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profondeur d'eau par rapport au corps humain: *ha-faladia* »jusqu'à la plaine du pied«, *ha-kirrakeh* »jusqu'à la chevilles«, *ha-lohalika* »jusqu'au genoux«, *ha-fotope* »jusqu'à la hancher«, *ha-vavafa* »jusqu'au »creux de l'estomac«, *ha-frama* »jusqu'à la poitrine«, *ha-helika* »jusqu'à l'aisselles«, *ha-senda* »jusqu'au cou«, *ha-eard* »jusqu'à la bouche«. P.ex. *halohalika ay-rano* »l'eau est, va, monte jusqu'aux genoux«, *misy rano hafotope* »il y a de l'eau jusqu'à la hanches«.

Un de ces mots a été employé comme mesure de longueur: *ha-kiho* »depuis le bout des doigts) jusqu'au coude, coudée«.

On voit par les exemples donnés que cette forme s'emploie comme prédicat ou comme épithète. Elle a donc plutôt la qualité de l'adjectif que celle du substantif. *Hakiho* »coudée« peut être précédé ou suivi d'un adjectif numéral, p.ex. *iray hakiho, hakiho iray* »une coudée«, *folo hakiho sdix coudées«.*[7]

7 Quant à l'étymologie des préfixes locatifs on est renvoyé à Malgache et maanjan: *ha-* p. 169, *i-* p. 200, *a-* et *an-* p. 289, et *ta-* p. 292.

TURKISH WORDS IN KHOTANESE TEXTS
A LINGUISTIC ANALYSIS[1]

BY

EVEN HOVDHAUGEN

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1 I am indebted to ammanuensis Kâre Thomsen who read a draft of this article and suggested some valuable amendments.

1. Introduction

As is well known, the Khotanese texts from the 10th century contain a lot of Turkish words. Beside the Turkish texts written in the Brahmi alphabet, this is the only Turkish linguistic material from the first millenium A. D. that is written in an alphabet that had the possibilities of rendering almost exhaustively the phonetic and phonemic pattern of Old Turkish.

Thanks to the works of H. W. Bailey, who has edited some of the most important texts concerning the Turks and in various articles has identified and examined the Turkish words found in these texts, this material is to a large extent made accessible to turcologists. But only a few of them (e.g. Clauson, Doerfer, Malov) have made use of this material and they have usually regarded it with a certain scepticism as far as its linguistic value is concerned, cf. Clauson (p. 123): 'These documents are not as old as some of the surviving Turkish texts and, in view of the roughness of the transcription and the doubts regarding the phonetic value of some of the letters used, it is doubtful whether they can supply any very useful information on the niceties of Turkish phonetics. They contain of course a good deal of material interesting from other points of view.'

I shall in this article try to show that the transcription is far from rough, but on the contrary one af the most consistent used for Old Turkish and e.g. much more consistent than the one we find in the Brahmi texts. And I shall further show that this material gives us important information concerning the phonological interpretation and development of Old Turkish and in several cases is crucial for the reconstruction of Proto-Turkish forms.

Thanks to the publication of Khotanese texts I–V and Khotanese Buddhist texts (both edited by H. W. Bailey), almost all the Khotanese texts are now available in a critical edition. To identify all the Turkish words in these texts is not yet possible since we have no Khotanese dictionary, no Khotanese phonology and no complete study of Khotanese word formation, which are all necessary prerequisites for such identifications. I therefore do not claim that my study of this problem will be the final one, but for several reasons I think it useful to give a survey of what we till now have found and what this tells us. First, the older editions (mainly TKV) contain many errors and misreadings, corrected in KT. It is also important to treat this material as a whole and give all the different spellings of one word as well as its frequency. When a word is

spelled in exactly the same way, let us say 10 times, this example is of course much more important for our analysis than an example attested twice with variant spellings. Another reason for my analysis is that this material has never been critically examined by a turcologist.

My analysis is primarily concerned with this material from a turcological point of view and the stress will be laid on the information relating to Turkish phonology, etymology and dialectology. But I also hope that at least as far as phonology is concerned, my study will also be of some interest for Khotanese studies and the phonological interpretation of Khotanese.

The Khotanese texts containing Turkish words can be divided into three groups:

1. Official documents mainly concerning the relation to the Turks in Santṣu and Kanṭṣu, two provinces of North-Western China. On several occasions the Khotanese sent envoys to these regions and we have reports of their journey and of the rather troublesome state of affairs in these regions. We also have a letter to a certain Alatuna hana and some other documents containing Turkish names. The identification of Turkish words in these texts is often difficult. When a person is called Turk (*ttrūkā*), Uigur (*hvaihū:rā*), Oguz (*ūhū:ysā*) etc., it is very likely that his name too is Turkish. This is also probable when a person has a Turkish title like qan (*hana*), qagan (*ha:ha:nā*), bäg (*bekā*) etc. although these titles may also of course have been used by others than Turks. As far as single names are concerned the interpretation is even more doubtful and can very often be questioned. The same difficulties are encountered in the identification of Turkish place-names. Another problem concerning the analysis of the words found in these texts is that many of these words, especially those designating titles or the names of peoples, may originally not be Turkish, but common Central-Asiatic words, often originating from Chinese or Tibetan. And we usually do not know whether the Khotanese got these words from Turkish or some other source (a clear case in point is (56) *cīhā:śī*).

2. The list of Turkish proper names, titles and names of peoples found in SH. The identification is here faced with the same problems as in 1, and further we have no context that can support our interpretation. The list is haphazardly arranged, some of the words in it are perhaps not Turkish at all, and in several cases the writing is corrupt, cf. (143) *ttūḍīśā*.

3. A vocabulary (TKV), containing about 100 words. Some of the

words are glossed in Khotanese. This gives us in some cases a clue to the identification, but often the Khotanese words are only attested in this text and accordingly of unknown meaning. The vocabulary is, however, arranged, at least to some extent, by semantic principles and this gives us often a clue to the interpretation. The word list mainly contains words concerned with archery, horse-equipment and parts of the body.

The reason why this short word list was composed is not clear. Bailey (BSOAS XI, 290) assumes a wish to learn Turkish as the motivation of the author. The list does not contain what we would call a basic vocabulary, but highly technical terms and words that must have been rather seldom used. Some practical purpose e.g. concerned with translation or more probably military instruction etc., may have been the motivation of the author of the vocabulary.

The Turkish words in Khotanese can hardly be labelled loanwords (except perhaps for some proper names like *arsäll, ttämgūysi* or a title like *hana*). None of them except for (115)[2] occurs in religious texts (in marked contrast to words from Sanskrit, Tibetan and Chinese). There cannot have been any cultural, or rather any religious contact, worth mentioning between the Turks and the Khotanese. The main reason for this may be a religious one. The Turks were Manicean, the Khotanese as the Tibetans and Chinese were Buddhists. For the Khotanese the Turks were dangerous people whom for political as well as military reasons they were forced to have some contact with and take some interest in. Their interest in the military skill (especially archery and cavalry) of the Turks is clearly reflected in TKV. According to the Turkish proper names found in some documents there must have been some Turkish-speaking or originally Turkish-speaking people living in Khotanese territory. There was certainly no definite ethnical border between the two peoples and the Khot. loanword *ton* < *thaumä* 'cloth' in Turkish must be an evidence of mercantile contact.

All this must be kept in mind when we turn to the phonological interpretation of the Turkish words in Khotanese. These words had no literary tradition, they were borrowed orally and must represent nothing but the true pronunciation of that time. And as a possible working hypothesis we can assume that these people who certainly could speak

2 This and all further cases of numerals enclosed within parentheses refer to the word list in chapter 6.

Turkish well, also tried as far as their alphabet allowed them to do so, to give an exact phonetic rendering of the Turkish words they recorded.

2. *A phonological analysis*

A linguistic analysis of this material must concentrate on phonology. No continuous Turkish text is preserved in the Khotanese material and we get little or no information concerning the morphology of the Turkish dialects from which the Turkish words came.

In the word-list in chapter 6, I have collected all the words that I have found in Khotanese texts that may have a Turkish origin. But I have strictly limited my phonological analysis to those words which are identified, if not always without doubt, so at least with a high probability. I hope that this procedure will also give us a firmer basis for further identification of Turkish words in these texts.

3.0. *Vowels*

3.1. *The vowel phonemes of the first syllable in Turkish*

For Old Turkish I assume that the following 16 vowel phonemes occurred in the first syllable of words:

/i, ɪ, ü, u, ä, a, ö, o/
/ī, ɪ̄, ǖ, ū, ǟ (= [ē]), ā, ȫ, ō/

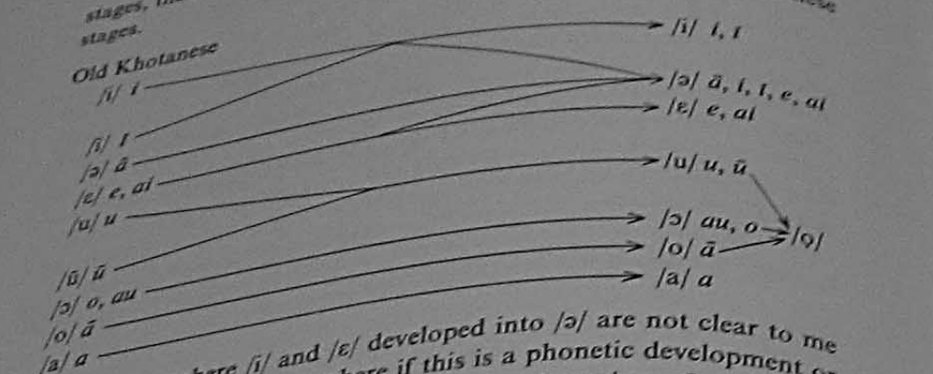
The distinction between long and short vowels is ignored in the Khotanese transcription of Turkish words except in the case of /ä/–/ā/ where the opposition of quantity was accompanied by a marked difference in quality. Late Khotanese probably did not have any phonemic opposition between short and long vowels.

3.2. *The vowel phonemes of Khotanese*

A Khotanese phonology is still lacking, and a phonetic and phonemic analysis of Khotanese is accordingly difficult. It is especially difficult to determine the phonemic pattern at the different linguistic stages of Khotanese (according to Bailey, KT V, vii f. four stages are to be distinguished). My analysis is mostly based on Gercenberg: *Chotanosakskij jazyk*. It will certainly not bring anything new to iranists, but it may be of some help for turcologists who are going to use this material.

In my analysis I only distinguish between two linguistic stages, Old and Late Khotanese, and I shall only give a list of the phonemes at these two

stages, their graphic representation and the relationship between the two stages.



The instances where /ī/ and /ɛ/ developed into /ə/ are not clear to me and it is not stated clearly anywhere if this is a phonetic development or a graphic one connected with the widespread dropping of vowels (as well as consonants) in Late Khotanese. The merging of /u/, /ɔ/ and /o/ into one phoneme, probably /ọ/, occurred only in the latest texts and few if any of the texts containing Turkish words are affected by it (perhaps P 2958). But except for this, all these texts belong to Late Khotanese (the 10th century) and the stage labelled 2a by Bailey (KT V, vii f.).

3.3. The vowels of the first syllable

/a/ is consistently written *a* in Khotanese. In two cases (89, 127) we find an alternation *a–ā*, reflecting a peculiarity of Late Khotanese orthography, cf. Bailey AM II, 20. In two cases (90, 103) *a* represents /ā/ and in one example (40) we have an alternation *e–a* (= /ā/). In (60) *a* alternating with *i* seems to represent /ė/.

/ā/ (in some cases this may be /ė/, but on account of the lack of attested forms this is impossible to determine) is written *e*. In (102) *e* represents /ė/ and in (40) we have an alternation *e–a* (= /ā/).

/i/ is written *i*. In (159) /i/ seems to be written *ai*, but this word may be an example of the alternation /i/–/ī/ in Turkish, cf. Räsänen 57, and *ai* may here as usual be read /ī/.

/ī/ is normally written *i*, but in (29) and perhaps (159) it is written *ai*. In (107) *ai* and *i* alternate (= /ī/). *i* represents /ė/ in (60, 76, 167). In (135) we

seem to have an *i* representing /a/, but the word is best taken as an example of the alternation /a/–/ī/ in Turkish, cf. Räsänen 59 f. Bailey assumes *i* to render /ū/ in (73) and /ā/ in (169), but in the first case it most likely represents /i/ and the identification of the second example is doubtful. /ī/ was a foreign sound to Khotanese and as in the Brāhmī texts it is normally written as /i/. But there is a tendency, especially in non-initial syllables, to distinguish /i/ and /ī/, writing /ī/ as *ai*. This may be an argument against Gercenberg's analysis, which assumes that *ai* and *e* represented one and the same phoneme /ɛ/.

/u/ and /ū/ are both normally written *ū*. In some cases it is, on account of lacking examples from modern languages, impossible to decide if *ū* represented /u/ or /ū/, /u/ or /o/, /ū/ or /ō/ (101, 143, 152). In one case (151) *ū* may represent /o/ and in one case (149) *au* and *ū* alternate, most probably representing /ō/. In (116) *u* and *ā* alternate; the *ā* is most probably due to an error.

/o/ is normally written *ā*. In one case (36) it seems to be written *au*. In TKT *ā* also represents /ō/ (8, 81, 83).

/ō/ is normally written *au* (15, 16, 18, 130). In (154) it is written *u͡uū*. In (94, 129) it is impossible to decide if *au* renders /ō/ or /ū/. In (149) *au* alternating with *ū* seems to represent /ō/ and in (36) it renders /u/ or /o/.

/ō/ was a foreign phoneme in Khotanese and it is not surprising that it is written as /o/ or /u/. But as with /ī/ the writers seem to have tried to find a specific graphic representation for this phoneme, choosing *au* (= /ɔ/).

ā (/ə/) in the first syllable is only found in a few examples, two of which (12, 80) are not identified while two (89, 127) present a graphic alternation *a–ā*, cf. supra. In one case (20) *ā* seems to represent /ī/ or /a/.

o (/ɔ/) is attested once (142) in an example not yet identified.

3.4. The Turkish vowel-system of non-initial syllables

I assume, largely following K.Thomsen: Bemerkungen über das türkische Vokalsystem der zweiten Silbe. AOH XVI, that Old Turkish had the following vowel phonemes and allophones in non-initial syllables.

/A/ allophones		[a, ä]
/I/	–	[i, ï]
/O/	–	[o, ö]
/X/	–	[i, ï, ü, u]

We probably also had an /e/ at least in final position, preserved in the Brahmi texts, represented as /a⁴/ (= [o, ö, a, ā]) in Jakut and as /I/ elsewhere (according to Doerfer ZDMG Supplementa I, 1969 p. 723, the distinction between final /I/ and /e/ is still preserved in Chaladsch), cf.

	Brahmi	Jakut	Elsewhere
	alte	*alta*	*altī*
'6'	*yte*	*sättä*	*yet(t)i*
'7'	*ygirme*	*sürbä*	*yigirmi*
'20'		*ikki*	*ik(k)i*
but '2'	*iki*		

The problem is, however, even more complicated since this does not not explain the final vowels of the 3 pers. poss. suffix and the 3 pers. sg. pret. *-(s)i* and *-dï* which in Orkhon Turkish as well as in Chuvash always is a front vowel, and which in the Brahmi texts is consistently written *-i*, but is represented as /a⁴/ in Jakut.

As for /O/ this rather early, at least in some dialects, developed into /U/ ([u, ü]) and finally merged with /I/ and /X/. K. Thomsen op. cit. interprets /X/ as originally /U/ (= [u, ü]), mostly from a structural point of view.

Another important point is that the system of vowel harmony sketched above must be considered as a strict rule only for suffixes. It certainly also represented the general principle elsewhere, but we must suppose that words in Old Turkish could have not only [o], but also [u] in a syllable following a syllable with /a/ e.g. (2, 45) and especially (70) *hqttuna*, Jak. *xotun*. Cf. also K. Thomsen op. cit. p. 317, n. 6 where he mentions the correspondence Mong. *u* – Turkish *u*. These exceptions most probably consist of loanwords.

3.5. The rendering of vowels of the non-initial syllable (except those occurring in final position)

/a/ and /ā/ are both consistently written *a*. *e* occurs only once (14) in a word not yet identified. In (9, 11, 107) *a* seems to represent /ï/; in the last example we have an alternation *ai–a*.

In some cases, e.g. (2, 7, 27, 116) *a* is a secondary (merely graphic?) vowel in a consonant cluster. Such a secondary vowel is normally written *ă*, once *i* (158).

/i/ and /ī/ are normally written *i*. /ī/ is also often written *ai* (23, 24, 26, 52, 92, 107, 113), perhaps sometimes *a*, cf. supra and (26, 114) and in (11)?? as *ā*. In (60) and (74) *ai* seems to represent /i/, in the first example *ai* and *i* alternate. /u/ and /ū/ are normally written *u* (10, 81, 82, 83, 116, 172, 178). In the following cases we have no evidence outside Khotanese that *ū* represents /u, ū/ and not /o, ö/ (36, 37, 122, 144, 151, 152, 174). In (65, 76) *ū* seems to represent /ö/ and in (2, 9, 45, 155) it may represent /o/. But of the last examples the first three most probably are loanwords in Old Turkish and the last example is not clearly attested in other Turkish texts. In (7, 25, 108) we find an alternation *ā–ū–(au)*. In the second example we most probably originally had /o/, but the writing with *ā* is due to the levelling of the opposition /o/–/u/ and /ö/–/ü/ after /o/ or /ö/ in the first syllable, cf. 3.7. The same explanation can be applied to (7). In (108) the form with *ū*, like many of the words in SH, most likely represents a corrupt spelling. *au* is found in only four examples, two of which are not yet identified (61, 142) and two (25, 108), both occurring in the same text P 2786, where it seems to represent /o/ or /u/. *ā* normally represents /o/ (13, 28, 30, 114, 121, 124, 125). In TKV it once seems to represent /ö/ (90) and once /ü/ (8). The last example is again due to the levelling of the opposition /ö/–/ü/, cf. 3.7. and supra.

The alternation *ā–ū–(au)* (7, 25, 108) has already been treated. Bailey has on several occasions (e.g. JRAS 1939, p. 85, BSOAS XIII, p. 138, AM I, p. 44, TPNK p. 201) maintained that Khot. *o, ā, au, āṃ* and even *ū* were used indiscriminately to render Turkish /o, u/. I hope to have shown that the Khotanese rendering of Turkish vowels is much more consistent than Bailey assumed. Since there is little direct evidence of the existence of [o, ö] in non-initial syllables in Old Turkish, I shall give the most evident examples found in the Khotanese material to facilitate matters for the reader.

[u, ü] in non-initial syllables:

(70)	*hqttuna*	Jak. *xotun*	(83)	*kq̄mūlā*	Jak. *köŋül*
(81)	*kākuysä*	Jak. *köγüs*	(110)	*sūha:cū*	Tib. *sugcu*
(82)	*kālūṇä*	Jak. *xolun*	(172)	*yūguṇa*	Jak. *ün*
(178)	*yūrūṃä*	Jak. *ürüŋ*			

[o, ö] in non-initial syllables:

(7)	*altāṃ*	Jak. *altan*	(38)	*bayarkā-*	Tib. *ba-yar-bgo*
(13)	*ārttq̄nä*	Jak. *orton*	(114)	*sarkāñākä*	

(28) *baḍā:rāsāhā:* (121) *ttaṃgāta* Ork. *t'gwt'*
(30) *bakañākā* (125) *ttāttāhā:* Tib. *to-dog*

3.6. The vowels in final position

The vowels are normally written as elsewhere in non-initial syllables. /i/ and /ī/ are usually written *I*, /ī/ is written *ai* in (27, 91, 160) and /i/ is written *aï* in (94). /a/ is written *a*, /ö, ū/ is written *ū* (76) and /o/ is written *ā* (38). The interpretation of *-au* (142) is not clear.

The only problems concern the rendering of final /ā/. Bailey has several times (e.g. JRAS 1939, 85, AM I, 90, BSOAS XIII, 139) stated that the normal rendering of final /ā/ is *-ā*. But the only and not quite convincing example is (44) *biḍigā* /bilgā/. In a much better attested and well identified example (149) /-ā/ is as we expect, written consistently *-a*. In (161) /-ā/ seems to be written *-ā*. Phonetically the writing *ā* for /ā/ is incomprehensible.

All Turkish words except those ending in vowels or in one case in /-n/ (7), got in Khotanese a final vowel *-ā* or in some texts *-a*. This was necessary in order to adapt the Turkish words to the Khotanese declension-pattern, and these final vowels have no phonetic value as far as Turkish is concerned. As Bailey remarks (TPNK 201) 'it is possible that in Khotanese itself, before the language was extinguished, this final sound (*ā*) was little, if at all pronounced'. In Old Khotanese no word ended in a consonant (Konow 24), but in Late Khotanese we got nouns ending in *-m*, e.g. *tcem* 'eye', *ttīm* 'seed'.

3.7. Some remarks on the rendering of rounded vowels in non-initial syllables in the Brahmi and Khotanese texts

The only modern Turkish language that distinguishes between /O/ and /I, X/ is Jakut. Besides, /O/ is preserved as *o, ō* in Mongolian (and with secondary delabialization as *a, e*) e.g. Turk. *sïŋq/yur* – Mong. *šingyor* 'falcon', Turk. *altun* – Mong. *altan* 'gold'.

The only script used for Old Turkish that could distinguish between /o/ and /u/, /ö/ and /ü/ was the Brahmi script.[3] Besides the Turkish words in Khotanese texts, we also have in this script some texts (most of them Sanskrit-Turkish bilinguals), edited by von Gabain in Türkische Turfan-

[3] and the Tibetan script, in which a few words have been preserved, cf. Clauson 96–100.

Texte VIII. These texts are unfortunately written in a very inconsistent orthography (the best, but far from exhaustive, phonetic analysis of them is Grönbech: Oriens 9, 1956, p. 113 ff., cf. also Clauson pp. 91–96). In these texts we often find *o* and *ö* in non-initial syllables, but unfortunately not corresponding to the /O/ we assume to have existed in Old Turkish.

Preceded by a non-rounded vowel we usually find *u, ü*, e.g. *atsïhārū, ādhgū, icūr, kāndū* and sometimes we find *o–u* or *ö–ü* alternating, e.g. *ālqo–ālqu, yāroq–yaruk, kertū–kertö*. There is not even a consistent way of writing in one and the same manuscript, cf. *yālhuq* and *yalhoq*, both occurring in E.A has *yālhoq* but *qāyū* while I. has both *qāyu* and *qāyo*. Of the words in these texts having a rounded vowel in a syllable preceded by a syllable with a non-rounded vowel 105 are consistently written with *u–ū*, in 7 words *o* and *u*, *ö* and *ü* alternate and in 14 words we only find *o–ō*. Of the last two groups we find that in 15 out of 21 examples the rounded vowel is preceded or followed by a velar plosive (mostly *q*). Whether this is to be interpreted as a phonetic or a graphic principle I do not know.

When a rounded vowel is preceded by a rounded vowel the situation is quite different. An *u* or *ü* of the first syllable is always followed by an *u* or *ū*; the only exceptions I have found are *sūzök* C 6 and *ełetgülük* A 30. An *o* or *ō* on the other hand is followed by either *o, ö* or *u, ü* and this alternation is apparently free, cf.

pölük L	*pölök* A, C
otus L	*otoz* L
ötrü C	*ötrö* H
yoġum A	*yoġom*

This also applies to suffixes, cf.

ārttoglug A	*yolloġ* A
ätöstühüz E	*könölöhöz* E
nomnonūh A	*kṣātrayiṭloknoh* A

The occurrence of *o, ō* in these cases is normally considered as assimilation that must have been quite facultative. I am inclined to seek another explanation, namely that after a syllable with *o, ō* the opposition *o–u* and *ō–ū* was neutralized, that is phonetically we got [o] and [ō], and this may be a plausible explanation to the graphic alternation mentioned above.

The following development of vowel harmony in Old Turkish must then be assumed.

Phonetic realization of the vowel phonemes of non-initial syllables.

Vovel of preceding syllable:	/I/	/X/	/O/	/A/
Stage I				
/i, ä/	[i	i	ö	ä]
/ī, a/	[ï	ï	o	a]
/ü, ö/	[i	ü	ö	ä]
/u, o/	[ï	u	o	a]
Stage II				
/i, ï/	[i	i	ö	ä]
/ī, a/	[ï	ï	o	a]
/ü/	[i	ü	ö	ä]
/u/	[ï	u	o	a]
/ö/	[i	ö		ä]
/o/	[ï	o		a]

There was no phonemic opposition between [u, ü] and [o, ö] and the latter sounds fell phonetically together with [u, ü]. This must have been the starting-point of the development /O/→/U/ (stage III). Stage IV is the merging of /I/, /U/ and /X/ into one phoneme. The only Turkish dialect that did not have this development was Jakut, which from stage I on went its own way. The Brahmi texts evidently represent stage II. If we turn to our Khotanese material, the rendering of the Turkish vowels is much more consistent than in the Brahmi texts. We find that /O/ and /X/ normally are clearly distinguished. /X/ is written *ă* ([u, ü]) or *ĭ* ([i, ï]) and /O/ is written *ā* (TKV) or *ā* ([o]) and *ū*, *au* ([ö]) (elsewhere). But preceded by [o, ö] the rendering is not always consistent (7, 8, 76). This seems to indicate that the system of vowel harmony found in this material reflects just the point when Old Turkish passed from stage I to stage II.

4.0. *Consonants*

4.1. *Plosives and fricatives*

I assume that Old Turkish had the following plosive and fricative phonemes and allophones:

/p/, /b/ (allophones [b] and [w]), /t/, /d/ (allophones [d] and [δ], perhaps two independent phonemes, cf. Clauson 166), /k/ (allophones [k] and [q]), /g/ (allophones [g] and [ɣ]), /x/ (probably only occurring in loanwords). These phonemes and their allophones are rendered as follows in Khotanese.

4.11. *Labials.* /p/ is always written *p*. /b/ is initially always written *b* (perhaps pronounced [w] in Khotanese, cf. Konow, p. 15). In non-initial position the examples with *b* are not etymologically clear (22, 88, 99, 155), but it most probably represented [w], cf. (22) where *b* and *v* (= [w]) interchange. *v* is seldom found and sometimes occurs in words that most likely are of non-Turkish origin (71,72). In two examples (22, 117) it seems to represent [w]. The writing *u͡vu͡* (154) seems to be a rather peculiar rendering of /ö/. The phonetic interpretation of the sequence *au͡vu͡* (17) is not clear.

4.12. *Dentals.* /t/ is normally written *tt* (= [t]). In (7) *tt* alternates with *t* (= [δ]) and *t* is also found in a word that originally was not Turkish (121) and as a plural morpheme (?) in (108). Khot. *d* had the phonetic value [δ] except after *n*, where, according to Gercenberg, pp. 51, 61 f., it was a plosive. According to Konow, p. 15 *d* was always a plosive when following another consonant. Konow also assumes that *d* was a plosive when preceding *r*, but Gercenberg states it to be a fricative in this position. In (124, 166) and perhaps (60) *d* most probably represented a Turkish [d]. Elsewhere we must assume it to represent Turkish [δ].

4.13. *Velars and post-palatals.* *g* always represents [g], but [g] is also, especially in TKV, rendered by *h*: (63, 90, 131, 159). In other texts we find [g] rendered by *h*: only in (56), originally a loanword from Chinese and (149), where it alternates with *g*. Khot. *h*: without doubt represented [ɣ], but the phonetic interpretation of Khot. *g* is disputed. Konow, p. 13 assumes it to be a plosive, but Gercenberg, p. 51 is inclined to analyse it as [ɣ]. In any case Turkish [ɣ] is always written *h*: (and in some texts *h*) in Khotanese. The conclusions that can be drawn from this is that the velar allophone of Turkish /g/ certainly was a fricative and that there was a clearly audible phonetic difference between the two allophones of this phoneme. There are also reasons to assume that the front (post-palatal) allophone at least to a certain extent was a fricative rather than a plosive, cf. Clauson 95 f., 167.[4]

[4] Note also that intervocalic Turkish /g/ (= [ɣ]) was lost in Mongolian (Turk. *bügü* > Mong. (Khalkha (*bö*) and not retained as true plosives, cf. Mong. *üge* 'word'.

Turkish [k] and [q] are never distinguished in Khotanese, but both are written *k*. Since Khot. did not distinguish between a velar and a post-palatal plosive, the only conclusion that can be drawn from this is that neither [k] nor [q] was a fricative.

In four cases Turkish /k/ in final position is written *h*: in Khot. (28, 52, 32, 125). In two cases final [g] is written *k* (41, 115). This may point to a tendency to neutralize the opposition /-k/ – /-g/. But the reason for this neutralization or rather confusion is most likely to be found in Khotanese, where, as far as I know, no opposition [-k] – [-g] exists. In three cases we seem to have examples of the disappearance of final /k/ – /g/ (100?, 136, 171).

/x/ is written *kh* ([x]) or *h:*, *h* (68, 69, 70). The phonetic and especially etymological interpretation of *gy* (60) and *ky* (102) is difficult, cf. the discussion of the examples mentioned.

4.2. *Nasals.* Old Turkish had four nasal phonemes /m, n, ñ, ŋ/. All these are preserved and more or less consistently represented in Khotanese. /m/ is always written *m*, /n/ is written *n* except finally (7) and before /č/ (76) where it is written *ṇ*. /ñ/ is written *ñ* (9?, 30, 114). /ŋ/ is written *ṅ* in TKV and elsewhere *ṃg* (except in (84)). *ṅ* and *ṃg* were most probably only graphic alternants in Khot., cf. Konow 16. The interpretation of *ṇ*, attested once (55), is not clear.

In two cases (83, 178) /ŋ/ seems to be rendered by *m* in Khot. The reason for this may be dissimilation, cf. the examples mentioned, but the quality of final nasals was of an unstable nature in Old Turkish, cf. (36, 152) and this may at least explain (178).

4.3. *Sibilants.* Old Turkish had three sibilant phonemes /s, z, š/ which are consistently written *s* (/s/), *ys* (/z/) and *ś* (/š/) in Khotanese. Only in one example (143) do we find an alternation *ś–s* where the *s* is most likely due to an error. Note that in Old Khotanese *ś* was a voiced sound [ž] opposed to *śś* [š], but in Late Khotanese *ś* was [š] and [ž] was written *ś'*.

4.4. *Affricates.* Old Turkish had one (or perhaps two) affricate phoneme /č/ (and /c/ cf. Clauson, 166 f.). This is consistently written *c* in Khotanese. In one example (6) we have *j* that perhaps rendered a voiced allophone of Turkish /č/. In one word, probably of foreign origin, we have *ch* (= [č]) (59).

4.5. *Glides.* Old Turkish had only one glide phoneme /y/ which is consistently written *y* in Khotanese. In one example (166) we seem to have a prothetic *y* and in one example (77) /y-/ seems to be missing.

4.6. *Liquids.* Old Turkish had two liquid phonemes /r, l/. /r/ is with one exception written *r* in Khotanese. In one example (4) it is written *rr*. Old Khotanese had two phonemes *r* and *rr*. Of these, *r* was normally used in loanwords, e.g. from Sanskrit. In Late Khotanese *r* and *rr* seem to a large extent to be interchangeable, cf. Konow 16. /l/ is rendered by Khot. *l* or *ḍ* which phonetically are to be interpreted as [l] and [ɽ] cf. Konow, p. 14, Gercenberg, p. 47. The normal rendering of Turkish /l/ is *ḍ* (Ch 00269, P 2789, P 2790, P 2898). It is rendered by *l* in P 2958, P 2031, Or., and the Hedin manuscripts (KT IV). In P 2741 and SH *l* and *ḍ* alternate apparently without any system. The only text where *l* and *ḍ* are distinguished by a phonetic principle is TKV where /l/ is written *ḍ* when preceded or followed by /i/ or /ī/ (written *ī* or *ai*) (1, 42, 74, 75, 80, 106, 118, 133, 166) and elsewhere it is written *l* (82, 83, 100, 109, 144, 152). This seems to indicate that Turkish /l/ had two clearly distinct allophones [l] and [ɽ] and that the latter was conditioned by a preceding or following narrow, unrounded vowel.

4.7. *A survey of the normal rendering of Turkish sounds in Khotanese*

Vowels:

	1. syllable		Non-initial syllables	
	TKV	elsewhere	TKV	elsewhere
/i/	*ī*	*ī*	ī	ī
/ï/	*ī, ai*	*ī*	ī, ai, ā	ī
/ä/	*e*	*e*	a	ī, ai
/a/	*a*	*a*	a	a
/ė/	*ī, e*	*ī, a*	a	a
/ü/	*ă*	*ă*	–	–
/u/	*ă*	*ă*	ă	ă
/ö/	*ā, au*	*au*	ă	ă
/o/	*ā*	*ā*	ā	ă
			ā	ā

Consonants:

	TKV	elsewhere		TKV	elsewhere
/p/	*p*	*p*	/b/	b	b
/t/	*tt*	*tt*	/d/	d	d
/k/	*k*	*k*	/x/	–	kh, h:
[g]	*g, h:*	*g*	[ɣ]	h:	h:, h

/m/	*m*	*m*
/ñ/	*ñ*	*ñ*
/s/	*s*	*s*
/š/	*ś*	*ś*
/y/	*y*	*y*
[l]	*l*	*l, d*
/n/	*n*	
/ŋ/	*ń*	*n*
/z/	*ys*	*ng*
/č/	*c*	*ys*
/r/	*r*	*c*
[l˞]	*d*	*r*
		l, d

5. A note on Turkish dialectology

The most important of the Turkish tribes mentioned in the Khotanese sources are the Turks (*ttrūkā*), the Oguz (*ūhū:ysā*) the Cimuls (*cĭmūḍa*) and especially the Uigurs (*hvaihū:rā*). The question arises if we can say anything about the dialectal position of the Turkish dialect or dialects from which Khotanese got Turkish words. This is difficult since most of the isoglosses of Old Turkish are based on morphological differences and our material does not contain any continuous text, only single words. The language of the material is clearly Old Turkish and one isogloss seems to be decisive for its dialectal position. This is the preservation of /ñ/ (9, 30, 114). According to von Gabain: Briefe der uigurischen Hüentsang-Biographie SPAW 1938, pp. 393 ff., Old Turkish can be divided into three dialects: the *ny*-or *ñ*-dialect, the *y*-dialect and the *n*-dialect. According to Sinor: *On Turkish Buddhism in Central Asia.* (Körösi Csoma-Archivum Ergänzungsband 1935–1939, p. 391–394) the *n*-dialect was the language of the Manicean Uigurs. The most common name of Turks in Khotanese texts is Uigur and it is at least probable that they were Maniceans, cf. 1.

To explain the use of /ñ/ in Khotanese texts we must either assume the following dialectal development

Orkhon Turkish ñ, ny → *y* Buddhist texts; *ñ* Khotanese texts; *n* Manicean texts

or we must assume that the *n* in Manicean texts is simply a defect spelling for /ñ/. /ñ/ was a rather rare sound and it is quite likely that the Maniceans rendered it by *n* instead of inventing a new letter for it. Note also that we sometimes in Manicean texts find *ny* for /ñ/. There are also reasons to assume that, at least to a certain extent, /ñ/ was known to MK, cf. (30) *bakañākā.*

6. A list of the Turkish words in Khotanese texts

The list is alphabetically arranged according to the Khotanese spelling. For each word I give the phonemic form(s) that must be assumed to be intended (marked by //). The rendering is not completely phonemic since I, as is usual in turcologic literature, distinguish between [k] and [q], between [g] and [γ] although there is no reason to assume that these sounds represented more than two phonemes, cf. 4.10. The word list is followed by a list of abbreviations and references. Note that in examples from Radloff's dictionary I have retained his abbreviations for languages and dialects.

(1) *aḍịnā* /alĭn/ 'forehead', TKV 173. Glossed in Khot. as *hamdrrāmji* 'forehead'. MK *alın*, Mod. Turk. *alın*, Rad. I, 373 ff.

(2) *aḍapahūttā* /alpaγut/ 'champion, hero', SH 27. Ork. *l¹pɣ¹w*, MK *alpaγut*, CC. *alpaut*, Tob. *alpaγīt* (Rad. I, 431). The etymology of this word is disputed, cf. Doerfer I, 111. It may be a verbal noun in *-γu* from *alpa-* 'to be a hero' (< *alp*), but the final *t* is then difficult to explain.[5] The vowel of the third syllable is /u/ and not as expected /o/. This may indicate that the word is originally a loanword in Turkish.

(3) *aḍpā* /alp/, a name or a title, P 2741, 81, (*ttth*) *aḍpa* P 2790, 117. MK *alp* 'hero' Ork. *l¹p* id., often used as a name in the runic texts, cf. Orkun IV, 151 .

(4) *adrrịmā* (Bailey 1. ed. *adrrāmā*) /aðrĭm/, not glossed in Khot., TKV 171. Bailey compares MK *aðrīm* 'felt saddle-cloth' (more accurate 'saddle-pad'). The word is not attested elsewhere, but both phonetically and semantically it fits very well (lines 170–172 of TKV show a mixture of words relating to parts of the body and horse equipment).

(5) *aha:cī* P 2741, 62, P 2790, 115, Ch 00269, 61, 89, *ahącī* P 2897, 42 /aγačī/ 'a title or name'. MK *aγīčī* 'treasurer'. The form is best compared with Persian *āġāčī* 'Kanzler' (Doerfer II, 72). The relation between the Khotanese-Persian forms and the one in MK is then another problem, probably connected with Turkish dialectology.

(6) *aḥā:ysī* /aγzī/ 'its mouth', not glossed in Khot., TKV 170. On account of Brah. *āgzi*, CC *aźzu*, Mod. Turk. *ağız – ağzı* Bailey's *aγĭzī*

5 According to Györffy (AOH XI, 1960) the Mongolian plural in *-t*/*-d*. Poppe UAJ XXIV, 69 assumes a plural in *-γut*. Doerfer I 1, 472f. disputes the Mongolian origin of the Turkish plural in *-t*. In any case *alpaγut* is always used with singular meaning.

must be altered to ayaf and ā is to be interpreted (as very often) as a (merely graphic?) secondary vowel in a consonant group. Quite a lot of words in this vocabulary are given with the third pers. poss. suffix. The reason why this form is chosen is not always easy to determine, but at least in some cases it is a clear reference to the preceding word, here yaiku: 'bridle-bit'.

(7) alulāw Or. 11344, 115, VIIIa2, KT IV, X2, alutāw Or 11352, alautawa (dana) P 2858, 150, 152, 155, 156, 159, 161. /alton, altun/, a proper name. *On account of Turkish altun (Jak. altan) and Mongolian altan (both meaning 'gold, golden') the form alautana is rather strange. We do not know who this alautana hana was, but the text may be late (from the end of the 10th century) and the development o > u in the second syllable probably took place at that time. Altun is well attested as a proper name, cf. Orkun IV, 151, Houtsma 29. As for the different treatment of the consonant group -lt-, cf. the treatment of -lp- in (2) and (3). As for the rendering of final -n (-m and -nu), cf. 3.6.*

(8) ṣāūkū /ṣōk/ 'windpipe', not glossed in Khot, TKV 183. In Old Turkish the word is only attested once (Uig. II 694) as *öŋü/öč*, in the modern languages we find *öŋü* (Kir.), *öč* (Tel. Alt. Leb.) etc., cf. Rad. I, 1204. Most important is Jak. *öŋüs, üŋüs*, which definitely points to Proto-Turkish **öŋüč*. (The alternation *ö – ü* in the first syllable in Jak. is not explained). The Khot. form must then be an example of a secondary /o/ in the second syllable when the first syllable had /o/ or more precisely: the opposition /o/ – /u/ was levelled out after a preceding /o/, cf. supra 3.7.

(9) aṭaḥāṣāṣāpahāmū /aṭayt(i)ḥṣayut/, *SH 30.* Bailey (AM II 1951, p. 20) analyses it as *aṭīy aḥuyur* 'very bold, great hero'. This seems to be the most likely interpretation, but several objections may be raised. First a form *aṭay* is nowhere attested. We have only *aṭīy – ayīy – anīy*, but it may of course be from an a-dialect (Gabain p. 5, cf. *ayaz – ayīz*). The writing of *aḥuyur* is in any case corrupt. The attested form looks like a (mere graphic?) metathesis of vowels (we should expect **anāhar.dāpahūttā*).

(10) apa /apa/ P 2741, 62 (*kāṣūrā apa*), Ch 00269, 60 (*kāṣūrapa*) 'an honorific title or name', Old Turkish *apa*, cf. Orkun IV, 10, 151.

(11) arsālī Or 11252, 14a2, 34a1, Or 11344, I 11, 16, 23, 30, IIIa3, 10, KT IV, (6)5, (16)27, (19)9, arsalī Hoerle 7, 7 a/rsa/lā M.T.I, 17, 4, */ars(l)ā(l)/*[4], a proper name, certainly to be connected with Turkish *arslan –*

[4] According to Bailey TPNK there also exist a form *arsalaṃ*. Cf. also Tumšuq *aillaḍye* 'lion-country?', Konow NTS XIV 172.

arsilan (Rad. I, 327 f.), well known as a proper name cf. DTS 55, Doerfer II, 39. The phonetic interpretation of the Khotanese form is difficult, but the treatment of the final syllable may perhaps be due to specific Khotanese sound changes. It may, however, be worth mentioning the strange Turkish forms *arsīl* (*ayıl/ubo/ay*) Rad. I, 327 (Alt., Tel.). Bang's etymology **arsīl-lān* (K. Sz. 18 1916 p. 126) is doubtful, cf. Doerfer II, 39.

(12) *ārttā* (first written *arthā* which is crossed out) /ārt/?, TKV 177, glossed in Khot. as *namāsthāṃ*, the meaning of which is unknown. Both words are difficult to interpret. The preceding word *ārūnā* means 'rise' and the following *ṇṣū* 'broad, breadth'. No word *ārt* is to my knowledge attested in neither old nor modern Turkish. The form first written *arthā* could be /art/ which means 'back, rear' and would suit the context at least partly. But if the writer intended to write *arthā*, why did he then cross it out and write *ārttā* instead?

(13) *ārttṇā* (*yūysū*) /orton (yūz)/ 'middle of face', not glossed in Khot., TKV 179. MK *otra – otru – ortu* (= /otro – orto/), Brah. *orto*, mod. dialects *orto – orta* (Rad. I, 1064, 1070), Jak. *orto – orton* all meaning 'middle', cf. Doerfer II, 141. The Jak. form clearly shows the vocalism of the second syllable.

(14) *attṃā* Ch 00269, 59, 85, *attṛṃā* P 2741, 56, *attṛṃā* P 2741, 61, 69 /atīm/, a name or title. No such name or title is known from other old Turkish texts and the only and quite doubtful etymology I can propose is MK *atīm* 'shoot, shooting'. The form *attṃā* with its lack of vowel harmony may suggest a non-Turkish origin of the word.

(15) *aḷpāka* /ōpkā/ 'lung', not glossed in Khot., TKV 180. MK *ōpkā*, Brah. *ōpkā* CC. *ōpke*, Tel. *ōpkā* etc. (Rad. I, 1309 f.).

(16) *aḷttā* /ōt/ 'gall', not glossed in Khot., TKV 181. MK *öt* and well attested in mod. languages, cf. Rad. I, 1260.

(17) *aurūāruhā*: /uwuruɣ, ōwūrūg, ūwūrūg/??, not glossed in Khot, TKV 176. Bailey identifies it with MK *o/uwruɣ, o/uɣruɣ* 'nod, joint'. This word is to my knowledge not attested elsewhere in Turkish, but from a semantic point of view it does not seem unlikely. But as long as we do not know how to interpret the sequence *aurū-*, no definite conclusion can be reached.

(18) *aḷysqnā* /ōzān/, not glossed in Khot., TKV 182. Bailey translates 'breast and belly', but the meaning must rather be 'marrow', cf. Bang U.J. VII 1927, p. 38 f. Neither of these meanings, however, is attested. In

Uigur it means 'das Innerste' and in modern languages 'Mark (des Baums), Fluss, Tal, Niederung', cf. Bang op. cit. and Rad. I, 1301.

(19) *aůyā* (*ärtt*) /öy, oy/??, not glossed in Khot., TKV 182. Bailey first ed. read *qůysa* and identified it with /öz/ which gave a perfectly acceptable reading /öz ātı/, cf. Brah. B 1 *öset-tā* 'selbst'. No reasonable etymology can be given to *aůyā* and perhaps the old reading is the 'right' one and *aůyā* may be a misspelling for *qůysā*?

(20) *āya* (Bailey 1. ed. read *iya*) /īya/?, not glossed in Khot., TKV 178. Bailey identifies it with Turkish *aya* 'palm of hand' MK and Rad. I, 199. This fits very well from a semantic point of view, but the rendering of the initial vowel is strange. No form *īya* is to my knowledge attested, so the interpretation of this word cannot be regarded as certain.

(21) *āyai* /oyī/?, stands after *ārttā* (12) and both are glossed as *namūst-hāṃ* in Khot., the meaning of which is not clear, TKV 177. Bailey proposes identify it as *ay-ī* 'its moon' which gives no reasonable meaning and looks impossible from a phonetic point of view. Turkish /a/ is always rendered by Khot. *a* and Khot. *ā* in this text represents Turkish /o, ö/. The only Turkish word that may tentatively be proposed as an etymology is *oy* 'valley, hollow' MK and Rad. I, 969. *āyai* would then means 'its hollow' and if *ārttā* can be interpreted as /art/ *ärttä āyai* would mean 'its back hollow'. But this interpretation is nothing but a guess and nothing further can be said until we know the meaning of the Khot. word *namūsthāṃ*.

(22) *ayabīrā* SH 29, *ayavīrā* P 2741, 61, 81 /ayawïr, äyäwir/ a Turkish name or a name given to people with Turkish titles like *bäg* or *ögä*. No such name exists in other Turkish texts and no etymology can be given. Cf., however, (99) *kurabīrā* and Bailey AM I 1949, p. 49.

(23) *aysaihā*: /azīγ/ 'tusk', glossed in Khot. as *haskä* 'tusk of elephants'. Brah. *azih*, MK *azīγ*, Jak *ahī* and Rad. I, 569, 567, 572.

(24) *baḍaikā* /balīq/[7] 'city', Turkish *balīq* id. MK etc., cf. Doerfer II, 257 f.

(25) *bādūna* Ch 00269, 64, 69, 75, P 2741, 126, *bādauna* P 2786, 156, *bādhānā* P 2790, 84, *bādūna* P 2790, 108 /boðon, boðun/, tribal group, a title. The word is certainly identical with Runic Turkish $b^1wd^1n^1$ which probably is a derivation (plural?) from *boð*, cf. Doerfer II, 358 ff., Clauson 148. Besides this etymology, the Khot. forms must be our main clue to

7 I have not found this word in the texts, but it is mentioned by Gercenberg, p. 41.

determine the quality of the vowels in this word.[8] The /o/ of the 1. syllable is unambiguously attested and the vowel of the second syllable was originally most likely /u/, but due to the levelling of the opposition /o/–/u/ in the second syllable when the first syllable had /o/ (cf. 3.7.) we also got spellings like *bādūna*.

(26) *bahaí:rā* /baγïr/ 'liver', not glossed in Khot., TKV 180. MK *baγïr*, Jak. *bīar*, Rad. IV 1451.

(27) *baḥa:rai* /baγrī/ 'its (the bows) middle', glossed in Khot. as *dunā hlvī thamnā hame* 'it is the *thamnā* (only attested here) of the bow', TKV 169. MK (*ya*)*baγrī* id. Rad. IV, 1451 *baγïr* 'der vordere Theil eines Dinges'. As for the vocalism cf. also mod. Turkish *bağır* – *bağrı*.

(28) *baḥā:rāsāhā* /baγïrsoγ/ 'bowels', not glossed in Khot., TKV 182. MK *baγïrsuq*, Mod. Turk. *bağırsak* id., a derivation from *baγïr* 'liver' with the suffix *-soq*/*-sök*, cf. Gabain §62.

(29) *baikīnā* /bīqïn/ 'flank', not glossed in Khot., TKV 184. MK *bīqïn*, Kir. *mīqïn*, Uzb. *biqin*.

(30) *bakañākā* /baqañoq/, not glossed in Khot., TKV 180. Bailey compares two words in MK *baqanaq*|*baqayaq* 'the frog in a horse's foot' and *baqanuq*|*baqayuq* 'at tırnaklarının ortasındaki tümsecik et parçası' (BA)[9]. The first word is according to Clauson 147 a derivation from *baqa* 'frog' with the rather uncommon suffix *-ñaq*. The second word which on account of the vocalism of the last syllable must be related to the Khot. word, must be a derivation from **baqañ* cf. Kir. Uzb. Karaklp. *bakai* 'babka, kozon';[10] Turkm. *bakan* id.

(31) *bākū* /boqu/ SH 27. Bailey compares it with the names *Buqu*, *Buγuγ*, discussed by Bang TTT II, pp. 4–5. Hamilton p. 2, 13 identifies it

8 The word is unknown in modern languages. Doerfer II, 359 compares Tatar. *buïn* 'plemja, pokolenie, rod', but this etymology must be rejected. The spelling *буын* means /buwïn/ cf. *суык* /suwïq/. The sequence /uyï/ is written *-уе* cf, *уен* /uyïn/ 'igra'. The etymology of Tat. *buïn* is clear. It must be compared with CC *bogum*, *buum*, etc., cf. (36) *bauḥu:nä*.

9 The writing بقابق and بقابڤ in MK must either indicate that /ū/ still was preserved at his time or it may be due to a copyist who copied e.g. *baqanak* and then tried to correct it according to his own pronunciation to *baqayaq* or vice versa.

10 Probably os coronare, the bone between the pastern joint and the coffin joint of a horse's foot. *baqanuq* was then a diminutive, probably indicating the navicular bone or the basilar process (I am indebted to cand. vet. Tone-Lise Knudsen for this information).

with Chin. *p'ou-kou* < **b'uk-kuo* pl. of *p'ou-kou* < **b'uk-kuo*, the name of a clan or tribe among the Turks. Since we do not know the meaning of the Khot. form (proper name, title, name of a people?), all this is mere hypothesis, none of which fits exactly from a phonetic point of view.

(32) *ḥarūḍ* /bars/, P 2741, 32, 63, P 2024, 43, a proper name, cf. MK *bars* 'tiger', Rad. IV 1487, well known as a proper name in Old Turkish cf. Orkun IV, 152, Hamilton 148.

(33) *ḥāsūkāṭṭā* /bosqot/ SH 27, a name or title? Not identified. Bailey AM II, 18 quotes a Chin. form which may be identical. Hamilton p. 3 proposes to identify it with *ḥaẏirt*, which is phonetically highly unlikely.

(34) *ḥaśū-śṭṣa* /bašsīz/ P 2790, 64 'without chiefs', an adjective standing before Khot. *ḥnaṃdū* 'men'. *baš* 'chief, leader' is well attested in Old Turkish, cf. also *ḥaššīz* 'ohne Führer', Rad. IV, 1650 (Osm., Kas., Turkm. etc.).

(35) *ḥauḍḍṇā* /boyan, bōgān/, TKV 181, not glossed in Khot. Bailey compares Turk. *boyun* 'joint, limb' which, however, as expected, is rendered *ḥauḍḍṇī* (cf. (36)) in Khot. The *a* of the second syllable must represent Turk. /a, ā/, but the word must be considered unidentified. The only possible etymology from a phonetic point of view would be *bo/uɣan* 'a plant, some sort of a pea' (Rach. II, 321), which has a meaning not expected in this vocabulary.

(36) *ḥauḍḍṇī* /boyun, buyun/ 'joint, node',[11] TKV 179, not glossed in Khot. MK *boyun, boyum, boyūm*, CC *bogun, buun*, Mod. Turk. *bogun* etc.

(37) *ḥauḍūrā*[12] /bōgūr/?, KTV 183, not glossed in Khot. Bailey compares Mod. Turk. *buğur* 'spittle', only attested here, cf. Rad. IV, 1806. On account of this restricted occurrence, the identification must be considered quite tentative. From a semantic point of view it does not fit too well neither.

(38) *ḥayarkā-* /bayarqo-/ name of a people or ethnic group, Ch 00269, 76 (*ḥayarkāṇa*), SH 31 (*ḥayarkāta*), P 2741, 11 (*bayarkāta*), 55, 58, 122 (*ḥayarkāṇāṃ*). This certainly is identical with Orkhon Turkish *b¹j²r¹ᵛkw*, usually read *bayïrqu*, a form attested in one of the runic manuscripts (*b¹j²yr²k¹ᵛw* Thomsen JRAS 1912, p. 186). But the Orkhon Turkish form can as well be read *bayarqu* (= *bayarqo*) and the a-vocalism of the second

[11] Bailey translates 'fingerjoint' and compare Turk. *buyun*, a form I nowhere have found attested.

[12] Bailey l. ed. read *ḥauḥūrā*.

syllable is confirmed by Chinese forms, cf. Hamilton, p. 2 and Pelliot T'oung Pao 37 (1943), p. 46 n. 5. And most important, we find a Tibetan form *ba-yar-bgo* (Peillot 187). The form *bj¹jr¹k¹ᵛw* is then either a misspelling or a result of a phonetic development.

(39) *beḍḍādarūkā* /bāldārūk, bāl daruq/, the name of a place (a mountain?) near Kan-tṣou, Ch 00269, 76. The only and highly hypothetical interpretation is the one proposed by Bailey TPhK, p. 202: *bāl* 'hill, mountain ridge' (TTT VII, 76) and *taru* 'be narrow' with suffix *-k* (Bang UJ V, 234). An etymology based on *tarūq* does not exist, cf. however, Chag. *tarïq* 'die Beengung', Rad. IV, 850), is always dangerous. Besides the *d* is quite unexpected and not easy to explain in such an old text.

(40) *bṣgarakā* P 2741, 61, *berakā* P2741, 56, *bṣgarā* P 2741, 69, *bagarakā* P 2031, 18, Ch 00269, 59, 65, 74, 81, 85 /bāgrāk/, 'a name (of an Uygur) prince, princely', cf. le Coq: Türkische Manichaica aus Chotscho II, p. 7, 9 *bāgrākim* 'mein Fürst', a derivation from *bāg* with the comparative suffix *-rāk*, *-raq* ('most princely').

(41) *bṣkā* /bāk/ P 2741, 81, a title. Bailey compares MK. *bāg*, mod. languages *bāg, bāj, pāk* etc. Rad. IV, 1216, 1568, 1580. According to Doerfer II, 389 the final *-k* is, however, first attested in Chag.[13] and as final *-g*/*-ɣ* elsewhere is preserved in Khot., this word should perhaps rather be compared with MK. *bāk* 'strong, firm' which, however, is hardly attested as a proper name in Old Turkish (cf. Orkun. II, 171 for a possible example).

(42) *biḍakā* /bilāk/ 'forearm, wrist', TKV 178, not glossed in Khot. MK *bilāk*, Rad. IV, 1762.

(43) *bīdi* /biði/ 'its face', TKV 181, not glossed in Khot. TTT VII, 414 *biḍi*, Jak. *bit* 'mark', Rad. IV, 1773 *bit* (Kas.), bet (Osm., Krm.) 'face'.

(44) *biḍigā* /bilgā?/ Ch 00269, 73, P 2741, 102, a name or title. That this word is identical with Turkish *bilgā*, well attested as a part of a proper name (title?), cf. Orkun IV, 153 f., as proposed by Bailey, is quite likely. Bailey assumes *-ā* to be the normal rendering of Turkish *-ā*, but this is doubtful, cf. 3, 6. And phonetically this is rather unlikely since Khot. *ā*

[13] The Mongolian form *beki* (Secret History 216) may, however, point to a Turkish form in *-k*. But the relationship between Mongolian *beki* and Turkish *bïg* is not at all clear.

without doubt was at this time a back, rounded vowel. I have no better etymology to propose, but the word cannot be regarded as identified without doubts.

(45) *bīrūkā* /bīruq/ Ch 00269, 60, P 2024, 6, 26, 28, P 2741, 13 ,31, 33, P 2898, 4, P 2786, 200, a title. This word must be compared with MK *bīruq* ( ) 'teşrifatçı; hakanın yanına, aşamasına göre büyükleri alan ve yer gösteren adamın adı'. The relation of these forms to *buyruq*, *buyuruq* (Orkon Turkish *bʲwjʲrʲuʷk*) 'Beamter' (cf. Gyöffy AOH XI (1960), p. 169–179) is rather unclear. No regular phonetic correspondence can be established (the development proposed by Peillot/Hambis p. 297 seems unlikely and without parallels) and perhaps these are two quite different words, cf. Hamilton, 150. The word *bīruq* may be a loanword in Turkish since we should expect **bīroq*. The word is well attested in Chinese sources (cf. Hamilton, 79, 150) where the last syllable is rendered *-liŏy, -luy, loy*. Whether any conclusions as far as the vocalism of this syllable is concerned can be drawn from the Chinese rendering is unclear to me.

(46) *buḍāmaclya* /bulmačï, bülmäči/, P 2741, 122. The sentence in which it occurs reads: 'from Liau-ts' üan to Yipkin-tag of Kanṭşou there are the **bulmačis* (*buḍāmaclya*) of the Tarduš, Tölis and Turk Bayïrqu' (Bailey AM I, 36). Later (TPNK 202) Bailey proposes to analyse the word as *bulyamačī* 'disturber, rebel' (from *bulya-* 'mix, disturb'). This etymology seems phonetically unlikely and the word is not attested in other older Turkish texts. The word must be regarded as unidentified.

(47) *būhara* (*barsa*) /buɣra/, a proper name, P 2024, 59. Bailey (TPNK 202) identifies it as *boɣra* 'camel stallion, Boɣra', well attested as a proper name in Old Turkish, cf. MK Endeks 834. The form *boɣra* must, however, be read *buɣra*, cf. Tel. *puɣra* (Rad. IV, 1362) and Doerfer II, 295. Cf. also Ordos *bǖra*.

(48) *būhattā* /buɣto/ P 2925, 18, *buhä:thuṃ* P 2741, 118 /buɣtun/, a proper name or name of a people. Bailey AM I, 51 compares Mong. *boɣda* ('holy, sacred'??), a guess not supported by any facts. No Turkish etymology can be proposed and it is doubtful if Old Turkish ever had the consonant cluster *-ɣt-*, cf. Clauson 169.

(49) *buka* (*ḥa:nä*) /buqa/, a proper name, P 2741, 50. Bailey (TPNK 202) identifies it as *buqa*, MK *buqa* 'bull' (Atalay reads *boqa*), Jak. *buya*, Rad. IV 1361 (*puɣa*), 1648 (*boɣa*), 1802 (*buqa*), 1804 (*buya*), cf. Doerfer II, 299. I have only found two examples of the word used as a proper name

(Doerfer II, 349 where an *ēlčī būqā* is mentioned and Houtsma, 28), but the identification seems clear.

(50) *būysāsakā*[14] /buzsaq, būzsāk/, not glossed in Khot., TKV 178. The preceding word means 'its face' and the following 'breast' and accordingly this word ought to signify a part of the body. But I do not know any Turkish word that it may be identified with. Perhaps the first reading[14] is the 'right' one or we have here a misspelling.

(51) *cahä:rai* P 5538a, 14, 20 /čaɣrï/, a proper name, identified by Bailey (AM XI, 22) as Turkish *čayrï* 'falcon' MK, Mod. Turk. *çakır*, attested as a proper name in MK (*čayrï bäg*, *čayrï tegin*).

(52) *caraiha:* /čarïɣ/, Ch 00269, 88, SH 29, P 2741, 102, a proper name. Bailey (AM I, 50) proposes to identify it with MK *čarïq*, *čaruq* 'name of a Turkish tribe'. The rendering of the final consonant is not identical and the identification must be regarded as quite doubtful.

(53) *cattā* /čato, čätö/, glossed in Khot. as *sakye* of unknown meaning, TKV 176. The meaning of the words in TKV 176 and the first words in TKV 177 is to a great extent unknown, and no identification of this word seems at present possible.

(54) *cattäkīrä* /čatqïr, čätkir/, not glossed in Khot., TKV 176. Bailey proposes **čatqïr* 'joint' from *čatmaq* 'join, build' with suffix *-qïr*, cf. Deny 931 and Mod. Turk. *çatı*. As long as both the word and the derivational suffix is unattested in Old Turkish, this must be regarded as a hypothesis, cf. also (51) *cattā*.

(55) *cīkīnä* /čikin, čïqïn/, not glossed in Khot., TKV 177. Bailey identifies it with *čikin* 'der Theil des Körpers zwischen Hals und Schulterblatt, der Nacken, die Schulter' (Osm. Chag. Rad. III, 2112). The word is not attested elsewhere, but the identification seems probable and fits well both from a semantic (we have in TKV 177–181 a list of anatomical terms, proceeding from the face and downwards) and phonetic point of view.

(56) *cīhä:śī* /čigši, čïɣšï/, P 2790, 118, a title. This is a Chinese loanword

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14 Bailey first read *būhä:sakä* and identified it with Turkish *boɣaz*, *boɣuz* with suffix *-aq*. This identification was in any case wrong :a. This word is nowhere found with this suffix. b. *ū* would be a unique rendering of Turkish /o/. c. Turkish /z/ is always written *ys* in Khot. d. *ä* is a strange rendering of Turkish /a/. The word, if it existed, must have been identical with MK *būksäk* 'the upper part of the breast, the part of the body above the breast'.

(Ch. *ts'ie-śi*) that the Khotanese both got directly from Chinese (*tsiṣṭ* KT IV, 59) and via Turkish as here, cf. Runic Turkish *čyg²šy*, *čg²šy*.

(57) *cimūḍa* Ch 00269, 36, 46, 49, 50, 56, *cimūḍām* Ch 00269, 33, 46, *cimūḍvā* Ch 00269, 41, 101, *cimuḍa* Ch 00269, 96, P 2790, 211, *cimuḍām* Ch 00269, 98, P 2741, 4, P 2790, 82, *cimuḍvā* P 2031, 16, *cumuḍa* P 2741, 52, *cumuḍāna* P 2741, 49, *cūṇūḍa* SH 31 /čimül, čïmul, čumul, čümül, čuŋul, čüŋül/, name of a people. Bailey (AM II, 22) assumes all these forms to be identical[15] and identifies them with MK *čomul* 'the name of a Turkish tribe'. The form in MK can of course also read /čumul, čümül/. Hamilton 151 is inclined to distinguish *cūṇūḍ-* from *cl/umuḍ-* and compares the first one with a Chinese form *Tchong-yu* (< **tśung-'ür*). None of these identifications can be regarded as established. The alternation *i* ~ *u* may be a result of a specific Khotanese sound development (dissimilation, palatalization e.g.).

(58) *cīṇā* /čin, čïn/, Ch 00269, 60, Ch 0048, 5, P 2741, 21, 62, a proper name. The word is not attested in Old Turkish, but probably in Chinese sources, cf. Hamilton 13. The etymology proposed by Bailey (AM I, 48) (*čïn* 'a long-necked water bird') is hypothetical.

(59) *chārā* /čor/, Ch 00269, 61, P 2741, 21, a title or name. The word is well attested in Old Turkish, cf. Orkun IV, 155. The vocal /o/ is also attested in Tokharian texts, cf. Gabain (Nachtrag zum Glossar). According to Konow (p. 14) 'The aspirate *ch* was an iotozed *c* and is used for Chinese *t'śi*. It is derived from a palatalized *kh* and from palatal sounds'. This is the only case where we have *ch* in Turkish words in Khot. and as there is no trace of a palatal sound here from a Turkish point of view, this word might be a loanword (from Chinese?) in Turkish.

(60) *dagyiṇā* Ch 00269, 63, *dagyaina* P 2024, 31, 33, *digyiṇa* P 5538a, 10, /deǵin, dejin/, a title. As proposed by Bailey, this word is identical with Turkish *tegin* 'prince'. In Orkhon Turkish this word is always written *t²yg²n²*, once in a Jenissei-inscription *t²g²n²*., Brah. *tgīṃ*, MK *tégin* (تگين), pl. *tégit*. The alternation *a* – *i* in the first syllable in Khot. may be an attempt to render Turkish /ė/. More difficult to explain is the initial *d-*. It is generally assumed that Old Turkish had no initial *d*. This is probably right. On the other hand the signs *d*¹ and *d*² in the runic

[15] He assumes that *cūṇūḍa* either is an example on the alternation *ŋ*~*m* in Turkish or that 'it is possible that the writer here intended some unfamiliar sound (which one? E.–H.) or he may simply have made a mistake'.

alphabet most likely denoted /δ/. Accordingly when Old Turkish got loanwords with initial *d*, it was rendered in the script (but perhaps not in pronuntiation) most likely as *t*¹ or *t*² (a possible example is *taloy* 'sea', Mong. *dalai* < **daloy*). The word *tegin* is usually considered not to be attested in Mongolian. The supposed connection with Mong. *otčigin* 'youngest son' is convincingly rejected by Doerfer I, 155–159. But in the Secret History (239) there is mentioned a certain *Örbek-digin* which may be the same word. It is also worth mentioning that the Chinese transcriptions of this title are consistently written with **d'-*, cf. Hamilton 156. Another problem is the interpretation of Khot. *gy*. It was probably once a palatal or palatalized plosive [ǵ], but very early it developed into [j] in Khot., cf. Konow p. 13. But it is not quite clear to me how we shall interpret this sign phonetically in late Khotanese. The word also occurs as *Ti-yin* (< **d'i- ịĕn* in Chinese) a form that may show a reflex of the phonetic change attested by Khot. *gy*. In any case this word as most of the words for titles, looks like a loanword in Turkish.

(61) *ėḥau:cakä* /ägöčäk/, not glossed in Khot., TKV 180. Bailey identifies it with Turkish *ökčä* 'heel', which fits rather well as far as meaning is concerned, but not at all phonetically. I cannot propose any other likely etymology and the word must be regarded as unidentified.

(62) *ėḥī:nā* /ägin/ 'shoulder', not glossed in Khot., TKV 175. Cf. MK *ägin* and well attested in the modern languages, cf. Rad. I, 698.

(63) *ėmäysīhä:* /ämzig/, not glossed in Khot., TKV 171. Bailey identifies it with Osm. *ämzik*, Turki *ämček*, Altai *ömčäk* 'breast. In many Turkish languages we find two words, one meaning 'breast of a woman, nipple', the other meaning 'baby bottle' (both derived from *äm-* 'to suck' or the caus. *ämüz-*) which, however, in many languages have influenced each other or even changed meaning, cf. Jak. *ämsäx* 'baby's bottle', *ämlj* 'nipple', Turkm. *ämzik* 'feeding bottle', *ämžäk* 'breast of a woman', Alt. *umčï* 'feeding bottle, nipple', *ämčäk* 'breast of a woman, nipple' Tuv. *ämiskik* 'feeding bottle', *ämig* 'breast of a woman', Kirg. *ämizdik* 'feeding bottle', *ämčäk* 'breast of woman', Tat. *imezlek* 'baby's bottle', *imčäk* 'breast of a woman'. Which of the meanings 'baby's bottle, nipple, breast of a woman' is to be given to the Khot. word is then difficult to determine. But according to the preceding or following words the meaning 'woman breast' or specially 'nipple' looks most likely.

(64) *ṇä* /äŋ/ 'face', glossed in Khot. as *phatanai* which Bailey compares with Ossetic *fätän* 'broad, breadth', N. Pers. *pahan* 'broad', TKV 177.

Owing to this, it is tempting to compare this word with Turkish *ān* 'broad, breadth' (Rad. I, 726). This word, however, never had a final *ŋ*, and accordingly the identification proposed by Bailey with Turkish *āŋ* 'face' (Rad. I, 710) must be maintained although this word is little attested in the modern languages and, e.g., not at all in MK.

(65) *śśąnā* /āšūn/, not glossed in Khot., TKV 177. Bailey compares Altai *öšün* 'collarbone' (Rad. I, 1308 Schor., Leb.). This fits well both semantically (we have in TKV 177–181 a list of anatomical terms) and phonetically. The word is to my knowledge not attested elsewhere.

(66) *ettī* /āti/, not glossed in Khot., TKV 182. Bailey identifies it as *āti* 'its flesh', but since the meaning of the preceding word *gauyā* is unknown, the interpretation cannot be regarded as established beyond doubt. Turkish *āt* is well attested (MK and Rad. I, 833 ff.).

(67) *ggyā* /āy, āyā/ 'rib', not glossed in Khot., TKV 183. Bailey compares Turkish *āyāgü, üyāg* (? E.H.) id. The word *āyāgü* is attested in MK and in Chag. Uig. and Osm., cf. Rad. I, 721. The form that best corresponds to the Khot. one is Mod. Turk. *eye* id.

(68) *ha:hą:nā* Ch 00269, 65, 68, *khahą:nā* Ch 00269, 63 /xaγan, γaγan/, a title, Old Turkish *xaγan, qaγan* etc., cf. Doerfer III 141–180 for an exhaustive list of attested forms. The initial consonant must have been /x/, cf. Gr. *Χαγάνος* (VI -X cent.), Tib. *kha-gan*, Arab. *ḫāqān* (IX cent.) etc. The phoneme /x/ probably only occurred in loanwords in Old Turkish (cf. the two following examples) and was in less educated speach realized as [q]. The alternation *kh – h:* in Khot. may be an attempt to a sound which realization was different from both Khot. /x/ and /γ/, perhaps a half-voiced or lenis velar fricative.

(69) *hą:nā* Ch 00269, 89, P 2741, 11, 12, 16, 17, 50, 99, 107, 110, P 2790, 80, 96, P 5538a, 14, 20, *hąnā* P 2786, 9, P 2790, 43, 64, *hana* P 2786, 65, 151, P 2958, 149, 152, 154, 156, 161, 165, *hā:na*[16] P 2898, 4, *ha:na* P 2898, 8, *hąna* P 2958, 155, 159, 163 /xan, γan/, a title, Turkish *xan, qan*, cf. (66) *ha:hą:nā* and Doerfer III, 141–180.

(70) *hąttuna* P 2024, 48, *khattunā* Dandan-uilik III, 12, 4, /xatun, γatun/, a title, Turkish *xatun, qatun* etc. (cf. Doerfer III, 132–141), Mong. *xatun, qatun* 'queen'. Jak. *xotun*[17] may be a loanword from

16 Either a misspelling or an example of the alternation *a–ā* in Late Khotanese, cf. (127) *ttattara*.

17 cf. also Jak. *xatïn* id. One of these words must at least be a loanword.

Mongolian, but it might as well be the regular representation of Old Turkish *xatun* and then clearly shows the vowel of the second syllable. On account of the initial /x/ as well as [u] instead of [o] in the second syllable, this word is most likely a loanword in Turkish, cf. Doerfer III, 132–141.

(71) *hva:māla* /xvaməl (a)/, P 2741, 3, a place name. Bailey (AM I, 47) proposes tentatively to identify it with *Qomul, Xamil* etc. But neither the initial *hv-* nor *ā* can easily be explained by this identification. On account of the initial consonant group *hv-*, the word is most probably not Turkish.

(72) *hvaihū:ra, hve:hvara, hve:hvu:ra* etc. attested e.g. P 2741, P 2790, Ch 00269, 'Uigur'. As this word certainly has come to Khotanese from Chinese (*hui-ho, wei-ho* etc., cf. Wittfogel and Feng p. 92), it does not concern our present study.

(73) *ĺcā* (*iṃjūva*) Ch 00269, 76, ic (*iṃjūva*)[18] P 2741, 72 /ič/, title or name of a social class. Bailey (AM I, 45) identifies it as *üč inčü* (cf. (76)). The rendering of /ū/ as *i* is, however, strange and without parallels. I therefore propose to identify it as *ič* 'inner, interior', and, although I have not found the form *ič inčü* attested, I do not see any serious objection to this analysis. Both words *ič* and *üč* are so well attested in Turkish that it is hardly necessary to give any references.

(74) *ḷḍaihā*: /ilig, ïlïγ/, not glossed in Khot., TKV 171. Bailey proposes *ilik* 'marrow of bones' or *ilig* 'hand', both words attested in MK. The last form is preferable as far as the final voiced plosive is concerned, but on account of Azeri *āl*, the Old Turkish form must have been *ālig* and as the Khot. rendering of this we should expect **ėḍaihā*: or something like that. On the other hand we find other examples where a Turkish final *-k* is rendered by *h:* in Khot., cf. (28). From a semantic point of view both identifications are possible, but from a phonetic point of view the identification with *ilik* 'marrow of bones' is to be preferred.

(75) *ḷḍäpacākä* /ïlpačoq, ilpäčök/, not glossed in Khot., TKV 183. Bailey compares *yälpazä* (Where attested? Mod. Turkish *yelpaze* 'fan'?), an etymology that certainly can be ruled out. The word remains undentified.

(76) *ĺṃjūva* Ch 00269, 76, P 2741, 72, ìṃjū SH 29, ìjūva SH 27 /inǰū/ 'domain, territory, people living in a certain territory', cf. Doerfer II, 220–225. The Old Turkish form must have been *enčü*, cf. Doerfer op. cit.

18 The different spellings can be compared to (84) *kāṇūrā apa kāṇūrapa*.

and Uig. *inčü*, CC *enčï*, Tel. *ānčï*, Tob. *inci*, Jak. *ānyā*, *ānnā*, Mongolian *enčü* (Secret History). The different treatment of the final vowel in Jakut, Mongolian and Khot. is difficult to explain. Either the Old Turkish form was *enčö*, preserved in Jak., and the Mong. and Khot. forms are the result of an assimilation (*ö* > *ü* when preceded by *i*) or the Old Turkish form was *enčü* (a loanword?) which in Jakut was readjusted to the normal Turkish vowel harmony system (an *a* in the first syllable could be followed by *ö*, but not *ü*). A third explanation is perhaps the most probable: The Khot. form is to be read as /inčö/ and the Mong. form is a loanword from a period where the change *ö* > *ü* had begun in Turkish. The spelling *ṃj* may represent a Turkish pronunciation where /č/ most likely had a voiced allophone when preceded by nasals, cf. Gabain: Nachträge 52, 6.

(77) *ṇṇā* /iŋ, īŋ/, glossed in Khot. as *halaśā*, only attested here according to Bailey, TKV 174. Bailey compares *yiŋ* 'slime', only attested in MK, which seems to be the only reasonable identification. The lack of the initial *y* in Khot. is, however, strange, cf. (159) *yaiḫä*:, (171) *yī̱ttī*.

(78) *ṇaḍa* P 2790, 91, *ṇaḍi* P 2790, 93 /inäl, ïnal/, a title. Bailey (AM XI, 9) identifies it with Turkish *īnal*, *ïnal* 'originally son of a princess and a subject' then 'a high official title', cf. MK *īnal*, *ïnal* id. and *Inal öz* 'the name of one of the Kipchak emperors', Chag. *inal* 'Fürst, Khan' (Rad. I, 1441). A form *yïnal*, *yīnal* also exists, cf. Houtsma 29 and Minorsky RO XVII, 4 for a fuller treatment. The word is most probably a title, but it can also be a part of a proper name and could then be identified with a name occurring several times in the runic texts as *yn*²/² (/inäl, inil/) e. g. *Toñuquq* 31.

(79) *ïttï* (*-yigąmā*) /iti, ītī/, P 2741, 82, 'part of a name'. Bailey (AM I, 50) compares MK *iδi* 'lord' or a form derived from *īduq* 'holy'. He also mentions a Turkish name in Chinese script *i-ti-kien*, cf. Hamilton 139. The rendering of a Turkish /ð/ as *t* in Khot is, however, strange since Khot. usually renders this sound as *d*. The identification with *iδi*, (that with *īduq* can be ruled out on account of the last syllable) cannot be regarded as established.

(80) *kāḍai* /qīlī/, not glossed in Khot., TKV 178. Bailey identifies it as *qīlī* 'its hair', cf. MK and Rad. II, 764 ff. There are no phonetic objections, but the meaning does not fit too well, since we here have a list of words meaning 'palate, part between neck and shoulder, collarbone, *qīlī*, forearm, palm of hand etc. 'Can this word be a misspelling for *kāḍai* /qolī/ 'its arm', which would fit much better?

(81) *kākuysā* /kōkūz/ 'breast', not glossed in Khot., TKV 178. Cf. MK *köküz*, Mod. Turk. *göğüs*, Jak. *kөrүs*.

(82) *kālūṇā* /qolun/ 'girth strap', glossed in Khot. as *ttāhā*, according to Bailey only attested here, TKV 171. MK. *qolan*, Osm. *qolan*, Soj. *qolun*, Jak. *xolun* etc. cf. Rad. II, 588–593.

(83) *kāmūlā* /kömül/ 'breast', glossed in Khot. as *drrūysi*, according to Bailey only attested here, TKV 171. Bailey identifies it as *kөŋül* id. MK., Brah. *kōñül*, *kōñōl*, Jak. *kөŋül* etc., cf. Rad. II, 1236. But his explanation of the *m* is not convincing. The development *ŋ* > *m* (e. g. Osm. *domuz* < *doŋuz*) is a late phenomenon and at this time (in the 10th cent.) the /ŋ/ was still a phoneme in Turkish and is faithfully rendered in the Khot. transscriptions, cf. 4.2. Perhaps we here have an instance of a dissimilation *ŋ* > *m* caused by a preceding or following velar plosive, cf. (178).

(84) *kąñūrā* (apa) P 2741, 61, *kāñur*(*-apa*) Ch 00269, 60 /qoŋur/, a proper name. Bailey (AM I, 49) identifies it as Qoŋur, Turkish *qoŋur* 'reddish' (mainly used of horses E. H.). I have, however, nowhere found this word used alone as a proper name (but it occurs together with another word e. g. *qongur taj*, cf. Houtsma 32) and besides it does not fit exactly phonetically, cf. Jak *xoŋor*, *xoγor*, Mong. *qongγor*, which shows an /o/ in the second syllable. For further examples cf. Doerfer III, 525 f. The word must be regarded as not identified.

(85) *kapāḫa:kā* /qapγaq/, glossed in Khot as *hūlaihā*: *hīvī ttarakā hame* 'it is the mouth of the quiver' (?, cf. (102) *kyesā*) TKV 167. Bailey translates 'cover'. The word is found in MK (*qapγaq* 'cover, cover of the quiver') and Tel. (*qapqaq* 'Dechel', Rad. II, 419). The identification as well as the etymology (from *qap-* 'close, shut') seem clear.

(86) *kapąkā* /qapaq/ "eyelid", glossed in Khot. as *tcịmūlā*, according to Bailey only attested here TKV 174. Cf. MK *qapaq* id., Rad. II, 405 f.

(87) *kara*(*ttaha*) Ch 00269, 77, SH 30, P 2741, 79, 102, 119 /qara/ 'black', MK *qara* id. and Rad II, 132 ff.

(88) *kārābarā* /qorbar/, SH 28, name of a people ??, not identified.

(89) *karäkä*, *kärakä* /qaraq/ 'eyeball', glossed in Khot. as *tcem*, *jastā*, cf. (171) *yī̱ttī* and (178) *yūrūṃā*, TKV 174. MK *qaraq* id. and Rad. II, 147 f. The alternation *a* – *ä* may reflect a peculiarity of Late Khotanese spelling, cf. (127) *ttattara*, *ttättara*.

(90) *karäḫā:kä* /kärgök/ 'rennetbag of sheep', not glossed in Khot., TKV 181. MK *kergük* id. I have not found this word attested elsewhere,

but this vocabulary contains quite a lot of such 'technical' words, which are rarely attested. The identification seems clear, cf. (114) *sarkānākā*, the following word in the list.

(91) *karnaī* /qarnï/, 'its belly', not glossed in Khot., TKV 181. MK *qarïn*, Brah. *qārni*, Mod. Turk. *karın*, *karnı* and well attested elsewhere, cf. Rad. II, 171 f.

(92) *kasqihā*: /qasïγ/ 'inside of mouth, jaw', not glossed in Khot., TKV 175. Cf. MK *qasïγ* id. *qasïq* (Osm. Kas. Krm. Rad. II, 350) 'jeder Körpertheil wo die Haut Falten bildet, hauptsächlich der Unterleib mit den Schamtheilen, der Venusberg, die Weiden' may be the same word, but most likely is a different one.

(93) *kaśt* /qaš/ 'its eyebrow', glossed in Khot. as *brrauhalā* (cf. BSOAS 9, 70) TKV 174. MK *qaš* id, Turkm. *gāš*, Jak. *xās* etc. (Rad. II, 387).

(94) *kausārai* /kösri/ 'sides of breast', not glossed in Khot., TKV 183. The only related form is MK *kösri*, *küsri* 'sides of breast, rib'.

(95) *keysā* /käz/, 'notch of an arrow', glossed in Khot. as *rahā* according to Bailey only attested here, TKV 173. MK *oq käzi*, Mod. Turk. *gez* 'notch of an arrow'.

(96) *kiraihā*: /kirig, qïrïγ/, not glossed in Khot., TKV 172. Bailey compares Osm. *qïraq* 'whetstone', only attested here. It does not fit exactly phonetically (*i – a* and *g* /*γ – q*), but at least the last discrepancy has parallels, cf. (72). Both the preceding and the following words (153) and (98) are not identified, so we can only guess the meaning. Anyhow 'whetstone' deviates quite a lot from the meaning of the other words in this list and the identification cannot be regarded as established beyond doubt. An alternative identification could be with *qïrïγ* (Chag.) 'edge, border', *qïrïj* (Kom. Kas.) id. *qïrïŋ* (Sog. Koib.) id., Rad. II, 739–741. But here too the meaning is not expected.

(97) *kirāpikā* /kirpik/ 'eyelash', glossed in Khot. as *hāne*, according to Bailey only attested here, TKV 174. MK *kirpik* id., CC *chirpich* id. Mod. Turk. *kirpik* id.

(98) *kūdāsāḫā:nā* /quδïsïγon/,[19] not glossed in Khot., TKV 172. The meaning of this word is quite unknown, cf. (96) and no acceptable identification has been proposed. Bailey proposes *quisqan*, *qosqan* 'crupper'

[19] This is the most likely reading since according to Clauson 169 the consonant-groups *ds*, *gs*, *γs* are all impossible in Old Turkish.

(cf. Bang Túrán 1918, p. 307, n. 36), but this can certainly be ruled out as phonetically unlikely.

(99) *kurabīrā* /kūrābïr, qurabïr/, SH 28, 'name of a people, title, proper name ??'. This word might be as Bailey suggests (AM II, 19) identical with the proper name once attested in runic script $k^{3}ür^{3}abᵉyr^{2}$ (Orkun II, 66).

(100) *kūñālūkā*[20] /quŋoluq, kūŋölük/ 'hunting-bow', glossed in Khot. as *byiha dūnai hame* 'it is a hunting-bow', TKV 166. Although the meaning is clear, no acceptable identification has till now been proposed.

(101) *kūysa* (*ttattara*) P 2024, 22, *kūysāṣṭa* P 2024, 20 /quz/, name of a people or place, perhaps identical with MK *quz*, *qoz* (= *Balgasun*), cf. Bailey JRAS 1939, p. 88.

(102) *kyeśā* /kéš, češ/ 'quiver', glossed in Khot. as *hūlaihā*: *hame* 'it is a *hūlaihā*: (according to Bailey a foreign word in Khot.)', TKV 165, 168. MK *kiš* id., CC *keš*, Karaim. *käš* (Rad. II, 1180), Jak. *käsöx* etc.[21] The interpretation of the initial *ky-* is not clear. It was originally a palatale plosive originating from *č*, but which rather early developed into c (Kolized /k/, an allophonic feature of Turkish pronunciation. That it should be now p. 13), cf. (60). Here we have perhaps an attempt to render a palatan attempt to render Turkish /ė/ seems more unlikely since *ky* is a common grapheme for a consonantal phoneme in Khot.

(103) *maṃgalī* /mäng(ä)li/, P 2741, 21, a proper name. Bailey (AM I, 48) identifies it as Turkish *mäŋilig* 'joyous, happy' (Irk Bitig 9, 96), a derivation from *mäŋi* 'pleasure' (Brah. *mäñi*). It is perhaps attested as a proper name in Müller: Zwei Pfahlinschriften, p. 12: *mängl(i)g* (*mangla?*) *sïngqur*. But phonetically the identification does not fit too well (inter alia on account of the correspondence i – ä). The best etymology would perhaps be *mäŋli* 'geflecht', attested as a proper name in Houtsma 32.

(104) *saḍäcī* /salčï, sälčï/, P 2741, 19, a proper name. Bailey compares MK *salčï* 'cook'. This word is not attested elsewhere and not at all as a proper name, and the identification is quite doubtful.

(105) *sāḍämīya* SH 31, *sāḍämi* P 2898, 9 /solmï/, a place name. MK

[20] Bailey first read *kūrñālūkä* and identified it as **quryuluq* 'bow', a derivation not attested elsewhere from *qur-* 'to bend a bow'.

[21] The prototurkish form was **kėš*, cf. Runic Turkish (Jenissei $k^{2}eš$). The Jakut form is an example of the Jakut shortening of initial vowels in disyllabic words, cf. *biär-* but *bärin-*. The relationship between the Turkish forms and Mong. *kesenig* 'espèce de corquois qu'on porte sur le dos' is not clear to me.

salsat (= *sa/ə/ə/ahnā*?), Sogd. *swrm'r*, Chin. *su-li-mi* < **suā-lji-mier*. The Chinese form is quite parallel to the Khot. one and the word must be read */solmā/*, a form that also suits the forms in Arabic and Sogdian scripts (cf. Bailey AM II, 23).

(106) *sndi* /sali/ 'its handgrip', glossed in Khot. as *brrgnā*, according to Bailey only attested here, TKV 169. Osm. *sal* 'inner, middle, flattish part of each arm of an archery bow (Redhouse), Handgriff des Bogens (Rad. IV, 343)'; Turkm. *sal* 'dugi'.

(107) *saikairā* P 2741, 82, *sikarā* SH 29 /sikir, siqir, sikär, siqar/, a proper name. Bailey (AM II, 19) proposes to identify these names with a name attested once in Müller: Zwei Prahlinschriften (p. 23) *sīyīr* (or *sīyīr*) *tōsīyan ōgā*. The name is not attested elsewhere in Turkish (but perhaps as a name of a Turk in the Chinese Karabalgasun inscription, cf. Bailey op. cit.), but at least as far as *saikairā* is concerned I find this identification likely and the reading must then have been /sīqīr/. The form in SH may not belong here, since we do not know the meaning of the word (proper name, place name, title?).

(108) *sahḍ̄nā* Ch 00269, 60, P 2741, 12, 67, *sahḍ̄nā* Ch 00269, 73, *sahaṃnā* P 2786, 34, 119, *sahāta* (pl) SH 30 /saɣon, saɣut?/, a title (cf. Doerfer III, 225 f.). MK *sayun*, Chin. *sāy-on, sā-'on* etc., cf. Hamilton p. 155. The Chinese forms seem to be interpretable as */sayon/* and perhaps also *au* in Khot. can be read /o/. But *sahāta* is more difficult to explain. A plural in *-ta* exists in Late Khotanese, but then only in secondary cases like *nā* Nom. sg. 'nāgā' – *nāta* Nom. pl. < *nātā* Nom sg. – *nāta* Nom. pl. in older texts. The reason for this development was that *-tā* was lost earlier than *-ta*. This pl. in *-ta* was also in Late Khotanese introduced in the *ar*-declension (Emmerick p. 265), but it is unlikely that it should have spread to a word like *sahḍ̄nā* . *sayun* is little attested in Turkish (not at all in Mongolian), and it is not improbable that it once had the 'mysterious' plural in *-t*, cf. *tēgin – tēgit* 'prince'. But this does not explain the *a* of the second syllable. The identification of the Turkish words in the Staël-Holstein roll is on the other hand based on nothing but etymological guesses since there is no context to give a clue and no word is glossed in Khot. So maybe this is quite another word, cf. *sīkarā* (107).

(109) *sakalā* /saqal/ 'beard', glossed in Khot. as *drrūkā* 'hair' TKV 170, MK *saqal*, CC *sachal* and well attested in most of the modern languages, cf. Rad. IV, 244 f.

(110) *saṇāraikā* /saŋrīq, sāŋrīk/, not glossed in Khot. TKV 176, Bailey proposes to 'read initial *a* for *sa* and identify with *ayrūk* 'finger'. Such improvements of the text are always open to objections and besides, the vowels of the second syllable are still not identical. A better, but still not perfect identification would be Chag. *sayrak* "der Hut des Reiters" (Rad. IV 288). But this last proposal is doubtful from a semantic point of view. The word must be regarded as not identified.

(111) *saṇārā saha*: /saŋīr sar/, not glossed in Khot., TKV 179. It is not quite clear if this is to be read as one word or two. Bailey compares *siqir* 'sinew' (MK. and Rad. IV, 627), which seems to be the only reasonable identification from a semantic point of view. But phonetically it does not fit. *saha*: is either a derivational suffix (not attested) or Turkish *say* 'safe, sound, health'. In no case is the identification satisfactory and the word(s) must be regarded as not identified.

(112) *sapāhaṣkā* /sapɣaq, sāpɣāk/, not glossed in Khot., TKV 184. Bailey compares *saqaq* MK 'chin, double chin'. This seems phonetically unlikely since the /p/ cannot be explained. The word must be regarded as not identified.

(113) *saraihā*: /sarīɣ/, Ch 00269, 61, a proper name. We have once in a runic text attested a name $s^{i}r^{i}g^{i}\acute{c}yr^{i}$ (Orkun II, 65) which may contain the same word. It may be *sarīγ* (MK.) 'yellow', which is attested as a proper name, cf. Doerfer III, 220.

(114) *sarkāṇākā* /sarqīñok/ 'rennet-bag', not glossed in Khot., TKV 182. Cf. MK *sarqanīq*, *sarqayīq*, TTT VII, 41_{35} *sarqīnaq*. The last example is quite identical with the one found in Khot. (with the regular development *o* > *a* in the third syllable). The relationship between these forms and the ones in MK is not quite clear (vowel metathesis?). The word is not attested in modern dialects.

(115) *sīḍīka* /silik/, P 2789, 22, a proper name occurring in a list of Buddhistic nuns (bhikṣunī), identified by Bailey (TPNK 202) as *silig* 'pure' (Orkhon Turkish $s^{2}yl^{2}g^{2}$, MK *silig*, Rad. IV, 712 *silik* id.), which according to him also occurs as a name in a Middle Persian text. This word is attested as a proper name in Old Turkish (Kül tegin E 33), and the identification looks probable.

(116) *sūha:cū* P 2741, 119, *sūhä:cu* Ch 00269, 67, *sāhącū* P 2786, 115 /suγču, soγču?/, a place name, Runic Turkish $s^{i}wg^{i}\acute{c}w$ (Orkun II 65), Sogd. *swqčyw*, Tib. *sug-cu*, Mong. *sügčü*, Chin. *su-ʈʂou* < **sjuk-tsi̯u* (cf. Bailey AM I, 51). The origin of this word (Chinese?) as well as the rela-

tionship between the Turkish and Khotanese forms is not clear. /suɣēu/ is the reading that fits all forms except *sāhqeū*, a form I cannot explain.

(117) *sūvaeā* /suw(a)ēo, sūw(ā)ēō/, not glossed in Khot., TKV 181. Bailey: 'bladder(?), cf. *suv* water; with suffix *-eā* Turk. *-cu*?'. The meaning 'bladder' as well as an etymological connection with *suw* 'water' seem likely, but no related form is found elsewhere and the use of the suffix *-eo* is unusual. The word must be regarded as not identified.

(118) *ttāḍai* /tolï, tōli/, glossed in Khot. as *chaskām* of uncertain meaning, TKV 173. Bailey identifies it with *talai* 'forehead' a word which to my knowledge is only attested in Chag. (*talai* 'die Stirn', Rad. III, 879) and looks rather un Turkish. Besides it does not fit at all phonetically. The word must be regarded as not identified.

(119) *ttahā*: Ch 00269, 76, 77, P 2741, 79, 102, 119, *ttaha* SH 30, *ttahi*: P 2741, 121 /taɣ/ 'mountain', cf. MK and Rad. III, 795.

(120) *ttāṃga* /toŋa/, Ch 00269, 61, a proper name. Occurs already in Orkhon Turkish as a proper name (*t¹wŋa* Kül tegin S 7) and well attested in Old Turkish, cf. MK Endeks 855, DTS 575, Chin. *t'oŋ xâi* < **d'ung xâi* (Hamilton 99). Cf. also *toŋa* 'leopard' (MK), 'hero' (Uig. Rad. III, 1171).

(121) *ttaṃgāta* P 2741, 97 /taŋot/, name of the Tangut people, Orkhon Turkish *t¹ŋwt¹* etc. cf. Bailey AM I, 50. The name is certainly not Turkish. The Khot. form indicates that the vowel of the second syllable was /o/, not shown elsewhere.

(122) *ttāṃguysī* Or 11344, I 3, I 5, XIII 4, KT IV 6, 17 /toŋuzï/, a proper name. Bailey (TPNK 202) identifies it with *toŋuz* 'pig' (MK etc.). I have nowhere found this word attested as a name in Turkish, but in the pre-Islamic period such a use is not at all improbable, especially since *toŋuz* denoted 'wild boar', a fierce and dangerous animal and a popular object for hunting (cf. MK I, 304, II 343, III 394). The word is not attested in Jakut and Mongolian (cf. however, Doerfer II, 585 ff.) and the Khot. form is our main evidence for the vowel of the second syllable being /u/ and not /o/.

(123) *ttarkąnā* P 2741, 89, *ttarkana* P 2024, 27 /tarqan/, a title, Orkhon Turkish *t¹r¹k¹n¹*, Mong. *darqan, darxan*. Doerfer (II 460 f) assumes the Old Turkish form to be *tarxan* and not *tarqan* (inter alia on account of MK *tarxan*), but this assumption is not confirmed by our Khot. example.

(124) *ttardāś-* P 2741, 12, 72, 79, 80, 82, 87, 121 /tardoš, tarðoš/, name of a Turkish tribe, Orkhon Turkish *t¹r¹d¹wš*. The connection with Chin. *ta-tu* and Greek *Τάρδοι* (F. Laszlo KCsA 3 (1940), p. 21) cannot be regarded as established.

(125) *ttāttāhā*: Ch 00269, 53, P 2741, 20, 21, 82, P 2790, 11, 52, 54, *ttāttāhi*: P 2741, 62, P 2790, 35, *ttāttāha* P 2024, 39, *ttāhā*: Ch 00269, 61, *ttāha*[22] P 2024, 43 /totoɾ/, a title, Runic Turkish *t'wt'k*. The word is originally Chinese (*tuo-tuok*), cf. Hamilton 65. On account of Tib. *to-dog* (Clauson 98), Mong. *totax* (Secret History 129) the Old Turkish form must have been /totoq, totox/. For more examples and a more complete treatment, cf. Doerfer II, 452–457. The Mongolian form *totoq* (Cleaves HJAS 12, 105) must be a form from the written language not affected by the delabialization of the second syllable.

(126) *ttattāmīšā*[23] /tatmīš, tātmīš/, P 2790, 118, a proper name. The name is not attested elsewhere in Turkish, but, as Bailey points out (TPNK 202), names in *-miš* are not uncommon in Old Turkish (cf. Runic Turkish *Ozmīš, Tüzmīš*, MK *Qatmīš, Otamīš* etc. and Houtsma 30 f.). No Turkish etymology can be proposed since a derivation from the verb *tat-* 'to taste' seems semantically unlikely.

(127) *ttattara* Ch 00269, 91, P 2741, 49, 118, *ttāttara* SH 30 /tatar/, the name of the Tatar people, *t¹t¹r¹* (Šine-usu), *tatar* MK etc. The form *ttāttara* (with *ā* instead of *a*) reflects a peculiarity of Late Khotanese orthography, cf. Bailey, AM II, 20 f.

(128) *ttattayā* (*uha*:) Ch 00269, 88 /tatay, tātāy/, a proper name. No Turkish etymology has been found and the name is perhaps not Turkish at all.

(129) *ttaugara* SH 29, /tögär, tūgär/, a proper name, title or name of a people. Bailey (AM I, 45 f., AM II, 19) proposes to identify it with *ttauḍägarām* P 2741, 78 and identifies both these forms with Tib. *tho-gar, tho-dkar* (Thomas I, 290), but as he admits, agreement on these forms has not yet been reached. The vocalism of *ttaugara* is on account of the g most probably front and I propose to identify it with MK *tüger, tōger*, the name of one of the 22 Oguz divisions, cf. Atalay Tercümesi I, 57 and Peillot 191 f. This would be the only acceptable Turkish etymology and the relation to *ttauḍägara* must then be dropped. For this last word the Tibetan identification proposed by Bailey may still be retained.

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22 Either misspelling or shortened forms.

23 Bailey (JRAS 1939, p. 88) read *ttāttimīśi* and identified it as *tutmīš*.

(130) *ttəuśā* /töš/, 'breast', not glossed in Khot., TKV 184. MK *töš*, CC *tos*, Jak. *tüös*, Turkm. *döš* etc., cf. Rad. II, 1268.

(131) *ttehəːkā* /tégāk, tāgāk/, glossed in Khot. as *skaï*, according to Bailey only attested here, TKV 173. Bailey identifies it with Teleut *teγāk* 'fish-hook'. The two following words are technical terms connected with the arrow ((152) *ūlīṇā* and (95) *keysā*) and the Teleut form does not fit exactly either phonetically or semantically. But we also find in Teleut a word *tāk* 'der eiserne Haken' Rad. III, 1016, and in Shor. and Koib. this word means 'der Kerb am Ende des Pfeils an den man ihn gegen die Sehne drücht' (Rad. op. cit.). This is both phonetically and semantically the exact equivalent to our Khot. form and an interesting example of the preservation of an old and technical term of the nomadic archery culture.

(132) *tterkākā* /tārkök, tėrkök/, not glossed in Khot., TKV 172. Bailey proposes to identify it with *tīrγaq* 'nail, claw' (MK *tīrŋaq*) or *taryaq* (MK) 'comb', neither of which fits phonetically. The word must be regarded as not identified.

(133) *ttiḍī* /tüli, tülī/, not glossed in Khot., TKV 172. Bailey identifies it as *til-i* 'its tongue', which fits well phonetically. The preceding words are a mixture of anatomical terms and technical words concerning horse-equipment etc. The preceding word (82) *kālīṇā* means 'girth-strap' and *ttiḍī* may also be identical with MK *tili* 'ok temreni üzerine sarılan sırım'. This word is to my knowledge not attested elsewhere.

(134) *ttīh(aḍpa)* /tīγ/, P 2790, 117, part of a proper name. Bailey (AM XI, 7) identifies it with MK *tīγ* 'brownish red' (mainly used of horses). This seems the only acceptable identification, but the word is little attested and not at all as a proper name.

(135) *ttīmāhaːkā* /tīmγaq, timgāk/, 'throat, palate', not glossed in Khot., TKV 177. Bailey identifies it with Turkish *tamγaq* id. (MK *tamγaq*, *tamaq*, Jak. *tamax*, Mod. Turk. *damak* etc., cf. Rad. III, 993 f.) which fits the context excellently, since we here have a list of anatomical terms proceeding from the face and downwards, and in spite of the *ī* of the first syllable, not attested elsewhere, I think the identification must be accepted.

(136) *ttīṃgaḍi* /tiŋ(ā)li, tīŋ(a)lī/, P 2790, 52, a proper name. Bailey (TPNK 202) compares *tāŋlig apa* ($t^2ŋl^2yg^2$) in a runic manuscript as well as *tānglig* 'in the manner of' (Müller: Uig. III, 30, 6). The loss of the final /g/ has parallels, but the rendering of /ā/ (/ė/?) as *i* is unusual and the identification cannot be regarded as established.

(137) *ttīṇā* /tin/, 'bridle', not glossed in Khot., TKV 170. MK *tin* and well attested in modern languages, cf. Rad. III, 1360.

(138) *ttirakā*[24] /tirāk, tiraq/, not glossed in Khot., TKV 180. According to the preceding and following words, this word ought to design some part of the intestines. The word is not identified.

(139) *ttīšāttaḥa*: /tīštaγ, tīštāg/, glossed in Khot as *yīmā* 'tooth', TKV 175. The first part of the word is certainly identical with MK *tīš*, mod. languages *tiš*, *diš* 'tooth', cf. Rad. III, 1400 f. As for the second syllable Bailey compares it with the form *taγ-tiš* 'molar tooth' in the Uigur-Chinese vocabulary.

(140) *ttīysā* /tiz/ knee, not glossed in Khot., TKV 179. MK *tiz* id. and well attested in modern languages, cf. Rad. III, 1396.

(141) *ttīysgīnā* /tizgin/, 'bridle', not glossed in Khot., TKV 170. MK *tizgin* and well attested in modern languages, cf. Rad. III, 1399.

(142) *ttgmau* /tomu, tömü, tomo, tömö/?, glossed in Khot, as *ttāra* 'forehead', TKV 173. The letter *o* is not found in other Turkish words in Khot. and the phonetic interpretation of it is not clear. According to Gercenberg, p. 46 *o* and *au* in Khot. both represent a phoneme /ɔ/ and rendered Turkish /o, u/ in loanwords. Although the meaning is clear, the word is not identified. Bailey compares Turkish *tügmā* 'top, head' which fits rather badly phonetically and besides MK *tügmā*, Mod. Turk. *dügme* means 'button' and not 'head, top'.

(143) *ttūḍīśa* Ch 00269, 76, P 2741, 66, 71, *ttūḍīśām* P 2741, 121, *ttuḍīśā* P 2741, 19, P 2790, 152, *ttūlīsa* SH 28 /tulīš, tūliš, tölïš/, name of a people. Runic Turkish $t^2ẅl^2ys^2$, $t^2ẅl^2s^2$ (= /töle$^{(š)}$, tüle$^{(š)}$/), Ch. t'ie-lə < *t'iet-lək (Bailey JRAS 1939, 88). Peillot (p. 142) proposes to identify this word with the name *to'oles* in the Secret History, but this is phonetically highly implausible. There are no traces of a long vowel in Turkish. The form *tūlīsā* must, as many of the words in SH (cf. (107, 108)), be regarded as corrupt.

(144) *ttulūṇā* /tulun/, 'braid of hair', glossed in Khot. as *gīsana* according to Bailey only attested here, but related to *gīsai* 'rope' and Mod. Pers. *gēs* 'lock of hair' TKV 173. MK *tulun*, *tuluŋ*, CC *tulum*, Mod. Turk. *dulun*, Rad. III, 1469 *tuluŋ*, 1470 *tulum*. The final nasal was for reasons unknown of an unstable nature.

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[24] In his first edition (BSOAS XI) Bailey read *ttiḍakä* and identified it as *tilaq* 'vulva'.

(145) *ttūpī* /tūpi/, 'its root', glossed in Khot. as *hūḷaiha: hiet bāṇq hame* 'it is the bottom of the quiver', TKV 165. MK *tüp*, CC *tüp*, *tüb*, as for modern dialects cf. Rad. III, 1595.

(146) *ttūra* (*ttāttāhā:*) /tur, tūr, tör/, Ch 00269, 53, a proper name. The only and quite dubious identification I can propose is a name attested once in a Jenissei inscription as *t²ŵr²pa* (Malov 29).

(147) *ttūrkā* Ch 00269, 48, 76, P 2741, 122, *ttrūkā* SH 31, P 2741, 11, 55, 58, 82, P 2786, 156, *ttrūka* P 2741, 99, *ttrūkvā* P 2741, 51, 73, 97, *ttrūkam* P 2741, 67, *ttrūkāṃ* P 2741, 71, *ttrūkvāṣṭā* P 2741, 13, 72, 76, /türk, trük/, 'Turk, Turkish'. The Old Turkish form of this word was *türk* or perhaps *türük* although the only evidence of this form is the writing *t²ŵr² ŵk* in some Runic texts, which most probably is a mere graphic variant for the normal form *t²ŵr²k²*, cf. Doerfer II, 483–495. Clauson's assumption (p. 86) that the Khotanese forms should be evidence of a final vowel in this word (*türkü*) can completely be ruled out since all Turkish words in Khot. (except (7) *altāṃ*, cf. 3, 6) received a final vowel *-ä* or *-a*. More difficult to explain are the forms with initial /tr-/. I cannot see any likely Turkish origin of these forms and assume them to be influenced by the current Tibetan form *dru-gu* although the relation of the name *Dru-gu* to the name *Türk* remains somewhat obscure, cf. Thomas II, 287 and Bailey *JRAS* 1939, p. 86 f.

(148) *ttuttasī* /tutasī, tütäsi/, not glossed in Khot., TKV 169. Bailey proposes **tutasī* 'handle'? from *tutmaq* with suffix *-asī-esi*, see Deny p. 500. The preceding words (27) *baḥa:rai* and (106) *saḍī* have both the third person poss. suffix and we may here have a verbal noun in *-as* (cf. Benzing *ZDMG* 95, p. 46–59) from *tut-* meaning 'handle' or something like that. But as the word is not attested elsewhere, this is nothing but a hypothesis.

(149) *uha*: Ch 00269, 48, 60, 68, 85, 87, 88, 89, 94, P 2741, 102, *ūha*: Ch 00269, 59, P 2741, 56, *uga* P 2741, 63, *ūga* P 2741, 61, 62, 67, *a̯ůga* P 2741, 12, 13, 32, 40, 56, 57, 69, 84, 85, P 2790, 86, 105, *a̯ůgä* P 2898, 5, *a̯ůgavām* P 2741, 18, 66, P 2790, 48, *a̯ůgava* P 2741, 32, 44, 49, P 2898, 4, 10, *a̯ůḥavām* P 2786, 200 /uγa, ügā, ögä/, a title, well attested in Old Turkish, cf. Orkun IV, 127, MK Endeks 451 and Doerfer II, 157. The word had without doubt front vocalism, cf. Orkhon Turkish *ŵg²a* but the quality of the vowel of the first syllable is more difficult to determine. On account of Mong. *üge* (Secret History) Doerfer, op. cit. assumes *ügä* as the original form, cf. also the Chinese transcriptions *yu-yue* < *jü-jüä(r) < **jiu-*

jiwɐt (Hamilton 159). But an intervocalic *-g-* in Turkish should not be retained in Mongolian and the relationship between the Turkish and Mongolian words is accordingly not clear. The current Turkish etymology (< *ö-* 'to think', *ög* 'thought') is likely and the forms with *au-* in Khot. also point to an initial /ö/.

(150) *uhaḍpī* Ch 00269, 53 /uγalpi, ügälpi/, a proper name'. Bailey (BSOAS XII, 622) proposes quite tentatively to identify it as *ügä alpī*. This is phonetically not impossible, but syntactically strange since a title like *ügä* always follows the name it characterizes and never occurs as the first member of an izafet construction.

(151) *ūhū:ysä* P 2741, 32, 40, 56, 97, *uhū:ysä* Ch 00269, 87 /uγuz/ name of the people Oγuz, Orkhon Turkish *wg¹z*, MK. *oγuz*, *uγuz*. This word is as far as I know unfortunately not attested in either Tibetan or Mongolian texts or in Turkish texts written in alphabets that distinguish between /o/ and /u/. In the Byzantine texts from the 13th and 14th centuries we find *ὀγούξιοι* and *οὔξοι* and in Modern Turkish we have oğuz. On account of the lack of material it is difficult to determine the Proto-Turkish form of this word (*uγuz*, *oγuz*?) and decide which of the forms cited are due to secondary development.

(152) *ūlūṇä* /ulun, ülün/ 'arrow-shaft', glossed in Khot. as *gahe*, the meaning of which is not given by Bailey who only mentions its occurrence in Ch CVI 001, 12, 14, verso 4, TKV 173. MK *ulun* 'temrensiz ok', *ulunluγ*, Chag. *ülüŋ* (?) (Rad. I, 1852). The word is to my knowledge not attested in modern languages.

(153) *ūttuhā:* /utuγ, ütüg/, not glossed in Khot., TKV 172. Bailey proposes to identify it with *ottuq* 'flint (for kindling fire)', well attested in modern languages, cf. Rad. I, 1116 f. But this word certainly originated from *ot-luq* and it is doubtful if the assimilation *tl* > *tt* took place before A.D. 1000 The word is not attested in MK, but CC has *otluc* 'foxinum'. As the two following words in the vocabulary are unidentified, both the meaning and the etymology of this word remains unknown to us.

(154) *u͡vūnä* /uwun, üwün, ön/ 'rise!', glossed in Khot. as *sarba* 'rise (imp. 2 sg.)'. In MK we find two verbs *uwun-* 1. 'oğuşturmak', 2. 'kendi kendine ufalamak', neither of which fits as far as meaning is concerned. We must therefore interpret *u͡vū* as a rather peculiar rendering of /ö/, a foreign phoneme in Khotanese, and identify the word with Turkish *önmäk* 'rise', well attested from MK onwards.

(155) *yabūttäkarä* /yawutqar, yäwütkär/ SH 29, a proper name, name

of a people or title, probably identical with Ch. *yo-wou-ko* < **iaγ-mɨuə-kâr* < **jak-mjuət-kât* (Hamilton p. 4), the name of one of the Uigur clans. The word is not attested in Old Turkish (Hamilton op. cit. mentions a Turkish form *yamuqar*).

(156) *yāda* /yoδa/ 'instep (of foot), upper part of thigh', not glossed in Khot., TKV 179. Not attested in MK, but from Qutadgu Bilig onwards, modern languages Jak. *soto* 'golen ' Alt. *yodo*, Tar. *yota* '(Ober)schenkel' (Rad. III, 439).

(157) *yahā:ḍakarā* /yaγlaqar/, SH 27, a proper name, name of a people or title, certainly to be identified with Runic Turkish *j¹g¹l¹k¹r¹* (Suci 1), a proper name (cf. Malov 85–90), Ch. *yo-lo-ko* < **jak-lâ-kât*, the name of one of the Uigur clans (Hamilton 160).

(158) *yahi:malīha:* (*hvqṇḍā*) /yaγmalīγ/, P 2031, 8. Bailey (AM II, 16) translates 'robber (men)'. The word *yaγmalīγ*, however, is not attested in any Turkish language. *yaγma* 'der Raub, die Plünderung', *yaγmala* 'plündern' (Rad. III, 54 f.), *yağmacı* 'plunderer' (Redhouse 1235) are only attested in Mod. Turkish and is perhaps a loanword from Persian, cf. Redhouse op. cit., although no convincing Iranian etymology exists for this word. A much more likely identification is a derivation from *yaγma* MK, used both as a name of a Turkish tribe and as a geographical name. Peillot, 218 f. assumes that all these forms are etymologically connected.

(159) *yaiḫā:* /yīγ, yig/ 'bridle-bit', not glossed in Khot., TKV 170, MK *yig* 'gemin damağa gelen parçası', not attested elsewhere. The two preceding words (137) and (141) both mean 'bridle'.

(160) *yaṃgai* /yaŋï, yäŋi/, P 2786, 53, 138, a proper name. Bailey (TPNK 202) identifies it with Uigur Turkish *yaŋï* 'new', MK *yaŋï*, *yäŋi* id. In the modern languages this word usually has back vocalism (Rad. III, 58, 60), front vocalism is only attested in Krm., Chag., Osm. Accordingly the pronunciation was most likely /yaŋï/. The word is, however, not attested as a proper name in Old Turkish.

(161) *yąnā* /yan/ 'side, socket of hip-bone', not glossed in Khot., TKV 179. Cf. MK *yan* 'yan, uca kemeği', Rad. III, 78.

(162) *yąnāttai* /yan(ī)tī, yänti/, not glossed in Khot., TKV 183. The most likely identification is *yan äti* 'flesh of the flank', but this form is to my knowledge not attested elsewhere in Old Turkish and the identification is accordingly doubtful.

(163) *yapī* /yapï/, not glossed in Khot., TKV 171. Bailey identifies it with *yap-ï* 'its woollen rags', only attested in MK. The current form in the

modern languages is *yapaγ* (also attested in MK) 'die Wolle, der Fliess' (Rad. III, 261).

(164) *yarịnā* /yarïn/ 'shoulder, shoulder-blade', not glossed in Khot., TKV 177, MK *yarïn* id., modern languages *yarïn*, *yaurïn*, *yayrïn* (Rad. III, 122). Jak. *sarïn*.

(165) *yasṭkā* /yasïq/, glossed in Khot. as *ṣeysdyā hame* 'it is ṣeysdyā (only attested here)', TKV 166, MK *yasïq* 'bowcase', to my knowledge only attested here, but most probably a derivation from *ya* 'bow'.

(166) *yḷḍādī* /yïldï, yïldï/, glossed in Khot. as *tahaiysā* 'descent' or 'it descends (opt. 3. sg.)', TKV 176. Bailey identifies it with *ildi* 'it descended' (cf. Rad. I, 1476 *il-* (Uig.) 'herabsinken'). The vocalism of this word was, however, most probably back, cf. MK *ïlmaq* 'inmek'. The identification can hardly be questioned, but the initial *y-* is difficult to explain. Khot. does not seem to distinguish between *-ld-* and *-ḷḍ-* and this example accordingly tells us nothing of the phonetic realization of this important consonant cluster in Turkish.

(167) *yigąnā* P 2790, 118, (*ttt*)*yigąnā* P 2741, 82 /yigän/, part of a proper name, identified by Bailey (AM I, 50) as Turkish *yigän*, nephew, grandson', Runic Turkish *j²yg²n²* (Küli Cor 21, 26), *j²g²n²* (Kül tegin E 33, Suci 8), i.e. /yėgän/. This word is well attested as a proper name in Old Turkish, cf. Küli Cor and Kül tegin op. cit. and Hamilton 160 f.

(168) *yihārāhā:kā* /yïγrïγoq, yïγrïyoq/, glossed in Khot. as *hūlaihā: mūṇūkā hame* 'it is the *mūṇūkā* (only attested here) of the quiver', TKV 167. The word is not identified.

(169) *yiṅakä* /yiŋāk, yïŋaq/, not glossed in Khot., TKV 175. Bailey identifies it with Turkish *äŋäk* 'jaw' (MK, Rad. I, 711), which fits well as far as meaning is concerned, but the rendering of the initial vowel is strange and difficult to explain. The identification cannot be regarded as established.

(170) *yīpākḭnä* Ch 00269, 76, P 2741, 121 /yipkin/, name of a mountain, identified by Bailey (AM I, 51) as Turkish *yipin*, *yipün*, *yipkin*, *yābkin*, *šipkin* 'violett, rot, braun, dunkle Blume' (Analytischer Index 514). The identification seems probable and the Khot. form is identical with MK *yipkin*, CC *ipchin* id.

(171) *yḭttī* (*karäkä*) /yiti, yïtï/, glossed in Khot. as *jastā* 'eye (pl.)', TKV 174. Bailey identifies it with Turkish *yiti* 'sharp', but as he remarks: 'a word meaning black would be more suitable (cf. next word. (178)). Perhaps **iki* 'two' should be read. Note that Khotanese has a plural.'.

But *yïti* (Rad. III, 521, 526), *yïtïk* (MK) is well attested and is used of eyesight and it is the only satisfactory etymology from a phonetic point of view.

(172) *yügaŋa* /yügün/ 'bridle', not glossed in Khot., TKV 170. MK *yügün*, Jak. *ün*, Alt. *üjgen*, Tuv. *čügen*, Koib., Ktsch. Soj., Dsch. OT. Tar. *yügän* (Rad. III, 593). It is difficult to determine the vowel of the second syllable, but most probably it was /ü/ on account of the Jakut form.

(173) (*kyešä*) *yükï* /yüki/, glossed in Khot. as *paraï khārä baṃda hame* 'it is the *baṃda* ('fastening?' Sanskr. *bandha* HWB) of the receptacle', TKV 168. Bailey hesitates between identifying it with *yük* 'load' (MK, Rad. III, 580 ff.) and *yök* 'feather' (MK, Rad. III, 596 f.). The first proposal must be preferred since we for *yök* would expect a rendering **yäkï* or **yaukï* and although *yök* is often used of arrows, it is a bit strange to talk about the 'feather of the quiver'.

(174) *yümürä* /yumur/, not glossed in Khot., TKV 181. Bailey identifies it with Turk. **yumur* 'fist', Osm. *yumruq*, Chuv. *śămăr*, Turkm. *yumru* id. Although the form *yumur* is not directly attested (but it must in any case be presumed as the base form for *yumruq* < **yumur-uq*), the identification seems clear.

(175) *yüṇakä* /yüṇäk, yuŋaq/, glossed in Khot. as *vatcä*, the meaning of which is unknown to me, TKV 175. Bailey identifies it with *yüŋ* (MK) 'hair, wool, cotton' and suffix *-aq*, *-äk*. The word *yüŋäk* is nowhere attested in Old Turkish and the meaning is not clear from the context. If the preceding word (77) *jṇä* means 'slime', then one is inclined to think of another identification with a word only attested in MK as *yuŋak* 'soapwort, Saponoria officinalis', cf. B. Altay: Tercümesi III, 95. But all this depends on the meaning of the Khot. word.

(176) *yürakä* /yüräk/ 'heart', not glossed in Khot., TKV 180, MK *yüräk*, Jak *süräx* etc., cf. Rad. III, 600 f.

(177) *yürägakä* /yürgäk/, not glossed in Khot., TKV 182. The word is not identified. But according to its place in the vocabulary, we should expect it to design some part of the intestines. Perhaps it is a misspelling for *yüräk* 'heart', cf. (176) *yürakä*.

(178) *yürṛmä* (kärakä) /yürüm/, glossed in Khot. as *śïyi tceṃ* 'white eye' TKV 174. The identification is clear, cf. Uig. *yürüŋ*, *ürüŋ* (usually written *yörüŋ*, *örüŋ*, cf. Analytischer Index, Caferoğlu: Uigur Sözlüğü and Rad. I, 1224, who compares it with Shor. *örüy*, which, however, means 'ruhig, bescheiden' and most probably is quite another word).

The vocalism is clearly shown by Jak. *ürüy* 'white'. In TTT III, note 5 we find *yürüñ qaraqï* 'das Weisse seines Auges'. The development *-ŋ* > *-m* may be caused by the following *k*, cf. (83) or it may be a reflex of the unstable nature of final /ŋ/ in Turkish.

(179) *yüysä* TKV 179, *yüysï* TKV 178 /yüz/ 'face, its face', neither of them glossed in Khot., MK *yüz*, Jak. *süs*, Turkm. *yüz* etc. Rad. III, 616 ff.

7. *Summary*

The most important linguistic conclusions that we can draw from the Turkish words in Khotanese texts are as follows:

a. These words came from a *ñ*-dialect of Old Turkish.

b. This dialect distinguished between [o, ö] and [u, ü] both in initial and non-initial syllables.

c. Intervocalic [γ] and [g] in Old Turkish were most probably fricatives.

d. The transcription of Turkish words in Khotanese is the most consistent we find for Old Turkish and e.g. much more consistent than in the Brahmi texts.

References

8. Abbreviations and references.

Abbreviations of languages and journals which are current in turcology, are not given. Note that in examples from Radloff his abbreviations are retained.

AM = Asia Major. New series. London.
Analytischer Index = Bang und Gabain: Analytischer Index zu den fünf ersten Stücken der türkischen Turfan-Texte. 1931.
Brah., Brahmi = A. v. Gabain: Türkische Turfan-Texte VIII. Texte in Brāhmīschrift; 1954.
CC = Codex Cumanicus.
Clauson = G. Clauson: Turkish and Mongolian Studies. 1962.
Deny = J. Deny: Grammaire de la langue Turque (dialecte osmanli). 1921.
DTS = Drevnet 'urkskij slovar'. 1969.
Emmerick = R. E. Emmerick: Saka Grammatical Studies. 1968.
Gabain = A. v. Gabain: Alttürkische Grammatik. 1950.
Gercenberg = L. G. Gercenberg: Chotanosakskij jazyk. 1965.

Hamilton = J. R. Hamilton: Les Ouïghours à l'époque des cinq dynasties d'après les documents Chinois. 1955.
Houtsma = M. Th. Houtsma: Ein türkisch-arabisches Glossar. 1894.
Khot. = Khotanese.
Konow = S. Konow: Primer of Khotanese Saka. 1949.
KT = H. W. Bailey: Khotanese Texts I–V. 1945–1963.
Malov = S. JE. Malov: JEnisejskaja pis'mennost' t'urkov. 1957.
MK = Mahmud al-Kašgari: Diwanü lugat-it-türk tercümesi. Ceviren B. Atalay I–III. 1939–41. Endeks. Yazan B. Atalay. 1948.
Mod. Turk. = Modern Turkish of Turkey.
Müller: Zwei Pfahlinschriften = F. W. K. Müller: Zwei Pfahlinschriften aus den Turfanfunden. Berlin 1915.
Ork. = Orkhon Turkish.
Orkun = H. N. Orkun: Eski türk yazıtları I–IV. 1936–1941.
Peillot = P. Peillot: Notes sur l'histoire de la horde d'or. 1959.
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Redhouse = Redhouse yeni Türkçe - Ingilizce sözlük. 1968.
Secret History = Manghol un niuca tobca'an.
SH = H. W. Bailey: The Staël-Holstein Miscellany. AM II. 1951.
Thomas = F. W. Thomas: Tibetan Literary Texts and Documents concerning Chinese Turkestan I–III 1935–1955.
TKV = H. W. Bailey: A Turkish-Khotanese Vocabulary. BSOAS XI.
TPNK = H. W. Bailey: Turkish Proper Names in Khotanese. Zeki Velide Toğan'a Armağan. 1950–1953.
TTT = Türkische Turfan-Texte.
Uig. = F. H. K. Müller: Uigurica I–IV. 1908-1931.
Wittfogel and Feng = K. A. Wittfogel and Fêng Chia-Shêng: History of Chinese Society. Liao. 1949.

The following articles by H. W. Bailey contain important observations on Khotanese texts containing Turkish words:

H. W. Bailey: Turks in Khotanese Texts. JRAS 1939.

" Irano-Indica II. BSOAS XIII. 1949.
" A Khotanese Text concerning the Turks in Kaṣṭyoṣ AM I. 1949.
" The Seven Princes. BSOAS XII. 1948.
" Vajra-prajna pāramitā. ZDMG 92. 1939.
" Śrī-Viśa Sūra and the Ta-uang. AM XI. 1964.

The following article has not been accessible to me:
S. JE. Malov: Trudy no drevnetjurkskoj leksike. 1947. (Cf. Hazai: Sovietico-turcica p. 173.).