

JURCHEN AND MONGOLIAN

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Jurchen (*Jürčēn*) is a language very close to Manchu and can be regarded either as the older form of Manchu or as a dialect very close to Old Manchu.¹ The speakers of Jurchen appeared in history in A.D. 1115, and their dynasty bearing the name of Chin ruled over Northern China until 1234.² The oldest available monument of the Jurchen language is an inscription of 1185 which was followed by a number of other steles, but the most important source is the collection of materials, i.e. documents and a glossary, known as *Hua-i i-yü*,³ which contains, *inter alia*, a petition of 1526.⁴

Jurchen has been studied little. The first investigation of Jurchen was published by Grube⁵ which remained the only one until the appearance of Ligeti's articles.⁶ There is also a brief description of Jurchen by Menges.⁷ The most recent edition of Jurchen linguistic material is that by Kiyose cited in note 3. The present article is based on it.

As mentioned above, the Jurchen appeared in history in the twelfth century, i.e. at the end of the Ancient Mongolian period or at the beginning of the Middle Mongolian period.⁸ However, their contacts with the Mongols or the ancestors of the latter began at a still earlier time. As it will be seen below, some Mongolian elements in Jurchen go back to Ancient Mongolian.

Ligeti has discussed the old Mongolian elements in Manchu and found that a number of such words already occurred in Jurchen.⁹ It is true there are AMO loan words in Manchu which, for chronological reasons, cannot be regarded as direct borrowings from Mongolian but must have been inherited from Jurchen.

Being close to Manchu, Jurchen has, however, preserved many features which are considerably older than the respective developments in Manchu. Thus Jurchen still had *t* before **i*, whereas in Manchu the affricate *č* corresponds, e.g., J 805¹⁰ *tatiburu* 'to study' = Ma *tačibu-* 'to teach.'¹¹ Some words in Jurchen have preserved the second syllable which has disappeared in Manchu, e.g., J 209 *fa'a* 'window' = Ma *fa* id.¹² etc. Consequently, one should expect Jurchen, a language much more archaic than Manchu, to be an important source for the study of Ancient Mongolian. Indeed, as it will be seen shortly, Jurchen has preserved a number of the oldest reconstructable forms of Mongolian words.

Before we proceed to the discussion of AMO loan words in Jurchen, let it be said that the Mong. elements in Jurchen can be divided into two main groups. The first group is composed of such words which lack features characteristic of any particular stage of language development. Thus, J *nayaču* 'the brother of the mother'¹³ is a Written Mongolian form, cf. Mo *nagaču* 'maternal uncle' which is identical with MMo *nayaču* id.,¹⁴ but, on the other hand, almost identical with Ord *naga't'si* 'maternal relative.'¹⁵ Another example is J *ḡasa-* 'to rule, order, decree'¹⁶ which is identical with Mo and MMo *ḡasa-*,¹⁷ and Ord *Dḡasa-* (phonetically the same as *ḡasa-* id.).¹⁸ If it had been unknown that the

J forms in question are attested in the J section of the *Hua-i i-yü*, the words in question could not be regarded as *old* borrowings from Mongolian. It goes without saying that such J words as *irge-n* 'people,' *arki* 'liquor,' *ḡasa-* 'to rule,' *nayaču* 'maternal uncle,' and *ḡurixan* 'lamb,'¹⁹ do not contribute anything to historical phonology of Mongolian, and are important only as proof that they existed at that time in the forms attested in the *Hua-i i-yü*.

The other group of Mong loan words in Jurchen comprises words which display features characteristic of particular periods of language history. Thus, J *ḡaliu* 'sea otter'²⁰ is certainly a MMo form, cf. MMo *qali'un* 'beaver,'²¹ Mo *qaliyun* 'otter' etc. This is a rather new form which might have penetrated into Jurchen no earlier than in the twelfth or thirteenth century. Another MMo form is J 170 *aḡir morin* 'stallion,' cf. Mo *aḡirga*, MMo *aḡirya* id.²² As for the AMo form of this word, it is **adirga* attested as a borrowing in Solon.²³ A MMo form is also J 457 *dauli-* in *daulimeḡ* 'to snatch,' cf. SH *da'uli-* 'to plunder, capture,'²⁴ H *da'uli-* 'to plunder,'²⁵ L *daulin* 'enemy raid,'²⁶ Mo *taḡuli-* 'to chase, attack, seize.'²⁷

The above examples demonstrate that Jurchen was under Mong influence both in AMo and MMo periods. No wonder that Manchu, the continuation of Jurchen or its closest relative, has also many old and new Mong loan words. It is surprising, however, that Mongolian does not have borrowings which could be regarded with certainty as taken from Jurchen, although one would have expected to find such loan words in view of Jurchen's importance at a time when the consolidation of the Mongolian tribes was in its very initial stage. This might be another proof that the reason for borrowing of words is not the political or cultural inferiority of the speakers of the borrowing language. The most convincing other examples are Russian and Persian, both of them possessing a large number of Turkic loan words, notwithstanding the fact that both of them were culturally and otherwise considerably superior to the Turkic tribes.

After these preliminary remarks, we proceed to the AMo loan words in Jurchen.

1. Preservation of AMo **i* in the second syllable

In many cases the original **i* in the second syllable was assimilated to the vowel of the initial syllable as early as in Ancient Mongolian.²⁸ Cf. Mo *gedesün* < AMo **gedelsün* ~ **gedilsün* < **güdilsün* 'intestines' but Mo *ḡūḡige* < AMo **güdigē*, cf. Ev *gudiḡē* 'peritoneum'²⁹ < AMo; Mo *gede* < AMo **gede* ~ **gedi* 'occiput, nape,' cf. Mo *ḡēḡige* < AMo **gedikē* 'queue.'³⁰

Jurchen has preserved AMo **i* in the following words: J 483 *medige* < AMo **medigē* 'tidings,' cf. Mo *medege* < **medigē* 'information,'³¹ J 228 *hudila* < AMo *hudila* < AMo **kudirkā* 'crupper' > Mo *qudurḡa* id.³² Although Middle Turkic has only *quḡurḡun* 'crupper,'³³ i.e. an assimilated form, Ancient Turkic may have had **quḡıryın* 'crupper.'

2. Preservation of AMo **d* before **i*

In Ancient Mongolian **d* before **i* was still preserved, cf. AMo **güdigē* 'stomach' > Ev *gudiḡē* 'peritoneum.'³⁴

Jurchen has preserved several AMo forms with **d* before *i*, cf. J 383, 489, 756 *dirḡala-* 'to take pleasure, enjoy, be cheerful' < AMo **dirga-* > Mo *ḡirḡa-* 'to be happy, be joyful,' cf. Yak *sıryā-* 'to enjoy food' (a later borrowing from Mong);³⁵ J 483 *medige* 'tidings' < AMo **medigē* > Mo *medege*, Kh *mēḡē*

'information,' cf. the younger loan word Ma *medege* ~ *medexe* 'information, news' id.;³⁶ J 228 *hudila* 'crupper' < AMo **kudirkā* id.,³⁷ Ma *quduryan* id. and Ev *kudurga* id. being new borrowings from Mong.³⁸

However, there occur also two typical MMo forms with *j* < **d* which are to be regarded as later borrowings taken at the end of the Jurchen period. These are J 225 *ajir ajil* 'deed' < MMo, Mo *ajil* < AMo **adil* 'work,' and J 170 *ajir morin* 'stallion' (see above).

3. Preservation of AMo **f*-

Ancient Mongolian had the strong stop **p* or the bilabial voiceless fricative **ɸ* at the onset of many words.³⁹ It developed into *h* in Middle Mongolian,⁴⁰ and is still preserved as *χ* in some Mongolian languages.

Jurchen has at least one AMo loan word with *f*-, cf. J 410 *fute-* in *futemei* 'to see off' < AMo **pūde-* (or **ɸūde-*) id., MMo (H) *hūde-*.⁴¹ Mo *ūde-* id. This word occurs also in Manchu-Tungus languages, cf. Ul *pudeci-* 'to expel ("see off") an evil spirit,' Nan *pude-* ~ *fude-* id., Ma *fude-* 'to see off.' It occurs in the Northern Tungus languages only as a new borrowing from Mongolian, cf. *ude-*.⁴²

The other Jurchen word with *f*- is J 243 *fila* 'dish,' but this is certainly not an AMo loan word because Mo has *bila* 'dish, bowl' which is a borrowing from Turkic, cf. Osm, Crm *piyalā* 'bowl, mug,' Uzb *piyala* 'tea cup,' Cum *piala* 'goblet,' Kaz *piyala* < Pers *piyāla*.⁴³ Therefore J *fila* is to be regarded as a word of Pers origin but borrowed via Turkic together with such words as Ma *gindana* 'prison' < Pers *zindān* etc.⁴⁴

4. Initial AMo **k*

The initial **k* has developed into J *h* /*χ*/ in most cases both before back and front vowels, cf. J 393 *halabi* 'to alter' = Ma *χala-* 'to change, exchange, alter,' Neg *kala-* 'to replace,' Ud *kala-* 'to replace, change,' etc.;⁴⁵ J 467 *hendu-* 'to say' = Ma *xendu-* 'to speak, explain,' Or *ken-* 'to speak, converse,' etc.;⁴⁶ J 508 *hefuli* 'abdomen' = Ma *xefeli* id., Ev *keβāl* 'stomach,' cf. Mo *kebeli* < AMo **kepēli* 'belly'.⁴⁷ On the other hand, there are very few Jurchen words with *k*-.

There are the following AMo loan words with initial *h*: J 272 *hagan* (*haganni* genitive) 'emperor,' cf. Mo *qayan*, MMo *qa'an* ~ *qān* id., cf. Ev *kagan* etc.;⁴⁸ J 92 *halgun* 'hot' < AMo, cf. Mo *qalayun*, MMo *qala'un* id.; J 112 *hudila* 'crupper' < AMo, cf. Mo *qudurga* id.; J 336 *hulahai niyarma* 'burglar' < AMo, cf. Mo *qulaqai* id.; J 258 *hutuhan* 'cup' < AMo, cf. MMo *quduqa*, cf. Mu *quduya* 'pitcher';⁴⁹ J 144 *honi* 'sheep' < AMo **konin*, MMo Mo *qonin* id., cf. Ma *χonin*, Ev *konin* 'sheep,' Ud *xuani* 'ram,' etc.⁵⁰ < Mong; J *huo-li-han* /*χuriqan*/⁵¹ or /*quriqan*/ < AMo, cf. MMo (H) *quriqan* 'lamb,'⁵² Mo *quragan*, Bur *xurigan* id.

An exceptional development **k*- > Zero is found in J 655 *orin* 'twenty' which also occurs in Manchu and most Manchu-Tungus languages without a consonant at the onset, the consonant having been preserved only in Ul, Or, and Nan.⁵³ Tsintsius reconstructs a deep velar stop in cases like this.⁵⁴

5. The medial AMo **k*

The medial **k* is likewise represented by *h* in Jurchen, cf. J 336 *andahai* (in

andahai niyarma) 'guest' < AMO **andakai*, cf. Mo *andagai* 'oath, sworn statement,' Kh *andgaj* id., cf. Ma *anda* 'friend,' Nan *andaxa* 'guest,' Neg *andaxa* 'guest, a good fellow,' all < Mong;⁵⁵ J 547 *mahila* < AMO **makilai*, cf. MMo (Mu) *maqalai* 'cap,' Kalm *maxlā* id., Mo *malagai* id., cf. Ma *maxala* id. < Mong;⁵⁶ J 519 *turha* 'lean' < AMO **turka(n)* 'lean, emaciated,' MMo (Mu) *turqan* id., cf. Ma *turxa* id. < Mong.

6. Preservation of AMO *-g-

Intervocalic *g has been preserved in Mongolian before an original short vowel (strong position), but it has disappeared before an original long vowel (weak position).⁵⁷

In Ancient Mongolian -g- was still preserved in all cases.⁵⁸

Jurchen has preserved *-g-, cf. J 146 *bugu* 'deer' < AMO **bugu* (strong position) id., MMo *buyu* (cf. Mu *buyuyin tuyul* 'fawn,' lit. 'the calf of a deer'). Mo *bugu* id., Kh *bug* id.; J 92 *halgun* 'hot' < AMO **kalagün* (weak position) > MMo *qala'un*, Mo *qalayun*, Mog *qaloun* id., Dag *ḡalō* id.; J 94 *dulgan* 'warm' < AMO **dulugān* < Mo *dulayan*, Kh *dulaan* id., cf. Ev **dül-* 'to warm,' *düli* 'warm'; J 93 *sergun* 'cool' < AMO **serigün* > Mo *serigün*, Kalm *serün* id. Cf. Ma *serguven*, Ul *seuruli*, Nan *serguē* id. < Mong; J 137 *temge* 'camel' < AMO **temegēn*, Mo *temegen*, Kh *temee* id., cf. Sol *temegē*, Ma *temege* id.⁵⁹ < Mong; J 597 *jegun* 'left' (in the glossary incorrectly translated as 'right') < AMO **jegün*, Mo *jegün*, Kalm *zün* id. Cf. Ev *jevin* 'left,' Neg *jiyiniḡegde* 'left side,' Nan *jeuntu* 'left-handed,' possibly all < Mong; J 287 *degun* 'younger brother' < AMO **degū* > MMo *de'ü*, Dag *dew*, Mog *dōw*, Mo *degüü*, Kalm *dū* id., cf. Ma *deo* id. < MMo; J 523 *badgai* 'meal' (probably a genitive) < AMO **budagā* 'grain, cereal, millet, gruel' > Mo *budaya(n)*, Kh *budaa* id. Cf. Neg *buda* 'millet,' Ul 'millet, gruel,' Nan *boda* 'gruel,' Ma *buda*

7. Syllable- and word-final r in AMO

The syllable-final *r* in Mong loan words in Jurchen has been preserved: J 83 *erte* 'early' < AMO **erte*, Mo *erte* id.; J 483 *dirga-* 'to take pleasure' < AMO **dirga-* > Mo *ḡirga-* 'to be happy, to enjoy'; J 649 *durhon* 'fourteen' < AMO **dör-* (in **dör-bēn* 'four') + **hon* 'ten,' cf. AT *on* 'ten'; J 648 *gorhon* 'thirteen' < AMO **gur-* (in **gur-bān* 'three') + **hon* 'ten'; J 843 *irge-be* 'populace' (acc.) < AMO *irge(n)* > MMo (Mu), Mo *irgen* 'people'; J 519 *turha* 'lean' < AMO **turka(n)* > MMo, Mo *turqan* id.

The word-final *r* has been preserved only in J 329 *nekur* 'friend,' cf. Mo *nökür*, Kalm *nökg* id., cf. however, J 800 *nekulemai* 'to keep company,' cf. Mo *nökürle-* 'to befriend, to be friends with someone.' Otherwise, word-final *r* has been replaced by *n* as in all Tungus languages, cf. Ev *hirugēn* 'blessing, benediction' < AMO **pirügēr*. An example in Jurchen is J 187 *šinkoan* 'falcon' < AMO **šinkor*, Mo *šonqor*, Kh *šonxor* id. This word was borrowed from Jurchen into Manchu, cf. Ma *šonqon* 'peregrine falcon.'

The substitution of *n* for *r* is also found in medial position in J 641 *ningu* 'six' < **ḡirgu*, cf. Mo *ḡirguyan* < **ḡir-gu-bān* 'six' which has undergone the same development in all Manchu-Tungus languages, cf. Neg. *ḡunun*, Lam *ḡunḡn*, etc. < **ḡirgur*⁶² < Mong.

It is obvious that *-*r* > Zero, *-*r* > *n*, and the preservation of *-*r* as such date from different times. It is possible that the words with the final *n* were

borrowed from Ancient Mongolian, i.e., J *šinkoan* < AMo **šinkor* 'falcon.' The words with final *r* in Jurchen must have been borrowed later, i.e., from Middle Mongolian, i.e., J *nekur* 'friend' < MMo. As for *nekulemai* 'to keep company,' this goes back to **nōkūrle-*, the cluster *rl* having lost its first component. In J *ningu* the medial **r* has developed into *n/n/* under the influence of the initial *n*, and was assimilated (velarised) to the following *g*, i.e., **jirgu* > **nirgu* > *ningu* /*ningu*/.

8. On some Jurchen numerals

The Jurchen numerals 11 through 19 are of interest for two reasons. First of all, some of their components are of Mongolian origin and second, the numerals in question display a non-Altaic order of components. The Jurchen numerals were investigated for the first time by Laufer,⁶³ and from the Altaistic point of view by Miller.⁶⁴

The numerals in question are:

- J 646 *amšo* 'eleven' = Ma *omšon* (in Ma *omšon biya* 'the 11th month')
- J 647 *žirhon* 'twelve' = Ma *žorgon* (in *žorgon biya* 'the 12th month')
- J 648 *gorhon* 'thirteen' < AMo **gur* (in **gur-bān*) 'three' + **hon* 'ten'
- J 649 *durhon* 'fourteen' < AMo **dör* (in *dör-bēn*) 'four' + **hon*
- J 650 *tobohon* 'fifteen' < AMo **tabu* (in **tabu-n*) 'five' + **hon*
- J 651 *nilhun* /*nirhun*/ 'sixteen' < AMo **žir* (in **žir-gu-bān*) 'six' + **hon*
- J 652 *darhon* 'seventeen' < AMo **dal* (in **dal-u-bān* > Mo *doluyan* 'seven' + **hon*
- J 653 *niyuhun* 'eighteen' < AMo **nai* (in **nai-bān* > Mo *naiman*) 'eight' + **hon*
- J 654 *oniyohon* 'nineteen' < Juyun 'nine' + **hon*

Of these numerals *nilhun* 'sixteen' is of interest because it has preserved the syllable-final **r* (*nilhun* stands for **nirhun*) whereas J *ningu* 'six' is an assimilated form.

The other interesting form is 652 *darhon* (probably /*dalhon*/) 'seventeen.' It corroborates our reconstruction of Mo *doluyan* 'seven' as **dal-u-bān*.⁶⁵

On the other hand, the numerals mentioned are interesting because of the order of the components, namely, the smaller numbers precede the numeral *ten* as in English or Latin, an order quite unusual in the Altaic languages.

The general conclusion from the above discussion is that Jurchen is an important source for the study of the history of the Mongolian languages in that it has preserved a large body of AMo forms. On the other hand, Mongolian data can be useful for the reconstruction of Jurchen and other Manchu-Tungus forms.

Notes

1. Cf. Johannes Benzing, "Die tungusischen Sprachen: Versuch einer vergleichenden Grammatik," *Akademie der Wissenschaften und der Literatur: Abhandlungen der Geistes- und Sozialwissenschaftlichen Klasse*, Jahrgang 1955, Nr. 11 (Wiesbaden, 1956), p. 961. Menges tentatively suggested that "Jurchen" might have been a name invented by the Manchus, *vide* K. H. Menges, "Die Sprache der Jürčēn," *Handbuch der Orientalistik*, Erste Abteilung: Der Nahe und der Mittlere Osten, Fünfter Band: Altaistik, Dritter Teil: Tungusologie (Leiden/Köln, 1968), p. 246. This contradicts, however, the fact that the name "Jurchen" had been known long before the rise of the Manchus; cf. the form *Jürčēt* in the *Secret History* of A.D. 1240, Erich Haenisch, *Wörterbuch zu Manḥol un niuca tobca'an*

(*Yüan-ch'ao pi-shi*), *Geheime Geschichte der Mongolen* (Wiesbaden, 1962), p. 179. The same name occurs also in Rasīd ad-Dīn's work written in the first decade of the fourteenth century; see Rasīd ad-Dīn, *Sbornik letopisej*, Tom I, kniga vtoraja, Perevod s persidskogo O. I. Smirnovoj et al. (Moskva-Leningrad, 1952), pp. 76-77.

2. René Grousset, *L'empire mongol (=Histoire du monde, Tome VIII,3)* (Paris, 1941), p. 292.

3. Gisaburo N. Kiyose, *A Study of the Jurchen Language and Script: Reconstruction and Decipherment* (Kyoto: Hōritsubunka-sha, 1978), p. 23.

4. Wilhelm Grube, *Die Sprache und Schrift der Juchen* (Leipzig, 1896), p. 115.

5. Grube, *op. cit.*

6. L. Ligeti, "Note préliminaire sur le déchiffrement des petits caractères joutchen," *AOH* 3 (1953), pp. 211-228; "Les inscriptions djurtchen de Tyr: la formule *om mani padme hum*," *AOH* 12 (1961), pp. 5-26; "Les anciens éléments mongols dans le mandchou," *AOH* 10 (1960), pp. 231-248.

7. See note 1.

8. On Middle Mongolian see N. Poppe, "Das Mittelmongolische," *Handbuch der Orientalistik, Erste Abteilung, Fünfter Band, Zweiter Teil: Mongolistik* (Leiden/Köln, 1964), pp. 96-103.

9. Ligeti, "Anciens éléments," pp. 231-248.

10. Abbreviations:

AMo	-- Ancient Mongolian
AT	-- Ancient Turkic
Bur	-- Buriat
Crn	-- Crimean Turkic
Cum	-- Cuman
Dag	-- Dagur
Ev	-- Evenki
H	-- <i>Hua-i i-yü</i>
J	-- Jurchen, the number being that under which the word is listed in Kiyose, pp. 96 ff.
Kalm	-- Kalmuck
Kaz	-- Kazakh
Kh	-- Khalkha
L	-- Leiden Manuscript
Lam	-- Lamut (Even)
Ma	-- Manchu
MMo	-- Middle Mongolian
Mo	-- Written Mongolian (Script Mongolian)
Mog	-- Moghol
Mong	-- Mongolian
MT	-- Middle Turkic
Mu	-- <i>Muqaddimat al-Adab</i>
Nan	-- Nanai (Goldi)
Neg	-- Negidal
Or	-- Oroki
Ord	-- Ordos Mongolian
Osm	-- Osman (Turkish)
Pers	-- Persian
SH	-- <i>Secret History</i>
Sol	-- Solon
Ud	-- Udehe

Ul -- Ulcha
 Uzb -- Uzbek
 Yak -- Yakut

11. Menges, p. 249.
12. Menges, p. 250.
13. Ligeti, "Anciens éléments," p. 235.
14. N. N. Poppe, *Mongol'skij slovar' Mukaddimat al-Adab*, Čast' I - II (Moskva-Leningrad, 1938), p. 405.
15. Antoine Mostaert, *Dictionnaire ordos*, Seconde édition, (New York-London, 1968), p. 480.
16. Ligeti, "Anciens éléments," p. 234; Kiyose, p. 145.
17. Poppe, *Mongol'skij*, p. 202.
18. Mostaert, p. 188.
19. Ligeti, "Anciens éléments," p. 234-236.
20. Ligeti, "Anciens éléments," p. 235.
21. Poppe, *Mongol'skij*, p. 289.
22. Poppe, *Mongol'skij*, p. 97.
23. N. Poppe, "Ancient Mongolian," *Tractata Altaica Denis Sinor Sexagenario Optime de Rebus Altaicis Merito Dedicata* (Wiesbaden, 1976), p. 466.
24. Haenisch, p. 32.
25. Antoine Mostaert, *Le matériel mongol du Houa i i yu de Houng-ou (1389)*, édité par Igor de Rachewiltz avec l'assistance de Anthony Schönbaum (Bruxelles, 1977), p. 49.
26. N. Poppe, "Das mongolische Sprachmaterial einer Leidener Handschrift," *Isvestiya Akademij Nauk SSR*, 1928, p. 55.
27. In view of the ancient forms with *d-*, *Mo tayuli-* and *Kh tuuli-* can be regarded as the results of incorrect pronunciation of this old word.
28. N. Poppe, "On some cases of assimilation of **i* in Mongolian," *CAJ* 8 (1963), pp. 215-218.
29. Cf. *Sravnitel'nyj slovar' tunguso-man'čžurskix jazykov, Materialy k ètimologičeskomu slovarju*, Tom I: *α-η* (Leningrad 1975), p. 167. Quoted below as *Sravnitel'nyj slovar'.*
30. *Ibid.*, p. 177.
31. Ligeti, "Anciens éléments," p. 235.
32. Ligeti, *l.c.*, reconstructs this as *χudira* which is close enough to AMO **kudirkā*. However, *χudila* is not impossible by analogy with **χadala*, cf. Ma **χadala* 'bridle.'
33. *Drevnetjurkskij slovar'* (Leningrad, 1969), p. 464.
34. Poppe, "Ancient Mongolian," p. 466.
35. *Sravnitel'nyj slovar'*, t.I, p. 259. The Yak form *s̥ryā-* is not mentioned there. Instead, the word *sargi* 'fate' is given which does not belong here. Yak *s̥ryā-* is also missing in the index to Stanisław Kałużyński's *Mongolische Elemente in der jakutischen Sprache* (*Prace Orientalistyczne*, tom X) (Warszawa 1962).
36. *Sravnitel'nyj slovar'*, t.I, p. 564.
37. For the last two examples see section 1.
38. Cf. *Sravnitel'nyj slovar'*, t.I, p. 423.
39. Poppe, "Ancient Mongolian," p. 464.
40. Poppe, *Mongol'skij slovar' Mukaddimat al-Adab*, pp. 44-46; N. Poppe, *Introduction to Mongolian Comparative Studies* (= *MSFOu* 110), Helsinki, 1955, pp. 96 ff.
41. Mostaert, *Matériel mongol*, p. 61.

42. *Sravnitel'nyj slovar'*, tom II: o - è (Leningrad, 1977), p. 249.
43. Martti Räsänen, *Versuch eines etymologischen Wörterbuchs der Türkssprachen* (Helsinki, 1969), p. 386.
44. W. Bang, "Türkisches Lehngut im Mandschurischen," *UJb.* 4 (1924), pp. 15 ff.
45. *Sravnitel'nyj slovar'*, tom I, p. 364.
46. *Ibid.*, p. 448.
47. *Ibid.*, pp. 387-88. On the developments of *k- see V. I. Cincius, *Sravnitel'naja fonetika tunguso-man'čžurskix jazykov* (Leningrad, 1949), p. 215.
48. *Sravnitel'nyj slovar'*, tom I, p. 358.
49. Poppe, *Mongol'skij slovar'* *Mukaddimat al-Adab*, p. 312.
50. *Sravnitel'nyj slovar'*, tom I, pp. 409-410.
51. Ligeti, "Anciens éléments," p. 235.
52. Mostaert, *Matériel mongol*, p. 92.
53. *Sravnitel'nyj slovar'*, tom II, p. 24.
54. V. I. Cincius, "O sootvetstvii tunguso-man'čžurskogo anlautnogo x- || 0 tjurkskomu k-, q'-," *Tjurkologičeskie issledovanija* (Moskva, 1976), pp. 233.
55. *Sravnitel'nyj slovar'*, tom I, pp. 42-43.
56. *Ibid.*, p. 522.
57. Nikolaus Poppe, *Vergleichende Grammatik der altaischen Sprachen*, Teil I: *Vergleichende Lautlehre* (Wiesbaden, 1960), pp. 41 and 57; N. Poppe, "The primary long vowels in Mongolian," *JSFOu* 63:2 (1962), pp. 1-2; N. Poppe, "On the long vowels in Common Mongolian," *JSFOu* 68:4 (1967), pp. 3-4.
58. Poppe, "Ancient Mongolian," p. 466.
59. *Sravnitel'nyj slovar'*, tom II, p. 235.
60. *Ibid.*, p. 282.
61. *Ibid.*, p. 102.
62. *Sravnitel'nyj slovar'*, tom I, p. 647.
63. B. Laufer, "Jurči and Mongol numerals," *KCSA* 1:2 (1921), pp. 112-115.
64. Roy Andrew Miller, "Notes on the Jürčen numerals for the teens," *UJb* 47 (1975), pp. 146-153.
65. N. Poppe, "The groups *uɣa and *üge in Mongol languages," *Studia Orientalia* 14:8 (1950), p. 11. See also Poppe, *Introduction to Mongolian Comparative Studies*, p. 246. J *darhon*, together with many other examples in Mongolian, proves that Mo uɣa > ɔ assimilates the vowel of the preceding syllable: *dal-u-bān > Mo doluyan. The J form also proves that Thomsen's objections are unfounded; see K. Thomsen, "Die Entwicklung der Gruppe *uɣa (*üge) im Mongolischen," *Acta Orientalia* 23 (1959), pp. 263-267.