The Khüis Tolgoi inscription[1]

Dieter Maue and Mehmet Ölmez
with the cooperation of Étienne de la Vaissière and Alexander Vovin

The stelae

The Khüis Tolgoi site (48°08'14.8''N 103°09'49.4''E) was discovered by the Mongolian archaeologist D. Navaan in 1975. In 1979, Nejat Diyarbekirli announced this find. Without providing information about the content and language of the inscription, he published two photographs, one being a general view (Fig.1) and the other a fragment, commenting on the Khüis Tolgoi (I) inscription.[2] A description of the Khüis tolgoi (I) inscription was prepared in 1984 by Qarjaubay Sartqojaulı who published it in 2003 (Sartqojauli 2005: 35).[3] In 2005, N. Bazylkhan also gave information on the inscription.[4] Another note on this inscription was published in a Mongolian-Japanese work published in 2009 by Ōsawa Takashi, Suzuki Kōsetsu and R. Munkhtulga (see Ōsawa, 93: 1629 m.).[5] Khüis Tolgoi (I) today being preserved in the storage of Institute of Archaeology in Mongolia.

1 The following text, written by Dieter Maue and Mehmet Ölmez, is based on the contributions to the panel "Earliest inscriptions from the Mongolian steppe" on the occasion of the Permanent International Altaistic Conference 2017: M. Ölmez: On the discovery, whereabouts, condition of the stones, and our expedition; D. Maue: The steppe Brāhmī – decipherment and peculiarities. A. Vovin: The language of the Khüis Tolgoi inscription; É. de la Vaissière: Niri Kagan and the historical background of the Khüis Tolgoi inscription. The revised full versions are published in Journal asiatique 306, 2018.

2 Nejat Diyarbekirli, "Orhun'dan Geliyorum", *Türk Kültürü*, 198–199, vol. XVII, April-May 1979: 383.

3 Жолдасбеков, Мырзатай and Қаржаубай Сартқожаұлы, *Орхон ескерткіштерінің толық атласы*, Астана, 2005: 34–38.

4 Базылхан, Н., Қазақстан тарихы туралы түркі деректемелері, II том, көне түрік бітіктастары мен ескерткіштері (Орхон, Енисей, Талас), Алматы, 2005: 51.

5 Ōsawa Takashi, Suzuki Kōsetsu, R. Munhutoruga, Bicheesu II - Mongorukoku genson iseki Tokketsu hibun chōsa hōkoku ビチェースII :モンゴル国現存遺跡・突厥碑文調査報告, [BICHEES II: report of researches on historical sites and Turkic inscriptions in Mongolia from 2006 to 2008], Ulaanbaatar 2009; see also É. de La Vaissière, "The historical context to the Khüis Tolgoi inscription", in Journal Asiatique 306.2 (2018) (in print).

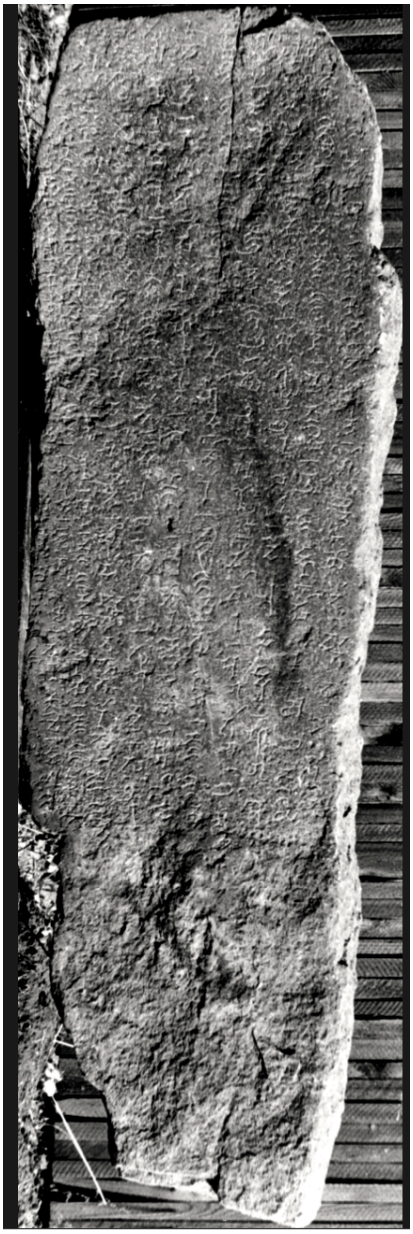


Fig.1: KhT I (Photo by N. Diyarbekirli)

Joint fieldwork on the Khüis Tolgoi (I) and Bugut inscriptions was carried out between August 18th and 28th 2014 by Dieter Maue, Alexander Vovin, Étienne de la Vaissière and Mehmet Ölmez.[6] The technical team consisted of the specialists Tobias Reich and Jens Bingenheimer from the University of Applied Sciences, Mainz. By kind permission of the Institute of Archaeology in Mongolia, which was obtained through the Ulaanbaatar office of the Turkish Cooperation and Coordination Agency (TIKA), Reich and Bingenheimer could take 3D pictures.

The Khüis Tolgoi (I) inscription, which is obviously significant for the history of Turkic and Mongolian languages, will perhaps be understood better after the decipherment of the Khüis Tolgoi (II) inscription.

The second target was the Bugut inscription, which is kept at the Arkhangai Province Museum, Tsetserleg (for details see Yoshida 1999: 122–125, Moriyasu – Ochir). The photographs of the Sogdian and Brāhmī inscriptions were taken using 3D technology. The Brāhmī side of the inscription is in very bad condition, so that almost no letters/akṣaras are visible to the naked eye in daylight.

The script

Two stelae which were saved from the Khüis Tolgoi site bear inscriptions on one side each. The script on the stone which was 3D scanned 2014 [KhT I] is relatively well preserved while the writing area of the second stone [KhT II] is much defaced and documented only through 2D photos so far. But all features indicate that both inscriptions form part of one text which ends on KhT I.

The script is written vertically in eleven columns, which run from right to left. The text is interspersed with horizontal strokes which were principally taken for word-dividers. It turned out that they were also used to isolate morphemes (regularly -ñar) and to divide the members of a compound (bodi-satva). These dividers, invaluable for the segmentation of the text, are unknown in the other Brāhmī tradition.

Likewise unusual is the presentation in syllables instead of akṣaras whose finals are vowels, optionally: + uvular fricative (visarga) or nasal element (anusvāra).

6 The fieldwork in Mongolia was supported by the Turkish Cooperation and Coordination Agency (TİKA). We are indebted to Associated Professor Ekrem Kalan, the former director of Yunus Emre Foundation TİKA at Ulaanbaatar and Professor Hayati Develi, the former president of Yunus Emre Foundation (YEE), and to the Yunus Emre Foundation for their support for the 3D photograph shooting; and to the Institute of Archaeology in Mongolia and the Museum of Tsetserleg for their help during our research.

The signs

The script is one of the varieties of the Turkestan Brāhmī. The sign inventory consists of a number of signs selected from the Indian Brāhmī alphabet which was imported to Central Asia together with Buddhism. For representing non-Indian languages, it was felt necessary to add some new special signs for sounds which could otherwise not be expressed adequately. In case of KhT it was four consonant signs and two vowel diacritics (Fig.2).



No. 1 No. 2 No. 3 No.4 No.5 No. 6

Fig.2: The special signs nos.1–6



Fig.3: k̄a g_1a-n

The special signs nos. 1 and 2 form a sign group (Fig. 3) which occurs 12 or 13 times in the inscription. The determination of their sound value was crucial for the decipherment. It succeeded only through Brāhmī stone inscriptions which were discovered by the Kazakh scholar Eskander Bajtenov. The stones most probably served as balbals; thus the inscriptions should represent the name of a killed enemy followed by his title which was certainly "Kagan". In consequence, the upper sign, transliterated through k̄, stands for the unvoiced back velar q and the lower one, transliterated through g_1, contains its voiced partner ɣ.

No. 3 has some similarity with the ligature kṣ of the basic alphabet or Tumshukese χš. Therefore, χš was chosen as transliteration symbol. However, its

value is still debated. The transcription through q/ks is a conditional concession to Vovin's interpretation.

It is tempting to compare special sign no. 4 with a sign which is known from Tumshukese, Sogdian and Uigur Brāhmī. There, it represents the bilabial fricative w, transliterated through v_1.

The vowel diacritic no. 5 appears to be related to the two dot diacritic of the other vernacular Turkestan Brāhmī varieties. It is usually transliterated ä. As elsewhere it may stand for the unrounded central vowel ɨ or ə. The transcription symbol is i.

A cognate unrounded vowel is probably represented through no. 6 which is obviously modified from no. 5. It is transliterated through $ä_1$ and transcribed through i_1.

The conspectus of the signs and transliteration symbols is given in Appendix I, the transliteration of the KhT text in Appendix II.

The sounds

The language of KhT was unknown. Morphological features, however, pointed to Mongolic, triggering the "(Para-)Mongolian hypothesis" which can be considered proven now (see below). Consequently, vowel harmony should apply which manifests, however, only by the usage of front and back velars and perhaps in the vocalic word beginning, if it is correct that plain vowel signs stand for back vowels while front vowels are preceded by h. Elsewhere, the vowel signs a, ä, $ä_1$, ŭ, o represent front or back vowels. Apart from the unclear difference between ä and $ä_1$, the vowel system matches with that of Proto-Mongolic.

There is a dichotomy of consonants p vs. b, č vs. ǰ, t vs. d, *k (not attested) vs. g, q vs ɣ, which again is in good accord with Proto-Mongolic, with two exceptions. In KhT, p- was preserved and ti not yet palatalised into či.

The sibilant š seems to be palatalised from s before i_1; the status of ñ and v_1 is not clear.

In general, the KhT consonants match the reconstructed Mongolic phoneme system quite well, cf. Appendix III. The same applies to the syllable structure with minor anomalies the most conspicuous of which is final -ǰ and perhaps -č.

The transcription of the KhT text with preliminary notes is given in Appendix IV.

The text

Columns 1–2 are the linguistic key of the inscription. On the basis of Mongolic morphology and lexis, we get a meaningful phrase even though details are debated.

1	šińi-n	new-GENITIVE
2	bodi-satva	Bodhisattva
3	törö-ks(e)	be born- PAST PARTICIPLE
4	qaɣan	Kagan
5	buda	Buddha
6	qaɣan-u	Kagan-GENITIVE
7	uqa-qs(a)	realize-PAST PARTICIPLE
8	uqa-ǰu	realize-CONVERBUM CONTEMPORALE

'when (-ǰu) the Kagan (qaɣan), who was [re]born (törö-ks(e)) as a new (šińi-n) Bodhisattva (bodi-satva), knows (uqa-) Lord Buddha's (buda qaɣan-u) knowledge (uqa-qs(a))'

Comments

1. *šińi-n* 'new' is the word that is highly diagnostic, clearly pointing to the Mongolic direction. The form is to be read *šini*, cf. EMM *šini* 失你 'new' (MNT §265), although the majority of attestations indicate *šine*, thus phonetically KhT form is closer to mainstream Mongolic. The final *-n* is likely to be a genitive though there are no clear-cut cases of the adnominal usage of genitive in MM.
2. Bodhisattva is either a given name of the Turkic *qaɣan* from the First Khanate, or rather Bodhisattva could be meant here as a honorific title.
3. <to ro-χš> is likely to be Mongolic *törö-ks[e]* 'to be born', past participle of the verb *törö-* 'to be born'. The alternatively proposed identification (see next §) with *Tiělè* 鐵勒 < EMC *t^{h}iet lək* < LHC *t^{h}et lək* meets difficulties the most serious of which is that the vocalism of the Chinese transcript is illabial.
4. The simplest solution is to take buda as 'Buddha' together with the following title. *Buda qaɣan* is reminiscent of OT *bur-qan* 'lord Buddha'; or even closer archaic OT *pū rkā kāṃ*, *bur qaɣan*.
5. Qaɣan-u with genitive morpheme -u after stems in -n as in MM.
6. The converb on -ǰu points to the verb uka- 'to realize' which is also the basis of the past participle uqa-qs(a), both forming a figura etymologica.

To sum up:

1. Mongolic lexis is seen in 1, 3, 7–8.

2. Typically Mongolic morphological markers are: past participle *-Ks* < *KsA (3;7), genitive *-n* after vowel stems (MM *-yin, -īn, -n*) in 1 and -u after n in 6, converbum contemporale *-jU* in 8.

3. It can be stated that the language of the KhT inscription is much closer to mainstream Mongolic than to Khitan: a) there is no Khitan genitive *-u*, as the Khitan words with final *-n* take *-en* instead, b) the Khitan word *qa* ~ *qa.ɣa* 'qaɣan' takes the genitive in *-an: qa.ɣa-an*, c) Khitan has converbum contemporale *-ǰ* corresponding to MM *-jU*.

These three aspects were basically not contradicted by the rest of the text. As for the morphology and closeness to the mainstream Mongolic s. Appendix V. The complete text with translation is presented in Appendix VI.

The historical context

To establish the historical context of the KhT inscription, it is necessary to collect and evaluate the data connected with the object itself and combine them with information from other sources. We have both external data, like the place of the discovery, the nature of the site, the choice of the script and of the language, and internal data, from the content of the text, that is mainly titles, proper names and some parts of phrases and isolated words.

1. The stone was discovered in the Tuul river system. The political group at the origin of the inscription should have been located there.

2. The poor archaeological details on the site may speak for a memorial.

3. The usage of the Brāhmī script on the Mongolian steppe is elsewhere attested only for the First Turk Kaganate. Main witness is the Bugut inscription in memory of Tadpar Kagan († 581). Three inscribed balbals belong to the same era.

4. The language of the inscription, a member of the Mongolic language family, poses the question: imperial language (Rouran or Tuoba?) or language of the political group controlling the Tuul valley at that time?

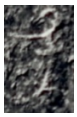
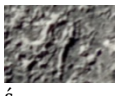
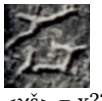
5. From the chronological point of view, the key point is the mention of Niri Kagan Türüg Kagan, without any doubts the Niri 泥利 of the Chinese sources, who reigned from 595, fought against his enemies, the Eastern Turks, was defeated by the Tiele and died subsequently together with his heir and wife. However, his memorial is far away in the Tekes valley, in the centre of his territory. Therefore. KhT mentions Niri, but is not from or for him.

6. The other protagonist named in the inscription is śi$_1$ñin bodi-satva tǫrǫX qaɣan. It is tempting to connect bodi-satva with the first important Uigur ruler Pusa 菩薩, the regular Chinese transcription of Bodhisattva, although there is no Pusa Kehan in the Chinese sources of this period. On the other hand there are plenty of examples of rulers self-entitled Kagan not recognized as such in the official annals. The Turkish-speaking Uigur were emerging at that time as a leading tribe within the Tiele confederation. This could be reflected by tǫrǫX qaɣan for the case that tǫrǫX could be identified with the Chinese transcript 鐵勒 which is heavily contested by A. Vovin (see above).

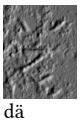
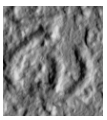
With the defeat of Niri by the Tiele as a historical reference point, it seems that the Khüis Tolgoi inscription marks the beginning of the ascendancy of the Uigurs among the Tiele tribes in the north. The Brāhmī script and Mongolic language may be chosen in imitation of the imperial inscriptions of the First Türk Kaganate (Bugut).

Appendix 1: Sign inventory

(A) Consonants

	Occlusive		Fricative	Semi vowel	Nasal	Liquid	Vibrant
	Voiceless	Voiced	Voiceless				
Labial	 pu	 ba		 va  v_1a / v_1a-r	-----		
Dental	 ta	 da	 sa		 na		
Palatal	 ca	 ja	 ś-	 ya	 ña	 la	 ra
Fr. velar		 Ga	 <χš> = x?? (transcr. ks)				
B. velar	 ḳa (transcr. qa)	 g_1a (transcr. ɣa)					
Glottal							

(B) Vowels

	a	<ä>, i	<ä$_1$>, i$_1$	u	ū	o
Independent	 a			 u		
Dependent	(inherent in all consonant signs without diacritic)	 dä	 cä$_1$	 pu	 rū	 bo
				 tu		

Appendix 2: Transliteration

Explananda

kā	(italics:) uncertain reading
[ ]; [a]	loss; a by restoration
[?]	uncertain loss
|	interpunction marks (without regard to the actual form)
-r	unvocalised r, usually attached to the precedent sign by a small stroke, the so-called virāma stroke
+	equivalent of one syllable
×	equivalent of a part of a syllable
☐$^?$	something (☐)questionable

N.b.: The transliteration symbols follow the accepted transliteration/transcription of the Indian signs; divergent symbols are explained above.

(01) b*ä* tä$_1$ | *ñ*a-r | k̄a g$_1$a-n | dä g*ä*$_{\mathit{1}}$[7]-n | *ś*ä$_1$[8] ñä-n | bo dä | sa-t va | to ro-χš

(02) k̄a g$_1$a-n | *bu* da | k̄a g$_1$a nu[9] | u k̄a- χš | u k̄a ju | χšä$_1$ rä | a ña k̄a-y

(03) + [10] ×ä$_1$ [11] *t*ä$_1$-n | ja- χš bo dä | bä gä-y | ña-r / ba *yä* | do lu ja ju | hu-g *bu* [12] [?]

(04) +[?] *b*[] tä$_1$ | *j*ä$_1$ *lo* *na*-r | k̄ra nya g$_1$*u*-ñ | tu v$_1$a[13] | pu ro-*r* | cä cä$_1$ ra | pu-g tä$_1$<->g[14] | ña la-*n*

(05) × | *k̄*[][15] *g$_{\mathit{1}}$*a + + k̄*a* *t*o [16] | *ña*[-[?]]r [17] | du gä$_1$-d | nä$_1$ rä | k̄a g$_1$a-n | tu rū-g [18] | k̄a g$_1$a-n

(06) u-*n* [19] | dro | *ta* *ya* ju [20] | χšä$_1$ rä | ha[21]-r gä-n | ba-r g$_1$o-×[22] | pa<->l[23] *χ*šä$_1$[24] -r | + χša [25] cä | hä$_1$-g bä$_1$-j

(07) tu-g *j*u | u *k̄*a *b*a[26] -r | *ña*-r [27] k̄a *g$_{\mathit{1}}$*a-n | χša nä | ju la ba | tu nu | tu-g n*ya* [28] | *tu* v$_1$a[29]

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7 Or: g*ä*? Though the distinctive loop of the diacritic is destroyed the visible part seems to belong rather to <ä$_1$> than to <ä>.

8 <ś> is clear enough here, but better discernible in col. 8.

9 Unusual form. The sign looks like a variant of <ka> (Sander alphabet u); but only the reading nu makes sense and <ka>, which would stand for the front k, is excluded from a back vocalic word.

10 Complex sign, the lower part seems to be (-)h; however, syllable closing h would be strange.

11 Or:×*o*(?);×ä$_1$-*l* (not excluded).

12 <pu> corrected into <bu>?

13 Or: v$_1$a-r.

14 The virāma stroke is not discernible, but cf. *pu-g tä*-g cä in col. 8.

15 Or: g$_1$[]?

16 Or: do?

17 Or: *ña* r[].

18 Spelling with short u in col. 10.

19 Or: -*c*? Faint or even lacking virāma stroke, but clearly visible in col. 9.

20 S. KT details. If read correctly, the shape of ya is less rounded then in col. 2 and 3.

21 Or: h*ä*? There may be traces of the -ä diacritic.

22 Perhaps g$_1$o-*l*; or, much less probable, instead of g$_1$o-×: g$_1$*r*o.

23 Or: pla?

24 Or: ×ä$_1$. The vowel diacritic could also be -o. The consonantal part is palaeographically extremely unclear.

25 Or: -χš.

26 Rather than *g$_{\mathit{1}}$*a.

27 Less probable: *v$_{\mathit{1}}$a.*

28 Or: na, without subscript -y?

29 Or: v$_1$a-r.

(08) +[30] χša-× *tu*-× *to* × *g₁u-n* [31] | *pu-g tä*-g cä | śä₁ ñä -n | *bo* dä sa-t va | to ro-χš | k̄a g₁a-n

(09) [+] *l*[][32]+ | ×*ä yu*[33] | u-c[34] bä tä₁ *h*ä₁-*ñ* | + + *g₁u*-χš | *tu* v₁a[35] | *ñ*a-r[36] | k̄a g₁a-n | *to* ro-χš | k̄a g₁a nu-n |

(10) +[37] pa[38] da | *na* r*ä* | k̄a g₁a-*n* | tu-[39]ru[40]-g | + g₁a-[] ×*ā̄*[41] *jä*[-]n |[42] u bä₁-j | ja *lo*[43] ba-j | da-r k̄a-*d* | ja ya[44] bä

(11) [?[45]] *ru-n*[46] b*ä*[47] tä[48]-[49]g[50] | + s*a*[51]-g | p*a-g₁*[52] [+ +] j[] [?][53] da-r k̄a-n ba[54] | tä[55] *b*a k̄a[56]

30 Space for a complex sign; no intelligible traces.
31 This is what one would guess from ŽS. Though the three curved lines of g₁ are uncertain as well as -u and -n has an inappropriate stroke at the lower end, no better proposal can be made.
32 Or: *lo*?
33 The trace above is unclear, perhaps a daṇḍa.
34 Or: u-n?
35 Or: v₁a-r.
36 Or: *p*a-r, *ba*-r?
37 Perhaps: hu or h[]-r?
38 Or: *b*a?
39 The virāma stroke is erroneous.
40 Spelled with -ū in col. 5.
41 ×*ā̄* : g*ā̄* ŽS.
42 *jä*[-]n | : j*ä-x* appears from D instead.
43 The form slightly differs from <lo> in col. 4 and is therefore marked as uncertain.
44 Or: ja[-]y?
45 Probably no loss of script. The upper left rim of the stone is seemingly quite well preserved (mostly smooth-edged, minimal sharp-edged fractures). The stonecutter followed the natural form of the stone which provided not enough space for writing something above ru-n. Probably no lacuna between col. 10 and 11.
46 Or: -*c*. If initial: *u-n, u-c*.
47 Or: ba. - Closed form of <b>.
48 -ä₁ is not excluded.
49 Virāma stroke is uncertain.
50 <g>, still clearly readable on D, is now partly destroyed.
51 A vowel diacritic, possibly -ä, cannot be excluded.
52 Or: pu ×.
53 Probably no loss of script between the two visible akṣaras; there was not enough space for writing.
54 Or: b[ä].
55 Or: dä?
56 The rest of the column is blank.

Appendix 3: Consonant inventory

		Occlusive		Fricative		Semi-vowel	Nasal	Li–quid	Vibrant
		un-voiced	voiced	un-voiced	voiced				
Labial		p [1]	b			w* [2]	(m)		
Dental		t [3]	d	s, si > ši			n	l	r
Palatal		č	ǰ			j	ñ [4]		
Velar	front	(k)	g				(ŋ)		
	back	k			γ				
Glottal		h* [5]							

Symbols**:** x* = not contained in Janhunen; (m) = accidentally not attested in KhT

KhT in comparison with the Pre-Proto-Mongolic consonant system (after Janhunen)[57]

Notes

1 **p > *x "took place in Late Pre-Proto-Mongolic not much prior to the emergence of the historical Mongols." (Janhunen 2003:396)

2 The status of w is unclear.

3 Janhunen (2003:397) states "the preservation of a distinctive dental *t ... before the high unrounded vowels *i *ï" for the Pre-Proto-Mongolic which is also true for KhT.

4 The value and/or status of these sounds is not certain. – As to the palatal nasal ñ, the interpretation as palatalized phonetic variant of n is barred by the back vocalism of 2 añakay and 4 kranyag*u*ñ. According to Janhunen, however, the Pre-Proto-Mongolic and perhaps the Para-Mongolic had *ny (= our ñ), e. g. in *nyoka 'dog' "as opposed to Proto-Mongolic *noka.i 'dog'„ where *ny was depalatalized to n.[58] There are no cases where KhT ñ directly corresponds with Para-Mongolic *ny.

5 The KhT h- was tentatively determined as on-glide of front vowels and intervocally as hiatus bridge, as such without phonemic value.

57 J. Janhunen's table (2003: 397) does not comprise glottals and his velar subsystem counts less elements (*k, *g, *x, *ng): back and front velars are not distinguished; however, "a primary velar spirant *x" is postulated. It is successor of **p and as such not comparable with any velar of KhT where p is still preserved unchanged.

58 Janhunen 2003: 397.

Appendix 4: Open transcription
Preliminary notes

The transcription is made and to be understood before the background of the (Para-) Mongolian hypothesis which includes vowel harmony and absence of word initial r.

Velars and glottals are indicators of backness and frontness:
q⇐<k̄>, ɣ⇐<g$_1$> are certainly, (initial) u and a are probably signals for backness;
g=<g> and probably h= <h> signal frontness; < χš > is probably neutral, its value is unclear, but Vovin's transcripts q/ks are adopted.

The vowel signs represent either front or back vowels. Frontness or backness is either determined by the described indicators or undecided. Accordingly they are transcribed
ä, ö, ü, i, i$_1$ in words with front indicators;
a, o, u, ı, ı$_1$ in words with back indicators;
ą, ǫ, ų, ɨ, ɨ$_1$ in words without indicators.

bodı-satva: the hyphen is applied between parts which belong together, but are separated by interpunction mark.

(01) bɨtɨ$_1$-*ñ*ąr qaɣan dig*i$_1$*n[59] šɨ$_1$ñɨn bodı-satva tǫrǫq/ks

(02) qaɣan *bų*dą qaɣanu uqaqs uqaǰu q/ksɨ$_1$rɨ añaqay

(03) ...*ɨ$_1$* tɨ$_1$n ǰąq/ks bǫdɨ bigiy-ñär bą*y*ɨ dǫlų̆ǰąǰų̆[60] hüg*bü*[?]

(04) +[?] *b*[ɨ]tɨ$_1$ *ǰ*ɨ$_1$*l*ǫnąr q(a)ranyaɣ*u*ñ tų̆wą[61] pų̆rǫ*r* čɨč$_1$rą pügti$_1$g ñąlą*n*

(05) × *q*[a]ɣa[nu?] + q*at*o-*ñar* dügi$_1$d nɨ$_1$rɨ qaɣan türū̆g qaɣan

(06) u*n*[62] d(ǫ)rǫ *tą*ɣ*ą*ǰų̆ q/ksɨ$_1$rɨ härgin[63] barɣo[l] pąlq/ksɨ$_1$r [+]q/ksą̆čɨ hi$_1$gbi$_1$ǰ

(07) tügǰ̈ü u*q*a*b*ar-*ña*r qaɣan q/ksąnɨ ǰų̆lą̆bą tų̆nų̆ tügn*yä* *tų*wą[64]

(08) + q/ksą[] *tų*[] *to*[ɣo[?]]*ɣun* *püg*t*i*gči śɨ$_1$ñɨn *bo*dısatva tǫrǫq/ks qaɣan

(09) [+]*l*[] + []*ɨyų* ų̆č[65] biti$_1$*h*i$_1$*ñ* + + *ɣ*uqs *tų*wą-*ñ*ąr qaɣan *tǫ*rǫq/ks qaɣanun

59 Or: dig*i*n.
60 Or: dǫlų ǰąǰų.
61 Or: tų̆wą̆r.
62 Or: ų̆č?
63 Or: h*i*?
64 Or: t*ų*wą̆r.
65 Or: ų̆n?

(10) + pạdạ *n*<ɻ1>rɻ qaɣa*n* türüg [qa]ɣa[n] []*ɻ1ǰ*m ubɪ1ǰ ǰạ*lọ*bạǰ darqa*d* ǰạyabɻ[66]

(11) [?]*rụn*[67] b*ɨ*tig + s*ä*g p*aɣ* [+ +] j[] [?] darqan ba[68] | tɻ[69] *b*ạ qa

[blanco]

Appendix 5: KhT morphology

marker	Khüis Tolgoi	MM	Pre-Classical WM	Khitan
genitive after *-n* stems	-U ~ -Un	-U ~ -nU	-U	-en
genitive after consonantal stems	-Un ~ -iń	-Un	-Un	-un, -en,
genitive after vowel stems	-n	-yin, WMM -īn, -n[70]	-yin	-n, -on, -un
locative	-dA	-dA	--	-de, -do, -du
accusative	-ɪ ~ -i	-i ~ -yi	-i ~ -yi	-Ø
plural suffix	-ńAr	-nAr	-nAr	-ńer ~ -ńeń
plural suffix	-d	-d	-d	-d
singular suffix	-n	-n	-n	--
nomen actoris	-či	-či	-či	--
nomen praesentis (with converbial function)	-yi > -Ø (after -yi)	-(U)yi	-(U)yi	-Vi
converbum modale	-n	-n	-n	--
converbum contemporale	-ǰU	-ǰU	-ǰU	-ǰ ~ -č
converbum finale	-rA	-rA	-rA	--
converbum praeparativum	-rUn	-rUn	-rUn	--
adnominal	-n[]	--	--	-n
past	-bA	-bA(i)	-bA(i)	-beń
distant past	-ǰ	*-ǰi	-ǰuqui ~ -ǰüküi	--
deductive present	-yU	-yU	-yU	--
nominalizer	-ɣuń ~ -ɣun	-'Un	-ɣun ~ -gün	--
nominalizer	-r	-r	-r	--
nominalizer	-ɣol	-'Ul	-ɣul ~ -gül	--
functionally unclear verbal suffix	-n[V]yA-	--	--	--

66 Or: ǰạybɻ?

67 Or: *ruč*? If word initial: *un*, *uč*.

68 Or: b[i].

69 Or: dɻ?

70 After stems ending in *-ai*.

Appendix 6: Transcription and translation

Both, transcription and translation, are tentative; the translation

1 biti-ńer qaɣan digi-n šińi-n bodi-satva törö-ks(e)
2 qaɣan buda qaɣan-u uqa-qs(a) uqa-ǰu ksɪrɪ Ańaqay
3 [.?.]-ıte-n ǰa-qs(a) bod-ı beg-ey-ńar bayyı-Ø dolu-ǰa-ǰu hügbü +?
4 b[i]ti jilo-nar q(a)ra-n(V)ya-ɣuń tuwa pu̱rǫ̱-r čeči-re pügtig ńele-n
5 [+] q[a]ɣa[n-u?] qato-ńar düge-d nɪ̄rɪ qaɣan türüg qaɣan-
6 -un d(ö)rö taya-ǰu ksɪ̨ɪrɪ hergin bar-ɣo[l] pa̱lksɪ̨ɪ-r [+]ksa̱-či hiɪgbiɪ-ǰ
7 tüg-ǰü uqa-ba-r-ńar qaɣan ksan-ı ǰula-ba tün-ü tüš(i)-n[] tuwa
8 ? tu̱[] to[ɣo]-ɣun pügtig-či šińi-n bodi-satva törö-ks(e) qaɣan
9 [+]*l*[][+] ki-yü un bitig-iń puɣan tu̱wa̱-ńar qaɣan törö-ks(e) qaɣan-un
10 [sina]pa-da Niri qaɣan türüg qaɣa[n] [k/g]iǰi-n ubi-ǰ ǰalo-ba-ǰ darqa-d ǰay bi-
11 -rün bitig [+]sA[] paɣ [+ +] ǰ[] [?] darqa-n b[i]ti-be qa

1–3. Qaɣan [of] the inscriptions died and when the qaɣan, who was [re]born as a new Bodhisattva, knows lord Buddha knowledge, and promises … the country's Ańaqay [title], begs and tribes, stand, and listen together… **4.** Looking at the inscription stones, Tupa [people] exterminated [their] sins and joined the saved **5.** … qaɣan's wives [and] younger brothers, [and] Niri qaɣan, qaɣan [of] Türks **6.** worshiped the Law, and country's erkins and collectors … **7.** are enough and those who realized that qaɣan's regnal years were shining, and Tupa whom he supported/entrusted **8.** counting … those who attained salvation … qaɣan who was [re]born as a new Bodhisattva **9–11.** do… of the inscription …the qaɣan of Tupa was [re]born. In the qaɣan's domain, [they] followed Niri qaɣan, qaɣan of Türks and … [He] directed [them]. As the free men were happy, inscription … official wrote …

References

Diyarbekirli 1979: Diyarbekirli, Nejat, "Orhun'dan Geliyorum", *Türk Kültürü*, 198–199, vol. XVII, April-May 1979: 321–384 (1–64), Ankara.

Bazylkhan 2005: Базылхан, Н., *Қазақстан тарихы туралы түркі деректемелері*, II том, *көне түрік бітіктастары мен ескерткіштері* (*Орхон, Енисей, Талас*), Алматы, 2005.

Janhunen, Juha 2003. "Proto-Mongolic." In: Juha Janhunen (ed.), *The Mongolic languages*. London/New York: Routledge 2003. (Routledge language family series; 5.), 1–29. And: "Para-Mongolic". o.c., 390–402.

Moriyasu, Takao - Ayudai Ochir, (editors), 森安孝夫/オチル（共編）1999: *Provisional Report of Researches on Historical Sites and Inscriptions in Mongolia from 1996 to 1998*『モンゴル国現存遺蹟•碑文調査研究 報告』. Osaka.

Ōsawa Takashi, Suzuki Kōsetsu, R. Munhutoruga, *Bicheesu II - Mongorukoku genson iseki Tokketsu hibun chōsa hōkoku* ビチェース II:モンゴル国現存遺跡・突厥碑文調査報告, [*BICHEES II*: *A report on a research on historical sites and Turkic inscriptions in Mongolia from 2006 to 2008*], Ulaanbaatar 2009.

Sartqojauly 2003: Сартқожаұлы, Қаржаубай, *Орхон мұралары*, Астана, 2003.

Sartqojauly 2005: Жолдасбеков, Мырзатай and Қаржаубай Сартқожаұлы, *Орхон ескерткіштерінің толық атласы*, Астана, 2005.

Yoshida, Yutaka, 1999: “Bugut Inscription”, → Moriyasu - Ochir 1999: 122–125.