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THE TURKISH ELEMENTS IN 14TH CENTURY MONGOLIAN

by

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London

In a paper which I read at the International Congress of Orientalists at Munich in 1957, and subsequently published in the *Central Asiatic Journal*, IV, 3, I put forward three propositions.

The first was that the Turkish and Mongolian languages are not genetically related and that methods exist of telling whether a word occurring in both languages is native to Turkish and a loan word in Mongolian, or *vice versa*. I listed six such methods, and further study has confirmed the utility of all of them. But the simplest and, in some ways the most reliable, is the chronological one. Words which can be shown to have existed in Turkish before the Mongolian expansion at the end of the 12th century can safely be taken as native to that language and loan words in Mongolian, while words which cannot be traced in Turkish until after that date can be taken as native to Mongolian and loan words in Turkish, unless evidence can be produced to prove the contrary. There must inevitably be a few doubtful cases, but they are not numerous.

My second proposition was that it can be shown by phonetic evidence that Turkish words were borrowed by Mongolian at three periods anterior to the 15th century, and these periods I defined as:

- (1) prior to the 8th century, probably in the 5th or 6th.
- (2) between the 8th and 12th centuries, probably late in this period.
- (3) in the 13th and 14th centuries.

Further study makes it possible for me to elaborate and correct this proposition in certain respects.

I suggested that words borrowed in the first period were taken from an archaic Turkish language, which I tentatively identified as Tavğaç, and which had five phonetic peculiarities:

- (a) It preserved in some words an initial spirant d^1 which had become y - in 8th Century Turkish and appears in Mongolian as d -.

¹ As explained in my paper quoted above, p. 172, note 2, I use for Turkish the Official Turkish Alphabet with a few additional letters – spirant d , closed e , guttural η , palatal

(b) In other words it preserved an initial palatal \tilde{n} -, which had become y - in 8th Century Turkish, and appears in Mongolian as n -.

(c) It had made the sound change medial and final $z > r$.

(d) It had made the sound change medial and final $\varsigma > l$.

(e) It had made the sound change intervocalic $\tilde{g} > y$.

Further research suggests that two other phonetic peculiarities are characteristic of loan words of this period:

(f) Words in Mongolian with medial \tilde{j} seem to be borrowed from Turkish words containing medial \tilde{d} , e.g. *eṣen* from *idi*-. The sound change probably took place not in the original Turkish language but in Mongolian, and seems to be the earliest manifestation of Mongolian intolerance of the sounds *di* and *ti*, which it habitually changed to *ṣi* and *ṣi* in later Turkish and other loan words.

(g) Other loan words have forms and vocalizations somewhat different from those of the words concerned in standard Turkish. In particular a vowel, sometimes followed by an unstable $-n$ (as in *tariyan* from *tariḡ*), or the Mongolian noun suffix $-sun$ (as in *balayasan* from *balık*), is attached to the end of such words. This invariably occurs when the Turkish word ends with an unvoiced plosive or affricate, since early Mongolian did not tolerate these sounds in this position, but seems also to occur in the first period even when the word ends with other consonants, e.g. *miḡyan* from *miḡ* and *bayan* from *ba:y*.

In the second period words were borrowed from an old North Eastern Turkish language in which initial y - had been changed to c - (\tilde{j} -). This is the only certain criterion for identifying words borrowed during this period, but I am inclined to think that in this period the practice of adding a vowel to Turkish words persisted only when those words ended in an unvoiced sound. I am also inclined to ascribe to this period words which show the sound change final Turkish $-\varsigma$ ($\tilde{\varsigma}$) $>$ Mongolian $-s$, which was occasioned by the fact that early Mongolian did not tolerate a final $-\tilde{\varsigma}$. This seems to be the earliest period to which such words can belong since in the first period words were borrowed from a Turkish language in which $-\varsigma$ had become $-l$; on the other hand in the third period, or at any rate in the 14th century, final $-\varsigma$ ($-\tilde{\varsigma}$) seems often to be retained unchanged. Mongolian had no z , and this sound became s in the second and, at any rate in the *Hiiy*. (see below), dz in the third period.

\tilde{n} , and \tilde{g} and x for the voiced and unvoiced velar fricatives – and long vowels marked by an attached colon (:), and for Mongolian the standard system used by Prof. Poppe and other scholars, which differs on some points from the systems used by Prof. Haenisch and Dr. Lewicki.

In 1957 I suggested that the Mongolian-speaking people who borrowed Turkish words in the second period were the true Mongols. I am now inclined to think that they may have been another people, who spoke approximately the same language as the true Mongols but were in contact with the rest of the world before them. I also fixed the transition from the second to third period arbitrarily, and, as I now see, wrongly, at the date when Buddhism was first preached to the Mongols. This was a convenient date to choose since in this connection many more Turkish words (technical religious terms and so on) were borrowed from Uyğur, a standard Turkish language in which all words which before the 8th century had initial *q-*, *ñ-* or *y-* began with *y-*, and this sound had not been changed to *c-* (*č-*). But it is obvious that the third period really began at about the end of the 12th century, when the Mongolian expansion gathered force, and the Mongols came into contact with many new peoples and ideas. For example, we know from the Chinese authorities that before this the Mongols were quite illiterate; such words as “writing brush” must therefore have been borrowed after this date. Again in the *Secret History*, the earliest substantial Mongolian text, compiled in about the middle of the 13th century and containing several loan words with initial *č-*, but none with initial *y-*, there are several Persian loan words, some apparently obtained direct and not through Turkish, and these mark a completely new stage in the development of the language.

My third proposition was that the Turkish-speaking peoples originated, and normally lived, in the steppes and adopted a pastoral and agricultural economy much earlier than the Mongolian-speaking peoples, who originated and habitually lived in the forests, practising a hunting, fishing and food-gathering economy, until they emerged into the open country, and learnt the elements of animal husbandry and agriculture from their Turkish neighbours. I suggested that this could be proved by a study of the kind of words that the Mongols borrowed from the Turks and gave a few examples of zoological terms which seemed to indicate that this was so. The history of the Mongols and the Magyars seems to me to have developed on exactly the same lines. Both were originally forest peoples, living in different parts of the great Siberian forest belt. Both emerged into the steppes, and both became such typical nomadic steppe-dwellers that people tend to forget that they were ever anything else.

Soon after the Munich Congress I acquired copies of the late Dr. Marian Lewicki's and Prof. Haenisch's studies of the Mongolian *Hua-I i-yü*,² in future called *Hiiy*., and found that they provided an abundance

² M. Lewicki, *La langue mongole des transcriptions chinoises du XIVe Siècle – Le*

of linguistic material arranged in the most convenient manner possible for putting these propositions to a full scale test.

The story of the *Hiiy.*, the names of its authors, and the date of, and reason for, its compilation have been set out in detail by Lewicki and can be summarized very briefly. When the first Ming Emperor had driven the last Mongolian Emperor out of China and consolidated his government, he was still greatly concerned politically with the Mongols, and ordered a commission of scholars to compile a handbook of the Mongolian language. This was done almost immediately and the handbook, entitled *Hua-I i-yü* "the Chinese-Barbarian Interpreter", was published in A.D. 1389. It is divided into two parts, a classified vocabulary and a collection of documents, the whole in Chinese transcription. It must be emphasized that the first part was a Chinese-Mongolian vocabulary, not a Mongolian-Chinese vocabulary. The compilers started by preparing a list of Chinese words, or adopting a list already available, and finding Mongolian equivalents for them. The list was tailored to Chinese, not Mongolian, ideas and institutions. Thus on the one hand it contains many entries of no significance to the Mongols, words like "rhinoceros", "elephant" and "phoenix", while on the other hand large sections of the Mongolian vocabulary which would have been of great interest to us, for example the technical terminology of clan and tribal organization, find no place in it. Thus the vocabulary gives us only an incomplete picture of the natural surroundings and social and economic conditions of the Mongols, but still one of the greatest interest and significance. It should be added that the documents in Part II contain a large number of additional words which do not appear in Part I. These have all been indexed and translated in Lewicki's second volume, but I have not taken them into account since they would not significantly alter the picture which I shall try to paint, and they could not without great labour and some uncertainty be allocated to their proper Sections in Part I. Most of them would fall in Section 12 with the verbs or in Section 17 with the miscellaneous adjectives and adverbs.

Part I of the *Hiiy.* contains 846 entries, arranged in 17 Sections, each devoted to words relating to a particular subject or belonging to a particular class. Prof. Haenisch has transcribed and translated the whole with parallel material from a later (16th century) edition. His translations occasionally differ from Lewicki's, and in those cases I have ventured to choose those which seem to me the more appropriate. It should be added

Houa-yi yi-yu de 1389 (Warsaw; Pt. I 1949; Pt. II (posthumous) 1959); E. Haenisch, *Sinomongolische Glossare, I: Das Hua-I ih-yü* (A.D.A.W., Berlin, 1957).

that his numeration of the entries is slightly inaccurate. He skipped a number (634) at the end of Section 13 and another (667) at the end of Section 14 and added an entry (849) which appears at the end of the later, but not the earlier, edition of the *Hiiy.*, so that his numeration runs to 849 instead of 846.

Section 1, headed "Astronomy", contains 19 entries relating to heavenly bodies, "the sun" etc., and natural phenomena, "wind", "snow" etc. Only 3 have Turkish translations: "heaven" *teṅgiri* (*teṅri*);³ "hoar-frost" *kira'u* (*kıraḡu*); and "the Milky Way" *teṅgiriṭin oyalar*. The last phrase raises some etymological difficulties. The suffix *-lar* postulates a Turkish origin, but we do not seem to know what the Turks called the Milky Way in the 12th century or earlier, and the modern phrases, like *kehkeşan* (a Persian loan word) and *saman yolu*, do not help. The modern Mongolian phrase *teṅgiriṭin oyodal* means literally "the needlework of heaven", and, unless *oyalar* is a muddle of *oyodal*, which seems very unlikely, the *Hiiy.* phrase presumably has the same meaning in Mongolo-Turkish. *Oya*, derived from the verb *oy-*, does in fact mean "needlework" in Osmanli, but in all other Turkish languages the form is *oyu*, which is not recorded before the 13th century, and presumably represents an earlier **oyuḡ*. It is therefore surprising to find *oya* in Mongolian. It should be added that the scription in the 16th century *Hiiy.* is *üye*, which is probably a mere error. *Üye* is a Turkish word meaning "rib", or more generally "limb, member", but it is only a modern form of *eyegü*;, which survived at any rate till the 15th century and became *üye* only recently and only in a limited number of South Siberian Turkish languages.

Section 2, headed "Places", contains 38 entries, which can be divided rather arbitrarily into two groups, the first containing, say, 25 entries relating to physical features, "mountain" etc., and the second containing, say, 13 entries relating to man-made features, "path", "cart-track" etc. In the first group only 3 entries seem to have Turkish translations: "sand" *ḡumaki*,⁴ "sea" *dalai* and "spring" *bulaḡ*. The first is presum-

³ In this and future quotations I give the translation of the Chinese word first, the Mongolian word second, and third, in brackets, the Turkish word borrowed, in its earliest recorded form.

⁴ I discussed the question of the velar sounds in the Mongolian spoken in China in the 13th and 14th centuries in "The ḡPags-pa Alphabet", *B.S.O.A.S.*, XXII, 2. This alphabet has two letters for velar sounds, one clearly representing the unvoiced velar fricative *χ*, which occurs only in Chinese words and a few Turkish loan words, like *burḡan*, in Mongolian, and the other clearly representing the voiced velar fricative *γ*, never used in Chinese words, but always used in Mongolian words, including Persian loan words like *baḡ* "garden". The Chinese transcriptions in the *Hiiy.* and the *Secret History* do not distinguish between two velar sounds in Mongolian, and it seems more

ably Turkish *kum* “sand”, the only early form of that word; the longer form suggests a first period loan word. *Dalai* is the Turkish *taluy*, which is recorded as early as the 8th century, but is probably ultimately a loan word (?Chinese), since the Turks, like the Mongols, did not come into contact with the sea till comparatively late in their history. *Bulaγ* is no doubt Turkish, since although the word does not seem to occur in an actual Turkish text before the 13th century it forms part of such Turkish place names as *Tüzün* (or *Tuzun*?) *Bulaγ* in the *Ḥudūd al-‘Ālam*, which was written in A.D. 983 (see Minorsky’s translation, *E. J. W. Gibb Memorial*, New Series XI, London, 1937, Index A).

In the second group 4 words have Turkish translations: “town” *balayasan* (*balık*), and “arable field” *tariyan* (*tariğ*), both first period; “country” *ulus* (*uluş*), probably second period, and “well” *γuduy* (*kuđuğ*) undatable. Two words have Persian, third period, translations: “garden” *baγ* (*bāğ*) and “market” *badzar* (*bāzār*).⁵ It has been suggested that “stone” *čila’un* is connected with the Turkish *ta:ş*, which appears in modern Chuvash, a language very similar to that from which words were borrowed in the first period, as *t’ul/çul*, but the structure of the two words is markedly different.

Section 3, headed “Times”, contains 24 entries relating to times, seasons and the weather. It contains only one Turkish word *erte*, and that only in the phrase “very early in the morning” *manaγar erte*. *Čaγ* “time” is sometimes said to be a pure Turkish word; it is, in fact, a Mongolian loan word which did not displace the old word *ōd* for “time” until after the Mongolian invasion.

Section 4, headed “Plants”, contains 38 entries, falling into four groups. Group 1 contains 8 entries relating to trees and shrubs, and only one Turkish word *boro* (*bo:z*) “gray” and that only in the phrase “thorn bush” *boro kečē’ō*.

Group 2 contains 6 names of tree products; only one “apricot” *güilesun* appears not to have a Turkish origin. The rest are translated by Turkish words: “fruit” *žemiš* (*cémiš* < *yémiš*) and “nut” *ji’aγ* (*cağak* < *yağak*), both second period, but with final sounds more proper to be third; “pear” *alima* (*alma*: “apple”), “flower” *čečeg* (*çeçek*), undatable, and “grape” *üdzün* (*üzüm*), third period.

scientific to use one only in transcribing the *Hiiy.*, which on the evidence of the *ḥP*ags-pa alphabet must be the voiced *γ* and not *χ* (Lewicki) or *h* (Haenisch), except in the case of those few loan words which have *χ* in *ḥP*ags-pa.

⁵ The derived word *bedzirgan* (*bāzārgān*) “merchant” occurs in Part II, and also in the *Secret History*.

Group 3 contains 16 names of cereals and vegetables; only 3 are not translated by loan words: “hulled rice” (*mi* (Giles 7,802) also used for other grains), *amun*; “leek” *yoγosun*; and “wild onion” *mangir*. Eleven have Turkish translations “millet” *yonoy* (*konak*), “barley” *arbai* (*arpa*:) “wheat” *buγudai* (*buğda:y*), “rice” *tuturyan* (*tuturğa:n*), “peas” *burčay* (*burçak*), “onion” *so’oŋgina* (*so:ğan/so:ğun*), “garlic” *sarimsay* (*sarumsak*), “melon” *ya’un* (*ka:ğu:n*), “calabash” *yabay* (*kabak*), “mustard” *kiči* (*kıçı*:) and “radish” *turma* (*turma*:); none are firmly datable, but *so’oŋgina* looks like a first period loan word and the final *-γ* for *-k* in four others points to the third period. Two are translated by Persian third period loan words “water melon” *arbusa* (*xarbūza*) and “egg-plant” *badīnya* (*bādingān*).

Group 4 contains 8 entries, generic terms like “tree” and parts of plants like “leaf”. It has been suggested that *nabčīn* “leaf” is etymologically connected with the synonymous Turkish word, the oldest form of which is *yapurğa:k*, derived from *yapur-* “to cover, hide”, but the words are completely dissimilar and no connection seems probable. There are no other foreign words in this group.

Section 5, headed “Animals”, contains 116 entries falling into 4 groups. Group 1 contains 47 names of quadrupeds. Of these 15 seem to have Turkish translations, 4 at least originally foreign to Turkish. Six are technical terms of animal husbandry: “stallion” *aŋirya* (*ađır*), “ox” *hüger* (*öküz*, probably derived from “Tokharian B” (Kuchaeen) *okso*), “cow” *üne’en* (*ingek*) and “sheep” *yonin* (*koñ*), all first period, and “bull” *buγa* (*buğa*:) and “puppy” *güčüg* (*kiçig/küçüg*) undatable. Six are wild animals: “camel” *temeyen* (*tevey*), and “hare” *taulai* (*tavişgan*), both first period; “elephant” *ja’an* (*cağan* < *yağan*), and probably “musk-ox” *jiyar* (*yıpa:r* “musk”, but not specifically “musk-ox”), second period; and “lion” *arsalan* (*arsla:n*) and “wild goat” *ima’an* (*imğa*:), undatable. Three are exotic animals from the 12-year animal cycle (in which other borrowed names of animals also occur) in the forms which they have in Turkish: “dragon” *lu*, ultimately derived from Chinese *lung* (Giles 7,479⁶) and “tiger” *bars* and “ape” *bečīn*, both words of Iranian origin. Two other technical terms of animal husbandry have foreign translations “gelding” *aχta* (Persian *axta*, past passive participle of *axtan* “to geld”) and “mule” *laosa* (Chinese *lo-tzū* – Giles 7,290 12,317). This leaves 29 translations which are prima facie Mongolian. The only one which is obviously dubious is *kirs*, used to translate Chinese *hsi* (Giles 4,128), which is usually taken to mean “rhinoceros, tapir” or, more fancifully,

⁶ References in this form are to H. A. Giles’ *Chinese-English Dictionary*, 2nd Edition (London, 1912).

“unicorn”. The Mongols are unlikely to have had their own names for any of these animals, and *kirs*, with its two consecutive final consonants does not look like a Mongolian word, but there is no obvious foreign etymology. Turkish has only loan words for the names of these animals.

Group 2 contains 16 entries relating to fish, reptiles and insects. Only two have Turkish translations: “flea” *bürge* (*bürge*) and “locust” (or “grass-hopper”?) *čürge* (*çekürge*).

Group 3 contains 33 names of birds, obviously selected from the Chinese rather than the Mongolian repertory and some of them hard to identify. At least 7 have Turkish translations: one “economic” bird, “domestic fowl”, *takiya* (*takiğu*); 4 sporting birds “sparrow hawk” *kiryui* (*kırğu*:y), and three kinds of “falcon” *šinȝor* (*soŋku*:r), *turumtai* (*turumta*:y) and *lačın* (*la*:cin), the last a loan word of unknown origin in Turkish; and 2 smaller birds, “swallow” *ȝariyača* (*karğula*:ç/*karlığa*:ç) and “turtle dove” *kökörčigen* (*kökürçü*:n). “Swan” *ȝun* may be a crasis of Turkish *koğu*; if so probably a first period loan word. “Phoenix” is translated *ȝarudi*, the Sanskrit *garuḍa* obtained through Turkish in the third period; and two have Persian, third period, translations, “parrot” *toti* (*tütī*) and “peacock” *ta’us* (*tā’ūs*, originally Arabic). The remaining 22 seem to have Mongolian translations.

Group 4 contains 20 entries relating to parts of animals, animal sounds etc.; one only has a Turkish, first period, translation: “horse’s mane” *del* (*da*:l > *ya*:l).

Section 6, headed “Houses”, contains 17 entries relating to houses, parts of houses and other structures. Four have Turkish translations: “bridge” *ke’ürge* (*köprüg*), probably first period; *ordo* (*ordu*:) in “palace” *ordo ger*, and “funerary memorial” *suburȝan* (*suburğa*:n), undatable, and „brick” *kerbiš* (*kerpiç*), probably third period.

Section 7, headed “Implements”, contains 71 entries falling into 4 groups. Group 1 contains 9 entries relating to carts, parts of carts and harness. Not one has a Turkish translation. It has been suggested that *aral* “cart shafts” is related to Turkish *arış*, but such a loan with *ş* > *l*, if it had occurred, must have been during the first period, and at that time *arış* did not mean “shafts” in any Turkish language now known. *Arış* and *arka*:ğ occur in Turkish from the 8th century onwards meaning “the warp” and “the weft” on a loom; in some languages the latter is replaced by *arğaç* from about the 14th century onwards. All three are obviously derived from a verb **ar-*, which has not survived with any relevant meaning (there are two verbs *a:r-*, meaning respectively “to be tired” and “to deceive”). The earliest occurrence of *arış* meaning “shafts”,

presumably a metaphor from the parallel threads of the warp, seems to be in Abul Gazi, a 17th century Özbek writer.

Group 2 contains 15 entries relating to weapons and military equipment. Only 3 have Turkish translations: “banner” *oraŋya* (*oruŋu:*) and “big drum” *körge* (*kövrüg*), both first period, and “shield” *yalya* (*kal-ka:n*), undatable.

Group 3 contains 4 entries, “rope”, “sickle”, “trough” and “plough”, all with Mongolian translations.

Group 4 contains 43 rather miscellaneous entries relating to household equipment, musical instruments etc. At least 10 have Turkish translations: “broom” *špürge* (*süpürgü:*), probably first period; “needle” *jöün* (*cigne*: < *yigne:*), “lamp” *ĵula* (*cula*: < *yula:*) and “lamp bowl” *ĵulabĉi* (the same with a Mongolian suffix), second period; “seal” *tamya* (*tamya:*) and “writing brush” *üdzüg* (*üjek* “a written character”, ultimately derived from Chinese *tzü* (Giles 12,324), same meaning) probably third period; “bamboo trellis” *ĉig* (*çığ*), “cup” *ayaya* (*ayak*), “pair of scales” *batman* (*batma:n* “a weight”) and “castanets” *ĉalgi* (*çalğu:*), undatable. One has a Persian, third period, translation: “easy chair” *sanjali* (*sandalī*). At least one, “ink”, is translated by a Chinese loan word *beke*, from *mo* (Giles 8,022; “Ancient Chinese” *mək*); and the translation of “bottle”, *luŋya* with its initial *l-*, must be a loan word, probably Chinese.

Section 8, headed “Clothing”, contains 26 entries. Only 3 appear to have Turkish translations: “collar” *ĵaya* (*caka*: < *yaka:*), second period; “shoe” *ĉaruy* (*çaruk*), probably third period, and “cotton cloth” *bös* (*bös/böz*, ultimately derived from Greek *byssos*). “Silk fabric” *kib* looks like a Chinese loan word, but cannot be identified as such, and “brocade” *ĉama* may be the Persian word *cāma* “garment, robe”.

Section 9, headed “Foodstuffs”, contains 28 entries, names of foodstuffs and some cognate verbs etc. At least 4 have Turkish translations: “parched grain” *ütmeĝ* (*ütmek*),⁷ and “dried cheese” *ĵurud* (*kurut*), probably third period; and “vinegar” *širke* (*sirke:*) and “vegetable drug” *em* (*em*), undatable. Four others have translations which seem to be derived from Turkish roots, but do not occur in the early period; “camel’s milk” *ayiray* (which probably did not properly mean “camel’s milk” in Mongolian; derived from *ađır-* > *ayır-* “to separate”), “curds” *aĵarĉi* (from *aĝar-* “to be white”), “cheese” *taray* (from *ta:r* “curds”) and “a

⁷ There are two possible explanations of this word; it might be *ötmek*, an ordinary Turkish word for “bread”, or alternatively the Infinitive, used as a noun, of *üt-* “to scorch, parch”.

kind of cheese" *bişlay* (from *biş-* "to cook"). The rest seem to be pure Mongolian. It is improbable that *ide-* "to eat" is connected with Turkish *yé-*, and at most certain that *dabusun* "salt" is not connected with Turk *tu:z*, though both these etymologies have been suggested.

Section 10, headed "Precious objects", contains 13 entries. Only 7 certainly have Mongolian translations: "silver", "copper", "tin", "copper ore", "quicksilver" (translated by the phrase *göleyen usun* "shining water"), "pearl" and "coin". The last is translated by *jo'os*, which looks like a Mongolian word, but the economic implications of the existence of coinage in the primitive Mongolian economy are very peculiar, and it is possible that the word originally meant something else, for example "bronze", a word which may well have been required by a people who were familiar with copper and tin but not iron. Three entries have Turkish translations: "gold" *altan* (*altu:n*), probably first period; "jade" *yaş* (*ka:s*), probably third period; and "iron" *temür* (*temür*). "Jewel" is translated by *erdini*, the normal form of Sanskrit *ratna* in Turkish, and two entries have Persian, third period, translations: "large pearl" *tana* (*dāna*) and "crystal" *bolor* (*bulūr*).

Section 11, headed "Man", contains 86 entries falling into 4 groups. Group 1, containing 16 entries relating to various kinds of men, seems to have 7 Turkish translations: "farmer" *tariyači* (*tariğçı:*), "craftsman" *uran* (*u:z*) and "lord, master" *ejen* (*idi:*), probably first period; and "emperor" *yaγan* (*kağan*), "troops" *čerig* (*çerig*), "physician" *otoči* (*ota:çı*) and "religious teacher" *baχši* (*baxşı*, from Chinese *po-shih* – Giles 9,372 9,909), the last probably third period, the rest undatable.

Group 2 contains 35 entries, almost all terms of relationship. Only one has a Turkish, or rather Sogdian translation: "lady" *γatun* (*xatun*, Sogdian *γwt'yn*). It has been alleged that "elder brother" *aγa* (*ağa*) is native to both languages, but this is not so. Before the 12th century "elder brother" in Turkish was *éçi:*; *ağa* did not enter the language until after the Mongolian invasion.

Group 3 contains 29 rather miscellaneous entries such as "Tatar" (translated *moγγol*), "Chinese" (translated *Kita*), "singer", "thief" and so on. Ten have Turkish translations: "shepherd" *γoninči* (**koñçı:*), "oxherd" *hügeči* (**öküzçı:*) and "male shaman" *bö'e* (*bögü:*), probably first period; "scribe" *bičeči* (*bitigçı:*), a word ultimately derived from Chinese *pi* (Giles 8,979; "Ancient Chinese" *pjet*) "writing brush"), "Buddha" *burxan* (*burxan*, the first syllable Chinese *fo* (Giles 3,589), "Buddha"), and "Buddhist monk" *toyin* (*toyin* from Chinese *tao jên* (Giles 10,780 5,624), same meaning), probably third period; and "am-

bassador” *elčin* (*elçi:-*), “despatch rider” *ulači* (*ula:ğçı:-*) and “hero” *ba’atur* (*bağatur*), undatable. One, “Mahomedan”, is translated *sarta’ul*, which is *sart*, the Turkish form of Sanskrit *sartha* “merchant”, with a Mongolian suffix, no doubt a third period loan word.

Group 4, within Group 3, contains 6 Mongolian personal pronouns.

Section 12, headed “Human activities”, contains 130 entries, nearly all verbs with a few adjectives and nouns. Not more than 9 seem to have Turkish translations: “rich” *bayan* (*ba:y*), “to dance” *böji-*, or perhaps *büji-?*, (*büdi:-*) and “to curse” *sögö-* (*sög-*), all first period; “to take cognisance” *tani-* (*tani:-*) and “to understand” *uγa-* (*uk-*), both apparently required to supplement the more general Mongolian verb *mede-* “to know”; “to show favour” *soyurγa-* (*soyurğa:-*), “beloved” *amuray* (*amra:ğ*), “honourable” *čen* (*çin* “true”) and “to count” *sana-* (*sana:-*), undatable.

Section 13, headed “Sound and colour”, contains 17 entries straying rather beyond the limits of the heading. It contains only 8 indisputably Mongolian translations; four colours: “red”, “white”, “green” and “plain coloured”, and “sound”, “shadow”, “gleam” and “breath”. The remaining nine have Turkish translations: “yellow” *šira* (*sariğ*), “gray” *boro* (*bo:z*), “colour” *öngö* (*öñ*) and “camel-coloured” *temeyen öngö* (*tevey öñ*), all probably first period; “violet-coloured” *fihiyin* (*cipkin* < *yipkin*), second period; and “blue” *kökö* (*kö:k*, properly “sky”), “black” *γara* (*kara:-*), “crimson, or purple” *al* (*a:l*) and “incense” *güji* (*küji:-*, probably a Sogdian loan word), undatable.

Section 14, headed “Numbers”, contains 34 entries, cardinal numbers, words denoting quantity and the like. The cardinal numbers up to 100 inclusive, and “number”, “how many?”, “many”, “few”, “kind”, “only”, “single” and “double” all have Mongolian translations. The remaining 8 entries have Turkish translations: “1000” *miγγan* (*miγ* < *biγ*), first period; two words for “half” *jarim* (*carım* < *yarım*) and *jarimtuγ* (*carım-çuk*, a diminutive form), both second period; “pair” *γoš* (*koş*), probably third period; and “10.000” *tümen* (*tümen*, from “Tokharian B” (Kuchae-an) *tumane*), “thousands and thousands” *tük tümen* (the same with an alliterative intensive prefix), “herd” *sürüg* (*sürüg*) and “piece” *keseg* (*keseg*), undatable.

Section 15, headed “Bodies”, contains 77 entries, falling into 2 groups. Group 1 contains 51 entries relating to the body, its parts and its secretions. At most 7 have Turkish translations: “face” *ni’ur* (**ñü:z* > *yü:z*) and “fist” *ñudurγa* (**ñudruk* > *yudruk*), first period; “heart” *jiüriken* (*cürük* < *yürek*), second period; “beard” *sayal* (*saka:l*), “waist” *bel* (*bél*),

and perhaps “sole of the foot” *ula* (*u:l*, in Turkish only “foundation”) and “knee cap” *tobuγ* (*tobuk*, in Turkish originally “a small ball”, later in some dialects “ankle”), undatable.

Group 2 contains 16 entries relating to physical qualities and defects, human institutions and the like. Only 4 have Turkish translations: “lean, emaciated” *turuγan* (*turuk*) and “understanding” *uγaʿan* (probably *uka:ğa:n*), first period; “decision, intention” *ǰoriγ* (*coriğ* < *yoriğ*), second period; and “tribal custom” *törö* (*törü.*), undatable.

Section 16, headed “Directions”, contains 17 entries relating to the four cardinal points and more general concepts. It contains no Turkish translations.

Section 17, headed “Miscellaneous”, contains 88 entries, nearly all adjectives or adverbs, and mostly arranged in pairs of opposites, “difficult, easy” and so on. It seems to contain only 3 Turkish translations: “pure” *ariʿun* (*ariğ*) and “hard” *γataʿu* (*katığ*), both probably first period, and “difficult” *berke* (*berk* “solid, unyielding”). It is possible that the translation of “new” *šini* is Chinese *hsin* (Giles 4,574), same meaning.

This completes the review of the various Sections. Other scholars must judge whether my identifications of loan words in them are correct; and it is possible that some of the words which I have accepted as pure Mongolian may in fact be loan words. Subject to that, it is possible to present some statistics. Of the 846 entries at least 29, and perhaps 3 more – “silk fabric” *kib*, “brocade” *čama* and “new” *šini* – have translations which are neither pure Mongolian nor pure Turkish, a proportion of these being Turkish words of non-Turkish origin. Of the remaining 814 entries, 123 have Turkish translations, and two (“very early in the morning” and “thorn bush”) are translated by phrases of which part is Turkish. Some of the remaining 691 Mongolian words were later used as loan words in one or more Turkish languages. Thus of the total vocabulary nearly 20%, and more if later Turkish borrowings are taken into account, consist of words common to both languages, some, the first period loan words, in forms diverging from one another in the same kind of way as words in different languages belonging to the same genetically related group. It is very easy to understand how in these circumstances scholars who were not familiar with the history of either language, but merely compared them quite uncritically as they found them in the dictionaries available to them, should have come to the conclusion that two languages which had so much of their vocabulary in common, and were similar in other respects, must be genetically related. But this theory will not stand up to critical examination.

The whole vocabulary of the *Hiyy.*, when divided into its two (or three) component parts, presents a consistent pattern. The words which are *prima facie* pure Mongolian, nearly 700 in number, obviously represent the basic vocabulary of a primitive people: most of the words for the heavenly bodies, natural phenomena and physical features, all the words for times and seasons, and trees and bushes (including generic terms and names of parts of plants), a good many names of quadrupeds and birds and nearly all names of fish, reptiles and insects and parts of animals, a good many words for houses, parts of houses, and other structures, all the words for vehicles, their parts and harness, the names of various implements, including most weapons, most of the words for clothing and basic foodstuffs, but a very limited range of metals, all the intricate terms of relationship, a good many words under the headings of "Man" (including all the personal pronouns) and "Human Activities" (including nearly all the verbs), the numerals up to 100 inclusive and most of the words denoting quantity, nearly all the names of parts of the body, all the words under the heading of "Directions" and practically all the "Miscellaneous" adjectives and adverbs.

A parallel Turkish vocabulary could be compiled translating exactly the same Chinese words, except for a few specialized items like the forest trees and bushes, and the words contained in it would be completely different. Indeed the phonetic structures of the two languages are basically so different that very few words in the two lists would be even phonetically identical, though of course semantically different. One of the few examples is Mongolian *eri*- "to seek", Turkish *eri*- (originally *erü*-) "to melt".

An analysis of this basic vocabulary, in fact, even though it represents a very incomplete and arbitrary selection from a strictly Chinese point of view, gives a fairly clear picture of the Mongolian-speaking peoples as they were before they came into contact with their more advanced neighbours. They inhabited the forests, and had their own names for the trees and bushes which grew in them. They were still in the bronze age and were not acquainted with iron or gold. They sometimes lived in houses, but not brick-built houses. Their household equipment was so rudimentary that they had neither brooms nor lamps. Their family organization required an elaborate apparatus of terms of relationship, but the largest social unit seems to have been the village. So far as their religious ideas were concerned, they believed in the existence of spirits, (or ghosts), *oŋyon*, and devils, *čitkor*, but had no word for "heaven" (*tengiri* is Turkish). They had female shamans, *iduyan*,⁸ but not male

⁸ This word is an old one among the Mongolian-speaking peoples; a Kitan *iduyan*

ones (*bö'e* is Turkish). They maintained themselves primarily by hunting, fishing and food-gathering; but they kept horses, donkeys, dogs and perhaps pigs, and may have practised a little very primitive agriculture. They had carts and harness, and had made paths and cart tracks to enable them to move about. Apart from the word for "coin", which probably originally meant something else, perhaps "bronze", there is no evidence that they engaged in trade, and indirect evidence that they did not, since the words for "merchant" and "market" are third period Persian loan words. It is doubtful whether there were appreciable differences of wealth; *bayar* "rich" is a Turkish loan word and *üge'ü* "poor" means, etymologically, "not possessing". They did not always live at peace, and apart from the weapons of the chase had a repertory of offensive and defensive weapons, but not the appanages of formal warfare, troops, banners, shields and big drums. They had fairly elaborate clothing including thick clothes, but not thin cotton stuffs, or perhaps silks, and boots, but not shoes. They did not use needles or wear collars on their garments. They paid considerable attention to the weather, and could distinguish between the cardinal points. They counted up to hundreds, but had no higher unit.⁹ They had never seen the sea.

This picture of the Mongolian speaking peoples in their original habitat, based on an analysis of their native vocabulary, can be supplemented by a picture of their subsequent social and economic evolution, based on an analysis of the loan words which entered the language in the three periods referred to above. The whole story is like a dramatic performance in four Acts. In Act I the curtain rises on the Siberian forests, with small groups of primitive animists – hunters, fishers and food gatherers – living not exactly as savages but still in a very primitive and unorganized fashion. In Act II the scene changes to more open country, and the representatives of a higher form of society step from the wings onto the stage to play their parts, the farmers, stock breeders, poultry keepers and craftsmen, and, either in this or a later Act, the physicians with their vegetable drugs. The people pass from the bronze to the iron age. Bridges are built and wells dug. New animals like the camel and hare, and insects like the locust, are encountered, and domestic livestock are kept. Cereals and vegetables are cultivated, a primitive dairy industry

is mentioned in a Chinese account of hostilities between the Northern Türkü and Kitans in the mid-8th Century, see A. E. Dien, "A possible early occurrence of Altaic *iduryan*", *Central Asiatic Journal*, II, 1.

⁹ In this respect they resembled the Basques, whose word for "1000", *milla*, is a Latin loan word.

starts and food becomes more diversified. Social organization develops to a point at which some villages become towns, and political life to a point at which kings, living in palaces, rule countries in accordance with tribal custom and control organized bodies of troops. Higher numerical units, 1,000 and 10,000, are required; and in this period too the 12-year animal cycle is adopted. Act III merges imperceptibly into Act IV, and it is often impossible to determine what further advances were made in each of them. The scene is still the same but the standard of living rises steadily, as the economy is further diversified. During Act III some of the farmers become horticulturists and fruit growers; other new economic crops are obtained in Act IV. In Act III household equipment is improved and includes lamps. People learn to use needles and have more to elaborate clothing. Further advances in these fields are made in Act IV. It was probably during Act III that some pastoralists learn the art of hawking; in Act IV they feel the need for new technical terms like "mule" and "gelding". Higher religious ideas are developed, particularly in Act IV. In Act IV too merchants appear and markets are established at which goods are weighed on scales. In short, sometimes in the 13th century the Mongolian-speaking peoples, with the help of the Turkish-speaking peoples, with whom they have now for a long time been in contact, catch up with their neighbours and take their place in the world.

POSTSCRIPT

After this article had been prepared for the press, I had occasion in another connection to look at the memoranda in the Chinese dynastic histories on the Kitan, who can reasonably be regarded as the most primitive Mongolian-speaking tribe of whom we have any description. Three are available in translation, that in the *Sui Shu*, which was finished in A.D. 636, that in the *Pei Shih*, which was finished in A.D. 644, and that in the *Chiu T'ang Shu*, of which the final edition was completed late in the 10th century. The second is an enlarged edition of the first, and the third describes the Kitan at a later stage in their development. Only the first, therefore, which is translated in Liu Mau-tsai, *Die Chinesischen Nachrichten zur Geschichte der Ost-Türken (Tu-küe)* (Wiesbaden, 1958), I, 125ff., need be taken into account. The description of the Kitan in this memorandum, which includes also some geographical and historical data, is most illuminating. "They plunder and rob with gusto. Anyone who mourns the death of his parents is regarded as a weakling. They put their corpses in a tree in the mountains. After three years they

collect the bones and burn them. Then they offer wine, pouring it on the ground, and say, 'During the winter months you eat facing the sun, (and during the summer months you eat facing the shade).¹⁰ If I go hunting, help me to catch many wild boars and stags.' They are the most uncouth and primitive of all the barbarians." It is easy to see why a people in this stage of spiritual development had to have a word for "ghost", but had not yet felt the need for a word for "heaven". It is interesting to note that even to-day *onγon* is a word of power in Mongolia. In *Filologiya i Istoriya Mongol'skikh Narodov* (Akademiya Nauk S.S.S.R., Moscow, 1958), 232, there is a photograph of the temple built at Ejen Khoro in 1956 to house the silver coffin of Chinggis Khan and his other relics. The plaque over the main entrance bears the simple inscription, in ancient Uyğur character, *Čingis kayanu onγon*.

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Some further etymologies have recently come to my notice. Mr. Grinstead of the British Museum has pointed out to me that *čama* "brocade" is probably the Chinese word *chin* "brocade" (Ancient Chinese, Karlgren, *Grammata Serica*, No. 652 e *kism*). Mr. Sinor of Cambridge has informed me that Prof. Laufer pointed out in *Chinese Clay Figures* (Field Museum of Natural History Publications, 177, Chicago, 1914) p. 124 that *kirs* "unicorn, rhinoceros" is a corruption of Arabic *hariṣ* "rhinoceros". *Aral* "cart shafts" is probably Arabic 'aral, same meaning, with the 'ayn elided. In the *Secret History* and the XIVth Century Mongolian glosses to the *Muqaddimatu'l-adab arab* has only its native Mongolian meaning "island". Mr. Sinor has also pointed out to me that *γayiči* "scissors" in Section 7, Group 4, is also, as might have been expected, a Turkish loan-word.

¹⁰ These words have fallen out of the present edition of the *Sui Shu*, but are preserved in later authority.