An Analysis of the Major Ch'i-tan Characters

By Gorō TOYODA

I

Two Sets of Script

The Ch'i-tans, the people who had built their empire, Liao, in the tenth century, soon developed two systems of writing for their Mongolic language. *Liao-shih* 遼史, chap. 2, says that in 920 the major Ch'i-tan characters (*ta tzu* 大字) were created and promulgated by an order of Emperor A-pao-chi. According to *Wu-tai hui-yao* 五代會要, the characters were devised by the Chinese in service to the Ch'i-tans, and were based on the Chinese *li-shu* 隸書 (clerical hand), which were simplified and modified to some extent. Another script was invented by Prince Tieh-la, a brother of A-pao-chi, who was appointed Lefthand Minister of the Chung-t'ai-sheng Office in 926. His perspicacity is especially mentioned in his biography found in *Liao-shih,* chap. 63, where one reads: "An embassy came from the Uighurs, whose tongue nobody was able to understand. The Empress Mother said to T'ai-tsu (A-pao-chi): 'Tieh-la is wise and quick. He should be sent to greet them.' After spending only a score of days with them, he was well versed in their language and writing. Thereupon he created the minor Ch'i-tan characters (*hsiao tzu* 小字), which were small in number but complete." Unlike the aforementioned major characters which were essentially ideographs being adaptations of the Chinese script, the minor Ch'i-tan characters must have been a kind of phonetic script as is the Uighuric alphabet.

Even after the fall of the Liao Dynasty, the Ch'i-tan scripts were officially employed by the succeeding dynasty Chin for about 270 years. The influence of these scripts were said to have been so great that scripts of the neighboring peoples such as the Tanguts and the Nü-chens were all patterned after them. However, only occasional references to the Ch'i-tan scripts can be found in Chinese sources such as *Yen-pei-lu* 燕北錄 by WANG I 王易 and *Shu-shih hui-yao* 書史會要 by T'AO Tsung-i 陶宗儀 where queer characters claimed to be the Ch'i-tan signifying the Chinese 朕, 勅, 走, 馬, 急, and so forth, are listed. There had been, until the discovery of the Ch'ing-ling inscriptions, nothing to confirm the existence of the Ch'i-tan scripts and hence no way to know whether these characters recorded in the books belonged to the major or the minor script.

II

The Compound Ch'i-tan Script

In 1922 Father KERVYN, while staying in Jehol, discovered two steles with inscriptions in Ch'i-tan from the Ch'ing-ling 慶陵, the Liao Imperial Mausoleums, at War-in-mangkha. The copied texts of these inscriptions appeared in his article in 1923. In the summer of 1930 two more cenotaphs with Ch'i-tan inscriptions, each consisting of a canopy and a stele, were carried away from the Ch'ing-ling by order of T'ANG Tso-jung 湯佐榮, which were rediscovered in 1932 by a party of Japanese scholars in Mukden.

Attempts at decipherment were made by Lo Fu-chêng 羅福成 and WANG Ching-ju 王靜如 by comparing each of the Ch'i-tan characters in the 'Ch'ing-ling' inscriptions with the corresponding Chinese one in the Chinese counterparts. The result of their studies revealed that those two steles found by Father KERVYN were for Emperor Hsing-tsung 興宗 and Empress Jên-i 仁懿, respectively, while those cenotaphs in Mukden were for Emperor Tao-tsung 道宗 and Empress Hsüan-i 宣懿, respectively.

The result of the studies on the Ch'i-tan script by Dr. Jitsuzô TAMURA and others in their *Tombs and Mural Paintings of Ch'ing-ling* may be summarized as follows: The Ch'i-tan script consists of about 300 elements. A compound of 2–7 elements makes a word [or 'character of this article]. There are, however, some elements which are used singly with their own meanings. A Ch'i-tan character or compound of elements consists of two elements placed horizontally, or a combination of horizontal rows of two elements, and the elements are written from left to right. Only those elements which stand alone or initially in a word are ideographs, the other being phonetics. Ch'i-tan Words may have some elements expressing nominal or verbal suffixes. Though no representation of vowel harmony has been so far detected in the 'Ch'ing-ling inscriptions', Ch'i-tan may be considered as a member of the Altaic languages.

In 1950 LI Wên-hsin 李文信 and other Chinese scholars excavated a tombstone with Ch'i-tan inscriptions from the Liao tomb of Tso i-li-pi Hsiao hsiang-kung 左移离畢嚕相公 in I-hsien 義縣, Liao-ning 遼寧 The Ch'i-tan script in these inscriptions were found to be of the same kind as those from the Ch'ing-ling.

III

The Simple Ch'i-tan Script

1. Epitaph for the Late T'ai-shih 太師 [Grand Preceptor]

In 1939 the late Dr. Iwakichi INABA, then professor at Kenkoku University, found a tombstone in a curiosity shop in Mukden, Manchuria. An account of his find was published under the title of "Epitaph-stone for the late

P'en-nu T'ai-shih 盆奴太師 in the T'ung-ho 統和 era of Shêng-tsung 聖宗 of the Liao dynasty", in *Seikei jihō* 盛京時報 (dated 27 September 1939). Li Wên-hsin's study of this tombstone appeared in 1942 in *Memoirs of the Central National Museum of Manchuria*. I shall give a brief summary of his description of and his view on this tombstone below.

The canopy of the tombstone is 82 cm.square and has a face divided into nine smaller squares of different sizes by two horizontal and vertical belts of rectilinear meanders. The central and largest square is inscribed with the Chinese characters 故太師銘石記 in two lines with three characters to the line. The corner squares are engraved with peony flowers, one for each square, while the remaining squares with the figures, three for each, representing the twelve zodiac divinities after the Chinese tradition of the T'ang dynasty. The arrangement of these figures is, however, reverse in order to that on the canopies from the Ch'ing-ling[1]. An epitaph, 81 cm. in width and 80 ch. in length, is inscribed on the stele in 40 lines with 54 characters to the line. Each corner of the same face is decorated with a flower in line-engraving.

The greater part of the epitaph is written in an unknown script except for the constant use of Chinese characters for the numerals "one", "two", "three", "four", "five", "twenty" and "hundred", for "month" and "day" and for some other words. The general idea of the text guessed by Li Wên-hsin is: when a certain dowager assumed the regency, the T'ai-shih [grand preceptor] greatly helped her reign, in which he performed many exploits such as his capture and pillage of several hundreds of houses in his march into a certain district on some date. A Nü-chen character without its first stroke is adopted for the word "year". The following Chinese words are found in the text: 皇帝 (2nd line), 仁孝 (3rd line), 全幼 (4th line), 殿太后 (7th, 9th, 10th line), 太后 (12th line), 小將 (15th line), 三百 (18th, 21st line), 二百 (19th 20th line), 半百 (27th line), 太王 (30th line) and 奎沉皇帝 (30th line). The epitaph ends in the characters 奎沉廿五 [ ] 祑十月廿二日, which doubtlessly indicates the date of the burial.

Against the view expressed by Dr. Inaba that the script inscribed on the tombstone should be the minor Ch'i-tan script, Li Wên-hsin contended that the tombstone itself was a forgery, since no definite information was given on the circumstances under which its excavation had been conducted and its was inscribed with a mixture of various scripts, regular and anomalous Chinese scripts and a strange script a part of which appeared like the Nü-chen script. He further observed that we ought to take as the minor Ch'i-tan script those inscribed on the mural paintings of the Ch'ing-link on the yellow-glazed plate from Barin and on the jade-cup in possession of Mr. Ferguson. For they have such simple strokes as to conform to the type of script mentioned in the epitaph for Chêng K'o 鄭恪 as "small and simple". His assertion that the tombstone in question was not genuine, however, was disproved about ten years later by the discovery of a tombstone inscription in

Chin-hsi 錦西.[1)]

2. Excavation of the 'Chin-hsi' Epitaph

In the summer of 1951, villagers, digging the ground in search of a well-head at Hsi-ku-shan 西孤山, Chin-hsi, Liao-ning 遼寧, came upon a subterranean tomb built of brick. From the tomb they found a long-necked jar and a cenotaph, consisting of a canopy and a stele, made of sandstone. The canopy, shaped like an upsidedown Chinese measure, was engraved on the face with a lotus pattern, which was further surrounded with an arabesque-designed frame. The back of the canopy had a twelve-line inscription in Chinese writing. The stele, 67 cm.square on the face and 6.7 cm. thick on the side, was inscribed with an epitaph of eighteen lines in an unknown writing, characters to each line being not equal in number.

A report of the find and a study of this tombstone were presented by LIU Ch'ien 劉謙 in 1956 and by YEN Wan-chang 閻萬章 in 1957, respectively. The unknown script inscribed on the stele was later identified as a Ch'i-tan script on the ground that the date of the Chinese inscription on the canopy was read: "the fifth year of the Ta-an 大安 era of Tao-tsung of the Liao dynasty."

When the epitaph on this tombstone was compared with that for the Late T'ai-shih, it was noticed that they not only contained many characters in common, but also seemed to follow the same tradition in the adoption of Chinese characters for some of their numerals and for dating as well as of the characters which looked like Nü-chen characters. Henceforth, it was concluded that the Ch'i-tan scripts in these epitaphs were of the same kind.

Since the time of the finds of the 'Ch'ing-ling' inscriptions, there has been much controversy concerning the nature of the major and minor Ch'i-tan scripts. Two conflicting views on this problem have been laid in China, while a compromise of these two has been proposed in Japan. No decisive evidence, however, has been brought forward for supporting any of these views, until the recent discoveries of the 'Chin-hsi' epitaph and the epitaph for the Late T'ai-shih. That the script in these epitaphs is of quite a different kind from that in the 'Ch'ing-ling' epitaphs leads to the confirmation of the two types of Ch'i-tan scripts.

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1) LI Wên-hsin thought that the reverse order of the arrangement of these figures would corroborate his opinion that the tombstone should be an imitation. This, however, was disproved by the find of a stele at Wu-wei 武威, Kansu in 1945, on which the twelve divinities were observed in the same order of arrangement as on the tombstone for the late T'ai-shih. YEN Wan-chang says that these figures representing the twelve divinities are not fictitious, since their costume, each wearing a round collar, a girdle, a hat and shoes, is in genuine Ch'i-tan style. LI Wên-hsin, too, noticed that the general execution of the figures engraved on the tombstone for the late t'ai-shih shows likeness to that on the canopy of the tombstone for CHENG K'o 鄭恪. YEN further mentions as an evidence against LI Wên-hsin's contention that the style of the Chinese *chuan* writing on the canopy of the tombstone in question is identical with that on the tombstone for Tso i-li-pi Hsiao hsiang-kung.

IV

New Interpretation in Regard to the Identification of the Major and Minor Ch'i-tan Scripts

According to GRUBE's analysis of the Nü-chen script in *Hua-i-i-yü* 華夷譯語, the script consists of a total of 698 characters. The number of the Ch'i-tan characters used in the 'Chin-hsi' epitaph, I suppose, would be no more than 500, which is larger than that of the elements but smaller than that of the compounds, of the Ch'i-tan characters found in the 'Ch'ing-ling' inscriptions.

LI Ting-k'uei 厲鼎煃 pointed out a contradiction between the two dates given in one record in *Chi-i-lu* 紀異錄 that, after the conquest of Po-hai 渤海 [in 926 A.D.], the major Ch'i-tan script with 3,000-odd characters was created and in another in *Liao-shih* that in the third year of the T'ien-tsan 天贊 era (924 A.D.) A-pao-chi ordered the inscriptions on the stone-tablets of the Uighur Bilgä Qaγan erased and replaced with writings in Ch'i-tan, Turkic and Chinese in praise of his own exploits. This contradiction aroused his doubt as to the reliability of the record in *Chi-i-lu* and made him assume that the event mentioned in it should not be concerned with the conquest of the Po-hai but with that of the Wu-ku 烏古 which took place in 919 A.D.

The reason is that the third year of the T'ien-tsan era falls two years earlier than the first year of the T'ien-hsien 天顯 era [926] when the Po-hai was subjugated by the Ch'i-tan, from which it is clear that the use of the script could not be made before its creation. Thus, he affirmed that the number of the major Ch'i-tan script was 3,000-odd and identified it with the compound script in the Ch'ing-ling inscriptions.

In this respect, I should like to regard the record in *Ch'i-tan-kuo-chih* 契丹國志 as an earlier, and hence the "major (大)" Ch'i-tan script referred to in *Chi-i-lu* should be read as the Ch'i-tan script (文), which in fact denotes the minor Ch'i-tan script. By so considering, the record in *Chi-i-lu* will be no longer contradictory to that in *Liao-shih,* since the Uighur mission came not later than the first year of the T'ien-hsien era. Even so, 3,000-odd characters may seen to be too great a number and not to conform to the account in *Liao-shih* that the minor Ch'i-tan script had few characters and covered everything. This is, however, nothing contradictory if we take the number as referring to so many combinations of elements.

The minor Ch'i-tan script consisted of fewer elements than the larger, and words could be spelled on consistent principles with this script. After an analogy of the Uighur script, the phonetic elements, which constitutes the greater part of about 300 elements, of the Ch'i-tan characters in the 'Ch'ing-ling' inscriptions seem to be divisible into fourteen main classes each of which represents a single phonetic value. About five vowels and word-final consonants were mostly omitted in this system of writing. Such omissions naturally

caused the increase of the number of characters representing more than one word. In order to find a remedy for such defects and to give a uniform look as characters like Chinese ideographs, various shapes were contrived to represent a single phonetic value, which resulted in the use of an average of ten different elements for each value. Such a variety of form for a single phonetic value as well as the use of ideographics for polysyllabic words made the Ch'i-tan system of writing complicated and have offered a difficulty in deciphering the Ch'i-tan script up to today.

YEN Wan-chang, in the above mentioned study, regarded the script in the 'Chin-hsi' epitaph as the minor Ch'i-tan on the following grounds:

1. The Ch'i-tan characters in the 'Chin-hsi' inscription are all written with simple strokes, whereas those in the 'Ch'ing-ling' inscriptions are mostly with complicated strokes.

2. The frequency of occurrence of the same character in the former is relatively higher than that in the latter. In this respect the Ch'i-tan script in the 'Chin-hsi' epitaph conforms to the account in *Liao-shih* that the smaller Ch'i-tan were small in number, which can be taken as meaning 'fewer than the larger ones were'. With regard to the first point, the same holds good, since the mention in the epitaph for CHENG K'o that he was proficient in the Ch'i-tan language and had a knowledge of the small and simple script suggests that the smaller Ch'i-tan script adopted simpler strokes than the larger one did.

LI Ting-k'uei, on the other hand, identified the Ch'i-tan script in the 'Ch'ing-ling' epitaphs as the major on the following ground:

3. Among the five Ch'i-tan characters given by T'AO Tsung-i in *Shu-shih-hui-yao,* the character for "horse" is found in the thirtieth line of the epitaph for Tao-tsung. Though T'AO Tsung-i does not make it clear whether those characters are taken from the major or minor script, we may consider them as the former, since T'ao says that several thousands of Ch'i-tan characters were formed by modifying the Chinese characters in the *'li-shu'* style of writing. Such are the opinions now influential in the academic circles in China.

When these points raised by them are examined, it is noticed that the conclusions regarding the first and the second points are based on the comparison of each of the Ch'i-tan characters in the 'Chin-hsi' epitaph with each in the 'Ch'ing-ling' inscriptions' which is infact "a combination of elements in the same manner as in the *hangul,* Korean system of writing." These conclusions, however, could be reversed both on the frequency of occurrence and in the degree of complexity of the strokes, of characters if elements, not characters, were compared with each other. As for the third point, it is clear that the occurrence of only one common character in both texts does not warrant any conclusion drawn from it, since it could be a mere coincidence. Besides, we have no way to know whether the major and the minor had some characters in common.

CHIN Yü-fu 金毓黻, editor of *Liao-ling shih-k'o chi-lu* 遼陵石刻集錄, inferring that the number of the Ch'i-tan characters in the 'Ch'ing-ling' inscriptions was greatly increased through the combinations and modifications of alphabetic elements, suggested in 1934 that they should be the minor Ch'i-tan characters. His suggestion has been supported by CHIN Kuang-p'ing 金光平 and TS'ÊNG I-kung 曾毅公, a summary of whose joint work *"Chin-hsi Hsi-ku-shan Ch'i-tan-wen mu-chih shih-shih"* 錦西西孤山契丹文墓誌試釋 is appended to YEN Wan-chang's article. According to this summary, their point of argument is as follows: Unlike the Ch'i-tan characters in the 'Ch'ing-ling' inscriptions, those in the 'Chin-hsi' inscription have simple and uniform shapes, and bear close likeness to the Nü-chen characters. Those characters in the 'Chin-hsi' inscription are formed by adopting Chinese characters partly without modifications and partly with omissions and modifications of their strokes. Judging from shapes of characters, the script used in the 'Chin-hsi' inscription conforms well to the major Ch'i-tan script which is said to have been shaped through modifying the Chinese characters in the *'li'* style of writing. Therefore, the Ch'i-tan script in the 'Ch'ing-ling' inscriptions must be the minor Ch'i-tan invented by Tieh-la. The Nü-chen people also had two types of scripts, major and minor. The former was formed by Wan-yen Hsi-yin 完顏希尹 in the third year of the T'ien-fu 天輔 era of T'ai-tsu of the Chin dynasty [1119 A.D.], and the latter by Hsi-tsung 熙宗 in the fifth year of the Huang-t'ung 皇統 era [1145 A.D.]. It is still unknown whether the Nü-chen script left to this day was the major or minor script. However, since it has no congruity with the Ch'i-tan script in the 'Ch'ing-ling' inscriptions, but very closely resembles that in the 'Chin-hsi' inscription, the Nü-chen scripts are supposed to have been made up of such Ch'i-tan characters as we find in the 'Chin-hsi' inscription and Chinese characters with due modifications of their strokes. Accordingly we may take the Ch'i-tan script in the 'Chin-hsi' epitaph as the major Ch'i-tan and also as one of the sources of the Nü-chen scripts.

V

The Decipherment of the Major Ch'i-tan Script

1. Key to the Decipherment of the 'Chin-hsi' Epitaph

Two kinds of epitaphs, one in Chinese and the other in a hitherto unknown writing, are inscribed on the tombstone unearthed at Hsi-ku-shan, Chin-hsi, Liao-ning in 1951. The Chinese epitaph has a date in its last line, which reads: 大安五年歲次己巳十二月一日丁酉朔二十五日辛酉日辛時葬訖 "the interment took place at the *Hsin* hour on the 25th day (*Hsin-Yu*) of the 12th month, whose first day was *Ting-Yu,* of the 5th year (*Chi-Ssu*) of the Ta-an era". The other epitaph is written with a simplified type of characters mingled with Chinese characters. There are nine sets of expressions in this epitaph seemingly denoting dates, the last one of which evidently corresponds to the date

in the Chinese counterpart and can be thus translated into Chinese by comparison:

奚丙五祀十二月廿五日
大安五年十二月廿五日

[the 25th day of the 12th month of the 5th year of the Ta-an era].

2. Divisions in the Expressions for Dating

The characters found in the said nine dates may be classified into the following four kinds: those for numbers, for the words "year", "month" and "day", for the terms of the Sexagenary Cycle which corresponds to the Chinese *kan-chih* 干支, and for era-names. As already shown in the preceding section, the characters for "year", "month" and "day" can be identified with 祀, 月 and 日, respectively, of which the last two are adopted Chinese characters. In terms of these three characters as division-markers, all the dates may be divided in the following way:

		'Year' Column			'Month' Column			'Day' Column			
	Era-name	Number	Cyclical Term	Year	Number	Cyclical Term	Month	Number	Cyclical Term	Day	Line
I	垂 仉	廿三	丐	祀	五		月	廿 𠂇		日	4
II			奈 奕	祀		蔡 𠂇	月	廿 妛	页 丐	日	5
III	奚 丙	三		祀	冗		月	十 廿		日	7
IV	奚 丙	三	𠂇	祀	亖 奈	祀	月	廿 𠂇	虎	日	8,9
V	崔 有	二		祀	三		月	廿 五		日	10
VI	崔 有	三		祀	廿		月	十 一		日	10,11
VII	高 犴	五	奚 早	祀	十二	戊 𠂆	月	廿 五	页	日	11
VIII	奚 丙	三		祀	兩		月	廿 𠂇		日	16
IX	奚 丙	五		祀	十二		月	廿 五		日	17

[N.B. The dates in the table above as well as those which will be mentioned later may be referred to by the Roman numerals attached to them, namely, Date I, Date II and so forth.]

3. Numerals

A total of thirty-seven characters occur as numerals in the above table: by exact count, nine, ten, and eighteen in the respective columns of 'year', 'month' and 'day'. If those who are borrowed in origin Chinese are subtracted from the total, then nine characters, six in kind, remain unidentified. Since there are only twelve months in a year and all the unidentified characters in the 'day' column are preceded by either of the Chinese numerals 十 "ten" and 廿 "twenty, all the unidentified are considered as those representing the numbers "four", "six", "seven", "eight" and "nine". Thus there are six kinds of unidentified characters to be paired off with five numbers. This leads us to suspect that one of them must have been a variant form of another. But how can we tell which one is this variant form?

4. Copper-seal

In what country and period was the script on this copper-seal used? It was presented in *Tôyôshi Kenkyû*, Vol. III, No. 4 (1938) as a Nü-chen copper-seal in the collection of Dr. Ryū IMANISHI.

The inscription on the left side of its back reads: [X] 垂祘尤二祇五月[ ]日, in characters which appear like those in the non-Chinese epitaph on the 'Chin-hsi' tombstone. In the light of a knowledge of the Nü-chen script, 垂 and 祇 can be identified with the Nü-chen 丕 阿卜哈 [Manchu: abka] "heaven" and 祢 阿揑 [Manchu: aniya] "year", respectively, each then corresponding to the Chinese 天 and 年. All the others are borrowed from Chinese, and hence the Chinese rendering of this inscription is: 天統廿二年五月[ ]日 "the [ ] day of the 5th month of the 22nd year of the T'ien-t'ung 天統 era".

The era-name T'ien-t'ung was once adopted by the Northern Ch'i 齊 dynasty in 565 A.D. The T'ien-t'ung era of Northern Ch'i, however, was held only for five years and was separated from the time of the emergence of the Nü-chen script by long lapse of time. Therefore, we can not admit of its identification with the T'ien-t'ung era in the inscription on the copper-seal in question.

5. Period

As above-mentioned, the Chinese epitaph on the 'Chin-hsi' tombstone bears the date: 大安五年歲次己巳 "the fifth year (*Chi-Ssu*) of the Ta-an era". The era-name Ta-an was adopted by the rulers of the dynasties Hsi-hsia, Liao and Chin. Since the Ta-an era of the Chin dynasty lasted for less than five years, we may leave this out of consideration. The fifth year of the Ta-an era of the Hsi-hsia fell on 1089 A.D. whose place in the sexagenary cycle corresponds not to 己巳 *Chi-Ssu* but to 己未 *Chi-Wei*. The fifth year of the Ta-an of the Liao emperor Tao-tsung, however, exactly corresponds to the cyclical term *Chi-Ssu*, and hence we may duly conclude that the non-Chinese script on the 'Chin-hsi' epitaph dates back to the Liao period and is a kind of the Ch'i-tan script. This is further supported by the inscription of the name 大遼國 *ta-liao-kuo* [great Liao state] seen in the preamble to the Chinese counterpart on the same tombstone.

Since the finds of the 'Ch'ing-ling' inscriptions, studies of the non-Chinese script in them have been conducted by many scholars. This script, however, is quite distinct from the one in the 'Chin-hsi' inscription. In order to make a clear distinction between these two kinds of scripts, I shall call the former the 'compound' Ch'i-tan script, whose characters may often be compounds of elements, and the latter the 'simple' Ch'i-tan, as it is in fact thought to be a simplified and abbreviated form of the Chinese script.

6. Era-names

The era-names adopted by the Liao emperors during a century preceding the fifth year of the Ta-an era of Tao-tsung [1089 A.D.] are as listed below.

Emperor	Era-names		Western Dates	Duration
Shêng-tsung	T'ung-ho	統和	fr. 939 (A.D.)	29 (years)
	K'ai-t'ai	開泰	1012	9
	T'ai-p'ing	太平	1021	10
Hsing-tsung	Ching-fu	景福	1031	1
	Chung-hsi	重熙	1032	23
Tao-tsung	Ch'ing-ning	清寧	1055	10
	Hsien-yung	咸雍	1065	10
	Ta-k'ang	大康	1075	10
	Ta-an	大安	1085	10

Since the only eras that extended over more than 20 years are T'ung-ho of Shêng-tsung and Chung-hsi of Hsing-tsung, they must be those which correspond to the eras 丕秋 in the date inscribed on the copper-seal [X] and 丕伬 in the 'Chin-hsi' epitaph [I]. 丕伬 is more likely to refer to Chung-hsi, as it is closer to the fifth year of the Ta-an era in which the epitaph was composed.

This then leaves T'ung-ho for 丕秋, which is also warranted by the above mentioned interpretation of 丕秋 as corresponding to the Chinese era-name T'ien-t'ung. Now there remain only two sets of characters for era-names yet unidentified.

丕秋	丕伬	买丙	炭有	高扴
T'ung-ho	Chung-hsi	Ta-an	?	?

7. *Kan-chih,* Terms of the Sexagenary Cycle

Yen Wan-chang, in referring to the *kan-chih* (cyclical terms) of the 'Chin-hsi' epitaph in his article (I.2.8), says that the Ch'i-tan people must have brought the Five Elements (五行 *wu-hsing*) and the Twelve Animals (duodenary cycle of twelve animals) to the service of the Ten Stems (十干 *shih-kan*) and the Twelve Branches (十二支 *shih-êrh-chih*) respectively. The correspondences between the terms of the Ch'i-tan and the Chinese sexagenary cycles are as follows:

Thus the Chinese *kan-chih* may be expressed in the Ch'i-tan language in the following way: 甲子 *Chia-Tzu* as "wood-rat", 乙丑 *i-ch'ou* as "wood-ox", 丙寅 *Ping-Yin* as "fire-tiger" and 丁卯 *Ting-Mao* as "fire-hare". Accordingly, the character ( ) in the fourth line of the epitaph [I] can be taken as corresponding to the Chinese 馬 "horse" on account of their similarity in form. In fact, it is found that the twenty-third year of the Chung-hsi era was the Horse year, and hence the date can be translated into Chinese: 重熙廿三馬午五月廿[ ]日. This example assures us that there is no doubt as to the adoption of the Twelve Animals by the Ch'i-tan people in place of the Twelve Stems of the Chinese.

The Mongols and the Manchus used, in stead of the Ten Stems, the names

Five Elements and Ten Stems				12 Animals and 12 Branches	
"wood" :	甲 *chia*	and	乙 *i*	"rat" :	子 *tzu*
"fire" :	丙 *ping*	and	丁 *ting*	"ox" :	丑 *ch'ou*
"earth" :	戊 *wu*	and	己 *chi*	"tiger" :	寅 *yin*
"metal" :	庚 *kêng*	and	辛 *hsin*	"hare" :	卯 *mao*
"water" :	壬 *jên*	and	癸 *kuei*	"dragon" :	辰 *ch'ên*
				"snake" :	巳 *ssu*
				"horse" :	午 *wu*
				"sheep" :	未 *wei*
				"monkey" :	申 *shên*
				"cock" :	酉 *yu*
				"dog" :	戌 *hsü*
				"pig" :	亥 *hai*

of the five colors which, in order, are 'blue', 'red', 'yellow', 'white' and 'black'. The Five Colors are supposed to be used in Written Ch'i-tan as well, though they adopted in actual practice the Five Metals which are in a way related to the Five Colors, which are arranged in such an order as 'tin' (錫 *hsi*), 'copper' (銅 *t'ung*), 'gold' (金 *chin*), 'silver' (銀 *yin*) and 'iron' (鐵 *t'ieh*). (It is learned that the Ch'i-tan character 汞 for "silver" was formed after the Chinese 汞 "quick silver".)

FÊNG Chia-shêng 馮家昇, in his "Report of the Study of Uighur Manuscript *bodïstw taï samtso ačari-ning yorïγ-ïn uqïtmaq*" (1953), admits after MÜLLER that the development of the Turkic and Uighur system of dating took place in three successive stages. In the first stage, each year was marked by means of a term of the animal cycle. In the second stage, a combination of a term of the Five Elements with a term of the Twelve Animals was given to each year. In the final stage, numbers were further added to the existing two series.

The dates found in the Orkhon inscriptions which are written in several kinds of Turkic runic alphabets offer the examples of the system in the first stage. The marking of years in terms of the Twelve Animals alone was a primitive method and caused inconvenience in that the same animal name recurred many times within a century. In order to avoid such repetitions within so short an interval, the Uigurs introduced the Five Elements, whose terms were then combined with those of the Twelve Animals so as to expand the duodenary cycle to the sexagenary cycle of years. The Uighur manuscripts dating from the tenth century provide the examples for the second stage, in which years are designated in such a way as *"qutluγ ki ot qutluγ qoïn yïl"* [happy-element-fire happy-sheep-year] or *"otluq-taqï oot qutluγ tavišqan yïl"* [brightening-fire happy-hare-year].

An example for the last stage is found in the system of dating in a manuscript of *Suvarṇaprabhāsottama-sūtra*, namely, *"tai-čing-kuu kang-sï ygrmi altïnč otluq-taqï oot qutluγ tavišqan yïl"* [Great Ch'ing state K'ang-hsi 26

brightening-fire happy-hare-year]. The twenty-sixth year of the K'ang-hsi era of the Chin certainly corresponds to the *Ting-Mao* 丁卯 year, i.e. the Fire-Hare The animal cycle was in general use among the people already in the T'ang period in China as well; there is an inscription in the magic banner of the stone lantern scriptures: 乾元二年歲次豕亥, 月建兎卯二十六日癸亥建. The cyclical term for the second year of the T'ang emperor Su-tsung 肅宗 [759 A.D.] was *Chi-Hai* 己亥 corresponding to the 'pig' of the animal cycle. The Japanese practice of reading the cyclical term in terms of the Five Elements and the Twelve Animals may derive its origin from this Chinese civil practice, which was supposed introduced to Japan through Po-hai.

The contemplation of such circumstances in the tenth century enables us to admit that the Ch'i-tan adopted the Five Metals and the Twelve Animals to mark a year's place in the sexagenary cycle. The Five Metals in the Ch'i-tan system of dating could be regarded as in the following.

Five Metals and Ten Stems

䨻 "(blue) tin"	:	甲 *chia* and 乙 *i*
㸚 "(red) copper"	:	丙 *ping* and 丁 *ting*
山 "(yellow) gold"	:	戊 *wu* and 己 *chi*
朩 "(white) silver"	:	庚 *kêng* and 辛 *hsin*
皈 "(black) iron"	:	壬 *jên* and 癸 *kuei*

[N.B. The second character in the first line of the *Ta-chin huang-ti ti-ching-liao lang-chün hsing-chi* indicates that the character 山 signified the Chinese 金 "gold".]

Among the Ch'i-tan characters denoting the cyclical terms in the table given in Section 2, those which stand alone may be considered as terms of the animal cycle, while two-character sequences, either as combinations of terms of the Five Metals and the Twelve Animals or as sequences of an attribute such as to signify the Chinese 大 "great" and a term of the Twelve Animals. (This may be comparable to the Uighur use of attributes such as to mean "happy", "brightening" and the like.)

8. *Sui-tz'u* 歲次 Terms of the Sexagenary Cycle of Years and *Yüeh-chien* 月建 Terms of the Sexagenary Cycle of Months

The characters denoting cyclical terms in the Ch'i-tan epitaph on the 'Chin-hsi' tombstone can be arranged in three kinds as follows:

Terms of the Five Metals	:	氽, 椉, 禿, 戊
Word "great"	:	夾, 贝
Terms of the Twelve Animals	:	馬, 亥, 夆, 桊, 甲, 羌

Since the cyclical term for the 23rd year of the Chung-hsi era in Date I was *Chia-Wu* 甲子, 馬 is "horse". This character can be reasonably regarded either as a simplified form of Chinese 馬 "horse" or as a set-upright form of 冊 found in the inscription on the Tablet of Chingis Khan. The 3rd year of

the Ta-an era in Date IV was *Ting-Mao* 丁卯, and hence 牟 signifies "hare". The 12th month in Date VII corresponded to the cyclical term *Ch'ou* 丑, as het cyclical month *Yin* always falls on the first month of a year. Hence, 乎 stands for "ox". 早 is an alternant of 乎. Then, the era-name 高秀 in Date VII corresponds to T'ai-p'ing 太平, for only the 5th year of the T'ai-p'ing era of Shêng-tsung [1025 A.D.] can be associated with the cyclical year *I-Ch'ou* 乙丑 during a century before the 5th year of the Ta-an era.

Since *Liao-shih* records that the first day of the 12th month of the 5th year of the T'ai-p'ing era was *Chi-Yu* 己酉, the cyclical term for the 25th day of the month corresponds to *Kuei-yu* 癸酉. 买羌 can be translated thus: "great Cock". The Nü-chen character 斥 [替和; Manchu: coko] may have been modeled on 羌.

According to the 'Table for Cyclical Monthes' [*Yüeh-chien-piao* 月建表], the cyclical term for the 12th month of the *I-Ch'ou* 乙丑 year is *Chi-Ch'ou* 己丑. From this it follows that 戍乎 is "gold-ox", and hence 戍 signifies "gold".

9. Decipherment by Comparison with Nü-chen Characters

Many of those major Ch'i-tan characters so far deciphered are supposed to have been formed after Chinese characters and in their turn offered models on which Nü-chen characters were created.

Thus:									
	Chinese :	大,	天,	年,	月,	日,	牛,	馬,	鷄
	Ch'i-tan :	买,	盃,	秝,	月,	日,	早,	馬,	羌
	Nü-chen :		岙,	秫,	月,	日,	中,		斥

The Nü-chen characters for numerals as well must have been formed under the influence of the major Ch'i-tan, and thus I shall try to decipher the latter by comparison with the former in the following:

Chinese :	一,	二,	三,	四,	五,	六,	七,	八,	九,	十, 廿
Ch'i-tan :	一,	二,	三,	朩,	五,	丘,	廾,	瓦,	兀,	十, 廿
Nü-chen :	乚,	匚,	弎,	未,	幺,	于,	廾,	井,	仇,	千, 元

If 丘 and 朩 are "six" and "four" respectively, the cyclical term for the 24th of the 6th month of the 3rd year of the Ta-an era in Date IV was *Chia-Ch'ên* 甲辰, since the 6th month of the year and the first day of the month corresponded to the respective cyclical terms *Ting-Wei* 丁未 and *Hsin-Ssu* 辛巳. Thus 杀犮 and 虎禁 can be rendered: "copper-sheep" and "tin-dragon" respectively. The translation of Date IV is thus the 24th day (Tin-Dragon) of the 6th month (Copper-Sheep) in the 3rd year (Hare) of the Ta-an era.

On account of their likeness to the Nü-chen characters 瓦 [扎困; Manchu: jakūn] "eight" and 仇 [兀也温; Manchu: uyun] "nine", 瓦 and 兀 may be assumed as "eight" and "nine" respectively, though no supporting evidence has been so far found. I shall give the following tentative renderings to Dates III and VIII, which may be warranted or disproved by new evidence in future.

Date III : 奚百三祈元月十廿日
"the 17th day of the 9th month of the 3rd year of the Ta-an era".

Date VIII: 奚百三祈禹月廿本日
"the 24th day of the 8th month of the 3rd year of the Ta-an era".

If 奈奕 in Date II is "copper-sheep", which corresponds to *ting-wei* 丁未, then the nearest *Ting-Wei* year preceding the 3rd year of the Ta-an era [1079 A.D.] is the 3rd year of the Hsien-yung 咸雍 era of Tao-tsung [1067 A.D.]. Since 夆 "hare" refers to the 2nd month of a year, the cyclical term for the month. in the date in question falls on *Kuei-Mao*, 癸 thus being "iron". The date can be then translated as follows: the 2女th day great Horse of the Iron-Hare month of the Copper-Sheep year [the 3rd year of the Hsien-yung era].

Liao-shih shows that the cyclical term for the first day of the 2nd month in the Hsien-yung era was *Kêng-Ch'ên* 庚辰. If so, 女 in 廿女日 must be "seven", since the 27th day of the month corresponds to the cyclical term *Ping-Wu* 丙午 [*Wu* referring to Horse in the Ch'i-tan system of dating]. Thus, 女 is found to be a variant of the above deciphered character 廿.

YEN Wang-chang infers that 崽百 in Dates V and VI correspond to the era-name Hsien-yung. Thus these dates can be read as follows:

Date V : 崽百二祈三月十五日
"the 15th day of the 3rd month of the 2nd year of the Hsien-yung era";

Date VI: 崽百三祈廿月十一日
"the 11th day of the 7th month of the 3rd year of the Hsien-yung".

The comparison with their corresponding Nü-chen numerals confirms the decipherment of 本 and 廿 as "four" and "seven". Then, Date IV reads: the 24th day 壳祭 of the 亙 th month 奈奕 of the 3rd year (Hare) of the Ta-an era.

Since only the Ch'i-tan numerals "six", "eight" and "nine" are not identified yet among those from "one" to "twelve", 亙 is to correspond to one of the three numerals. The examination of the cyclical terms for the months and the days in the 3rd year of the Ta-an reveals that the cyclical terms for the 8th month and for the days of the 9th month as well ought to contain the Ch'i-tan character for "cock", which is already known to us. This, however, does not conform to the cyclical terms for the month and the day in Date IV, and hence the Ch'i-tan character in question can not be either "eight" or "nine", but "six". Accordingly, the month in the date reads: "the 6th month".

YEN Wan-chang thought that 亙 月 is "the 3rd month", whose cyclical term is *Chia-Ch'ên* 甲辰. Now let us check whether this is right or wrong by reference to the cyclical terms for the months and days concerned with this question.

The Cyclical Terms for Months and Days in the Ta-an Era

Month	Cylical Terms		
	for Month	for the 1st Day	for the 24th Day
6th	Copper-Sheep [*Ting-Wei* 丁未]	[*Hsin-Ssu* 辛巳]	Tin-Dragon [*Chia-Ch'ên* 甲辰]
8th	Gold-Cock [*Chi-Yu* 己酉]	[*Kêng-Ch'ên* 庚辰]	Iron-Snake [*Kuei-Yu* 癸巳]
9th	Silver-Dog [*Kêng-Hsü* 庚戌]	[*Kêng-Hsü*]	Iron-Cock [*Kuei-Yu* 癸酉]
3rd	*Tin-Dragon [*Chia-Ch'ên* 甲辰]	[*Kuei-Ch'ou* 癸丑]	Copper-Rat [*Ping-Tzu* 丙子]

* Wood-Dragon by Yen Wan-chang.

In his article of 1957, Yen Wan-chang identified as "three", the Ch'i-tan character 亘 in Date IV: 买丙三夅洣亘奈夾月卄夲夯桊日, and remarked: "On reference to *Erh-shih-shih shuo-jun-piao* 二十史朔閏表 by Ch'ên Yüan 陳垣, we know that the cyclical term for the 3rd year of the Ta-an era was *Ting-Mao* 丁卯, and hence the fourth character corresponds to *Mao* of '*Ting-Mao*'. If we take into account the original meaning of this Ch'i-tan character, we ought to translate it as "hare". As the seventh and eighth characters occur in between '三' and '月', I think that they may be the characters representing a cyclical month. There is a date found in the last line of the epitaph for Chêng K'o, which reads: 維大安六年歲次甲午十月建丁亥壬辰朔二十四日 "the 24th day of the 10th month (*Ting-Hai*), whose first day was *Jên-Chên*, of the 6th year (*Kêng-Wu*) of the Ta-an era". From the fact that the cyclical term for the 10th month was *Ting-Hai*, we can infer that the first month of the 6th year of the Ta-an era corresponded to *Chia-Yin* 甲寅 This exactly conforms to the cyclical term for the month by the Hsia-li 夏曆 ['Hsia' Calendar]. ...According to the *Hsia-li-yüeh-chien piao* 夏曆月建表, the cyclical term for the 3rd month of the *Ting-Mao* year is *Chia-Ch'ên* 甲辰, and hence the seventh and eighth characters are to be rendered as "wood-dragon". The date from the eighth line to the ninth [of the epitaph] is translated thus: [IV] 大安三兎年三木龍月廿[ ][ ][ ]日 "the 2[ ]th day ([ ][ ]) of the 3rd year (Wood-Dragon) month of the 3rd year (Hare) of the Ta-an era".

The translation of the date in the fifth line of the epitaph is then: 奈夾洣桊夅月卄女买丙日 "the 2[ ]th ([ ]-Horse) of the [ ][ ] month of the Wood-Dragon year".

In referring to the Ch'ên Yüan's *Erh-shih-shih shuo-jun-piao,* we find that the cyclical term for the 10th year of the Ch'ing-ning 淸寧 era of Tao-tsung of the Liao dynasty which was not very long ago from the time when the epitaph was placed in the tomb was *Chia-Ch'ên* 甲辰. Thus, the Wood-Dragon year mentioned in the epitaph would be the 10th year of the Ch'ing-ning era."

If 奈亥 was Wood-Dragon, namely, Tin-Dragon [*Chia-Ch'ên*] in my interpretation, the cyclical term for the 2nd month of the 10th year of the Ch'ing-ning era was *Ting-Mao*. *Liao-shih* shows that the first day of the 2nd month of the year fell on *Ting-Mao*. Then the only Horse day after the 20th of the month was the 28th, the cyclical term for which was *Chia-Wu* 甲午. Now, YEN Wan-chang's above translations could be completed as in the following.

Date IV: 买丙三牟非丑奈亥月廿夲虎癸日

Yen: the 2[4]th day [(Fire-Rat)] of the 3rd month (Wood-Dragon) of the 3rd year (Hare) of the Ta-an era''; cf. ''the 24th day Copper-Rat) of the 3rd month (Tin-Dragon) of the 3rd year of the Ta-an era''.

Date II: 奈亥非棻牟月廿女页丐

Yen: ''the 2[8]th day ([great] Horse) of the [Fire-Hare] month of the Wood-Dragon year; cf. ''the 28th (great Horse) of the Copper-Hare month of the Tin-Dragon year.

The result is that two different Ch'i-tan characters, 虎 as in the cyclical term for the 24th day in Date IV and 棻 as in the cyclical term for the month in Date II, have to be ascribed to "fire" ["tin] in my interpretation]. Thus, we find that YEN Wan-chang was wrong at the start, namely, his assumption of the meaning of 丑 as "three".

10. Dates in the Epitaph for the Late T'ai-shih

The epitaph for the Late T'ai-shih contains the following dates.

[XI] 至絕廿夷非羊月 (line 11).
[XII] 至泯廿五岩非十月廿二日 (line 30).
[XIII] 尖姿早非 (line 8).
[XIV] 至泯兴非冬 (line 14).

The era-name 至絕 in Date XI is an alternant form of the above mentioned 至紱, and hence corresponds to T'ung-ho 統和. Likewise, 至泯 in Date XII can be equated to 至佩, hence Chung-hsi 重熙. 羊 in Date XI may be a variant of 羌 "cock". This date can be rendered thus: the Cock month of the 2夷th year of the T'ung-ho era. However, since 夷 is not found among any of the identified Ch'i-tan numerals, it may be the character for "tiger" contained in the cyclical term for the 20th year of the T'ung-ho era [1002 A.D.], that is, *Jên-Yin* 壬寅. [*Yin* refers to Tiger of the Twelve Animals].

Date XI: the Cock month of the 20th year (Tiger) of the T'ung-ho era.

Date XII reads: the 22nd day of the 10th month of the 25th year [1056 A.D.] 岩 of the Chung-hsi era. 岩 would be "monkey", as the cyclical term for the year was *Ping-Shên* 丙申. However, there was no 20th year in the Chung-hsi era, and thus it could be in fact the 20th year of the Ching-ning era. This error was probably due to the composer's ignorance of the change in the era-name from Chung-hsi to Ch'ing-ning.

𗼇 in Date XIII derived its origin from the Chinese character 元, on which the Nü-chen 𗼇 was modeled.

Date XIV: [in the] winter of the first year of the Chung-hsi era. Li Wên-hsin's equation of 𘟙𗴲 to Ta-an is doubtful, for it can not be expected to find the era-name Ta-an in the epitaph which was composed no less than thirty years after the Ta-an era. I can not make certain of the meaning of 𘟙. Suppose 𗴲𗹦 denotes a cylical term. As four out of the five Ch'i-tan characters for the Five Metals are already identified, namely, Tin, Copper, Gold and Iron, 𗴲 is no other than "silver". From this it may be duly inferred that Date XIII corresponds to the Silver-Ox [*Hsin-Ch'ou*] year, i.e. the 19th year of the T'ung-ho era.

Dr. Inaba's once refuted theory that the epitaph for the Late T'ai-shih was written in Ch'i-tan writing is now revived and warranted by new evidence. The present article was intended for a forward step towards corroboration of his theory. At the present stage, however, what has been actually done here is only to find the corresponding Chinese characters for some major Ch'i-tan The simple Ch'i-tan script, I think, may have been read in terms of the respective languages of the three main peoples, namely, Ch'i-tan, Nü-chen and Chinese, who were at that time under the rule of the Liao dynasty. I sincerely hope that the future discoveries of new archeological data in China will lead to the complete decipherment of the Ch'i-tan scripts.

Major Ch'i-tan Characters Deciphered

1. 一 one
2. 二 two
3. 三 three
4. 𘠇 four
5. 五 five
6. 𘠈 six
7. 廿 seven
8. 𠂇 seven
9. 𘠉 eight
10. 𠂆 nine
11. 十 ten
12. 廿 twenty
13. 𠂊 twenty
14. 𘟙 year
15. 月 month
16. 日 day
17. 𘠋 tin
18. 𘠌 copper
19. 𘠍 gold
20. 𗴲 silver
21. 𘠎 iron
22. 𗹦 ox
23. 𘠏 ox
24. 𘠐 tiger
25. 𘠑 hare
26. 𘠒 dragon
27. 𘠓 horse
28. 𘠔 sheep
29. 𘠕 monkey
30. 𘠖 cock
31. 𘠗 cock
32. 𘠘 great
33. 𘠙 great
34. 𘠚 peace
35. 𘠛 heaven
36. 𘠜 *for Ch.* 熙
37. 𘠝 *for Ch.* 熙
38. 𘠞 *for Ch.* 統
39. 𘠟 *for Ch.* 和
40. 𘠠 *for Ch.* 咸
41. 𘠡 hundred
42. 𘠢 high
43. 𘠣 *for Ch.* 平
44. 𘟙 ?
45. 𘠤 head
46. 𘠥 winter