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ON THE PROBLEMS OF READING KITAN CHARACTERS

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The paper offers a sketch about the Kitan nation, the rise and fall of her Liao Empire. It outlines the origin, usage and disappearance of Kitan writing. It also contains a brief history of research done since the discovery of Kitan written monuments in the early twentieth century and sums up the state of the renewed international investigation up to the 1970s when significant progress was made in China. The methods used and the most important results achieved are also discussed.

Key words: Kitan language, writing systems, history, methods and results of decipherment.

More than one thousand years ago, the 契丹 Kitan nation created the powerful and great empire known as 遼 Liao in what is now the northern part of China. Liao is one of the twenty-five dynasties recognised in Chinese history, and the Liao Annals make part of the Twenty Five Official Histories of China. At the height of its power, the territory of the Liao Empire extended to the Sea of Japan in the east, reached the Altai range in the west, beyond the Great Khingan in the north, while in the south it stretched to the central part of the present Hebei and the northern part of Shanxi and bordered Song China. The Liao established five capital cities: the Upper Capital was 臨潢 Linhuang (now 林东 Lindong), the Middle Capital was 大定 Dading (now 宁城 Ningcheng), the Eastern 遼陽 (辽阳) Liaoyang, the Southern 析津 Xijin (the present Beijing), and the Western Capital 大同 Datong. According to the system of administration the empire was divided in two parts, a northern and a southern one. The northern part was inhabited by Kitan, Mongol, Uygur, Jurchen and other nomadic peoples, the southern part with its mostly agricultural Han Chinese population and some other peoples was governed in agreement with the Tang system. The Liao had an important impact on Chinese history and up to now in the languages of Russia and several other countries China's name is derived of the ethnonym of the Kitans. Both the Kitan and the Mongolian peoples descend from the 東胡 Donghu and the later 鮮婢 Xianbi.

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During the Liao times, the growth of economy and culture reached a relatively high level. Saddle making, iron smelting, weaving, printing and paper making and all handcrafts flourished. Sculpture, constructions and pottery and porcelain, which survived until our days, clearly show the height of Liao culture and arts in general. The creation and evolution of Kitan writing systems demonstrate one aspect of their cultural development. In 920, the fifth year of the 神 冊 Shence era, that is, in the early period after the foundation of the Liao Empire, Emperor 阿 保 機 Abaoji trusted 耶 律 突 呂 布 Yelü Tulubu and 耶 律 魯 不 古 Yelü Lubugu to create a script. Assisted by Chinese literati, they created the Kitan Big Script following the model of, but simplifying and modifying, Chinese characters. This was an ideographic script and thus somewhat inconvenient for writing in an agglutinative language such as Kitan. So soon 迭 剌 Diela, the emperor's younger brother created another writing system whose shape was modeled after the Chinese characters but whose principle of notation followed that of the Uygur alphabet. This system, called the Kitan Small Script, was phonographic.

After it had been created, the Kitan characters were used for writing official documents, inscriptions on stone steles, seals, identification tablets of privileged officials, etc. They were also used in writing poetry, records of events, translations and in the system of state examination. They remained in use even after the fall of Liao, for a relatively long period, until 1191, the second year of the 明 昌 Mingchang era of the Jurchen 金 章 宗 Jin Zhangzong Emperor. After that the knowledge of the Kitan script and the language gradually faded, and finally were given to oblivion, while the Kitan people gradually melted in its Chinese, Jurchen und Mongolian environment. As time went on, the monuments of Kitan writing, books and documents vanished without trace so that the historians of posterity did not know at all what kind of script the Kitan script was indeed.

Several hundred years passed until the beginning of the 20th century when people dug the burial mound of a Liao emperor in the Baarin Right Banner of Inner Mongolia where they found two Kitan script epitaphs. It is with these imperial epitaphs that the Kitan script was rediscovered. In 1930, two other Kitan script epitaphs were unearthed. Comparing the characters on these epitaphs with those of the allegedly Jurchen part of the 1134 inscription 郎 君 行 記 Langjun xingji on the stele erected by a Jin imperial prince at 武 則 天 Wuzetian in 乾 Qian county of the province of 陝 / 陝 西 Shănxi, it turned out that the "strange script" on the stele of 1334 was Kitan script and so the mistake maintained so long by Ming and Qing scholars was corrected. Thus the number of sizeable texts in Kitan script reached five.

A brief history of interpreting Kitan script

The rediscovery of the Kitan script caused a sensation in academic circles and some scholars began to investigate it. However, the researchers met with great difficulties. There were no traditional sources on Kitan script. There were no records on it, except a few notes in historical writings. During the Ming, numerous bilingual materials,

glossaries and texts in many languages with Chinese interpretation were compiled such as the Hua Yi yiyu, but none of them dealt with the Kitan language. Some of the Kitan script monuments unearthed from Liao tombs had also Chinese parallels, but due to the chaotic circumstances of the excavations, it was impossible to tell which tomb a certain monument was from and which Kitan and which Chinese epitaphs were written in memory of the same person.

Scholars like 罗 / 羅 福 成 Luo Fucheng, 王 靜 如 Wang Qingju and 厉 / 厲 鼎 煃 Li Dingkui represent the early stage of Kitan script research. With no other means, they tried various ways of comparison. They compared the Kitan script monuments with their Chinese parallels, one Kitan inscription with the other, and the Kitan script epitaphs with the inscription of their covers. In fact these Kitan epitaphs and their Chinese parallels are not translations from one of these languages into the other, and their writers are different, too. Nevertheless the Kitan and the Chinese versions of the inscription in memory of the same person contain certain common elements. For instance, the name of the emperor or empress should be the same in both versions. The date of his or her death and the date of his or her funeral, in whatever script they were written, also should not differ if the system used for reckoning time was the same. From the interpretation of these dates, the early scholars identified the Kitan characters for calendar terms: day, month, and year, several numerals, names of the eras of reign (年 號 *nianhao*), terms of the Ten Celestial Stems and the Twelve Terrestrial Branches as well as some commonly used Kitan words.

There was a certain progress in the comparative study in the 1930s and 1940s. The scholars learned about the difference between the Big Script and the Small Script, the spelling structure of the Small Script and the semantics of a number of characters. Altogether some two hundred characters or words were interpreted in this period, among them many by guess. Only some seventy of these interpretations were justified by later research.

The possibility of semantic interpretation through textual comparison is limited. Since the Kitan Small Script was a phonographic writing system, finding the principles of its sound notation would lead to a new stage of decipherment. This is why so many scholars, independently from each other, began to deal with the phonetic interpretation of the Kitan script.

A Japanese scholar, 山 路 廣 明 Yamaji Hiraoki, published many papers on Kitan script research. In his "Survey of the structure of Kitan script" (1956) he focused on the problem of phonetic interpretation. He opined that the Kitan characters were created from Chinese characters and therefore their phonetic value was similar to that of their Chinese models. Based on this idea, he attempted to find out the reading of several Small Script characters. Somewhat later, the Russian Sinologist V. S. Taskin developed a similar method and offered phonetic interpretation for some Kitan signs.

Experience showed that this kind of method might give some results if the meaning of the Kitan word and its approximate phonetic shape is known from other sources. However, in most cases, there is no outer information, and the use of the method based on the similarity between a Small Script sign and a Chinese character

is hazardous and leads to wrong assumptions. This is because the Small Script, though shaped like Chinese characters, was intentionally created to be definitely different from its model. The more the shape of a Small Script character is like a Chinese character, the more different are its phonetic value and meaning.

Another Japanese scholar, 村山七郎 Murayama Shichiro published his "Method of the decipherment of the Kitan script" in the *Gengo Kenkyu* (March, 1951). His main idea is that the Kitan Small Script was of Turkic origin, and the writing system Diela learned from the Uygurs according to the Liao Annals was not the Uygur alphabet, but the runiform script of the ancient Turks. To demonstrate this, Murayama gave a chart of Kitan characters with their alleged Turkic equivalents. His idea proved to be wrong.

His compatriot, 長田夏樹 Osada Natsuki criticised Murayama's idea. Meanwhile he made a graphemic and statistical analysis of the Small Script characters. He clarified the structure of the Small Script, identified its graphemes according their frequency in the texts and according their usage in initial, medial or final position in compounds or independently. Together with 小林行雄 Kobayashi Yukio and 山崎忠 Yamazaki Tadashi he prepared "A classified table of Kitan characters used as suffixes" with phonetic interpretation. The statistical analysis made by Osada and his colleagues was of great importance, however the results of their statistical work alone proved to be insufficient for the exact definition of the phonetic value of a given grapheme or a given suffix.

Assuming that Kitan belonged to the Mongolian languages, 愛宕松男 Otagi Matsuo, another Japanese researcher, almost equated Kitan with Mongolian in his attempt of interpretation, and thus he proposed a Mongolian reading for those Kitan words or characters whose meaning had been known. The result was that from each Kitan monument (which he thus read in Mongolian) he produced a kind of alphabet, altogether five or six contradictory sets, which he thought to be complementary. This unavoidably increased the possibility of freewheeling phonetic interpretation and of arbitrary semantic definition.

From among the Russian scholars who worked on the decipherment of the Small Script we have mentioned Taskin above. Studies by L. N. Rudov (who perished in the Second World War) and by Ė. V. Shavkunov appeared in the 1960s; they tried to interpret the Kitan characters with the aid of the better-known Jurchen script. V. S. Starikov with V. M. Nadeliaev and others used statistical methods in their research on Kitan grammar and the principles of how the Small Script characters formed compound blocks. Starikov also tackled the "visible" prosody of Kitan verse.

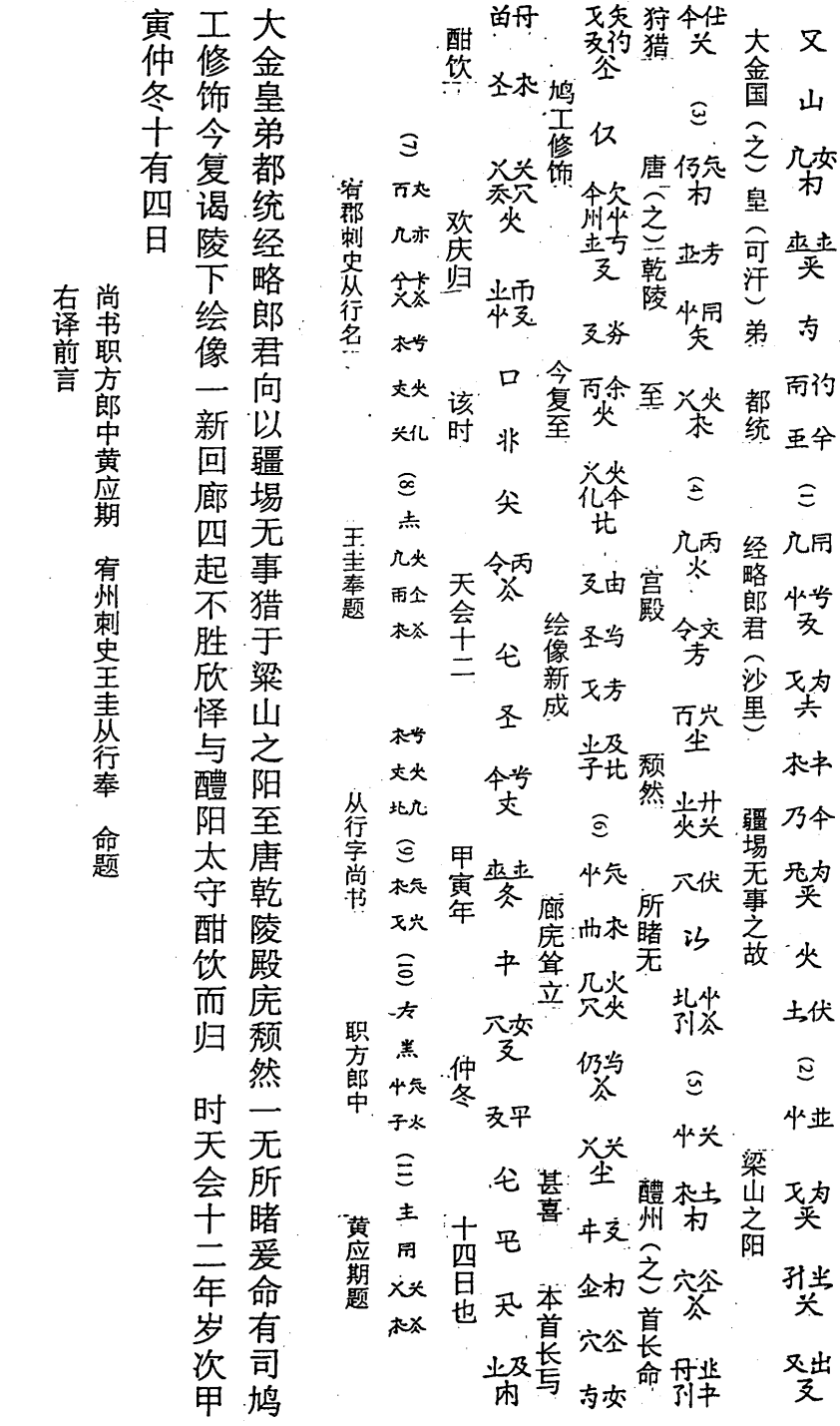
A few scholars in Central and Western Europe also gave attention to the Kitan writing systems. The renowned Hungarian orientalist Louis Ligeti published his first paper on the Kitan people and its language in 1927, he returned to the topic several times, and his latest note on Kitan appeared in his last book on the older Turkic relations of the Hungarian language (1986). From the 1970s, his student, Professor G. Kara, began to contribute to the study of Kitan writing; later he delivered a valuable paper at the 2nd International Conference of Mongolian Studies held at Inner

Mongolia University, Huhhot. Mention should also be made of relevant articles published by Louis Hambis and Sir Gerard Clauson.

In general, beginning with the 1950s, phonetic interpretation became the main stream in the study of Kitan writing, but as the research methods remained tentative, the achievement was not too great. In the given period, Japanese and Russian researchers proposed interpretation for some 150 Kitan graphemes, but in the light of later research only one fifth of their interpretation turned out to be right on the whole. In his review of V. S. Starikov et al., *Materialy po dešifrovke kidan'skogo pis'ma*, G. Kara gave a relatively objective comment on the research work done in this period: "Les savants des divers pays ont prodigé leurs forces pour déchiffrer cette écriture énigmatique, mais jusqu'ici on ne connaît que la signification de quelques douzaines de signes (surtout des idéogrammes) et la structure de l'écriture, mais aucune des tentatives de déchiffrement phonétique n'a réussi, car la prononciation des signes syllabiques a été "définie" par conjectures et, dans la plupart des cas, sans être favorisé par le hazard.'" (Kara, G. (1971): Review of V. S. Starikov et al., Materialy po dešifrovke kidan'skogo pis'ma I–II. *AOH* XXVI, p. 156.) The writer of the present paper thinks that this evaluation rather accurately reflects the state of art in the period discussed.

The recent state of Kitan script interpretation

In 1975, the Institute of Mongolian Language and Script at Inner Mongolia University and the Institute of Nationalities of the Chinese Academy of Social Sciences organised a joint Research Group for Kitan Script Studies. As the Small Script is phonographic, its phonetic interpretation bids fair to succeed. In the beginning stage of the work the research group profoundly discussed the problems of the methods to be used. Reflecting on the lessons of previous experience and on the methods used, G. Kara wrote: "… even if the guess happens to be correct, it may not be accepted as a method." It was necessary to find a method that could be proved and trusted. But in a case where the researcher knows neither the language, nor the script, what kind of method would be suitable? The discussion concluded that one should continue the work first of all along such common elements as names and titles occurring in both the Kitan and the Chinese texts belonging together. These elements should sound quite similar in both languages. However, there is only one case where the relevant Kitan and Chinese texts are not only vaguely parallel, but the Chinese is the translation of the Kitan text. This is the Langjun xingji inscription of 1134 in which the Kitan and the Chinese texts carved on the same side of the stele contain indeed several names of the kind. The research group decided to start with these. The Kitan text (with inserted numbers in parentheses marking the units discussed below) and our interlinear Chinese interpretation as well as the Chinese text transcribed in simplified characters appear on the following page as an illustration of the case. The interlinear Chinese interpretation is the result of our long-time research. At the beginning we only knew that the Chinese text had two personal names 黃應期 Huang Yingqi and



大金皇弟都统经略郎君行记

大金国（之）皇（可汗）弟　都统　经略郎君（沙里）　疆場无事之故　梁山之阳　唐（之）乾陵　至　宫殿　颓然　所睹无　醴州（之）首长命　狩猎　鸠工修饰　今复至　绘像新成　廊庑耸立　甚喜　本首长与　酣饮　该时　天会十二　甲寅年　仲冬　十四日也　欢庆归

宿郡刺史从行名

王圭奉题

从行字尚书　职方郎中

黄应期题

大金皇弟都统经略郎君向以疆場无事猎于梁山之阳至唐乾陵殿庑颓然一无所睹爱命有司鸠工修饰今复谒陵下绘像一新回廊四起不胜欣怿与醴阳太守酣饮而归　时天会十二年岁次甲寅仲冬十有四日

尚书职方郎中黄应期　宿州刺史王圭从行奉　命题

右译前言

王 圭 Wang Gui. These two names had to be found in the Kitan text. But actually in which units were they hidden? Research in the past (as seen, for example, in Luo Fucheng's work) had a wrong selection for the order of names and this led to erroneous interpretation and meant a dead end in the decipherment efforts. The research group examined the characters in context and compared them to those occurring in other Kitan Small Script monuments. Thus it turned out that the Kitan character for the Chinese surname 黃 Huang is the same as the one used for the first word of the compound meaning 'emperor', Chinese 皇 *huang*, and that the last character of the Kitan compound for 期 *qi* is identical with that of the compound used for Chinese 懿 *yi*. After some investigation, we concluded that unit no. 8 contained the name Wang Gui, and unit no. 11 had the name Huang Yingqi. The order of these names in the Kitan text was just the opposite what is seen in the Chinese translation. Based on this, we also tried to identify other Kitan characters in order to examine if our conclusion was right.

Our next question was if the four Kitan characters above no. 11, i. e. preceding the name Huang Yingqi, were used also in writing Chinese loan words, for instance, the title 職 方 郎 中 *zhifang langzhong.* The Kitan initial character in *langzhong* is the same as the one used in the unit marked no. 2, which transcribes the Chinese mountain name 梁 山 Liangshan, as well as in no. 5, which renders the Chinese place name 醴 州 Lizhou and in the middle of unit no. 6, Kitan transcription of the Chinese compound 回 廊 *huilang.* Now it was evident that in the unit marked no. 1, which transcribes the Chinese title 經 略 *jinglue,* and in unit no. 3, which transcribes the place name 唐 乾 陵 Tangqianling, the same Kitan character marks *L.* The character denoting the rhyme *–ang* in the Kitan transcription of *langzhong* (no. 10) also occurs in *huilang* (no. 6) and in *tang* of Tangqianling (no. 3). The character denoting the rhyme *–ung* in *langzhong* (no. 10) also occurs in the Kitan transcription of 宮 殿 *gongdian* (no. 4). This case of mutual proof showed that also the Kitan equivalent of *zhifang langzhong* was of Chinese origin and that the reading of the Kitan term in Small Script characters was similar to the contemporary Chinese pronunciation of the term. All data quoted above are drawn from a single, short inscription. In fact, the research group exploited all the available material. The more mutual proof was obtained, the more convincing were the results. Experience showed that correct interpretation expanded the range of decipherment, while the mistakes only brought obstacles in the next stage of research. The research group found that not only proper names, names of persons and places might be homophonic in Kitan and Chinese, but also numerous names of titles and offices, and that the Kitan texts contain a relatively great number of Chinese loan words. The research group stated that the Chinese elements in Kitan showed Middle Chinese phonetic features, different from the modern Northern Chinese standard pronunciation. This was a further proof that the interpretation offered by the group was correct.

The Chinese elements the group identified in the Kitan texts are listed here in Table One, while Table Two shows genuine Kitan words deciphered with the aid of the results achieved from the detected Sino-Kitan elements. These elements also show that a Chinese syllable may sometimes be written in Kitan Small Script in more

Table One

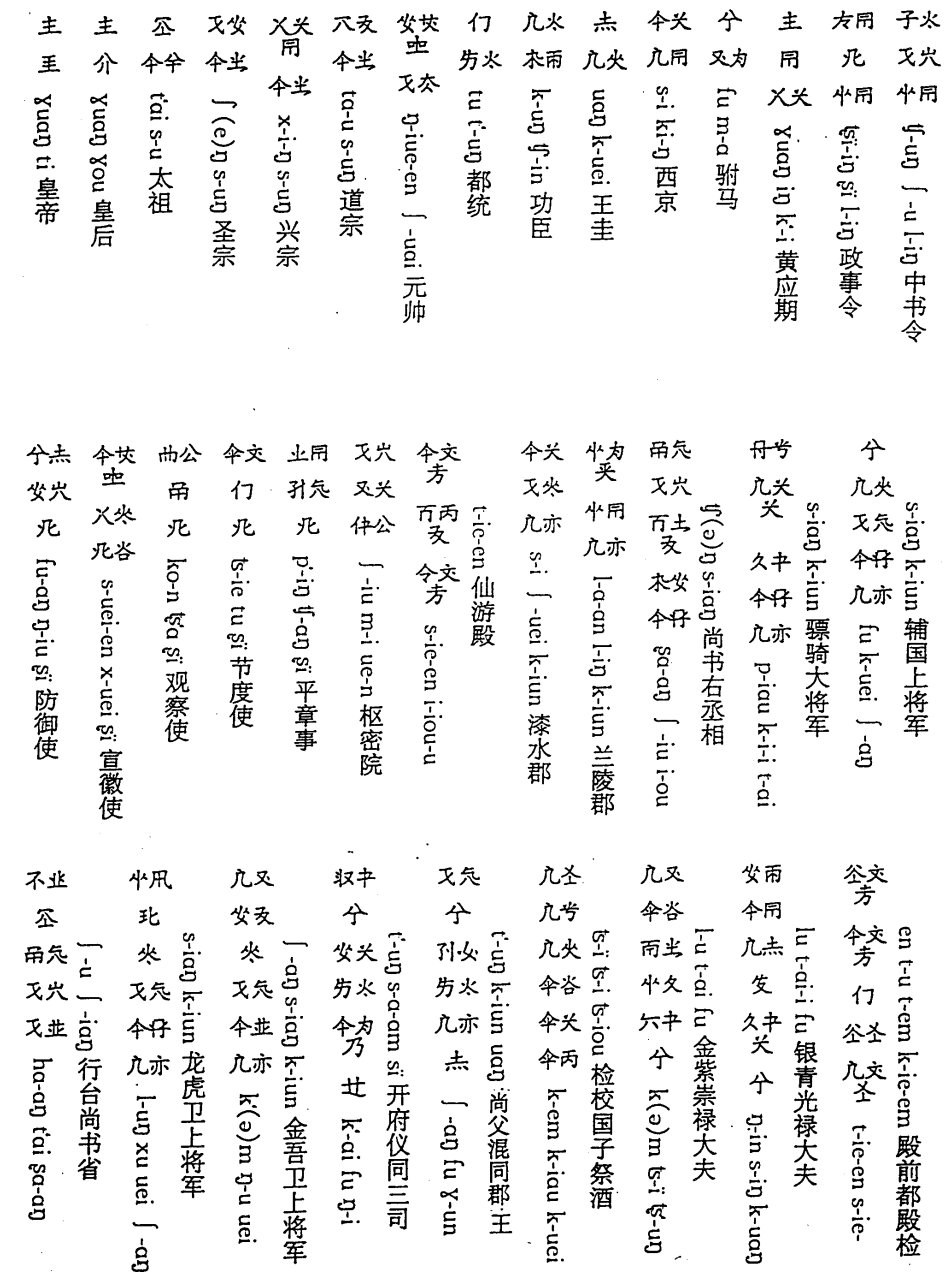

tʃ-uŋ ⌈-u l-iŋ 中书令
ɣuaŋ iŋ k'-i 黄应期
fu m-a 驸马
uaŋ k-uei 王圭
k-uŋ tʃ-in 功臣
tu t'-uŋ 都统
tʃ-iue-en ⌈-uai 元帅
ta-u s-uŋ 道宗
x-i-ŋ s-uŋ 兴宗
(e)ŋ s-uŋ 圣宗
tʃai s-u 太祖
ɣuaŋ ɣou 皇后
ɣuaŋ ti 皇帝
s-iaŋ k-iun 辅国上将军
k-uei ⌈-aŋ
s-iaŋ k-iun 骠骑大将军
p-iau k-i-i t-ai
tʃ(ə)ŋ s-iaŋ 尚书右丞相
ʃa-aŋ ⌈-iu i-ou
l-a-an l-iŋ k-iun 兰陵郡
s-i ⌈-uei k-iun 漆水郡
t-ie-en 仙游殿
s-ie-en i-iou-u
m-i ue-n 枢密院
p-iŋ tʃ-aŋ si 平章事
ko-n ʧa si 观察使
ʧ'-ie tu si 节度使
s-uei-en x-uei si 宣徽使
fu-aŋ ŋ-iu si 防御使
en t-u t-em k-ie-em 殿前都殿检
lu t-ai-i fu 银青光禄大夫
l-u t-ai fu 金紫崇禄大夫
ʧ'-i ʧ'-i ʧ'-iou 检校国子祭酒
t'-uŋ k-iun uaŋ 尚父混同郡王
t'-uŋ s-a-am si 开府仪同三司
⌈-aŋ s-iaŋ k-iun 金吾卫上将军
s-iaŋ k-iun 龙虎卫上将军
⌈-u ⌈-iaŋ 行台尚书省
ha-aŋ ʧai ʂa-aŋ

Table Two

巴 dur 四 four	今号余 siau'ai 甲, 乙, 蓝 blue	六券 乑 noua unj 地久 long time	丹刂出 baγasa 孩子们 children
包 γur 三 three	六丹亼 doluwei 第七 seventh	关 仍 au ta 天长 long time	丹力关 丹力 bəxi'i bəxi 孙子 grandson
圣 ʧur 二 two	太亼 nirwei 第六 sixth	又方 ʃen 新 new	丹力 bəxi 儿子 son
乇 mas 一 one	今亦及比 t'owo'oi 第五 fifth	又及 mo 大 big	百 几 muoku 女人 women
火 wei 亥, 猪 pig	公化亼 duruwei 第四 fourth	叐平 u'ul 冬 winter	百今 muodə 女的 female
伏力 noxi 戌, 狗 dog	刂化亼 γuruwei 第三 third	公乃安 namur 秋 autumn	丰公 aidə 男的 male
今力为 t'axia 酉, 鸡 chicken	本化亼 ʧuruwei 第二 second	介安 xawur 春 spring	乍丰 bu'ai 祖父 grandfather
止及及 po'o 申, 猴 monkey	又冬余 masai 第一 first	今杏 sunj 夜 night	寺 丰 du'ai 叔父 uncle
圣为 ema 未, 羊 sheep	及 t'um 万 ten thousand	刄 nær 日 day	又及 丰 mo'ai 伯父 uncle
又化 mori 午, 马 horse	关 miŋ 千 thousand	女 sær 月 month	寺 du 弟 younger brother
住扎及 moγo 巳, 蛇 snake	丽 ʤaw 百 hundred	丰 ai 年 year	才 ia 兄 elder brother
发 lu 辰, 龙 dragon	夭 is 九 nine	非 p'o 时 time	丰 ai 父 father
戋矢为 t'aulia 卯, 兔 rabbit	尸 dol 七 seven	由叐 jou 壬, 癸, 黑 black	
虫圭冬 xaγa'as 寅, 虎 tiger	太 nir 六 six	小号余 liau'ai 丙, 丁, 红 red	
杏 unj 丑, 牛 ox	戋 t'au 五 five		

than one ways, even three. This means that the Kitan writing system had not yet been fully standardised. This feature facilitates our work on the decipherment of the Small Script characters. Alternative writing of one and the same syllable may tell us which characters had similar or identical phonetic value and so we can gain the interpretation of one more character. Based on a number of characters with reliable phonetic and/or semantic interpretation we can extend the range of decipherment beyond the Sino-Kitan elements to the genuine Kitan words.

Albeit historical sources offer but very scarce information on the Kitan language, we may find some useful pieces and should thoroughly examine them. The 國語解 *Guo yu jie* "Explanation of the Language of the Country" in the 辽史 Liao Annals contains such Kitan words in Chinese transcription as 討 [tʻao] 'five', 爪 [tʃao] 'hundred', 女古 [nygu] 'gold', 耨斡 [nou'uo] '(the deity of) Earth', 陶里 [tʻaoli] 'hare', 捏褐 [niehe] 'dog'. The 營衛志 *Ying wei zhi* "Survey of the Camps" in the same source has 赤寔得本 [tʃʻiʃiteipuən] 'filial piety', 孤穩 [ku'uən] 'jade', 捺鉢 [nuopo] 'army headquarters'. In the 契丹國志 *Qidan guozhi* "Survey of the Kitan Empire" we read 瞎里叵 [xiali pʻuo] where [xiali] 'to pray' and [pʻuo] 'time', 捏離 [nieli] 'day', etc. The 燕北雜記 *Yanbei zaji* has 賽里 [saili] 'moon', 舍 [ʃie] 'good', etc.

When the evidence of Small Script characters already deciphered and of Kitan words, the meaning of which is known from the context and/or from Chinese transcriptions found in historical sources, is used for the decipherment of further characters or words, one may meet different cases.

(1) If the meaning is known from the context and the word is recorded in Chinese transcription, there is possibility for a phonetic reconstruction. For instance, we know the Small Script character for 'five' from the inscription and its reading [tʻaw] from Chinese transcription as well as from the Kitan transcription of the Chinese title 招討 (司) *zhaotao (si),* the first syllable of which is homophonic with Kitan [dʒaw] 'hundred'. Thus the reading of the Kitan characters and words in question is firmly reconstructed on the basis of mutual proof. The polysyllabic words written in a set of characters and denoting 'hare', 'dog', 'tiger', and 'filial piety' represent similar cases.

The characters denoting 'day', 'month' and 'time' were deciphered from the context and their Chinese transcriptions found in historical sources. According to these latter data, we may conjecture the following provisory readings: *nær, sær* and *p'o*. It is still to find out if the words 'day' and 'month' also meant 'sun' and 'moon'.

(2) If the meaning of a word is known from the context and its pronunciation can be given on the basis of its character(s) also occurring in words already phonetically deciphered, its interpretation is to be considered approved, even if no extant Chinese transcription is available in the historical sources. For instance, the Kitan Small Script character for 'dragon' is also used to render the second word/syllable of the Chinese title 光祿大夫 *guanglu daifu,* hence its phonetic value is *lu,* cf. Mongolian *luu.*

Similar is the case of the Kitan word used as a calendar term for the eighth of the Twelve Animals, in Chinese 羊 *yang* 'sheep/goat'. The Kitan word is written in

a block with two characters also occurring in other Kitan and Sino-Kitan words, the first rendering *em,* the second *a,* together *ema,* cf., for instance, Middle Mongolian *ima'an* 'goat'.

A compound of three characters denotes another calendar term, which is the tenth of the Twelve Animals, in Chinese 鷄 *ji* 'hen/rooster; chicken' reads as *ta-xi-a*, cf. Mongolian *takiya* id.

The pronunciation of the Kitan Small Script words *po'o* 'monkey' (the ninth of the Twelve Animals) and *wei* 'pig' (the twelfth) is reconstructed following the usage of the characters in question for Chinese syllables in loan elements. These two words seem to be particular for Kitan; they have no cognates in any Mongolian, Altaic or other languages, but the meaning of each is clear from the context, and their phonetic value should be considered sure.

(3) If the meaning of a word is known from the context, but not all characters used in its Small Script written form are phonetically interpreted and there is no Chinese transcription of its Kitan pronunciation in the historical sources, we can use the evidence offered by the relative languages such as Mongolian, etc., and may try to apply a probable reading to the still unidentified characters of the given sequence.

For instance, a compound of two Small Script characters renders the Kitan word for 'horse' (the seventh of the Twelve Animals). From Kitan transcriptions of Chinese elements we know that the phonetic value of the first character has an initial *m*. Referring to Mongolian *morin* 'horse', we assumed that the second character denoted a syllable with initial *r,* and so we reconstructed *mori.*

A compound of three Small Script characters renders the Kitan word for 'snake' (the sixth of the Twelve Animals). The latter two denote *γ+o*. Referring to Mongolian *moγai,* we assumed that the first character of the compound denoted a syllable with an initial *m,* and so we reconstructed *moγo.*

A compound of two Small Script characters renders the Kitan word for 'winter'. The reading of the first of them is known from other words as *u.* Referring to Mongolian *ebül,* Middle Mong. *übül,* etc., we assumed that the second character denoted *ul,* and so we reconstructed *u'ul.*

Later research has not challenged these assumptions and they seem reasonable.

(4) The reading of the numerals proved to be problematic. Later it turned out that the written form of the ordinal numbers was rather different from that of the cardinal numbers, but the pronunciation of the corresponding stems was almost the same in both categories. Based on this statement, we reconstructed the reading of the cardinal numbers. This phenomenon of alternative notation often helped the researchers in the work of interpretation.

(5) With some progress in the interpretation, we began to study the Kitan phonetic and grammatical rules as seen in the Small Script texts. As to phonetics, we collected words with great morphological variety (stems with varying bound morphemes), arranged them and found that the Kitan language had certain obvious features of vowel harmony. Vowel harmony could also be helpful in the classification of the bound morphemes.

(6) With more words deciphered, more clues may be found. For example, after the decipherment of a number of official titles and ranks, we were able to find that the verb after them meant 'to promote' and the like. Once such a frequently used verb was identified, we had good chance to detect more official titles or ranks that preceded those verb forms as complements. After we deciphered the words for 'county' and 'province', it became highly probable that the words before them were proper names. Epitaphs with biographical data usually contain genealogical information with kinship terms and names of ancestors and descendants, ordinal numbers and dates as well as ranks and titles.

In general, the decipherment of the Small Script has not a simple and single method. The achievements have been accumulated little by little, character by character. We tried various ways of interpretation, and found that the feedback practice was the best way to check if our interpretation was correct.

In the 1970s, when the research group first published its results, there were only nine sizeable monuments known. They contain altogether some 9500 words written with more than 370 characters, more than 130 of them phonetically deciphered, more than 300 words with semantic interpretation. The publication was much appreciated home and abroad in academic circles as a breakthrough in Kitan script research.

Encouraged by the new achievements in the decipherment of the Small Script, there began a boom of Kitan research in China. A number of scholars published papers, among them 即实 Ji Shi of the Liaoning Academy of Social Sciences, 王弘力 Wang Hongli of the Liaoning Art Press and 高路加 Gao Lujia of the Guangzhou Shifan Xueyuan.

In Japan, the famous linguist and researcher of writing systems, Professor 田西龍雄 Nishida Tatsuo of Kyoto University, Professor Osada Natsuki of the Kobe Foreign Language University and 豐田五郎 Toyoda Goro of the city of Kumamoto wrote interesting papers on Kitan writing.

According to the latest accounts, the number of the extant Small Script monuments with major text reached twenty-two; they contain altogether more than 26,500 characters, about one hundred less frequently occurring characters were recently identified, and some 150 interpretations were added. Nevertheless there are still many characters to be deciphered. Perhaps less than a half of the characters is examined and interpreted.

After the publication of the results the research group achieved, quite a few paper reflected to the subject. Although numerous, they were of theoretical character, and their scope being rather large, it is impossible to discuss them in this short essay. To give the reader an opportunity to understand the state of art in general, in the following three pages the author presents an inventory of the Small Script characters, those that the research group have phonetically interpreted and the most important of those that have been identified but not yet deciphered.

一		33		is	65		
1		(xɔi)	34			66	
2		tɐyr	35			67	ou
3			36		xu	68	us
4		(ʧa)	37		ti	69	ri
5			38			70	v
6			39			71	uaŋ
7		(naim)	十			72	dəu
8			40		(ör)	73	en
9			41		der	74	t'el
10			42			75	ɣuaŋ
11		an	43			76	g
12			44			77	
13			45			78	
14		xu	46			79	
15		ʦau	47		xol	80	(i)
16		p,po	48			81	sær
17			49		ai	82	ue
18		in	50			83	sï
19		iou	51		ɣa	卉	
20		i,j	52			84	li,la
21		mo	53		xa	85	(nir)
22		ʦ'	54			86	
23			55			87	ʦï
24			56			88	
25			57			89	
26		mas	58			90	u
27			59		un,unj	91	
28		ʃ	60			92	ju
29		t'au	61			93	(ai)
30			62		iaŋ	94	
31		ʦ'i	63		un	95	
32			64			96	

97		uan,ur	
98		al	
99		w	
100			
101		dəu	
102		ʦ'u	
103		us	
104		ʦï	
105		t	
106		uŋ	
107		uei	
108			
109		e	
110			
111			
112		kə	
113		ï	
114		i	
115			
116			
117			
118		ai	
穴			
119		ta	
120			
121		un	
122		ai	
123		(uai)	
124			
125			
126			
127		an	
128			

129 ᠤ
130 ᠥ h,ha
131 ᠦ u
132 ᠧ
133 ᠨ m
134 ᠩ ʧur
135 ᠪ
136 ᠫ
137 ᠬ rə
138 ᠭ
139 ᠮ na
140 ᠯ ən
141 ᠰ dol
142 ᠱ
143 ᠲ ɣua
144 ᠳ ən
145 ᠴ (tuʧ‘)
146 ᠵ
147 ᠶ
148 ᠷ
149 ᠸ ʧ
150 ᠹ ʧ
151 ᠺ ɣa,ɣ
152 ᠻ (su)
153 ᠼ (su)
154 ᠽ ɔn
155 ᠾ (t‘æp)
156 ᠿ
157 ᡀ
158 ᡁ
159 ᡂ nær
160 ᡃ
161 ᡄ au
162 ᡅ ʧ,ʧ‘
163 ᡆ x,k‘

午

164 ᡇ
165 ᡈ ol
166 ᡉ ɣur
167 ᡊ
168 ᡋ xi,x
169 ᡌ g,gu
170 ᡍ
171 ᡎ t
172 ᡏ u
173 ᡐ
174 ᡑ as
175 ᡒ əŋ
176 ᡓ buo
177 ᡔ
178 ᡕ k‘u
179 ᡖ d
180 ᡗ ʂï
181 ᡘ uŋ
182 ᡙ
183 ᡚ
184 ᡛ am
185 ᡜ
186 ᡝ o,uə
187 ᡞ t‘um
188 ᡟ ba
189 ᡠ a
190 ᡡ
191 ᡢ
192 ᡣ
193 ᡤ
194 ᡥ

午

195 ᡦ
196 ᡧ pu
197 ᡨ ai
198 ᡩ
199 ᡪ aŋ
200 ᡫ
201 ᡬ
202 ᡭ t‘
203 ᡮ
204 ᡯ
205 ᡰ tə
206 ᡱ li
207 ᡲ miŋ
208 ᡳ lu
209 ᡴ lu
210 ᡵ
211 ᡶ (ɣuʧ‘)
212 ᡷ
213 ᡸ t‘o
214 ᡹ t
215 ᡺ t
216 ᡻
217 ᡼
218 ᡽
219 ᡾

行

220 ᡿
221 ᢀ
222 ᢁ nə,no
223 ᢂ
224 ᢃ m
225 ᢄ p
226 ᢅ ue
227 ᢆ
228 ᢇ
229 ᢈ t‘
230 ᢉ
231 ᢊ
232 ᢋ
233 ᢌ
234 ᢍ
235 ᢎ ri
236 ᢏ ru
237 ᢐ tu
238 ᢑ (t‘ur)

八

239 ᢒ
240 ᢓ
241 ᢔ fu,p‘u
242 ᢕ fu,p‘u
243 ᢖ au
244 ᢗ s
245 ᢘ u
246 ᢙ ai
247 ᢚ t,t‘
248 ᢛ
249 ᢜ t‘u
250 ᢝ ɣou
251 ᢞ n
252 ᢟ as
253 ᢠ
254 ᢡ t,t‘

255	仝		286	山	niol	318	叉		348	券	e
256	佘		287	生		319	冊	kɔ	349	岔	kə
257	金		288	中	pən	320	由		350	坐	
258	伞	ʦ	289	尖	iu	321	虫	io	351	半	
259	灸	ɣur	290	出	(sɑ)	322	肉		352	爭	i
260	令		291	水		323	口		353	谷	ï
261	半	l	292	岁		324	虫	en	354	攴	(gon)
262	火	uei	293	类		325	屯		355	米	ud
263	炎	uei	294	小		文			356	坐	(d)
264	安	ŋ	295	业	p‘,f	326	文		357	坐	uŋ
265	类		296	业		327	交	ie	358	半	
266	乂	(ʧar)	297	出	po	328	主	ɣuaŋ	359	生	
267	义		298	尚	ʦo	329	亦	iun	360	黑	faŋ,p‘aŋ
268	圣		299	将		330	文	ʐ	361	当	(sə)
269	关		冂			331	穴	nou	362	号	iɑu
270	圣	em	300	冂		332	穴	nɑi	363	帯	
攵			301	冃	(dal)	333	乐	(ru)	364	灬	
271	攵		302	用		334	几	k	哭		
272	刘		303	用	iŋ	335	丬	iɑ,iæ	365	哭	
273	女	un	304	闲	oŋ	336	讠		366	平	ul
274	幺	iɑ	305	闪		337	讷	(su)	367	录	
275	金		306	闪		338	酒	i	368	罒	dur
276	爭		307	闪		关			369	罒	
277	奈		308	闵		339	关	i	370	禿	
278	叁		309	国		340	人	x,k	371	禿	
非			310	冊		341	爻	uei,ei	372	穴	u,iu
279	非	p‘o	311	冊	p	342	笛		373	又	
280	业	aŋ	312	冊	t‘um	343	笛		374	爻	tai,t‘ai
281	非		313	冊	lu	344	火	t	375	甬	ʦ‘ɑ,ʂa
282	非		314	冊	iaŋ	345	水	uŋ	376	写	
283	収	k‘	315	冊		346	水		377	罒	o
284	工		316	目		347	水	uei	378	丶	
285	山	niol	317	月							

Here follows a short list of the main studies and research materials published in China:

契丹文字研究小组 Qidan wenzi yanjiu xiaozu (1997): 契丹小字研究专号 *Qidan xiaozi yanjiu zhuanhao* = 内蒙古大学学报 *Nei Menggu Daxue xuebao*, no. 4.

清格尔泰 Qingge'rtai – 刘凤翥 Liu Fengzhu – 陈乃雄 Chen Naixiong – 于宝林 Yu Baolin – 邢复礼 Xing Fuli (1985): 契丹小字研究 *Qidan xiaozi yanjiu.* 北京 Beijing: 中國社會科学出版社 Zhongguo shehui kexue chubanshe.

王弘力 Wang Hongli (1986): 契丹小字墓志研究 Qidan xiaozi mozhi yanjiu. 民族語文 *Minzu yuwen* no. 4.

高路加 Gao Lujia (1988): 契丹小字复数符号探索 Qidan xiaozi fushu fuhao tansuo. 内蒙古大学学报 *Nei Menggu Daxue xuebao* no. 2.

即实 Ji Shi (1996): 谜林问徑 *Milin wenjing*. 辽宁民族出版社 Liaoning minzu chubanshe, January.