/g-/ [ǥ ~ g]	Group 1
/k^h-/ [k^h]	I–IV	:	/k-/ [k ~ k^h ~ x]	Group 2
/x-/ [ç ~ x]	II–IV	:	/k-/	Group 2
/x-/ [χ ~ h]	I	:	/q-/ [q ~ χ]	Group 3

[11] For example, the grapheme 令 is used to transcribe the Chinese initials s-, ts-, and ts^h-. This suggests that the Chinese ts- and ts^h- were substituted for s- in Kitan, as the Chinese ts- and ts^h- were alien to Kitan. Similar substitution is observed in the Uyghur material.

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4. Conclusion

In this study herein, we carried out a phonological analysis of the Kitan transcriptions of Chinese words, and assigned plausible phonetic values to the Kitan graphemes. There were two main findings of this study. First, the Liao Chinese x- had quite different allophones depending on the Grades of the rhymes. It is reflected in different graphemes in the Mongolian and Kitan scripts. Second, the Kitan language had three guttural consonants: /g-/, /k-/, and /q-/.

References

Cleaves, F. W. (1949): The Sino-Mongolian Inscriptions of 1362 in Memory of Prince Hindu. *HJAS* Vol. 12, No. 1/2, pp. 1–133.

Cleaves, F. W. (1950): The Sino-Mongolian Inscription of 1335 in Memory of Chang Ying-Jui. *HJAS* Vol. 13, No. 1/2, pp. 1–131.

Cleaves, F. W. (1951): The Sino-Mongolian Inscription of 1338 in Memory of Jiguntei. *HJAS* Vol. 14, No. 1/2, pp. 1–104.

Cleaves, F. W. (1952): The Sino-Mongolian Inscription of 1346. *HJAS* Vol. 15, No. 1/2, pp. 1–123.

Coblin, W. South (2007): *A Handbook of 'Phags-pa Chinese*. Honolulu, University of Hawai'i Press.

Enhebatu 恩和巴圖 et al. (eds) (1984): *Dawoeryu Cihui* 達斡爾語詞匯. Huhehaote 呼和浩特, Neimenggu Renmin Chubanshe 內蒙古人民出版社.

Geng, Shinmin–Hamilton, James (1981): L'inscription ouïgoure de la stèle commémorative des Iduq Qut de Qočo. *Turcica* Vol. 13, pp. 10-54.

Janhunen, Juha (2003): Para-Mongolic. In: Janhunen, Juha (ed.): *The Mongolic Languages*. London, Routledge, pp. 391–402.

Kane, Daniel (2009): *The Kitan Language and Script*. Leiden–Boston, Brill.

Kara, György (2005): *Books of the Mongolian Nomads: More than Eight Centuries of Writing Mongolian.* Bloomington, Indiana University Research Institute for Inner Asian Studies (Indiana University Uralic and Altaic Series 171).

Nie, Hongyin 聶鴻音 (1988): Lun Qidanyu zhong Hanyu jieci de yinxi juchu 論契丹語中漢語借詞的音系基礎. *Minzu yuwen* 民族語文 No. 2, pp. 41–49.

Qingge'ertai 清格爾泰–Liu Fengzhu 劉鳳翥–Chen Naixiong 陳乃雄–Yu Baolin 於寶林–Xing Fuli 邢復禮 (1985): *Qidan xiaozi yanjiu* 契丹小字研究. Beijing 北京, Zhongguo shehui kexue chubanshe 中國社會科學出版社.

Rachmati, G. R. (1936): *Türkische Turfan-Texte VII*. Berlin.

Röhrborn, Klaus–Sertkaya, Osman (1980): Die alttürkische Inschrift am Tor-Stūpa von Chü-yung-kuan. *ZDMG* Vol. 130, pp. 304–339.

Shen, Zhongwei 瀋鐘偉 (2006): Liaodai beifang Hanyu fangyin de yuyin tezheng 遼代北方漢語方言的語音特徵. *Zhongguo yuwen* 中國語文 No. 6, pp. 483–498.

Shen, Zhongwei (2007): Sino-Khitan Phonology. *Bulletin of Chinese Linguistics* Vol. 1, No. 2, pp. 141–199.

Shōgaito, Masahiro 庄垣内正弘 (1987): Uiguru bunken ni dōnyū sareta kango ni kansuru kenkyū ウイグル語文献に導入された漢語に関する研究. *Nairiku ajia gengo no kenkyū* 内陸アジア言語の研究 Vol. 2, pp. 17–156.

Vasilevič, G. M. (1958): *Èvenkijsko-russkij slovar'*. Moskva.

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