CENTRAL ASIATIC JOURNAL

International Periodical for the Languages, Literature,
History and Archaeology of Central Asia

Founded by Karl Jahn
Edited by Giovanni Stary

Editorial Board:
C. R. Bawden (Iver), I. Laude-Cirtautas (Seattle),
E. A. Davidowitch (Moscow)

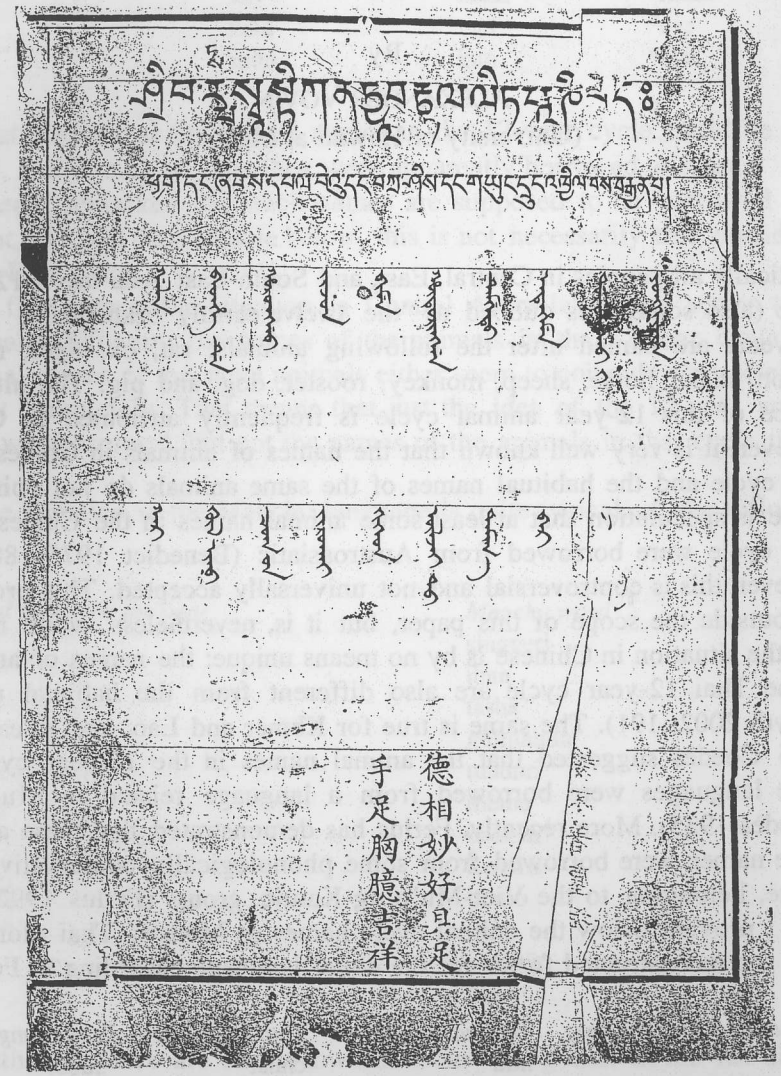
CONTENTS of CAJ 48/1 (2004)

Articles

Charles R. Bawden, A Decorated Mongolian Tea-can 1
Ágnes Birtalan, A Western Mongolian Heroic Epic: *ölŋ Tiw*. With an appendix by János Sipos, A Few Words About the Musical Structure of the Western Mongolian Epic *ölŋ Tiw* 8
Ilija Čašule, Burushaski-Phrygian Lexical Correspondences in Ritual, Myth, Burial and Onomastics 50
Wolfgang-E. Scharlipp, Eine pentaglotte Liste der Epiteta, Charakteristika und Kennzeichen des Buddha aus dem lamaistischen Kulturkreis . . . 104
Alexander Vovin, Some Thoughts on the Origins of the Old Turkic 12-Year Animal Cycle 118

Reviews

A. Sárközi – A. Rákos (eds.), *Altaica Budapestinensia MMII. Proceedings of the 45th Permanent International Altaistic Conference, Budapest, Hungary, June 23-28, 2002* (by G. Stary) 133
N. Di Cosmo – D. J. Wyatt (eds.), *Political Frontiers, Ethnic Boundaries, and Human Geographies in Chinese History* (by K. Hitchins) 135
H. Göckenjan – I. Zymonyj, *Orientalische Berichte über die Völker Osteuropas und Zentralasiens im Mittelalter* (by D. Schorkowitz) 137
P. B. Golden, *Nomads and Their Neighbours in the Russian Steppe* (by N. Di Cosmo) 142



Letzte Seite des Buches

Some Thoughts on the Origins of the Old Turkic 12-Year Animal Cycle

By

ALEXANDER VOVIN

(University of Hawaii at Manoa)

Practically all peoples in Central, East, and South-East Asia use a 12-year cycle (also sometimes dubbed as "the twelve earthly branches"), where the years are named after the following animals: rat, ox, tiger, rabbit, dragon, snake, horse, sheep, monkey, rooster, dog, and pig. The ultimate source of this 12-year animal cycle is frequently attributed to China, however, it is very well known that the names of animals in Chinese 12-year cycle and the habitual names of the same animals do not coincide. There is speculation that at least some animal names in the Chinese 12-year cycle were borrowed from Austroasiatic (Benedict 1975: 88-91), however, this is controversial and not universally accepted. This problem lies outside the scope of this paper, but it is, nevertheless, worth noting that the situation in Chinese is by no means unique: the names of animals in the Thai 12-year cycle are also different from the habitual names (Smyth 2002: 191). The same is true for Khmer and Lao, and as early as 1935 Coedès suggested that the animal names in the 12-year cycle in these languages were borrowed from a language related to Mu'o'ng (Coedès 1935). More recently, Ferlus has demonstrated that these animal cycle names were borrowed from some phonologically conservative language, belonging to the Viet-Mu'o'ng-Katuic group (Ferlus 1992: 56-57). I provide below the animal cycle names in Modern Thai alongside with the reconstructed forms for the donor language according to Ferlus:

Animal name for the year	*Thai habitual word*	*Thai cycle word*	*Donor language*
rat	nŭu	chûat	*ɟuot
ox	wua	chalŭu	*caluu
tiger	sŭa	khăan	*khaal
rabbit	kra-tàay	thɔ̀	*thɔh
dragon	maŋ-kɔ́ɔn	marooŋ	*marooŋ

snake	ŋuu	masĕŋ	*masaŋ
horse	máa	mamia	*mamia
sheep	kɛ̀ʔ	mamɛɛ	*mamɛɛ
monkey	liŋ	wɔ̂ɔk	*vɔɔk
rooster	kày	rakaa	*rakaa
dog	măa	cɔɔ	*cɔɔ
pig	mŭu	kun	*kur

That means that the animal names in the 12-year cycle could be borrowed, and in case of Thai they were apparently borrowed as a set.

Coedès remarked that such names are supposed to be borrowed as a set, but, as I will demonstrate below, this is not necessarily true outside of South-East Asia.

At first glance, the situation in Central Asian languages seems to be cardinally different: the names of the animals in the 12-year cycle and habitual names of the same animals either seem to coincide completely or almost completely. That means that just the idea of the 12-year animal cycle was borrowed, but not the names of the animals in that cycle themselves.

The situation in the Manchu language is quite typical, cf. the following chart:

Animal name for the year	*Manchu word*
rat	singgeri
ox	ihan
tiger	tasha
rabbit	gūlmahūn
dragon	muduri
snake	meihe
horse	**morin**[1]
sheep	**honin**
monkey	bonio
rooster	coko
dog	indahūn
pig	ulgiyan

Although there are two loanwords from Mongolian in the list above: *morin* "horse" < WM *morin* "id." and *honin* "sheep" < WM *qonin*

1 From now on, the loanwords within the 12-year animal cycle lists are given in bold.

"id.", this is irrelevant, since these Mongolian loanwords have be-come habitual words in Manchu. Comparing the above list with the ani-mal cycle names in Jurchen reveals essentially the same picture. Animal names for the Jurchen 12-year cycle are not attested, but in the *Hua yi yi yu* without Jurchen script we find the Jurchen names for twelve 2-hour blocks of the day (Kane 1989: 198-200), which were also based on the same animal cycle in Central and East Asia.

Animal name for hours	*Jurchen equivalent*
rat (11 pm-1 am)	singgeri eri (eri "hour, time")
ox (1 am -3 am)	iha eri
tiger (3 am-5 am)	tasha eri
rabbit (5 am-7am)	gū[l]mahūn eri
dragon (7 am-9 am)	muduri eri
snake (9 am-11am)	meihe eri
horse (11 am-1 pm)	[inenngi eri][2]
sheep (1 pm-3 pm)	**imu'a** eri
monkey (3 pm-5 pm)	monio eri
rooster (5 pm-7 pm)	tiko eri
dog (7 pm-9 pm)	indahū eri
pig (9 pm-11 pm)	u[l]giya eri

The only significant difference one can discover between the Manchu and Jurchen cycle, besides the replacement of *morin eri to *inenngi eri*, is the designation of the hour of the sheep: Jurchen uses the expres-sion *imu'a eri*, where *imu'a* means "wild sheep", "goral". Meanwhile, the habitual Jurchen word for "sheep" is *honi* (Kiyose 1977: 105), almost the same as Manchu *honin*, with the slight phonetic difference. It is important to note that the Chinese transcription of Jurchen in *Hua yi yi yu* without script in most cases does not indicate the final *-n* present in Manchu in other words in the animal cycle as well, cf. Jur. *iha* ~ Manchu *ihan* "ox", Jur. *indahū* ~ Ma. *indahūn* "dog", Jur. *u[l]giya* ~ Ma. *ulgiyan* "pig", but cf. Jur. *gū[l]mahūn* ~ Ma. *gūlmahūn* "rabbit"). Other differences are mostly phonetic (or dialectal?), too: Jur. *monio* ~ Ma. *bonio* "monkey", Jur. *tiko* ~ Ma. *coko* "rooster".

However, the difference between Jur. *imu'a* "wild sheep" used in the animal cycle, and the habitual Jurchen word *honi* "sheep" seems to be interesting. This discrepancy calls for a loanword explanation, similar to

2 Literally, "noon hour" – an apparent replacement of *morin eri*, which would be expected here.

the case with Thai that we already observed above, although on a much smaller scale. Superficially it looks like a loan from MM *ima'a* "goat", similar to the case of Manchu *imaha* "goat", which is an apparent loan from WM *imaγa* "id." But, suggesting a loan from Middle Mongolian to Jurchen makes little sense: Jurchens were masters of the steppe before Mongols and there is an apparent difference in meaning: "sheep" vs. "goat". It seems quite possible that Jurchen could borrow the name of a "sheep" as an animal cycle word from a prestigious language, which was spoken by a certain ethnic group that was culturally more advanced than Jurchens themselves. Such an ethnic group certainly exists: Kidans, and we know quite well that even the Kidan language itself was used by Jurchens as a written language, at least soon after the conquest of Liao by Jin in 1125 A.D.[3] Although readable Kidan materials are scanty, and the work on the decipherment of Kidan is far from complete, in this case we are exceptionally lucky: the readings of the most of names of Kidan 12-year animal cycle are known to us (Chinggeltei 1997):

Animal name for the year	*Kidan word*
rat	— (not attested)
ox	*un
tiger	*xaga[s]
rabbit	*taulia
dragon	***lu[u]**[4]
snake	*mogo
horse	*mori
sheep	*ema
monkey	*buu
rooster	*tax[ə]ia
dog	*n[°/ᵊ]x[ə]i
pig	*wei

Looking at Kidan *ema "sheep" (phonetically, quite likely [iema]), one can surmise that Jurchen *imu'a* "wild sheep" is either a borrowing of this Kidan word, or it is a borrowing from a Kidan-type Mongolic dialect. Therefore, it appears that the Jurchen 12-year animal cycle list has at least one loanword in contrast with the Manchu one.

Now, let us examine the Written Mongolian 12-year animal cycle:

3 The "Langjun" inscription of 1137 AD is written in Kidan, and not in Jurchen.

4 Apparently borrowed from MC *luŋ* "dragon" via Old Turkic and language X (see below).

Animal name for the year	*Written Mongolian word*
rat	qulu**γ**ana
ox	**üker**
tiger	**bars**
rabbit	taulai
dragon	**luu**
snake	mo**γ**ai
horse	morin
sheep	**qonin**
monkey	**bečin**
rooster	takiya
dog	noqai
pig	**γ**aqai

Although all the words on the Written Mongolian animal cycle list, except for the word *bečin* "monkey",[5] are habitual Mongolian words, we can, nevertheless, see six loanwords, all of them from some immediate Turkic source: *üker* "ox" < Bulghar **ökür* (cf. OT *öküz*) "id.", *bars* "tiger" < OT *bars* "id.", *luu* "dragon" < OT *luu* "dragon" < MC *luŋ* "id.",[6] *qonin* "sheep" < OT *qoñin* "id.", *bečin* "monkey" < OT *bečin* "id.".[7] Comparing the Written Mongolian animal cycle list with the Kidan list given above, one can clearly see that Kidan had different names for "ox", "tiger", "monkey", and "pig". The first three probably represent the original Mongolic names for these animals (although there is a great degree of probability that Kidan *buu "monkey" represents a loan from a different language, given the fact that monkeys do not represent a typical fauna of Central Asia). The Kidan word *wei "pig" is more mysterious,[8] since WM *γaqai* "pig" is not an apparent loan from Turkic or any other known Central Asian language.

As a result of looking into the Manchu, Jurchen, Kidan, and Written Mongolian names for the 12-year animal cycle, we can establish three clear tendencies: 1) the names of the animals on this list do not necessarily coincide with the habitual names for the same animals in a given language, as they can be borrowed; 2) in contrast with South East Asian

5 The habitual Mongolian word is *mečin*.

6 See more below on this etymology.

7 The habitual Mongolian word is mečin "id." with an initial *m-*. An initial *b-* in this animal cycle name clearly demonstrates that it is a loanword from Turkic.

8 It is possible that Kidan *wei goes to the same source as Old Japanese *wi* "boar, pig", which can have three possible protoforms: *wi, *wə-[C]i, *wu-[C]i.

12-year animal cycles, the names of the animals in Central Asian languages do not tend to be borrowed as a set: some of them can be loanwords from a different language, but the rest can coincide with the habitual names used in a given language; 3) when the names of the animals on the 12-year animal cycle list are loanwords and not habitual names, they are always borrowed from a culturally prestigious language.[9]

Having established these three tendencies, we can now look at the Old Turkic 12-year animal cycle list (Gabain 1950: 108):[10]

Animal name for the year	*Old Turkic word*
rat	küskü, sïčγan
ox	**ud**
tiger	bars
rabbit	tabïšγan
dragon	**luu**
snake	yïlan
horse	**yund**
sheep	qoñin
monkey	bečin
rooster	taqïγu[11]
dog	ït
pig	**laγzïn**, toŋuz

There is one feature of the Old Turkic list that is strikingly different from all other Central Asian animal cycle lists we have looked at so far: in two entries, "rat" and "pig", we apparently have doublets. Let us start with the latter.

PIG. OT *toŋuz* appears to be a habitual Common Turkic word, widely attested across various Turkic languages: Tur., Az. *donuz*; Kaz., Nog., Kkalp. *doŋïz*, Uzb. *toŋiz*, Uig. *toŋγuz*, Tat. *duŋïz*, Alt. dial. *tonus*, Sal. *toŋas*, Sa-Yu. *toŋïs* "pig", etc. for more detailed list of forms see (Sevortian 1980: 267-68). However, its usage in the animal cycle is attested only

9 These tendencies are by no means unique to Central Asa. Cf., e. g., English zodiac names that are all borrowed from Latin: *Pisces* vs. "fish", *Aries* vs. "ram", *Taurus* vs. "bull", *Cancer* vs. "crab", *Leo* vs. "lion", etc. The same is partially true for Russian, where *Oven* "Aries" and *Telec* "Taurus" (borrowed from Old Church Slavic) are used instead of the habitual Russian words *baran* and *byk* (I am indebted to my mother Svetlana for pointing this out to me).

10 I have changed some of the spellings in the Gabain's list according to more recent research.

11 Also *taqaγu* in Kashgari's dictionary.

from the eleventh century (Clauson 1972: 527). On the other hand, OT *laγzïn* is attested as an animal cycle name in the Bilgä Kagan's inscription of 735 C. E. (BK S.10) and other early texts (DTS 1969: 332), (Clauson 1972: 764). Clauson notes that it was "the earliest name for this animal in the twelve-year cycle" (1972: 764). OT *laγzïn* occurs as a habitual word just once in KP 3.2. It is quite clear that OT *laγzïn* must be a loanword, since there are no native Old Turkic words with initial *l-*. Clauson speculated that it is probably a loanword from Tocharian (1972: 764), but the only known Tocharian word for "pig" is Tocharian B *suwo*, with an apparent Indo-European etymology (PIE *sū "pig"). Thus, OT *laγzïn* must be borrowed fom a different language. But which one? None of the known languages with which Old Turkic has been in contact has any similar word. I will return to the provenance of this word later, when the other names in Old Turkic animal cycle would have been surveyed.

DRAGON. Similarly to OT *laγzïn*, this word also has an initial *l-*, so it must be a loanword as well. In contrast to OT *laγzïn*, the ultimate origin of OT *luu* "dragon" is clear: it is from MC *luŋ* "dragon." However, there is one problem: if the word was borrowed directly from MC, one would expect it to have a final *-ŋ*, as in MC *luŋ*, and not vowel length, as in OT *luu*, since Old Turkic has a final *-ŋ*, e.g. OT *taŋ* "dawn", *küŋ* "female slave", *biŋ ~ bïŋ* "thousand", etc. Clauson, who is aware of the problem, speculates that it was borrowed from some North-Western Middle Chinese dialect that has lost final *-ŋ* (1972: 763). But this hypothesis is very problematic, since none of the North-Western varieties of Middle Chinese, extensively studied by Coblin exhibits any loss of final *-ŋ* prior to the Song period (Coblin 1994: 54-55, 75-82). Even among modern Chinese North-Western dialects the dialect of Xi'an still retains final *-ŋ* (Coblin 1994: 112-15). Moreover, most of the Chinese loanwords with final *-ŋ* in Old Turkic preserve it perfectly, e. g.: OT *yaŋ* "form", "shape" < MC *yaŋ* (樣), OT *bursaŋ* "sangha" < North-Western MC *bur-səŋ* (佛 僧),[12] OT *gintsuŋ* Yan-cong, p. n. < MC *gian cuŋ* (彥 淙), OT *kuŋkau* "harp" < MC *khoŋ-xəu* (箜 篌). There are, however, three other loanwords from Middle Chinese that do not have final *-ŋ*, and all of them are found in other part of calendar cycle – "the ten heavenly stems": namely, OT *pi* "3rd heavenly stem" < MC *pjæŋ* (丙) OT *ti* "4th heavenly stem" < MC *tɛŋ* (丁), and OT *qï* "7th heavenly stem" < MC *kæŋ* (庚). Note that all mid-vowels in Middle Chinese are consistently replaced with high vowels in these loanwords in spite of the fact that Old Turkic has its good share of mid vowels: /ɛ/, /e/, /o/, and /ö/. Since "heavenly stems" are, in most cases, used together with "earthly branches", I believe they were borrowed from Middle Chinese via the same intermediary source as OT *luu* "dragon". Thus, one comes to an inescapable conclusion that *luu* "dragon" was borrowed by Old Turkic not directly from Middle Chinese, but via some language X, that did not have final *-ŋ*.

RAT. Similar to PIG, we also have two doublets: OT *küskü* and *sïčγan*, and again we can discover a similar parallelism in usage: OT *küskü* is used only as an animal cycle name (DTS 1969: 329), (Clauson 1972: 750), and OT *sïčγan* predominantly as a habitual word (DTS 1969: 502), (Clauson 1972: 796). Clauson also notes that as an animal cycle name, OT *sïčγan* replaces OT *küskü* in later texts (Clauson 1972: 750). In contrast to OT *laγzïn* "pig", OT *küskü* "rat" has no phonological features allowing us to identify it as a non-Turkic word, and most scholars treat it as a normal Turkic word with a Turkic etymology, derived from a verbal stem *küs- (Levitskaia et al. 1997: 153). The problem is that the meaning of this verbal stem is open to wild speculations. For example, Doerfer considers *küskü* to be a derivative of *küs-* "to mess" (Doerfer 1967: 597), but this can hardly be regarded as a persuasive etymology. Shcherbak believes that the word is onomatopoeic (Shcherbak 1961: 150), but this is speculative as well. The whole idea that *küskü* is morphologically complex seems to be based on Kazan Tat. *küsi* "rat, mole" (Levitskaia et al. 1997: 153), Yak. *kütär* "water rat, mole" and Uig. dial. *küsötkä* "mole". But it is unlikely that Kazan Tat. *küsi* is related to *küskü* in spite of both phonetic and semantic similarities: the vowel correspondence is irregular, as we would expect *kösi in Kazan Tatar. Uig. dial. *küsötkä* "mole" and Yak. *kütär* "water rat, mole" do not quite denote "mouse" or "rat". It is possible that there was some early root contamination of the original word for "mole" *küs-(?) with the *küskü* "rat". In addition, there is a distribution oddity: with the exception of the suspicious Kazan Tat. *küsi* "rat, mole", Uig. dial. *küsötkä* "mole," Yak. *kütär* "water rat, mole", and Turkish dialectal form *köskü* "rat" (Levitskaia et al. 1997: 153), also suspicious due to an irregular /ö/ rather than the expected *ü, this word appears to be exclusively South Siberian Turkic word (Alt. *küsküjük*, Hak., Tuv. *küske* "mouse, rat") not attested anywhere else. This regional nature of OT *küskü* probably makes it a

12 This loan has a typical Northwest Middle Chinese shift of *-t > -r*. Practically all Turkic loans from Northwest Middle Chinese have this feature, e. g. OT *mïr* "honey" < North-Western MC *ᵐbier.

good candidate for a loanword as well. On the other hand, *sïčγan* appears to be a habitual Turkic word, since it is widely attested in various and diverse Turkic languages: Mid. Kïpch. *sïčqan, sïčγan, šïšqan* Mid. Oghuz *sïčan*, Tur., Gag., Az., Turk. *sïčan*, Khal. *sïčγan*, KKalp. *sïčqan*, Kar. *čïčγan*, Bashk. *sïsqan*, Kirg., Alt. *čïčγan*, Uzb. *sičqan*, Chuv. *šăši*, etc. "rat, mouse". To the best of my knowledge, none of the surrounding languages can be suggested as a source for OT *küskü* "rat".

OX. There are no doublets this time, but oddly enough, OT *ud* "ox" is again a regional word, attested predominantly in the South Siberian Turkic languages: Kirg., Uig, Lobn., Alt. *uy*, Sa-Yu. *ut* "ox"). In Old Turkic it appears as both an animal cycle name and as a habitual word (DTS 1969: 605), (Clauson 1972: 34). Clauson notes that this word "early became the word for "ox" in the twelve-year animal cycle, and lingered on in this meaning in the west long after it became obsolete as a common noun" (Clauson 1972: 34). Brockelmann was the first scholar to suggest that OT *ud* "ox" represents a loan into Turkic (Brockelmann 1954: 85). This opinion was also partially supported by Sinor, who thinks that the word in question may be "a purely Turkic word", also admitting the possibility of its origin from an unknown substratum, apparently on the basis of its limted geographical distribution (Sinor 1962: 322). On the other hand, Turkic *öküz* "ox", attested in Old Turkic as *öküz* (< PT *höküz) has reflexes in various and diverse Turkic languages (Tur., Az., Gag., Turk. *öküz*, Kum., KBalk., Kirg. *ögüz*, Tat., Bashk. *ükíz*, KKalp., Kaz. *ögiz*, Uig., Khal. *höküz*, Yak. *oγus*, Chuv. *văkăr* "ox", etc.), but it is never used as an animal cycle name.[13] The distribution pattern of Turkic *ud* "ox" again strongly suggests that it is a potential loanword. Similar to the cases of OT *laγzïn* "pig" and *küskü* "rat" none of the known surrounding languages can be identified as a source for OT *ud* "ox".

HORSE. The case of OT *yund* "horse"[14] is parallel to that of OT *ud* "ox": it is again a regional word with limited distribution: Tur. dial., Chag. *yunt*, Tur. dial., Uig. *yund*, Tur., Tur. dial. *yont*, Sa.-Yu. *yut/yot* "horse", etc. (Sevortian and Levitskaia 1989: 253). Meanwhile, the habitual OT *at* "horse""(< PT *hat) is attested in practically all Turkic languages: Tur., Gag., Az., Turkm., Kar., KBalk., Kum., Tat., Bashk., KKalp., Kaz., Kirg., Alt., Uig., Hak., Yak. *at*, Khal. *hat*, Sal. *as/at*, Uzb. *åt*, Tuv., Tof. *a^{h}t*, Chuv. *ut* "horse". Sinor was the first scholar who suggested that OT *yund* represents a loanword from an unknown non-Turkic and non-Altaic language because of its limited distribution and because the word is also found in all Samoyedic languages (Sinor 1965: 312).[15] Being a careful scholar, Sinor abstained from the identification of this unknown source. Certainly, the most likely explanation is that Samoyedic languages borrowed it from the same source as Turks did, as it is unlikely that Samoyedic can be the original source – Samoyeds are not mounted pastoralists par excellence. It is also of great significance that none of the other words surveyed above, such as "rat" and "ox" could be found in Samoyedic. The provenance of OT *yund* "horse" remains unclear.

Therefore, if OT *küskü* "rat", *ud* "ox", *yund* "horse", and *laγzïn* "pig" are not Turkic words and were borrowed from some other language (alongside with *luu* "dragon", which is also likely to be borrowed from Chinese through some third intermediary), then what is this language? On the basis of the pattern we have seen so far, these words must belong to some language whose speakers preceded Turks as the masters of the steppe. There are three possible choices: the Xiongnu language, the Xianbi language, and the Ruan-ruan language. The Xianbi language can be ruled out from the start, as Ligeti convincingly demon-strated that Xianbi was Mongolic (Ligeti 1970), and none of these words can be connected to Mongolic. It is also highly unlikely that the above words represent loanwords from the Xiongnu language. It has been demonstrated that the Xiongnu language is likely to be related to Yeniseian family in Central Siberia both lexically (Pulleyblank 1962), (Vovin 2003) and morphologically (Vovin 2000). Although little is known about the Xiongnu lexicon, it is quite apparent that the OT *yund* "horse" and Xiongnu *kuti "horse" do not coincide, and, what is even more important, one cannot stipulate any realistic sound change laws to connect one with the other. Although we do not know the Xiongnu equivalents for "rat", "ox", and "pig", a brief look at the relevant lexical items in Yeniseian apparently shows that the source for these Old Turkic words cannot be determined as Yeniseian, although, of course, there is no native Yeniseian word for "pig" due to the zoo-geographical conditions of the habitat for the speakers of Yeniseian languages. Thus, we have in Yeni-

13 A lot of ink has been spilled to prove or disprove Indo-European origin of Turkic *öküz* "ox." I have no intention of going into the details of this debate here, but for what it is worth, I believe that Indo-European origin is unlikely, due to existence of the initial *h- in PT *höküz.

14 The evidence for the final *-d* rather than *-t* comes from the Old Turkic compound *yund-aq* "horse-dung".

15 Doerfer also entertained the possibility that OT *yund* "horse" can be a loanword (Doerfer 1975: 199-201).

seian the following words: Ket *ʻut*, *ʻu:te*, Yug *ʻuʰ:t* "mouse", Ket *áut* "rat" (Werner 2002.1: 83), Kott *ti:g* "ox" (Werner 2002.2: 268). Apparently, they are not comparable with OT küskü "rat" and *ud* "ox."

That brings us to the only possible conclusion that these words must be borrowings from the Ruan-ruan language. Unfortunately, almost nothing is known about this language, except for four titles that are supposed to be of Ruan-ruan origin: *qaɣan* "emperor", *qan* "khan", *qaɣatun* "empress", *qatun* "khan's wife" (Doerfer 1967: 132-180). Even on the basis of these four words one can clearly notice a bizarre morphological pattern: *qa-ɣa-n*, *qa-n*, *qa-ɣa-tu-n*, *qa-tu-n*, not typical for any other Central Asian language.[16] Neither the words *küskü* "rat", *ud* "ox", *yund* "horse", and *laɣzïn* "pig" are comparable with any lexical items with the same semantics from any other Central Asian language we know. In addition, there is another potential Ruan-ruan word, *aq* "dung", found in the Old Turkic compound *yund-aq* "horse dung", again without any possible analogies in other languages of the area. Note that the compound **at-aq* "horse dung" does not occur in any Turkic language.

Although it is impossible to prove that these words are indeed from the Ruan-ruan language, I believe it is quite safe to conclude that they are not Turkic, and that the odds that they were borrowed from the Ruan-ruan language and not from some other language X are very high.[17] On the basis of this limited evidence, it seems that the Ruan-ruan language was not related to any other surrounding languages. This, in my opinion, constitutes yet another piece of evidence in favor of the point of view that Central Asia was linguistically very complex area, and against its oversimplistic representation that it was a perennial Turco-Mongolo-Tungusic domain.

In conclusion, it seems possible to offer a brief synopsis of the features of the language that has donated these loanwords to Old Turkic, which I believe to be the Ruan-ruan language. Caution, of course, must be taken, because all the information we have is based on the loanwords, and this kind of information can potentially distort the phonology of a given language to a considerable degree.

16 I am indebted to Stefan Georg for drawing my attention to this fact.

17 I thank Professor Denis Sinor for his comment that the source of these loanwords may indeed be any language (p. c., 46th PIAC meeting, 2003). He is right – it is impossible to prove that the language in question was indeed Ruan-ruan. However, I think that likelihood of this is certainly very high, keeping in mind the pattern of borrowing names of animal cycle that was established above: from the preceding steppe power.

1) Phonology. The Ruan-ruan language apparently had an initial *l-*, not found in either Turkic or Mongolic except in loanwords. The initial *l-* is also attested in most North Tungusic languages (except Ewen), and in Manchu. However, very much unlike the Tungusic and the majority of the Turkic languages (including Old Turkic), the Ruan-ruan language did not have a final *-ŋ*. It allowed medium and final consonant clusters, such as *-sk-* and *-nd*, the latter being unusual for any of the "Altaic" languages. There is a possibility that the Ruan-ruan language did not have any mid-vowels (see the discussion on the "ten heavenly stems" above).

2) Lexicon. The following lexical items can be more or less safely reconstructed:

küskü "rat"
ud "ox"
luu "dragon" < MC *luŋ* "id."
yund "horse"[18]
laɣzïn "pig"
qaɣan "emperor"
qan "khan"
qaɣatun "empress"
qatun "khan's wife"
aq "dung"

The words for "rat", "ox", "horse", and "pig" belong to the basic vocabulary, and, as mentioned above, it is impossible to find any connection between these and the words with the same semantics in any of the surrounding languages, except in the cases when one deals with an apparent loanword (as is the case with the word for "horse" in Samoyedic).

3) Morphology. On the basis of the last four lexical items, it is possible to establish two suffixes (or infixes – depending on whether *-n* in *qa-n* "khan" represents a suffix, or a part of interrupted root): *-ɣa-*, a honorific or augmentative suffix/infix, and *-tu-*, a marker of the feminine gender. None of these forms can be traced to "Altaic" languages.

It is quite possible that in the future we can expand our knowledge about the Ruan-ruan language. There are a number of Ruan-ruan glosses

18 Stefan Georg has pointed out to me that the cluster *-nd* in the final position is certainly an alien feature for Turkic. He further suggested to me that one more word found in Turkic also with final *-nd* may have been borrowed from the same language as OT *yund* "horse": namely, *and* "oath" (p. c., 46th meeting of PIAC, 2003).

in volume 103 of the *Weishu* (The History of Wei). Most of them include the names of Ruan-ruan *qaγans* in Chinese transcription and their translation into Chinese, preceded by a ubiquitous phrase "in the language of the Wei dynasty it means..." But the rulers of Wei were Xianbi, so one would expect to find Mongolic words there. Consequently, some scholars tried to interpret these glosses in terms of Mongolic (Taskin 1984: 398-416), but these interpretations seem to be forced from the standpoint of historical linguistics. In addition, Chinese sources are very well known for confusing the different kinds of "barbarians". The rulers of Ruan-ruan apparently were anything but Mongolic-speaking, and they were at constant odds with the Wei dynasty, so one can hardly imagine that they would use Wei names and titles. A fresh and detailed look into these glosses is needed – something I plan to do in the near future.

References

Benedict, Paul K. 1975. *Austro-Thai Language and Culture*. New Haven: HRAF Press.

Brockelmann, C. 1954. *Osttürkische Grammatik der islamischen Literatursprachen Mittelasiens*. Leipzig: Otto Harrassowitz.

Chinggeltei 1997. "Кидан хэл хийгэд монгол хэлний арван хоёр жил". *Altai hakpo* 7.156-160.

Clauson, Gerard 1972. *An Etymological Dictionary of Pre-Thirteenth Century Turkish*. Oxford: Clarendon Press.

Coblin, W. South 1994. *A Compendium of Phonetics in Northwest Chinese*. Jounal of Chinese Linguistics, Monograph Series #7.

Coedès, George 1935. "L'origine du cycle des douze animaux au Cambodge." *T'oung Pao* XXXI: 315-29.

Doerfer, Gerhard 1967. *Türkische und mongolische Elemente im Neupersischen*. Band 3: *Türkische Elemente im Neupersischen*. Wiesbaden: Franz Steiner Verlag.

Doerfer, Gerhard 1975. *Türkische und mongolische Elemente im Neupersischen*. Band 4: *Türkische Elemente im Neupersischen (Schluss) und Register zur Gesamtarbeit*. Wiesbaden: Franz Steiner Verlag.

DTS 1969. *Drevnetiurkskii slovar'*, ed. by Nadeliaev V. M., Nasilov D. M., Tenishev E. V., and Shcherbak A. M. Leningrad: Nauka.

Ferlus, Michel 1992. "Sur l'origine des langues Viet-Muong." *Mon-Khmer Studies* XVIII-XIX: 52-59.

Gabain, v., Annemarie 1950. *Alttürkische Grammatik*. Leipzig: Otto Harrassowitz.

Kane, Daniel 1989. *The Sino-Jurchen Vocabulary of the Bureau of Interpreters*. Indiana University Uralic and Altaic Series, vol. 153. Bloomington: Research Institute for Inner Asian Studies.

Kiyose, Gisaburo N. 1977. *A Study of the Jurchen Language and Script*. Kyoto: Hōritsubunka-sha.

Levitskaia Liia S., Dybo Anna V., Rassadin Valentin I. 1997. *Etimologicheskii slovar' tiurkskikh iazykov (K-Q)*. Moscow: Iazyki russkoi kul'tury.

Ligeti, Louis 1970. "Le tabgatch, un dialecte de la langue sien-pi." In: *Mongolian Studies*, ed. by Louis Ligeti. Budapest: Akadémiai Kiadó, pp. 265-308.

Pulleyblank, Edwin G. 1962. "The Consonantal System of Old Chinese." *Asia Major*, New Series IX.1: 58-144, IX.2: 206-65.

Sevortian, Ervand 1974. *Etimologicheskii slovar' tiurkskikh iazykov* (vowels). Moscow: Nauka

Sevortian, Ervand 1980. *Etimologicheskii slovar' tiurkskikh iazykov* (V-G-D). Moscow: Nauka

Sevortian, Ervand, and Levitskaia Liia 1989. *Etimologicheskii slovar' tiurkskikh iazykov* (J- Ž-Y). Moscow: Nauka.

Shcherbak, Aleksei M. 1961. "Nazvaniia domashnix i dikikh zhivotnykh v tiurkskikh iazykakh." In: *Istoricheskoe razvitie leksiki tiurkskikh iazykov*, ed. E. I. Ubriatova. Moscow: Nauka, pp. 88-172.

Sinor, Denis 1962. "Some Altaic Names for Bovines," *Acta Orientalia Academiae Scientiarum Hungaricae* 15.309-24.

Sinor, Denis 1965. "Notes on Equine Terminology of the Altaic Peoples". *Central Asiatic Journal* 10. 307-15.

Smyth, David 2002. *Thai: An Essential Grammar*. London & New York: Routledge.

Taskin, V. S. 1984. *Materialy po istorii drevnikh kochevykh narodov gruppy dunkhu*. Moscow: Nauka.

Vovin, Alexander 2000. "Did the Xiongnu Speak a Yeniseian Language?" *Central Asiatic Journal* 44.1: 87-104.

Vovin, Alexander 2003. "Did the Xiong-nu Speak a Yeniseian Language? Part 2: Vocabulary." *Altaica Budapestinensia MMII. Proceedings of the 45th meeting of the Permanent International Altaistic Conference*. pp. 389-94. Ed. by Alice Sárközi and Attila Rákos. Budapest

Werner, Heinrich 2002. *Vergleichendes Wörterbuch der Jenissej-Sprachen*. Band 1-3. Wiesbaden: Harrassowitz Verlag.

Abbreviations

Languages:

Alt.	Altai	Ma.	Manchu
Az.	Azeri	MC	Middle Chinese
Bashk.	Bashkir	mid.	middle
Chag.	Chagatay	MM	Middle Mongolian
Chuv.	Chuvash	OT	Old Turkic
dial.	dialect(s)	Sa-Yu.	Sarï-Yugu
Gag.	Gagauz	Sal.	Salar
Hak.	Hakas	Tat.	Tatar
Kar.	Karaim	Tof.	Tofalar
Jur.	Jurchen	Tur.	Turkish
Kaz.	Kazakh	Turk.	Turkmen
KBalk.	Karachay-Balkar	Tuv.	Tuvan
Khal.	Khaladj	Uig.	Uighur
KKalp.	Kara-Kalpak	Uzb.	Uzbek
Kïpch.	Kïpchak	WM	Written Mongolian
Kirg.	Kirgiz	Yak.	Yakut
Kum.	Kumyk		

Texts:

BK	Bilgä Kagan inscription, 735 C. E.
KP	Uighur version of a story about princes Kalyãnaṃkara and Papaṃkara, 10th century (?)