TOWARDS A RECONSTRUCTION OF THE KITAN LANGUAGE, WITH NOTES ON NORTHERN LATE MIDDLE CHINESE PHONOLOGY

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Abstract

Andrew E. Shimunek

TOWARDS A RECONSTRUCTION OF THE KITAN LANGUAGE, WITH NOTES ON NORTHERN LATE MIDDLE CHINESE PHONOLOGY

The language of the Kitans, who founded the Liáo dynasty (907-1125 C.E.) in northeastern China and later, the Qara Khitai empire (1131-1213 C.E.) in Central Asia, is known to us in two main sources—transcriptions in Chinese chronicles and texts in the partially deciphered native Kitan scripts, in use during the Liáo and early Jīn dynasties, i.e. during the 10^{th}-12^{th} centuries. A fair amount of lexical data exists for Kitan, and a number of words can be reconstructed with relative certainty. Moreover, it is possible to reconstruct much of the phonology of the language, and we have evidence on its morphology and syntax as well.

A major aspect of this thesis is its glossary of reconstructed forms. Compiling this glossary is a fundamental step in the reconstruction of Kitan: This corpus of wordforms and affixes suggests a series of observations about the Kitan language, the largest of which is the grammatical structure of the language. It is only when we have a substantial corpus of wordforms that the grammatical patterns of the language truly become apparent.

This thesis also has implications for understanding the linguistic prehistory of the Mongolic languages, and may provide support for the theory that Kitan was not a variety

of Proto-Mongolic or the language from which Middle Mongolian descended, as some scholars have suggested, but that it belonged to a separate but related family.

A significant portion of this thesis is devoted to treating the phonology of "Northern Late Middle Chinese"—the variety of Late Middle Chinese spoken in Liáo and Northern Sòng territory around the 10th to 12th centuries C.E., and the direct ancestor of Early Mandarin. It is only through an understanding of this Sinitic language that we can get a clear picture of Kitan phonology. In treating Northern Late Middle Chinese, emphasis is placed on the Liáo Chinese loanwords in Kitan, as observed in extant Kitan texts.

On a more general level, this thesis illustrates the important role that philology, typology, and language universals share in historical linguistics, and much of the methodology employed in reconstructing the phonology of Kitan in this thesis can be easily extended to work on other languages of Northeast Asian antiquity.

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Table of Contents

Acknowledgements iv
Abstract viii
Table of Contents x
Transcription System and Abbreviations xii
List of Figures and Tables xviii
1.1. Goals 1
1.2. A Brief History and Overview of Kitan Studies 2
2. Methodology 16
2.1. Northern Late Middle Chinese 16
2.2. Sources 20
2.2.1. The Chinese Chronicles 20
2.2.1.1. *Qìdān Guózhì* 契丹國志 21
2.2.1.2. *Liáo Shǐ* 遼史 22
2.2.1.3. *Yàn Běi Lù* 燕北錄 24
2.2.1.4. *Liáo Shǐ Shíyí* 遼史拾遺 25
2.2.1.5. *Liáo Zhì* 遼志 26
2.2.1.6. *Yàn Běi Zájì* 燕北雜記 27
2.2.1.7. *Liáodōng Xíng Bù Zhì* 遼東行部志 28
2.2.1.8. *Yì Chéng* 臆乘 28
2.2.1.9. *Liáo Shǐ Shíyí Bǔ* 遼史拾遺補 29
2.2.1.10. *Dailiyoo gurun-i suduri* 29
2.2.1.11. *Liáodōng Zhì Lüè* 遼東志略 29
2.2.2. The Kitan Scripts 30
2.2.2.1. The Assembled Script Sources 31
2.2.2.2. The Linear Script Sources 33
3. A Sketch of Kitan Phonology 37
3.1. Consonants 37
3.2. Vowels and Vocoid Sequences 48

3.3. The Syllable 52
4. Some Thoughts on Kitan Morphology and Syntax 53
4.1. Kitan Word Order and Morphological Type 53
4.2. Kitan Affixal Morphology 54
4.2.1. Derivational Affixes 55
4.2.1.1. *-*wVn* (verbal noun suffix) 55
4.2.1.2. *-*bVñ* / *-*bVn* (verbal noun) 55
4.2.1.3. *-*a* (imperfective verbal noun suffix?) 56
4.2.1.4. *-*dV* (denominal verb suffix) 57
4.2.2. Inflectional Affixes 58
4.2.2.1. *-*Vn* (☆-*un*) (genitive) 58
4.2.2.2. -*[?]* (genitive) 59
4.2.2.3. *-*i* (genitive?) 60
4.2.2.4. *-*s* (non-obligatory plural suffix?) 61
4.2.3. Some Observations on Kitan Word Formation 62
5. Conclusion 64
6. A Glossary of Kitan Forms 65
6.1. Wordforms 66
6.2. Affixes 104
Bibliography 105

Transcription System and Abbreviations

( ) parentheses in a reconstructed phonological form denote a segment either not clearly interpretable from the Chinese transcription (e.g., vowel quality is often difficult to determine from the transcriptions) or a segment which may or may not actually be present, but which is motivated from comparative data from the Mongolic languages. It also can indicate a segment which should be reconstructed if we strictly adhere to the Northern Late Middle Chinese readings of the Chinese transcription, but which is not supported by comparative evidence (e.g. a Tabgach form or a Mongolic form) or which seems unlikely from a typological point of view, and hence probably should not be reconstructed for the Kitan form, but should still be mentioned to acknowledge the possibility of its existence. In short, parentheses in reconstructed forms demarcate uncertain segments.

* indicates a reconstruction based on the comparative method (e.g. as in the Proto-Mongolic forms), or a "conservative" reconstruction of a Kitan form based on strict adherence to the Chinese transcription or based on more or less deciphered Assembled Script graphemes

< > transcription or transliteration of an orthographic form

☆ indicates a speculative reconstruction based (or partially based) on external evidence, e.g. Kitan loans in Jurchen-Manchu or apparent Kitan substratal elements in Daur or Benren U, or a reconstruction that can be construed as speculative either since it is based on limited comparative data or because it deviates somewhat from a reconstruction based on a strict reading of the Chinese transcription. This symbol usually indicates a form arrived at by taking a "conservative" reconstruction and speculating on a possible form it may have had in the language; these reconstructions are often motivated by typological considerations. When this symbol appears before a gloss, it indicates that the semantic value is uncertain or speculative, although its phonological reconstruction may still be motivated. The use of this symbol has been adapted from Beckwith (2004).

C consonant

G a voiced dorsal or guttural stop or fricative

K a voiceless dorsal or guttural stop

L a liquid, either lateral or rhotic (probably a trill for the latter)

R rhotic, dorsal, guttural, or alveolar/dental obstruent

V vowel

X a voiceless dorsal or guttural stop or fricative

$č_1$ *č or *ǰ (ambiguity due to the fact that the Kitan Assembled Script grapheme 𘥦 is used to transcribe Late Middle Chinese affricates with voiceless aspiration (i.e. *$t\!s^h$-) and affricates with voiced aspiration (i.e. *$t\!s\hbar$-)

$č_2$ *č or *ǰ (ambiguity due to multiple readings of characters in the Chinese transcription or due to the problematic interpretation of the Late Middle Chinese voiced aspirated consonants)

j palatal glide/approximant

y high front rounded vowel (in transcriptions of Chinese words)

AKog	Archaic Koguryo (Beckwith 2004)
ArKhor	Aru Khorchin Mongolian[1]
AS	Kitan Assembled Script
Baa	Baarin Mongolian[2]
Bon	Bonan (Chén 1985)
CBYBL	*Chóngbiān Yàn Běi Lù* 重編燕北錄
Ch	Chinese
D	Daur
DB	Butha Daur (Ēnhébātú 1984)
DGS	*Dailiyoo gurun-i suduri*
DH	Hailar Daur (Tsumagari 1986)
dial.	dialect

[1] All Aru Khorchin forms in this thesis were elicited by me from native speaker Öljeidalai, in Ulaanbaatar, Mongolia, between June-August, 2006.

[2] The Baarin forms were elicited by me from Otgon Borjigin (a native speaker from Baarin Left Banner, Inner Mongolia), in Bloomington, Indiana, mostly during May 2006.

DongX	Dongxiang (Buhe 1983)
DX	Xinjiang Daur (Dīng 1995)
EM	Early Mandarin
EMC	Early Middle Chinese
Ew	Ewen (Cincius 1975-1977)
Ewk	Ewenki (Cincius 1975-1977)
HML	*Huàmàn Lù* 畫墁錄
HT	High Táng
Jar	Jarut (Kara 1970)
JJur	Jīn Jurchen (Sūn 2004)
K	Kitan
Kh	Khalkha Mongolian
Khor	Khorchin Mongolian (Chágānhādá 1996)
KJ	Kangjia (Sīqīncháokètú 1999)
LC	Liáo Chinese
LDXBZ	*Liáodōng Xíng Bù Zhì* 遼東行部志
LDZL	*Liáodōng Zhì Lüè* 遼東志略
LMC	Late Middle Chinese
LS	*Liáo Shǐ* 遼史
LSSY	*Liáo Shǐ Shíyí* 遼史拾遺
LSSYB	*Liáo Shǐ Shíyí Bǔ* 遼史拾遺補
LZ	*Liáo Zhì* 遼志

LZSF	*Liáo Zhì* 遼志 as it appears in *Shuō Fú* 說郛 (86:1-10)
Ma	Manchu (Norman 1978)
MaKhamMo	Manchurian Khamnigan Mongol (Janhunen 1990)
Mang	Mangghuer (Slater 2003)
MC	Middle Chinese
MJur	Míng Jurchen (Kiyose 1977)
MKor	Middle Korean (Nam 2002)
MM	Middle Mongolian
Mog	Moghol (Weiers 1972)
MoKhamMo	Mongolian Khamnigan Mongol[3]
Na	Nanai (Cincius 1975-1977)
Neg	Negidal (Cincius 1975-1977)
NLMC	Northern Late Middle Chinese
NSong	Northern Sòng Chinese
OChi	Old Chinese
Oir	Oirat (Čoyijungjab & Gereltü 1998)
OirKalm	Kalmyk
Ok	Orok
OKog	Old Koguryo (Beckwith 2004)
Oq	Oroqen (Hú 2001)
Or	Oroch (Cincius 1975-1977)

[3] Unless otherwise noted, Mongolian Khamnigan Mongol forms are from my own summer 2006 fieldwork on the language in Dadal *sum* [county] and Binder *sum*, Khentii *aimag* [province], Mongolia, conducted under the supervision of Prof. Yümjiriin Mönkh-Amgalan and funded by the American Center for Mongolian Studies (ACMS).

OT	Old Turkic (Nadelyaev et al 1969; Tekin 1968; Bold 2000)
PM	Proto-Mongolic
QDGZ	*Qìdān Guózhì* 契丹國志
QDGZSH	Jia Jingyan and Lin Ronggui's 1985 edition of *Qìdān Guózhì* 契丹國志
QDGZTW	Wang Yunwu's 1968 edition of *Qìdān Guózhì* 契丹國志
ShY	Shira Yughur (Bulučilaγu 1984)
Sibe	Sibe Manchu (Yamamoto 1969)
SJ	Sānjiāzi 三家子 Manchu (Ēnhébātú 1995)
Sol	Solon
Tib.	Tibetan
Ud	Udihe (Cincius 1975-1977)
Ul	Ulcha (Cincius 1975-1977)
Uy	Old Uygur
WF	Wittfogel & Fêng (1946)
WM	Written Mongolian
YBZJ	*Yàn Běi Zájì* 燕北雜記
YC	*Yì Chéng* 臆乘

Assembled Script texts

Dao	*Dàozōng Āicè* 道宗哀冊
Di	*Yēlǜ Díliè Mùzhì* 耶律迪烈墓志
Gu	*Gù Yēlǜ Shì Míngshí* 故耶律氏銘石
Hai	*Hǎitángshān Mùzhì* 海棠山墓志

Lang	*Lángjūn Xíngjì* 郎君行記
Ling	*Xiāo Lìng Gōng Mùzhì* 蕭令公墓志
Nu	*Yēlǜ Nú Mùzhì Míng* 耶律奴墓志銘
Ren	*Rényì Āicè* 仁懿哀冊
Xian	*Yēlǜ Rénxiān Mùzhì* 耶律仁先墓志
Xing	*Xīngzōng Āicè* 興宗哀冊
Xuan	*Xuānyì Āicè* 宣懿哀冊
Zhi	*Yēlǜ Zhìxiān Mùzhì* 耶律智先墓志
Zhong	*Xiāo Zhònggōng Mùzhì Míng* 蕭仲恭墓志銘

List of Figures and Tables

Fig. 1. *A tentative classification of the Mongol-Xianbeic languages* 12
Fig. 2. *From the Qìdān Guózhì* 21
Fig. 3. *From the glossary of the Liáo Shǐ* 24
Fig. 4. From the *Chóngbiān Yàn Běi Lù* 25
Fig. 5. From the *Shuō Fú* edition of the *Liáo Zhì* 26
Fig. 6. From the *Yàn Běi Zájì* 27
Fig. 7. *From the Yì Chéng* 28
Fig. 8. From the *Liáodōng Zhì Lüè* 30
Fig. 9. *The Lángjūn Xíngjì inscription* 32
Fig. 10. *The Xuānyì Huánghoù Āicè inscription* 33
Fig. 11. *The Linear Script inscription at Salbarïn Khanan Khad, Khentii* 35
Fig. 12. *Linear Script characters on a tile found at the Čintolgoi ruins in Bulgan* 35
Fig. 13. *Fragment Ch 3586, restored* 36
Fig. 14. *A tentative reconstruction of the Kitan consonant inventory* 37
Fig. 15. *A tentative reconstruction of the Kitan vowel inventory* 50
Fig. 16. *The Kitan syllable template* 52

1. Introduction

1.1. Goals

This thesis aims to reconstruct the phonology and lexicon of Kitan and touch upon certain issues related to its morphology and syntax. By no means do I intend this to be a comprehensive summary and analysis of all research on Kitan, as such a study would be beyond the size limits of this thesis; instead, it is intended to be a preliminary study of some of the major aspects of the Kitan language, and an appraisal of some previous work in the field. It is also intended to serve as a critical summary of previous work in Kitan Studies, to add to earlier accounts, and to present a reconstruction of as much of the language as is currently possible without stepping too far into the realm of uncertainty. Thus, we will take into consideration language universals, areal typology, historical facts, and accepted historical linguistic and philological methods throughout the course of this work in appraising the linguistic evidence available on the language and in motivating and justifying reconstructions.

Throughout the course of this work, it became clear to me that Kitan was not "Ancient Mongolian"[4] as some scholars have claimed (cf. Poppe 1976). Although there are certainly a significant number of cognates between the Mongolic languages and Kitan, enough to support a claim of genetic affinity, the majority of the cognates are different enough in phonological form (and sometimes also semantically) from what we can reconstruct of "Old Mongolian" based on the dialects of Middle Mongolian (Svantesson et al 2005) and what we can reconstruct of Proto-Mongolic based on data from the modern Mongolic languages applied to the comparative method that it seems Kitan was

[4] a direct ancestor of Old Mongolian

not this language, and that it represented a separate, but related language family—a sister family to Mongolic—which we might term "Xianbeic", based on historical considerations that will be discussed below.

1.2. A Brief History and Overview of Kitan Studies

Although the Kitan scripts were used for over three centuries as the official writing systems of the Liáo 遼 dynasty (907-1125 C.E.), with many years of producing rich literature in Kitan[5], including official documents, poetry, dictionaries, historical works, and the like, and despite the great prestige that was attached to the Kitan scripts by the Jurchens during the succeeding Jīn 金 dynasty (1115-1234 C.E.), the scripts subsequently fell into disuse, documents written in the scripts disappeared, and even people who knew and could recognize the scripts vanished. Only a small fraction of the rich Kitan literature described in the Chinese historical sources has survived to this day.[6] In spite of this scarcity of materials, however, we still have sufficient data to work with in reconstructing certain aspects of the language, and as new inscriptions in the Kitan scripts continue to emerge in northeast China, our understanding of the language gradually increases.

[5] See Féng et al (1994:404-427) for more on the rich and abundant literature of the Kitans.
[6] Kara (2005:7-8); Chinggeltei (1997*c*:784).

In fact, very little literature at all has survived from the Liáo 遼 dynasty, even Liáo Chinese literature, save a few works, such as the Buddhist monk Xíngjūn's 行均 *Lóngkǎn Shǒujìng* 龍龕手鏡 and Wáng Dǐng's 王鼎 *Fén Jiāo Lù* 焚椒錄, as well as a Kitan poem translated into Chinese during the Yuán 元 dynasty by the famous Kitan statesman and advisor to the Mongols, Yēlǜ Chǔcái 耶律楚材 (1190-1244 C.E.), entitled in Chinese *Zuì Yì Gē* 醉義歌; unfortunately the Kitan original has not survived.

Research on the Kitan Language

The first western scholar to work on the Kitan language was the French sinologist Jean-Pierre Abel-Rémusat (1788-1832 C.E.), who briefly addressed the language and made mention of the Kitan and Jurchen scripts in his *Recherches sur les langues Tartares* (1820).

Among the other early treatments of the Kitan language, we should note the short wordlist compiled by the German orientalist and traveller Julius Klaproth (1783-1835 C.E.) in his book *Asia polyglotta* (1823), based on transcriptions of Kitan in the Chinese chronicles. In his wordlist (1823:294-5) he identified around a dozen Kitan words, and although this brief study contains several dubious forms, problems with the translations, and methodological shortcomings, it should be recognized as one of the first treatments of the Kitan language by a western scholar.

After Klaproth, the German orientalist and sinologist Wilhelm Schott (1802-1889 C.E.) took up the issue and compiled his own, somewhat larger, wordlist (1879:6-7), also based on the Chinese transcriptions. Schott's study more or less correctly identified around a dozen or so Kitan words, though he was often quite liberal in his reconstructions.

Other early work on the Kitan language, arguably more influential than, and methodologically superior to, the work of Rémusat, Klaproth, and Schott, are the important contributions of the Japanese linguist and historian Shiratori Kurakichi 白鳥倉吉 (1865-1942 C.E.), who was the first scholar in the 20th century to deal with the Chinese transcriptions of Kitan in the Chinese chronicles in his 1912 and 1913 articles in the journal *Shigaku zasshi* 史學雜誌. Despite its shortcomings, which are understandable for

the time period, his work on the Chinese transcriptions of Kitan has offered a number of lasting proposals, and has provided direction for later research.

As representative of this early stage of research, we should also note the 1917 article by the Japanese linguist Ogura Shinpei 小倉進平 (1882-1944 C.E.), a 1925 article by the Polish scholar Władysław Kotwicz (1872-1944 C.E.), and a 1927 article on the Kitan language and people by the Hungarian orientalist Lajos Ligeti (1902-1987 C.E.).

As research on the Chinese transcriptions of Kitan continued, a new corpus of materials to analyze emerged—inscriptions and other pieces of writing in the native Kitan scripts. The Belgian missionary Louis Kervyn is often credited with re-discovering Kitan writing and prompting further excavations of Liáo tombs that would ultimately provide us with the modest corpus of extant Kitan script literature that we have today. In the early 1920s, when Kervyn was doing missionary work in Inner Mongolia in Baarin territory, news of a Liáo tomb[7] in Baarin Right Banner being exposed by locals reached him, and curious of the tomb's contents, he investigated the tomb for himself, wherein he found two inscriptions in strange writing which no one recognized. These were the *Rényì Huánghòu Āicè* 仁懿皇后哀冊 and the *Xīngzōng Huángdì Āicè* 興宗皇帝哀冊 inscriptions. Kervyn deduced that the writing on the inscriptions was the Kitan script, and seeing the inscriptions of great importance, he had several locals copy the texts by hand. Kervyn published these handwritten copies in 1923 in the journal *T'oung Pao*. Owing to political and various other circumstances, the two inscriptions themselves have vanished without a trace, save these handwritten copies.

[7] The Liao Yongxing Tomb to be exact (Liu 1999:159).

With Kervyn and the discovery, or re-discovery, of the native Kitan scripts, a new body of materials to analyze emerged. Research on the Kitan language was no longer limited to the Chinese transcriptions preserved in the Chinese chronicles. This marked a new period of research. Armed with this new corpus of data, scholars began trying to decipher the scripts.

The first scholar to work on deciphering the texts Kervyn had discovered was the Japanese scholar Haneda Tōru 羽田亨 who published an article in 1925 presenting his findings, the most valuable of which was determining that the *Lángjūn Xíngjì* 郎君行記 inscription in Shaanxi 陕西 province, previously assumed by scholars (e.g. Wylie 1860) to be in the Jurchen script, was in fact in Kitan. With this realization, we gained a great asset for deciphering the script, as the *Lángjūn Xíngjì* inscription is the only truly bilingual Kitan-Chinese inscription, containing both a Kitan text and its Chinese transcription side by side, and has proven to be invaluable in the decipherment of the Kitan Assembled Script.

Also in this early period of research on the Kitan scripts we should note the influential contributions of the Chinese scholars Luò Fúchéng 羅福成[8], Wáng Jìngrú 王靜如, and Lì Dǐngkuǐ 厲鼎煃; their findings on the subject were published mostly in the 1930s. The most important contribution these scholars made to the field was in determining the semantic values of a number of characters and graphic compounds. Working mostly with those Assembled Script (AS) epitaphs which had accompanying Chinese translations, these three scholars set out deciphering the AS texts, with their methodology based on the premise that common elements were to be found by comparing the AS text and its

[8] Luò Fúchéng's 羅福成 articles on the subject appear in Luò Zhènyù 羅振玉 (1974).

Chinese translation. Employing this methodology, the scholars were able to determine the semantic values of a number of words occurring in the texts. Among some of the most important, lasting contributions they made, we may note the semantic decipherments of words commonly used in calendrical formulations, including animal names like 'dog', 'dragon', 'hen, chicken', 'hare', numerals, color terms including 'blue/green', 'yellow' and 'black', the words for 'day', 'year', 'month', 'time', 'emperor', 'gold', 'great', 'empress', 'filial piety', 'winter', and others.

Following this crucial period of research, the next wave of research on Kitan occurred in Japan in the 1950s. Here we should note the contributions of Yamaji Hiroaki 山路廣明 (1956), Murayama Shichirō 村山七郎 (1951), Osada Natsuki 長田夏樹 (1950), Tamura Jitsuzō 田村實造 and Kobayashi Yukio 小林行雄 (1952-3), and Otagi Matsuo 愛宕松男 (1959). While their individual approaches differed somewhat, their research by and large was based on the hypothesis that Kitan was related to Mongolic. In some cases, this hypothesis was advantageous in that allowed for the identification of several Kitan cognates with Mongolic, but in other instances of its application by individual researchers such as Otagi, it proved to be more of an excuse to read Kitan as if it were simply Written Mongolian, a methodology which Vovin has quite appropriately described as "on the borderline with science fiction" (2003:238). Many of Yamaji Hiroaki's proposals are even more easily dismissed, since he often insisted on Manchu readings of the graphemes and graphemic compounds.

In the United States, as well, some investigation into the Kitan language and scripts was carried out by several researchers. Among their contributions, we may note Karl A. Wittfogel and Fêng Chia-shêng's (1946) monumental *History of Chinese Society: Liao*

(907-1125), the definitive history of the Liáo dynasty that remains unsurpassed to this day by any other work on the subject in a western language. Though language was not the primary subject of this work, the authors dealt with a number of Kitan words in Chinese transcription in the *Liáo Shǐ* 遼史 and other Chinese chronicles, proposing etymologies and commenting on previous attempts at cognate identification, and also addressed issues related to the Kitan scripts. More along this latter vein, Fêng Chia-shêng [Féng Jiāshēng 馮家昇] (1948) published an article introducing the Kitan scripts to American scholars and touching upon aspects of Kitan syntax. Another important contribution was made by Albert E. Dien (1956) of the East Asiatic Library of the University of California, Berkeley, who identified "a possible early occurrence" of the Kitan word for 'female shaman'.

The 1960s saw the beginning of research on the Kitan languages and scripts in Russia. Here we may note the contributions of scholars such as V. S. Taskin (1963), Ė. V. Šavkunov (1963), L. N. Rudov (1963), V. M. Nadelyaev (1964) and M. A. Probst (1964). Later work was carried out in the 1970s and 1980s by V. S. Starikov (1970, 1975, 1977, 1982), M. V. Arapov (1982), and M. A. Probst (1986).

Very little research on Kitan emerged in China from the 1940s to the 1970s. The two most important works from this period are Yán Wànzhāng's 閻萬章 (1957) study of a Kitan Linear Script inscription discovered in 1951 in Liáoníng 遼寧 province in northeastern China, and Táng Chángrú's 唐長孺 (1947) paper on the use of the Kitan scripts during the Jīn 金 dynasty. It was not until the early 1970s that Chinese scholars took up work on Kitan on a larger scale, represented largely by two research groups, one headed by Liú Fēngzhù 刘凤翥 and Yú Bǎolín 于宝林 of the Chinese Academy of Social

Sciences and the other headed by Chinggeltei (Qīnggé'ěrtài 清格尔泰) and Chén Nǎixióng 陈乃雄 of Inner Mongolia University. In 1975, the two groups merged to form the Kitan Script Research Group (Ch. *Qìdān wénzì yánjiū xiǎozǔ* 契丹文字研究小组).[9] Their greatest collaborative effort is the *Qìdān xiǎozì yánjiū* 契丹小字研究 [A Study of the Kitan Small Script] (1985). The individual researchers of the group have published numerous articles and books independently as well. The most influential in recent years is Chinggeltei's *Qìdān xiǎozì shìdú wèntí* 契丹小字释读问题 [Issues in the Decipherment of the Kitan Small Script] (2002).

Among other works from the 1970s, we should also note the important contribution by Zhèng Shàozōng 郑绍宗 (1973) and the *Qìdān dàzì zīliào huìjí* 契丹大字资料汇集 [A Collection of Kitan Large Script Materials] published in 1978 by Inner Mongolia University.

The Chinese scholars Wáng Hónglì 王弘力, Jí Shí 即实, Gāo Lùjiā 高路加, Sūn Bójūn 孙伯君, Hán Bǎoxìng 韩宝兴, Niè Hóngyīn 聂鸿音, Wú Yīngzhé 吴英哲, Zhào Zhìwěi 赵志伟, Bāo Ruìjūn 包瑞军, Liú Pǔjiāng 刘浦江, Jǐng Ài 景爱, Qí Xiǎoguāng 齐晓光, Zhèng Xiǎoguāng 郑晓光, Lú Yínghóng 卢迎红, Zhōu Fēng 周峰, Wang Ding, and numerous others have played an active role in research on the Kitan language and scripts in recent years, and we should also note the important contributions of the Japanese scholars Nishida Tatsuo 西田龍雄 and Toyoda Gorō 豊田吾郎.

In addition, we must acknowledge the valuable contributions by the Hungarian mongolist Lajos (Louis) Ligeti and his student György Kara, as well as the works of other

[9] Liu (1999:165-167)

western scholars including Gerhard Doerfer, Herbert Franke, Louis Hambis, Juha Janhunen, Daniel Kane, E. Kuz'menkov, Berthold Laufer, Karl Menges, Joseph Mullie, Paul Pelliot, Rolf-Alfred Stein, András Róna-Tas, and Alexander Vovin.

Some important research has been undertaken by scholars in Mongolia as well. Beginning in 1959, the Mongolian scholar Perlee published a series of important papers and monographs dealing with the Kitan inscriptions in Mongolia, and Academician B. Rinčen also made brief mention of one such inscription (1958-9, 1968). In recent years, C. Šagdarsüren has made several important contributions as well.

The combined efforts of all these scholars have contributed to our understanding of the Kitan language and scripts.

The Genetic Classification of Kitan and the Importance of Reconstructing the Language

For a number of years, there was much debate as to the genetic affinity of the Kitan language; however, most scholars today are in favor of the theory that the language was related to Mongolic, especially since the Hungarian mongolist Louis (Lajos) Ligeti, the French sinologist Paul Pelliot, and the German-American orientalist and anthropologist Berthold Laufer identified a number of "basic"[10] vocabulary items in the language, cognates of which could only be found in Mongolic.[11]

If the Mongolic theory is correct, which it seems to be, then Kitan is the earliest attested language related to Mongolic for which substantial records remain, which means

[10] Whether or not the idea of "basic vocabulary" is a valid notion for cognate identification has recently been the subject of criticism; some scholars believe that word frequency is a more reliable tool for identifying cognates (e.g. Beckwith 2004). Nevertheless, the more Kitan characters are deciphered and words reconstructed, the more Mongolic cognates we find, which strongly suggests that the language was related to Mongolic.

[11] Kara (1977)

Kitan is an important tool for understanding the prehistory of Mongolic, not to mention the prehistory of Chinese and other languages of Northeast Asia as well. Also, from a more general point of view, the reconstruction of Kitan is important in illustrating the role that philology, typology and language universals share in historical linguistics, especially with regard to East Asian historical linguistics.

Before going further, due to the polysemous nature of terminology in the literature, it is necessary to define a number of important terms that will be used throughout this thesis. First, I am using the term "Mongolic" to refer to a language family comprised of 12-13 modern daughter languages[12]. The earliest attested form of this "Mongolic" is Middle Mongolian, for which records exist from the 13th century in Arabic, Chinese, Armenian, and Georgian transcriptions and in Pre-Classical Mongolian texts[13]. "Proto-Mongolic" refers to the proto-language from which the modern Mongolic languages and Middle Mongol descended, which can be reconstructed via the comparative method applied to data from the modern Mongolic languages and Middle Mongolian.

In this thesis, I am following what is essentially the classification proposed by Janhunen (2003), except that Janhunen's "Pre-Proto-Mongolic" is equivalent to my "Proto-Mongol-Xianbeic" and his "Para-Mongolic" is equivalent to my "Proto-Xianbeic", to avoid confusion with my usage of the term "para-Mongolic" to refer not to a specific subfamily, but rather to *any* language collaterally related to Mongolic; thus, Xianbeic is a para-Mongolic language family, and certain languages spoken by other peoples

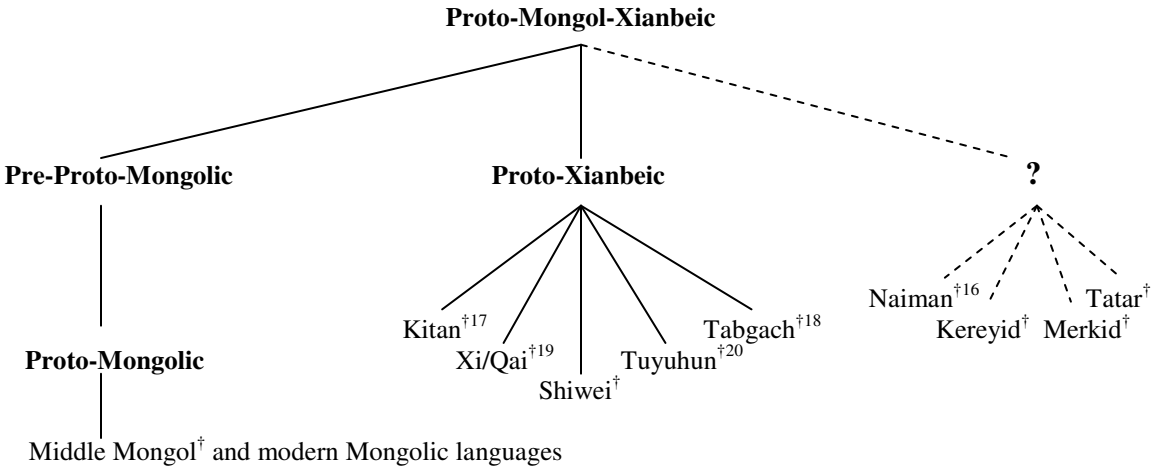
[12] Including at least Bonan, Buryat, Daur, Dongxiang, Kangjia, Khamnigan Mongol, Mangghuer, Moghol, Mongghul, Mongolian Proper, Oirat, and Shira Yughur

[13] Cf. Jančiw (2005) for a catalog and brief history of research on the Pre-Classical Mongolian monuments.

neighboring the Mongols in pre-modern times, including Naiman[14], Merkid, Kereyid, and Tatar, may have also been representative of para-Mongolic subfamilies, although regrettably, we have no extant linguistic evidence on these languages (aside from names and titles) that could be used to ascertain such relationships.

[14] Prof. Christopher Atwood (personal communication) prefers to view the Naiman as a Turkic people, perhaps speaking a Turkic language. This claim is motivated by the fact that the Naiman were officially grouped into the *sèmùrén* 色目人 class during the Yuán 元 dynasty, implying that the Mongols thought of them as foreigners and not Mongol. Ligeti entertained a similar theory: "Il est… bien probable que les Naiman…, du moins certaines de leurs tribus, étaient, au point de vue linguistique, des Turcs mongolisés" [It is… quite probable that the Naiman…, or at least some of their tribes, were, from the linguistic point of view, mongolized Turks] (Ligeti 1971:185). See also Murayama (1959) for more discussion.

Fig. 1. *A tentative classification of the Mongol-Xianbeic languages*[15]



[15] Here a solid line (———) indicates a relatively well established, historically and/or linguistically verifiable connection and a dotted line (- - - - - -) indicates a less certain, somewhat speculative, but historically or linguistically motivated connection. A superscript dagger (†) indicates a dead language.

[16] The Naiman are probably the same as the **ñambaGa* [粘八葛] (NLMC *nriam-paːʔ-kaʔ) mentioned in the *Liáo Shǐ* 遼史 and the **ñambaGan* [粘拔恩] (NLMC *nriam-pɦaːʔ-ʔən) in the *Jīn Shǐ* 金史. As Prof. Christopher Atwood points out (personal communication), these forms are quite likely instances of the Naiman self-designation, while *Naiman* (WM *nayiman* 'eight') may be a Mongol reanalysis of the word which arose in connection with the fact that the Naiman were comprised of eight principal clans or lineages. Cf. also Atwood (2004:397*a*).

[17] The Kitan were known as *Qïtañ* 𐰴𐰆𐰾𐰇 <ⁱqit$_1$ñ> in Old Turkic. Also worth noting is the fact that their ethnonym formed the basis of the name for 'China' in a number of languages, e.g. English *Cathay*, Russian *Kitay*, Turkic *Qïtay*, Mongol *Kitad* etc.

[18] The connection between the Tuoba (Tabgach) and the other groups is somewhat disputed. It seems most likely to me that Tuoba was a Xianbeic language, as Ligeti (1970) proposed. This is supported by the small number of Tuoba words we have preserved in Chinese transcription, two of which have good cognates with Kitan (as mentioned above), and several more which have good cognates in Mongolic. We may note the following words, which Ligeti treated in his 1970 article (I have made some modifications to his reconstructions): **purtukčin* [拂竹眞] (EMC *p^{h}ut-truwk-tɕin) 'servant of the postal relay service', cognate to WM *örtüge* 'relay station' + occupational suffix *-čin* (Pelliot 1925:255); **GV(t)čin* [紇眞] (EMC *ɣət-tɕin) 'thirty', cognate to PM **gučï-n* id.; **či(t)ñV* [叱如] (EMC *tɕ^{h}it-ɲiǎ) 'wolf', cognate to PM **čino* id.; etc. Cf. Ligeti (1970) for more Tabgach-Mongolic cognates.

As for the name of the Tabgach, it is recorded in Chinese as *Tuòbá* 拓跋, pronounced **t^{h}ak-bat* in EMC. The name is recorded in Old Turkic texts as *Tabγač* 𐱅𐰃𐰍𐰀𐰴 <t$_1$b$_1$γč> and as *Tawγač* تَفْغاچ in Maḥmud al-Kašγārī's 11th century Turkic dictionary *Dīwān ul-Luγat al-Turk* (Vol. 1: 28, 453-4; Vol. 2: 280).

[19] Xu (2005:73) notes that "since the… Sui, the Kumo Xi have been simply called the Xi". The Kumo Xi 庫莫奚 (EMC *k^{h}ɔ^h-mak-ɣɛj) or Xi 奚 (EMC *ɣɛj) were known as *Dad-pyi* in Old Tibetan sources and *Tatbï* or *Tatabï* 𐰉𐰀𐰾𐰇 <t$_1$t$_1$b$_1$i> in Old Turkic (Ligeti 1971:186, *n.*70). The Xi are almost certainly the same people as those referred to as *Qai* قاى in Maḥmud al-Kašγārī's dictionary (Vol. 3: 28, 30, 32; Vol. 3: 80, 158).

[20] The Tuyuhun were known as *'A-zha* in Tibetan, and as Prof. Christopher Beckwith (personal communication) points out, in some Old Tibetan texts such as the "Annals of the 'A-zha Principality", they are referred to as *Tho-gon*, as in the name of the ruler *Ma-ga Tho-gon kha-gan* or the "Great Tuyuhun Khan", where *ma-ga* is from Sanskrit *mahā* महा 'great' (possibly via Turkic) and *kha-gan* is a widespread word for 'khan', 'king' or 'ruler' in Central Eurasian languages. Cf. Uray (1978) for more on this text.

There are some problems with the notion "Xianbeic". One of them is that the Xiānbēi 鮮卑, a nomadic people who dominated the steppelands of northern China and Mongolia from ca. 50 C.E. on, like their Dōnghú 東胡 (or "Eastern Hu") predecessors[21], were a confederacy composed of many different groups. Some scholars argue that the Xianbei probably spoke quite different languages, perhaps to the extent that we are not justified in calling it a coherent language family. While this is possible, it is also possible (and quite likely) that they were a confederacy of linguistically and culturally related peoples, not unlike the Six Nations of North America, for example, a confederacy of several groups of Iroquoian-speaking peoples who, while maintaining their own tribal identity as Mohawk, Oneida, Onondaga, Seneca, or the like, still are united by related languages and cultures. It is my contention that the Xianbei peoples were united in a common language and culture. This is partially supported by the small amount of comparative data we have for the Xianbeic languages, e.g. Kitan **ñaXa* [捏褐] (NLMC *niaʔ-xɦaʔ) 'dog' and Tabgach **ñaGan* [若干] (EMC *ɲiak-kan) 'dog', both cognate to Proto-Mongolic **nokai* id. Note also Kitan **tawu(i)s* [陶猥思] (NLMC *tɦaw-ʔuaj-sɻ̩) 'dirt, soil' and Tabgach **tauGusin* [鳥侯秦][22] (EMC *tɛwʔ-ɣəwʰ-dzin) id., both cognate to Proto-Mongolic **to(ɣ)osu-n* 'dust'. Moreover, a number of Chinese chronicles suggest both an ethnic and linguistic connection between the Kitan 契丹, Shiwei 失韋 ~ 室韋, Kumo Xi 庫莫奚

[21] Atwood (2004:591*b*)

[22] Ligeti (1970:287) reconstructs **toɣusin* as the Tabgach form and proposes the connection with the Kitan and Mongolic forms.

(later shortened to Xi 奚), Tuoba 拓跋 ~ 托跋 (or Tabgach)[23], and the Tuyuhun 吐谷渾 ('A-zha) peoples as tribes or descendants of the Xianbei.[24]

Comments in the Chinese chronicles on the mutual intelligibility of Kitan, Kumo Xi, and Shiwei suggest subgrouping these three languages together as a subfamily which we might term "Kitanic", adding a new dimension to Janhunen's (1996) coinage, but the regrettable lack of any linguistic data on Shiwei or Kumo Xi beyond onomastic material seriously hinders such a proposal[25]. Among the most convincing statements, we may note the following: The *Weì Shū* 魏書 (100:2221) states: "(The Shiwei) language is the same as those of the Kumo Xi, Kitan and Doumolou countries" (失韋)語與庫莫奚，契丹，豆

[23] It is worth noting that this ethnonym formed the basis of some of the early medieval names for China, including Arabic *Ṭamγaj* طمغاج and Byzantine Greek *Ταυγαστ* (Pelliot 1912). Beckwith (2007) has determined the second element of this compound, as well as that of *Tujue* 突厥 (**Türk-wač*) 'Turk' (or 'King of the Turks') to be **wač* ~ **bač*, etc., a Prakrit loanword which denoted 'ruler' and which occurs in a number of East Asian and Central Asian names and titles. Beckwith traces the word back to Gāndhārī Prakrit *wati (vati)* ~ *wat* ~ *wac* (from Old Indic *pati*) 'ruler, lord'. As further support of this finding, we may note that the *Weì Shū* 魏書 (1:1*a*) explains the ethnonym *Tuoba* 托跋 (Tabgach) as meaning 'lord of the soil', composed of *tuo* 托 (EMC **t^{h}ak* = Tabgach **taK/*taG*) 'soil (土)' and *ba* 跋 (EMC **bat* = Tabgach **bač*) 'ruler (后)' (cf. Boodberg 1936:183). Taking this into consideration, the native Tabgach form must have been something like **taK-bač* or **taG-bač*; it is quite likely that the metathesized form we find in Old Turkic *tabγač* <t$_1$b$_1$γč> was an innovation in that language, perhaps to satisfy some phonotactic constraint(s) in Old Turkic phonology.

[24] cf. Pelliot (1921:323-330); Hambis (1948); and Krippes (1992:106).

The *Zhōu Shū* 周書 states: "The Kumo Xi are a separate tribe of the Xianbei" 庫莫奚鮮卑之別種也 (49:9*b*.3); further, regarding the Xianbeic affiliation of the Tuyuhun, it states: "The Tuyuhun originate from the Xianbei of Liaodong" 吐谷渾本遼東鮮卑 (50:4*a*.2).

The Old Tibetan text Pt_1283, entitled *Byang-phyogs-na rgyal-po du bzhugs-pa'i rabs-kyi yi-ge* in Tibetan and commonly known as the "Bacot Document", discovered by the French sinologist Paul Pelliot in the early 1900s in Dunhuang, also mentions the Kitan (Tib. *Ge-tan* ~ *Ge-tang*) and asserts their linguistic and cultural affinity with the Tuyuhun (Tib. *'A-zha*): "Kitan food and religion… are similar to that of the Tuyuhun; and the Kitan and Tuyuhun are [also] similar with regard to their cattle, calves, sheep, horses, and with regard to their language" (*ge tang zhes bgyi ba mchiste /… zas dang chos gyang / 'a zha dang 'dra ste / phyugsu yang / be'u lug dang rta phal che / skad gyang 'a zha dang phal cher 'thun…*). I am grateful to Prof. Christopher Beckwith for bringing this passage to my attention and for looking over my translation of it. Cf. Hambis (1948), Bacot (1956) and Ligeti (1971) for more discussion on this important text.

[25] Although there appear to be no extant Chinese transcriptions of Kumo Xi (Qai) words, some hints on the phonology of the language are preserved in the Early Middle Chinese or Late Old Chinese transcriptions of Qai tribe (Ch. *bùluò* 部落) names in *juǎn* 49 of the *Zhōu Shū* 周書 (I am grateful to Prof. Christopher Atwood for bringing these transcriptions to my attention). At least one of these tribe names, transcribed *Ruhezhu* [辱紇主] (EMC **ɲuawk-ɣət-tɕuǎ*), has an initial palatal or palatalized nasal **ñ*, suggesting at the very least a typological alignment with Kitan.

莫婁國同. The *Jiǔ Táng Shū* 舊唐書 (199:5356) states: "The Shiwei are a separate group of the Kitan" 室韋者，契丹之別類也. The *Suí Shū* 隋書 (84:1882) states: "The Shiwei are a group of Kitans; the southern group is known as the Kitan and the northern group is known as the Shiwei" 室韋，契丹之類也，其南者爲契丹，在北者號室韋. The *Liáo Shǐ* 遼史 (73:1*b*.3-4) also states: "Kitan and Xi/Qai speech are mutually intelligible; in reality they are one country" 契丹與奚言語相通實一國也.

All these secondary accounts, brief though they may be, suggest a close genetic relationship between the speech of Kitan, Shiwei, and Xi/Qai (or Kumo Xi). In addition to these, there are some conflicting statements in other Chinese chronicles, and moreover, the regrettable fact remains that we have little to no Chinese transcriptions of words in any of these languages (except for Kitan) that could potentially fortify this genetic theory, but we shall not delve into these numerous problems here, as the primary purpose of this thesis is in dealing with the extant linguistic data we have on the Kitan language. What is certain is that Kitan was genetically related to Mongolic, and at present the "para-Mongolic" model seems the most promising attempt to explain its relationship to the Mongolic family.

2. Methodology

2.1. Northern Late Middle Chinese

Reconstructing Kitan is tied closely with an understanding of the various forms of Chinese underlying the transcriptions of the language. In order to reconstruct Kitan, we must understand the phonology of the Chinese language in which the transcriptions were made. Most of the Chinese transcriptions seem to have been made around the 10th to 12th centuries, which means we are dealing with "Late Middle Chinese" (cf. Pulleyblank 1984, 1991). The vast majority of the Chinese transcriptions of Kitan seem to originate from the Northern Sòng 北宋 (960-1127 C.E.) and Liáo 遼 (907-1125 C.E.) dynasties. Therefore, in order to understand the transcriptions and accurately reconstruct the Kitan forms they represent, we must understand the phonology of the specific form of Late Middle Chinese (LMC) that was spoken in the Northern Sòng (NSong) and Liáo dynasties. There is good evidence indicating that NSong and Liáo Chinese (LC) were different from the High Táng (HT) Late Middle Chinese that Pulleyblank (1984, 1991) has reconstructed for the standard language spoken during the High Táng (ca. 713-765 C.E.) period of the Táng 唐 dynasty. Therefore, for the purposes of this thesis, I will treat NSong and LC as varieties of "Northern Late Middle Chinese" (NLMC), which, while still sharing a number of features with HT LMC, had several important innovations setting it apart from HT LMC. NLMC seems to have been the direct ancestor of Early Mandarin (EM) and other varieties of Chinese spoken in northern China today, and can be seen as an intermediate stage between HT LMC and EM.

The Evidence on Northern Sòng Phonology

The Northern Sòng rhyme tables, such as Shào Yōng's 邵雍 (1011-1077 C.E.) *Huángjí jīngshì* 皇極經世—the primary source on NSong phonology—show that Chinese as spoken at the Northern Sòng capital, Kāifēng 開封, had lost the final **-t* and **-k* attested for HT Chinese. Pulleyblank postulates that in NSong these consonants had merged as a final glottal stop **-ʔ* (1984:85, 106), although he reconstructs NSong as retaining final **-p* (1984:87, 106).

The Evidence on Liáo Chinese Phonology

There is some very clear evidence in the Kitan Assembled Script (AS) transcriptions of Chinese showing that LC had lost the final stops **-k* and **-t*. I have been unable to find any AS transcriptions that could indicate the loss of **-p* in LC, but it is entirely likely that LC had lost this final stop as well. Note the following AS transcriptions of LC[26] (The corresponding HT forms are presented in parentheses[27]):

*Evidence of the Loss of *-k in Liáo Chinese*

AS 𘥥𘤷 <g=ui> 國 LC **ku(ə̆)j* (cf. HT **kuə̆k*)

AS 𘤽𘦔𘥈 <l=iau=u> 略 LC **liaw* (cf. HT **liak*)

AS 𘤽𘤴 <l=u$_2$> 緑 LC **lyw* (cf. HT **lywk*)

AS 𘦍𘦎 <č=ai> 册 LC **tʂ^{h}a:j* (cf. HT **tʂ^{h}a:jk*)

[26] These AS transcriptions of LC are noted in Chinggeltei (2002*a*, 2002*b*), although the LC reconstructions here are my own. LC forms were reconstructed by projecting the HT forms (from Pulleyblank 1984, 1991) forward in time based on evidence in the AS transcriptions.

[27] HT forms are taken from Pulleyblank (1991)

AS 𘍞𘏚𗤶 <l=au=u> 洛 LC **law* (cf. HT **lak*)

AS 𘐢𗱠 <b=ai> 伯 LC **pa:j* (cf. HT **pa:jk*)

AS 𘐢𗆧 <b=u$_2$> 僕 LC **pɦəw* (cf. HT **pɦəwk*)

*Evidence of the Loss of *-t in Liáo Chinese*

AS 𗥃𗴲 <m=i> 密 LC **miʔ* (cf. HT **mit*)

AS 𗍫𗴲 <s=i> 漆 LC **ts^{h}iʔ* (cf. HT **ts^{h}it*)

AS 𗰗𗅋 <ts=ia> 節 LC **tsiaʔ* (cf. HT **tsiat*)

There is also good evidence in AS transcriptions of Chinese showing that LC, like NSong Chinese (Pulleyblank 1984:88-9), was characterized by the general shift of **-iaj* to **-i*. Note the following AS transcriptions:

AS 𗰗𗴲 <s=i> 西 LC **si* (cf. HT **siaj*)

AS 𗰗𗴲 <ts=i> 濟 LC **tsi* (cf. HT **tsiaj*)

NLMC Affricates

Pulleyblank further notes that during Sòng times the **tr-* and **tr^h-* attested for HT LMC had merged with the retroflex affricates **tʂ-* and **tʂ^h-* (1991:7). Based on this pattern of affrication, we can also hypothesize that **trɦ-* and **tʂɦ-* had merged into **tʂɦ-*. These mergers most likely had occurred in NSong as well as LC, and I have chosen to follow this analysis in my treatment of the Chinese transcriptions.

Justification for Considering NLMC a Form of LMC

Despite the above-mentioned innovations, which set NSong and LC apart from HT LMC, there are also some important retentions which favor viewing NSong and LC as northern dialects of LMC, and for this reason, I have chosen to term them collectively as varieties of "Northern Late Middle Chinese" (NLMC) rather than viewing them as representative of a radically different stage in the history of northern Chinese. One important retention we may note is the velar nasal onset shared by NLMC and HT but which was lost already in EM:

AS 𘍞雨 <ŋ=in> 銀 LC **ŋin* (cf. HT **ŋin*, EM **jin*)

AS 𘍞及 <ŋ=u$_1$> 吾 LC **ŋu(ă)* (cf. HT **ŋuă*, EM **u*)

AS 𘍞关 <ŋ=i> 儀 LC **ŋi* (cf. HT **ŋi*, EM **ji*)

Since we do not have enough philological evidence (e.g. Kitan Assembled Script transcriptions for a large corpus of LC words), in reconstructing Kitan forms from Chinese transcriptions in this thesis, I have first reconstructed NLMC forms by taking the HT reading of a character (as reconstructed by Pulleyblank 1984, 1991) and projecting it forward in time based on the above-mentioned attested phonological features of LC and NSong Chinese. For example, the Chinese transcription of the Kitan word for 'dog' is [捏褐]. These characters were read **niat-xɦat* in HT LMC. We know that HT **-t* became a glottal stop **-ʔ* in NLMC[28]. Thus, I reconstruct **niaʔ-xɦaʔ* as the NLMC reading of the

[28] It is also very possible that the final oral stops had disappeared altogether in LC, which is the contention of my teacher Prof. György Kara (personal communication). However, in this thesis I choose to follow Pulleyblank (1984), who proposes that they had merged as a glottal stop based on evidence in Shào Yōng's 邵雍 rhyme table. Independent evidence that may imply the validity of reconstructing syllable-final glottal

Chinese transcription, and this form allows us to reconstruct **ñaXa* as the Kitan form. This is essentially the (necessarily) loose methodology I have employed in reconstructing the NLMC forms. Although there is some degree of uncertainty regarding the vowels in certain cases, these reconstructions are very likely quite close to the pronunciation of Chinese during the Northern Sòng and Liáo, especially regarding the consonants.

2.2. Sources

2.2.1. The Chinese Chronicles

As noted above, there are a substantial number of Kitan words transcribed in Chinese characters in various Chinese historical chronicles. These are the primary sources of tangible data on the Kitan language, especially on Kitan phonology at present. Only when we understand the Chinese language underlying the various transcriptions do we gain access to Kitan phonology, and even before then, we can make some conclusions about Kitan morphology and syntax. Although there are numerous problems associated with the transcriptions (as will be discussed later), they are our best source of information on the lexicon and phonology of Kitan.

I have consulted a number of important works in the process of completing this thesis, including the following:

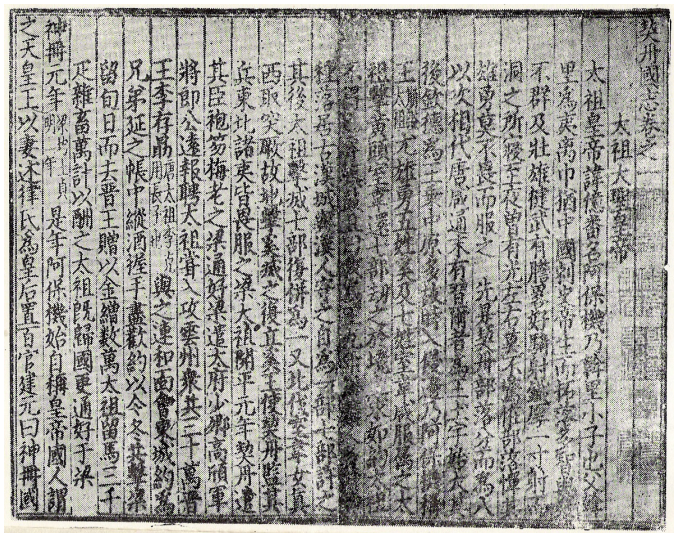
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stops for NLMC can also be found in the modern Chinese dialects of Inner Mongolia. The Chinese dialects of western Inner Mongolia (perhaps best classified as varieties of the Sinitic language *Jìn* 晉) have glottal stops in coda position, many of them deriving from HT final oral stops. Note the following western Inner Mongolian dialect forms, cited from Wang & Xi (1999:48): *pia?* 百 (cf. HT **pa:jk*), *tɕʰia?* 恰 (cf. HT **kʰja:p*), *tʰia?* 鐵 (cf. HT **tʰiat*), *tɕia?* 脚 (cf. HT **kiak*), *ja?* 鴨 (cf. HT **?ja:p*), *pia?* 伯 (cf. HT **pa:jk*), *ʂua?* 說 (cf. HT **ʂyat*), *tɕya?* 决 (cf. HT **kjyat*), *tɕya?* 雀 (cf. HT **tsiak*), *ɕya?* 學 (cf. HT **xɦja:wk*), *jya?* 約 (cf. HT **?iak*), though a few are clearly secondary developments, e.g. *ja?* 夜 (cf. HT **jia*) and *tia?* 地 (cf. HT **tɦi*).

2.2.1.1. *Qìdān Guózhì* 契丹國志

The *Qìdān Guózhì* was written by the Sòng 宋 scholar Yè Lónglǐ 葉隆禮[29], but the Chinese-Kitan mixed language poems contained in this text are by Yú Jìng 余靖 (1000-1064 C.E.)[30] and Diāo Yuē 刁約 (ca. 1000-1082 or 1083 C.E.), who served as Sòng diplomats to the Kitans.[31] The other Kitan words transcribed in the *QDGZ* are from other sources, such as the *Yàn Běi Zájì* 燕北雜記, and we can speculate that they came from a no longer extant Sòng lexicographical work of Kitan, or were elicited from contemporary Kitan speakers. In any event, it is very likely that the transcriptions should be dated to Northern Sòng and Liáo times, and thus, the Chinese transcriptions should be read according to their NLMC values.

Fig. 2. *From the Qìdān Guózhì*[32]



[29] Wright (2005:216, *n.* 81) describes Ye Longli as a "Southern Sung [= Sòng] historian writing in the mid-thirteenth century". Ye Longli received his *jìnshì* 進士 degree in 1247.

[30] It is worthy to note that Yú Jìng was punished for composing this mixed language poem in honor of the Liáo emperor (Wright 2005:140).

[31] See Franke (1976:175) for a thorough discussion of the routes by which these poems were copied through different Chinese sources.

[32] An image of the original text reproduced in the 1985 Shànghǎi Gǔjí Chūbǎnshè 上海古籍出版社 reprint.

2.2.1.2. *Liáo Shǐ* 遼史

This text was compiled by the Yuán 元 Mongol statesman Toqto'a (Tuōtuō 脫脫, 1314-1356 C.E.)[33]. Along with the *QDGZ*, the *LS* contains the greatest number of Chinese transcriptions of Kitan, and as such is an invaluable source of data on the language.

As Vovin (2003:238) notes, there have been instances of anachronic approaches to Chinese historical phonology in many previous attempts at reconstructing Kitan. In the past, scholars have (sometimes out of necessity, e.g. due to the lack of reconstructions of Middle Chinese forms) read all the Chinese transcriptions of Kitan words in the various Chinese chronicles according to the readings of a single period, often Early Mandarin (cf. Franke 1976) or, in earlier research, even Modern Mandarin (cf. Shiratori, Yamaji, and Otagi). However, the anachronism is not limited merely to a misunderstanding of the phonology of a single language underlying the transcriptions: When we consider the fact that the different sources were written at different times, it seems only reasonable to assume that the Chinese language underlying the transcriptions of different works can also be attributed to different periods, i.e. Late Middle Chinese (8^{th}-11^{th}/12^{th} centuries C.E.) and Early Mandarin (13^{th}-14^{th} centuries C.E.), and beyond that, the transcriptions within a single work can even be transcriptions from different time periods, e.g. transcriptions copied from earlier sources.

While most of the transcriptions in the *LS* (and most of the extant Chinese transcriptions of Kitan in general) appear to be in NLMC, there are a few transcriptions in the *LS* that are very clearly in Early Mandarin. Among these few EM transcriptions we may note the two transcriptions for the Kitan word for 'bird of prey': [稍瓦] (EM *ʂaw-

[33] See Atwood (2004:543*b*-544*a*) for a biography of Toqto'a.

wa) and [杓窋] (EM *ʂɛw/ʂɔ-wa). Following the EM readings of the characters leads us to reconstruct the Kitan form **šawa*, a very clear cognate to MM *šibawu-n ~ šiba'u-n* 'bird'. While these two Chinese transcriptions complement each other and provide for a congruent reconstruction when we follow the EM reading of the characters, their NLMC readings conflict, which strongly suggests that these two transcriptions are in EM. Note the NLMC readings: [稍瓦] (NLMC *ʂaw-ŋwaː) and [杓窋] (NLMC *ʂɦiaw-ʔwaː). It seems reasonable to conclude that these two transcriptions are contemporary Yuán 元 time transcriptions of Kitan, perhaps elicited by Toqto'a from some Kitan speakers remaining in northeastern China, whereas the otherwise numerous NLMC transcriptions in the *LS* are likely to have been copied by Toqto'a from no longer extant Kitan lexicographical materials compiled during the Liáo dynasty, or from the also no longer extant "veritable records" (Ch. *shílù* 實錄) compiled during Liáo times, numerous references to which can be found throughout the *LS*.

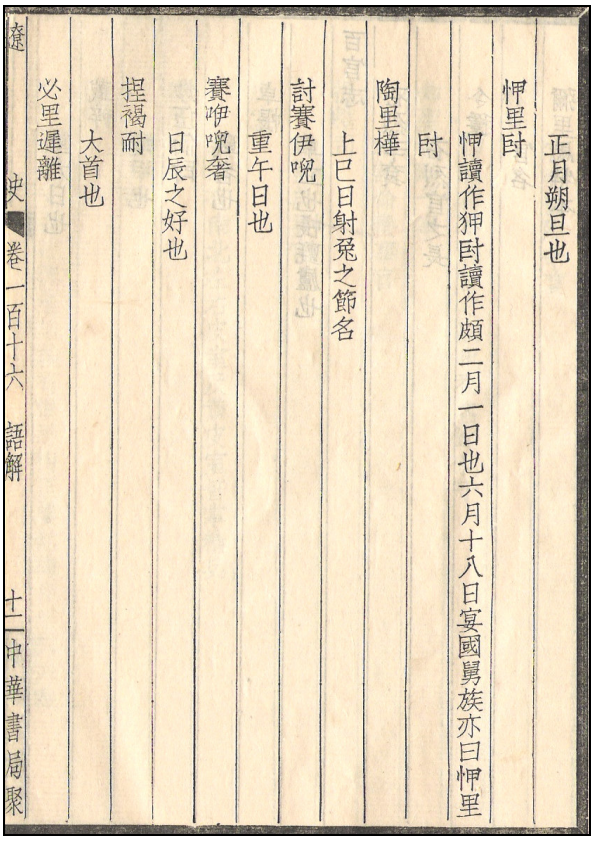
There are a few other fairly clear cases of EM transcriptions in the *LS*, some which have complementary transcriptions in NLMC in other sources such as the *QDGZ*. Here we may note the following multiple transcriptions:

LS transcription	*QDGZ* transcription	reconstructed Kitan form
[炒伍侕] (EM *tʂʰaw-u-rɻ)	[粆離] (NLMC *tʂʰaːw-li)	**ča(w)ur* 'war, battle'
[賽咿唲] (EM *saj-ji-rɻ)	[賽籬] (NLMC *saj-li)	**sair* 'month'

Aside from these specific cases, I have assumed that all the other Chinese transcriptions of Kitan words in the *LS* should be read according to NLMC phonology, and have reconstructed the Kitan forms accordingly. Employing this methodology in

reconstructing the Kitan wordforms in the *LS* produces forms with good cognates in Mongolic and Tungusic that also show internal consistency.

Fig. 3. *From the glossary of the Liáo Shǐ* (116:11*b*)


正月朔旦也

怦里訖

怦讀作狎訖讀作頗二月一日也六月十八日宴國舅族亦曰怦里訖

陶里樺

上巳日射兎之節名

討賽伊喅

重午日也

賽咿喅奢

日辰之好也

捏褐耐

大首也

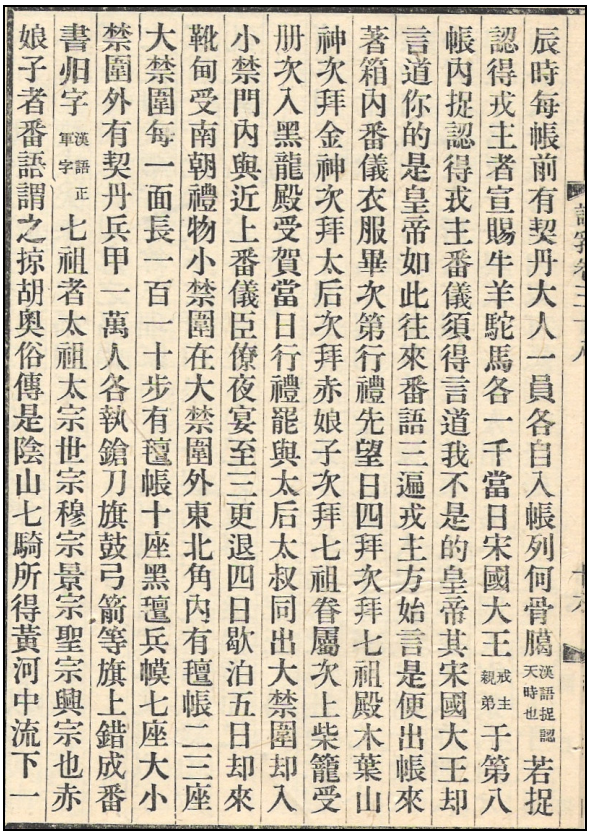
必里遐離

2.2.1.3. *Yàn Běi Lù* 燕北錄

This text was written by the Sòng 宋 scholar Wáng Yì 王易, whose dates and biographic information I have been unable to find. However, since this text was compiled during the Sòng dynasty, it seems safe to assume that the transcriptions are in NLMC. The text was later copied and reprinted by the Yuán 元 scholar Táo Zōngyì 陶宗儀 (b.

1316, fl. 1345-1401 C.E.) in his *Shuō Fú* 說郛 under the title *Chóngbiān Yàn Běi Lù* 重編燕北錄. It is from this version that the transcriptions in this thesis have been taken.

Fig. 4. From the *Chóngbiān Yàn Běi Lù* (16*b*)


辰時每帳前有契丹大人一員各自入帳列何骨朶（漢語捉認也）若捉
認得戎主者宣賜牛羊駝馬各一千當日宋國大王（戎主親弟）于第八
帳內捉認得戎主番儀須得言道我不是的皇帝其宋國大王却
言道你的是皇帝如此往來番語三遍戎主方始言是便出帳來
著箱內番儀衣服畢次第行禮先望日四拜次拜七祖殿本葉山
神次拜金神次拜太后次拜赤娘子次拜七祖眷屬次上柴籠受
册次入黑龍殿受賀當日行禮罷與太后太叔同出大禁圍却入
小禁門內與近上番儀臣僚夜宴至三更退四日歇泊五日却來
靴甸受南朝禮物小禁圍在大禁圍外東北角內有氈帳二三座
大禁圍每一面長一百一十步有氈帳十座黑氈兵幙七座大小
禁圍外有契丹兵甲一萬人各執鎗刀旗鼓弓箭等旗上錯成番
書舊字（漢語正軍字）七祖者太祖太宗世宗穆宗景宗聖宗興宗也赤
娘子者番語謂之掠胡奧俗傳是陰山七騎所得黃河中流下一

2.2.1.4. *Liáo Shǐ Shíyí* 遼史拾遺

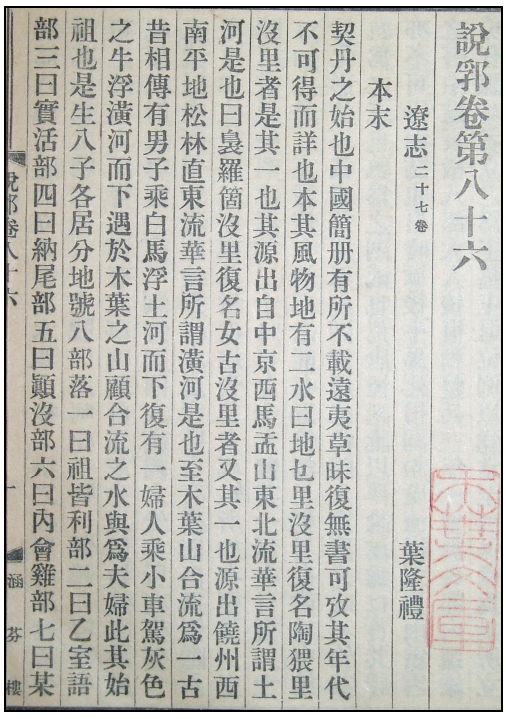
This work was compiled by the Qīng 清 scholar Lì È 厲鶚 (1692-1752 C.E.). All of the transcriptions contained therein were copied from earlier sources, mostly from the *LS*. The *LSSY* is a compilation of pieces of information that Lì È deemed to have been omitted from the *LS*. For the most part it is a conflation of information from the *LS*, the *QDGZ*, the *YBZJ*, and other sources. Although the *LSSY* does not offer many

transcriptions of Kitan not found in the *LS*, *QDGZ* or other early sources, it does contain some useful commentary. The word for 'diamond' seems to be the only transcription in in the *LSSY* not found in other extant source material.

2.2.1.5. *Liáo Zhì* 遼志

This text is an abridgement of Yè Lónglǐ's 葉隆禮 *Qìdān Guózhì* 契丹國志 made by the Yuán 元 scholar Táo Zōngyì 陶宗儀. It is significantly more concise than the *QDGZ*, and it only contains a small number of transcriptions of Kitan, all of which occur in other sources. The earliest version appears in *juǎn* 86 of Táo Zōngyì's 陶宗儀 *Shuō Fú* 說郛, while a later version of the *Liáo Zhì* 遼志 appears in Wáng Yúnwǔ's 王雲五 (1888-1979 C.E.) compilation *Cóngshū Jíchéng* 叢書集成.

Fig. 5. From the *Shuō Fú* edition of the *Liáo Zhì* (*LZSF* 1*a*)


說郛卷第八十六

遼志二十七卷

葉隆禮

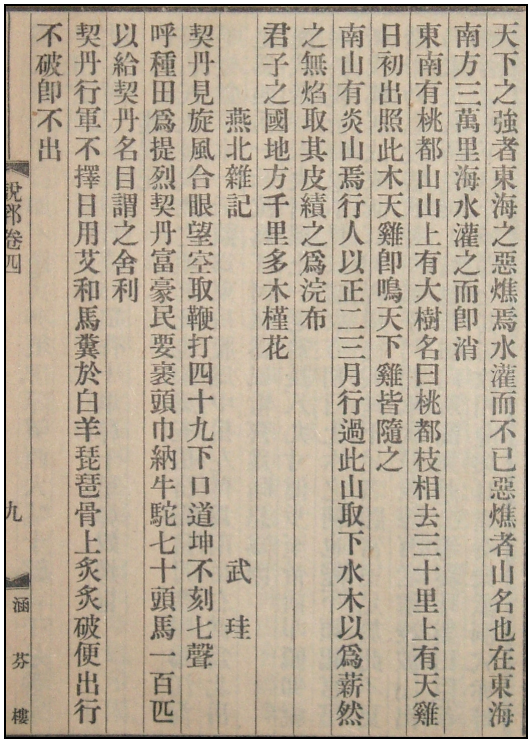
本末

契丹之始也中國簡册有所不載遠夷草昧復無書可攷其年代不可得而詳也本其風物地有二水曰地乜里沒里復名陶猥里沒里者是其一也其源出自中京西馬盂山東北流華言所謂土河是也曰裊羅箇沒里復名女古沒里者又其一也源出饒州西南平地松林直東流華言所謂潢河是也至木葉山合流爲一古昔相傳有男子乘白馬浮土河而下復有一婦人乘小車駕灰色之牛浮潢河而下遇於木葉之山顧合流之水與爲夫婦此其始祖也是生八子各居分地號八部落一曰祖皆利部二曰乙室語部三曰實活部四曰納尾部五曰顚沒部六曰內會雞部七曰某

2.2.1.6. *Yàn Běi Zájì* 燕北雜記

The *Yàn Běi Zájì* 燕北雜記 was compiled by Wú Guī 武珪, whose dates and biographic information I have been unable to find, and his text was later copied and republished in *juǎn*[34] 4 of Táo Zōngyì's 陶宗儀 *Shuō Fú* 說郛. In reconstructing the forms contained in this text, I follow NLMC readings. Doing so provides us with good, Altaic-looking forms that also conform well to what we already understand of Kitan phonology based on the Chinese transcriptions in other source material.

Fig. 6. From the *Yàn Běi Zájì* (9*a*)


天下之強者東海之惡燋焉水灌而不已惡燋者山名也在東海
南方三萬里海水灌之而即消
東南有桃都山山上有大樹名曰桃都枝相去三十里上有天雞
日初出照此木天雞即鳴天下雞皆隨之
南山有炎山焉行人以正二三月行過此山取下水木以爲薪然
之無焰取其皮績之爲浣布
君子之國地方千里多木槿花
燕北雜記　武珪
契丹見旋風合眼望空取鞭打四十九下口道坤不刻七聲
呼種田爲提烈契丹富豪民要裹頭巾納牛駝七十頭馬一百匹
以給契丹名目謂之舍利
契丹行軍不擇日用艾和馬糞於白羊琵琶骨上炙炙破便出行
不破即不出
說郛卷四　九　涵芬樓

[34] Ch. *juǎn* 卷 could be translated as "chapter" in this instance. I present the Ch. form here to avoid confusion.

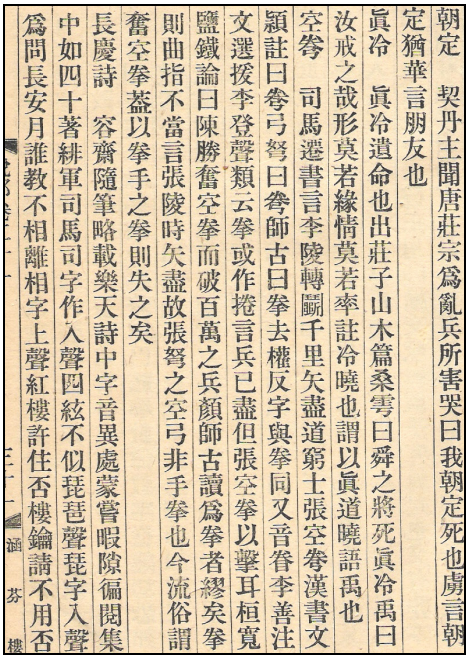
2.2.1.7. *Liáodōng Xíng Bù Zhì* 遼東行部志

This text is a travel diary of the Jīn 金 scholar Wáng Jì 王寂 (ca. 1127-ca. 1193 C.E.), recording his travels through the Liáodōng 遼東 region. The text contains at least one Kitan word, as well as several transcriptions of words in other non-Sinitic languages of northeastern China, including Bohai (Parhae) 渤海. I assume that transcriptions in this text are in Northern Late Middle Chinese.

2.2.1.8. *Yì Chéng* 臆乘

This text was written by the Sòng 宋 scholar Yáng Bóyán 楊伯嵓 (d. 1254), and was copied and published many years later in *juǎn* 21 of Táo Zōngyì's 陶宗儀 *Shuō Fú* 說郛. There is only one Kitan word contained in the text, and it is also found in the *QDGZ*. It seems reasonable to conclude that the transcription is in Northern Sòng LMC.

Fig. 7. *From the Yì Chéng* (31*a*)


朝定　契丹主聞唐莊宗爲亂兵所害哭曰我朝定死也虜言朝
定猶華言朋友也
眞冷　眞冷遺命也出莊子山木篇桑雽曰舜之將死眞冷禹曰
汝戒之哉形莫若緣情莫若率註冷曉也謂以眞道曉語禹也
空拳　司馬遷書言李陵轉鬬千里矢盡道窮士張空拳漢書文
穎註曰拳弓弩曰拳師古曰拳去權反字與拳同又音眷李善注
文選援李登聲類云拳或作捲言兵已盡但張空拳以擊耳桓寬
鹽鐵論曰陳勝奮空拳而破百萬之兵顏師古讀爲拳者繆矣拳
則曲指不當言張陵時矢盡故張弩之空弓非手拳也今流俗謂
奮空拳蓋以拳手之拳則失之矣
長慶詩　容齋隨筆略載樂天詩中字音異處蒙嘗暇隙徧閱集
中如四十著緋軍司馬司字作入聲四絃不似琵琶聲琵字入聲
爲問長安月誰教不相離相字上聲紅樓許住否樓鑰請不用否

2.2.1.9. *Liáo Shǐ Shíyí Bǔ* 遼史拾遺補

This text was compiled by the Qīng 清 scholar Yáng Fùjí 楊復吉 (1747-1820 C.E.), and was intended as a collection of addenda and corrigenda to the *Liáo Shǐ Shíyí* 遼史拾遺. There is really nothing new in this text regarding the Kitan lexical items, and it is arguably better to rely on the earlier sources.

2.2.1.10. *Dailiyoo gurun-i suduri*

The *Dailiyoo gurun-i suduri* ᡩᠠᡳᠯᡳᠶᠣᠣ ᡤᡠᡵᡠᠨ ᡳ ᡧᡠᡩᡠᡵᡳ is a 1646 Manchu translation[35] of the *Liáo Shǐ* 遼史 by the Manchu scholar Čabuχai ᠴᠠᠪᡠᡥᠠᡳ. I have been unable to find a copy of the text, although Perlee (1959*b*:15) cites it in his treatment of Kitan–Mongolic cognates and Ligeti (1927:294, 298) mentions it as well. The German linguist and manjurist Hans Conon von der Gabelentz (1807-1874 C.E.) translated this Manchu text into German, and his translation was published posthumously in 1877; however, his treatment of the text does not include the glossary of Kitan words, nor does it provide a facsimile or romanization of the original Manchu text.

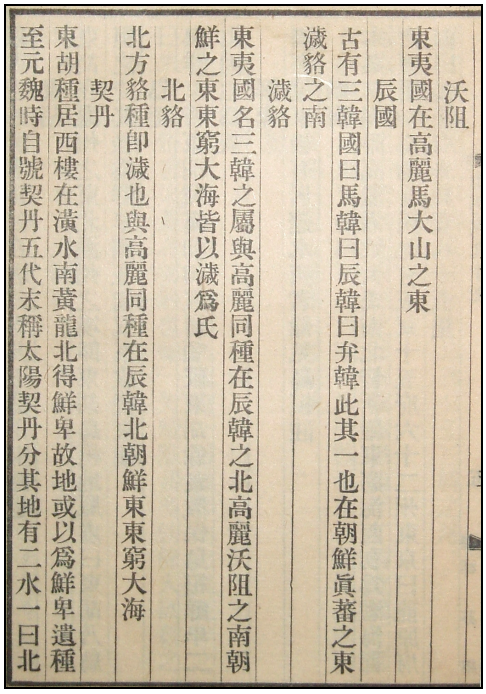
2.2.1.11. *Liáodōng Zhì Lüè* 遼東志略

The *Liáodōng Zhì Lüè* is a text of anonymous authorship appearing in *juǎn* 97 of Táo Zōngyì's 陶宗儀 *Shuō Fú* 說郛. This concise work is primarily a collection of

[35] Crossley & Rawski (1993:61) note that this text, whose translation was commissioned by Emperor Hung Taiji together with *Aisin gurun-i suduri* (a translation of the *Jīn Shǐ* 金史) and *Dai Yuwan gurun-i suduri* (a translation of the *Yuán Shǐ* 元史), was presented to the court in finished form in 1646.

miscellaneous information on the ethnic history of Liáodōng and neighboring areas of northeastern China and Korea. There are only three transcriptions of Kitan words in this text, and they are all found in the *Qìdān Guózhì* 契丹國志 and other sources, suggesting that they may have been copied from these potentially earlier sources.

Fig. 8. From the *Liáodōng Zhì Lüè* (5*b*)


沃阻
東夷國在高麗馬大山之東
辰國
古有三韓國曰馬韓曰辰韓曰弁韓此其一也在朝鮮眞蕃之東
濊貉之南
濊貉
東夷國名三韓之屬與高麗同種在辰韓之北高麗沃阻之南朝
鮮之東東窮大海皆以濊爲氏
北貉
北方貉種即濊也與高麗同種在辰韓北朝鮮東東窮大海
契丹
東胡種居西樓在潢水南黃龍北得鮮卑故地或以爲鮮卑遺種
至元魏時自號契丹五代末稱太陽契丹分其地有二水一曰北

2.2.2. The Kitan Scripts

According to Chinese historical records, the Kitans had two distinct writing systems—one which is called the "Large Script" (Ch. *dàzì* 大字), and the other known as the "Small Script" (Ch. *xiǎozì* 小字). Although researchers have found extant texts in two different Kitan scripts, the historical records give us no diagnostic clues for determining exactly which is which. A number of scholars have assumed *a priori* that the script

composed of assembled components is the Small Script and the script composed of single characters is the Large Script; Kara (1977, 1986-7, 2005) however, seeking a solution to this historical problem, proposed calling the two attested Kitan scripts the "Linear Script" and the "Assembled Script" based simply on what we know about the organization of graphemic elements in these two scripts. We will employ these terms throughout the rest of this thesis.

Working with the Kitan scripts involves considerably more guesswork than working with the Chinese transcriptions, where we at least have some tangible material on the phonology and for the most part clearly indicated semantic values for wordforms. Ideally, as Kara has pointed out, we should have evidence from both the Assembled Script and the Chinese transcriptions in reconstructing a word, but we are not always fortunate enough to have evidence on both sides. While I have attempted to incorporate data from the Kitan scripts as much as possible in this thesis, the primary focus is on the Chinese transcriptions of the language, largely due to their accessibility and tangibility.

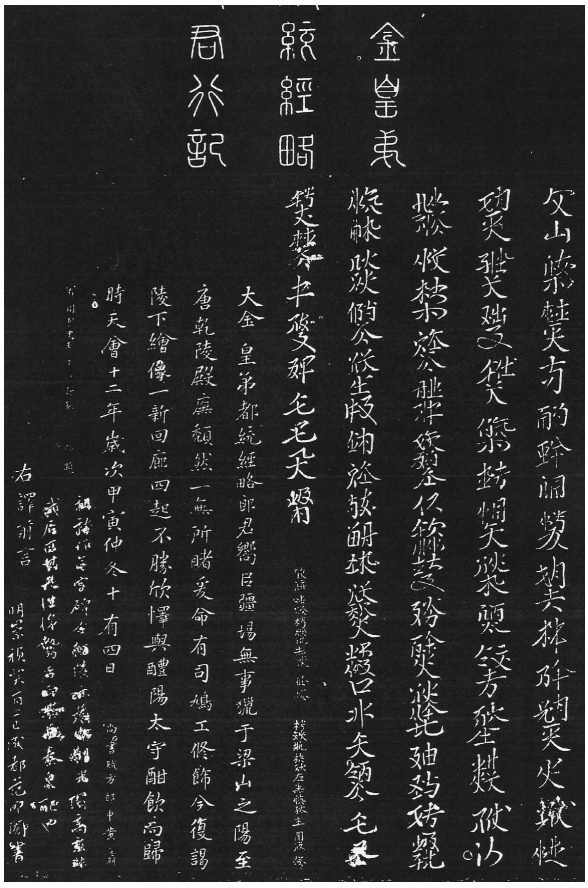
2.2.2.1. The Assembled Script Sources

Of the two native Kitan scripts, the Assembled Script (AS) is by far the best understood. This script is assumed by some scholars to be the "Small Script" mentioned in the Chinese chronicles. The AS as we understand it is a very complex script, composed of phonograms, syllabograms, and ideograms[36]. Owing to the great contributions of numerous Kitanists over the past century of research on the Kitan scripts, we now have at least a partial understanding of the Assembled Script. Many individual scholars have

[36] Kara (1996)

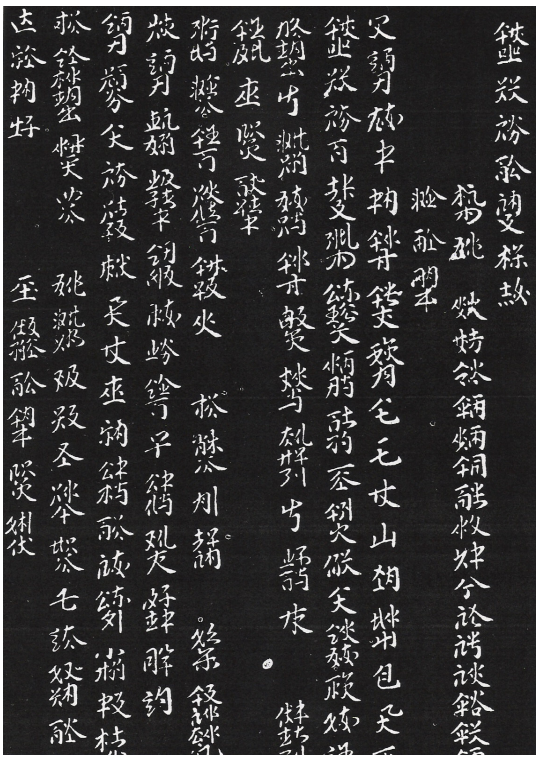
made valuable contributions to the decipherment of the Assembled Script, but the most comprehensive attempt at deciphering the script and appraising and synthesizing the work of previous researchers is the work of the Kitan Script Research Group (Ch. *Qìdān wénzì yánjiū xiǎozǔ* 契丹文字研究小组). Through their work, as well as that of later scholars, we now know the semantic and phonetic values of over a hundred or so characters and our understanding of the script, and the Kitan language as preserved in AS texts, gradually continues to increase as new inscriptions are found.

Fig. 9. *The Lángjūn Xíngjì inscription*[37]



[37] Reproduced from Chinggeltei (2002*b*:45). The *Dà Jīn Huáng Dì Dūtǒng Jīnglüè Lángjūn Xíngjì* 大金皇弟都統經略郎君行記 inscription (or *Lángjūn Xíngjì* 郎君行記 for short) appears on a stone monument located in Shímǎdào Village (石馬道村), Gānlíng Township (乾陵鄉), Shaanxi (陝西) province, China (Liu 2005:120-1).

Fig. 10. *The Xuānyì Huánghoù Āicè inscription*[38]



2.2.2.2. The Linear Script Sources

The Linear Script is much less understood than the Assembled Script. We do know, however, that the Linear Script was comprised of a large number of ideograms and syllabograms, and a significant number of the signs were copied with little or no alteration from Chinese. It was largely on the Kitan Linear Script that the Jurchens based their own script, and a number of Linear Script characters were borrowed with slight or no alteration in the creation of the Jurchen script.

[38] Image reproduced from Chinggeltei (2002*b*:17). This inscription, together with the *Dàozōng Huángdì Āicè* inscription, was excavated in 1930 from the Liáo Yongxing Tomb in Baarin Right Banner, Inner Mongolia (Liu 1999:160-161).

Linear Script Inscriptions in Mongolia

In addition to the dozen or so sizeable Linear Script inscriptions that have been found in Inner Mongolia and other areas of northern China, there are a number of specimens of the Linear Script in Mongolia. The German-born Russian Turcologist Vasilij Vasil'evič Radlov, or Friedrich Wilhelm Radloff (1837-1918 C.E.), seems to have been the first to make note of and photograph one such inscription located in Khentii province, although he incorrectly identified it as "Chinese" in his 1892-1899 *Atlas der alterhümer der Mongolie*[39]. Rinčen later dealt with one of the inscriptions in Khentii, which he correctly identified as Kitan in an article in the *Central Asiatic Journal* (1958-9) and later mistakenly described as Jurchen in his "Les dessigns pictographiques et les inscriptions sur les rochers et sur les stèles en Mongolie" (1968:77). I share the opinion of Kane (1989:83-6), Šagdarsüren (2001:78) and Sūn (2006), who believe this inscription to be a Kitan Linear Script text. Kane (1989:86) provides a partial decipherment of the text, and determines that the date on the inscription is 1094 C.E.—the fifth month of the tenth year of the Dà'ān 大安 reign period of the Liáo dynasty. Sūn (2006:1-2), however, following Liú (1982*b*), argues that the date is actually the fifth month of the tenth year of the Dàkāng 大康 reign period, or 1084 C.E.

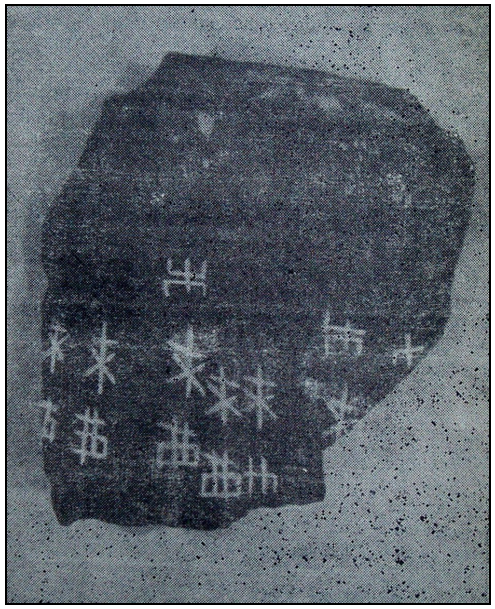
[39] His photos of the inscription are on p. CXVII of his work.

Fig. 11. *The Linear Script inscription at Salbarïn Khanan Khad, Khentii*[40]



The Mongolian scholar Perlee (1978) explains that there are at least seven Kitan inscriptions in Mongolia, including four in Khentii, one in Dornod, and two in Bulgan. Very little work has been done on deciphering these inscriptions.

Fig. 12. *Linear Script characters on a tile found at the Čintolgoi ruins in Bulgan*[41]

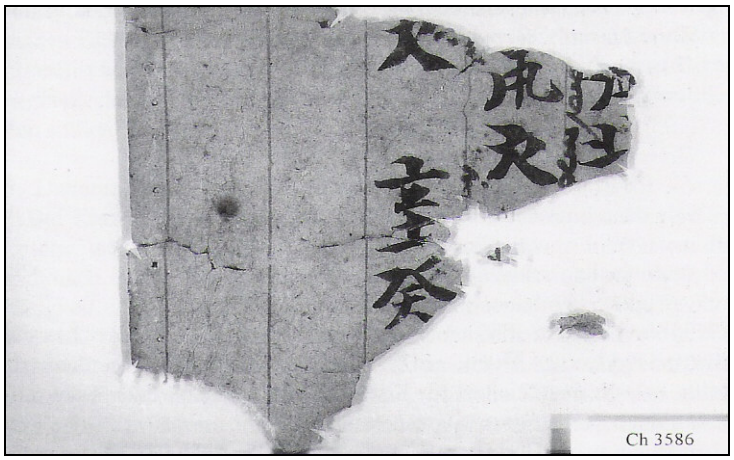


[40] Image reproduced from Šagdarsüren (2001:78)
[41] Reproduced from Perlee (1959:4)

The Turfan Fragment

Recently, Wang Ding (2004) discovered a small Linear Script fragment on paper—the only extant specimen of Kitan writing on paper to date (all others are either epitaphs on stone slabs or are inscribed on pottery, coins, or mirrors, etc.). Textfragment Ch 3586, as it is catalogued in the Berlin-Brandenburgische Akademie der Wissenschaften archives, is a mysterious fragment with Kitan Linear Script and what seems to be an interlinear transcription in Uygur script.[42]

Fig. 13. *Fragment Ch 3586, restored*[43]



While this small enigmatic fragment probably raises more questions than it answers, its existence suggests the tantalizing possibility of larger texts of its kind waiting to be discovered. If we are fortunate enough to discover more texts of this kind in the future, they will certainly contribute to our understanding of the Linear Script, and may even serve as the "Rosetta Stone" for the decipherment of the Linear Script.

[42] Cf. also Kara (2005:28)
[43] Reproduced from Wang (2004:371)

3. A Sketch of Kitan Phonology

It is important to understand that, in dealing with the Chinese transcriptions of Kitan—our primary source on Kitan phonology—we are looking at Kitan phonology through the "filter" of Northern Late Middle Chinese (NLMC) and in some cases, that of Early Mandarin (EM). While evidence from the Assembled Script (AS) materials has also partially contributed to our knowledge of Kitan phonology, it is largely our understanding of Sinitic phonology that leads us to a reconstruction of Kitan phonology.

Due to the many ambiguities in the Chinese transcriptions of Kitan, I have found it necessary to adopt a number of likewise ambiguous symbols in reconstructing the phonology of Kitan. Among the symbols used throughout this section and the thesis as a whole are the following: *K* for a voiceless dorsal or guttural stop; *G* for a voiced dorsal or guttural stop or fricative; *X* for a voiceless dorsal or guttural stop or fricative[44]; and *L* for a lateral or rhotic consonant.

3.1. Consonants

Fig. 14. *A tentative reconstruction of the Kitan consonant inventory*

	Labial	**Dental/Alveolar**	**Palatal**	**Dorsal/Guttural**
Stop	*p *b	*t *d		*k *g *K/*X *G
Affricate			*č *ǰ	
Fricative		*s	*š	*X (*G)
Nasal	*m	*n	*ñ	*ŋ
Lateral		*l		
Rhotic (trill?)		*r		
Approximant	*w		*j	

[44] My use of the grapheme *X* corresponds to Kara's (1986-7, 1996) use of the grapheme *q*, which, as he explains (personal communication), is also intended to indicate either a guttural stop or fricative.

Most of the consonants are fairly clear from the Chinese transcriptions and are easily reconstructed via a straightforward mapping of the NLMC or EM form to Kitan. Regarding voicing contrast, I follow the widely accepted assumption in the literature that Kitan had a two-way contrast between voiced and voiceless obstruents. The only major issue that arises in reconstructing the labial and coronal segments of Kitan is in interpreting NLMC voiceless consonants with voiced aspiration. It seems that sometimes they indicated Kitan voiceless stops and sometimes they indicated Kitan voiced stops. In reconstructing the forms, I have tried to acknowledge this ambiguity. Sometimes, however, when we are provided with multiple transcriptions of a word, the issue can be resolved. For example, the Kitan word for 'five' is transcribed both as [陶] (NLMC *tɦaw) and [討] (NLMC *t^{h}aw), which suggests we should reconstruct Kitan **taw*.

However, there are some other issues which pose more difficult problems or which deserve more explanation, and I shall treat these in detail below.

Dorsal/Guttural Consonants

One of the most difficult aspects of reconstructing Kitan phonology is its inventory of dorsal and guttural consonants. Since LMC did not have a rich inventory of such sounds, the Chinese transcriptions of Kitan are quite difficult to interpret with regard to these consonants. The Early Mandarin (EM) transcriptions of Eastern Middle Mongolian words in 13th and 14th century works such as the *Secret History of the Mongols* (*SH*) (Ch. *Yuán Cháo Bì Shǐ* 元朝秘史) had a system for distinguishing uvulars, velars, and laryngeal

obstruents in the transcription[45] and the Arabic transcriptions of Western Middle Mongolian were even more exact in distinguishing between Middle Mongolian velar, uvular, and laryngeal obstruents[46], owing to the fact that the Arabic language, as is well known, has a rich inventory of dorsal and guttural consonants. Because of these precise transcriptions, we now have a relatively good understanding of Middle Mongolian (MM) phonology. For Kitan, however, we have no such systematic transcriptions in Chinese, and no Arabic-script transcriptions of Kitan have surfaced, if they ever existed to begin with[47]. Thus, in dealing with the Chinese transcriptions of Kitan, we must consider all the likely values that could be represented by a given transcription. In interpreting the Chinese transcriptions, we may find some hints and gain some direction by examining some of the less systematic EM transcriptions of MM in the *Zhì Yuán Yì Yǔ* 至元譯語 (*ZYYY*). In contrast to the *SH* transcriptions of MM, in the *ZYYY* there is no regular, unambiguous transcription of the uvulars and laryngeals. Here the MM uvular stop **q* is transcribed with EM **x-*, **xj-* or **xw-* and the MM laryngeal fricative **h* is transcribed with EM **x-*.

In an attempt to acknowledge the ambiguity of the Chinese transcriptions here, I have chosen to use the ambiguous term "dorsal/guttural" to describe this place or places of articulation. As described by Kenstowicz, *dorsal* consonants include prevelars, velars, and uvulars; *gutturals* include laryngeals, pharyngeals, and uvulars (Kenstowicz 2004:32).

[45] The EM transcription system of MM in sources such as the *SH* distinguished uvulars from laryngeals by means of a superscript Chinese character *zhōng* 中 'middle', e.g. MM *harban* 'ten' was transcribed [哈兒班] (EM **xa-rṛ-pan*), while MM *qaǰar* 'ground' was transcribed [^{中}哈扎兒] (EM **χa-tşa-rṛ*).

[46] Note that in these transcriptions, MM *h* was transcribed with Arabic [ه] (*hā'*), MM *q* with [ق] (*qāf*), MM *k* with [ک] (*kāf*), and MM *ɢ/ʁ* with [غ] (*ġayn*).

[47] Prof. Michal Biran of Hebrew University explains that aside from several titles, no Kitan words are recorded in the extant Arabic and Persian sources on Qara Khitai (e-mail correspondence).

In reconstructing the Kitan forms in this thesis, I have assumed the following mapping of segments between the NLMC transcriptions and the Kitan forms they represented (remember that the superscript star ☆ indicates a speculative reconstruction):

NLMC *k^huV- could transcribe Kitan *$K(w)V$- (☆kwV- ~ ☆qV-)
NLMC *k^hu- for Kitan *Ku- (☆qu- ~ ☆ku-)
NLMC *kuV- and *kyV- for Kitan *$G(w)V$- (☆gwV- ~ ☆$_GV$- ~ ☆$_ʁV$- ~ ☆$ɣV$-)
NLMC *$xɦ$- and *x- could transcribe Kitan *X- (☆q- ~ ☆x- ~ ☆$χ$- ~ ☆h-)
NLMC *$xɦ$- could also transcribe Kitan *G- (☆$_G$- ~ ☆$_ʁ$- ~ ☆$ɣ$-)
NLMC *xja- could indicate Kitan *$X(i)a$- (☆qa- ~ ☆xia- ~ ☆xe- ~ ☆hia- ~ ☆he- ~ ☆$χa$-)

The speculative reading ☆qa- in the latter correspondence is motivated by evidence in the EM transcriptions of MM in the *ZYYY*, where EM **xja* transcribes MM **qa*. Note the following *ZYYY* transcriptions[48]:

MM **miqa* [蜜匣] (EM *mi-xja) 'meat (肉)'
MM **qabar* [下八兒] (EM *xja-pa-rɻ) 'nose (鼻)'
MM **čiqa* [赤匣] (EM *tʂʰi-xja) 'date, jujube (棗)'
MM **qadana* [下荅剌] (EM *xja-ta-la) 'outside, exterior (外)'

In addition to the above-mentioned onset correspondences, we should also note the possibility that NLMC *-*ŋ* could have transcribed Kitan *-*ŋ* or *-*K* (☆-*k* ~ ☆-*q*)[49], since NLMC had already lost the syllable final stop *-*k* (as well as *-*t* and possibly *-*p*). Thus, for example, in dealing with the Chinese transcription of the Kitan word for 'blessing',

[48] The MM reconstructions are from Kara (1990*a*, 1990*b*)
[49] Prof. György Kara (personal communication) suggested this possibility.

[苦統] (NLMC *k^{h}u(ə)-t^{h}əwŋ), we can reconstruct either Kitan **Kutuŋ (*qutuŋ ~ *kutuŋ)* or **KutuK (*qutuq ~ *kutuk)*, although the latter seems more likely given the WM cognate *qutuq* 'sanctity, happiness, bliss'.

Given the ambiguity of the Chinese transcriptions, it is difficult to say whether there was a phonemic distinction between certain places of articulation within this "dorsal/guttural" category. Neither Proto-Mongolic nor Middle Mongol had such a distinction, that is, uvulars and velars were in complementary distribution, with uvulars surfacing in back-vowel words and velars appearing in front-vowel words (e.g. PM and MM */k/ and */g/ were realized as *[q] and *[ɢ] in back-vowel forms, and *[k] and *[g] in front-vowel forms, respectively). It is entirely likely that no such distinction existed in Kitan, either. However, given the ambiguity of the transcriptions in this regard, it is perhaps best to consider this an unresolved issue in Kitan phonology.

Laterals and Rhotics

A common issue that arises in dealing with Chinese transcriptions of non-Sinitic languages is how to deal with the laterals and rhotics. Chinese *l-* is often used to transcribe both lateral and rhotic segments. As a means of representing the ambiguity of the Chinese transcriptions with regard to laterals and rhotics, I employ a capital **L* to indicate a liquid segment that represents either a lateral **l* or a rhotic **r*. Only when it is clear either from a cognate form in Mongolic or from multiple Chinese transcriptions of a Kitan word do I avoid this transcription convention.

*Palatal/Palatalized Nasal *ñ*

Another issue that deserves special explanation is my reconstruction of a palatal or palatalized nasal stop **ñ* for Kitan. While LMC did not have a palatal or palatalized nasal, the LMC transcriptions still clearly indicate Kitan **ñV-* with the sequences **niV-* and **ŋjV-*. Note the following transcriptions:

[捏褐] (NLMC *niaʔ-xɦaʔ) for Kitan **ñaXa* 'dog'
[捏咿唲] (NLMC *niaʔ-ʔji-ri) for Kitan **ñair* 'day'
[捏骨地] (NLMC *niaʔ-kuʔ-tɦi) for Kitan **ñaGu(r)di-* 'to kneel'
[雅魯] (NLMC *ŋjaː-lu(ə̆)) for Kitan **ñaLu-* 'to bow and dance'

This same sound in Jurchen, a language whose phonology is more or less understood, was also transcribed with syllables beginning with **njV-* according to their EM readings or **niV-* according to their NLMC readings. Note the following Chinese transcriptions of Jurchen (from Kiyose 1977; the transcription of the Jurchen forms is modified by me here to represent the phonology of the language more accurately):

[捏住] (NLMC *niaʔ-tʂɦiy(ă), EM *njɛ-tʂy) for Jurchen **ñaǰu* 'radish'
[捏兒麻] (NLMC *niaʔ-ri-maː, EM *njɛ-rʐ̩-ma) for Jurchen **ñarma* 'person'
[捏年] (NLMC *niaʔ-nian, EM *njɛ-njɛn) for Jurchen **ñeñen* 'spring (season)'
[捏渾] (NLMC *niaʔ-xɦun, EM *njɛ-xun) for Jurchen **ñexun* 'younger sister'

Reconstructing **ñ* for Kitan is also motivated when we take into consideration a number of otherwise aberrant Jurchen-Manchu correspondences with Mongolic. For example, positing this segment for Kitan can explain the correspondence of Manchu *ñamña-* <niyamniya-> 'to shoot (arrows) from horseback' to Mongolian *namna-* 'to

shoot with a bow'[50] as evidence of an unattested Kitan form ☆*ñamña-* which was borrowed into Jurchen-Manchu. We should also note Manchu *ñaxan* <niyaχan> 'little dog', a word that is very clearly a borrowing from Kitan **ñaXa* 'dog'[51]. All of these considerations point in favor of reconstructing **ñ* for Kitan.

Alternatively, we could analyze these transcriptions as evidence of Kitan **ni-* or **nj-* sequences, but both are less than desired. The former is problematic because it requires us to invoke the cross-linguistically less common notion of triphthongs to deal with the transcription of the Kitan word for 'day' [捏咿唳] (NLMC *niaʔ-ʔji-ri), which we would have to reconstruct as **niair*. Proposing **nj-* for Kitan is less problematic, but reconstructing **ñ* more elegantly explains the regular one-to-one correspondence between Kitan **ñ-* and Mongolic **n-* (see examples in the next section below).

Mongolic Cognates

Below I illustrate the attested distributions of the Kitan consonants and their correspondences with Mongolic (I cite Middle Mongolian forms when possible and Written Mongolian data if MM forms could not be found).

[50] Rozycki (1994*a*:163); Doerfer (1985:56.132)
[51] This Kitan > Jurchen-Manchu loan relationship was first proposed by Kara (1975, 2005), and the Kitan reconstruction I present here is essentially that of Kara (1975:166), who proposed a form **ñaχa*.

Labials

*K *p- : MM h-*

K *po ‘time’ : MM hon ‘year’

K *pulu ‘intercalary (e.g. month)’ : MM hüle(ʔ)ü ‘extra, surplus, intercalary’

K *pilia ‘small wooden jar’

*K *b- : MM b-*

K *bais(i)- ‘to receive favors/gifts’ : MM bajas- ‘to rejoice’[52]

K *bili ‘steppe marmot’

*K *m- : MM m-*

K *mVrV ‘horse’ : MM mori-n id.

K *mur/*muri ‘river’ : MM mören ‘large river’

K *mVGo ‘snake, serpent’ : MM moɢai [moɢai/moʁai] id.

*K *-m- : MM -m-*

K *jama ‘goat’ : MM ima(ʔ)a-n id.

K *namur ‘autumn’ : MM namur id.

*K *w-*

K *waŋ ‘prince’ (← LMC *yaŋ or EMC *wuaŋ 王)

*K *-w- : MM -b-, -ʔ-*

K *šawa ‘bird of prey’ : MM *šibawu-n ‘bird’

K *XV(w)ur ‘spring (season)’ : MM kabur [qabur] id.

K *tawu(i)s ‘dirt, soil’ : MM to(ʔ)osu-n ‘dust’

*K *-w : MM -b-, -w-*

K *taw ‘five’ : MM tabu-n id.

K *ǰaw ‘hundred’ : MM ǰawu-n id.

Dental/Alveolars

*K *t- : MM t-*

K *taw ‘five’ : MM tabu-n id.

K *tawl(i) ~ *tawl(i)a ‘hare; rabbit’ : MM taulai id.

K *tawu(i)s ‘dirt, soil’ : MM *to(ʔ)osu-n ‘dust’

[52] The connection is not certain, but seems plausible, though semantically problematic.

*K *-t- : MM -t-*

K *Kutuŋ / *KutuK ‘blessing’ : MM kutuk [qutuq] ‘holy rank, sanctity, happiness, bliss’

*K *d- : WM d-*

K *da(w)ur ‘middle’

K *duar- (☆dwar- / ☆dor-) ‘to pacify’ : (possibly cognate to WM *daru-* ‘to press’)

K -d- : MM -d-

K *Xudadu ‘stomach’ : WM *qodoγadu* id.

K *Xudu/*Xudi ‘mountain’

K *ñaGu(r)di- ‘to kneel’

*K *s- : MM s-*

K *sair ‘month’ : MM sara-n ‘moon; month’

K *saLa ‘wine goblet’

K *siaw- ‘(blue-)green’

*K *-s- : MM -s-, -č-*

K *Xus(V) ‘strong, powerful’ : MM küčü ‘strength, power’[53]

K *pusu- ‘to be prosperous, to flourish, to thrive’

*K *-s : MM -s-*

K *tawu(i)s ‘dirt, soil’ : MM to(ʔ)osu-n ‘dust’

*K *n- : MM n-*

K *namur ‘autumn’ : MM namur id.

K *nVwV / *nVGV ‘deity of the earth’

K *nai ‘first; head’

*K *-n*

K *gu(u)-n ‘jade’

K *gVn ‘sorrow, sadness, grief’ : WM *γuni-* ‘to grieve’

K *šu(r)sVn ‘coral’ : WM *širü* ~ *šürü* id.

*K *ñ- : MM n-*

K *ñair ‘day’ : MM nara-n ‘sun’

K *ñalu- ‘to bow and dance’ : WM *nalu-* ‘to bend, incline’

K *ñaXa ‘dog’ : MM nokai [noqai] id.

[53] cf. OT *küčü* id.; the OT form could possibly have entered Mongolian and Kitan separately.

*K *l- : MM l-*

K *lu ‘dragon’ : WM *luu* id.[54]

K *liaw- ‘red’

*K *-l- : MM -l-*

K *ñalu- ‘to bow and dance’ : WM *nalu-* ‘to bend, incline’

K *pilia ‘a small wooden jar’

K *pulu ‘intercalary (e.g. month)’ : MM hüle(ʔ)ü ‘extra, surplus, intercalary’

K *tawl(i) ~ *tawl(i)a ‘rabbit; hare’ : MM taulai id.

*K *-l : MM -l*

K *u(w)ul ‘winter’ : MM übül id.

*K *-r- : MM -r-*

K *mVrV ‘horse’ : MM mori-n id.

K *š(i)a(r)bai- ‘to be plentiful’ : (possibly cognate to WM *sarbayi-*[55] ‘to stretch out, stretch out to one’s full length’)

K *X(i)ari- ‘to return, come back’ : MM kari- [qari-] id.

*K *-r : MM -r, -r-*

K *sair ‘month’ : MM sara-n ‘moon; month’

K *ñair ‘day’ : MM nara-n ‘sun’

K *ča(w)ur ‘war’ : MM ča(w)ur id.

Palatals

*K *č- : MM č-*

K *ča(w)ur ‘war’ : MM ča(w)ur id.

K *či(i)ši ☆‘blood’ : MM čisu-n id.

K *čawdiŋ/*ǰawdiŋ/*čawdiK/*ǰawdiK ‘friend’

*K *ǰ-* : MM *ǰ-*

K *ǰaw ‘hundred’ : MM ǰawu-n id.

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[54] A loanword from Tibetan *klu* ‘snake or serpent demon’ or from an EMC or OChi dialect form of 龍 ‘dragon’ (cf. EMC *luawŋ).

[55] This WM form represents a development from PM **sarba-* with a stative suffix **-ji*. Note also WM *sarbaγar* ‘tufted, bushy, branchy’ (< PM **sarba-gar*), *sarbalǰa-* ‘to stretch out one’s limbs, to wave one’s hands’ (< PM **sarba-lǰa-*) etc.

*K *-ǰ-/*-č-*

K *aǰu ‘father; grandfather’

K *Xaču/*Xaǰu ‘iron’

*K *š- : MM ši-, s-*

K *šawa ‘bird of prey’ : MM šibawu-n ‘bird’

K *š(i)a(r)bai- ‘to be plentiful’ : (possibly cognate to WM *sarbayi-* ‘to stretch out, stretch out to one’s full length’; see note above)

K *šia ‘good’ : MM sa(j)in id.

*K *-š- : MM -s-*

K *či(i)ši ☆‘blood’ : MM čisu-n id.

*K *j- : MM i-*

K *jama ‘goat’ : MM ima(ʔ)a-n id.

K *ja ‘elder brother’

K *jV ‘star’

Dorsal/Gutturals

*K *k- : MM k-*

K *kei ‘wind’ : MM kei id.

K *kui- ‘reach, arrive’ : MM kür- id.

K *kVč(V) ‘border region’ : D kətʃ ‘edge; side; border’

*K *K- : MM k- [q-]*

K *Kutuŋ / *KutuK ‘blessing’ : MM kutuk [qutuq] id.

*K *g- : MM g-*

K *gVn (☆gun) ‘sorrow, sadness, grief’ : WM *γuni-* ‘to grieve’

K *gur ‘empire’

K *gia(m)mu- ‘to transmit’ : (possibly cognate to D gʲanə- ‘to transfer; to move’)

*K *-G-*

K *ñaGu(r)di- ‘to kneel’

*K *G(w)-*

K *G(w)a(t)Xa ‘friendly relations’

*K *-G(w)-/*-K(w)-*

K *duaG(w)ai/*duaK(w)ai (☆doqai ?) ‘gate; door’

*K *X- : MM k-, [q-]*

K *Xudu/*Xudi ‘mountain’

K *Xudadu ‘stomach’ : WM *qodoγadu* id.

K *Xus(V) ‘strong, powerful’ : MM küčü ‘strength, power’

K *XV(w)ur ‘spring (season)’ : MM kabur [qabur] id.

K *X(w)a(-) ‘to shoot / archery’ : MM karbu- [qarbu-] ‘shoot’, kabu [qabu] ‘archery’

K *X(i)al(i)-/*X(i)ar(i)- ‘to invite’

*K *-X- : MM -k-*

K *ñaXa ‘dog’ : MM nokai [noqai] id.

K *G(w)a(t)Xa ‘friendly relations’

*K *-G- : MM -g-*

K *mVGo ‘snake, serpent’ : MM moɡai [moɢai/moʁai] id.

*K *-ŋ / *-K : MM -k [-q]*

K *Kutuŋ / *KutuK ‘blessing’ : MM kutuk [qutuq] id.

3.2. Vowels and Vocoid Sequences

Reconstructing the vowels of Kitan is more complicated a task than dealing with the consonants. This is partly because Chinese characters are “a wholistic writing system rather than a segmental ‘alphabetic’ system” (Beckwith 2004:106). While it is comparatively easy to determine the consonants of Kitan based on the Chinese transcriptions, the non-segmental nature of Chinese writing often obscures the vowels.

In reconstructing the vowels of Kitan, I have assumed the following possible and plausible mappings (not exhaustive):

NLMC *-*əw*- could transcribe Kitan *-*u*- ~ *-*ew* ~ *-*o*-
NLMC *-*u(ə̆)*- could transcribe Kitan *-*u*- ~ *-*ø*
NLMC *-*ua*- ~ -*wa*- could transcribe Kitan *-*o*- ~ *-*wa*- ~ *-*a*[56]
NLMC *-*ia*- ~ *-*ja*- could transcribe Kitan *-*ia*- ~ *-*e*- ~ *$(C)^{j}$*a*-
NLMC *-*y(ə̆)* could transcribe Kitan *-*u* ~ *-*ü*
NLMC *-*iaw* ~ *-*jaw* could transcribe Kitan *-*iaw* ~ *-*ew* ~ *$(C)^{j}$*aw*
NLMC *-*aw* for Kitan *-*aw* (or even *-*u*/*-*ü*)[57]
NLMC *-*a* for Kitan *-*a* ~ *-*e* ~ *-*ø* ~ (or even *-*o*)[58]
NLMC *-*i* for Kitan *-*i* ~ *-*ø*
NLMC *-*aːj* for Kitan *-*ai*
NLMC *-*ə(ə̆)j* for Kitan *-*ei*
NLMC *-*uaw* for Kitan *-*u*

The reconstruction of a specific vowel or vocoid sequence depends on the above-mentioned mappings as well as motivation from Mongolic cognates and apparent loanwords in languages such as Tungusic.

Moreover, the above-mentioned mapping is not always the case. Certain transcriptions are more ambiguous than others, and the reconstruction of the vowels of individual word-forms depends on other factors as well, such as multiple transcriptions, which may give us insight into how to reconstruct a form.

I have used a capital *V for vowels whose Chinese transcriptions are especially difficult to interpret.

I tentatively reconstruct the Kitan vowel inventory below:

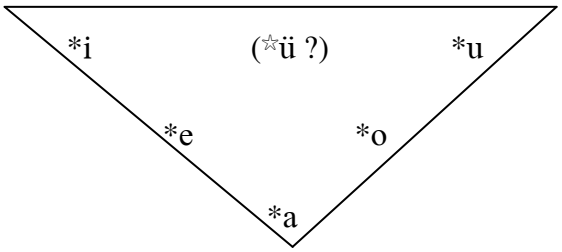
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[56] As mentioned earlier in the consonant section, NLMC velar obstruent + **w*/**u* sequences could indicate Kitan dorsal or guttural consonants. Note, for example, the transcription [化] (NLMC *xwaː), which could represent any number of Kitan forms, such as ☆*qa*, ☆*χa*, ☆*hwa*, ☆*xwa*, etc. Hence my conservative reconstruction **X(w)a*, intended to preserve the ambiguity of the NLMC transcription.

[57] Note the transcriptions of the Kitan word for 'gold' – [裊羅箇] (NLMC *niaw-la-ka) and [女古] (NLMC *nry(ə̆)-ku(ə̆)), both which seem to indicate Kitan **ñurgV* or **ñulgV*.

[58] Note the transcriptions of the Kitan word for 'time' – [𨐈] (NLMC *p^{h}a) and [頗] (NLMC *p^{h}ua), which indicate a Kitan form **po*.

Fig. 15. *A tentative reconstruction of the Kitan vowel inventory*



The reconstruction of ☆*ü* is particularly problematic. There are only a few transcriptions that could indicate this segment, and they are far from certain. I have made an attempt to acknowledge the possibility of this segment where the Chinese transcription can indicate it, but I also indicate the more likely **u*. Thus, for [鬚覩] (NLMC *sy(ǎ)-tu(ǎ)), the Kitan word for 'iron club', I acknowledge the possibility of **südü* or **sudu* (the front vowel **y* in the NLMC transcription could even indicate a palatal or palatalized onset; thus, we could also reconstruct **šudu* or **šüdü* as the Kitan form). Likewise, [女古] (NLMC *nry(ǎ)-ku(ǎ)), the Chinese transcription for the Kitan word for 'gold', could indicate Kitan **ñüLgü* or **ñuLgu*. The same is true for the transcription of 'coral', [屬珊] (NLMC *ʂɦyw-san), which we can reconstruct as Kitan **šu(r)sVn* or **šü(r)sVn*.

Attested instances of the Kitan vowels and diphthongs are presented below, with their Mongolic cognates, if any exist.

*K *i : MM i*
K *(i)ši 'nine' : MM jisü-n id.
K *či(i)ši ☆'blood' : MM čisu-n id.
K *bili/*pili 'steppe marmot'

*K *u : MM ü*
K *pulu ‘intercalary (e.g. month)’ : MM hüle(ʔ)ü ‘extra, surplus’

*K *u : MM u, ö*
K *u ‘water’ : MM usu-n id.
K *mur/*muri ‘river’ : MM mören ‘big river’
K *namur ‘autumn’ : MM namur id.

K ✯ü
K *ñüLgü/*ñuLgu ‘gold’
K *südü/*sudu/*šudu/*šüdü ‘iron club’

*K *V (✯e / ✯a) : MM a*
K *XV(w)ur (✯qawur / ✯xawur / ✯hawur / ✯xewur / ✯hewur) ‘spring’ : MM kabur [qabur] id.

*K *o : MM o*
K *po ‘time’ : MM hon ‘year’
K *mVGo ‘snake, serpent’ : MM mogai [moɢai/moʁai] id.
K *suan (✯son) ‘chest and abdomen’

*K *a : MM a*
K *jama ‘goat’ : MM ima(ʔ)a-n id.
K *šawa ‘bird of prey’ : MM šibawu-n ‘bird’
K *as(V) ‘spacious’

Diphthongs
*K *ai : MM a*
K *ñair ‘day’ : MM nara-n ‘sun’
K *sair ‘month’ : MM sara-n ‘moon; month’

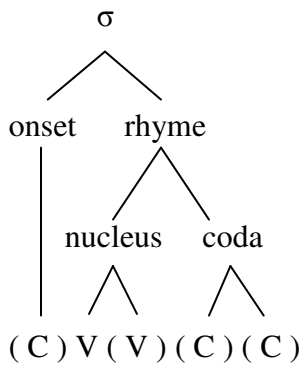
*K *ai : MM a(j)i/ai*
K *š(i)a(r)bai- ‘to be plentiful’ : (possibly cognate to WM *sarbai-*; see note above)

*K *ei : MM ei*
K *kei ‘wind’ : MM kei id.

3.3. The Syllable

Kitan syllable structure, as reflected in the source material, can be captured by the following template:

Fig. 16. *The Kitan syllable template*



Here I am analyzing diphthongs (and long vowels, which Kitan may or may not have had) as sequences of tautosyllabic vowels, e.g. the word **ñair* 'day' is of a CVVC syllabic structure. Kitan does not seem to have allowed consonant clusters within the root, but at least CC clusters seem to have been permitted across morpheme boundaries and in syllable coda position; note the word **gur-s* 'empires/kingdoms'.

Attested Syllables

V	(*u 'water')
VC	(☆as 'spacious')
VV	(*ai 'father; year')
VVC	(*ai-s 'fathers; years')
CV	(*po 'time')
CVV	(*nai 'head; first')
CVVC	(*ñair 'day')
CVC	(☆son 'chest and abdomen')
CVCC	(*gur-s 'empires/states/kingdoms')

4. Some ~~Thoughts~~ on Kitan Morphology and Syntax

4.1. Kitan Word Order and Morphological Type

The little that we have been able to discern from the Assembled Script inscriptions and the Chinese transcriptions of Kitan words in the Chinese chronicles shows that the Kitan language was of an agglutinative morphological type, characteristic of the Mongolic languages, as well as other languages of the Altaic Sprachbund for that matter (i.e. Tungusic and Turkic). Furthermore, even before scholars really started working on deciphering the scripts and reconstructing the language, we knew Kitan had a predominant OV word order (Wittfogel & Fêng 1946:244), and typologically, OV word order often correlates with agglutinative morphology in languages of the world[59]. As evidence, we may note the documented fact that Kitan children learning Literary Chinese would first be taught the language by rearranging the Chinese sentences to follow Kitan word order. Consider the following lines of a poem by the Táng 唐 Chinese poet Jiă Dăo 賈島 (779-843 C.E.)[60]:

鳥　宿　池　中　樹
birds sleep pond -in tree
"Birds sleep on a tree in a pond"

僧　敲　月　下　門
monk knock moon -under gate
"A monk knocks on the moonlit gate"

In teaching this poem to Kitan children, these verses were rephrased in colloquial Chinese and syntactically rearranged to follow Kitan word order. Thus:

[59] cf. Lehmann (1973:47)
[60] WF 244; Fêng (1948:16-7); Niè (2001*c*)

月明　　裏　和尙　門子　打
moonlight-in　monk　door　knock

水底 裏　　樹　上　老鴉　坐
water-in　　tree　-on　crows　sit

From this small shred of early evidence, we can infer that Kitan had OV word order, a feature typical of Mongolic and the other Altaic languages. Evidence from the Kitan script materials and even the Chinese transcriptions of Kitan words and phrases in the Chinese chronicles further support this conclusion.

4.2. Kitan Affixal Morphology

There has not been a great deal of investigation into the morphology of Kitan. Among the research devoted to the subject, we may note two onomastic studies: Sūn (2005), studying Kitan names transcribed in Chinese characters in the *LS* identifies what she belives to be a *-*gin* suffix, and Niè (2001*a*), also dealing with onomastic material in the *LS*, proposes there was also an *-*n* ~ *-*in* suffix used in name formation. Wú (2005) discusses the possibility of grammatical gender in Kitan, using evidence from the Assembled Script (AS). Kara observes a suffix in the form *-*wVn* (☆-*wan*) found in Kitan word forms in the *LS*, which he believes may have been a verbal noun suffix in the language (2005:9). Janhunen, working with evidence from the Kitan elements in Jurchen-Manchu, mentions what he describes as a "nominal type" suffix *-*un* which is found in the following Manchu words of Kitan and Sino-Kitan origin: *fafun* 'law' (< Kitan ☆pap-

un < 法 HT LMC *fa:p), *lamun* ‘blue’ (< Kitan ☆*lam-un* < 藍 HT LMC **lam*), and *gurun* ‘state’ (< Kitan **gur-un*) (2003:400-1). This is very likely a Kitan genitive suffix (see discussion in 5.2.2.1 below), cognate to the Proto-Mongolic genitive suffix *-*Un*.

4.2.1. Derivational Affixes

4.2.1.1. *-*wVn* [盌] (verbal noun suffix)

The reconstruction of this suffix is supported by four wordforms employing it that are transcribed in the *LS*: **pusu-wVn* [蒲速盌] ‘flourishing’, **jVLu-wVn* [耶魯盌] ‘flourishing’, **aLu-wVn* [阿魯盌] ‘assisting’, and **odu-wVn* [窩篤盌] ‘propagation’.

Menges (1968) and Kara (2005) hypothesize that this suffix denoted a verbal noun, which seems quite motivated. The suffix seems to have been applied to verbal roots. Note that Kitan **pusu-* ‘to flourish, to thrive’ may have a cognate in Manchu *fuse-* ‘propagate, reproduce, breed’ and Daur *pusu-* ‘breed, propagate, multiply’ (< ? Manchu *fuse-*). There do not seem to be any obvious cognate suffixes in Mongolic.

4.2.1.2. *-*bVñ* / *-*bVn* 苻伏 (verbal noun)

Most scholars have analyzed this suffix as *-*ben* or *-*bun*, but when we take into account the fact that the character **伏**, occurring in the AS form of this suffix, and also in

the Kitan word for ‘dog’, 伏力 <ñ=Xa> *ñaXa (a word which was very clearly borrowed into Jurchen-Manchu as *ñaxan* ‘puppy’), reading the suffix as *-*bVñ* seems justified. The Chinese transcription of the suffix as [本] (NLMC *pun) does not necessarily indicate that we should reconstruct Kitan *-*bVn*, because NLMC did not have palatal or palatalized nasals in coda position, and a syllable like [本] *pun would have been the best NLMC could have come up with to represent Kitan *-*bVñ*. Coda palatal or palatalized nasals are not common for most Mongolic languages, but Daur, a Mongolic language whose speakers may be descendents of Kitans[61], does permit such codas; we may note forms such as Daur *bun*^{j} ‘tomorrow’, *xulaan*^{j} ‘European plum’, and *sun*^{j} ‘night; evening’ (Enhebatu 1984:84, 126, 224).

4.2.1.3. *-*a* (imperfective verbal noun suffix?)

This suffix is inferred from one transcription in the *LS*, [匣列] (NLMC *xɦjaːʔ-liaʔ) ‘return/returning’, which seems to indicate a form like ☆*qari-a*, ☆*xeri-a*, or ☆*heri-a*. The primary motivation for considering this word a verbal noun and not a verbal stem is the fact that the Chinese transcription of the word refers to a name conferred upon a person. Its Mongolic cognates also suggest the same analysis: Note Kh *xar*^{j}*-aa* ‘return’ (imperfective verbal noun) and Baa, Khor, ArKhor *xɛr-aa* id. If I am correct in deducing

[61] Cf. Enhebatu (2005:167) and Zhāng (2003) for more discussion of the genetic affinity of the Kitan and Daur people, including information on recent DNA tests showing that Daur populations share a higher-than-expected number of haplotypes with Kitan persons.

that this is the Kitan imperfective verbal noun suffix *-*a*, then it is cognate to the MM imperfective verbal noun suffix -*'A* id. (realized as -*'a* in back-vowel words and -*'e* in front-vowel words), and the transcription only further proves the non-segmental nature of the Chinese transcriptions of Kitan.

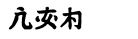
4.2.1.4. *-*dV* 忒 (denominal verb suffix)

The identification of this suffix is somewhat more speculative than that of the above-mentioned suffixes. The primary motivation behind this hypothesis is the Kitan word for 'filial piety', **či(i)šidV-bVn* or **či(i)šidV-bVñ*, and Shiratori's (1913) hypothesis that it was based on a root meaning 'blood', or **či(i)ši* as I reconstruct it. Other scholars have also favored Shiratori's proposal, namely Kane (2004) and Jí (1988). If this proposal is correct, then we may be able to break up the word for 'filial piety' into three morphemes: the root, **či(i)ši* (a noun denoting 'blood') + **-dV* (verbalizing suffix) + **-bVn / *-bVñ* (verbal noun suffix). As further support for proposing this verbalizing suffix, we may note a good cognate morpheme in Proto-Mongolic **-dA* (with surface forms **-da* ~ **-de* according to front-back vowel harmony), also a suffix of denominal verbs.

4.2.2. Inflectional Affixes

4.2.2.1. *-*Vn* (✯-*un*) 𘲢 (genitive)

This suffix is well attested in the AS texts. As evidence of its genitive quality, we may note the following illustrative contexts:



<gur=Vn> <waŋ>
empire-GEN prince
'prince of the empire/kingdom'
(*Zhong* 42:29)





<m=o> <č$_1$=i=(i)ši=dV=[?]> <w=un> <xwaŋ> <di=Vn> <g=Vn=[?]> <č$_1$=ai> <w=un>
great be.filial-verbal.noun literary emperor-GEN sorrow(?)-GEN rescript
'mourning rescript for the great, filial, literary emperor (Ch. 大孝文皇帝哀冊)'[62]
(*Dao* 1:3-10)



<l=au=u> <g=iŋ=Vn> <l=iu> <š=eu>
Luojing(place)-GEN run.government.in.absence.of.emperor
'the running of the government in Luojing in absence of the emperor (Ch. 洛京之留守)'
(*Xu* 1:11; 35:23)

The above-mentioned phrases all suggest that *-*Vn* was a genitive suffix in Kitan. This suffix seems to be cognate with the Proto-Mongolic genitive suffix *-*Un* (realized as *-*un* in back-vowel words and *-*ün* in front-vowel words). However, unlike PM *-*Un*, the Kitan genitive suffix *-*Vn* was morphophonologically less restricted: Proto-Mongolic

[62] Kane (2006:128)

*-*Un* was used only after stems ending in consonants, whereas Kitan *-*Vn* appears to have been used both on stems ending in consonants and those ending in vowels.

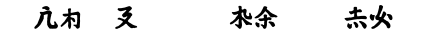
Regarding the phonetic value of the character, Chinggeltei (2002:54.140) notes that the character is also used for the transcription of LC words, e.g. Chinese 門 (NLMC *mun) is transcribed 又木 <m=Vn> in the name for the post of chancellor, or *Tóngzhōngshū ménxià píng zhāngshì* 同中書門下平章事; see the full transcription below (Chinggeltei 2002:54.140):

	为水	子水	戈火	又木	不	业同	刃同	兀
	<t=uŋ>	<ǰ=uŋ>	<š=iu>	<m=Vn>	<xɦj(V)>	<p=iŋ>	<ǰ=iŋ>	<ši>
	同	中	書	門	下	平	章	事
NLMC:	*tɦəwŋ	*tʂiwŋ	*ʂy(ð)	*mun	*xɦjaː	*pɦiŋ	*tʂiaŋ	*ʂɦɻ̩

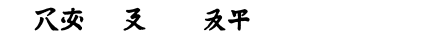
From this we may infer that the character was read **un* or at least **Vn*.

4.2.2.2. *-[?]* 叉 (genitive)

There are indications of another genitive or attributive suffix. This suffix appears in the form 叉 in the AS and occurs in a number of contexts suggesting a genitive or attributive meaning. We may note the following contexts:



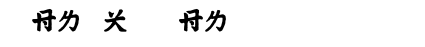
<g=Vn=[?]> <č$_1$=ai> <w=un>
sorrow(?)-GEN rescript
'mourning rescript (Ch. 哀册)'
(*Dao* 1:8-10)



<da=ur=[?]> <u=ul>
middle-GEN winter
'mid-winter (Ch. 仲冬)'
(*Lang* 5:4-5)

4.2.2.3. *-*i* 兴 (genitive?)

Although there seems to be only one clearly identifiable instance of this suffix, i.e. in the phrase for 'grandson' (Ch. 孫子), this phrase occurs at least 10 times in the extant texts. Note the form:



<b=Xa=i> <b=Xa>
son-GEN son
'grandson (Ch. 孫子)'
(*Dao* 7:26; *Xuan* 6:22; *Ling* 9:6, 15:2; *Gu* 7:3, 7:29; *Xian* 61:34, 62:34, 62:98; *Di* 3:35)

Because we find no other instances of this suffix, it may seem somewhat premature to identify it as a genitive suffix, but the fact that the genitive takes a suffix with the same form in Jurchen-Manchu (cf. Ming Jurchen *-*i* 攴 and Qing Manchu -*i*), a language that underwent significant influence from Kitan, its speakers having been subjugated to the Kitans during the Liáo dynasty, provides additional motivation for doing so. Moreover, since all the surviving texts of a substantial size consist of epitaphs for Liáo emperors and

empresses, we can assume that there must have been certain aspects of the language belonging to a specific register, and we should not rule out the possibility that Kitan had different levels of honorifics, and that this *-*i* could possibly have been a less honorific genitive, for example, or an otherwise marked genitive[63]. The other obvious possibility is that this suffix was grammaticalized in the construction for 'grandson'; this conveniently explains the lack of other constructions employing it.

4.2.2.4. *-*s* 𘮬 (non-obligatory plural suffix?)

As evidence of this suffix, we may note the attested inflected forms **gur-s* 'empires/kingdoms' and **ai-s* 'years/fathers', as in the following contexts:

𘮭　𘮮𘮬𘮬　𘮬𘮬　𘮯

<[?]> <gur=s> <[?]=[?]> <Xa>
ten.thousand kingdom/empire-PL [?] khan
'[a] khan controlling ten thousand kingdoms (Ch. 萬國掌汗)'
(*Dao* 10:19)

𘮬𘮬　𘮬　𘮬𘮬

<[?]> <(i)ši> <ai=s>
eight　nine　year/father-PL
'eight or nine years/fathers'
(*Zhong* 3:30)

[63] cf. the honorific nominative suffix *-kkeyse* 께서 vs. the plain nominative suffix *-ka* 가 in Korean (Lee & Ramsey 2000:242).

包　　𐲢𐲰

<[?]> <ai=s>
three year/father-PL
‘three years/fathers’
(*Hai* 2:11)

亦　　𐲢𐲰

<[?]> <ai=s>
six year/father-PL
‘six years/fathers’
(*Di* 26:22; 38:22)

All the above, when we take into consideration the well attested base forms **gur* ‘kingdom/empire/state’ and **ai* ‘father/year’, suggest that Kitan had a non-obligatory plural suffix **-s*. For this, we have a good cognate in Proto-Mongolic **-s*, also a non-obligatory plural suffix, although its distribution differed somewhat: Proto-Mongolic **-s* was added to stems ending in vowels, whereas the non-obligatory plural suffix **-d* was added to stems ending in consonants, where it replaced the final consonant (e.g. PM **gar* ‘hand/arm’ ~ **gad* ‘hands/arms’ < **gar* + **-d* vs. **üge* ‘word’ and **üge-s* ‘words’)

4.2.3. Some Observations on Kitan Word Formation

There is evidence in the Chinese transcriptions of Kitan that can be interpreted as indicating that Kitan had zero-derivation (or conversion). Conversion is a productive means of word formation in the Northern Tungusic language Ewenki, but not so common

in Mongolic[64]. Evidence in the Chinese transcriptions of Kitan seem to suggest that zero-derivation may have been a productive means of word formation in Kitan. For example, Kitan **X(w)a* could be interpreted as a noun 'shooting' or a verbal stem 'to shoot' based on its Chinese gloss. The fact that this word takes an object in the construction below, in what seems to be a verbal phrase complementing a noun **po* 'time' may suggest that this root served simultaneously as a verb and noun:

[[*tawl(i) *X(w)a] *po]
hare shoot time
'time for shooting hares'

Note that such constructions in most Altaic languages require a verbal noun form complementing the head noun. For example, the same construction above if translated into Written Mongolian would be:

[[taulai qarbu-qu] čaγ]
hare/rabbit shoot-FUT.VERBAL.NOUN time
'time for shooting hares/rabbits'

The above-mentioned considerations may suggest that conversion was a productive means of word formation in Kitan (or was at least generalized in the Kitan lexicon). However, the evidence is admittedly scanty, and open to multiple interpretations. Nevertheless, this is an interesting possibility that deserves more consideration.

[64] Although conversion is a common means of word formation in a number of languages, such as English (e.g. *read a* $\underline{book}_{noun}$ ~ $\underline{book}_{verb}$ *a flight*), it is much less productive in most languages of the Altaic *Sprachbund*. In Khalkha Mongolian, for example, only a handful of instances of conversion can be found, e.g. *tʃimx* **чимх** 'a pinch (e.g. of salt)' ~ *tʃimx-* **чимх-** 'to pinch', etc.

5. Conclusion

It is hoped that the contents of this study serve as a step forward in reconstructing the Kitan language and deciphering the Kitan scripts. Taking into account modern research methods from various subfields of linguistics, as well as supplementary considerations from history, philology, language universals and areal typology is, I believe, a step in the right direction. Although many questions remain to be answered in the reconstruction process, this thesis may serve as an appraisal of previous work on the language, and a foundation for future work. Much work remains to be done on Kitan, especially in deciphering the Kitan scripts, and as more bilingual inscriptions are discovered and our corpus of materials to work with expands, so too will our understanding of the language and scripts increase, and with luck, we will be able to find answers to the many issues I have been unable to properly address in this thesis.

6. A Glossary of Kitan Forms

The reconstructions contained in this glossary are partly my own, and also include a number of forms proposed by other scholars, which are referenced as such. The glossary includes approximately 100 wordforms and affixes, and although there are numerous other transcriptions of Kitan words in the Chinese chronicles and a great deal of undeciphered or partially deciphered words preserved in the native Kitan scripts, I have only included those whose decipherment is presently resolvable.

Some comments are necessary regarding my transcription of Kitan forms here: For most entries based on Chinese transcriptions, first, what may be termed a "conservative" reconstruction based closely on the reading of the Chinese characters is given in bold, marked with an asterisk (*). These reconstructions are aimed at preserving the ambiguity of the Chinese transcriptions of Kitan, and can be seen as a stepping stone to a more exact reconstruction of the word form at hand. I believe this is more advantageous than jumping straight to an exact reconstruction, since it gives us a sense of precisely how ambiguous a given Chinese transcription is to begin with, and also gives us an idea of what kinds of more exact reconstructions are possible. Following these conservative reconstructions are slightly more speculative reconstructions in parentheses, indicated with a superscript star (☆). These speculative reconstructions are not meant to be exhaustive, nor are they meant to be the final word. Rather, they are simply plausible and likely forms, motivated by either typological considerations or by cognates in Mongolic, Tungusic, or other neighboring languages. They are best understood as working

hypotheses. When no speculative reconstruction is given, it is because I believe the reconstruction is relatively certain and leaves little room for further speculation.

6.1. Wordforms

***ai** 𗼻 <ai> 'year (年)[65]; father (父)'[66] (*Dao* 4:4, 4:34, 6:18, 10:23, 33:25; *Xuan* 4:4, 5:21; *Xing* 2:28, 17:20; *Ren* 9:1, 11:14, 14:8; *Lang* 5:3)[67]

(There may be some connection with Baa, ArKhor, Khor *əəj* 'mother, mom'[68])

***ajǔ** [阿主] (NLMC *ʔa-tsy(ǎ)) 'father, grandfather (父祖)' (*LS* 116:2*a*.8-9)

(There may be some connection with D *atʃaa* 'father, dad', Baa, ArKhor *ɛdʒɛɛ* 'father, dad', ShY *adʒa* 'father'; also *adʒaa* 'father, dad; grandfather' in the

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[65] The Assembled Script grapheme 𗼻 was probably modeled after the Chinese character 年 *nián* 'year'. The character also seems to have been used as a phonogram, denoting the native word 'father' when used in isolation, and was also used for transcribing Liáo Chinese loanwords in Kitan, e.g. 𘕕𗼻 <k=ai> for 開 LC **k*^{h}*aj* and 𘍞𗼻𘐤 <d=ai=i> for 大 LC **tʰiaj*.

[66] Kara (1986-7:24; 1996:233); Thompson (2005:521); Chinggeltei (2002*a*:11, 50.122)

[67] Cóng et al (2005:54, 55) propose that the Kitan Linear Script character for 'year' and 'father' was 𘝐. The character was later borrowed by the Jurchens, with one extra stroke, as their character for 'year', written 𘝑.

[68] This Eastern Mongolian word does not seem to have cognates in other dialects of Mongolian nor in other Mongolic languages. Since the speakers of Eastern Mongolian today live in the Kitan homeland, and since much of the Kitan population was absorbed into the Mongol communities of eastern Mongolia, including these Eastern Mongolian speakers, it is entirely possible that this is a Kitan substratal element, although the semantic value has changed somewhat. It is possible that the word was polysemous in Kitan, or that in some Kitan dialects it could denote 'mother'. Note, for example, the fact that many kinship terms are quite polysemous in Eastern Khalkha (See *adʒaa* in the note below, which can have such divergent meanings as 'father', 'grandfather', 'elder sister' or 'mother' in various localities; the phonological forms clearly indicate that they have the same origin, but there are multiple meanings, even within one community). Despite this possibility, however, we should also realize that Eastern Mongolian dialects have many Chinese loanwords, even in kinship terminology, and the word *əəj* could possibly be a loan from, say, Chinese *āyí* 阿姨 'auntie', which in older times even denoted 'father's concubine'.

southern Khentii variety of Eastern Khalkha[69], Üdzümüchin *aadʒii* ‘father/dad’, Dariganga *aadʒææ* ‘wife’[70], and Oir *aadʒ* ‘respectful term for addressing one’s elders’)

***aLu-wVn** [阿魯盌][71] (NLMC *ʔa-lu(ǎ)-ʔuan) ‘assistance (輔)’[72] (*LS* 31:5*b*.4; *LS* 116:13*b*.5-6)[73]

(Although there is phonological similarity with the following forms, they all pose semantic problems: JJur **ali-/*alu-* ‘to respectfully present’[74], Ma *ali-* ‘to receive, accept’, D *al^{j}-* id.; WM *ali*, and Kh *aɮ^{j}* **аль** ‘give it here!’[75])

***as(V)** (☆as) [阿思, 阿斯] (NLMC *ʔa-sẓ) ‘spacious (寬大)’[76] (*LS* 31:5*a*.9; 116:13*b*.3-4; *LSSY* 23:428.7-8)[77]

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[69] Elicted by myself from Prof. Yümjiriin Mönkh-Amgalan, a 50-year-old male native speaker from Bayanmönkh *sum* [county], Khentii *aimag* [province], Mongolia. According to Amarjargal (1988:38), the same form can also mean ‘mother/mom’ and ‘elder sister’ in other varieties of Eastern Khalkha.

[70] Amarjargal (1988:55)

[71] The glossary of the *LS* cites the form [何魯盌] (NLMC *xɦa-lu(ǎ)-ʔuan) ‘to assist a ruler in governing (輔佐)’ (116:14*a*.5-6). The NLMC reading of these characters suggest Kitan **XaLu-wVn*. The occurrence of these two different forms is clearly due to the resemblance of the characters 何 and 阿, one which is the result of a copyist’s mistake. It is not entirely clear which form is correct, but it seems likely that 阿 is the correct form, because it occurs in the main body of the text near its context. Moreover, the glossary of the *LS* seems to contain other scribal errors, not only in the transcription of Kitan words but also in their Chinese glosses.

[72] The gloss in *LS* (31:6*a*.4) is ‘to assist in defending/protecting (輔祐)’.

[73] WF 546; Stein (1940:66, *n.*11); Osada (1951:54); Schott (1879:6); Klaproth (1831:295)

[74] [阿里, 阿離] (NLMC *ʔa-li) ~ [阿魯] (NLMC *ʔa-lu(ǎ)), [阿盧] (NLMC *ʔa-lu(ǎ)) ‘to respectfully present (呈獻)’ (Sūn 2004:192-3, 324)

[75] Rozycki (1994*a*:16)

[76] The *LS* (*LS* 116:14*a*.3-4) translates this word as 實大 which is probably an error for 寬大, the form occurring in the text (31:5*b*.9).

[77] Stein (1940:66, *n.*10); WF 546; Osada (1951:54); Perlee (1959*b*:15); Klaproth (1831:294); Schott (1879:6).

At first glance, a connection with WM *asuru* ‘very, very much, extremely’ seems at least phonologically plausible, and this is what Schott (1879:6) and Osada (1951:54) proposed, but as Kara (2001:81) explains, this WM word is a borrowing from Turkic *ašru*, the verbal adverb form of the verb *aš-* ‘to cross’.

***bVXa** 𗍫𗍏 (☆bVxa / ☆bVqa / ☆bVha) <b=Xa> ‘son (子)’ (*Dao* 7:26, 11:3, 34:25; *Xuan* 6:22; *Xing* 4:14, 9:4, 31:8; *Ren* 7:1, 16:13, 28:10)[78]

***bVXa-i bVXa** 𗍫𗍏𗴲 𗍫𗍏 <b=Xa=i> <b=Xa> ‘grandson (孫子)’[79] (*Dao* 7:26; *Xuan* 6:22)

***b(V)iši** (☆buiši / ☆baiši / ☆biši) [北室] (NLMC *pu(ə̆)j-ʂiʔ) ~ [牌室] (NLMC *pɦaːj-ʂiʔ) ~ [比室] (NLMC *pji/*pɦji-ʂiʔ) ‘diamond (金剛)’ (*LSSY* 13:248.13-5)[80]

***bais(i)-** [拜洗] (NLMC *paːj-si) ‘receive favors/gifts (受賜)’ (*QDGZTW* 24:173.6; *QDGZSH* 24:232.13-233.1)[81]

(Possibly related to WM *bayas-* ‘to rejoice, be happy, cheerful, joyful; be content’, MM *bayas-* id.[82], D *bais-* id., Oir *bajsa-* id., and/or MJur *baiši-* ‘to ask for’[83], *baišin* 金夷 ‘request’[84])

***bili / *pili** [貔貍] (NLMC *pɦji-li) ‘steppe marmot *(Marmota bobak)*’ (*QDGZTW* 24:173.11; *QDGZSH* 24:233.6[85]; *LSSY* 24:433.4-14)[86]

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[78] Chinggeltei (2002*a*:11); This word partially resembles Arin (an extinct Yeniseian language) *bikjal* ‘son’, but the connection, if any, is uncertain. There could potentially be some connection with WM *bay-a* ‘small, little’ as well, although this proposal poses semantic problems.

[79] Literally ‘son of son’ (son-GEN son)

[80] WF (549, *n.* 79) compare this word with Manchu *palta wexe* and *paltari* ‘diamond’, but this proposal is phonologically nearly impossible.

[81] Vovin (2003:240.2); Franke (1976:176); Shiratori (1912:1248)

[82] *bayas-* [巴牙思] (Kuribayashi & Choijinjab 2001:02.35.09)

[83] Kara (1991:155); the original source is Kane (1989:292) in the form [拜失] ‘to ask for (討)’.

[84] Jīn (1984:169, 236)

[85] No gloss is provided in the text of either edition of the *QDGZ*, but the text does give a description of the animal: “the *bili resembles a rat and lives in a big burrow. It eats grain and millet, and is fond of meat. Kitans consider it a delicacy. It tastes like crispy pork” (貔貍形如鼠而大穴居食穀粱嗜肉北朝爲珍膳味

(cf. East Old Tibetan *'*phyi-lī* 'marmot'[87])

***biLič$_2$iL(i)** [必里遲離] (NLMC *pjiʔ-li-tʂʱi-li) 'ninth day of the ninth lunar month (重九日, 九月九日)' (*QDGZTW* 27:187.9; *QDGZSH* 27:253.5; *LS* 53:8*a*.13, 116:11*a*.13-11*b*.1; *LZ* 9.11; *LZSF* 8*a*.5-7)[88]

***buL(i) / *puL(i)** [暴里] (NLMC *pʱuaw/*pʱəw-li) 'villain, vile person (惡人)' (*LS* 116:3*a*.9-10)[89]

***č$_1$ai wun** (✩čai wun) 𘓐𘓻 𘓱𘓼 <č=ai> <w=un> 'rescript (冊文)'[90] (*Dao* 1:9; *Xuan* 1:6)

(This word, a loan from LC **tʂ^{h}a(ă)j *vun* 冊文, is an important piece of evidence that LC had lost final **-k*. Cf. HT **tʂ^{h}ăjk* 冊)

***č$_2$awdiŋ / *č$_2$awdiK** (✩čawdiŋ / ✩ǰawdiŋ / ✩čawdik / ✩čawdiq / ✩ǰawdik / ✩ǰawdiq) [朝定][91] (NLMC *tʂʱiaw/*tʂiaw-tiŋ) 'friend (朋友)' (*QDGZTW* 1:5.10-11; *QDGZSH* 1:6.6; *YC* 31*a*.1-2)[92]

如豚肉而脆). Franke (1976:179) connects this with the "steppe marmot" and Vovin (2003:243) concurs. This seems like a very reasonable assumption.

[86] Franke (1976:179); Vovin (2003:243.4); Róna-Tas (2004); Shiratori (1912:1251)

Franke (1976:179) further notes that *Huàmàn Lù* 畫墁錄 by the Sòng 宋 author Zhāng Shùnmín 張舜民 (ca. 1034-1100 C.E.) gives the form [毗黎邦] (NLMC *pʱji-li-paːwŋ), glossed as 'big rat (大鼠)' (*HML* 1:24*a*.7), which implies a Kitan form **bilibaŋ* or **pilibaŋ*.

[87] Róna-Tas (2004:28) reconstructs this Tibetan word and suggests its connection with the Kitan form, which he reconstructs as **phyili/*byili*.

[88] Shiratori (1912:1252); Stein (1940:137); Osada (1951:50)

[89] Perlee (1959*b*:15) proposed a connection with WM *boγol* 'slave'. Klaproth (1831:294) also dealt with this word, which he reconstructed as **booli*.

[90] Cf. Kane (2006:123, 130)

[91] Kara (personal communication) points out that the final **-ŋ* could even have represented a Kitan final stop **-k* or the like, since northern Chinese had lost final stops by this time.

[92] Franke (1969:40); Shiratori (1913:44); Probst (1963:136-7, 145-6)

***ča(w)ur** [籿離] ~ [抄離] (NLMC *tʂʰa:w-li), [炒伍侕] (EM *tʂʰaw-u-rṛ), ‘war, battle (戰)’[93] (*QDGZTW* 27:188.6; *QDGZSH* 27:254.8; *LS* 53:8*b*.7; *LSSY* 24:435.4-5; *LZ* 10.7; *LZSF* 8*b*.10-1)[94]

(MM *ča(w)ur* id.[95]; Ordos *ʧirig ʧʊʊr* ‘army, soldiers’[96], Buryat *sərəg sʊʊr* ‘war, army’[97] and Khalkha *tsʰirək tsʰʊʊr* **цэрэг цуур** id.; cf. also MJur *čau(r)-xa* 刨申 [鈔哈] ‘army, soldier (軍)’[98], MJur *čau(r)-ši* 刨芖 [鈔師] ‘army, soldier (軍); military advisor (軍師)’[99], Ma *čooxa*, and D *ʧʷaɣ* id.)

***či(i)ši** 夲关禾 <č=i=(i)ši> ☆‘blood’ (*Xuan* 25:28; *Xing* 30:16; *Ren* 14:23, 21:8, 26:13, 28:11)

(cf. WM *čisu(n)* ‘blood’[100], MM *čisun* id.[101], Kh *tsʊs* **цус** id., MoKhamMo *ʧisʊ* id., Oir *tsʊsn* id., DongX *ʦusuŋ* id., ShY *ʧysən* id., Mang **chuzi** id., Mog. *ʧɪsu* id., Bon. *ʨisəŋ* id., Bur *ʃʊhən* **шүһэн** id., KJ *ʧisun* id., Mongghul *ʨisə* id.)

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[93] Jí (1996) and Kane (2006) believe the Assembled Script form for this word was 而灸 <č(a)=ur>.

[94] WF (433*b*); Franke (1969:36); Shiratori (1912:1246); Stein (1940:144); Osada (1951:50); Poppe (1976:463); Kara (1986-7:20); Šagdarsüren (1998:67, 80; 1999:81).

Šagdarsüren (2005:1986) notes a WM word *čaɣuraɣulabai* in the *Altan Tobči*, which is glossed as *čeriglegülbei* “caused/made to wage war” (wage.war-CAUS-PAST) and which seems to be cognate to the MM and Kitan forms.

[95] *ča’ur* [察兀兒] ~ [察兀舌兒] ‘expedition; an expedition against (征)’(Kuribayashi & Choijinjab 2001:11.20.08, 11.32.08)

[96] Sonom (1999:415*b*)

[97] Poppe (1976:463)

[98] Jīn (1984:128)

[99] Jīn (1984:93)

[100] The connection was proposed by Shiratori (1913) based on the transcription of the Kitan word for ‘filial piety’ transcribed in the Chinese chronicles. The semantic identification of this Kitan word still remains speculative at this stage, but it is possible that future research may prove his proposal to be true. Jí (1988) identifies the Assembled Script form and follows Shiratori’s proposal that it was the Kitan word for ‘blood’.

***či(i)šidV-bVñ** (☆čišide-buñ / ☆čišide-beñ) [赤寔德本] [102] (NLMC *tʂʰiʔ-ʂɦi(ə)ʔ-tə(ə̆)j-pun), [赤實德本] (NLMC *tʂʰiʔ-ʂɦiʔ-tə(ə̆)j-pun) 'filial piety (孝)' (*LS* 31:5*b*.11; *LSSY* 23:428.10-11)[103]

***či(i)šidV-bVñ** 𘘇𘘴𘘶𘘽𘘾𘘿 <č$_1$=i=(i)ši=d=b=ñ> (*Dao* 15:1, 16:17, 23:4; *Xu* 59:22; *Zhong* 2:47, 12:37, 16:35, 28:4, 30:31, 39:25, 40:1, 41:20, 46:2; *Zhi* 12:42, 17:29), ***či(i)šidV-bV[?]** 𘘇𘘴𘘶𘘽𘘾𘘀 <č$_1$=i=(i)ši=d=b=[?]> (*Zhong* 19:9; *Zhi* 4:13, 18:35; *Xian* 56:33), ***či(i)šidV-[?]** 𘘇𘘴𘘶𘘽𘘁 <č$_1$=i=(i)ši=d=[?]> (*Dao* 1:4, 5:6; *Xing* 2:6; *Zhong* 32:6, 36:13, 49:17) 'filial / filial piety (孝)'

***da(w)ur-[?]** 𘘂𘘄𘘀 <da=ur=[?]> 'middle + [genitive ?]' (*Dao* 29:26; *Lang* 5:4) (cf. D *daur* ~ *dawur* 'Daur')[104]

***da(w)ur-[?] u(w)ul** 𘘂𘘄𘘀 𘘅𘘁 <da=ur=[?]> <u=ul> 'mid-winter (仲冬)' (*Lang* 5:4-5)

Kane (2004:224) also believes the root of the Kitan word for 'filial piety' was the word for 'blood', which he reconstructs as **čiis-* or **čis-*.

[101] *čisun* [جيسون] 'blood (الدم)' (Golden 2000:199*a*26), *čisun* [جيسون] (Poppe 1938-9:135*a*), *čisun* [赤孫] ~ *čisu* [赤速] 'blood (血)' (Kuribayashi & Choijinjab 2001:4.9.2; 8.20.3)

[102] The glossary of the *LS* mentions a form [得失得本] which can be regarded as a scribal error; alternatively we could consider it a dialectal variant or a near synonym, but the repeated character may speak in favor of calling it an error.

[103] WF (546); Franke (1969:29-30); Shiratori (1913:28); Stein (1940:66, *n.*12); Osada (1951:54); Probst (1963:144); Kara (1986-7:21); Chinggeltei (2002*a*:59.162); Schott (1879:7); Klaproth (1831:295)

[104] Kara (1986-7:24; 1996:234); Kara (1988:56) proposed the reading **da.ur* and suggested the connection with the ethnonym Daur.

***duaG(u)ai / *duaK(u)ai** (☆doqai / ☆dwaqai)[105] [墮瑰][106] (NLMC *tʰua-k$^{(h)}$uaj[107], EM *tɔ-k^{h}uj) 'door, gate (門)' (*LS* 116:14*a*.12-13; *LSSY* 23:428.12-13)[108]

(cf. Ma *duka* 'door, gate', MJur **duka* 哥 'gate'[109], SJ *du^{q}χa ~ dʊ^{q}χaa ~ dukaa* id., D *dukaa* 'main entrance, door, gate; courtyard gate'[110])

***duaL(i)-bVñ** (☆dwar-bVñ / ☆dor-bVñ) [奪里本] (NLMC *tʰuaʔ-li-pun) 'to put down a revolt, pacify (討平)' (*LS* 31:3*a*.12; *LS* 116:13*a*.4-5; *LSSY* 23:427.12-13)[111]

(There is possibly a connection with WM *daru-* 'to press; oppress, suppress, subdue, defeat, restrain', MM *daru-* id.[112], D *dar-*, Kh *dar-* **дар-** id., Oir *dar-* id., Bon. *dar-* id., Bur *darə-* **дара-** id., ShY *darə-* id., Mongghul *daarɔ-* id., DongX *daru-* id.; JJur [奪離剌] (NLMC *tʰuaʔ-li-laʔ) 'to put down a revolt, pacify (討平)'[113])

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[105] Given the Jurchen-Manchu and Daur forms, it seems most motivated to reconstruct ☆*doqai* or ☆*dwaqai* as the Kitan form. However, this Chinese transcription is not entirely straightforward, and we should still acknowledge the possibility of other forms, such as ☆*dwakwai*, ☆*dwaɢai*, ☆*doɢai*, ☆*dwagwai*, or ☆*dogwai*.

[106] The first character in this transcription, [墮], can also be read *huī* (NLMC *xjyj, EM *xuj), which would imply a Kitan form **x^{j}uig^{w}ai*; however, *duò* (NLMC *tʰua, EM *tɔ) is the more common reading.

[107] The HT LMC reading of the character [瑰] is **kuaj*, but if we assume NLMC to be the direct ancestor of EM, which it probably was, then we may be justified in taking the EM form **k^{h}uj* and projecting it back to a NLMC form **k^{h}uaj*. Moreover, when we assume the stop was aspirated in NLMC it provides us with a suitable cognate with Jurchen-Manchu *duqa* 'door; gate'.

[108] Shiratori (1912:1243)

[109] Kiyose (1977:108.201), Jīn (1984:33)

[110] cf. also Mèng (1995:219) who notes the form *dùwā* 'door, gate (门)' in the "language of the Kitan descendants" (Ch. 契丹后裔语) of Yunnan province in southern China. For more information on the Kitans in Yunnan, see Zhōu (2001).

[111] Shiratori (1912:1244); Stein (1940:66, *n*.5); WF 543; Murayama (1951:56); Schott (1879:7); Klaproth (1831:295)

[112] *daru-* [荅^{舌}魯] id. (Kuribayashi & Choijinjab 2001:6.9.3)

[113] Sūn (2004:214)

***gVn** (☆gun) 𘓐𘓻 <g=Vn> ‘sorrow, sadness, grief (哀)’ (*Xuan* 1:7; *Xuan* 2:0; *Ren* 2:2)

(cf. WM *γuni-* ‘to grieve, be afflicted, sad’, *γuniγ* ‘sadness, grief, sorrow’)

***gVnlei** (☆genlei / ☆ganlei) [幹勒][114] (NLMC *kan-lə(ǎ)j) ‘generous, dignified (厚重)’

(*QDGZTW* 24:173.6-7; *QDGZSH* 24:233.1)[115]

***gia(m)mu**(-) (☆gia(m)mu(-) / ☆gʲa(m)mu(-) / ☆gem(m)u(-)) [監母] (NLMC *kjaːm-məw) ‘to hand down, to transmit / handing down, transmission (遺留)’[116] (*LS* 31:3*b*.7; *LS* 116:13*b*.9-10; *LSSY* 23:427.15-16)[117]

(There is possibly a connection with D *gʲanə-* ‘to move, transfer’ or Ma *giyamun* ‘relay station, relay post’)[118]

***gur** 𘓐𘔼 <g=ur>[119] ‘state, kingdom, empire (國)’ (*Lang* 1:3; *Ren* 8:14; *Xuan* 10:13)[120]

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[114] Vovin reconstructs **kanlik*, following a principle of assuming LMC voiceless unaspirated stops represented voiceless stops in Kitan, and translates the word as “liberal” following Franke (1976), but I follow Mathew’s translation of *hòuzhòng* 厚重 as “generous; dignified; fat and heavy, as a person” (321*a*.2147).

[115] (Vovin 2003:241.4); Shiratori (1912:1248)

[116] Wittfogel & Fêng (1946:544) translate *yíliú* 遺留 as ‘to transmit’. However, it is not clear from the context whether the word is a verbal stem or a noun.

[117] WF (544); Franke (1969:32); Stein (1940:66, *n.* 6)

[118] Franke (1969:32) reconstructs Kitan **gemmu* and, saying that “the word does not sound very Mongolic” (*ein solches Wort klingt nicht sehr mongolisch*), he offers up the unlikely candidate cognates Manchu *gemun* ‘the imperial capital’ and *kemun* ‘measure, dimension, model, ruler, rule, regulation’, admitting the semantic discrepancy (*semantisch geht das nicht auf*). Osada (1951:46) suggests a connection with Manchu *giyamun* ‘relay station’.

[119] The reading **ur* for the character 𘔼 was first proposed by Kara (1988) and was later independently proposed by Toyoda (1998). Chinggeltei (2002*b*:45.97) proposes reading the character as both **uan* and **ur*. It seems unlikely, however, that the character denoted these two rather different readings, and the evidence he presents to support the reading **uan* is not very convincing.

[120] Kara (1986-7:24)

(cf. JJur **guru-n*[121], MJur *gurun* 囡土 <guru=un>[122], Ma *gurun* 'state'[123], Sol *gurũ*, Ul, Ok *guru(n)*, Na *gurũ* id.[124]; D *gurun*, WM *gürün* 'country, state, nation'; note also MM *gür* 'universal, general, widespread'[125])[126]

***gur-s** 𠘨𡆥𠂤 <g=ur=s> 'states/kingdoms' (with non-oblig. pl. **-s*) (*Dao* 10:19)

***gu(u)-n** [孤穩] (NLMC *ku(ǎ)-ʔun, EM *ku-un) 'jade (玉)'[127] (*LS* 116:13*a*.12-13; *LSSY* 23:428.1-2)[128]

***gu** 𠘨𢘑 <g=u$_1$> (*Xuan* 29:10; *Nu* 13:27)

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[121] **gurun* [國論] ~ **guru* [骨盧] 'country, state (國); noble (貴)' (Sūn 2004:217, 328)

[122] Jīn (1984:62, 122)

[123] Note also Bala Manchu [guɔru] and Alchuka Manchu [gurun] 'country (国)' (Mù 1987:22)

[124] Rozycki (1994*a*:93)

[125] *gür* [古𠶷兒] 'universal, general, widespread (普)' (Kuribayashi & Choijinjab 2001:4.31.6); Kane (2006:124-5) suggests a connection between this MM word and Kitan **gur*, and also mentions the likely connection to the first element of the title *Gur-khan*, adopted by Yēlǜ Dàshí 耶律大石 (or Yēlǜ Dáshí 耶律達實), the founder of the Qara Khitai empire.

[126] The Linear Script character for 'empire' seems to have been 国, a graphic cognate to Chinese *guó* 國 'nation, empire, country, state' (Cóng et al 2005:54-5); there exists a variant of the Chinese character 國 in the form 国, on which the Kitan Linear Script form seems to have been based.

[127] This transcription appears to be of the *fǎnqiè* 反切 style, where [孤] represents the initial **g-* and [穩] a final **-un* ; cf. also MJur 吳土 <gu=un> **gun* [古溫] 'jade (玉)' (Kiyose 1977:129.569), MJur **gu(u)* [顧兀] (EM *ku-u) 'jade (玉)' (Kane 1989:351) and Ma *gu* 'jade'. Cf. also OKog **kv* [古] 'jade (玉)' (Beckwith 2004:252). Regarding the origin of the word, I follow Beckwith (2004:175), who states that "considering the importance of the commerce in jade in China already in Early Old Chinese times, and that the main sources of jade are outside of the Chinese home territory, this must be an ancient culture word, and could be a loanword even in Chinese". He cites Modern Mandarin *yù* 玉 'jade' and proposes a "Late Middle Old Chinese" protoform **gyuC*, which entered the language from some unknown source.

The Kitan Assembled Script form, <gu=u>, may suggest that the syllable-final **-n* element in the Chinese transcription of the Kitan form is a (case?) suffix, probably the same as the so-called 'unstable' or 'fleeting' *-n* of Mongolian. We find more evidence of what superficially appears to be the same *-n* suffix as early as Tabgach, in the word for 'dog', **ñaGan* [若干] (EMC *ɲiak-kan), attested in the *Weì Shū*, corresponding to Proto-Mongolic **noka.i* (WM *noqai*) and Kitan **ñaXa* [捏褐] (NLMC *niaʔ-xɦaʔ).

Alternatively, we could interpret the transcription as indicating a long [uː] in the Kitan and Jurchen forms. The modern Daur form could serve as evidence to support such a hypothesis.

Menges (1968:41) also treats the Kitan word and makes note of the Jurchen form.

[128] WF (542, 544); Ligeti (1927:309); Shiratori (1913:22); Stein (1940:65, *n.* 2); Osada (1951:53); Schott (1879:6); Klaproth (1831:294)

(MJur *gu-n*, Ma *gu*, D *guu*, id., WM *ogyu* ‘turquoise’)

***G(w)a(R)Xa** (☆ɢatqa / ☆gatxa / ☆ɢatxa / ☆gwatxa / ɢatxa)[129] [厥荷] (NLMC *kyaʔ-xɦa) ‘friendly relations (通好)’ (*QDGZTW* 24:173.6; *QDGZSH* 24:233.1)[130]

(There may be some connection with Ew *katak* ‘friend’, Neg *katixa* id., and/or MJur *kadagun* ‘sincerity’[131]; however, this hinges on the phonological reconstruction of the Kitan form.)

***irV** 夬仉 <i=rV> ☆‘name, title (號)’[132] (*Dao* 24:36, 36:20; *Xing* 13:8; *Lang* 5:15)

(cf. MKor *irhum* 일·훔 ‘name (名)’[133]) [134]

***ituGan** (☆itugan / ☆ituʁan / ☆ituɣan) [伊吐干] (HT *ʔji-t^{h}u(ǎ)-kan)[135] ☆‘female shaman’[136]

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[129] As Prof. György Kara (personal communication) notes, the Chinese transcription could even indicate a Kitan form like **güige/*guige* or **küige/*kuige*.

[130] Vovin (2003:241); Shiratori (1912:1248)

[131] [哈荅溫] (EM *xa-ta-un) ‘sincerity (誠)’ (Kiyose 1977:120.409)

[132] Kara (1996:233)

[133] Nam (2002:1178*a*, 1180*b*, 1181*a*); I am grateful to Prof. Alexander Vovin of the University of Hawai‘i for his invaluable comments on my forthcoming article on this possible lexical correspondence, and for pointing out errors in the tone markings of some of the Middle Korean forms cited in Nam (2002).

[134] If the above semantic value of this Kitan word, proposed by Liú & Yú (1981*b*:176), can be verified with certainty, it may suggest a Middle Korean loanword in Kitan or vice versa (the directionality is not clear). There was considerable historically documented contact between Kitans and Koreans in the late 10th and early 11th centuries, e.g. one may cite the three major wars between the Kitans and the Korean state of Koryŏ 高麗 (935-1392 C.E.), and, as Šagdarsüren states, “[the Koryŏ historical chronicles are] replete with evidence that… Koreans knew the [Kitan]… scripts… very well” (2002:70). Linguistic contacts between the Kitans and Koreans are certain to have occurred, and it would not be strange to find borrowings between the languages (cf. Shimunek (forthcoming)).

[135] We may conclude that this transcription was made during the Tang dynasty, since it occurs in a text datable to around the High Tang period (see note below). Therefore, I follow the High Tang reading of the characters here in reconstructing the Kitan form. Regarding the reconstruction of the Kitan word, even a form **jituGan* is possible, since LMC could have indicated an onsetless Kitan syllable **i* with **ʔi* (e.g. 懿).

[136] Dien (1956:13) identified this word and proposed that it meant ‘female shaman’. Unfortunately the original text (contained in the collected works of the Táng 唐 dynasty statesman and literatus Zhāng Jiǔlíng 張九齡 (678-740 C.E.), in *Táng chéngxiāng qǔjiāng Zhāng xiānshēng wénjí* 唐丞相曲江張先生文集 14.5*b*

(cf. WM *iduɣan ~ uduɣan* ‘female shaman’, MM *iduqan* id.[137], Kh *ʊdʁəŋ* **удган** id., Oir *ʊdɢʊn* id., D *jadɣən* id.)

***jV** (✩ja / ✩je) [野] (NLMC *jia) ‘star (星)’ (*LS* 116:14*b*.1-2)

***jVLu / *jVLü** (✩jalu / ✩jelu / ✩jaru / ✩jeru / ✩jelü / ✩jerü) [野旅] (NLMC *jia-ly(ə)) ‘orbit (躔次)’ (*LS* 40:1*b*.8; *LS* 116:14*b*.1-2)

***jVLu-wVn** [耶魯盌] (NLMC *jia-lu(ə)-ʔuan) ‘prosperous, flourishing (興旺, 興盛)’[138] (*LS* 31:2*b*.3; *LS* 116:13*a*.6-7; *LSSY* 23:427.10-11)[139]

***ja** 𘤀 <ja> ‘elder brother (兄)’ (*Dao* 12:24)[140]

***jama** 𘤀𘤁 <jam=a>[141] ‘goat (羊)’ (*Gu* 25:5)[142]

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and *Táng chéngxiāng qǔjiāng Zhāng wénxiàn gōngjí* 唐丞相曲江張文獻公集 8.24*b*-25*a*) does not explain the meaning of the word, although it was very clearly used as a title in reference to a Kitan woman. Dien proposed that this was the Kitan word for ‘female shaman’ based on the fact that this word phonologically resembles WM and MM *iduɣan* ‘female shaman’. Poppe (1976:463) readily accepted this proposal, and I, too, believe that Dien is very likely correct in his deduction. Nevertheless, we must acknowledge the lack of solid evidence of the semantic value of the word, and therefore, I have marked the gloss above with a star.

[137] *iduqan* [亦都罕], glossed as ‘witch/exorcist (師婆)’ (Kuribayashi 2003:1.16*a*.2)

[138] This word may be connected with the Liáo imperial surname *Yēlǜ* 耶律.

[139] Franke (1969:30); WF (542); Shiratori (1913:45); Stein (1940:66, *n.* 3); Schott (1879:7); Klaproth (1831:294)

[140] Chinggeltei (2002*a*:11, 90.335); This Assembled Script character is found in the transcriptions of several Chinese words in Kitan (Chinggeltei 2002*a*:90.335), e.g. 𘥥𘤀𘤍 <g=ja=am> for Ch. 監 (NLMC *kja:m) ‘to observe, inspect’; 𘥥𘤀𘤂 <g=ja=jam>, also for Ch. 監 (NLMC *kja:m); and 𘥥𘤀 <g=ja> for Ch. 家 (NLMC *kja:) ‘family’. Moreover, in a number of inscriptions, including the *Yelü Renxian Muzhi* 耶律仁先墓志 text, this character occurs in the compound for ‘brothers’, 𘤀 + 𘤃, literally ‘older brother’ + ‘younger brother’, morphologically parallel to Ch. *xiōngdì* 兄弟 (older.brother-younger.brother) ‘brothers’.

[141] Other scholars propose reading this word as **ima*, which is also possible if we use Northwestern Late Middle Chinese readings to interpret the value of the grapheme 𘤂, but if we assume that Liáo Chinese

(cf. PM **ima(ɣ)a-n* id., WM *imaγa(n)*, MM *ima'an* id.[143], D *imaa* id.[144], Kh *jamaa* **ямаа** id., Oir *jamaan* id., DongX *imaŋ* id., ShY *maan* id., Mongghul *imaa* id., Bon. *jimaŋ* id., KJ *imɔ* id.)

☆jow 𘲢𘲛 <(☆jo)=u$_i$> 'black (壬/癸(黑))' (*Dao* 4:11, 6:23; *Xuan* 26:11)

(cf. Khüree Mongolian *jɔːxan* 'black' and Mongghul *joːxɔn* 'pitch-black'[145])

***ǰaw** [爪][146] (NLMC *tṣaːw) 'hundred (百)' (*LS* 116:16*a*.1-2)

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resembled Northern Sòng Chinese, which all other evidence seems to suggest, we should probably reconstruct a Kitan form **jama*. This proposal is typologically motivated in that there is other evidence of a general phonological trend of "pre-breaking" in Kitan, e.g. note the Kitan form **šawa* 'bird of prey', which is cognate to Middle Mongolian **šibawu-n*. It is very likely that both the Middle Mongolian and Kitan forms go back to a protoform ☆*siba* or the like, and we can easily imagine a protoform ☆*ima* 'goat' giving rise to Middle Mongolian *ima'an* 'goat' and a Kitan form **jama* 'goat', following a regular phonological rule of regressive assimilation. Moreover, proposing **jama* is also philologically motivated, since we have instances of the Assembled Script character 𘲜 being used to transcribe NLMC **-jam* or **-iam*. Chinggeltei (2002*a*:80.270) notes the following Chinese words transcribed in Assembled Script (the decipherment of the AS characters is my own modification): 𘲞𘲜 <g=jam> for Ch. 檢 (NLMC *kiamˊ) and 𘲝𘲜 <d=jam> for Ch. 點 (NLMC *tiamˊ). With this evidence in hand, it seems much more motivated to reconstruct **jam* rather than **im* as the reading of the Assembled Script character 𘲜, and thus reconstruct **jama* as the Kitan word for 'goat'.

[142] Toyoda (1963:10); Kara (1996:233); Chinggeltei (2002*a*:10, 66.189)

[143] *imaan* [ᠢᠮᠠᠭᠠᠨ] <iman> 'goat' (Ligeti 1965:280.20), *ima'at* [亦馬阿𘉋] (with plural suffix **-t*) id. (Kuribayashi & Choijinjab 2001:5.11.6)

[144] cf. also D *jamaars* 'goatskin', a blend of *jamaa/imaa* 'goat' and *ars* 'skin'.

[145] Chinggeltei (2002*a*:11, 88) proposes this reading of the characters and provides the Khüree (蒙古语库伦土语) and Mongghul (土族语) forms. Although I have been unable to locate any independent data on Khüree that verifies the form Chinggeltei cites, the Mongghul form is also attested in Lǐ (1988:683) who cites the form *yoohan* (in the Pinyin-based latin orthography) glossed as 'pitch black (乌黑)'.

[146] The transcription actually provided is [瓜] (LMC *kwaː), but this is clearly a mistake for [爪] (LMC *tṣaːw) — Prof. György Kara (personal communication); cf. also Ligeti (1927:310), Kara (1986-7:20, 24; 1996:233), Schott (1879:6), Chinggeltei (2002*a*:11, 33.15; 2002*b*:108), Shiratori (1912:1262), Stein (1940:32), Murayama (1951:53), and Šagdarsüren (1998:80; 1999:81). Klaproth (1831:295) failed to realize the transcription error, and reconstructed **gua* as the Kitan form.

It should also be noted that these two characters have been confused before in the transcription of non-Chinese words, e.g. the transcription of the Middle Mongolian word for 'Lilium Tenuifolium' in the Yuan

***ǰaw** 丞 <ǰaw> (*Dao* 24:6, 33:23, 34:11; *Xuan* 18:15; *Xing* 16:15, 25:25, 25:27, 29:7; *Ren* 14:20, 21:3)

(cf. WM *jaγu(n)*, MM *ǰawu-n*[147], PM **ǰa(ɣ)u-n*, D *ʤau* id.[148], Kh *dzʊʊ* **зуу** id., MoKhamMo *dzʊʊ* id., Oir *zʊʊn* id., ShY *ʤuun* id., Mongghul *ʤɔŋ* id., Bon. *ndʑəŋ* id., KJ *ʤun* ~ *ʤyn* id.)

***kVč(V)** (☆keči / ☆keč / ☆keče) 𠂢本 <k=č> 'border region (疆); territory (境)' (*Dao* 10:13, 25:8, 34:30; *Xu* 25:34)

(A connection with Daur *kətʃ* 'edge; side; border' seems very likely; Kane (2006:127) suggests a connection with Manchu and Ming Jurchen *xečen* 'city, walled city')

***kVtei** (☆ketei / ☆katei)[149] [可忒] (NLMC *k^{h}a-t^{h}ə(ǎ)j) 'without limit (無極)' (*QDGZTW* 24:173.7; *QDGZSH* 24:233.2)[150]

***kei** [刻] ~ [尅] (NLMC *k^{h}ə(ǎ)j) 'wind (風)'[151] (*YBZJ* 9*a*.9; *LZ* 10.15-11.1; *LZSF* 9*a*.9-10; *CBYBL* 18*a*.2; *QDGZTW* 27:188.13-4; *QDGZSH* 27:255.6-7)

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imperial dietary compendium *Yǐnshàn Zhèng Yāo* 飲膳正要. The actual transcription provided in the text is [瓜哈孫] (EM *kwa-xa-sun), but it is clearly a mistake for [爪哈孫] (EM *tṣaw-xa-sun), since we have other transcriptions of the Middle Mongolian word *ja'uhasu-n* (Franke 1973:183).

[147] *jawun* [جَاوُونْ] id. (Ligeti 1962:38), *ja'u* [札兀] id. (Kuribayashi & Choijinjab 2001:7.18.9), *ja'un* [札温] id. (Kuribayashi & Choijinjab 2001:6.52.5), *ǰawun* [جاوون] 'hundred (مائة)' (Golden 2000:201*b*13)

[148] Mèng (1995:221) attests the form *ʤao* 'hundred (百)' for the "language of the Kitan descendants" in Yunnan.

[149] If we reconstruct **ketei* as the Kitan form, a connection with WM *ketü* 'beyond, in excess, over' seems not impossible (Prof. György Kara – personal communication).

[150] Vovin (2003:242.8); Shiratori (1912:1248)

(cf. MM *kei* ‘wind’[152], WM *kei* ‘air, wind, atmosphere, gas’, Kh *xii* **хий** ‘air, gas’, DongX *kai* ‘wind’, D *xəin* ‘wind’, Mongghul *kii* ‘wind’, ShY *kii* ‘wind; sandstorm’, Oir *kii* ‘air, gas’, Bur *xii* **хии** id., KJ *ke* ~ *ki* ‘wind’, Mangghuer <kai> ‘wind’, Moghol [kɛɪ] ‘wind; storm’, Bon *kii* ‘wind’)

***kui-** 灴炊 <k=ui> ‘to reach, arrive (至)’ (*Dao* 5:18; *Lang* 2:8; *Xu* 27:5, 40:25, 54:34; *Zhong* 14:6, 16:26, 18:1, 24:43; *Di* 14:22, 17:39, 24:35, 25:46)

(cf. WM *kür-* ‘to reach, arrive’; Kara (1986-7:24) proposes a connection with the *ku-* element in Daur *kutʃir-* ‘to arrive’ (< **ku-č* ‘arrive-IMPERF.CONV’ + *ir-* ‘come’); note also Daur *kur-* ‘to reach, arrive; to have enough to use’, Kh *xur-* **хүр-** ‘to reach, arrive; suffice, be enough’, ShY *kur-* ‘to reach, arrive’, DongX *kuru-* ‘to arrive, reach; to have enough to use’, Bon *kur-* ‘to reach, arrive’, Oir *kyr-* ‘to reach arrive; to be enough’, Mog *kur-* ‘to arrive, reach’, MaKhamMo,

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[151] This word occurs in the transcriptions [神不尅] (NLMC *ʂɦin-puʔ- k^{h}ə(ŏ)j) (*CBYBL* 18*a*.2) and [坤不刻] (NLMC *k^{h}un-puʔ-k^{h}ə(ŏ)j) (*QDGZTW* 27:188.13-4; *QDGZSH* 27:255.7; *LZ* 10.15-11.1), both glossed as ‘whirlwind (旋風)’. I prefer to view the first element as irresolvable at present, since we have two conflicting transcriptions, i.e. 神 and 坤, and I am unable to determine which of these two characters is the correct form—one of them is certainly a copyist’s error. Despite this problem, however, it is fairly clear that the final element, transcribed as [尅] ~ [刻], indicates a word **kei* meaning ‘wind’, cognate to MM *kei* id., as Osada (1951:51) proposed. Regarding the first element, if 坤 (NLMC *k^{h}un) is taken to be the correct form, we may speculate that the element [坤不] (NLMC *k^{h}un-puʔ) or **KuNbu(R)*, modifying **kei* ‘wind’ (the head of the noun phrase), may be cognate with WM *qombuɣur* ~ *qomuɣur* ~ *qumuɣur* ‘curled, folded up, shriveled’, in which case the Kitan word could have literally meant something like ‘curled wind’. However, this is far from certain and it is probably best to view the issue as irresolved at present.

[152] *kei* [克] ‘wind (風)’ (Kuribayashi 2003:1.1*a*.5); *kei* [كَى] id. (Ligeti 1962:48); *kei* [كيى] id. (Poppe 1938-9:213*b*)

MoKhamMo *kur*- id., Mang [$k^hwə^{\cdot}$] **kuer-** ‘to reach, arrive’, Mong *kurə*- **kuri-** id., Bur *xurə*- ‘to arrive, reach; to be enough’)

***Kutuŋ / *KutuK** (☆qutuŋ / ☆qutuq / ☆kutuŋ / ☆kutuk) [苦統][153] (NLMC *$k^hu(ə)$-$t^həwŋ$) ‘blessing (福佑)’ (*QDGZTW* 24:7; *QDGZSH* 24:233.1)[154]

(Ewk *kutu*, *kuta*, *kotu* ‘happiness’, WM *qutuγ* ‘sanctity, holy rank, happiness, bliss, benediction’, MM *qutuq* id.[155], Kh *xʊtəg* **хутаг**; note also Ma *xʊturi* ‘good luck, good fortune’, MJur *xutur* 兾举 <xutu=r> ‘happiness’[156]; all forms seem to ultimately derive from OT *qut* ‘happiness, bliss’)

***liaw-** (☆liaw- / ☆lew-) **丩劳** <l=iaw> ‘red (丙(紅))’ (*Xing* 1:11; *Zhi* 8:23)[157]

***liaw-Xu/-Gu** (☆liaw-Xu / ☆lew-Xu / ☆liaw-Gu / ☆lew-Gu) [掠胡] (NLMC *liaw-xɦu(ə̆)) ‘red (赤)’ (*CBYBL* 16*b*.12-3)[158]

***lu 皮 ~ 发** <lu> ‘dragon (辰(龍))’ (*Dao* 7:10; *Xuan* 26:12; *Xing* 4:1, 8:3; *Ren* 11:18)

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[153] The actual form in the *QDGZ* is [若統] (NLMC *riaw-$t^həwŋ$), but following Vovin (2003:241.6), I regard this as a scribal error for the above form, based both on typological grounds and their similarity in Chinese cursive script.

Regarding the reconstruction, Prof. György Kara (personal communication) believes that the final velar nasal *-*ŋ* of NLMC could even represent a Kitan oral velar stop in coda position, since NLMC had already lost the final oral stop *-*k* (as well as *-*t* and probably also *-*p*) by this time, and argues that reconstructing a Kitan form **kutuk* or **qutuq* would also be motivated.

[154] Vovin (2003:241); Shiratori (1912:1248)

[155] *qutuq* [中忽禿黑] id. (Kuribayashi & Choijinjab 2001:3.6.6)

[156] Kiyose (1977:116.343), Jīn (1984:237, 297)

[157] Chinggeltei (2002*a*:11)

[158] WF (275); Franke (1969:27-9); Shiratori (1913:26); Stein (1940:75)

(WM *luu* id., MM *lu* id.[159] < Uy *luu* < MC dial.[160]; Kh **ᠯᠤᠤ луу** id., Oir *lʊʊ* id.; OT *lu* id.[161])

***mV** (☆mo)[162] [麼] (NLMC *mua) 'mother (母)' (*LS* 116:17*a*.9-10)[163]

☆**mVGo** (☆mVɣo / ☆mVʁo) **仡扎反** <(☆mV)=G=o> 'snake, serpent (巳(蛇))' (*Dao* 4:8)[164]

(cf. D *moɣ*^{w} ~ *moɣ*, WM *moγai* 'snake, serpent', MM *moγai* ~ *moqai* id.[165], Üdzümüchin *mɔʁɔɔ* id.[166], Baa *mɔɣɔɔ* id., Kh *mɔʁɔi* **могой** id., Oir *mɔɢææ* id., OirKalm *mɔɢa* **моһа** id., Bur. *mɔgɔi* **могой** id., ShY *mɔɢɔi* id., Mongghul *moɢʊi* id., DongX *moʁɔi* id., Bon. *mɵɢɔi* id., KJ *muʁuai* id., Mog *mɔʀoɪ* id.; there is probably a connection with JJur **meixei*[167], MJur *meixe* 尨臭 id.[168] and Ma *mɔixɔi* id.[169] as well.)

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[159] *lu* [ᠯᠤ] 'dragon' (Golden 2000:199*c*12), *lu* [ᠯᠤᠤ] <lu> (Vladimircov 1917:1490)

[160] Kara (1986-7:24; 2000:72); Chinggeltei (2002*a*:10, 68.211, 68.208)

[161] Old Turkic *lu* ᛋᛚ <l_1w_1> 'dragon' in the Oryuk inscription in Khöwsgöl *aimag* [province], Mongolia (Bold 2000:262, 266); Kara (2001:100) notes the Old Turkic form *ulu* ᛋᛚᛋ <$w_1l_1w_1$> which appears in the Terkh inscription in Arkhangai *aimag* [province], Mongolia.

[162] Prof. György Kara (personal communication) believes the Chinese transcription could also indicate a Kitan form **(e)me*, which would be cognate to WM *em-e* 'woman; wife; female'.

[163] WF (431*a*); Shiratori (1913:24)

[164] Murayama (1951:59); Kara (1996:233); Chinggeltei (2002*a*:10, 65.186) proposes the reading **moɣo*.

[165] *moγai* [مُوغَايْ] id. (Ligeti 1962:54), *moqai* [موقاي] 'snake (الحية)' (Golden 2000:199*c*13), *moγai* [ᠮᠣᠭᠣᠢ] <moγi> (Vladimircov 1917:1490), *moqay-a* [抹^{中}合牙] 'snake, serpent (蛇)' (with dative/locative case suffix *-a*) (Kuribayashi & Choijinjab 2001:5.37.5)

[166] Amarjargal (1988:242)

[167] [梅黑] (NLMC *mu(a)j-xəj, EM *muj-xəj) 'snake, serpent (蛇)' (Sūn 2004:231, 330)

[168] Jīn (1984:35, 139)

[169] Rozycki (1994*a*:156)

☆**mVrV** 又仉 <mV=rV> ‘horse (午(馬))’[170] (*Ren* 14:14)[171]

(cf. PM **mori-n* id., WM *mori(n)*, MM *mori-n*[172], Kh *mɔrʲ* **морь** id., Baa *mœr* id., Bur *mɔrʲən* **морин** id., MoKhamMo *mɔri* id., D *morʲ* id., Oir *mørn* id., ShY *mɔɔrə* id., Mongghul *morɔ* id., DongX *mori* id., Bon. *mørə* id., KJ *mɔri* id., Mog *mɔri ~ mɔrin ~ morin ~ mɤri* id.; JJur **morin*[173], Lalin Manchu *mərin ~ mənin* ‘horse’[174], Oq *mʊrɪn* id.)[175]

***mo** 又反 <m=o> ‘great, big, large (大)’ (*Dao* 1:3, 5:5, 9:33, 16:2, 21:15, 22:29, 28:21; *Xuan* 11:7; *Xing* 2:5, 6:7, 6:9, 17:16, 19:10, 20:2, 20:5, 20:11, 23:16, 30:19, 31:15)[176]

***mur(i)** (☆mur / ☆muri) [沒里] (NLMC *muʔ-li) ‘river (河)’ (*QDGZTW* 0:2; *QDGZSH* 0:3-4; *LS* 39:2*a*.11-12; *LZ* 1.2; *LZSF* 1*a*.5, 6, 7; *LDZL* 5*b*.13, 6*a*.1-2)[177]

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[170] This is another widespread term in Northeast Asia, cf. OKog **merʋ* [滅烏] ‘colt (駒)’ (Beckwith 2004:252), Korean *mar (mal)* 말 ‘horse’, Mongolic *mori(n)* id., Tungusic *murin* id., Old Chinese **mraʔ* 馬 id., Nivkh *murŋ ~ mur* id., Japanese *uma* 馬（うま）id., etc. See Janhunen (1998) for more discussion of the word.

[171] Kara (1986-7:24); Chinggeltei (2002*a*:10, 52.133) proposes the very speculative reading **mori*.

[172] *mori* [مُوري] ~ *morin* [مُورين] id. (Ligeti 1962:54), *mori* [ᠮᠣᠷᠢ] <mo̲ri> id. (Ligeti 1965:281.21), *mori* [秣驪] id. (Kuribayashi & Choijinjab 2001:2.43.5), *morin* [秣[丐]驎] id. (Kuribayashi & Choijinjab 2001:1.19.3), *mori* [موري] ‘horse’ (Golden 2000:204*a*29; 203*a*6), *morin* [მორინ] <morin> (Vladimircov 1917:1490)

[173] [末鄰, 抹鄰] (NLMC *muaʔ-lin) ~ [牧林] (NLMC *məw-lin) ~ [母麟] (NLMC *məw-lin) ‘horse (馬)’ (Sūn 2004:233, 330)

[174] Zhào (2001:195)

[175] Kara (1996:233)

[176] Kara (1986-7:24; 1996:233); Chinggeltei (2002*a*:11, 52.133, 65.186)

[177] Murayama (1951:53); Perlee (1959*b*:15).

There is an Assembled Script compound 又夾 <m=ur> in the *Xǔ Wáng Mùzhì* 許王墓志 Inscription (*Xu* 26:25) which could possibly be this word. Although the context does not shed any light on the meaning, it

(cf. D *mur* ‘river’, WM *mören* ‘large river’, MM *mören / müren* id.[178], Khor *murən*, Kh *mөrəŋ* **мөрөн** id., DongX *moran* ‘river’, Mongghul *muroon* id., ShY *mʉren* id., KJ *mʉrɔ* id., Bur *murən* **мүрэн** id.)

***nVwV / *nVGV** (☆nuwo / ☆nowo / ☆nuwa / ☆nowa / ☆nuʁo / ☆noʁo / ☆nuʁa / ☆noʁa) [耨斡] (NLMC *nəw-ʔuaʔ)[179] ‘deity of the earth (后土)’ (*LS* 70:1*b*.5-6; 116:16*b*.9-10)[180]

(There may be a connection with one or more of the following forms, although they all pose semantic problems: D *nuwaa*, WM *noγoγ-a* ‘vegetable’, *noγoγan* ‘green’, *nuγu* ‘meadow in the winding of a river’)

***nVwV / *nVGV *mV** [耨斡麼] (NLMC *nəw-ʔuaʔ-mua) ‘empress (皇后)’ (*LS* 70:1*b*.5-6; 116:16*b*.9-10)[181]

(See the entry for ***mV** above)

***nai** [廼, 迺, 耐] (NLMC *naj, EM *naj), [嬭, 妳] (NLMC *nraːj, EM *naj) ‘first (正); head (首, 頭)’ (*LS* 53:8*a*.10; 7*b*.2-3; 116:10*b*.13-11*a*.1; *YBZJ*[182]; *LZ* 9.8; *LZSF* 8*a*.2-3)[183]

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would be phonologically motivated to propose this decipherment. However, due to the bad condition of the inscription, even the identification of the characters themselves is problematic. Here I am following Chinggeltei et al’s (1985:248) identification of the characters, but the text is quite garbled, and the characters are nearly illegible.

[178] *mören* [مُورَانْ] id. (Ligeti 1962:55), *mören* [ᠮᠥᠷᠡᠨ] <mo̲ran> id. (Ligeti 1965:289.35), *müren* [木舌連] id. (Kuribayashi & Choijinjab 2001:8.7.7), *mören* [موران] ‘river’ (Golden 2000:201*c*4)

[179] NLMC glottal stop onset **ʔ-* could have indicated a Kitan guttural stop or fricative. Note instances of MM **ɢ* transcribed with EM **ʔ-* (cf. Kara 1990*a*, 1990*b*)

[180] WF (431*a*); Shiratori (1913:24); Murayama (1951:55)

[181] WF (431*a*); Franke (1969:24-7)

***nai 穴** <nai> (*Dao* 4:9, 29:9, 33:24; *Xing* 16:16; *Ren* 14:21, 21:4)

***nai ñair** [迺捏咿唲, 迺捏咿唲] (NLMC *naj-niaʔ-ʔji-ri, EM *naj-njɛ-ji-rr̥) 'New Year's Day (正月朔旦)' (*LS* 53:7*b*.2-3; 116:10*b*.13-11*a*.1)[184]

***nai sair** [耐賽籬] (NLMC *naj-saj-li), [迺賽咿唲] (EM *naj-saj-ji-rr̥) 'first month of the lunar year' (*QDGZTW* 27:186.8; *YBZJ*[185])

***nai sair 穴 廿** <nai> <sair> 'first month of the lunar year (正月)' (*Dao* 4:9)

***nai *Xa** [迺呵] (NLMC *naj xa) '(title of a) ruler (主)' (*QDGZTW* 0:1.8; *QDGZSH* 0:1.11; *LSSYB* 100.11; *LZSF* 1*b*.2) (a compound of ***nai** 'head, first' and ***Xa** 'ruler')

***namur 公乃灾** <n=am=ur> 'fall, autumn (秋)' (*Dao* 20:23; *Xuan* 25:17, 30:6; *Xing* 16:22; *Ren* 30:4)[186]

(cf. WM *namur* 'fall, autumn', MM *namur* id.[187], D *namər*, Kh *namər* **намар** id., Bur *namər* **намар** id., MoKhamMo *namʊr* id., Oir *namar* id., ShY *naamər* id.)

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[182] Ruǎn (1986:164-5) mentions the *YBZJ* form [嬭] (NLMC *nraːj, EM *naj), which he reports as being glossed as 'an individual; a person; a male adult (丁)'. The *Shuō Fú* edition of the *YBZJ* does not contain this transcription, and I am not sure from which edition of the *YBZJ* Ruǎn found the form. I am also not sure how to explain the semantic discrepancy between this gloss and those of the *LS* and the *LZ*, except to say that it is probably a scribal error. In another entry, the *YBZJ* mentions the form [妳] (NLMC *nraːj, EM *naj) which is glossed as 'head (頭)'. Based on the "majority wins principle" (Campbell 1998:117), we will assume this Kitan word meant 'first' and 'head'.

[183] WF (269); Ligeti (1927:308, 309); Shiratori (1912:1259); Stein (1940:25, 119-20, 134); Osada (1951:50)

[184] WF (269); Ligeti (1927:308)

[185] Ruǎn (1986:165)

[186] Toyoda (1998); Thompson (2005:521); Chinggeltei (2002*a*:11)

***ñaGu(r)di-** (☆ñagu(r)di- / ☆ñaɣu(r)di- / ☆ñaʁu(r)di-) [捏骨地] (NLMC *niaʔ-kuʔ-tɦi) ‘to kneel (跪)’ (*QDGZTW* 27:189.4; *QDGZSH* 27:255.11; *LSSY* 24:435.6-7; *LZ* 11.5; *LZSF* 9*b*.2)[188]

(cf. JJur **mʲaguri-*[189], MJur **nʲakuru-*[190] ~ **mʲakuru-* 吞卅丈 id.[191], Ma *nʲakʊra-* <niyaqûra->, Bala Manchu *mikurə-* id.[192], Sanjiazi Manchu *niakuru-* id.[193], Neg *mixert-*, Or *mæxurana-*, Ud *mæula-*, Ul *m’akurandi-*, Ok *mēxoran-*, Na *mixoran-* id.[194])

***ñair** [捏咿唲][195] (NLMC *niaʔ-ʔji-ri) ~ [捏離][196] (NLMC *niaʔ-li) ‘day, dawn, daybreak (旦); day, sun (日)’ (*LS* 53:7*b*.3; *LZSF* 6*b*.9)[197]

***ñair 尺** <ñair> (*Dao* 6:2, 21:21, 33:19, 35:24; *Xuan* 4:16, 5:26, 10:7, 10:28; *Xing* 1:15, 3:3, 25:2, 25:13, 33:21, 34:16; *Ren* 9:3, 10:5, 11:21, 14:12, 17:7, 18:19; *Lang* 5:8)[198]

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[187] *namur* [納木兒] id. (Kuribayashi & Choijinjab 2001:5.17.2), *namur* [نامور] ‘autumn’ (Golden 2000:201*a*17)
[188] Franke (1969:40-1); Shiratori (1913:23); Stein (1940:149); Murayama (1951:55); Osada (1951:51)
[189] [滅古地] (NLMC *mjiaʔ-kuʔ-tɦi) ‘to kneel (下跪)’ (Sūn 2004:233, 330)
[190] [捏苦魯] ‘to kneel (跪)’ (Kane 1989:287)
[191] Jīn (1984:21, 172, 285)
[192] Zhào (2001:112)
[193] Enhebatu (1995:297)
[194] Rozycki (1994*a*:163)
[195] See the discussion on palatal(ized) nasals in section 3.1.
[196] The actual form in the *LZSF* (6*b*.9) is [担離] (NLMC *tam-xɦiaʔ), glossed as ‘day, sun (日)’. The first character here is certainly a misrendering of [捏] (NLMC *niaʔ).
[197] WF (269); Ligeti (1927:308); Kara (1986-7:20; 1996:233); Shiratori (1913:23); Osada (1951:48); Thompson (2005:521); Chinggeltei (2002*a*:11, 58.159)
[198] The Linear Script character for ‘day’ was 日 (Kara (1996:233); Cóng et al (2005)), copied without alteration from Chinese *rì* 日 ‘sun; day’.

(cf. WM *nara(n)* ‘sun’, MM *naran* id.[199], PM **nara-n* ‘sun’, MoKhamMo *nara*, D *nar*, Kh *nar* **нар** id., Bur *naran* **наран** id., Oir *naran* id., ShY *naran* id., Mongghul *nara* id., DongX *naraŋ* id., Bon *naraŋ* id., KJ *narɔ* id., Mog *nʌrãn* ~ *nãrãn* id.; JJur **ña(r)sa(j)i* ‘sunlight’[200], JJur **nara-n* ‘sun’[201])[202]

***ñaLu-** (☆ñalu-) [雅魯][203] (NLMC *ŋjaː-lu(ð)) ‘to bow and dance (拜舞)’ (*QDGZTW* 24:173.7; *QDGZSH* 24:233.1)[204]

(cf. WM *nalu-* ‘to bend over, incline; lean against something’[205])

***ñaXa** (☆ñaxa / ☆ñaha / ☆ñaqa)[206] [捏褐] (NLMC *niaʔ-xɦaʔ) ‘dog (犬)’[207] (*LS* 53:8*a*.10; 116:11*a*.11-12)[208]

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[199] *naran* [ناران] id. (Ligeti 1962:56), *naran* [նարան] <naran> id. (Ligeti 1965:294.44), *naran* [納𦐇闌] id. (Kuribayashi & Choijinjab 2001:1.13.3), *naran* [ناران] ‘sun’ (Golden 2000:198*a*8)

[200] [涅里塞一] (NLMC *niaʔ-li-saj-ʔjiʔ) ‘sunlight (日光)’ (Sūn 2004:239); this JJur form may be a Kitan loan, possibly a blend of **ñair* ‘day/sun’ and some other element.

[201] **naran* [納蘭] ~ **naran* [那懶] ~ **nara* [納剌] ‘sun/day (日)’ (Sūn 2004:237, 330); this is very clearly an Old Mongolian or Proto-Mongolic loanword in JJur. The word does not seem to have survived up to the MJur period and is not found in Manchu either.

[202] Mèng (1995:213) notes *niànî* ‘sun (太阳)’ in the “language of the Kitan descendants” of Yunnan.

[203] The *QDGZSH* edition transcribes this word as [稚魯] (NLMC *tʂɦi-lu(ð)) which would give a Kitan form **čilu* or **ǰilu*. However, I prefer to follow Vovin (2003) in assuming that [雅魯] is the correct form.

[204] Vovin (2003:241); Franke (1976:177); Shiratori (1912:1248)

[205] This WM form is from Kowalewski (1964).

[206] This is essentially the reconstruction proposed by Kara (1975:166) who regards the *LS* transcription as representing “une prononciation khitane **ñaχa*”.

[207] The *LS* explains that “*ñaXa means ‘great’” 捏褐大也 (116:11*a*.11-12). It is very clear that the character 大 ‘great, large’ here is a mistake for 犬 ‘dog’. This is what we find in the body of the text (*LS* 53:8*a*.10), and moreover, it seems even more probable when we take into account the Tabgach cognate **ñaGan* [若干] ‘dog’ (see discussion in section 1.2 above). Also, the *LZ* form [擔褐] (NLMC *tam-xɦaʔ) and the *LZSF* form [担褐] (NLMC *tam-xɦaʔ), both of which, although almost certainly miscopied forms of the transcription, are unambiguously glossed as ‘dog (狗)’ (*LZ* 9.8; *LZSF* 8*a*.2).

[208] Ligeti (1927:309), Kara (1996:233); Shiratori (1912:1262); Stein (1940:23, 134); Murayama (1951:55); Osada (1951:49); Probst (1963:139); Toyoda (1963:10); Chingeltei (2002*a*:10, 60.168, 70) proposes the reading **noxi*, but this reconstruction deviates greatly from the Chinese transcription of the word provided in the Chinese chronicles, even if we permit ourselves to follow an EM reading of the characters.

***ñaXa 伏カ** <ñ=Xa> (*Dao* 4:12, 4:17; *Xing* 1:12; *Zhi* 20:29, 27:5; *Nu* 27:18)

(cf. Tabgach **ñaGa(-)n* 'dog'; PM **noka.i* id., WM *noqai*, MM *noqai* id.[209], MoKhamMo *nɔqʰɔi ~ nɔχɔi* id., Kh *nɔxɔi* **нохой** id., ArKhor, Baa, Khor *nɔhɔɔ* id., D *noɣʷ* id., Dariganga, Üdzümüchin *nɔxɔɔ* id.[210], Oir *nɔxaa ~ nɔxææ* id., Bur *nɔxɔi* **нохой** id., ShY *nɔgqɔi* id., Mongghul *nɔxʊi* id., DongX *noʁɔi* id., Bon *nɵɢɔi* id., KJ *nuʁuai* id., Mog *nɔqai* id.; MJur **ñaxa* 'small dog'[211]; Ma. *ñaxan* 'puppy', the **-xa* element of the root in the Kitan and MJur forms seems to have been reanalyzed as the diminutive suffix *-xan* in Manchu)

***ñuLgu / ñüLgü** (☆ñurgu / ☆ñulgu / ☆ñürgü / ☆ñülgü) [女古] (NLMC *nry(ă)-ku(ă)) ~ ***ñuLgV** (☆ñurge / ☆ñulge) [裊羅箇] (NLMC *niaw-la-ka) 'gold (金); ☆yellow' (*LDZL* 6*a*.1-2; *LS* 31:4*b*.4; *LS* 116:13*a*.8-9; *LSSY* 23:428.3-4; *LZ* 1.2-3; *LZSF* 1*a*.7; *QDGZTW* 0:1.3-4; *QDGZSH* 0:1.4-5)[212]

***ñVLgV 山** <ñVLgV> (*Xuan* 4:12, 16:3, 27:16; *Xing* 1:16; *Lang* 1:2)

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[209] *noqai* [نُوقاىُ] id. (Ligeti 1962:58), *noqai* [ɲoɬɯɯ] <no̲χay> id. (Ligeti 1965:282.24), *noqai* [那孩] id. (Kuribayashi & Choijinjab 2001:1.13.3), *noqai* [نوقاي] 'dog (الكلب)' (Golden 2000:199*c*17), *noqai* [ɓɷɮo] <noχi> (Vladimircov 1917:1491)

[210] Amarjargal (1988:252)

[211] [捏哈] (EM *ŋjɛ-xa) 'small dog (小狗)' (Kane 1989:234)

[212] WF (425, 545); Franke (1969:33-6); Kara (1996:233); Shiratori (1912:1256), (1913:43); Stein (1940:66, *n*.8); Murayama (1951:55); Osada (1951:53); Probst (1963:142); Schott (1879:6); Klaproth (1831:294)

***odu-wVn** [窩篤盌] (NLMC *ʔua-təw-ʔuan) ‘propagation (孳息)’[213] (*LS* 31:5*a*.2; *LS* 116:13*b*.1-2; *LSSY* 23:438.5-6)[214]

***oL(u)do** (☆ordo)[215] [斡魯朵] (NLMC *ʔuaʔ-lu(ǎ)-tua) ‘court; palace (宮)’ (*LS* 31:1*b*.8; 116:12*b*.12-13)[216]

***pilia** (☆pilia / ☆pile)[217] [匹裂] (NLMC *p^{h}jiʔ-liaʔ) ‘a small wooden pitcher’[218] (小木罌)’ (*QDGZTW* 24:173.10-11; *QDGZSH* 24:233.6)[219]

(cf. Ma *fila* ‘plate’, MJur **fila* 角 ‘dish’[220], Or *pilæe* ‘plate’, Ud *pilai* ‘shallow plate’, Ul *pili(n)* ‘plate’, Na *pilia* ‘plate; bowl’)

***po** [叵] (NLMC *p^{h}a, EM *p^{h}ɔ), [頗] (NLMC *p^{h}ua, EM *p^{h}ɔ) ‘time (時)’ (*QDGZTW* 27:188.6, 8; *QDGZSH* 27:254.8, 10-11; *LS* 53:7*b*.8; *LSSY* 24:437.4; *YBZJ*[221]; *LZ* 8.3, 10.7-9; *LZSF* 7*a*.3, 7*b*.6, 8*b*.10-1, 9*a*.1)[222]

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[213] It seems safe to assume that the gloss 慈息 in the *LS* glossary entry (116:14*a*.1-2) is a scribal error for 孳息 ‘propagation’.

[214] WF (545); Franke (1969:31-2); Shiratori (1912:1256); Stein (1940:66, *n.*9); Osada (1951:54); Schott (1879:7); Klaproth (1831:294)

[215] This is a common word in many languages throughout Northeast Asia, including AKog **ortu* [紇斗] ~ **ortv* [丸都] ‘capital city (都)’ (Beckwith 2004:250), Mongolian, Turkic, JJur **ordo* [斡里朵] ~ [訛里朵] ‘a pavilion, a place where local authorities handle their affairs (亭、官府治事之所)’ (Sūn 2004:264, 334) etc.

[216] WF (508b, 541); Murayama (1951:55); Osada (1951:52); Schott (1879:7)

[217] This essentially confirms Krippes’ speculation that Kitan had a form ☆*pila* which was borrowed into Jurchen-Manchu (1992:139), although some modification of the phonological form he proposed is necessary.

Regarding the Kitan form, I believe that a form ☆*pilia* is most likely. The Nanai form is particularly suggestive of this.

[218] Vovin (2003) translates this as ‘small wooden drinking cup’ (2003:243.3). Franke (1976:179.3) translates it as “wooden bowl”. I follow Mathews’ translation of *yīng* 罌 as “an earthenware jar with a small mouth and two or four ears; a pot; a pitcher” (2000:1118).

[219] Shiratori (1912:1251); Vovin (2003:243.3); Franke (1976:179); Krippes (1992:269); Rozycki (1994*a*:76)

[220] **fila* [非剌] ‘dish (楪)’ (Kiyose 1977:110.243), Jīn (1984: 250)

[221] Ruǎn (1986:164)

***po** 非 <po> (*Dao* 9:20, 21:27, 35:21; *Xuan* 15:8, 29:18; *Xing* 18:12, 30:11; *Lang* 4:16)[223]

(cf. PM **hon*, MM *hon* 'year'[224], Kh *жил* **он** id., Bur *жил* **он** id., Oir *жил* id., D *xoon* id., ShY *hɔn* id., Mongghul *fan* ~ *fon* id., DongX *xoŋ* id., Bon *ɦөŋ* id., KJ *hɔn* ~ *huŋ* id.; Ma *fɔn* 'time, season'[225], MJur *fon* 玫炎 <fo=on> 'time'[226])[227]

***pulu** 止平夕 <p=ul=u$_2$> 'intercalary (of months) (閏); ☆extra/surplus/excess' (*Zhi* 8:28)[228]

(Ma *fulu* 'surplus, excess, left over, extra'; MM **hüle(ʔ)ün* id.[229], WM *ilegüü* ~ *ilegü* ~ *ülegüü* ~ *ilügü* id.[230] as in the phrase *ilegüü sar-a* 'intercalary month', Minggad *uluu* id.[231], Kh *ихуу* **илүү** id., Oir *ylyy* id., D *xuluu* id., ShY *holii* id., Mongghul *fuliu* id., DongX *ɕiliu* id.)[232]

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[222] WF (269); Kara (1986-7:20; 1996:233-4); Shiratori (1912:1244); Stein (1940:125-7, 144-5); Osada (1951:48); Probst (1963:130); Thompson (2005:521); Chinggeltei (2002*a*:11, 81.279)
[223] The Linear Script character for 'time' seems to have been 玟 (Cóng et al 2005:54).
[224] *hon* [楦] 'year (年)' (Kuribayashi & Choijinjab 2001:1.16.10), *hon* [هون] 'year' (Golden 2000:199*c*9, 14, 18; 201*a*3-6), *hon* [هُوْنْ] id. (Ligeti 1962:32), *hon* [هون] (Poppe 1938-9:185*a*)
[225] Rozycki (1994*a*:78-79)
[226] **fon* [伏灣] 'time (時)' (Kiyose 1977:101.81), Jīn (1984:76, 111, 115)
[227] Kara (2004*a*:5); Menges (1968:44-6)
[228] Zhào & Bāo (2001)
[229] *hüle'ü* [許列兀] 'unnecessary, superfluous, excessive (多餘)' (Kuribayashi & Choijinjab 2001:8.20.8)
[230] Rozycki (1994*a*:82)
[231] Amarjargal (1988:373)
[232] Menges (1968:22)

***pusu-wVn** [蒲速盌] (NLMC *pɦu(ă)-səw-ʔuan, EM *p^{h}u-su-ɔn) 'prosperous, flourishing, thriving (興旺, 興隆)' (*LS* 31:3*a*.1; 116:13*a*.8-9)[233]

(cf. D *pusu-* 'breed, propagate, multiply', Ma *fusə-* id.; JJur **pusuwan*[234])[235]

***sair** [賽籬, 賽里, 賽離,] (NLMC *saj-li), [賽咿唲] (EM *saj-ji-rṛ), 'moon; month (月)'

(*QDGZTW* 27:186.8, 187.3; *QDGZSH* 27:252.1, 10-11; *LS* 53:8*a*.2; *LZ* 8.11, 9.5; *LZSF* 7*b*.1, 11; *YBZJ*[236])[237]

***sair** 艾 <sair> (*Dao* 4:10, 5:36, 6:20, 33:20, 35:33; *Xuan* 4:11, 5:23, 10:8, 25:7; *Xing* 1:10, 3:1, 25:6, 25:15, 33:13, 34:27; *Ren* 11:16, 14:10)[238]

(cf. PM **sara-n* 'moon; month', MM *sara-n* id.[239], MoKhamMo *sara* id., D *sar* 'month', Kh *sar* **cap** 'moon; month', Bur *harə* **hapa** id., Oir *sar* id., ShY *sara* id., Mongghul *sara* id., DongX *sara* id., Bon *sara* id., KJ *sara ~ tsara* id.)

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[233] WF (543); Shiratori (1912:1255); Stein (1940:66, *n.* 4); Murayama (1951:55); Osada (1951:53); Schott (1879:6); Klaproth (1831:294)

[234] JJur **pusuwan* [蒲速椀] 'prosperous, flourishing, thriving (興旺, 興隆)' (Sūn 2004:245, 332; the JJur reconstruction is my own modification); Sūn explains this JJur word as "a borrowing from Kitan" (契丹语借词), which seems quite motivated when we take into account the fact that **-wVn* seems to have been relatively generalized suffix in the Kitan lexicon; we may note the fact that the suffix is attested with a number of other lexemes, e.g. **odu-wVn* 'propagation', **jVLu-wVn* 'flourishing', **pusu-wVn* 'flourishing' and **aLu-wVn* 'assisting'. The suffix does not seem to occur in other JJur or MJur forms.

[235] Menges (1968:46)

[236] Ruǎn (1986:165)

[237] Shiratori (1912:1263); Stein (1940:129, 133); WF (270); Ligeti (1927:308); Murayama (1951:55); Osada (1951:49); Kara (1986-7:20; 1996:233); Thompson (2005:521); Chinggeltei (2002*a*.11, 42.81; 2002*b*:108) proposes the reading **sær.*

[238] The Linear Script form for 'month' seems to have been 月 (Kara (1996:231); Cóng et al (2005:55)), a graphic cognate to Chinese *yuè* 月 'moon; month'

[239] *sara* [ساراً] id. (Ligeti 1962:62), *sara* [ᠰᠠᠷᠠ] <sara> id. (Ligeti 1965:294.45), *sara* [撒^{舌}剌] id. (Kuribayashi & Choijinjab 2001:1.43.6), *sara* [ساره] 'moon' (Golden 2000:198*a*9-11; 201*a*10, 14, 18-9, 22-3)

***saLa** (☆sala / ☆sara) [撒剌] (NLMC *saʔ-laʔ, EM *sa-la) 'wine goblet (酒樽)' (*LS* 116:17*a*.5-6)[240]

***siaw-** (☆siaw- / ☆sew-) 𘘿𘓱 <s=iaw> '(blue-)green (甲(青))' (*Dao* 4:16; *Xuan* 4:7; *Ren* 14:13; *Lang* 5:1; *Xing* 1:7, 3:4)[241]

(There may be some connection with Yeniseian *sʲʌnʲsʲ* ~ *sʲon* 'blue'[242], although this is by no means certain.)

***suan** (☆son) [算] (NLMC *suan) 'chest and abdomen (心腹)'[243] (*LS* 31:1*b*.7-8; 116:12*b*.12-13)[244]

(There may be some connection with one or more of the following forms, although they all pose semantic problems: Gobi Khalkha *sɔn* 'a wooden container

[240] Shiratori (1913:28); Klaproth (1831:295)
[241] Kara (1996:234); Probst (1963:138); Chinggeltei (2002*a*:11)
[242] The Yeniseian forms are from Werner (2002). The similarity between the Yeniseian and Kitan forms may simply be coincidental. However, if we entertain the possibility that the Xiōngnú 匈奴 (a nomadic confederacy of Asia which some scholars equate with the Huns) may have spoken a language related to Yeniseian, as Vovin (2000, 2002) proposes, following Ligeti (1950) and Pulleyblank (1962), and also take into consideration the fact that the Xianbei—ancestors of the Kitan—are documented as having encorporated as many as 100,000 tents of Xiongnu into their people as they moved north into Mongolia after 50 C.E. (Atwood 2004:591*b*), it seems entirely possible that the Xiongnu and Xianbeic languages would have influenced each other, and it is only logical to look for evidence of this potential linguistic connection in the modern Yeniseian languages. Moreover, Georg (2001) has identified a Proto-Yeniseian element in both Mongolic and Turkic, i.e. **tɨŋgVr*- 'high', which seems to have been borrowed into Turkic as *täŋri* 'heaven; sky' and then entered Mongolic in the form *tenggeri* id. (WM *tngri*, MM *tenggeri*).
[243] Cf. also Mathews (2000:405*b*) who translates *xīnfù* 心腹 as 'confidential; secret; sympathetic'; also *fùxīn* 腹心 'beloved, dear; intimate, sincere', *xīnfù zhī yán* 心腹之言 'reliable words', *xīnfù rén* 心腹人 'a trusted person' and *xīnfù péngyǒu* 心腹朋友 'a trustworthy friend' (296*b*).
[244] WF (541); Shiratori (1913:27); Murayama (1951:55); Osada (1951:52); on the Suan 算 Ordo, see Holmgren (1986:50)

for mare's milk'; Arkhangai and Bulgan varieties of Khalkha *sɔn* 'a bag made of bull's skin used for fermenting mare's milk into koumiss'[245], KJ *suun* 'heart'[246])

***šawa** [稍瓦] (EM *ʂaw-wa), [杓窓] (EM *ʂɛw/ʂɔ-wa) 'eagle, hawk (鷹); bird of prey (鷙鳥)'[247] (*LS* 33:4*b*.3; 116:6*b*.10-12)[248]

(cf. PM **siba(ɣ)u-n* 'bird', WM *šibaɣu(n)* id., MM *šibawu-n* id.[249]; D *ʃowoo ~ ʃoɣoo* 'falcon', ArKhor, Baa, Khor *ʃɔbʊʊ ~ ʃɔwʊʊ*, Kh *ʃʊwʊʊ* **шувуу** 'bird', Oir *ʃɔbʊʊn* id., Bur *ʃʊbʊʊn* **шубуун** id., ShY *ʃuun* id., Mongghul *ɕau ~ ɕuu* id.)[250]

***ši / *iši** 禾 <(i)ši> 'nine (九)' (*Dao* 12:21, 26:4; *Ren* 26:22; *Xing* 3:11)[251]

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[245] Amarjargal (1988:288); I confirmed the Bulgan form with a native speaker in Ulaanbaatar during the summer of 2006.

[246] Sečenčoγtu (1999:293*b*); he identifies this as a Chinese loanword in KJ, from Ch. *xīn* 心 'heart', but this is not necessarily the case. The Chinese alveolopalatal fricative *x* (IPA [ɕ]) regularly corresponds to *ʃ* in Kangjia words of Chinese provenance (e.g. KJ *ʃiŋtʃi* 'week' < Ch. 星期 *xīngqī* [ɕiŋ˥-tɕʰi˥] id., KJ *ʃənʃian* 'immortal' < Ch. 神仙 *shénxiān* [ʂən˧˥-ɕæn˥] id., and KJ *ʃi* 'west' < Ch. 西 *xī* [ɕi˥] id.), and if this were a Ch. loanword following this regular pattern, we would not expect the KJ *suun*. Moreover, if we consider the word to be an earlier Chinese loanword in KJ, for example, an Early Mandarin element, we still run into phonological problems, i.e. Ch. *xīn* 心 'heart' in EM was pronounced **sim*. I was unable to find materials on the Qinghai dialect(s) of Chinese, and it is possible data from that dialect may prove the form to indeed be a Ch. loan in KJ, but based on this data from the modern Beijing dialect and Early Mandarin, the KJ form does not seem to be a Ch. element.

[247] The Assembled Script compound 𘍞𘏚𘈩 <š=aw=a>, occurring in the *Xingzong* inscription (*Xing* 30.1), is quite possibly this same word. Since there is no Chinese parallel text to the *Xingzong* inscription, we cannot identify its semantic value with certainty, but the composite graphemes have all been deciphered and match the Kitan form preserved in Chinese transcription so well that it is difficult not to seriously consider the possibility.

[248] Shiratori (1913:33); Stein (1940:33); Kara (1986-7:20); Šagdarsüren (1998:80; 1999:81).

[249] *šibawun* [失鴒温] 'bird (鳥)' (Kuribayashi & Choijinjab 2001:3.18.3), *šibaun* [شباون] 'bird (الطائر)' (Golden 2000:200*a*17)

[250] Menges (1968:46-7)

[251] Kara (1996:233); Chinggeltei (2002*a*:11, 36.33) proposes reading the character 禾 as **is*, following the Daur form, but if we take into consideration the Chinese transcription of **čišidV-bVñ* 'filial piety' in the Chinese chronicles and the Assembled Script form of the same word, we must reconstruct **ši* as the

(cf. PM **jirsü-n* ‘nine’, WM *yisü(n)* id., MM *yisü-n* id.[252], D *is* id., Oir *jisen* id., Bur *juhən* **юһэн** id., ShY *jisən* id., Mongghul *sdzən ~ ʂdzən* id., DongX *jəsuŋ* id., Bon *jirsəŋ* id., KJ *jasuŋ ~ jatsun ~ jadzuŋ* id.)

***šia** (☆šia / ☆še / ☆ša) [捨, 奢, 舍] (NLMC *ʂia)[253] ‘good (好)’ (*QDGZTW* 27:187.3; *QDGZSH* 27:252.11; *LS* 53:8*a*.7-8; *LZ* 9.5; *LZSF* 7*b*.11-2; *YBZJ*[254])[255]

(PM **sa(j)in* ‘good’, MM *sayin* id.[256], Sibe *ʃɛn*, MJur **sa(j)in*[257], Bala Manchu *tsai*[258], Ma *sa(j)in* id.[259], Oir *sææn* id., Bur *hain* **найн** id., ArKhor, Baa, Khor *sɛɛn* id., D *sain* id., ShY *sein* id., Mongghul *sain* id., Bon *saŋ* id., KJ *seini* id., Mog *soɪn ~ soɪm* id.)[260]

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reading for the character 𘍞, as Kara (1996) proposed. Kane (2004:223, *n.*3) proposes reading 𘍞 as <is(u)> and reconstructs **is* or **isu* as the Kitan word for ‘nine’.

[252] *yisün* [也孫] id. (Kuribayashi & Choijinjab 2001:1.41.6), *yisün* [يِسون] ‘nine (تسعة)’ (Golden 2000:201*b*3), *yisün* [يِسُون] id. (Ligeti 1962:74)

[253] I assume that the *LZ* form [拾] (NLMC *ʂɦiʔ) is a scribal error for [捨] (LMC *ʂia), which I assume to be an earlier recorded form, occurring in the *QDGZ* (*QDGZTW* 27:187.3; *QDGZSH* 27:252.11).

[254] Ruǎn (1986:165); Chinggeltei (2002*b*:108)

[255] WF (270); Shiratori (1912:1263); Stein (1940:133); Murayama (1951:55); Osada (1951:49); Perlee (1959*b*:15)

[256] *sayin* [撒因] id. (Kuribayashi & Choijinjab 2001:1.4.4), *sain* [صيب] ‘good’ (Golden 2000:202*c*23), *sayin* [سَاين] id. (Ligeti 1962:63)

[257] [賽因] (EM *saj-jin) ‘good (好)’ (Kane 1989:273)

[258] Zhào (2001:113)

[259] Rozycki (1994*a*:173)

[260] Jí (1986*b*:72) proposes that the Assembled Script character 𗼻 denoted ‘good’ and Chén (1996:356*a*) concurs, but this proposal is speculative at best.

***š(i)a(R)bai-** (☆šarbai- / ☆šerbei- / ☆šebei- / ☆šabai-)[261] [設罷] (NLMC *ʂiaʔ-pfiaːj) 'plentiful / be plentiful (侈盛)' (*QDGZTW* 24:173.6; *QDGZSH* 24:232.13; *LSSY* 24:434.9-12)[262]

(There could possibly be some connection with WM *sarbayi-* 'to stretch, to stretch out to one's full length'[263] (< PM **sarba-* + stative **-ji-*), D *ʂarbəi-*, Kh *sarwai-* **сарвай-** id., Oir *sarbææ-* 'stretch out, extend, reach out', Bur *harbai-* **нарбай-** id.)

***šiL(i)bi** (☆širbi) [十里鼻] (NLMC *ʂɦiʔ-li-pɦji) 'slaves and maid-servants (奴婢)' (*YBZJ* 9*b*.3; *LSSY* 24:435.2-3)[264]

(A connection with WM *čerbi* 'steward' and MM *čerbi* id.[265] is phonologically plausible, although semantically problematic.)[266]

***šu(r)sVn / *šü(r)sVn** [屬珊][267] (NLMC *ʂɦyw-san, EM *ʂy-san) 'coral (珊瑚)' (*LS* 37:6*a*.10; 116:13*b*.12-13, 14b.1; *LSSY* 23:429.1-2)[268]

(cf. WM *šürü ~ sirü ~ bsirü*[269] 'coral', Kh, Khor *ʃur* id., D *ʂor* 'natural pearl', ShY *ʃoro* 'coral', Bon *ɕirə* id., KJ *ʃyri ~ ʃirʉ* id., Ma *šuru* 'coral')[270]

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[261] Vovin (2003:240.1) reconstructs K **sarbai-*.
[262] Franke (1976:176-7); Shiratori (1912:1248)
[263] The connection was proposed by Vovin (2003:240.1).
[264] Shiratori (1912:1258); Cóng et al (2005:54) propose that the Linear Script character for 'slave' was 仑. If my reconstruction above is correct, it may suggest a reading for this character, that is, if this Linear Script character was not used for a Chinese loanword or a near synonym.
[265] *čerbi* [扯𠂤兒必] id. (Kuribayashi & Choijinjab 2001:7.21.8)
[266] Franke (1969:42); Prof. Christopher Atwood (personal communication) suggests a connection between this word and the ethnonyms *Shiwei* and *Xianbei*.

Daur *ʃirbəl-* 'to suffer from insomnia' could conceivably have developed out of a metaphorical extension of Kitan **širbi* 'slave' with an added denominal verb suffix *-l*, but this is far from certain.
[267] This may be an inflected or derived form with a suffix **-sVn*. We can only speculate at present, though.
[268] WF (149); on the Shu-shan 屬珊 Army, see Holmgren (1986:47)

***šüdü / *südü / *šudu** [鬚覩] (NLMC *sy(ə)-tu(ə)) ‘iron club (鐵瓜)’[271] (*CBYBL* 18*b*.6)

(There is possibly a connection with WM *siidam* ~ *sidam* ~ *sigidam* ‘club (a weapon of wood or metal)’ and Dariganga *ʃʲadam* ‘a kind of whip made of wood’[272]; however, the difference in vocalism is somewhat problematic.)

***tVria** (☆tiria / ☆taria / ☆tire / ☆tare) [提烈] (NLMC *tɦi-liaʔ) ‘tilling land, farming (種田)’ (*YBZJ* 9*a*.10; *LSSY* 24:434.13-14)[273]

(cf. WM *tariy-a* ‘grain; crop; field’, MM *tariyat* ‘growing rice’[274], Khor *tɛrɛɛ* ‘crops, farming’, D *taree* id., Kh *tarʲaa* id., Oir *taraan* id., Mongghul *taraa* ‘grain, foodstuff; crops’, ShY *taraaldʒən* ‘crops; farming land’, Bur *tarʲaan* **таряан** ‘grain, bread grain, cereal’, Bon *taraŋ* ‘crops; grain, foodstuff’, DongX *taraŋ* ‘grain, foodstuff’)

***tVXa(a) 令力为** <t=Xa=a> ‘chicken, hen (酉(雞))’ (*Xuan* 4:18; *Ren* 11:23)[275]

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[269] Laufer (1916*b*:467) notes Tibetan *byi-ru* ‘coral’ and derives it from Sanskrit *vidruma* ‘made of coral’. This may be the ultimate origin of the Kitan form, and is certainly the source of the Mongolic word, which was later borrowed into Manchu.

[270] Menges (1968:47)

[271] Franke explains that the Chinese gloss *tiěguā* 鐵瓜, literally ‘iron melon’, denoted an ‘iron club (*Eisenkeule*)’ (1969:42). The fact that we have a Mongolic cognate of similar phonetic form denoting the same concept further supports his assumption.

[272] Amarjargal (1988:304)

[273] Franke (1969:42); Shiratori (1913:36); Osada (1951:51); Schott (1879:6)

[274] *tariyat* [塔舌里牙惕] ‘growing rice (田禾)’ (Kuribayashi & Choijinjab 2001:6.28.2)

[275] Kara (1986-7:24; 1996:233); Probst (1963:139); Toyoda (1963:10); Chinggeltei (2002*a*:10, 60.168, 66.189) proposes the speculative reading **taxia*, which does not coincide with the reading of the character **力** that is suggested by the Chinese transcription of **ñaXa*, the Kitan word for ‘dog’ (see transcription above in the entry for ***ñaXa**).

(cf. WM *takiy-a* ‘chicken’, MM *taɣaqu ~ takiya* id.[276], ArKhor, Baa, Khor *tɛhaa*, Monggoljin *tɪgaa*, Kh *taxʲaa* **тахиа**, Bur *taxʲaa* **тахяа**, Oir *takaa ~ takææ* id., ShY *dagqa* id., Mongghul *təɢau* id., DongX *tuɢa* id., Bon *təχa* id., KJ *taχa ~ tuχa ~ tχa* id.; OT *taqïɣu/taɣuq/taqaɣu* ‘hen/rooster’; Jurchen *tiko* 秃 id.[277], Ma *čoxo* id.[278]; cf. also Hungarian *tyúk* ‘hen’[279] < Turkic)

***taw** [陶] (NLMC *tɦaw), [討] (NLMC *t^{h}aw) ‘five (五)’ (*LS* 53:8*a*.2; *LZ* 8.10-11; *LZSF* 7*b*.1)[280]

***taw 戉** <taw> (*Dao* 12:22; *Xuan* 14:13; *Xing* 9:14)[281]

(cf. WM *tabu(n)* ‘five’, MM *tabun* id.[282], PM **tabu-n*, D *taawu* id., Kh *taw* **тав** id., Oir *taban* id., Bur *tabən* **табан** id., ShY *taaβən* id., Bon *tawəŋ* id., DongX *tawuŋ* id., Mongghul *taavun* id., Mog *tʌβãn ~ tʌβɔn* id., KJ *tavun ~ tavuŋ* id.)

***tawl(i)** [淘裏, 陶里] (NLMC *tɦaw-li) ‘rabbit, hare (兔)’ (*QDGZTW* 27:186.3; *QDGZSH* 27:251.7; *LS* 53:7*b*.12; *LZ* 8.6; *LZSF* 7*a*.6-7)[283]

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[276] *taɣaqu* [تَّغَاقُو] id. (Ligeti 1962:66), *taqia* [pɯɬɯ] <t’aχea> id. (Ligeti 1965:285.29), *takiya* [塔乞牙] id. (Kuribayashi & Choijinjab 2001:4.30.1)

[277] Jīn (1984:225)

[278] Note also Bala Manchu [t^{h}ihə] and Alchuka Manchu [t^{h}iɔhə] ‘chicken, hen (鸡)’ (Mù 1987:11)

[279] Kara (2004*a*:6)

[280] WF (270); Ligeti (1927:308); Murayama (1951:56); Osada (1951:49); Kara (1986-7:20, 24; 1996:233); Stein (1940:129); Starikov (1982:118); Thompson (2005:521); Chinggeltei (2002*a*:11, 36.29); Šagdarsüren (1998:80; 1999:81).

[281] The Linear Script form was 五 (Kara (1996:231); Cóng et al (2005)), a form copied without alteration from the Chinese character for five, 五. The Assembled Script grapheme was also based on the same Chinese character.

[282] *tabun* [تَّابُون] id. (Ligeti 1962:66), *tabun* [塔奔] id. (Kuribayashi & Choijinjab 2001:1.11.8), *tabun* [طابون] ‘five’ (Golden 2000:201*a*28)

[283] WF (270); Ligeti (1927:308); Murayama (1951:56); Osada (1951:49); Kara (1986-7:20, 24; 1996:231, 233); Shiratori (1913:39); Stein (1940:127); Probst (1963:138); Toyoda (1963:10); Ruăn (1986:164);

***tawl(i)a** 兎矢为 <taw=l(i)=a> (*Xuan* 4:8, 29:10)[284]

(cf. DB *taulʲ*, DH *taulʲəi*, WM *taulai*, MM *taulai* ~ *tūlai* id.[285], Kh *tʊʊɮai* **тууλай** id., ArKhor, Baa *tʊʊlɛɛ* id., Bur *tʊʊlai* **тууλай** id., Oir *tʊʊlaa* ~ *tʊʊlææ* id., Mongghul *toolii* id., DongX *tauləi* id., Bon *təli* id., ShY *tuulii* id., KJ *tuli* id.; cf. also Benren U *təlɒ* 'rabbit, hare (兔子)'[286]; Turkic *tabïšγan/tavušγan* id.[287]; note also Hazaragi [tʌwˈlʌj] تولی 'hare, rabbit'[288])

***tawu(i)s** [陶猥思] (NLMC *tɦaw-ʔuaj-sɻ̩) 'dirt, soil (土)' (*QDGZTW* 0:1.1.2; *QDGZSH* 0:1.3; *LZ* 1.2; *LZSF* 1*a*.5-6)[289]

(cf. WM *toγosu(n)*, MM *tōsun* ~ *to'osun* 'dust, dirt'[290], Kh *tɔɔs* 'dust' id., Oir *tɔɔsn* id.; Tabgach **tauGusin* [鳥侯秦][291] (EMC *tɛwˀ-ɣəwʰ-dzin) 'dirt, soil (土)')[292]

Šagdarsüren (1998:80; 1999:81); Chinggeltei (2002*a*:66.189); Schott (1879:6) reconstructs **taula* 'Hase' [hare].

[284] Chinggeltei (2002*a*:10) proposes the reading **taulia*, which seems motivated when we take into consideration both the Chinese transcription of the word, the Assembled Script form, and the Daur form.

[285] *taulai* [تَّاولاي] ~ *tūlai* [ٮُّولاىٔ] id. (Ligeti 1962:68, 70), *taulai* [ᵖᵐɻˡɯʲ] <t'ulay> (Ligeti 1965:283.28), *taulai* [討來] id. (Kuribayashi & Choijinjab 2001:11.36.9), *taulai* [تاولي] 'hare, rabbit (الارنب)' (Golden 2000:201*a*28)

[286] Chén (1996:400); Mèng (1995:218) cites the form *tòló*, also glossed as 'rabbit, hare (兔)'

[287] Kara (2004*a*:6)

[288] Malistani (1993:55)

[289] It is safe to assume that the *LZSF* form [陶猥里] is erroneous, with the character [里] resulting from a copyist's mistake. The correct form is [陶猥思]. This is supported by the fact that two of the three attestations of the word occur in this form, and the Mongolic and Tabgach cognates fortify this conclusion as well.

[290] *tōsun* [ٮُّوسُونْ] id. (Ligeti 1962:69), *to'osun* [脫斡孫] 'dust, dirt (塵)' (Kuribayashi & Choijinjab 2001:6.2.8)

[291] Ligeti (1970:287) reconstructs Tabgach **toγusin*.

***t(i)a(R)bai** (☆tiarbai / ☆tebei / ☆tiabai / ☆tiaGbai / ☆terbei / ☆teGbei)[293] [鐵擺]

(NLMC *t^{h}iaʔ-paːj) 'majestic, grand (e.g. of mountains) (嵩高)' (*QDGZTW* 24:173.7; *QDGZSH* 24:233.2; *LSSY* 24:434.9-12)[294]

***u** [烏] (NLMC *ʔu(ə̆)) 'water (水)' (*QDGZTW* 22:163.10; *QDGZSH* 22:216.1)[295]

(There is possibly a connection with WM *usu(n)* 'water', PM **usu-n* (< ☆*u-su-n* ?), MM *usun*[296], D *os* id., Kh *ʊs* **ус** id., Oir *ʊsʊn* id., Bur *ʊhən* **ухан** id., Mog *ʊsʊ* ~ *ʊsun* id., KJ *sʉ* ~ *sy* id., Mongghul *sdzu* id., DongX *usu* id., ShY *qusun* id., Bon *sə* 'water; river; rain')

***u(w)ul** (☆uwul / ☆uul) 𘘿𘘴 <u$_{i}$=ul> 'winter (冬)' (*Lang* 5:5)[297]

(cf. WM *ebül* 'winter', PM **übül* id., MM *übül* id.[298], D *uɣul* ~ *uwul*, Urad Mongolian *ᠦᠪᠦᠯ* ~ *ᠦwəl* id.[299], Kh *өwəɮ* **өвөл** id., Oir *ybyl* id., Bur *ubəl* **үбэл** id., ShY *ßəl* id., DongX *uwən* id.)

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[292] Shiratori (1913:43); Šagdarsüren (1998:80; 1999:81). Ligeti (1970:288) reconstructs the form **tawus* and connects it with the Middle Mongolian form mentioned above.

[293] It is tempting to explain this Kitan word as a Turkic element composed of OT *tay* 'mountain' + *bay* 'rich', but this may be construed as speculative since no such compound seems to be attested in the extant OT texts. There may also be some relation to OKog **tar* [達] 'mountain (山); high (高)' (Beckwith 2004:253).

As Prof. György Kara (personal communication) points out, the Chinese transcription could even be representing a Kitan form **t(i)ab(R)ai*, since Northern Late Middle Chinese had most likely already lost the coda oral labial stop **-p* by this time.

[294] Franke (1976:176-7); Vovin (2003:241.7); Shiratori (1912:1248)

[295] Franke (1969:36-40); Shiratori (1913:40)

[296] *usun* [اوُسُونْ] id. (Ligeti 1962:71), *usun* [ɯɹuɯɬi] <usun> id. (Ligeti 1965:288.32), *usun* [兀孫] id. (Kuribayashi & Choijinjab 2001:2.3.7), *usun* [اوسون] 'water (الما)' (Golden 2000:201*b*27)

[297] Kara (1986-7:24; 1996:234); Probst (1963:130); Thompson (2005:521); Chinggeltei (2002*a*:11); Šagdarsüren (1998:80; 1999:81); Toyoda (1998).

***waŋ** 𗼻 <waŋ> ‘prince (王)’[300]

***XV(w)ur** (☆xe(w)ur / ☆xa(w)ur / ☆qa(w)ur / ☆he(w)ur / ☆ha(w)ur) 𗹦𗵘 <XVw=ur>

‘spring (春)’ (*Dao* 20:27; *Xuan* 25:13; *Ren* 11:25, 30:3)[301]

(cf. WM *qabur* ‘spring’, MM *qabur* id.[302], PM **kabur*, MoKhamMo $q^{h}awʊr$, D *xaur* id., Kh *xawər* **хавар** id., Bur *xabər* **хабар** id., Oir *xabar* id., ShY *xaβər* id.)

***Xa** (☆qa / ☆xa / ☆ha) [呵] (NLMC *xa) ‘emperor (皇帝); ruler (主)’ (*QDGZ*[303]; *LZSF* 1*b*.2, 5)

***Xa** 𗼭 <Xa> ‘khan (汗)’[304] (*Dao* 7:29, 10:19, 33:2, 34:31; *Xuan* 7:2, 10:9; *Xing* 4:17, 10:4; *Ren* 8:15, 14:17, 16:14, 21:16, 26:1, 28:9)

(cf. MM *qa* [中合], referring to a ruler in an abstract sense[305])

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[298] *übül* [兀不勒] id. (Kuribayashi & Choijinjab 2001:5.12.4)

[299] Urad form taken from Batusayiqan (1985:79)

[300] The Kitan word is a Chinese loanword, i.e. 王 (LMC *yaŋ, EMC *wuaŋ); cf. Chinggeltei (2002*a*:40.71; 2002*b*:40, 117)

[301] Toyoda (1998); Thompson (2005:521); Chinggeltei (2002*a*.11) proposes the reading **xawur* and Kara (1996) proposes the reading **qa.ur*, but if we follow his assumption that the Assembled Script character 𗹦 was used to transcribe the Chinese syllable 后 (NLMC *xɦəw) (75.250), perhaps we should read this character as **xew* and thus reconstruct **xewur* as the word for ‘spring’. I prefer to regard this as an unresolved issue at present, since all of these readings are possible.

[302] *qabur* [中合卜兒] id. (Kuribayashi & Choijinjab 2001:1.11.7), *qabur* [قابور] ‘spring (الربيع)’ (Golden 2000:29*a*9)

[303] Chinggeltei (2002*a*:38.53; 2002*b*:62)

[304] This was a widespread term in Central and Northeast Asia, with variants occurring in Mongolic, Turkic, Xianbeic, etc. Beckwith notes a variant in AKog **kar/*ka* ‘tribal chief, official, minister’ (2004:122-3). Note also Old Turkic *qaγan* 𐰴𐰃𐰍 <qγn$_1$> id.; also MJur *xa(a)n* [哈安] (EM *(xa)-an) ‘emperor (皇帝)’ (Kane 1989:283), Ma *xan* and N *kã* id., which Rozycki (1994*a*:101) regards as loanwords from Mongolic.

[305] Bayar (1998:394, 473, 1227); Cleaves (1982:58, 68, 70, 186, 275)

***Xač$_2$u(u)** (☆qačču(u) / ☆qaǰu(u) / ☆xačču(u) / ☆xaǰu(u) / ☆haču(u) / ☆haǰu(u))[306] [曷朮][307] (NLMC *xɦaʔ-tʂɦyʔ) 'iron (鐵)' (*LS* 60:1*b*.9)[308]

(cf. DB *kaṣoo*, DH *xaṣoo*, DX *kazo* id.[309]; variants of the word also occur in a number of Samoyedic languages[310])

***XaGa(a)n** 𘲢𘲡𘲦 <Xa=Ga=an> 'khan (汗)' (*Ren* 21:1, 23:5; *Lang* 1:4)[311]

(cf. PM **kaɣan* id., MM *qahan ~ qa'an* id.[312])[313]

***X(i)aL(i)-** (☆xeL(i)- / ☆heL(i)- / ☆xiaL(i)- / ☆hiaL(i)- /☆qaL(i)-) [轄里] (NLMC *xɦjaːʔ-li), [狎里] (NLMC *xɦjaːʔ-li), [瞎里] (NLMC *xjaːʔ-li) 'to invite (請)' (*QDGZTW* 27:186.13; *QDGZSH* 27:252.6; *LS* 53:7*b*.8; *LSSY* 23:429.9-11; *YBZJ*[314]; *LZ* 8.3; *LZSF* 7*a*.2-3, 7*b*.6)[315]

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[306] The Daur form could be taken as evidence of a long vowel in the Kitan form, but this is far from certain.
[307] Kara (1986-7:20; 2004:8), following Ligeti (1950) reconstructs Kitan **qašū*.
[308] Shiratori (1912:1266); Šagdarsüren (1998:93); We may find more support for reconstructing an affricate in Textfragment Ch 3586, discovered by Wang (2004) in the Turfan Archives in Berlin (see Fig. 3.4. above). Beside the Kitan characters is a sequence of graphemes which can be transliterated <γ'čw> in Uygur script following the transliteration system of Vladimircov (1929:69), a form which, due to the ambiguous nature of the script, could represent any of the following phonetic values: [qaču], [ɢaču], [qaǰu], or [ɢaǰu], and the first consonant could even have represented a velar or post-velar fricative. If this fragment is indeed what it seems to be, then it provides more evidence that the Kitan word for 'iron' had an affricate and not the fricative **š* that Ligeti (1950:166) proposed.
[309] To the best of my knowledge, Wáng Jìngrú (1998*a*; originally published in 1955) was the first to notice the similarity between the Daur and Kitan forms.
[310] WF (150); Menges (1968:19).
[311] Chinggeltei (2002*a*:38.53)
[312] *qahan* [中合罕] id. (Kuribayashi & Choijinjab 2001:3.1.5), *qa'an* [قاآن] 'the emperor' (Golden 2000:198*a*27)
[313] Cf. Tuyuhun [可寒] 'khan, emperor (官家)', which Pelliot identified and reconstructed as *k^{h}aɣan (1921:326). His reconstruction still holds today (although I would transcribe it more cautiously as **KaGan*), despite Pulleyblank's revision of Karlgren's (1957) reconstruction of MC; the EMC reading of the characters according to Pulleyblank is *k^{h}aʔ-ɣan (1991:118, 173).
[314] Ruǎn (1986:164)
[315] WF (269); Shiratori (1912:1268); Stein (1940:125-6); Osada (1951:48); Probst (1963:130)

***X(i)ari-a** (☆qari-a / ☆xeri-a / ☆heri-a) [匣列] (NLMC *xɦjaːʔ-liaʔ) 'returning, coming back (復來)' (**X(i)ari-* 'return, come back' + imperf. v. n. suff. **-a* ?) (*LS* 74:2*a*.3-4)[316]

(cf. WM *qari-* 'to return', MM *qari-* id.[317], Kh *xarʲ-* id., Baa, ArKhor, Khor *xɛr-* id., Bur *xarʲə-* id., DongX *qari-* 'to return, turn back', Mang **khari yao-** 'to step back', Mong *xarə-* 'to change back into, come back; return, turn back', Mog [qʌril-] 'to turn over, turn around', Oir *xær-* 'to go back, return, turn back', ShY *xarə-* 'to move backward', KJ *χari-* 'return', D *xarʲ-* 'to return, go back; return something to its original condition', Bon *ħaa-* 'to return')

☆Xudadu[318] (☆xudadu / ☆qudadu / ☆hudadu) [胡大鎥] (NLMC *xɦu(ə̆)-tɦa-təw, EM *xu-ta-tu) 'stomach (胃)' (*LS* 116:15*a*.1-2)

(cf. WM *qoduɣudu* 'stomach', Kh *xɔdɔɔd* **ходоод** id., Oir *xɔt* 'stomach; food', Bur *xɔtɔ* **хото**'stomach'; note also Hazaragi [qoˈtʌ] قوتہ 'stomach (human)'[319])

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[316] Mèng (2001: 33); It may be the case that this is a verbal stem; however, it is much more likely, given the fact that this was a name conferred upon a person, and given its Mongolic cognates, that it was, rather, a verbal noun form. If we opt to view it as a stem, we may reconstruct ☆*qari-*, ☆*xeri-*, ☆*heri-*, ☆*qare-*, ☆*xere-*, ☆*here-*,☆*qaria-*,☆*xeria-*, or ☆*heria-* as the Kitan form.

[317] *qari-* [中合舌里] 'to return (回)' (Kuribayashi 2003:1.17*b*.5, 3.1*b*.4); *qari-ba* [قاريبه] (Poppe 1938-9:280*b*)

[318] The actual transcription in the *LS* is [胡木鎥] (NLMC *xɦu(ə̆)-məw-məw), which would suggest a Kitan form **Xumumu*; however, there may be several errors in this transcription—the character 木 is possibly a misrendering of 大 (NLMC *tɦa ~ *tɦaj), and 鎥 (NLMC *təw) could have easily been confused with 鎥 (NLMC *məw), especially in their calligraphic forms, and for this reason, it is motivated to reconstruct Kitan ☆*Xudadu*. This reconstruction provides us with a good cognate for the Mongolic form, but since it requires tampering with the evidence, it must be regarded as somewhat speculative.

[319] Malistani (1993:122)

***Xudu** (☆xudu / ☆qudu / ☆hudu) [胡都] (NLMC *xɦu(ŏ)-tu(ŏ)) 'mountain (山)' (*QDGZTW* 22:163.10; *QDGZSH* 22:216.1)[320] ~ ***Xudi** (☆xudi / ☆qudi / ☆hudi) [胡底] (NLMC *xɦu(ŏ)-ti) 'mountain (山)' (*LDXBZ* 27.7)[321]

***Xus(V)** (☆xus / ☆hus / ☆qus) [虎斯 ~ 虎思] (EM *xu-sz̩, NLMC *xu(ŏ)-sz̩) 'strong, powerful (有力)' (*LS* 116:18*a*.11-12; *LSSYB* 124.4-5)[322]

(cf. D *kutʃ* 'strength', WM *küčü(n)*, MM *güčü-n* id.[323], Kh *xutʃ* **хүч** id., Oir *kytʃyn* id., OT *küčü*, MJur *xusun* 兀 壬 <xu=sun> 'strength'[324], Ma *xʊsun* 'strength, power', Bala Manchu, Lalin Manchu *husun* id.[325], Oq *kutʃun* 'strength')[326]

***X(w)a(-)** (☆xwa(-) / ☆qa(-) / ☆hwa(-)) [化] (NLMC *xwaː), [樺] (NLMC *xɦwaː), 'to shoot / shooting (射)'[327] (*QDGZTW* 27:186.3; *QDGZSH* 27:251.7; *LS* 53:7*b*.12; 116:11*a*.5-6; *LZ* 8.6; *LZSF* 7*a*.6-7; *YBZJ*[328])[329]

(cf. WM *qabu* 'skill in hunting, handling a bow', MM *qabu* 'archery'[330], WM *qarbu-* 'to shoot (an arrow or firearm)', MM *qarbu-* id.[331], D *xarəb-*, OirKalm *xa-*

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[320] Shiratori (1913:39); Franke (1969:36-40)
[321] The text in the *LDXBZ* reads: "…*Xudi* means 'mountain'. The village is named so because it is located at the foot of a mountain" ...胡底漢語山也以其寨居山下 (*LDZBZ* 27.7)
[322] Shiratori (1913:21), Murayama (1951:53); Osada (1951:54); Perlee (1959*b*:15); Klaproth (1831:294)
[323] *güčü* [古出] ~ *güčün* [古純] 'physical strength/energy (氣力)' (Kuribayashi & Choijinjab 2001:3.22.8; 11.29.2)
[324] *xusu* [忽速] (EM *xu-su) 'strength (力)' (Kane 1989:323); Kiyose (1977:125.513); Jīn (1984:150, 156)
[325] Zhào (2001:113, 194)
[326] cf. also Rozycki (1994*a*:113)
[327] This word is possibly a noun-verb, serving both as a verbal root and as a syntactic noun. Prof. Kara (personal communication) points out the MM noun *qabu* 'archery' in the *Secret History* (see note below).
[328] Ruǎn (1986:164)
[329] WF (270); Ligeti (1927:308); Shiratori (1913:39); Stein (1940:78, 127); Osada (1951:49); Kara (1986-7:20); Murayama (1951:54)

id.[332], DongX *χarβ* id., Bon *χabrə-* id.; cf. also Ewk *garpa* ‘arrow’ and *garpa-* ‘to shoot at, fire at’)

***tawl(i) X(w)a** [淘裏化] ‘shoot(ing) hare(s)’ (the name of a Kitan holiday designated for hunting hares [333]) [334] (*QDGZTW* 27:186.3; *QDGZSH* 27:251.7)

[330] *qabu* [中合鏷] ‘archery (射箭)’ (Kuribayashi & Choijinjab 2001:10.30.6)
[331] *qarbu-* [中合兒鏷] id. (Kuribayashi & Choijinjab 2001:1.16.8)
[332] Kara (2004:9). For the Kalmyk form, cf. also Monraev (2002:177).
[333] 射兔之節名 (*LS* 116:11*a*.6); the *LS* form is [陶里樺].
[334] Stein (1940:127)

6.2. Affixes

***-[?]** 又 <[?]> genitive or attributive suffix (?)

***-a** imperfective verbal noun suffix (?)

***-bVñ** [本] (NLMC *pun) 𠙵伏 <b=ñ> verbal noun suffix (?)

***-dV** [得] (NLMC *tə(ǯ)j) 𠂤 <d(V)> denominal verb suffix (?) (cf. PM **-dA*)

***-i** 𠂢 genitive (?)

***-n** (cognate to the 'fleeting' *-n* suffix in Mongolic languages?)

***-s** 令 non-obligatory plural suffix

***-Xu / *-Gu** [胡] adjective-attributive suffix (?)

***-Vn** 𠂇 genitive

***-wVn** [盌] (NLMC *ʔuan) verbal noun suffix[335]

[335] Menges (1968:50); Kara (2005:9)

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[336] There are errors in the pages numbers of this volume. The first page of Perlee’s article is correctly labeled as page 171, but the next page, which should be 172, is labeled as “164” and the page numbers

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EDUCATION

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July – August 2002	Princeton University: *Princeton in Beijing Intensive Chinese Language Program* (held in Beijing on the campus of Beijing Normal University; third-year Chinese)
2001 – 2004	B.A. *cum laude* (May 2004), Indiana University. Double major in Linguistics and Chinese.

LANGUAGES

English — *native*
Mongolian — *advanced*
Mandarin Chinese — *advanced / intermediate*
Classical Chinese — *intermediate reading*
Classical Mongolian — *reading*
Ewenki — *reading*
French — *limited reading*
German — *limited reading*
Japanese — *intermediate*
Kazak — *intermediate*
Manchu — *reading*
Russian — *limited reading*

ACADEMIC HONORS AND AWARDS

2007 – 2008	FLAS (Foreign Language and Area Studies) fellowship to study Advanced Chinese at Indiana University
Summer 2006	ACMS (American Center for Mongolian Studies) US-Mongolia Field Research Fellowship to do fieldwork in Khentii, Mongolia, on Mongolian Khamnigan Mongol
Summer 2005	SSRC (Social Sciences Research Council) grant to study Intermediate Kazak in the SWSEEL (Summer Workshop in Eastern European and Central Asian Languages) at Indiana University
2004 – 2005	FLAS fellowship to study Advanced Mongolian (4^{th} year) at Indiana University
Summer 2004	FLAS fellowship to study Introductory Kazak in SWSEEL at Indiana University
2003	Uehara Scholarship for Excellence in East Asian Studies, presented by the Indiana University Department of East Asian Languages and Cultures
Fall 2001	Indiana University Faculty Award scholarship for undergraduate students

FIELDWORK AND RESEARCH TRIPS

Summer 2006	Fieldwork on Mongolian Khamnigan Mongol in Khentii, Mongolia
October 2005	Research trip to Ulaanbaatar, Mongolia; met with professors at the National University of Mongolia and collected research materials; presented a lecture to students at the university (see "Presentations and Lectures" below); conducted very brief fieldwork on Mongolian Kazak

PUBLICATIONS

Articles

English

(in progress) Evidence from Sino-Kitan on the phonology of Liao Chinese.

(in press) A preliminary derivational account of consonant assimilation in Daur, *Mongol sudlalïn erdem šinjilgeenii bičig (Works in Research)*, Ulaanbaatar, 7 pp.

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(2006) A brief report on fieldwork among the Khamnigans of Mongolia, *Mongol Survey: A Publication of The Mongolia Society*, No. 18 (Summer-Fall 2006), pp. 14-18.

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Proofreading

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Reviews

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PRESENTATIONS AND LECTURES

Conference presentations

July 28, 2006 — "A Brief Report on Recent Fieldwork on Mongolian Khamnigan Mongol", *The 21st International Conference on Mongolian Studies*, The Korean Association for Mongolian Studies, Ulaanbaatar, Mongolia (held at the Khan Palace Hotel)

April 8, 2006 "Reconstructing the Kitan Basic Color Term System", *The Thirteenth Annual Central Eurasian Studies Conference*, Association of Central Eurasian Studies (ACES), Indiana University, Bloomington, Indiana, USA

Guest lectures and informal presentations

September 8, 2006 "Language Variation and Typology", presented to a group of PhD students at the National University of Mongolia in the course "Contrastive Linguistics" (Зэрэгцүүлсэн хэл шинжлэл). Three-hour lecture.

October 21, 2005 "Mongolian Studies at Indiana University and New Theories in the West on Comparative Mongolic Linguistics", presented to a group of Mongolian-English Studies students at the National University of Mongolia, Ulaanbaatar, Mongolia.

EDITORSHIP

Feb. 2004 – present Editor of the *Mongol Survey*, a publication of The Mongolia Society (copies available upon request)

PROFESSIONAL ACTIVITIES AND MEMBERSHIPS

Feb. 2004 – present Member, The Mongolia Society

Jan. 2006 – present Member, The Linguistic Society of America (LSA)

Jan. 2006 – present Member, International Association of Chinese Linguistics (IACL)

Feb. 2006 – present Member, American Center for Mongolian Studies (ACMS)

Feb. 2006 – present Member, Central Eurasian Studies Society (CESS)