THE CONSONANTAL SYSTEM OF OLD CHINESE

PART II

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ADDITIONAL BIBLIOGRAPHY: EARLIER CHINESE WORKS

I Chou shu 逸周書 10 ch., reprint in Ta'ung-shu chi-ch'eng.
Mu T'ien-tau chuan 目天傳 6 ch., reprint in Sa-su ta'ung-k'an.
Pen-t'ao hang-mu 本草綱目 52 ch., by Li Shih-chien 李時珍, 1596, reprint, Shanghai 1954.
Shu-o-sen chi-tzu hsi-chuan 詞文解字集成 40 ch., by Hsi K'ai 許謙, Sa-su ta'ung-k'an.
Shu-o-sen chi-tzu kuo-tou 詞文解字稽古 66 t's,' compiled by Ting Fu-pao 丁福保, 1928.
T'ang hui-yao 唐會要 100 ch., by Wang P'u 王溥, 961, Kuo-hai chi-pei ta'ung-shu.
Yin-tao chang-yao 統考正要 3 ch., by Hu-szu-hui 胡思渴, 1331, in Sa-su ta'ung-k'an.

ADDITIONAL BIBLIOGRAPHY—MODERN BOOKS AND ARTICLES

BENVENISTE 1940: E. Benveniste, Textes vogadiens édits, traduits et commentés.
CASTÉR 1954: Alexandre Castéron, "Versuch einer Jenissei-Ortakischen und Kotsischen Sprachordnung.
CHAVANNES 1903: E. Chavannes, Documents on les T'ou-hou (Turc) Occidentaux.

DRAGUNOV 1939: A. A. Dragunov, "Osobennosti fonologicheskoi sistemy drevne-
tibetalkogo yazyka", Zapiski instituta vostokovedenya Ak. N. SSSR, 7 (1939) (Cited by Miller 1955, p. 481.)
EGAMI 1948: Egami Namio: 上江夫, Yūrasya kodai hoppō bunka.
EGAMI 1951: Egami Namio, Yūrasya hoppō bunka no kenkyū.
GABAIN 1950: Annemarie von Gabain, "Hunnishisch-irische Bezeichnungen".
ZEHLI VEITZER TOSKAN'S ARMAGAS (Symboles in honorem Z. V. Togana), pp. 13-37.
HENNING 1940: W. B. Henning, Sögidei.
KARLSTEN 1928: B. Karlgren, Philology and Ancient China.
KLAPROTH 1833: Heinrich Julius von Klaproth, Asia polyglotta.
KLAPROTH 1826: Heinrich Julius von Klaproth, Tableaux historiques de l'Ase.
LÉVI 1895: S. Lévi and E. Chavannes, "L'itinéraire d'Ou-Kong" in 1895, pp. 234-45.
LÉVI 2013: S. Lévi, "Le tokharian B' langue de Koutcha", JA 51/2, pp. 311-70.
LO 1933: Lo Ch'ang-p'i E Turu Wu-tai ki-pie feng-yin 羅治五代北方音. (The north-western dialects of the T'ang and Five Dynasties.)


PALLAS 1776-8: P. S. Pallas, Reise durch verschiedene Provinzen des Russischen Reiches.

PELLOT 1904: P. Pelloit, Deux itinéraires de la Chine en Inde à la fin du VIIIe sicle. BEFE 4 (1904), pp. 131-413.


RUBRUIUS: Guillaume de Rubruius, The journey of William of Rubruck to the eastern parts of the world, 1258-59, translated by W. W. Rockhill, 1900.

SCHLEGEL 1829: G. Schlegel, "Hennins or conical lady's hats in Asia, China and Europe," TP 3 (1892), pp. 422-29.


SLEDÁK 1949: Kamal Sledáček, "The tonal system of Tibetan (Lhasa dialect)," TP 47 (1949), pp. 131-250.


SHIRATORI 1902: Shiratori Kurikuchi, "Sinologische Beiträge zur Geschichte des Türkvolker, II: Über die Sprache der Hünnung und der Tung-hu Stämme,"


SHIRATORI 1956: Shiratori Kurikuchi, "The geography of the Western Regions studied on the basis of the Ta-ch'ian accounts," MTB 15 (1956).
As Tung T'ung-ho has amply demonstrated, Karlgren's attempt to set up his open -o and -u groups involves splitting up two of the established Shih-ching rhyme categories and cannot be achieved without arbitrary and illogical expedients. In order to explain the fact that his -o group words regularly rhyme with words which he reconstructs as -āg, Karlgren supposes that already at the time of the Odes, in one dialect the latter had lost their final and become -o, etc., but that in another dialect, also represented in the Odes, they had retained their finals. When he finds words in -āng, -āk, -āng, -āk, etc. in hsieh-sheng series with words which he reconstructs as open syllables he either ignores the fact or tries to explain it away by saying, for example, that a character has been "applied to another word of similar meaning". Such cases are however quite numerous. Thus: 

者 M. ča (K. *čćā/tčćā): 著 M. čtio, čtjo, čtjo, 轉 M. čtjo, čtjo, 革新 M. čtik (Karlgren 1957, no. 45) 

且 M. tsjtā, etc. (K. *tstjā/tstjā): 駄 M. dzuč, tsač (K. *dzć/tstāng) (i.ebid. no. 46). 

固 M. kou (K. *ko): 固 M. hak (Karlgren 1957 does not admit the phonetic role, nos. 49, 1258a). 

專 M. phio: 愛 M. pek (Karlgren 1957 places in separate series, nos. 102, 771). 

帯 M. nou, tsuč < *nhač (only the former reading is given in Karlgren 1957, no. 949) 

鞍 M. ku (K. *ku/kyu): 鞍 M. kač (treated as separate series 1957, nos. 109, 1198). 

鬢 M. njio, momentum M. njoč, 頭 M. njoč (Karlgren 1957, no. 124, ignores the anomaly). 

數 M. sjio, sauc (the same character appears twice in Karlgren 1957 under no. 123 面 M. jiu and, as if it were a separate character, as no. 120? 

Tung T'ung-ho 1948 restores -g throughout these two groups but still leaves group -a with open syllables (see also Simon 1938, pp. 276-8). He discounts the evidence of occasional rhyme and hsieh-sheng contact with -a, regarding them as exceptions which need not receive special explanation. It is difficult to see, however, why open -a should have special affinity for -ān, rather than -ām, -āg, -āg, etc. The evidence is precisely the same kind as that used by Tung against Karlgren's -o and -u groups. Thus in hsieh-sheng series we find: 

番 M. phioan, pe (播 M. pač "winnow" is the same word as 番 M. parč with phonetic lab M. bječ) 

箝 M. nač: 藍 M. nč 

個 M. kač, kanč 

漆 M. kwač: 極 M. kwanč 

描 M. tsweč, twač, chiwenc: 彩 M. twan 

宙 M. tač, tanč: 真 M. tan 

Karlgren's reconstruction of -ā in such cases (but -a where there is no direct evidence of contact with -a) involves him in the same arbitrary splitting up of a rhyme category as his separation of -o and -āg or -u and -ug. In poetic rhymes we find contacts with -a in this group even in the Han period, e.g. in Huai-nan-tnx and 聲 M. ēhwa rhyming with 麻 M. swan 

議 M. ēhwa rhyming with 髓 M. kwanč and 聲 M. kwanč, in the I-lin 禪 M. hwarč rhyming with 且 M. džjwen and 聲 M. džjwen, 陜 M. pje rhyming with 魚 M. ljen, 程 M. čje rhyming with 聲 M. rwanč (Lo and Chou 1958, pp. 252, 296). Lo Chen-yu and Chou Tsu-mo try to explain this as a dialectal phenomenon involving the nasalization of final -a after this vowel, but although this may seem phonetically plausible, it is equally plausible to explain both the hsieh-sheng contacts and the rhyme contacts by a dental final giving a possible rhyme with -a, which was later lost leaving an open vowel. Moreover there is good reason, from transcription usage, as we shall see, to suppose that such words still had a final consonant in Han times.

Wang Li expostulated even about Karlgren's system, "In no language in the world is there such a poverty of open syllables" (1957, p. 64). Apart from recognizing the loss of stop finals where later chi-ū-sheng (falling tone) words rhyme with stops, he tried to explain the hsieh-sheng evidence entirely on the basis of vowel congruence, i.e. by supposing that identity of head vowel was sufficient to account for the occasional use of the same phonetic in words with and without a final consonant. This involved him in a number of arbitrary assumptions: that -ə and -e went only with -sk, -σ and -ek, -σ respectively, not with -st, -sn, -sp, -sm or -et, -en, -ep, -em; that -si, -esi, on the other hand went only with -st, -sn and -et, -en respectively; that vowel a occurred before -k, -i but not before -t, -n, -p, -m, -u and that conversely a never occurred before -k, -i and so on. Moreover in order to account for the diverse developments from the various classes he was forced to set up a system of diphthongs, triphthongs and tetra-phthongs, with long and short semi-vowels and head vowels, which is much more difficult to accept as phonetically plausible than a system with no open syllables.

There is indeed good comparative evidence for a language, not geographically very far removed from Chinese, which appears to have had no open syllables, namely Old Mon. H. Shorto (1956, pp. 349-50) alludes to the "primary phonological system of Old Mon which requires a final consonant", in connection with the tendency to add an etymological final -h to foreign loanwords ending in a vowel. In a note which he kindly supplied me he adds, "OM (early XII century) uses an Indian alphabet with three short vowels, a, i, u, and five long, ā, e, ē, o, ū. Graphemic final short vowel is phonologically [a?] etc., which is confirmed by numerous variant spellings of the type pa=pač, pi=pič, as well as by
historical evidence. (Possible exceptions are the proclitic particles /ko/, /na/
/ta/.) Graphemic final long vowel—phonological final vowel occurs only
in loanwords (including two putative ones of which the source is unknown
and the two sentence final particles: ʾā exclamatory, tā, etc., interrogative).
The initial consonant of tā is variable and is a repetition of the preceding
final consonant, e.g. cmat tā. Final ā, ĩ, ā arise in Middle Mon (late
fifteenth century) through the loss of final r, l, and by a continuance of this
process modern spoken Mon has acquired a full set of final vowels, although in the
written language final ā and ĩ still serve to mark loanwords.

It is relevant to note that Old Chinese had no syllables with vocalic
opening, the laryngals, ʾ, h, h, being, as we have seen, integrated into the
consonantal system. This also appears to have been true of Classic
Tibetan—assuming R to represent a voiced laryngal like Chinese h. By
analogy with this initial system we may suppose that syllables without any
other consonantal final had to be closed by a laryngal, as in Old Mon. This
is relevant to the problem of the origin of the tones. Evidence is given below
in support of Haudricourt’s hypothesis that the Chinese tonal system
developed in historic times through the loss of certain final consonants. If
this is accepted it means that in earlier times Chinese lacked tones as a
distinctive phonological feature of the syllable, and would have constituted
an exception to the observation of Hockett (1955, p. 61) that as far as he
was aware there was no case of a system with syllable juncture which
did not have tones of one kind or another. By “systems with syllable juncture”
he meant languages like Burmese, Tai, Vietnamese and Chinese dialects
like Cantonese, in which there was no contrast between medial codas—one
sequences and interclides, or roughly speaking what one means by “mono-
syllabic languages”. The point seems to be that in such languages the tone
being a feature of the syllable as a whole, serves to define the boundaries of
the syllable and mark it off from its neighbours. In the absence of tones we
may suppose that the initial and final laryngals served the same function.

The analogy with the initial system provides a clue, in my view, to the
nature of the lost final in the level tone associated with velar finals. If
instead of Karlsgren’s voiced velar stop -g we restore a voiced laryngal [h]
in the level tone in rhyme classes where later open syllables show contacts
with velars, we have a situation quite parallel to the initial system, where
laryngals and velars show frequent hsiāng-sheng contacts.

The best opinion about the Tibetan letter R in initial
position (at least when it is not a prefix) seems now to be that it was a
voiced laryngal [h] such as is found in the Wu dialects of Chinese and as
we have reconstructed in the initial system of Old and Middle Chinese (cf.
Miller 1955, quoting Dragunov, 1939). This letter also occurs finally and,
although in standard written Tibetan it can be looked upon as merely a
spelling device, this is not so in T’ang dynasty manuscripts. We find such
spellings as pah, phah for standard Tibetan pha “father” and it also occurs
before -s in baγh=standard Tibetan ba “enough”. (See Thomas, 1955.)
Sefidqāk 1959 treats it as a consonantal “inferior pharyngal” final with
regard to the development of tones.

If we reconstruct *h, rather than a velar stop -g (or even, as Simon, a
velar fricative -γ), we have a good explanation for the fact that in the Han
period it is words in this category which are most used for foreign open
syllables. It is striking that in pre-Buddhist Han dynasty transcriptions
words of the Cha’i-hsien -a class are extremely uncommon. This is in
marked contrast to the later situation in which such syllables as 阿 M. ‘a,
虞 M. la, 摩 M. ma, 陀 M. da are the most common characters in
transcriptions, occurring literally hundreds of times. Their later frequency
is easily understood. Open syllables were adaptable to a much wider variety
of situations than closed ones and a-like vowels are common in most
languages. The reason these syllables are rarely found in earlier transcriptions
must be that they still had a final dental consonant. In Han dynasty
transcriptions we find instead syllables in M. -ou, -jo (and -jou after
labials and Old Chinese labiovelars and labiaryngals), in the level tone,
occurring with a correspondingly high frequency with the value of foreign
a-vowels. Apart from examples where the foreign equivalent can be identi-
ified, such as 负 ah M. -ou-qî -san’=Alexandria (Wei-liüeh, see Hirth
1885), 子 前 M. hjou-den < *hwaγh-den=Hvatana, Khotan (see p. 91
above), 都 M. tou-mjîk=Tarmita (see p. 124 above), 都 贸 M. tou-
la’i=Talas (see
below), syllables such as 阿 M. ‘ou, 郭 M. ‘ou <
*ah, 陀 M. tou, 宍 M. nou, 虞 M. lou, 容 M. mjou < *mahh occur with
a frequency comparable to syllables in M. -a in later times in which
which cannot yet be traced back to foreign originals.

In the light of this we can see that Fou-t’u 舊{ Lou M. bju-dou <
*buγh-deh, the early transcription of Buddha which appears in the Hou Han
shu and Wei-liüeh (Chavannes 1905), conforms to the normal Han dynasty
pattern assuming an original in -da like Sanskrit Buddha or Gandhāri buddha
(Brough 1962) and does not need to be referred to a Pali form Buddha as
Chi Hsien-lin (1948) supposed. (On the alternative spelling of 善 as the
second character, which was introduced at a later time to avoid the in-
suspicious meaning “butcher”, of the original second character see Pelliot
1906, p. 373, n. 2.)

When we come to transcriptions in actual Buddhist texts, syllables in
Middle Chinese a (or in certain cases o, a, ja) predominate for Indian ā
from the beginning, and also in many cases for short ā, though here ā and
ja are common especially in the early period. This clearly illustrates the
untenability of the thesis advanced by Zürcher (1959, pp. 39-40) that the
early Buddhist translators at Lo-yang took over the system of transcribing
foreign words that had been devised in official circles. Traces of the older
contacts with velars which occur still in the Han period, e.g.: 受 M. nou
rhyming with 澆 M. mok; 徙 M. thou < *thāh rhyming with 顔 M. mauk <
*mloau, 迷 M. suk < *sok, 木 M. muk < *mok (Lo and
Chou 1958, pp. 150, 227). A similar rhyming contact between *h and M.
* after the vowel *a < *i is found in 縂 M. sjo < *sāh rhyming with 得
M. tak (ibid., p. 272). Examples of *h (=K.*g in level tone) representing
foreign open syllables in other vowels than -a are also common. Many
illustrations may be found quoted above.

The lost dental final in level tone words

We have given grounds for thinking that there was a dental final
throughout the Shih-ching rhyme class in which Karlgen sometimes
reconstructs open -d (or -a, -ja, -ia, etc.) and sometimes -dr (or - jár). One
might simply extend Karlgen’s -r to the whole class. Against this is the
fact that we have not reconstructed -r as an initial phoneme and, while
there is no a priori necessity for all final phonemes to be found initially as
well, the principle of economy is in favour of it. Moreover it may be objected
against Karlgen’s theory that if an -r had existed, it would be hard to
understand the fact that Chinese -n is regularly used for foreign -r in the
Han period. Lu Chih-wei proposed a weak implosive -d (in contrast to a
strong explosive -d, where Karlgen had -d). It seems extremely unlikely
that there should have been explosive and implosive final stops as con-
trastive phonemes. It seems quite likely that final stops in Chinese were
always implosive, as they are in modern dialects which preserve them and
as they appear to be also in Tibetan.

Having reconstructed *s as an initial phoneme, I prefer to follow
Simon’s hypothesis and reconstruct it finally also, I shall reconstruct it not
only after -a, but also after -ā and -ē < *i (including -wē < *i). (Karlgen
recognizes only an -er class, but it is generally agreed by Chinese
scholars that classes corresponding to *en and *on among later open
syllables must be recognized. The *en group also includes certain words
which Karlgen reconstructed as -jär, -juär-) On analogy with initial *s we
should expect to find final *s corresponding to Tibeto-Burman -l. One
may note such cases as Tib. k’a “burden” (cf. sgal “load”, khel-ba, perf.
khel, fut. sgal “to load”); 荷 M. lā < *gā; Tib. hkol-ba “hang down”;
瘥 M. jiwe < *dōh “hang down” (cf. also the active verb with infixed
l- 疳 M. dżwe < *dłōs “press down, crush”); Tib. brgyal “sink, dawn, faint”;
ho-brgyal “fatigue, weariness”, Lepcha pual; 鬱 M. bje < *bίša“worn out,
exhausted” (*bl in this word is proved by the alternative reading M. bae <
*blēa “stop”—other cognates are no doubt 卑 M. bai < *blos “be ruined, defeated”, M. pai < *blats “to defeat”, 鬱 M. bjei <
*blats (or *blatsa) “worn out”). Benedict 1948 compares
Tibeto-Burman *m-rīl ~ *g-rīl “wash” (Tib. hul-ba, etc.) with 洗...
M. seï, sen/. Note also Tib. bnyul-ha “to wash” which supports the indications from the hsieh-sheng that the Chinese initial was originally *snb- (see p. 132).

The loss of Chinese final *-b was going on through the Han period, can be seen from the development of the poetic rhymes. It appears to have gone first after long å, for we find such rhymes as 瞼 M. jie < *(v)lo,知 M. jie < *tå already in later Chou texts such as Lao-tze, the Ch’i, tsu, Han Fei-tzu and the Lü-shih ch’un-ch’iu (Lo and Chou 1598, p. 25; Karlsgren 1932). It is noteworthy that the word M. jie is particular common in this sort of rhyming and it seems probable that the initial stage in the process was dissimilation between initial I and final -b. Examples without liquids in the initial are also found however, like 瞼 M. hiwe rhyming with 瞼 M. tie < *ηeh and 瞼 M. tie, etc., in Lao-tzu.

In Western Han such rhymes became more and more common and we also find occasional rhyming between M. -a < *α and M. -ei < *αei or M. -ye < *e showing that final *-b was beginning to disappear here also. (The vowels must be supposed to have been quite close but not necessarily identical. The *-αei and *-αei groups also rhyme freely in most Han authors but they remain distinct in transcription usage and they only fell together in Middle Chinese to a very limited degree, so they must have remained phonemically distinct.) In Eastern Han rhymes Lo Ch’ang-p’ei and Chou Tsu-mo treat M. -je < *-β as part of the *-eh group. By this time too M. -a, -ia < *-låh, *-gåh, *-gåh, etc., rhyme with M. å < *-å and M. -a < *-tåh (which still form a single rhyme group), especially in the level tone (Chou and Lo 1598, pp. 13, 23). On the one hand this indicates the splitting of the original *-eh group by the rounding of the head vowel towards M. -ou, io when not preceded by -g- or -l- but it must also imply the loss of final *-b in the original *-eh group. The loss of *-b is not so clearly implied since it would probably not have been an obstacle to rhyming with an open vowel. Indeed one might suspect, that if the system of final laryngals was still intact, the loss of any other final would automatically entail the substitution of a laryngeal closure.

The departing tone

To restore *-b or *-b according as velar or dental connections are revealed through rhymes and hsieh-sheng series provides an adequate explanation of most level tone words with open syllables in Middle Chinese. (The possibility of a weak labial final *-v in some cases will be touched on below.) It has long been noted however that the departing tone shows a quite distinct pattern. In the first place Old Chinese rhyming and hsieh-sheng contacts between Middle Chinese words with open syllables and words with final stops are far more common in the departing tone. This is most apparent in those Middle Chinese rhymes which exist only in the departing tone—ai, ai, jei\'/y\'ei\', jäh—and which show abundant contacts with -t. Recognition of this phenomenon at one time led Karlsgren to suppose that final stop consonants -b, t, p—had been lost under the influence of tone. He later abandoned this idea in favour of the reconstruction of voiced -g, -d, -b, but he left unexplained: (1) why vocalization of -d to -s should always result in the falling tone, while the parallel vocalization of -r to -i or -0 could result in any tone, (2) why, although final -g gave all three tones, contacts with -k are much commoner in cases where it gave the falling tone.

Wang Li’s reconstruction (1598, pp. 83–90) according to which -k, -t, -p were lost after originally long vowels, giving the falling tone, does take account of the special relationship of the falling tone to the final stops but is unsatisfactory in other respects. It is hard to reconcile with the theory which he develops later in the same work that the departing tone was a derivational device which could affect words in any tone (ibid., p. 253).

A different proposal has been made by Haudricourt (1954, see also 161) on the analogy of Vietnamese. Vietnamese, like Tai and Miao-Yao, has a tonal system closely analogous to that of Chinese, with two registers corresponding to original voiced and unvoiced initials and three contours in each register, apart from words with final stops which form a separate category. According to Haudricourt it can be shown that the falling tone has developed from an earlier final -k representing an original -s. He suggests that the same thing may have happened in Chinese, that is, that there may have been a suffix *-s which could be added to other words to form derivatives and which has left its mark in the falling tone. This would account for the numerous prefixes like 好 M. hau “good”, hau “love”, 喜 M. aib “bad”, ou “hate”. Since then Dowener (1959) has assembled further evidence that words in “departing” tone are often to be regarded as derivatives of words in other tones and Forrest 1960 has shown that in Tibetan final *s plays the same kind of derivational role, e.g.: bkrud-pa “wishing”, k’rus < *k’ruds “washing”; cf. Ꜭ M. hwaak “to draw”, hwaak “picture”. The convergence of the widely separated comparisons with Vietnamese and Tibetan creates a strong presumption that Haudricourt’s theory is correct. I am now able to bring supporting evidence from early transcription which show that a final sibilant from original *ts was still pronounced in Chinese at least until the third century A.D.

In his article “Gandhari” (1946) Bailey gave a number of examples in which Chinese diphthongs in -i appear to represent a foreign sibilant or dental fricative: 波羅奈 M. pa-lo-nai = *varanasi for Skt. Varanasi; 三昧 M. sam-mai = *samadi for Skt. samadhi; 招提 M. dei-hiwei = *tvyasa, Skt. Trapaṇa, Khotanese trāvāsia; 切利 M. tâi-li = *tāvāsia, Skt. trāvāsī, Khot. tāvāṣia; 阿魏 M. a-giwey, 央匿 M. jāng-.giwi = Khotanese angusdā, Tokh. ankeus, Uigh. 'nkew "asafoetida";
be in Gandhāra. (It should be noted that there is no basis for the idea that Chinese -a could represent foreign r only before another consonant and not finally.)

The character 髀 M. kjei also appears alone as the name of the westernmost of the five kingdoms mentioned in the Han-shu 96A as subject to K'ang-chú. Here it probably stands for Kath, the ancient capital of Khwarezmia. Again the presentation of the geographical arguments will be deferred.

蒲嶺 M. bou-liw < *bōhwa(l)ts. This is the ancient name of Lake Barköl and also of a nomadic kingdom of the Han period (Han-shu 96A). Pelliot has quoted a T'ang dynasty source giving the name of the lake in the form 娑悉曇 M. ba-sıt-kjwat (Yuan-ho chün-hsien chih 40.10a, Pelliot 1929, p. 251). This stand for something like *ba(r)s-kél showing the sibilant which has now been lost but missing out the r-. The Han dynasty form would imply something like *barus. If the name is really related to Turkish bars “tiger” as has been supposed, it would prove the presence of Turkish speaking peoples in that region in the first century B.C. but it may only be a popular etymology of a proper name in another language.

In all the examples so far discussed the transcription value to be presumed has been a pure sibilant [s] (or perhaps in some of the later Buddhist ones a somewhat palatalized and voiced [ʃ] or [ʒ]) and there is no trace of the supposed stop consonant in *ts. Two examples from the earliest period remain to be discussed which might imply [ť] rather than [s]. Unfortunately they are both rather problematical.

蘇邇 M. sou-hası < *sah-glevts. This occurs first in Shih-chi 123.0268.2 as the name of a country which sent an embassy to China along with An-hsi (Parthia) in ca. 110 B.C. The name recurs in Han-shu 96A. 607.3 as one of the five petty kingdoms subject to K'ang-chú and, still later, Chin-shu 97.1337.3 calls it the capital of K'ang-chú. In Hsin T'ang-shu 221B. it is identified with Kesh. Such identifications are very unreliable in general but there are rather good grounds for accepting it as correct in this case. Marquart, who discussed it (1898, p. 57; 1901, p. 302 ff) pointed out that according to certain traditions Kesh had once been known as Soyd or as the capital of Soyd. He left open the question whether there could be a phonetic connection between our M. sou-hası and Soyd. There seems to be a chance that there is. It is true that Chinese I usually represents foreign r at this period but it seems likely that clusters of the type *gš, *kš had already been simplified so that *gl would have been left to do duty for both gl and gr, and even possibly for gš or yš. The vowel *a of the first syllable may have already shown a certain degree of rounding and so not have been inappropriate to represent the foreign o. The final *t's remains to be accounted for. Most of the Chinese
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forms in - for 赤 M. mi\-wai\, the eighth earthly branch, also give evidence of its fairly late survival but do not yield a precise date (see Egerod 1957, Haudricourt 1954).

The Middle Chinese rhymes which are to be referred to Old Chinese *-ts closely parallel the rhymes in -t, thus:

<table>
<thead>
<tr>
<th>Old Chinese</th>
<th>Middle Chinese</th>
</tr>
</thead>
<tbody>
<tr>
<td>at : a\i\</td>
<td>wat : wai\</td>
</tr>
<tr>
<td>jat : jai\</td>
<td>jwat : jwai\</td>
</tr>
<tr>
<td>et : ei\</td>
<td>wet : wei\</td>
</tr>
<tr>
<td>jet/yet : jei/yei\</td>
<td>jwet/ywet : jwai/ywai\</td>
</tr>
<tr>
<td>jat : jai\</td>
<td>jwat : jwai\</td>
</tr>
<tr>
<td>aat : aei\</td>
<td>wat : wai\</td>
</tr>
<tr>
<td>jit/yit : ji/yi\</td>
<td>jwit/ywet : jwai/ywai\</td>
</tr>
</tbody>
</table>

There is no separate rhyme in -i\ correspond to rhyme II, which is however probably not phonemically distinct from jii (see p. 80 above). There are a few other small points of difference between the -t rhymes and the -i\ rhymes, for example, although we find M. k\i\at \*k\i\at, like M. k\i\an \*k\a\n, the expected *M. k\i\a\n (see above); but by the time of Hui-lin the rhymes -i\n, jat, jai\ had all fallen together with je\n, jet, jei\ and, if the distribution in the Ch'\i\eh-yin is a true picture, we may suppose that the unlaot took effect earlier in Romance jai\ than elsewhere. Further discussion of such points of detail may be left aside here.

The falling tone from *x < *ks

Though final *-s, postulated as the source of the falling tone, survived in this way after original *-t until a late date, it seems to have already been lost in other contexts before the Han period.

The most probable value for original *-ks in the Han period seems to be a velar fricative *x. One may compare this with Baltic which has *-x for Classical Tibetan -gi (Forrest 1960, p. 237). The following examples may be cited:

`谢 M. zi\a\ < *损耗 (< *s\a\ka\, cf. 射 M. zia\, ziek, yek\). This is given as the "name" of the general of the You-chih who was sent against Pan Ch'iao in A.D. 90. S. Levi (1913, p. 330) proposed to identify it with Persian l\a\h\ "king". This seems very plausible. We know that the Kushan rulers used the Iranian title sa\o\nana la\o "king of kings" and the title 赤 王 fu-wang "deputy king" is mentioned by the Chinese both in connection with the You-chih and with the neighbouring K'ang-chih. (The exact phonetic value of *s\a\j\ > M. zi\a\ at this period is obscure but one may compare M. si < *si\j\ for Iranian i\ in 安息 M. san\j\i\k\ = Ar\\i\k (cf. p. 77 above). Note also the first syllable of 去 頭 雅 M. set-du-ya <
khyen-ljo< < *kh(8)eq-(h)lā'. For our present purpose the important thing to note is the final glottal stop, giving the later rising tone. We may perhaps compare the variation between glottal stop and h initially in *swāh-ne(8), the capital of Shan-shan (p. 89 above). It was there suggested that these might be alternative ways of representing a foreign uvular q. It is possible that we have the same thing here finally, implying something like the Turkish-q.

The falling tone from *h < *hs

Besides *-ks we must postulate *-hs (cf. -hs in Tibetan, p. 213 above). This is shown by such pairs as: 石 M. sjog “think”, sjog “brood”; 菰 M. yo < *sāḥ “to praise”, yo< < *sāḥs “praise, renown”. In general *-hs had the same reflexes as *-ks, thus: sjog < *sāḥs, like 石 M. yo< < *sāḥs (cf. 石 M. yok); 菰 M. daw< < *sūhs (cf. 菰 M. thau< < *sūhā), like 石 M. kau< < *kuls, besides yok < *kuk. It must be noted however that although M. daw may come either from *-ks or *-hs (also *-s, see below), and M. jō can also come from either *-hs or *-ks (the latter being more common), M. jō seems to come almost exclusively from *-hs. Exceptions are:

著 M. tiak “to place”, tiō “place, order” (but -ja does not occur at all after retroflex stops).

祟 M. sjō, cjo<, cf. 髻 M. ciek (phonetic is 石 M. jiek). One must, however, also note the kṣieh-sheng derivative in level tone 聖 M. cja which makes it possible that we have a case of *-h and *-k in the same series. The same may be true of 石 M. gio, gio<, 髻 M. gik, 聖 M. gio, kjo, etc.

It seems unlikely that rarity of M. jō< < *-ks is merely a matter of chance. The final velar fricative in *-dāx < *-dās may have persisted long enough to prevent the rounding of the vowel (having therefore the same effect as the final stop in M. āk or jek < *āk) so that it ultimately fell together with jā < *sāḥs rather than jō < *-hs.

This would imply that there was a significant difference in the transitional reflexes of *-hs and *-ks before they disappeared. I therefore write *-h for the former and *-x for the latter.

Examples of *-h < *-hs in Han transcriptions are rare but one may note the case of 石 M. kau-bjou< < *kauh-bōh = Kabul, Kabūpa (Hanshu 96A.0607.2, Hou Hanshu 118.0905.1). One must also compare with this M. kḥu-duzju< = Kūju, kadphises (see p. 123 above). Here M. dzju< would appear to come from *dzūks (cf. 髻 M. tajuk), implying *-x rather than *-h in Han. In both cases however the foreign sound represented appears to have been some kind of -l or -r. This is puzzling. If the -l in question was of a dark, velar kind, or if one had an uvular trill, one could suppose that a voiced velar fricative γ might have seemed a possible substitute, but the theory of the development of the falling tone from a final aspiration, replacing a sibilant, seems to require an
transcribed by Mokṣala (T.221, A.D. 291). Since the next syllable is *a, it might be argued that a final *-a (possibly somewhat palatalized to *-i, as it eventually yields *-i) would represent an assimilation of the end of this syllable to the beginning of the syllable following. But Kumārajīva, a little over a hundred years later, used 歧 M. da~ in the corresponding place (T.223, A.D. 403-4 and T.1509, A.D. 402-5) and it is natural to suppose that Mokṣala intended the homophonous reading of 大. Dharmarakṣa at the about same time as Mokṣala used 陿 M. da~-ha, in the level tone. (For a comparative table of transcriptions of the arapacana alphabet see Li Jung 1952.)

N.B. Certain modern dialectal readings of 大 go back to M. da~ (Karlgren 1924, p. 740). It is possible that Pekingese ta~ (contrast 大 t'a~) also goes back to M. da~ rather than M. dai~. By strict sound laws M. da~ ought to give to~ but this may be a case of irregular development in a very common word, tending to preserve a closer resemblance to the earlier shape of the word, as in the case of colloquial 他 t'a, read t'o~ in the Classical meaning of “other” (cf. Demiéville 1950). Karlgren attributes Peking ta~ to the loss of the final element of the “long diphthong” -ai; but as we have seen above (p. 79) the difference between M. ai~ and ai (Karlgren’s ai and 旖) is qualitative rather than quantitative. The parallels which he cites are not valid since they consist of cases where M. ai has merged with M. a rather than with M. ai and aei (see pp. 83–4 above).

The Rising Tone

According to Haudricourt’s theory of the development of the tones in Vietnamese, the rising tone is the reflex of an earlier final glottal stop. Since there is such a high degree of parallelism between the Vietnamese and Chinese tonal systems, and since the hypothesis of final *-s as the source of the falling tone has proved so successful, it is natural to consider the possibility that a final glottal stop may have been the source of the rising tone in Chinese also. The fact that the rising tone occurs in words with nasal finals is no obstacle since glottalized nasals or other liquids are quite possible and are indeed rather widely found in South-east Asian languages. Though in the early period the rising tone is not at all common in transcriptions, there are a few cases which can be cited which lend much plausibility to the theory.

Where the rising tone corresponds to a level tone in *-h we shall not of course suppose that there was a complex laryngal *-h but simply assume that the final glottal stop could alternate in ch‘ieh-sheng series with *-h and conditioned the same development of the preceding vowel. On the other hand the fact that we get pairs like 好 M. hau~ “good”, hau~ “love”, 古 M. kou~ “old”, 故 M. kou~ “former, original, etc.”, seems to indicate that we must reconstruct *-s as well as *-h and *-ks.
Just as we sometimes appear to have an initial glottal stop representing a foreign back velar or uvular stop, rather than simply a vocalic opening as is normal, so final glottal stop sometimes seems to be used to represent such a consonant. The probability that M. ʂiⱱ-tɕia than "lion" is based on Tokharian A. secsa, B. ʂiţa, has been mentioned above. The final glottal stop will here correspond to the Tokharian A. There is no reason to regard 子 here as the noun forming suffix of Modern Mandarin. In the earliest passages it is always treated as an inseparable part of the word and it is only much later that ʂia alone comes to be used for "lion".

The same character is found in M. kwan-tɕia mentioned in the Wei-luęe as the name of a fur-bearing animal in the territory of the Ting-ling (Chavannes 1905, p. 559, Hirth 1901, p. 82). In spite of Sinor's objections (1948, p. 9) this must surely be for *gizsaq, i.e. Turkish garsaq "arctic fox". Hirth, who could find nothing to stand for the final -g of Turkish, related it to Mongol and Tungusic forms but this is unnecessary, since the Chinese word had a final glottal stop which could stand for -g. Sinor's argument that Chinese -n in *kwan could not represent -r because the same character is used elsewhere with a value kun is of course of no weight (see p. 228 below).

In the place name 子合 M. tɕia-Ɂap < *tsa'-gəp=the later 朱駒波 M. cɕou-kliou-pa (see p. 109) the presumed glottal stop cannot be given a separate transcription value of its own but it may be compared to the cases where a stop final (-k, -t or -p) in transcription is simply an assimilation to the initial of the following syllable.

The possibility that M. siš < *stš, the Chinese surname given to natives of Keŝh=Soghd, may be based on a phonetic similarity to Silliq "Sogdian" has been mentioned above (p. 134). The final glottal stop would again represent a foreign stop consonant.

The founder of the Hsiung-nu empire, Māo-tun, is said to have conquered five peoples to the north including the Ko-kun (Kirghiz, see p. 123) and Ting-ling (the later T'ieh-lo, from whom the Uighurs emerged). The first name in the list is 慕 (or 蒙 M. huan-you < *gun-ʊʊ) Haloun is no doubt right in regarding them as the same as the 蒙源 M. kwan-you < *kwana-ʊʊ mentioned along with the Yüeh-chi in a memorial by Chia I of around 172–69 B.C. (Haloun 1937, p. 248). This name very much resembles that of the 曹州 M. hwiw-yuk < *hun-ʊʊ (also 蕃, 落 etc.) whose incursions into the Wei valley are associated with early traditions of the Chou state in the latter half of the second millennium (Shih-chi 1, see Chavannes 1895–1905, I pp. 10, 214; Meng-tzu 3.3.1, etc.). An identification over such a long space of time is of course very hazardous but if it could be established we should have a case of a glottal stop in one form corresponding to a velar stop in the other.

There is in any case no reason to follow the Chinese historians in regarding the *hun-ʊʊ as ancestors of the Hsiung-nu (Shih-chi 110.) just because they were an earlier people who caused trouble from the north—it is very doubtful whether Sau-ma Ch'ien thought the names were the same.

Nor can we follow a recent scholar who has thought that the ethnic name Hun was to be found in *hun-ʊʊ, *guan-ʊʊ, *kwana-ʊʊ rather than in Hsiung-nu (Pritsk 1959).

**Final *-ŋ**

The fact that the rising tone occurs in Middle Chinese rhymes which in the level tone come from *-ŋ requires us to reconstruct a corresponding glottalized *-ŋ*. A possible example in Han dynasty transcription is the element 麗 M. mje < *māŋ-found regularly as the final character in the designations of Wu-sun rulers. There is good reason to think that the Wu-sun spoke a Tocharian type of language. This makes it possible that we have here a word related to Tocharian A. wal, B. walo "king". It would of course be best for this comparison if we could reconstruct *-v*-rather than *-m*-in this word but this is doubtful because the word is in meaning a negative particle and is therefore likely to be related to the other negative particles in *-m*- where the original nasal is guaranteed by Tibetan ma and many other cognate forms. On the other hand if Chinese *-m*- and *-v*- were tending to fall together, *-m*- might have been used instead of *-v*- when no suitable syllable in *-v*- was available. If 蓋 M. man-khwāt, the name of the king of Parthia who sent an embassy to China in A.D. 101 (Hou Han-shu 118.9004.4), is really for Bakur=Paracus, which seems very probable on historical grounds in spite of the phonetic difficulties (final *t* for foreign -r is rare at this period and the final -n of the first syllable is unexplained), it may be a case of Chinese *-m*- for a foreign bilabial fricative [ŋ] which could be added in support of the question of *māŋ*-with the Tocharian words for "king". (Cf. Chavannes 1907, p. 178, Pelliot 1914, p. 406.) The T'ang dynasty use of M. m - ["b"]- for foreign b- is of course irrelevant to this discussion. So also probably is the occasional appearance of Chinese *-m*- for Indian v as in 挹陀波勿 M. gię-da-pa-mjwāt=Gandharvavati (T.224, p. 470C), which is probably to be explained in terms of the pronunciation of a nasalized labial fricative -v- in the underlying Prakrit. (Brough 1962, p. 88, regards this as confined to contexts in which there is a nasal consonant in an adjoining syllable but this does not seem to be strictly true, see p. 232 regarding *ci̱ara*-for *ci̱ara*.)

It appears from the study of Han rhymes by Lo Ch'ang-p'ei and Chou Tsu-mo that the rhyming of M. -a, -ja from original dental and laryngeal rhyme groups in Later Han was mostly in level tone words and that words in M. -a, -ja < *-ja, *ga, *gō still did not rhyme freely with the corresponding words in Old Chinese *-ŋ*. This would seem to indicate that the glottalized *-ŋ*- lasted longer than *-ŋ*- when not so
protected and might be the reason for using a word in the rising tone it was desired to use Chinese *界限 to represent foreign l (Cf. Lo and Cas 1958, p. 23; Malmsqvist 1961, p. 200, n.2).

The Nasal Finals

Apart from the question of the oblique tones, the most important problem concerning the nasal finals has to do with the value of final –n in the early period it is used not only for n but for foreign r, both medially and finally. Many examples have been cited above. It is worth drawing attention to the fact that this is also a feature of the early Japanese phonetic use of Chinese characters. Thus we find า M. จิว 用于 for uru, as as for u-, una, une, uno, 訓 M. จิว 用于 for kuru, as well as for a- 讀 M. ซัน 用于 for sara, as well as for sona, sana, 爲 M. ต้ว 用于 for suru, 爲 M. ภี 用于 for heri, 爲 M. มีว 用于 for mara as as for ma-, mani (see Wenck 1954, II pp. 21, 73, 111, 141, 257, 271).

It is doubtful whether anyone can account for this phenomenon simply on the absence of an exact equivalent for foreign r, especially when it existed as well. A further possible equivalent was -t. This was the normal equivalent of foreign r in the T'ang period when it seems to have weakened to a fricative in North China, but Chinese -t for r occurs sporadically much earlier. To explain the marked preference for -n in this context in the early period it seems likely that we must assume some peculiarity of pronunciation of final -n in the variety of Chinese which predominated the Han period and the immediately following centuries which made more like an r than a simple dental nasal would have been. We may think of the situation in some modern dialects, especially of the Yangtze region, where initial l and n are confounded in a single phoneme. The actual pronunciation is described as a sort of nasalized lateral which is liable to be interpreted as l or n by people from other regions.

Tibetan, it will be remembered, has five dental finals, -d, -n, -l, -r. Of these -d clearly corresponds to Chinese -t, -s to *s, the source of the falling tone, and -l, probably to *s. This leaves only -n in Chinese to correspond to both Tibetan -n and -r. We may suppose that the Sino-Tibetan phoneme -r, corresponding phonemically, like Sino-Tibetan initial r- to Chinese l, fell together with Sino-Tibetan -n; but that at least in some dialects this was not at first simply a change of -r (= -l) to -n, but a merger of the two phonemes into a single one with some of the characteristics of both.

It does not seem possible, either in hsih-cheng series or poetic rhyme or transcriptions, to distinguish separately *l (= Sino-Tibetan -r) and *n words. In transcriptions we find the same characters used for both, the 安敦 M. ตuan=Anton inlus), but ब म. ตuan=Arisk in 敦煌 M. ตuan=Soğdian ตwu=-, Greek ύδεα. This means that the two phonemes must have coalesced at an earlier period.

If Chinese -n in the Han period partook of the characteristics of an r or l, we might expect to find this reflected not only in Chinese transcriptions of foreign words but also in foreign renderings of Chinese. Identifiable early foreign loans from Chinese or transcriptions of Chinese names are far fewer than the other way around. There are however a few cases in which foreign representations of Chinese -n by -r may be suspected. In most of the Japanese place names where Chinese -n has the value -r, we have probably to do with ongana, the phonetic use of Chinese characters to represent Japanese words; but 群 阿 (M. จิว-ma'), anciently read Kuruma, could easily be interpreted as Chinese and is indeed modernly read as a Sino-Japanese compound Gumma. Korean 朝鲜, or kore, earlier korei, which is used to translate various Chinese terms for units of local administration—ch'in, hsien, fu, chou—might be an early borrowing of the form of these, ch'in 郡 M. จิว. As Dr. W. E. Skilling, who has kindly sent me a note about this word, suggests, the medial -e in the older Korean spelling might arise from an effort to represent the labial element in the Chinese original. The normal Japanese kan reading for 郡, kōri, spelt kohori, is usually derived from this Korean word and hence would also be ultimately from M. จิว.

The possibility that Chinese -n might be represented by a foreign r suggests a new interpretation of the earliest name by which the Chinese were known in the west, Greek Σιής, Latin Seres. The most widely accepted view is that started by Klaproth (1826, p. 58), that this word is derived from Chinese 米 sja “silk thread”, which obtains some plausibility from the fact that silk was known in Greek as ἵδικον, whence Latin serica, French serge, etc. Phonetically the equation is unsatisfactory however since M. sja goes back to *sēh (< *sib) with no trace of a dental final. The vowel also does not give a good correspondence since *ě in the Han period usually corresponds to a foreign a. Moreover ἵδικον “silk” ought to be an adjectival formation from Σιής rather than the other way round. It would seem more natural for the name of the fabric to be derived from that of the country rather than the other way round, though of course a back formation is possible.

It has been well demonstrated that the other classical name for China, Θια, Sinae, etc., also Sanskrit Cina and our China, must come from the name of the Ch’in dynasty Xi M. จิว < *dżeh. It seems to me highly likely that the earlier Σιής is likewise derived from the same name, based on a pronunciation of the final -n which was heard as -r by the foreign interpreter. The fact that we have a voiceless initial where Chinese has voiced dz is as much a problem for Θια, Sinae, as for Σιής. It may point to transmission through a Tocharian language.

As for ἵδικον “silk”, it was probably not a derivative in the Greek language of Σιής but was taken over directly from a word meaning “silk”
(based of course on the same word for China) in a Central Asian language, possibly again Tokharian. (For the possibility of a suffix -ik in Tocharian see Sieg and Siegling 1931, p. 13.) It has long been noted that **sārtha**=M. **sirge**=Manchu, **sirj**=“raw silk,” “silk thread”, and Korean **ni** appear related to **sipak** etc., but can hardly be derived from it. Also connected with the same word are Persian **sārīk**=“breadth of white silk”, whence Arabic **sāraq**=“silk”, “white silk”, and also Syriac **sērēd** (See most recently Pelliot 1959, pp. 265–66.) What does not seem to have been noticed before is that the same word appears in Chinese transcription in the Han period. In the Shuo-wen we find the term **hsien-chih** 銮琴 < **sān-kēh** given as the definition of 繡 “white silk”, “undyed silk” and again “white hsien-chih” as a definition of 蝴蝶. (The current term in the Shuo-wen has 銮 été in both cases but Yen Shih-ku’s commentator Han-shu confirms Tuan Yi’s emendation (Shuo-wen chieh tsu chia pp. 21, 22). The same word occurs in Kuang-ya (shu-cheng, 7B, p. 855) the homonynous 銮 支 as the second character, as a synonym of 蝴蝶 “silk stuff”. The bisyllabic form of the word and the variation in spelling clearly stamp it as a borrowing in Chinese. But why should Chinese borrow a word for “silk”? It must surely be because it was a word for “silk” among the foreign traders who came to China. To them it was the “stuff of Ch’in” but the Chinese, not recognizing its origin, took it as a foreign word.

N.B. The expression 蝴蝶 occurs in a fu of Sau-ma Hsia-tsu, who Yen Shih took it to mean the 蝴蝶 or 蝴蝶子, i.e. the “gardenia”, a tree giving a yellow dye. This leaves out of account however the first character and Shen Chin-han wanted to interpret it rather as 蝴蝶 “silk flowers”. This is not very satisfactory but the context seems to imply some kind of dye-stuff or cosmetic and “raw silk” would certainly fit. The text may be corrupt. Otherwise we may possibly have the adjective “Chinese” applied to a different product. (Han-shu 57.)

The peculiarity of Chinese -n may help to explain why foreign sounds sometimes rendered by -ŋ, as in M. **kiwai**=Kushan (p. 128) tuan-hwān, corresponding to Sogdian **brō**=, Greek **θρόον**. A more unusual use of -ŋ appears in the name Ting-ling 丁零 teg-legen < *teg-legen. In spite of Sinor’s objections (1946–47) this is certainly an earlier transcription of the name T’ieh T’ieh-lek, T’ieh T’ieh-lak, T’ieh T’ieh-thiak-lak, T’ieh T’ieh M. dek-lak, T’ieh T’ieh M. thet-lak. The earlier form with -en is even used in South China in the fifth century A.D. contemporaneous with forms in -k in the north. (See Maenchen-Helfsen 1939.) Since the group from which the Uighurs emerged, it is highly likely that they spoke Turkish. The underlying native form of the name was probably something like *Tiyiti (see Clauson 1960, p. 113, based on remark mine). Chinese -ŋ and -k would then be alternative renderings of foreign *-γ. The adoption of the later transcriptions was no doubt encouraged by the fact that final -k was tending in north China to weaken to a fricative [-γ]. This is reflected in the T’ang period by the use of Chinese -k to represent Sanskrit visarga (Maspero 1920, pp. 41–44). The latest form M. thet-lak may indicate a loss of -γ before -r- in the foreign word or it could possibly even be based on a reading of the Chinese syllable as *M. thek instead of M. thet (see Pulleyblank 1950, p. 64, and p. 116 above).

Nasal finals in oblique tones

The existence of the rising and falling tones in words with nasal finals requires us to reconstruct *-ŋ, *-n, *-m and *-ŋ, *-na, *-ms.

As far as the falling tone is concerned, there is no trace of a surviving sibilant in the earliest transcriptions and we may therefore assume that this had been lost already by the Han period. On theoretical grounds one would like to postulate aspirated forms, *-qh, *-nh, *-mh. One transcription which appears to give striking support for this is M. bjam < *bījām =brahma-. This is the fact that brahma appears to have lost its aspiration, giving brama or brama, in the Gândhāri Prakrit which is the basis for very many of the early transcriptions (Bailey 1946, Brough 1962, p. 99). In other cases the falling tone on a nasal final seems to be used where the foreign original had a nasal plus stop (like the rising tone, see below), e.g. 阿羅漢 M. *a-la-han=arhan (the Gândhāri Dharmapada has arahada for arhantam, etc., Brough interprets this -d- as [md-], see op. cit. p. 98); 隘捨 M. sjan= Sindhu, in the Milinda-paṇḍa (Pelliot 1914, p. 409). In Kharoṣṭhī we find the special graph *, corresponding to Sanskrit -ndh- which Brough interprets as [-mh-]. This does not prepare us for the voiceless aspirate th in the Chinese transcription, or indeed for a stop at all, but there are other cases where Indian voiced aspirates are represented as a combination of Chinese voiced consonant + voiceless aspiration, e.g. 陀呵 M. da-ba=dha (in the arapacana alphabet as transcribed by Dharmaraśaka in T.222; for the alternative in the same alphabet of using Chinese unvoiced stop + voiced aspiration see p. 87 above).

鳥 Hat M. ou-dzan=ba-lii=Udumbarā (T. 1 (8), I, 478). The tendency for medial -d- to become a fricative -dh- is referred to by Brough 1962, p. 86. Here we might have an intermediate affricate stage, -dš-. I am unable at present to quote parallels. According to Brough (p. 99) -mb- should give Gândhāri [-mn-].

廣德 M. tshan=or tshan=dei=ku=nti, G. Dharmapada kṣadi, cf. arhan above.

We have the same ambiguity as between falling and rising tone in 道散 M. ou-dži-san=or san=, M. džak-san=or san= =Alexandria (see Hirth 1885, p. 182). Here again the use of a word with oblique tone would seem to be connected with the presence of nasal + voiced stop.

In 營越 M. cjin=bjwat=civāra the medial group *nh-hw- in
Chinese probably stands for a nasalized nasal in the Prakrit. See Burrow 1936, p. 427, 193750. Brough's rejection (1936, p. 88) of Burrow's identification of Kharosthi cimara with Sanskrit cīvara seems not to be justified. Though cīvara originally meant "rags," it later became used for monk's robes even of a sumptuous kind. See Przyluski 1918-20. (I am indebted to Professor Sir Harold Bailey for this information.) This suggests that *-gh was sometimes used to express a foreign nasalization, as opposed to a full nasal occlusion.

The rising tone occurs in a few cases where it appears to stand for a foreign voiced stop (or fricative?) without a preceding nasal. Thus:

- M. pā-liː-saːn = [Brahma-] pārśaḍaya.

- M. jem-/tshai = *ām-/tshets, with the alternative transcription M. hap-sou = *hap-sah = Aorsoi, Abzoea, etc. (see above).

On the other hand it is difficult to give any special value to the presumed glottalized nasal in M. ha-tṣiːn (or -džiːn) = hasti.

Scanty and uncertain as the evidence is about the transcription meaning of final -m and -n in the oblique tones in the early period, it does seem sufficient to indicate that there was something distinctive about the pronunciation of the nasal closure and it does not seem to be inconsistent with the reconstruction demanded on theoretical grounds.

Examples of -ŋ in oblique tones are difficult to find in inscriptions but the reconstruction of *-ŋ and *-gh < *-ŋs can be confidently adopted by analogy.

It should be noted that there is a restriction on the distribution of -ŋ in the rising tone. In the Khuṅ-yûn there are no words in jauŋ or onŋ. In terms of Old Chinese this means that the combination of final ŋ + glottal stop did not occur after the close back vowel ŋ. In addition, there are very few words in rhymes (ŋ) and (ŋ) < *(ŋ). The only fairly common one in (ŋ) is M. cijauŋ. In (ŋ) there was M. tajau, which was also read taiŋ, and M. khauŋ which gives forms in several modern dialects which imply *M. khan, e.g. Peking k'en. This seems to suggest that glottalization was harder to maintain after the velar nasal when preceded by a close vowel than it was otherwise. Whatever the phonetic explanation, the pattern is consistent and confirms that the vowels M. o/ia < *i and a/ia < *u had a common feature, postulated as closeness.

Additional between *-ŋ and *-h or *-

Alternate readings for the same word like M. tajau, taiŋ, referred to above are not isolated. We similarly find M. nai also with a reading M. sai and rhyming in *-ŋ in the Shih-ching; compare the word M. t'ai < *tʰaih.

Doubts in *-ŋ and in *-h or *- are especially common with the vowel *u. Thus:

Cf. also: 象 M. zjaŋ "elephant"; 象 M. yo "elephant".

The most probable explanation for this phenomenon seems to be in terms of dialect mixture but it will require more investigation before such an hypothesis can be substantiated.

Labial finals

Nothing has been said so far about the alternations in hsiieh-sheng series between labial finals and vocalic finals. In a great many of the most obvious cases we find hiu-sheng (departing tone) words in rhymes with i-diphthongs alternating with *o rather than *-t. In such cases one can suppose that an original *ps has first become *ts by assimilation and has then followed the normal development of the latter. Thus:

位 M. hwaɪ = *hwlis < *hwlase "place", "rank": 立 M. liŋ < *hlae < *hwlæ "to stand". This is a regular case of a noun derived from a verb by the suffix *-s. In the case of the verb, the w in the initial was lost by dissimilation from the labial final and the cluster hl regularly simplified to l. In the case of the noun dissimilation did not take place, because the final labial was lost. See pp. 122-3 above. Cf. also: 仏 M. lii < *læ (or *vloth?)

訳 M. kei < *kets < *keps: 十 M. jiŋ < *gëp (see p. 100 above).

肉 M. nwaɪ < *nats < *naps "inside": 内納 M. nap < *nup "bring in", cf. 入 M. riŋ < *næp < *nup "enter" (compare Tibetan nub-pa "enter").

苔 M. leɪ < *lekse: 嫩 M. kæp.

蓋 M. kæ < *kæps "cover", also M. hap < *gæp "to cover".

 Gerr M. jei < *leps, 睡 M. ei < *eps: 夾 M. kaap < *klep.
The consonantal system of Old Chinese: Part II

...the differences in pronunciation between the modern and ancient languages is much...
more extensive than has been supposed hitherto. Forrest (1961) recently argued along these lines but the inadequacies of the reconstruction of Chinese available to him render many of his proposals very doubtful. Since the intolerance for discrete labial elements in the same syllable is affected now the initial, now the final, and since the vowel system has also been affected in various ways, it is indeed extremely difficult to reach precise and confident conclusions as to the earlier stages. In what follows I shall merely point out a few of the kuo-sheng relationships which seem to indicate loss of labials without attempting to give a fully worked out system.

The following examples show mainly variation between labial and dental or velar finals:

条 M. ränk < *gluŋ < *glum (?): 载 M. kəm, kəm < *kum *kuns (?).

形 M. yuŋ < *səŋ < *səm (?), 形 M. dəŋ < *səŋ < *səm (?)

胞 M. əəm < *shum ("shum"): 胞 M. əəm < *səm < *səm

項 M. yok < *sək < *sək < *sək (？).

立 M. jrip < *hwəsp (see p. 233 above).

為 M. hišq, the archaic graph suggests that the phonetic is əəm bjam < *bloŋ < *bloŋ (？) (see Karlgen 1957, no. 889) and there are frequent rhyme contacts with -m in the Chou and Han periods. This suggests a reconstruction *fəm, from an earlier *fəm (?).

任 M. bjag < *səm (?): 任 M. ajim < *nəm. The latter word may go back to an original *nəm, with dissimilation of the initial rather than the final. It is used in the transcription 任 in the name of the South Korean state known to the Japanese as Mimana.

息 M. əięk < *sək (on the possibility of a labial element in the initial, *sək (？), (or *fək < *fək (？), see p. 135 above): 弘 M. jip < *səp.

县 M. siak : 銀 M. əi, ajak.

从 M. dzəŋ, < *dzəŋ appears to be phonetic in əəm. The tjem < *tsəm (?), 靭 M. sijem; possibly also in əəm. The dzwa<, dewa<, dzəs<, *dzəs.<

覈 M. bjag; 銀 M. tsəm : 銀 M. mjam (see p. 138 above).

舌 M. əiet < *sət < *səp (or *səp) (?): "tongue": 關 M. dem < *səqem. According to the Shuo-wen əəm kən is phonetic. This is difficult to understand unless we read instead əəm kənu < *hwəsp which may also be the true phonetic in əəm. The dam < *vəsm (?). For the initial cluster we may compare 暴 M. hwəs < *khwəs, etc. Tibetan əəm or hjag do not show any labial initially or finally and Benedict (1948) proposes a Tibeto-Burman *s-ay "tongue": but it should be noted that there are forms like Angami melu, Empeo balé, Nēwāri mé, Khambu kən.

彬 M. pəi < *pləi: 林 M. ləi.

In the last case we may have a sporadic case of assimilation of *m to -n after a front vowel, rather than simply dissimilation. In the following cases there is no obvious cause for dissimilation and an assimilation of the same kind seems the best hypothesis.

顙 M. hə: 顅 M. nəp, 護 M. nəm, 護 M. səj, etc.

天 M. them: 被 M. them. It may be possible to reconstruct this series with initial *nə-, in which case *nəem "heaven" can be compared with Tibetan ynam "heaven", "sky" and other Tibeto-Burman cognates.

於 M. gən, kən (rhyming in -m): 今 M. kəm.

叐 M. dzəm "scum", as well as M. dzəm "I". The phonetic is əəm yən and derivatives əəm yəm, əəm səw, etc., again have -n. In this case and the last there is no obvious reason for dissimilation of *m to -n unless we suppose a rounded vowel at some stage or a labial element in the initial which has left no trace.

Apart from these cases affecting the finals, we have already noted certain cases which require us to suppose that -w- has been lost in the initial, or an initial labial fricative has become a dental under the influence of a labial final (see pp. 105, 140 above). If əəm is really from *məm (see above) this is a case of the substitution of a dental (> palatal) nasal for a labial nasal in similar circumstances. I now suspect that such cases are much more numerous than I supposed when I stated above that the labial initials (apart from the fricatives) were generally retained unchanged to Middle Chinese. It seems likely that labials were sometimes replaced by dentals (or in some cases velars) not merely when there was a labial final, but even when they were in contact with a rounded vowel. In this case əəm təjə, reconstructed above as *nəhu, because of the series əəm təjə, əəm təjə, etc., may actually come from *nəh~*phən as implied by the Tai forms (see p. 212). əəm təjə < *sənə would then be from *sənu and əəm təjə from *mən.

This might also explain 還 M. təjə < *nəh: 還 M. məj; but M. təjə "soft" seems clearly to be related to words like 還 M. nɨwən "soft", 還 M. təjə "weak, soft" which must have original *n.

Other cases which may imply a shift of labial initials to dentals are the following:

體 M. bəjə "wife": 体 ciə < *təj~təŋ < *pəj~pu (< ?) "broom". In the same series is 体 M. sau, sau < *səŋ (?): "sweep". Compare Tibetan bəj- "broom".

靡 M. miu < *məu: 朝 M. təjə < *təh < *pl- (?): "morning". Cf. the no doubt cognate 朝 M. təjə "daytime" which appears to have 靛 M. yənt < *vət (or *vət) as phonetic.

般 M. pən < *plən < *plən, M. pən < *plən (?): 仏 M. sjəu < dən < *dən (?). The same phonetic without the hand underneath appears in 靈 M. səj, 凡 M. sjəu.

表 M. pən < *pləu: ± M. dou, thou < *sə, *sə, the anomalous reading M. bəya is also given in the Chi-yün. The Shuo-wen
gives a different form of the character M. ロ with 真 M. ma० phonetic. On the other hand it regards as phonetic in 北 M. र “male”. The ल- cluster in the derivative here suggests that we should perhaps reconstruct लाउ, लाउ as the primitive readings of 北, rather than simply suppose dissimilation ल- in the presence of the ल diphthong. Verification must however depend on the discovery of cognate forms. A parallel for Old Chinese ना० > ना० is provided by 老 M. ल० “child, dependant member of a family” which is phonetic ल०. 備 M. न० < न० ल० and is undoubtedly cognate to Tibetan न० “younger brother”, Lushe न०. Kachin न० “younger sibling” (see Shih 1940, p. 331).

A number of further examples of the same kind could be added, some of them having extensive implications, but it seems unprofitable to pursue the matter until the sound changes involved have been further elucidated and more confirmation can be found from comparative evidence.

Additional Remarks on Part I

The full restoration of initial and final labials seems to me to be perhaps the biggest task remaining before a fully satisfactory system for Old Chinese can be presented. It is also possible that there may have been other types of cluster initials besides those which I have been able to establish. In particular it seems likely that there were glottalized nasal initials (cf. Forrest 1961, p. 120), thus:

茗 M. य० < न० (०) : 西 M. त० < न० (०) (see p. 152).

茗 M. इ० : 備 M. ज००.

It should be noted that in the second part of this article I have modified the spelling of -e०, -ा०, -ा०, -ा० to -e०, -ा०, -ा०, -ा०, -ा०. I now think that they were not true diphthongs but that the element ग० is cognate to Sino-Tibetan ग०. The best example which I can adduce at present is:

入 M. ग० = प० “8”: Tibetan ब्रय० < ब्रय०, cf. 能 M. ग० < ल० “tired”: Tib. ब्रय०, Lepcha र० (see p. 215). For the intrusive ग० as a sandhi phenomenon in Tibetan see Li Fang-kuei 1959, p. 59. To over to a spelling ग० for Chinese would risk confusion with ज०/य of Middle Chinese to which it is only partly and indirectly related. In the end it will probably be necessary to distinguish at least two major stages with what I have so far loosely called Old Chinese, (1) the Chinese of the Form. Han period, (2) the earliest form of Chinese to which we can attune through analysis of the characters—perhaps referable to the end of the second millennium B.C. For the latter it will probably be best to replace ग० by ग० (and also ग० by ग० and ग० by ग०) in order to give a more convenient basis for Sino-Tibetan comparisons.

The CONSONANTAL SYSTEM OF OLD CHINESE: PART II

If Chinese ग० was cognate to Tibeto-Burman य we should expect to find it before vowels other than न०, न०, न०. There seems in fact to be some evidence for it before न्, e.g.:


However, we cannot at present find evidence for its having occurred distinctly before the front vowels न०, न०, where it may perhaps be regarded as having been neutralized.

We should also expect to find ग० = ग० before न० and न० with dental finals. This might provide a way of accounting for hsieh-sheng relationships like the following: 出 M. च००, च०० < क्ष०, क्ष० (०) : 届 M. च००, च०० < क्ष०, क्ष० (०). In this series we also find words like 喪 M. त० < क्ष०, M. क० < क्ष०, etc., in this case the short vowel उ was unaffected when the semivowel was lost but the initial ख० was fronted to ठ०. Similarly 営 M. ठ० < ठ०, ठ० < ठ०, ठ० < ठ०, with ठ० as an intermediate stage of the initial. We could similarly account for: 晉 M. थ०० < क्ष० (०) : सिर M. थ०० < क्ष० (०) : न० M. थ०० < क्ष० (०) (see above for the series); 像 M. थ०० < क्ष० (०) : 官 M. थ०० < क्ष० (०); 晉 M. थ०० < क्ष० (०) (०).

It is pointed out that the second part of this article I have modified the spelling of -e०, -ा०, -ा०, -ा० to -e०, -ा०, -ा०, -ा०, -ा०. I now think that they were not true diphthongs but that the element ग० is cognate to Sino-Tibetan ग०. The best example which I can adduce at present is:

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APPENDIX

THE HSIUNG-nu LANGUAGE

An improved understanding of the phonology of Chinese in the Han period offers an opportunity to re-examine the question of the affinities of the Hsiung-nu, the most important neighbours and rivals of the Chinese at that period. There are many more Chinese transcriptions from Hsiung-nu than from any other foreign language before the coming of Buddhism. Most of the words are proper names or titles whose exact significance is unknown but there are also a number for which the meaning is indicated. There have naturally been attempts to identify these with known words in other languages but the degree of generally acknowledged success has been meagre.

The most prevalent view nowadays, at least in the west, is probably that the Hsiung-nu were ancestors of the Turks. Apart from the fact that the Chinese historians expressly say that they were, which unfortunately has little evidential value in itself since genuine Hsiung-nu known by that name had long since disappeared when the T'u-chueh come on the scene in the middle of the sixth century A.D., the main support for this theory has
been the evident connection between the Hsiung-nu word chi'eng-li 夏冰 "heaven" and Turkish tāŋri. Pelliot (1944) has however shown that its variation and instability of the word in Turkish where it yielded a pronominal form tārim, and also in Mongol, make it quite likely that it was ultimately a loanword in those languages. The attempts to furnish Turkish or for that matter Mongol or Manchu, etymologies for other Hsiung-nu words have not been very satisfying.

Before discussing individual words it may be worthwhile to consider what can be discovered about Hsiung-nu phonology by examining the whole body of Hsiung-nu transcriptions. I have gathered some 190 probable Hsiung-nu words for the Former Han period from the Shih-chi and Han-shu, 57 more from the Hou Han-shu and 31 from the Chin-shu. Most of them are proper names or titles. A few are words for which a meaning is given and these have all been studied by previous investigators.

The first point that strikes one is the large number of words beginning with 1. There are seventeen in the Former Han material, i.e. nearly nine per cent of the total (including some which are probably *thl or *vl). In the Later Han material there are three and in the Chin material two. We must note further that there are also words in Old Chinese *8, which is likely to have been used for foreign 1 in the Former Han period. In all Altaic languages words with initial r- are totally absent and words with l- are rare, consisting mainly of onomatopoes and obvious loanwords. This evidence does not of course absolutely prove that the Hsiung-nu language had words beginning with 1 and r-, since the Chinese, in transcribing, might have left out an initial vowel sound. Occasional examples of this from later times could be found. But we have only to contrast the position with what we find in the transcriptions of the T'o-pa Wei period, from which initial l- is conspicuously absent (Bazin 1950), to see that the frequency of l- must raise serious doubts about the possibility of connecting Hsiung-nu with any Altaic language.

The second point that is equally opposed to the phonology of Altaic languages is the evidence for initial consonantal clusters. There are at least fourteen cases and perhaps more among the Former Han transcriptions in which the Chinese word used for the beginning of the transcription probably had an initial cluster at that period. Here again the evidence is not conclusive in individual cases, since an initial vowel might have been omitted, or Chinese -l- as the second element of a cluster might have represented foreign -r- or -l- at the end of the syllable by metathesis, as in *klek-kuan = *ken-kuan = *qirqun or *qirqr for the later Kirghiz (p. 123 above). There is at least one clear case however in which an initial cluster seems proved and that is in the name Hsiung-nu itself. It was shown in the first part of this article that Hsiung-nu < M. lion-nou probably went back to *liŋ-nah and was equivalent to the Greek Θυγνως. It was also shown that the royal clan name of the Hsiung-nu Luan-ti 龍庭 could be reconstructed as *vlān-teh or *vlōn-teh, being no doubt connected with the name of the Hsiung-nu.

It may be further noted that according to the Shih-chi 110.0245.1, the Hsiung-nu ruler held court every year in the fifth month (i.e. at midsummer) at Lung 龍 City, where he sacrificed to his ancestors, heaven and earth and the spirits (or the spirits of heaven and earth) (Han-shu 94.0.0596.1 has 龍). The Hou Han-shu 119.0907.1 says, "It is the custom of the Hsiung-nu to have three lung sacrifices per year. On the day wu 戊 of the first, fifth and ninth months they always sacrifice to the god of heaven". The word Lung also occurs in the inscription composed by Pan Ku in honour of the general Tou Hsien, whom he praises for having "burned the Lung court of Lao-shang (the successor of Mao-tun)" (Hou Han-shu 53.0.0746.1). Some of the Chinese commentators try to explain Lung as meaning "dragon", saying that the Hsiung-nu's chief god was a dragon. Takigawa was however no doubt right in concluding that lung was a foreign word of unknown meaning and had nothing to do with "dragon" (see Shiki kaisa hakuhi 110, p. 23). For this reason it was sometimes written with the addition of the grass radical or the bamboo radical. Now we have independent reason for reconstructing an initial cluster in this Chinese word—M. liōn < *vlōn (see p. 137 above). In the foreign original we once again probably have to do with a word related to the name Hsiung-nu.

We must therefore reckon at least with clusters of the type fr-, er- or perhaps bilabial fr-, br-) in Hsiung-nu and it is furthermore likely that clusters also occurred where Chinese has *kl-, *gl-, *th-, *dl-, possibly also where Chinese has *hl-.

This includes the word for "heaven". The correct reading of the first character 撫 is not quite certain. The only pronunciation indicated in the Kuang-yin is M. thang but the gloss of Yen Shih-ku, the commentator of the Han-shu implies M. dang. Furthermore the Chi-yin indicates an alternative ταν. (It may be noted that if the usual reading of the character in τα Angular is the correct one, this is a rare case of an aspirated surd stop in a Hsiung-nu transcription in the Shih-chi or Han-shu.) Whichever reading we adopt, we are left with a Middle Chinese supradental stop which implies a thl- or dl- cluster in the Han period. This in turn would probably point to *fr- or *dr- in Hsiung-nu. The fact that no -r- appears in the initial of Turkish tāŋri, etc., does not prove that it did not exist in the Hsiung-nu word, since such a cluster, being contrary to the phonology of those languages, would have had to be eliminated either by simplifying to a simple dental stop or introducing an extra syllabic vowel.

The other general features of Hsiung-nu phonology which can be deduced from the Chinese transcriptions do not give such definite evidence against Alcian connections but do not agree closely with either Turkish or Mongol.
A notable feature of the Hsiung-nu transcriptions is the absence of aspirated surds. We find voiced and unvoiced stops: *k, *g, *t, *d both initially and medially but very rarely *kh, *th. The only exceptions I have found in the Former Han transcriptions are in the doubtful case of the word for "heaven" and 木 M. khlun-lo "yurt", for which variant spelling with M. k- or g- are also found. We also find the affricate *tsʰ. Here we probably have to reckon with the fact that the Chinese dental affricate may have been used for an unfamiliar palatal affricate. This feature of Hsiung-nu phonology would argue strongly against its having been a form of Mongolian, since the surds of Common Mongol are considered to have been strongly aspirated. This does not seem to have been true of Turkish however and, to this extent, Hsiung-nu phonology would be closer to Turkish than Mongol.

In transcriptions of the Later Han period we begin to find cases of *kh- and we find *th also in the transcriptions of the Chiin-shu. These may perhaps reflect increasing penetration and admixture with the Eastern Han that is the Hsien-pi and Wu-yuan 乌鲁 or (丸) M. ou-hwan < *af-hwan=Avar, who probably spoke a Mongolian type of language. It was the Hsien-pi who became dominant on the steppe after the collapse of the Hsiung-nu empire in the second century A.D.

In the Hsiung-nu transcriptions it is noteworthy that we find only *t initially, never *p. Medially the situation is reversed, we find only *t never *b. This is like both Old Turkish and Mongolian, though initial *t is supposed to have existed in the latter at an early stage (Popen 1960).

The existence of initial * in Hsiung-nu distinguishes it from Old Turkish (though not, perhaps, from pre-Turkish). Initial * exists in Mongolian.

It seems clear from this investigation that Hsiung-nu was not closely like any form of Turkish or Mongol which we know of and is unlikely to have been Altaic at all. Of the other neighbouring language groups, we can quickly rule out Sino-Tibetan. Hsiung-nu was clearly a polysyllabic language and the presence of only two series of stops as compared to the three of Chinese and Tibetan would also distinguish it from any but a very evolved or aberrant form of Sino-Tibetan. No evidence of genetic connections has been shown with Indo-European, though there are quite likely to have been mutual borrowings between the Hsiung-nu and the neighbouring Tocharians and perhaps also with the Iranians farther west. (Cf. Maenhenn-Helfen 1945 (2). The proposals made there cannot be regarded as certain, however).

There is however one other little known, quite distinct language group that must be taken into account, namely the Yenisei family, of which the only surviving member is Kettish, otherwise known as Yenisei-Ostyak. This language was studied in the middle of the last century by the Finnish linguist Castrén, who also recorded and studied the related Kottish of which he was able to find only five living speakers and which has since become extinct. By his time the Arina and Assans, of whose languages a few words had been recorded by eighteenth century travellers, had died out or been absorbed into the surrounding peoples. Since Castrén's day a little more material on Kettish has been published, notably that collected by Donner. Some progress has been made in the analysis of this meagre published material, especially by Lewy and Bouda who have analysed the complicated morphology of the verb in Kettish and Kottish. A phonological analysis of Kettish is still very much needed however. Still less has there been a systematic comparative study of Kettish and its extinct relatives. Though the material is scanty, it seems likely that some correspondances could be established which would enable us to reconstruct some features of earlier, common, stages of the language. (For general information and bibliography see Jakobson 1952 and 1957.)

Much of the attention that has been paid to these languages so far has been with a view to showing genetic relationships with other language groups. Some scholars have indeed persuaded themselves that the Yenisei languages are a northern branch of the Sino-Tibetan family. Both phonologically and morphologically the contrast between Kettish and Kottish on the one hand and Chinese or Tibetan on the other could scarcely be greater. This could of course be the result of divergent evolution if it could be shown that there was an underlying basic vocabulary in common but the efforts that have been made to show this have so far been unconvincing. There are a few striking word comparisons but these may well be explicable by early borrowings, especially if it should turn out that the Yeniseians and the Chinese were once contiguous.

As far as Hsiung-nu is concerned, the Yenisei languages must come into question since Ligeti 1950 showed that the Hu word for "boot" recorded in Chinese texts as (sock) M. sak-dak < *sak-sak closely resembled the Kettish sádgi (Imbask dialect), sádgi (Bakhta dialect) "boot".

The Hsiung-nu word for "boot" may be ultimately Iranian in origin if the etymology suggested by Professor Sir Harold Bailey is correct. He has kindly supplied me with the following note.

"Iranian sak-, participle saxta-, and sák, participle sáxta- Avestan saxta- in xvasaxta- "finely equipped"; Sogdian Manichaean pspyt-, participle pspytty *spatday (-e) "prepared, adorned"; Sogdian in New Persian loanwords šapayd, pasaydah "prepared"; Ossetian šuyq "a fastening"; Zoroastrian Pahlavi saxta in the phrase mōzač saxta "boot of prepared (leather)"; New Persian səxtiyan "leather tanned with sumack (morocco leather)". See W. B. Henning, BSOAS 13, p. 644. With -d occur Zoroastrian Pahlavi saxta "prepare, equip", sāxt and sāx "equipment"; Pahlavi ass zán sāxt "he equips the horse with a saddle"; New Persian ass-rā zán sāxān "to harness a horse with a saddle"; Armenian loanword an-sāxt "not equipped", səxəl "harnessable"; Ossetian səzdüm, səd-t, səx-t, səxt "put in, put up, put on"; Sogdian Maniach. ptaš kurt "to prepare"."

"These Iranian words attest a base sak- and sāk- indicating "prepare" and in specialized senses "build, equip, harness, fasten" and in reference to mōzač "boot" a
specialized form of leather. A word skalzak, or sályaz, could have existed in the second century B.C. meaning “equipment”, from which specialized meanings could have derived. The Hsiung-nu suffix -tö from *tek-west̄ “boot” might be the same Iranian word.

[Though the specialized meaning “boot” is not attested in Iranian, it might well have developed in some Sctyan dialect and thence been borrowed to Hsiung-nu (below) which were probably derived from the Scythians. Besides the word meanings “boot” in Hsiung-nu and Yeniseian, it is possible that we should see the same root in Mongol ayndaq Turkish sadag “bow case, quiver” (see Boedberg 1936, p. 174).]

It is difficult to compare the phonology of Hsiung-nu as revealed by Chinese transcriptions of the Han period with the imperfectly known Kettish and Kottish of two millennia later. At present Kettish admits of initial r̥ as little as Altaic. Initial clusters are also excluded. On the other hand initial l̥ occurs. (Kottish d̥-, occurring initially, is in complementary distribution to l̥, occurring medially and finally.) These exclusions may however be the result of a long evolution in contact with Altaic neighbours. Roughly the same evolution has occurred in Chinese, perhaps from the same cause.

Phonology is not helpful therefore in terms of vocabulary a number of further comparisons between Hsiung-nu and the Yeniseian languages can now be brought forward.

Ku-t'u 孤雰 “son”

The full title of the Hsiung-nu ruler is given in the Shih-chi and Han-shu as Ch’eng-li ku-t’u shan-yü. The first word, which is explained as meaning “heaven”, has already been discussed. The last, which is the abbreviated title by which the Hsiung-nu rulers were normally referred to, will be discussed below. The middle word ku-t’u < M. kou-dou < kwâ-dâh is said to mean “son” and Ch’eng-li ku-t’u is said to mean “son of Heaven”, like the Chinese T’ien-tzu. It would be very natural for the Hsiung-nu to have borrowed this Chinese title for their own supreme ruler, as did the Kushans later; but in what language can we find a word like this meaning “son”? Nothing at all similar can be found in Turkish or Mongol. Shiratori found the word goto “son” in Tungusic and this was the mainstay of his opinion that the Hsiung-nu belonged to that linguistic group; but the phonetic resemblance is at best vague even to the Modern Chinese form and it fades away when we reconstruct the probable Han dynasty value. Others have thought that the Chinese were wrong in what they said about the word’s meaning and F. W. K. Müller suggested that ku-t’u might stand for Turkish gut “majesty”, often found in titles. This too becomes less plausible in terms of the Han dynasty form. The Chinese certainly had the vowel a in both syllables and the initial d̥- of the second syllable is shown by its hsieh-sheng series to have come from ₆₅, which is likely to have been used for foreign l̥ in Former Han times. The foreign original ought therefore to be something like ₅₆₅₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆₆点儿

The consonantal system of Old Chinese: Part II

The ordinary word for “son” in Kettish is fip (Sym dialect), Vrepe (Imbaik), Vyp (Bakhta) and this word was also found in Kottish as fip. In the extinct Arin language however we find the word btkd “son” (also bktjul “daughter”) where bi appears to be a prefix added to nouns of relationship: bhjpp “father”, Kottish op, Kottish ob, ob; bjumja “mother”, Kott. ama, Kett. am; bamaql “brother”; bikihe “lord”, Kott. hii, Kett. qy (Donner), etc. The word birk is no doubt cognate to Kettish galel “younger son, grandson” (Donner) and probably also to falla “son” in the extinct Pumppokolsk dialect. Here we have then a word for “son” which agrees very closely with the hypothetical Hsiung-nu form required by the Chinese. Being a word for a fundamental human relationship, it is unlikely to be a loanword in Yeniseian and unless it is an extraordinary coincidence it creates a presumption that the Hsiung-nu belonged to that language group. (For extinct Yeniseian languages, see Klaproth 1823.)

Chüeh-t’i 驅騾 “horse”

At the beginning of the chapter on the Hsiung-nu in the Shih-chi occurs the following passage, “The livestock which they keep in large numbers are horses, cattle and sheep. Their uncommon livestock are camels (駱駝), asses and mules, chüeh-t’i, t’au-t’u 驅騾 and t’o-hsi 驅騾.” The last three words are clearly non-Chinese.

The Shuo-wen says (literally) that chüeh-t’i means the offspring of a stallion and a mule. This is of course an impossibility and the text should no doubt be emended to read “a mule which is the offspring of a stallion and a she-ass”, that is a “hinny”. This definition does not agree with the commentary of Hsi Kuang quoted in the Shih-chi chi-chieh who says that a chüeh-t’i is a superior type of horse of the northern barbarians. A hinny is, in fact, a weak, inferior type of mule. Egami Namio (1948, pp. 180 ff.) has gathered a number of other passages in which the word chüeh-t’i occurs and shows that they only make sense in terms of Hsi Kuang’s definition. He thinks that the chüeh-t’i was in fact the larger western horse in contrast to the ordinary Mongolian type that was normal both in China and in Mongolia.

One passage which illustrates very well that the chüeh-t’i was a prized, superior sort of animal and incidentally shows that it was already known in China before the unification of China by Ch’in in 221 B.C. is found in a memorial of Li Ssu to the King of Ch’in contained in Shih-chi 87.0315-r. Li Ssu, who came from Ch’u, was defending himself against ministers of Ch’in who wished to expel all the foreign advisers (k’o 客 “guests”) at the Ch’in court. By way of illustration he pointed to the many precious things which Ch’in obtained from beyond its borders. “If things must be produced in Ch’in before they are permitted”, he said, “… the women of Cheng and Wei would not fill your inner palace and fine chüeh-t’i would not supply your stables without.” Other passages in Shih-tzu (quoted in T’ai-p’ing
yü-lan 773-5b) and Huai-nan-tzu 11 refer to chūeh-t’i as the best kind of horses for drawing a carriage. In the biography of Tsou Yang in Shih-chi 83.0209.1, in another passage which seems to indicate the knowledge of this animal in late Chou times, it is said that the King of Yen served chūeh-t’i to Su Chi’in to eat, the implication being that it was a mark of special favour. The nomads of course commonly are horseflesh and the larger chūeh-t’i was probably better eating than the wiry Mongolian pony. No doubt the comparative rarity of the animal would also lead to its being considered a delicacy.

Though Egami’s opinion about what was meant by the chūeh-t’i seems very acceptable, his view, taken originally from Shiratorii, that the word could be connected with the Mongol word kūltūšan “sweat” because the western horses were later known as “blood sweating” horses seems very far-fetched. But there does not seem to be any other suitable word in Turkish or Mongolian to compare with M. kwet-dei < *kwet-deh. On the other hand we find in Yeniseisian that the ordinary word for horse is Ket. kus, Kot. huś, pl. hućan, Pumponkolsk kud, kus. There are other words in which a -i in Pumponkolsk corresponds to -i or -i in other dialects, e.g.: “eye” Ket. des, Kot. tī, Pumponkolsk dati; “house”. Ket. k’uo, xus, Kot. huś, Pumponkolsk huku; “one” Ket. huś, kuśam, Kot. hūća, Pumponkolsk chuța; “stone” Arin. khes, Pumponkolsk kit (it seems that Kot. tī, Ket. tyēs probably comes from a different root, since Pumponkolsk had a second word čys “stone” evidently related to them). From this it would appear that we should be justified in supposing an earlier form in Yeniseisian something like *kuti, the final -i having caused the palatalization of the preceding t in some dialects before disappearing. This gives a reasonably good equivalent for Chinese *kwet-deh. To agree with the Chinese a form *kuti would be better than *kuti, cf. *koh-kwed=Mongol kūkul (p. 259 below).

Chieh 萶 “stone”

With the Yeniseisian word khes, kit “stone” may be compared the name Chieh 萶 M. kiat < *kāt applied to an important branch of the Hsiung-nu in North China in the fourth century. From this people, who constituted one of the so-called “five barbarians”, i.e. the Hsiung-nu, the Chieh, the Hsien-pi, the Chi’ang and the Ti, who vied with one another in setting up short-lived dynasties at this period, came Shih Lo 正勤 the founder of Later Chao (reigned A.D. 319-34). His Chinese surname means “stone”. There is good reason to think that the Chieh were not properly part of the Hsiung-nu but had more western, Indo-European affinities (T’an 1955, p. 416). They had however entered China as part of the Southern Hsiung-nu, and were therefore sometimes referred to as Hsiung-nu. The Chin-shu 104.1354.4 says of Shih Lo, “He was a Chieh from Wu-hsiang district in Shang-tang country (in southern Shansi). His ancestors came from the separate tribe of the Hsiung-nu, Chi’ang-ch’ü (the M. khian-gio) (see T’an 1955, pp. 414 ff.). Chi’ang-ch’ü is probably just another form of K’ang-chu 廬居 M. khan-ko. The K’ang-chu were of course an important people in Sogdiana in the Han period. They later gave their name to Samarkand but in the Former Han period were centred around Tashkend. The Chi’ang-ch’ü group in the Hsiung-nu were presumably a part of the K’ang-chu people who had at some time been captured and incorporated by the Hsiung-nu. Now it happens that Tashkend was later known in China as Shih Kuo “Stone Country” and people from there who came to China took the same surname Shih “Stone”. Tashkend itself means “Stone City” in Turkish. This is usually regarded, following Marquart (1901, p. 155), as simply a Turkicization of the earlier Çač, but this does not account for the Chinese name which is long before the region became Turkish.

The K’ang-chu people are usually thought of as Iranian but they had close links with Ta-yüan (= “Taxwär, Tocharhi) and the Yüeh-chi and they shared the title hsi-hou=yabgu with the latter and the Wu-sun. It is quite likely therefore that they too were Tocharian in origin and that they moved into Sogdiana as part of the same westward movement that brought the Yüeh-chi and then the Tocharhi spilling over the Pamirs. In this case we may look in Tocharian for an interpretation of their name. It happens that there is a word kâńka- in Tocharian A about which Sir Harold Bailey has kindly given me the following note.

kâńk-

Tocharian A dialect: kâńk- in the plural kâńkâñ; kâńkñuñ in singular and instrumental singular kâńkñuko. The context of kâńk- in 2642 is kâńkñuñ wärisñañ, that is “the kâńk- (1) consisting of vajra- stones, (2) made of vajra- stone, (3) identified with vajra- stones”, with three possible translations, rendering a Sanskrit text which would have had either (a) gen. sing. vajrasya, or (b) a compound with vajra- as the first component, or (c) an adjectival derivative of vajra- (vajranuya-); wärisñañ is a feminine plural adjective with suffix -ñi.

The context preceding kâńkñuñ contains a list of weapons, including Bud. Sanskrit cakra- “discus”, tamara- “lance”, saktu- “spear”, triśula- “trident”, bhujāpāla- “missile”. The vajra- in battle scenes in Bud. Sanskrit texts is a missile used, for example, by Yakṣa goblins. In the present context // sänññuñ is a plural from // sänñr-: It may have lost an initial syllable. It could possibly have come from Bud. Sanskrit asaññuñ (Pali asaññuñ) “a missile”, sometimes identified with vajra- but occurring also in the Sanskrit compound vajrāñsã. This word came into Khotanese (older) asânñuñ and (later) asãññuñ (ñ=ñ). The word kâńkñuñ occurs twice, (1) 24b1 vajàr kâńkñuñ ærvàs parmont soryntuynt, . . . . . , (2) 44b4 vajàr kâńkñuñ ærvàs-sa sign, splendids (= suspicious) marks . . . . . (the vajras and ærvàs-sa as suspicious signs are known), (2) 44b4 (fragmentary) // kâńkñuko cakra- pãsã // —here one could propose to read vajàr kâńkñuko “the vajra- kâńkñuñ”, the supplement vajra being rendered probable by the correspondence with 2641: we again have Sanskrit cakra- “discus” in the context. The parallel between vajra kâńkñuñ in 2641 and kâńkñuñ wärisñañ in 2642 makes it almost certain that kâńkñuñ is kâńk- with a suffix -uk.

The above context seem to assure a Tocharian word kâńk- meaning “stone”. A corresponding word in Tocharian B dialect has not yet been pointed out.
known when the Chinese came into contact with pastoral nomads of the steppe and they even enjoyed a certain vogue at some periods, especially from Han to T'ang. With the foreign products came foreign names and since the dominant steppe people at the time of their introduction were the Hsiung-nu the names were naturally also taken from the Hsiung-nu language. In some cases there is direct testimony to this. In others it can be inferred with a high degree of probability.

The milk culture of the steppe has been alluded to or described by many writers since Herodotus (Book IV. 2) mentioned the use of mare's milk among the Scythians. Zemarchus, the Byzantine envoy to the Turks at the end of the sixth century, referred to the sweet wine not made from grapes that he was offered at the court of the kaghan, which must have been koumiss (Chavannes 1903, p. 232). William of Rubruck, who visited the Mongol court in the twelfth century, gives a detailed account of cosmos (i.e. fermented mare's milk, kumiss) and its preparation, of the preparation of butter and the dried curd or gruit (= Turkish qurrat) which they kept for winter provisions. He also refers to a drink called aira made of sour cow's milk (i.e. Turkish airen or Mongol aiyay).

What he has to say agrees substantially with what the eighteenth and nineteenth century travellers relate, the most notable difference being the absence of any clear reference to distillation of a strong spirit from kumiss, the Turkish araki, Mongol arakt. The method of preparing the superior "black cosmos" served to the lords is not very clear. He says, "They churn then the milk until the thicker parts go straight to the bottom, like the dregs of wine, and the pure part remains on top, and it is like whey or white must. The dregs are very white, and they are given to the slaves and they provokes (sic) much sleep. This clear (liqueur) the lords drink, and it is assuredly a most agreeable drink and most efficacious." The translator notes, "These dregs are called bossa by the Kalmucks—see Fallas, I, 571" (Rubruquis, p. 67). The bossa described by Fallas are the lees of distillation produced in making araki, but there is nothing in the process described by Rubruck to suggest distillation. It seems to be some other method of removing some of the milk solids from the fermented mare's milk.

It was in any case just about this time that the knowledge of the new invention of distillation was spreading eastwards as well as westwards from the Arab world. Li Shih-ch'in, the author of the great Ming pharmacopoeia, the Pen-ts'ao kang-mu, says of hiao-chiu "brandy," "It is not an ancient method. The method was first started in the Yuan period." He also quotes the name a-la-cha 阿剌伽, i.e. araki, from the Yin-shan cheng-yao. The Yin-shan cheng-yao was produced by the Food and Drug Department at the Yüan court and was presented to the throne in 1331. It contains a recipe for a-la-cha wine which reads as follows, "Its taste is sweet and pungent. It is very hot and has much toxic property. It is good for reducing chill,
strengthening resistance (?) and expelling cold vapoors. Take spoiled (wine and boil it. Collect the “dew” and it will make a-la-chi.”

In view of the fact that distillation began in the Arab world it is easy to accept the etymology for araki that is usually proposed, namely that it is from Arabic ‘arar which originally meant “juice” or “sap” (Yule 1903). It is clear that the Chinese word lao 麴, which appears already in the second century B.C. to refer to the typical milk drink of the nomads have nothing to do with arrakh, raki, araki, etc., as Karlgren thought (1926, p. 138). Lao is always a milk product and may or may not be alcoholic. Arrach, etc., always means a distilled spirit and only becomes specially associated with kumiss among the nomads who naturally used kumiss as the main material from which to make it.

Excluding the as yet unknown araki, we find foreign names for the following typical nomad milk products in the Han period: (1) milk, (2) sour milk, (3) butter, (4) fermented mare’s milk, (5) dried curd.

(1) “milk”

The Chinese had, of course, a word for “milk”, namely 卢 ju < M. 卢 < “nō”. It means “nipple”, like Tibetan nu-ma, hence “to suckle”, and more generally “to care for the young”, as well as “milk”. The modern colloquial 奶奶 nai < M. 爷, implying an earlier *na-, is a doubt variant form of the same word. Since the Chinese did not use animal milk however, it is not surprising to find that they sometimes used a foreign word for “milk” in this sense. The word 乳 tung occurs already in the Mu Ten-tzu chuan in the phrase “milk of cows and mares” given as present to King Mu by a barbarian tribe. Assuming this passage to be genuine, it must date from before 296 B.C., that is well before the Han period. The next occurrence is in the chapter on the Hsiung-nu in the Shih-chi. The Han envoy Chung-hsing Yüeh, who went over to the Hsiung-nu, is reported to have urged the Shan-yü, “When you get Chinese food, throw it all away to show that it is not as suitable and pleasant as tung-chi 麴.” (The Han-shu reads Chung 重.)

The word 乳 appears in the Shuo-ten, where it is defined as 卢 “milk fluid”. In Chapter 6 of Lieh-tzu (ca. A.D. 300) we find the expression tung used of human milk. “At your birth there was too little vital fluid in your mother’s womb and too much milk in your mother’s breast.” (Graham 1960, p. 128–29.) Such usage is rather rare but we do find tung as a text variant of ju “milk” sometimes in early translations of Buddhist sutra (see T.5.上 (I.1615), T.5.670A and b).

What appears to be a variant of the same word appears in the expression t’ung ma 湽馬 which appears in Han-shu 19A.0353.2. In the Table of Officials and Ministers it is recorded that in the first year of T’ai-ch’u (104 B.C.) of the Emperor Wu the title of the prefect (ting) of the Household Horses 家馬 was changed to T’ung-ma. The commentary of Yin Shao (2nd C. A.D.) says, “He has charge of the milk horses (馬乳). He takes their milk and prepares it by “shaking” (t’ung). It tastes sour but can be drunk.” The commentary of Ju Chun (third century) says, “He is in charge of the milk horses. One makes a bag ( 內) M. kaap-tu) of skin with a capacity of several tou and fills it with mare’s milk (馬乳). One “shakes” it (t’ung) and takes the fat off the top and hence they are called t’ung horses.” In translating t’ung as “shake” I follow the usual interpretation, which is necessary to make sense of Ju Chun’s commentary; but it makes a curious epithet for horses. The commentators are evidently taking 马 as equivalent to 動 “move”. This interpretation of t’ung is made explicit in the commentary of Li Chi 虢奇 to another reference to t’ung-ma which occurs in the Monograph on Ceremonial and Music—where it is stated that t’ung-ma wine (馬匹酒) shall be given to certain officials. Li Chi says, “They make wine of mare’s milk. They beat and shake it (揹揈) and so it is made.” Yen Shih-kü adds, “揈 has the sound of t’ung 動 “move”.

The expression chia-tou < M. kaap-tu is not found elsewhere and does not appear in any dictionary. It must be related to Mongol xabtuvuu “bag, pouch, purse, pocket” and to Turkish xaptc-nai “ein grosser tiefer Sack”. In Rubruquis we find captang “square bag for putting unconsumed food” (p. 65). The Chinese word would imply *klep-tu with an initial cluster but it is uncertain whether the initial cluster would have still survived for Ju Chun in the third century A.D.

Though the Yi’p’ien defines the character 揉 as meaning 動 “move”, it does not appear to occur in this sense in any other context. The Shuo-ten defines it as meaning “to push and pull” (摳引) and uses it, evidently in this sense, in the definition of the character 揉 “to repres”. In Huai-nan-tzu occurs the phrase 揉摳, to which the commentator remarks, “t’ing-tung is like ‘up and down’ 上下. It means ‘seeking what is convenient and profitable’ ”. This is evidently an expressive binome, not to be analysed into separate components.

It seems evident that a much simpler explanation than that given by the commentators would be to take 揉 as simply another writing for 卢 “milk”. It should be noted that there is also a word 揉, homophonous with 揉, defined in the Kuang-yün as 湽 i.e. kumiss.

Since 揉 has two readings M. duٰ and M. duٰ and 卢 has several readings, M. tuٰ, ꔨ (Kuang-yün) (the latter quoted from the T’ou-lin), ꔨ, ꔨ (added by the Chi-yün), we have a variety of possibilities for the hypothetical Han dynasty pronunciation that is implied. This is in itself evidence that the word was non-Chinese in origin. Apart from the variation between voiced and unvoiced initial, we have the form in M. which, in a native Chinese word ought to imply an earlier *duٰ. It probably does not do so here however. In the Shih-chi chi-chieh we find a fan-ch’ieh spelling
implying M. tjog', with a pure dental initial. This would be contrary to Middle Chinese phonology, which would only permit of tj or cj not tj. The best explanation of the variant forms seems to be that a pronunciation something like [təŋ] or [tɔŋ] or [dɔŋ] was intended. Since it was a foreign word, a stable Chinese pronunciation was not established at the beginning and the Chinese pronunciation was probably corrected at later stages by renewed reference to the original. This would account for the new readings in Middle Chinese -ŋ < earlier -uŋ after Old Chinese *-on had become Middle Chinese -uŋ. After the yodization of long vowels it would appear that -jʊŋ was a thought by some to be a better equivalent than either of the short vowelless forms, hence the readings M. tjʊŋ' or M. tjʊŋ'.

Neither Turkish, nor Mongol, nor, as far as I can discover, Tungusic provides a possible original for this word. The existing Kettish word for "milk" is mámel (=măm "breast, nipple" + ul "water"). In the extinct dialects however we find Pumposkolsk den, Arin tenul. Kottish used the Turkish word süt for "milk" but retained the word ten "nipple". It is evident that Arin tenul is a compound formed in the same way as Kettish mámel from *ten + Arin kul "water" (see Bouda 1957). It is also clear that we have the same correlation between words meaning "milk" and "breast" that we find in Chinese.

Chinese -ŋ could very well represent foreign -n, especially after a back vowel. (The fact that so many of the readings are in the oblique tone, implying *-ŋh or *ŋ, may be connected with the fact that the foreign original had something different from Chinese -ŋ.) The only substantial discrepancy between the Chinese and the Yenissei forms is therefore in the vowel. As it happens there is a sixth extinct dialect, that of the Öedd or "Sable" Ostyaks, who were located in the early eighteenth century on the Elogui River, somewhat east of the Kotts. Only a handful of words are recorded. Among them however are a number in which ə corresponds to e in other dialects, e.g.: öedd "sable", Ket. ədər, eći, eddi; əti "god, heaven", Ket. əs, eč, Arin es; əs "stream", Ket. ses, šēi, Ket. šet; ək "thunderstorm", Ket. əkəg "thunder"; əlgək "river name" =elougi. The word for "milk" is not recorded but these correspondences would support a reconstruction of *tən. We have no direct evidence of course as to whether *e or *ə was original but an unrounding and fronting of *ə to e would be a very common type of phonetic change. A hypothetical *tən would provide as close a correspondence as possible to the Chinese forms. The variation between initial *t and *d is found again in t'ei-hu discussed below. In the recorded Yenissei languages we find two dental stops, a weak (lenis)—Ket. ə, Kot. t—and a strong (fortis)—Ket. t, Kot. t'. It would seem that the weak member of the pair, whatever its exact phonetic characteristics may have been in the Hsiung-nu language, sounded sometimes more like Chinese t and sometimes more like d.

2. "Sour milk, curds, kumiss"

While the word tung "milk" has not survived in current usage in Modern Chinese, the other word associated with it in Chung-hsing Yüeh's advice to the Shan-yü, lao, has done so. The dictionary definitions suggest a rather vague application to various milk products such as "cream", "cheese" "kumiss" and extended to milky substances such as 胸 "almond tea". Its proper meaning is however "soured or fermented milk", i.e. the curdled milk of cows or ewes or the fermented but curdless milk of mares, namely kumiss. (Dried curd is also called kan-lao, see below.)

Li Shih-chen in the Pen-ts'ao kang-mu says "Lao can be made from the milk of water buffaloes, ch'in cattle (i.e. ordinary domestic cattle), yaks, ewes, mares and camels. For use in medicine one considers cow's lao to be the best. It is only because cow's milk is also most plentiful." He goes on to give a recipe for its preparation quoting from the Yin-shan cheng-yao. First the milk is boiled, then cooled and the cream skimmed off. After that a small quantity of old lao is added and the milk is sealed over with paper and allowed to ferment. This evidently refers to the making of yoghurt.

The ordinary word for a drink made from soured cow's milk in Turkish is airan, a word found in all dialects. In Mongol the word is airay. No doubt the two words are ultimately connected, in what way must be left to Altaists to decide. The Classical Mongol form of airay is ayiray from which we could reconstruct a proto-Mongol *ayiray. This is phonetically quite close to Chinese lao < M. lak < * skłak. It should be noted further that airay means not only soured, curdy, cow's milk but can also be used, like lao, for soured mare's milk or kumiss. (As far as one can judge from the dictionaries this is not true of Turkish airan.)

Since we have ruled out the possibility that Hsiung-nu was a form of Mongol, we must suppose that airay was borrowed from the same source as Chinese lao and was not itself the word on which the Chinese loan was based. For the hypothetical Hsiung-nu form we should prefer to reconstruct a monosyllable, something like *yrak or *Grak. Mongol would have been unable to handle the initial cluster and would have had to change it into something like *ayiray. In looking for a modern form in Yenisei we have to reckon with the fact that initial *r has disappeared and initial clusters have been simplified. It is possible therefore to compare with the supposed *Grak, *yrak the Kottish uk "Milchsuppe", Kettish uk, wok (Imbazar) "Suppe, flüssiger Brei". Donner defines this word as "Mehlsuppe" but the surviving Kets are a hunting and fishing people, not herdsmen, so that a word properly applicable to milk products would be likely to be transferred in meaning, if it survived, to some similar product used as a substitute (see also the next section on "butter"). Phonetically the equation must be considered possible. The rounding of the vowel from *a
to ə (for which Joki writes o) or u could be regarded as the effect of the lost voiced back velar or uvular which we have to suppose in the Hsiung-nu form.

(3) ʂu ʂ<m> “butter”

The word ʂu is defined by Mathew’s Chinese English Dictionary as “cheese, fleshy, crisp, short”. It is however clear that it originally and properly meant “butter”. The nomadic method of preparing it from milk did not consist of churning cream separated from whole milk. Instead the whole milk was first soured and then shaken or beaten in a leather bag as described by Ju-chun (see above) and, in later times, by Rubruck and Pallais. In the Pen-ts’ao khang-mu, the sixteenth century pharmacopoeia, Li Shih-ch’en says, “Su is what forms floating on the surface of lao. Men today very often confuse it with white sheep fat but the two must be distinguished.” Sometimes instead of su alone we find su yu “su oil”. The butter lamps used in Buddhist temples are called su tśeng.

The character 酥 appears in the Shuo-wen where it is defined simply as su lao 酥酪. We occasionally find this, or lao-su, in texts as an equivalent for lao (or perhaps meaning the whole soured milk still containing the butter fat?).

Instead of the special character 酥 we quite often find the homophonous 酥 in the same meaning (see for example variants in T.5 上 (I.161c)). The latter is a common character in transcriptions of the Han period, and there can be no doubt that we have to do with a loanword in Chinese. The Middle Chinese pronunciation was sou from an earlier *saŋ. None of the words for “butter” in neighbouring languages bears a close resemblance to this. Mongol has tosu(n), Turkish yoy, Tibetan mar, Tocharian A. sałpo, B. salpe, salpo. I do not find a word for “butter” recorded for Kottish. Kottish kajar, kajag was an loanword from Sogot or Yakut. There is however a Kettish word so (Donner 1955, p. 83) defined as “aus Fischdärmen gekochtes Fett”. The same word occurs in the expression ș ámbaląńpas sub (Donner’s narrow transcription) “Multbeerenfett (Multbeeren mit Fischfett vermischt)”. The modern Ketts are a hunting and fishing people, not herdsmen, and presumably make little use of dairy products but it would appear that so means a rendered, butter-like, fat (as opposed to șy’t (Donner-Joki), șyt, șyt, șyet (Castrén) “fat” in general—Kottish also had a special word t’empu for “melted fat”, as well as șit “fat”). It seems very likely that this Kottish word is the descendant of the word which in Hsiung-nu meant “butter” and was borrowed into Chinese. It is uncertain whether we should suppose that the Yenisei word was originally more like [a], or whether the Chinese *saŋ was already somewhat rounded towards M. so when it was used for the Hsiung-nu word. Compare its use in *saŋ gIgats (p. 320 above).

(4) ʂ’-lo “clear kumiss”, “clarified butter”

We have noted that Mongol airay means both sour cow’s milk and sour mare’s milk or kumiss and that the same is true of Chinese lao. There is however a special word for kumiss in Mongol, ʂège(n). With this I propose to compare Chinese ʂu-gin, ʂu-gin M. dei-hou < *deh-gah, or ʂu-gin M. tej-hou.

The first form occurs in the Shuo-wen where it is defined as 精之精者 “of lao, the pure or fine [kind]”. The phonetic correspondence to the Mongol word is good. Proto-Mongol *t < *ti or *tə became ʂ in Common Mongol (Poppe 1960), so we are justified in reconstructing a form *țiga(n) or *țiga(n) as the ancestor of ʂège(n). On the other hand the Mongol *t would probably have been strongly aspirated, whereas the Chinese form shows no *th but the same vacillation between *t and *d that we found in the word for “milk”. The assumption of a common borrowing from Hsiung-nu seems to be the best way to account for this.

There is a further complication with regard to the meaning of the word in Chinese. By far the commonest use of the word ʂ’-lo is in Buddhist texts where it means clarified butter or an even more refined oil obtained from “butter”. The semantic link seems to be in the idea of something that is clear. Mare’s milk, which contains little butter fat, forms a clear liquid when it is fermented, unlike cow’s or sheep’s milk, which becomes curdy and thick. Boiled butter is clear as compared to fresh butter. In the Pen-ts’ao khang-mu a definition for ʂ’-lo is quoted from an earlier work, which is different from those found elsewhere. “T’i-ło is the liquid (葉‘broth’) of lao”, i.e. whey. This would be quite incompatible with the definition of ʂ’-lo as either kumiss or clarified butter except for the fact that it is again a translucent liquid which is referred to.

To complete the argument it would be desirable to find a Yeniseian cognate, preferably one having the idea of “clear” or “pure”, but I am unable to quote one.

(5) mi-lo “dried curd”

The usual name in Chinese for the dried curd or hard cheese, that is, the gruit referred to by Rubruck which the Tartars put away for winter food or used as provisions on a journey, is han-lař “dried lao”. We find however another word which appears to mean the same thing in the Ch’üang-yang fu of the first century B.C. poet Yang Hsiung (Han-shu). Speaking of the victories of the Chinese over the Hsiung-nu under the Emperor Wu, he says, “We destroyed their wagons (戃轀 M. bjuan-wa) and ruined their yurts (穹庐 M. ḳjuq-ljo), drove away their camels and burned their store M. mek-lwa (or -lje).” The word M. mek-lwa (or -lje), which is not found elsewhere, is explained by the commentator Chang Yen as meaning “dried lao”. He adds, “They use it for the mother (=ferment)
of lao. By burning it one destroyed their means of livelihood.” It was no

doubt correct to say that the nomads used dried lao to start the fermentation

but we may surmise that the threat to their livelihood was more direct.
The stores of dried curd were the nomads’ winter food supply and to destroy

them was equivalent to burning the grain supplies of an agricultural people.

A different interpretation of the word is given by another commentator,

Chang Chi, who says that it was the name of a mountain. Perhaps there was

such a mountain but it is obviously nonsense to take the word in that sense here.

There is no word for curd or cheese in neighbouring languages which

shows any resemblance to M. mek-lwa that I can discover. The word

throughout Turkish dialects is qurut (whence Rubruck’s grutit) and Mongol

appears to use the same word xorot. I can find no word for “cheese”

recorded for Yeniseian. Though the search for an etymology reaches a

negative conclusion, it is interesting to find that the Hsiung-nu resembled

the later nomads in their basic economy.

Some Hsiung-nu Titles—(1) Shan-yü 盪玉

It would not be surprising to find that the title of the supreme ruler of

the Hsiung-nu reappeared in later nomad empires. Indeed it would be

more surprising if it did not. Sir Gerard Clauson has recently suggested

that it is to be recognized in yabgu which we find among the T’u-chüeh in

the T’ang period. This is impossible to accept on several grounds. Shan-yü

< M. djen-hiou < *dan-kwia is phonetically quite unsatisfactory as an

equivalent for yabgu even if we reconstruct as an early Turkish word with

an initial *k. Chinese would have used -m or -p to represent the labial

consonant, never -n. Moreover a good Han dynasty transcription of yabgu
exists in hsi-hou, found among the Wu-sun, Yueh-chin and K’ang-chü, but

not the Hsiung-nu, and probably of Tocharian origin (see p. 95). Later

the title occurs among the descendants of the Yueh-chin in Bactria and it was

probably borrowed by the Turks from there. A fuller discussion must be

left for another occasion.

Nevertheless shan-yü did not vanish and we can, I think, see in it the

ancestral form of another title that reappears among the Turks and Mongols

and was also known farther west, namely tarqan, tarxan, etc. This is one of

the titles which have “Mongol” plurals in -t (targat) and which, according
to Pelliot (1915), must have been borrowed by the T’u-chüeh from their

Juan-juan predecessors. He pointed out also that the spelling with -n in

Kashgari was a characteristic of words of foreign origin (1914, p. 176, n. 2).

Whether or not Pelliot was right about the immediate source of the word

in Turkish, the ultimate source was no doubt the Hsiung-nu. Phonetically

the correspondence is good. The use of Chinese -n for foreign -r is regular

in the Han period. The Chinese initial *d- would not yet have been palatalized

in the second century B.C. when the transcription first appears. The

use of Chinese hw- for a foreign back velar or uvular y or G has been
discussed above. The Hsiung-nu word lacks the final -n which we find in
the Turkish but we shall find other examples of this in qayan, qatim and

tegin.

Moreover we find a title tarqan without its final -r on the coins of
the Hephthalite ruler of Afghanistan in the seventh century, Nëzak Tarxän.
In Greek script we find either TAPKA or TAPAKA. It is generally sup-
posed that Nëzak got his title from the Turks but it is quite probable that

the title was already known among the Huna in Afghanistan before the
arrival of the Turks, just as the title tegin was known among the Hephtha-
lites in Gandhara (see below). (For western references and bibliography see
Moravcsik 1958, II, p. 299.)

In Chinese transcription in the T’ang period the Turkish title tarqan
appears in a variety of forms: 達干 M. dat-kàn, 達官 M. dat-kwan.
The last of these means “advanced official” or “official with direct access”
in Chinese and it has been suggested that this was the etymology of the
Turkish word. Pelliot, while not rejecting the suggestion out of hand, remarked, “Toute la question est de savoir si nous avons affaire à une
réelle identité étymologique ou à une transcription d’érudits basée sur une
simple analogie phonétique et sémantique” (1944, p. 176, n. 2). The latter
must certainly be correct. Ta-kuan is not such a common term in Chinese
that one would expect it to be borrowed as a title by foreigners.

It is of course not at all surprising that what had been the supreme title
under the Hsiung-nu should have declined in status and become merely a
high-ranking officer among the Turks. Mongolian daryya (a form which
agrees even better with the Hsiung-nu original) than does the Turkish and
may have been borrowed directly) has declined even further coming to
mean no more than the holder of certain privileges. We may compare the
fate of khan in the modern Middle East where it has become no more than
“mister”.

(2) T’u-ch’i 塔吉

The title given to the Crown Prince of the Hsiung-nu was Left

T’u-ch’i Prince. Next below him came the Right T’u-ch’i Prince. According to

Han-shu 94A, t’u-ch’i meant hsien “wise” or “worthy” and the titles are
sometimes translated and written Left and Right Hsien Prince. The same
word t’u-ch’i occurs as the appellation of a shan-yü and of a Hsiung-nu
queen (Han-shu 94). In meaning it may be compared with Turkish bilgä
“wise” which also appears in royal titles. The word itself on the other hand
must be the ancestral form of Turkish tegin, tegin “prince,” having been
borrowed as a title without its original semantic content. The phonetic
values of the characters are M. dou-g[i] < *dah-g(i) (on the transcription
value of the second character see p. 124 above). The addition of -n and the
plural in -t both speak in favour of a borrowing into Turkish through Mongolian type of language (Pelliot 1915).

In the T'ang period the correct transcription of the Turkish title тегин was 得勤 M. дак-гян, but through graphic corruption the second character normally appears in texts as 得勤 M. лак. This same corruption appears in an earlier form of the title 得勤 M. джак-лак (read -гян) which we find in the Pei-shih in a passage on Gandhara based on Sung Yün’s account of his visit there early in the sixth century. In the 洛陽之課篇 chi we find correctly 得勤 M. джак-гян (some texts have instead 得勤 over the heart radical but this must again be a case of graphic corruption—no such character is found in dictionaries, see 洛陽之課篇 chi chiao-shu, p. 318). According to Sung Yün, the Hepthalites appointed a Чыч-чын to rule in Gandhara after they conquered it and as S. Levi pointed out, the existence of the title тегин in Gandhara is confirmed by the Рэжатарангиит, which speaks of a ruler there called thabkhan (Chavannes 1903, p. 225, n. 3; cf. also Marquart 1907, pp. 211-12). פ. Ghirshman (1943, pp. 109 ff.), finding the appearance of a Turkish title among the (to him) Iranian Hepthalites embarrassing, was at pains to explain away Sung Yün’s testimony. Reading Чыч-чын instead of Чыч-чын, he proposed to see in it a transcription of Тсвала, Забул. But M. джак-лак can hardly have anything to do with Забул which we find in Chinese transcription as 满 M. джаз. Ghirshman’s idea was clearly influenced by the belief that Чыч-чын, which, it is true, is one of the earlier spellings of Чыч-чын (see p. 230 above), could be a transcription of Тсив, Толис being thought to have some resemblance (surely very remote!) to Тсвала; but Чыч-чын and its earlier forms have nothing to do with Толис, though the view, consecrated by Chavannes, dies hard (see Pulleyblank 1956).

The only reasonable interpretation of Sung Yün’s testimony, corroborated by the Рэжатарангиит, is that the title тегин was used by the Hepthalites long before the appearance of the Turks.

This is not the place for a full scale discussion of the affinities of the Hepthalites but a few remarks can be made. I am not at all convinced by the arguments which have been made in recent times to show that they were Iranian (Ghirshman, op. cit.; Enoki 1951, 1952 and 1959). That there should be Iranian elements in their empire is only to be expected since the subject population must have been predominantly Iranian. Much more significant are the evidences of Altaic connections in the ruling Hepthalites themselves. Besides the title тегин, one may point in the first place to their proper ethnic name, Hepthalite being a dynastic appellation. In the Liang-shu they are referred to as the country of 满 M. хваст. As has long been recognized, this name must be the same as the 满 M. хвост of Хуан-цун, which, as Yule and Marquart have shown, is to be identified with the city known to the Arabic geographers as War-wалич, Wal-валич, Wалич, al-Wалич, i.e. the later Kunduz. In the Хсин Т’анг-шу this city is referred to as 阿勒 M. ’ах-ван/ City (the Chiu T’ang-shu has 阿勒 M. ат-ван). These forms imply an ethnic War or Avar which can scarcely be separated from the Ордо ван Xован of Theophylactus Simocatta, the Ордо-ван of Menander Protector and the Avars of Europe. Still earlier the same name occurs as 烏丸 (植) M. ou-ван < *аг-ван, one of the two divisions of the Eastern Hu in the Han period (the other being the Hsien-п). The phonetic identity is perfect and there are very good supporting arguments in favour of a connection between the peoples.

The second part of the name War-wалич was supposed by Marquart to be composed by the reduplication of War with addition of the Iranian suffix -и’s. I wish to suggest that it was rather the Altaic word for “city” (Turkish балты, Mongol балгарсун < *балака-сун (Poppe 1960, p. 122). The majority of the Arabic spellings quoted by Marquart have -и which would be a normal Arabic way of writing a foreign -s. (The spelling in -и is more difficult to explain in this way.) On this interpretation War-wалич is “City of the Avar” like Chinese A-huan ch'eng. In some of the Arabic forms it would appear that the ethnic is omitted and we have simply Wалич or al-Wалич “the city”. It is surely not a coincidence that the later Iranian name Kunduz means in fact “Citadel”.

The word балты, *балака-сун is not specifically Turkish or Mongolian and the Arabic spellings are hardly sufficiently explicit to indicate definitely one or the other, but there are other reasons for favouring an identification of the Hepthalite-Avar as probably Mongolian rather than Turkish. The *аг-ван were a division of the Eastern Hu, closely akin to the Hsien-п. According to the very detailed account of the two peoples in the Wei-shu (quoted in the commentary of the San-huo-chih wei-chih 30.1003.4; it is also the basis for the account in Hou Han-shu 120) they spoke the same language. Now Pelliot has shown very convincingly that parts of the Hsien-п spoke a Mongolian language and the Wu-ван—Avars should therefore have done so also.

Schlegel 1892 noted long ago that according to the Chinese accounts, the Hepthalite married women wore the characteristic conical headdress of the Mongols which was adopted as a lady’s fashion both in mediaeval Europe, where it was known as the hennin, and in China, where it was known as the 姑姑 ku-ку (with other spellings), from Mongol кэгил. Still earlier, what must be this same headdress is described in the account of the Wu-ван in the Wei-shu, where it is given this very name: 甸 as M. ku-kвеt (the first character has a number of other readings: ку, киу, гиу; the Old Chinese vowel was *о/о). The identification of this word with кэгил has already been proposed by Egami 1915. Earlier Shiratori discussed the description of the woman’s headdress but did not recognize the Mongolian name.
We have in this evidence an important cultural and linguistic link between the Wu-huan of Manchuria and the Heththalite-Awar of Afghanistan, and between both and the Mongols. Historically there is nothing in the least difficult about such an hypothesis. The westward movement of the Eastern Hu after the collapse of the Hsiung-nu empire in the middle of the second century A.D. is well attested, and various Hsien-pi groups appear in Kansu from the third century onward. One of these, the T'u-yü-hun, established a state in the Ch'ing-hai-Taisham region and extended its influence out into Sinkiang, where they were next-door neighbours of the Heththalite empire. We are told in the Liang-shu that the people of Hua (i.e., the Heththalites) were illiterate and that their language could only be understood when interpreted by the men of Ho-nan (i.e. the T'ü-yü-hun). This statement can be most easily understood if we suppose that the Heththalites spoke a language which was the same as that of the T'ü-yü-hun, or closely akin to it, therefore a Mongolian dialect (see Pelliot 1921). They no doubt represent a westward extension of the great movement of the Eastern Hu which brought the T'ü-yü-hun to Ch'ing-hai.

The Chionites, Xouua, Huna with whom the Heththalite-Awar are closely associated in Afghanistan are, in my opinion, likely to have been of Hsiung-nu origin. They may either have come independently of the Heththalite-Awar or in association with them. After the Hsien-pi overthrow of the Hsiung-nu empire we are told that many Hsiung-nu became incorporated into the Hsien-pi and there must have been a good deal of mixing up of Hsiung-nu and Eastern Hu peoples in the following centuries without an immediate complete loss of identity. Such questions as the immediate provenance of the European Huns and Avars, the relation between the "Pseudo-Avars" and the "True Avars", the connections with the Juan-juan, etc., must be left aside for the present.

The Heththalite-Awar were not the only Altaic people to use the title tegín before the Turks. It was also found among the T'o-pa where we find the form 直勤 M. dżak-gjan (Sung shu 95, Nan Chi shu 57). The T'o-pa are usually regarded, since the studies of Boodberg and Bazin, as Turkish but, while there were certainly Turkish elements among them—possibly mainly of Ting-ling origin—they were regarded as Hsien-peh by the Chinese and many of the general features of their language that have been noted could be as readily interpreted as Mongolian as proto-Turkish (Gabain 1950, 55 pp.). The identification of the leading group as Turkish leans, it seems to me, rather heavily on titles like tegín which are not really Turkish at all. The whole question needs re-examination.

The Hsiung-nu word Hu-yü < M. hou-hjou < *hawa-hawā which I wish to see as the origin of qayan also seems to have had the same kind of meaning. This title occurs only in Han-shu 94B.6062.1. Because several Crown Princes had died during the time of Wu-chu-liu Shan yü (B.C.-A.D. 13) it was thought that the title Left Wise Prince was unlucky and the title hu-yü was given to a certain prince instead. The Han-shu says, "The dignity of hu-yü was the most honourable. He was to become sham-yü in succession." Thereafter we hear no more of this title.

I have given phonetic arguments above for the belief that hu-yü, representing a foreign original something like *aˊayˊu or *GaGā, could be the original behind Turkish qayan/xayan (which in the vacillation between q and x, it will be noted, shows the same evidence as tarqan/taras of being a loanword in Turkish). It is tempting to try to compare also Ket. ký, pl.
kyky “prince”, Kott. hįjį, hįje, pl. hįjαν, hįŋ but in the absence of more knowledge of Yenneisian phonology this could be no more than conjecture.

(4) O-chih, qutan

As stated above (p. 8q) I propose to identify the title of the consort of the Hsiu-ngu rulers, 卞氏 M. *at-cie < *at-tēh, with the corresponding title among the Turks, qutan/xatun. There are a number of complications. In the first place there are uncertainties about both characters in this expression. The fact that the second character sometimes appears as 氏 M. tei < *teh is not particularly serious, since it would have little effect on the transcription value in the Former Han period. The variant readings of the first character are a more difficult problem. Besides the normal M. ‘at in the sense of “to obstruct” (= 遁) various special readings appear in dictionaries. The reading M. ‘jo < *āh, which occurs only in the re-duplicative binome 道 and M. ‘jo-yo can be ignored, as also can the reading M. ‘jat < *āt, found in the astrological expression 卯辰 M. tan-jat. Besides these we are also given M. ‘jen, ‘en, and according to the commentators Chang Shou-chih and Yin Shih and to the Kuang-yūn these readings are proper to the Hsiung-title. On the other hand Ssu-ma Cheng in the Shih-chi so-yin says, “The old pronunciation was M. tē-tei 古音曷氏”.

The readings given by the Kuang-yūn seems to be based on a supposed connection between the Hsiung-nu title and the word 烟支, 燕支 M. ‘en-cie ‘safflower’. We find this stated in a letter by the historian Hsi Ch’o-ch’ih (4th C. A.D.). Writing about the safflower which, he says, is used by the northern barbarians as a cosmetic, he adds, “The Hsiung-nu word for ‘wife’ is O-chih. It means that they are lovely as yen-chih ‘safflower’” (T’ai-p’ing yü-lan 719.34). This is of course no more than a popular etymology. The word Yen-chih “safflower” is also the name of a mountain (written 燕支 M. ‘en-cie or 燕狄 M. ‘en-gii) near Shan-tan in Kansu from which safflower was obtained. (Shih-chi 110.0246.2, Han-shu 94A.9597.2). The Hsi-ho chiu-shih also cited in the T’ai-p’ing yü-lan 719.34, quotes an old song purporting to express the lament of the Hsiung-nu at being driven out of Kansu. “If we lose our Chi-i-lien mountains, it will make our livestock not breed; if we lose our Yen-chih mountain, it will make our wives (jü-nu) lose their beauty.” If this song was known to Hsi Ch’o-ch’ih it may have suggested to him the connection between the words O-chih and Yen-chih. In his day M. *at-cie and M. ‘en-cie or ‘en-cie would have sounded much alike, especially if final -t in North China had already begun to weaken to a spirant -k. In the former Han period however they would have been quite different, not only in the first syllable but also in the second, since M. ‘en-cie back to *kéh but 氏 goes back to *tēh. It is to be suspected that the special readings of 卞 in O-chih arose only out of the later pun and have no real authority behind them.

One of the spellings of the Yen-chih mountain is the same as for *Argi, the old name of the Tocharian kingdom at Karashahr. In spite of the fact that the safflower is red, not white, and is used to produce a red dye, it seems to me likely that *gān-kēh or *ān-kēh “safflower” comes from a Yüeh-chih word related to Tocharian A. ākhi, B. ākhu “white”. The Indo-European root primarily means “shining, bright”, cf. Greek ἀργός ‘bright’, ἀργυρός ‘silver’.

A variant spelling for O-chih is found in the Lun-heng: 燕捷 M. ‘jen-dei. This is interesting in confirming the dental medial consonant. It would appear to support the readings in -a of the first syllable but the evidence is less than strong and there are frequent phonetic confusions, i.e. 燕 and 燕 M. ‘u < *āh. We find, for instance, the place name 燕氏, known in Later Han as 燕校 (see p. 105 above) and also spelt 燕氏, has a variant 燕氏 in the Lü-shih ch’un-ch’i’u (see Ts’u-t’ung p. 0084; cf. Pelliot 1936, pp. 266 ff.).

Finally, there seems no reason to give Ssu-ma Cheng’s testimony less weight than that of the other commentators. His reading M. kat-tei not only confirms the absence of an -a in the first syllable but also has initial *k rather than the glottal stop, seeming to support the opinion that the foreign word had a consonantal opening and not merely a vowel.

Turning to qutan/xatun, which again seems from its form to be a loanword in Turkish, we find that it is commonly supposed to be a derivative of Sogdian γατ’γαν *xawat’ēn “queen”. The fact that in a Sogdian text we find γατ’γαν and γατ’γαν=xatun together, the one referring to the queen, the other to the first ranking concubines (Benveniste 1949, 6 L165), does not in itself absolutely rule out this etymology, since the word might have been reborrowed from Turkish into Sogdian without being recognized. Nevertheless it can at any rate be said not to support the Sogdian etymology. Moreover the phonetic correspondence is far from exact and the meaning is not quite the same either. Both the Turkish qatan and the Hsiung-nu o-chih would seem to have meant originally simply “wife” rather than “queen” whereas γατ’γαν can only mean “queen”.

Still further doubt is thrown on the Sogdian connection by the fact that what must clearly be related forms of the same word are found already among the T’u-yü-hun and the T’o-pa. By the former the consort of the ruler was called 據朢 M. khak-suian (Chou-shu 42, 2340-3), by the latter 可孫 M. kha’-suian (Nan Ch’i shu 57, 1755-4). Though Sogdians were present on the western borders of China at this period, it was as traders rather than in any military or political sense and it seems doubtful whether the nomadic rulers would have turned to them for titles.

Boodberg thought that M. kha’-suian represented an original like *gatan. Bazin suggested instead an interdental fricative *gαtun. A more likely interpretation for both T’o-pa and T’u-yü-hun forms would be
*qačin. We have noted the difficulty which the Chinese had in the Former Han period in representing foreign palatals. By the fourth and fifth centuries Chinese had of course palatal affricates but there were no syllables in *-un or *-wun with palatal initials and even much later we still find recourse to dental affricates in such Buddhist transcriptions as 师那 M. *tsuan-na = Cunda (T.361).

If we could suppose that *qačin developed out of an earlier *qači with the addition of a suffix, we could account for the medial -i- by the normal palatalization of *ti in Mongolian. This would lead us back to an earlier *qati- which is very close to the presumed Hsiung-nu original behind *at-teh. Mongolists must decide whether *qačin > *qači is possible. The same problem of the vowel in the second syllable is found in Turkish qatun/qatun, borrowed either independently from Hsiung-nu, or from a proto-Mongol form earlier than *qačin, since it preserves -i-. Here it may be noted that an alternation between i and u is frequent in Old Turkish as for instance in qatun/qatin "become hard" (von Gabain 1950, pp. 49, 327). Many of the later dialect forms of the word do in fact show -i- rather than -un and there are also related forms without final -n like qat "junges Weib, Frau" (Abakan dialect), qaduy "Gattin, Weib, alte Frau" (Tuv. slv.), qadi "alte Frau, Omama", qade "Schwägerin, Schwester" (Anatolia, Söz Derl.) (Çagatay 1961, p. 17).

The "Hsiung-nu Couplet"

Some mention should be made of the famous couplet in the "Chieh" language found in Chin-shu 95.1311c (cf. Wright 1948, p. 344). If our theory about the Chieh is correct (p. 247), we should expect their language to be either the K'ang-chü variety of Tocharian or proper Hsiung-nu, since they might have lost their original tongue while living in the east. We should not expect any form of Turkish or Mongolian. On the other hand the supposition that the Hsiung-nu spoke Turkish a number of attempts have been made to interpret the couplet in terms of Turkish (in recent times we may note the attempts of Ramstedt 1922, Bazin 1948, and Gabain 1949).

None of these interpretations can be considered very successful since all do more or less violence to the phonetic values of the Chinese characters and to the explanation given in the accompanying Chinese text. The couplet as explained in Chinese consists of four words: (1) 秀支 M. sjū-ci = *sūx-kēh = 軍 "army", (2) 替居閔 M. thei-let/leit-ka = *se(t)-let/le(t)ša-ka = 出 "go out", (3) 閔谷 M. bok-kuk/yok = *buk-kok/(g)ba-ka = 劉 Yao's barbarian rank", (4) 竇其中 M. gijou-thuk-ka = *gōh-thok/bok-ka = 捕 "capture". Beyond remarking that -y is a common verbal ending in Yeniseian, especially Kottish, I shall not, at least for the present, attempt to add to the list of suggested reconstructions.