Mongolic Phonology and the Qinghai-Gansu Languages

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4. MODERN DEVELOPMENT OF THE CM CONSONANTS

PREFACE

This study will investigate the phonology of the peripheral Mongolic languages of the Chinese provinces Qinghai and Gansu from a comparative historical viewpoint.

The Qinghai-Gansu languages comprise Eastern Yugur (Shira Yugur) and the Shirongol languages. The latter can be subdivided in a Monguor branch, consisting of Mongghul and Mangghuer, and a Baoanic branch, consisting of Baoan, Kangjia, and Dongxiang (Santa).

The Qinghai-Gansu languages area are increasingly well-described. They have also been the subject of studies in language contact, mostly in the context of the Amdo or Qinghai-Gansu *Sprachbund*.

However, the phonology of these languages is not simply converging with (Northwest Mandarin) Chinese and (Amdo) Tibetan. Even the developments triggered by these neighbouring languages are not predictable. For instance, new Chinese-inspired restrictions on final consonants are implemented differently in Mangghuer, Kangjia and Dongxiang. Other developments, such as accent-related vowel loss and aspiration phenomena in the consonants, are regional without being induced by Chinese or Tibetan.

The present work will examine the relationship between the Qinghai-Gansu languages and Common Mongolic. It provides an overview of the phonological developments of the Qinghai-Gansu languages, comparing them to the reconstructed ancestral language. At the same time it will investigate the archaic features that can be found in these languages, in order to improve the Common Mongolic reconstructions of individual lexemes. Many word shapes in the Qinghai-Gansu languages differ considerably from their counterparts in the better-known central Mongolic languages. Determining which of these deviating features are recent adoptions and which are preserved old features is a central task of this study.

This project was originally started in 1993, and it should have been completed well within the 20th century. Due to an ever increasing amount of available publications, it was only after the decision to limit the number of issues, languages, and lexemes to be investigated, that it became possible to bring it to completion.

The phonetic development of the Mongolic lexemes in the Qinghai-Gansu languages has become the core subject, with the focus on underived noun and verb stems (the former also including pronouns and numerals). The phonetic development of suffixes and that of irregular paradigms, like those of the personal pronouns, are not discussed. The material is still so abundant that not all Mongolic lexemes that survive in one or more QG languages could have been listed and discussed here.

The other peripheral languages Dagur and Moghol play a supplementary role. The central languages and the Middle Mongol sources are cited for the sake of comparison, but their developments are not systematically discussed. The discussion of non-Mongolic evidence and Altaic cognates have been kept to a minimum. This study thus mainly deals with the diversification of Mongolic in the historical (recorded) period.

The peripheral Mongolic languages first came to my attention in the informal Altaic study sessions in the book-laden office of my teacher Ane H. Nauta, several

ABBREVIATIONS

Languages

CM	Common Mongolic
CT	Common Turkic
PM	Proto Mongolic
WM	Written (Literary) Mongol

MMo	Middle Mongol
SH	Secret History (Middle Mongol in Chinese characters)
HY	Hua-Yi Yiyu (Middle Mongol in Chinese characters)
ZY	Zhiyuan Yiyu (Middle Mongol in Chinese characters)
Ph	Middle Mongol in 'Phags-pa script
Muq	Muqaddimat al-Adab (Middle Mongol in Arabic script)
IM	Ibn Muhanna (Middle Mongol in Arabic script)
IV	'Istanbul Vocabulary' (Middle Mongol in Arabic script)
LV	'Leiden Vocabulary' (Middle Mongol in Arabic script)
RH	Rasulid Hexaglot (Middle Mongol in Arabic script)

QG	Qīnghǎi-Gānsù Languages: Eastern Yugur and Shirongol
BaoD	Dahejia (or Jishishan) Baoan
BaoDt	Datong dialect of Dahejia Baoan
BaoGm	Gomar dialect of Tongren Baoan
BaoGt	Ganhetan subdialect of Dahejia Baoan
BaoJ	Jishishan subdialect of Dahejia Baoan according to Li
BaoÑ	Ñantoq subdialect of Tongren Baoan
BaoX	Xiazhuang (Orkor) dialect of Tongren Baoan
Brg	'Old' Bargu dialect of Buriat
Bur	Buriat
Dag	Dagur (usually Butkha dialect)
Dgx	Dongxiang (usually Suonanba dialect)
DgxL	Longquan dialect of Dongxiang
EYu, EYugur	Eastern Yugur
EYuQ	Qinglong dialect of Eastern Yugur
Kalm	Kalmuck
Kgj	Kangjia
Kh	Khalkha
Kmg	Khamnigan
Mgr	Monguor (both languages)
MgrH	Mongghul = Huzhu Monguor
MgrM	Mangghuer = Minhe Monguor (includes Sanchuan)
Mog	Moghol
MogM	Mangut dialect of Moghol
MogMr	Marda dialect of Moghol
Ord	Ordos

Sources and Authors

B	Bökh [BaoD]; Bolčuluu [EYu]
BC	Bökh & Chen [BaoX]; Bökh & Čoyiǰungǰab [Dgx]
BJ	Bolčuluu & Jalsan [EYu]
BL	Bökh & Liú [Bao]
C	Čeremisov [Bur]; Čenggeltei [MgrH, MgrM]
CN	Chen Naixiong [BaoŇ, BaoGm, BaoGt]
D	Dob [Chakhar]
DS	Dpal-ldan-bkra-shis, Stuart, et al. [MgrM]
E	Enkhbat [Dag]
EDPT	Clauson 1972
F	Fairy tales: Chen, Li, Lü, et al. [MgrM]
H	Haenisch [MMo]; Hangin [Kh]
Her	Hermanns [EYu]
I	Iwamura [Mog (Zirni)]
J	Janhunen [Kmg]; Junast [EYu, MgrH, MgrM]
JL	Junast & Lǐ [MgrM]
K	Kowalewski [WM]
L	Lessing [WM]; Lǐ [MgrH]; Li [Bao]; Ligeti [MMo, Mog]; Liú [Dgx]
LC	Luvsandendev & Cedendamba [Kh, WM]
M	Mostaert [MMo; Ord]; Muniev [Kalm]
MC	Ma & Chen [Dgx]
NK	Namcarai & Khaserdeni [Dag]
P	Poppe [CM; MMo; Dag]; Potanin [EYu, MgrH, MgrM, Bao, Dgx]
R	Ramstedt [Kalm]
S	Sečenčogt [Kgj]; Sun [all languages]
SM	de Smedt & Mostaert [MgrH]
T	Todaeva [Dag, EYu, MgrH, MgrM, Bao, Dgx], Tömörtogoo [precl.]
TMEN	Doerfer 1963-1975
W	Weiers [Mog]
X	Khasbaatar [MgrH]
Z	Zhòng [Dag]; Zhōng [various QG languages]

Other

abl.	ablative
acc.	accusative; according
adj.	adjective
caus.	causative
dat.	dative(-locative)
dim.	diminutive
gen.	genitive
intr.	intransitive
lgs.	languages

loc.   locative
obs.   obsolete/obsolescent
pass.   passive
pl.   plural
precl.   preclassical
tr.   transitive

TERMS

Groups of languages:

central Mongolic	Mongol proper, Ordos, Oirat-Kalmuck, Buriat, Khamnigan
peripheral Mongolic	Non-central languages: Dagur, Eastern Yugur, Shirongol, Moghol
Shirongol	Mongghul, Mangghuer, Baoan, Kangjia, Dongxiang
Baoanic	subgroup of Shirongol, consisting of Baoan, Kangjia, and Dongxiang
Monguoric	subgroup of Shirongol, consisting of Mongghul and Mangghuer
Dongxiang	= Santa
Baoan	= Bonan
Sanchuan	= (a variety of) Mangghuer

Collective names for CM phones:

double vowels	*aa, *ee, etc
complex vowels	*ei, *au, etc
'back' vowels	*a, *ï, *o, *u (harmonic class)
'front' vowels	*e, *i, *ö , *ü (harmonic class)
high vowels	*ï, *i, *u, *ü. In the context of QG languages, also ǝ
non-high vowels	collective name for low *a, and mid *e, *o, *ö
strong consonants	(*p,) *t, *č, *k, *s/š, *h
weak consonants	*b, *d, *ǰ, *g, *m, *n, *ŋ, *l, *r, *y (and vocalic onset (ʔ))

NON-STANDARD SYMBOLS

ʔ=	etymological identicity uncertain
č ǰ š ž	palato-alveolars (= IPA [ʧʰ ʤ ʃ ʒ])
c ʒ	apicals (= IPA [ʦʰ ʦ])
ć ӡ́ ś ź	alveo-palatals (= IPA [ʨʰ ʨ ɕ ʑ])
ҁ ӡ̌ ʂ ʐ	retroflexes (= IPA [ʈʂʰ ʈʂ ʂ ʐ])
ġ	weak uvular plosive (= IPA [q])
ğ	voiced uvular fricative (= IPA [ʁ])
x́	voiceless palatal fricative 'ich-laut' (= IPA [ç])

1. INTRODUCTION

1.1. The Qīnghǎi-Gānsù languages and reconstruction

The Mongolic languages spoken in Qīnghǎi and Gānsù provinces in northern China have struck researchers by their aberrant developments, compared to the central Mongolic languages. Some unique features were recognised as being in part due to contacts with neighbouring languages, while others were clearly ancient features, reminiscent of Middle Mongol. In the past decades the Mongolic languges of Qīnghǎi and Gānsù have become better known. Descriptions are available for all known Qīnghǎi-Gānsù languages[1], as well as numerous publications on various diachronic matters. It is now possible to study these languages as a group from a comparative historical viewpoint.

This book will explore the relationship between Common Mongolic, the reconstructed ancestral language of all Mongolic languages on the one hand, and the Qīnghǎi-Gānsù languages on the other. It will investigate how the development of Mongolic lexemes in these peripheral Mongolic languages can contribute to the reconstruction of the earliest forms and later phonetic history of these lexemes themselves, as well as to our knowledge of Common Mongolic phonology as a whole.

Although Qīnghǎi-Gānsù Mongolic has had a long separate development, only incidental word shapes are older than forms documented in Middle Mongol. The evaluation of these languages has widened the base of Common Mongolic, without however increasing its time depth. Most developments of the Qīnghǎi-Gānsù languages can be dated after the Mongol expansion of the 13th century.

Until recently the reconstruction of Common Mongolic lexemes heavily relied on a limited set of languages. In the first place, Written Mongol spellings have long been believed to accurately reflect an older stage of Mongolic. In the second place, the well-known (and politically important) 'central' Mongolic languages are generally used: Mongolian proper (including Khalkha and Chakhar), Oirat (including Kalmuck), and Buriat. Middle Mongol sources in several scripts were consulted to add information on specific details, such as the initial *h- sound, and diphthongs lost in the central languages. Data from non-Mongolic (especially Turkic and Tungusic) languages were often used in support of the resulting reconstructions.

Data from the 'peripheral' Mongolic languages, i.e., those that are not in the above-mentioned 'central' group, also found their way into comparative Mongolic studies. Poppe (1955) used Dagur, Mongghul, and Moghol.

Materials for Baoan, Dongxiang, and Eastern Yugur were published by Potanin as early as 1893, but the material was quite limited until relatively recently. Poppe (1955) could not yet harness the data from these languages for reconstruction purposes.

Since Poppe's time we have gained a lot of additional information on these languages, mainly thanks to Chinese and Soviet publications, the delayed results of

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[1]   The discovery of Kangjia demonstrates that finding new varieties of Mongolic is not out of the question. The term 'Qīnghǎi-Gānsù (QG) languages' will only be used here to refer to the peripheral Mongolic languages of these provinces. It thus excludes varieties of central Mongolic (Oirat and Mongol proper) also found here.

the Sino-Soviet expeditions of the 1950s. It was now becoming clear how different the peripheral Mongolic languages are from the central languages, and from one another.

The peripheral languages are not a single subgroup of related languages. There are at least three, but probably four independent groupings: Dagur in the Northeast, Moghol in the Southwest in Afghanistan, maybe all but extinct, and the Shirongol languages in Gānsù and Qīnghǎi provinces. Shirongol is the collective name for the vernaculars gathered under the names Mongghul, Mangghuer (the Monguoric branch), and Baoan, Kangjia, Dongxiang (the Baoanic branch).[2] Eastern Yugur seems to form a fourth group genetically; similarities between it and the Shirongol languages may be largely due to areal convergence.

Research for this project was started in the hope and expectation that the Qīnghǎi-Gānsù languages would be able to confirm and enhance our knowledge of the ancestral Mongolic language. In general they do provide confirmation of existing reconstruction forms, thus broadening their base.

The value of the Qīnghǎi-Gānsù languages for some phonetic details of Common Mongolic was already known. Both Eastern Yugur and the Shirongol languages preserve a number of old features that are absent from the central languages.

The initial *h-* documented in Middle Mongol survives (in various forms) in all QG languages (as well as Dagur). See 4.13.

The complex vowels *au* and *eü* are partly preserved in both branches of Shirongol (also shared with Dagur). See 3.13.4.

Preconsonantal -*l*- is preserved in Shirongol in a small group of words including *mölsün* 'ice' (as in Middle Mongol; this feature was also preserved by Khamnigan and Buriat). See 4.10.3.

Some instances of *q* and *ġ* in Eastern Yugur and the Baoanic languages may support the existence of a vowel harmonic counterpart of *i* (as in Middle Mongol in Arabic script). See. 1.5.4.1. and 4.5.2.

Most further lexical and phonetic contributions of the Qīnghǎi-Gānsù (henceforth: QG) languages that will be discussed are due to their relative isolation, which enabled them to preserve features that were lost elsewhere. The QG languages have been separated from the other peripheries, and, more importantly, from central Mongolic. Most QG forms involve regional developments, or the absence of a central Mongolic development.

A related benefit of the QG languages is the lack of influence from Written Mongol, whereas the central languages have been influenced by, and have been influencing, the written forms for centuries. Compare the development of the ordinal suffix *-dUAr* > to -*dUgAAr* or invariable back-vocalic -*dugaar* in the central languages, as opposed to Dagur -*dAAr*, Mongghul -*dar*, Dongxiang -*da*, which developed according to sound laws.

The QG word shapes rarely reveal completely unexpected features of Common Mongolic lexemes. They do provide an additional opinion on the

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2   The term Shirongol, which encompasses the Qīnghǎi-Gānsù languages except Eastern Yugur, was used by Potanin in the same sense, apart from the fact that Kangjia was not known to him.

reconstruction of words with contradictory forms in the central languages, Middle Mongol and Written Mongol.

The forms found in the QG languages are not necessarily archaic. Individual word shapes deviating from the central languages may preserve archaic features, e.g. *s-* (when corresponding to central Mongolic *š-*), or *d* (central *ǰ* or *ʒ*). In a case like **kabar* 'nose' (central **kamar*) it is not obvious which variant is the older.

Due to the word-final accent prevailing in the QG languages they tend to preserve the very vowels that were reduced or elided in the central languages. They thus fulfil a complementary role to central Mongolic in the detection of the presence, location, and quality of vowels.

However, both sets of languages may not only elide unaccented vowels, but also break up original consonant clusters, leading to the appearance of non-etymological vowels. Therefore the Middle Mongol and Written Mongol forms are often indispensible to arrive at the correct reconstruction form. On the other hand, limitations of the writing systems make it unsafe to rely on these old written forms alone.[3]

In the following cases the QG forms contribute useful evidence, although the added data do not always lead to a definitive reconstruction.

a) the presence of vowels, especially in word-final position, e.g. **kora* 'poison' (Written Mongol has a spelling alternation *qoor ~ qoora*), **öreele* 'hobble' as opposed to Written Mongol *örögel*. However, especially high vowels following *r* tend to be lost, perhaps by absorption into this trill consonant, cf. **ǰïar(ï)* 'musk', **saarï* 'hindquarters', **siberi* 'foot sweat'. The QG languages can also be useful for detecting other vowels in non-first syllables.

b) the quality of vowels, more specifically vowel height. In such cases a vowel was certainly present, but its quality could not be established on the basis of the three central standard languages, where the distinction between high and non-high short vowels is largely neutralised in non-first syllables. Like Khamnigan and Ordos, the QG languages show different developments for **sere-* 'to sense' and **seri-* 'to wake up', **kada-* 'to sew on' and **kadu-* 'to harvest', **büte-* 'to be covered' and **bütü-* 'to finish'.

In some instances the peripheral languages shed light on ambiguous central Mongolic or Written Mongol forms, or at least shift balance of evidence. In case of the Written Mongol spelling variants *ǰegüde(n) ~ ǰegüdü(n)* the QG languages support the reality of the latter (in this case contra Ordos *ǰʉːde*). There are many similar cases, in which the peripheral languages favour a certain reconstruction, without establishing that this is the single ancestral form that all modern languages go back to. The reconstruction **kökül* 'forelock of a horse; braid of hair' is supported by Ordos *gukʉl*, but the Eastern Yugur and Mongghul equivalents suggest **kökel*. **olusun* 'hemp' is supported by Ordos *ulusu*, but Eastern Yugur and Mongghul suggest **olasun* instead. The reconstruction **eber* or **öber* 'bosom' agrees with Eastern Yugur *ßer*, Mongghul *yer* and Kangjia *ver* (as opposed to Written Mongol spellings *ebür*, *öbür*). The QG languages also suggest **sini* 'new' (spellings *sine ~ sini*), again contradicting Ordos *šine*. Ordos *böǰöŋ* 'young hare' and

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3   Shortcomings related to vowel detection include the frequent omission of vowels in sources in Arabic script and the presence of potentially non-existing vowels in sources in Chinese script, as in *zhe-mi-shi* for **ǰemiš* 'fruit').

Eastern Yugur *peǰeŋ* suggest **böǰeŋ* with a non-high vowel in the second syllable, while Khalkha and Kalmuck suggest **böǰiŋ*. Such disagreements will be indicated throughout the comparative supplement, see for instance **ǰebe* (*?*ǰebi*) 'rust', **ǰele* (*?*ǰelü*) 'rope to which the tethers of cattle are attached', **kaïnag ~ *kaïnug* 'yak'.

1.2. Mongolic Languages

1.2.1. Overview and global classification

Without revisiting the discussion about 'dialect' and 'language', the following Mongolic linguistic entities can be distinguished. For listings and taxonomies of the central Mongolic dialects I refer to existing publications such as Doerfer (1964) and Janhunen (2003e). Rybatzki (2003) deals with the taxonomy of all Mongolic languages, and summarises previous classifications.

Northeastern periphery

      - Dagur

Central languages

      - Mongol proper
      - Ordos
      - Oirat-Kalmuck
      - Khamnigan
      - Buriat

Western periphery

      - Moghol

Southern periphery

1) Eastern Yugur

      - Eastern Yugur (Shira Yugur or Nggar)

2) Shirongol

2a) Monguoric
      - Mongghul (Huzhu Monguor)
      - Mangghuer (Minhe Monguor)

2b) Baoanic
      - Baoan (Bonan)
      - Kangjia
      - Dongxiang (Santa)

This list reflects an approximate genetic subdivision, although it does not do justice to the complexity of the original relationships and subsequent contacts between these languages. Taxonomic remarks in this book will mostly be limited to the internal relationships of the QG languages (see especially 1.5. below).

1.2.2. General characteristics and typology

Several of the assumed features of Common Mongolic are no longer shared by all, or even most, Mongolic languages.

Common Mongolic was an agglutinative SOV language. All affixes were suffixes placed after the stem in a prescribed order. Suffixes typically had a single function, and retained a distinct shape in the chain of suffixes. Most suffixes had several alternants, one of which was chosen based on the phonetic properties of the stem, such as its vocalism (vowel harmonic class) and any final consonant. Common Mongolic vowel harmony involved two classes of vowels. The distinction between the two may have been an opposition between front and back vowels or may have been based on tongue root position. The QG languages do not provide additional evidence to resolve this matter.

Substantives and adjectives were not strictly separated. Pragmatically all non-verbs (except particles) can be considered nouns.

The noun could occur in singular and plural; the latter was indicated by a variety of suffixes. Grammatical and basic spatial relations were expressed by case endings for the genitive, dative, accusative, ablative, instrumental, and comitative. More precise spatial, temporal and logical relations would be expressed by means of postpositions.

Some nouns had two forms, one of which (marked by *-n*) was used attributively, and the other in the predicate, in enumerations, or independently.

The oldest documents show evidence of grammatical gender, as well as some agreement. Modern languages now only preserve masculine and feminine forms for a small number of nouns and adjectives.

Personal and demonstrative pronouns based their case forms on oblique stems rather than the bare stem (which coincides with the nominative). The genitive of the personal pronoun could be placed before or after the noun to act as a possessive marker; the postposed genitives resulted in suffixes only in later stages (and are then placed after the case endings, as in Tungusic, but unlike Turkic). A reflexive possessive referred to the agent of the verb, irrespective of the grammatical person.

The personal pronouns have three persons in singular and plural, without gender distinction; the first person plural distinguished between exclusive and inclusive. The demonstrative pronouns later mostly supplanted the third person personal pronouns.

The verb had several finite tenses. Grammatical person was expressed by the personal pronoun. Only later, and in some languages, these developed into personal endings.

The simple imperative had the same shape as the bare verb stem. Many other imperatives, optatives, etc., existed.
There were several participles or verbal nouns. Verb actions were stringed together by means of converbs.

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Verbal negation is expressed by means of a large set of negative particles, several of which appear to be based on (defective) negation verbs, again as in Tungusic.

Questions are expressed by means of question particles.

For the inflectional suffixes of the ancestral language I refer to Janhunen 2003b. A selection of derivational suffixes is listed after Chapter 4.

1.2.3. Mongolic lexicon

As many of the typological features mentioned above are shared by other Eurasian languages, the lexicon is the defining trait of the Mongolic languages.

The limited time depth of Common Mongolic means that the reconstruction forms are not very speculative, and each individual item generally resembles the majority of its modern descendants. Differences between the reconstructions of various authors mainly concern conventions and notation.

The young age of the reconstructed language also means that many parts of the vocabulary are known in great detail. We know the specialist terms for male, female, young, infertile horses (of which *agta, *ajïrga, *baïtasun, *daagan, *geün, *unagan, *ürie are listed in the supplement). Another rich category is that of the edible bulbs (including *gogal, *kalïar, *kümeli, *maŋgïr, *sarïmsag, *soŋgïna, and *sorïsun listed in the supplement). A large number of body parts is known, including the individual names of most fingers of the human hand (*kuruun 'finger' and *herekei 'thumb' are listed). Some widespread collocations may go back to the Common Mongolic period, such as *kara daru- 'to have a nightmare' (lit. 'for something black to press') and *čïkïn kormaï 'earlobe' (lit. 'ear hem').

From an etymological point of view several categories can be recognised within the Mongolic lexicon; unique Mongolic items, items with related forms in non-Mongolic languages but with a specific Mongolic shape, and obvious loanwords from non-Mongolic languages. The second category is by some scholars adduced as evidence for a genetic relationship between Mongolic and other language families. This matter will not be touched upon here.

There is no documented stage of Mongolic that precedes the adoption of loanwords from Turkic, Indo-Iranian, and Chinese. Words adopted from these languages have not been systematically excluded from the comparative vocabulary, provided they meet some criteria mentioned below. Thus, the fact that a certain lexeme was listed in the supplement as a 'Mongolic word' (old and surviving in several corners of the Mongolic-speaking world) does not exclude the possibility that the same word is also a Turkic word or an Iranian word.

1.3. Source materials

1.3.1. General considerations

The comparative supplement at the end of the book was conceived as a working corpus to investigate to what degree the QG languages contribute to our knowledge of Common Mongolic. In order to be able to appreciate in which cases the QG

languages yielded new insights, equivalents in the other modern Mongolic languages and a selection of Middle Mongol sources were added wherever possible. The selection of lexemes that now constiues the comparative supplement is meant to amply illustrate the phonetic developments discussed in chapters 3 and 4, provide the sources and page numbers for the words cited in the text, explain the reconstruction forms where necessary, and indicate any regional variants. As a whole it gives an impression of the phonetic diversity and, to some degree, the lexical diversity within Mongolic.

1.3.2. Selection of lexemes

The comparative supplement contains about 1350 items, which is by no means all of the old vocabulary that survives in the QG languages. Some general guidelines have been followed in selecting the listed items.

Nearly all of the included word stems exist in one or more, preferably many, of the Qīnghǎi-Gānsù languages. Within this group, preference has been given to words that are also documented in Middle Mongol and in the central languages.

The list contains examples for the regular (sound law) development of all Common Mongolic phonemes in all positions where they can be found. As some phonemes may behave differently in native and non-native stems (e.g. *š), examples for both groups have been included.[4] Apart from such regular words, words with an interesting phonetic development or distribution, possibly relevant for classification, have been included as well.

The largest possible number of basic vocabulary items that the reader may look for has been listed, such as personal pronouns, numerals, colour names, animal husbandry terminology, body parts, and kinship terms. Widely occurring words that show little phonetic change (e.g. *kara 'black' or *ta 'you (pl.)') have also been listed.

Most of the listed items are primary noun and verb stems (the noun category includes numerals, adjectives, adverbs, and pronouns). Derived words have rarely been included, unless the base form was lacking in the relevant languages. The phonetic development of suffixes has mostly been disregarded.

1.3.3. Materials of the QG languages

The focus here is on the contribution that the peripheral languages can make to the reconstruction of Common Mongolic. Languages with a sizeable and searchable corpus were quoted systematically. From the outset it was clear that Eastern Yugur, Monguor, Baoan and Dongxiang should minimally be included. For Monguor both Mongghul (Huzhu Monguor) and Mangghuer (Minhe Monguor) were quoted. For Baoan both the Ñantoq subdialect of (Qīnghǎi) Baoan and the Dahejia subdialect of

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4 While compiling the etymological list I abandoned an earlier idea to exclude all words with known foreign connections including Turkic-Mongolic cognates. This idea was based on the expectation that the QG data would yield a different view of certain aspects of Common Mongolic phonology.

(Gānsù) Baoan were quoted. Kangjia, which is clearly not a variety of Baoan or Dongxiang, was also consulted.

Some other dialects were quoted where they shed light on the history of individual words. This applies to the Ganhetan and Xiazhuang subdialects of Baoan, and the subdialects of the Monguor languages, but also to the hardly known dialects of Eastern Yugur and Dongxiang.

A considerable, and increasing, amount of data is now available for the peripheral languages. This has made it both undesirable and impossible to quote all documented forms here.

A shortcut would have been to take all QG language forms from Sun (1990) and compare those. However, that compilation is not consistent enough to be used uncritically. As a general principle I consulted the most voluminous reliable publications that were available to me. Often these were the volumes from the 'Hohhot series' (*Měnggǔ yǔzú yǔyán fāngyán yánjiū cóngshū = Series of investigations into the dialects of the Mongolic language family*) and the 'Peking series' (*Zhōngguó xiǎoshù mínzú yǔyán jiǎnzhì cóngshū = Series of concise grammars of minority languages of China*). Making the data from these sources accessible to a wider audience was also a consideration. Todaeva's monographs and de Smedt & Mostaert's Monguor dictionary are present in many libraries, and have been quoted less frequently here.

For most languages one large vocabulary was consulted as the primary source. When a given etymon was not found there, other publications were consulted. Additional forms from other sources are given as well, especially when the phonetic shapes contain additional information about the history of the word. Also words with specific reconstruction problems, or contradictory or hard to interpret forms in other languages, were cited from more publications.

Eastern Yugur forms were cited from Bolčuluu et al. (1984 [1985]) and Junast (1981b), augmented by Bolčuluu & Jalsan (1988) and occasionally by older sources.

Mongghul forms were mainly taken from Khasbaatar et al. (1985 [1986]) and Junast (1981). De Smedt & Mostaert (1933) has been consulted selectively. Lǐ Kèyù's dictionary (1988) became available to me only later into the project, and I have consulted it sparingly.

Mangghuer materials were taken from various smaller sources: Čenggeltei et al. 1988 [1991], Junast (1981), Junast & Lǐ (1982), Dpal-ldan-bkra-shis, Stuart et al. (1996), as well as the wordlist in Slater (2003).

Dahejia Baoan was primarily cited from Bökh & Liú (1982).

Ñantoq Baoan was primarily cited from Chén et al. (1985 [1986]).

Other Baoan dialect forms were generally taken from the following sources: Ganhetan from Chén (1995), Jishishan from Li (ms.), Xiazhuang from Bökh & Chén (1981), incidental forms from other dialects were taken from Chén et al. (1986 [1987]).

Kangjia was cited after Sečenčogt (1999).

Dongxiang was cited after Bökh et al. 1983. and Liú (1981). The dictionary by Mǎ & Chén (2000) became available to me only recently. It was occasionally cited it when it provided new lexemes or useful variants.

Several of Todaeva's monographs have been used to find further variants: Mongghul and Mangghuer (1973), Baoan (1964), Dongxiang (1961).

Sun's comparative dictionary (1990) has also been selectively used. Potanin (1893) has been used for Eastern Yugur and Shirongol (Baoan, Dongxiang, Wuyangbu (?Weiyuanbu) = Mongghul, and Sanchuan = Mangghuer), especially where he documents words that have since been lost, or provides older phonetic shapes.

1.3.4. Materials of other Mongolic languages

The Written Mongol spellings of each etymon are given wherever they exist. Middle Mongol forms are cited but not necessarily exhaustively. For the modern central Mongolic languages, only the three literary languages Khalkha, Buriat and Kalmuck were consulted systematically. Ordos and Bargu were quoted often. Khamnigan is occasionally quoted when it contributes to the reconstruction of problematic words. Khalkha, Buriat and Kalmuck dialect forms may be included if they were mentioned in the main dictionaries. A systematic evaluation of the many other central Mongolic dialects for historical purposes has yet to be undertaken. Both other peripheral Mongolic languages, Dagur and Moghol, are quoted.

For the old Mongolic documents, a selection of sources in the various scripts has been consulted.[5]

The Secret History and the Huá-Yí Yìyǔ (in Chinese characters with some adaptations) were consulted for all lexemes (after Haenisch 1939, and Mostaert 1977). The Zhìyuán Yìyǔ is incidentally quoted (after Kara 1990).

The Muqaddimat al-Adab (in Arabic script) was consulted for all lexemes (after Haenisch 1939, Mostaert 1977 and Poppe 1938-39). Other sources in Arabic script were quoted selectively, including the 'Leiden Manuscript' and the 'Istanbul manuscript' (after Poppe 1927-28 and Ligeti 1962, 1963), and Ibn Muhanna (Poppe 1937-38). The Rasulid Hexaglot (Golden, et al. 2000) has been quoted, mostly when it contained additional phonetic information.

Forms in 'Phags-pa script are cited when they were listed by Poppe 1957.

For Written Mongol Lessing (1960) was primarily consulted. For the three central standard languages the well-known dictionaries were used: Hangin (1986) for Khalkha, Čeremisov (1973) for Buriat, and Muniev (1977) and Ramstedt (1935) for Kalmuck. Other dictionaries were consulted where necessary.

The primary source for Dagur were Enkhbat's materials, mostly (1984), but also (1983) and (1988).[6] Additional Dagur forms were mostly taken from Zhòng (1982) and Namcarai & Khaserdeni (1983).

Moghol was cited after Ramstedt (1906) and Weiers (1972), augmented with Moghol words recorded by Ligeti (1963, 1964, 1968, 1974).

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[5] Most of the comparative supplement was prepared in the 1990s. It was not possible to systematically consult newer editions and commentaries on the older stages of Mongolic, such as de Rachewiltz (2004), Saito (2006, 2008), and Tömörtogoo (2006).

[6] As a native speaker Enkhbat was able to better distinguish real Dagur forms from central Mongolic forms and Mongolic words reborrowed from Manchu and northern Tungusic.

1.3.5. Reconstruction of individual lexemes

The reconstruction forms are listed alphabetically in the comparative supplement. Readers familiar with Written Mongol will have little trouble finding a given word, because in many respects spellings in Uigur script resemble Common Mongolic quite closely.

The reconstruction of individual words is often straightforward because of the limited time depth of Common Mongolic. However, the phonetic developments in the various languages have occasionally altered related etyma beyond (immediate) recognition.

Reconstruction problems mostly involve contradictory information from the various languages or subgroups. The original word shapes need to be distinguished from secondary developments. Particular attention should be paid to the following:

a) Establishing the location and quality of the vowels in the stem (vowel detection).

b) Establishing whether consonant strength is primary or secondary. This includes distinguishing primary *h- from secondary h- (and allied consonants such as f-).

c) Establishing whether first members of consonant clusters are original or later additions.

Morphological dissection occasionally helps to connect related words, e.g. *haakaï and *haaljïn 'spider' reveal a root which is not known to occur independently.

1.3.6. Semantics

The meanings of the listed lexemes in individual languages are generally omitted when they agree with the meaning or set of meanings assumed for Common Mongolic. Meanings may be given if a semantic difference between the languages casts doubt on the identicity of the forms. Semantic developments may also be mentioned and discussed when they are typical of a certain area or subgroup.

1.4. Phones of the cited languages

1.4.1. General considerations

This section contains the vowel and consonant inventories of the peripheral Mongolic languages. By and large these surveys will be organised as phonologies, but in the interest of historical transparency and ease of comparison of the data, I will on some occasions deviate from previous analyses.

The data on which I based my reconstructions and analyses are included in the comparative supplement, all provided with page numbers of the original publications. The published notation of each item can thus be retrieved.

For most Mongolic languages spoken in Gānsù and Qīnghǎi provinces there are now at least five phonological analyses which can be consulted in preparing this survey: those found in Todaeva's monographs; the 'Hohhot series'; the 'Peking

series'; various authors in *The Mongolic languages*; and Svantesson et al. in *The phonology of Mongolian*.[7]

To enable convenient comparison of the data, some degree of standardisation of the notation was necessary. In doing this, a balance had to be struck between phonetic reality, phonological analysis and readability, and between diachronic transparency and synchronic comparability.

Given the goals of this book, diachronic transparency was generally given preference over phonological 'tidiness'. Marginal phonemes and speech sounds whose distribution is synchronically and/or diachronically unclear have not been 'sanitised', and have mostly been left intact (examples include the vowels *i* and *ə* in Eastern Yugur, the vowel *ε* in Kangjia, the retroflex versus the alveopalatal consonants in Mangghuer, *ġ* versus *ğ* in Dongxiang, unexplained vowel lengths). Such occurrences may be explained in the future, and may even reveal details of historical development.

Unfortunately it was not feasible to acknowledge and endorse the emerging Pinyin-based writing systems of Mangghuer, Mongghul and Dongxiang. The reader would have had trouble generating phonetic realisations from the orthography[8], e.g. Dongxiang *<xien>* is pronounced [*śien*] with -*n*, but *<khan>* is pronounced [*qʰaŋ*] with -*ŋ*. There are also discrepancies between the orthographies, e.g. the syllable *<zho>* is to be read [*ɕuo*] in Dongxiang, but Mangghuer spelling does not allow this non-Pinyin syllable, and prescribes the notation *<zhuo>* whether or not a diphthong is pronounced.

Following a convention in Chinese publications about the QG languages, weak consonants have been written with graphemes that are traditionally associated with voiced consonants, strong consonants with graphemes associated with voiceless consonants, e.g. *d* stands for [*t ~ ḍ*], and *t* for [*tʰ*]. However, affricates have been written here with single characters rather than ligatures, e.g. *č* instead of *ʧ*.

Phones restricted to borrowed lexemes are not included below. Some of the marginal phonemes occurring in native lexemes, and phones whose phonemic status is unclear, have been mentioned.

1.4.2. Non-QG languages

Apart from some superficial changes in the notation (such as the replacement of Haenisch's *ś* and *ḥ* by *š* and *q*) the different spellings for Sino-Mongolian have been left as deciphered by the various authors. Some of the forms in documents in Arabic script have been read differently here, but such cases have been indicated.

Khalkha, Buriat, and Kalmuck have been transliterated from the Cyrillic spelling, with only incidental further clarifications (e.g. whether *<ё>* should be read *yo* or *yö*). Ramstedt's Kalmuck spellings have been slightly altered. Dagur has been cited in a form close to the (phonetic) notation of Enkhbat. Moghol has been cited from the various sources without attempting to standardise the notation.

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[7] For a survey of earlier phonological analyses of the QG languages see Svantesson et al. (2005: 149-154), and the various chapters in Janhunen (2003).

[8] The Mangghuer orthography is probably easiest to read, at least for those acquainted with Chinese written in Pinyin.

1.4.3. Eastern Yugur phones

The number of Eastern Yugur native vowel phonemes is hard to determine. Bolčuluu & Jalsan (1990) distinguished ten vowels /a/, /e/, /ə/, /i/, /ɔ/, /o/, /ö/, /u/, /ʉ/, /ü/, all with long counterparts. The independence of some of these phones cannot be demonstrated. On the other hand the analyses of Tenišev & Todaeva and Junast seem to be over-simplified. There are probably seven vowel phonemes /a/, /e/, /ə ~ i/, /ɔ/, /ö/, /u/, /ü/, with long counterparts. Short *i* is a relatively rare allophone of /ə/. Both synchronically and diachronically it seems likely that [o] is a defronted allophone of /ö/ and that [ʉ] is a centralised allophone of /ü/.

Eastern Yugur consonants in native lexemes:

	labial	apical	palatal	velar	uvular	phar./lar.
strong plos.	*p*	*t*		*k*	*q*	
weak plos.	*b*	*d*		*g*	*ġ*	
strong affr.		*c*	*č*			
weak affr.		*ʒ*	*ǰ*			
strong fric.		*s*	*š*		*χ*	*h*
weak fric.	*β*			*ɣ*	*ǧ*	
nasal	*m*	*n*		*ŋ*		
lateral		*l*				
trills etc		*r*				
approx.			*y*			

The plosives *g* and *ġ* and the fricatives *ɣ* and *ǧ* are only carefully distinguished by Junast; Bolčuluu, while acknowledging the existence of the fricatives, only uses the plosives in his notation.

The voiceless consonants *ļ/ł*, *ņ*, and *x́* can be phonologically analysed as sequences /hl/, /hn/ and /hy/, which mostly agrees with their diachronic background.

1.4.4. Mongghul phones

Mongghul has a compact vowel system of five short vowels /a/, /e/, /i/, /o/, /u/, with long counterparts. The phoneme /i/ mostly appears as a centralised [ə].

Mongghul consonants in native lexemes:

	labial	apical	alveopal.	retrofl.	velar	uvular
strong plos.	*p*	*t*			*k*	
weak plos.	*b*	*d*			*g*	*ġ*
strong affr.		*[c]*	*ć*	*[ɕ]*		
weak affr.		*ʒ*	*ʒ́*	*[ʑ]*		

Mongghul consonants (continued)

strong fric.	*f*	*s*	*ś*	*ʂ*	*x*
nasal	*m*	*n*			*ŋ*
lateral		*l*			
trills etc		*r*			
approx.	*w*		*y*		

1.4.5. Mangghuer phones

The Mangghuer vowel system has five short vowels, /*a*/, /*e*/, /*i*/, /*o*/, and /*u*/, perhaps six if one counts /*ə*/ as a separate phoneme. Incidental vowel lengths survive.

Mangghuer consonants in native lexemes:

	labial	apical	alveopal.	retrofl.	velar	uvular
strong plos.	*p*	*t*			*k*	
weak plos.	*b*	*d*			*g*	*ġ*
strong affr.		*c*	*ć*	*ɕ*		
weak affr.		*ʒ*	*ʑ́*	*ʐ*		
strong fric.	*f*	*s*	*ś*	*ʂ*	*x*	
nasal	*m*	*n*			*ŋ*	
lateral		*l*				
trills etc		*r*				
approx.	*w*		*y*			

r is often pronounced [ʐ] as in Mandarin, but will not be analysed as a fricative here.

1.4.6. Dahejia Baoan phones

Dahejia Baoan has six vowels: /*a*/, /*e*/, /*ə*/, /*i*/, /*o*/, /*u*/. Dahejia Baoan consonants in native lexemes:

	labial	apical	alveopal.	retrofl.	velar	uvular	phar./lar.
strong plos.	*p*	*t*			*k*		
weak plos.	*b*	*d*			*g*	*ġ*	
strong affr.			*ć*				
weak affr.		*ʒ*	*ʑ́*				
strong fric.	*f*	*s*	*ś*	*[ʂ]*		*χ*	*h*
nasal	*m*	*n*			*ŋ*		
lateral		*l*					
trills etc		*r*					
approx.	*w*		*y*				

The fricative *ʂ* occurs instead of *ś* in related (Gansu) Baoan dialects.

1.4.7. Ñantoq Baoan phones

Ñantoq Baoan has six vowels /*a*/, /*e*/, /*ə*/, /*i*/, /*ɵ*/, /*u*/, with long counterparts for all except /*ə*/.

Ñantoq Baoan consonants in native lexemes:

	labial	apical	alveopal.	retrofl.	velar	uvular	phar./lar.
strong plos.	*p*	*t*			*k*		
weak plos.	*b*	*d*			*g*	*ġ*	
strong affr.		*c*	*ć*				
weak affr.		*ʒ*	*ź*				
strong fric.	*f*	*s*	*x́*	*ʂ*		*χ*	*h*
weak fric.			*ź*				
nasal	*m*	*n*			*ŋ*		
lateral		*l*					
trills etc		*r*					
approx.	*w*		*y*				

In native words *ʂ* occurs as the first member of clusters, while *x́* (in fact a voiceless palatal fricative), is found before vowels. In Mongolic words, *ś* is occasionally found in medial position. Svantesson is correct in viewing *x́* and *ʂ* as allophones in native words.

1.4.8. Kangjia phones

Kangjia is described as having nine vowels /*a*/, /*e*/, /*ə*/, /*i*/, /*ï*/, /*ɔ*/, /*o*/, /*u*/, /*ʉ*/, but the status of /*ə*/ and /*ï*/ is not entirely clear. Uniquely among Shirongol languages, Kangjia largely preserves the distinction between back **o* and **u* and front **ö* and **ü*, thus making it impossible to posit the merger of the two sets for Proto Shirongol, or even proto Baoanic. Some long vowels remain, but do not constitute a system of oppositions.

Kangjia consonants in native lexemes:

	labial	apical	palatal	velar	uvular	phar./lar.
strong plos.	*p*	*t*		*k*	*q*	
weak plos.	*b*	*d*		*g*	*ġ*	
strong affr.		*c*	*č*			
weak affr.		*ʒ*	*ǰ*			
strong fric.	*f*	*s*	*š*		*χ*	*h*
weak fric.	*v*	*z*		*ɣ*	*ǧ*	
nasal	*m*	*n*		*ŋ*		

Kangjia consonants (continued)

lateral	*l*	
trills etc	*r*	
approx.		*y*

The status of *ɹ* is synchronically and diachronically unclear.

1.4.9. Dongxiang phones

The Dongxiang vowels are /a/, /e ~ ə/, /i/, /ï/, /o/, /u/. Depending on the description, *ï* is found after apicals *s*, *c*, *ʒ* and retroflexes *ɕ ʒ ʂ ʐ* (= medial r), and/or in the vicinity of uvulars.[9]

Dongxiang consonants in native lexemes:

	labial	apical	alveopal.	retrofl.	velar	uvular	phar./lar.
strong plos.	*p*	*t*			*k*	*q*	
weak plos.	*b*	*d*			*g*	*ġ*	
strong affr.		*c*	*ć*	*ɕ*			
weak affr.		*ʒ*	*ź*	*ʐ*			
strong fric.		*s*	*ś*	*ʂ*	*x*		*h*
weak fric.				*[ʐ]*		*ǧ*	
nasal	*m*	*n*			*ŋ*		
lateral		*l*					
trill		*r*					
approx.	*w*		*y*				

Medial *-r-* is pronounced *ʐ* in some vowel environments, notably following /ï/.[10] Final *-r* (pronounced *ɻ*) is marginal in Suonanba, and is often analysed as a part of the preceding vowel (Bökh adds the 'rhotic vowel' *ɚ* to his system). In other Dongxiang dialects syllable-final *r* occurs frequently. Liú (1981:13) has a velar fricative *ɣ* rather than a uvular one.

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9 It may also be found in other environments, as in Dgx (according to Liú's analysis) *tïʒï < *tobčï* 'button', and *dalï < *dalu* 'shoulder'. The other sources record these words differently.

10 The sequence *-ri* in Dgx *qïri- < *gar-* 'to exit', *ʒawari- < *jalbarï-* 'to beg' does not have a retroflex pronunciation. Ma & Chen write these words with <ei>, i.e., *-əi*. As such a pronunciation is not confirmed by other descriptions, this may be a spelling convention to indicate that *-r-* does not have a retroflex pronunciation.

1.5. Relationships of the Qīnghǎi-Gānsù Languages

The driving forces behind the development of the QG languages have been a large degree of isolation from the main body of Mongolic, and increasingly intensive contact with neighbouring non-Mongolic languages. The isolation and contact may have come about more or less simultaneously. Therefore the main difficulty in determining the exact relationships between the QG Mongolic languages is the fact that they are not only related, but also belong to the same *Sprachbund*. The problem is not so much a scarcity of similarities, but the fact that it is not always possible to distinguish between inherited similarities and those acquired by contact. Sound laws and other systematic changes that can be used for classification purposes are few. Moreover, there is not a single Qīnghǎi-Gānsù *Sprachbund*. There are several sets of isogloss bundles, each encompassing a different set of languages. Each bundle of isoglosses with a similar outline can be viewed as a mini-*Sprachbund*. Obviously a language can belong to several mini-*Sprachbünde*. There is an area encompassing Eastern Yugur, all of Shirongol Mongolic, as well as the Turkic languages Salar and Western Yugur, certain Amdo dialects and Northwest Mandarin dialects. There are also smaller ones. Eastern and Western Yugur form a mini *Sprachbund*. Baoanic and Salar form another one. There is a larger Amdo Tibetan-Shirongol *Sprachbund* excluding Dongxiang, and possibly a Baoanic-Mangghuer one excluding Mongghul.

As a consequence it seems to be impossible to determine whether the modern QG languages were a separate branch of Mongolic before settling in this area. Likewise it cannot be established whether the Monguoric and Baoanic branches of Shirongol entered the QG area as already distinct entities.

In the following pages I will concentrate on the internal division of the QG languages. Shared innovations are known to be the best classification arguments, and within that category shared *irregular* innovations seem to be most useful. Most of the arguments used involve phonetic shifts, morphological differences such as stems with different endings, and lexical differences including semantic and functional changes of existing lexemes. Purely morphological and syntactical arguments will only incidentally be referred to. See Rybatzki (2003b), whose list includes items of all types.[11]

Genetic classification features should be non-trivial, not easily repeatable by several languages independently, and not easily reversible. They should not be obviously adopted from neighbouring languages. They are preferably not a by-product of another similarity (e.g. the reduction of unaccented vowels and the appearance of initial consonant clusters, both of which are due to the final accent). Such features are manifestations of, or evidence for, a certain development, but should not be counted as additional similarities.

Sound laws and other systematic changes are not necessarily informative in the context of classification. I will attempt to determine for each feature that is shared by two or more languages, and may therefore be of classificatory value, whether it was inherited from a shared ancestor, or developed separately under the influence of a neighbouring language.

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[11] Not all of the phonetic criteria listed by Rybatzki will be repeated here, which is not a statement about their validity.

1.5.1. Features uniting all of QG Mongolic

The features shared by Eastern Yugur and the Shirongol languages are mostly of a very general nature, and most are not exclusive to the QG region.

Shared phonetic developments include: reductions following from the final accent, a tendency to simplify or abolish vowel harmony, weakening and strengthening of consonants depending on the phonetic environment, and, related to this, vowel devoicing phenomena, the development of secondary *h-* and a new phoneme *p-*.

Most classification arguments involve the irregular development of individual word shapes.

1.5.1.1. Final accent and consequences

Word-final accent is shared by all QG languages. This feature is also found in Moghol. While this clearly sets these languages apart from central Mongolic and Dagur, it is not clear which group of languages is the innovative one. It is possible to assume that the accent originally fell on the first vowel, and to ascribe the final accent in QG and Moghol to the influence of neighbouring Turkic languages, but in the case of the Shirongol languages it is not obvious that Turkic influence was sufficient for this feature to be adopted.

There are exceptions in the QG languages. In Eastern Yugur some word structures trigger changes in the position of the accent. In Baoan most exceptions involve compounds, which apparently carried the main accent on the last syllable of the first member, e.g. BaoÑ ˈnudə 'today' < *ene üdür 'this day', taˈwaraŋ '50' < *tabun harban 'five tens', ˈdebgə- 'to blink' < Amdo hdeb + *ki-. In Dongxiang exceptions may occur in words whose last vowel has ended up in the penultimate syllable due to epenthesis, e.g. ˈbasï 'tiger' < *bars, ˈbosï 'fabric' < *bös.[12] Loanwords from Arabic may have non-final accent, e.g. ˈsaχari 'early morning meal' from Arabic saħar, ˈaġili 'intellect' from Arabic ˤaql.

Exceptions are also seen in Chinese loanwords, where non-final accents are perhaps the result of attempts to deal with tonal differences, and prevent homophony, e.g. Dgx ʂïˈʒï < shīzi 'lion' as opposed to ˌʂïʒï < shìzi 'persimmon'.[13]

A corollary feature of the final accent are reduction and loss of unaccented vowels. This mostly affects the vowels of the first syllable, and, in case of longer stems, the vowels of medial syllables. This development is also observed in Dongxiang, the most conservative QG language in this regard. The following examples illustrate how several QG languages may have similar tendencies but with different outcomes. Different vowels are elided in various lexemes and dialects due to reasons that are not fully understood, but possibly involving accent or differences in vowel

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[12] This may be more common than is indicated in the sources. In several words, such as *bosï* < *boas* 'pregnant', initial stress would be expected but is not indicated. In verbs, connective vowels that are reanalysed as the final vowel of the stem do take the accent.

[13] These examples are from Bökh's dictionary. See Liu (1981:17) for more examples. The opposition between 'lion' and 'persimmon' has been resolved in the same way in Ganhetan Baoan. For this and other examples see Chen (1995:131-132).

quantity (phonemic or otherwise). In all languages, elision is restricted by constraints on syllable structure, so that it cannot lead to inadmissible consonant sequences.

EYu	Dgx	CM	
aiğa	*iğa*	**ayaga*	bowl
ömlö	*məlie*	**emüne*	front
ondor	*niudu*	**ene üdür*	today
nanda ~ danda	*namadə ~ madə*	**namada/*namadu*	to me
dasăra-	*cïra- ~ sïra-*	**tasura-*	to break (intr)
adla-	*adula-*	**aduula-*	to tend animals
halağan	*haŋġa*	**halagan*	palm

These discrepancies show that individual cases of vowel loss are not reconstructable for older stages, although the general tendency may have developed quite early.

In most languages vowel elision results in consonant sequences. Most notably all QG languages developed initial consonant clusters in native words, something completely unknown in remaining Mongolic, but common in Amdo Tibetan. In Dongxiang, the only QG language that did not undergo Tibetan influence, this phenomenon is only seen in a small number of words that can also be analysed differently (by means of devoiced vowels).

1.5.1.2. Simplification of the vowel system

Only few developments (innovations) are shared by all of QG. The tendency for **i* to be retracted and lowered to *ə* is seen in all QG Mongolic languages, as well as in neighbouring Turkic languages and Amdo Tibetan. The reduction of the number of rounded vowels cannot be assumed for Proto Shirongol, as Kangjia preserves all four of them.

Vowel devoicing phenomena are connected to strong consonants.

Distinctive vowel quantity was largely lost in Mangghuer, Kangjia and Dongxiang, and in some varieties of Baoan, but even there a number of words with historically correct relictual vowel lengths tends to be preserved. Monguoric and Baoanic are thus both descended from ancestors with phonemic vowel length.

In a very general sense the QG languages share the reduction of the vowel harmony system. However, the changes in individual languages differ in the details.

In Eastern Yugur, vowel harmony in stems may be disturbed by secondary developments, but vowel harmony in non-high vowel suffixes (with **A*, in Eastern Yugur represented by the alternation *a/e/ɔ/ö*) remains largely productive. The vowels of the original high vowel suffixes (with **I* and **U*) tend to merge into a neutral *ə* (which phonologically remains a high vowel).

In Monguoric vowel harmony has broken down both in stems and in suffixation. The front rounded vowels **ö* and **ü* merged with their back counterparts **o* and **u*. Nevertheless, the former harmonic constraints are clearly visible in many existing primary and derived stems, as in the Mongghul derivations with the common verbalizer *-lA* such as *ġar.la-* 'to grab with the hand', *ide:.le-* 'to develop pus', *noko.lo-* 'to make a hole', or the causative *-GA* in *kur.ge:-* 'to deliver',

sur.ġa:- 'to teach'. Suffixes were later generalised by picking one of the original alternants, usually that with *a*.[14]

In Baoan and Dongxiang there are also only two rounded vowels left, but as Kangjia preserves four, generally corresponding to the four rounded vowels of CM, Proto Baoanic must have featured the larger system. Former constraints survive to some extent into modern Baoan and Dongxiang, e.g. the denominal verb suffix **-rA* still occurs in three harmonic variants in existing derivations, as in Dgx *xula.ra-* 'to become red', *kugie.re-* 'to become blue', *noġo.ro-* 'to become green'. In modern Dongxiang the suffix as such is still productive (mainly seen on stems adopted from Chinese), but it has now taken on the invariable shape *-ra*. The verbalizers *-dA* and *-lA* also occur in three variants in existing formations, and *-lA* is even found in two harmonic variants in modern derivations from Chinese words (see Liu 1981:23).

1.5.1.3. Phenomena related to consonant strength

In a general sense consonant strengthening and weakening phenomena are shared by the Mongolic languages as well as the Turkic languages of the area, Salar and Western Yugur. This involves the strengthening (aspiration) of weak consonants or weakening (aspiration loss) of strong consonants, mostly in word-initial position under the influence of the consonant starting the second syllable. In QG Mongolic, this type of distant assimilation only seems to take place when the first syllable has a simple vowel. Most languages also feature weakening of medial consonants, which is an unconditioned tendency.

Shifts in consonant strength are one of the shared QG tendencies that cannot be ascribed to Chinese or Tibetan influence, as in these languages the distinction between aspirated and unaspirated consonants carries great phonological weight.[15] Although Mongolic, unlike Turkic, has an opposition between strong **t*, **č*, **k* and weak **d*, **ǰ*, **g* in initial position, changes from strong to weak or vice versa have rarely resulted in a loss of distinctiveness of individual stems, perhaps because Mongolic stems are usually bi- or trisyllabic. The effects include the following:

Assimilatory initial strengthening, as in EYu *qagča* < **gagča* 'alone'.

Assimilatory strengthening followed by medial weakening. Examples of this can be found in all of QG, but it is most systematically applied by Mongghul, as in *təǰin* < **döčin* 'forty'.[16]

Dissimilatory initial weakening, as in BaoÑ *ġøśøŋ* < **kosïun* 'beak'.[17]
Assimilatory initial weakening, a shared derived feature of Eastern Yugur and Shirongol. For unknown reasons it is largely limited to the weakening of initial **k-*

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[14] The frequently used Mongghul perfect converb *-AA(nu)* exceptionally preserves productive alternants with *a: ~ e: ~ o:*.

[15] In Tibetan this is also important morphologically, as aspiration plays a role in distinguishing verb tenses.

[16] The combined effect of this sequence of events looks like a kind of 'metathesis of aspiration', hence Svantesson's term 'flip-flop'.

[17] This type of conditioned initial weakening is known from central Mongolic languages including Chakhar and Ordos.

when the second syllable starts with *d or *ǰ, as in *kada > ġada 'rock'. This does not have a parallel in Turkic and Amdo Tibetan.

Assimilatory medial strengthening, the strengthening of a medial consonant by the strong initial, may explain the Ñantoq Baoan forms ćiχaŋ < *čagaan 'white', kuŋkaŋ < *köŋgen 'light', kuntə < *kündü 'heavy'.

Strengthening has given rise to two further phenomena shared by the QG languages. Firstly, the weak consonant *b- has developed a strong counterpart p- [pʰ] that did not exist in the Common Mongolic phoneme inventory. It is also caused by a medial strong consonant, as in Dgx puʒalu- < *bučal- 'to boil'. The strengthening of *b to p- is also found in neighbouring Western Yugur and Salar.

Secondly, an initial h- developed in many words originally starting with vocalic onset. This secondary h- has developed the same modern pronunciations as primary CM *h-, and the two are synchronically indistinghuishable. It arose under the influence of the strong consonant starting the second syllable, leading to the de-voicing of vocalic onset + vowel, as in MgrM fʒu ~ sʒu < *hu̯sun < *usun 'water'.

Medial preaspiration of consonants is documented for Eastern Yugur and Baoanic, but only in words with original intervocalic *-k-, as in EYu qaɣqai, Dgx qïxġəi (see 4.5.3.).

Further consonant developments are discussed in 4.1.3. and the individual consonant sections in chapter 4.

1.5.1.4. Lexical features

The peripheral languages retain a number of lexemes from the Middle Mongol period that were lost in the central languages, creating the (false) impression of a division between Middle Mongol and the peripheral languages on the one hand, and central Mongolic on the other. Examples include *a 'they' (not listed), *bilǰiur 'small bird', *čïnaïda, *čïnar, *čïnaǰï 'the day after tomorrow', *daŋgal 'lump, clod', *düre- 'to sell', *haul- 'to run', *heil- 'to leave', *hüü- 'to stink, rot', *ï 's/he, it', *ǰïlsun 'glue', *koa- 'to wither', *naǰïr 'summer', *ödme 'bread', *siür- 'to sweep', *temgü- 'to pick up', *uriǰïïn uriǰï üdür 'three days ago', *ünügün 'kid (goat)', *yama 'thing'. These items are more properly viewed as normal words, as several of them were only lost once, in the ancestor of the central Mongolic languages. In many instances related forms from the same roots actually exist in the central languages.

The QG languages also feature regional words that are not attested in Middle Mongol sources. As they do tend to have equivalents in neighbouring Turkic languages, they may ultimately be of non-Mongolic origin. Regional items found in Shirongol include *hayag 'handful', *hurbï (?) 'sling', and *ütergen 'threshing floor'. Eastern Yugur and Monguoric share *kirbei 'edge'. A regional word found in Eastern Yugur, both Monguor languages, and Dongxiang, is mila ~ mula 'small'.

Further regionalisms will be discussed in the following pages. I will focus on words that do exist in central Mongolic and/or the other peripheries, but whose forms in the QG languages suggest a shared development of classificatory importance. The QG languages are sometimes in agreement with Middle Mongol, suggesting that they preserve the original form, while in other cases they are innovative. It is not always possible to determine which of the recorded variants is

the older one. Usually it may simply have been a matter of choosing from among a pool of pre-existing variants. Examples include the following (the actual distribution is more complicated, see the comparative supplement):

QG suggests	MMo suggests	central suggests	
*bulï-	*bulï-	*bulïa-	to snatch
*kabar	*kabar	*kamar	nose
*kadaar	*kadaar	*kaǰaar	bit
*kürǰeg	*kürǰeg	*kürǰe	spade
*tüükü	*tüükü(i)	*tüükei	raw

Examples of this type are few, and as the isoglosses for the various items do not overlap, each case may suggest a different subdivision of the language family. In some cases, such as *kadaar/*kaǰaar 'bit', the former seems to be a 'peripheral' retention, and the latter a central innovation.

In others, such as *kabar/*kamar 'nose' and *bulï-/*bulïa- 'to snatch', the former is shared by Moghol and QG, the latter by the central languages and Dagur, suggesting a North-South division. This seems to be supported by other features, such as initial accent in the North and final accent in the South, and preservation of the distinction between attributive and enumerative numerals in the North, lost in the South. However, the impression of a North-South division is not confirmed by Middle Mongol, which may side with either region, or may be indecisive (e.g. Middle Mongol accent is not known).

Occasionally, two variants of the same etymon were already recorded in Middle Mongol sources, such as *könerge ~ *köreŋge 'yeast', without a predictable distribution. In this case the QG languages preserve the former variant, recorded in 'Phags-pa. However, with regard to metathetic alternation, the QG languages do not always point in the same direction, see *magalaï ~ *malagaï 'hat'.

In case of *yaan and *yaun 'what', QG favours the former variant, recorded in the Muqaddimat al-Adab. The same applies to the derived forms *yama and *yauma 'what'.

In case of *čïla- ~ *čile- 'to be tired, to tingle', the former variant, found in QG, is not attested in Middle Mongol, although one expects it to be the older variant (the reverse shift of harmonic class is unusual).

The verb 'to laugh' has the shape *hinie- both in the QG languages and Dagur, suggesting that it may predate the form *inie- supported by Middle Mongol.

In a couple of words, the QG languages share an (irregular) phonetic innovation, including the following:

QG suggests	CM as otherwise known	
*doli-	*dolïa-	to lick
*go:r < *koar	*koyar	two
*no:r	*noïr	sleep
*örle	*öreele	hobble; half
*emele	*emüne	front

Less dramatic potential classification arguments are provided by instances of unexpected presence (preservation or addition) of -n, as in *teerme(n) 'mill', or of its unexpected absence, as in *morïn 'horse'. Monguoric, which tends to drop the -n of substantive nouns in the nominative, is less informative in this regard.

1.5.1.5. Semantic and functional features

Semantic and functional developments also yield a number of classification criteria.

A semantic difference involves *kaïnag, which denotes the yak in the QG languages, but a yak hybrid in the central languages. In QG the verb *kaïla- means '(for animals) to make a noise', but elsewhere it mostly means 'to shout, to cry'. The verb *sïmtara- means 'to thaw, melt' in Shirongol, but 'to become blunt, calm, weak' in central Mongolic. CM *keüken 'child' now specifically denotes female children in central Mongolic, but male children in the QG languages.

A functional difference has developed with regard to *irgen 'people'. It has become a third person personal pronoun in Eastern Yugur and all of Shirongol. *eǰen 'master' has become a reflexive pronoun in Eastern Yugur and Monguoric, and a third person pronoun in Baoan. Several Shirongol languages have developed third person pronouns from *nögee 'other' and first or third person pronouns from *öer- 'self' (see 1.5.4.2.).

The numeral *nige 'one' has come to function as an indefinite article and/or singular marker in Monguoric, Baoan and Kangjia.

1.5.2. Peripheral opinions on known Central Mongolic variants

The central languages display a number of correspondences that do not fall under the usual soundlaws. The distribution of variants among the three literary central languages is not always the same, and often goes against the traditional division between Eastern and Western Mongolic.

The fact that there are Khalkha-Buriat, Buriat-Kalmuck, and Khalkha-Kalmuck parallels may point that (at least) a three-way split must be assumed leading to the present three dialect groups. Unfortunately it is generally impossible to determine which variant is the innovative one.

The QG languages in some cases agree with Khalkha, in others with Buriat and Kalmuck, in yet others only with either Kalmuck or Buriat. All of this suggests that several variants coexisted in CM, and that each subgroup came to favour one of them. Distribution of the variants in modern languages certainly does not suggest a binary split of CM into Eastern and Western subgroups.

The preconsonantal -l- in the group *čaalsun 'paper', *ǰïlsun 'glue', *mölsün 'ice', and *sölsün 'gall bladder', was preserved in Shirongol, as in Buriat and Khamnigan, but lost in Eastern Yugur, as in Khalkha and Kalmuck.

Both Eastern Yugur and Shirongol agree with Khalkha on the group *eriün 'chin', *kuruun 'finger', *nïruun 'back', rather than the Kalmuck and Buriat forms

with additional *-g-*, suggesting the forms *erigün*, *kurugun*, *nïrugun* for these words.[18]

In case of the morphological variants *gutusun* and *gutul* 'boots', the former form, typical of Kalmuck, is found both in Eastern Yugur and Shirongol, Kangjia excepted. In case of *hargal* and *hargasun* 'dung' all QG languages have the 'Eastern' variant ending in *-l*.

In case of *sü(n)* ~ *üsün* 'milk', Eastern Yugur shares the latter variant with Kalmuck and Ordos, while the word is lacking in Baoanic, and indecisive in Mongghul.

In the case of *turuun* and *tuura(ï)* 'hoof', the former is found in both Dagur and Eastern Yugur, as in Buriat and Kalmuck; the latter in Khalkha and Ordos.

The verb *hogtal-* 'to fell' has preserved its preconsonantal *-g-* in Eastern Yugur as it has in Khalkha, whereas Buriat and Kalmuck reflect a form *otal-* which lost the *-g-*. The Shirongol forms are uninformative as their first syllables are too abraded.[19]

All QG languages seem to support the form *öčügedür* (< *öčigen üdür*) 'yesterday', also found in Khalkha and Ordos, whereas Buriat, Khamnigan and Kalmuck suggest *öčügeldür*. The QG languages also reflect *gadaa* 'outside', as found in Khalkha, rather than the Buriat, Khamnigan and Kalmuck innovation *gaǰaa* 'id'.

The verbs *eči-*, *očï-* and *od-* 'to go' have a peculiar distribution. All of Shirongol except Ñantoq Baoan uses *eči-*. Ñantoq Baoan and Eastern Yugur use *od-* which is also found in Middle Mongol.

1.5.3. Features separating Eastern Yugur and Shirongol

1.5.3.1. Phonetic features separating Eastern Yugur and Shirongol

There are few systematic developments that separate Eastern Yugur from Shirongol. Many differences between Eastern Yugur and individual Shirongol languages are not valid classification features, because they arose after the split-up of Proto Shirongol. For instance, although Mangghuer and Dongxiang lost contrastive vowel length, it must have persisted into Proto Monguoric and Proto Baoanic, as it is still found today in Mongghul and parts of Baoan. Thus the local absence of vowel length does is not relevant for classification.

In Eastern Yugur, *ö* and *ü* did not merge with their harmonic counterparts *o* and *u*. Unlike Shirongol, Eastern Yugur does not retain traces of uncontracted diphthongs *au* and *eü*.[20]

In Eastern Yugur the palatal affricates did not split into retroflex and alveolopalatal series.

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[18] The Buriat and Kalmuck forms are reminiscent of the Written Mongol spellings *eregüü*, *niruɣu(n)*, *quruɣu(n)*.

[19] Cf. also the development of *ügtee-* 'to pull out'.

[20] In Zhào (2006), and in the wordlist in Zhōng (2007) we do find diphthongs like *ɔu*. In view of other descriptions, these are best viewed as recent innovations.

The treatment of final *-n and *kï-/*ki- is different between the two Shirongol branches, and will be discussed below. In both these matters Eastern Yugur agrees with Baoanic and differs from Monguoric.

Eastern Yugur lost the preconsonantal -l- in *čaalsun 'paper', *mölsün 'ice', and *sölsün 'gall bladder' (as in Khalkha and Kalmuck), whereas Shirongol preserved it (as in Buriat and Khamnigan).[21]

Eastern Yugur tends to preserve the middle vowel of trisyllabic noun stems, whereas these were often elided ('Mittelsilbenschwund') in Shirongol. The words affected by this development typically have l or r preceding the elided vowel and g or k following it, e.g. *halagan 'palm of the hand', *heligen 'liver', *korakaï 'insect', *kulagaï 'thief'. This type of elision is uncommon in Eastern Yugur, e.g. ǰürɣen < *ǰürüken 'heart'.[22]

Unsystematic phonetic differences between Eastern Yugur and Shirongol include the following:

EYu	Shirongol	CM	
ǰagčaqai	*čarčag	*čarčaakaï	grasshopper[23]
da:lə	?*dalui	*dalu	shoulderblade
kʉre:	*kireü	*kiröe	saw
gertə	*ke(r)tü	*ger-tü	home
-kə	*-kü	*-ki	'converter' suffix
tal-	*tabi-	*talbï-	to put
labčəg	*labčin	*nabčin	leaf
hɔnəs-	*nis-, *mis-	*nïs-	to fly
aməra-	*ham(b)ura-	*hamura-	to rest
dörβen	*derben	*dörben	four[24]
möŋgə ~ meŋgə	*meŋgü	*möŋgün	silver[25]

The unrounding of *ö does not generally follow subgroup divisions like in these last examples. It often has an irregular distribution, as in BaoÑ melsəŋ 'ice' as opposed to Kgj mərsʉn < *mölsün 'ice'.

As to the development of *h-, there are several other cases of disagreement between Eastern Yugur and Shirongol, like *hamura- 'to rest'. However, there are

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[21] These preconsonantal consonants are easily lost in modern Shirongol with its decreasing tolerance for syllable-final consonants, cf. MgrH su:rʒə ~ su:ʒə < *sölsün 'gall bladder', Dgx mansuŋ, Dgx (Longquan dialect) məsuŋ, Kgj mərsʉn ~ məsʉn < *mölsün 'ice'.

[22] The sequence rVl in the middle of words commonly leads to simplifications in all QG languages, as in EYu alɣa- < *arïlga- 'to clean', BaoÑ alʒa- < *araljï- 'to exchange', Kgj kandʉ- < *kereldü- 'to quarrel', and even elsewhere, including Dagur, e.g. alǰ- < *araljï- 'to exchange', dullʷ- < *düreldü- 'to trade'.

[23] For Eastern Yugur cf. western forms like Dörbed čagčä:xä: (Vanduy 1965:167a).

[24] Only Gomar Baoan dərəŋ CN86:146 seems to disturb this picture, but in fact this dialect is insufficiently known to be certain how the form should be evaluated.

[25] The Shirongol form resembles the one in the Muqaddimat al-Adab.

also many disagreements within Shirongol. Most deviations do not neatly follow the subgroup divisions (see the words with *h- in the comparative supplement).

1.5.3.2. Lexical and morphological features separating Eastern Yugur and Shirongol

The fact that a Mongolic word preserved in Eastern Yugur was lost in Shirongol is in itself not surprising, as the loss of native lexicon seems to be more dramatic in the latter. Nevertheless, more than a few CM words found in Shirongol were lost in Eastern Yugur as well.

Eastern Yugur lexical items missing from Shirongol include old Mongolic words, e.g. *ǰɔɣqɔi-* 'to sit' < *čokaï-* 'to squat', as well as words with a 'Western', i.e. Oirat, flavour, e.g. *duǧura-* 'to roll', *ġaisən* 'ghost', *hʉčʉ* 'fur jacket', or western variants of more widely occurring words, e.g. *βəǰə* < *ubuǰï* 'feeding horn'.

Also missing in Shirongol are 'Yugurisms', e.g. words shared with Western Yugur but without an obvious etymology in Mongolic or Turkic, e.g. *hanə-* 'to go', *lar* 'speech, language', *kʉtgə* 'throat', *sʉre:čə* 'crane (the bird)', and other, possibly non-Mongolic, words apparently restricted to Eastern Yugur, such as *xalda-* 'to look' and *usqa-* 'to scold' mentioned below.

Lexical differences between Eastern Yugur and Shirongol are often the result of a different choice out of existing old vocabulary. In other cases one or both subgroups use a non-Mongolic word. Foreign words found in several Mongolic subgroups and already documented in Middle Mongol will be considered to have been present in CM.

There are numerous Mongolic lexemes that are preserved by Shirongol, but absent from Eastern Yugur. In the following cases Eastern Yugur and Shirongol use different Mongolic words. Occasionally the Yugur counterpart in this list is also attested in parts of Shirongol, but not the other way around. Note that the distribution of these same words is usually irrelevant outside the QG area, e.g. Ordos has both *elgü-* and *deüǰile-* 'to hang', which fact is of no classificatory value within central Mongolic.

Eastern Yugur	Shirongol	
asara-, *mal.la-	*teǰie-	to feed; to raise
*čiig.tü-	*nor-	to get wet[26]
*čokaï-	*dundei- (? *döŋdei-)	to squat, sit[27]
*daga.ul-	*udurï-	to lead[28]

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[26] Several Shirongol idioms also use various verbs derived from the adj. *noïtan* 'wet' with the suffixes -rA, -dA, -tU: BaoD *nəitar-* B85b, BaoÑ *ni:tara-* CN29, Kgj *neitəda-* S281b, MgrM *niutiantu-* DS260a, Dgx *naićietu-* B25.

[27] Most of the vocabularies see the Shirongol word as derived from Ch *dūn* 'to squat', but as all languages involved have other common verbalizers for incorporating Chinese verbs, this may in fact be CM *döŋdei-* 'to rise slightly', semantically influenced by Chinese.

[28] *dagaul-* is the caus. of *daga-* 'to follow', while *udurï-* is related to the Turkic caus. of *ud-* 'to follow'.

(continued)

Eastern Yugur	Shirongol	
*dugura-	*höŋkeri-	to roll[29]
*elgü-	*deüǰile-	to hang
*ges-	*sïmta.ra-	to melt
?*hamu-	*söne-	to go out (fire)
*hüsür-	*deül-	to jump
*hutaa (< *hutu.a)	*hunïn	smoke
*kamkï-	*hanï-	to close the eyes
*kauraï	*koa.sun	dry
*mal	(*a:sun <) *aduu.sun	livestock
*möndür	*ǰarma	hail
*od- (and hanə-)	*eči-	to go[30]
*sura-	(*arsag- <) *harsag- etc	to ask
*šatu	*geški.ür	ladder
*tokanag (and čikeneg)	*tokaï	elbow[31]
*teü-	*temgü-	to pick up[32]
*tur-	*öles-	to be hungry
*üdesi	*(üde)si.leŋ	(in the) evening

Eastern Yugur words of unknown origin opposed to CM words in Shirongol:

Eastern Yugur	Shirongol	
xalda-	*kara-, *no-, *sïgaï-	to look
lar	*kelen	language[33]
ma: kelen (= hdei kelen)	*koš kelen	uvula[34]
usqa-	*sögee-, *karïa-	to scold, swear

The origin of Shirongol words *hayag 'handful', *hurbï 'sling', *ütergen 'threshing floor' is unclear, but the first and third may be connected to Turkic *(h)aya 'palm of the hand' and *örtgün 'threshing floor'.

Shirongol word shapes include *aasun < CM *aduusun 'livestock'.[35] In Shirongol the words *üdür (?*ödür) 'day' and *üde 'noon' have been confused, and

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[29] *dugura- is not attested early, but it is also found in Kalmuck.
[30] EYu hanə- is of unknown origin, but cf. WYu hanï-. Ñantoq Baoan stands out among the Shirongol languages in that it uses *od- rather than *eči-.
[31] Interestingly, *tokanag is also found in Buriat. The similarly-structured čikeneg stems from Turkic.
[32] Mangghuer also uses *teü-.
[33] *kelen does exist in Eastern Yugur in the meaning 'tongue'.
[34] The meaning and origin of ma: is unknown. EYu hdei kelen, lit. 'little tongue' could, but need not, be a calque from Chinese; the first element is from Western Yugur. Shirongol *koš kelen is not attested for Kangjia, which uses šǧɔ keliɔ S84, lit. 'little tongue'.

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they generally merged into a single phonetic shape, so that a single word shape (either with or without the -*r* depending on the language) carries both meanings.

Shirongol also uses CM **kabar* 'nose' in the meaning 'nasal mucus, snot', whereas in Eastern Yugur it developed the additional meaning 'before' under Western Yugur influence.

A morphological innovation in Shirongol (only absent from Kangjia) involves the replacement of the habitual participle (nomen usus) -*dAG* by -*čIn*, by extending the function of the deverbal noun suffix **-g-čIn* and/or **-A-čIn*. In Shirongol the suffix -*čIn* is now used in inflection as well as word formation. Examples: MgrH *śuro:ʒin* 'who blesses', MgrM *daġaćin* 'following; follower', BaoÑ *medćaŋ* 'knowing; who knows', Dgx *kielieçïn* 'speaking; speaker; who speaks'. Eastern Yugur continues to use -*dAG*, and has another participle -*mA*, which it shares with Western Yugur.[36]

Another innovation is the generalisation of the causative -*GA*. This CM suffix became invariable in Shirongol, and only the variant with uvular consonant and back vowel -*ġa* or -*ğa* remains as a productive suffix. It has replaced the causative suffixes -*Ul* and -*A*, and increasingly also -*lGA*, especially in Mangghuer, Baoan and Dongxiang. Existing formations with the old suffixes have been replaced.[37] Examples include MgrM *diġa-*, BaoÑ *ndeġa-*, Dgx *iʒieğa-* 'to cause to eat, feed', MgrM *roġa-*, Dgx *oroğa-* 'to cause to enter, insert'. MgrM *wuʒiġa-*, BaoÑ *uʒiġa-*, Kgj *ujiğa-*, Dgx *uʒəğa-* 'to cause to see, show', MgrM *xuliġa-*, Dgx *fəilieğa-* 'to cause to remain, leave over', MgrM *bərduġa-*, Dgx *barunduğa-* 'to cause to catch fire, to light'. The Eastern Yugur equivalents are the conservative forms *edü:l-*, *ɔru:l-*, *ojü:l-*, *holü:l-*, *baldu:l-*, from the stems **ide-* 'to eat', **ora-* 'to enter', **üje-* 'to see', **hüle-* 'to remain', **barï.ldu-* 'to catch fire'.

The loss of productive vowel harmony caused numerous other suffixes to generalise a single variant. The diminutive -*kAn* only preserved its back unrounded variant -*qan* in QG (MgrH -*xa:n*, BaoÑ -*χaŋ*, Dgx -*ğaŋ*, etc.); the nomen futuri -*kU* only preserved a form -*ku* with velar consonant.

1.5.4. Features separating Monguoric and Baoanic

1.5.4.1. Phonetic features separating Monguoric and Baoanic

There are only few systematic phonetic differences between Monguoric and Baoanic. The development of the sequence **kï-/*ki-* and the treatment of unstable

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[35] As this etymon does not survive in Eastern Yugur at all, it cannot be determined which phonetic shape it had before it was lost. It may have been **a:sun* in Eastern Yugur as well.

[36] EYu uses **-g-čI* in word formation, but the participial usage described in Bolčuluu & Jalsan (1992: 266) is rare.

[37] Several -*Ul* formations, often with specialised meanings, do survive in Shirongol, including MgrH *xarələ-*, Dgx *qarulu-* 'to answer < cause to return' < **karï.ul-*; BaoÑ *ɵćəl-*, Dgx *oçulu-* 'to turn (tr.)' < **horčï.ul-*; BaoÑ *aćal-* < 'to water (animals) < cause to drink' < **oačï.ul-*.

-n are the most marked of these. In both these matters Baoanic is the conservative one, thus agreeing with Eastern Yugur, Moghol, and Middle Mongol.

Baoanic preserves a distinction between velar and uvular variants of **/k/* in this context. In Monguoric the sequence **kï-* apparently merged with its velar counterpart **ki-*, which was then palatalised (> modern *ći*), before the vowel *i* lost its palatality.[38] Examples:

Monguoric	Baoanic	CM	
*čirġa-	**qirġa-*	**kïrga-*	to shave
*čïmusu	**qïmusuŋ*	**kïmusun*	nail
*čidoġo	**qidoġo*	**kïtuga*	knife

The treatment of unstable *-n* is in fact a morphological matter with a phonetic result. Baoanic has incorporated unstable *-n* as a permanent part of the stem. In Monguoric, unstable *-n* was lost in the nominative in all common nouns. Some relics of it, as well as hypercorrect *n*'s, may appear in inflected forms. That dropping the *-n* was morphologically motivated, is also clear from the fact that the numerals and adjectival nouns were exempted from the development. Examples:

Monguoric	Baoanic	CM	
*ima:	**imaŋ*	**ïmaan*	goat
*nudu	**nuduŋ*	**nidün*	eye
*toġo:	**toġoŋ*	**togaan*	pot

Most phonetic differences between Monguoric and Baoanic are irregular. In the following three forms the Baoanic languages are the innovators. Baoanic might owe the strong initial to inflected forms with suffixes starting with strong consonants, e.g. for the verb we would have Proto Shirongol future participle **ġar-ku*, perfect participle **ġar-san*, conditional converb **ġar-sa*.[39] However, such transfers of consonant strength are typically more common in Monguoric than in Baoanic. Due to its ad hoc nature this explanation is unsatisfactory. Examples:

Monguoric	Baoanic	CM	
*ġar	**qar*	**gar*	hand
*ġar-	**qar-*	**gar-*	to exit
*ġal	**qal*	**gal*	fire

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[38] The sequence **kï/*ki* in medial position, and its weak counterpart **gï/*gi* shows similar developments.

[39] For **gar* and **gar-* there would be the additional factor that some variable suffixes (e.g. imperfect converb **-ǰU*, dat. **-DU*) used to take the strong consonant variant after stems in *-r*). Stems in *-l* took the weak consonant variant, so why **gal* 'fire' developed a strong initial would remain unexplained.

Possibly cases like these should simply be counted among the numerous irregular correspondences regarding consonant strength, especially in words with initial *k- and *g-. There are two known environments than can affect the consonant strength of these consonants in all of QG. Strengthening of *g- may occur when the second syllable starts with a strong consonant, while weakening of *k- commonly occurs when the second syllable starts with *d or *ǰ. Strengthening or weakening in the absence of these known triggers, or unexpected preservation of strong or weak consonants, may also create differences between Monguoric and Baoanic. E.g. CM *kura 'rain' developed into expected *qura in Monguoric, but underwent weakening in Baoanic *ġura. Likewise CM *mïkan 'meat' resulted in Monguoric *maqa, but Baoanic *maġa.

Unsystematic phonetic differences between Monguoric and Baoanic include the following (either side can be the innovative or irregular one):

Monguoric	Baoanic	CM	
*dabsaġ	*dabalaġ	*dabusag, etc.	bladder[40]
*gedesun	*geǰesuŋ	*gedesün	intestine
*uŋġasun	*noġosuŋ<*nogasun	?*nuŋgasun	wool
*su:	*suġu	*suu (~ *sugu)	armpit
*qarmu-	*qarbu-	*karbu-	to shoot
*ta:da	*ča:da	*čaada	near[41]
*qaučin	*qoičiŋ	*kaučïn	old
*aur	*hor	*haur	air; anger
*ǰanči-	*yanči-	*ǰančï-	to beat, to thresh[42]

1.5.4.2. Lexical and morphological features separating Monguoric and Baoanic

Some differences between Monguoric and Baoanic are due to morphological innovation. *yamar 'what kind?' was retained in Monguoric, but replaced in Baoanic by *yaan metü or *yama metü, lit. 'what-like?'. In Baoanic the CM words *eimü 'this kind of', *teimü 'that kind of' were largely replaced by similar formations *ene metü 'this-like', *te(re) metü 'that-like', or possibly *ein metü and *tein metü 'thus-like'.[43] The degree of phonetic reduction in the modern languages makes it hard to distinguish the exact components, cf. BaoŇ təmtəg (the final -g appears to be secondary), Kgj tentü, Dgx ćimutu 'that kind of'. For further forms see the comparative supplement s.v. *metü. In Monguoric, *eimü and *teimü were replaced

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[40] The Monguoric and Baoanic forms may represent different derivates of the same root, but the endings are not clear.

[41] Cf. Mongghul taġṣə ~ ćaġṣə < *čaa-gsï 'to(wards) that side'.

[42] The Baoanic form with y- is reminiscent of the Turkic cognate *yanč-. See *ǰarïm 'half' for a similar case.

[43] The latter etymology is favoured by Dongxiang ćimutu 'that kind' which is easier to explain with ćiŋ < *tein as a first element than with *tere which (irregularly) retained its t- in Dongxiang.

by other formations of unclear structure: Mongghul *nəgi:* 'this kind of', *təgi:* 'that kind of', Mangghuer *niŋtai* 'this kind of', *tiŋtai* 'that kind of'.

The decads higher than 'twenty', such as **gučïn* 'thirty', **döčin* 'forty', were replaced in Baoanic by analytical forms **gurban harban* 'three tens', **dörben harban* 'four tens'.[44] In Kangjia these were retained as analytical forms *ġurɔ harɔ, derɔ harɔ*, but in all Baoan dialects they have started to amalgamate, e.g. Ñantoq Baoan *ġuˈraraŋ, deˈraraŋ*. Kangjia even replaced **korïn* 'twenty' by an analytical form 'two tens'. Dongxiang preserves *qoruŋ < *korïn* 'twenty', but has now replaced all higher decads by Chinese forms. It is impossible to say if the analytical Mongolic forms were ever used in Dongxiang.

In Baoan and Dongxiang the numerals 1-10 tend to join with certain nouns that follow them.[45] This phenomenon occurs with the native words **üdür* 'day' and **ayaga* 'bowl', and a number of quantifiers and classifiers.[46] Some of the resulting forms: Dgx *ʒierudu* (for *ʒieroŋ udu*) *< *dörben üdür* 'four days', *hariġa* (for *haroŋ iġa*) *< *harban ayaga* 'ten cups', BaoD *deˈrudə* (for *deraŋ udər*) *< *dörben üdür* 'four days', *harˈwiġə* (for *harwaŋ ayiġə*) *< *harban ayaga* 'ten cups'.[47] As the abovementioned nouns are often used in combination with numerals, it is understandable that they are worn down in this manner. However, it is unclear why other commonly counted nouns like **söni* 'night', **nasun* 'year (of age)' and **küün* 'person', should escape this treatment. It may be due to the fact that these words, unlike **üdür* and **ayaga*, have initial consonants, but perhaps more importantly, **üdür* 'day' and **ayaga* 'bowl' are also used locally in the meaning 'thousand' and 'ten thousand', respectively.[48] It cannot be established whether such joined forms ever occurred in Kangjia, as it systematically lost the final *-n* of these numerals.[49]

In other cases different derivations of the same stem prevailed in the two Shirongol groups. In Baoanic the spatial noun **emüne* 'front' is retained in the form **emüle* (with dissimilation of the nasals), whereas in Monguoric a shortened form of the directive **emüne-gsi* 'to the front' has replaced its base.[50]

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[44] The forms replacing the old decads are transparent and obvious, and need not have been inspired by Chinese, Tibetan or Turkic, where similar forms exist.

[45] In Baoan, as in Tibetan and other languages influenced by it, numerals may also follow the noun, in which case this 'joining' does not take place.

[46] These may be of Chinese, Tibetan, or unknown etymology, e.g. Dgx *fa* 'times', *ʂuaŋ* 'pair', BaoÑ *yaŋ, taŋ, ʂgər* 'times'. See Bökh & Čoyiǰungǰab (1985:114) and Chén Nǎixióng et al. (1986:163) for Dongxiang and Baoan examples.

[47] The numerals lose their *-n* in the process. In Dongxiang, *ġua < *koar* 'two' regains the *-r* it normally lacks, as in *ġuariġa* 'two cups', *ġuarudu* 'two days'.

[48] The additional meanings were calqued via Chinese. See Nugteren & Roos (2010).

[49] According to Li Keyu **üdür* also occurs in compounds with some numerals in Mongghul: *ġo:dur* 'two days', *ġuru:dur* 'three days', *xaru:dur* 'ten days', *xuru:dur* 'twenty days' (from **koar*, **gurban*, **harban*, **korïn*). Li also mentions forms with **söni* 'night': *xuru:sonə* 'twenty nights', *xuʒu:sonə* 'thirty nights' (**korïn*, **gučïn*). These forms appear to have developed independently from Baoanic, as **ayaga* and **üdür* did not develop numeral functions in Mongghul.

[50] MgrH *muśi*, MgrM *meʂï*. As this form lost its specific function, a new directive form was created: MgrH *muśiʒə*, MgrM *meʂïʒi*.

Due to the loss of vowel length in most of Baoanic and in Mangghuer, and accent-related vowel lengthening in Mongghul several verbs were at risk of merging with their causatives in *-A*, resulting in a need to make the distinction clear again. The chosen solution may vary from verb to verb. In case of *sïta-* 'to catch fire' and its causative *sïtaa-* 'to make fire', Baoanic created a new intransitive verb *sïtara-* with a new causative *sïtaraga-*, whereas in Monguoric, as in Eastern Yugur, only the transitive *sïtaa-* 'to light' survives.

The 'converter' suffix *-kI*, which turns an inflected noun into a new nominative base that can take case endings, split into two forms in Baoan and Dongxiang, whereas in Monguoric a single form is used.
Attached to stems with the dative, as well as to adverbs of time without explicit case marking, we find the Shirongol shape *-ku* with unexpected rounding, as in Dgx *araŋdəku* 'the one in the river', *məlieşïdaku* 'the one in front', *fuẓuǧuduku* 'yesterday's', BaoÑ *kətəgu* 'the one in the house', *ġadəgu* 'the one on the outside', *χi:nagu* 'the one in back', *maχśigu* 'tomorrow's'.

To stems with the genitive a form with *-ŋ* is attached, perhaps from an old oblique form *-kIn-*, as in Dgx *minuğuŋ*, BaoÑ *mənġaŋ* 'mine'. This can be found with the old personal pronouns, but also with the non-CM pronouns such as Dgx *hənuğuŋ*, BaoÑ *aẓaŋġaŋ* 'his/hers', and some other pronouns and nouns, e.g. Dgx *kienuğuŋ* 'whose', *gienuğuŋ* 'the house's', BaoÑ *kanġaŋ* 'whose', *ndewaġaŋ* 'that of the village'.[51]

In Kangjia the suffix shape *-gʉ* is used on genitives as well as datives, e.g. *mənigʉ* 'mine', *kɔgʉ ~ kɔnigʉ* 'whose', *ġanagʉ* 'the one on the outside', *kʉngʉ* 'the one of the person', *aǧagʉ* 'the one of the village', *aǧadʉgʉ* 'the one in the village'.[52] This situation is reminiscent of the central Mongolic situation (e.g. Ordos *geri:ki* 'the one of the house', *gerteki* 'the one in the house'). In Monguoric and Eastern Yugur the genitives of personal pronouns seem to be unable to take the converter suffix, that is, the attributive shape of the genitive is also used predicatively.

Lexical differences come in various categories. In the first set below a different CM word has prevailed in Monguoric and Baoanic. In the second group, Monguoric replaced a well-known Mongolic word by one of unknown origin. In the third group it is Baoanic that has the replacement, of Turkic or unknown origin.

Monguoric	Baoanic	CM	
idee	*höesün*		pus
muruï	*maïrug*		crooked
ügtee-	*sei-*		to weed
anǰi:	*qala*	*kaana*	where[53]
baga-	*eki-*	(various) *?*högi-*	to hit[54]

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[51] *aẓaŋġaŋ* (for *aẓaŋnəġaŋ)* lacks the genitive suffix. Other commonly used nouns such as 'house' and 'village' also add *-ku* directly to the stem without the need for a genitive.

[52] This may also be the case in some Baoan dialects, cf. BaoD *ćin(ə)gə*, BaoX *ćinəgo* 'yours' as opposed to BaoÑ *ćinġaŋ*.

[53] Kgj *χana* deviates from its relatives here.

Monguoric	Baoanic	from	
silgüd-	*taqara-*		to shake
čaalsun	kegde	< T < Ir	paper
šu:r[55]	čöke	< T	chopsticks
balgasun	tam	< T	wall

Some lexical differences are due to semantic shifts. CM *ejen* 'master', as in Eastern Yugur, has become a reflexive pronoun 'self' in Monguoric, whereas in Baoan (not in Kangjia and Dongxiang) it became a personal pronoun for the third person. CM *öer-* 'self' was retained in Baoanic as a personal pronoun (denoting the first person in Baoan and Dongxiang, and the third person in Kangjia), but was lost in Monguoric and Eastern Yugur.

CM *jaka* 'collar' developed the additional meaning 'upside, top' in Monguoric (also as in Eastern Yugur).[56] This probably coincided with the loss of *öede* 'up, above', which does survive in Baoanic. *no-* (*?*nau-*) 'to aim' came to mean 'to look' in Monguoric.

As seen obove, certain loanwords, especially those from Turkic, occur in informative patterns that support the subdivision of Shirongol. The Monguoric languages share *arčaġ ← Turkic *agïrčak* 'spindle whorl' and *taġau ← Turkic *takagu* 'chicken'. Baoanic shares *örüg ← Turkic *ärük* 'apricot', *kegde ← Turkic (← Iranian) *kägdä* 'paper', and *sičaġan ← Turkic *sïčgan* 'mouse'. In some instances Shirongol languages replaced a lexeme by its Turkic cognate. Baoanic borrowed the Turkic word and lost the native cognate in the following cases: Turkic *agïl* 'village', *arpa* 'barley' and *bugday* 'wheat' are used instead of CM *aïl*, *arbaï* and *buudaï*. In Monguoric, Turkic *takagu* 'chicken' has replaced native *takïa*.

1.5.5. Deviating distribution of word shapes

1.5.5.1. Introduction

On several occasions, the data from the QG languages do no align with the patterns and subdivisions sketched above.

First of all, some data seem too erratic to be organised in a way that supports (or contradicts) the classification above, such as the verb 'to read': EYu *oŋšə-*, MgrH *mośə-*, MgrM *moşï-*, BaoD *muśi-*, BaoGt *məş-*, BaoÑ *əmći-*, Kgj *unči-*. Dgx *oŋşï-*. Another lexeme whose modern forms seem to defy classification (or reconstruction) is 'girl': EYu *hkon*, MgrH *fujün*, MgrM *fujiŋ*, BaoD *okən*, BaoÑ *əkuŋ*, BaoX *xjoŋ*, Kgj *ixgɔ*, Dgx *oćin*. Cases like this may be explained by inter-

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[54] Kangjia has both *ïɣ-* related to the Baoanic verb and a form *bïğï-* apparently related to Monguoric.

[55] According to Sun, EYu *šoro* < *sïro* 'skewer' (unrelated to the Monguoric word) is also used for 'chopsticks'.

[56] Kangjia *jiğali* 'top' may also be related, but is morphologically unclear. In Western Yugur, the Turkic equivalent *yaka* 'collar' is now also used as a spatial noun.

dialectal borrowing, as is suggested by the existence of doublets in individual languages, e.g. Mongghul *ġʊsġʊ-* and *şdoġʊ-* 'to stir' seem to be divergent developments of **kudku-*.[57] Mongghul *ġaʒar* and *ġadar* 'bridle' seem to represent the old variants **kaǰaar* and **kadaar*. Mongghul *go:n*, *gom*, and *fugon* are divergent forms of **gün* 'deep'. The verb **bagta-* 'to sink' is present in Kangjia twice, in the forms *paġda-* and *puda-* (with semantic differentiation). It is difficult to distinguish such doublets from the 'normal' spectrum of variants encountered in these non-standardised languages, and to determine which of the forms was borrowed from another language.[58]

Semantically similar lexemes may have an erratic, and thus uninformative distribution, such as the words for 'head' and 'brain': **hekin, *tarakï, *teriün, *tolagaï*.

Another factor that disrupts the classification as discussed above, is retention of shared inherited features, e.g. Eastern Yugur agrees with Baoanic regarding the development of **kï-/*ki-* and **-n*, which is irrelevant for classification, whereas the innovations found in Monguoric can be used to define that branch.

Finally there are many similarities that can be explained as *Sprachbund* phenomena as well as shared inherited features.

There are three recurrent deviations from the subdivisions described above:

- Eastern Yugur agreeing with Monguoric (or at least Mongghul)
- Mangghuer agreeing with Baoanic rather than with its sister language Mongghul
- Disagreements amongst the Baoanic languages

1.5.5.2. Similarities between Eastern Yugur and Monguoric

In the following cases Eastern Yugur and Monguoric share a phonetic variant:

E. Yugur	Mongghul	Mangghuer	CM (or local ancestral form)	
ŋġwa:sən	*ŋġua:sə*	*ŋġuasï*	**uŋgasun*	wool
gö:rö ~ gʉre	*go:ro*	*gori*	**öere*	other

In the first case Baoanic uses the related variant **nogasun*. **öere* 'other' was lost in Baoanic, but cf. **öermiče*. Eastern Yugur and Monguoric preserve **bïda* 'we', while Baoanic seems to feature the innovative front-vocalic form **bide*. This certainly applies to Dgx *biʑien* and Kgj *bəde*. Most of the Baoan forms are ambiguous because of vowel reductions, but BaoGt *buda* stands out by agreeing with Eastern Yugur and Monguoric.

Eastern Yugur and Monguoric, or at least Mongghul[59], share the following lexemes that are absent from Baoanic:

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[57] Cf. **kadku-* 'to stab' for similar Mongghul doublets.
[58] For a Dagur doublet see *čulč* and *sus* under **sölsün* 'gall bladder'.
[59] The cases not confirmed by Mangghuer may be due to the larger number of loanwords in that language, to the smaller size of the wordlists, or to the fact that Mangghuer sometimes agrees with Baoanic rather than with its sister language.

E. Yugur	Mongghul	Mangghuer	local ancestral form	
mɔnɔn	*muno:n*	---	**mona hon*	year after next
gərβai	*ćire:*	*ҫaibai*	**kirbei*	edge
dɔ:mbər	*dumbur*	---	?	hill[60]
ǰura-	*źira:-*	*ʒua-*	?**ǰura-*	to chase
χɔrğɔr	*śʋrġʋl*	---	?**hïrgul*	omen[61]
səis	*śiäs*	---	?**süis*	billy-goat
bɔda	*bodo*	---	**boda*	deer[62]

1.5.5.3. Similarities between Mangghuer and Baoanic

In some phonetic developments Mangghuer agrees with Baoanic rather than Mongghul, i.e., Mongghul stands out within Shirongol. In most of the following cases, Mongghul is the conservative language, lacking the irregular development shared by the other languages. Thus Mongghul agrees with both Eastern Yugur and central Mongolic in those cases.

Mongghul	Mangghuer	Baoanic	CM	
fod < *hod	*xotu*	**hötüg*	?**hötü*	maggot
nes-	*musï-*	**mis-*	**nïs-*	to fly
tailə-	*tai-*	**tai-*	**taïl-*	to untie
budən	*beduŋ*	**bedüŋ*	**bidüün*	coarse
ćidar	*ćidai*	**kitai*	**kïtad*	Chinese

Strictly speaking the form **kitai* in the last example is not an erratic phonetic development but a shared loanword from Turkic.

In case of **seül* 'tail; end', the Baoanic forms stem from an irregularly unrounded **sel*, which also seems to be the source of MgrM *śier*.[63]

A difficult case is **yeke* 'large', which developed rounded vowels in the Baoanic languages, as if there was an intermediate form **hüke*, cf. BaoD *fgo ~ go*, BaoÑ *ʒgɵ*, BaoX *xgo*, Kgj *gʉ*, Dgx *fugie*. Rounding is also found in MgrM: *ʂ(u)go*, but not in MgrH: *ʂge*. However, it is unclear what triggered the rounding, and what caused the divergent modern forms.[64]

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[60] BaoÑ *dəmbɵġ* 'id' may be (irregularly) related. Cf. also Sanchuan (MgrM) *tomlùk* P416b 'ancient (?grave) mound'.

[61] Perhaps somehow related to **ïro*, cf. the extended stem in Kalm *yorğo.čĭ* R219b 'soothsayer'. However, the absence of **h-* in **ïro* is an argument against such a connection. The enigmatic Middle Mongol form (Ibn Muhanna) *hilγab* (P438a) 'omen' may represent a scribal error of the same etymon.

[62] This may the same word as **boda* 'large livestock'.

[63] However, Mangghuer forms with preserved labial element are also recorded.

[64] The presence of the initial fricatives (normally suggestive of initial **h-*) is also unexpected. It could be the result of devoicing of the first syllable by the following *-k-*. However, the Dagur cognate *xiγ* may support the presence of **h-*.

The unexpected strengthening of *-d- seen in MgrM *xotu* 'larva' mentioned above is also present in several other words, with unsystematic parallels in the Baoanic languages. It cannot be excluded that Mongghul originally shared this phenomenon, and lost it more recently due to newly developed restrictions on the distribution of consonant strength.

Mangghuer	Mongghul	Ñantoq Baoan	CM	
mutu	*mo:də*	*mətəŋ ~ mədəŋ*	*modun*	wood
xotu	*fo:də*	*hə:taŋ*	*hodun*	star

Strengthening of the final *-d* of verbs can also be observed.[65] This involves the metanalysis of the connective vowel *U* as a part of the stem. The many verb suffixes with strong consonants may have triggered the strengthening (*-d-* that was already intervocalic in CM seems to escape this development).

Mangghuer	Mongghul	Dahejia Baoan	CM	
betu-	*idə-/udə-*	*etə-*	*ebed-*	to hurt
qaputu-	*xai:də-*	*χitə-*	*kabïd-*	to swell

Lexical differences between the two Monguor languages are usually not informative. Many lexemes that are found in Mangghuer but not in Mongghul can either be well-known Mongolic words such as *bećin < *ebečin* 'disease', *qudaŋ < *kotan* 'enclosure', *kuardi- < *kölde-* 'to freeze', *naʒər < *najïr* 'summer', or unique words of unknown origin such as *dama* 'face' and *duġuli* 'demon'.

yama 'thing' has developed the meaning 'food' in Mangghuer, as it has in Baoanic. This is parallelled by Turkic *neme* 'thing' in neighbouring Salar.

A functional development shared by Mangghuer and Baoanic is the use of the collective numeral *koarla* (< *koar-ula*, replacing CM *koya-ula*) 'the two of us/you/them' as a new comitative and instrumental suffix,[66] generally in a simplified shape: MgrM *-ġula*, *-ġuerlo*, BaoGm *-ġuala*, BaoGt *-ġalə*, BaoÑ *-ġala*, Kgj *-ġala*, Dgx *-ġala*.[67]

1.5.5.4. Differences within Baoanic

Each of the Baoanic languages Baoan, Kangjia and Dongxiang has its own defining innovations not found in the other two subgroup members. Dongxiang developed *ź* and *ć* from *d and *t preceding certain vowels (inspired by local Chinese). Baoan has the replacement of initial high vowels (followed by *d or *ǰ) by *n-. Kangjia has the development word-final *-ɔ* (via *-ɔ̃*) from *-an and *-en.

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[65]   Also in Moghol, see 4.3.3.

[66]   The old comitative/instrumental suffix *-la < *-lUA* has not disappeared from Shirongol. In Mangghuer, Kangjia, and Dongxiang it is still attested in both functions.

[67]   In some dialects a less abraded form is preserved in the numeral function, as in BaoÑ *ġuala*, Dgx *ġuala* 'the two of us/you/them'.

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BaoÑ	Kgj	Dgx	CM	
te:r-	*tɵr-*	*ćiauru-*	**teberi-*	to embrace
dulə-	*dauli-*	*ʒiauli-*	**deüli-*	to jump
fulde-	*hundi-*	*fənʒie-*	**hülde-*	to chase
ndaŋ	*idɔ*	*uiʒien*	**eüden*	door
nde-	*ide-*	*iʒie-*	**ide-*	to eat
nda:-	*uda-*	*uda-*	**uda-*	to be late
taraŋ	*tarɔ*	*taraŋ*	**tarïan*	crop
telaŋ	*čilɔ*	*tulien*	**tülien*	firewood
altaŋ	*antɔ*	*antaŋ*	**altan*	gold
ʒulaŋ	*jilɔ*	*ʒolien*	**ĵöelen*	soft

These typical developments only have sporadic equivalents in the related languages. For instance the Baoan 'prenasalisation' is found once in Kangjia in *ndasun ~ dasun < *hutasun* 'thread'. The Dongxiang type of palatalisation is also occasionally found elsewhere, e.g. BaoÑ *ćiʒe-* and Kgj *čije-* agree with Dgx *ćieʒə- < *teĵie-* 'to feed'. An early instance of this phenomenon (as shown by the fact that Dongxiang further developed the palatal into a retroflex) is seen in BaoD *gaʒiəsuŋ*, Kgj *gəĵisʉn*, Dgx *kiʒesuŋ < *gedesün* 'bowels'.

In the following cases Baoan has contracted the diphthongs that were preserved by Kangjia and Dongxiang:

BaoÑ	Kgj	Dgx	CM	
kitaŋ	*kʉitɔ*	*kuićien*	**köiten*	cold
itaŋ (BaoD)	*uitɔ*	*uitaŋ*	**huïtan*	narrow
χi:ćila-	*qaičila-*	*qaiçila-*	**kaïčï.la-*	to clip

A conservative feature of Kangjia is the preservation of four rounded vowel qualities. Although several forms are diachronically surprising, the following forms illustrate some of the vowel distinctions that were lost in Baoan and Dongxiang.

BaoD	Kgj	Dgx	CM	
hor	*hɔr*	*xo*	**haur*	steam; anger
hor	*hɵr*	*xo*	**heür*	nest
tosuŋ	*tusun*	*tosuŋ*	**tosun*	fat, oil
bosuŋ	*bɵsʉn*	*bosuŋ*	**böesün*	louse
hosuŋ	*hʉsʉn*	*hosuŋ*	**höesün*	pus
ġurduŋ	*ġurdun*	*ġuduŋ*	**kurdun*	fast
nəduŋ	*nʉdʉ*	*nuduŋ*	**nidün*	eye

No classificatory information can be extracted when each language shows a different development, as in the case of word-final *-l, where Baoan is the conservative one, and Kangjia and Dongxiang have different alterations neither of which can be derived from the other.

BaoÑ	Kgj	Dgx	CM	
kəl	*kuar ~ kər*	*koŋ*	*köl*	foot
χal	*χar*	*qaŋ*	*gal*	fire
sel	*cer*	*śien*	*seül*	tail

Kgj *χar* < *gar* 'hand' and *χar* < *gal* 'fire', as opposed to Dgx *qa* < *gar* 'hand' and *qaŋ* < *gal* 'fire', also demonstrate that the Kangjia situation cannot have developed from Dongxiang (in which case the Kangjia forms could not be identical), nor vice versa (in which case Dongxiang would have the form *qa* for both words).

Another matter in which the three Baoanic languages show different reflexes is the treatment of the vowels *e* and *a* after *ö* or *o* in the preceding syllable. Kangjia has typically rounded the *e* and *a*, and then raised both vowels. Interestingly, Dongxiang often shows an unrounded second syllable in front-vocalic words, and Baoan in back-vocalic words. In view of other words in Dongxiang and Baoan that do feature the expected rounding, and equivalents in other languages, the unrounded forms are probably secondary developments from Proto Shirongol forms with labial harmony.[68]

BaoÑ	Kgj	Dgx	CM	
kugɵ	*kʉkʉ*	*kugie*	*köke*	blue
nɵχgɵr	*nɵχgʉ*	*nokie*	*nöker*	friend
---	*sʉgʉ-*	*sugie-*	*sögee-*	to scold
dɵġla-	*duġlu-*	*doğolo-*	*dogal-*	to limp
şdɵġə	*duğu*	*qudoğo*	*kïtuga*	knife
ɵlɵŋ	*ulu*	*oloŋ*	*olan*	much
χɵlɵ	*ġulu*	*ġolo*	*kola*	far
sɵlġa	*sulğu*	*soŋġo*	*saulga*	bucket

The abovementioned features, shared by different sets of Baoanic languages, do not bring us closer to a binary division.

Moreover, a wide variety of reflexes may be observed within a single language as well, e.g. the treatment of word-final *-g in Kangjia: elision in *ima* < *aïmag* 'village', a fricative in *aləğ* < *alag* 'variegated', and a plosive in *pəĭəġ* < *burčag* 'bean' (cf. 4.5.5.).

Some lexemes or variants in Kangjia differ from Baoan and Dongxiang, or even from all other QG languages. Examples include Kgj *čürsʉn ~ čürsa* < *čölsün*

'gall bladder' instead of the variant *sölsün* found in the other Shirongol languages, *ġudər < *gutul* 'boots' instead of the variant *gutusun* prevailing in the other QG languages, and *χana < *kaana* 'where' instead of the innovative form *kala* found in Baoan and Dongxiang.[69]

In view of the above I will provisionally assume that Baoan, Kangjia, and Dongxiang are three equal subdivisions of Baoanic.

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[69] This form has an equivalent in Salar *ġala* 'where'; the structure of the forms with *-l-* is unclear in all languages involved.

2. COMMON MONGOLIC PHONOLOGY

2.1. Common Mongolic and Proto Mongolic

Only two named stages of reconstructed Mongolic are distinguished here: Common Mongolic and Proto Mongolic. I am aware of the fact that these terms have been used differently elsewhere, but they seemed preferable to any newly coined terms. Here each of the two stages is based on its own set of clearly defined materials.

Common Mongolic (CM) is the reconstructed language from which all known medieval and modern Mongolic languages are supposed to have developed. It is obtained by comparing the modern languages and the Middle Mongol sources in various scripts, with the emphasis on the modern QG languages.

Proto Mongolic (PM), situated in an earlier but undefined period, relies on the comparison of internal Mongolic evidence (including features of Written Mongol that are not confirmed by the spoken languages) and related forms in non-Mongolic languages. More speculative reconstructions, generally involving developments that must have taken place in the prehistoric period, are labeled Proto Mongolic. However, it should be noted that for numerous words the Proto Mongolic and Common Mongolic forms are identical.

In some phonological matters it is impossible to bring all available evidence under the same umbrella. The most salient problems will be discussed below, including the intervocalic -h- of Middle Mongol, postconsonantal -p- of Dagur, and retention of s- preceding *ï/*i in Moghol. These are incidental deviations from the majority that can seen be seen as locally preserved PM relics into the CM period. Such features are generally not reflected in the CM reconstructions.

It remains to be decided whether Dagur should be seen as a descendant of CM, or of a sister language that branched off before the CM period. In order to arrive at such a decision, it would first be necessary to systematically disentangle the 'real' Dagur vocabulary from the numerous Mongolic elements adopted from central Mongolic and from various Tungusic languages.[70]

The reconstructed forms used here are generally those of CM. The comparative supplement is based on these reconstructions. Intermediate phases may be given in the discussion of individual etymologies, to elucidate their phonetic development. Such intermediate stages will generally remain unnamed. The Proto Shirongol occasionally referred to is a shorthand label for (mostly irregular) developments shared by both Shirongol branches. The only sound law distinguishing Proto Shirongol is the contraction of the CM vowel sequences.

Due to its limited time depth of perhaps a thousand years, Common Mongolic tends to be fairly close to the modern Mongolic languages. Yet even the reconstruction of CM is not without ambiguities. Although the modern languages agree on many phonological issues and on most individual reconstruction forms, they contradict each other in others. In addition, in some points, the Middle Mongol

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[70] Obviously such a decision would also have to be based on morphological and syntactical features not considered here.

and Written Mongol data conflict with the phonology reconstructed on the basis of the modern languages.

Here a notation will be used that can accommodate most contradictory data in a transparent and predictable manner, without creating more reconstructed language stages. Some 'concessions' were made to Middle Mongol and Written Mongol, in order to facilitate their comparison to the reconstruction forms. The concessions mostly concern the notation of the long vowels as *aa, etc. rather than *ā, etc. Where Written Mongol notations contradict the reconstruction based on the modern languages, the latter is given preference. Not all instances where Written Mongol spelling is in conflict with the CM reconstruction as based on the modern languages, are regarded here as representing an older language stage. As in most long-lived literary languages, not everything that appears archaic in Written Mongol is necessarily of great antiquity. Arguments and choices behind the reconstruction of this set of phonemes will be discussed in the following pages.

2.2. Overview of Common Mongolic phonemes

In the Common Mongolic forms used in this book the following phonemes will be discerned:

Eight simple vowels	*a, *e, *ï, *i, *o, *ö, *u, *ü
Six double vowels	*aa, *ee, *ïï, *ii, *uu, *üü
Fourteen complex vowels	*aï, *ei, *oï, *öi, *uï, *üi;
	*au, *eü;
	*ïa, *ie, *ïu, *iü;
	*oa (*ua), *öe (*üe)
Sixteen consonants	*b, *d, *t, *ǰ, *č, *g, *k
	*m, *n, *ŋ, *s, *š, *l, *r, *y, *h

The double vowels and complex vowels listed here were not originally phonemes, as they were not indivisible, but they are nevertheless listed here as 'phonological units'. In all modern languages, they have become long vowels and diphthongs. The CM complex vowels were not simply sequences of independent vowels, as shown by the fact that not all conceivable sequences are in fact allowed, e.g. there are no complex vowels *ïo and *iö, although the sequences *ïCo and *iCö do exist.

Originally most of these vowel sequences must have been disyllabic, as is not only suggested by Written Mongol spellings and Middle Mongol notations, but confirmed by cognates in Turkic and Tungusic where these exist. Usually a consonant may have existed between the two elements of double vowels, but again we mostly depend on non-Mongolic evidence to establish which consonant it was. The same applies to the complex vowels. However, the complex vowels in a few words clearly do not go back to VCV sequences. This includes words where foreign v/w or y was reinterpreted as a diphthong element, e.g. CM *keüreg 'brittle' (Turkic *kevrek), *taulaï 'hare' (Turkic *tavïš.gan) *dalaï 'sea' (Turkic *taloy ← Ch), and Mongolic roots in which *u/ü alternates with *b, e.g. *taulan 'five-year-old animal' as opposed to *tabun 'five', *ǰaura 'middle' and *ǰaučï 'mediator' if related to *ǰab 'interval'. The notation used here is intended to leave all etymological options open.

The modern Mongolic languages, including the QG languages, contribute little to the history of these sequences. Before CM disintegrated into the modern groups, the monophthongisation of the double vowels and *oa/*öe had already taken place.

The correlation between the CM vowel reconstructions used here (meant to accommodate Middle Mongol and Moghol data) and the actual stage the QG developments derive from can be schematised as follows:

CM	Reconstruction based on QG languages	

contraction:

hulaan	*hula:n*	red
čiïrag	*či:rag*	tight
uu-	*u:-*	to drink

contraction and monophthongisation:

toarï-	*to:rï-*	to circle
böesün	*bö:sün*	louse
*ǰïlua > *ǰïloa*	*ǰïlo:*	reins
*čilüe > *čilöe*	*čilö:*	spare time
hutu.a-	*huta:-*	to fumigate
bürkü.e-	*bürke:-*	to cover

rounding harmony:

| *oran* | *oron* | place |
| *öre* | *örö* | stomach |

Three-vowel sequences as seen in Middle Mongol *maui* 'bad', *širuai* 'earth' will not be discussed, as they were lost in the QG languages (see *mau* and *sïroï* in the supplement).

2.3. Word structure

Monosyllabic stems are relatively rare, apart from pronouns and particles. Many Common Mongolic stems that are disyllabic or longer cannot be reduced to monosyllabic roots.

The number of syllable structures originally allowed by Mongolic was quite limited. The minimal structure is V, the maximal structure CVVC. In longer stems vowels and consonants tend to alternate (VC, CV, etc). Sequences of two vowels are quite common. Such sequences can be viewed as phonological units that take up a single vowel slot. How many syllables these vowel sequences originally constituted is in many instances unknown.

Consonant clusters do not occur within a syllable, apart from a number of foreign words, notably from Turkic and Iranian, such as *bars* 'tiger' and *ters* 'reverse'. Consonant sequences are allowed in medial position, i.e. when the constituents can be attributed to different syllables.

V	*a-*	to be	VV	*au*	wide
CV	*ba*	we (excl.)	CVV	*bau-*	to descend
VC	*ab-*	to take	VVC	*eüs-*	to arise
CVC	*ken*	who	CVVC	*taïl-*	to undo

The abovementioned syllable types can be combined into numerous sequences. Not all extant sequences will be shown here. Word stems may be quite long, e.g. *temeeljigene* 'dragonfly'.[71]

V-CV	*ere*	man	VV-CV	*aula*	mountain
VC-CV	*alda-*	to lose	VVC-CV	*auškï*	lungs
V-CVC	*alag*	variegated	VV-CVC	*eülen*	cloud
CV-CV	*bugu*	deer	CVV-CV	*huuta*	bag
CVC-CV	*nïlka*	delicate	CVVC-CV	*noïrsa-*	to sleep
CV-CVC	*manan*	fog	CVV-CVC	*baasun*	poo
CVC-CVC	*sölsün*	bile	CVVC-CVC	*čaalsun*	paper

The syllable-final consonant clusters found in central Mongolic and Dagur are due to the loss of unaccented vowels, as the accent lies on the first syllable. Likewise, the initial clusters of the QG languages are due to the accented final syllable, although Tibetan loanwords may have contributed to a new tolerance for such clusters.

2.4. Undecided matters in Common Mongolic

The notations of the Common Mongolic forms are naturally an abstraction. Not all aspects of the notation used here are based on detailed knowledge. In three matters specifically the QG languages provide us with additional information, without leading to a definitive solution: the nature of Common Mongolic vowel harmony, the nature of the opposition between weak and strong consonants, and placement of the accent (which was probably non-distinctive).

2.4.1. Nature of Mongolic vowel harmony

The term 'vowel harmony' in Mongolic covers two phenomena, which are conventionally labeled 'palatal harmony' and 'labial harmony'.

Palatal harmony entails that there are two groups of vowels whose members cannot be combined in word stems; suffixes containing a vowel need to have at least

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[71] Superficially based on *temeen* 'camel', but possibly rather connected to *tebene* 'pack needle'. The suffixes are formantia with unknown function.

two shapes to serve stems of each vowel class. This must be assumed to be an original feature of Mongolic phonology.

Here it will be assumed that CM had eight vowel qualities, divided into two vowel classes, the first containing *a, *ï, *o, *u, and the second *e, *i, *ö, *ü. These classes will be given the traditional labels 'back' and 'front', respectively. Alternative analyses distinguish seven vowels, consisting of two vowel classes (back) *a, *o, *u and (front) *e, *ö, *ü, and a neutral vowel *i (without counterpart *ï) that can combine with both vowel classes. See below for the evidence for *ï.

As the pronunciation of the CM vowels can only be approximated, the original relevant distinction between the two vowel classes is also unknown. The modern Mongolic languages that retain vowel harmony have different systems. Kalmuck really has a Turkic-like opposition between front and back vowels, whereas in Khalkha the opposition is based on tong root position, whereby the pharyngeal vowel class corresponds to the traditional back vowels, and the non-pharyngeal vowels to the traditional front vowels (see Svantesson et al. 2005:7-9).

If palatality was irrelevant, the vowel represented here as *ï may have been a front vowel, while our *e, *ö, *ü may have been central vowels *ə, *ɵ, *u.

The QG languages do not bring this matter closer to a solution. The fact that Eastern Yugur, like Kalmuck, features a palatal-type vowel harmony may be due to the fact that they are the most Turkicised Mongolic languages. Within Shirongol, Kangjia has preserved four rounded vowels in existing stems. That CM *ö and *ü are represented by ɵ, u in Kangjia, does not necessarily favour a tongue root position system over a palatal one, as the defronting may be secondary. The remaining Shirongol languages have lost productive vowel harmony, and thus have little to contribute to our knowledge of CM vowel harmony. CM *i, *ö, and *ü merged with their back counterparts in existing stems. However, the fact that *e (the harmonic counterpart of *a) is represented by the front vowel [e] in Shirongol suggests that at least in the stage preceding its abolition, vowel harmony was based on the front-back opposition.

The variety of extant systems does confirm that it is possible for vowel harmony to change the relevant oppositions without disappearing altogether, helped by the fact that the opposing vowel sets can largely main intact, whether vowel harmony is based on palatal harmony, tongue root position, or even an opposition between open and closed vowels.

Labial or rounding harmony involves the rounding of non-first syllables after a rounded non-high vowel of the first syllable (in Mongolic labial harmony is restricted to the non-high vowels). This type of harmony is also documented from Middle Mongol onwards, but was not systematically applied, and must be considered a secondary development. It was present in the ancestor of the central languages, but Oirat-Kalmuck abandoned it again in the long vowels. Dagur did not apply it to the short vowels, e.g. walən (rather than *ɔlun) < *olan 'many'. Labial harmony in Eastern Yugur resembles that of central Mongolic. Rounding was also applied in Proto Shirongol; exceptions seem to be due to secondary unrounding (see 1.5.5.4.)

2.4.2. Nature of the consonant strength opposition

The Common Mongolic consonant strength opposition is generally assumed to be based on aspiration rather than voice. This is the case in Khalkha and Buriat, which are not likely to have adopted such features from Chinese. The fact that the QG languages have an opposition based on aspiration does not carry the same weight, as the phonology of most Shirongol languages is known to be strongly influenced by that of Chinese. Aspiration as the distinctive feature may also be considered an areal feature. Moghol and Kalmuck, two other languages outside of the Chinese sphere of influence, have an opposition based on voice (which could of course be attributed to Persian and Turkic in the case of Moghol, and to Turkic, and perhaps Russian, in the case of Kalmuck. At any rate, the fact that both the voice and the aspiration opposition are documented demonstrates that the relevant distinctive feature can be changed without upsetting the system as such. The reconstructions here use the traditional notation *d versus *t, etc. (rather than *t versus *t^h, etc.) for pragmatic reasons.

The examples below indicate that the consonant strength opposition in CM does not follow from the phonetic environment:

*taa-	to guess	*daa-	to be able to carry
*taarï-	to cut	*daarï	saddle gall
*tala	plain	*dalu	shoulder
*tarï-	to cultivate	*daru-	to press
*tau-	to drive cattle	*daun	sound, voice
*tere	that	*dere	pillow
*tolï	mirror	*dolïa-	to lick
*töre-	to be born	*döre	nose ring
*türei	bootleg	*düre-	to sell
*kötel-	to lead along	*ködel-	to move
*kaulï	law	*gaulï	brass
*kalaun	hot	*galaun	goose
*kara	black	*gar	hand
*karï-	to come back	*gar-	to come out
*kasïa	enclosure	*gasïun	bitter
*kada	rock	*gada-	outside
*kačar	cheek	*gaǰar	land
*kem	measure	*gem	defect
*kola	far	*gol	river
*kudal	lie	*gudul	boot
*kura	rain	*gura	roe deer
*kurï-	to gather	*gurïl	flour
*kür-	to reach	*gürü	stone
*kürien	enclosure	*güreen	jugular vein
*küüin	person	*gün	deep

*čïda-	to be able	*ǰïda	spear
*čokï-	to peck	*ǰokï-	to suit
*čöen	few	*ǰöen	cold

2.4.3. Accent placement

In the Shirongol languages the accent normally falls on the last syllable. This also applies to Eastern Yugur, although predictable deviations occur under some phonetic circumstances (see 3.14.5.). Moghol has final accent as well. The QG languages show vowel reductions in unaccented syllables, and the complete loss of such syllables. This is seen least often in Dongxiang.[72]

Given that Dagur and central Mongolic normally place the accent on the first syllable, one may conjecture that this represents the original situation, and that the QG languages and Moghol shifted the accent under Turkic and Iranian influence. However, the Middle Mongol sources do not provide support for such an assumption. Notably the reduction of unaccented syllables is not in evidence. Vowel assimilations had already started by the Middle Mongol period, but they may be rightward (labial harmony) or leftward (palatal breaking).

2.5. Issues related to the reconstruction of the vowels

2.5.1. Vowel Types

As seen above, three types of vowel can be discerned in the modern Mongolic languages. The terms simple, double, and complex vowels are used here to denote the forerunners of modern short vowels, long vowels, and diphthongs.

Double vowels and complex vowels are combinations of vowels from the set of simple vowels. The terms double and complex are used here (instead of the straight-forward terms 'long vowels' and 'diphthongs'), because it cannot be determined on the basis of Mongolic data whether the double and complex vowels originally constituted one or two syllables. Written Mongol orthography and the spelling of words in Sino-Mongolian suggest the disyllabic nature of these vowel sequences. Non-Mongolic cognates confirm that at least in a number of words these vowel sequences result from the elision of the consonant from a *VCV* sequence. For instance CM *ǰee 'nephew' could be reconstructed *ǰe: on the basis of the modern Mongolic languages, but the Sino-Mongolian notation ǰe'e and the Written Mongol spelling ǰige indicate a disyllabic form.[73]

In many cases double vowels not only span two syllables but also two morphemes, e.g. *bagtaa- 'cause to sink' is *bagta- + causative -A.

A similar situation holds for the complex vowels. Most of these result in diphthongs in modern languages, some are contracted into long vowels. Like the double vowels, they may go back to *VCV* sequences as can be seen from non-Mongolic cognates, cf. CM *daïn 'war' as opposed to CT *yagï 'id'.

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[72] Moghol tends to preserve the vowels of all original syllables, albeit with a reduced number of vowel qualities.

[73] Cf. also the Turkic cognate *yegen.

Complex vowels can also be bimorphemic, as in *kala-un* 'hot', *tarï-an* 'crop', from the verbs *kala-* 'to be hot' and *tarï-* 'to cultivate'.

The notations used here, *aa*, etc, correspond to Poppe's *a'a*, Janhunen's *axa* and Svantesson's *aha*.

Oppositions single vowel - double vowel include the following:

ba	we	*baa-*	to defecate
karï-	to return	*kaarï-*	to singe
ta	you (plural)	*taa-*	to guess
tala-	to loot	*taala-*	to love
tarï-	to plant, sow	*taarï-*	to slice
del	mane	*deel*	garment
dere	pillow	*deere*	upper side
döre	nose ring	*döree*	stirrup
sübe	eye of a needle	*sübee*	flank
sïra	yellow	*sïïra*	shin, leg
sïra-	to roast		
ula	sole	*ulaa*	relay horse
düre-	to sell	*düüre-*	to fill

Although uncontracted sequences *oa* and *öe* occur (unsystematically) in Sino-Mongolian, their contraction had completed before the QG languages branched off. The results of the contractions can be considered the long counterparts of simple *o* and *ö*. Examples:

tosun	fat	*toosun*	dust (*toasun*)
öre	stomach	*ööre*	other (*öere*)

2.5.2. The harmonic counterpart of CM *i*

Here, an unrounded high vowel is attributed to each vowel class, sc. *i* and *ï*, although these two are written identically in the historical sources and have merged in most modern languages. There are several arguments in favour of the existence of a back-vocalic counterpart for *i*.

In the first place, there is the argument of a symmetrical system. A neutral vowel *i* in the first syllable which can be followed by either *a* or *e*, would be in conflict with the principle that the vowel class of a word is determined by its first vowel. If a separate vowel *ï* is not distinguished, one is obliged to distinguish consonant phonemes *q* and *ġ* in addition to *k* and *g*, which is otherwise unnecessary. One would have to reconstruct the sequences *qa, *ke, *qi, *ki, *qo, *kö, *qu, *kü* instead of simply *ka, *ke, *kï, *ki, *ko, *kö, *ku, *kü*.

The existence of *ï* independent from *i* is not merely assumed to satisfy the desire for a symmetrical system, but is in fact supported by direct or circum-

stantial evidence from the spoken languages. In individual words these two vowels can often be distinguished by means of the following arguments.

1) Other vowels of the stem. In words of two or more syllables in which the other vowels are back vowels, the high unrounded vowel in the first syllable goes will be assumed to be *ï rather than *i. This follows from the assumptions that all vowels in a Common Mongolic word belong to the same vowel class, and that the first vowel of the stem determines the vowel class of all following vowels of stem and suffixes. Examples include *ïmaan 'goat', *kïlgasun 'coarse hair', *kïrga- 'to shear', *sïra 'yellow', *ǰïda 'spear', *ïlga- 'to choose' (as opposed to front-vocalic *ide- 'to eat', *ire- 'to come', *itege- 'to believe', *siree 'table'). Likewise I will assume that any high unrounded vowel following an *a, *o, or *u of an earlier syllable is *ï rather than *i, e.g. *amïn 'life', *korïn 'twenty', *urï- 'to call'.

2) The vowels in suffixes. In the case of *bi (Written Mongol bi) 'I' we may assume that the original form was *bï because of the oblique stem *nïma-, as well as the plural equivalents *bï-da 'we (inclusive)' and *ba 'we (exclusive)'. Similarly, *či (Written Mongol či) 'you (sg)', stems from *čï because of the oblique stem *čïma-, as well as the plural equivalent *ta 'you (pl)'. The other cases of the paradigms then can also be assumed to be back-vocalic originally, including the genitives *mïnu/*mïnï 'my' and *čïnu/*čïnï 'your'.

3) Retention of uvular consonants in Middle Mongol, preclassical Written Mongol spellings, Moghol, Eastern Yugur and Baoanic, as in the case of Written Mongol čiki- 'to stuff' < *čïkï-, Written Mongol čikin 'ear' < *čïkïn, which words feature -q- in the abovementioned sources and languages. Velar pronunciations in these languages are usually an indication for original *i as in Written Mongol ki- 'to do' < *ki-, bičig 'writing' < *bičig.[74] In other cases the uvular consonant in a suffixed form reveals the *ï. CM *nïs- 'to fly' can be reconstructed with *ï because of the Middle Mongol causative derivation nis-qa- in the Muqaddimat al-Adab.[75] CM *is- 'to ferment' was front-vocalic in view of its Eastern Yugur derivate səkəmel 'sour' (*is-ke-mel). The reconstruction of the verb *ǰïlïï- 'to go away' is supported by the EYu causative ǰili:lǧa-; *nii- 'to blow the nose' may be reconstructed *nïï- if we assume it is related to *nïsun 'snot'.

4) Non-Mongolic evidence. Mongolic words that have Turkic cognates containing the back vowel *ï can be assumed to have been back-vocalic, e.g. *ǰil < *ǰïl 'year' because of CT *yïl 'id', *ïsu 'soot' because of CT *ï:s, *sïrï- 'to stitch' because of CT *sïrï-.

In some cases an *ï is supported by several of the abovementioned arguments. In the case of *čïïrag 'strong' (which has become front-vocalic čiyreg in Khalkha) the -a-, and the uvular final consonant caused by it are preserved in Eastern Yugur and Mongghul. Cf. also *nïlka 'tender'.

There are also words which do not contain any indication for the original vowel class, e.g. *ibil- 'to give milk', *ilbi- 'to rub', *silbi 'shin', *sili 'nape', *simi- 'to suck', *ǰii- 'to extend' only contain high unrounded vowels. They have

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74 Languages may disagree, e.g. *ki- 'to do' has an early spelling with <q>, but all modern languages that could have preserved uvular q- in this word, in fact have a velar initial.

75 Poppe nevertheless reads nis-be 'flew' as front-vocalic, although the Arabic allows for a reading nisba.

been provisionally reconstructed with *i,* but some of them may have contained back *ï* originally.

2.5.3. CM *o* and *ö* in non-first syllables

The evidence for the independent occurrence of the vowels *o* and *ö* in non-first syllables is limited. From the Middle Mongol documents onward there are numerous occurrences of labialisation of *a* and *e* in non-first syllables after *o* and *ö* of the first syllable (rounding harmony). In most modern languages this labialisation has taken place throughout the vocabulary, and the sequences *o-a* and *ö-e* have now become inadmissible in these languages. In spite of the fact that the sequences *oCo* and *öCö* are attested as early as Middle Mongol, they cannot be distinguished etymologically from *oCa* and *öCe* respectively.

There is no internal Mongolic evidence for the existence of CM sequences *aCo*, *eCö*, *uCo*, *üCö*. The rare foreign evidence for such sequences, such as Turkic *altun* < *alton* 'gold', *taluy* < *taloy* 'sea' is only indirectly supported by Mongolic *altan* and *dalaï* (with *a* rather than *o* or *u*).

A small number of words with non-first syllable *o* and *ö* cannot be explained as secondary developments. In these words the vowel of the first syllable is *ï* or *i* depending on the vowel class. Only following *i/*ï can the difference between *ö* and *ü* and between *o* and *u* be determined in the central languages. This is because of the so-called palatal breaking, involving the assimilation of the *i* or *ï* of the first syllable by the vowel of the second syllable, e.g. Kh *nüd(en)* from (*nüdün* <) *nidün* 'eye', but Kh *čötgör* from *čidkör* 'demon'.

The modern forms of the following disyllabic and trisyllabic words suggest the presence of *o* or *ö* in the second syllable:

čïno	wolf
ïro	omen
nïdonï	last year
sïro	spit
sïnkor	falcon
čidkör	demon
čidör	hobble
silön	soup
čimögen	marrow
siböge	awl
sirbösün	tendon

The reconstructions *čïno* 'wolf' and *ïro* 'omen' are based on the modern and Middle Mongol forms, but are hard to reconcile with the Written Mongol spellings *činu-a* (to be read *činoa* or *činwa*?) and *iru-a* (*?iroa, ?irwa*). Poppe interprets these spellings in -*ua* as a sequence -*βa*, but this solution introduces sequences -*nw*- and -*rw*- which are otherwise unknown. The *o* cannot be a development of the complex vowel *ua*, since this would have resulted in a long vowel in several modern

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languages. Perhaps these spellings are merely graphic devices to indicate that the vowel grapheme should be read *o* rather than *u*.

There is no single explanation for the few trisyllables with **iCö*. Unlike in the disyllabic stems, it is conceivable that **ö* is a secondary development in **čimögen*, **siböge* and **sirbösün*. Poppe (1955:44) did not consider **čimögen* 'marrow' and **siböge* 'awl' as problematic cases. These are seen as parallel developments of words like **čilöe* (> **čilö:*) 'free time' and **kiröe* (> **kirö:*) 'saw' which have probably ultimately developed from **čilüe* and **kirüe*. That is, the original **ü* sound was lowered under the influence of the following **e*. Alternatively **ö* has developed from earlier **e*, that is, **čimögen* 'marrow' and **siböge* 'awl' developed from earlier **čimegen* and **sibege* due to the labial consonant. The unrounded form **čimegen* is reflected by Middle Mongol (Muqaddimat) *čimegen*, and a variant **čemegen* seems to survive in Buriat *semgen*. The 'labialisation' explanation would also apply to CM **sirbösün* 'tendon' (where the third syllable vowel is not **e*) which may have developed from **sirbesün*.

Trisyllabic stems with **o* after **ï* are rare. In some cases **o* may actually be long **o:* which has developed from an earlier complex **ua*. CM **sïrgoljïn* 'ant' from which Kalm *šorɣlǰn* derives, appears to be shortened from (**sïrgo:lǰïn* <) **sïrgualǰïn*. The long *o:* is reflected by Khalkha, Buriat, and Eastern Yugur. Cf. **sïroï* < CM **sïruaï* 'earth'. CM **nïdonï* 'last year' also has a long vowel, at least in Dagur and Mongghul, which suggests that it may have developed from an earlier **nïduanï*.[76] A word in which *o:* certainly developed from an original complex vowel **ua* is Ordos *ilo:* 'fly' from **hïlua*; Dag *xila:*, as well as the forms in the three central standard languages developed from an assimilated form **hïlaa* < **hïlua*. This is how the sequence **ua* develops when the vowel of the preceding syllable is **a* or **u*.[77] Likewise the sequence **üe* in front words is assimilated to **ee* after a first syllable with **e* or **ü*.

In 'Proto Shirongol' **kïtoga* < **kïtuga* 'knife' the **o* is the result of lowering of **u* due to the following **a*.

2.5.4. Vowel distribution

The positions where vowels are admitted are mainly determined by restrictions on syllable structure (see 2.3.). Which vowels are admitted in these positions is restricted by vowel harmony in that all vowels within one word have to belong to the same vowel class.

The back vowels **a*, **ï*, **u*, and the front vowels **e*, **i*, and **ü* can occur in first and non-first syllables. As seen above, the vowels **o* and **ö* were largely restricted to the first syllable. The smaller subsystem of non-first syllables may be an indication for initial accent, at least in the period when this distribution of the vowels was established.

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[76] If this is correct, this word can hardly be a compound containing **hon* 'year'.
[77] With the exception of Khamnigan, where **ua* has resulted in *o:*.

Examples for admissible CM vowel sequences:

aCa	*aman*	mouth
aCï	*amïn*	life
aCu	*amu*	rice
eCe	*ere*	man
eCi	*eri-*	to look for
eCü	*ebüdüg*	knee
ïCa	*ïlga-*	to choose
ïCï	*čïkï-*	to stuff into
ïCo	*sïro*	spit (see discussion next paragraph)
ïCu	*nïsun*	snot
iCe	*ire-*	to come
iCi	*ilbi-*	to rub
iCö	*čidkör*	demon (see discussion next paragraph)
iCü	*nidün*	eye
oCa	*ora-*	to enter
oCï	*morïn*	horse
oCu	*modun*	wood
öCe	*öre*	pit of the stomach
öCi	*öri*	debt
öCü	*sölsün*	gall bladder
uCa	*uda-*	to be late
uCï	*urï-*	to call
uCu	*urus-*	to flow
üCe	*büse*	belt
üCi	*büri*	every
üCü	*ülü*	not

There is no evidence for the existence of sequences *aCo, *eCö, *uCo,* and *üCö.*[78] The sequences *oCo* and *öCö* probably only occur as secondary developments of *oCa* and *öCe* due to vowel harmony.

  Longer words follow the same rules. Since there are suffixes with *a/*e, *ï/*i,* and *u/*ü* which can be attached to disyllabic stems it is quite easy to obtain trisyllables. Many of the following examples are not monomorphemic. Apart from *o/*ö* beyond the first syllable, most of the sequences for which no example is given can occur in derived or inflected forms.

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[78] Middle Mongol (HY) *edöe* 'now' involves the complex vowel *öe.*

a-a-a	**asara-* 'raise', **halagan* 'palm of the hand'
a-a-ï	**adalï* 'same', **kaltarï-* 'slip'
a-a-u	**gadasun* 'peg', **nagaču* 'uncle'
a-ï-a	**ajïrga* 'stallion', **hanïska* 'eyelid'
a-ï-u	**kabïsun* 'rib', **kalïsun* 'thin skin'
a-u-a	**haluka* 'mallet', **kalbuga* 'spoon'
a-u-u	**amusun* 'porridge'
e-e-e	**setere-* 'break', **tebene* 'large needle'
e-e-i	**egeči* 'sister', **teberi-* 'embrace'
e-e-ü	**esergü* 'opposite', **gedesün* 'entrails'
e-i-e	**berigen* 'sister-in-law', **ečige* 'father'
e-i-ü	**belbisün* 'widow', **debiskü* 'mattress'
e-ü-e	**emüne* 'front', **erüke* 'skylight'
e-ü-ü	**ebüdüg* 'knee', **emüdün* 'trousers'
ï-a-a	**sïnaga* 'scoop'
ï-a-ï	**sïraljïn* 'wormwood'
ï-a-u	**jïgasun* 'fish', **kïlgasun* 'coarse hair'
ï-o-ï	**nïdonï* (?) 'last year'
ï-u-a	**kïtuga* (~ **kïtugaï*) 'knife', **nïdurga* 'fist'
ï-u-u	**nïgursun* 'spinal marrow', **nïlbusun* 'tears'
i-e-e	**simtere-* 'melt'
i-e-i	**siberi* 'foot sweat'
i-i-e	**bisire-* 'believe'
i-ö-e	**čimögen* (?) 'marrow', **siböge* (?) 'awl'
i-ü-e	**sidüleŋ* 'two-year-old (sheep)'
i-ü-ü	**ničügün* 'naked', **silüsün* 'saliva'
o-a-a	**dotana* 'inside', **oŋgača* 'trough'
o-a-ï	**boganï* 'low'
o-a-u	**olasun* 'hemp'
o-ï-u	**sormïsun* or **sormusun* 'eyelash'
ö-e-e	**bödene* 'quail', **öŋgere-* 'to pass by'
ö-e-i	**dörbeljin* 'squarish', **höŋkeri-* 'to roll'
ö-e-ü	**kölesün* 'sweat'
ö-i-e	**könjile* 'blanket'
ö-i-ü	**körisün* 'crust'
ö-ü-e	**öčügedür* 'yesterday'
u-a-a	**huraka* 'lasso', **ukana* (~ **ukuna*) 'billy-goat'
u-a-ï	**gurbaljïn* 'triangular'
u-a-u	**hutasun* 'thread', **kudaldu-* 'to trade'
u-ï-a	**kubïra-* 'to change', **kurïgan* (~ **kuragan*) 'lamb'
u-ï-u	**urïdu* 'before'

u-u-a	*kugura-* 'to break', *sundula-* 'to ride with passenger'			
u-u-ï	*čuburï-* 'to leak'			
u-u-u	*gudusun* 'boots', *kulusun* 'reed'			
ü-e-e	*hünegen* 'fox', *jüreken* 'heart'			
ü-e-i	*hümeri-* 'to contract', *üdesi* 'evening'			
ü-e-ü	*hünesün* 'ashes'; *sünesün* 'soul'			
ü-i-e	*üliger* 'tale'			
ü-ü-i	*büdüri-* 'to stumble'			
ü-ü-ü	*ünügün* 'kid goat', *hütügün* 'vulva'			

The complex vowels can occur word-initially, medially (predominantly in the first vowel slot) and finally. However, complex vowels starting with *ï* and *i* do not occur initially (which follows from the analysis of *y*). Examples:

aï	*aïl*	*kaïčï*	*dalaï*	village; scissors; sea
ei	*ein*	*heil-*	*nekei*	like this; leave; fur
au	*aula*	*bau-*	*jalau*	mountain; descend; young
eü	*eüs-*	*neü-*	*bileü*	arise; migrate; whetstone
ïa	---	*nïa-*	*arïa*	glue; molar
ie	---	*siesün*	*kerie*	pee; crow
ïu	---	*nïu-*	*karïu*	hide; answer
iü	---	*siü-*	*seriün*	strain; cool
oï	*oïra*	*hoï*	*sïroï*	near; forest; earth
uï	*uïla-*	*huïtan*	*muruï*	cry; narrow; crooked
üi	*üile*	*büile*	*tedüi*	work; gums; that much

The rare complex vowel *öi* can be found medially, as in *köiten* 'cold'. The QG languages do not provide additional information.

   The complex vowels *ua* and *üe* seem to appear only in non-first slots, while *oa* and *öe* are mostly found in first slots, and in non-first slots after *ï* and *i* of the first syllable (see 2.5.3.). In non-derived stems the two sets are complementary and never in opposition, and it would be justified to use a single notation for both. Complex vowels *ïo* and *iö* are conspicuously absent from the system, although *ïCo* and *iCö* sequences are possible.

2.5.5. Alternations in simple vowels

There are numerous cases of alternation between vowels. The words concerned do not necessarily vary within individual languages, but rather the different languages suggest different reconstruction forms. The distribution of the variants is such that it is not always possible to decide which of the forms is the original one.

   In case of alternation *a* ~ *o* and *e* ~ *ö* in the first syllable, the rounded alternant is normally the secondary one, cf. *tamu-* ~ *tomu-* 'to twist' (see 2.3.4.),

*ergü- > *örgü-/*ürgü- 'to lift' (see 3.3.4.). Middle Mongol developments in non-first syllables, such as *ǰobalaŋ > *ǰobolaŋ 'suffering' and *bödene > *bödöne 'quail', are the result of the emergence of rounding harmony, which is not reflected in the CM reconstructions here.

As to the alternations that are independent of vowel harmony, two general observations can be made. Firstly, alternations between rounded and unrounded vowels, both in the first and second vowel slots are caused by the consonant environment, usually a labial consonant preceding the affected vowel. Secondly, many alternations occur in the middle vowel of trisyllables, which is unaccented in all modern languages, and may have been easily influenced by the vowels of the preceding or following syllable.

Alternations *ï ~ *u and *i ~ *ü in the first syllable: *bïsï ~ *busï 'not, other', *bisire- ~ *büsire- 'to believe', *bïrau ~ *burau 'calf'. The alternation *hïǰaur ~ *huǰaur 'root' could also be due to the consonant environment, given the fact that the forms with *h- may go back to PM *pïǰaur or *puǰaur.

Alternations *ï ~ *u and *i ~ *ü in non-first syllables: *debis- ~ *debüs- 'to spread', *kabïd- ~ *kabud- 'to swell', *kabïrga ~ *kaburga 'rib'.

Alternations *a ~ *u and *e ~ *ü in the second vowel slot of trisyllables. In some words which display such variations, e.g. *čïbagan ~ *čïbugan 'jujube', the middle vowel is preceded by a labial consonant, which suggests that one variant has developed from the other by means of assimilation or dissimilation.

In other words with *a ~ *u variations there is no labial consonant in the immediate vicinity. Examples: *bulagan ~ *bulugan 'sable', *ukana ~ *ukuna 'billy-goat', *sundala- ~ *sundula- 'to ride with a passenger'. In these cases the middle vowel seems to adapt to the preceding (rounded) and following (unrounded) vowel alternately. Some modern languages, notably Ordos, feature many variations of this kind. This means that the Ordos form of such items is not decisive in determining which of the variants documented in other languages represents the original pronunciation.

Alternations *a ~ *ï and *e ~ *i in the second vowel slot of trisyllables: *arasun ~ *arïsun 'skin', *halagan ~ *halïgan 'palm of the hand', *kuragan ~ *kurïgan 'lamb', *ǰulǰagan ~ *ǰulǰïgan 'young of an animal', *gölige ~ *gölege (> *gölöge) or *gölige ~ *gölüge 'pup', *küregen ~ *kürigen 'brother-in-law'.

Generally, there seems to be no means to determine which variant is older. Moreover, since many 'middle' vowels of trisyllables have been lost in all or nearly all modern languages, it is difficult to establish from which variant each modern form has developed. In pairs of variants such as *halagan ~ *halïgan 'palm of the hand' it is most likely that the former is a secondary assimilated form of the latter, as the appearance of the *ï could not be explained.

Where a Turkic cognate exists, it may support one of the Mongolic variants as the original one. In the case of CM *kuragan ~ *kurïgan 'lamb', its Turkic counterpart *kuzï suggests that *kurïgan is older. In the case of CM *gölige ~ *gölege 'pup', the assumed Turkic cognate *kö:šek 'camel foal', if indeed related, would suggest that *gölege is original.

Some alternations *ï ~ *u and *ï ~ *a probably stem from the PM period. In some words an original vowel alternation has led to different consonants in the modern forms: cf. CM *andasun ~ *anǰïsun (PM *andïsun) 'plough'.

2.5.6. Assimilation of complex vowels

The assimilation of the first element of the complex vowels starting with *ï/*i and *u/*ü had already started in Middle Mongol (cf. 3.13.5.). The distribution of modern variant forms confirms that some variation must have existed already at an early stage. One common type of variation involves an alternation between complex and double vowel, as in:

*arïa > *araa	tusk, molar
*dolïa- > *dolaa-	to lick
*horïa- > *horaa-	to wind
*kanïa- > *kanaa-	to cough
*karïa- > *karaa-	to scold
*ǰarïa > *ǰaraa	hedgehog

In such cases it must be assumed that the variant with the complex vowel is the older. These variants cannot be summarised in a simple sound law. Some words display assimilated complex vowels in many languages, others in fewer. Complex vowels starting with *i/*ï are preserved relatively often in Buriat and Dagur, and hardly ever in Khalkha, Kalmuck, Baoan, and Eastern Yugur. However there are exceptions to this pattern. For instance the long vowels in the following Dagur words all result from complex vowels whose *ï/*i element was assimilated, so that the preceding consonant was not palatalised: *dəlu: < *deliün* 'spleen', *sə:- < *sie-* 'to urinate', *xinə:d < *hinie.dün* 'joke', *nɔ:- < *nïu-* 'to hide', *gasu:n < *gasïun* 'bitter', *gəsu: < *gesiün* 'branch', *kɔsɔ: < *kosïun* 'beak', *su:- < *siü-* 'to scoop up'.

    A regional assimilation typical of the QG languages is *taqa: < *takaa* 'chicken', in which *k resulted in uvular q. In Kalmuck we find the form *taka:* with velar k, due to the fact that the *ï element of the complex vowel had become palatal i before the contraction into *aa occurred.

    For other cases where some languages reflect diphthongs, and others assimilated vowels, see *ebčeün ~ *ebčiün* 'chest', *hebsie-* 'to sneeze', *kiurasun ~ *kuurasun* 'nit'. An early example, with divergent consonant development already documented in the Middle Mongol period, is *bïlduur ~ *bïlǰüur* 'small bird'.

    For metathesis of diphthong elements see 3.13.6. and for its effect on the development of *s see 4.6.1.

2.6. Issues related to the reconstruction of the consonants

2.6.1. Positional distribution of the Common Mongolic consonants

The following examples illustrate the positional distribution of the consonant phonemes (for translations see the comparative supplement).

phoneme	initial	intervocalic	postcons.	final	precons.
*b	*baa-	*kabar	*humba-	*jöb	*ebde-
*d	*debte-	*kuda	*kölde-	*subud	*kudku-
*ǰ	*ǰeün	*gaǰar	*negǰi-	-	-
*g	*gal	*nagaču	*ǰalgï-	*ög-	*bagta-
*t	*tabïn	*sïta-	*malta-	-	-
*č	*čïna-	*kačar	*kamčuï	-	-
*k	*kalaun	*čïkïn	*sedkil	-	-
*m	*maŋlaï	*sumun	*ölmei	*sam	*kïmda
*n	*naran	*hünesün	*sarnï-[79]	*ken	*sonǰï-
*ŋ	-	-	-	*düüreŋ	*taŋlaï
*s	*sara	*časun	*sölsün	*bos-	*öskel-
*š	-	*kašaŋ	-	*koš	*auškï
*l	-	*kelen	*nemle-	*köl	*talbï-
*r	-	*kura	-	*sur	*marta-
*y	*yosun	*bayas-	-	-	-
*h	*harban	-	-	-	-

Some gaps in the system follow from choices made in the analysis of the phoneme system. The consonant strength opposition is neutralised in final positions. I will follow the convention to reconstruct the weak consonant in these positions.[80]

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[79] *sarnï- 'to scatter' is found in central Mongolic. No old stems with postconsonantal -n- seem to survive in the QG languages.

[80] In Middle Mongol sources syllable-final -t, -q, -k can be seen, and in central Mongolic and Eastern Yugur preconsonantal plosives can be aspirated.

y-like elements do occur elsewhere, but these are interpreted as diphthong elements *ï* or *i*, see 2.6.5. below.

There are some traces of preconsonantal *č* (or *ǰ?*) in Middle Mongol; in such cases the second cluster element is always *k*. *š*- occurs in other positions as an allophone of *s* preceding *ï/*i*. In loanwords it can also be observed in other vowel environments, e.g. *šabï* 'disciple', *šatu* 'stairs' (not listed here). Initial *l*- is also found in old loanwords such as *lausa* 'mule' and *loŋka* 'bottle'.

There are some traces of intervocalic *h* in Middle Mongol, see 2.6.6. below.

For the attested consonant sequences (clusters) see 2.6.7. below.

2.6.2. Status of the uvular plosives *q* and *ġ*

The uvular pronunciations of the phonemes /*k*/ and /*g*/ originally occurred with the back vowels *a*, *o*, *u*, as well as with *ï*, whose pronunciation has varied, but appears to have been a back vowel in some periods and languages. The velar pronunciations *k* and *g* occurred with the front vowels *e*, *i*, *ö*, and *ü*. This distribution shifted in later language stages, where *ï* usually merged with original *i*. In many words, however, *ï* had been assimilated to *a* or *u* of the following syllable ('prebreaking') at an early stage, before its pronunciation could merge with *i*. As a consequence, the uvular pronunciation of */k*/ and */g/* was maintained in these assimilated stems. E.g. Kh *xums* < *kïmusun* 'nail'.

Despite the fact that the two articulations were predictable and phonologically irrelevant, the uvular and velar allophones can be easily distinguished in the old sources, and the distinction has in some way been preserved in most modern languages. In some languages the two allophones of */k/* have undergone separate developments. In Eastern Yugur and Shirongol (Dongxiang excluded) only the uvular allophone has developed a fricative pronunciation, whereas the velar allophone remained a plosive. This situation is also found in Kalmuck, whereas in standard Khalkha and Buriat the allophones of *k* have merged into a fricative *x* in all vowel environments.[81] In Eastern Yugur and Shirongol *k* and *q* are best considered phonemes (of different weight according to dialect), although minimal pairs are not numerous. Vowel mergers have made it impossible to synchronically predict the choice for *k* or *q* from the adjacent vowels. Cf. EYu *čəqə-* < *čïkï-* 'to stuff into', but *škən* < *hekin* 'head'; MgrM *ko-* < *köe-* 'to swell', but *qo-* < *koa-* 'to dry'.[82]

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[81] In Ordos the velar allophone also mostly retained a plosive pronunciation, while the uvular allophone became a fricative. However, initial *q*- underwent dissimilatory weakening to *ġ*-, and as a consequence escaped fricativisation, when the second syllable started with a strong consonant. In Chakhar both allophones of strong *k* have become fricatives, also with the exception of initials that were weakened preceding a strong consonant starting the second syllable.

[82] In Kalmuck /*x*/ (from uvular *q*) and /*k*/ (from velar *k*) also owe their phoneme status to vowel shifts (contractions and palatalisations). Cf. Kalm *kaar-* < *kʸaar-* < *kïara-* 'to be annihilated', *xäär-* < *kaarʸ-* < *kaarï-* 'to cauterize'. The *k*- of the former is due to the first element of the original diphthong. The second word retains the back *x*- (< *q*) in spite of the vowel fronting.

Phonemic status of *k* and *q*, and of their weak counterparts *g and ġ*, was further strengthened by an influx of words from Chinese and/or Tibetan, because velar consonants can be accompanied by back vowels in these languages.

2.6.3. Status of *ŋ*

The phoneme /ŋ/ only occurred preceding another consonant or a pause. Occurrences of *ŋ* preceding a guttural could be explained as an allophonic pronunciation of */n/*, but *ŋ* also occurs before other consonants and in final position.[83] In spite of its limited occurrence, it is impossible to dismiss it as an allophone.

2.6.4. Status of *š*

In most modern languages *š* is a phoneme, e.g. Dag *šar* 'yellow' ≠ *sar* 'month' (from *sïra* and *sara*, respectively). Historically it has various origins. It stems from allophonic realisations of */s/* and */č/* in native words, and was strengthened by numerous loanwords from Turkic and Chinese containing *š* and similar sounds.

In earlier Mongolic, most occurrences of *š-* are allophonic realisations of */s/* before *i* or *ï*. After vowel assimilations (especially the so-called 'palatal breaking' in the first syllable) made the original *i* or *ï* disappear, the *š-* was left intact, so that it can now be found before all vowels. The fact that Moghol seems to preserve the pronunciation *s* before *i* in original front-vocalic words[84], suggests that this development was not completed by the Common Mongolic period (see 4.6.1.). Therefore the reconstruction forms are written with *si/*sï* here.

There are some cases of *š-* which cannot be proven to have arisen like this. Some of these may be of foreign origin, others may have had older forms with *i/*ï* which merely have not been recorded so far. This applies to words like *šaldaŋ* 'bare', *šulu-* 'to pick meat from a bone', which could go back to earlier forms *sïldaŋ* and *sïlu-*.

Preceding *-k-* some instances of *-s-* and *-š-* in the modern languages apparently go back to *č* (cf. Poppe 1955:113). This is clear from incidental survivals of preconsonantal *-č-* in Middle Mongol, for which see *hečke-* (*hedke-*) 'to cut', *gečki-* (*geški-*) 'to step on'.

Most cases of final *š* are found in ancient loanwords from Turkic with syllable-final *š* or *č*. Examples include (from -*š*) *kaš* 'jade', *koš* 'double', *ǰemiš* 'fruit', *tuš* 'opposite', and (from -*č*) *öš* 'revenge', *köküšken* 'pigeon', *köške* 'baggage (honorific)'.[85] In modern languages the final *š* has often merged with *-s*.
Medial *š* can also be found in words of Turkic origin, e.g. *kašaŋ* 'lazy' and *tušaa* 'game trap'.[86]

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[83] Interestingly, Turkic medial and final *ŋ* is typically represented by intervocalic *-ŋg-* in old loanwords in Mongolic. Cf. *meŋge* 'birthmark' and *mïŋgan* 'thousand'.

[84] The Middle Mongol sources in Arabic script are ambiguous, as many words are recorded there both with *s* and *š* spellings.

[85] Cf. also *esige* 'kid (young goat)', related to Turkic *ečkü*. In this case Mongolic has dissolved the consonant cluster.

[86] Turkic *köšige* 'curtain' can be analysed as *kösige* in Mongolic.

2.6.5. Status of *y

The phoneme */y/ occured in syllable-initial positions, predominantly in intervocalic position, and less frequently in word-initial position. It does not occur in clusters with another consonant or word-finally.

The relatively rare initial *y- could alternatively be analysed as the first element of a complex vowel (diphthong). As such vowel sequences do exist in Mongolic, reconstructions *ïasun 'bone', *iersün 'nine', instead of conventional *yasun, *yersün appear defensible. However, applying the same treatment to *yosun 'custom' would require a sequence *ïo which is not otherwise known. Furthermore, the existence of intervocalic -y- makes it impossible to eliminate the phoneme *y from the inventory altogether. It is undesirable to replace conventional *bayan 'rich' and *beye 'body' by reconstructions *baïan and *beie, as this new analysis would also require the introduction of an otherwise unknown type of vowel sequence.

Note that the last element of the sequences like -aï and -ei, cannot be analysed as the consonant y, since words ending in such complex vowels take suffix variants with connective consonants, like other words ending in a vowel.

2.6.6. CM *h and PM *p

The initial *h- reconstructed for Common Mongolic is well documented in Middle Mongol and preserved in Dagur, Eastern Yugur, and the Shirongol subgroup (see 4.13.). The QG languages do not provide evidence for CM *h- in other positions. Middle Mongol seem to preserve some erratic instances of intervocalic -h- < -p-, some of which were borrowed by other languages.

Initial *h- is assumed to have developed from PM *p-.[87] This origin is supported by Tungusic cognates, and by the fact that this is a common development throughout the world. That intervocalic -h- also developed from earlier *-p- is supported by Turkic. The fact that initial f- can be found before rounded vowels in Mongghul, Baoan, Kangjia, and Dongxiang is not a supportive argument for earlier *-p-, because f- can be a recent conditioned development from *h- rather than conditioned relics from earlier *p-. This seems to be supported by the fact that secondary h- triggered by a following strong consonant can also result in f- with labial vowels, as in Dgx fugu- < *ükü- 'to die', funtura- < *untura- 'to sleep'.

The development of *p at the beginning of syllables can be summarised as follows:

stage	initial	intervocalic	postconsonantal
PM	*p-	*-p-	*-p-
CM	*h-	*-h- > Ø	*-p- > *-b-
MMo	*h-	Ø (occasionally *-h-)	*-b-

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[87] Rozycki's (1994) suggestion that h- may represent both earlier *p- and an independent primary *h- will not be discussed here. Initial h- occurs frequently enough for this dual origin to be possible, but the QG languages do not provide additional evidence.

Incidental relics of postconsonantal -*p*- are found in Dagur (for which see below).[88] Judging from Turkic cognates, final and preconsonantal *p* merged with *b* when it retained its syllable-final position, and was lost when it became intervocalic due to an additional vowel after *p*.[89] The following Middle Mongol forms with relic -*h*- have Turkic cognates with -*p*-:[90]

CM	MMo	PM	CT	
köe	Muq *köhe*	*köhe < *köpe*	*küpe*	small ring
köe-	IM *köhe-*	*köhe- < *köpe-*	*köp-*	to swell, to foam
kuur	RH *quhur-*	*kuhur < *kupur*	*kopuz*	stringed instrument
ǰaar(ï)	HY *ǰihar*	*ǰïhar(ï) < *ǰïpar(ï)*	*yïpar*	musk (deer)[91]
ǰiiin (??)	HY *ǰihi'in*	*ǰihiin < *ǰipiin*	*yipgin*	purple[92]
oa	ZY *uha*	*oha < *opa*	*opa*	powder

This same development seems to have taken place in the following sets of words, for which the evidence is less complete than for the examples mentioned above. In the following set the -*h*- is also documented, but in the absence of a Turkic cognate an earlier -*p*- cannot be confirmed. In case of *keeli* 'belly' there are forms with a labial in some modern Mongolic languages, with a parallel in Manchu *kefeli* 'belly'.

CM	MMo	PM	
deere	Muq *dehere*	*dehere ?< *depere*	above, on
huuta	HY *huhuta* (?*huquta*)	*huhuta ?< *huputa ?< *puputa*	bag[93]
keeli	LV *keheli*	*keheli ?< *kepeli*	bribe
keeli	RH *keheli*	*keheli ?< *kepeli*	belly
keer(e)	LV *keheriki, keheri:n*	*keher(e) ?< *keper(e)*	steppe
keer	Muq *keher* (?*kehir*)	*keher ?< *keper*	brown[94]

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[88] I am not aware of supporting evidence from Middle Mongol.

[89] The background of these different treatments is unknown. In some words Mongolic may preserve vowels that also existed in early Turkic but were already lost in the eraliest documented Old Turkic. However, some vowels may have been inserted by Mongolic in order to dissolve inadmissible clusters like -*pl*- and -*pr*-.

[90] While the -*h*- in the quoted Middle Mongol sources is of historical importance, -*h*- is occasionally used in the Afghan Zirni manuscript as a graphic device, possibly in order to distinguish *e* from *i*. Examples: <*k*ⁱ*hž*ᵃ*h*> for *keže:* 'when', <*g*ⁱ*hr*> for *ger* 'house', <*g*ᵃ*hl*ⁱ> for *geli-* 'to drive', <*n*ⁱ*hr*ᵃ*h*> for *nere-* 'to put a pot on the trivet', <*s*ⁱ*hir*> for *se:r* 'back'.

[91] Alternatively the HY form may be a mistranscription from Written Mongol spelling *ǰiɣar*. Cf. *huhuta* below.

[92] The CM reconstruction is inferred from the Middle Mongol form, as the word has become rare in the modern languages. It is unclear how such a vowel sequence should have developed. Perhaps the form in the central languages should have been *ǰi:n < *ǰiin*. Ord *ǰigin* with -*g*- seems to be a reading pronunciation.

[93] The HY form *huhuta* may be a mistranscription from the Written Mongol spelling *uɣuta*. Cf. *ǰihar* above.

[94] Cf. Persian *kahar* and (Middle) Korean *kəhar*.

The fact that this MMo -h- never corresponds to WM -g/ɣ- shows that it is not inspired by WM spelling. In the following words no Mongolic stage with -h- is documented. Note that in some of the Turkic cognates, the -p- was not intervocalic.[95]

CM	PM	CT	
*siür-	*sihür- < *sipür-	*sipür-	to sweep
*taa-	*taha- < *tapa-	*tap-	to guess; CT to find
*taï-	*tahï- < *tapï-	*tap-	to worship
*toïg	*tohïg < *topïg	*topïk	kneecap; ankle
*jaïdaŋ	*jahïdaŋ < *japïdaŋ	*yapï:tak (?)	without saddle
*köerge	*köherge < *köperge	*köprüg	bridge
*toarag	*toharag < *toparag	*toprak	dust; CT earth
*taala-	*tahala- < *tapala-	*tapla-	to like[96]

Other words that also lost *-h- < *-p- include *daagan 'foal', *daakï 'matted wool', *kaïčï 'scissors', *kaïrčag ~ *kaurčag 'chest, box'.

The cognate pairs in which Turkic p corresponds with Ø in modern Mongolic, and occasionally with h in Middle Mongol can be considered to belong to the oldest contact layer. Some foreign words with -p- have entered Mongolic twice, leading to doublets with different phonetic solutions. Examples include Turkic (from Iranian?) *kepit 'shop', which is represented in Mongolic by *keid and *kebid. Turkic *toprak 'dust, earth' is represented by *toarag mentioned above as well as by *tobarag. The forms with -b- can be viewed as more recent adoptions.

Alternations between *-h- or Ø on the one hand and *-b- on the other can also be found in native stems. *haakaï 'spider',*hi(h)ee- 'to protect', and *höeljin 'hoopoe' are the best documented cases. *höeljin ~ *böeljin ~ *höbeljin ~ *böbeljin 'hoopoe' owes some of its many variant forms to its obviously onomatopoeic nature, and some to the interaction between spoken and written forms. Nevertheless most forms could ultimately go back to a Proto Mongolic form *pöpeljin. The other two words are not of onomatopoeic origin. CM *haakaï ~ *habakaï 'spider' seems to reflect an earlier (PM) alternation *papakaï ~ *pabakaï. Likewise CM *hi(h)ee- ~ *hibee- 'to protect' seems to have developed from PM *pipee- ~ *pibee-. In these words the variant with two p's may be the original, in which case the forms with one p and one b may be the result of dissimilation; the existence of occasional (unexplained) fluctuations between *p and *b is no stranger than those between the other strong and weak counterparts: *t ~ *d, *k ~ *g and *č ~ *ǰ. Dissimilation also does not account for other b ~ Ø alternations, such as *deel ~ *debel 'garment'. For the elided intervocalic consonants see further Janhunen 1999, 2003b.

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[95] In some cases Mongolic may preserve ancient vowels that were lost in Turkic.
[96] Written Mongol *tab* 'comfort' and *tabla-* 'to be content' may represent more recent loans from CT *tap and *tapla-.

Dagur seems to preserve some cases of postconsonantal PM *-p-, whereas this has merged with *-b- elsewhere. In the unique case of *čolban < *čolpan 'Venus', the Dagur -p- corresponds to postconsonantal -p- of Turkic.

CM	PM	Dagur	CT	
*arbaï	*arpaï	-	*arpa	barley
*čolban~ *čolman	*čolpan	čɔlpun	*čolpan	Venus
*čarba-	*čarpa-	čarp-	-	to wag the tail[97]
*čölbe- ~ *čölme-	*čölpe-	čump-	-	to pick
*elbeg	*elpeg	əlpur	-	abundant
*humba-	*humpa- ?< *pumpa-	xumpa:-	-	to swim
*hurba-	*hurpa- ?< *purpa-	xwarp.a:	-	to turn

The above could be an argument to place Dagur outside of Common Mongolic, or to include postconsonantal -p- in the CM reconstructions. but as in the case of initial *h- confirmed by a single language only, the evidence is not conclusive. The case for postconsonantal *p* will be discussed under the indvidual entries in the comparative supplement.

Not all Dagur words in which -p- would be expected on the basis of a Turkic cognate do indeed contain it, cf. Dag *delbur* < *delbiür 'fan', in spite of CT *yelpi- 'to fan', and Dag *kurb^w* < *körbe 'lamb', in spite of CT *körpe 'newborn lamb'. However, given the central Mongolic influence on Dagur, the appearance in a Dagur word of postconsonantal -b- rather than expected -p-, is not strong evidence that -p- was never there.

The QG languages do not provide additional evidence. Medial -p- in Monguoric is apparently due to a strong consonant following it, as in MgrM *niŋpuʒï* < *nïlbusun 'tears' (which is contradicted by the Dagur form *ñɔmbus*). The irregular Eastern Yugur form *lepə-* 'to fan' is more likely to be a recent borrowing from Turkic *yelpi- than an aberrant form of Mongolic *delbi-.

2.6.7. Relics of the sequences *dï/*di and *tï/*ti

When preceding *ï/*i (and complex vowels starting with that element) PM *d and *t merged with *ǰ and *č, so that in CM *d and *t only occur preceding the remaining six vowels.

Dagur occasionally has *d^y* and *t^y* instead of expected *ǰ* and *č*. Examples include *at^y-* 'to load', *at^ye:* 'load', *ad^yrəɣ ~ aǰrəɣ* 'stallion', *dilɔ: ~ ǰilɔ:* 'reins'. On the basis of the other languages these words can be reconstructed for CM as *ačï-*, *ačïan*, *aǰïrga*, *ǰïloa*. The majority of words with CM *ǰ* and *č* also have *ǰ* and *č* in Dagur (for examples see the comparative supplement). The Dagur forms with *d^y*

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[97] The Dagur word may be related to CM *čarba-* 'to move the limbs about', or alternatively to *sïrba-* 'to wag the tail'. The former seems more likely, given that Dagur also has an extended form *šarba:lǰ-* E231, suggesting *sïrbalǰï-*, clearly derived from *sïrba-*.

and t^y may be reborrowed from, or influenced by, northern Tungusic, where this earlier pronunciation was generally preserved.[98] At this stage the Dagur forms are too rare to constitute an argument for a separate status of Dagur within Mongolic. The CM forms of the Dagur words with d^y and t^y have not been adapted to reflect this deviation.

In some words, (complex vowels starting with) *ï/*i were regionally assimilated, leading to variant forms in the modern languages. In case of *bïldïur (> *bïljïur) ~ *bïlduur 'songbird', the former variant survives in most QG languages, the latter in Dagur. In case of *kadïar (> *kajaar) ~ *kadaar 'horse's bit', the former is mostly found in the central languages, the latter in the QG languages and Moghol. The distribution of such variants (different for each lexeme) is often useful for classification purposes. Also compare the development of *anjïsun 'plough', *gadaa 'outside', *dotaa 'inside'.

2.7. Combinatory restrictions of the Common Mongolic consonants

For various historical reasons some sequences of consonants or of consonants and vowels are not allowed. CM *d and *t do not occur preceding *ï/*i, because they merged with *j and *č in this vowel context. Initial *b does not occur when the first syllable ends in a nasal, as *b- has merged with *m- in this environment. *rVr* sequences tend to be avoided.

All original Mongolic consonant clusters consist of no more than two elements and are restricted to positions in the middle of words on syllabic boundaries, that is, the two elements of a cluster belong to different syllables. The term 'clusters' is used here as shorthand for the strictly more appropriate term 'consonant sequences'. Apart from the abovementioned general restrictions, there are further specific limitations to the distribution of several individual consonants.

As seen above not all consonants are allowed to occur preconsonantally or postconsonantally, and even consonants that are allowed in these positions do not necessarily occur in all conceivable combinations. For instance *s is allowed as a first cluster element and *g as a second cluster element, but the sequence *-sg- does not seem to occur.

There are also morphological restrictions, in that some clusters that are phonetically admissible are in practice only found on morpheme boundaries, that is, the second cluster element belongs to a suffix. For instance *b only occurs postconsonantally after *m, *l and *r in stems, but past tenses *ab-ba 'took', *od-ba 'went', *nïs-ba 'flew' were apparently possible.

Some clusters (e.g. *-dm-) are not found in native words. CM *č (or *j?) as a first cluster member was found in Middle Mongol, but it could only be followed by *k. Preconsonantal š was also followed by *k, and in derived stems, by *l.

Preceding *k and *g in monomorphemic stems, *n cannot be distinguished from *ŋ. *ŋ did not occur as a second cluster member. *n is very rare postconsonantally; -mn- and -ŋn- in modern languages stem from *ml and *ŋl. *r did

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[98] d^y and t^y also occur in Tungusic words in Dagur, such as *ardi:* 'thunder', *sarde:* 'old' (from Tungusic *agdï, *sagdı). Dag *d^yallə* 'late' may also be from Tungusic *dılda, although Middle Mongol (SH) has *jilda.*

not occur as a second cluster member. Postconsonantal *l* is very common, but only in derived stems, cases like *maŋlaï* 'forehead' and *taŋlaï* 'palate' seem to involve a petrified formans -*lAI*. Rare clusters occur in *emlig* 'untamed', *saŋmaï (?)* 'forelock'[99], *ödmeg* 'kind of bread'.

CM	b	d	ǰ	g	t	č	k	m	n	s	l
b	b-b	bd	---	---	bt	bč	bk	---	---	b	b-l
d	d-b	d-d	---	---	d-t	d-č	dk	dm	---	d-s?	d-l
g	g-b	gd	gǰ	---	gt	gč	---	---	---	gs	g-l
m	mb	md	mǰ	---	mt	mč	mk	---	---	ms	m-l
n	---	nd	nǰ	ng?	nt	nč	nk?	---	---	n-s?	n-l
ŋ	---	ŋd	ŋǰ	ŋg	ŋ-t	ŋč	ŋk	ŋm	---	ŋs	ŋ-l
s	s-b	---	---	---	s-t	s-č	sk	sm	---	---	s-l
l	lb	ld	lǰ	lg	lt	lč	lk	lm	---	ls	l-l
r	rb	rd	rǰ	rg	rt	rč	rk	rm	rn	rs	r-l

In monomorphemic stems there are no geminates, that is, sequences consisting of twice the same consonant (= 'doubled' or 'long' consonants). Rare double spellings in Written Mongol such as *qudduɣ* 'source', *kkir (gkir)* 'filth' (both Turkic loanwords), and *köbbü-* 'to float' are not reflected in pronunciation and cannot be reconstructed for Common Mongolic. Derived and inflected stems show that these sequences were not considered impossible, e.g. *ed-dü* 'to the goods', *ab-ba* 'took', *köl-lüe* 'with the foot'.

b as a first element:
-bd- : *ebde-* 'to break';
-bt- : *debte-* 'to soak', *dobtul-* 'to rush', *kabtasun* 'plank', *kabturga* 'sack', *kebte-* 'to lie down';
-bč- : *čabčï-* 'to chop', *ebčiün* 'chest', *hïbčau* 'narrow', *köbči* 'bowstring', *kubčasun* 'clothes', *nabčin* 'leaf', *tobčï* 'button';
-bk- : *dabkur* 'double', *ebke-* 'to wrap up', *ǰabka-* 'to lose';
-bs- : *debse* 'saddle cushion', *ebsie-* 'to yawn', *tübsin* 'even', *ǰabsar* 'interval'.

d as a first element:
-dk- : *čïdku-* 'to pour', *čidkör* 'demon', *hadku-* 'to grab', *kadku-* 'to prick', *kudku-* 'to stir', *sedki-* 'to think', *udku-* 'to scoop'; and (partly alternating with *č*, *š*, *s*): *hedke-* 'to cut', *ödken* 'thick';
-dm- : (not in native stems?) *ödme(g)* 'bread, bun'.
g as a first element:
-gd- : *kagda* 'dry grass' (not listed);
-gt- : *agta* 'gelding', *bagta-* 'to sink', *hogtal-* 'to cut', *magta-* 'to praise', *nogta* 'halter', *sogta-* 'to be drunk', *ügtee-* (~ *üdkee-*) 'to uproot';
-gǰ- : *negǰi-* (~ *neŋǰi-*);

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[99] Mentioned under *sančïg* 'hair on the temples' in the comparative supplement.

-gč- : *gagča (~ *gaŋča) 'alone', *nögči- 'to pass';
-gs- : *agsu- 'to borrow', *bögse 'buttocks', *dogsïn 'fierce', *ogsï- 'to vomit', *tegsi 'even'.

*m as a first element:
-mb- : *embüre- 'to collapse', *humba- 'to swim', *nembe- (cf. *nemle-) 'to cover';
-md- : *dumda 'middle', *kïmda 'cheap', *ömdegen 'egg', *umdaas- 'to be thisty', *ǰarïm.dug 'half';
-mt- : *amtan 'taste', *kamtu 'together', *tamtul- 'to smash', *temtel- 'grope';
-mǰ- : *nömǰige 'greasy';
-mč- : *čamča 'shirt', *kamčuï (-n-?) 'sleeve';
-mg- : *nimgen 'thin', *temgü- 'to gather';
-mk- : *emkü- 'to hold in the mouth', *čimki- 'to pinch', *kamkï- 'to close the eyes' (the latter not listed);
-ms- : *amsa- 'to taste', *sarïmsag 'garlic';
-ml- : *emlig 'untamed'.

*n as a first element:
-nd- : *anda 'friend', *ende 'here', *gendü 'male', *köndelen 'horizontal', *kündü 'heavy', *möndür 'hail', *mendü 'tranquil', *öndür 'high', *sïndasun 'tendon', *sundala- 'to share a horse', *ündesün 'root'; cf. also *kondasun and *kondalaï 'buttocks', in which -nd- probably goes back to *-ŋd-);
-nt- : *unta- 'to sleep', *untara- 'to become numb' (perhaps from -mt-);
-nǰ- : *anǰïsun 'plough', *ganǰuga (not listed) 'strap', *könǰile(n) 'blanket';
-nč- : *mončag (not listed) 'tassel', *ǰančï- 'to pound'.

-ng- and -nk- see under -ŋg- and -ŋk- below.

*ŋ as a first element:
-ŋd- : *köŋdei 'hollow';
-ŋt- : *loŋta 'headstall' (see *nogta);
-ŋǰ- : *neŋǰi- (~ *negǰi-) 'to search';
-ŋč- : *gaŋča (~ *gagča) 'alone';
-ŋg- : *aŋgaï- 'to open', *čïŋga 'tight', *daŋgal 'clod', *eŋger 'flap of garment', *hoŋgu- 'to break wind', *hüŋgü- 'to rub', *ǰaŋgï 'knot', *köŋgen 'light', *köreŋge (~ *könerge) 'yeast', *maŋgus 'ogress', *meŋge 'birthmark', *meŋgü 'silver', *mïŋgan 'thousand', *moŋgal 'Mongol', *oŋgača 'trough', *öŋge 'colour', *öŋgere- 'to pass', *solaŋga 'rainbow', *soŋgïna 'onion', *teŋgelig 'axle', *teŋgeri 'sky', *uŋgasun 'wool';
-ŋk- : *haŋka- 'to be thirsty', *höŋkeri- 'to roll';
-ŋs- : *keŋsiün 'burning smell', *kolaŋsa 'smell of sweat', *uŋsï- (-m-?) 'to read'.

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*s as a first element:
-sk- : *aska- 'to sprinkle', *iskire- 'to whistle', *köskele- 'to cut up', *öskel-
         'to kick'; as well as words in -skA such as *eŋeske 'blush', *hanïska
         'eyelash; eyelid', *kömeske 'eyebrow; eyelid'.
-sm- : *tasma 'thong'.

*š as a first element:
-šk- : *auškï 'lungs', *geški- 'to step on', *muškï- 'to twist'.

*l as a first element:
-lb- : -lb-: *belbisün 'widow', *čïlbuur 'martingale', *čïlbö- (~ *čïlmö-) 'to
         pick', *čolban ~ *čolman 'Venus', *delbi- (> *debi-) 'to fan', *elbeg
         'abundant', *ilbi- 'to stroke', *kalbuga 'spoon', *kïlbar 'easy', *kolba-
         'to join', *nïlbusun 'tears', *silbi 'shin', *talbï- (> *tabï-) 'to put',
         *ǰalbarï- 'to beg';
-ld- : *alda 'span', *alda- 'to lose', *bïlduur (~ *bïlǰïur) 'small bird',
         *böldege 'testicle', *elde- 'to tan', *hülde- 'to chase', *ildü 'sword',
         *kölde- 'to freeze', *kömüldürge 'breast strap';
-lt- : *altan 'gold', *bültei- 'to stare', *kaltarï- 'to slip', *malta- 'to dig',
         *möltel- 'to shed';
-lǰ- : *aralǰï- 'to exchange', *bïlǰïur (~ *bïlduur) 'small bird', *böelǰi- 'to
         vomit', *elǰigen 'donkey', *galǰau 'insane', *galǰïr (~ *gïlǰïr)
         'crooked', *haalǰïn 'spider', *sïlǰa 'tick', *sïrgolǰïn 'ant', *ǰulǰaga(n)
         'young animal';
-lč- : *alčaï- 'to spread the legs', *belčier 'pasture', *belčir 'confluence',
         *bulčïrkaï 'gland';
-lg- : *balgasun 'city wall', *bolgan 'every', *elgü- 'to hang', *ïlga- 'to
         choose', *kïlgasun 'coarse hair', *saulga 'bucket', *tulga 'prop',
         *ǰalga- 'to connect', *ǰalgï- 'to swallow', *ǰolga- 'to meet';
-lk- : *halku- 'to step', *mölkü- 'to crawl', *nïlka 'newly-born', *salkïn
         'wind', *talkan 'roasted flour', *tülki- 'to push', *ǰalkau 'lazy';
-lm-: : *ölmei 'instep' (and see under -lb-);
-ls- : *čaalsun (~ *čaarsun) 'paper', *mölsün (?*mölisün) 'ice', *sölsün 'gall
         bladder', *ǰïlsun 'glue'.

*r as a first element:
-rb- : *arbaï 'barley', *herbeekei 'butterfly', *hurba- 'to turn', *karbu- 'to
         shoot', *körbe- 'to roll', *sirbösün 'tendon', *sorbï 'walking cane',
         *tarbagan 'marmot'; and the (segmented) numerals *gurban 'three',
         *dörben 'four', *harban 'ten';
-rd- : *kurdun 'quick';
-rt- : *erte 'early; morning', *hurtu 'long', *(u)marta- 'to forget', *sarta-
         'Muslim';
-rǰ- : *kïrǰaŋ 'perineum', *kürǰe(g) 'spade';
-rč- : *arča 'juniper', *arčï- 'to clean', *burčag 'bean', *kerči- 'to carve';
-rg- : *ajïrga 'stallion', *arga 'method', *burgasun 'willow', *bürge 'flea',
         *büürge 'pommel', *ergi 'bank', *ergü- 'to lift', *esergü 'opposite',

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gorgï 'ring', *hargal* 'cow dung', *hergi-* 'to turn', *irge* 'wether', *irgen* 'people', *horgu-* 'to flee', *hürgü-* 'to be startled', *kïrga-* 'to shear', *kïrgaul* 'pheasant', *kïrguï* 'sparrow-hawk', *korgaljïn* 'lead', *korgasun* 'sheep dung', *köerge* 'bridge', *köerge* 'bellows', *kömüldürge* 'breast strap', *könerge* (~ *köreŋge*) 'yeast', *kudurga* 'crupper', *nïdurga* 'fist', *mörgü-* 'to bow', *örgen* 'broad', *örgesün* 'thorn', *sïrga* 'colour name', *sïurgan* 'storm', *sirgü-* 'to rub', *targun* 'fat', *tergen* 'cart', *urgu-* 'to grow', *ǰïrga-* 'to rejoice', *ǰïrguan* 'six';

-rk- : *berke* 'difficult', *bulčïrkaï* 'gland', *burkan* 'Buddha', *bürkü-* 'to cover', *čïmarkaï* 'temples', *orkï-* 'to throw', *serke* 'castrated billy-goat', *sïrka* 'wound', *tarka-* 'to spread';

-rm- : *čakïrma* 'iris', *kormaï* 'hem', *örmege* 'coarse fabric', *teerme* 'mill', *turma* 'turnip', *ǰarma* 'groats';

-rs- : *boarsag* (?~ *boarčag*) 'kind of bun', *čaarsun* (~ *čaalsun*) 'paper', *gaursun* 'quill', *höersün* 'pus', *kaïrsun* 'scale', *kalïarsun* 'kind of onion', *kïursun* 'nit', *kölersün* 'sweat', *möersün* 'cartilage', *nïgursun* 'spinal marrow'.

In view of the Middle Mongol and modern forms there must have been some early variation in the shapes of the clusters. Early alternations include *m ~ *n preceding *d and *t, where the *n is likely to represent an assimilation, cf. the development of *dumda 'middle', *ömdegen 'egg'. In case of *uŋsï- ~ *umsï- 'to read' the second variant may also be the result of assimilation by the preceding *u. In case of *ŋ ~ *g it seems impossible to say which is the older alternant (cf. *gagča ~ *gaŋča 'alone', *negǰi- ~ *neŋǰi- 'to search').

An alternation *m ~ *mb is suggested by the development of *ham(b)ura- 'to rest', *kam(b)u- 'to gather', *kum(b)ï- 'to fold', *ǰum(b)aran 'ground squirrel'. Alternations *lb ~ *lm and *rb ~ *rm also occur, cf. *čilbö- (~ *čilmö-) 'to pick', *sirbösün ~ *sirmösün 'tendon'.

Some of the cluster alternations čk ~ šk ~ dk that can be documented from Middle Mongol onwards, may ultimately go back to *ǰk.

3. MODERN DEVELOPMENT OF THE CM VOWELS

3.1. Introduction

In the following pages the main developments of each CM vowel will be discussed. Each section will start with the 'default' development, which need not be the most frequent development. The quality of unaccented vowels is rather unstable in the QG languages, and easily influenced by the consonant environment. After the default reflexes the most common conditioned changes will be discussed. Whenever possible the focus will be on correspondences of historical and comparative importance.

In all modern languages the CM vowels underwent several changes, which are correlated to changes in the vowel system of each language as a whole. Such changes often affect the number of vowel phonemes, and modify or undermine vowel harmony. On the level of the lexeme such changes affect both the quantity and quality of the vowels.

In all three peripheries we find that the original vocalism is simplified. In general the distinction between *ï and *i is (all but) absent, and the number of phonemic rounded vowel qualities was reduced. The Dagur system and the Shirongol system are the result of different routes of simplification. In Dagur the front rounded vowels merged into *u*, the back ones into *ɔ*.[100] In Shirongol (Kangjia excepted) *ö and *ü merged with their respective back counterpart.

Loss of productive vowel harmony in the Shirongol languages removed one of the factors that tend to block or slow down vowel shifts, as well as restrict the changes in individual words.

Before discussing the modern developments of each CM vowel phoneme, some general remarks are due. Although most vowel shifts in the QG languages do not constitute autonomous sound laws, some patterns and tendencies can be recognized. Apart from the phonetic properties of the vowels themselves, such as vowel height, there are several factors influencing the vowel development in a given word in a given language, including (former or extant) vowel harmonic constraints, accent, and phonetic environment, i.e. the place or manner of articulation of the adjacent consonants, and syllable structure.

Vowel harmony

As mentioned above, the vowel system was simplified in the QG languages. However, even in Baoan, where all active vowel harmony has been lost, its role in shaping words is still evident in much of the surviving Mongolic lexicon.

The vowel harmony of the ancestral stages of Eastern Yugur and Shirongol may have been unlike the CM system. Eastern Yugur suggests it goes back to a Turkic-type front-back system. Monguoric may have had a simplified system of vowel qualities *a e i o u* without productive harmony. Kangjia suggests a system in

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[100] This does not apply in all environments. If the following vowel is long *a:* both *o and *u result in Dag *u*, e.g. *tuwa: < *togaan* 'cauldron', *xula:n < *hulaan* 'red'.

which the front vowels tended to be centralised, while the other Baoanic languages are uninformative as the front rounded vowels have been lost.

In CM there must have been suffixes with the alternations *A* (= *a or *e), *U* (= *u or *ü), and *I* (= *ï or *i). The non-high vowel suffixes (with *A*) later developed additional variants with *o and *ö, but high-vowel suffixes with fourfold alternation never arose.

The Shirongol languages preserve traces of palatal and labial harmony in existing formations only. Word shapes in Mongghul and Dongxiang show that they once had suffixes with the alternation *a/e/o* (a fourth alternant cannot be demonstrated). Within Shirongol only Kangjia roughly preserves the distinction in word stems between 'front' *ö* and *ü* and 'back' *o* and *u*; the distinction is no longer relevant in suffixation.

Eastern Yugur retains most of palatal harmony and labial harmony in productive suffixes (except in the original short high vowels). Vowel changes, mostly under the influence of the consonants, may lead to historically unexpected (unharmonic) vowel sequences within stems, as in EYu *neyan* < *nayan 'eighty'. Nevertheless the accented vowel will continue to trigger the (also diachronically) regular suffix shapes.

Harmonic rounding of the non-first *a/e* in words like *olan 'many' and *köken 'chest' was already in progress in Middle Mongol. It is therefore not surprising that both Eastern Yugur and Shirongol feature this rounding. Only Dongxiang has several exceptions, e.g. *nokie* 'friend', as opposed to EYu *nökör*, MgrH *nokor*, BaoD *nokor*, Kgj *nøχɡʉ* < *nöker. As Dongxiang is clearly embedded in the Baoanic branch of Shirongol, it must for now be assumed that forms like *nokie* are due to secondary unrounding.[101]

Accent

The development of the vowels is most predictable in monosyllabic stems, and in the accented vowel of longer stems. In Dagur, the accent falls on the first vowel. In Shirongol it falls on the last vowel, whereas accent placement in Eastern Yugur is more complicated, and partly correlated with vowel length (see 3.14.5.), as in Khalkha and elsewhere in Central Mongolic. A less rigid accent placement may also have existed in premodern Shirongol, judging from modern word shapes.

Phonetic stability of unaccented vowels and their phonological distinctiveness are low. In Dagur this typically applies to all non-first vowels, in Shirongol to all non-last vowels. Apart from changing the shape of individual lexemes, and the phonemic status of their component parts, the instability of unaccented vowels also tends to obscure the historical information we are interested in here.

The unaccented vowels are unstable in that they are likely to be reduced, and then inclined to adopt articulation features from the phonetic environment, mostly from the surrounding consonants, but also from the accented vowel. The

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[101] Secondary unrounding also took place in Oirat-Kalmuck, as hinted at by Rybatzki 2003b:368. That this is indeed the case is seen most clearly in words like *ǰɔla:* < **ǰɔlɔ:* < **ǰïlɔ:* < *ǰïloa 'rein'.

following examples from Mongghul show some of the possible influences of the consonants on the unaccented vowel:

Mongghul	CM	
ala-	**ala-*	to kill
xara	**kara*	black
ara:l ~ ra:l	**aral*	river
bara:- ~ bura:-	**bara-*	to finish
ȝæġa ~ ȝiġa	**jaka*	collar

Unaccented vowels may even be elided, provided that the resulting word structure is allowed. Through such elisions, the differences in accent have created some of the more dramatic differences between Mongolic languages, as in the following examples:

Baoan	Dagur	CM	
la-	*wail-*	**uïla-*	to cry
sə	*ɔs*	**usun*	water
duŋ ~ ṣduŋ	*šid*	**sidün*	tooth

Such cases also demonstrate the complementary role the languages have in reconstruction.

Vowel height

High vowels are most susceptible to changes caused by adjacent consonants, reduction, and elision. However, unaccented non-high vowels are often raised in the process of reduction, and are then likely to undergo similar developments.

In Eastern Yugur and Monguoric all four simple high vowels **ï *i *u *ü* often merge into *ə*, even in the accented syllable.[102] Although *ə* is phonetically no longer a high vowel, it will not be confused with the original non-high vowels, as these retain a full pronunciation when carrying the accent.

Elision of an unaccented vowel, whether originally high or non-high, is possible when the resulting sequence of consonants is permitted in the language in question.

Non-high simple vowels may be lengthened. Such lengthening appears to be mostly related to accent and syllable structure. Not all vowel lengths (that do not stem from contractions of double vowel sequences) can at this stage be explained.

In short, the developments that a non-high vowel may undergo are more diverse, and which development they will undergo in any individual word is harder to predict.

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[102] Most words that do not undergo this development contain another high rounded vowel, like EYu *nʉdʉn*, MgrH *nudu* < **nidün* 'eye'. This can be viewed as a kind of assimilation unrelated to vowel harmony.

3.1.1. Proto Mongolic legacy and prehistoric shifts

Some changes in the vocalism need not, and in some cases, should not be attributed to the modern languages. Several developments found in today's QG languages had already started in Middle Mongol.

Harmonic rounding is well represented in Middle Mongol, albeit not consistently applied.

There are also some instances in Middle Mongol of the famous regressive assimilation phenomenon known as palatal breaking (see 3.6.). Cases of assimilation of diphthongs, e.g. *ïa > *aa, are also documented early.

The distinction between *ï and *i may have been lost and redeveloped several times in different periods and regions.[103] It is worth noting that even within the QG languages both the separate status of the vowels *ï and *i and their merger into a single high unrounded vowel *i is reflected. In the stage leading up to the Monguoric subgroup of Shirongol *ï and *i apparently merged into a palatal vowel that palatalised preceding *k- > ć- both in words of both original vowel classes. In the ancestral stage of the Baoanic languages the two vowels remained different enough to cause the phoneme *k- to split into a velar *k- and a uvular *q-.[104] A similar split occurred in Eastern Yugur.[105]

None of these early changes were completed in the Middle Mongolic period. Palatal breaking has been a tendency for centuries without becoming universally applied (e.g. Dagur preserves unbroken *ï/*i in many native words, but features breaking even in some loanwords from Tungusic). Harmonic rounding of non-first syllables is reversible, as can be seen occasionally in Dongxiang (and as a rule in Kalmuck).

3.1.2. Types of changes

The default development of accented vowels is usually quite straightforward. The tendency of *ï/*i to be 'neutralized' into ə is found in all QG languages. The 'front' rounded vowels *ö and *ü have merged with their 'back' counterparts in all of Shirongol except Kangjia. Apart from Kangjia, the Shirongol languages typically give the impression that they go back to an ancestral stage with a five-vowel system *a e i o u*. However, the fact that Kangjia preserves four rounded vowel phonemes makes it impossible to reconstruct the five-vowel system for Baoanic, even less so for Proto Shirongol.

Most other kinds of vowel development in the QG languages involve assimilation and/or reduction. The latter may also lead to elision. Non-high vowels

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[103] This still holds true if one departs from an original CM system of seven vowels.

[104] The vowels *ï and *i themselves do not survive in Eastern Yugur or any Baoanic language. It is true that Dongxiang typically has the pronunciation ï following q- and ġ-, but ï may have (re)developed in recent centuries due to the uvular consonants.

[105] In Eastern Yugur the status of the phonemes /k/ and /q/ is, at least in the analysis of Bolčuluu, less strong, because only *ï and *i merged into ə, while ö and ü did not merge with their back counterparts. Eastern Yugur thus lacks oppositions like Mangghuer qo- 'to dry' versus ko- 'to swell' (cf. *koa- and *köe-).

can undergo lengthening. The main types that will be repeatedly encountered are the following.

Assimilation phenomena

Assimilation of first syllable *ï* and *i* by the second syllable vowel ('palatal breaking'):
CM *čïsun* > Dgx *ɕusuŋ* 'blood'
Assimilation of the middle vowel of trisyllables:
CM *čimegen* > MgrH *ćimuge* 'marrow' (due to the *-m-*)
CM *kïtuga* > *kïtoga* > Dgx *qudoğo* 'knife' (due to the *a* of the following syllable)

Palatalisation by the preceding consonant:
CM *čagaan* > Kgj *čiχɔ* ~ *čɔχɔ* 'white'
Palatalisation by *ï/*i* of the next syllable (umlaut):
CM *talbï-* > MgrM *tebi-* 'to put'

Harmonic rounding by the vowel of the preceding syllable:
CM *kola* > Dgx *ġolo* 'far'
Rounding of first syllable vowel by the vowel of the second
CM *kalaun* > BaoX *χoloŋ* 'hot' (via *χaloŋ*)
Labialisation by adjacent consonant
CM *marta-* > MgrH *muṣda:-* 'to forget'
Delabialisation by adjacent consonant:
CM *bučalga-* > EYu *pəjalğa-* 'to boil (tr.)'

Reduction and elision phenomena

Raising of (unaccented) non-high vowels:
CM *ora-* > MgrH *uro-* 'to enter'
Raising and subsequent palatalisation:
CM *noyan* > EYu *niyɔn* 'lord'
Elision of unaccented vowels:
CM *kočar-* > BaoÑ *hǯør-* 'to remain'

Lengthening phenomena

Lengthening of accented last vowel:
CM *untara-* > MgrH *ntəra:-* 'to sleep'
Lengthening before high vowel of the final syllable:
CM *morïn* > EYu *mɔ:rə* 'horse'

Non-first vowels in the North

Due to the different accent placement the Mongolic subgroups complement one another in reconstruction.

In Dagur and Central Mongolic the accented vowel of the first syllable is most stable, except *ï and *i which have almost disappeared due to the phenomenon of 'i-breaking', which involves the 'copying' of the second vowel into the first vowel position and the reduction of the *ï and *i originally occupying that position. The other vowels of the first syllable may be palatalised (to various degrees) if an *ï or *i follows later in the word.

Short vowels of the non-first syllables are often altered and/or reduced. In Dagur and the three Central Mongolic standard languages the short vowels of non-first syllables are quite limited.[106] Khalkha only allows either *i* or 'non-*i*', which takes the shape of a reduced non-high vowel the quality of which can be predicted from the environment.

Dagur allows *ə*, *i*, and *u* as non-first vowels (especially word-finally, the latter two tend to be reduced to ^y and ^w, i.e. palatalisation and labialisation of the preceding consonant).[107] This means that in Dagur there are three distinctive short vowels in non-first positions, each of which can occur in words of either harmonic class. Although in many cases Dagur *ə* in these positions stems from CM *a or *e, i from *ï and *i, and u from *u and *ü, the Dagur vowels do not necessarily reflect historical reality as expected. Dag *alim* 'pear' and *am^y* 'life' correctly reflect the *ï of CM *alïma, *amïn, and Dag *taryun* 'fat' and *alk^w-* 'to step' correctly reflect the *u of CM *targun, *alku-. But in other words the same *i/y* and *u/w* are simply products of the environment. The appearance of *i* instead of *ə* may be triggered by a palatal consonant, as in *gajir* 'land' < *gajar, *əjin* 'master' < *ejen. Dagur *u* appears (instead of the normally expected *ə*) after a rounded first vowel or a diphthong ending with a rounded second element, as in *auyun* 'firstborn' < *aukan, *nuy^w* 'hole' < *nüken. As a consequence, Dagur forms whose vocalism is in agreement with a known ancient form, such as *uy^w-* < *ükü-* 'to die', do not constitute independent evidence for this CM reconstruction.

Non-last vowels in the South

In the QG languages it is the vowel of the last syllable that is typically most stable, while vowels of the remaining syllables may be influenced by the phonetic environment. Unaccented vowels often develop a different pronunciation under the influence of the consonantal environment or of the vowels of the following syllable(s). They are susceptible to devoicing, reduction, or even elision. The changes in the non-first syllables are too unpredictable to enable us to define a subsystem of reduced vowels, as is possible in the non-first syllables of Dagur.

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[106] Not all dialects that belong to Central Mongolic share these same restrictions. Khamnigan and Ordos do distinguish between short *A*, *U*, and (neutral) *i* in non-first syllables. Therefore this treatment of the vocalism of the non-first syllables can not be considered a feature of the shared ancestor of the central languages.

[107] Svantesson et al. analyse this differently (2003:150). They see *u* of non-first syllables as the 'shwa phoneme' coloured by a preceding labialised consonant, and *i* of non-first syllables as the shwa phoneme coloured by a preceding palatalised consonant. Here I will use an analysis and notation that seeks to find a middle ground between indicating the pronunciation correctly and make the history of each word as transparent as possible.

Reduction in QG typically involves neutralisation of non-high vowels into *ə*[108], after which they are often raised and palatalised > *i*, or raised and labialised > *u*, mainly depending on the articulation of the preceding consonant. Secondary developments such as MgrH *ćiġa:n* 'white', *ćiẑaġ* 'flower', *ǯil* 'year', *ǯila:* 'lamp', *ǯira:-* 'to mix', *ǯirge* 'heart' (from **čagaan*, **čečeg*, **ǰil*, **ǰula*, **ǰuura-*, **ǰürgen*) illustrate how the distinctive value of the first syllable has diminished in some phonetic environments.[109]

Elision of vowels

There are two general routes for elision, which cannot necessarily be distinguished in individual lexemes. The first is simply the loss of an unaccented, often already reduced, vowel. The second is through devoicing of the vowel, typically when preceding a strong consonant. Elision through either route takes place frequently if the resulting consonant configuration is permitted. The general 'guideline' applying to both Dagur and the QG languages seems to be that all unaccented vowels can in principle be reduced, and elided as long as this does not result in the creation of inadmissible consonant sequences. E.g. CM **anda* 'friend' may become Dag *and*, and **arasun* 'skin' may become Dag *ars*, but **aral* 'shaft' may not become Dag **arl* (the actual Dagur form is now *arəl ~ allə*). CM **halagan* 'palm of the hand' became MgrH *xalġa*, but **xlaġa* (or **xlġa*) would not be admissible sequences, although we do have *nǯasə* 'plough' from **anǰasun*, *şde* 'early' from **erte*[110] as these sequences happen to be permitted. The number and character of permitted initial consonant clusters varies from dialect to dialect.[111] In QG, elisions are most frequent in Eastern Yugur, Mongghul and Baoan, as these are most tolerant of consonant clusters. But even languages with similar restrictions may opt for different solutions, as in the case of CM **sïnaga,* which has produced trisyllabic modern forms such as EYu *šənaġa*, MgrH *śinaġa*, and Dgx *şïnaġa*, as well as forms with reduced first or second vowel, such as MgrH *şnaġa*, MgrM *şəŋga*, BaoÑ *naġa*.

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[108] In QG there is also a strong tendency to merge the high vowels into *ə*. The fact that reduction of the non-high vowels does not normally take place in accented syllables, ensures that sufficient distinctiveness is preserved in the vowel system.

[109] These developments naturally complicate the discussion of palatal breaking in the QG languages (see 3.6.).

[110] Mongghul *xalġa* < **halagan* 'palm of the hand' is related to a tendency for *Mittelsilben-schwund* when it results in permitted consonant clusters. However, low vowels are less likely to disappear. Clusters *rg/rġ* and *lg/lġ* seem to especially 'popular', so the middle vowel is lost in all following words, creating disyllabic stems in Mongghul: **heligen* 'liver', **kulagaï* 'thief', **malagaï* 'hat', **solagaï* 'left', **tolagaï* 'head', **berigen* 'daughter-in-law', **gölige* 'puppy', **silükei* 'saliva', **herike* 'beads', **kurïgan* 'lamb', **kürigen* 'brother-in-law', **korakaï* 'insect'. Conversely, some other clusters tend to be broken up by epenthetic vowels, e.g. *şdoġo-* 'to prick' < **kadku-*, *şdoġo:n* 'dense' < **ödken*.

[111] Obviously the rules for permissible consonant clusters may change over time within each language. This is most notable in the (Sanchuan and) Mangghuer data through the decades. Mangghuer developed a form *muba-* 'to swim' from the form *mba-* with an initial cluster it apparently inherited but no longer allowed (ultimately < **humba-*).

Since elision is possible but not obligatory, the modern forms are not entirely predictable from the CM forms. Not only is the above general rule used differently by each language, we also find variation within each language, as in MgrH *arasə ~ rasə*, EYu *arasən ~ arəsən ~ arsən*, BaoD *arsuŋ*, Dgx *arasuŋ* < *arasun* 'skin'.[112]

Another route whereby vowels can be lost in Eastern Yugur and Shirongol is devoicing. This occurs when a non-last vowel (vowel height is irrelevant in this case) is followed by a strong consonant, or located between strong consonants.

Even though the elisions can be found in several QG languages, the treatment of individual stems is very idiosyncratic. They must therefore be seen as having taken place independently, and can not be reconstructed for an ancestral language. We will in the following simplify matters, and assume that vowel loss preceding a weak consonant took place by reduction, and that vowel loss preceding a strong consonant is related to devoicing.

Dongxiang and Moghol, which also have word-final accent, are most conservative in that they usually preserve the vowels of all original syllables of longer words (related to their low tolerance of consonant clusters).

Although in QG the non-first vowels are more stable and probably more important phonologically, as well as more useful for historical comparison, they can be influenced by the vowel of the first syllable. In MgrH *yo:-* 'to sew' (< CM *oya-*) the *o* is due to the rounded first syllable which was subsequently lost. Likewise in EYu *hkor* 'bovine' (< CM *hüker*) the rounded vowel is due to the first vowel that was lost at a later stage.

The accented syllables play an important phonological role in keeping similar-sounding lexemes apart. Even in these non-standardised languages, free variation is less abundant in the accented vowel. While variations such as EYu *čağa:n ~ čəğa:n ~ čğa:n* 'white' (*čağaan), *ǰağasən ~ ǰəğasən* 'fish' (*ǰagasun) are very common and meaningless, the same vowels are less likely to vary in the accented syllable, as in EYu *šərə-* 'to stitch' ≠ *šəra-* 'to roast', *hsə-* 'to go sour' ≠ *hsa-* 'to make', *čüsə-* 'to cut' ≠ *čüsa-* 'to make'.[113]

Vowel lengthening

Under various circumstances short vowels have been lengthened, both in Dagur and in the QG languages. Such developments will be discussed in 3.14.

3.1.3. Vowel detection

As in the central languages, even the original number and location of the vowels within the stem is not always obvious, in that the modern form may not reflect the original situation. Often the place of the vowels is synchronically determined by

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[112] This diversity means that the reductions and elisions can generally not be used in reconstruction forms.

[113] The first example continues an old opposition *sïrï-* 'to stitch' ≠ *sïra-* 'to roast', but phonemic oppositions of this kind need not be inherited from CM, as the other examples demonstrate. For the other Eastern Yugur verbs see *is-* 'to go sour', *ǰasa-* 'to make', *ǰisü-* 'to cut', and again *ǰasa-* 'to make' in the comparative supplement.

permissible consonant sequences rather than by etymology. Compare the following words, which behave similarly in modern Dagur, but originally had different structures: *mələγ* 'frog' (< CM *melekei*), genitive *məlγi:*, versus *tərəγ* 'cart' (< *tergen*), genitive *tərγi:*. The first word was allowed to lose its medial vowel in the genitive, whereas the second added a vowel in the nominative to break up its original cluster. Modern rules block clusters like *lγ* and *rγ* in final position but the same sequence is allowed medially.

Another peculiarity Dagur shares with central Mongolic is 'palatal creep', whereby an *i* (from *ï/i*) in a non-first syllable is carried over to an earlier or later position in the word, as in Dag *adil^y* < *adalï* 'similar', *ariγ^y* < *arakï* 'liquor', *alli-* < *arïl-* 'to clean'. Such cases illustrate how both the vowel quality and the exact position of the vowels in the word would be difficult to reconstruct based on one Mongolic subgroup alone.

Vowel detection problems in the QG languages also usually involve the breaking up of consonant clusters, e.g. EYu *qutul-* < *hogtal-* 'to fell', MgrH *dəge-* < *hedke-* 'to cut'.

3.2. Development of simple *a

3.2.1. Default development

In monosyllables CM *a has usually been preserved as such. Its quality is rarely influenced by surrounding consonants. For monosyllables ending in a vowel see 3.14.3.

In monosyllables ending in a consonant both quality and quantity are mostly left intact in Dagur and the QG languages. The same normally applies to *a in accented syllables of longer stems. In Dagur, as in central Mongolic, the accent normally falls on the first syllable. In the QG languages *a in the accented final syllable is preserved, while the vowels of non-last syllables are susceptible to change, reduction and elision. However, in words with certain syllable structures not conducive to elision, and in the vicinity of 'neutral' consonants unlikely to influence vowel quality, *a is preserved even in the unaccented syllables. Neutral consonants are those who do not palatalise or labialise the adjacent vowels, i.e. *d, t, g, k, s, l, n, ŋ, r*. Elision will often not take place in words without a strong consonant in medial position. Words with unreduced *a*'s in most languages include *ala* 'crotch', *alda-* 'to lose', *aman* 'mouth', *arga* 'way', *harban* 'ten', *kabar* 'nose', *kada* 'rock', *kara* 'black', *naran* 'sun', *tala* 'plain'. Examples:

CM	*gal 'fire'[114]	*gar 'hand'	*sam 'comb'[115]	*ala- 'kill'	*sara 'moon'
Dag	gal^y	gar^y	sannə, sand	al-	sar
EYu	ġal	ġar	sam	ala-	sara
MgrH	ġal	ġar	sam, san	ala-	sara
MgrM	ġar	ġar	saŋ	ala-	sara
BaoD	χal	χar	sam	alə-	sarə
BaoÑ	χal	χar	sam	ala-	sara
Kgj	χar	χar	san, saṛ	ala-	sara, cara
Dgx	qaŋ	qa	saŋ	ala-	sara
Mog	ɣo:l	ɣar	---	ola-	---

Accented *a tends to be preserved, not only after *a of the first syllable, but also after *ï (e.g. *sïra 'yellow'); after *u (*kura 'rain'); after *aa, *aï, and *au (*daara- 'to feel cold', *naïman 'eight', *jaura 'space between').

Exceptions may occasionally arise when monosyllabic verbs gain a final vowel in the Shirongol languages, and thus develop like primarily disyllabic stems. The added vowel usually seems to stem from the connective vowel *u* needed to connect the stem to some suffixes, which was then reinterpreted as part of the stem. In Dongxiang, this metanalysis may in part be motivated by a desire to maintain the integrity of the stem, since the final consonant would not be permitted in that

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[114] The palatal element in Dagur *gal^y* and *gar^y* at first sight suggests a disyllabic origin, but the stem shapes may have been adopted from inflected forms such as the genitive case *gali:, gari:*.

[115] The Dagur forms and Kangjia *saṛ* seem to be due to a false analysis of the derived verbs *samda-* and *samla-* 'to comb', repectively.

position; the alternative would be to drop the offending final consonant altogether.[116] The verb *gar- 'to come out' thus gained a final vowel in Dongxiang and some Baoan dialects, thus shifting the accent away from the *a, resulting in Dgx qïri-, BaoD χărǝ-. Compare Dgx qa 'hand' from the, originally homophonous, noun *gar, where a similar solution to preserve the final consonant was not present.[117] In the case of CM *čad- 'to be satiated', the unexpected form ɕudu- in both Mangghuer and Dongxiang is apparently caused by the connective vowel u which was incorporated into the stem.

3.2.2. Harmonic rounding

Most Mongolic languages feature some degree of rounding harmony, causing *a of the non-first syllable to become o after *o of the first syllable. This is an old development already documented in Middle Mongol, and common in the central languages, as well as in QG. In Eastern Yugur we tend to get *a > ɔ, as in χɔlɔ < *kola 'far', dɔǧɔlɔŋ < *dogalaŋ 'limping'. In Shirongol the sequence o - a has developed into o - o (with the same diphthongisations as the o that stems from primary *o/*ö), e.g. BaoD soǧor (~ soχur with raising) < *sokar 'blind', ǧor < *hokar 'short', ǧolo < *kola 'far'.[118] In Kangjia both ɔ's tend to be raised in words of this structure, e.g. ǧulu < *kola 'far', uru- < *ora- 'to enter'.[119] Other stems with similar developments in Shirongol include *olaŋ 'bellyband', *oŋgača 'trough', *sogta- 'to get drunk', *solaŋga 'rainbow'.

In Eastern Yugur and both Monguor languages the same rounding can usually be found after a complex vowel containing *o, e.g. EYu χɔinɔ, MgrM quaino /qoino/ < *koïna 'posterior'. Dongxiang preserves *a in these words, e.g. quaina < *koïna.[120]

In Dagur we see two groups of reflexes, neither of which seems to reflect harmonic rounding. The first group features labial breaking, which shows that *a must still have been present (preserved, or possibly redeveloped) in the second syllable at the time this breaking took place.

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[116] In nouns final *r is generally dropped, however short the resulting form.

[117] It may be relevant that noun stems are used in their shortest form more often than verb stems, which can only be used as such in the function of basic imperative form.

[118] Although many of these cases of rounding may be very early, some rounding must have happened more recently in stems that originally did not contain *o, e.g. BaoD doǧo ~ doǧǝ < *kïtuga 'knife', solǧo < *saulga 'bucket', MgrH ʒo:ro < *ǰaura 'space between'.

[119] This is also applied to loanwords, e.g. Kgj suχu 'Mongolian'< Amdo sok-kwa, lit. Tib sog-pa.

[120] The reflexes after *oa are less predictable. Within Mongghul we find alternations such as to:la- ~ to:lo- < *toa-la- 'to count'. In Eastern Yugur du:ra < *doara 'underside', the raising of *oa > o: > u: blocked the harmonic rounding (cf. Mongghul do:ro).

Dagur	CM	
dᵂatər	**dotar*	inside
xᵂakər	**hokar*	short
walən	**olan*	many
war-	**ora-*	to enter

In the second group the second vowel has disappeared altogether, e.g. *ɔi- < *oya-* 'to sew', *xɔl < *kola* 'far', *sɔns- < *sonas-* 'to hear', or it has developed into *-u-*, when syllable structure prevents elision, e.g. *bɔɣunʸ < *boganï* 'low', *čɔlpun < *čolban* 'Venus', *sɔɣur < *sokar* 'blind'. This *-u-* does not count as evidence for the existence of harmonic rounding in earlier Dagur. It is not clear how the division between the two groups of words with the different developments came about.[121]

3.2.3. Reduction/raising

Reduction of unaccented **a* is common in most Mongolic languages, as is its elision in certain environments (see below). In Dagur these phenomena happen in non-first syllables, as in Dag *xaləɣ < *halagan* 'palm of the hand'.

Reduction of **a* in the first syllable is a common development in all of QG. Reduction and raising is often accompanied by devoicing when a strong consonant is following and/or preceding the vowel. The primary result of reduction is the vowel *ə*, as in EYu *pəsa < *basa* 'also', EYu *qəša: < *kasïa* 'fence', BaoD *χəra < *kara* 'black', *iəsə-* 'to make', perhaps from local Turkic *yasa-* rather than *< *ǰasa-*.

In Dongxiang this reduced vowel *ə* takes the shape *ï* after *q-* and after the retroflex affricates *ç-* and *ʒ-*, e.g. Dgx *qïʒa < *kačar* 'cheek', *qï̧şaŋ < *kašaŋ* 'lazy'. This reduction mainly seems to occur between strong consonants, and may typically involve devoicing. In cases such as Dgx *çïɣaŋ* 'white', ultimately from CM **čagaan*, it cannot be established whether Dgx *ï* may have developed *< i < ə < a*, that is, via the secondary *i* found in Baoan and Mongghul.

Reduction of unaccented *a* is the stage preceding labialisation and palatalisation as well as complete loss all of which are discussed below.

As can be seen in *sarə < *sara* 'moon' above, Dahejia, and to a lesser extent other Baoan dialects, have a tendency to reduce **a > ə* even in accented final syllables.[122] This includes cases with harmonic rounding. In view of the equivalents in closely related languages this development is relatively recent. Examples:

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[121] There are also some etyma which show both of these developments in Dagur, e.g. *dᵂatər* 'inside' as opposed to *dɔtur* 'internal organs'. Enkhbat suggests that the former is from CM **dotara*, the second from **dotar*. In fact in this case one would expect both CM forms to result in the same Dagur shape. Some unexpected Dagur forms may be the result of borrowing from central Mongolic dialects, Manchu, or Northern Tungus. This requires further research.

[122] A parallel development **a > ï* can be found in the neighbouring Turkic language Salar.

BaoD	BaoÑ	Kgj	CM	
alə	*alar*	*anla*	*ala*	crotch
aldə	---	*anda*	*alda*	fathom
sarə	*sara*	*sara*	*sara*	moon
martə-	*marta-*	*marta-*	*marta-*	to forget
χuinə	*χi:na*	*ġuaina*	*koïna*	behind
orə-	*ɵr-*	*uru-*	*ora-*	to enter

This development may even happen to long **aa*, see 3.12.2.

3.2.4. Non-harmonic rounding

Unaccented CM **a* may result in a labial vowel in QG in several ways that are unrelated to harmonic rounding. Some of the processes are discussed below.

Rounding of **a* by preceding consonant

Rounding of **a > u* under the influence of a preceding labial consonant is especially frequent in the first syllable in Mongghul, as in *bura:- < *bara-* 'to finish', *muşda:- < *(u)marta-* 'to forget'. It is also found in the other QG languages, e.g. EYu *munaŋ ~ manaŋ < *manan* 'fog'; MgrM, Dgx and Kgj *puda- < *bagta-* 'to fit into'; MgrH *pusa*, MgrM *puʒa*, Dgx *pəsə ~ pusə* 'also' *< *basa*.[123] There are also occurrences in non-first syllables, e.g. Dgx *awuğa* 'uncle' *< *abaga*. In Baoan dialects, where even accented **a* can be reduced to *ə*, this reduction product can be rounded by the preceding consonant, as in BaoGt *yầmu < *yamə < *yama* 'meal'.

Rounding of **a* by absorption of **b*

This is not uncommon in QG. It involves the absorption of intervocalic *-b-* as in Kgj *χɵr- ~ χʉr- < *kabïd-* 'to swell', MgrH *to:rġa* (*< *tabargan*) *< *tarbagan* 'marmot', or of preconsonantal *-b-*, as in MgrH *çuğua:- < *ǰabka-* 'to lose'.

Rounding of **a* by following vowel

Rounding of **a* under the influence of the following syllable is relatively uncommon, and occurs mostly in Baoan when the second syllable vowel has an original contraction length. Examples include BaoD *χutuŋ kuŋ < *katun (+ *küüïn)* 'woman', and *ćüχor < *čakïur* 'lighter'. The same phenomenon can be observed in other Baoan dialects and Kangjia. Similar words in Dongxiang may feature reduction between strong consonants, typically in the shape of *ï*, but lacks the rounding.

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[123] Another example, MgrM *muqa* 'meat', probably developed from earlier **maqa* (cf. MgrH *maxa*), rather than directly from CM **mïkan*.

BaoD	BaoÑ	Kgj	Dgx	CM	
χuśüŋ	*ġaśəŋ*	---	*qïʂuŋ*	**gasïun*	sour, bitter
χaluŋ	*χələŋ*	*χulɔ*	*qaluŋ*	**kalaun*	hot
χotoŋ	*hdəŋ*	*χutuŋ/χuduŋ*	*qïduŋ*	**kataun*	hard

Other incidental cases include MgrH *suʒog* < **sačug* 'tassel', EYu *duğu:l-* < **daga.ul-* 'to cause to follow'. Prehistoric cases such as **tamu-* > **tomu-* 'to twist', **namugan* > **nomugan* 'docile', **dolaan* < **doluan* < **daluan* 'seven', feature *o* rather than *u*.

Rounding (unknown causes)

Some labialisations of unaccented **a* lack an obvious explanation, e.g. EYu *ura:* < **arïa* 'molar', EYu *čüsa-* < **jasa-* 'to make'; MgrH *dura:sə* < **darasun* 'alcoholic drink', Dgx *arunʒa-* < **aralʲï-* 'to trade'.

Others have more than one possible explanation, e.g. in MgrH *maŋġusə ~ moŋġusə* 'ogress' the latter variant could either be caused by the *m-* or by the following vowel (CM **maŋgus*). Both explanations may also apply to Dgx *boruŋ* < **baraun* 'right hand side' and *pudu* < **batu* 'strong'. CM **a* in the middle syllable can easily be assimilated to the preceding or following vowel, as in Dgx *pudura-* < **butara-* 'to be scattered'.

The rounding of **a* followed by *-ŋ* seen in some Baoan dialects and in Kangjia may be related to the Tibetan inspired simplification of vowel diversity preceding *ŋ* (see 3.3.5. and 4.8.3.). Examples:

BaoÑ	BaoGt	Kgj	Dgx	CM	
aćaŋ	*aćɔŋ*	*aćɔ*	*aɕaŋ*	**ačïan*	load
altaŋ	*altɔŋ*	*antɔ*	*antaŋ*	**altan*	gold
bayaŋ	*bayɔŋ*	*bayɔ*	*bayaŋ*	**bayan*	rich
ćiχaŋ	*ćixɔŋ*	*čiχɔ ~ čɔχɔ*	*ɕïġaŋ*	**čagaan*	white

3.2.5. Palatalisation phenomena

CM simple **a* can be palatalised by adjacent sounds in several ways. In the QG languages most cases of palatalisation are due to preceding palatal consonants.

Umlauts and glides

The partial palatalisation of **a* of the first syllable due to /i/ < **ï* in the following syllable occurs in central Mongolic as well as in Dagur.[124] In Dagur, /a/ of the first

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[124] In most dialects of Mongolian proper and Buriat /a/ < **a* is slightly palatalized, which is not indicated in the orthography. However, in several dialects including Chakhar this has led to the creation of additional vowel phonemes with front pronunciations such as *ɛ*. This did not disturb vowel harmony, as the vowel harmony system of these dialects is not of

syllable is also slightly palatalised before /i/ of the following syllable, which will not be indicated here. It does not affect vowel harmony. This type of umlaut is only rarely encountered in the QG languages, as in MgrM *tebi- < *talbï-* 'to put', Kgj *jeǰi- < *jaǰïl-* 'to chew'.

CM *a* may develop a palatal coarticulation after a palatal consonant. This takes the shape of a palatal glide between the consonant and the following vowel (not written by most authors). In Dahejia Baoan a glide *i* or *ĭ* is usually inserted between the alveolo-palatal affricates *ć* and *ȝ́* and the following /a/:

BaoD	CM	
ćiadə-	*čad-*	to be satiated
ćiasuŋ	*časun*	snow
ȝ́iaȝ́ial-	*jaǰïl-*	to chew
ȝ́ialχə-	*jalkï-*	to swallow

This glide is also described for Mongghul. Mongghul also features a partial palatalisation of the *a* itself. Mostaert & de Smedt write the glide + vowel as *iä*; Khasbaatar and Junast (who do not write the glide before *a*) use the notation *æ*. Cf. the development of *čad-*.

Palatalisation by adjacent consonants

The consonants that are able to palatalise the following vowel are *č*, *ǰ*, and *y*. The Dagur developments differ from those in QG, partly due to the different accent placement.

CM *a* of the first syllable in Dagur is not simply palatalised by an initial *č*, *ǰ*, or *y*. The vowel remains unchanged in words like *čad- < *čad-* 'to be satiated', *jar- < *jaru-* 'to use', *yamər < *yamar* 'what kind of'. However, in CM word stems with two or more palatal elements, *a* tends to result in Dag *e,* sometimes even *i*, e.g. *čerč- ~ čirč- < *čabčï-* 'to chop', *činč < *čamča* 'shirt', *jeb^yǰ < *jabaǰï* 'corner of the mouth', *jeŋ^ye: < *jaŋïa* 'knot', *jer^ye: < *jarïa* 'hedgehog', *jinč- < *jančï-* 'to crush'. The palatalisation of the vowel in Dag *čeɣ^y < *čag* 'time' also seems to be due to the presence of two palatal elements, alhough the final vowel was not originally there.[125]

In Dagur unaccented *a* in non-first positions tends to develop into *i* under the influence of a preceding palatal *č*, *ǰ*, or *y*, as in *baǰir < *buǰar* 'dirty', *gaǰir < *gaǰar* 'earth', *kačir < *kačar* 'cheek'. In Shirongol we normally find this development only in Baoan, probably due to the fact that Baoan is the only language with

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the palatal-velar type. In Oirat, palatalisations caused many back-vocalic words to be transferred to the front-vocalic vowel class. The latter applies even to those Inner-Mongolian dialects which developed a real front vowel *ε*.

[125] The Dagur shape *čeɣ^y* need not go back to a disyllabic form *čagï*, but may owe its palatalised final consonant to the gen.-acc. form *čeɣi:*. The same is seen in other stems, including *gal^y< *gal* 'fire', *gar^y < *gar* 'hand', but as these words lack further palatal elements, their vowel did not become *e*.

the tendency *a > ə even in the accented final syllable. This leads to forms like BaoÑ *ġaẓar ~ ġaẓir*, BaoD *ġaẓir ~ ġaćir* < **gaǰar* 'land'.

In Shirongol and Eastern Yugur the *a of unaccented syllables may develop into *i* under the influence of a preceding palatal *č, *ǰ, or *y.[126] The effect of *y is also more widespread in that it may also palatalise a preceding *a, and *a in non-first syllables. Examples include EYu *ǰiya* < **ǰayaan* 'fate', MgrH *ẓiġa ~ ẓæġa* < **ǰaka* 'collar', *ćiġa:n* < **čagaan* 'white', Kgj *ǰiġasun ~ ǰaġasun* < **ǰagasun* 'fish'. The palatalising *y may itself disappear, as in EYu *(y)ida-*, MgrH *ida-* 'to be unable' < *yida-* < CM **yada-*, EYu *(y)ima* < **yama* 'thing', and in non-first syllable: EYu *aiġa,* Dgx *(y)iġa* (< **ayiġa*) < CM **ayaga* 'bowl'.

Palatalised *a > i may become part of a new diphthong, as in *biar* < *bəyar* < **bayar* 'joy', *tiaġ* < **tayag* 'cane'. A similar 'absorption' of the unaccented vowel by the -y- is found in Dagur, e.g. *bais-* < **bayas-* 'to rejoice', *kʷair* < **kuyag* 'armour'. Due to the different stress patterns the results often look different:

Dagur	EYu	CM	
aiɣə	*aiġa*	**ayaga*	cup
bayin	*bəyan*	**bayan*	rich
nɔyin	*niyɔn*	**noyan*	official

The palalalisation of first syllable *a is surprisingly also seen in Dagur, where the affected *a carries the accent, e.g. *čiɣa:n* 'white', *ǰila:* 'tassel', and *ǰiya:* 'fate' from CM **čagaan*, **ǰalaa*, and **ǰayaa*.

This palatalisation of *a leads to difficulties in reconstruction, in that it may become impossible to determine whether palatal breaking took place. Forms like BaoÑ *yimaŋ* (CM **ïmaan*, Kh *yamaa*) do not prove that palatal breaking did *not* occur, since an older Baoan form may have been **yamaŋ*.[127]

It is not clear whether Dgx *ɕiġaŋ* 'white' developed through **čiġaŋ* as well, or merely represents a reduction **čəġaŋ*. The development *a > ï is quite common in Dongxiang, but is mostly seen preceding original strong consonants, and associated with devoicing. Examples include *qïʒa* < **kačar* 'cheek', *ɕïʒï-* < **čabčï-* 'to chop'.

Dagur also features 'palatal creep', a more complicated variation on the 'umlaut' theme that is also known from central Mongolic. It involves the palatalisation of the /a/ of the second syllable of trisyllabic stems by the the original final syllable /i/ < *ï. Examples include Dag *adilʸ* < **adalï* 'similar', *ariɣʸ* < **arakï* 'liquor'. This leftward movement of the palatality has further led to the palatalisation of the first syllable, as in *ǰelbir-* < **ǰalbarï-* 'to beg'. The -e- of *ǰelbir-* would not have been palatalised by the initial *ǰ- alone, had the vowel *i* < *ï remained in its original position.

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[126] Unlike in Dagur the development *a > e is rare in the QG languages, except when *a* is part of the diphthong **aï*.

[127] See Nugteren forthcoming.

3.2.6. Elision

Elision of *a via reduction

Loss of *a* preceding a weak consonant may have developed via an intermediate reduction vowel *ə*. However, a variant with the *a-* preserved is often also attested alongside the elision form, as in MgrH *aləma ~ ləma* 'fruit', whereas forms like **ələma* are generally not documented.

      Both the loss of initial *a* and *a* between two consonants can lead to initial consonant clusters. Examples:

E. Yugur	*ndağar*	**andagar*	oath
	χwa:r	**kabar*	nose
	čğa:n ~ čəğa:n ~ čağa:n	**čagaan*	white
	ra:lǰə-	**aralǰĭ-*	to exchange
Mongghul	*ləma*	**alïma*	fruit
	ŋġai-	**aŋgaï-*	to open
	dalə	**adalï*	resembling
	dəla-	**aduula-*	to herd livestock
	ra:l	**aral*	island; axle
	ra:	**arïa*	molar
	yaġa	**ayaga*	bowl
Kangjia	*dərasun ~ drasun*	**darasun*	liquor
	ima	**aïmag*	village
Dongxiang	*(y)iğa*	**ayaga*	bowl
	da-	**yada-*	to be unable

Elision of *a via devoicing

In case of initial vowels that are lost, Eastern Yugur may display *h-*, apparently a relic of a vowel devoiced due to the following voiceless consonant or cluster. Similarly, Mongghul often has an unexpected initial *s-*, *ś-* or *ʂ-*.

E. Yugur	*hsar*	**asar*	village
	hsəra- ~ sra-	**asara-*	to bring up
	hča:n	**ačïan*	load[128]
	hrča ~ arča	**arča*	cypress
	sqa-	**aska-*	to sprinkle

In other cases the initial consonant is dissimilated or lost:

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[128] But cf. EYu *ačə- < *ačĭ-* 'to load'.

E. Yugur	hġa-	*kaka-	to suffocate
	hta-	*tata-	to pull
	hsa- ~ sa-	*ǰasa-	to make
	χǰa:r	*gagčaar	alone

Mongghul	χġai	*gakaï	pig
	sġal	*sakal	beard
	sgə-	*sakï-	to wait[129]
	saġa- ~ sʒaġa-	*hasag(u)-	to ask
	sġa-	*aska-	to sprinkle
	śźa:	*ačïan	load

In Dongxiang *a was only lost completely in a few words:

Dongxiang	sʒï-	*saču-	to sprinkle
	cïra- ~ sïra-	*tasura-	to break
	sïma	*tasma	thong
	sda-	*tata-	to pull

A number of words feature similar developments (reduction, elision, preaspiration) in several languages, e.g. *gakaï 'pig': EYu ġaɣqai, MgrH xġai:, MgrM q̇ġai, BaoD ġai, Dgx qïɡəi ~ qïxɡəi. Cf. also *gagča 'alone' and its derivations, ǰasa- 'to make', *takïa 'chicken', *tata- 'to pull'. Nevertheless it is usually impossible to assume that the vowel was already lost in the Proto Shirongol period.

Mittelsilbenschwund in trisyllables can be found in all QG languages, as in EYu halǧan ~ halaǧan, MgrH xalġa, Dgx haŋga < *halagan 'palm of the hand'. Unlike other elision phenomena, this is often confirmed in the same set of words by all Shirongol languages including Dongxiang. In that set of words the elision can probably be assumed for Proto Shirongol.

3.3. Development of simple *e

3.3.1. Default development

In Dagur, *e is represented by ə. In the QG languages the normal development in accented syllables is e (in Shirongol with the usual allophones ie, ia, iä, etc.). Generally *e is best preserved when accented and in contexts with neutral consonants, as in *dere 'pillow', *gerel 'light', *kelen 'tongue', *ere 'man', *nere 'name'.

In Dahejia Baoan the development of *e in non-first syllables is often ə rather than e. A similar neutralization is also seen in the Dahejia Baoan development of other vowels in this position. Peculiarly, some of these words behave similarly in Dongxiang, even when other Baoan dialects feature e.

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[129] Eastern Yugur and Ñantoq Baoan both feature lengthened a: in *sakï-.

Dgx	BaoD	BaoÑ	CM	
erə	*erə*	*erə*	**ere*	man
etə	*etə*	*erte*	**erte*	early
furə	*furə*	*fure*	**hüre*	seed
ewə	*uer*	*ewer*	**eber*	horn
---	*helgə*	*helge*	**heligen*	liver
piśie	*se*	*se*	**büse*	belt
sugie	*suge ~ ge*	*ʂge*	**süke*	axe

The development of **e* to *a* in the first syllable is frequently observed in Dahejia Baoan, without obvious reason, e.g. BaoD *gaźiəsuŋ < *gedesün* 'intestines', *kalə- < *kele-* 'to speak', *kaməl- < *kemle-* 'to gnaw', *narə < *nere* 'name', *nda- < *ide-* 'to eat'. Ñantoq Baoan typically has *e* in these words (see below for **-en >* BaoD *-aŋ*). Mongghul and Mangghuer have incidental cases of *a < *e*, e.g. MgrH *sarən < *seriün* 'cool', *χaŋgu- < *emkü-* 'to hold in the mouth'. Dongxiang also has a number of instances, e.g. *bançə < *belčier* 'pasture'.

3.3.2. Harmonic rounding

After **ö* of the first syllable, **e* is rounded. In Eastern Yugur this situation is normally only preserved when the vowel of the first syllable remains non-high. In the Hongshiwo dialect, on which the most elaborate description of Eastern Yugur was based, the **ö* has usually been raised, and the consecutive syllables remain unrounded.[130]

MgrH	Qinglong EYu	Hongshiwo EYu	CM	
gudoli-	*gödöl-*	*gʉdel-*	**ködel-*	to move
źo:lon	*ǰö:len*	*ǰü:len*	**ǰöelen*	soft
bo:ro	*pö:rö*	*pü:re*	**böere*	kidney
ʂdogo:n	*hötgön*	*hʉtgwen*	**ödken*	dense
konorʒə	*kölösən*	*kʉlesən*	**köle(r)sün*	sweat

In Dongxiang we find that some words show harmonic rounding, while others do not, without an obvious system, e.g. *kugie < *köke* 'blue', *gogo- < *köke-* 'to breastfeed', and *gogo < *köken* 'breast', with the same phonetic environment. Cf. also *boro < *böere* 'kidneys', *komoru- < *kömeri-* 'to overturn', but *goźielu- < *ködel-* 'to move', *koliesuŋ < *kölesün* 'sweat'.

In Kangjia, harmonic rounding is normal, in many cases leading to a vowel sequence *ʉ-ʉ* unlike elsewhere in Shirongol, e.g. Kgj *kʉkʉ < *köke* 'blue', *nʉχgʉ < *nöken* 'cave', *sʉgʉ- < *sögee-* 'to scold'.

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[130] This is not uniquely Eastern Yugur. In Khalkha there is a similar restriction, so that *ə* cannot follow *o* (*< *ö*), and *o* cannot follow *u* (*< *ü*).

In Mongghul there are also cases of harmonic rounding after *ü of the first syllable, not supported by other languages, e.g. *(u)go < *üge* 'word', *sgo < *süke* 'axe'. However, in some stems this is more widespread, probably due to lowering of the original *ü to *ö near velars. This may be the case in EYu *nökön*, MgrH *noko*, MgrM *nuko*, BaoD *nokuŋ*, Kgj *nʉχgʉŋ*, all ultimately from *nüken* 'hole, cave', and in EYu *hgor*, MgrH *fugor ~ xgor*, MgrM *xugor*, BaoD *fgor ~ gor*, BaoÑ *ɵkɵr ~ ɵχgɵr*, BaoX *xgur*, Kgj *gɵr*, all from *hüker* 'bovine'. Dongxiang deviates again with its unrounded second vowel in *nokieŋ* 'pit', *fugie* 'bovine'.

Dagur forms such as *kuk^w < *köke* 'blue', *xukur < *hüker* 'bovine' are not due to harmonic rounding but to a rule that causes all vowels except *i to become *u after a rounded vowel.

3.3.3. Reduction/raising

Unaccented *e* may be reduced to *ə*. In Eastern Yugur this neutralisation can be seen occasionally, as in *kərəi < *kerie* 'crow', Qinglong dialect *əlǰiɣen < *eljigen* 'donkey'. It is common in Mongghul, as in *kəle < *kele < *kelen* 'tongue'. Often the reduced vowel is raised and fronted to *i*, especially in Narin Guol. Mongghul examples include *imel < *emeel* 'saddle', *ire < *ere* 'man'. Kangjia examples include *išǰɔ < *ebčiün* 'chest', *ire- < *eri-* 'to look for', *iǰɔ < *eǰen* 'master'. Some words show this development in several languages, e.g. EYu *kəseg*, MgrH *kəʒaɠ*, Dgx *kiśie*, all from < *keseg* 'piece'.

Raising and fronting occurs in *yesün < *yersün* 'nine' in many languages[131], including both Dagur and most Shirongol dialects, due to the effect of the *y-*. Simultaneously the *-s-* caused devoicing phenomena in several QG languages. Forms: Dag *is*, *yis*, EYu *ẋisən*, *šisən*, MgrH *s̠ʒən*, BaoÑ *yirsɵŋ*, BaoX *isoŋ*. Similar raising and devoicing effects can be seen among the very erratic reflexes of CM *yeke* 'big'.

3.3.4. Non-harmonic rounding

CM *e* may result in a labial vowel in QG in several ways that are unrelated to harmonic rounding discussed above. These types of labialisation usually occur in the unaccented non-last syllables.

Rounding of *e by preceding consonant

In parallel with the development *a > u*, QG languages also feature rounding and raising of *e > u*. This phenomenon is especially frequent in the first syllable in Mongghul, e.g. *bulen < *belen* 'ready', *mude- < *mede-* 'to know', *muŋgi < *meŋge* 'naevus', *mućin < *bečin* 'monkey', but may also occur in the remaining syllables, e.g. *imu < *eme* 'woman', *mugen < *emegen* 'old woman'. As usual, variants without the labialisation often persist as well. The development of EYu *me:ndə ~*

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[131] Kalmuck also has *yisn*, whereas Mongolian proper *yösön* and Buriat *yühen* feature rounding under the influence of the second syllable.

*mö:ndə < *mendü* 'peace' can probably also be attributed to the initial consonant, although the previously rounded second vowel may have played a role.[132]

Rounding of *e by absorption of *b

This development involves the disappearance of intervocalic *-b-*, which may then leave the vowel rounded, as in MgrH *to:rə ~ te:rə- < *teberi-* 'to embrace', or of preconsonantal *-b-*, as in MgrH *tudie:- ~ təbde:- < *debte-* 'to soak'. There are often several variants in evidence, as in MgrH *udəg ~ vudəg ~ idəg* 'knee' < *ebüdüg*. Similar developments can be found in Dongxiang, e.g. *odəu* 'knee' < *ebüdüg* , *osuŋ* 'grass' < *ebesün*.[133]

Rounding of *e by following vowel

Rounding of *e* under the influence of the following syllable is relatively uncommon in QG. It is most frequent in Eastern Yugur, typically in words with a rounded contraction length in the second syllable, e.g. *dölü:n < *deliün* 'spleen', *orʉin, orü:n < *ereün* 'chin', *surʉin, surü:n < *seriün* 'cool'. Eastern Yugur causatives may develop forms that deviate from the base verb, e.g. *hergə- < *hergi-* 'to turn' has the causative *xorgü:l- < hergi.ül-*.[134]

    Cases from Shirongol languages include MgrM *kugor*, BaoÑ *kurgur*, Kgj *kʉrgi ~ kʉrki*, all < *geškiür* 'stairs'[135], and MgrH *turu:*, BaoÑ *tɵrɵŋ*, Kgj *tʉrʉ*, Dgx *ćiauruŋ*, all < *teriün* 'head'. The Dongxiang form seems to derive from a metathesised form *teurun*.[136] In case of Kgj *mʉtʉ*, Dgx *mutu < *metü* 'like', the *m-* may have played a role as well.

    Older instances of rounding by a following vowel include *elgü-* 'to hang', *ergü-* 'to lift'. In this group the rounding is almost universal, modern forms preserving the *e* are rare. Dagur is especially conservative in this regard, e.g. *ərwə:-* as opposed to EYu *oryo-*, MgrH *(u)rgu-*, MgrM *argu-*, BaoGt *urgə-*, Dgx *uğu-*, all from *ergü-* 'to lift'. Many other similarly structured stems, such as *emüne* 'front', *ebür* 'bosom', contain labial consonants as well, i.e., two possible sources of labialisation. These words generally have rounded the initial *e* in central Mongolic, but both in Dagur and in QG there are unrounded forms left, e.g. Dag *əməl*, BaoÑ *eməla*, Kgj *emele ~ emle*. CM *temür* 'iron', also rounded in central Mongolic, retains the unrounded *e* throughout QG: EYu *temər*, MgrH *təmur*, MgrM *tərmər*, BaoD *təmər*, Kgj *ćimɔ*, Dgx *ćiemu*.

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[132] The reverse development, unrounding of *ö* near labials is discussed below.

[133] As initial */o/* is pronounced [uo] in Dongxiang, one could argue that the *b* is 'still present'. However, primary *o* and *ö* result in the same pronunciation.

[134] EYu *eǰe- < *üǰe-* 'to see' has the causative *oǰü:l- < *üǰe.ül-*, and *hele- < *hüle-* 'to remain' has the causative *holü:l- < *hüle.ül-*, but in these cases the causatives may simply preserve the rounded vowel that was unrounded in the base verb.

[135] Due to the rounded second syllable *geškiür* developed differently from its base *geški-* 'to step on'.

[136] Cf. also Dongxiang *ćiauru- < *teberi-* 'to embrace' and *ćiauŋgu- < *temgü-* 'to pick up'.

In case of CM *üdür (?*edür) 'day' and *übül (?*ebül) 'winter' the evidence for an original form with *e- is exceptionally weak, as both Middle Mongol and Dagur suggest a labial first vowel.

3.3.5. Tibetan-inspired simplification preceding -ŋ

In Baoan not all vowels are allowed to precede -ŋ. This seems to be inspired by Amdo Tibetan, where similar restrictions exist. As Baoan -ŋ also represents the very frequent CM *-n, a large number of words is affected. We get -aŋ instead of expected -eŋ, and -uŋ instead of expected -oŋ (with harmonic rounding). In Dahejia Baoan, the development *e > a also tends to occur in the first syllable of these words. In view of other Baoan dialects this is perhaps a recent assimilation phenomenon. Examples:

BaoD	BaoÑ	CM	
kalaŋ	kelaŋ	*kelen	tongue
tarmaŋ	termaŋ	*teermen	mill
balaŋ	bəlaŋ	*belen	ready
kitaŋ	kitaŋ	*köiten	cold
ndaŋ	ndaŋ	*eüden	door
uniaŋ	unaŋ	*ünien	cow
urgaŋ	werġaŋ	*berigen	sister-in-law
kurgaŋ	kurġaŋ	*kürgen	brother-in-law
moruŋ	---	*mören	river
nokuŋ	nəkəŋ	*nöken	hole

In Kangjia word-final CM *-en, like *-an, has become -ɔ (via -ɔ̃), as in kiliɔ < *kelen 'tongue', ɯniɔ < *ünien 'cow', idɔ < *eüden 'door', bergɔ < *bergen 'sister-in-law', mɯrɔ < *mören 'river'.

3.3.6. Elision

Elision of *e via reduction

Loss of *e preceding a weak consonant may have developed via an intermediate reduction vowel *ə. In the first vowel position, both the loss of initial vowels and those between two consonants can lead to initial consonant clusters. The loss of the vowel before w is common in Eastern Yugur. Examples:

E. Yugur	βesən	*ebesün	grass
	βədəg	*ebüdüig	knee
	(ə)ɣečə	*egeči	elder sister
Mongghul	ŋge	*eŋger	flap of garment
	mɯgen	*emegen	old woman

Mongghul	nde:	*ende	here
	ʒige	*elǰigen	donkey
Kangjia	vəide-	*ebed-	to be ill
	vəidəʉ	*ebüdüg	knee
	vəisʉn	*ebesün	grass

The following words lost the initial *e in several QG languages. Ñantoq Baoan deviates here, in that it sometimes preserved the initial *e in words in which even the normally conservative Dongxiang lost it. This makes it impossible to postulate a Proto QG form with the elision.

*emüdün 'trousers': EYu modən, mudən, MgrM modo, BaoD məduŋ, BaoÑ emdəŋ, Dgx məduŋ.

*emüs- 'to put on, to wear (clothes)': EYu məs-, MgrH musə-, mosə-. MgrM musï-. BaoD musï- , BaoÑ məʂ-, Kgj məsï-, Dgx misï-.

*emüne 'front': EYu ölmö, ömle, BaoD məilə, BaoÑ eməla, BaoX mələ, Kgj emele ~ emle, Dgx məlie. (MgrH muśi and MgrM meʂï, apparently represent the directive form *emüne-(g)si 'forward, to the front').

Elision of *e via devoicing

In Eastern Yugur the modern form may display h-, apparently a relic of a vowel devoiced due to the following voiceless consonant or cluster. Similarly, Mongghul often has an unexpected initial s-, ś- or ʂ-. As can be seen, the presence of original *h- does not make a difference to the modern forms.

E. Yugur	hče-	*heče-	to be emaciated
	hke	*eke	mother
	čɣe	*ečige	father
	šə	*hesi	handle
	škən	*hekin	head
	š(i)ke	*yeke	big
Mongghul	si:	*ese	neg. particle
	sargu	*(h)esergü	opposite
	ʂde	*erte	early
	sgəl	*sedkil	heart

The verb *eči- 'to go' lost its initial vowel in most Shirongol languages: MgrH śʒə- ~ śə-, MgrM śi-, BaoD ći-, BaoGt śi-, BaoX xǰə-, Kgj ǰi-. However, the fact that

Dongxiang retained the disyllabic form *əçï*- makes it impossible to reconstruct the shorter form for Proto Shirongol.[137] See also the negation particle *ese*.

As in the case of other vowels, medial *e* in trisyllabic stems is often elided in all of Shirongol, as in MgrH *kurge:n*, BaoGt *kurgɔŋ*, Dgx *quǧoŋ* < *küregen* 'son-in-law'. In such unanimous cases a disyllabic form may be assumed for Proto Shirongol. In this and other cases Eastern Yugur also suggests a disyllabic form.

3.4. Development of simple *ï

3.4.1. Preliminary remarks on CM *ï and *i

The reconstructions used here are based on an eight vowel system which includes *ï as an harmonic counterpart to *i. Evidence from Middle Mongol, Moghol, and the QG languages shows that such a system existed at least in some periods. As elsewhere in Mongolic *ï and *i themselves have become mostly indistinguishable in the peripheral languages. They merged into *i* in Dagur, and into *ə* ~ *i* in the QG languages. The original distinction has left indirect traces in Eastern Yugur and Baoanic, especially in the treatment of *k and *g. These consonants have split into velar *k* and *g* and their uvular counterparts *q* and *ġ* near the merged vowel, so that diachronic information about *ï can be gleaned from these languages. E.g. the reconstruction *čïkï- 'to stuff into', as suggested by the -*q*- in the Muqaddimat al-Adab and Moghol, is confirmed by EYu *čəqə*-. The development of these consonants suggests that *ï was a real back vowel, at least in an earlier stage of these languages. However, in other periods or languages *ï must have been a palatal vowel, as in the Monguor languages both *ki- and *kï- sequences resulted in *ći*-.

In words that do not contain *k and *g or other back vowels, it may be difficult to separate *ï from *i without circumstantial evidence, such as inflected or derived forms, or non-Mongolic data. The pronouns *bï 'I', *čï 'you' were back-vocalic in view of their inflected forms, e.g. acc. *čï.ma.ï 'you', dat. *čï.ma.da 'to you'. CM *jïl 'year' may have been back-vocalic *jïl in view of its Turkic cognate *yïl. The verb *ki- 'to do' may stem from *kï-, but the evidence for this is weak.

3.4.2. 'Breakable' and 'unbreakable' *ï and *i

The development of *ï/*i in first syllables strongly depends on the second vowel in the word. The most straightforward development can be found in *ï/*i of monosyllabic stems, *ï/*i of non-first syllables, as well as first-syllable *ï/*i followed by another *ï/*i.

When the second vowel was an *a, *o, *ö, *u, or *ü, the *ï/*i of the first syllable may undergo so-called palatal breaking, whereby the second vowel is imported into the first syllable, either joining or replacing the original *ï/*i.

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[137] Poppe (1955:30) assumes this verb derives from *od- 'to go', in which case it would be an example for an irregular development (and elision) of *o.

*i followed by *e* in the next syllable does not undergo breaking in central Mongolic, but in Dagur, Eastern Yugur, and Mongghul, words with this vowel pattern occasionally do undergo assimilations that are superficially reminiscent of prebreaking (see 3.6.1.).

In the following we will first deal with 'unbreakable' *ï, then with 'unbreakable' *i, and finally with breaking of *ï/*i in back and front-vocalic stems.

3.4.3. Default development of *ï

'Unbreakable' *ï and 'unbreakable *i have merged into *i* in the three central literary languages (although not in all central Mongolic dialects) and in Dagur. In the QG languages *ï and *i , and in many cases also *u and *ü, have the tendency to merge into *ə (~ i)* in non-first syllables. This tendency is shared by other languages of the *Sprachbund*, including Amdo Tibetan and the Turkic languages Salar and Western Yugur. This tendency can be called 'high vowel neutralisation'. Examples for the development of *ï in monosyllables and following various back vowels: EYu *čə*, MgrH *ćə*, MgrM *ći*, BaoÑ *ći*, Kgj *či* < *čï 'you (sing.)', EYu *amən,* MgrH *amən ~ amun* < *amïn* 'life', *narən* < *narïn* 'fine', EYu *ġučən ~ qujïn*, MgrH *xoʝin* < *gučïn* 'thirty', EYu *šərğɔljǎn*, MgrH *śirġʊlʝin* < *sïrgoljïn* 'ant'. As seen here, *ə* may appear as the allophone [i] when preceded by a palatal consonant. In Eastern Yugur the palatal pronunciation seems to be optional, cf. *ajǎrğa ~ ajǐrğa* < *ajïrga* 'stallion', *jǎjǎl- ~ jǎjil-* < *jajïl-* 'to chew', *jǎrğa- ~ jǐrğa-* < *jïrga-* 'to be glad', but even after palatal consonants *ə* is the more common pronunciation.[138]

In Dongxiang the back vowel *ï* tends to occur not only after uvular *q* and *ğ*, but, in some analyses, also after apicals *s, c* and retroflexes *ş, ç, ʒ*. In this analysis, which will be followed here, *ï* may be viewed as a separate vowel phoneme, which however should not be seen as a continuation of the old phoneme *ï*.[139] The actual pronunciations following the apical and retroflex consonants are [ɿ] and [ʅ], respectively. In Mangghuer, which like Dongxiang is strongly influenced by Chinese, the same [ɿ] and [ʅ] can be found following apicals and retroflexes, but *ï*-like pronunciations do not occur near the uvular consonants.[140]

3.4.4. Rounding phenomena

Rounding of *ï by preceding consonant

There are several old alternations *ï ~ *u near labial consonants for which it is generally hard to determine which is the older variant, such as *kabïd- ~ *kabud-* 'to swell', *kabïrga ~ *kaburga* 'rib'. Isolated modern cases include EYu *muna < *mïnaa* 'whip', MgrH *xavuʒə < *kabïsun* 'rib', MgrH *amun < *amïn* 'life', MgrM

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[138] This does not apply when *i* goes back to long *i:*.

[139] In an alternative Chinese-inspired analysis [ɿ] and [ʅ] are attributed to the phoneme /i/ and written <i>.

[140] In Baoan dialects with strong Chinese influence and in Kangjia, *ï* occurs following apicals and/or preceding gutturals. However, the modern *ï* in these languages rarely goes back to CM *ï.

amula < **alïma* 'fruit'. In several languages: EYu *buda*, MgrH *buda*, MgrM *buda-ŋ* < **bïda* 'we'.

MgrM *muqa* and BaoX *moġa* 'meat' seem to stem from a form **maqa* with prebreaking, rather than directly from CM **mïkan*, in view of the cognates with -*a*- in Mongghul and Baoan dialects.

**ï > u* preceding -*ŋ* in Baoan and Dongxiang

In Baoan, the sequence -*iŋ* (the expected reflex of **-ïn/-in*) simply seems to have become inadmissible, perhaps due to Tibetan dialects which show similar restrictions preceding -*ŋ*. However, such an explanation would not apply to Dongxiang, which is not otherwise known to have undergone Tibetan influence. The **ï* is either lowered > *a* or rounded > *u*. Interestingly, Kangjia appears to agree mostly with the Ñantoq Baoan forms, given that Kangjia -*ɔ* stems from **-an* (in combinations -*un/-ʉn* the -*n* is not lost in Kangjia).[141]

BaoD	BaoÑ	Kgj	Dgx	CM	
amuŋ	*amoŋ* (BaoX)	*amin*	*amiŋ*	**amïn*	life
labćüŋ	*labćaŋ*	*lašjɔ*	*laçəŋ*	**nabčïn*	leaf
naruŋ	*na:raŋ*	*narɔ*	*naruŋ*	**narïn*	thin
ćiχaŋ	*ćiχaŋ*	*čiχɔ*	*çiġəŋ*	**čïkïn*	ear
źioćüŋ	---	*jʉčɔ*	*ʒoçəŋ*	**jočïn*	guest
χuićüŋ	*χi:ćaŋ*	*χuaičɔ*	*quaiçəŋ*	**kaučïn*	old
χoroŋ	*χөrөŋ*	---	*qoruŋ*	**korïn*	twenty

If the **-n* is lost, **ï* does not result in Baoan *u*, e.g. BaoD *ġonə*, BaoÑ *ġөni* < **konïn* 'sheep', BaoD *morə* < **morïn* 'horse', and likewise if there was no final consonant, e.g. BaoD *źialχə-* < **jalkï-* (< **jalgï-*) 'to swallow', *ćiχə-* < **čïkï-* 'to stuff'. This is not surprsing, given that even original **u* is unrounded if **-n* is lost, e.g. BaoD *nasə* 'age', as opposed to Dgx *nasuŋ* < **nasun*). There are cases where this vowel change occurs in Dongxiang with other final consonants:

BaoD	BaoÑ	Kgj	Dgx	CM	
---	*yarəm*	*yarun*	*ʒaruŋ*	**jarïm*	half
---	---	---	*ġuruŋ*	**kurïm*	feast
ġulər	*ġөlər*	*gʉrʉ*	*ġuruŋ*	**gurïl*	flour

The rounded first syllable or the final **m* (rather than original *n/ŋ*) may have played a role in these cases.

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[141] Kgj *išjɔ* 'chest' also agrees with BaoÑ *ebćaŋ*, and in this case, with Dgx *əçan,* whereas BaoD *ebćüŋ* retains (or redeveloped) the high vowel of CM **ebčiün*.

Rounding of *ï due to various causes

Labialisation of first-syllable **ï* by the second syllable vowel constitutes palatal breaking (for which see below). There are some other sources for labialisation.

Occasionally the **ï* is rounded by the vowel of the preceding syllable, as in EYu *dɔgšun* < **dogsïn* 'fierce', *hčʉr* < **učïr* 'occasion', MgrH *śʒ́üra:-* < **učïra-* 'to meet'.

Rounding may be caused by a following consonant, as in BaoÑ *x̌ɵwar*, Dgx *ʂuwa* < **sïbar* 'mud', MgrM *çubar* < **kïlbar* 'easy'.

Some roundings in Dongxiang seem to be due to the connective vowel *u* which was reinterpreted as part of the stem: *arulu-* < **arïl-* 'to clear up'[142], *ʒaʒulu-* < **ǰaǰïl-* 'to chew' (cf. Dgx **çudu-* < **čad-u-* discussed above).

Inexplicable labialisations include EYu *ǰuda ~ ǰəda* < **ǰïda* 'spear', *qutad* < **kïtad* 'Chinese', *χurǧa- ~ χərǧa- ~ χarǧa-* < **kïrga-* 'to shear'[143], and MgrH *ʒ́ül* (normally *ʒ́il*) < **ǰïl* (*?*ǰil*) 'year'.[144] The equally unexplained labialisation of the 'converter' suffix **-kI > -ku* is a shared feature of the Shirongol languages.

3.4.5. Elision

If no other variants are attested, elision makes it impossible to establish whether palatal breaking ever took place. Related languages may have quite different forms. In these cases, as in *člu:* < **čïlaun* 'stone', *hru:r* < **hïroar ~ *hïraur* 'bottom', **ï* may have been broken before being elided. In cases such as EYu *šlə* we can exclude breaking, but then we do not know whether the CM form was **sili* or **sïlï* 'nape'. Whenever palatal breaking would result in a non-high vowel, it is less likely that this would subsequently be lost. Thus, EYu *ma:n* 'goat' is more likely to derive from an unbroken form, perhaps **əma:n*, than from a broken form **yama:n*.

Elision of *ï via reduction

E. Yugur	*ma:n*	**ïmaan*	goat
	nagšə	**ïnagsï*	hither[145]
Mongghul	*naġṣə*	**ïnagsï*	hither
	ləġa-	**ïlga-*	choose
Dahejia Baoan	*bar ~ ʂbar*	**sïbar*	mud
	naġa	**sïnaga*	ladle

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142 It seems unnecessary to assume influence from the Dongxiang adjective *aruŋ* < **arïun* 'clean'.

143 Cf. the cases of unexpected *u* < **a* in Eastern Yugur *ura:*, *čüsa-* discussed above.

144 Perhaps the Mongghul form stems from a derived form, cf. Dgx *ʒuŋtu* < **ǰïl.tu* 'born in the the year ...', whereas *ʒəŋ* < **ǰïl* 'year (of the animal cycle)'.

145 This stem is one of the rare cases that also may lose the initial vowel in Central Mongolic languages.

Elision of *ï via devoicing

E. Yugur	č(ə)na- (~ čəna-)	*čïna-	to cook
	š(ə)ra	*sïra	yellow
	čkən ~ čqən	*čïkïn	ear
Mongghul	ṣda:-	*sïta-	to catch fire
	śʒu:r	*hïǯaur	root
Ñantoq Baoan	śi	*bïsï	(is) not

*čïda- 'to be able' usually loses its first vowel in the QG languages: EYu šda-, MgrH ṣda-, BaoD da-, BaoÑ ṣda-, BaoX da:-, Kgj š(i)da-.

    Mittelsilbenschwund is found in longer stems, usually between syllables with high vowels. Examples include EYu alǧa- < *arïlga- 'to clean' and Baoan almaŋ < *alïma 'apple'.

    Especially after -r-, *ï and other high vowels may disappear in word-final position, as in EYu uǧwa:r <*ugaa.rï 'washing water', and formations with the deverbal noun suffix -bUrI.[146] Another example is EYu ǰa:r, ǰa:rə < *ǰïar(ï) 'musk (deer)', but in this word the final vowel is not unanimously supported by other languages either. The same may be seen in verb stems, such as EYu bar- < *barï- 'to grab', χa:r- 'to geld' < *kaarï- 'to scorch', šər- < *sïrï- 'to stitch'. Occasionally also in Shirongol, e.g. BaoÑ tar- < *tarï- 'to plant', Kgj utur- < *udurï- 'to lead'.

3.5. Development of simple *i

3.5.1. Default development of *i

As mentioned above in 3.4.3. 'unbreakable' *ï and *i have merged into *i* in the three central literary languages and Dagur. In the QG languages *ï and *i have the tendency to be depalatalized into the vowel ə, although the pronunciation *i* may be preserved (or redeveloped), especially when preceded by a palatal consonant. In non-first syllables *u and *ü have the tendency to merge into ə as well, thus leading to the neutralisation of the high vowels. This is related to the partial loss of vowel variations in suffixes originally containing U (*u/*ü) or I (*ï/*i). Although the main reflex of the high vowels is the, phonetically mid, vowel ə, the high vowels still form a distinct category, often freely alternating with *i* and *u*, or Ø. Examples for the loss of palatality include EYu pəčə- < *biči- 'to write', əlβə- < *ilbi- 'to grope', EYu setgəl, MgrH sgəl < *sedkil 'mind', MgrM ćirəǧ, BaoÑ ćerəg < *čerig 'soldier'. The influence of palatal and labial consonants is demonstrated by the following examples: EYu belčir < *belčir 'confluence', MgrM puʒiǧ < *bičig 'writing', EYu döčən ~ döčin, MgrH təʒin < *döčin 'forty'. However, some words widely preserve

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[146] The same tendency to drop vowels after -r- exists in Western Yugur, with occasional parallels in North Eastern Turkic, including derivations with the suffix -GArU (see Nugteren & Roos 2006:118-119).

the pronunciation *i* even without palatal consonants, e.g. BaoD *niŋgaŋ*, Kgj *niŋgɔ*, Dgx *niŋkien* < **nimgen* 'flimsy', and MgrH *ir* < **hir* 'edge of a knife'.

Dongxiang and Mangghuer have *ï* after retroflex consonants, as in Dgx *ʒïrəŋ* < **ǰirim* 'bellyband', *şïrə* < **siree* 'table', MgrM *şïni* < **sini* 'table'. Words like these also demonstrate there is no connection between this back *ï* pronunciation and CM **ï*.

3.5.2. Rounding phenomena

Most cases of labialisation are caused by labial consonants that either follow or precede the **i*, cf. MgrM *şumi-*, MgrH *śimu-*, both from CM **simi-* 'to suck'. In words with rounded vowels 'normal' labialisation is hard to distinguish systematically from palatal breaking (see below). Similar developments occur throughout Mongolic and even within Middle Mongol (and in both directions). The alternants **hüleü* ~ **hileü* 'more than' may be explained by labial consonants as well, if the alternation stems from the period before PM **p-* had become **h-*.

In some words the **i* was broken or assimilated in several dialects. For instance BaoX *su:kə*, Kgj *səuki* ~ *sikəu*, Dgx *sumuğə* 'awl' seem to suggest a development from a broken form **sübüge* (< **sibüge*), which must have developed early enough to prevent the development **s- > š-*. However, forms in closely related dialects, such as BaoD *śibġu*, BaoṄ *x́uke*, make it impossible to place this development at an early date. Cf. also the Dagur words whose **s-* did not palatalise due to early metathesis of diphthong elements, as in Dag *suidur* < **siüderi* 'dew' (see under **s* in 4.6.1.)

Labialisation can also be caused by the vowel of the preceding syllable, as in EYu *hkon*, MgrH *fuʒ́ün* ~ *śʒ́ün* < **ökin* 'girl', MgrH *nućün* ~ *noćin* < **öneçin* 'orphan', Kgj *turgu-*, Dgx *tuŋku-* < **tülki-* 'to push'.

3.5.3. Lowering of **i*

Lowering of first-slot **i* before **e*

In Eastern Yugur there is a development reminiscent of palatal breaking in words with an **iCe* vowel sequence, which will develop into > *e-e*. Examples include *ere-* < **ire-* 'to come', *eryen* 's/he' < **irgen* 'people', *ede-* < **ide-* 'to eat', *neŋgwen* < **nimgen* 'flimsy', *šere* < **siree* 'table'. The fact that this change also occurred in Turkic loanwords in Eastern Yugur such as *beleg* 'wrist' and *elmeg* 'button loop' (from CT **biläk* and **i:lmäk*) suggests that it is a fairly recent development not connected to palatal breaking.[147] The unaccented first syllable *e* may in fact be a secondary development of *ə*. There are some examples where Qinglong dialect features *ə* instead of Hongshiwo *e*, e.g. Qinglong *nəɣe* 'one' for Hongshiwo *neɣe* <

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[147] The similarity with Buriat in fig. 21 in Svantesson et al. (2005:196) is coincidental. Unbroken **i* of the first syllable always results in Buriat *e* irrespective of the following vowel.

*nige 'one', Qinglong šəŋgen for Hongshiwo šeŋgen < *siŋgen 'watery'.[148] The same development is found in a number of words in Mongghul: nengen < *nimgen 'flimsy', śæŋgan < *siŋgen 'watery', xerge < *irge 'wether'. EYu her < *hir 'edge of a knife' is a peculiar case because the e was not triggered by the second syllable.

Lowering of *i preceding -ŋ in Baoan and Dongxiang

Parallel to the development of words ending in -ïn, words in -in undergo a development > Dgx -əŋ, Bao -aŋ, Kgj -ɔ, as in BaoŇ debśaŋ, Kgj dešɔ < *tübsin 'flat, level', BaoŇ bećaŋ < *bečin 'monkey', Dgx onieçəŋ < *önečin 'orphan', Kgj vəićɔ < *ebečin 'illness'. However, the occasional rounding seen in words with -ïn is not mirrored here.

3.5.4. Elision

As in the case of ending in *ï, it is impossible to say whether palatal breaking took place before the vowel was elided.

Elision of *i via reduction

E. Yugur	ßəl-	*ibil-	(of milk) to flow
	šlə	*sili	nape
Mongghul	de-	*ide-	to eat
	re-	*ire-	to come
	rgen	*irgen	people

Elision of *i via devoicing

E. Yugur	hni:-	*hinie-	to laugh
	hsə-	*is-	to ferment
	hteɣe-	*itege-	to believe
	šdən	*sidün	tooth
Mongghul	śʒe:-	*hiče-	to be ashamed
	śüre:-	*bisire-	to believe
	sgi:	*isegei	felt
Kangjia	ǰasun	*hičesün	willow

In non-first syllables *i may disappear under the same circumstances as the other high vowels. An example for *Mittelsilbenschwund* is MgrM xarge, BaoD helgə < *heligen 'liver'. Loss of word-final *i can be seen after *r, as in EYu ö:r < *öri 'debt', teŋger < *teŋgeri 'sky', and also in verb stems, e.g. EYu e:r- < *eri- 'to

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[148] Cf. Bolčuluu & Jalsan 1988:351. That this e developed from *i through a stage ə seems to be supported by Eastern Yugur eǰe- < *üǰe- 'to see' and hele- < *hüle- 'to remain'.

seek', *kömör- < *kömeri-* 'to overturn'. Therefore Eastern Yugur is not helpful in resolving contradictory forms in other languages. For instance in the case of *siber* or *siberi* 'foot sweat', where the Written Mongol spelling has *-i* but the Buriat and Ordos forms end in *-r*, the Eastern Yugur equivalent *šəβer* could stem from either variant.

3.6. Palatal breaking

3.6.1. Assimilation of CM *ï and *i to following vowels

Palatal breaking, or *i*-breaking, is the traditional term in Mongolic studies for an assimilation phenomenon whereby CM *ï or *i of the first syllable is assimilated to the vowel of the second syllable. This phenomenon occurs when a first syllable *ï is followed by *a, *o, or *u in the next syllable, or when first syllable *i is followed by *ö, or *ü. This includes lexemes in which *ï and *i are followed by double and complex vowels starting with the same elements, such as *aa, *aï, *oa, *üü, etc. Notably absent from the list of vowels that induce breaking is *e.

Palatal breaking may manifest itself in two ways. In some stems it is expressed as the replacement of CM *ï and *i by the vowel of the second syllable, e.g. Kh *maxan* < *makan* < CM *mïkan* 'meat'. In other stems the second vowel is introduced in the first syllable as well, but the original vowel remains as a 'residual' palatal element, e.g. Kh *myangan* < CM *mïŋgan* 'thousand'.[149] The former type, which in fact entails the complete assimilation of the first syllable vowel, is called 'prebreaking' in Janhunen (2003b:5). This label is applied when there is no residual palatality [in words where it could have been preserved], e.g. Khalkha *maxan* (rather than *myaxan*) < *mïkan* 'meat', Kalmuck *üld* (rather than *yüld*) < *ildü* 'sword'.

Below I will not systematically use the distinction between breaking and prebreaking in the context of the QG languages. As breaking is a phenomenon that affects the vowel of the first syllable, whose phonetic substance and phonemic relevance is generally diminished in the QG languages, it is often difficult to determine whether breaking took place, let alone which type.[150] Some palatal 'residues' may have disappeared only recently, as illustrated by MgrH *narġai* 'tender', as opposed to MgrM *nʸarġai* 'id'. Secondary palatalisations may obscure the picture by giving the impression that no palatal breaking took place. Due to its palatal initial consonant, *čagaan* 'white' has resulted in BaoD *ćiġaŋ*, which casts doubt on forms like *śira* < *sïra* 'yellow'. Although this Baoan form looks like a straightforward unbroken continuation of the CM form, it cannot be excluded that it developed via a broken form *śara. Conversely, secondary labialisations may give the impression that breaking did take place, as in MgrH *buru:* < *bïrau* 'calf'. For

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[149] This palatal element is usually analysed as a palatalisation of the initial consonant rather than as a member of a newly-developed diphthong. I am not concerned here with its synchronic phonological status.

[150] Other evidence that would enable us to distinguish breaking and prebreaking is also lacking in the QG languages, e.g. *č and *ǰ did not each split into two affricates as they did in the three literary central languages. The word shape of Kh *caray* 'face' shows that *čïraï 'face' developed into *čaraï early enough for *č- to develop into depalatalised *c-.

these reasons the QG languages are not expected to provide many new insights regarding palatal breaking.

In spite of the abovementioned difficulties, it is clear that palatal breaking is present in a number of words in both Eastern Yugur and Shirongol. The evidence will be presented below, after a look at the more transparent situation in the central languages and Dagur.

3.6.2. Palatal breaking in the North

In the three literary Central Mongolic languages and Dagur, palatal breaking can be most clearly observed, as the affected vowels carry the accent, and are less likely to be assimilated by the consonantal environment. It is worth noting that even Central Mongolic is not monolithic in the application of palatal breaking. Kalmuck retains more unbroken *ï and *i's than Khalkha and Buriat, while Ordos and Khamnigan have very few instances of breaking. Chakhar, which in most respects is quite close to Khalkha, has many cases of unbroken *ï. Two regular examples in back-vocalic stems:

CM	Kh	Bur	Kalm	Dag	
*sïra	šar	šara	šar	šar	yellow
*čïna-	čanax	šanaxa	čanx	šanə-	to cook

Regular examples with breaking in all these four languages like the above are relatively rare. Incidental cases of breaking are already documented in the earliest documents, and through the centuries developed into a tendency that affected more and more words, apparently without becoming a universal sound shift. During the slow spread of breaking, other sound shifts were taking place, which has led to many inconsistencies. We find that *sïbaun 'bird' resulted in Khalkha šuvuu, but the similarly structured *bïrau 'calf' resulted in Khalkha byaruu, apparently because the contraction of the diphthong *au was completed at the time of breaking in the first word, but not in the second.

Some irregularities may be explained as the result of mutual influence between the dialects. Other unexpected forms in modern languages may be due to the influence from the written language, which generally retains the spelling with <i>.

The examples below from Northern Mongolic clearly demonstrate whether breaking or prebreaking took place in a given stem in a given language. Interestingly, Buriat and Dagur developments often agree. The examples also reveal the internal inconsistencies that can occur within each language, and the resulting irregular correspondences among languages.[151]

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[151] That breaking need not be old in Khalkha either is shown by cases like Kh *xyarguy < *kïrguï* 'hawk', *xyadax < *kïdu-* 'to annihilate', *nyacax < *nïču-* 'to retreat', which were apparently only broken after the following *u* was 'neutralised' to *a*.

Breaking of *ï by *a of the second syllable

CM	Kh	Bur	Kalm	Dag	
*ǰïda	ǰad	ǰada	ǰid	[g^{y}ad < Ma]	spear
*mïkan	max(an)	myaxa(n)	maxn	m^{y}aɣ	meat
*mïŋgan	myanga(n)	myanga(n)	miŋɣn	m^{y}aŋgə	thousand
*nïlka	nyalx	nyalxa	nilx	ñalk	tender
*ïlga-	yalgax	ilgaxa	ilɣăχă	yaləɣ-	to choose
*ïmaan	yamaa(n)	yamaa(n)	yaman	ima:	goat
*hïlaa <*hïlua	yalaa(n)	ilaahan ~ yalaahan	iläsn	xila:	fly

Breaking of *ï by *o of the second syllable

CM	Kh	Bur	Kalm	Dag	
*čïno	čono(n)	šono	čon	---	wolf
*ïro	yor	yoro	yor	yɔr	omen
*ǰïloa	ǰoloo(n)	žoloo	ǰola	ǰilɔ:	reins

Breaking of *i by *ö of the second syllable

*čidör	čödör	süder	čödr	šidər	hobble
*čilöe	čölöö(n)	sülöö	čölän	čulə:	free time
*kiröe	xöröö(n)	xyüröö	körä	kirə:	saw

Breaking of *ï by *u of the second syllable

*nïku-	nuxax	nyuxaxa	nuxx	nɔɣ^w-	to knead
*nïsun	nus(an)	nyuha(n)	nusn	ñɔs	snot
*nïruun	nuru(n)	nyurga(n)	nurɣn	nirɔ: ~ ñirɔ:	back

Breaking of *i by *ü of the second syllable

CM	Kh	Bur	Kalm	Dag	
*nidü-	nüdex	nyüdexe	nüdx	nid-	to pound
*nidün	nüd(en)	nyüde(n)	nüdn	nid	eye
*sidün	šüd(en)	šüde(n)	šüdn	šid	tooth

3.6.3. Dagur contribution to palatal breaking

As can be seen in the forms listed above, palatal breaking is applied often, but not always by Dagur in back-vocalic stems. Dagur and Buriat share a proclivity to preserve a palatal element more than Khalkha and Kalmuck, cf. Dag m^{y}aɣ < *mïkan

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'meat', *n^yombus* < **nïlbusun* 'tear'. However, unlike in Buriat, breaking in Dagur is rare in front-vocalic stems. Apart from some cases where broken and unbroken variants are attested, as in **ničügün* 'naked', **i* mostly remains unbroken preceding **ü/ö* of the following syllable, as in Dag *nid* < **nidün* 'eye', *kirə:* < **kiröe* 'saw', *šidər* < **čidör* 'hobble'. On the other hand, Dagur seems to feature some unique cases of breaking before a following **e*, e.g. Dag *šəur* < **siberi* 'foot sweat'. Some similarly structured Dagur forms do not align with conventional reconstruction. Dag *yəul-* 'to flow (of milk from the udder)' may point to a CM form **ibel-* (rather than **ibil-* as suggested by other languages). *šəuɣ^w* 'awl' may indicate that **sibüge* 'awl' is a secondary development of **sibege*.

3.6.4. Eastern Yugur evidence for palatal breaking

As mentioned above, palatal breaking is documented for the QG languages, but it may be difficult to establish whether it has taken place in a given individual word. Even if the vowel of the first syllable has survived, its quality is likely to be influenced by the preceding consonant. In Eastern Yugur and Shirongol the vowel, whether it was broken or not, can be elided or reduced to a degree that makes the word unusable as evidence, e.g. EYu *šdən* < **sidün* 'tooth'.

But apart from the many words that are indecisive, some clearly demonstrate that breaking did take place in these languages. These are mostly words with a structure that is not conducive to vowel elision, such as words starting with a nasal and with a plosive as the second consonant, e.g. EYu *maɣqan*, MgrH *maxa* from **mïkan* 'meat'. But it is hard to get unanimous cases; in this very same word the Dongxiang cognate *miǧa* stands out with an unbroken *i*.

A number of words clearly suggest that breaking did not take place, such as EYu *čəna* < **čïno* 'wolf', instead of expected **čono*.

Among the more straightforward cases of breaking in Eastern Yugur are the following.[152] The word shapes do not necessarily correspond to those in Shirongol.

E. Yugur	CM	
maɣqan	**mïkan*	meat
nagta	**nïgta*	precise
nulusun	**nïlbusun*	tear
nudurǧa	**nïdurga*	fist
nuru:n	**nïruun*	back
čusun ~ čüsən	**čïsun*	blood
šɔrui	*?*sïroï < sïruaï*	earth
oldə, uldə	**ildü*	sword
nodʉ-	**nidü-*	to knead

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[152] It is not clear whether some of these words may have had palatalised consonants at an earlier stage, e.g. *nudurǧa* < *ńudurǧa* 'fist', or *maɣqan* < *ḿaɣqan* 'meat'.

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(continued)

E. Yugur	CM	
nʉdʉn	*nidün*	eye
bodü:n	*bidüün*	coarse
šorʉin	*sirüün*	coarse
kʉre:	*kiröe*	saw
hörö:r	*hiröer*	prayer
čüder	*čidör*	tether
čölö:	*čilöe*	spare time

Several words have unexpected forms. EYu *qutaǧa* < *kïtuga* 'knife', is strange in that it does not have *u* in the second syllable. The lowering of the first vowel of *bodü:n* and *šorʉin* is also unexpected. It may be related to the unexpected *e* in these words in several Shirongol languages, e.g. Dgx *bieduŋ* and *śieruŋ*. EYu *hörö:r* 'prayer' represents a prebroken form as in Ordos *örö:l*, while Khalkha has a broken form and retains a palatal residue in *yörööl*.

In the following cases the Eastern Yugur data are inconclusive. This is either due to reduction or elision of the first syllable vowel, or to the coexistence of variants that contradict one another. (Note that *ə* is the normal Eastern Yugur reflex of both *ï* and *i*, and not infrequently of *u* and *ü*).

E. Yugur	CM	
čna- ~ čəna-	*čïna-*	to cook
šra ~ šəra	*sïra*	yellow
člu: ~ čəlu:	*čïluun*	stone[153]
ma:n	*ïmaan*	goat
šdən	*sidün*	tooth
šu:n	*sïbaun*	bird
šəβɣe ~ šʉɣe	*sibüge*	awl
hru:r	*hïroar/*hïraur*	bottom
χəməsən	*kïmusun*	nail

In some cases the phonetic environment does make it possible to determine whether 'breaking' has taken place. In cases like EYu *məŋġan* < *mïŋgan* 'thousand' and *ġəǰa:r* < *kïǰaar* 'edge', with the vowel between weak consonants, it is less likely for any *a* that might have existed to be reduced.

In cases such as the following *oa* must have become *ɔ:*, and subsequently raised to *u:*. It is impossible to determine whether the variant with *u* in the first syllable is older than the variant with *ə*, or a relatively late development.

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[153] Note that this word is usually reconstructed *čïlaun*, but none of the modern languages preserves a trace of the *a*.

E. Yugur	CM	
ǰəlu: ~ ǰulu:	**ǰïloa < *ǰïlua*	rein
ǰïrǧu:n ~ ǰurǧu:n	*?*ǰïrgoan < *ǰïrguan*	six

The following cases are also hard to assess. If they are assumed to be instances of breaking with equivalents in central Mongolic, an Eastern Yugur form **yalǧa-* would be expected rather than *alǧa-*. As these forms are not confirmed by other languages, it is also unlikely that they represent early 'prebreaking'. It seems most likely that they are recent cases of lowering under the influence of the following vowel, parallel to the developments in EYu *ere- < *ire-* 'to come', *harβa- < *hurba-* 'to turn'.

xarǧa- ~ xərǧa-	**kïrga-*	to shave
alǧa- ~ əlǧa-	**ïlga-*	to choose
xalǧasən	**kïlgasun*	coarse hair

3.6.5. Shirongol evidence for palatal breaking

In a limited set of words the Shirongol languages agree that breaking took place, so that it can be posited for Proto Shirongol. In other lexemes, the Shirongol languages disagree. As in Eastern Yugur, there are also many forms that are inconclusive because of secondary developments of the first syllable vowel.

Words with disagreement among the languages include MgrH *maxa* and Dgx *miǧa* 'meat', which makes it hard to judge shapes like MgrM *muqa*, which technically could stem either from the original **mïkan* or from broken **makan*.

In several cases of disagreement between Mongghul and Mangghuer, the latter seems to have the historically correct one, suggesting that Mongghul has a secondary development > *i*, as in MgrH *ćisə*, MgrM *ҫuʒï < Proto Shirongol *ҫusun < CM *čïsun* 'blood', MgrH *źirge*, MgrM *ʒurgi < Proto Shirongol *ǰürgen* 'heart'.[154] As these Mongghul words developed *i* from other vowels, other forms with *-i-* following a palatal consonant, such as *źida: < ǰïda* 'spear', *śira < sïra* 'yellow', *ćire: < čïraï* 'face', can not be used as evidence *against* breaking in Mongghul. Whether these forms with *-i-* go back to forms with breaking, can only be established if the corresponding Mangghuer form preserves the broken vowel.

Rounding of **ï/*i* can not with certainty be attributed to breaking when the word starts with a labial consonant, as in MgrH *buru: < *bïrau* 'calf', *budən < *bidüün* 'coarse', Dgx *bunʒu ~ bənʒu < *bïlǰïur* 'bird', as these could be 'normal' labialisations that may have taken place in any period. The same uncertainty occurs in some words with a labial element following the *i*, as in MgrM *şubigi < *sibüge* 'awl', where the *-u-* may be due to the *b* rather than to breaking. MgrM *şudu* 'tooth' probably is a secondary development of *şdu < *sidün*, motivated by the reduced tolerance for initial clusters.

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[154] Cf. also MgrH *śilo:*, MgrM *şuli < *silön* 'soup', which has a complicated phonetic history.

Absence of breaking in the Monguor languages can be demonstrated in words originally starting with *kï/*ki, because these developed initial ć-. This applies to MgrH *ćirval* < *kïlbar* 'easy', as well as the reflexes of *kïmusun* 'nail, hoof', *kïrga-* 'to shave', *kïtad* 'Chinese', *kïröe* 'saw', etc. In this regard the Monguor languages stand apart from both Eastern Yugur and remaining Shirongol (the Baoanic languages). Only Dgx *ćirəu* 'saw' inexplicably also features initial ć, while normally *kï/*ki results in *qə/kə* there.[155]

Among the words with initial consonants that are neither labial nor palatal, there are a number which feature breaking in several Shirongol languages.

MgrH	Dgx	Kgj	CM	
maxa	*miğa*	*mağa*	*mïkan*	meat
nuġ-la-	*nuqu-*	*nʉ́ġe-*	*nïku-*	to knead
nəmpəsə	*nuğusuŋ*	*nʉrsʉn*	*nïlbusun*	tear
nudurġa	---	*nudurğa*	*nïdurga*	fist
nurə	*nuruŋ*	*nuru*	*nïruun*	back
nədə-	*nudu-*	*nʉdʉ-*	*nidü-*	to pound
nudu	*nudu*	*nʉdʉ*	*nidün*	eye

Cases supported by both Monguor languages include:

Mongghul	Mangghuer	CM	
ćino ~ ćuna:	*çuna*	*čïno*	wolf
ʒ́ulo:n ~ ʒ́ilo:n	---	*gïloan/*ǰïloan*	smooth
ʒ́ülʒə	*ʐursï*	*ǰïlsun*	glue
ʒ́oro	---	*ǰïroa*	ambler
ʒ́u:rə-	*ʐuri-*	*ǰïru-*	to paint
narġai	*nʸarġai*	*nïlka X *nïraï*	young and tender
uldə	*ulʸdu*	*ildü*	sword
śolgo	*ʂurke*	*silükei*	saliva
śüro:- ~ śiro:-	---	*hiröe-*	to bless
śirən ~ śürun	*ʂuruŋ*	*sirüün*	coarse
ćudor	---	*čïdör*	hobble

MgrH *ćuna:,* MgrM *çuna* < *čïno* 'wolf' is peculiar in that the second syllable lost its rounding after assimilating the first vowel (cf. EYu *čəna*, Bao *ćina*, where the rounded vowel left no trace at all).

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[155] This seems to suggest borrowing from a Monguor-type language, although such a relation between Dongxiang and Monguoric is not otherwise known to exist.

In other cases the Monguor languages disagree with each other, as in MgrH *ćisə*, MgrM *ҫuʒï* < *čïsun* 'blood'. As mentioned above, it is most likely that the Mongghul form is due to 'repalatalisation' of an earlier Monguoric form *ćusə* due to the initial consonant.

Within Baoanic there is little agreement concerning palatal breaking, but the following cases are supported by at least one language:

BaoÑ	Kangjia	Dongxiang	CM	
ćaŋle-	*čiauli-/čiɔli-*	*ҫanlie-*	*čïŋla-*	to listen[156]
---	---	*sanʒa*	*sïlǰa*	sheep tick
ćisəŋ	*čisun*	*ҫusuŋ*	*čïsun*	blood
---	---	*ʂuluŋ*	*sïluun*	upright
ćөlə	*čөlə: ~ čilə:*	---	*čilöe*	free time
kuru	*kirʉ*	*ćirəu*	*kiröe*	saw
niʂɡaŋ	*nišiliʉ*	*muҫuǧuŋ*	*ničügün*	naked
nədə-	*nʉdʉ-*	*nudu-*	*nidü-*	to pound
nөdəŋ	*nʉdʉ*	*nuduŋ*	*nidün*	eye

When looking at the QG forms of *kïrga-* 'to shave', alternations like EYu *χarǧa- ~ χərǧa- ~ χurǧa-* and Kgj *qarǧa- ~ qerǧa-* again confirm the instability (and limited usefulness for historical purposes) of first syllable vowels. Given the distribution of forms that look broken and those that do not, and the alternations within languages or groups (e.g. BaoÑ *χarǧa-*, Dgx *ǧïǧa-*), it is most likely that Proto Yugur, Proto Monguor and Proto Baoanic all had preserved high vowels. In some cases there is evidence for recent breaking. For instance MgrM *ćarǧa-*, as opposed to MgrH *ćirǧa-*, shows that the *a* in the first syllable is probably due to a recent assimilation to the second syllable, because an early assimilation would have prevented the palatalisation of initial *k-*. Occasionally there is a clear indication that breaking must have taken place quite early. Dgx *saŋʒa* < *sïlǰa* 'sheep tick' must have developed its first *a* early enough to prevent the palatalisation of the initial *s-*.

3.7. Development of simple *o*

3.7.1. Default development

In monosyllables and the accented syllable of longer stems *o* generally stays intact in Dagur and Eastern Yugur. Within Shirongol only Kangjia retains *o* as *ɔ*. In remaining Shirongol the standard reflex is *o* (with the usual diphthongal realisations), which has merged with its harmonic counterpart *ö*. Examples include *ol-* 'to find', *ora-* 'to enter', *hodun* 'star', *kola* 'far', *morin* 'horse'.

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[156] BaoÑ *ćaŋle-* may also owe its *a* to the influence of the following -*ŋ*-, see 3.4.4.

Labial breaking of the sequence *o-a in Dagur was touched upon in 3.2.2. above. It occurs frequently, but not systematically, cf. *war-* < *ora-* 'to enter', but *xɔl* < *kola* 'far'. It is not understood why, although the usual suspicion of central Mongolic and/or Manchu influence applies here as well.

3.7.2. Raising

CM words with the sequence *o-a, developed a ɔ-ɔ (Shirongol o-o) sequence due to harmonic rounding of *a (see above). The accented secondary ɔ of the non-first syllables is generally better preserved than the orginal ɔ of the first syllable.

In Mongghul, words of this structure tend to neutralise the first (unaccented) ɔ to ə or raise it to u, resulting in forms such as *ulon* < *olon* < *olan* 'many', *sunosə-* < *sonosə-* < *sonas-* 'to hear', *ləmo:n* < *lomo:n* < *noman* 'mole (animal)'.

As mentioned above in 3.2.2., Kangjia tends to develop a vowel sequence *u-u* in words of this structure. Although the Mongghul and Kangjia developments came about independently after harmonic rounding took place, they are both illustrated in the following table, compared with the more primitive situation in Eastern Yugur:

Mongghul	Kangjia	E. Yugur	CM	
ulon	*ulu*	*ɔlɔn*	*olan*	many
uro-	*uru-*	*ɔrɔ-*	*ora-*	to enter
χulo	*ġulu*	*χɔlɔ*	*kola*	far

The development of unaccented *o > u is not uncommon in Kangjia, even in words that did not develop the *u-u* vowel sequence, such as *suqta-* < *sogta-* 'to get drunk', *sunsï-* < *sonas-* 'to hear'. The development *o > ʉ is also found, e.g. *mʉrtʉn* < *modun* 'wood', *fʉtɔ* < *hodun* 'star', although Kangjia ʉ more typically represents CM *ü.

The development *o > u (or ʋ) in Mongghul and Mangghuer can also be triggered by adjacent uvular consonants, as in *konï* 'sheep', *mogaï* 'snake', *nokaï* 'dog'.

In Eastern Yugur the raising of *o > u is mainly seen in long vowels, but it also happened in the secondary vowel length of *mu:dən* (*mɔ:dən* in Qinglong dialect) < *modun* 'wood'. This does not seem to be an Ordos-type raising under the influence of the following high vowel.[157]

3.7.3. Unrounding

Many cases of unrounding of *o cannot be separated from other phenomena such as raising and devoicing. However, in Shirongol there are instances of unrounding in unreduced, and even in accented syllables. The result is often *a*, as in MgrH (rare)

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[157] As suggested by Rybatzki 2003:370.

*basə- < *bos-* 'to get up', *mančɔǵ < *mončag* 'crest', MgrM *lan < *nom* 'book', Kgj *bağəni ~ bɔğəni ~ bəğəni < *boganï* 'low', BaoD *tabćiə < *tobčï* 'button'. The Mongghul reflexes in *fæn < *hon* 'year', *teśʒ́ə < *tobčï* 'button' can be viewed as further developments of *a*.

In most of these cases, the preceding or following labial consonant may have played a role. Unrounding is frequent in Dongshan Mongghul, often after a labial initial consonant, as in *maʐə < *morïn* 'horse', *bara < *bora* 'grey', *pasə- < *bos-* 'to rise', *bal- < *bol-* 'to ripen', but also after other initials, as in *naʂdo: < *nogta* 'halter', *nayo:n < *noyan* 'lord', *salǵʋi < *solagaï* 'left', *talǵʋi < *tolagaï* 'head'.

In Dahejia Baoan word-final *ɔ* (stemming from *a* by harmonic rounding) can result in *ə* (as can the other non-high vowels), as in *orə- < *oro- < *ora-* 'to enter'.

In EYu *čəna < *čïno* 'wolf' the second syllable was unrounded before palatal breaking could take place.

3.7.4. Palatalisation

Palatalisation of *o* is generally caused by preceding palatal consonants; *y* can also palatalise a preceding *o*. In the QG languages it is hard to separate it from raising and reduction. This is especially true for the Shirongol languages, which lack a phoneme *ö*. Therefore the result of palatalisation of *o* in these languages is mostly *i* or *ü* (the latter is present in most dialects as an allophone or a loan phoneme).

Eastern Yugur has various reflexes, including *ö*, as in EYu *sɔyɔ: ~ söyɔ: ~ sio < *soyaa* 'tusk; stalk', *niyɔn ~ nyɔ:n ~ nion < *noyan* 'lord'.[158]

Mongghul examples include *ćugu- ~ ćigu- < *čokï-* 'to peck', and due to initial consonant strengthening also *ćugu- ~ ćigu- < *ǰokï-* 'to suit'.

An example with retained rounding from Kangjia is *ǰučɔ ~ ǰüčɔ < *ǰočïn* 'guest', and one with collapse of the first syllable *niɔ < *noyan* 'lord'.

3.7.5. Elision

Elision of first-syllable *o* will not affect the harmonic rounding of any following *a*, cf. EYu *hǵɔr*, BaoD *ǵor*, Kgj *χɔr ~ χuar < *hokar* 'short'.

Elision of *o* via reduction

E. Yugur	*ru:n*	*oran	place
Mongghul	*losə*	*olasun	hemp
	yo:-	*oya-	to sew
	ʒ́oǵʋi	*oǰagaï	penis
Ñantoq Baoan	*ləŋ*	*olan	many

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158 Cf. also the palatalisation of diphthong elements, as in EYu *öiro < *oïra* 'nearby'.

Elision of *o via devoicing

E. Yugur	*htɔrɔ*	**dotara*	inside
	qutul-	**hogtal-*	to fell
Mongghul	*ʂdolə-*	**hogtal-*	to fell
	χġuar	**hokar*	short
Dahejia Baoan	*ġor*	**hokar*	short
	tχuŋ	**togaan*	pot

3.8. Development of simple *ö

3.8.1. Default development

In Dagur, CM *ö has normally merged with *ü into *u*, as in *bur^y* < **bös* 'fabric', *nuɣur* < **nöker* 'friend', *kuk^w* < **köke* 'blue'.

In Eastern Yugur, CM *ö has resulted in a real front vowel *ö*, which in many words has become centralised to closed *o* (which can be distinguished from *ɔ*, at least in Bolčuluu's analysis). However, closed *o* could also represent an earlier stage of development than the front *ö* (cf. the development of *ü below).

In Kangjia the distinction between *ö and *o was preserved. In the remaining Shirongol languages *ö merged with its harmonic counterpart *o into the modern phoneme *o*. This default development is generally found in monosyllables such as **ög-* 'to give', **bös* 'fabric', **köl* 'foot'.

The same reflexes may be found in longer stems. However, originally *ö was mostly restricted to the first syllable, apart from instances of harmonic rounding of *e, e.g. MgrH *losə-* < **olos-* < CM **öles-* 'to be hungry', and in words with *ö in the second syllable following *i* of the first syllable, e.g. **čidör* 'hobble', **silön* 'soup'. The latter category is the only one with second syllable *ö that can not be explained as secondary development. The existence of *ö after *e or *ü of the first syllable cannot be demonstrated for older Mongolic based on the available evidence.

Two common deviations from these developments are unrounding and palatalisation.

3.8.2. Unrounding

Unrounding of *ö in first syllable is unpredictable but not uncommon in QG. In Eastern Yugur most examples of unrounding seem to be dissimilation cases due to a preceding labial consonant, e.g. *mere:n* < **mören* 'river', *mer* < **mör* 'path', *pes* < **bös* 'fabric'. A variant with *ö* is also attested in all these cases. It may be relevant that these words contain labial consonants. However, the *ö* variant of *A*-suffixes (*A* stands for the fourfold alternation *a e ɔ ö*) tends to be replaced by the *e* variant, irrespective of the surrounding consonants.[159]

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[159] In Western Yugur there is a similar tendency to unround *ö in the vicinity of a labial consonant, as in *perik* < **bö:rk* 'hat'.

All Shirongol languages have some examples for unrounding of *ö*, e.g. MgrH *far ~ for ~ fod < *höd(ü)* 'larva', Dgx *kəwaŋ < *köbeün* 'son', Kgj *besge < *bögse* 'buttocks', *mante- < *möltül-* 'to undo'. Although many of the affected lexemes contain labial consonants and thus may involve dissimilation, other cases are unpredictable, e.g. MgrM *aŋgo < *öŋge* 'colour', Dgx *śieni*, Kgj *sïni < *söni* 'night', Dgx *śinie-*, Kgj *sïni- < *söne-* 'to extinguish', Kgj *tere- < *töre-* 'to give birth', Kgj *eteṛ- < *ötel-* 'to grow old'.

A few words feature unrounding in several languages. For some words it may be viewed as an older development in view of their distribution. **dörben* 'four' is unrounded in all of Shirongol and may therefore have been unrounded in Proto Shirongol (cf. also MgrH *təʒin < *döčin* 'forty', which was lost in remaining Shirongol). The same applies to **möŋgün* 'silver'.

In Baoan and Dongxiang we find unrounding in **mölsün* 'ice' and **sölsün* 'gall bladder'. The fact that this unrounding did not occur in Kangjia means that it is not a development of the Proto Baoanic period.

In Dahejia Baoan word-final *o < *ö* (< *e* by harmonic rounding) can result in *ə*, as in *orə < *öre* '(pit of the) stomach'.

Second syllable *ö* following *i* of the first syllable was unrounded in EYu *čüder < *čidör* 'hobble'. EYu *šelen ~ šölön < *silön* 'soup'. See the section on palatal breaking in 3.6. above.

The unrounding in Dag *bədən^y < *bödene* 'quail' and *bəlluɣ^w < *böldegen* 'testicles' is due to the labial initial.

3.8.3. Raising

In Eastern Yugur the reflex *ʉ* is not uncommon in Hongshiwo dialect (the basis of Bolčuluu's dictionary), as in *mʉren < *mören* 'river', *hʉtgwen < *ödken*, but in Qinglong dialect *ö* is apparently retained. However, in view of forms such as Qinglong *nödön < *nidün* 'eye', at least some occurrences of *ö* may in fact be due to lowering of an earlier development *ü*.

In Mongghul the sequence *ö-e* was harmonically rounded > *o-o*, and has the tendency to develop into *u-o* (like its harmonic counterpart *o-a > o-o*), e.g. **töre- > turo-* 'to be born'.

In parallel to *o-a*, Kangjia has the development of the sequence *ö-e > ö-ö*, which may be raised to a sequence *ʉ-ʉ*, apparently mostly in the vicinity of velars. It is not clear whether this *ʉ-ʉ* developed via an intermediate stage whereby only the first or the second *ö* was raised.

Some Mongghul and Kangjia cases compared:

Mongghul	Kangjia	E. Yugur	CM	
kugo-	*kʉkʉ-*	*hkö-*	**köke*	blue
nuko	*nʉχgʉ(ŋ)*	*nökön*	**nöken*	cave
sgo:-	*sʉgʉ-*	---	**sögee-*	to scold

Kangjia *ʉ* can also be the result of **ö* in other environments, *e.g.* *ʉɣ-* < **ög-* 'to give', *ʉndər* < **(h)öndür* 'high', *ʉle* < **öreele* 'half of a pair', *ʉramɔ* < **öre aman* 'pit of the stomach'.

3.8.4. Elision

Elision of **ö* via reduction

E. Yugur	*lögčən*	**ölegčin*	she-dog
	nöčən	**önečin*	orphan
Mongghul	*losə-*	**öles-*	to be hungry
	ŋgo	**öŋge*	colour
	ndur	**öndür*	high
	rme:n	**öreme*	skin on milk
Kangjia	*ŋgʉsʉn ~ gʉsʉn*	**örgesün*	thorn
	lesï-	**öles-*	to be hungry
Dongxiang	*gieru-*	**öŋgere-*	to pass by
	muğə	**örmege*	coarse fabric

Elision of **ö* via devoicing

E. Yugur	*hkö*	**köken*	blue
	hkö-	**köke-*	to suckle
	sʉkel- ~ sgöl-	**öskel-*	to kick
Mongghul	*şdogo:n*	**ödken*	dense
Mangghuer	*diməi*	**ödme*	bread
	xu-	**ög-*	to give
Ñantoq Baoan	*şgel-*	**öskel-*	to kick
Kangjia	*dagɔ ~ ʒïgɔ*	**ödken*	dense

*öčügedür 'yesterday' has lost its first vowel in Eastern Yugur and in all of Shirongol with the exception of Dongxiang: EYu *čogdor*, MgrH *ćigudur*, MgrM *ʦugodur*, BaoD *gudər*, Kgj *šigʉdə*, Dgx *fuʒuğudu*. Remarkably, initial vowel loss is even found in this word outside of the QG languages, as in Ordos *čʉgdʉr* and Moghol *čikaʊdur*.

Another example of initial vowel loss that affects Mongolic languages both in the QG area and elsewhere is **öčeen ~ *čöen* 'few', if the resemblance between the two forms is not a coincidence. The loss of the initial vowel of **ösegei* 'heel' is restricted to Buriat.

3.9. Development of simple *u

3.9.1. Default development

In Dagur *u generally merged with *o, typically resulting in ɔ. In Shirongol (except Kangjia) it merged with *ü. In Kangjia it was usually retained, and can be distinguished from its harmonic counterpart *ü, although fluctuations occur. In neutral consonant environments, the default reflex of *u is u, e.g. in *gurban 'three', *kurïm 'banquet', *sula 'loose', *sun- 'to extend', *unagan 'foal'.

In Eastern Yugur *u is also generally retained as u (in Bolčuluu's analysis). There are some alternations between u and ɔ, eg yɔǧɔr ~ yuǧur 'Yugur', ɔrɔǵ ~ urəǵ < *urug 'relatives by marriage'. Occasionally medial *u was lowered in Shirongol by *a of the following syllable, most notably in MgrM ćidoǧo, Dgx qudoǧo, from *kïtogo < *kïtoga < *kïtuga 'knife'. Cf. also Dgx yidoǧo < *ïdugan 'shaman'. This is reminiscent of the development of the complex vowel *oa < *ua in *ǰïloa 'reins' and the like.

3.9.2. Unrounding phenomena

High vowel neutralisation

The treatment of *u in accented syllables varies. It is often preserved in Baoanic, but usually unrounded to ə in Monguoric and Eastern Yugur, as can be seen in words with the suffixes -sUn, -dUn, -tU, in Eastern Yugur also (verbalizer) -dU, (nomen futuri) -kU, and (deverbal noun) -bUrI. The U of course represents *ü as well, which in these suffixes results in the same sounds in the QG languages (Kangjia excepted). This can be illustrated by means of *yasun 'bone': EYu yasən, MgrH yasə, MgrM yaǵsï, BaoÑ yasəŋ, Kgj yasun, Dgx yasuŋ.[160]

In Eastern Yugur and Mongghul the high vowels *u and *ü as well as unrounded *ï and *i may all result in ə, effectively leading to their neutralisation. Although ə is phonetically a mid vowel, it remains in the phonological high vowel category, not only for historical reasons, but also because of the alternations between ə and i and u in the modern languages.

In longer stems with more than a single u, they apparently strengthen each other's presence, and resist the neutralisation > ə, cf. EYu qusun < *usun 'water', nurǧusun < *nugursun 'spinal marrow', χulusun ~ χulusən < *kulusun 'reed', urus- < *urus- 'to flow'. In some words only one of the original *u's was preserved, but nevertheless the expected unrounding did not take place, e.g. MgrH sʒu < *usun 'water', EYu hdu- < *hutu- 'to emit smoke'. The *u's of stems with other vowels in the first syllable, such as *nasun 'age', *daru- 'to press', *modun 'wood', were unrounded in Eastern Yugur and Mongghul.

In the initial syllable the development *u > ə rarely occurs in non-labial environments, as in EYu ǰəlǰəǧan < *ǰulǰaga(n) 'animal young'.

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[160] *nasun 'year of age' resulted in Baoan nasə, apparently because final -n was lost.

In the vicinity of labial consonants it is impossible to specifically attribute examples of unrounding of *u to dissimilation or to high vowel neutralisation. Examples from Eastern Yugur include *bəda:n < *budaan* 'porridge', *pərćaġ < *burčag* 'bean', *səmən < *sumun* 'arrow', *nəmən < *numun* 'bow', and *səb < *sub* 'otter'. There are also examples from Shirongol, e.g. BaoÑ *bəla- < *bula-* 'to bury', Kgj *bəlaŋgar ~ bʉlaŋgar < *bulaŋgïr* 'turbid, unclear', Dgx *bili- < *bulï-* 'to snatch', Dgx *pïʒa ~ puʒa < *burčag* 'bean'.

There must have been prehistoric alternations *u ~*ï near labial consonants, partly documented in Middle Mongol, see *bulčïrkaï* 'gland', *bïrau* 'calf', *busï* 'not'. Given that the *h- in*huǰaur ~ *hïǰaur* 'root' probably goes back to PM *p-, the vowel alternation could also be ascribed to this labial consonant.

Two rare Dagur examples for this type of unrounding are *bəlʸe:- < *bulïa-* 'to snatch', and *xənʸe:s < *kunïasun* 'fold' (the expected forms with *ɔ also exist).

Labial breaking

Labial breaking in Dagur involves the insertion of second syllable *a into a first syllable with *u or *o, while this original labial is reduced in the process, and the *a usually disappears from its original position, e.g. *dʷand < dŭandă < *dumda* 'middle'. Further examples include *want- < *umta-* 'to sleep', *gʷay < *guya* 'thigh', *xʷark < *huraka* 'lasso', *sʷadəl < *sudal* 'vein'. Also in this regard *u behaves just like *ɔ in Dagur, cf. *war- < *ora-* 'to enter', *dʷatər < *dotar* 'inside'.

After a labial consonant the vowel loses the labial element, or put differently, the labial initial consonant loses its labial coarticulation: Dag *baɣ < *buka* 'bull', *bačil- < *bučal-* 'to boil', *manə < *muna* 'cudgel'. It is not clear whether there ever were intermediate forms with *bʷ-*, e.g. *bʷaɣ* as an earlier shape of *baɣ*.

Despite being an innovative Dagur feature, labial breaking contributes to CM reconstruction, by showing that words with labial breaking must have had *a in their second syllable. For instance Dag *nʷayəs* 'duck' suggests CM *nogasun* or *nugasun*, contrary to Ordos *nuġusu*, which favours *u in the middle syllable.

Unrounding and lowering

The QG languages also feature developments that are similar to, but independent from, that seen in Dag *baɣ < *buka* 'bull'. This development *u > a appears to be most frequent after a labial initial, but can occasionally be found elsewhere, as in EYu *balağan < *bulagan* 'sable', MgrM *barćiġai < *bulčïrkaï* 'gland', BaoD *balaġ ~ bulaġ < *bulag* 'source', Dgx *bağaçəu < *buka(-čug)* 'bull'. However, incidental cases such as MgrH *xʊnağla ~ xanağla < *kulugana* 'mouse', and variants such as EYu *χuyaġ ~ χayaġ < *kuyag* 'armour', *harβa- < *hurba-* 'to turn', *haya- < *huya-* 'to tie' indicate that assimilation to the vowel of the following syllable may play a role here rather than the labial consonant. In Eastern Yugur this type of lowering also occurs in the other high vowels of the first syllable (see for instance 3.5.3.).

Lowering accompanied by inexplicable fronting is seen in BaoÑ *terma < *turma* 'turnip', BaoÑ *deraŋ < *duran* 'liking', Kgj *mešχe- < *muškï-* 'to twist'.

3.9.3. Palatalisation

In the QG languages palatalisation of *u* often co-occurs with unrounding. In the Shirongol languages this is partly due to the lack of a phoneme *ü*. Complete palatalisation *u* > *ə* > *i* by preceding palatal consonants is seen in Eastern Yugur and Shirongol. A widespread example is *ayu-* 'to fear', which has mostly become *ayi-* or *ai-*. A following *y-* can also palatalise *u*, as in EYu *χa:- ~ hia- < *huya-* 'to tie'. Palatalisation by preceding palatals is nearly universally applied in Mongghul and Baoan, while it is rare in their respective sister languages Mangghuer and Dongxiang, as illustrated by MgrH *ǯila:*, MgrM *ʒula*, BaoÑ *ǯila*, Dgx *ʒula < *ǯula* 'lamp'.[161]

     As *ə* and *i* tend to be in an allophonic relationship in most of Shirongol, developments *u* > *i* in the absence of palatal consonants such as MgrM *bili- ~ buli- < *bulï-* 'to seize', can probably be interpreted as dissimilations.

     Palatalisation > *ü* by adjacent consonant is found in Eastern Yugur, e.g. *čüsaġ (~ čisaġ) < *ǯusag* 'two-year-old (sheep)'. The Eastern Yugur phonological system already contained an *ü*, unlike that of Shirongol. Occasional cases occur elsewhere, e.g. BaoD *ġanǯüŋ*, Kgj *ġanǰün ~ ġanǰʉn < *kamčun* 'sleeve'.

3.9.4. Elision

Elision of *u* via reduction

E. Yugur	*na:-*	*una-*	to descend
	βəǰə	*ubuǰï*	feeding bottle
	χwa:-	*kubïa-*	to divide
	sβəd	*subud*	pearl
Mongghul	*ŋġua:-*	*ugaa-*	to wash
	lus	*ulus*	nation
	da:ldə-	*kudaldu-*	to sell
Ñantoq Baoan	*ta:-*	*unta-*	to sleep

A widespread example of initial vowel loss is *uŋsï- ~ *umsï-* 'to read', which lost its initial vowel in Monguoric and in most Baoan dialects, e.g. MgrH *mośə-*. BaoD *muśi-*, BaoGt *məş-*. Elision of the *u* may have become possible after a form *umuši-* with epenthetic vowel had developed. However, due to 'dissenting' forms like BaoÑ *əmći-* and Kgj *unči-*, it can not be reconstructed for Proto Shirongol.

     marta- (or *umarta-*, based on its spelling) 'to forget' which famously lost its initial vowel even in central Mongolic, does not preserve a trace of it in the QG languages either.

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[161] Secondary *u* that was the result of palatal breaking, e.g. Proto Shirongol *čusun < *čïsun* 'blood', has undergone the same palatalisation in MgrH *ćisə*, BaoD *ćisun*, as opposed to the more conservative MgrM *ćuʒi*, Dgx *ćusuŋ*.

The exceptional loss of initial *u in Dag *wa:-* < *ugaa-* 'to wash' probably involves an intermediate form *uwa:-*.

Elision of *u via devoicing

E. Yugur	*hta:*	*hutaa*	smoke
	hta-	*duta-*	to lack
	rdə, *hurtu*	*urtu*	long
Mongghul	*ṣdur*	*urtu*	long
	śȝüra:-	*učïra-*	to meet
Ñantoq Baoan	*hȝa-*	*kuča-*	to bark
	ṣdasөŋ	*hutasun*	thread
Dahejia Baoan	*ġul-*	?*kukul-*	to break (tr.)[162]

usun 'water' lost its initial vowel in most of Shirongol, e.g. MgrH *ȿȝu ~ sȝu*, BaoD *sə*, Kgj *sʉ ~ sü*. Older sources suggest that EYu *qusun* also goes back to a form with elided vowel *χsun* (*χ-* being a relic of the devoiced first syllable). MgrM *suȝu* also involves a modern development from an older monosyllabic form *sȝu*, due to decreasing tolerance for initial clusters.

Loss of *u in other syllables can be seen occasionally, in Eastern Yugur usually following *-r-*, cf. *a:r* < *aru* 'back', *dar- ~ darə-* < *daru-* 'to press', *ǰar-* < *ǰaru-* 'to use'.[163] Cases of *Mittelsilbenschwund* include EYu *χunlaġ* < *kulugana* 'mouse', BaoÑ *ġөlsөŋ* < *kulusun* 'reed'.

3.10. Development of simple *ü

3.10.1. Default development

In Dagur *ü merged with *ö into u (See 3.8.).

In Eastern Yugur CM *ü is represented by central *ʉ* (according to Bolčuluu), and in some words by the front vowel *ü*.

In Kangjia the distinction between *ü and *u was preserved, although many irregularities occur. In the remaining Shirongol languages *ü merged with its harmonic counterpart *u into the modern phoneme *u*. This default development is found in words such as *bürge* 'flea', *büse* 'belt', *dülei* 'deaf', *ǰüg* 'direction', *kür-* 'to reach', *üge* 'word'.

As far as the Shirongol languages are concerned, *ü can also be reconstructed in *übül* 'winter' and *üdür* 'day', whose Written Mongol spellings suggest original forms *ebül* and *edür*. In these cases the forms with *ü-* are also

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[162] BaoD *ġul-* did not lose its first syllable by devoicing, if it goes back to the variant *kugul-*.
[163] A rare eample after another consonant is EYu *bat* < *batu* 'strong'. The loss of the final vowel of the suffixes *-kU* and *-ǰU* is not universal, but only occurs when certain auxiliaries or negative particles follow.

supported by Dagur. In other words with this vowel pattern Dagur is in agreement with the Written Mongol spelling (cf. *elgü- 'to hang', *ergü- 'to lift', etc). In *sibüge 'awl' and *čimügen 'marrow' it seems better to reconstruct *ö rather than *ü; *ö may be a secondary development of *e due to the labial consonant.[164]

3.10.2. Unrounding phenomena

High vowel neutralisation

Like its harmonic counterpart *u, *ü tends to become ə in the final syllable in Eastern Yugur and Mongghul, cf. EYu mendə < *mendü 'peace', EYu x̌isən, MgrH ʂʐən < *ye(r)sün 'nine', EYu hodən, MgrH fo:də < *hödün 'feather'. There is also the exception, as in the development of *u, that words with several *ü's may withstand the delabialisation tendency, as in EYu nudʉn, MgrH nudu, BaoÑ nədəŋ, Kgj nʉdʉ (< *nʉdʉn) < *nidün 'eye'. Even when the first syllable vowel is elided, the rounding remains in the second vowel, as in EYu hsʉn, MgrH ʂʐu < *hüsün 'hair', EYu hsʉn < *üsün 'milk', EYu hkʉ- < *ükü- 'to die'.

Some of the abovementioned words with the vowel sequence *e-ü have lowered vowels in Eastern Yugur, reminiscent of central Mongolic, whereas Shirongol has two high vowels. However, this is another issue where the descriptions of Bolčuluu and Junast differ. Eastern Yugur examples include odor (B), udur (J) < *üdür 'day', olɣo- (B) < *elgü- 'to hang', orɣo- (B), urɣə- (J) < *ergü- 'to lift', öröyö (B) < *erüke 'smoke-hole'.

In the vicinity of labial consonants it is impossible to specifically attribute examples of unrounding of *ü to dissimilation or to high vowel neutralisation.

Moreover, there are several words with prehistoric alternations *ü ~ *i, as recorded in Middle Mongol and modern languages including *bütegei (?*bitegei) 'do not', *büteü (?*biteü) 'double handful', *hüleü ~ *hileü 'superfluous', *ildü ~ *üldü 'sword'. It is not always clear which variant is the older. The reason behind these alternations is not the same in all cases. In the words starting with *b-, this labial consonant may have been the trigger to labialise or delabialise the first vowel. As *h- stems from PM *p-, one of the variants *hüleü ~ *hileü may also be due to assimilation or dissimilation. *üldü 'sword' can be viewed as an early 'prebroken' variant of *ildü.

Modern cases of *ü > ə (predominantly near labial consonants) include EYu bələmbər < *bülien.bir 'lukewarm', pʉsəɣʉi ~ pəsəɣui < *büsegüi 'woman', BaoÑ təlgə- < *tülki- 'to push'.

Unrounding and lowering

Unrounding and lowering in Eastern Yugur occurs in stems with *ü in the first and *e in the second syllable, e.g. eǰe- < *üǰe- 'to see', hele- < *hüle- 'to remain', tele- < *tüle- 'to burn', temen < *tümen 'ten thousand'. Similar developments can be

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[164] Khalkha, Ordos and Kalmuck suggest *siböge, in which the *ö could either be the *ü lowered by the following *e (cf. *kïtuga 'knife' for a parallel back-vocalic case), or an independent labialisation of the middle *e of *sibege).

seen in other words with a high vowel followed by a non-high vowel, so these cases may merely involve the assimilation of an unaccented vowels to the accented one in the following syllable.

Similar developments can be found in the Shirongol languages, but there most cases seem to involve dissimilation in the vicinity of a labial consonant. Examples include MgrH *tebśin* < **tübsin* 'level', MgrM *bergesï* < **bürküesün* 'lid', BaoÑ *belġaŋ* < *?*bülie.ken* 'lukewarm', *herga-* <**hürgü-* 'to be startled', *telaŋ* < **tüli.en* 'firewood', Dgx *bəŋǧə* < **bürge* 'flea'.

Unlike its harmonic counterpart **u*, short **ü* does not systematically undergo labial breaking in Dagur. Dag *bəs* < **büse* 'belt' may have developed via **bŭəsĕ*.[165]

3.10.3. Palatalisation

Palatalisation of **ü* by a preceding palatal is occasionally seen in Shirongol, e.g. MgrH *ʒ́irge*, BaoD *ʒ́irgə*, Kgj *ǰirge ~ ǰirgi* < **ǰürüken* 'heart', MgrM *kuʒ́i* < **küčün* 'strength', MgrH *nəćigo:r* < **ničügü.er* 'naked', and (strictly from long **üü*: BaoÑ *uʒ́ir* < **(h)üǰüür* 'tip, end'.

3.10.4. Elision

Elision of *ü* via reduction

E. Yugur	*ni:n*	**ünien*	cow
	βəl	**übül*	winter
	noɣon	**ünügün*	kid (goat)
Mongghul	*sme:n*	**süme*	temple
	dur ~ udur	**üdür*	day
	ʒ́u:r ~ uʒ́u:r	**üǰüür*	tip

A widespread case is the negation particle **üle ~ *ülü*, cf. EYu *lə*, MgrH *li:*, BaoD *lə*, Kgj *ne*, and even Mog *lʉ*, *lɛ*, *la*. As this word does not carry an accent, it frequently becomes prefixed to the verb.

Elision of *ü* via devoicing

E. Yugur	*hsʉn*	**hüsün*	hair
	kʉte-	**ügtee-*	to weed
Mongghul	*sʒə ~ fuʒə*	**hüsün*	hair
Ñantoq Baoan	*s̬ge*	**süke*	axe
	se	**büse*	belt

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[165] Labial breaking in front-vocalic words seems to be essentially limited to **öe*, cf. Dag *xʷə:s* < **höesün* 'pus', *tʷə:* < **töe* 'handspan', *mʷə:r* < **möer* 'rim of a wheel', etc.

Some words have elided *ü* of the first syllable in several QG languages, including *hüsün* 'hair' listed above, *ükü-* 'to die', and *ütergen* 'threshing floor': MgrM *śdərge*, BaoÑ *terġaŋ*, Kgj *tɔrǧɔ*, Dgx *tuǧoŋ*.

In a couple of words the presence and absence of initial *ü* has an unusual distribution. In *üsü(n) ~ *sün* 'milk', the former variant is supported by Eastern Yugur as well as by the central languages Kalmuck and Ordos. It seems unlikely that the longer form *üsün* is a secondary extended form. It is potentially very old, and reminiscent of *umarta- ~ *marta-*, although it lacks the early documentation of that word. Likewise, the word otherwise reconstructed as *gün* 'deep', has an additional syllable in MgrH *fugon ~ gun*, suggesting a reconstruction *ügün* or even *öken*, which is however not confirmed by any other language.

Vowel loss in non-first syllables usually involves *Mittelsilbenschwund*. In case of *jürüken* 'heart' this occurred in all of Shirongol and exceptionally also in Eastern Yugur. Other examples include MgrH *śolgo*, MgrM *şurke*, Dgx *şəŋki* < *silükei* 'saliva', BaoÑ *ebdəg* < *ebüdüg* 'knee'.

3.11. Issues related to vowel length

3.11.1. Vowel length in Mongolic

In this section I will review some of the possible evidence for original vowel length in Eastern Yugur and the Shirongol languages, with some excursions on Dagur. The main focus will be on the determination of the historical accuracy of modern vowel lengths, and on finding any alternative explanations. The synchronic distinctive value of vowel length in the peripheral languages will nevertheless be discussed.

The feature of vowel length is found in many Mongolic languages. The distinction between short and long vowels is phonologically relevant in the central languages Khalkha, Buriat, and Kalmuck, and in Dagur. In the QG languages distinctive vowel length is found in Eastern Yugur, in Mongghul; and it seems to preserve some relevance in the Ñantoq and Xiazhuang dialects of Baoan.

The rare vowel lengths attested in Mangghuer (only indicated by Čenggel-tei) and in Kangjia, Dahejia Baoan and Dongxiang (in the latter only documented by Todaeva) can only be of limited phonological importance synchronically. They are however of historical importance.

Long vowels have been described for Moghol, but these are restricted to certain vowel qualities (under the influence of the Tajik vowel system) and lack phonological significance.

In Dongxiang, Mangghuer, and Moghol the lengths that result from double vowels (and possibly lengths of other origins) have generally merged with the short vowel set. Incidental surviving vowel lengths in these languages are valuable for historical purposes. All languages that lost phonological vowel length did preserve some of the complex vowels in the form of diphthongs.

Examples demonstrating the phonological relevance of vowel length in the various languages will be given below. After that follows a section on the various origins of vowel length, including a discussion of so-called primary vowel length from the viewpoint of Dagur and QG languages. The modern languages are important for the diachronic discussion, as Written Mongol spellings and Middle

Mongol notations are not always informative, especially where those long vowels are concerned that are not the result of contractions.

3.11.2. Phonological value of vowel length

In order to establish the phonological 'weight' of vowel quantity in Mongolic, I will list some 'minimal pairs' and 'near minimal pairs' for each of the peripheral Mongolic languages that preserve long and short vowels.

The importance of such pairs in daily speech must not be overestimated. The opposed words are often different parts of speech so that they are not inter-changeable in a given grammatical context. Furthermore, however respectable the list of minimal pairs of a language, the majority of words, whether short or long vocalic, do not have an otherwise identical counterpart of the other quantity. The minimal pairs given below at least demonstrate that the vowel quantity is not determined by the phonetic environment.

Vowel length is always a relative feature. Long and short vowels do not have a fixed duration. Many irregularities and variations within and between languages are probably due to this fact.

Words which have a counterpart probably preserve their quantity better. But even phonemically relevant vowel lengths may disappear. Long vowels then merge with their short counterparts and eventually the entire system of vowel length distinction can be lost.[166] This is what happened in Mongolic, apparently three or four times independently: in Moghol[167], Mangghuer, Dahejia Baoan, and probably separately again in Dongxiang (which seems to descend from a conservative Baoan dialect not unlike Ñantoq Baoan (without the Tibetan element).

The (rather incidental) vowel lengths observed by Todaeva in Dahejia Baoan, and the vowel lengths recorded by Čenggeltei in Minhe Monguor, will be briefly discussed below.

Historically, vowel lengths have various origins. Double vowels *aa*, *ee*, *ïï*, *ii*, *uu,* *üü* gave rise to modern long vowels, naturally with various qualitative shifts similar to their short counterparts. Contraction of complex vowels *oa,* *öe* (as they are reconstructed here) resulted in additional long vowels *o:* and *ö:*.

As expected, some of the minimal or near-minimal pairs in the peripheral languages are direct continuations of ancient simple-double oppositions such as CM *dere* 'pillow' ≠ *deere* 'above'. However, many of the CM minimal pairs of this type did not survive. Most minimal pairs found in Dagur, Mongghul and Eastern Yugur are new. The long vowels may result from the contraction of diphthongs or my have other secondary origins. As seen in the examples below, long vowels in the peripheral languages may correspond to short vowels elsewhere in Mongolic, and short vowels may be shortened long vowels. In many cases one or both members of a minimal pair may be loanwords.

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[166] Compare the fate of the Common Turkic vowel length, which only survived directly in three modern languages, out of some thirty modern languages.

[167] The modern Moghol vowel lengths usually developed under Persian influence. See Ligeti 1964.

Different descriptions of the same language may disagree about the quantity of a vowel. Some divergences may be due to small dialectal or ideolectal differences, others perhaps merely to different interpretations by the various authors. Junast hears MgrH *xumba-* 'swim', *nura:-* 'collapse', *ǯi:da* 'spear', while Khasbaatar hears *xumba:-*, *nu:ra:-*, *ǯida:* (CM **humba-*, **nura-*, **ǰïda*). Similarly, Enkhbat hears Dag *dəlin* 'udder', *xɔrdun* 'quick', whereas Namcarai & Khaserdeni hear *dəli:n*, *xɔrdɔ:n* (CM **delen*, **kurdun*). Such discrepancies also occur in words which are expected to have long vowels. Enkhbat's *kunšun* 'smell of burning' appears as *kʉnšʉ:n* in Namcarai & Khaserdeni (CM ?**kʉŋsïün*).[168] In the case of Enkhbat's *xɔllə* as opposed to Namcarai & Khaserdeni's *xɔru:l* 'lip' the situation is the reverse, but for this lexeme the existence of two early variants **huruul ~ *hurul* is confirmed by the other languages. Many Eastern Yugur words have a long vowel according to Junast and a short vowel according to Bolčuluu & Jalsan:

Junast	Bolčuluu & Jalsan	CM	
mere:n	*mʉren*	**mören*	river
ule: ~ ölö	*ʉle*	**üile*	work
kude:l-	*kʉtel-*	**kötel-*	to lead
urǰüno:n	*ɔrǰinɔn*	**urïǰï hon*	year before last

These are all historically short vowels which have apparently been lengthened in the accented final syllable.[169]

Variation in quantity is also commonly found within the materials of one author, e.g. MgrH *dalə ~ dali:* 'alike', *burge ~ bu:rge* 'flea' in Khasbaatar, Dag *ɔlum ~ ɔlɔ:n* 'bellyband' in Enkhbat. The relative abundance of such variations seems to go against the case for vowel length as an important distinction.

3.11.3. Vowel length distinctions in peripheral Mongolic

Apart from the central languages Khalkha, Ordos, Khamnigan, Buriat, and Kalmuck, long and short vowels are distinguished in Dagur, Eastern Yugur, Baoan of Ñantoq, Baoan of Xiazhuang, and Mongghul. The phonological relevance of vowel quantity can be illustrated by means of minimal pairs.

In the central languages, minimal pairs often correspond directly to CM pairs. E.g. the short vowels of Khalkha correspond to short CM vowels, and the long vowels of Khalkha correspond to double vowels.

In Central Mongolic there are numerous minimal pairs in which the word with the long vowel is the causative of the word with the short vowel, e.g. Khalkha *xatax* 'to dry (intransitive)', *xataax* 'to dry (transitive)', from **kata-* and **kata.a-*,

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[168] Note that many of these words are also found in Manchu and Northern Tungusic languages. These languages may be the source of variant forms in Dagur or may otherwise have affected the Dagur forms.

[169] The reverse situation seems to be less common, but can be observed, e.g. in Junast *görösən*, Bolčuluu *gʉre:sən* 'wild animal' (**göreesün*), Junast *ǧua-*, Bolčuluu *uǧwa:-* 'to wash' (**ugïa-*), Junast *ǰü:ra-*, Bolčuluu *ǰüra-* 'to mix' (**ǰuura-*).

respectively. The concept of phonemic vowel length itself was preserved in several peripheral languages, but, due to various sound shifts, many of the original oppositions do not survive as such. Many of the minimal pairs in the peripheral languages have arisen due to incidental, often unpredictable developments. In other cases vowel qualities have merged so that the distinction between two words comes to rely on the vowel quantity, as in the following example from Ñantoq Baoan:

BaoÑ	CM	
ө:lөŋ	**eülen*	cloud
өlөŋ	**olan*	many

In the following, a selection of clear oppositions between short and long vowels will be presented for each of the peripheral languages where vowel length is still distinctive. For the other languages a selection of relictual vowel lengths will be given.

3.11.3.1. Vowel length distinctions in Dagur

See the lists of Enkhbat 1988:58, Zhong 1982:11, cf. also the vocabulary in Namcarai & Khaserdeni 1983.

Dag	source	
ča:s	**čaasun*	paper
čas	**časun*	snow
ba:s	**baasun*	excrement
bas	**basa*	also
sa:r	**saarï*	leather strips
sar	**sara*	moon
ǰa:r	**ǰïar(ï)*	musk
ǰar-	**ǰaru-*	to use
əmə:l	**emeel*	saddle
əməl	**emüne*	front
tɔ:s	**toasun*	dust
tɔs	**tosun*	fat
du:r-	**düüre-*	to fill up (intr.)
dur-	**düre-*	to sell
xu:l-	**hülie-*	to blow
xul-	**hüle-*	to remain

3.11.3.2. Vowel length distinctions in Eastern Yugur

Most examples are listed in Bolčuluu & Jalsan 1990:51-52. When EYu /i:/ is interpreted as the long counterpart of /ə/, pairs such as *šəra* 'yellow' ≠ *ši:ra* 'leg' can also be viewed as minimal pairs involving vowel length. See Nugteren 2003.

EYu	source	
ǎa:r	**ǰïar(ï)*	musk
ǰar-	**ǰaru-*	to use
ġada:r	**kadaar*	bridle
ġadar	**gadar*	surface
sa:r	**saarï*	buttocks (of livestock)
sar	**sar*	bird of prey
da:rə	**daarï*	saddle gall
darə-	**daru-*	to press
ta:-	**taa-*	to guess
ta	**ta*	you (pl)
ta:wən	**tabun*	five
tawən	**tabïn*	fifty
xana:-	**kanïa-*	to cough
xana	**kaana*	where
xwa:r	**kabar*	nose
xwar	Amdo *xwar*	printing block
de:re (~ *di:re*)	**deere*	above
dere	**dere*	pillow
de:l	**deel*	garment
del	**del*	mane
teme:n	**temeen*	camel
temen	**tümen*	ten thousand
ɔrɔ:	**oraa*	untamed
ɔrɔ-	**ora-*	to enter
xɔrɔ:-	**horïa-*	to wind
xɔrɔ	**kora*	poison

tölö:	**tölee*	for
tölö-	**töle-*	to repay
ǰu:n	**ǰaun*	one hundred
ǰun	**ǰun*	summer
u:la	**aula*	mountain
ula	**ula*	sole
tu:r-	?Turkic **tü:r-*	to unwrap
tur-	**tur-*	to be hungry
mu:dən	**modun*	wood
mudən	**emüdün*	trousers

3.11.3.3. Vowel length distinctions in Mongghul

See Čenggeltei 1988, Junast 1981b. In Mongghul, most vowel length oppositions pertain to the non-high vowels.

Mongghul	source	
ala:	Amdo *ɣla*	musk deer
ala	**ala*	crotch
ula:-	**uïla-*	to cry
ula:	**ula*	sole
ula	**aula*	mountain
buda:	**budaa*	meal
buda	**bïda*	we
ṣda:-	**sïta-*	to light
ṣda-	**čïda-*	to be able
śira:-	**sïra-*	to roast
śira	**sïra*	yellow
da:li:	**dalu* (*?daluï*)	shoulderblade
dali:	**dalaï*	sea
dali:	**adalï*	alike
ta:-	**taa-*	to guess
ta	**ta*	you

bule:n	**bülien*	lukewarm[170]
bulen	**belen*	ready
ne:-	**nee-*	to open
ne	**ene*	this
şde:-	**ügtee-*	to weed
şde	**erte*	early
re:	**ere*	male
re-	**ire-*	to come
śǯi:	Amdo *hći*	middle
śǯi-	**eči-*	to go
sgo:-	**sögee-*	to scold
sgo	**süke*	axe
şdo:lə-	**ötel-*	to become old
şdolə-	**hogtal-*	to fell

3.11.3.4. A note on the long vowels of Mangghuer

Čenggeltei has observed vowel length in a number of Mangghuer words. These long vowels are not described by Todaeva or Junast & Li. They may be the last remnants of an original system of length oppositions like that of Mongghul. Most of the recorded Mangghuer lengths can be historically explained; many stem from double or complex vowels, e.g. *gi:-* 'to release' < CM **gee-*, *mila:* 'whip' < **mïlaa*, *mo:r-* 'to low' < **möere-*; *na:du-* 'to play' < **naad-*; *o:ko* 'fat' < **öekün*; *bo:sï* 'louse' < **böesün*; *argo:sï* 'thorn' < **örgeesün*, *ġʊ:r* 'two' < **koar*, *qa:-* 'to cover' < **kaa-*; *sa:-* 'to milk' < **saa-*; *da:r-* 'to surpass' < **daarï-*; *do:ro* 'underside' < **doara*.

Other lengths are compensations for consonants, vowels, or syllables that were lost: *çɤ:* ~ *çɤğ* 'time' < **čag*; *no:ći-* 'to surpass, exceed' < **nögči-*; *şa:* 'yellow' < **sïra*. In such cases, a variant with the consonant and without the vowel length is usually also recorded. The long vowels in *be:ćin* 'illness' < **ebečin*; *be:sə* 'grass' < **ebesün* may have developed after losing the first syllable, but these forms are also reminiscent of the type of lengthening of non-high vowels followed by a high vowel, as found in Eastern Yugur and Mongghul (see 3.14.5.).

Other lengths may be accent-related, e.g. *nta:-* 'to sleep' < **unta-*, *sula:* 'loose' < **sula*; *ǯe:ni* 'one's own' < **eǰen* + genitive. Such lengths often agree with Mongghul and/or other languages, and may thus reflect regional developments of some antiquity.

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[170] Thus according to Junast's materials; in Li and S/M these words have become formally identical.

3.11.3.5. A note on the long vowels of Dahejia Baoan

In Dahejia Baoan, Todaeva still observed some (rather incidental) cases of vowel length, whereas Bökh & Liu did not. It seems that the recorded lengths are relics of the more elaborate system that must still have existed in the shared ancestor of the Baoan dialects. The lengths tend to be diachronically expected, representing known contraction lengths from double or complex vowels: *bu:-* 'to descend' < CM **bau-*, *he:-* 'to warm oneself in the sun' < **hee-*, *na:tə-* 'to play' < **naad-*, *ne:-* 'to open' < **nee-*, *no:r* 'face' < **nïur*, *o:lə* 'mountain' < **aula*, *o:lon* 'cloud' < **eülen*, *su:-* 'to live; to sit' < **sau-*, *ta:-* 'to guess' < **taa-*, *to:r-* 'to wander' < **töeri-*, *tu:-* 'to drive forth' < **tau-*, *u:-* 'to drink' < **uu-*, *xa:-* 'to cover' < **kaa-*. Others represent more recent Baoan contractions, e.g. *de:sə-* 'to spread' < **debis-*, *te:rə-* 'to embrace' < *teberi-*. Not from contraction, but generally in agreement with other Baoan forms: *la:-* 'to cry' < **uïla-*, *na:-* 'to fall' < **una-*, *sa:ɣə-* 'to wait' < **sakï-*, *wa:r-* 'to grab' < **barï-*. All examples are from the wordlist in Todaeva 1964. These same words are documented with short vowels in other publications.

3.11.3.6. Vowel length distinctions in Ñantoq Baoan

The following examples are mainly taken from the list in Chen Naixiong 1987:46-47, which includes oppositions where both members are loanwords from Tibetan or Chinese. Again, these examples illustrate clearly that present-day oppositions do not necessarily correspond to CM oppositions. In Ñantoq Baoan, long vowels occur predominantly in the first vowel position.

BaoÑ	source	
na:raŋ	**narïn*	fine
naraŋ	**naran*	sun
ma:ra-	**marïa-*	to hide (metathetic for **mara:-* ?)
mara	**marïa*	fleshiness
sa:-	**sa:-*	to milk
sa	**basa*	also
da:rə-	**daara-*	to feel cold
darə-	**daru-*	to press
ta:-	**taa-*	to guess
ta	**ta*	you (plural/polite)
ya:r-	**yaara-*	to hurry
yar	Amdo *hyar*	summer
ke:lə	**keeli*	belly
kel-	**kele-*	to speak

te:rə-	**teberi-*	to embrace
terə	**tere*	that
ʒ́i:-	**ǰii-*	to extend
ʒ́i	**ge.ǰü*	and
ɵ:ləŋ	**eülen*	cloud
ɵləŋ	**olan*	many
ɵ:də	**öede*	up
ɵdə-	**od-*	to go
tɵ:r(ə)-	**toarï-*	to circle
tɵr	**tor*	net

Note that Chen (1985) lists the forms *ɵd-*, *te:r-*, *tɵ:r-* instead of the forms *ɵdə-*, *te:rə-*, *tɵ:rə-* included in the list of minimal pairs in Chen (1987:46-47).

3.11.3.7. Vowel length distinctions in Xiazhuang Baoan

The examples are from Bökh & Chen, mostly from p. 62.

BaoX	source	
a:nə	?Turkic *ana*	mother
'anə	**alï* (?* *alï ïnu*)	which
χa:rə-	**kaarï-*	to scald, burn
χa:rə-	**karï-*	to return
χarə-	**gar-*	to come out
da:rə-	**daara-*	to feel cold
da:rə-	**daru-*	to press
darə-	Baoanic **šitara-*	to catch fire
do:lə-	**daula-*	to sing
do:lə-	**dolïa-*	to lick
dolə-	**hogtal-*	to cut off, sever
xo:ŋ	Amdo *hoŋ(-wo)*	body
xoŋ	**hon*	year

In spite of the scarce materials it is clear that length is distinctive in this dialect. Historically, the long vowels have diverse origins, but several are regular contractions of CM double vowels, e.g. *na:tə-* 'to play' < **naad-*. Others are due to more recent contractions, usually involving the loss of *-w- < *b*, e.g. *su:kə* 'awl' < CM **siböge*, *tɛ:rə-* 'to embrace' < CM **teberi-*. The length of the *a:* in *ġa:dər*

'sickle' is perhaps a compensation for the loss of length in the second syllable (*kaduur). The length of *vɛ:r* 'horn' (*(h)eber*), without equivalents elsewhere, may compensate for the lost initial, or be due to the *-r*.

Short vowels appear instead of the expected long vowels or diphthongs in many words including: *dulə-* 'to jump' (*deüli-*); *kisoŋ* 'navel' (*köisün*); *ǰoŋ* 'needle' (*ǰeʉn*); *fəli-* 'become red' (*hulaï-*).

3.11.3.8. A note on the long vowels of Kangjia

The vowel lengths recorded for Kangjia show that its long vowels have become marginal and optional. Diachronically the remaining lengths are the usual contraction products from double or complex vowels. Examples (all from the wordlist in Sečenčogt 1999): *ba:sun ~ basun* 'excrement'< *baasun*, *či:- ~ či-* 'to become white' < *čaï-*, *gi:- ~ gi-* 'to become bright' < *gei-*, *na:di- ~ nade-* 'to play'< *naad-*, *u: ~ u* 'wide'< *au, xa:- ~ xa-* 'to cover' < *kaa-*, *čilə: ~ čələ: ~ čələ* 'free time' < *čilöe*.

3.11.3.9. A note on the long vowels of Dongxiang

Vowel lengths in native words in Dongxiang are only recorded by Todaeva (1961). Historically they are the usual contraction products. The following are all the lengths in native words listed by Todaeva: *i:n* 'this side' < *ein, qa:-* 'to cover' < *kaa-*, *śi:-* 'to pull out' < *sei-*, *xo:* 'anger' < *haur*, *ya:lə* 'how' < either *yaa-* 'to do what'+ final converb *-lA* or *yaan* 'what'+ comitative case *-lUA*. These same words are documented in other vocabularies without the vowel length.

3.11.4. Origins of vowel length

Historically, most vowel lengths result from the contraction of double and complex vowels, *VV* sequences which in their turn mostly stem from Proto Mongolic *VCV* sequences. Such contraction lengths are therefore traditionally called 'secondary' vowel lengths (Poppe, Doerfer). The contraction already took place early, and no uncontracted double vowels survive in modern languages. Many of the complex vowels do survive as diphthongs.

It is unlikely that the double vowels in Middle Mongol were anything more than spelling devices to write long vowels. Spellings such as *a'a* in Sino-Mongolic already alternated with simple *a*, which in such alternations is interpreted as *ā* by modern editors, cf. the variants *zha-ya-a-zhou* and *zha-ya-zhou* 'destined' in the Hua-Yi Yiyu, read *ǰaya'aǰu* and *ǰayāǰu*, respectively, by Mostaert. The two Sino-Mongolic notations are likely to represent the same pronunciation *ǰayāǰu*. Even the corresponding Written Mongol spellings (*aɣa*, etc) may be an orthographic means to indicate vowel length.

All modern languages which to some degree preserve the phonemic vowel length distinction, and tend to retain the CM double vowels as long vowels, also feature vowel lengths that are apparently not the result of contraction. Because these vowel lengths were thought, or hoped, to represent vowel lengths that predated the contraction lengths, they are traditionally called 'primary' long vowels (see

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Janhunen 2003b for a synopsis). The lengths were viewed as possible relics from an early stage of the ancestral language, and would correspond to the long vowels of Turkic and Tungusic.

Unfortunately the 'primary' long vowels are not attested in the old sources or indicated in Written Mongol spelling. The internal Mongolic documentation for 'primary' lengths is purely modern. Evidence for non-contraction lengths is found in several central and peripheral languages.

The case for primary vowel lengths in Moghol seems weak, and will not be discussed here. Among the other peripheral languages Dagur, Eastern Yugur, Mongghul, and to a lesser extent, some Baoan dialects, also have many vowel lengths that are not the result of contractions. Unfortunately, the evidence is often contradictory, and rarely do we find vowel lengths supported by more than a single language.[171] Vowel length supported by one Mongolic language only, or by two languages in the same periphery, is insufficient evidence to assume a long vowel in CM, but may represent a regional innovation.

In fact, many of the modern non-contraction lengths can be explained as other types of secondary developments, such as more recent elisions and contractions, or compensatory lengthening. There is also a correlation between accent and vowel length, and between vowel length and vowel height, which accounts for many forms that at first sight would be potential evidence for primary vowel length. What remains is a relatively small set of unexplained lengths, which for now seems insufficient to uphold 'primary lengths' as a category.

It is important to be aware of the fact that the decision whether a Mongolic vowel length in a give lexeme is 'secondary' or 'primary' has mostly depended on a comparison with Written Mongol spellings. Secondary lengths are supposed to be the result of contraction because in Written Mongol they are spelled as *VCV* sequences (which may correspond to actual *VCV* sequences in Turkic and Tungusic cognates). However, for words that have ambiguous or uninformative non-Mongolic cognates, or lack cognates altogether, the intervocalic consonant can not be confirmed. Thus, CM *hulaan* 'red' (thus reconstructed here, but all modern forms descend from *hula:n*) is assumed to stem from trisyllabic *hulaCan* (possibly *hulaɣan*), mainly because of the Written Mongol spelling *ulaɣan*. In this approach, modern vowel lengths that are not indicated in spelling, such as that of CM *haaga* 'bran' (Written Mongol spelling *aɣa*), are candidates for 'primary' vowel lengths. But words like *aɣa* may actually just be spelling oddities without historical significance.

The various types of explicable vowel length will be discussed in separate sections below, including:

- Contraction length from double and complex vowels
- Accent-related vowel lengthening
- Compensation length

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[171] The Mongolic situation can not be compared with the evidence for vowel length in Common Turkic where Turkmen, Yakut, and Khalaj, three very different languages in three different corners of the Turkic-speaking areas, largely support vowel lengths in the same words.

- Lengthening of non-high vowels preceding a high vowel (E. Yugur, Mongghul)
- Lengthening of final vowels of monosyllabic words (Dagur)
- Lengthening of the vowel of certain suffixes

I will also list examples for different types of unclear vowel length, if possible with attempts at an explanation. Perhaps some of these lengths can later be demonstrated to go back to the CM period, or perhaps their occurrence will turn out to be indirect evidence for another ancient phonetic feature.

3.12. Development of the CM double vowels

3.12.1. Introduction

In this section the usual development of the double vowels in the peripheral languages will be discussed. As indicated in chapter 2, the CM entities written here throughout as *aa, *ee, *ïï, *ii, *uu, and *üü, must have developed into (monosyllabic) long vowel phonemes *a:, *e:, *ï:, *i:, *u:, and *ü:, at the stage of development that is relevant for the discussions below. The notations used here are meant to facilitate the comparison to Written Mongol and Middle Mongol.

The complex vowels *oa/ua and *öe/üe will also be discussed here, as at the same stage of CM they can be assumed to have developed into long vowels *o: and *ö:. With regard to these two vowels, the digraph notations are again a concession, in this case also to Moghol, which seems to preserve these sequences as diphthongs.[172]

The modern developments of *a:, *e:, *ï:, *i:, *o:, *ö:, *u:, and *ü: tend to be more predictable than their short counterparts, which are prone to changes effected by the phonetic environment, reduction and elision. However, even in those modern languages that have not given up the phonemic length distinction, the double vowels can be contracted and shortened, and then may undergo any development found in the short vowels, including complete loss, as in BaoÑ *hda* < *huuta* 'bag'.

In addition, many of the complex vowels have been simplified and merged with the long vowels, cf. MgrH *ra:* < CM *arïa* 'molar tooth'.

All this leads to many possible origins for each modern phoneme, and conversely, many modern reflexes for every CM phoneme. The long vowel *o:* in Mongghul illustrates this problem:

bo:-	*boa-* (*bo:-*)	to bundle
xo:ʒən	*koasun* (*ko:sun*)	empty
bo:sə	*böesün* (*bö:sün*)	louse
źo:lon	*ĭöelen* (*ĭö:len*)	soft
o:sgu	*auškï*	lungs
ġo:r	*koar*	two

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[172] At least in Ramstedt's materials. The question whether the Moghol diphthongs could be a secondary development will not be discussed here.

(continued)

no:r	**noïr*	sleep
fo:r	**heür*	nest
bo:lə	**büile*	gums
noġo:n	**nogaan*	green
sgo:-	**sögee-*	to scold
furo:-	**horïa-*	to wind
fo:de	**hodun*	star
fo:de	**hödün*	feather
śilo:	**silön*	soup
muro:n	**mören*	river
mo:r	**mör*	weg
o:sə-	**ös-* and/or **eüs-*	to grow
yo:-	**oya-*	to sew

In the following the general tendencies will be given for the development of each double vowel; the focus will be on the languages preserving phonemic vowel length.

3.12.2. Development of double **aa*

Distribution

The sequence **aa* can be found in all vowel slots:
Word-initially: **aalï*, **aasï* 'character' (not listed), **aarča* 'curds';
Non-initially in the first vowel slot: **baa-* 'to defecate', **čaalsun* 'paper', **daagan* 'foal', **daarï* 'saddle gall', **kaa-* 'to close', **maajĭ-* 'to scratch', **naad-* 'to play', **saa-* 'to milk', **taa-* 'to guess', **yaara-* 'to hurry';
In non-first vowel slots: **budaan* 'porridge', **čagaan* 'white', **dutaa-* 'to flee', **hulaan* 'red', **hutaa* 'smoke', **ïmaan* 'goat', **jŭjaan* 'thick', **kïjaar* 'edge', **mïnaa* ~ **mïlaa* 'whip', **salaa* 'branch', **umdaas-* 'to be thirsty'.

Developments

Double **aa* is usually preserved as *a:* in all languages which preserve the feature of vowel length. In Ñantoq Baoan *a:* is usually shortened beyond the first syllable. In Mangghuer, Dahejia Baoan, Dongxiang and Moghol, long *a:* < **aa* has merged with its simple counterpart *a* < **a*. In the languages preserving length, *a:* does not undergo most of the pronunciation changes (reduction, palatalisation, labialisation) which occurred in **a*.

CM **aa* of the second syllable remains **a:* after **a*, **ï*, or **u* of the first syllable. Examples:

CM	Dag	EYu	MgrH	BaoÑ	
*baa-	ba:-	pa:-	ba:-	ba:-	to poo
*naad-	na:d-	na:d-	na:də-	na:d-/na:tə-	to play
*ǰalaa	ǰila:	ǰala:	ǯala:	ǯala	tassel
*čagaan	čiɣa:n	čaǧa:n	ćaġa:n	ćiχaŋ	white
*ïmaan	ima:	ma:n	ima:	yimaŋ	goat
*hulaan	xula:n	ła:n	fula:n	fulaŋ	red

There seem to be no certain examples for the existence in CM of a vowel sequence *o-*aa. Poppe (1955:60) does not list examples for the sequence *CoCaɣa*. There is no reason why it could not occur, but evidence from the modern languages does not allow us to distinguish between *nogaan*, *noguan*, or *nogoan*, as these forms would result in the same modern forms. Only in some words there are historical arguments for a rounded vowel in the second vowel slot. For instance, in the case of *doloan* 'seven' there must once have been a rounded element in the second syllable to explain the *o* of the first syllable, in view of its relationship with *dalan* 'seventy'. Otherwise the sequence *oa* can be distinguished from *aa* only after a first syllable with *ï* (for *oa* see below). As a pragmatic solution the notation with *aa* is chosen here, e.g. *nogaan*. In most words listed below reconstructions with *aa*, *ua*, or *oa* would all be equally defensible.

CM	Dag	EYu	MgrH	BaoÑ	
*boraan	---	bɔrɔ:n	buro:n	---	rain
*dolaan	dɔlɔ:(n)	dɔlɔ:n	dolo:n	dələŋ	seven
*nogaan	nuwa:	nɔǧɔ:n	noġo:	nøġuŋ	green
*soyaa	sɔyɔ:	sɔyɔ:	---	---	stalk
*togaan	tuwa:	tɔǧɔ:n	toġo:	təχøŋ	pot

The sequence *ua* as such does not seem to occur in monomorphemic stems. When the sequence *ua* arises in derivation or inflection, its development in the peripheral languages can not be distinguished from that of *aa*, except when the first syllable vowel is *ï*. The same applies to most central languages.[173] Examples include *ab-* 'to take' > *ab.u.ad* 'having taken', *dusu-* 'to drip' > *dusu.a-* 'to cause to drip', *unu-* 'to ride' > *unu.a* 'saddle animal', *hutu-* 'to emit smoke' > *hutu.a* 'smoke', *ǰïru-* 'to paint' > *ǰïru.ačï* 'painter'.

Many CM words with the complex vowel *ïa* in the second syllable have developed similar modern forms as *aa* in the QG languages, especially in Eastern Yugur and Baoan (see 3.13.6.).

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[173] In Khamnigan it is possible to distinguish *aa* of non-first syllables from *ua*, even if the first vowel is not *ï*, as in *abo:d* 'having taken', from *ab-* 'to take' with connective vowel and perfect converb ending +*Ad* (see Janhunen 2003:24). In other languages forms derived from an assimilated *aba:d* < *ab-u-ad* occur. Ordos has *awa:t*, however if the *u* belongs to the stem it is preserved, e.g. *alχᵘa:t* from *alku-*.

Even in the QG languages that preserve vowel length, *a:* is prone to be shortened. In Ñantoq Baoan this is more or less regular. In Eastern Yugur and Mongghul it happens less predictably, sometimes in the same stems, e.g. Eastern Yugur and Mongghul *sala* 'branch' < *salaa*.

3.12.3. Development of double *ee

Distribution

The sequence *ee can be found in all vowel slots:
Word-initially: *eede- 'to coagulate' (not listed), *eemeg 'earring' (not listed);
Non-initially in the first vowel slot: *čeeǰi 'chest', *deel 'garment', *deere 'above', *deesün 'rope', *gee- 'to release', *hee- 'to dry in the sun', *keeli 'belly', *nee- 'to open', *teermen 'mill';
In non-first vowel slots: *emeel 'saddle', *gegeen 'bright', *güǰeen 'stomach', *herbeekei 'butterfly', *idee 'pus', *siree 'table', *sübee 'flank', *temeen 'camel', *ügtee- 'to weed'.

Developments

Double *ee typically appears as *ə:* in Dagur, but developed into a closed front vowel in QG. In Eastern Yugur, long *e:* has often been raised > *i:*, as in EYu *de:re ~ di:re* 'above' (*deere), although Qinglong dialect preserves *e:* in these cases (see Bolčuluu & Jalsan 1988:351).

CM	Dag	EYu	MgrH	BaoÑ	
*nee-	nə:-	ni:-	ne:-	ne:-	to open
*ǰee	ǰə:	ǰi:, ǰe:	ʒe:	---	cousin
*keeli	kə:lʸ	---	ke:le	ke:lə	belly
*gegeen	gəɣə:n	gegen	gəge:n	gegaŋ	bright
*güǰeen	guǰə:	guʉǰe:n	guʒe:	---	stomach

Rounding of *ee after *ö is applied less strictly than in the case of short *e after *ö, and *aa after *o.

CM	Dag	EYu	EYuQ	BaoÑ	
*nögee	nuwə:	---	---	nөgө	other
*döree	[du:rə:ŋgi:]	dʉre:	döre:	---	stirrup
*göreesün	gurə:s	gʉre:sən	görö:sən	---	wild animal
*sögee-	suwə:-	---	---	suʉgʉ- (Kgj)	to scold

Many instances of *ie and *üe developed like *ee. Like *ua discussed above, the sequence *üe does not occur in monomorphemic stems, but it can arise when suffixes are added, as in *bürkü- 'to cover'> *bürkü.esün 'covering', *hürgü- 'to be frightened' > *hürgü.e- 'to frighten', *mörgü- 'to bow' > *mörgü.ed 'having

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bowed'. In all languages except Khamnigan *üe has become indistinguishable from *ee except when the first syllable vowel is *i. See the complex vowels below.

Cases of shortening include: EYu *emel*, MgrH *imel* < *emeel* 'saddle', EYu *šere* < *siree* 'table', EYu *termen*, MgrH *tərme*, BaoŃ *termaŋ* < *teermen* 'mill', EYu *kute-* < *ügtee-* 'to pull up weeds'. In EYu *örlö ~ örlö:* < *öreele* 'half; hobble' the original long *ee* was lost altogether.

3.12.4. Development of double *ï̈ and *ii

These two double vowels, the rare double counterparts of *ï and *i are hard to distinguish in most languages. The difference between the short counterparts was almost annihilated in the first syllable in central Mongolic due to palatal breaking (see 3.6. above), so that they merged into one /i/ phoneme which is largely restricted to non-first syllables. Double *ï̈ and *ii are not subject to breaking, and in that sense are more stable. However, the number of examples is small.

Distribution

The relatively rare sequences *ï̈ and *ii are can be found in non-initial vowel slots:
Non-initially in the first vowel slot: *čïïrag* 'firm', *čiig* 'moist', *čiirsün* 'mat' (not listed), *ǰii-* 'to extend',*nii-* (?*nï̈-) 'to blow the nose', *sïïra* 'leg';
In non-first vowel slots: *hanï̈-* (~ *hanï-) 'to close one's eyes', ?*ǰihiin* 'purple', *ǰimii-* 'to close the mouth' (the latter two not listed).

Developments

Both *ï̈ and *ii normally developed into long *i:*. In the central languages Khalkha and Kalmuck, stems with *ï̈ like *čïïrag* 'strong' and *sïïra* 'leg' were transferred to the front vowel class, even when they contained back vowels or uvular allophones of *k*, *g*, or took back suffixes. However, Ordos, Buriat and Khamnigan tend to retain the original back features. Also the QG languages allow stems in which *a follows *i* or *i:* of the first syllable.

CM	Dag	EYu	MgrH	BaoŃ	
ǰii-	*ǰi:-*	---	*źi:-*	*źi:-*	to stretch
ǰïlï̈-	---	*ǰili:-*	---	---	to be separated[174]
nii- (?*nï̈-)	*ñi:-*	---	---	---	to blow one's nose
čïïrag	---	*čiraġ*	*ćiraġ*	---	strong, tight[175]
sïïra	---	*ši(:)ra*	*śira:*	---	leg[176]
čiig	---	*či(:)g*	---	---	moisture[177]

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[174] This word is reconstructed with back vowels because of the EYu caus. *ǰili:lġa-*.
[175] In Dongxiang we find the unexpected form *ɟiġara* with intervocalic consonant. See 4.5.4.
[176] Another unexpected Dongxiang form with intervocalic consonant: *ṣiġara*.
[177] Not *čïïg,* in spite of its back-vocalic Turkic cognate *čï̈:g*.

In Eastern Yugur long *i:* can be shortened without merging with its short counterpart /*i*/, as the latter is usually realised as [ə].

3.12.5. Development of double *uu

Distribution

The sequence *uu* can be found in all vowel slots:
Word-initially: *uu-* 'to drink', *uuča* 'back', *uurag* (?< *aurag*) 'biestings';
Non-initially in the first vowel slot: *buudaï* 'wheat', *huuta* 'bag', *juura-* 'to knead', *suu* 'armpit';
In non-first vowel slots: *čïlbuur* 'martingale', *huruu* 'downward', *huruul* 'lip', *kuruun* 'finger', *nïruun* 'spine', *turuun* 'hoof'.

Developments

In Mongghul the long rounded high vowels of the second syllable are often reduced, especially words ending in this vowel (or that lost final *-n* as is common in Mongghul). This reduction is uncommon in Eastern Yugur. In Ñantoq Baoan all long vowels tend to be shortened beyond the first syllable.

CM	Dag	EYu	MgrH	BaoÑ	
uu-	ɔ:-	u:-	u:-	u:-	to drink
huruu	xɔrɔ:	hɔrui, hurü:	furə	---	downwards[178]
nïruun	nirɔ:	nuru:n	nurə	nərəŋ	back, ridge
kuruun	xɔrɔ:	χuru:n	xurə	ġurə	finger

In Dagur *uu* can be broken (like its short counterpart) when a short *a* followed in the next syllable[179]; the *uu* is reduced in the process, and its length transferred to the imported *a*. In Eastern Yugur, Mongghul and Ñantoq Baoan there are several instances of shortening or elision of *uu*.

CM	Dag	EYu	MgrH	BaoÑ	
uurag	wa:rəl	uraġ	uraġ	orġə (BaoGt)	biestings
huuta	xʷa:t	u:ta	fu:da	hda	sack
juura-	jʷa:r-	jü(:)ra-	ẑira:-	ẑira-	to mix

Many CM words with the complex vowel *au* have developed similar modern forms in QG (and elsewhere). The same applies to the complex vowel *ïu*. See the section on the complex vowels below.

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[178] The Eastern Yugur form is irregular in that it seems to include a diphthong with a palatal element (also reflected in Kalmuck *ürü:*).

[179] This can also be observed in words with unexpected lengths, such as Dag *xʷa:l* < *huula* 'tinder' and *tʷa:ləɣ* < *tulga* 'support' discussed in 3.14.2.

3.12.6. Development of double *üü

Distribution

The sequence *üü can be found in all vowel slots:
Word-initially: *üüče 'meat provisions for winter', *üür- 'to carry on the back' (these words not listed);
Non-initially in the first vowel slot: *büürge 'pommel', *düüre- 'to fill', *tüükei 'raw';
In non-first vowel slots: *bidüün 'coarse', *hüjüür 'tip', *küjüün 'neck', *sirüün 'coarse'.

Developments

Parallel to *u:, in Mongghul *ü: tends to be reduced at the end of words.

CM	Dag	EYu	MgrH	BaoÑ	
*hüü-	xu:-	hü:-	fu:-	fu-	to rot
*tüükü[180]	tuiɣun	tü:kə:, tü:ʰgə	tiu:gu	tugu	raw
*bidüün	budu:n	bodü:n	budən	bedøŋ	coarse
(continued)					

CM	Dag	EYu	MgrH	BaoÑ	
*küjüün	xʉju:	gʉjü:n	guʑə	guʑuŋ	neck
*küün	xu:[181]	kʉn, ku:n	kun	kuŋ	person

Many CM words with the complex vowel *eü have developed similar modern forms in QG (and elsewhere). Depending on the language, *iü, *üi and *uï may also develop similarly. See the section on the complex vowels below.

In Eastern Yugur the long ü: is frequently shortened, as in kü:ken ~ küken 'boy' < *keü.ken 'child'. This does not cause phonological problems, as the palatal pronunciation prevents it from merging with ʉ, the usual reflex of short *ü.

3.12.7. Development of *oa (*oo)

Distribution

The sequence *oa can be found in all vowel slots:
Word-initially: oačï- 'to drink';
Non-initially in the first vowel slot: *doa-ra 'underside', *koa- 'to dry', *toan 'number', *toasun 'dust';

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[180] Rather than the central Mongolic form *tüükei. Dag -ui- and -n are unexpected.
[181] Dagur also has shortened forms of *küün in the compounds əmɣun 'wife, woman, female' from *eme küün, and ərɣun 'husband, man, male', from *ere küün.

In non-first vowel slots the presence of *oa can only be established after*ï: *hïroar ~ *hïraur 'bottom', *ǰïloa 'rein'. Elsewhere it has become indistinguishable from *aa.

Developments

In all modern languages except Moghol, CM *oa has been contracted into o:. In the first syllable this was preserved as a long ɔ: sound in Dagur unless there was an *a in the next syllable (which triggers labial breaking). In Eastern Yugur the contracted vowel is often raised to u:.[182] CM *oa merged with its harmonic counterpart *öe in Mongghul and Ñantoq Baoan, but stayed long.

CM	Dag	EYu	MgrH	BaoÑ	
*oačï-	---	u:čə-	ućə-	aćal- (caus.)	to drink
*koa-	xʷa:-	χu:-	χo:-	χɵ:-	to dry
*doara	dʷar	du:ra	do:ro	dɵ:rə	underside
*toala-	tʷa:l-	tu:la-	to:la-	tɵ:la-	to count
*čoara-	---	ču:ra-	ćo:ra:-	ćɵ:ra-	to be pierced
*toarï-	tɔ:rʸ-	tɔrɔ-, toro:-	to:rə-	---	to circle

In Mangghuer and Dahejia Baoan the typical reflex is short o, which in Kangjia may develop into u. In Dongxiang the situation is more complicated. In some of the stems listed above, Dgx also has o, e.g. oʐï- 'to drink', ġo- 'to dry'. In other stems Dgx features the diphthong əu, as in dəura 'underside', təula- 'to count', ʐəura- 'to be pierced'. These diphthongs may be archaisms. They are reminiscent of Moghol, where we find qua- 'to dry', toala- 'to count', etc, alongside dora 'underside', qo:lɛɪ < *koalaï 'throat'. Moghol was one of the reasons why the CM forms are reconstructed here with *oa rather than *o:. However, it should be noted that Dongxiang and Moghol do not generally have the diphthongs in the same stems, and Dongxiang əu has several, partly unclear origins.[183]

The broken vowels in Dagur are not instances of preserved uncontracted *oa, but are due to labial breaking due to the presence of *a in the next syllable (cf. Dag tɔ:(n) 'number' from *toan as opposed to its derivation *toala- above).

The developments in the second vowel slot are similar.

CM	Dag	EYu	MgrH	Kgj	
*hïroar	xiɣɔ:r	hru:r	---	hurlu	bottom
*ǰïloa	ǰilɔ: ~dilɔ:	ǰəlu: ~ ǰulu:	ʐolo.ćə	---	reins
*ǰïroa	ǰirɔ:	ǰɔrɔ:	ʐoro	ǰuru	ambler

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3.12.8. Development of *öe (*öö)

Distribution

The sequence *öe can be found in all vowel slots:
Word-initially: *öede 'up', *öer- 'self', *öere 'other'.
Non-initially in the first vowel slot: *böelǰi- 'to vomit', *böere 'kidney', *böesün 'louse', *höesün 'pus', *köesün 'scum', *köerge 'bridge', *töeri- 'to get lost'.
In non-first vowel slots the presence of *öe can only be established after *i: *čilöe 'free time', *hiröe- 'to bless', *kiröe 'saw'.

Developments

The developments are parallel to those of *oa. In all modern languages except Moghol, CM *öe has been contracted. Dagur has the developments u: and wə:. The latter is not a continuation of *öe, but due to labial breaking (probably partly triggered by *e of the second syllable). The different treatment of Dag bə:r (for *bʷə:r) < *böere 'kidneys', and bu:s < *böesün 'louse' is probably due to the different vowels of the second syllable.[184] In Eastern Yugur it stays long, but is often raised to ü:.[185] In Mongghul and Ñantoq Baoan, *öe merged with its harmonic counterpart *oa, and resulted in long o:, which was shortened in Mangghuer and most Baoan dialects.

CM	Dag	EYu	MgrH	BaoÑ	
*köe-	xʷə:-	kü:-	ko:-	kə:-	to swell
*čöen	čʷə:n	čü:n, čö:n	ćo:n	čoŋ (BaoX)	few
*böere	bə:r	pü:re, pö:rö	bo:ro	bə:rə	kidneys
*böesün	bu:s	bü:sən	bo:sə	bə:səŋ	louse
*böelǰi-	bə:lǰ-	bölǰö-	bo:lǯo-	bəlǯa-	to vomit

In Dongxiang the development of *öe differs from that of *oa, as *öe has never resulted in the diphthong əu.
　　In Dagur palatal breaking is less common than in the back-vocalic stems above. The second vowel is unrounded, whether or not breaking took place. The quality of the second syllable in QG is erratic.

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[184] Likewise the Dagur variants of the same etymon tʷə:r- and tu:rʸ- 'to get lost' perhaps reflect CM variants *töere- and *töeri-.

[185] Qinglong has ö:. See Bolčuluu & Jalsan 1988: 350-351 for examples for this dialectal difference. However, some Qinglong forms raise the question whether some cases of ö: are not the result of secondary lowering. This seems to be the case for dö: 'younger brother', dölö:n 'spleen', törö: 'bootleg' (from *deü, *deliün, *türei).

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CM	Dag	EYu	MgrH	BaoÑ	
*čilöe	čulǝ:	čölö:	---	ćǝlǝ	free time
*hiröe-	xirǝ:-	hörö:r	śüro:-	---	to bless
*kiröe	kirǝ:	kʉre:	ćirǝu:	kuru	saw

MgrH śʒ́o:sǝ suggests a reconstruction *hičöesün 'willow' (as does Buriat), but EYu hǝrči:sǝn and Kgj ǰasun favour *hičesün.

3.13. Development of the complex vowels

3.13.1. Types and developments

The complex vowels, or diphthongs, are sequences of two different vowels. They are called complex vowels here, because it is not known whether they originally constitute one or two syllables. There are some indications that at least in some words they were originally disyllabic.

Firstly, vowel sequences may span two morphemes, e.g. *tarïan 'crop' < *tarï- 'to plant, cultivate', *kalaun 'hot' < *kala- 'to be hot'.

Secondly, the elements of a complex vowel may behave independently in that they can be seen to swap places. For this type of metathesis see 3.13.6.

Thirdly, the diphthongs in some words are known, mostly on the basis of non-Mongolic data, to go back to VCV sequences. Examples include *aïl 'campsite' (Turkic *agïl) and *siür- 'to sweep' (Turkic *sipür-).

The historical origin and morphological structure of the complex vowels has no bearing on their further development in the peripheral languages, that is, it is irrelevant whether there is evidence for a lost intervocalic consonant.

All complex vowels are made up of vowels that also occur independently. In many respects the diphthong elements behave like their independent counterparts. For example the *a of *aï may be harmonically rounded by a preceding *o, and the *i of *ie palatalises a preceding *s. In other repects they are different entities, for instance the second element of *aï, *oï, *uï, retains its palatality in the QG languages, whereas *ï and *i generally become centralised into a ǝ-like sound.

For the purpose of discussing their development in the QG languages, the CM complex vowels can be divided in four groups.

1) Diphthongs ending in *ï/*i   *aï, *ei, *oï, *öi, *uï, *üi

2) Diphthongs ending in *u/*ü   *au, *eü

3) Diphthongs starting with *ï/*i   *ïa, *ie, *ïu, *iü

4) Diphthongs starting with *u/*ü *ua, *üe

The first three groups survive in Dagur, Moghol, and in both branches of Shirongol, although there are many contractions and exceptions in individual Shirongol

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languages. In Eastern Yugur only group 1 partly survives.[186] Eastern Yugur thus even exceeds Khalkha, Ordos, and Kalmuck, which incidentally preserve group 3 diphthongs in non-first vowel slots. Within Shirongol, Ñantoq Baoan is perhaps the most eagerly contracting dialect, with groups 2-4 always resulting in monophthongs, and all of group 1 often appearing as *i:*.

The diphthongs *ua/*üe of group 4 were assimilated to either *aa/ee* (after *A* or *U* of the first syllable) or *oo/öö* (in the first vowel slot or after *ï/*i of the first syllable).[187] Therefore they are discussed in the section on the long vowels above. They are written *oa and *öe in the reconstructions in order to facilitate comparison with written forms of Mongolic and with Moghol, the only modern language that did not systematically monophthongise these two sequences. This notation will also facilitate the comparison with non-Mongolic data.

Partly due to the simplification of vowel harmony, not all of the original diphthongs survive in native words in the QG languages.

Phonetic changes that affect the diphthongs may vary greatly, even within languages. The main changes are partial assimilation or complete assimilation (monophthongisation). The resulting monophthongs may subsequently be shortened, or, especially in the Shirongol languages, diphthongised into new (Chinese-inspired) diphthongs. These predictable diphthongal pronunciations will not be indicated in the notations here.

The second diphthong element tends to be dominant. Group 1 diphthongs ending in *ï/*i will always retain a palatal element, whereas the preceding element may be partially or fully assimilated. Group 2 diphthongs ending in *u/*ü will always retain a labial element. In group 3 the palatal first element may be assimilated to the second element.

The elements *a* and *e* of the diphthongs *aï, *ei and *ïa, *ie are subject to harmonic rounding when following *o/*ö of the first syllable, as in EYu *mɔğɔi < *mogaï 'snake'.

The merger and loss of vowel sequences in Shirongol can be partially predicted from the development of the simple vowels, e.g. the loss of the distinction between *uï and *üi follows from the loss of the distinction between *u and *ü. Diphthongs absent from Chinese may shift towards a Chinese-compatible pronunciation, e.g. *oï > uai or ai or ei.

A noteworthy special development in Dagur is that diphthongs can undergo palatal breaking, as in *x^yaut < *hïutan 'narrow', as well as labial breaking, as in *x^wainə < *koïna 'posterior'.

As similar developments have taken place repeatedly, in different periods (already starting in Middle Mongol), and in different branches, diphthong developments are of limited use for classification purposes.

In the following discussion it has to be kept in mind that many of the complex vowels that had been assimilated in a given language may re-emerge at a later stage, due to vowel reduction in native words. For instance the sequence *ïa

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[186] In the central languages the treatment of the vowel sequences varies greatly. In Buriat most diphthongs of groups 1 and 3 are preserved. In Chakhar group 2 and most of group 1 have become monophthongs; the same has often happened to the sequences of group 3.

[187] Only Khamnigan shows a different development, e.g. *abo:d < *ab.u.ad 'having taken'.

had been assimilated to *a:* in earlier Eastern Yugur, but modern Eastern Yugur has developed a new diphthong *ia* which is the result of the reduction of an unstressed vowel, as in *biar* < **bayar* 'joy'. The *-u-* in MgrM *ŋġua-* < **ugaa-* < **ugïa-* 'to wash' echoes the preceding rounded vowel. The status of such sequences may be reinforced by Chinese loanwords containing similar diphthongs.

3.13.2. Development of **aï* and **ei*

3.13.2.1. Distribution

The sequence **aï* can be found in all vowel slots:
Word-initially: **aïl* 'village', **aïmag* 'village';
Non-initially in the first vowel slot: **baï-* 'to stand', **čaï-* 'to dawn', **kaïčï* 'scissors', **kaïla-* 'to call', **naïman* 'eight', **naïta-* 'to sneeze', **saïkan* 'beautiful', **taïl-* 'to untie';
In non-first vowel slots: **čïraï* 'face', **gakaï* 'pig', **horaï* 'crown', **hulaï-* 'to become red', **mogaï* 'snake', **nokaï* 'dog', **taŋlaï* 'palate', **taulaï* 'hare'.

The sequence **ei* can be found in all vowel slots:
Word-initially: **ein* 'this way';
Non-initially in the first vowel slot: **gei-* 'to become bright', **geičin* 'guest', **heil-* 'to leave', **kei* 'wind', **neile-* 'to unite';
In non-first vowel slots: **dülei* 'deaf', **herbeekei* 'butterfly', **hümekei* 'smelly', **isegei* 'felt', **melekei* 'frog', **silükei* 'saliva'.

The occurrences in non-first syllables are all word-final.

3.13.2.2. Dagur metanalysis of final **aï* and **ei* in noun stems

In nouns ending in **aï* and **ei*, these diphthongs tend to lose their second element, and as a consequence may disappear altogether. However, Dagur adjectives and verbs generally preserve the diphthongs as such, or monophthongised into a long *i:*. This division is strikingly illustrated by the contrast between the CM noun **kauraï* 'file (tool)', which developed into Dag *xaur*, whereas the homophonous adjective **kauraï* 'dry' developed into Dag *xᵂa:ri:*.[188] This indicates that the loss of the second diphthong element is not a phonetic matter. Rather, it seems to be due to metanalysis, whereby the bare stem was 'mistaken' for its genitive-accusative, and a new stem was created by removing the perceived case ending. Examples:

Dagur	CM	
gaɣ(ə), gen-acc *gaɣəi*	**gakaï*	pig
*nɔɣ*ʷ, gen-acc *nɔɣui*	**nokaï*	dog
mələɣ, gen-acc *məlɣi:*	**melekei*	frog

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[188] Other adjectives (all preserving a diphthong or contracted long vowel in Dagur) include **kelegei* 'mute', **köŋdei* 'hollow', **solagaï* 'left', **subaï* 'barren'.

This reinterpretation has occurred in many (most?) noun stems, but is not universal, cf. Dag *dali:* < **dalaï* 'sea'.

Another clue as to why Dagur lost the **-ï/-i* from word-final diphthongs may be provided by Manchu cognates (in most cases obvious borrowings from Mongolic) which also end in a simple vowel rather than a diphthong. Examples:

Dagur	as if from CM		cf. Manchu	
gaɣə	**gaka* (for **gakaï*)		---	pig
ǰɔl	**ǰula* (for **ǰulaï*)		*giyolo*	fontanel
maɣəl	**magala* (for **malagaï*)		*mahala*	hat
mɔɣ^w	**moga* (for **mogaï*)		---	snake
šar	**čïra* (for **čïraï*)		*cira*	face
tannə	**taŋla* (for **taŋlaï*)		---	palate
xaur	**kaura* (for **kauraï*)		*hûwara*	file
x^waləɣ	**kulaga* (for **kulagaï*)		*hûlha*	thief
x^warəm	**korma* (for **kormaï*)		---	hem
xɔr	**hora* (for **horaï*)		*foron*	crown of the head
xɔruɣ^w	**koraka* (for **korakaï*)		---	insect

Similarly, in front-vocalic nouns:

kumuɣ	**kömüge* (for **kömügei*)		---	uvula
mələɣ	**meleke* (for **melekei*)		---	frog
urum	**ölme* (for **ölmei*)		---	instep
tur	**türe* (for **türei*)		*ture*	bootleg
xərəɣ	**hereke* (for **herekei*)		*ferhe*	thumb

There are two possible explanations for the similarity of the Dagur and Manchu forms. Dagur could have taken these word shapes from Manchu, although several of them are not actually attested in Manchu. At any rate the Manchu forms need explanation themselves. They could stem from an Oirat-type language that monophthongised **aï* and **ei* into *a:* and *ä:* respectively. Alternatively, the Manchu forms are reminiscent of the Dagur ones because Manchu took many of its Mongolic loanwords from Dagur, as suggested by Doerfer (1984:11-12). In that case metanalysis seems the most likely reason behind the Dagur forms, at least provisionally.

Metanalysis may be at the root of similar cases in QG languages, where the loss of the last diphthong element occurs sporadically, e.g. EYu *ölöɣö* < **ölegei* 'cradle', MgrH *śolgo* < **silükei* 'saliva', MgrH *malġa* (with equivalents in the other Shirongol languages) < **malagaï* 'hat', MgrM *qormo* < **kormaï* 'hem'.[189] However, among the QG languages, only Eastern Yugur preserves the suffix shape *-i:n* as one of the variants of the genitive-accusative case ending; this suffix variant is required for metanalysis to take place. In Shirongol the shape *-nI* has become generalised.

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[189] **kïtuga(ï)* 'knife' only preserves the element **ï* in Moghol.

Any metanalysis in Shirongol based on reinterpretation of the nominative as a genitive must have taken place in an earlier period.

On the other hand old variants found throughout Mongolic, such as *andagar ~ andagaï 'oath', *ǰulaï ~ *ǰula 'fontanel', *koalaï ~ *koala 'throat; food', may indicate that the *-ï/-i is an obsolete formans of unclear function. This is also suggested by the fact that words may lose the element *ï/*i before some suffixes, cf. the plurals of *nokaï 'dog', in SH noqo-t, Kalmuck noχŏ-s, 'dogs'. Whatever the original etymological status of the element *ï/*i , a singular without it may have developed due to reanalysis of the plural.

3.13.2.3. Remaining developments of *aï and *ei

Initially and in monosyllables *aï is generally preserved as ai both in Dagur and the QG languages. In non-first vowel slots *aï may appear in several degrees of assimilation and contraction, i.e., ai, əi, ei, e:, i:, which may then be shortened to e, i. The reflexes often vary within a language, e.g. Dag dalai ~ dali: < *dalaï 'sea', EYu aŋǧai- ~ aŋǧəi- ~ aŋǧi:- < *aŋgaï- 'to open', MgrH će:- ~ ći:- < *čaï- 'to become bright'. Likewise *ei may be assimilated, as in Kgj sei- ~ si- < *sei- 'to weed'. In Mangghuer and Dongxiang, *ei may appear as ai, as in Dgx lailie- < *neile- 'to unite'.

As discussed above many nouns ending in *aï and *ei lose the second element of these diphthongs in Dagur, so that adjectives and verbs are the most reliable examples. After a rounded vowel, or partly rounded diphthong, -*aï will result in Dag -ui.[190]

Dag	CM	
aulɣui	*aulïkaï*	fearful
ñɔskui	*nïsukaï*	snotty
sɔɣui	*subaï*	barren
sɔlɣui	*solagaï*	left-handed

Rounding of *aï after ɔ is also found in Eastern Yugur and Shirongol, e.g. EYu sɔlɔǧɔi < *solagaï 'left-handed', BaoD noǧoi < *nokaï 'dog'. This rounding is not present in Dongxiang. It was probably secondarily lost, as the sequence o-o is allowed in Dongxiang.

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[190] In some Dagur words *-aï behaves like the complex vowel *ïa, and develops into prepalatalising e:, as in ɔmʸe: < *umaï 'Umay (goddess of childbirth)', ɔrʸe: < *oraï 'evening', ñerʸe: < *nïraï 'tender', če:- < *čaï- 'to become white'. In the last example the palatal consonant may have played a role. Another group of words reduced the original *aï/*ei into a palatalising element after the preceding consonant, e.g. bə:lʸ < *beelei 'gloves', čakɔ:lʸ < *čakulaï 'gull', taulʸ < *taulaï 'hare', but this may merely be the same phenomenon that caused the palatalisation of word-final -l and -r, as in kulʸ < *köl 'foot' and gərʸ < *ger 'house'. Yet another strange development, reminiscent of Oirat, is Dag ǰauǰa: < *ǰauǰaï 'heel'.

3.13.3. Development of *oï, *uï *öi, *üi

3.13.3.1. Distribution

Compared to *aï and *ei, the sequences *oï, *uï, *öi, *üi were rare, especially in non-first vowel slots.

The sequence *oï can be found in the first vowel slot:
Word-initially: *oïra 'near';
Non-initially in the first vowel slot: *hoï 'forest', *koïna 'behind', *noïr 'sleep', *noïtan 'wet';
Possibly *oï occurs in non-first vowel slot in *sïroï 'earth', but this may stem from earlier *sïruaï.

The sequence *uï can be found in the first vowel slot:
Word-initially: *uïla- 'to cry';
Non-initially in the first vowel slot: *buïla 'camel's nose plug', *huïtan ~ *hïutan 'narrow', *kuï 'sheath';
In non-first vowel slots: *alkuï (?*alguï) 'pot', *kančʼu(ï) 'sleeve', *kïrguï 'hawk', *muruï 'crooked'.

The sequence *öi may have been present in *göin (?) 'shallow', *köisün 'navel', *köiten 'cold', *söike 'earring'. The QG languages offer little evidence to distinguish *öi from *üi.

The sequence *üi can be found in the first vowel slot:
Word-initially: *üile 'work';
Non-initially in the first vowel slot: *büile 'gums', *güi- 'to run', *tüimer 'steppe fire';
In non-first vowel slots: *tedüi 'that much' (not in QG), *ügüi ~ *ügei 'absent'.

3.13.3.2. Development

In Dagur *oï and *uï will merge into oi, as in Dag nɔitun < *noïtan 'wet', ɔis < ?*uïsun (other languages suggest *üisün) 'birchbark'. However, *oï and *uï are subject to labial breaking when followed by *a, as in wair < *oïra 'near', xʷainə < *koïna 'behind'. Likewise *üi has resulted in ui, but when followed by *e it also underwent labial breaking, as in wəil < *üile 'work'.[191]

   In QG, the sequences *öi and *üi merged into *üi. The complex vowels *oï, *uï, *üi may monophthongise and merge to various degrees.

   *oï may result in oi/ui , or may be 'sinified' into > uai , or unrounded > ai > ei > i:. The following example illustrates the diversity of reflexes among and within languages: MgrH fui:, fi:, fe:, xʋi, BaoÑ hi:, Kgj he, Dgx xoi < *hoï 'forest'. A

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[191] Dag wəil could also be explained as a borrowing from Manchu.

deviating development in all of QG is that of *noïr 'sleep', in which *oï resulted in ɔ:. This represents an early regional irregularity.

In the QG languages *uï and *üi tend to become indistinguishable. Both *uï and *üi usually result in *ui* in Dongxiang and Mangghuer, while they are normally contracted into *ü:* in EYu, and into *i:* in Baoan and Kangjia.

3.13.4. Development of *au and *eü

3.13.4.1. Distribution

The sequence *au can be found in all vowel slots:
Word-initially: *au 'wide', *aula 'mountain', *auškï 'lungs';
Non-initially in the first vowel slot: *bau- 'to descend', *daun 'sound', *haul- 'to run', *ǰau- 'to bite', *ǰaura 'middle', *kaučïn 'old', *sau- 'to sit';
In non-first vowel slots: *bïrau ~ *burau 'calf', *galǰau 'crazy', *hasau- 'to ask', *ǰalau 'young', *kalaun 'hot', *sïbaun 'bird', *sïmaul 'mosquito'.

The sequence *eü can be found in all vowel slots:
Word-initially: *eüden 'door', *eülen 'cloud', *eüs- 'to develop';
Non-initially in the first vowel slot: *deü 'younger sibling', *deüli- 'to jump', *heür 'nest', *ǰeüdün 'dream', *ǰeün 'needle', *seüder 'shade', *seül 'tail'.
In non-first vowel slots: *bileü 'whetstone', *ebčeün 'chest', *ereün 'chin', *hileü 'surplus', *köbeün 'son'.

3.13.4.2. Development

Examples for the monophthongisation *au and *eü into *u: and *ü: are already documented in the Middle Mongol sources in Arabic script, but contraction was not a general rule. In central Mongolic as well as in Eastern Yugur this contraction was systematically executed.

In Dagur *au and *eü are typically preserved in the first vowel slot, as in *aul* < *aula 'mountain', *əud* < *eüden 'door'. Elsewhere *au has become *u:* or *o:*, without an obvious system, e.g. *xalu:n* < *kalaun 'hot', *ǰalɔ:* < *ǰalau 'young'. Beyond the first vowel slot *eü has resulted in Dagur *u:*, as in *ərču:* < *ebčeün 'chest'.

In Eastern Yugur, the normal developments of *au and *eü, regardless of position, are *u:* and *ü:*. The latter may be shortened to *ü* or 're-diphthongised' into *ʉi*.[192]

Mongghul features diphtongs and contracted reflexes. This largely depends on the dialect, as shown in the following examples (here compared with Mangghuer).

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[192] In Qinglong dialect, *ü:* may have been lowered to *ö:*, as in *dö:* < *deü 'younger brother', *ǰö:dən* < *ǰeüdün 'dream'.

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CM	Mongghul				Mangghuer	
	S/M	Khas	Donggou	Dongshan		
*bau-	bu:-	bau-	bʁu- ~ bau-	bʁu-	bau-	to descend
*ǰau-	ʒ́iu:-	ʒ́au-	ʒ́ɔu- ~ ʒ́au-	ʒ́ɔu-	ʒau-	to bite
*keü	ku:	ko:	ku: ~ kïu	kïu	kau	son
*ebčeün	ś́ʒiu:	ś́ʒau:	śiʒʁu ~ śiʒou	śiʒou	śiʒou	chest

As can be seen above, both *au and *eü may result in Mangghuer *au*. After some consonants *eü resulted in *iau*, as in *diau* < *deü 'younger sibling', *śauʒ́i* < *seüʒi 'hip'. This can be seen as an attempt to make sense of the non-Chinese diphthong *eu that must have existed in earlier Monguoric.

In the Baoanic languages only Dongxiang preserves the diphthongal pronunciations of *au and *eü. The former often becomes *əu in the first vowel slot. As in Mangghuer, *eü undergoes 'sinification' in Dongxiang, e.g. *ʒ́iau* < *deü 'younger sibling', *śiauʒ́ie* < *seüder 'shade'. In Baoan and Kangjia, *au and *eü tend to merge into *u or *u:*, but exceptions abound. Unlike Baoan, Kangjia retains diphthongs sporadically, as in *mu* ~ *mau* < *mau 'bad', Kgj *sᵾtər* ~ *səᵾtər* < *seüder 'shade', *devᵾ* < *deü 'younger sibling'.

Moghol preserved a diphthong (*öᵾ* according to Ramstedt) in all positions, e.g. *öᵾl-* < *haul- 'to run'.

There are quite many words that deviate from the above. Aberrant developments shared by a number of dialects may be useful for taxonomic purposes. Shirongol idiosyncracies include the following:

CM	local form(s) suggest
*auškï 'lungs'	Mongghul *o:* instead of *au* or *u:*
?*eüken 'fat'	Monguoric *o:* instead of *əu* or *u:*
*aula 'mountain'	No diphthong anywhere in QG
*eülen 'cloud'	No diphthong anywhere in QG
*eüden 'door'	Kgj and Dgx suggest earlier *uiden* or *oiden*[193]
*kaučïn 'old'	Baoanic suggests earlier *qoičin*
*(h)aur 'anger; steam'	Baoanic suggests *hor*
*heür 'nest'	All of Shirongol suggests *ho:r*
*seüder 'shade'	Baoan suggests *seiter*
*seül 'tail'	Baoanic suggests *sel*

In short, although the peripheral languages are more informative regarding these vowel sequences than central Mongolic, individual word shapes can be hard to evaluate.

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[193] This is supported by Moghol, probably fortuitously.

3.13.5. Development of *ïa*, *ie*, *ïu, *iü*

3.13.5.1. Distribution

The diphthongs starting with *ï/*i do not occur word-initially, unless words like *yasun* 'bone', *yeren* 'ninety' are analysed as *ïasun*, *ieren*. While this analysis is possible, it would not eliminate the need for a consonant *y in the CM system, as intervocalic -y- would be needed in *bayan* 'rich', *beye* 'body'.[194]

The sequence *ïa* can be found:
Non-initially in the first vowel slot: *jïar(i)* 'musk', *kïag* (not listed) 'couch grass', *nïa-* 'to glue'.
In non-first vowel slots: *ačïan* 'load', *arïa* 'molar, tusk', *dolïa-* 'to lick', *horïa-* 'to wind', *kurïa-* 'to gather', *marïan* 'fat', *sunïa-* 'to stretch oneself', *takïa* 'chicken'.

The sequence *ie* can be found:
Non-initially in the first vowel slot: *sie-* 'to pee'.
In non-first vowel slots: *belčier* 'pasture', *bülien* 'lukewarm', *ebsie-* 'to yawn', *hinie-* 'to laugh', *hülie-* 'to blow', *kerie* 'crow', *tülien* 'firewood', *ünien* 'cow'.

The sequence *ïu* can be found:
Non-initially in the first vowel slot: *hïutan ~ *huïtan* 'narrow', *kïursun* 'nit', *nïu-* 'to hide', *nïun* 'boy', *nïur* 'face'.
In non-first vowel slots: *arčïur* 'towel', *arïun* 'clean', *bïljïur ~*bïlduur* (?PM *bïldïur*) 'small bird', *bïsïun*, *čakïur* 'lighter', *čïul-* 'to gather', *gasïun* 'bitter', *horčïul-* 'to turn (tr.)', *kosïun* 'beak'.

The sequence *iü* can be found:
Non-initially in the first vowel slot: *niül* 'sin' (not listed), *siü-* 'to strain', *?*siüči ~ ?*seüči* 'chisel', *siüderi* 'dew', *siür-* 'to sweep', *siüsün* 'juice'.
In non-first vowel slots: *delbiür* 'fan', *deliün* 'spleen', *ebčiün* 'chest', *eriün* 'chin', *gesiün* 'branch', *seriün* 'cool', *teriün* 'head'.

3.13.5.2. Development

The most common change affecting the diphthongs starting with *ï/*i is the assimilation of this first element to the second. This type of development can already be observed in Middle Mongol sources.[195] In general Buriat, Khamnigan and Dagur preserve most instances of *ï/*i in the form of palatalisation of the preceding consonant. Retention of such palatal elements is also found in Khalkha, Ordos and

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[194] The analysis of these words as *baïan* 'rich', *beie* 'body' is also undesirable, because it would introduce a new type of vowel sequences.

[195] The assimilation of complex vowels was already possible prehistorically, giving rise to modern regional variants such as *bïljïur ~ *bïlduur* 'small songbird' and *kajïar ~ *kadaar* 'bit of a bridle'.

Kalmuck. Several Shirongol languages preserve some of these diphthongs as well, but they were completely lost in Ñantoq Baoan. The diphthongs must have been present both in Proto Baoanic and Proto Monguoric. Eastern Yugur has consistently monophthongised both *au and *eü.

Assimilation of the diphthong elements may have taken place in any period. In some cases it must have been quite early because it affected the development of the consonants, for instance Dag *sə:s* 'urine' apparently developed from an assimilated form *seesün rather than from the CM *siesün suggested by the majority of Mongolic languages. The assimilation has prevented the development *s- > š- that would have taken place preceding *i. Other such cases include *gasu:n < *gasïun* 'bitter' and *gəsu: < *gesiün* 'branch' (see 4.6.1.).

Likewise Khalkha *zaar* 'musk' stems from the assimilated form *ǰaar rather than from the earlier *ǰïar. The original diphthong would have resulted in a Khalkha form with *ǰ-.

Examples for the development of the complex vowels *ïa and *ïu:

CM	Bur	Dag	MgrM	EYu	
*nïa-	nyaa-	nʸa:-	nia-	na:-	to glue
*kanïa-	xanyaa-	xanʸe:d-	qania-	χana:-	to cough
*kubïa-	xubaa-	xɔbʸe:-	quba-	χwa:-	to divide
*karïa-	xaraa-	xara:-	---	χara:-	to scold
*ǰarïa	zaryaa	ǰerʸe:	---	ǰara:	hedgehog
*horïa-	oryoo-	---	xoro-	χɔrɔ:-	to wind
*korïan	xoryoo	xɔrʸe:	qoraŋ	χɔrɔ:n	enclosure
*nïu-	nyuu-	nɔ:-	niu-	nu:-	to hide
*arïun	aryuun	aru:n	ariun	aru:n	clean

Moghol also preserves a number of the diphthongs starting with *ï/*i, as in *nio:- < *nïa- 'to glue'. Others are preserved indirectly, in that the element *ï/*i has moved to the preceding vowel slot, e.g. Mog *qaïnʌ- < *kanïa- 'to cough', *ǰàira < *ǰarïa 'hedgehog', *ʉinà < *ünien 'cow'.[196]

In Dahejia Baoan, which does not generally preserve vowel length, the contraction lengths can be shortened and reduced to *ə, as in:

BaoD	BaoÑ	CM	
arə-duŋ	ariya[197]	*arïa	molar
χorə-	hərə-	*horïa-	to wind

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[196] *inna:- < *hinie-* 'to laugh' may go back to a metathesised form *iïna:-*, which would explain the unusual gemination of *-n-*.

[197] The Dahejia Baoan form is a compound with *duŋ < *sidüin* 'tooth'. The Ñantoq Baoan form need not be a relic of the original CM *arïa*, as it could also represent Baoan *arə* + Chinese *yá* 'tooth'.

The long vowel has been lost altogether in BaoX *χandoŋ < *kanïa.dun* 'cough'.

kiürsun 'nit' shows irregular developments in Dag *kʸaur* (suggesting *kiüra*), EYu *χairsən* (suggesting *kaïrsun*), MgrH *ćirʒə* (suggesting *kïrsun*).

Buriat, Dagur, and Khamnigan frequently preserve palatal elements in words with original *ie* and *iü*, but assimilations can be found even there, as in Dag *xinə:d < *hinie.dün* 'laughter', Bur *ebheel- < ?*ebsie.le-* 'to yawn'; *keǰie* 'when' developed as if from *keǰee* in all three literary languages.

In the QG languages the diphthongs *ie* and *iü* have typically become indistinguishable from *ee* and *üü.*

3.13.6. Metathesis of diphthong elements

Some irregular forms, and resulting irregular correspondences between modern languages are due to the metathesis of diphthong elements. Several such cases of metathesis are actually documented in Middle Mongol, e.g. *hïutan ~ *huïtan* 'narrow', both of them surviving into modern Mongolic, cf. Dag *xʸaut* from the former, and MgrM *xuitaŋ* from the latter variant.

*hïruar ~ *hïraur* 'bottom' co-occur in Middle Mongol, but modern forms generally stem from *hïroar*, a development of the first variant. *ǰïloa (< *ǰïlua) 'reins' appears in sources in Arabic script as *ǰïlau*, *ǰïroa* 'ambler', as reconstructed on the basis of modern languages, appears in Arabic script as *ǰorïa.*[198] *komaul* 'horse dung' is documented early, but the variant *komual* has given rise to the modern forms in the central languages. Likewise in front-vocalic words there must have been alternations *üe ~ *eü*, the former developing into *öe*. Dag *ǰəulə:n* 'soft' and *əuɣʷ* 'grease' suggest CM forms *ǰeülen* and *eüküin*, whereas central Mongolic as well as the Shirongol languages suggest *ǰöelen < *ǰüelen* and *öeküin < *üeküin* (cf. MgrH *ʒo:lon*, *o:ko*).

Dag *suidur* must be from *süideri* instead of *siüderi* 'dew'; the metathesised form has prevented the development *s- > š-.*

The transfer of the diphthong element *ï* or *i* to another syllable is best known from Moghol (see 3.13.5.), but incidental cases can be found in central Mongolic:

Khalkha *malïa* suggests *malïa < *mïlaa < *mïnaa* 'whip'.
Khalkha *myaraax* reflecting *mïraa-* instead of *marïa-* 'to spy on'
Ordos *mira:* reflecting *mïraan* instead of *marïan* 'flesh'

3.14. Non-contraction vowel-lengths

The following sections will discuss some of the types of vowel lengths in Dagur, Eastern Yugur, and the Shirongol languages, which are not the result of contractions. The majority of these lengths are due to accent-related lengthening or other kinds of by-products of word structure.

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[198] This is actually the form that was expected on the basis of the Turkic cognate *yorïga.*

3.14.1. Ill-spelled contraction lengths?

As mentioned above, publications on Mongolic long vowels have often distinguished between 'secondary' and 'primary' vowel lengths. In practice, Written Mongol spelling was used to determine in which category a vowel length belonged. A long vowel in the modern languages, which is written in Written Mongol by means of a *VCV* sequence (nearly always *VɣV* or *VgV*), was supposed to be a 'secondary' length resulting from contraction. A modern long vowel which is written with a single Written Mongol vowel letter was considered to be a 'primary' length, predating the contraction lengths.

Unfortunately, Written Mongol spelling has never been completely stable, and many words appear in two or more spelling variants. Through the centuries Written Mongol spellings were often influenced by the diverging spoken languages they represented. It goes without saying that not all recorded spellings are etymologically correct. Spelling variation is often informative, in that some of the variants are clearly attempts to represent changing pronunciations in the spoken idioms of the users of the script.

Ramstedt (1902) already stressed that *VɣV* and similar sequences in Written Mongol were not necessarily historically correct, and that these spellings were also used to write long vowels in loanwords.[199] In spite of this, many later scholars have used Written Mongol spelling for reconstruction purposes with insufficient caution.

A number of words with a long vowel in several modern languages are often or even exclusively spelled with a single vowel sign in WM, e.g. **haaga* spelled *aɣa* 'bran', **öer* (?) spelled *ör* 'dawn'. This seems to indicate that these vowels are either 'primary' or due to a type of lengthening different from contraction. However, such words may actually be contraction lengths which acquired a historically incorrect orthographical variant as their standard Written Mongol spelling. The following words, with long vowels supported by several languages, seem to belong to this group of miss-spelled words (historically correct spelling variants that are documented for several of these words are omitted here):

WM	CM as based on modern languages	
aɣa	**haaga*	bran, chaff
bolod	**boluad*	and
ör	**öer*	dawn
čaɣan	**čagaan*	white
čüče	**čüüče < *süüče*	chisel
gegen	**gegeen*	bright
saral	**saaral*	grey (of animal's coat)
sina	**sïnaa*	wedge
sü(n)	**süü ~ *sün ~ *üsün*	milk
ula	**huula*	tinder
ü-	**hüü-*	to rot/stink

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[199] Two examples for this practice that bear repeating are *byarwaas* written *birabaɣasun* < Ru. *perevóz* 'transfer' and *yaarmag* written *yaɣarmaɣ* < Ru. *yármarka* 'fair'.

The last word may also be a case of lengthening of the final vowel of a monosyllable (see 3.14.3).

The lengths are not systematically supported by all languages but are found in Khalkha, Buriat, Dagur, and incidentally in the QG languages:

Kh	Bur	Dag	EYu	MgrH	CM
aaga	*aaga.han*	*xa:ɣə*	---	---	**haaga*
süü(n)	*hün*	*su:*	*hsʉn*	*sun*	**süü*
uul	*u(u)la*	*xʷa:l*	---	*fula*	**huula*
ü-	---	*xu:-*	*hü:-*	*fu:-*	**hüü-*
üür	*üür*	*ur*	*ö:r*	*o:r*	**öer*

Cf. Kalm *üsn* 'milk', *ör* 'dawn', *ul* 'tinder'. EYu *hsʉn* 'milk' and possibly MgrH *sun* may derive from the variant **üsün* (as does the Kalmuck form) rather than from a form **sün* or **sü:*.

In case of variant spellings[200], the modern languages usually make it possible to determine which spelling is etymologically correct (which may be confirmed by Turkic cognates).

WM	CM	CT	
daɣa(n) ~ daɣaɣa(n)	**daagan*	**yapak/*yapagu*	colt
čoqor ~ čooqor	**čoakar*	**čupar* (?=)	variegated[201]
kö ~ köge ~ kögege	**köe*	**kög*	soot in a pan

In the case of Written Mongol *daɣa(n)*/*daɣaɣa(n)* 'colt', the modern forms such as Kh *daaga(n)*, EYu *da:ğan*, MgrH *da:xa*, Dag *da:ɣ* point to a CM form **daagan*. Thus the short spelling *daɣan* reflects neither etymological reality nor the pronunciation, while *daɣaɣan* is correct within the Written Mongol spelling rules, with the first *ɣ* now denoting vowel length, and the second still pronounced.

In the case of *kö ~ köge ~ kögege*, *kö* is based on the modern Khalkha pronunciation *xo:*, though it fails to represent the long vowel. *Köge* is an etymologically correct spelling. *Kögege* is a spelling apparently meant to indicate the long vowel, but contains one *-g-* too many from an etymological viewpoint. Likewise Written Mongol *daɣaɣa-* for **daa-* 'to bear' and Written Mongol *egege-* for **hee-* 'to warm in the sun' contain a superfluous syllable.

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[200] Note that Written Inner Mongolian spelling seems to have adopted as standard the shorter spelling variants in many such cases, e.g. *čaɣan* 'white', *gegen* 'bright', *daɣa* 'foal', *kö* 'soot', *čoqor* 'speckled', etc. Cf. also the spelling *buqur* for Kh *buxuur*, Dag *bɔɣɔ:r* 'buttocks'.

[201] The traditional equation of CM **čoakar* with CT **čupar* is morphologically problematic. Since most Mongolic words lack a Turkic cognate, it is often difficult or impossible to tell the etymologically correct spellings from the incorrect ones, and to determine the nature of a Mongolic vowel length. (Ordos supports **čoakar*; EYu favours **čoakur*)

The vowel length of Khalkha *buurcag* 'beans' is only attested in central Mongolic; that of Khalkha *büüreg* 'flea' is supported by Kalmuck and one of the variants attested for Mongghul.[202]

Some lenghts that (based on Written Mongol spelling) are considered to be contraction lengths may be primary lengths, at least it may sometimes be impossible to confirm that a written *g*, *ɣ*, etc, represents an actual etymological consonant.

In a small number of cases the corresponding Turkic form actually suggests that there never was a consonant, e.g. Khalkha *uuc* 'back', Written Mongol *uɣuča*, which seems to stem from Turkic **u:ča*. There are some other instances where the Written Mongol intervocalic consonant probably does not reflect a real consonant: Khalkha *toodog*, Written Mongol *toɣodoɣ* 'bustard', if corresponding to Turkic **to:d* 'id', Khalkha *xöörög*, Written Mongol *kögerge* 'bellows' if corresponding to Turkic **kö:r(ü)k* 'id', Khalkha *čiig*, Written Mongol *čigig* 'moisture' if corresponding to Turkic **čï:g* 'id'. If these comparisons are correct, the Written Mongol spellings can only be interpreted as spelling conventions.

As in Old Uigur (the source of many conventions of Written Mongol spelling), we find words in which the grapheme <u> is doubled, although the spoken languages lack evidence for a long vowel. Perhaps it was a spelling convention used to indicate *o* rather than *u*, but this explanation does not always make sense. Perhaps the doubling is just a graphical means to avoid confusion with other words, much like the accents in Romance languages, e.g. French *ou* ≠ *où*, *a* ≠ *à,* etc: Examples include Written Mongol *ɣool* 'valley', *qoora* 'poison', and *toor* 'net'. One case where the spelling *oo* corresponds to an actual long vowel in QG is Written Mongol *doora* 'underside' (which was shortened in Dagur and central Mongolic).

For the (lack of) correlation between Mongolic and Turkic vowel length see further 3.15. below.

3.14.2. Non-contraction vowel lengths in peripheral Mongolic

In the following pages those vowel lengths will be discussed that are apparently not 'secondary', i.e. the result of contraction of two consecutive short vowels after the elision of an intervocalic consonant. As will become clear, part of the non-contraction lengths could have arisen relatively recently in certain phonetic environments, while others remain unexplained. Examples from the latter group may reflect actual CM vowel length (as the label 'primary' vowel length suggests), or be explained as secondary developments by future research.

Interestingly, Poppe concluded that there were original long vowels in Mongolic, and Doerfer concluded that their existence can not be proved, both on the basis of largely the same evidence. In the following paragraphs, some of the well-known evidence will be presented in a different way, and combined with new evidence from the peripheral languages. This includes a discussion of materials of Eastern Yugur, which was hardly described at the time when Poppe, Doerfer, Ligeti

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[202] In these two words the CT cognates **burčak* and **bürge* suggest that these are short vowels which for unclear reasons have been secondarily lengthened in Mongolic, rather than contraction lengths.

and others discussed Mongolic vowel length. The focus will be on the various ways of vowel lengthening which may have occurred.

The peripheral languages, especially Dagur and Mongghul, show numerous vowel lengths that have not been observed elsewhere. In a number of cases both Dagur and Mongghul display length in the same word. Some correspondences make it tempting to reconstruct the length for CM. Perhaps the best-known and most striking examples for 'primary' long vowels in Mongolic are the following two:

WM	Dag	EYu	MgrH	CM	
modu(n)	*mɔ:d*	*mu:dən*	*mo:də*	**modun* (?*mo:dun)	wood; tree
tabu(n)	*ta:wu*	*ta:βən*	*ta:vun*	**tabun* (?*ta:bun)	five

There are some other words in which Mongghul and Dagur agree, but for which the Eastern Yugur materials are ambiguous:

WM	Dag	EYu	MgrH	CM	
temeče-	*təmče:-*	*temče-*	*tənǯe:-*	**temeče-*	to struggle
uya-	*xuya:-*	*x́a:-, hia-*	*fuya:-*	**huya-*	to tie up
umba-	*xumpa:-*	*mba-*	*xumba:-*	**humba-*	to swim
örögel	*ərɣʷlə:*	*örlö(:)*	---	**öreele*	hobble

There are occasional supporting forms in other languages, such as BaoÑ *mba:-* 'to swim', and Buriat *uyaa-* 'to tie up'.

Despite the lack of systematic support from all three languages, the long vowel in these words is still found in two peripheries, and at first sight make a quite convincing case for CM vowel length. That is, they seem to suggest CM reconstructions *temeče:-*, **huya:-*, **humba:-* rather than the forms listed above. However, the striking Dagur-Mongghul parallels are outnumbered by far by instances where length is only found in one of the two languages, and cannot be included in the CM reconstruction form. Examples for disagreement between Dagur and Mongghul:

Dagur	Mongghul	CM	
bərɣə:n	*urgen*	**berigen*	sister-in-law
šil	*śilo:*	**silön*	soup
yaləɣ-	*ləġa:-*	**ïlga-*	to choose
wail-	*ula:-*	**uïla-*	to cry
kuitur-	*kuidəre:-*	**kᵾitere-*	to become cold
gaľda:-	*ġalda-*	**galda-*	to make a fire
xaičla:-	*xaiʑila-*	**kaičïla-*	to clip
šiŋgə-	*śiŋge:-*	**siŋge-*	to be digested
šiŋgə:n	*śæŋgan*	**siŋgen*	thin

Again, comparison with the Eastern Yugur forms, does not lead to a regular picture, e.g. EYu *be:rge* 'sister-in-law' has a vowel length in the first syllable instead of the second, which may be due to the influence of *be:rə* 'daughter-in-law' (*beri*). The many other words with contradicting forms in Dagur, Eastern Yugur, and Mongghul, include:

WM	Dag	EYu	MgrH	CM	
yara	*yar*	*ya:ra*	*ya:ra*	**yara*	wound
kekere-	*kəkre:-*	*ge:gəre-*	*kəgəre:-*	**kekere-*	to belch
tulɣa	*tʷa:ləɣ*	*tu(:)lġa*	*tulġa*	**tulga*	support

3.14.3. Lengthening of the final vowel of monosyllables

In Dagur the final vowel of CM monosyllabic stems is lengthened. There are examples of stems in **a*, **i/*ï*, **u*, **ü*. There are unsystematic equivalents in central Mongolic. Examples:

CM	Dagur	length also found in	
*a-	*a:-*	MgrH, central **a:-dal*	to dwell, to be
*ba	*ba:*		we (excl.)
*ta	*ta:*	Brg *ta:*	you (pl.)
*bï	*bi:*	Brg *bi:*	I
*čï	*ši:*	Brg *ši:*	you (sing.)
*ki-	*xi:-*	Khalkha *xiy-*, EYu *ki:-*	to do; to pour
*bü	*bu:*	Khalkha *büü*, MgrH *bi:*	don't
*nu- (?*no-*, ? *onu-*)	*nɔ:-*	EYu *nu:-*	to hit

Dagur *a:n < *a* 'they'and *i:n < *ï* 's/he' may also belong here, as these pronouns owe their final *-n* to the oblique forms. The vowel length may date from before this addition, or may be a later development under the influence of the other personal pronouns.[203]

The vowel length in Dag *su:* (?< **sü*) 'milk' also has equivalents in some other languages, this word elsewhere has the shape **sün* or **üsün*.

EYu *χa: < *ka* 'upper front leg' also corresponds to vowel lengths in central Mongolic, but this word is absent from Dagur.

In addition to the prohibitive particle **bü*, Monghhul has also lengthened the final vowel of the negation particles **ese* and **ülü*, resulting in *si:* and *li:*, both with unexpected change of the vowel quality to *i*.

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[203] Interestingly the oblique stems of *ba:* 'we (excl)' and *ta:* 'you (pl.)' are *ma:n-* and *ta:n-* with long vowel, while *bi:* 'I' and *ši:* 'you (sing.)' have oblique stems *min-* and *šin-* with short vowel. Of course the vowels here lack the word-final position that supposedly caused the vowel to be lengthened.

Apparently monosyllabic stems in *e, *o, or *ö were rare or non-existent. But *nu- ~ *onu- may have been*nɔ- (neither of these proposed CM forms would solely be able to explain all modern forms).

3.14.4. Accent-related lengthening in the final syllable

In Mongghul the accented last vowel of word stems is often lengthened. The same happens, less frequently, in Eastern Yugur and Ñantoq Baoan. This phenomenon is limited to words of a certain structure. It occurs predominantly in the final syllable of disyllabic stems ending in a non-high vowel or in disyllabic stems ending in *n or *l preceded by a non-high vowel. The first syllable may have a high or non-high vowel. This word structure, which triggers lengthening of the second vowel in Mongghul, is the same structure that causes the accent to fall on the second vowel in Eastern Yugur. In this regard this phenomenon is largely complementary with that described for Eastern Yugur in 3.14.5., involving the lengthening of the non-high vowel of the *first* syllable. However, not all words with this structure undergo lengthening.

Only some vowel lengths in this position in Eastern Yugur or Ñantoq Baoan are not confirmed by Mongghul, such as EYu *ɤde:* < *üde* 'noon', EYu *ywe:* < *üye* 'generation'. Agreement between all languages is rare. In some cases two languages may agree:

MgrH	BaoÑ	CM	
nta:-	*ta:-*	*unta-*	to sleep
ula:-	*la:-*	*uïla-*	to cry
una:-	*na:-*	*una-*	to descend
uda:-	*nda:-*	*uda-*	to be late
daġa:-	*daġa:-*	*daga-*	to follow
xumba:-	*mba:-*	*humba-*	to swim

Dagur occasionally agrees with Mongghul, as in *huya-* 'to tie up' (see above), but such similarities are greatly outnumbered by forms that disagree between the two languages, and may be coincidental.

Mongghul stands alone in most cases (short variants may exist but are not listed here). However, this development is still not regular enough to call it a sound law. Even in Mongghul there are many words of a similar structure in which the last vowel was not lengthened, e.g. *ula* 'sole of the foot' (*ula*), *ule* 'work' (*üile*), *ugo* 'word' (*üge*).

Here follows a, far from exhaustive, list of Mongghul examples.

Nouns ending in a non-high vowel:

MgrH	EYu	CM	
dusa:	*tusa*	*tusa*	profit
fure:	*hɤre*	*hüre*	seed

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(continued)

MgrH	EYu	CM	
ġada:	ġada	*kada	rock
ġuda:	ġuda	*kuda	male in-law
kəde:	kede	*kete	steel for flint
mula:	məla	[regionalism]	small
noġdo:	nɔgtɔ	*nogta	halter
turma:	turma	*turma	turnip
xura:	xura	*kura	rain
źarma:	---	*ǰarma	hail
źila:	ǰula	*ǰula	lamp

Nouns ending in -l or -n preceded by a non-high vowel:

gəre:l	gerel	*gerel	light (noun)
ra:l	aral	*aral	shaft
ra:l	aral	*aral	river valley

MgrH	EYu	CM	
baya:n	bəyan	*bayan	rich
dura:n	dura	*dura	liking
kəźe:n	kəčə	*keče	slope
kurge:n	kʉrgen	*küregen	brother-in-law
lumo:n	manan (?=)	*noman	mole (animal)
nama:n	manaŋ	*manan	mist
nźe:n	eǰen	*eǰen	self
noyo:n	niyɔn	*noyan	lord
rme:n	örmön	*öreme	skin on milk
səme:n	---	*süme	temple
ṣdogo:n	hʉtgwen	*hödken	dense
śilo:	šelen ~ šölön	*silön	soup
śime:n	šəme	*sime(n)	juice
təme:n	temen	*tümen	ten thousand

Some words with a similar structure in Mongghul may involve compensation length, e.g. MgrH *ġura:n* 'three' from CM *gurban* after the loss of the *-v-* < *b*. In spite of the similar structure, a different development is found in MgrH *de:ren* 'four' < CM *dörben* where the first vowel was lengthened, and *xaran* 'ten' < CM *harban* where the *b* was lost without lengthening either of the vowels.

Incidentally, the preservation, and in some cases the addition, of final -n in the nouns is unexpected, as the *-n of nouns is nearly always lost in Mongghul.

Verbs ending in a non-high vowel:

MgrH	BaoÑ	EYu	CM	
bula:-	*bəla-*	*bula:-*	**bula-*	to bury
bura:-	*wara-*	*bara-*	**bara-*	to finish
ćina:-	*ćina-*	*čəna-*	**čïna-*	to cook
daġa:-	*daġa:-*	*daġa-*	**daga-*	to follow
dava:-	---	*daβa-*	**daba-*	to cross
fule:-	---	*hele-*	**hüle-*	to remain
fuya:- ~ śa:-	*χa:- (?=)*	*x́a:-, hia-*	**huya-*	to tie up
nəme:-	---	*neme-*	**neme-*	to add
ntəra:-	---	*ndara-*	**untura-*	to sleep
nura:-	---	---	**nura-*	to collapse
sune:-	---	---	**söne-*	to go out (fire)
śǯe:-	*s̨ǯe-*	*hče-*	**hičə-*	to be ashamed
śiŋge:-	---	*šeŋge-*	**siŋge-*	to digest
śiġa:-	*x́iχa-*	*šəqa-*	**sïka-*	to squeeze
śira:-	*x́ira-*	*šəra-*	**sïra-*	to roast
təbde:-	---	*debte-*	**debte-*	to soak (intr)
ula:-	*la:-*	*ü:la-*	**uïla-*	to cry
una:-	*na:-*	*na:-*	**una-*	to descend
xambura:-	*hamara-*	*aməra-*	**hamura-*	to rest
yo:-	---	---	**oya-*	to sew
ǯira:-	*ǯira-*	*jü:ra-*	**ǰuura-*	to mix[204]

Among the Mongghul verbs with lengthened final vowels we also find the original causatives *kurge:-* < **kürge-* 'to bring, send, deliver' from **kür-* 'to reach, arrive', and *surġua:-* < **surga-* 'to teach' from **sur-* 'to learn'. These verbs are perhaps no longer considered as causatives; in fact there are new Mongghul causative forms based on **kür-* and **sur-*, with the meanings 'to cause to reach' and 'to cause to learn' (MgrH *kurġa-* and *suruġa-*). The vowel of the productive causative suffixes *-ġa, -lġa* is not long.

Incidentally, verbs with lengthened final vowels did not merge with their own causatives, as these have been provided with newly added causative endings. *xada:-* 'to dry (intr)' represents CM **kata-*, and the function of the causative **kataa-* is now fulfilled by a new formation *xada:-lġa-* 'to dry (tr)'.

Secondary lengthening may contribute to the convergence of originally different shapes. In Junast's data MgrH *təme:n* 'camel; ten thousand' represents both **temeen* 'camel' and **tümen* 'ten thousand'.

There are several discrepancies between Eastern Yugur sources with regard to length of non-high vowels. The forms documented by Junast more often have long final vowels reminiscent of Mongghul, including the following.

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204 This example could be seen as a case of length metathesis, but it may simply be an accidental co-occurrence of shortening of a double vowel and lengthening of the final vowel.

Junast	Bolčuluu	CM	
soġdo:-	*sɔgtɔ-*	**sogta-*	to get drunk
tele:-	*tele-*	**tüle-*	to burn
törö:-	*törö-*	**töre-*	to be born
χaġara:-	*hqara-*	**kagara-*	to break (intr.)
mere:n	*mᴜren*	**mören*	river
pəse:	*pəsəi*	**büse* (?**büsei*)	belt

Lengthening of original high vowels is uncommon. Lengthening of CM **i* is found in Mongghul in *puśi:* 'wrong' < **bisi* 'not', *pugəli:* < **büküli* 'all', *dali:* (~ *dalə*) < **adalï* 'similar'.[205]

The negative particles MgrH *bi:* (**bu/*bü*) 'don't', *li:* 'not' (**ülü*), *si:* 'not' (**ese*) all replaced their original vowels by an irregular *i:*, probably due to group analogy.

There seem to be hardly any common nouns and verbs with this development. MgrH *da:li:* 'shoulderblade' may go back to a form ending in a complex vowel **daluï* instead of the commonly reconstructed **dalu*; a form **daluï* could account for some of the other Shirongol forms as well.

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[205] Some of these function words may owe their long vowel to the fact that they have incorporated the copula *i:*.

3.14.5. Accent-related lengthening in non-final syllables

In Eastern Yugur and Mongghul one finds numerous long vowels in the first syllable which are short in the central languages and Dagur. Those Baoan dialects that preserve phonemic length, notably Nantoq Baoan, also feature lengthening in some words of this structure. These lengths are unexpected since the accent in the QG languages generally falls on the final syllable, which as seen in the previous paragraph is another source of vowel lengthening in Mongghul and Eastern Yugur.[206]

However, Poppe (1955:26 and 73-75) recognised a certain pattern in the Mongghul words with vowel lengthening in the first syllable. He noticed that many of the 'affected' stems have the structure *(C)VCV(C)*, in which the first vowel is non-high and the second high. A similar pattern applies to many Eastern Yugur words with lengthened vowels. Virtually all cases are disyllabic stems with a non-high vowel in the first syllable and a high vowel in the second. In Mongghul the first syllable of the words in question is open, while in Eastern Yugur it may either be open or closed. The similar structures of the relevant words suggests that we are dealing with a conditioned development rather than the preservation of ancient vowel lengths. As high vowels in general tend to be slightly shorter than non-high vowels, it is likely that the vowel lengths in these words are due to a kind of compensatory lengthening.

Bolčuluu & Jalsan (1990: 142-143)[207] describe how the vocalism has given rise to deviations from the final accent rule in Eastern Yugur. Synchronically the accent tends to avoid the vowel *ə* (which in Eastern Yugur mostly replaces the four CM short high vowels in non-first syllables), if a non-high vowel is also present in the stem.

The default accent placement is on the last syllable. This is found in stems containing only short non-high vowels such as *al'tan* (**altan*) 'gold', *hele'ɣen* (**heligen*) 'liver', and in stems containing only short high vowels, such as *pə'čəg* (**bičig*) 'writing', *xəmə'sən* (**kïmusun*) 'nail'. However, if the stem contains a contraction length or diphthong, that will take the accent (vowel height is irrelevant), e.g. *ǰɔ'rɔ:* (**ǰïroa*) 'ambler', *tɔlɔ'ɣɔi* (**tolagaï*) 'head'; *dʉ're:* (**döree*) 'stirrup', *du'la:n* (**dulaan*) 'warm', *xa'rʉ:l-* (**karïul-*) 'to reply', but *'ki:re* (**keere*) 'outdoors', *'ǰe:ren* (*ǰeeren*) 'Mongolian gazelle'. If the stem contains long vowels only, the accent will fall on the final one.[208] If the stem contains short high and non-high vowels, the final accent will be on the last syllable if that has a non-high vowel. If *ə* is in the final syllable of a disyllabic stem, the accent will avoid the *ə*, and fall on the vowel of the first syllable in, as in *'ɣatən* (**katun*) 'empress', *'xɔ:nə* (**konïn*)

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[206] Related to this may be the lengthening of non-high vowels before the suffix **-sUn*, a phenomenon found in both central and peripheral languages.

[207] In Malov's limited Eastern Yugur materials, edited by Kotwicz, non-final accent seems to be indicated with the grave accent in a handful of words. Junast (1981:14) only mentions the basic rule that accent is word-final.

[208] Note Bolčuluu & Jalsan (1990:143) *'xɔ:nə* 'sheep'> accusative/genitive *xɔ:'ni:n*, reflexive possessive *xɔ:nə'ya:n* 'one's own sheep', where the long suffix vowel takes over the accent. Compare the dative-locative *'xɔ:nədə*, where the accent remains on the stem.

'sheep'. In trisyllabic and longer stems, the accent will fall on the rightmost non-high vowel available, as in *he'nesən* (*hünesün*) 'ash', *'belwəsən* (*belbisün*) 'widow', *jə'ğasən* (*jagasun*) 'fish', *xulă'ğaičə* (*kulagaïčï*) 'thief'.

Now in many words this accent shift has led to the lengthening of the vowel that came to bear the accent, although this is not obligatory, see *'ğatən* 'empress' vs. *'xɔ:nə* above. Many words have been recorded both with short and long vowel, e.g. EYu according to Bolčuluu & Jalsan *'sdasən* 'thread' vs. Junast's *hda:sən*. (*utasun*). Other examples of which Bolčuluu & Jalsan explicitly mark the accent are *'mu:dən* (*modun*) 'wood', *'dɔ:lə-* (*dolïa-* via intermediate QG form *dolï-*) 'to lick'. Although accent is not indicated in the Eastern Yugur vocabularies, the same accent pattern should equally apply to the other examples listed below.

For Mongghul, all authors only note word-final accent. The example *na:'də-* < *naad-* 'to play', stressed on the *ə* (which in this case is not even original, but a connective vowel reinterpreted as part of the stem), contrasts with the accent rules of Eastern Yugur. In Ñantoq Baoan final accent is also the norm, e.g. *mə'rə* < *morïn* 'horse'. The fact that Mongghul and Eastern Yugur have developed this type of vowel length under the same circumstances, albeit usually not in the same stems, suggests that, at an earlier stage of its development, the Mongghul accent may have behaved like that of Eastern Yugur.

Unfortunately the evidence is not at all consistent in the languages concerned. In both Mongghul and Eastern Yugur there are many words with a similar phonetic structure which did not develop a long vowel. Furthermore, in words which are preserved in both Mongghul and Eastern Yugur, the forms rarely agree. In fact the disagreements seem suspiciously systematic, which may indicate that another factor, as yet undiscovered, has played a role in shaping these forms. E.g. *konïn* 'sheep', and *morïn* 'horse' are long in Eastern Yugur, but short elsewhere in Mongolic; *hödün* 'feather' is only long in Mongghul; *hodun* 'star' is long in Mongghul and Ñantoq Baoan, but short elsewhere.[209] Such contradictions make it impossible to reconstruct length in these words for a common ancestral language.

CM *modun* 'tree' and *tabun* 'five', the most widely accepted examples of primary vowel length in CM, are the only cases supported by three peripheral languages. They may be attributed to secondary vowel lengthening.

CM	E. Yugur	Mongghul	Dagur	
modun	mu:dən	mo:də	mɔ:d	wood, tree
tabun	ta:βən	ta:vun	ta:wu	five

The first example is complicated by the fact that QG languages may be influenced by Ch *mùtou* 'wood' and Dagur by the Tungusic word *mɔ:* 'tree; wood'. The length in the second example is more difficult to explain. The length could have arisen to maximise the contrast with *tabïn* 'fifty'. It is not clear whether this could have been

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[209] Malov (Kotwicz) indicates accent on the first syllable in *hodun* 'star' for Eastern Yugur.

an early development, later neutralised again in central Mongolic, or an independent development in Dagur and the QG languages.

Below follows a list of the Mongghul and Eastern Yugur words of the structure (C)VCV in which lengthening occurred. Long vowels may appear in either Eastern Yugur or in Mongghul, or in both.[210] Apart from *modun 'tree' and *tabun 'five', Dagur does not confirm these lengths.

CM	E. Yugur	Mongghul	Dagur	
*alï	a:lə	alə	al[y]	which
*amun	amən	a:mu	am	millet[211]
*daku	---	da:xu	daw	raincoat
*dalu	da:lə	da:li:	dal	shoulder-blade
*daru-	dar(ə)-	da:rə-	dar-	to press
*hačï	haǰə	a:ćə	---	grandson/cousin
*namur	na:mər	namur	namər	autumn, fall
*sakï-	sa:ġə-	sgə-	saɣ[y]-	to wait
*bečin	be:ǰən	mućin	---	monkey
*beri	be:rə ~ bi:rə	be:rə	bər[y]	daughter-in-law
*kebi-	keβə-	ke:yi-[212]	kəm[y]-	to ruminate
*kedü	ke:də	kədə	xəd	how many
*hodun	hɔdən	fo:də	xɔd	star
*morïn	mɔ:rə	morə	mɔr[y]	horse
*konïn	xɔ:nə	xonə	xɔn[y]	sheep
*tolï	tɔ:lə	---	tɔl[y]	mirror
*tosun	tu:sən	to:sə	tɔs	fat[213]
*čokï-	čɔ:qə-	ćugu-	čɔk[y]-	to peck
*dösi	tošo[214]	do:śə	duš	anvil
*hödün	hodən	fo:də	xudus	feather
*söni	sö:nə	sonə	sun[y]	night

Some vowel lengths in Baoan dialects seem to be due to the same phenomenon, e.g. BaoÑ sa:ġa- 'to wait', hɵ:taŋ 'star' (related to forms listed above), as well as BaoD

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[210] Many of these examples appear in Bolčuluu & Jalsan 1990:62, Čenggeltei 1988:32, 35, 45, 53, Svantesson et al. 2003:113). In some cases the forms with a long vowel will have a variant with short vowel, which will not be mentioned in this list.

[211] This word has a long a: in several other languages, which suggests it may belong to the 'ill-spelled secondary length' category discussed earlier. However, the Bargu form amɵ: may be either a metathetic length (see below), or it may instead stem from *amusun.

[212] The vowel length indicated by Mostaert & de Smedt is not confirmed elsewhere.

[213] The loss of CM *toasun 'dust' may have facilitated this development.

[214] The lowering of the final vowel is unexpected.

wa:r- 'to grab' from **barï-*, BaoÑ *na:raŋ* 'thin' from CM **narïn*, BaoX *χa:rə-* 'to return' from **karï-*.[215]

The following words with (C)VCCV structure usually only have a long vowel in Eastern Yugur (although the unexpected diphthong in MgrH *səulʒə* may count as lengthening)[216]:

CM	E. Yugur	Mongghul	
*maŋgus	*ma:ŋġəs*	*maŋġusə*	anthropophagous ogress
*jančï-	*ǰa:nǰə-*	*źanći-*	to crush
*jargu	*ǰa:rġə*	*źarġu*	lawsuit
*gendü	*ge:ndə*	---	male dog
*mendü	*mö:ndə/me:ndə*	---	good health
?**dombur*	*dɔ:mbur*	*dumbur*	hillock
*sonǰï-	*sɔ:nǰə-*	*suænźi- (?=)*	to mock
*sölsün	*sö(:)sən*	*səulʒə*	gall bladder

In a number of cases these lengths correspond with Common Turkic long vowels, as in the case of EYu *ǰa:rġə* 'lawsuit' (CT **ya:r-gu* 'id'). In view of the many other CT words with long vowels that are not reflected in the Mongolic cognate, it seems better to view these as coincidences. Cf. EYu *ġatən* 'empress', which corresponds to CT **ka:tun*.

In Eastern Yugur some foreign words of the same structure also have a long vowel. It is not clear what role the quantity in the source language may have played. These lengths are at any rate not confirmed by the other peripheral languages.

*darï	*da:rə*	gunpowder (ultimately Ir.)
*šabï	*ša:βə*	pupil (ultimately Skt.)
*šatu	*ša:tə*	stairs (< Old Uigur <?)

Some less widespread loanwords with similar structure also feature length in Eastern Yugur, including *ga:məs* 'town' (of unknown origin)[217], *ǰɔ:məs* 'ladle' and *te:ŋə* 'deaf' from Turkic, and *dɔ:rǰə* 'Indra's thunderbolt', *mda:rə* 'drum', and *ba:ndə* 'novice' from Amdo Tibetan. For the Tibetan loans Mongghul has corresponding forms without vowel lengthening: *dorźə, ndarə, bandi:*.

Apparently related to this category of lengthening are the 'morphonological lengths' in Eastern Yugur, genitive/accusative[218] forms in which the short non-high vowel of the stem was lengthened. Perhaps this does not happen in Mongghul due to

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[215] Perhaps this explanation also applies to the *a:* of BaoX *ġa:dər* 'sickle' < **kaduur* (via a form with shortened **uu*).

[216] Also EYu *ra:lǰə-* and MgrH *(a)ra:lʒi-* 'to exchange' (**aralǰï-*) may owe their long vowels to the word structure. Interestingly this same word lost its middle syllable in Baoan, e.g. BaoÑ *alźa-*. Another case is MgrH *da:ldə-* 'to trade' (**kudaldu-*).

[217] Possibly garbled from an older form of Chinese Gānzhōu, the old name of Zhāngyè.

[218] As in the other QG languages, the accusative and genitive are identical in shape in Eastern Yugur.

its genitive in *-nə*, which creates a closed first syllable, an environment less likely to develop a long vowel in Mongghul, as seen above. Eastern Yugur:

Eastern Yugur	CM
ġar 'hand', genitive *ġa:rə*	*gar, *gar-u
ken 'who', genitive *ke:nə* 'whose'	*ken, *ken-ü
mal 'livestock', *ma:lə emčə* 'veterinarian'	*mal, *mal-u
ġal 'fire', genitive *ġa:lə*	*gal, *gal-u

This might be a recent development. It also occurs in loanwords such as *nag* 'tree', gen. *na:gə* (from Tibetan), *lar* 'speech', gen. *la:rə* (of unknown origin), and even in the second syllable in the Turkic loanword *tu:raġ* 'poplar', gen. *tu:ra:ġə*.

Apart from the words with this structure which have developed a long vowel in Eastern Yugur and/or Mongghul and/or Ñantoq Baoan, there are many similarly structured stems which retained their short vowel in all languages. A small selection: *amïn* 'life', *batu* 'strong', *karï-* 'to return', *tabïn* 'fifty' (apparently to distinguish it from *tabun* 'five'), *tanï-* 'to know', *tarï-* 'to plant', *ǰaru-* 'to use', *ǰarïm* 'half' (unlike *ǰargu* 'lawsuit' from the same stem!), *čerig* 'soldier', *hekin* 'head', *hergi-* 'to turn', *ǰelü* 'tether', *ǰorï-* 'to point', *korïn* 'twenty', *döčin* 'forty', *ökin* 'girl', etc. Most disyllabic words in *-sUn* are not affected either (see the following paragraph).

In the following cases the vowel of the second syllable was lost, so that the lengths may be compensation lengths in a more traditional sense. These words are not very remarkable in that both the loss of final vowels after *-r-* and *Mittelsilbenschwund* are common in Eastern Yugur.

CM	E. Yugur	Mongghul	
*aru	a:r	---	back, behind
*dabusun	da:βsən	dabsə	salt
*eri-	e:r-	yarə-	to look for
*öri	ö:r	urə	debt

Some originally monosyllabic verb stems also developed vowel length. Some of these words may owe their vowel length to the fact that they acquired a final vowel by absorbing the connective vowel, so that they obtained the same (C)VCV structure as the words discussed earlier. Cf. MgrH *şdo:lə- < *ötel-* 'to grow old', *no:rə-* 'to become moist' < *nor-*, apparently through intermediate forms *otoli-*, *nori-*. Similarly, MgrH *źo:rə-*, EYu *ǰu:rə-* 'to plane' from *ǰor-*.[219] The length in MgrH *o:sə-* 'to grow' is due to the same development, if related to CM *ös-* 'id'. Alternatively it could be related to EYu *yü:s-* and Dag *əus-*, and stem from CM *eüs-* 'to arise' instead. Another ambiguous form is MgrH *o:li-* (recorded by

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[219] These forms and one of the Middle Mongol forms (in the Muqaddimat al-Adab) would suggest a original form *ǰoru-* which has the same structure as the other words with lengthening discussed above.

Mostaert & de Smedt), which form represents both *ol- 'to obtain' and *bol- 'to become'. These two verbs merged into a short-vocalic form olə- according to other sources. In Eastern Yugur only the former verb has resulted in ɔ:l- with a long vowel, whereas bɔl- remains short.

3.14.6. Length before the element *-sUn

Vowel lengthening of a non-high vowel preceding the suffix -sUn occurs in the central languages, and in Dagur, as well as in QG, in Eastern Yugur, and most frequently in Mongghul. This phenomenon is reminiscent of the lengthening discussed in the previous paragraph, which also involved the lengthening of non-high vowels followed by a high vowel. The two phenomena can not be sharply separated.

Interestingly, most disyllabic formations with -sUn are not affected in QG, e.g. *časun 'snow', *nasun 'age', *yasun 'bone', *yosun 'custom', and *yesün 'nine'. In the last example *e had probably been raised to *i before this lengthening phenomenon arose. *sösün 'gall bladder' and *tosun 'grease' did undergo lengthening.

A number of trisyllabic stems may owe the long vowels they display in Eastern Yugur and Mongghul to word structure, without requiring the element -sUn. The following similarly structured stems (all with a high first vowel) have length only in Eastern Yugur and Mongghul.

CM	E. Yugur	Mongghul	Dagur	central	
*hünesün	henesən	fune:ʒə	xuns	short V	ashes
*sünesün	sune:sən	sune:ʒə	sums	short V	soul
*hutasun	sda:sən	ṣda:ʒə	---	short V	thread
*sudasun	sda:sən	ṣda:sə	---	short V	vein
*uŋgasun	ŋġwa:sən	ŋġua:sə	---	short V	wool

The relevance of vowel patterns is underlined by the fact that trisyllables with a non-high first vowel did not develop a long vowel in any language[220], including *arasun 'skin', *gedesün 'intestines', *ǰagasun 'fish', *kölesün 'sweat', *olasun 'hemp'. Indeed, in some stems a development in the other direction can be observed, e.g. EYu ġadəsən ~ ġasən, BaoÑ ġadsəŋ ~ ġarsəŋ < *gadasun 'stake'; EYu gedsən ~ gedesən, BaoGt gəsuŋ < *gedesün 'bowels'.[221] These reductions are not seen in Monguoric.

The existence of a large number of words ending in a long vowel followed by -sUn may have influenced the denominal and opaque formations. The trisyllabic -sUn formations are based on diverse stems. Some derive from nominal roots that are known either from Mongolic (e.g. *aduu.sun 'herd animal') or from Turkic (e.g. *balga.sun 'wall') while others are not as easily analysed (*arasun 'skin'). If the

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[220] This is confirmed by the very fact that the original high vowels were not lengthened before -sUn either.

[221] The reduced shapes are reminiscent of 'western Mongolic', e.g. Kalmuck gesn, Moghol gesàn < *gedesün 'bowels'.

element preceding the syllable -sUn is not recorded independently, it is impossible to determine whether it is in fact a formation with the ending -sUn. The fact that the precise original functions of -sUn are still debated, makes many words hard to analyse. Another group of words ending in -sUn are deverbal formations with -A-sUn. The deverbal formations will typically develop a long vowel when the A contracts with the final vowel of the stem, or with the connective vowel. E.g. *kala-asun, *nöke-esün both 'patch'. Other stem from verbs already ending in a long vowel: *baasun 'poo', perhaps for *baa-asun (an inadmissible structure), likewise *kolbaasun 'connection' for *kolbaa-asun.

The occurrence of long vowels preceding -sUn is erratic, and there even are variant forms within each of the central languages. Some words have long vowels in Buriat and/or Dagur, but short vowels in Khalkha and/or Kalmuck. Other lengths are shared by Eastern Yugur and Mongghul, but not found elsewhere. Buriat and Mongghul agree on *korgaasun 'sheep dung', whereas Khalkha and Kalmuck have a short vowel in this word. Only Buriat has a long vowel in *balgasun 'town wall', *sïndasun 'tendon'. But MgrH dəra:sə 'wine' even corresponds to Bur darhan with *a > Ø (CM *darasun).

The irregular distribution of these lengths makes it nearly impossible to assume their early existence, even on a subgroup level. Only few cases are supported by several subgroups. For instance, EYu hərči:sən, MgrH śǯo:sə and Bur üšööhe(n) 'willow' all seem to suggest a long vowel.[222] Buriat and Dagur point to CM *kïlgaasun 'coarse hair', but Khalkha, Kalmuck, and Eastern Yugur to *kïlgasun. The CM reconstructions can not always do justice to the balance of evidence; see the supplement.

Erratic correspondences between the QG languages, Dagur and central Mongolic include the following:

CM	E. Yugur	Mongghul	Dagur	central	
*anǰasun	anǰagsən	nǰasə	anǰa:s	short V	plough
*burgasun	---	burġa:sə	barɣa:s	long or short V	willow
*örgesün	orgwe:sən	rgo:ʒə	urɣis	long or short V	thorn[223]

Further contradictory modern forms between Dagur and the central languages can be found under *kaïlasun 'elm tree' and *kekesün 'spoke'.

3.14.7. Remaining first-syllable vowel lengths in QG languages

Quite a number of further first-syllable vowel lengths can not be explained by secondary lengthening. Most of these lengths occur in one language only.

It seems that non-high vowels tend to be lengthened before -r- in Mongghul. Some of these lengths are supported by Eastern Yugur:

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[222] Eastern Yugur suggests *hičeesün, Mongghul and Buriat perhaps *hičöesün < *hičüesün with complex vowel. The Sino- Mongolian notation hičesün in HY would be compatible with the former, as it could be read hičēsün just as well.

[223] In view of some central dialect forms this is perhaps really *örgeesün.

Mongghul	E. Yugur	CM	
mo:r	*mör*[224]	**mör*	road, path
(*xara*) *sa:r*	*sar*	**sar*	certain bird of prey
to:r	*tɔr*	**tor*	net
a:rdaġ	*a(:)rdaġ*	**ardag*	spoilt
ba:rdam	*bardam*	**bardam*	proud
tie:rge (SM)	*terɣen*	**tergen*	cart
ya:ra	*ya:ra*	**yara*	ulcer
su:mar (SM)	*su:mal*	**sumal*	bag

Preceding -*r*- even high vowels may be occasionally lengthened, e.g. MgrH *źiu:rə-* < **ǰïru-* 'to write', *nu:ra:-* ~ *nura:-* < **nura-* 'to collapse'.[225] Lengthening before other consonants occurs less frequently, as in MgrH *źo:lġo-* (cf. EYu *ǰɔlǧɔ-*) < **ǰolga-* 'to meet', and *a:sar* (EYu *hsar*) < **asar* 'pavilion'.

3.14.8. Remaining first-syllable vowel lengths in Dagur

Most of the unconfirmed Dagur vowel lengths (both high and non-high vowels) occur preceding *r* or *n*, suggesting that at least part of them may be secondary developments triggered by this phonetic environment.

Dagur	CM	
a:nəɣ	**anaga*	hunting spot
du:t	**döte*	short (distance)
ga:d	**gada-*	outside[226]
gʷə:n	**gün*	deep
ǰu:r	**ǰüg*	direction
ǰu:r	**ǰür*	roe deer
kʷə:l-	**köl-*	to harness
kʷə:nnʸe:	**köŋdei*	hollow
sə:lbə:	**serbee*	fin
sɔ:r	**sur*	thong[227]
ta:wu	**tagu* (?)	jackdaw[228]
xɔ:n	**hon*	year
xu:nu-	cf. **hünir*	to smell

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[224] EYu *mór* in Malov's materials (edited by Kotwicz), probably meant to denote **mo:r*.

[225] Lengthening by -*r*- may also be assumed in other languages, e.g. in Ordos *i:r* < **hir* 'knife edge', *i:rge* < **irge* 'wether'. It may also have caused the unexpected Khalkha forms *buurcag* 'bean' and *büürge* 'flea'.

[226] Thus according to Poppe (1967:6). Alternatively this could be a metathetic length from the extended form **gadaa*.

[227] The Dagur variant *saur* given by Zhong could be a secondary development of this long vowel form.

[228] Length is also recorded in Bargu *ta:g* 'id'.

Some superficially similar, but special cases are dealt with in other sections. Dagur *a:n* 'they' and *i:n* '(s)he' were perhaps influenced by the other personal pronouns *bi, *či, *ba, *ta*, which were also lengthened in Dagur (see the monosyllables above). The long vowels in Dag *su:* 'milk', *xa:ɣə* 'bran', and *xʷa:l* 'tinder' correspond to long vowels in (some) central Mongolic dialects (see misspelled contraction lengths under 3.14.1.)

Some Dagur lengths may be due to length metathesis, e.g. *xu:l- < *xu:lə- < *hulie-* 'to blow', *ga:d < *ga:da < *gadaa* 'exterior' (see 3.14.10.).

Another Dagur length in the first syllable is *tʷa:ləɣ < *tulga* 'pillar', which also has a long vowel in Eastern Yugur, but is contradicted by its base, the verb *tɔl- < *tul-* 'to support'. Dag *ǰe:bla:- < *ǰabïla-* 'to sit cross-legged' is also unexpected; it cannot merely be a compensation length, given that unaccented vowels are routinely elided in Dagur without the need for compensation.

Further unusual Dagur lengths in the first syllable include *dɔ:l-* '(of the weather) to become warm', perhaps from a verb *dul-*, which could be related to *dulaan* 'warm', but is not attested elsewhere, and *nə:ɣ-* 'to weave' from *neke-*.

3.14.9. Compensation lengths

In some words vowel lengths seem to have developed as compensation for the loss of a vowel in another syllable. Compensation is an alternative explanation for many of the vowel lengths discussed in the past paragraphs. On the other hand, many apparent compensation lengths can be adequately explained otherwise.

Bolčuluu & Jalsan give several Eastern Yugur words in which the loss of the first vowel is accompanied by lengthening of the accented second vowel: *χwa:r ~ χawar < *kabar* 'nose', *nyɔ:n ~ nion < *noyan* 'lord', *tya:ġ ~ tiyaġ ~ tayaġ < *tayag* 'walking cane', EYu *x́a:- ~ hia-, haya- < *huya-* 'to tie up'.

Some of these words also have lengths in Mongghul, such as *noyan* and *huya-*, but this does not necessarily indicate a shared origin, as Mongghul has many lengthened vowels in words of a similar structure, which did not lose any vowels in other syllables. Striking similarities like EYu *na:-*, MgrH *na:-*, BaoÑ *na:- < *una-* 'to fall' become less remarkable in view of the alternative Mongghul form *una:-*.

Compensation in the first syllable for the loss of a vowel in the second may be seen in EYu *da:φsən, da:bsən < *dabusun* 'salt', *a:r < *aru* 'posterior', but they may also be due to the lengthening of the non-high vowels discussed in 3.14.5.

Perhaps compensation also plays a role in the length of Dag *gʷə:n* 'deep' and *su:* 'milk', etc. The forms of *gün* 'deep' are mostly short elsewhere, but in Mongghul there are disyllabic forms such as *fugon* which suggests the existence of a CM variants *öken ~ *gü(:)n*. 'Milk' also has an old disyllabic variant, cf. Kalmuck *üsn*, Ordos *u̇sun*, EYu *hsun*, pointing at CM variants *üsün ~ *sü(:)n*. Another similar case may be *onu- ~ *nuu-* 'to hit'.

Compensatory lengthening may also be due to the loss of a consonant, usually *-b-*. In case of intervocalic *-b-*, this involves contractions of original *VCV* sequences like those in prehistoric Mongolic. Examples include EYu *ǰɔ:lɔŋ < *ǰoba.laŋ* 'suffering', MgrH *de:sə- < *debis-* 'to spread', BaoÑ *te:r < *teberi-* 'to embrace'. EYu *šu:n* 'bird' is a contraction of *sïbaun*, but *au* had probably already been contracted before the *-β- < *-b-* was lost. Puzzlingly three different solutions

were applied in Mongghol to the numerals *de:ren* < **dörben* 'four', *ġura:n* < **gurban* 'three', and *xaran* < **harban* 'ten', the latter without any compensation.

Some of the rare vowel lengths in Mangghuer (recorded by Čenggeltei) have developed as a result of the loss of a consonant, e.g.

Mangghuer	CM	
no:ći-	**nögči-*	to pass
ҫɤǧ ~ ҫɤ:	**čag*	time
ṣa:	**sïra*	yellow

3.14.10. Metathesis of vowel length

In some words vowel lengths seem to be transferred from another syllable. The vowel that was expected to be long on historical grounds appears as short. In fact this is also a type of 'compensation length'.

Among the certain cases of metathesised length we find EYu *toro:-* 'to circle' instead of the expected form **to:rǝ-* (< CM **toarï-*), BaoÑ *he:lǝ* 'kind of bird of prey' for **hele:* (< CM **helie*), BaoÑ *ma:ra-*, BaoX *ma:r-* 'to hide' for **mara:-* (< CM **marïa-*).

Dag *ga:d* 'outside', if from **gada:* < CM **gadaa*, could belong in this group as well. However, Poppe (1967:6) compares it to the base **gada* (which he reconstructs **ġa:da*) rather than to the derivate **gadaa*.

One of the more complicated cases is Dag *xu:l-* 'to blow', which should be related to CM **hülie-*. This etymon has an unexpected short final vowel in all peripheral languages, a diphthong in Dongxiang, and a long vowel in the first syllable in Mongghul and Eastern Yugur. Eastern Yugur and Mongghul further have initial $[p^h$-], showing that paralinguistic factors have played a role.

The verb **dolïa-* 'to lick' lacks the expected contraction vowel in the QG languages, where all modern forms seem to derive from a form **do:lï-* or **do:l-* 'to lick' instead of expected **dolo:-*. However, in this case the length may also have arisen after the word developed the syllable structure **dolï-* (see 3.14.5). This would leave open the question why its second syllable was shortened.

BaoX *ġa:dǝr* 'sickle' (ultimately from **kaduur*) is another example where the length may be due to syllable structure, seeing that other Baoan dialects feature the form *ġadǝr*. Length metathesis in Baoan may go hand in hand with the tendency to reduce contraction lengths in the non-first syllables.

In the peripheral languages there are only isolated cases of vowel length metathesis. In Bargu, long vowels before the suffix **-sUn* are often transferred to the second syllable.

Bargu		CM	
baxa:	(for expected **ba:xa*)	**baasun*	excrement
buxǝ:	(for expected **bu:xǝ*)	**böesün*	louse
nɔxɔ:	(for expected **nɔ:xɔ*)	**noasun*	wool

Analogy is probably the reason why today most words containing the suffix *-sUn* now end in a final long vowel in Bargu, even if the first syllable vowel was not long:

naxa: (for expected **naxa*)	**nasun*	age
tɔxɔ: (for expected **tɔxɔ*)	**tosun*	oil
ʊxʊ: (for expected **ʊxa*)	**usun*	water

The same analogy may have affected Brg *buxə:* < **büse* 'belt', unless this is a genuine length (cf. also the QG cognates MgrH *puse:* and EYu *pəsəi*).

3.14.11. Lengthening of non-first vowels in Dagur

Apart from the monosyllabic stems and some cases which are also long either in central Mongolic, or in Mongghul and/or Eastern Yugur, most other unexpected vowel lengths in Dagur occur in non-first syllables. These lengths appear to be totally unrelated to QG lengthening, and they are mostly unexplained. Perhaps most involve morphological reinterpretation rather than phonetic developments.

Although there is no explanation for the secondary lengthening of these vowels, it is problematic to conclude, on the basis of Dagur alone, that they are therefore 'primary' lengths (as suggested in Tömörtogoo 1992). The corresponding vowels are short in the QG languages Eastern Yugur, Mongghul, and Ñantoq Baoan, which even tend to place the accent on the final syllable. Several groups of similarly-structured words can be distinguished. They will be discussed below.

3.14.11.1. Lengthening of the final vowel of verbs

A number of, mostly disyllabic, verbs end in *a:* and *ə:* where the vowel was expected to be lost, e.g. *xumpa:-* (**humba-*) 'to swim' and *xuya:-* (**huya-*) 'to tie up', *təmče:-* (**temeče-*) 'to strive'. The occasional agreement with lengths in Mongghul (as in the three verbs just mentioned) seems to be coincidental.[229] If they do represent old lengths, the short vowels in central Mongolic and Eastern Yugur need an explanation.

While lengthening of final vowels is quite common in Mongghul, it is hard to explain in Dagur, unless some kind of metanalysis is assumed, whereby original causative formations in *-A* supplanted the original verbs, or some frequent inflected forms such as the converb *-AAr (*-Ad)* may have caused the (historically) incorrect reinterpretation of the stem.

An explanation in that direction is supported by the fact that the original vowel was not simply lengthened, whichever quality it had. Rather a non-high vowel element *A* was added to the original stem. Although *A* is also the shape of a causative ending, the change in shape did not affect the meaning of these verbs.[230] Thus Dagur has *əlwə:-* < **elgü-* 'to hang', *ərwə:-* < **ergü-* 'to lift' rather than forms in long *-u:*.

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[229] **huya-* 'to tie up' also developed a long final vowel in Buriat.
[230] Nevertheless it may be relevant that most of the affected verbs are transitive.

Verbs in *i/*ï have Dagur e: (/ie/, [ʸe:]) instead of expected /i/ [ʸ] in verbs such as kumrʸe:- < *kömeri- 'to overturn' and təurʸe:- < *teberi- 'to embrace', karče:- < *kabči- 'to squeeze', kəmbʸe:- < *kumï- 'to fold', xəlʸe:- < *kolï- 'to mix', təbkʸe:- < *tobkï- 'to stitch coarsely'.[231] Here simple lengthening of the final vowel would have resulted in Dagur i:.

The age of this development is unknown, but the development of a (Dagur and central Mongolic) form *bulïa- 'to snatch' alongside *bulï- may be an early example.

For verbs ending in the 'long-vocalic suffixes' -lA, -gA, -lGA see 3.14.12. below.

3.14.11.2. Lengthening of the last vowel of disyllabic nouns

This type of lengthening typically affects non-high vowels. Surprisingly often these Dagur lengths correspond to short vowels in Mongghul, although Mongghul otherwise has many vowel lengths in disyllabic words of similar structure (see 3.14.4.).

Dagur	cf	CM	
bərɣə:n	EYu be:rgə	*berigen	sister-in-law
guɣa:n		?*göen	shallow
gura:n	EYu ġura	*gura	roebuck
daŋga:l	MgrH daŋɡʋl	*daŋgal	clod
xʷaima:r	MgrH xʋimor	*koïmar	seat of honour; Mgr: floor

This category also includes the following adjectives, again contradicted by Mongghul (forms from Junast here). In some cases the long vowels are also contradicted by Zhong's Dagur data.

Dagur	Mongghul	CM	
niŋgə:n	nəŋgen	*nimgen	thin, fine
šiŋgə:n	śiŋgen	*siŋgen	thin (fluid)
xuŋgə:n	koŋgon	*köŋgen	light (weight)
yauɣa:n	---	*yabugan	on foot
ǰəulə:n	ǰo:lon	*ǰöelen	soft

All these lengths correspond to short vowels in Mongghul, even though Mongghul has a tendency to lengthen second syllable non-high vowels followed by a nasal or liquid. However, the reverse situation is seen in Dag urkun < *ödken 'thick', as opposed to MgrH şdoġo:n 'id'.

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[231] Dag kəkre:- 'to belch' and təmče:- 'to compete' suggest CM forms in -i rather than the forms *kekere- and *temeče- supported by other languages. Conversely, Dagur nərča:- 'to hatch' suggests *nebčee- rather than the usual *nebčie-.

There may be a connection between the above unexpected Dagur lengths and the lengthening of the vowel before the diminutive *-kAn* in Dagur adjectives.[232] Remarkably, some of the adjectives have short vowels in their final syllable although they contained CM double or complex vowels.[233]

Dagur	CM	
bələn - bələ:kən	**belen*	(quite) ready
bulun - bulu:kun	**bülien*	(quite) luke-warm
narin - nari:kən	**narïn*	(quite) fine[234]
šɔlun > šɔlu:kun	**sïluun*	honest > nimble
xairən - xaira:kən	**kaïran*	(quite) pitiful

3.14.11.3. Lengthening of last syllable vowels before *-r*

Lengthening is found in several Dagur words with CM **-r* or secondary *-r* from **-g* or **-d*. The vowel is typically non-high. Beyond the fact that *r* is known to often lengthen the preceding vowel, there is no explanation for this phenomenon. Cf. lengthened monosyllables in *-r* in 3.14.8.

Dagur	Mongghul	CM	
ala:r	*alaġ*	**alag*	variegated
baɣəlǰa:r	*baġalǯaġ*	**bakalǰag*	wrist
bədə:r	---	**beder*	spot, freckle
bɔdɔ:r	*budəġ*	**budug*	dye
bula:r	*bulaġ*	**bulag*	(water) spring
kalta:r	---	**kaltag* or **kaltar*	name of a horse's coat colour
kɔnɔ:r	---	**konag*	24-hour period
kɔŋgɔ:r	---	**koŋgar*	light brown

These examples raise the question why this type of lengthening is not more universally applied (did *kɔdir < *kudug* 'water well' and *suǰir < *süǰüg* 'religion' remain short due to the high vowel?). Another problem is that many of the words in question could be (re-)borrowings from Manchu, which has *bederi* 'spot', *kaltara* 'brown with a white nose', *konggoro* 'brown'. This also applies to the adjectives above, many of which also occur in Manchu, e.g. *bulukan* 'lukewarm', *hairakan*

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[232] In Mongghul the suffix **-kAn* has developed a long vowel, compare Mongghul *bulenxa:n*, as opposed to Dagur *bulu:kun*.

[233] Puzzlingly, Enkhbat (1988:235) mentions the stems as *bulu:n, nari:n, šɔlu:n*, while his dictionaries, as well as Zhong's materials, report the same words with a short vowel in the unexpanded stem. Did he 'invent' these word shapes to explain the morphology on that given page? Alternatively, the lengthening is due to analogy with other words mentioned by Enkhbat, in which the length is due to contraction, such as *xulu:-kun* 'quite many', *xalu:-kun* 'quite hot', from **hüleü* and **kalaun*, respectively.

[234] In view of Kh *nariyn* 'fine', the *-i-* of Dag *narin* could also be viewed as a shortening.

'pitiful'. However, to assume reborrowing from Manchu does not ultimately lead to a solution, as many of the vowel lengths of Manchu (as recorded in Sibe) are themselves unexplained.[235] Moreover, some of these words also display, partly erratic, vowel lengths in the neighbouring North Tungusic languages Solon and Oročen. In all these cases it is difficult to establish the direction of borrowing[236], and at any rate none of the languages offers an obvious explanation for the long vowels.

Lengthening of CM high vowels is much rarer in Dagur. Dag *an^y e:r* in fact suggests a CM form *anïar* rather than *anïr*.

Dagur	CM	
an^y e:r	*anïr*	sound
xuli:r	*ölir (?*hölir)*	wild apple

3.14.11.4. Various other Dagur vowel lengths

Several other Dagur words have unexpected vowel lengths. Lengthening of the last vowel of trisyllabic or longer nouns, either word-finally or preceding a sonorant is unexpected because of the Dagur accent on the first syllable.

Dagur	E. Yugur	CM	
karəɣna:	*qarğanə*	*karagana*	(plant name)[237]
ərɣ^w lə:	*örlö(:)*	*öreele*	hobble
naučɔ: ~ nauč	*nağačə*	*nagaču*	maternal uncle

The long vowel in *naučɔ:* may be not be a phonetic development. It may be a vocative or caritative form, cf. Dag *əwə:* 'mother', *əkə:* 'older sister' and *aka:* 'older brother', which apparently are vocative forms to the regular developments *əɣ < *eke*, *əkč < *egeči*, and *aɣ < *aka*.

Lengthening of the second vowel of trisyllabic nouns, comparable to the group of *ala:r*, *bədə:r*, discussed above, but with other sonorants instead of *r*. These cases are also unexpected because of initial stress.

Dagur	CM	
čakɔ:l^y	*čakulaï*	seagull
nida:n^y	*nïdanï*	last year
kur^y e:n	*kürene*	weasel ('vole' in Dagur)
təmə:n^y	*təbənə*	large needle

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[235] There are other cases where Dagur has vowel lengths in Mongolic words reborrowed from Manchu, e.g. Dag *xada:l* 'horse's bit' and *durə:ŋg^y* (Zhong), *durə:ŋgi:* (Enkhbat) 'stirrup' from Manchu *hadala, durenggi* (cf. CM *kadaar, *döree*). But these vowel lengths are not documented in Manchu. Perhaps they were just perceived by Dagur as not reduced, and therefore associated with long vowels.

[236] Solon also has the development *-r* from *-g*.

[237] Cf. also Dag *tuɣna:* 'lead (the metal)', apparently related to *tuulga*.

Again there are equivalents in Manchu, which cannot explain the vowel lengths, e.g. *kurene* 'weasel', *temene* 'large needle'.[238]

Dag *səlmi:* 'sword' from **seleme* is inexplicable unless it is originally a genitive which was morphologically redefined as an uninflected root. Dag *tulma:* 'bucket' (CM **tulum,* with no final vowel at all) may have been a reflexive possessive form reinterpreted as the stem. These explanations are rather *ad hoc*, but there is no purely phonetic development to explain these forms. Similar reinterpretations may underlie other cases where a Dagur long vowel corresponds to Ø in other languages, such as the verbs mentioned under 3.14.12.

In closing, there are many peculiar vowel lengths in Dagur: In view of the chaotic correlation with vowel length in QG and elsewhere, it is not generally advisable to make these poorly supported vowel lengths part of the CM reconstruction forms. Perhaps the most striking aspect of the Dagur vowel lengths is that so many occur in unaccented syllables. This may in fact indicate that accent placement was much more variable in earlier stages of development.

3.14.12. Long vowels in suffixes

The vowels of some suffixes have apparently been lengthened in Dagur and Mongghul. Not the same suffixes are lengthened in each language, so that it is impossible to reconstruct these suffixes as being long in CM. There is no explanation, other than the possibilities of a) metanalysis of derived or inflected forms, and b) the influence of neighbouring languages where the same suffixes exist.

As even contraction lengths can be found shortened in modern languages, it can not be excluded that some of the long vowel suffixes represent the original situation, and that their short counterparts elsewhere are the innovation.

Disagreements with respect to vowel length can be seen in several inflectional and derivational suffixes. The ablative suffix (probably from CM **-AAsA*, in spite of Written Mongol *-AčA*) has become *-A:s* in Dagur, but *-sA* in Eastern Yugur and *-sa* in Mongghul. The comitative **-lUA > *-lA:* has become MgrH *-la*, and the ordinal suffix **-dUAr* has been shortened into MgrH *-dar*.

A more thorough investigation will be required, taking into account the many disagreements between various descriptions, especially in the case of Dagur. In the following only a selection of suffixes with lengthened vowel will be presented.

The denominal verb suffix *-lA*

In Dagur the vowel of the denominal verb suffix **-lA* is lengthened in a large number of derivations. However, another large group of *-lA* derivations has the expected reflex *-l*. It is not clear why some words developed the long vowel, and others did not. As there appears to be little free variation, it seems to be lexically determined.[239]

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[238] See Kara 1985 on the Dagur vowel lengths in Manchu loanwords.

[239] One case where both the short and the long form occur is *wəyil-* and *wəylə:-*, both from CM **üye* 'joint', but with diverged meanings.

In Eastern Yugur, Mongghul, and Ñantoq Baoan, the suffix *-lA* is normally short, in spite of the fact that final non-high vowels are oftened lengthened in these languages.[240]

The verbalizer *-lA* is an 'Altaic' suffix also occurring widely in Tungusic, and its vowel is also long in Solon and Orochen, two Northern Tungusic languages neighbouring Dagur. Whatever the cause of the length in these languages, it is quite possible that these languages influenced Dagur in this respect (since Tungusic influence on Dagur is considerable).[241]

Most verbs in *-lA* are straightforward verbalizer-derivates in which the nominal stem from which it is derived can be easily recognized. For the (usually predictable) meanings of most verbs I refer to the dictionaries. The long-vowel version of the suffix appears in: *aula:-* (from **aba* 'hunt'), *ča:sla:-* (from **čaasun* 'paper'), *dəɣə:lə:-* (from **degee* 'hook'), *dəllə:-* (from **dere* 'pillow'), *gujilə:-* (**güjir* 'difficult'), *mullə:- ~ murlə:-* (**mörü* 'shoulder'), *ləllə:-* 'to call' (**nere* 'name'), *nuɣʷlə:-* (**nüken* 'hole'), *tʷə:lə:-* (**töe* 'handspan'), *usla:-* (**usun* 'water'), *xʷarəmla:-* (**kormaï* 'hem'), *xʷarkla:-* (**huraka* 'lasso').

The short-vowel version of the suffix: *čə:rəl- ~ čə:l-* (**čeer* 'prohibition'), *daul-* (**daun* 'song'), *dabkul-* (**dabkur* 'layer'), *də:səl-* (**deesün* 'rope'), *dɔmul-* (**dom* 'magic'), *najil-* (**najïr* 'summer'), *wə:dəl-* (**öede* 'above'), *kəryəl-* (**kereg* 'need'), *nasəl-* (**nasun* 'age'), *sujil-* (**süjüg* 'religion'), *tʷa:l-* (**toan* 'number').

These examples show that both versions of the suffix can be attached to native noun stems, and that there is no obvious phonetic reason that could explain the choice of suffix variant. As word-final short vowels are normally reduced or lost, the second set of derivations show the expected development.

The deverbal verb suffix *-lA*

Some verbs which at first sight have the same structure as the above formations with *-lA*, in fact contain different suffixes. There is an intensive/iterative (deverbal verb) suffix **-lA* which survives in Dag *nɔɣʷla:-* 'to pound continuously', from *nɔɣʷ-* < CM **nïku-* 'to knead', *murɣʷlə:-* 'to butt (of cattle)' from *murɣʷ-* < **mörgü-* 'to bow; to butt'. This suffix, too, has a short vowel elsewhere: EYu *qudqula-* 'to stir' from **kudku-*, MgrH *nuġla-* 'to knead' from **nïku-*, BaoÑ *źabćila-* 'to chop up' from **čabčï-*.

The transitive marker *-l*

Even more peculiar are the verbs formed with the transitive marker **-l* (counterpart of intransitive **-rA*), which did not even contain a vowel originally. Apparently this suffix was associated with and influenced by the verbalizer *-lA* and/or other transitive (causative) verb formations ending in the vowel *A*. Metanalysis of suffixed forms (e.g. the converb *-AAr* or the agent noun *-AAči*) may also have contributed to

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[240] As usual, there are some exceptions, e.g. BaoÑ *xirla:-* 'to become yellow'< **sïra-la-*.

[241] The Turkic language Yakut, also has a long vowel in this suffix, which seems to be confirmed by the spellings in Kashghari's 11th century dictionary (which could be a matter of spelling).

this unexpected development. Examples include *sətlɔ:-* (**setel-*) 'to tear', *xaulɔ:-* (**kagal-*) 'to break', *xɔɣʷlɔ:-* (**kugul-*) 'to break'. However, not all *-l* formations have been lengthened, cf. *xaul-* 'to skin' (**kaul-*). Compare also the morphologically opaque verbs in *-l* showing the same long vowels such as Dag *kutlə:-* from **kütel-* 'to lead by the hand', *sɔndla:-* < **sundula-* 'to ride with a passenger or luggage'.

The denominal verb suffix *-rA*

The development of the denominal verb suffix **-rA*, mainly a verbalizer of adjectives, shows the exact opposite development of **-lA*: its vowel is lengthened in Mongghul, and reduced or lost in Dagur. The corresponding forms in Eastern Yugur do not present a clear picture. Junast (1981:86) records the suffix as *-rAA*, but Bolčuluu & Jalsan (1991:383) as *-rA*. Cf. MgrH *ġalǯu:ra:-*, Dag *galjɔ:r-* < **galǰaura-* 'to go mad', MgrH *kuidəre:-*, Dag *kuitur-* < **küitere-* 'to become cold'.

Dag *šarəl-* ~ *šallə-* 'to become yellow', and *xarəl-* ~ *xallə-* 'to become black' are from CM **sïra-la-* and **kara-la-*, but these are dissimilated forms of earlier **sïra-ra-* and **kara-ra-*, which are derived by means of the suffix **-rA*. The vowel of this suffix is not lengthened in Dagur, which is demonstrated by the development of other derivations such as **köke-re-* 'to become blue' (Dagur *kukur-*).

In view of the numerous other verbs with lengthened final vowel in Mongghul, the lengthening of verbs in *-rA* may not seem to be surprising. However, this lengthening is striking when compared with *-lA* formations which nearly always remained short-vocalic in Mongghul.

The intransitive marker *-rA*

The other suffix **-rA*, intransitive counterpart of **-lA*, is also lengthened in Mongghul, as illustrated by verbs like MgrH *xġara:-*, Dag *xaɣər-* < **kagara-* 'to burst', MgrH *taġsəra:-*, Dag *tasər-* < **tasura-* 'to break (intr.)', MgrH *xaura:-*, Dag *xaur-* < **kaura-* 'to peel off (intr.)'. In Eastern Yugur the suffix has the form *-rA* according to Bolčuluu & Jalsan, but it occasionally appears with long vowel in Junast's materials.

The denominal verb suffix *-dA*

Like **-lA*, the transitive verbalizer **-dA* has two sets of reflexes in Dagur, with long and short vowel, without obvious reason. In Mongghul and Eastern Yugur, **-dA* has a short vowel. Dagur examples with long vowel include *čɔlɔ:da:-* 'to throw stones' from **čïlaun* 'stone', *xaurda:-* 'to file' from **kauraï* 'file (the tool)'; examples with short vowel include *kirə:d-* 'to saw' from **kiröe* 'saw', *daud-* 'to read' from **daun* 'voice'.

The adjective modifier **-bIr/-bUr*

The adjective modifier **-bIr/-bUr* has a long vowel in Mongghul, but a short one in Ñantoq Baoan and Eastern Yugur, e.g. MgrH *fulaanwu:r*, BaoÑ *fulawər*, EYu *łaiβər*

'reddish', from *hulaa.bur* or *hulaa.bïr*.[242] The short vowel is confirmed by Dagur, assuming that the functional equivalent *-lbin/-rbin* in *xula:lbin ~ xula:rbin* is etymologically related. The long vowel in Mongghul *-wu:r* seems to be doumented only in Li Keyu's materials, cf. *ćiġa:vur* 'whitish' (Činggeltei 1988:356).

The diminutive *-kAn

The diminutive *-kAn*, found on numerals and adjectives, is also long in Mongghul, but short in Ñantoq Baoan, Eastern Yugur and in Dagur. Mongghul examples include *kundunxa:n* 'rather heavy' from *kündü* 'heavy', *xaranxa:n* 'only ten' from *harban* 'ten'. As mentioned above (3.14.11.2.), the vowel *preceding* the suffix *-kAn* may be lengthened in Dagur, as in *bələ:kən* 'rather ready' < *belen* 'ready'.

The causative suffixes *-lgA*, *-gA*

The causative suffixes *-lgA* and *-gA* have usually become Dagur *-lɣA:, -lkA:, -gA:, -kA:* with long vowel. Examples include Dag *ailɣa:-* (from *ayu-* 'to fear'), *darəlɣa:-* (from *daru-* 'to press'), *du:rɣə:-* (from *düür-* 'to fill up'), *garɣa:-* (from *gar-* 'to exit'), *saulka:-* (from *sau-* 'to sit'), *sɔrɣa:-* (from *sur-* 'to learn'), *daurka:-* (from *daus-* 'to end'), *xəirkə:-* (from *keis-* 'to be blown away'). Perhaps these causative formations were lengthened under the influence of other causative verbs with a long final vowel, originally formed with *-A*, such as *kata:-* < *kataa-* 'to harden', causative to *kat-* <*kata-* 'to become hard', *dərtə:-* < *debtee-* 'to soak (tr)', from *dərt-* < *debte-* 'to soak (intr.)'. That the lengthening is not a phonetic development is shown by verb stems ending in the syllable *gA*, which regularly lost their final vowel, e.g. Dag *ədəɣ-* < *edege-* 'to recover', *itəɣ-* < *itege-* 'to believe', *ɣaləɣ-* < *ïlga-* 'to choose', *ǰaləɣ-* < *ǰalga-* 'to join', *ǰarəɣ-* < *ǰïrga-* 'to rejoice'.

The lengthening of the vowel of *-lgA* and *-gA* is not confirmed by Eastern Yugur and Mongghul, where these suffixes typically remain short-vocalic. Mongghul only has a long vowel in a handful of older causatives, e.g. *kurge:-* < *kürge-* 'to bring, deliver', *surġa:-* < *surga-* 'to teach'. These are no longer felt to belong to the verbs *kur-* 'to reach' and *suru-* 'to learn'; Mongghul has created new causatives *kurġa-* 'to cause to reach', *suruġa-* 'to make sb. learn' with a closer semantic relation to the base verb.

The deverbal noun suffix *-l*

In Dagur the deverbal noun suffix *-l* is now often preceded by a long vowel which was not present in the verb stem, e.g. *itɣə:l* < *itege-l* 'belief', *ǰarɣa:l* 'smallpox' (Ersatzwort) < *ǰïrga-l* 'happiness', *ǰɔɣɔ:l* < *ǰoba-l* 'problem', *mədə:l* < *mede-l* 'knowledge'. At first sight these derivations suggest that the suffix somehow triggered the lengthening of the stem vowel. However, *xɔrɣʸe:l* (rather than *xɔrɣi:l*) < *horgï-l* 'whorl' suggests that the shape of the suffix itself has been redefined as

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[242] The *-n* of the stem *hulaan* was unexpectedly retained before *-bUr* in Mongghul. The Eastern Yugur form was probably influenced by the related verb *łai-* < *hulaï-* 'to become red'.

-*Al* or -*AAl*, so that *xɔrɣ^ye:l* represents **horgï-al*. The shape -*AAl* is suggested by derivations from verbs ending in a consonant, such as *ɔrsɔ:l* 'stream' from *ɔrs-* < **urus-* 'to flow'. Perhaps this redefinition was also inspired by formations that do derive from stems in a long vowel, such as *xasɔ:l* < **hasau-l* 'question', *xirə:l* < **hiröe-l* 'blessing', although these are not frequent. As in the case of -*lA*, there are also forms with the expected phonetic development, i.e. a short vowel: *šadəl* < **čïda-l* 'ability', *dɔsul* < **dusu-l* 'drop', *təsəl* < **tes-ü-l* 'patience'.

In other languages this suffix tends to end in -*l* only. There are isolated parallels in central Mongolic, e.g. Khalkha *magtaal* 'praise' and *surgal ~ surgaal* 'doctrine', which should be from **magta-l* and **surga-l*. In Mongghul a long vowel may occur when the verb stem itself had developed a long vowel.

3.14.13. Dagur lengths due to Tungusic cognates

Several Dagur lengths occurs in Mongolic words reborrowed from neighbouring Tungusic languages. Potentially a large number of the Dagur vowel lengths discussed in the previous paragraphs may involve reborrowing from Tungusic, given the sizeable vocabulary Dagur shares with its neighbours. In some instances the borrowing has led to doublets, typically with a different semantic nuance, e.g. Dag *kara:* 'black (of a horse's coat)' is from Oročen, while native **kara* resulted in Dag *xar* 'black (in general)'. Dag *širɣa:* 'yellow (of a dog's coat)' is probably from Manchu, whereas native **sïrga* resulted in Dag *šarəɣ* 'straw-coloured with light mane (horse's coat)'. Dag *sula:* 'idle' is from Manchu, whereas native **sula* resulted in Dag *s^wal* 'loose; free'.[243]

3.15. Turkic evidence for 'primary' vowel length?

As seen in the previous paragraphs, the internal Mongolic evidence for 'primary' vowel length, although at first sight abundant, is quite ambiguous. When the numerous Dagur, Eastern Yugur, and Mongghul words which feature interesting vowel lengths are investigated more closely, it appears that many such lengths are only supported by a single language, and rarely by two or three of the peripheral languages. In many cases these languages disagree on the quantity of vowels, both in endemic words such as **berigen* 'sister-in-law', and in words with CT cognates such as **kekire-* 'to belch'. Therefore, the modern Mongolic evidence generally does not suffice to reconstruct these lengths for the ancestral language.

In spite of the contradictory evidence, unexplained vowel lengths found in the individual languages might be remnants of an earlier (Proto Mongolic) situation. As vowel lengths can often be confidently reconstructed in Turkic cognates, one would expect these cognates to provide some additional evidence for lengths in Mongolic.

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[243] The vowel lengths of Manchu are not indicated in spelling, but they survive in its modern dialects including Sibe.

In the following the potential correspondences between Turkic and Mongolic long vowels will be explored. The usual correspondences between Mongolic and Turkic with regard to vowel quantity are as follows:

1) CM simple vowel corresponding to a short vowel in Common Turkic
(e.g. CM *kara* - CT *kara* 'black')

2) CM simple vowel corresponding to a long vowel in Common Turkic
(e.g. CM *sal* - CT *sa:l* 'raft'; CM *ǰarïm* - CT *ya:rïm* 'half')

3) CM double vowel corresponding to a *VCV* (or *VC*) sequence in Common Turkic
(e.g. CM *ǰaïdag* - CT *yapïdak* 'without saddle'; CM *saarï* - CT *sagrï* 'rump')

A fourth common correspondence should be mentioned here as well:

4) CM simple vowel corresponding to Ø in Common Turkic
(e.g. CM *bora* - CT *boz* 'grey'; CM *köke* - CT *kö:k* 'blue')

Similarities in vowel length between modern Mongolic languages and Turkic[244] are very rare. Even in the more striking cases there tend to be problems with the comparison, either the semantic development makes it difficult to establish the identicity of a Mongolic word and its Turkic counterpart, or the length itself is only supported by a single language, or can be explained as a secondary development.

CM *dalu* 'shoulderblade' (whose *a* resulted in vowel length in Eastern Yugur and Mongghul) could be related to CT *ya:l* 'mane', but the Mongolic length can be explained as secondary lengthening due to word structure.[245]

CM *ǰargu* 'lawsuit' (with long vowel in Eastern Yugur) is obviously related to CT *ya:rgu* 'lawsuit', derived from the verb *ya:r-* 'to split'. However, CM *ǰarïm* 'half', corresponding to CT *ya:rïm* 'half', and derived from the same Turkic verb, lacks the vowel length in Mongolic. CM *yara* 'wound', possibly also related to the same verb, looks more convincing in that it has a long vowel in Eastern Yugur, Mongghul, and Ñantoq Baoan, but it is contradicted by Dag *yar*. Moreover, the reconstruction of length in Turkic is also problematic, as Turkmen has a short-vocalic form *yara* suggesting CT *yara* without length, and perhaps unrelated to the verb.[246] CM *ǰolga-* 'to meet' (with long vowel in Mongghul) is

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[244] There are several types of evidence for the original presence of vowel length in a Turkic stem. Long vowels as such survive in Turkmen, Yakut, and Khalaj. Lenition of the consonant following the vowel in Oguz languages is another indication. Many short vowels can be recognised in Tuva and Western Yugur by means of the accompanying pharyngalisation and preaspiration, respectively.

[245] In CT there is also a front-vocalic form *yɛ:l* 'mane' which corresponds to CM *del* 'id'.

[246] Moreover, *yara* seems to be unattested in earliest Turkic, and is morphologically problematic. The original meaning may have been 'sore, ulcer', which then later developed into 'wound' under the influence of the verb *ya:r-*. Unlike *ǰargu* and *ǰarïm*, CM *yara* has an initial *y-* in the QG languages. This suggests that, if all three words ultimately derive from the same verb, these correspondences belong to different phases of Turkic-Mongolic contact.

clearly related to CT *yo:luk- 'to meet'. However, this length is only confirmed by a single Mongolic language.

Such problematic cases would not be relevant if there were hundreds of clear correspondences. In fact in the majority of cases there is no conclusive evidence in Mongolic for vowel lengths that are already known to exist in cognate Turkic words. Most of the etyma listed below are present in Eastern Yugur and/or Mongghul and/or Dagur, and normally occur without length.

The small selection below demonstrates how even an initially striking correspondence need not be very convincing. Not only the contradiction between languages (and between descriptions of the same language) damage the credibility of 'primary' vowel lengths in Mongolic, but also the fact that there are alternative explanations for several of them.

CT	CM		length supported by	contradicted by
*sa:k-	*sakï-	to wait	EYu sa:ġə-, BaoÑ sa:ġa-	Dag, Mgr
*ke:kïr-	*kekire-	to belch	EYu ge:gəre-	Dag, Mgr
*ye:l	*del	mane	Dag də:lbur	EYu, Mgr[247]
*so:l	*solagaï	left	Dag saulɣui	EYu, Mgr[248]
*to:r (?)	*tor	net	MgrH to:r	EYu[249]
*yo:luk-	*ǰolga-	to meet	MgrH ǰo:lġo-	EYu, BaoÑ
*kö:l- (?*kü:l-)	*köli-	to harness	Dag kʷə:l- (as if < *kö:le-)	EYu, Mgr

In other cases Mongolic lengths correspond to short vowels in Turkic. The vowel length suggested by MgrH *bu:rge* 'flea' is different in that it is supported by Kh *büüreg*[250], but in Turkic it also has a short vowel. In the following cases the Mongolic length has arisen due to word structure (see 3.14.5.).

CT	CM		length suggested by	contradicted by
*hatï	*ačï-	grandchild	MgrH a:ćə	EYu
*koñ	*konïn	sheep	EYu χɔ:nə	Dag, Mgr
*ya(g)ku	*daku	raincoat	MgrH da:xu	Dag

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[247] It is not unlikely that the first syllable of the Dagur word represents CM *del*. The etymology of the second syllable is unknown to me.

[248] This Dagur form is only recorded by Zhong, elsewhere forms with -ɔ-. The -au- may, but need not be represent original length, a parallel case with the same alternation is Dag *saur* ~ *sɔ:r* 'thong' (also an unexpected length).

[249] The Mongolic length seems to be confirmed by Written Mongol *toor*, but this double spelling has proven unrelated to vowel length in other cases. The Turkic length is not entirely certain either, as Turkmen has *tor* with short vowel; Khalaj *tūor* could be a borrowing from Persian, where this word is also found.

[250] Kh *buurcag* is neither confirmed by the peripheral languages, nor by CT.

In yet other cases established Turkic vowel lengths correspond with short vowels in all of Mongolic:

CT | CM |
--- | --- | ---
*a:la | *alag | multi-coloured[251]
*a:rt- | *a(r)čï- | to load
*ba:gla- | *bagla- | to tie up
*ba:y | *bayan | rich
*sa:l | *sal | raft
*sa:na- | *sana- | T: to count; M: to think
*e:r | *ere | man (if at all related)
*bo:nčok | *mončag | bead
*(h)ö:rmek | *örmege | coarse fabric
*kö:k | *köke | blue
*sö:k- | *sögee- | to scold
*bu:ka | *buka | bull
*su:n- | *sun- | to extend
*kü:č | *küčün | strength

All in all, the correspondences between Turkic and Mongolic are erratic at best. The abovementioned examples suggest that, if CT lengths have ever regularly corresponded to long vowels in CM or PM, they have now been lost in both the central and the peripheral languages. The non-contraction vowel lengths that do occur in the peripheral Mongolic languages usually correspond to CT short vowels (if a Turkic cognate exists).

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[251] The Dagur form *ala:r* has an unexplained vowel length in the second syllable. As Khalaj has *h-* in this word, it is not certain that the Turkic and Mongolic words are even related.

4. MODERN DEVELOPMENT OF THE CM CONSONANTS

4.1. Introduction

In the following pages the main developments of each CM consonant will be discussed. Each section will start with the 'default'[252] development of the consonant in question, which usually involves only a small change, if any at all. After that the other common developments will be given, which can be called shifts, as they consist of a change in one or more features. This survey focuses on those developments in the QG languages that shed light on aspects of the reconstruction of CM, or on the taxonomic relations between the modern languages. Dagur and Moghol will be compared where relevant.

There are usually several reflexes per CM consonant in each language. Which reflex appears in a given word is largely determined by phonotactical factors: the position of the consonant in the word with respect to the accent, the vicinity of any other consonants, either directly adjacent or separated by one vowel, and in some cases, the following vowel.

Most consonants show different developments in different positions and environments. The five relevant positions in Common Mongolic are:

Initial   (word-initial)
Intervocalic   (syllable-initial, following a vowel)
Postconsonantal   (syllable-initial, following a consonant)
Final   (word-final)
Preconsonantal   (syllable-final, preceding a consonant)

In CM *tarbagan* 'marmot' all of these positions occur: *t* initial, *r* preconsonantal, *b* postconsonantal, *g* intervocalic, *n* final.

Due to the loss of unaccented vowels consonants may secondarily come into contact with other consonants. They will be called secondarily preconsonantal or postconsonantal as the case may be. Such changes are relevant because they may affect not only the further development of the individual consonant but also the ability of that consonant to influence other consonants in the stem. CM *kurïgan* 'lamb' has become *kurgan* in Proto Shirongol, after which the, now post-consonantal, *g* was able to deaspirate the initial in the Baoanic languages[253], as in Kgj *ğurğun*. The Dongxiang form *ğuğaŋ* owes the loss of the *r* to its secondarily preconsonantal position (intervocalic *r* is not elided).

Vowel elisions have led to changes in the positional and combinatory properties of individual consonants. For instance *h-*, in CM limited to absolute initial position and followed by a vowel, can now be seen preceding other consonants, as in Baoan *hda* < *huuta* 'bag'. CM *ŋ*, which used to be restricted to

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252 Default in the sense of 'in the absence of factors triggering other developments'. The default reflex thus defined need not be the most frequent one.

253 Initial weakening is triggered by a weak (postconsonantal or intervocalic) consonant that starts the second syllable. See below.

syllable-final positions, can now also be found as the first member of initial clusters, as in MgrH *ŋgo < *öŋge* 'colour'.

Thus a new kind of syllable structure was created, with consonants that are word-initial and preconsonantal at the same time.

On the other hand, especially in dialects under strong Chinese influence, consonant clusters may be dissolved, resulting in secondarily intervocalic consonants.

4.1.1. Proto Mongolic legacy and prehistoric shifts

Some of the differences between the word shapes found in modern Mongolic languages are not due to relatively recent sound shifts, but are in fact relics from old variants that must have existed before the divergence of the present languages. Some are documented in older languages, while others can be distilled from the modern languages. Alternations include:

Final *d* ~ *s* ~ *š* ~ *č*, as in *hedke-* ~ *heske-*, etc. 'to cut'
Initial *g* ~ *ǰ*, as in *gïloan* ~ *ǰïloan* 'shiny'
Initial and medial *d* ~ *ǰ*, as in *kadaar* ~ *kaǰaar* 'horse's bit'
Intervocalic *d* ~ *t*, as in *gedesün* ~ *getesün* 'intestine'
Intervocalic *g* ~ *k*, as in *nigen* ~ *niken* 'one'
Medial or final *l* ~ *r*, as in *čaalsun* ~ *čaarsun* 'paper', but mostly due to dissimilation
Initial and intervocalic *n* ~ *l*, as in *menekei* ~ *melekei* 'frog', mostly due to dissimilation
Intervocalic and postconsonantal *b* ~ *m*, as in *kabar* ~ *kamar* 'nose', *nïlbusun* ~ *nïlmusun* 'tear'.

Of course, most of these sets of variants reflect well-known phonetic changes, so that it is often possible to tell which variant is the oldest. The developments *d* > *ǰ* and *g* > *ǰ* are more likely than the reverse. An original syllable-final *ǰ* may underlie the modern alternation *d* ~ *s* (see Poppe 1955:178, in the context of the plural suffixes *-d* and *-s*). In other cases it is impossible to determine which of the extant forms represents the older stage.

Prehistoric shifts are those phonetic changes that are already in evidence in the earliest written Mongolic. These include the development of **s* > *š* preceding **ï/*i*, and the split of **k* and **g* into a velar and an uvular set, depending on the adjacent vowels. The *š* sound may have been an incipient phoneme, as it also occurred syllable-finally in words of Turkic origin. In our CM notation the syllable-final *š* will be written as such, but the predictable *š*- preceding **ï/*i* will be written *s*-. The uvular allophones of **k* and **g* will not generally be distinguished in the notation, except in the section devoted to these consonants.

4.1.2. Types of phonetic shifts

Both unconditional and conditional changes may involve:

1. Place of articulation
2. Manner of articulation
3. Consonant strength, i.e. +/- aspiration or +/- voice

Examples for shifts in the place of articulation include:
CM *ki- > Mongghul and Mangghuer ći-
CM *-b- > Mangghuer -ġ- (usually preceding -s-)
CM *s > Dongxiang ś before palatal vowels

Examples for shifts in the manner of articulation include
CM initial *k- > Dagur x-
CM intervocalic *-b- > w /v/u in most languages

Examples for shifts in consonant strength:
CM initial *b- > Shirongol p- when the next syllable starts with a strong consonant
CM initial *k- > Eastern Yugur g- when the next syllable starts with *d/*ǰ

4.1.3. Patterns, preferences, and tendencies

Many consonants did not only change their own phonetic characteristics, but also developed new features (usually restrictions) concerning their distribution and combinatory properties.

Many changes occur as a consequence of restrictions on syllable structures and distributional limitations of individual consonants. Limitations of this type as found in the peripheral languages are often inspired by neighbouring languages. In Mongghul and Eastern Yugur new syllable structures evolved due to a combination of a native tendency to elide unaccented vowels and a tolerance for consonant clusters, newly acquired under the influence of Tibetan. In Mangghuer and Dongxiang there is a tendency to eliminate all syllable types that are alien to Chinese. Interestingly, before coming under Chinese influence, Mangghuer had developed a tolerance for Tibetan-type initial clusters, which are now being broken up again, as in śiʒʒɔu < *śʒʒɔu < *iśćau < *ebčeün 'chest', and ṣïde < *ṣde < *ɹte < *erte 'early'. Other observable preferences can not be explained from neighbouring languages, although some of them have parallels in the Turkic languages of the region.

Strength/aspiration patterns and shifts

One of the regional features shared by Mongolic and Turkic languages, but not induced by Chinese or Tibetan, are the patterns in which strong and weak consonants can be combined within a word stem.[254] However, such patterns change from language to language, and preferences vary from consonant to consonant.

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[254] It is not clear in which language family this phenomenon originated. North West Mandarin and Amdo Tibetan do not share this areal tendency, probably because syllables in these languages are not just segments of words, but autonomous lexemes or at least morphemes, which helps them to retain their phonetic integrity.

Several types of strength-related changes can be distinguished. Some changes are triggered by the other consonants of the stem, including assimilatory strengthening, assimilatory weakening, and dissimilatory weakening. These typically involve initial consonants being influenced by the (intervocalic or postconsonantal) consonant starting the following syllable. There are also groups of words with initial or medial weakening or strengthening without there being an obvious trigger. Developments in opposite directions may co-occur in the same language, so that the inventory of developments in each language may become quite complicated. Compare the following small subset of EYu words, only concerning the behaviour of initial *k and *g- in back-vocalic stems:

EYu	CM		
ġada	*kada	assimilatory weakening	rock
hġa-	*kaka-	homorganic dissimilation	to choke
ġabčə-	*kabčï-	dissimilatory weakening	to pinch
qəsə-	*kïsu-	strong *k- preserved as plosive	to scrape
χutaġa	*kïtuga	strong *k- preserved as fricative	knife
qagča	*gagča	assimilatory strengthening of initial	alone
ġašu:n	*gasïun	weak *g- preserved	bitter

Only some of these, partly contradictory, developments can be explained and predicted. Assimilatory weakening is shared by Eastern Yugur and the Shirongol group in a large number of words, and must have preceded most other strength-related changes in these languages.[255] Homorganic dissimilation occurs in words with the structure *kVkV- and *tVtV-, while the initial retains its place of articulation in sequences like *kVtV- or *kVčV-. Initial *k followed by medial *č is often weakened, suggesting that this is 'Ordos-type' initial weakening. As the Eastern Yugur phenomenon lacks the regularity seen in Ordos, there may be other factors.[256] The choice between q- and x- also has to do with the consonant starting the second syllable; x- usually appears before liquids, nasals, and semivowels. At first sight qagča < *gagča looks like 'Monguor-type' initial strengthening, although medial -č- was not subsequently weakened, as would be the case in Mongghul. Moreover it is not a frequent phenomenon in Eastern Yugur.

Most of these tendencies have parallels in the other plosives and affricates of Eastern Yugur, but the interplay between any two consonants is different. Not even *k- and *g- in front-vocalic stems behave the same as their uvular counterparts. Initial *b- is routinely strengthened to p- in the QG languages when the second

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[255] Preferences with regard to strength patterns have changed over time. CM *kadum 'spouse's relatives' has become *gadum in Shirongol, but according to modern Mongghul the original strength pattern with strong initial and weak medial would have been ideal.

[256] Certain preconsonantal consonants could mitigate the influence of the strong consonant of the second syllable. This requires more research.

syllable starts with *č*. Perhaps the absence of *p* in the original CM system prevented the confusion that arose in the development of the consonant pairs like *k* - *g*.

Some of the developments observed in de QG languages can be seen as attempts to regularise the gappy CM consonant system:

weak	strong
*b	\<gap\>
*d	*t
\<gap\>	*s
\<gap\>	*š
*ǰ	*č
*g (velar)	*k (velar)
*ġ (uvular)	*q (uvular)
\<gap\>	*h

In the Mongolic languages of the QG region the following strength correlations can be found:

weak	strong
b	p
d	t
ǰ	č
ʒ	c
	s
ʒ́	ć
	ś
ǯ	ç
	ş
g (velar)	k (velar)
ġ (uvular)	q /x (uvular)
Ø (vocalic onset)	h/f

Not all these regularisation attempts apply to all languages. All QG languages show a strong tendency to strengthen the original weak word-initial consonant *b-* to *p-*, if the next syllable starts with a strong consonant. In the Monguor languages, weak *d-*, *ǰ-*, and *g-* in similar environments also tend to change into their strong counterparts *t-*, *č-*, and *k-* (which unlike *p-* already existed in the CM system). In the remaining languages this occurs more sporadically. The correlation between *h-* and Ø is also strongest in Monguor, although *h-* may arise elsewhere through devoicing of an initial syllable with vocalic onset. In Eastern Yugur such *h*'s tend to appear only if the initial vowel completely disappears, as in *hsəra-* < *asara-* 'to raise'.

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The affricates *ǯ ǵ ẓ* seem to be incipient weak counterparts of *s ś ş* in some varieties of Mangghuer and Mongghul[257], which appear at the beginning of the second syllable after a (primarily or secondarily) strong initial consonant, as in the following Mangghuer examples: *piǵili- < *puśele- < *büsele-* 'to wear a belt', *kuǵier < *köser* 'floor', *qaẓaŋ < *gasïun* 'sour', *quẓu < *kosïun* 'beak', *puǯï < *bisi* 'not'. Poppe already noticed the distribution of medial *s* and *ǯ* in Mongghul (1955:120). In both Monguor languages *ǯ* also appears when **s* ended up as a second member of an initial cluster, as in MgrH *sǯu ~ fuǯu <*usun* 'water'. It cannot be determined why no voiced fricatives *z ź ẓ* were created. Perhaps it was convenient to use the Chinese-compatible consonants that were already present. *ǵ* and *ẓ* (both from **ǰ*) already existed as the weak counterparts of *ć* and *ç* (from **č*).[258] This affrication of the weakened sibilants must be a relatively late development, otherwise confusion would have arisen between the 'primary' and 'secondary' affricates, e.g. *ǵ* could have been secondarily strengthened to *ś* in some words.[259]

The assimilation and dissimilation processes serve to create the ideal word structure with regard to strength patterns, which differs from language to language. How, and when, these preferences came about is unclear; they are not obviously due to the influence of non-Mongolic neighbouring languages as so many features are.

The strength patterns favoured by Mongghul are the clearest. Preferably there is only one strong consonant, and preferably it should be the initial plosive or affricate. Words with a strong initial in CM, when any further consonants were weak, often keep their structure (e.g. *xana:- < *kanïa-* 'to cough').[260] Other word types will emulate this structure as far as possible. Words with a second strong consonant will weaken it, e.g. *xadoŋ < *katau(n)* 'hard'. Words with a weak initial and a strong medial consonant, will strengthen the initial and then weaken the medial, e.g. *təbde:- < *debte-* 'to soak', *puǵaġ < *burčag* 'bean', *xaldan < *altan* 'gold'. When non-initial consonant strengths cannot move towards the left they tend to remain where they are, e.g. *maxa < *mïkan* 'meat', *mańćoġ < *mončag* 'crest', *ne:ten < *noïtan* 'wet'.

The Monguor-type initial strengthening accompanied by medial weakening is what Svantesson et al. (2005:207) call flip-flop. In spite of the link between initial strengthening and medial weakening, this is not a straightforward case of metathesis,

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[257] Notably in the eccentric Mongghul dialect described by Dpal-ldan-bkra-shis and Slater (1996), although there are also examples in the other sources, e.g. *xuǵə <*kosïun* 'beak' in Khasbaatar.

[258] In the Turkic languages Tofa and Manchurian Khakas (Fuyu 'Kyrgyz') we also find *ǰ* rather than *ž* in words featuring voicing of intervocalic **š*, e.g. Tofa *ejik*, Fuyu *iǰĭk < *äšik* 'door' (Rassadin 1995:105b, Hu & Imart 1987:52). Cf. also, from further afield, borrowings like Italian *cugino* 'cousin' from older French and Japanese *reja* 'leisure' from English, where *ǰ* stands in for the *ž* that the recipient language lacks.

[259] These instances of *ǯ ǵ ẓ* diachronically stem from *s ś ş*, but it does not follow that they are considered to be the weak counterparts of the sibilants synchronically. There is no evidence that an active system of strength oppositions is known to, and synchronically applied by, the speakers.

[260] Excluding the early cases of assimilatory weakening, mostly preceding **d* or **ǰ,* as shared by Eastern Yugur and Shirongol.

as it has two distinct stages. The loss of aspiration in the medial consonant is not simultaneous, and can be considered a type of dissimilation. As none of the other QG languages systematically shares the second stage, it may have developed recently.

Eastern Yugur, Baoan, Kangjia, and Dongxiang show a more varied picture. Even following the secondarily strong initial *p-* the medial consonant hat triggered the strengthening is not necessarily weakened.[261]

In both Eastern Yugur and Baoanic many instances of Ordos-type initial weakening are found, more commonly in fact than secondary initial strengthening. Ordos (and other central Mongolic dialects including Chakhar) have a preference for weak initials when a strong consonant follows, while the three literary central Mongolic languages have kept the CM strength constellations unchanged, e.g. they preserve CM *tata-* 'to pull' with two strong consonants, as opposed to MgrH *təda-* and Ord *data-*. Such preferences for certain strength patterns may be related to ancient accent patterns.

In Eastern Yugur, and occasionally elsewhere, homorganic sequences deviate from the general development, in that the first consonant is replaced by *h*, as in EYu *hta-* < **duta-* 'to lack', *hkü:r* <**köküür* 'snuffbottle'.[262] CM **tata-* 'to pull' has produced dissimilated forms in Eastern Yugur and throughout Shirongol.

The second element of initial consonant clusters is generally weakened if the first element is strong, e.g. MgrH *sġal* < **sakal* 'beard', *xgə* < **hekin* 'brain', *ṣda:-* < **sïta-* 'to light', BaoÑ *hɀa-* < **kuča-* 'to bark', BaoD *fgor* < **hüker* 'bovine'. This is logical as the second element goes back to the syllable-initial consonant of the second syllable. After weak initials strong second elements are allowed, e.g. MgrH *ntəra:-* < **untara-* 'to sleep' as opposed to *nde:* < **ende* 'here'.

Incidentally the strengthening phenomena observed in initial position can be seen in the middle of words. This entails the strengthening of the consonant starting the second syllable by that starting the third, e.g. MgrH *kaɀi* < **egeči* 'elder sister', MgrM *dapuʒï* < **dabusun* 'salt', Kgj *aŋkəjiɣ* < **ïŋgarčag* 'packsaddle'.

Initial consonant clusters

Initial consonant clusters appear in languages that underwent Tibetan influence: Eastern Yugur, Mongghul, Mangghuer, Baoan, and Kangjia, but - not coincidentally - only marginally in Dongxiang.[263] Clusters in native words probably came about after a large amount of Amdo Tibetan loanwords created a tolerance for them.[264] On

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[261] In case of Eastern Yugur the descriptions of Junast and Bolčuluu disagree. Junast's notation suggests that most non-initial strong consonants were weakened. It is not clear whether the varieties they describe are actually different with respect to strength patterns.

[262] Whether the second element of the resulting clusters is strong is another point of disagreement between the Eastern Yugur sources.

[263] The few documented clusters in Dongxiang (*sd-*, *sʒ-*) can be alternatively analysed by assuming a voiceless vowel between the cluster elements. As Dongxiang apparently lacks Tibetan loanwords, Tibetan influence on the phonology would be unexpected.

[264] The structural similarity between the QG Mongolic clusters and those of local Tibetan is discussed by Janhunen 2001.

the other hand, two non-Tibetan phenomena shared by the QG languages, word-final accent and vowel devoicing, were certainly helpful in creating the clusters. Not all clusters that are allowed in loanwords from Tibetan are necessarily found in native words. Reversely not all clusters found in the Mongolic languages are found in the neighbouring Tibetan dialects.[265] There is, however, a large overlap. Amdo Tibetan and the QG languages agree that consonant clusters should have no more than two elements, and that the first element should not be a plosive or affricate.

Clusters typically arise when the (typically high and short) vowel of the first syllable is elided, but whether this elision will take place depends on the resulting structure. If this structure is allowed in a given language, the vowel may be elided. Normally the elided vowel is either the initial vowel, which is followed by a nasal or liquid, or the non-initial vowel preceded by a fricative.

The number of permissible clusters varies from dialect to dialect, but they share some general characteristics. Rather than attempting to list all documented clusters we will have a look at the major cluster types that are permitted and what their origins are. The clusters typically consist of:

1. **Nasal + Plosive/Affricate**, such as *mb-*, *nd-*, *nt-*, *ŋġ-*.
These typically developed from a CM sequence **V + Nasal + Plosive/Affricate**, as in EYu *nda:s-* < **umdaas-* 'to be thirsty', see also **humba-* 'to swim', **iŋgarčag* 'packsaddle', **uŋgasun* 'wool'. Words with initial nasal such as **nidün* 'eye' normally do not develop initial clusters of this type. The nasal first member may go back to **l*, as in Kgj *nǰiɣe* < **elǰigen* 'donkey'. In Baoan the initial *n* in clusters has often been added without a known reason, as in BaoD *nda-* < **ide-* 'to eat', *nǯiə-* < **üǰe-* 'to see'. The same phenomenon occurs sporadically in other languages, e.g. MgrH *ŋġua:-* < **ugïa-* 'to wash', Kgj *ndasun* < **hutasun* 'thread'.

In rare cases the cluster may stem from a **VCVC* sequence, as in Kgj *mgɔ* < **emegen* 'old woman'.

2. **Liquid + Plosive/Affricate**, such as *rb-*, *rd-*, *rg-*, *ld-*.
These developed from **V + Liquid + Plosive/Affricate**, as in MgrH *rdem* < **erdem* 'knowledge', see also **erte* 'early', **örgeesün* 'thorn', **urtu* 'long'. In some of these clusters the *r* or *l* was almost certainly secondarily inserted, as in EYu *ɫdeɣe-* < **itege-* 'to believe', MgrH *rǯu:r ~ ǯu:r* < **hüǰüür* 'tip'.

3. **Fricative + Plosive/Affricate**, such as *hd-*, *χǯ-*, *fg-*, *sġ-*, *sʒ-*, *ʂd-*, *śǯ-*.
These have diverse origins. They usually developed from **Fricative + V + Plosive/Affricate**, as in EYu *sda:sən* < **sudasun* 'vein', see also **hekin* 'head', **hutasun* 'thread', **sidün* 'tooth'. Occasionally *VV* is elided as well, cf. MgrH *sġan*, Kgj *sχɔ* < **saïkan* 'beautiful', BaoÑ *hda* < **huuta* 'bag'. Some clusters stem from **V + Fricative + Plosive/Affricate**, e.g. EYu *sqar-* < **iskir-* 'to whistle', BaoÑ *ʂgel-* < **öskel-* 'to kick'. Other cases go back to **Plosive + V + Plosive/Affricate**, as in EYu *hta-* < **tata-* 'to pull', BaoÑ *hdəŋ* < **katau(n)* 'hard'. In cases like EYu *xǰa:r* < **gagčaar* 'alone', MgrH *ʂde:-* < **ügtee-* 'to uproot', *hdəl-* < **hogtal-* 'to cut down', the initial fricative may reflect the whole collapsed initial syllable rather than specifically the initial or the preconsonantal consonant. In Mongghul it is not

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[265] The various Mongolic languages received their loanwords from different Amdo Tibetan donor dialects. See Róna-Tas 1962, Nugteren & Roos 1998.

uncommon for the fricative first element to go back to devoiced *r, as in şde < *erte 'early'. The initial fricative may also go back to vocalic onset (> secondary h-), as in EYu hča:n < *ačïan 'load', MgrH şdogo:n < *ödken 'dense', BaoÑ hgu- < *ükü- 'to die'. Rarely the cluster is the result of the contraction of a *VCVC sequence, as in EYu and MgrH sgi: < *isegei 'felt'.

Some less common categories include:

4. **Fricative + Nasal**, from **Fricative + V + Nasal**, as in MgrH şnaġa < *sïnaga 'ladle'. EYu ṇi:- < *hinie- 'to laugh' has the same origin, but does not contain a cluster synchronically[266].

5. **Fricative + Liquid**, from **Fricative + V + Liquid**, as in EYu šra < *sïra 'yellow', šlə < *sili 'nape'. Cases like EYu l̥a:n ~ ła:n < *hulaan 'red' have the same origin, but cannot be considered to contain clusters synchronically.

6. **Fricative + Fricative,** from **Fricative + V + Fricative**, as in EYu hsʉn, BaoÑ hsɵŋ < *hüsün 'hair', from **Secondary h + V + Fricative**, as in EYu hsəra- < *asara- 'to raise', or from **Fricative + V + Liquid,** as in BaoGt xşa- < *karïa- 'to swear'.

7. **Plosive + Fricative**, from **Plosive + V + Fricative**, as in BaoD tχuŋ < *togaan 'cooking pot'.

8. **Plosive + Liquid**, from **Plosive + V + Liquid**, as in Kgj drasun < *darasun 'wine'.[267]

Preferences regarding word structure may change with the linguistic pressures. In languages where Chinese influence is growing at the expense of Tibetan, we can observe that the Tibetan-type clusters are now being simplified as in BaoD duŋ < şduŋ < *sidün 'tooth', gu- < fgu- < *ükü- 'to die', or broken up as in MgrM muba- < mba- < *humba- 'to swim', suʒu < sʒu < *usun 'water'. This is observable because the new word shape does not 'reinstate' the original shape, but developed from the form with initial cluster. Many of these changing preferences can even be observed by comparing data from the 1880s, 1950s and recent descriptions.

The order of the developments is not always self-evident. The Eastern Yugur forms sʉkel- < *öskel- 'to kick' may have developed before or after the loss of the initial vowel, but qutul- < *hogtal- 'to fell' most likely broke up the cluster before eliding the initial vowel, because an initial cluster qt- seems less likely to have existed. In MgrH şdogo:n < *ödken 'dense' the cluster -dk- must have been dissolved into -tVg- (with consonant strength moving to the left) before the new -t- could trigger the devoicing of the initial vowel and the development of the initial cluster.

Unwanted consonants at the end of the syllable

The treatment of the CM medial consonant clusters in Shirongol can be seen in the light of newly developed restrictions on the distribution of individual consonants. This affects the syllable-final consonants. The dialects with the lowest tolerance of

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[266] Voiceless nasals in the vicinity of, or as a vestige of, voiceless preradical s- are also found in some varieties of Amdo Tibetan.

[267] The last two categories of uncommon cluster types are absent from Amdo Tibetan.

syllable-final consonants tend to be those with the strongest Chinese influence.[268] These include Kangjia and Dongxiang, Mangghuer, and some dialects of Mongghul. On the other hand, the development of several final obstruents > -r in Dagur is not inspired by Chinese.

The maximum number of final consonants in Mandarin is three: *n*, *ŋ*, and *r* [ɹ], but in fact *n* and *ŋ* have often merged in local dialects of North West Mandarin. Needless to say these finals are allowed in all Shirongol languages. All further syllable-final consonants (**b*, **g*; **d*, **s/*š*, **m*, **l*, **r*) are to some degree undesirable in several Shirongol languages. A number of solutions are available to 'fix' stems with such consonants at the end of the syllable.

1. The most straightforward solution is elision, which is practiced most systematically by Dongxiang in the case of **-b*, **-g* and **-r*, e.g. *ʒo* < **jöb* 'correct', *ça* < **čag* 'time', *qa* < **gar* 'hand'.

2. Changing the offending consonant into a permissible one, e.g. **-m* > *-ŋ* or **-l* > *-r*, as in MgrM *saŋ* < **sam* 'comb', *ġar* < **gal* 'fire'.

3. Changing the word structure by means of an epenthetic vowel, as in MgrM *maŋġuʒï* < **maŋgus* 'anthropophagous ogress', MgrH *dəge-* < **hedke-* 'to cut', allowing the pronunciation of the separated consonants to stay intact.

4. Manoeuvering the offending consonant into a permissible position by means of metathesis, as in Kgj *turğu* < **toarag* 'earth'.

5. Changing the syllabic analysis without changing the actual word shape, as in **har-ban* > Dgx *ha-roŋ* 'ten', where the **b* was absorbed into the second vowel, and **r* became the initial consonant of the second syllable. This has also happened to the compounds *ġa-duŋ-me-kie* < **ka-dum e-ke* 'mother-in-law', *gie-re-ʒen* < **ger e-ǰen* 'head of the household', *ko-ro-loŋ* < **köl o-ran* 'footprint, track' (as opposed to *ġaduŋ* < **kadum* 'inlaws', *gie* < **ger* 'house', *koŋ* < **köl* 'foot').

In practice these solutions may coexist or alternate in a given dialect, and may even be used in the same word, as in Dgx *ku-* ~ *kuru-* < **kür-* 'to reach'. Although exceptions abound, each dialect usually has a preferred solution for each consonant. Final **-m* becomes *-ŋ* in Mangghuer, Kangjia and Dongxiang[269]. However, the original pronunciation may be salvaged by means of an epenthetic vowel, as in Dgx *amusa-* < **amsa-* 'to taste'. Syllable-final **-g* is normally elided in Dongxiang, but it too may be preserved, as in *buğulie-* 'to close with a stopper' < **bögle-*.

As in case of the initial consonant clusters, preferences and tolerances may change over time. For instance, final **-d* of nouns has tended to become **-r* in Mongghul, as in *ćidar* < **kïtad* 'Chinese', *teved ~ tever* < **töbed* 'Tibetan', but in some Mongghul dialects final *-r* has apparently become problematic at a later stage, leading to forms such as Danma Mongghul *ćidari, ti:wari*.

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[268] It is noteworthy that even in the dialects with the most Sinicised phonologies some consonants are preserved despite not existing in Chinese, such as uvular *q-* and *ġ-*.

[269] Confusion between word-final *-m* and *-n* is also seen in Mongghul, which was influenced by Chinese to a lesser degree. However, in Mongghul this confusion may also lead to original *-n* becoming *-m*, as in *χardam* < **altan* 'gold'. Similar confusions can also be seen in (Turkic) Western Yugur, but seem to be absent from Eastern Yugur.

In the following pages the main modern developments of each CM consonant will be discussed. We will start with the 'independent' development, i.e. the default development if no other influences are at work. This normal development is not always statistically predominant. Most consonants can disappear completely under given circumstances.

A global inventory (excluding *š) is shown in the table below. It only aims to give an impression of the diversity of solutions within languages and between languages, and does not take into account the frequency of any solution in a given language or possible differences between the development of verb and noun stems (the former more often preserve final consonants by means of an epenthetic vowel). The reduction of the number of final consonants in Dagur may be completely independent from Chinese. Eastern Yugur and the best-known Mongghul dialects tend to preserve most final consonants. These languages are included here for the sake of comparison.

	*b	*g	*d	*s	*m	*l	*r
Dag	r	r	r	r	m	l	r
EYu	b	g/ġ	d	s	m	l	r
MgrH	b	g/ġ	d/r	s/sV	m/n	l	r
MgrH -NG	b	g/ġ	d/r	s/sV/ʒV	m/n	r/ Ø	r
MgrH -Do	ʔ ~ Ø	ʔ ~ Ø	r/ Ø / dV	s/sV	n	l	r
MgrH -DS	b	g/u	ri/ dV	sV	n	li	ri
MgrM	Ø	g/ġ/ǧ/Ø	Ø	sV/ʒV	ŋ	r	r
BaoD	b	g/ġ (x, χ, ɣ)	dV	s/sV	m	l	r
BaoGt	?	ǧV/ Ø	?	sV	m	l	r
BaoÑ	bV	g/ġ	d/r	s/sV/r	m	l	r
BaoX	?	g/ġ	dV	sV	m	l	r
Kgj	?	g/ġ/ɣ/ǧ/ǧV/ɫ/ Ø	dV ?	sV	ŋ	r/n[270]	r
Dgx	Ø	Ø/u/ǧV	dV ?	sV	ŋ	ŋ	Ø

4.2. Development of CM *b

4.2.1. Default (non-shift)

Weak *b occurs in all positions:
Initial: *bau- 'to descend', *bayar 'joy', *beye 'body', *bidüüin 'coarse', *boganï 'low, *böelǰi- 'to vomit', *böere 'kidneys'.
Intervocalic: *dabusun 'salt', *ebesün 'grass', *kubïa- 'to divide', *sïbaun 'bird', *yabu- 'to go'.

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[270] The reflex -n appears regularly in deverbal formations with the ending -dan < *-dAl.

Postconsonantal: *dörben 'four', *humba- 'to swim', *karbu- 'to shoot', *kirbei 'edge', *nïlbusun 'tears'.

Final: *ab- 'to take', *eb 'peace', *ǰab 'interval', *ǰöb 'correct'.

Preconsonantal: *ebčiün 'chest', *kebte- 'to lie down', *nabčïn 'leaf', *tobčï 'button', *tübsin 'even'.

In general, *b tends to be preserved as a weak bilabial plosive word-initially and postconsonantally after *m.

4.2.2. Shifts in the place of articulation

The place of articulation is generally quite stable. In Mangghuer preconsonantal *b tends to become ġ, cf. *tobčï 'button', *nabčïn 'leaf' (see below). In Dagur, intervocalic -b- may develop into -γ-, apparently via -w-, as in šɔγɔ: < *sïbaun 'bird'. This mostly happens after rounded vowels.[271] Incidental cases occur in other languages, e.g. Dgx ġuğa- < *kubïa- 'to divide', EYu dogšün < *tübsin 'flat, level'.

In the case of EYu daγqur < *dabkur 'double' and ǰuγqan < *čïbukan 'jujube', the -γ- may just represent preaspiration, in which case -b- was elided altogether.

4.2.3. Shifts in the manner of articulation

The intervocalic development of *b into a semivowel or fricative w (v, β, φ, ŭ) is common in Eastern Yugur and in all Shirongol languages except Mangghuer (cf. *kabar, *ta(l)bï-). In Mongghul, and to a lesser extent Baoan, the same development can also be found word-initially (cf. *bara-, *beri). This is not seen in Dongxiang, Kangjia, and Mangghuer, suggesting that the Baoan and Mongghul cases developed independently.

In Eastern Yugur, the development *b > β in word-initial position is only documented as a sandhi phenomenon. Words that are listed with initial β- as a 'standard form' are in fact words that are usually or exclusively found after another word, e.g. EYu βai-na 'is', βɔlǧɔn 'every', βurü 'every' (the latter two both placed after the noun) from *baï-na, *bolgan, *büri.

In intervocalic position the development of w > Ø is common in Eastern Yugur as well as Shirongol. In Eastern Yugur this seems limited to words with labial vowels, such as ǰɔ:- (< *ǰɔβɔ-) < *ǰoba- 'to suffer', EYu šu:n (< *šəβu:n) <*sïbaun 'bird'. In Shirongol this type can also be found. Many examples are like Dgx otu- < *ebed- 'to be ill', Dgx osuŋ < *ebesün 'grass', in which the labiality is absorbed into

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[271] Also in Dag ǰɔγʷ- < *ǰoba- 'to suffer', suγʷ < *sübe 'small hole, eye of a needle'. Interestingly, Enkhbat chose to write the -γ- in these words with the grapheme <w> in his 1983 dictionary, which is in most regards merely an enlarged version, transliterated into Pinyin, of his 1984 dictionary. At the 2009 PIAC I had the opportunity to ask Prof. Enkhbat, who is himself a native speaker of Dagur, about this. The friction of γ in words like šɔγɔ: 'bird of prey' was not audible to me. In other phonetic environments, e.g. in deγi: 'bird', γ can be clearly heard, and is not interchangeable with -w-.

the vowel[272]. Baoan cases include BaoÑ *kuŋ < *köbeün* 'son', BaoX *su:kə < *sibüge* 'awl'. Mongghul also has many cases with little or no trace of **b*, e.g. *te:rə- ~ to:rə- < *teberi-* 'to embrace'. In addition we can find the development **b > y* in Shirongol (when followed by *i*), in words like BaoD *χitə- < *kabïd-* 'to swell', MgrH *tayin < *tabïn* 'fifty', Dgx *tai- < *tabï- (< *talbï-)* 'to put'. In Mongghul this may also occur when **b* is followed by other vowels, cf. *ver ~ yer < *(h)eber* 'horn', *kavaġ ~ kayaġ < *kebeg* 'bran'. In Mangghuer, **b* is stable in such words, with the exception of *yɔu- < *yabu-* 'to walk'. The treatment of intervocalic *-b-* constitutes one of the systematic differences between the two Monguor languages:

MgrM	MgrH	CM	
çubuġa	ćuġa	*čïbuga	jujube
qabar	xavar	*kabar	nose
şïbau	śau ~ śu:	*sïbaun	bird

Postconsonantal **b* may appear as **b* or as a fricative. The plosive pronunciation is preserved after **m* in all languages. After **l* and **r* it usually develops into the same fricative as intervocalic **b*. This is the case in Eastern Yugur and Shirongol (Mangghuer excepted). In most Shirongol dialects, the **b* in the numerals **gurban* 'three, **dörben* 'four' and **harban* 'ten' has disappeared or absorbed into a diphthong. In Mongghul this is also common in other words, e.g. *ćire: < *kirbei* 'edge'. Only Mangghuer is quite consistent, as is clear from the following comparison[273]:

EYu	MgrH	MgrM	Dgx	CM	
harβan	xar(v)an	xarbaŋ	haroŋ	*harban	ten
hurβa-	fura:-	xurba-	fura-	*hurba-	to turn
čɔlβɔn	ćolbaŋ	çorbaŋ	---	*čolban	Venus
---	ćirval	çərbar	ġïwa	*kïlbar	easy
mba-	xʋmba:-	umba-	unba-	*humba-	to swim

In Dagur original intervocalic **b* may become the labial element in a diphthong, as in *šaur < *šawar < *sïbar* 'mud', *xəur < *(h)eber* 'horn'. However, when intervocalic **b* was followed by **i* or **ï*, plosive *b* was retained, as in *xɔbil- < *kubïl-* 'to change', *tabʸ < *tabïn* 'fifty'. The distinction between these two developments may be useful for reconstruction purposes, as in the case of Dag *xaud- < *kabud-* (rather than from the alternant **kabïd-*) 'to swell', and *xabʸrəɣ < *kabïrga* (rather than from the alternant **kaburga*) 'rib'. However, this has to be used with caution. In some words *-b-* is preserved unexpectedly, apparently due to secondary

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[272] Initial /o/ is pronounced [*uo*], whether or not there was a **b* in CM.
[273] An especially chaotic development is seen in **nïlbusun* 'tears'.

palatalisation, as in *ǰeb^yǰ* 'corner of the mouth', *ǰib ~ ǰib^y* 'rust' (as if from **ǰabïǰï* and **ǰibi* instead of the CM forms **ǰabaǰï* and **ǰebe* suggested by other languages).[274]

The incidental development **b > m* can be found in several languages (not counting ancient variants such as **kabar ~ *kamar* 'nose'). Examples include Dag *kəm^y-* < **kebi-* 'to ruminate', Dgx *sumuǧə* < **sibüge* 'awl'.

4.2.4. Strength/aspiration shifts

In both Eastern Yugur and the Shirongol languages initial **b-* tends to become *p-* [*p^h-*] when the next syllable starts with a strong consonant, i.e., **t, *č, *k* or **s*. It is irrelevant whether the initial syllable ends in a vowel or consonant. This is similar to the strengthening phenomena seen in initial **d-, *ǰ-, *g-/*ġ-* discussed below. Although the triggers are the same, there are some points of difference. In the first place the other consonants already had strong counterparts **t-, *č-, *k-/*q-* in the CM period, whereas **b-* did not have a counterpart **p-* in initial position. In the second place the development **b- > p-* is much more common than the strengthening of the other weak obstruents, which is only a systematic development in Mongghul. The emergence of a previously absent *p-* is also shared by neighbouring Turkic languages Western Yugur and Salar[275], which belong to different subgroups. This seems to make this a rare areal feature which does not stem from Chinese or Tibetan. It is not clear in which language the phenomenon originated[276], but in both Mongolic and Turkic it has the effect of making the consonantism more symmetrical.

Words with the right structure to trigger the appearance of *p-* include **bagta-* 'to fit', **basa* 'also', **batu* 'strong', **berke* 'difficult', **bötege* 'bird's crop', **bučal-* 'to boil', **buka* 'bull', **burkan* 'Buddha', **büte-* 'to finish'). Some of the more widespread cases are the following:

EYu	MgrM	BaoD	Dgx	CM	
pəčə-	*puʒi.ġ*	*pući-*	*piʒï-*	**biči-*	to write
pərćaġ	*puʒiġ*	*pućiaχ*	*puʐa*	**burčag*	bean
pəsəi	*piʒi.li-*	*se*	*piśie*	**büse*	belt
putü:	*pudiau*	---	*pəʒie*	**biteü*	double handful
pʉtən	*puduŋ*	*putuŋ*	---	**bütün*	whole

This is by no means a general rule. Especially words with a non-high vowel in the first syllable may retain the weak *b-*, cf. EYu *belče:r* < **belčier*, EYu *bɔtɔğɔn* < **botagan* 'camel foal', EYu *be:ǰən*, BaoÑ *bećaŋ* < **bečin* 'monkey'.

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[274] In the words mentioned here the palatalisation can be explained by the phonetic environment.

[275] The implications for the Turkic system are different, as initial **t-, *č-, *k-* also developed weak initial counterparts that did not exist earlier.

[276] The incidental strengthening of initial **b-* found in several Turkic subgroups cannot easily be explained from the phonetic environment, and does not prove that this tendency originates in Turkic.

In Shirongol the strong consonants that gave rise to the *p-*, tend to be weakened themselves afterwards.[277] This is the rule in Mongghul, but in Mangghuer and Dongxiang weakening is also more common after *p-* than after other strong initials. In Eastern Yugur this is not necessary, at least in Bolčuluu's analysis. Weakening of medial *s/*š is possible only in the Monguor languages.

Svantesson's observation (2005:207) that the strengthening of *b "is not triggered if the distance between it and the causing consonant is more than one short vowel" is partially correct, in that there are no cases of strengthening before an original double or complex vowel. There are however several words like *bagta- 'to fit', *burčag 'pea', *burkan 'Buddha', *bürkü- 'to cover' that feature strengthening of *b in spite of the preconsonantal weak consonants. The factor is not whether a strong consonant follows later in the stem, but specifically the next syllable has to start with a strong consonant. One possible reason why strengthening is not as widespread in Shirongol in stems like *bos- 'to rise', *bös 'fabric', *bars 'tiger' is that these were originally monosyllabic; perhaps they developed their present final vowel after strengthening of *b- was largely completed.[278] However, Eastern Yugur did in fact strengthen b- in pɔs- < *bos- 'to rise' and pös < *bös 'fabric', and some forms with p- can be found in Shirongol as well.

That strengthening did not occur before long vowels or diphthongs seems to be confirmed by EYu bü:sən, Dgx bosuŋ < *böesün 'louse'. However, words of this structure are rare (for *baasun 'dung' see below). This in turn suggests that the loss of vowel length occurred after the b > p development was completed.[279]

The first vowel of such words, squeezed between *p-* and another voiceless consonant, is often devoiced, and in some cases subsequently lost. In the following Baoan words the entire first syllable has been devoiced and subsequently lost:

BaoD	CM	
sa < *pa̦sa	*basa	also
śi < *pi̦śi	*bisi	not
se < *pu̦se	*büse	belt
təkə < *pu̦təgə	*bütegei	don't (prohibitive)

Some similar cases exist in other languages, e.g. EYu hčəlǧa- < *bučalga- 'to boil' (h- remains as a voiceless vestige of the initial syllable), MgrH śüre:- < *bisire- 'to believe'.

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[277] It is impossible to say how much time elapsed between initial strengthening and medial weakening, but they did not occur simultaneously as the latter is not found systematically in all QG languages.

[278] It may also be relevant that the syllables in which strengthening takes place are unaccented, so that monosyllables are automatically excluded from this development. Note that in Dongxiang the added final vowels do not take the accent, e.g. 'bosï < *bös 'fabric'.

[279] This would mean that the strengthening is no longer active, perhaps with the exception of Mongghul, where the strength patterns are most systematic.

Given that in the CM period *b lacked a counterpart *p-, it is interesting that this development is more common than some of the parallels such as *d- > t- [tʰ-], *ǰ- > č- [čʰ-].

In Mangghuer the same strengthening can be seen in medial b, when this is followed by s of the ending -sUn, as in liŋpuʒï < *nïlbusun 'tear', qapuʒï < *kabïsun 'rib', dapuʒï < *dabusun 'salt'. In Mangghuer a -p- may even appear if -m- is followed by -s-, as in ćimpəʒï < *kïmusun 'nail', sanpəʒəġ < *sarïmsag 'garlic'. A superficially similar case is EYu pəǰü:n < *ebčeün 'chest', in which the preconsonantal *b secondarily became the initial.[280]

Apart from this largely predictable strengthening of *b- there are two other groups of words with p- in Eastern Yugur and Shirongol.

The first group developed p- < *b- in Eastern Yugur, but without the usual conditions, as in pa:- < *baa- 'to defecate'[281], pu:- < *boa- 'to wrap', pü:re < *böere 'kidney'.[282]

In a second group p- appears instead of expected h-, e.g. Kgj puta < *huuta 'bag', Kgj puta- < *hutu- 'to smoke', EYu pədən (= hədən) < *hodun 'star'. Normally Eastern Yugur does not even have the reflex f- < *h- preceding rounded vowels. Although it cannot be excluded that these instances of p- are relics from an older stage, it is puzzling why these isolated cases should be preserved. Eastern Yugur and Mongghul pi:le- 'to blow' probably involve an onomatopoeic rather than a phonetic development from *hülie-.

Postconsonantal -p- in Dagur seems to be completely unrelated to the secondary p's in the QG languages. As hinted at by Doerfer (1984:75), instances of postconsonantal -p- in Dagur may be relics of the consonant -p- of Proto Mongolic (lost via *h- in initial and intervocalic positions), as in čɔlpun 'Venus', əlpur 'abundant', xumpa:- 'to swim', xurpa: 'with everted eyes'. -p- does not appear automatically in words of this structure, cf. Dag nəmb- < *nembe- 'to cover', ñɔmb- < *nïlbu- 'to spit', tarbəɣ < *tarbagan 'marmot'. However, as the presence of -p- is not confirmed by other languages, it will only be reflected in the CM reconstructions of these words in this section and the comparative supplement. Elsewhere they will appear as *čolban, *elbeg, *humba-, *hurba-.[283]

4.2.5. Syllable-final developments

At the end of the syllable the Shirongol languages feature a couple of special developments.

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[280] See below for the similar Eastern Yugur strengthening of g in the -gt- cluster.

[281] One may argue that the verb may owe its p- to the derived Eastern Yugur noun pa:sən < *baa-sun 'excrement', in which the p- can be explained as being triggered by the following -s-. However, it is not otherwise known that strengthening of *b- is possible before a long vowel.

[282] It may not be a coincidence that Western Yugur has (equally inexplicable) p- in the cognate words poɣ- < CT *boɣ- 'to strangle, tie up' and peɣïr < CT *bögür 'kidney'.

[283] The -p- in 'Venus' is supported by its Turkic cognate. However, CT *körpe 'newborn lamb' corresponds to Dag kurbʷ with -b-. Although only a handful of Dagur words with postconsonantal -p- survive, Mongolic words in Tungusic provide additional evidence.

In noun stems word-final *-b* is elided in MgrM and Dgx *ʒo < *ǰöb* 'correct'. This is likely a Chinese-inspired development. In the verb stem *ab-* 'to take' the final *b* was preserved in MgrM *apu-*, MgrH *abu-*, Kgj *abi-* by absorbing the connective vowel into the stem. In Dongxiang *ab-* was replaced by the inexplicable form *agi-*[284]. Unfortunately *ǰöb* and *ab-* are the only two stems with word-final *b* which are reasonably widespread in the QG languages.[285]

In Dongxiang, preconsonantal *b* follows the same route as word-final *b*. It is lost without a trace in *čabčï-* 'to chop', *nabčïn* 'leaf', *tobčï* 'button'. An exception may be Dgx *anśie- < CM *ebsie-* 'to yawn'. This development can perhaps be explained by means of an intermediate form *emsie-*, which may have a parallel in Dgx *daŋsuŋ* from CM *dabusun* 'salt', perhaps through intermediate stages *dabsun > *damsun*.[286]

In Mongghul, preconsonantal *b* may remain unchanged, but it will often be replaced by *s*, *ş*, *ś* preceding sibilants or affricates in words like *tebźə ~ teśźə < *tobčï* 'button' (cf. also *ebčeün* 'chest', *ǰabsar* 'interval', *nabčïn* 'leaf', *tübsin* 'level'). The *b* may itself disappear but leave the vowel rounded, as in *tudie:- < *debte-* 'to soak', *ćüġa- < *ǰabka-* 'to lose'. There are many free variants between these solutions.

In Mangghuer, preconsonantal *b* tends to be replaced by *-ġ-*, as in *laġći < *nabčïn* 'leaf', *təġźi < *tobčï* 'button'. In Kangjia there are some forms with *b > sibilant as in Mongghul, e.g. Kgj *lašǰɔ ~ la̯ṛčɔ < *nabčïn*, Kgj *išǰɔ ~ i̯ṛčɔ < *ebčeün* 'chest', thus deviating from both Baoan and Dongxiang. These changes can not be explained as Chinese-inspired since a change *b > ġ* or into a sibilant does not result in a more acceptable word structure.

In Mongghul, preconsonantal *b* occasionally triggers the appearance of a secondary labialisation after a *-bk-* cluster, e.g. Mongghul (Narin Guol) * çuġua:- < ǰabka-* 'to get lost'.[287] This phenomenon is also found in Ordos and Amdo Tibetan.

4.3. Development of CM *d* and *t*

4.3.1. Default (non-shift)

Weak *d* occurs in all positions:
Initial: *dabusun* 'salt', *daun* 'sound', *dere* 'pillow', *dogal-* 'to limp', *düüre-* 'to fill'.
Intervocalic: *eüden* 'door', *kadu-* 'to harvest', *kedün* 'how much', *sidün* 'tooth', *üdür* 'day'.
Postconsonantal: *dumda* 'middle', *ebde-* 'to destroy', *höndür* 'high', *kölde-* 'to freeze', *kündü* 'heavy'.

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[284] It is probably an altered form of *ab-*, inspired by the Dgx verbs derived from Chinese stems by means of *ki-* 'to do'.

[285] CM-*b* was not a very common final consonant, but other (nominal) stems existed, e.g. *eb* 'peace', *ǰab* 'interval', *kob* 'gossip', *sub* 'otter'.

[286] See Nugteren forthcoming.

[287] Similar cases, but with the preceding *b* not actually in preconsonantal position, are EYu *yawəğuar < *yabʋgaar* 'on foot', BaoGt *suɛ < *büse* 'belt'.

Final: *čad- 'to be satiated', *ebed- 'to hurt', *ed 'goods', *kïtad 'Chinese', *söged- 'to kneel'.
Preconsonantal: *čidkör 'demon', *kadku- 'to prick', *kudku- 'to stir', *sedkil 'heart', (alternating with č, s): *hedke- 'to cut', *ödken 'thick'.

Strong *t occurs in all syllable-initial positions:
Initial: *taa- 'to guess', *tasura- 'to break', *teberi- 'to embrace', *tobčï 'button', *tülien 'firewood'.
Intervocalic: *butara- 'to fall apart', *kötel- 'to lead by the hand', *küiten 'cold', *metü 'like', *sïta- 'to catch fire'.
Postconsonantal: *altan 'gold', *bagta- 'to sink', *kamtu 'together', *kebte- 'to lie down', *togta- 'to stop', *ügtee- 'to uproot'.

The default development of *d and *t is to leave them unchanged. Final and preconsonantal *d is often changed in several Shirongol languages.

4.3.2. Shifts in the place of articulation

In Dongxiang *d and *t have become alveolopalatal affricates ʒ́ and ć when followed by the vowel *e, which in Dongxiang often resulted in a diphthong that palatalises preceding dentals *d and *t. Cf. ʒ́iausï- < *debis- 'to spread', ʒ́ien <*deel 'garment', ćiemu < *temür 'iron', ćiauruŋ < *teriün 'head', also medially: funʒ́ie- < *hülde- 'to expel', iʒ́ie- < *ide- 'to eat', oćiau < *ötegü 'old'. This palatalisation has also befallen *s in similar contexts (see below).[288] Among the words affected by this change there are also several with original *ö, which apparently merged with *e, in some cases quite early[289], as in *dörben 'four'. In Dongxiang this development was carried through quite consistently, so that the few words that escaped it, such as *tere 'that', *edee 'now', really stand out.[290]

In Kangjia there are only some isolated cases in which the dental plosive has become a palatal fricative, e.g. čilɔ < *tülien 'firewood', čimɔ < *temür 'iron'. Some irregular cases are shared by several Baoanic dialects. CM *gedesün 'intestines' was apparently palatalised into a form *geʒesün at an early stage, so that Dongxiang displays a retroflex affricate in this word rather than the alveolopalatal affricate. Similarly *teʒie- 'to feed' has developed in Baoan and Kangjia as if it were *čeʒie-.[291]

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[288] Unlike the palatalisation of *s > ś, Mangghuer does not share the palatalisation of the dental stops with Dongxiang.

[289] That this unrounding took place early at least in some words is suggested by its occurrence in other Shirongol languages, as in *dörben, but in case of *sölsün 'gall bladder' it is only found in Baoanic, cf. also *seül 'tail'.

[290] The palatalisation is reminiscent of the change di/ti > ǰi/či that took place in prehistoric Mongolic. However these 'early secondary' ǰ and č, like primary *ǰ and *č, have shifted in Dongxiang to a retroflex articulation, so that the old and new palatals did not merge.

[291] A relationship with Ordos čide- 'id' seems less likely.

4.3.3. Strength/aspiration shifts

Initial **d-* may be strengthened to *t-* when the next syllable starts with a strong consonant. This development is most consistent in Mongghul in words such as *taġur < *dabkur* 'layer', *təbde:- < *debte-* 'to soak', *təʒin < *döčin* 'forty', *təda- < *duta-* 'to lack'. Also typical for Mongghul is the subsequent weakening of the medial strong consonant. In the other languages it can be found occasionally, as in MgrM *təda- (~ cïda-) < *dutaa-* 'to flee', Dgx *tudoro (~ sudoro) < *dotara* 'inside'. The alternants in brackets are indicative of the shared aversion of the QG languages for certain homorganic consonant sequences (see below).

Outside Mongghul there are also cases in which original initial **t-* is weakened (dissimilated) when a strong consonant follows, as in BaoÑ *dəbći < *tobčï* 'button', BaoÑ *debśaŋ*, Kgj *dešɔ*, EYu *dogšün < *tübsin* 'level'. EYu *daɣqa < *takïa* 'chicken', EYu *dakə- < *takï-* 'to sacrifice', Dgx *tosuŋ ~ dosuŋ < *tosun* 'fat'.

Medially there is a tendency to weaken **t* to *-d-*. This, too, occurs most systematically in Mongghul, at least when the initial consonant is strong, secondarily strengthened, or a consonant without strong counterpart so that it cannot be strengthened. In Mangghuer, Baoan, Kangjia, and Dongxiang, *-d-* and *-t-* are mostly distinguished as in CM. In Eastern Yugur the descriptions disagree: Bolčuluu suggests medial *-t-* generally keeps its strength, whereas according to Junast it is generally weakened to *-d-*.

Non-initial strengthening by following *-s-* may be the reason for alternations *d ~ t* in words such as **gedesün* 'bowels', **gadasun* 'stake', **gudusun* 'boots', **baïdasun* 'mare'[292]. Interestingly the forms with *-t-* are found both in the Northeast (Dagur, Khamnigan, Buriat) and in the West, where the Muqaddimat form *getesün* may represent the first step towards the reduced form **gessün* from which the Kalmuck and Moghol forms derive. In Ganhetan Baoan, Kalmuck-like reductions are developing independently in this set of words.

Unexpected medial strengthening occurs in Shirongol[293] in a number of nouns, of which the following are the most widespread cases:

MgrM	BaoÑ	Kgj	Dgx	CM	
motu	*mətəŋ*	*mʉrtʉn*	*mutuŋ*	**modun*	wood
xotu	*hə:taŋ*	*fʉtɔ ~ hʉtɔ*	*xoduŋ*	**hodun*	star
śiudiar	*si:tər*	*sʉtər*	*śiauʒie*	**seüder*	shadow

Unexpected strengthening also occurs in some verbs in which an originally stem-final *-d* ended up in intervocalic position in Mangghuer, Dongxiang, and often in Baoan.[294]

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[292] However, the *-t-* is also present in Dag *gat* 'stake', Bur *gutal* 'boots' which lack the suffix *-sUn* of the alternative forms Dag *gatəs* and Bur *gutahan*.

[293] Mongghul does not share this feature, but it may have had it earlier and lost it recently due to its tendency to weaken medial consonants.

MgrM	BaoD	Kgj	Dgx	CM	
betu-	*etə-*	*vəide-*	*otu-*	**ebed-*	to be ill
qaputu-	*χitə-*	*χɵr- ~ χʉr-*	*qawitu-*	**kabïd-*	to swell

This development in the verbs is also found in Moghol *ebàt-u-na* 'is ill', *delat-u-na* 'hits', *nɔt-u-na* 'dances' from **ebed-, *deled-, *naad-*. There is no obvious trigger for strengthening in these nouns and verbs, and they may be two unrelated phenomena. In the verbs it may have played a role that the verb stems are often followed by suffixes with strong consonants, such as future *-kU*, perfect *-gsAn* (Shirongol *-san*) and habitual *-gčI* (Shirongol *-čin*).[295]

Strengthening of preconsonantal **d* may happen after the cluster is dissolved, as in Dgx *oćiǧaŋ < *ödken* 'thick'.

Words starting with *tVt-* or *dVt-* display special developments in QG languages, e.g. **tata-* 'to pull': EYu *hta-*, MgrH *təda- ~ ćida-*, MgrM *tida- ~ cïda-*, BaoÑ *ʂda- ~ hda-*, Kgj *sta- ~ sda- ~ sïta-*. Dgx *sda-, sïda- ~ ćida-*. Words starting with *tVt* (which partly stem from *dVt*) were most consistently adapted by Eastern Yugur, by replacing the first dental by *h* (as in the sequence *kVk-*, see below). While the tendency for the assimilation *dVt > tVt* is already evident in MMo[296], this last EYu stage may be a very recent development, as Potanin and Malov still mention forms with both *t*'s intact. Cf. also EYu *hta- < *duta-* 'to lack', *htɔrɔ <*dotara* 'inside', *hturǧan < *tuturgan* 'rice', and the development of **dutaa-* 'to flee' in some Shirongol dialects.

Other peculiar developments may occur in words in which *t-* is followed by *-s-*, as in **tasura-* 'to break': MgrM *tasïr- ~ cïʒïr-*, BaoD *ʒarə-*, Kgj *cïra- ~ cra-*, Dgx *cïra- ~ sïra-*. Cf. also **tasma* 'thong', **tüsür-* 'to pour'.

4.3.4. Syllable-final developments

Only few nouns with word-final **-d* happen to survive in the peripheral languages, and none occur in all of them. Examples are **ed* 'goods', **keid* 'temple', **kïtad* 'Chinese', **subud* 'pearl', **töbed* 'Tibetan'. **höd* 'larva' is disyllabic in most languages. As mentioned above, the final **-d* of verbs has mostly become inter-vocalic in Shirongol.

In Dagur, final *-d* has become *-r*, as can be seen in derived forms such as *bɔlɔ:r < *boluad* 'and' (the perfect converb of **bol-*), distributive numerals in *-Ad* such as *xarba:ɣa:r* 'ten each', and the plural suffix *-r*.[297] In verb stems *-d* is retained.

In Eastern Yugur *-d* was preserved as such in both nouns and verbs.

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[294] This development is not found in all verbs of this structure, and not consistently in all dialects. For instance **čad-* 'to be satiated', **od-* 'to go', and **söged-* 'to kneel' lack it.

[295] Alternatively it maybe postulated that these verbs originally had *-t*, and only appear with *-d* due to the general neutralisation of strength in syllable-final plosives.

[296] The occasional development **dVt > tVt* can be found both in Sino-Mongolic and Arabo-Mongolic sources, see **dotara* 'inside', **duta-* 'to lack', **dutaa-* 'to flee'.

[297] Phonetically any Dagur plural in *-r* could also reflect the suffix **-s*, but it is found on stems which traditionally take **-d*.

Mongghul has preserved -*d* or developed -*r*, which also occurs in Ñantoq Baoan and Kangjia, cf. MgrH *ćidar* < **kïtad* 'Chinese', Kgj *tər ~ tʉr* < **töbed* 'Tibetan'. MgrM *tiebie* 'Tibetan' lost the -*d* altogether, probably via -*r*.

Dongxiang preserved -*d* by means of an epenthetic vowel in the petrified plural *pəsədu* < **busu.d* 'others'.

As shown above verbs in **-d* often preserved their final consonant in Shirongol by means of an epenthetic vowel. The added vowel tends to be *u*, suggesting that it is the connective vowel inserted between the stem and some suffixes which was reinterpreted as part of the stem.[298] In Baoan and Kangjia some of these verbs have forms or variants with -*r*, especially in inflected forms, see **čad-* 'to be satiated', **naad-* 'to play', **od-* 'to go'.

Preconsonantal -*d*- is treated similarly. It becomes -*r*- in Dagur, remains unaltered in Eastern Yugur[299], and tends to be preserved by means of an epenthetic vowel in Shirongol.[300] This can be illustrated by means of **ödken* 'dense': Dag *urkun*, EYu *hʉtgwen*, *hödgön*, MgrH *ʂdogo:n*, MgrM *ś(i)digen*, BaoD *dəgaŋ*, Kgj *dagɔ ~ ʒïgɔ*, Dgx *oćiğaŋ*. See also **hedke-* 'to cut', **ödme* 'bread'.

4.4. Development of CM **ǰ* and **č*

4.4.1. Default (non-shift)

Both **ǰ* and **č* are limited to syllable-initial positions. The original syllable-final affricates probably developed into **s/š*, which are dealt with below.

Weak **ǰ* occurs in all syllable-initial positions:
Initial: **ǰau-* 'to bite', **ǰeün* 'needle', **ǰöelen* 'soft', **ǰulǰïga* 'animal young', **ǰürken* 'heart'.
Intervocalic: **gaǰar* 'land', **ǰaǰïl-* 'to chew', **küǰüün* 'neck', **seüǰi* 'hip', **üǰe-* 'to see'.
Postconsonantal: **aralǰï-* 'to exchange', **bïlǰïur* 'small bird', **elǰigen* 'donkey', **könǰilen* 'blanket', **kürǰe(g)* 'spade'.

Strong **č* occurs in all syllable-initial positions:
Initial: **čagaan* 'white', **čïsun* 'blood', **čimegen* 'marrow', **čoara-* 'to be pierced', **čöen* 'few'.
Intervocalic: **hiče-* 'to be ashamed', **kaučïn* 'old', **ničügün* 'naked', **oŋgača* 'trough', **saču-* 'to scatter'.
Postconsonantal: **arčï-* 'to clean', **gagča* 'alone', **kamčun* 'sleeve', **nögči-* 'to pass', **tobčï* 'button'.

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[298] Sometimes another vowel appears instead, as in Dgx *śiaoʑie-* < **söged-* 'to kneel'.

[299] In Bolčuluu's notation preconsonantal **d* may take over the strength of the following **k*.

[300] In some words Baoan and Kangjia used metathesis, apparently to attain a more tolerable structure, as in BaoX *čigtar* < **čidkör* 'demon', BaoŇ *səgte-*, Kgj *sïχte-* < **sedki-* 'to think'.

4.4.2. Shifts in the place of articulation

Compared to the three literary central Mongolic languages, the first striking thing in the peripheral languages is that the *ǰ and *č did not split into palatal ǰ and č and depalatalised apical affricates ʒ and c. However, under the influence of Chinese and/or Tibetan, many QG languages have by now developed two or three sets of affricates. Modern ʒ and c as they appear in QG are unrelated to the same sounds in Khalkha, but are normally associated with *s and will be dealt with below. Apart from ʒ and c most languages have a retroflex set ẓ and ҫ and an alveopalatal set ʒ́ and ć. Note also the parallel development (split) of *š-.

     The degree and manner of incorporation of the foreign pronunciations differs from language to language, showing that they were adopted relatively recently. In Mongghul *ǰ and *č were generally shifted towards ʒ́ and ć, with only a couple of exceptions. In Baoan ʒ́ and ć are also the normal reflex of *ǰ and *č. In Dongxiang the retroflexes ẓ and ҫ are the default reflexes of *ǰ and *č, whereas Dongxiang ʒ́ and ć are the result of modern palatalisations of *d and *t (see above). The situation in Mangghuer is less orderly; both the retroflexes and the alveopalatals are used in native words with *ǰ and *č. The alveopalatals are less frequent, and seem to be favoured preceding the vowel i, as in ći < *čï 'you', ćiʒ́iġ < *čečeg 'flower', but not obligatory, cf. ẓï- < *ǰii- 'to stretch'.

     Eastern Yugur and Kangjia have a single set ǰ and č in native words.[301]

     Mongghul ć can also go back to *k followed by *i/*ï. Mangghuer ć and ҫ both can also stem from *k before *i/*ï (see below).

4.4.3. Strength/aspiration shifts

Initial strengthening occurs systematically in Mongghul, as in ćüġa- < *ǰabka- 'to lose', ćabsar < *ǰabsar 'interval', ćugu- < *ǰokï- 'to fit'. Examples in other QG languages include MgrM ҫućiŋ < *ǰočïn 'guest', and EYu čəsa- < *ǰasa- 'to make', čüsə- < *ǰisü- 'to cut'. Accompanying (that is, subsequent) medial weakening is only systematic in Mongghul.

     In most QG languages there are also some unexpected developments in the opposite direction, i.e. Ordos-type weakening of initial *č- due to (or in spite of) a following strong consonant, as in EYu ǰabčə-, BaoÑ ʒ́abći- < *čabčï- 'to chop', EYu ǰagčaqai < *čarčaakaï 'grasshopper', EYu ǰasən ~ časən, Dgx ẓasuŋ ~ ҫasuŋ < *časun 'snow'.

4.4.4. *y- instead of *ǰ-

Mongolic words with initial *ǰ- often correspond to *y- in Turkic cognates. Words that should have had an initial affricate but instead appear with y- in Shirongol languages may be explained either as relatively recent Turkic borrowings, or as

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[301] The few alveolopalatals in native words such as EYu ʒ́a:n < *ǰayaan 'fate' are marginal and not due to Chinese influence. In this case the ʒ́- seems to be due to the collapse of the unaccented first syllable, so that the -y- palatalised the *ǰ-.

archaisms. Words with *y-* in one or more Shirongol languages, like *ǰančï-* 'to pound' and *ǰarïm* 'half' could belong to either category. However, some of the affected words lack an ancient Turkic cognate, e.g. *ǰabka-* 'to get lost', *ǰasa-* 'to make'. These cases of *y-* may be archaisms. If so, they might stem from prehistoric times, as these words are documented with *ǰ-* in Middle Mongol.

4.4.5. Deaffrication of *č

In a number of words, *č has become *š* in Dagur, without an obvious reason. However, for some of the affected lexemes a Manchu equivalent with *š-* exists, giving rise to the usual question whether Dagur owes this feature to Manchu or vice versa. Examples: *šanə-* < *čïna-* 'to cook', *šad-* < *čïna-* 'can', *šar* < *čïraï* 'face', *ši:* < *čï* 'you', *šiməɣ* < *čimegen* 'marrow', *šil-* < *čile-* 'to feel numb', *nurš-* < *nögči-* 'to pass', *šidər* < *čidör* 'hobble', *šurkul* < *čidkör* 'demon'.

In QG deaffrication may occur in secondarily preconsonantal *č, as in EYu *šda-* < *čïda-* 'to be able'[302], BaoÑ *nişġaŋ* < *ničügün* 'naked'.

4.5. Development of CM *g and *k

4.5.1. Default (non-shift)

Weak *g occurs in all positions:
Initial: *gaǰar* 'land', *ger* 'house', *gurban* 'three', *gurïl* 'flour', *güi-* 'to run'.
Intervocalic: *elǰigen* 'donkey', *heligen* 'liver', *kïtuga* 'knife', *ničügün* 'naked', *nogaan* 'green'.
Postconsonantal: *ïlga-* 'to choose', *köŋgen* 'light', *margasï* 'tomorrow', *nimgen* 'thin', *ǰïrguan* 'six'.
Final: *čag* 'time', *čug* 'bundle', *kereg* 'matter', *kulag-* 'to steal', *ög-* 'to give'.
Preconsonantal: *bagta-* 'to fit into', *nogta* 'halter', *nögči-* 'to pass', *sogta-* 'to be drunk', *ügtee-* 'to pull out'.

Strong *k occurs in all syllable-initial positions:
Initial: *kaïčï* 'scissors', *ken* 'who', *ködel-* 'to move', *kudku-* 'to stir', *küǰüün* 'neck'.
Intervocalic: *eke* 'mother', *hokar* 'short', *nöker* 'friend', *sakï-* 'to wait', *ükü-* 'to die'.
Postconsonantal: *aska-* 'to sprinkle', *dabkur* 'layer', *alku-* 'to step', *hedke-* 'to cut', *öskel-* 'to kick'.

The CM guttural stops underwent a split into velar pronunciations *g *k and uvular pronunciations *ġ *q depending on the vocalic environment. The consequences of this split, which already took place prehistorically, are still present in all QG languages. The velars and uvulars have phonemic status in Shirongol and in Eastern

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[302] In this auxiliary verb even Moghol shows deaffrication.

Yugur.[303] Apart from the limited development *ki > ći in the Monguor languages, most later changes involve fricativisation or changes in consonant strength, and related devoicing phenomena.

Default development of initial *g and *k:

	*g(a)	*g(e)	*g(ï)	*g(i)	*k(a)	*k(e)	*k(ï)	*k(i)
Dag	g	g	g	g	k/x	k/x	k/x	k/x
EYu	ġ	g	ġ	g	q/x	k	q/x	k
MgrH	ġ	g	?	?	x	k	ć	ć
MgrM	ġ	g	?	?	q	k	ć	ć
BaoD	ġ	g	?	?	x	k	x	k
BaoÑ	ġ	g	?	?	x	k	x	k
Kgj	ġ	g	?	?	x	k	x	k
Dgx	ġ	g	?	?	q	k	q	k

As in Kalmuck and Ordos, uvular *q-* has become a fricative in several peripheral languages, while velar *k-* remained a plosive. In Eastern Yugur *x-* tends to appear when a voiced consonant (or no consonant) follows, and *q-* elsewhere. In Dagur, both *k and *q may result in either *k-* or *x-*, without a predictable system, but also apparently without free variation.[304]

Uvular *q-* has become *x-* in Mongghul, Baoan, and Kangjia, unless *q-* was weakened before that could happen. *q-* was retained in Dongxiang. *q-* is also found in Mangghuer, but the fact that some words with initial *h-* now have *q-* in Mangghuer suggests that modern *q-* goes back to an earlier stage *x-*.[305]

In Mongghul and Mangghuer both *ka-* and *ha-* resulted in *xa-*. However, only the *x-* that stems from *h-* further developed into Mongghul *f-* when followed by rounded vowels. This indicates that the fricativisation of uvular *q-* took place after the development *h-* > *x-* (> *f-*) had mostly been completed. The development of *k-* > *x-* > *f-* is only rarely seen, as in *faġ ~ xɔġ* 'fertilizer' < *kog* (cf. MgrM *qo*).[306]

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[303] In Eastern Yugur the phoneme status in native words is somewhat weaker when Bolčuluu's analysis is followed, as he distinguishes a greater variety of vowels. In Junast's materials *o* and *u* also partly merged with their harmonic counterparts. Svantesson et al. (2005:151) chose to subsume *q* under /kʰ/ and both *ġ* and *ğ* under /k/.

[304] This can perhaps be ascribed largely to the Dagurs' history as multilinguals in several languages that have a large part of their vocabulary in common. This has also led to etymological doublets such as *xar* 'black (general term)' and *kara:* 'black (of a horse's coat)'.

[305] Examples include *qaġər < *xarġar < *hargal* 'dried dung', *qarġa < *xarġa < *halagan* 'palm of the hand', *quġʋar < *x(ʋ)ġʋar < *hokar* 'short'. This at least demonstrates that there has been a period of confusion. However, most *h*-words retain *x-* rather than *q-* in modern Mangghuer.

[306] Another example is BaoÑ *fulə* 'bottle' from Chinese *húlu* 'gourd'. Cf. also the secondary *f-* in Mongghul *furɔŋ.la-* 'to protect' < Amdo *hroŋ-, cf. lit. Tib. *sruŋ-.

4.5.2. Shifts in the place of articulation

A typical feature of the Monguor languages is the development of CM *ki/*kï > ći in words such as MgrH ćimuʒə, MgrM ćimpəʒï < *kïmusun 'nail'[307]; cf. also *kïlbar 'easy', *kïrga- 'to shave', *kïrgaul 'pheasant', *kïtad 'Chinese', *kïtuga 'knife', *kïursun 'nit'; *kirbe 'edge', *kiröe 'saw'. However, this shift did not occur in all words where it was expected. It did not affect *ki- 'to do', *kiǰaar 'edge', *kïsu- 'to scrape'. And although there are cases such as MgrH ćiʒ̂irma: < *čakïrma 'iris', fuʒ̂ün < *ökin (~ *okïn) 'girl', there are few non-initial examples.[308] In many words *k has resulted in weak -g- which did not become palatalized, including the following: *auškï 'lungs', *čakïur 'lightning', *čïkï- 'to stuff', *čïkïn 'ear', *čokï- 'to peck', *daakï 'lumpy hair', *ǰokï- 'to suit', *sakï- 'to wait', *muškï- 'to twist'; *geškï- 'to trample', *hekin 'brain', *sedkil 'mind', *tülki- 'to push'.

One would expect a parallellism between the weak and strong counterparts, but it is not entirely clear whether *gi/gï also became ʒ̂i-. Some of the alleged examples are not very convincing, as they are of an onomatopoeic nature. MgrH ʒ̂ilo:n 'shiny' does not count as evidence for the Mongghul development, as it derives from a root that shows an alternation *g- ~ *ǰ- throughout Mongolic. Non-initial g was often preserved, as in ġurgi < *gorgï 'hook', ʒ̂aŋgədə- < *ǰaŋgïd- 'to tie a knot', suŋgunɔġ < *soŋgïna 'onion'. If the sequence *gi/gï- did not, or not generally, become ʒ̂i-, we can assume in the abovementioned cases that k had been weakened to g before it could become ć-. This suggests that the development *ki/kï- > ći- may be quite late, at least after the weakening of medial -k- in these words. Mangghuer does not have the same strong tendency to weaken the strong stops in medial position, but lacks the development k > ć in intervocalic position as well. The initial consonant of *ki- 'to do', *kiǰaar 'edge' was also weakened, which may be the reason why it escaped palatalisation.

In the other Shirongol languages there are some isolated cases of palatalisation of *k. In Dongxiang the only examples in Mongolic words are ćirəu < *kiröe 'saw', daći < *daakï 'matted wool', and oćin < *ökin 'girl'.[309] The latter also has forms with palatal affricates in some Baoan dialects. Another example is BaoGt ràći < *arakï 'liquor'. Unless interdialectal borrowing is assumed, these exceptions cannot be explained.

The Baoanic languages as well as Eastern Yugur tend to have an uvular consonant in words that had *kï, and a velar consonant in those that had *ki, but the difference between the vowels themselves has disappeared, and today they are both generally represented by ə. Only in Dongxiang the pronunciation ï can be seen after

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[307] In Mangghuer the alveopalatal ć- may further develop into retroflex ç-. This development seems to be due to a change in the following vowel, cf. çaibai < *kirbei 'side', çubar < *kïlbar 'easy', as opposed to ćidoġo < *kïtuga 'knife', ćirɔu < *kiröe 'saw'.

[308] The following correspondences are less certain as they seem to be of onomatopoeic origin: Mongghul puʒ̂ira:-, possibly < *burkïra- 'to belch forth (water, steam, smoke)', xaʒ̂ira:-, possibly < *kakïra- 'to expectorate', xoʒ̂ira:-, possibly < *korkïra- 'to snore, grunt'.

[309] Cf. also Dgx ćita 'religious tractate' < Arabic kitāb 'book', Kgj paći duġu 'razor' < Persian pākī 'razor' + Mongolic *kïtuga 'knife'.

ġ and *q*.[310] This is another illustration of the varying quality of **ï* through different periods and areas. In Proto Monguoric it probably merged with **i*, or at least it was itself palatal enough to trigger the development *k > ć*. It can not be established whether **ï* had merged with **i* in Proto Baoanic and 'Proto Yugur', or whether it had developed a uvular *ï*-like pronunciation. Dongxiang may have developed its *ï* relatively recently.

Minor articulation shifts can be seen in Kangjia, Dongxiang, and Eastern Yugur. In Kangjia many words have velars in historically back-vocalic stems, e.g. *guru < *kuruun* 'finger', *gimesʉn < *kïmusun* 'nail'. The opposite can occasionally be found in Dongxiang, e.g. *quǧoŋ < *küregen* 'son-in-law', *qiʂïǧəu < *geškiür* 'stairs', and Mangghuer, e.g. *qur < *köl* 'foot'. According to Bolčuluu, the expected uvular *ġ* is automatically replaced by velar *g* in Eastern Yugur when it precedes *s, č, t, l*, as in *agsə- (< *aġsə-) < *agsu-* 'to borrow', *ġagča (< *ġaġča) < *gagča* 'alone', *agta (< *aġta) < *agta* 'stallion', *bagla- (< *baġla-) < *bagla-* 'to bind'.

4.5.3. Strength/aspiration shifts

There are several phenomena related to weakening and strengthening in Eastern Yugur and Shirongol. Many dialects have instances of Mongghul-type initial strengthening of **g-* as well as Ordos-type initial weakening of **k-*. Not all of these developments are predictable, and there are many cases of disagreement even between closely related dialects.

Initial strengthening is most common in Mongghul, as in MgrH *xoʒin < *gučïn* 'thirty', *keʂï < *gesiün* 'branch', but can also be found in the other QG languages in words such as Dgx *qïǧəi < *gakaï* 'pig', EYu *qagča < *gagča* 'alone', BaoD *χuśüŋ < *gasïun* 'bitter'. Instead of the default *ġ-*, strong *q-* or *x-* will appear in back-vocalic stems, depending on the language. In front-vocalic stems, *k-* will appear instead of default *g-*. An interesting case of initial strengthening is MgrH *kudu*, BaoD *kətə < *gertü* 'at home', which is originally just the dative-locative of **ger* 'house'.

Initial weakening under the influence of a medial weak consonant is shared by Eastern Yugur and Shirongol in a considerable number of words. Most of these have a second syllable starting with **d* or **ǰ*, such as **kada-* 'to nail', **kadaar* 'bit', **kadu-* 'to harvest', **kaǰa-* 'to bite', **ködel-* 'to move', **köndelen* 'horizontal', **könǰile* 'blanket', **kurdun* 'quick', **kürǰe(g)* 'spade', **küǰüün* 'neck'. Other words feature weakening in the same set of languages, but for unknown reasons, e.g. **kee-* 'to say', **ki-* 'to do', **koar* 'two'.[311] In both of these sets the weakening must have taken place early, as they are also found in Mongghul, where the original structure

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[310] Some analyses of Dongxiang distinguish separate vowel phonemes *ï* and *i*. When a phoneme *ï* is recognized, this has consequences for the phoneme status of *q* and *ġ*, as well as the sibilants.

[311] There are some possible arguments. **kee-* 'to say' is usually found at the end of quoted statements, cf. the irregular voicing in Turkic of *te:-* 'to say' which has the same functions. **ki-* 'to do' is often used as an (unstressed) verbalizer. **koar* 'two' may have been influenced by **gurban* 'three'; **korïn* 'twenty' does not have initial weakening.

of these words (strong initial, weak consonant starting the second syllable) is considered ideal.

In Baoanic, initial weakening is even more frequent, and usually occurs in words in which *k is followed by a weak consonant: *kïmusun 'nail', *kuï 'sheath', *kuruun 'finger'. The initial weakening in Kgj ğurğai < *korakaï 'insect', ġulğai < *kulagaï 'thief', ğurğun < *kurïgan 'lamb' stems from the fact that the intermediate forms *korgaï, *kulgaï, *kurgan had lost their middle vowel, so that the medial -g- came into a position from which it could weaken the initial.

However, many other words without strong consonants have retained their initial *k in Eastern Yugur and all of Shirongol, including *kabar 'nose', *kalaun 'hot', *kanïa- 'to cough', *kara 'black', *kelen 'tongue', *ken 'who', *küün 'person'. Although there is no obvious explanation for the different development of these groups, the fact that the same words behave similarly in several languages shows the 'choice' of initial may have a certain antiquity.

Baoanic further developed strong initials in *gal 'fire', *gar 'hand', and *gar- 'to exit' (cf. Kgj χar, χar, χar- as opposed to EYu ġal, ġar, ġar-). The reason for this is unknown.[312]

Eastern Yugur has both initial strengthening and the reverse, Ordos-type dissimilatory weakening preceding a strong consonant, as in ġatu: < *katau 'hard', gebte- < *kebte- 'to lie down', göbčə < *köbči 'bowstring'. The same development can occasionally be seen elsewhere, as in BaoÑ ġəśəŋ < *kosïun 'beak'. This type of weakening did not take place in words with a double or complex vowel such as *kaučïn 'old', *koasun 'dry', *köisün 'navel', *köiten 'cold', probably because dissimilation is less urgent given the greater distance between the two strong consonants. Svantesson et al. (2005:206) made the same observation for weakening in Chakhar.

As in the case of *tVt, the homorganic consonant sequence *kVk receives a special treatment in Eastern Yugur. It is dissimilated, resulting in forms like hkö < *köke 'blue', hkü:r < *köküür 'snuffbottle', hġa- < *kaka- 'to choke'.

Preaspiration of intervocalic k (and q), alternating with, instead of, or in addition to postaspiration, is common in Eastern Yugur, with some erratic parallels in the Baoanic languages.

EYu	BaoÑ	Kgj	Dgx	CM	
daɣqa	təχa	taχa/tïχa/tχa	tïga, tïxɣa	*takïa	chicken
nökör	nəkər, nəχgər	nəχgʉ	nokie	*nöker	friend
nökön, nö"gö	nəkuŋ	nʉχgʉ(ŋ)	nokieŋ	*nüken	hole
hgor	əkər ~ əχgər	gər	fugie	*hüker	bovine
qaɣqai	ġaġəi	ġəğai ~ ġağai	qïġəi, qïxġəi	*gakaï	pig
nɔɣqɔi	noġəi, nəχəi	nuğuai	noğəi	*nokaï	dog
hkon	əkuŋ	iχgɔ	oćin	*ökin	girl

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[312] In the case of *gar- it could be argued that the strengthening is due to the many verbal flection suffixes starting with a strong consonant. Cf. the development of *ög- 'to give' and *ab- 'to take' in Mangghuer. However, this does not account for *gar and *gal.

Many of the same words also have preaspirated *-k-* or *-q-* in Western Yugur[313], both in native words e.g. *ta^hġaǧï* < CT **takagu* 'chicken' (cognate to CM **takïa*), and in borrowings, e.g. *nö^hger* 'friend' from Mongolic. In Eastern Yugur a much larger set of words is recorded with preaspirated *k/q*. It is noteworthy that many cases thus recorded by Junast are listed by Bolčuluu with (post)aspirated *k/q* instead, as in (Junast) *χoro^χǧui* ~ (Bolčuluu) *χɔrɔqɔi* < **korakaï* 'insect'. See also **čarčaakaï* 'grasshopper', **mïkan* 'meat', **mukur* 'blunt', **saïkan* 'beautiful', **tüükü* 'raw'.[314] In fact both authors may have heard pre- and postaspirated sequences [^hk^h] and [^hq^h]; at any rate the exact realisation has little relevance for the diachronic considerations.

The absence of (recorded) preaspiration in intervocalic *-t-* or *-č-*, both in Eastern Yugur and in Shirongol, may have to do with the fact that aspiration is most clearly heard near the velars and uvulars.

As can be seen in some of the examples above, the Shirongol languages often weaken intervocalic **k/q* to *g* and *ġ*. Uvular *-q-* may become a fricative *ǧ*. Medial weakening is not universal, and the exceptions are often inexplicable.

In Mongghul **-k-* at the beginning of the second syllable was weakened in words with a strong initial consonant, thus creating the pattern preferred by Mongghul. The initial consonant in such words may be primarily strong, as in *kugo* < **köke* 'blue', or the strength of the **-k-* could be transferred to the initial consonant, as in *ćugu-* < **ǰokï-* 'to suit'. If the initial consonant is not strong or strengthenable, the **-k-* has remained strong, as in *maxa* < **mïkan* 'meat', *nokor* < **nöker* 'friend', *noxuai* < **nokaï* 'dog'. Weakening also occurs when the first vowel is lost, thus moving intervocalic *-k-* into a postconsonantal position, as in *sgə-* < **sakï-* 'to wait'.

Baoan tends to neutralise the distinction between *-g-* and *-k-* in medial positions, at least in words that lack other strong consonants, cf. BaoGt *moġui* < **mogaï* 'snake', *noġui* < **nokaï* 'dog'. However, the preservation of strong *-k-*, and the strengthening of *-g-*, seem to be enabled by certain environments, notably strong consonants earlier in the word, as in BaoD *tχa* < **takïa* 'chicken', BaoÑ *søχør* < **sokar* 'blind', BaoD *tχuŋ* < **togaan* 'pot', BaoÑ *śuke* < **sibüge* 'awl', BaoÑ *ćiχaŋ* < **čagaan* 'white'. Other cases of strengthening are due to a strong consonant colliding with the **g* after the loss of a vowel, as in *maχśiə* < **margasï* 'tomorrow'.

In Kangjia we see the same neutralisation as in Baoan, at least in originally back-vocalic stems, cf. *muǧuai* < **mogaï* 'snake', *nuǧuai* < **nokaï* 'dog', *tuǧu* < **tugul* 'calf', *tuǧu-* < **toku-* 'to saddle'. In front-vocalic stems Kangjia tends to preserve some medial **k*'s that were lost in its relatives, e.g. *kʉkʉ* as opposed to BaoÑ *kugɵ*, Dgx *kugie* < **köke* 'blue'.

Medial strengthening occasionally occurs in the Monguor languages as well, as in MgrH *ŋkərźaġ* < **ïŋgarčag* 'packsaddle', MgrM *ɔŋkuʒo* < **oŋgača* 'trough', in which the strength was apparently transferred from the initial consonant of the third syllable. There are some similar cases in Kangjia, e.g. *əkəči* < **egeči* 'elder sister'.

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[313] In Western Yugur the phenomenon is not restricted to the gutturals (see Roos 2000:32). The same applies to Salar, where similar phenomena exist (see Dwyer 2007:188).

[314] -^hk- is also attested in the ultimately foreign words **arakï* 'liquor' and **tamakï* 'tobacco'.

Two odd cases of strengthening of preconsonantal *g by a following consonant can be found in EYu *qutul-* < *hogtal-* 'to fell' and *kʉte-* < *ügtee-* 'to pull out' (comparable to *pəjü:n* < *ebčeün* 'chest' above).

Unexplained cases of medial strengthening in Shirongol include MgrH *da:xa*, BaoD *daχaŋ* < *daagan* 'foal', MgrM *turxa*, BaoGt *talxa* < *tulga* 'pillar', Dgx *niŋkien* < *nimgen* 'flimsy'.

Although Mongghul, Mangghuer, and the Baoan dialects feature similar developments with regard to consonant strength, individual words often develop differently because the precise rules are not identical. In Baoan an initial strong consonant is likely to keep an intervocalic *-k-* strong, and is even able to strengthen intervocalic *-g-*, but in Mongghul the same circumstances automatically lead to weakening of the *-k-*. More research is required in order to establish the rules in more detail.

In Dongxiang, due to the above and other developments, the reflexes of medial *k* and *g* are quite unpredictable. Both may appear as a plosive or fricative, or disappear altogether. The Dongxiang uvular fricative also occurs in historically front-vocalic words. The variety of reflexes can be illustrated by means of the following words:

CM	Dongxiang	Example
velar *k-	ğ	*həbəği* < *herbekei* 'butterfly'
	g	*sugie* < *süke* 'axe'
	k	*ekie* < *eke* 'mother'
	w ~ Ø	*iʑieku ~ iʑiewu ~ iʑiau* < *idekü* 'food'[315]
	ć	*oćin* < *ökin* 'girl'
velar *g-	ğ	*çuməğə* < *čimegen* 'marrow'
	g	*ʂəŋgien ~ śiŋkien* < *siŋgen* 'thin'
	k	*niŋkien* < *nimgen* 'flimsy'.
	w ~ Ø	*ui* < *ügei* 'not there'; *oćiau* < *ötegü* 'old man'
velar *k- or *g-	Ø	*nie* < *niken* or *nigen* 'one'
uvular *q	ğ	*miğa* < *mïkan* 'meat'
	ġ	*çïğəŋ* < *čïkïn* 'ear'
	q	*oqo* < *hokar* 'short'
	Ø	*baər* 'money' < Turkic *bakïr* (*baqïr*) 'copper'
uvular *ġ	ğ	*iğa* < *ayaga* 'bowl'
	ġ	*çïğaŋ* < *čagaan* 'white'

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[315] Probably as a consequence of the development of *-kU, originally the future participle, the suffix *-kUlAŋ also lost its *k*, even after a consonant, e.g. Dgx *çudulaŋ* as opposed to CM *čadkulaŋ* 'satiated'.

It is typical for the Shirongol languages that the phonetic developments cannot be reduced to straightforward rules, although the words as such are transparently related to their cognates elsewhere in Mongolic. It tends to make them unsuitable for the reconstruction of certain features. Correctly distinguishing CM *g and *k in medial positions is difficult, as Middle Mongol and Written Mongol are of little help, especially in front-vocalic words. The situation in Dagur is also confusing. Apart from numerous words in which intervocalic[316] Dagur -k- and -ɣ- do go back to *k and *g, respectively, there are also several types of unexpected development.

  Firstly, intervocalic *k and *g have partly become indistinguishable because they often merged in ɣ, as in *mɔɣ^w < *mogaï 'snake', *nɔɣ^w < *nokaï 'dog', or *bɔɣ^w < *bugu 'deer', *baɣ < *buka 'bull'. The phonetic environment seems to offer no clues as to why *k was retained or not. As can be seen in the selection of examples shown below, a preceding strong consonant may have played a role in preserving -k- in some words. This perceived pattern may be misleading as both reflexes are apparently allowed to occur after initial *b-[317]. As in the unpredictable treatment of initial *k-, borrowings from central Mongolic and neighbouring Tungusic may have obscured the genuine Dagur development.

CM *-k- > Dag -k-	CM *-k- > Dag -ɣ-
xukur < *hüker 'bovine'	nuɣur < *nöker 'friend'
x^wakər < *hokar 'short'	sɔɣur < *sokar 'blind'
xək^y < *hekin 'head'	uɣin ~ uyin < *ökin 'girl'
wakən < *ukana 'billy-goat'	əɣ < *eke 'mother'
čɔk^y- < *čokï- 'to peck'	ǰuɣ^y- < *ǰokï- 'to be suitable'
kuk^w < *köke 'blue'	suɣ^w < *süke 'axe'
buk^w < *böken 'hump'	nuɣ^w < *nüken 'hole'
nək < *niken 'one'	bəɣ < *beke 'ink'
čik^y < *čïkïn 'ear'	m^yaɣ < *mïkan 'meat'

The second problem with *k and *g in Dagur is that *g has occasionally become k, leading to historically confusing forms. CM *k and *g seem to have changed places in uɣ^w- ~ u:- < *ükü- 'to die'[318] as opposed to uk^w- < *ög- 'to give'. Cf. also tɔkul^y < *tugul 'calf', but tɔɣ^w- < *toka- 'to saddle'[319]. The reason for this is unknown.

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[316] Postconsonantal *k did not become -ɣ- in Dagur.

[317] Moreover, systematic changes due to strength patterns have not been described for Dagur so far. There are only incidental cases of distant assimilation such as kətəs < *gedesün 'intestines', in which the *g was apparently strengthened by the following -t-, which was itself due to the -s-.

[318] The variant u:- 'to die' is less problematic, once the form uɣ^w- had arisen, as u/w is another common Dagur reflex of intervocalic *g, as in ǰaus < *ǰagasun 'fish', tuwa: < *togaan 'pot', xaulɔ:- ~ xaɣlɔ:- < *kagal- 'to break'. This will not be discussed here further, as it does not affect reconstruction. It may prove of interest for the investigation of the Mongolic words in Manchu, as this is one of the similarities between Dagur and Manchu forms, as in Manchu suwa, Dag suwa: < *sogaa 'doe'. Such similarities suggest

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As is clear from the above, irregular developments, even those that are unexplained, may be of some antiquity, and useful for classification, as in the forms *ǰaga 'collar' and *ǰürge(n) 'heart' (instead of *ǰaka, *ǰürüken) shared by all QG languages, *ǰalkï- 'to swallow' (instead of *ǰalgï-) shared by many QG languages, * kal 'fire' (instead of *gal) shared by Baoanic, *hamtu 'together' (< *kamtu) in Baoanic; and *köŋken 'light' (< *köŋgen) shared by Baoan dialects.

4.5.4. Relics from lost intervocalic consonants

The prehistoric intervocalic consonant of diverse origins, usually reconstructed -g/ɣ- by Poppe, but -x- by Janhunen, -h- by Svantesson et al., and as -Ø- here, seems to survive sporadically into the modern languages.[320] Unlike in Middle Mongol[321] and the central standard languages, influence from the spelling in Uygur script is not an obvious explanation in the QG area. These survivals may therefore be real 'atavisms', harking back to a language stage preceding CM as it is otherwise known.

In *suu (?*sugu) 'armpit' there is an unexpected -g- in Baoanic, as in BaoD soɣo, and Dgx suɣə ~ suŋgo. These forms are reminiscent of Khalkha suga, but unlike in Khalkha, influence from the Written Mongol spelling suɣu is rather improbable in the QG area. Dongxiang has some further cases, not all equally convincing: aɣui corresponds to *auï 'wide', şiɣara corresponds to *siïra 'leg' as reconstructed on the basis of other languages, çiɣara 'tight; busy' could be related to *čiïrag 'strong', buɣuŋ 'wheat stack' may be related to *böem. aɣui has an equivalent in Moghol. Some superficially similar cases are easily explained as (re)borrowings from the Turkic cognates, e.g. Dgx aɣəŋ, BaoÑ aɣal 'village' are from Turkic *a:gïl rather than an archaic form of the Mongolic cognate *aïl, and likewise BaoÑ bəɡdi 'wheat' is from Turkic *bugday rather than from Mongolic *buudaï. Outside Baoanic we find EYu ǰö:ɣəle- 'to talk in one's sleep', related to *ǰeüle- 'to dream'.[322]

Some non-Mongolic languages famously preserve relics of intervocalic consonants. Words with such elements occur in the Turkic languages Kök Munčaq (Tuva)[323] and Western Yugur, and in the Tungusic languages Solon and Oročen.[324]

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either that Dagur reborrowed this Mongolic word from Manchu, or that Manchu adopted this word from Dagur.

[319] The verb tɔɣʷ- is in its turn contradicted by the noun tɔkʷ 'saddlepad'.

[320] For a discussion see also Janhunen 1999, Svantesson et al. 2005:121-124.

[321] Forms like Muq uɣraq (*uurag) 'biestings', RH niɣur (*nüur) 'face' are probably best considered literary forms rather than PM relics.

[322] The Eastern Yugur form closely resembles the equally inexplicable modern Uygur jögilä-.

[323] According to Čoyǰungǰab 1985. The -ħ- is absent in other descriptions. Unexpected -g- in other varieties of Tuva can usually be attributed to Written Mongol influence.

[324] Manchu also features intervocalic gutturals in Mongolic words which are written in Written Mongol but not pronounced in the Mongolic languages, e.g. Manchu gurehe 'broad tendons on the neck of cattle' corresponding to CM *güreen.

Kök Munčaq (Tuva)	Oirat	CM	
aljĭħï:r	*alčʊ:r*	**alčïur < *arčïur*	towel
χɔħɔ:ra-	*χʊ:r-*	**kaur-*	to fry
ǰalĭħï:	*zalʊ:*	**ǰalau*	young

Solon	Dagur	CM	
ïmaɣan	*ima:*	**ïmaan*	goat
təməɣən	*təmə:*	**temeen*	camel
unəɣən	*uñe:*	**ünien*	cow

Western Yugur	Eastern Yugur	CM	
aʰǯïɣïr	*alču:r*	**alčïur < *arčïur*	towel
kreɣï	*kʉre:*	**kiröe*	saw
paġa-	*pa:-*	**baa-*	to defecate

These word shapes are obviously not recent borrowings from the neighbouring Mongolic languages. They indicate that there must have been a different source language and/or period of borrowing. As it is unlikely that Western Yugur was ever sufficiently exposed to Written Mongol to adopt word shapes from it, or that Solon took its animal husbandry terminology from a literary language, the borrowing probably took place in the Middle Mongol period or earlier.[325] If these are indeed primitive forms surviving in various neighbouring languages, it is an unfortunate fact that so few words of this type survive in the Mongolic languages themselves.

4.5.5. Syllable-final developments

As in the central languages, syllable-final **g* is preserved in Eastern Yugur. It appears as velar *g* or uvular *ġ*. Eastern Yugur did not even develop the tendency to elide preconsonantal *g* in the suffixes (nomen perfecti) *-gsAn* and (directive) *-gsI*. It also preserves *g* in some stems where it was lost in several modern languages, such as **hogtal-* 'to fell', and **ügtee-* 'to weed'.

Final **g* developed > *r* in Dagur, as in *bula:r < *bulag* 'spring'. In *čəllə < čərəl < *čerig* 'soldier' the dissimilation (in order to avoid **čərər*) and subsequent assimilation makes the word quite different from the CM form.[326]

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[325] In view of occasional Middle Mongol relic forms with intervocalic *-h-* (< *-p-*) such as Muq *köhe* 'chain mail' and RH *quhurči* 'lute player', this is not a priori a ridiculous thought. See 2.6.6.

[326] It is unclear why some words preserved final **g* as *ɣ*, e.g. *kərəɣ < *kereg* 'matter', *səbəɣ < *sebeg* 'basket', unless these forms were borrowed from central Mongolic, or from

Dahejia and Ñantoq Baoan and most dialects of Mongghul generally preserve final *g, as velar g or uvular ġ, depending on the original vowel class. The same applies to older Mangghuer materials. Fricative pronunciations did also develop. In dialects of all Shirongol languages we can observe a, probably Chinese-inspired, 'aversion' of *g in syllable-final position. Regardless of the original harmonic class of the word, in several languages *g has the tendency to be changed, elided, or preserved by means of an epenthetic vowel.

Dongxiang has been most consistent in its treatment of *g. After a/ə it disappeared completely, as in bula < *bulag, kəwə < *kebeg 'chaff', but the word final sequences ig/ug/üg were replaced by -əu, as in yəu < *yig 'spindle', ġudəu < *kudug 'well', xodəu < *hötüg 'maggot', ʒəu < *ǰüg 'direction'.

Kangjia has more varied solutions; in some words -g is retained in the form of a plosive (pəjəġ < *burčag 'pea') or of a fricative (aŋkəjiɣ < *iŋgarčag 'packsaddle'), whereas in others it was completely lost (ima < *aïmag 'village'). In yet another set of (originally front-vocalic) words *-g was replaced by -ʉ (pəčiʉ < *bičig 'writing').

Ganhetan Baoan is another dialect that features various treatments of final *-g. Some words retain it in its original position, such as samsəġ < *sarïmsag 'garlic', others preserve it, aided by metathesis or an epenthetic vowel, such as orġa < *uurag 'biestings', yet others lost it completely, such as ćerï < *čerig 'soldier'.

Some dialects of Mongghul also elide final -g. Dongshan Mongghul did this most regularly. Although these dialects share an aversion of word-final -g, the solutions came about independently.

The diversity of modern solutions, both among and within the Shirongol languages, can be illustrated by the table on the following page.[327] The chosen solution depends partly on the height of the preceding vowel, or on the original harmonic class of the word (i.e. whether it is velar -g or uvular -ġ).

In verbs the solutions also vary. Dgx asa- < *hasag- 'to ask', ġula- < *kulag- 'to steal', which lost the *-g as in noun stems, correspond to Kgj asĭğ- ~ asğï- and ġulği-. But in case of Kgj ʉɣ- ~ ʉ- < *ög- 'to give', the Dgx equivalent ogi- has preserved the final *-g by means of an epenthetic vowel.[328] Maybe the relative scarcity of verbs with this structure precluded the development of a generally applied sound law. MgrM xu- < *ög- 'to give' was probably strengthened due to frequent inflected forms with strong consonants.

Tungusic. In some other words final *g has disappeared completely, e.g. ačim < *ačïmag 'kind of bag', kʸarəm < *kïrmag 'fine snow', bɔrčɔ: < *burčag 'bean'.

[327] The same diversity of solutions can be found in loanwords, cf. Dgx orəu, BaoGt orï 'apricot' < Turkic *örük (< *ärük), as opposed to Dgx ʒaŋga, Kgj ǰaŋgəɣ, BaoGt ǰangəġə 'walnut' < Turkic *ǰaŋgak (< *yaŋgak).

[328] A parallel case may be Kgj ï- ~ ïɣ- < ?*(h)ög- 'to hit', as opposed to Dgx əġï-. The exact CM form of this word is hard to determine; it may have been disyllabic originally.

	*bulag 'source'	*čečeg 'flower'	*kürǰe(g) 'spade'[329]	*arug 'pannier'	*čerig 'soldier'
Dongshan Mongghul	bulɔ:(ʔ)	ćiʒɔʔ	gurʒɔʔ	arɔʔ	---
Danma Mongghul[330]	bulog	ćiʒiu	guriśʒog	arog	ćiru:
Mangghuer (C)	bulaġ	ćiʒiġ	kurʒi	arʋġ	ćirəġ
Mangghuer (DS)	buləġ	ćiʒieġ	kurʒi	aro	---
Ganhetan Baoan	báləxə	ćiʒï	---	aroġuŋ	ćɛrï
Ñantoq Baoan	bəlaġ	---	gurʒig	arɵġ	ćerəg
Kangjia	---	čičiʉ ~ čiǰiʉ	gurǰiʉ	aruğ ~ arğu	čiriʉ
Dongxiang	bula	çiʒə	ġuʒə	arəu	ҫïri

Secondary syllable-final *g's appear in Eastern Yugur and in several Shirongol dialects, which may be due to hypercorrection in reaction to the loss of many primary *g's. Examples include EYu labčăġ < *nabčïn 'leaf', BaoX mətəg < *metü 'like', MgrH ŋgućɔġ < *oŋgača 'trough', BaoÑ teŋgərəg < *teŋgeri 'sky', and Kgj ʒəʉʒəu ~ ʒïɣʒïɣ 'spider' from a dialectal Chinese form related to zhūzhu[331]. There is no morphological explanation for these additions. On the other hand, it is noteworthy that the dialects where these added *g's occur are those with relatively stable original *-g. Some added *g's are more widely distributed and may be older, e.g. MgrH suŋgunɔġ, BaoD soŋġonəġ < *soŋġïna 'onion', or BaoÑ χotəg, Dgx xodəu < *hötüg 'maggot' (Dgx -əu points at -üg). *kürǰeg 'spade' is found in Eastern Yugur and most of Shirongol. Most cases are incidental, and contradicted by other languages.

Preconsonantal *g developed largely like final *g. In Dongxiang it was normally elided. However, in some instances *g was preserved by means of an epenthetic vowel and/or metathesis, as in Dgx asuġu- < *agsu- 'to borrow/lend', buġulie- < *bögle- 'to plug'. In some Mongghul dialects it may become -ʂ-, as in Dongshan Mongghul naʂdo: < *nogta 'halter', Danma Mongghul suʂïdu- < *sogta- 'to get drunk'. To be precise it is most likely that naʂdo: developed via an intermediate *noġʂdo:, and that the ʂ does not represent the -g- but rather a kind of strength transfer from the original -t-.[332] As to Mangghuer, the older sources tend to preserve a plosive or fricative, while newer sources often lost *g altogether (cf. *nogta 'halter', *nögči- 'to pass', *sogta- 'to get drunk').

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[329] As the original shape of his word seems to have been *kürǰe, it is phonetically possible, but unlikely, that the Mangghuer and Dongxiang forms without the -g stem from the CM form rather than from the Shirongol form *kürǰeg.

[330] The word-final sounds written with <g> and <u> in Danma Mongghul may not differ much. Both may represent a labialised dorso-velar approximant. This seems to be supported by the fact that final <g> is also written in loanwords such as putog 'grapes' < Chinese pútáo, dinpog 'lightbulb' < diànpào, and unexpectedly appears in native words, e.g. nog- < *no- 'to aim at'.

[331] The same phenomenon is described for Wutun (see Janhunen et al. 2008:46).

[332] Forms like Mongghul noġśʒi- < *nögči- 'to pass', teśʒi < *tobčï 'button' show that the sibilant is triggered, and its precise pronunciation determined, by the following consonant.

In Dagur preconsonantal *g develops like final *g, e.g. *sɔrt-* < *sogta-* 'to get drunk', *šalle-* < *šarlə-* < *sïgla-* 'to stitch'.

4.6. Development of CM *s (and *š)

4.6.1. CM *s and *š

Prehistorically *s and *š split, because syllable-initial s- was palatalised by a following *i or *ï. The status of this allophonic š was reinforced by loanwords from Chinese and Turkic, and by some syllable-final developments of *ǰ (*č) (see *hedke- 'to cut' for an example). The variation between -d and -s in some other stems where no č or š variant is attested (cf. *deled-* ~ *deles-* 'to beat', *eüd-* ~ *eüs-* 'to develop') may also go back to a single original form ending in an affricate.

Although š- developed quite early, and is therefore well attested in the old documents, there are words which seemingly escaped this development. This is well-known from Moghol, where the words that did develop š-, such as *šira* < *sïra* 'yellow', *šira-* < *sïra-* 'to roast', *šitʋ:-* < *sïtaa-* 'to light', *šurɣu-* < *sïrgu-* 'to insert', are outnumbered by cases such as *sudun* < *sidün* 'tooth', *seisün* < *siesün* 'urine', *siβika* < *sibüge* 'awl', *siŋgǎ-* < *siŋge-* 'to set (sun)', *sitrum* < *siüderi* 'dew'.[333] In spite of the small Moghol corpus we can agree with Ligeti's observation (1963:173) that š- is generally restricted to originally back-vocalic stems.[334] In the first two examples one could argue that the s is no longer followed by i and may have lost its palatal pronunciation because of that, but this explanation does not apply to the remaining examples. Although some of the Moghol forms with s- resemble those in the Muqaddimat al-Adab, this is not generally true, and at any rate it does not provide a reason for the absence of palatalisation in Moghol.[335]

A handful of examples can be found in Dagur, in some cases in the same words: *sə:s* < *siesün* 'urine', *suidur* < *siüderi* 'dew'. Here again the s is not followed by the i, perhaps indicating that the diphthong members swapped places before š- could develop. Other examples may likewise be explained by early contractions and assimilations, e.g. *gasu:n* < *gasïun* 'bitter', *gəsu:* < *gesiün* 'branch', *kɔsɔ:* < *kosïun* 'beak', *su:-* < *siü-* 'to strain', *suiɣalǰin* < *sïrgolǰin* 'ant', *sak* < *sïgaï* 'anklebone; bone used in games'.[336]

In other languages this 'refusal' to be palatalised is a marginal phenomenon. BaoX *su:kə*, Kgj *səuki* ~ *sikəu*, and Dgx *sumuɣǎ* < *sibüge* 'awl' are reminiscent of Moghol *siβika*. CM *siüči* 'chisel', perhaps related to *sibüge*, also has some reflexes with s-. A rare case from Ordos is *su:ri-* 'to tuck under the belt', which corresponds to Middle Mongol *ši'uri-* and MgrH *ʂu:ri-* < *sïurï-*.[337]

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[333] For further examples see *siŋgen* 'watery', *(s)isegei* 'felt'.

[334] The same explanation was formulated by Poppe (1955:122).

[335] Forms in the Muqaddimat al-Adab that resemble those of Moghol include *sisegei* 'felt' with s-, *šira* 'yellow', *šira-* 'to roast' with š-. However, many of the other words are attested with both consonants, such as *sibüge* 'awl', *sidün* 'tooth'.

[336] Alternatively Dagur *sak* could be related to *saka(ï)* 'knucklebone used in games'.

[337] Two further cases are MgrH *su:sən* < *siüsün* 'portion of meat', Dgx *sanʒa* < *sïlǰa* 'sheep tick'.

Apart from the cases discussed above, *s* has become *š* when followed by **i/*ï*. The former allophones *s* and *š* clearly have their separate developments.

4.6.2. Default development of **s*

CM **s* and **š* are found in all positions. In syllable-initial positions the distinction between the two depends on the following vowel. In syllable-final positions the distinction can only be explained diachronically. Therefore they will be distinguished in the following examples.

Initial: **sam* 'comb', **seri-* 'to wake up', **siree* 'table', **sokar* 'blind', **sur-* 'to learn', **sünesün* 'soul'.
Intervocalic: **asara-* 'to raise', **bosaga* 'threshold', **büse* 'belt', **ese* 'not', **hasau-* 'to ask', **hesi* 'handle', **ǰasa-* 'to make', **usun* 'water' and numerous other words wih the ending *-sUn*.
Postconsonantal:**dogsïn* 'fierce', **kaïrsun* 'scale', **oŋsï-* 'to read', **sarïmsag* 'garlic', **sölsün ~ *čölsün* 'gall bladder', **tübsin* 'level'.
Final **s*: **maŋgus* 'anthropophagous ogress', **sonas-* 'to hear', **ulus* 'people', **umdaas-* 'to be thirsty'.
Preconsonantal **s*: **aska-* 'to sprinkle', **hünüste-* 'to smell', **öskel-* 'to kick'.
Final *š*: **koš* 'double', **tuš* 'straight', **öš* 'revenge'.
Preconsonantal **š*: **auškï* 'lungs', **geški-* 'to tread', **muškï-* 'to twist'.

The default development of **s* is to remain unchanged.

4.6.3. Shifts in the place of articulation

In Dagur initial and intervocalic *s* and *š* have been retained as such (apart from the cases discussed above that never developed *š* in Dagur). The same applies to postconsonantal position, except for a small group of words in which postconsonantal, or secondarily postconsonantal, *-s-* has developed into *č*: *xaič < *kaïrsun* 'scale', *kimč < *kïmusun* 'nail', *nɔkč < *nugursun* 'spinal marrow', *məmč < *möŋgersün* 'cartilage'[338], *kɔlinč < *kolaŋsa* 'smell of sweat'. This may be inspired by neighbouring Solon, where a similar development has taken place systematically, e.g. Solon *əməččə* 'ice' *< *əməkčə < *əməksə*. However, this development is not very common in Dagur; postconsonantal *-s-* is generally preserved, and in some cases assimilated to preceding consonants, as in *xuls ~ xullə < *kölesün* 'sweat' and *šuls ~ šull^w < *silüsün* 'saliva'.[339]

In Eastern Yugur initial and intervocalic *s* and *š* were preserved as well. In the Shirongol languages the distinction was also preserved, but in most dialects the old *š* was shifted towards a pronunciation more compatible with Chinese and/or

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[338] Thus Dag *čulč* 'gall bladder' may have come about in two ways: it may stem from the variant **sölsün* which developed postconsonantal *č* and then assimilated the initial, or it may stem from the variant **čölsün*, in which case the final *č* is the later development.

[339] Moreover, the affrication is not even common in the Tungusic loanwords in Dagur, cf. Dag *xɔrše:l* 'swan' from a Tungusic form **hɔksɪal*, which has become *ɔčče:l* in Solon.

Tibetan. It became retroflex *ş* in Dongxiang[340], alveolopalatal *ś* in Dahejia Baoan, and palatal velar fricative *x́* in Ñantoq Baoan.[341] In Mongghul we see mostly *ś* and occasionally *ş*, whereas in Mangghuer the reverse is the case.[342] The usual reflex is illustrated by the development of **sïra* 'yellow': EYu *šəra ~ šra*, MgrH *śira*, MgrM *şïra*, BaoD *śira*, BaoÑ *x́ira*, Kgj *šira*, Dgx *şïra*. In secondary preconsonantal position, retroflex *ş* is used in Mongghul and Baoan, rather than the default reflexes. Cf. the development of **sidün* 'tooth': EYu *šdən*, MgrH *şdə*. MgrM *ş(u)du*, BaoD *şduŋ*, BaoÑ *şdəŋ*, Kgj *š(i)duŋ ~ šduŋ*, Dgx *şïduŋ*. We also find *ş* as a reflex of the non-palatal **s*, if it ends up in preconsonantal position, as in MgrH *şda:sə < *sudasun* 'vein', BaoÑ *şge < *süke* 'axe'.

New palatalisations *s > ś* happened systematically in Dongxiang in words originally starting with **se-* or **sö-*, or with **se* in medial position. Mangghuer sporadically does the same in words starting with **se-*, and erratically in some others.[343] Shared examples are MgrM *śiudiar*, Dgx *śiauʒ́ie < *seüder* 'shadow'; MgrM *śuarsï*, Dgx *śiensuŋ < *sölsün* 'gall bladder; MgrM *śier*, Dgx *śien < *seül* 'tail'.[344] This development does not establish a special relationship between these two languages; they share it due to shared sinification.

4.6.4. Affrication and weakening

Special developments of **s-* include the following. The tendency to assimilate initial *s-* to a following *-č-* is well-known from the central languages, and is also found in Dagur, but has hardly affected the QG languages. Cf. EYu *saǰə-*, MgrH *saʒ́ə-*, Dgx *sʒï- < *saču-* 'to sprinkle' (see also **sečen* 'smart', **sočï-* 'to startle', **siüči* 'chisel'). Initial **s-* alternates with Ø in **sisegei* 'felt' ~ **isegei* 'felt', **sïsun ~ *ïsun* (?) 'soot', but it is unclear which are the older variants. Also compare the peculiar alternants in Dag *tusrə:- ~ susrə:- ~ surə:- < *tüsür-* 'to sprinkle'.

Initial **s-* has unpredictably become a strong affricate *c-* or a weak affricate *ʒ-* in some words in the QG languages. This is occasionally seen in the same word in several languages, as in EYu *ʒu:na*, MgrM *ʒono*, BaoÑ *ʒina < *sona* 'bee/gadfly', but usually only in a single language, e.g. MgrM *ʒaixan < *saïkan* 'beautiful', BaoD *ʒetər < *seüder* 'shadow', BaoÑ *cəbćə < *siüči* 'chisel', BaoÑ *cïme < *süme*

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[340] There are a few exceptions, e.g. Dgx *şïʒə- < *hiče-* 'to be ashamed', which should have had *ś-*, and Dgx *śiġəi- < *sïgaï-* 'to look', which should have had *ş-*.

[341] Intervocalic and postconsonantal **š* (as in **kosïun* 'beak', **tübsin* 'even') result in BaoÑ *-ś-*. In BaoX *x́* also occurs medially, e.g. *εx́ə < *hesi* 'handle'.

[342] It is not entirely clear what triggers the less common reflex to appear in Mongghul and Mangghuer. In Mongghul *ş* is often found preceding *u* or a consonant. It is more common in the Narin Guol data. In Mangghuer *ş* is normal even preceding **i*. Although there are words such as *śida- < *sïtaa-* 'to burn', *ś-* is more commonly the result of a modern palatalisation of *s-*.

[343] In MgrM *sogodi- < *söged-* 'to kneel', *soni < *söni* 'night', *suni- < *söne-* 'to extinguish' **ö* had apparently become *o*, which prevented the palatalisation found in Dongxiang. Mangghuer palatalisations of **s* not found in Dongxiang include *ś(i)gə- < *sakï-* 'to wait', *ś(i)me < *süme* 'temple'.

[344] BaoD *śiənćiχ*, BaoGt *sanćï ~ śanćï* 'tail' (with dim. suffix) may owe their *ś-* to assimilation to the following *-ć-*.

'temple', Kgj *cer* < *seül* 'tail'. The scarcity of examples and the erratic distribution make it hard to determine the historical background of this phenomenon[345]; the data are certainly insufficient to reconstruct separate consonants *c* and *ʒ* even for Proto Shirongol. The *c-* and *ʒ-* in QG languages cannot be connected to the depalatalised Khalkha affricates *c* and *ʒ*, except in one case: EYu *ʒuġul-* 'to pull out' corresponds to Ord *ʒuġul-* and SH *juqul-*, which also occurs with *s-* in Middle Mongol and modern languages.

In the Monguor languages medial *-s-* has often become *-ʒ-*, which seems to function as the new weak counterpart of *s*.[346] This development is not entirely predictable, but much like in the case of *b-* > *p-* and *Ø-* > *h-* it may be an attempt to fill some gaps in the system of strength oppositions.

The reflex *-ʒ-* is conspicuous in the many lexemes with the ending *-sUn*, such as MgrH *fuʒu, sʒu* < *usun* 'water', but cf. also *sʒaġa-* < *hasag-* 'to ask', *sʒargu* < *esergü* 'opposite', MgrM *puʒa* < *basa* 'also'. In Mangghuer (and occasionally in some dialects of Mongghul), the same phenomenon can be seen in the treatment of intervocalic *-ṣ-* (from earlier *š*) and *-ś-* (more recently palatalised from *s*). Examples: *qəʒər-* (< *qaṣəl-*) < *gasïl-* 'to turn sour', *quʒu* (< *qoṣu*) < *kosïun* 'beak', *kuʒier* (< *kośer*) < *köser* 'floor'. The emergence of weak counterparts to the strong sibilants *s ṣ ś* makes sense as an attempt to integrate them into the system of strength oppositions. That the weak counterparts are affricates rather than weak fricatives is perhaps simply due to the fact that *ʒ* and *ʒ́* were already well established as reflexes of CM *ǰ*.[347]

4.6.5. Syllable-final developments

Word-final *-š* is found in Turkic loanwords, in which it may represent original Turkic *-š*, as in *kaš* 'jade', *koš* 'double', *tuš* 'straight', *ǰemiš* 'fruit', or original *-č*, as in *kerbiš* 'brick', *öš* 'revenge'.[348] Apart from these cases (not all listed in the comparative supplement) which are attested in Middle Mongol, there have been later loans in individual languages.

In the central languages final *-š* is often changed > *-s*; it is most often preserved in Kalmuck. The QG languages preserve the *-š* in the few words that survive, although most Shirongol languages use an epenthetic vowel (see *koš* 'double', *tuš* 'straight'). The later Turkic borrowing *ta:š* 'stone', attested in

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[345] In case of Dgx *cïra-* ~ *sïra-* < *tasura-* 'to break (intr)' the *c* actually stems from *t* + *s* after devoicing and loss of the first syllable vowel.

[346] Poppe (1955:120) already noticed the distribution of Monguor medial *-s-* and *-ʒ-*.

[347] Strictly speaking, *z̦* (from *r*) exists in native Mangghuer words, and would have been available as the weak counterpart of *ṣ*; *z* and *ʐ* do not occur at all.

[348] In the Muqaddimat al-Adab both these words actually retain *-č*, due to ongoing Turkic influence in this variety of Middle Mongol. There is no need to reconstruct the Mongolic words with *-č*. The Arabic script makes it clear that no final vowel was added. In the documents in Chinese script syllable-final *-š* can not be distinguished from the syllable *-ši*. It will be assumed here that these words existed in CM, although the Middle Mongol and modern instances may be due to separate borrowing events.

Eastern Yugur and all of Shirongol, behaves the same as the older cases of *-š: EYu *taš*, MgrH *taṣ*, MgrM *taṣï*, BaoṄ *taš(i)*, Kgj *tχaši*, Dgx *taṣï*.

Word-final *-s* is also found in Turkic loanwords, in which it represents Turkic *-s*, as in the Wanderwort **bars* 'tiger'[349], *-š*, as in **ulus* 'people', or *-z*, as in **boas* 'pregnant', **bös* 'textile'. Well attested native examples are mostly plurals of nouns and pronouns in *-s*.

Final *-s* developed into *-r* (or *-rʸ*) in Dag *ɔlur* < **ulus* 'people', *burʸ* < **bös* 'fabric'. In Eastern Yugur and Shirongol **-s* is preserved, usually with an epenthetic vowel in the latter. The development of **bös* 'textile' is as follows: EYu *pös*, MgrH *bos*, MgrM *bosï*, Kgj *bəsï*, Dgx *bosï*. Innovative pronouns using the plural ending *-s* feature epenthetic vowels in the same dialects. They include EYu *ta.s* 'you (pl.)'(based on **ta*), *buda.s* 'we (incl.)' (based on **bïda*), MgrM *da.sï* 'we' (based on **bïda*), *gan.sï* 'they' (based on **irgen*); BaoṄ *ɵr.sə* 'we', BaoX *o.sə* 'we', Kgj *ʉrʉ.sï*, *ʉ.sï* 'they' (based on **öer-* 'self'), Dgx *hə.s.la* 'they' (based on *hə* 's/he' of unknown origin).[350]

In verbs the situation is different. There are no native verbs in **-š*, but verbs ending in *-s* are frequent, e.g. **bos-* 'to rise', **debis-* 'to spread', **emüs-* 'to wear', **ges-* 'to melt', **nïs-* 'to fly' **öles-* 'to be hungry', **ös-* 'to grow'. Forms like Dgx *bayasu-* < **bayas-* 'to rejoice' show that the added vowel is not simply an epenthetic vowel (which would have been *ï*), but that it, at least in some cases, is the connective vowel *U* which has become part of the stem.

Preconsonantally *-s-* and *-š-* are harder to distinguish, because in some languages *s* has occasionally developed into *š* secondarily, as in Kalm *išklŋ* < **iskülen* 'sour', *iškä* < **isegei* 'felt'. Unlike final **-š*, preconsonantal *-š-* also occurs in a number of Mongolic words, including **auškï* 'lungs', **geški-* 'to tread', **muškï-* 'to twist'[351]. Preconsonantal *-s-* occurs in **aska-* 'to sprinkle'[352], and possibly in **iskir-* 'to whistle', **kaskïr-*'to shout', and **öskel-* 'to kick'[353]. As in final position, the words that occur with an alternation between *-s-* and *-d-* (such as **hedke-* ~ **heske-* 'to cut'[354]) never appear with *-š-*, so that modern languages have either the *-d* or the *-s*.

Dagur shows the most regular picture: *aurkʸ* < **auškï* 'lungs', *gərkʸ-* < **geški-* 'to tread', *mɔrkʸ-* < **muškï-* 'to twist'. The reflex in Eastern Yugur is usually *-š-*, and the Shirongol languages feature *-ś-*, *-ṣ-*, or *-ẓ-* which may be followed by an epenthetic vowel, as in **geški-* 'to step on': EYu *kəšgə-*, MgrH *giṣgi-*, MgrM *kəẓgi-*, BaoD *kəśigə-*, Kgj *keṛki-* ~ *keki-*, and Dgx *qïṣïǧəu* < **geški.ür* 'stairs'.

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[349] Unlike in **koš* and **tuš* mentioned above, no Mongolic variant with *-š* is recorded for **ulus*.

[350] Dongxiang also has some petrified plurals in *-s* (the productive plural is now *-la*) which do not feature the epenthetic vowel: *kielie.s* 'news', *fugie.s* 'the elderly generation', *kəwa.s*, *kəwa.s.la* 'children', Dgx *oći.s.la* 'daughters' (cf. **kelen*, **yeke*, **köbeün*, **ökin*). As in the case of the initial consonant clusters with *s-*, this may be a matter of interpretation. Liu (1981:16) has *kəwosï* 'children' but describes the final *-ï* as optional.

[351] Also in HY *bišlaq* (bi-shi-la-hei), Kh *byaslag* 'cheese' (also of Turkic origin).

[352] Derivations with the suffix *-skA* never develop *š* either (cf. **hanïska*, **eŋgeske*).

[353] In these cases not enough forms, or contradictory forms, are attested. Words like **iskir-* 'to whistle' are likely to undergo onomatopoeic changes.

[354] Cf. **deled-* ~ **deles-* 'to beat', **eüd-* ~ **eüs-* 'to arise', **ödken* ~ **ösken* 'thick'.

In Dagur, preconsonantal -s- also becomes -r-, but when there is another *r* in the word, the last *r* tends to be dissimilated to *l*, as in **dəurkul* (< **dəurkur*) < **debis.ker* 'mattress'. In Eastern Yugur and Shirongol preconsonantal *s* is generally left unchanged, but it may be provided with a epenthetic vowel or metathesized, cf. EYu *sʉkel-*, *sgöl-*, BaoD *galə-*, BaoÑ *ʂgel-*, Kgj *sïgeṛ-* ~ *sge-* < **öskel-* 'to kick'; EYu *sqa-*, MgrH *saġa-*, BaoÑ *asġa-* ~ *aġsa-* < **aska-* 'to sprinkle'. Epenthetic vowels are also used in derived stems such as Dgx *ʑiausïku* < **debis.kü* 'mattress'.

4.7. Development of CM **m*

4.7.1. Default (non-shift)

CM **m* was allowed in all positions in the word.

Initial: **marta-* 'to forget', **mïkan* 'meat', **modun* 'tree', **mören* 'river', **muškï-* 'to twist'.
Intervocalic: **aman* 'mouth', **emüne* 'front', **ïmaan* 'goat', **kïmusun* 'nail', **naïman* 'eight', **sumun* 'arrow', **temeen* 'camel'.
Postconsonantal: **kormaï* 'hem', **ölmei* 'sole', **sormusun* 'eyelash', **teermen* 'mill', **ǰarma* 'groats'.
Final: **em* 'medecine', **kadum* 'spouse's family',**kurïm* 'banquet', **sam* 'comb', **tulum* 'leather bag'.
Preconsonantal: **amta-* 'to taste', **dumda* 'centre', **kamčuï* 'sleeve', **kïmda* 'cheap', **umdaas-* 'to be thirsty', **umta-* 'to sleep'.

Except in final position CM **m* is quite stable in all Mongolic languages. Some modern variation between **m* and **b* reflects a prehistoric correlation between the two. Cases such as the pronoun **bï* 'I', which has the genitive **mïnu*, show that *m* can be due to secondary nasalisation. In other alternations, such as**tebene* ~ **temene* 'packing needle' the form with **b* may be due to secondary loss of nasality.
        The peripheral languages do not provide clues about spellings such as Written Mongol *kümün* 'person', *keme-* 'to say', *qamiya* 'where' which are assumed to be based on a prehistoric correlation between **m* and **p*. In case of 'person' the peripheral languages supports the CM reconstruction **küün* 'person'. The verb 'to say' is represented by **ge-*, i.e. a form weakened and shortened from an inter-mediate **kee-*. The question word 'where' occurs as **kaa-*.

4.7.2. Syllable-final developments

Word-final -*m* is preserved in Dagur and Eastern Yugur, most of Mongghul and Baoan. In Mangghuer, Kangjia and Dongxiang, -*m* was replaced by -*n* or -*ŋ*, as in MgrM *an*, Kgj *an* < **em* 'medicine', MgrM *qurəŋ*, Dgx *ġuruŋ* < **kurïm* 'banquet', MgrM *saŋ*, Kgj *san*, Dgx *saŋ* < **sam* 'comb'. This development took place three times separately. In Kangjia it was relatively recent, as shown by the fact that the secondary sequence -*an* in *an* 'medicine' and *san* 'comb' did not change into -*ɔ*, as did the CM words primarily ending in **-an*.

The assimilation of preconsonantal *m > n* before dentals and palatals had already started prehistorically in words such as **dumda* 'centre', **kamčuï* 'sleeve', **umdaas-* 'to be thirsty', **umta-* 'to sleep'. This development has now affected other words, both in Dagur and in the QG languages, including the dialects that have no problem in pronouncing word-final *-m*. The following examples include some cases of secondarily preconsonantal *m*. Before dentals and palatals this results in *n* or *ŋ*, e.g. Dag *kʸand* < **kïmda* 'cheap', EYu *köndörge* < **kömüldürge* 'breast strap', MgrM *xaŋtu* < **kamtu* 'together', EYu *nanda ~ danda*, MgrM *naŋda ~ daŋda* < **namada* '(to) me'. Preceding gutturals it results in *ŋ*, e.g. Dag *əŋkʷ-*, MgrH *χaŋgu-* < **emkü-* 'to hold in the mouth', BaoGt *fəŋgi ~ hoŋgi* < **hümekei* 'smelly', Dgx *ćiauŋġu-* < **temgü-* 'to gather'.

In Eastern Yugur the labiality of the preconsonantal *-m-* has been preserved in the form of a postconsonantal 'echo labial', as in *neŋgwen* (< **nemgwen*) < **nimgen* 'thin, *čeŋgwen* < **čimegen* 'marrow', *eŋgwen* < **emegen* 'elderly woman', *taŋġwa* < **tamaga* 'seal'.[355]

4.8. Development of CM **n*

4.8.1. Default (non-shift)

CM **n* probably occurred in all positions in the word. However, no Mongolic words with postconsonantal *-n-* seem to have survived in the QG languages.[356] In initial and medial positions **n* tends to remain unchanged. In final position it has undergone some Chinese-inspired changes, as well as elisions for morphological rather than phonological reasons. Some nouns only ended in **n* in part of their paradigm, and the **n* in these words is traditionally called 'unstable'.

Initial: **naran* 'sun, **nere* 'name', **nidün* 'eye', **noïtan* 'wet', **nüken* 'cave'.
Intervocalic: **ene* 'this', **hinie-* 'to laugh', **hünigen* 'fox', **konïn* 'sheep', **sine* 'new'. **una-* 'to fall'.
Final (stable *-n*): **belen* 'ready', **hon* 'year', **ken* 'who' **küün* 'person'.
Final (unstable *-n*): **hüsün* 'hair', **naran* 'sun', **sidün* 'tooth', **tosun* 'fat'.
Preconsonantal: **andagar* 'oath', **anǰasun* 'plough', **höndür* 'high', **ǰančï-* 'to pound', **kündü* 'heavy'.

Except in final position CM **n* is quite stable in all Mongolic languages. CM **n* is susceptible to dissimilation if there is an **m* in the vicinity, as in EYu *lɔm* < **nom* 'book', MgrH *lumo:n* < **noman* 'mole', BaoÑ *eməla* < **emüne* 'front', Kgj *mila* <

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[355] This is also seen in loanwords from Amdo Tibetan, such as EYu *namka ~ naŋkwa* 'heaven' (Lit. Tibetan *nam-mkha'*). In Amdo itself echo labials are also found. Echo labials can also be triggered by a preconsonantal *b* or merely a rounded vowel. In Eastern Yugur and Mongghul this occurs occasionally, in Ordos frequently (see **ǰabka-* 'to get lost', **sïbkara-* 'to be squeezed out', **ugaa-* 'to wash', **ungasun* 'wool').

[356] There are a few native verbs with the sequence *-rn-*, cf. Written Mongol *örni-* 'to grow', *sarni-* 'to scatter', *torni-* 'to grow'. EYu does have *tarnə* < **tarnï* 'incantation' (from Sanskrit *dhāranī*).

*mïnaa 'whip'. There are some cases of *n > l in other environments, such as the very widespread case *nabčïn 'leaf'. Metathesis is also seen especially when *m, or *r or *l, are near, as in *könerge 'yeast', *kulugana 'mouse'.

4.8.2. Syllable-initial developments

In isolated cases, initial n- has become > m- without explanation, as in EYu mulqa < *nïlka 'tender', muçuğuŋ < *ničügün 'naked', BaoD musï- ~ məs- < *nïs- 'to fly'.[357]

Intervocalic -n- that ends up in preconsonantal position may shift to -m- as well, as in Dag sums < *sünesün 'soul', BaoD homsuŋ < *hünesün 'ash'.[358] This development is not carried through systematically.

4.8.3. Syllable-final developments

When discussing the modern reflexes of final *-n, it has to be realised that there are two kinds of stems involved, those with stable -n and those with unstable -n. These two n's are phonetically identical but behaved differently in morphology. This has led to different word shapes in Shirongol.

Among the nouns with final -n, the overwhelming majority have unstable -n. Common nouns with unstable -n drop it before certain case endings and keep it before others (see Poppe 1955:166-170).[359] A handful of examples: *aman 'mouth', *amïn 'life', *čïkïn 'ear', *čïsun 'blood', *halagan 'palm of the hand', *hekin 'head', *morïn 'horse', *nidün 'eye', *usun 'water'.

All basic numerals (except *koyar - QG languages *koar 'two') are nouns with unstable -n. In case of the numerals there is a functional difference, the -n typically appears in attributive usage, and the n-less form in counting.

Stable -n is an integral part of the stem.[360] The final -n of adjectives is nearly always stable[361]; examples: *belen 'ready', *kalaun 'hot', *sirüün 'coarse'. A small group of nouns ends in stable -n, including *emegen 'old woman', *hon 'year', *kaan 'ruler', *küün 'person', *mören 'river', *noyan 'official', *ökin 'girl', and words ending in the diminutive -kAn.

In the central languages these categories persist.[362] In Dagur the two shapes of the numerals are still distinguished, but the paradigmatic alternation n ~ Ø in the

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[357] In the verb 'to fly' this change is present in all of Shirongol except Mongghul.

[358] Compare Kalm üms < *hünesün 'ash', küms < *künesün 'provisions', süms < *sünesün 'soul'.

[359] So the stem variant with -n can be seen as a kind of oblique stem, similar to the (often irregular) oblique stems of pronouns, which also end in -n.

[360] Even stable -n may be removed from the stem before some inflectional and derivational suffixes. Examples include the plural ending -d and the possessive adjective suffix -tU. Adjectives lose their -n before the diminutive -kAn.

[361] The frequency of stable -n in adjectives has probably caused the development of CM *katau 'hard' into Shirongol *kataun, and *kündü 'heavy' into Monguor kundun.

[362] Sometimes the moderns languages disagree about the status of -n in a given word, which means that words can be transferred to the other category. CM *oran 'place' has stable -n judging from its presence in Ordos and Monguoric, but has unstable -n in Khalkha. Moreover, words without final -n may develop one. In case of *salaa 'branch', *siree

common noun was abolished. In the languages of the southern periphery the two types have only left some traces in the sense that stable and unstable *-n* have resulted in different developments in several languages, which are only partly phonetically determined. Given that the QG languages do not provide new insights in this regard, and many nouns have in fact changed categories, the distinction between stable and unstable *-n* has not generally been indicated in the reconstructions.

In Dagur stable *-n* is retained, and unstable *-n* is lost.

In Eastern Yugur stable *-n* survives, and unstable *-n*'s have also been made stable, i.e., made into an integral part of the stem, as in EYu *orʉin* < **ereün* 'chin', *ni:n* < **ünien* 'cow', *šu:n* < **sïbaun* 'bird'. The *-n* is retained before all case endings. The numerals (except 'one') were also generalised in their shape with *-n*, and the shorter forms have become extinct.[363]

In Proto Shirongol the distinction between stable and unstable *-n* still existed. In modern Shirongol we can see different solutions in the Monguor languages on the one hand, and the Baoanic group on the other.

The Monguor languages eliminated unstable *-n* from virtually all noun stems with unstable *-n*. However this is not a sound law, but is related to a reanalysis of forms in the case paradigm. This may have started with the reinterpretation[364], perhaps as early as in Proto Shirongol, of genitive/accusatives like *morin-i* as *mori-ni* '(of) the horse' (from **morïn*). Many words feature an *n* in inflected case forms, cf. Mongghul:

> *nara* < **naran* 'sun' > *naran-də* 'in the sun'
> *ude* < **eüden* 'door' > *uden-də* 'at the door'
> *nudu* < **nüdün* 'eye' > *nudun-də* 'in the eye'

Although in these instances these nouns appear with the *-n* lost in the nominative, this is not always the case. Some words that are known to have had *-n* appear without it, e.g. *morə-də* 'on the horse' (from **morïn*, and words that do not have *-n* elsewhere, appear with it, e.g. *saran-də* 'to the moon' (from **sara*).[365] Therefore such inflected forms do not have any value for reconstruction.

'table', only Khalkha added an *-n* to the declension. For other disagreements among central languages cf. **toa* 'number', **hötü* 'maggot', **kegesün* 'spoke'. The reverse development, unexpected loss of stable *-n*, has occurred in **ǰulǰagan* 'animal young', which had *-n* in Middle Mongol, but now only retains it in Eastern Yugur.

[363] As in the common noun, there are derivational suffixes before which the 'stabilized' *-n* of numerals is removed, e.g. the distributive *harßa:d* 'ten each' < *harßan* < **harban* 'ten'.

[364] As Janhunen 2010 suggests, the Turkic accusative **-nI* may have have played a role in the development of this suffix shape. Similar convergence of suffixes can be seen in the instrumental/comitative (Salar *-la*, *-lanə* < Turkic **bilän*; Mongghul *-la*, Dongxiang *-lə* < **-lUA*), and in the conditional (Salar *-sA* < Turkic; *-sA* in Eastern Yugur and Shirongol < **-AsU*).

[365] Cf. also *xana-n-sa* 'from everyone' from Tibetan *ha-ne*. The nomen futuri also takes *-n* before case endings, both when it is used in word formation, e.g. *ṣda:ġu-n-də* 'to the firewood' (**sïtaa-ku*), as in participial use, e.g. *śgu-n-sa* 'from going' (**eči-kü* + **-sA*).

Baoan and Dongxiang tend to preserve both stable and unstable *-n* in all types of nominal stems. In Dongxiang it is preserved as *-n* after *ə/e* and *i*, and as *-ŋ* after *a*, *o*, *u*.

All Shirongol languages agree with Eastern Yugur on the numerals 3-10, the decads, 100, and 1000. These all end in *-n*.[366]

In Kangjia, *-n* is lost under some circumstances. This is a purely phonetic development applied to the situation Kangjia inherited from its Baoan-like ancestor language. The loss of final *-n* (via nasalisation) affects the CM sequences *-an* and *-en*, but also words with secondary vowel lowering such as *išǰɔ* < **ebčiün* 'chest', *fʉtɔ* < **hodun* 'star'. In such cases the lowering is also attested in Baoan, and partly in Dongxiang, cf. BaoÑ *ebćaŋ* 'chest', *hɵ:taŋ* 'star'. After high vowels *-n* is generally preserved unchanged, with some exceptions such as Kgj *sʉ* < **usun* 'water' (perhaps an old exception since it is also found in BaoÑ *sə*, Dgx *usu*). *-n* is also preserved in Kangjia after secondarily raised vowels, as in *nuğun* < **nɔgɔ:n* < **nogaan* 'green'. Grammatical category is irrelevant for this Kangjia development, thus we also find *derɔ* < **dörben* 'four', *kɔ* < **ken* 'who', *dagɔ* < **ödken* 'thick'.

CM	Dag	EYu	Mgr	Dgx	Kgj
*ken 'who'	*xən*	*ken*	*ken*	*kien*	*kɔ*
*hon 'year'	*xɔ:n*	*hɔn*	*fan*	*xoŋ*	*hɔn ~ huŋ*
*arïun 'clean'	*aru:n*	*aru:n*	*arən*	*aruŋ*	*arun*
*gurba(n) 'three'	*gʷarəb* & *gʷarbən*	*ġurβan*	*ġura:n*	*ġuraŋ*	*ġurɔ*
*ïmaa(n) 'goat'	*ima:*	*ma:n*	*ima:*	*imaŋ*	*imɔ*

Given the phonological and morphological turmoil the peripheral languages have been subjected to, it is surprising these two categories are still recognizable. However, several words seem to have been transferred to another category. In Mongghul some words even developed against the general tendency to drop *-n*, e.g. MgrH *xaldan* < **altan* 'gold', EYu *örmön*, MgrH *rme:n* < **öreme* 'skin on boiled milk', MgrH *sme:n* < **süme* 'temple'; in central Mongolic these words have unstable *-n* or no *-n* at all.

Some words probably lost final *-n* at an early stage, as they appear without it in all QG languages, e.g. **konïn* 'sheep', **morïn* 'horse', **möŋgün* 'silver'.

The numeral **niken* 'one' also occurs without *-n*, wheras all other numerals in *-n* preserved their *-n* in EYu and all of Shirongol. This is interesting because all of these numerals originally had an enumerative form without *-n* and an attributive form with *-n* (this system persists in Dagur and central Mongolic). Except in the

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[366] In compound numerals, which are often reduced in other ways, there are *n*-less forms, e.g. BaoÑ *hara-yirsəŋ* '19' < **harban yersün* 'ten-nine', *deʾraraŋ* '40' < **dörben harban* 'four tens'. In frequently used combinations, reductions may also occur, e.g. Dgx *haru du* (< *haroŋ udu*) 'ten days' < **harban üdür*. These shortened modern forms need not go back to the old attributive forms without *-n*.

case of 'one', the short forms of the numerals became extinct in the QG languages.[367]

The Shirongol languages have some further cases of loss of *n not found in Eastern Yugur, such as *ǰürüken 'heart', *kuruun 'finger',*usun 'water'. In most cases the distribution of forms with and without -n is more erratic, as in the following n-less forms: EYu ča:sə < *čaasun 'paper', yɔsə < *yosun 'tradition', MgrH ʒ́us < *ǰüsün 'face'. BaoÑ helge < *heligen 'liver', Kgj nïmʉ < *numun 'bow'. Within Baoanic, Baoan dialects have nasə < *nasun 'age', while Kangjia and Dongxiang preserve -n; Kangjia has nʉdʉ < *nidün 'eye', while Baoan and Dongxiang preserve -n, BaoÑ smø, Kgj sïmʉ disagree with Dgx sumuŋ < *sumun 'arrow'.

Incidentally -ŋ appears instead of -n in Eastern Yugur, as in ġurdəŋ < *kurdun 'fast'. More cases of this type occur in Mangghuer, partly shared with Mongghul, such as MgrM baraŋ, MgrH varoŋ < *baraun 'right', and MgrM qaluŋ, MgrH xaloŋ <*kalaun 'hot'.[368] However, this tendency is stronger in Mangghuer, e.g. artaŋ < *altan 'gold', purğaŋ < *burkan 'Buddha', çaġaŋ < *čagaan 'white', çorbaŋ < *čolban 'Venus'.

In some cases -m appears instead of -n, as in MgrH xardam < *altan 'gold', BaoD ʒgum < *öekün 'fat', BaoÑ gøm < *gün 'deep'.[369]

Preconsonantal n and ŋ are usually indistinguishable in Shirongol, as well as in Dagur (see below). In Eastern Yugur there are some cases of ŋ < n, e.g. kʉŋtə < *kündü 'heavy' and oŋdor < *höndür 'high', which interestingly forms a minimal pair with ondor < *ene ödür 'today'.

4.8.4. Intrusive preconsonantal n-?

In Baoan a historically inexplicable n- tends to appear instead of an initial vowel preceding *d or *ǰ. Only *hutasun 'thread' deviates from this pattern, but it does have weak -d- in Shirongol. The added n- may be seen as a weak counterpart of the voiceless fricatives that may accompany the devoicing and loss of initial vowels followed by a strong consonant, e.g. MgrH sʒu < *usun 'water'. It may also be relevant that Baoan is known to occasionally replace the preradical s in Amdo Tibetan words by a nasal, also preceding weak consonants, as in BaoÑ ndəm 'spider', ndewa 'village', mbawa 'frog', nʒaŋrsə 'honey', corresponding to Literary Tibetan sdom, sde-ba, sbal-ba, sbrang-rtsi.[370]

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[367] Kgj niχɔ, which is used in addition to niγe, probably is an extended form involving the diminutive suffix -kAn.

[368] An unexpected -ŋ is present in all of Shirongol in the case of *katau 'hard', probably inspired by the numerous adjectives ending in -n.

[369] MgrH nem, BaoÑ unem < *üne 'price' apparently involves an added -n. Spontaneous appearance of -m is less likely than that of -n, which can be motivated by analogy.

[370] In some Tibetan loans the homorganic nasal alternates with ʕ, e.g. BaoÑ ndewa ~ ʕdewa 'village', ŋgasəg ~ ʕgasəg 'spine'. Otherwise, however, the nasal and oral preradicals tend to retain separate nasal and oral pronunciations in Baoan, although the exact pronunciation is varied. Tibetan oral preradicals do not normally correspond to nasal dialect pronunciations. What is puzzling here is that s and the other oral preradicals have merged phonetically in the neighbouring Amdo dialects, for instance resulting in h- in Labrang.

CM	BaoD	BaoGt	BaoÑ	BaoX	Kgj
*eüden 'door'	ndaŋ	dɔŋ[371]	ndaŋ	---	idɔ
*ide- 'to eat'	nda-	ndà-	nde-	ndə-	ide-
*uda- 'to be late'	nda-	nda-	nda:-	---	uda-
*hutasun 'thread'	ndasuŋ	ndasuŋ	ʂdasəŋ	---	(n)dasun
*üdür/*ödür 'day'	udər	udər	udər	ndor	ʉdər
*üǰe- 'to see'	nǯiə-	nǯà-	uǯi-	nǰə-	ʉǰe-
*hüǰüür 'tip'	uǯir	---	uǯir	nǰor	ʉǰir
*eǰen 'master; s/he'[372]	nǯaŋ	ǯɔŋ	aǯaŋ ~ əǯaŋ	nǰaŋ	iǰɔ

Interestingly Mongghul has the last word as *nǯe:n* 'master; self (reflexive pronoun)'.[373] The initial nasal in MgrH *nǯoŋ* , BaoÑ *nǯəŋ ~ ǯəŋ* 'hundred', normally reconstructed *ǰaun*, has a different origin. Rather than replacing an initial vowel, the *n* originates from the numerals 3-9 often preceding it. Thus *dörben ǰaun* '400' appears in Xiazhuang Baoan as *deri nǯəŋ* rather than *deraŋ ǯəŋ*. The only two units that do not end in -*n* in Baoan, *niken* 'one', which lost its -*n*, and *koar* 'two' which never had -*n*, now also appear with it, as in Xiazhuang Baoan *nəgi nǯəŋ* '100', *ġuari nǯəŋ* '200'. The modern forms are also analysed differently; compare the Xiazhuang form *ġuari nǯəŋ* to Ñantoq Baoan *ġuar nǯəŋ*, Ganhetan Baoan *ġuarʌn ǰün*.[374]

As the unexplained preconsonantal *n* of Baoan incidentally corresponds to variants with unexplained preconsonantal -*r*- in Mongghul, it cannot be entirely excluded that they go back to an old preconsonantal consonant, cf. MgrH *rǯu:r < *hüǰüür* (?*üǰüür) 'tip', Hongyazi Mongghul *ʐda- < *ide-* 'to eat', Mongghul *rde*, Hongyazi *ʐda < *eüden* 'door', Danma *rǯe- < *üǰe-* 'to see'.

A less frequent and apparently unrelated type of intrusive preconsonantal *n* can be found in words like BaoGt *ǯunduŋ < *ǰeüdün* 'dream', Dgx *ʐawaŋ ~ ʐaŋwaŋ < *ǰabaan* 'insipid', *nuduŋ ~ nuŋduŋ < *nidün* 'eye', Kgj *dɔlɔ ~ danlɔ < *dolaan* 'seven'. The appearance of the preconsonantal nasal in these cases seems to be a kind of reduplication of the word-final consonant.

4.9. Development of CM *ŋ

CM *ŋ is restricted to syllable-final positions (preconsonantal and word-final). There is an unexplained early alternation with *g in a few words, as in *gagča ~ *gaŋča 'alone'.

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[371] The *n*- is present in BaoGt *fgindɔŋ* 'gate' < *yeke eüden* 'big door'.

[372] The original meaning 'master, owner' is retained in Kangjia. In the Baoan dialects it has come to function as a personal pronoun.

[373] Mongghul *ŋġua:- < *ugaa-* 'to wash' can be viewed as a similar case in another place of articulation.

[374] As *ǰaun* 'hundred' is typically used in combination with other numerals, it is not entirely clear whether these forms reflect different analyses of the speakers of different dialects, or are merely different notations by the describing linguists.

Final: *deleŋ 'udder', *düüreŋ 'full', *kašaŋ 'lazy, *olaŋ 'bellyband'.
Preconsonantal: *hoŋgu- 'to break wind', *höŋkeri- 'to roll', *köŋdei 'hollow', *maŋlaï 'forehead', *möŋgün 'silver',*taŋlaï 'palate'.

CM *oŋsï- 'to read' has such diverse modern forms (with -m- instead of the -ŋ- among other things) that it his hard to decide which consonant should be reconstructed as the original one.

In the QG languages only Eastern Yugur and the Monguor languages preserve the distinction between final -n and -ŋ, e.g. in the words *buluŋ 'corner', *deleŋ 'udder', *dogalaŋ 'limping', *düüreŋ 'full', *ǰobalaŋ 'suffering'. In Dagur the two nasals tend to merge into -n.

In Bao *-ŋ and *-n generally merge into -ŋ. In Dongxiang both -n and -ŋ occur, mainly related to the preceding vowel (see under *-n above).

4.10. Development of CM *l

4.10.1. Default (non-shift)

In native words CM *l is found in intervocalic, postconsonantal, final, and preconsonantal positions.
Intervocalic: *adalï 'similar', *hulaan 'red', *dolïa- 'to lick', *ǰalau 'young person', *olan 'many', *öreele 'hobble', *salaa 'branch', *tülien 'firewood'.
Final: *emeel 'saddle', *gal 'fire', *gol 'river', *huruul 'lip', *köl 'foot', *kudal 'lie',*seül 'tail', *tugul 'calf', *übül 'winter'.
Preconsonantal: *alku- 'to step', *hülde- 'to expel', *ïlga- 'to choose', *malta- 'to dig',*tülki- 'to push', *ǰalgï- 'to swallow'.

The default development of *l is to remain l.

Like *r and the nasals *m and *n, *l is susceptible to metathesis in words like *aral 'island', *gurïl 'flour', *hargal 'dried dung'. Whereas more than a single r per word is avoided in Dagur, it does not have similar problems with multiple l's. Indeed, r-l sequences are often assimilated to -ll-; hence we find forms such as kurul ~ kull^w 'chestnut colour' < *kürel 'bronze', ləllə:- < *nerele- 'to name', duruld- ~ dull^w- < *düreldü- 'to trade'.

In Dagur -l- is inexplicably replaced by -r- in a number of words, including širəm < *silbi 'shin', urum < *ölmei 'instep', šurkud- < *silgüd- 'to shake'. The reverse also occurs (see 4.11.1.).

4.10.2. Syllable-initial developments

When initial *l is encountered in native words, it is a secondary development of *n- (see *nogta 'halter', *nauka 'gum in the eyes').
Intervocalic *l is quite stable in all languages, as long as the vowel following it is not elided.

Postconsonantal *l* is most frequent in verbs formed with -*lA*, which are usually based on native nouns, cf. **bög.le-* 'to plug', **čug.la-* 'to gather'.[375] There are only some words with postconsonantal *l* which as yet can not be analysed, such as **maŋlaï* 'forehead', **taŋlaï* 'palate', and **emlig* 'untamed'. In Dagur these postconsonantal *l*'s may become *n* after a nasal consonant, as in central Mongolic. In Eastern Yugur and Shirongol *l* is usually preserved in this position, although some irregularities may occur (cf. **sam.la-* 'to comb').

4.10.3. Syllable-final developments

In Dagur final *-l* is normally preserved as such, but in a number of noun stems it becomes palatalised -*lʸ*, e.g. *galʸ* < **gal* 'fire', *kulʸ* < **köl* 'foot', *səulʸ* < **seül* 'tail'. The palatality probably stems froms the gen./acc. case suffix *i:*, although this leaves unexplained why not all similarly structured stems were affected (see also the Dagur development of **-r*).

In Eastern Yugur final -*l* is preserved as such. Within Shirongol, most of Mongghul and all of Baoan preserve it as well. In Narin Guol **-l* appears as -*r*, and may be elided, as in *ara:(r)* < **aral* 'axle'. In Mangghuer **-l* merges with **r* in syllable-final position, as in *ġar* < **gal* 'fire', *kuar* < **köl* 'foot'. In Dongxiang **-l* usually becomes -*ŋ*, e.g. *furuŋ* < **huruul* 'lip', *tuǧuŋ* < **tugul* 'calf'.[376] As with the other final consonants, the solutions in Kangjia are quite erratic. Loss of final -*l* is seen in *gurʉ* < **gurïl* 'flour', *tuǧu* < **tugul* 'calf', **l > r* is seen in *χar* < **gal* 'fire' and *kuar* < **köl* 'foot', yet other words have **l > n*, like *aran* < **aral* 'island'[377], or preserve **l* with an epenthetic vowel, *ǰile* < **ǰil* 'calendar year'.

The verb **taïl-* 'to untie' irregularly lost its -*l* in Baoanic as well as in Mangghuer, causing it to merge phonetically with **talbï-* 'to put' (which also developed irregularly) in Baoanic.

In verbs the situation in Mangghuer and Dongxiang is different in that *l* may be preserved by means of an epenthetic vowel. In Kangjia we find that **l* has become -*r*, or disappeared. The following list illustrates the different approaches of the three languages (some uncertain correspondences are omitted here).

MgrM	Kgj	Dgx	CM	
[*xorgo-*][378]	*hɔr-*	*xolu-*	**haul-*	to run
bar-	*bɔr-*	*bolu-*	**bol-*	to ripen
pućar-	---	*puʐalu-*	**bučal-*	to cook (intr)
guder-	*gʉdəle-*	*goʒielu-*	**ködel-*	to move

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[375] Others are based on foreign verbs, such as **čïŋla-* 'to listen' which may be from Chinese *tīng* (via Turkic).

[376] The Longquan dialect has varied reflexes even within its diminutive corpus: *qaŋ* < **gal* 'fire', *ǧuruŋ* < **gurïl* 'flour', but *tuǧu* < **tugul* 'calf', *daŋġa* < **dangal* 'clod'.

[377] All deverbal nouns in -*dAl* appear with -*n* as well, e.g. Kgj *sadan* < **ǰasa-dal* 'way of doing'.

[378] MgrM *xorgo-* and *arərġa-* are causatives. As these reflect CM **haulga-* and **arïlga-* the *l* is strictly speaking preconsonantal. However, *l* before *g* results in MgrM *r* as well.

(continued)

MgrM	Kgj	Dgx	CM	
[arərġa-]	---	arulu-	*arïl-	to clear up
ʒaʒər-	ǰeǰi-	ʒaʒulu-	*ǰajïl-	to chew
guder-	kʉtaɻ- ~ kʉte	---	*kötel-	to lead by the hand
futar-	dɔr-	otolu-	*hogtal-	to fell
śidier-	eteɻ- ~ ete-	oćielu-	*ötel-	to age
---	sïgeɻ- ~ sge-	---	*öskel-	to kick

In some languages the development of preconsonantal *-l- differs from that of word-final *-l. The details depend on the language, and on the following consonant.

In Dagur and Eastern Yugur, and in most of Mongghul, it is preserved intact. Deviating developments include forms with nasals, such as Dag ñɔmb- < *nïlbu- 'to spit'[379], and MgrH manta- < *malta- 'to dig' and santa < *salta(ur) 'Muslim'. Other deviations involve unexpected -r-, such as Dag šurkud-, MgrH śirgudə- < *silgüd- 'to shake', MgrH turgu- < *tülki- 'to push'.[380] The loss of preconsonantal -l- is also seen in Mongghul, e.g. mutələ- < *möltül- 'to take off'. Narin Guol Mongghul may have -r- or Ø, as in word-final position, as in ara:ʒi- < *aralʒï- 'to exchange'. The situation in Mangghuer is the same as in word-final position, so the normal reflex is r, as in artaŋ < *altan 'gold', but occasionally -l- has disappeared completely, as in çərbar ~ çubar <*kïlbar 'easy', ʒərkə- ~ ʒəkə- (<*ǰalkï-) < *ǰalgï- 'to swallow'.

In Dongxiang, Baoan, and Kangjia preconsonantal *l behaves differently from the word-final position. In Dongxiang it generally becomes -n/-ŋ, e.g. antaŋ < *altan 'gold', ʒaŋqəi- (<*ǰalkï-) < *ǰalgï- 'to swallow', but it may also disappear altogether. Several words feature variants such as soŋgo ~ soğo < *saulga 'bucket', haŋga ~ hağa (< *halgar) < *hargal 'dried dung'. In causatives derived from verb stems in *-l like those listed above, alternations like puʒaluğa- ~ puʒağa- < *bučal.ga- 'to cook (tr.)' occur, suggesting that awareness of the morphological structure blocked the change into *puʒaŋga-. Secondarily preconsonantal -l- may also result in n/ŋ or Ø, e.g. haŋga < *halagan 'palm of the hand', ğuği < *kulagaï 'thief', soği < *solagaï 'left side', şəŋki < *silükei 'saliva'. The elided vowel was usually followed by *-k- or *-g-. Preceding dental and palatal consonants the reflex is -n-. There are only few clear examples for the sequence -lb-. In ʒawari- < *ǰalbarï- 'to beg' the -l- was lost[381], but the Dongxiang developments of other words, such as *kïlbar 'easy' and *nïlbusun 'tear', are diverse and difficult to evaluate historically.

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[379] Dag xuns- 'to be hungry', usually considered to derive from *öles-, is puzzling, especially since the -l- is only secondarily preconsonantal. The etymology may be incorrect.

[380] The development of syllable-final -l- > -r- is a normal development in Narin Guol Mongghul, but not in the other dialects.

[381] This is reminiscent of the development of in *talbï- 'to put'. However, this word seems to have lost its -l- in a much earlier stage, at least in Shirongol and in central Mongolic.

In Ñantoq Baoan preconsonantal *-l-* is generally preserved. In Dahejia Baoan, *-n-* appears preceding dentals and palatals, but *-l-* remains preceding gutturals. Exceptions occur in the Baoan dialects. Dahejia Baoan preserved *-l-* in *altaŋ < *altan* 'gold'; reversely, BaoÑ developed *-n-* in *χandara- < *kaltarï-* 'to slip'. Given that all Baoan dialects allow *l* to appear in syllable-final position, this can be viewed as a conditioned assimilation to the following consonant, rather than a general Chinese-inspired 'simplification'.

Kangjia roughly follows the Dahejia Baoan pattern, with *-n-* preceding dental and palatal obstruents, e.g. *anda < *alda* 'fathom', *ǧanǰira- < *galǰau.ra-* 'to go mad'. But as usual in Kangjia, there are exceptions, such as *bərǰi- < *böelǰi-* 'to vomit'. Preceding *s*, Kangjia has *r*, thus deviating from its closest relatives: Kgj *mərsun ~ məsun*, BaoD *mi(n)śiu*, BaoÑ *melsøŋ*, BaoX *mənsu*, Dgx *mansuŋ*, DgxL *məsuŋ < *mölsün* 'ice'. If other consonants follow, *r* or *l* or Ø appears, without a clear system: Kgj *halǧu- < *alku-* 'to step', *tʉrgʉ- < *tülki-* 'to push'.

CM *mölsün* 'ice' belongs to a small but interesting group of words that preserved some trace of the *-l-* in Shirongol as well as in Buriat and Khamnigan, but lost it altogether in Mongol proper, Kalmuck, and Eastern Yugur.[382] Among the few other surviving words in this group are *čaalsun* 'paper', *ǰïlsun* 'glue', and *sölsün* 'gall-bladder'.[383] Only the latter preserved its *-l-* in Dagur and some dialects of Mongol proper.

4.10.4. Intrusive preconsonantal *-l-*?

In a handful of words, preconsonantal *l* appears unexpectedly. Junast notes the Eastern Yugur forms *ɬdeɣe- < *itege-* 'to believe' and *ljür < *učïr* 'reason', in which the lateral fricative seems to be a by-product of the devoicing of the first syllable. The corresponding forms according to Bolčuluu are *həteɣe-* and *hčʉr*, with secondary *h-* but without lateral element.

The verb *ǰaǰïl- 'to chew' may have become *ǰalǰal- before resulting in the forms BaoGt *ʒinʒàl-*, BaoX *ǰanǰal-*.

As similar explanations do not present themselves in the case of (Sanchuan) MgrM *ǰagarsï*, BaoÑ *ʒalǧasøŋ* 'fish', these forms may be relics from a regionally preserved old form *ǰagalsun* or *ǰalgasun* (other languages suggest *ǰagasun*).

4.11. Development of CM *r

4.11.1 Default (non-shift)

In native words CM *r* was allowed in intervocalic, final and preconsonantal positions.

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[382] This development probably took place very early, and is one of the features that Eastern Yugur shares with Mongol proper rather than with Shirongol.

[383] This handful of words should be distinguished from those whose preconsonantal *-l-* has been reconstructed for comparative purposes, but is acually absent from both Middle Mongol and Shirongol, e.g. *nalsun* 'year (of age)' (see Ramstedt 1957:75, 110).

Intervocalic: *barï- 'to hold',*büri 'all', *kuruun 'finger', *naran 'sun', *nere 'name', *sirüüin 'coarse', *tere 'that'.

Final: *gaǰar 'earth', *ger 'house', *kabar 'nose', *mör 'road', *(h)okar 'short', *nïur 'face'.

Preconsonantal: *hargal 'dung', *irgen 'people', *kïrga- 'to shave', *örgesün 'thorn', *kurdun 'fast', *kürǰe(g) 'spade', *teermen 'mill'.

Intervocalic r is generally preserved, in syllable-final positions it may be changed or elided.

In Dagur, -l- appears instead of normal -r- for unknown reasons in a small number of words, such as sulʸ < *sür 'majesty', ǰülum ~ ǰilim < *ǰirim 'bellyband', sələk < *serke 'castrated billy-goat'. For the reverse see 4.10.1. above.

4.11.2. Intervocalic developments

Like *l (and the nasals *m and *n), *r is prone to metathesis in words such as *gulïr 'flour', *aral 'island'. Dissimilation is common to avoid the occurrence of two r's in a stem, cf. *hïroar 'bottom',*hiröer 'blessing'.[384] This is most carefully avoided in Dagur, which led to changes such as šurkul (instead of *šurkur) < *čidkör 'demon', čərəl (instead of *čərər) < *čerig 'soldier' (in these words one of the r's developed from d and g respectively).[385]

In most QG languages, as well as in Dagur, intervocalic -r- (and the vowel following it) is elided in a number of trisyllabic (or longer) words, which typically also contain -l-. Examples include Dag alǰ-, BaoÑ alǯa-, Kgj anǰa- < *aralǰï- 'to exchange'; EYu alǧa-, BaoÑ alǧa-, Kgj alǧa- < *arïlga- 'to clean'; EYu baldu:l-, MgrM bərduga-, both caus. forms of *barïldu- 'to ignite (intr.)'; BaoÑ keldə-, Kgj kandʉ- < *kereldü- 'to quarrel'.[386]

4.11.3. Syllable-final developments

Word-final *-r is retained in central Mongolic, Moghol, and Dagur, and also in Eastern Yugur, Mongghul[387], Mangghuer, and all of Baoan, i.e., it is considered much less problematic than *-l in the same position.

Preconsonantal *-r- may disappear in Mongghul preceding dentals or palatals, e.g. puǯaǧ < *burčag, pudaǧ < *burtag 'filthy'.

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[384] Cf. the development of the instrument suffix -Ur, which tends to become -Ul when the stem contains an *r: *čakï.ur 'lighter', *barï.ul 'handle', *tülki.ür 'key' from *čakï- 'to light', *barï- 'to hold', *tülki- 'to push'.

[385] It seems that Dagur further prefers to have the r precede the l, if they have to be in the same word, even if it makes the word etymologically less transparent, as in case of kə:rəlč (via *kə:lərč) < *keeli-bči 'apron < belly-cover', and xərɣəlč (via *xəlɣərč) < *helige-bči 'waistcoat < liver-cover'. Cf. also causatives like narilka:- (instead of *narirka:-) < *narïd-ka- 'to make fine'.

[386] The trisyllabic forms may survive in the same modern languages as well.

[387] Only Danma Mongghul features paragogic i after word-final and preconsonantal r, e.g. timuri < *temür 'iron', ǧari < *gar 'hand', murigu- < *mürgü- 'to bow'.

In Dongxiang final *-r is elided, as in *qa* < **gar* 'hand' (cf. *qaŋ* < **gal* 'fire'), *ġua* < **koar* 'two', *gie* < **ger* 'house', *qawa* < **kabar* 'nose'. Only in compounds and frequently used word combinations, in which final *-r* in fact becomes intervocalic, Dongxiang manages to preserve it, as in *ġuar udu* < **koar üdür* 'two days', *gier eʒen* < **ger eǰen* 'head of the household'. However, two other developments can be found. In the first *-ŋ* appears, as in the case of original **-l*, e.g. *nuduŋ* < **nidüür* 'pestle'; in the other we find *-əu*, as in the case of original **-g*, e.g. *mandəu* < **möndür* 'hail', *qïşïğəu* < **geškiür* 'stairs'.

As usual, the situation in Kangjia is more chaotic. In some words *-r* is retained, as in *χar* < **gar* 'hand', *ġuar* < **koar* 'two'. In others it was preserved with added epenthetic vowel. Yet others dropped *-r* altogether, such as *nəχgʉ* < **nöker* 'friend', *čimə* < **temür* 'iron'. There are also cases of alternation, as in Kgj *binǰir ~ binǰirï* < **bïlǰïur* 'bird', *šivaɹ ~ šivε* < **sïbar* 'mud', *ver ~ ve ~ veš* < *?*öber* 'bosom'.

In Kangjia the final *-r* of verbs is preserved. In Dongxiang the final *-r* of verbs is escapes elision by means of an epenthetic vowel, which may at least in part of the cases be the CM connective vowel *U*. This leads to Dongxiang forms such as *kuru- ~ ku-* < **kür-* 'to reach', *qïri-* < **gar-* 'to come out', *nuru-* < **nor-* 'to become wet', *suru-* < **sur-* 'to learn', *şuru- ~ şu-* < **siür-* 'to sweep'.

In Dongxiang preconsonantal *-r-* has been elided as thoroughly as in word-final position, e.g. *mata-* < **marta-* 'to forget' (cf. *manta-* < **malta-* 'to dig'), *tağuŋ* < **targun* 'fat', *tuma* < **turma* 'turnip'. The same applies to secondarily preconsonantal *-r-*, as in Dgx *ʒuğə* < **ǰürken* < **ǰürüken* 'heart', *taği* < **tarakaï* 'bald'. However, in some words **r* is represented by a nasal in Dongxiang[388], e.g. *bəŋğə* < **bürge* 'flea'; which also applies to secondarily preconsonantal *r*, as in *banğan* < **berigen* 'sister-in-law', Dgx *ġuŋğəi*, alongside *ġuği* < **korakaï* 'insect', *wanlie*, alongside *olie* < **öreele* 'one of a pair'. Since *n/ŋ* is the regular reflex of **l* these alternations may be due to some degree of confusion between *r* and *l* (as seen in Kangjia).

In extended stems of verbs originally ending in *-r*, Dongxiang may have variants with *r* and *Ø*, as in the causatives *qïriğa- ~ qïğa-* < **gar.ga-* 'to bring out' and *suruğa- ~ suğa-* < **sur.ga-* 'to teach'. Cf. also *kutala ~ kurutala* < **kür.tele* 'until'. One of the few things we know about the other Dongxiang dialects is that they preserve cases of both final and preconsonantal *r* which are lost in Suonanba, the only described dialect.[389] These *r*-words are listed in the following table, which also includes Kangjia for comparison.[390]

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[388] This development occurred elsewhere in Kgj *ŋgʉsʉn ~ gʉsʉn* < **örgesün*, and seemingly in some Baoan forms of **irgen*, q.v.

[389] Even in Suonanba, *-r* is not as intolerable as *-l*, in that a number of words do end in *-r*, e.g. *baər* 'money' (a loan from Turkic), and many Arabo-Persian words.

[390] The Dongxiang data were compiled from Liu (1981:5, 8), Bökh & Čoyiǰungǰab (1985: 28, 246). The Longquan dialect also has *fugiəri* < **hüker* 'bovine'. Ma & Chen have words such as *fugiərəi* 'bovine', *oɚ* 'horn', *noɚ* 'lake', without marking them as 'dialectal' (the forms without *-r* are also listed). The original notations of *-r* have been left intact in this section, although both *ɹ* and the 'rhotic' element of *ɚ* can be analysed as the syllable-final allophone of */r/* without problem.

Suonanba	Wangjiaji	Sijiaji	Kangjia	CM	
fugie	*fugə*	*fugiəri*	*gɵr*	**hüker*	bovine
mata-	*maлta-*	*mata-*	*marta-*	**marta-*	to forget
nu	*nuə*	*nu*	*nʉr*	**nïur*	face
no	*noл*	*no*	---	**naur*	lake
banğan	*bəɣən*	---	*bergɵ*	**berigen*	sister-in-law
qa	*qaл*	*qa*	*χar*	**gar*	hand
ġua	*ġuaə*	*ġua*	*ġuar*	**koar*	two
ewə	*uə, woл*	---	---	**(h)eber*	horn
uʒu	*uʒuл*	*uʒu*	*ʉǰir*	**hüǰüür*	tip
ġuği ~ ġuŋġəi	*ġuлği*	*ġuği*	*ğurğei*	**korakaï*	insect
ġïлğa-	*ġïлğa-*	*ġïлğa-*	*qarğa-*	**kïrga-*	to shave
ćiəgə	---	---	---	**tergen*	cart
çïnaə			*činaye*	**čïnar*	day after tomorrow

In a few words *-r-* was preserved by changing the syllabification. The *-r-* in **gurban* 'three' was preconsonantal, but after **b* had become a semivowel, the syllables *ġur-waŋ* were reanalysed as *ġu-ruaŋ*, i.e. /ġu-roŋ/. The same solution was chosen in **dörben* 'four', **harban* 'ten', and in *qaruğa < *karbïga < *kabïrga* 'rib'.[391]

In Kangjia preconsonantal *-r-* may be preserved as such, or elided, as in word-final position. In some words *-r-* has been devoiced, or assimilated to the following consonant, leading to geminates, as in *aɽǰa ~ aǰǰa < *arča* 'cypress', *kečče- < *kerči-* 'to cut'.

4.11.4. Intrusive preconsonantal *-r-*?

Preconsonantal *r*'s not found in Middle Mongol sources are documented in Eastern Yugur and most Shirongol dialects. However, these dialects only share the phenomenon as such. The *r*'s have various origins, and not a single instance is supported by all QG languages.

In Eastern Yugur intrusive *r*'s appear in reduced initial syllables preceding a strong consonant, as in *hərči:sən < *hičesün* (? **hičöesün*) 'willow'.

Mongghol has some cases with unexplained *-r-* preceding a weak consonant, as in *rde: < *idee* 'pus' (other cases are listed above under intrusive *-n*).

Most cases in Mangghuer are 'echo consonants', as they appear in words that already had a syllable ending in *r*. Examples include *kurmər- < *kömeri-* 'to put upside down', *qʊrġʊrna< *kulugana* 'mouse', *tierbər- < *teberi-* 'to embrace'.[392]

In BaoGt *murtuŋ*, Kgj *mʉrtʉn < *modun* 'wood' the *-r-* precedes a strong *-t-* which is itself unexplained.[393]

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[391] Longquan dialect has *ġurwaŋ* 'three' and *ǯierwaŋ* 'four', which preserve *-r-* without resyllabification.

[392] See Nugteren (forthcoming).

[393] Cf. also Ganhetan Baoan *bartï < *batu* 'strong'.

As these same languages also preserve instances of old preconsonantal *r*, e.g. MgrM *arći- < *arčï-* 'to load', BaoÑ *yirsəŋ < *yersün* 'nine', there is always a possibility that some of the other cases are archaisms rather than areal innovations. This has to be decided for each word separately. The antiquity of *-r-* in *arčï-* is confirmed by its Turkic cognate *art-*, while *-r-* in *yersün* 'nine' is supported by *yeren* 'ninety'. Unfortunately such additional evidence is often absent.

Even the cases shared by several dialects may not affect the CM reconstruction, but represent regional developments which can be useful for classification and studying contact phenomena.

4.12. Development of CM *y

Because all *y*-like elements of diphthongs are traditionally (and with due motivation) analysed as *i* or *ï*, the consonant *y* is restricted to syllable-initial positions. The traditional intervocalic *-y-* followed by *i* or *ï* is here considered as Ø in words like *aïl* 'campsite', *dolïa-* 'to lick' (rather than *ayïl*, *dolïya-*). In other contexts it is reconstructed, e.g. *yama* 'what', *yeren* 'ninety', *bayan* 'rich', *noyan* 'lord'.

Word-initial *y-* is fairly stable. In *yeke* 'big' and *ye(r)sün* 'nine' it is devoiced by a following strong consonant in Dagur and in most QG languages[394], probably after *e* was raised to *i*. This does not happen in the similarly-structured words *yasun* 'bone', *yosun* 'custom', which retained their non-high first vowel.

Medial *-y-* is generally preserved as well, but it may be absorbed into a diphthong after the loss of an unaccented vowel, as in Dag *bais- < *bayas-* 'to rejoice', EYu *bəyar ~ biar < *bayar* 'joy'.

4.13. Development of CM *h- (and vocalic onset)

4.13.1. Introduction

In this section, the various reflexes of CM *h-* in Middle Mongol and the modern peripheral languages will be discussed. In the modern languages there is only evidence for word-initial *h-*. It is likely that CM *h-* usually[395] stems from earlier (PM) *p-*. Intervocalic *p-* has disappeared (via *h*), postconsonantal *p* has merged with *b*, except perhaps in Dagur (see under *b* above).[396] Issues related to the earlier history of CM *h-*, as well as evidence for *h* in non-initial positions, has been discussed in 2.6.6.

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[394] In *huya-* 'to tie' the collision of the *h* and *y* after elision of the first vowel has a similar result in Eastern Yugur and Mongghul.

[395] It cannot be excluded that, like Proto Tungusic, PM may have had both *p-* and *h-*. See Rozycki 1994 and Doerfer 1996 on the evidence for a primary Mongolic *h* not stemming from earlier *p*.

[396] The evidence for *p* in final and preconsonantal positions is sparse. Syllable-final *p* would probably have merged with *b*, mirroring the neutralisation of the strength opposition in the dentals and gutturals in the same positions. The final and preconsonantal *p* of Turkic is assumed to corresponded to an intervocalic *p* in PM, which later became *h* and disappeared, like primary intervocalic *p*.

Much has been written about CM *h-, and there is no need to revisit those parts of the concensus that I agree with. The focus here will be on the reflexes of *h- in the peripheral languages, and on how to distinguish actual evidence for *h- from secondary developments. Non-Mongolic evidence will be largely ignored here.

Some perspectives have changed in the last couple of decades, even since Krippes' overview of 1992. For many words whose modern h- was deemed 'secondary' by Krippes, it is now understood what triggered their appearance: the strong consonant starting the second syllable.

4.13.2. Reflexes of *h- in the peripheral languages

CM *h- was preserved by at least two peripheries separately: Dagur and the QG languages. As Eastern Yugur is probably not closely related to the Shirongol languages, one may recognise each as an independent source of evidence for *h-. The Moghol h-, as reconstructed by Ligeti from Leech's materials (Ligeti 1955b), is not supported by other observations of Moghol, and does not have an obvious correlation with the certain cases of CM *h- as reflected in Middle Mongol, Dagur, and the QG languages.

In Butkha Dagur *h- appears as x-[397], and is only occasionally palatalised into š-. In the QG languages *h can take on many phonetic shapes, depending on the following vowel, or the loss of the vowel from the initial syllable. In Eastern Yugur *h- predominantly appears as h-; occasional other reflexes occur when the first vowel is lost.[398] In Shirongol the reflexes are more varied. In Mongghul we find x- as a default reflex, f- preceding originally rounded vowels, and sibilants if the following vowel is elided. In Mangghuer x- is the normal reflex; f- only occurs marginally.[399] In Baoan dialects we mostly see h--, and (less often than in Monguor) f-, and sibilants. In Kangjia we also find h-, f-, and sibilants. Dongxiang features h- or x- generally, f- before originally rounded vowels, and ś- preceding *i. In some dialects, and only in a handful of words, p- inexplicably appears instead of one of the usual reflexes.

Some straightforward examples:

CM	Dag	EYu	MgrH	Kgj	Dgx	
*harban	xarəb	harβan	xaran	harɔ	haroŋ	ten
*halagan	xaləɣ	halağan	xalġa	---	haŋġa	palm
*hodun	xɔd	hɔdən	fo:di	fʉtɔ ~ hʉtɔ	hoduŋ	star
*hulaan	xula:n	ɬa:n	fula:n	fʉlɔ	xulaŋ	red
*hüle-	xul-	hele-	fule:-	fʉle-	fəilie-	to remain

[397] Hailar Dagur dialects lost *h- altogether (see Tsumagari 2003:132).
[398] The Eastern Yugur materials in Sun 1990 feature some cases of initial f- and ɸ- preceding rounded vowels.
[399] In Mangghuer even the f- of Chinese loanwords tends to become x-, and f- followed by an unrounded vowel will be replaced by xw-.

4.13.3. Pseudo-reflexes of *h- in QG Mongolic

Reconstructing *h- in an individual word is not necessarily a straightforward matter, even when several languages seem to support it. Most of the consonants that occur as reflexes of CM *h- (*f*, *h*, *x*, *ś*, etc) may also stem from other CM consonants.

  Furthermore it has become clear that much of the apparent evidence is secondary. In parallel to the strengthening of initial *b-*, *d-*, *ǰ-*, *g-* into their strong (aspirated) counterparts, a development Ø- (vocalic onset) > h- has occurred under the influence of the strong consonant starting the second syllable. This can be seen in Eastern Yugur and the Shirongol languages. Some of these secundary *h*'s, such as in *ükü-* 'to die', are widely represented, while others are restricted to a single language. This indicates that these languages share the tendency to develop secondary *h-*, but the individual cases can not be reconstructed with *h- for Proto Shirongol or 'Proto QG Mongolic'. See Svantesson et al. (2005:208).

CM	Dagur	E. Yugur	Mongghul	Dongxiang	
*eükün	əuɣ^w	ükʉn	fo:ge	fuguŋ	fat
*ükü-	uɣ^w-	hkʉ-	fgu-	fugu-	to die
*urtu	ɔrt	hurtu	ʂdur	fudu	long
*alku-	alk^w-	alqə-	halġu-	haŋku-	to step
*altan	alt	altan	xaldan	antaŋ	gold

As a consequence even a trustworthy looking form such as Baoan *fgor* 'bovine' in fact does not corroborate the reconstruction *hüker* based on MMo *hüker*, Dag *xukur*, and confirmed by non-Mongolic data such as Turkic *hököüz*.

CM	Dagur	E. Yugur	Mangghuer	Dongxiang	
*hiče-	xič-	hče-	śǯe-	ʂïʒə-	to be shy
*hüker	xukur	hkor	xuguar	fugie	ox
*huïtan ~ *hïutan	x^yaut	ütan	xuitaŋ	uitaŋ	narrow
*hüsün	xus	hsʉn	sʒu ~ fʒu	usuŋ	hair

In words of this structure, where the *h-* could have been triggered by the following consonant, we have to rely on Middle Mongol and Dagur. If a word does not exist in these languages we can not with certainty reconstruct *h-*. Similar causes for secondary *h-* are not known in Dagur, so that cases of *h- that are only supported by Dagur can be accepted at least provisionally.

  Perhaps there has been some awareness among the speakers of QG languages that *h- can be a byproduct of consonant strength. This would explain the loss of the *h-* from words in which its veracity is firmly established, but whose second syllable starts with a strong consonant, such as *hasag-* 'to ask', *huïtan* 'narrow', *hüker* 'bovine'. Admittedly proven *h- may also disappear in words of a different structure.

On the other hand there are some instances where Eastern Yugur, Mangghuer, and Kangjia have *χ-*, *q-*, or *p-* instead of the normally expected reflex of **h-*, e.g. MgrM *qarġa* < **χarġa* < **halagan* 'palm of the hand'.[400] Cases with *p-* < **h-* such as EYu *pɔdən* (~ *hɔdən*) <**hɔdun* 'star' are discussed above under strengthening of **b-*. Although it can be safely assumed that many instances of CM **h-* go back to earlier (PM) **p-*, it does not follow that forms like EYu *pɔdən* are relics from that period. Cf. 2.6.6 for PM **p*.

4.13.4. Reliability of Middle Mongol data

Whenever the QG data are ambiguous it is useful to consult Dagur, which to our present knowledge does not feature similar secondary *h*'s. Obviously Middle Mongol is also useful to corroborate reconstructions.

However, it is important not to consider Middle Mongol as an infallible reference point to resolve disagreements between peripheral languages. In this and other issues such as palatal breaking, loss of intervocalic *-g-* and degree of vowel contraction, documents like SH are far from consistent. Given that they are often transcribed from the Uigur script by scribes who had to decide whether a word started with *h-* or vocalic onset, or whether an intervocalic <*g*> was pronounced or not, it is hardly surprising that some mistakes were made.

Variant pairs like SH *asaq-* ~ *hasaq-* 'to ask', *atqu-* ~ *hatqu-* 'to hold', *o'ara-* ~ *ho'ara-* 'to disobey' raise the question which variant is the historically correct and therefore authoritative Middle Mongol form. Whether we see such variants as being due to scribal inconsistencies or as evidence for actual language variation, they reduce the decisive power of such words, and even that of the words that are only known in one notation.

As to the sources in Arabic script, only some of their content can be traced back to forms written in Uigur script. Nevertheless they do contain inconsistencies, usually in the form of the unexpected presence of *h-* rather than its unexpected absence. In the Muqaddimat al-Adab, many frequent words that normally have vowel onset (written *'*) occasionally appear with *h-*, e.g. *hirgen* 'people', *hörgü-* 'to lift', *huila-* 'to cry', *hündüsün* 'root'.[401]

In the light of the above we should not be too eager to label modern *h*'s 'secondary' as soon as they seem to be contradicted by the Middle Mongol sources. Words with unexpected *h-*, especially with unexpected *h-* in more than one subgroup, such as the following, are not automatically disqualified by Middle Mongol. Even words whose **h-* is only documented in a single modern language, some of which are listed in the following pages, should not be discarded as long as no mechanism is discovered that triggers secondary *h-*.

Some *h*'s, especially those confirmed by both Dagur and the QG languages, may well go back to the CM period. This applies to **humba-* and **hinie-* below.

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[400] Secondary *h-* can develop a hypercorrect form as well, as in Eastern Yugur *qusun* < **χsun* < **usun* 'water'.

[401] In some cases the only notation is with *h-*, as in the frequently occurring *hildü* 'sword'. This spelling can not be dismissed as an incidental mistake, but can nevertheless not be reconciled with the other Middle Mongol sources, and the modern languages.

Cases found in fewer languages may at least be of areal relevance and useful for classification.

CM	Dagur	E. Yugur	Mongghul	Dongxiang	
*?*hinie-*	*xinə:-d-*[402]	*n̥i:-*	*śine-*	*śinie-*	to laugh
*?*humba-*	*xumpa:-*	*mba-*	*xumba-*	*(f)unba-*	to swim
*?*hunu-*	*ɔnu-*	*hɔnə-*	*funi-*	*unu-*	to ride

The evidence for CM *h-* must be assessed for each word individually. There are many evidence 'configurations', a selection of which are shown in the table below. It greatly simplifies the actual situation, as it does not take into account *h ~ Ø* variations within subgroups or dialects, e.g. MgrH *xana- ~ ana-* 'to heal'.

	MMo	Dag	EYu	Shir	example
Unanimously preserved primary *h-*	h	h	h	h	**harban* 'ten', **heür* 'nest', **hüleü* 'surplus', **hon* 'year'
Primary *h-* lost in one group	h	h	Ø	h	**huuta* 'bag', **huïtan* 'narrow'
Less widely attested, but not contradicted.	h	h	---	---	**haluka* 'hammer', **haŋka-* 'to thirst'
Possible primary *h-* not attested in MMo	Ø	h	h	h	**hinie-* 'to laugh'
Possible primary *h-* not attested in MMo	Ø	h	Ø?	h	**humba-* 'to swim'
Seemingly unanimous *h-*, but it may be secondary in QG languages	h	h	h?	h?	**hiče-* 'to be shy', **hüker* 'bovine', **hüsün* 'hair'
Possibly old *h-* in (some) QG languages only	Ø	Ø	h	h	*?*hunu-* 'to ride'
Possibly old (regional?) *h-* in Shirongol only	Ø	Ø	Ø	h	*?*hamura-* 'to rest'
Possibly old *h-* in Dagur, contradicted elsewhere	Ø	h	Ø	Ø	**(h)eber* 'horn', **höndür* 'high'
Possibly old *h-* in Dagur only, but not contradicted	---	h	---	---	**hilidün* 'tinea'
Possibly old *h-* in E. Yugur only	Ø	---	h	Ø	*?*hile* 'clear'
Secondary *h-* in QG	Ø	Ø	h?	h?	**urtu* 'long'
Secondary *h-* in Shirongol only	Ø	Ø	Ø	h?	**alku-* 'to step', **eükün 'fat'*
Secondary *h-* in E. Yugur only	Ø	Ø	h?	Ø	**eke* 'mother'

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[402] In Dagur the verb was reshaped on the basis of the derived noun *xinə:d < *hinie.dün* 'laughter'.

4.13.5. Dagur evidence for CM *h-

A relatively large group of words only has evidence for CM *h- in Dagur. This is partly because of the abundant Dagur materials. Furthermore, due to the word-initial accent Dagur has preserved the first syllable better than the QG languages. The following words have not been attested so far in the QG languages.

Dagur	CM	
xaːɣə	*haaga*	bran
xaləɣdaː	*halagdaa*	jerboa[403]
xataː	*hataa*	wish, ambition
xərʸeːn	*herien*	grey
xərkəl-	*herkele-*	to be polite[404]
xərkir-	*herkire-*	to feel pain in the pit of the stomach
xild	*hil(i)dün*	ringworm

The following words do exist in Middle Mongol and/or one or more QG languages, but these do not provide support for the *h- suggested by the Dagur form.

Dagur	CM	
xač	*hača*	fork[405]
xəsruɣʷ	*hesergü*	opposite
xəur	*heber*	horn
xəur	*hebür*	sunny spot
xundur	*höndür*	high[406]
xuns-	*?*höles-*	to be hungry[407]
xuǰuːr	*hüǰüür*	tip

4.13.6. Evidence for CM *h- in the QG languages

In all Shirongol languages and Eastern Yugur the appearance of initial *h-* (and other modern consonants associated with *h-) can be triggered by a strong consonant starting the second syllable. See Svantesson (2005:208) for a couple of examples spanning the QG languages. Additional examples include **alku-* 'to step' (without

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[403] Enkhbat (1983) has both this form and *alərdaːn*.

[404] This form may confirm the impression that *erke* 'power' and *erke* (or rather *herke*) 'sweet, spoiled, etc' are different words. *erke* 'power' occurs without *h-* in Middle Mongol and QG languages.

[405] A form *hača* or *hačča* 'fork' is also found in Turkic languages and Tajik. EYu *hača* 'rope for tying up cattle' may be related despite the semantic difference. If so, the EYu *h-* does not constitute evidence for *h- as it may have been triggered by the following strong consonant *č*.

[406] This word is found as *höndür* in the Turkic language Azeri.

[407] As the *-n-* is also unexpected here, we may be dealing with a different etymon.

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h- in Eastern Yugur), *eükün/*öekün* 'fat' (in most of Shirongol[408]). Due to the inconsistent application of this tendency even a well documented secondary *h-*, as in **ükü-* 'to die', cannot be reconstructed for Proto Shirongol.

Among the QG languages Mongghul most often features secondary *x-*. This agrees with the fact that it also strengthens initial **b-*, **d-*, **ǰ-*, **g-* more frequently than its relatives. The following words may owe their *x-* to the following strong consonant:

Mongghul	CM	
xada	**agta*	stallion
xalǯai-	**alčaï-*	to spread the legs
xamsa-	**amsa-*	to taste
xamta	**amtan*	taste
xaǯir	**alčïur < *arčïul*	scarf
xaldan	**altan*	gold
xaŋgu-	**emkü-*	to put in the mouth

Likewise, Eastern Yugur *h-* in words such as *hčʉr* 'reason', *hke* 'mother', *hsʉn* 'milk', *hsəra-* 'to raise' (< **učïr*, **eke*, **üsün*, **asara-*) does not support an original **h-*, but merely constitutes a vestige of the initial syllable which was devoiced and lost. Similarly structured words with known CM **h-*, such as *hče- < *hiče-* 'to be ashamed', *hkor < *hüker* 'bovine', *hsʉn < *hüsün* 'hair', are therefore not useful as additional evidence for it.

In Eastern Yugur there seem to be no words with secondary *h-* followed by a full non-high vowel, like MgrH *xaldan < *altan* 'gold'. The rare cases with a full vowel may be explained differently. In *qusun* 'water', although it ultimately stems from **usun*, the first *u* may have been inserted into an earlier form *χsun* with secondary *h-*. Bolčuluu's notations *hərte* (< **erte*) 'early' and *hurtu* (< **urtu*) 'long' may be attempts to describe pronunciations *r̥te*, *r̥tu* (Junast: *rde* and *rdə*[409]).

In Baoanic such instances of secondary *h-* are not that common, but they do occur, as in Dgx *huntura-*, Kgj *huntra- < *untara-* 'to sleep'.

Initial *h-* in words that do not have this structure may be useful for reconstruction purposes. Some of the following words also have Mongghul variants starting with a vocalic onset, and most of them are attested without **h-* in one or more peripheral languages. This means that they are not strong examples for original **h-*.

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[408] This case stands out because it developed the secondary **h-* preceding a vowel length.

[409] It is not clear whether Bolčuluu and Junast actually *heard* different pronunciations. There is a correlation between devoicing of the first vowel, initial *h*, and the presence of preconsonantal **r* or **l*. In **erte* and **urtu* both the *-t-* and the *-r-* are original, but in *hərči:sən < *hičesün* 'willow' the *-r-* was probably inserted later. In *hrbai ~ rbai < *arbaï* 'barley', *hərke < *erke* 'power', and *hdög < *öteg* 'dung' the *h-* was probably added.

Mongghul	CM	
xamur ~ amar	*?*amur*	quiet
xana- ~ ana-	*?*ana-*	to recover
xerge	*?*ergi*	bank, shore
xerge	*?*irge*	ram
fo:roŋgi:	*?*oraŋgï (?*orankaï)*	paralysed[410]

The first syllable vowels in the above examples are non-high, which, together with the weak consonant environment, prevents them from being lost. If the vowel is elided, the modern forms are difficult to evaluate. It seems impossible to tell whether the *s-* of *sʒaġa-* represents the primary *h-* of **hasag-* 'to ask' or is merely a relic of the devoiced vowel. Cf. also *sʒu < *hüsün* 'hair' and *sʒu < *usun* 'water'.

Cases of *h-* which can not be explained by a following strong consonant include EYu *hele* 'clear', EYu *helɯ:r* 'flatiron', MgrM *χuduri-* 'to lead'[411] for the words otherwise known as **ile*, **iliür*, and **udurï-*.

If such unexpected instances of **h-* are found in several languages, such as **hunu-* 'to ride', **haur* 'steam; anger', **hamura-* 'to rest', they make a stronger case for CM **h-*. In case of **hinie-* 'to laugh', the **h-* is confirmed by Dagur, Eastern Yugur, and all of Shirongol. Even if a secondary explanation were found, the wide distribution would still suggest an *early* secondary development.

Another complication in weighing the evidence lies in the fact that even unambiguous **h-* can often be lost in one or more languages, especially in words with a strong consonant beginning the second syllable, as in MgrH *a:ći < *hačï* 'grandson', Dgx *asa- < *hasag-* 'to ask', EYu *ütan*, Dgx *uitaŋ < *huïtan* 'narrow', EYu *u:ta <*huuta* 'bag', Dgx *usuŋ < *hüsün* 'hair'. This suggests that *h-* and its derived pronunciations are increasingly treated by speakers as automatic (and optional) side effects of some phonetic environments. Such instances of **h-* have thus become less distinctive synchronically, and less informative diachronically.

However, **h-* can also be lost from words devoid of strong consonants, e.g. MgrH *ir < *hir* 'edge of a knife'. BaoÑ *oʒǝr < *huǰaur* 'root'. In a case like MgrH *xana- ~ ana-* 'to heal', the authenticity of the **h-* is not confirmed by other languages. On the other hand, there is no known mechanism that would produce secondary *h-* in words without strong consonants.

4.14. Some notes on metathesis

Metathesis of consonants is a relatively frequent but unpredictable phenomenon. In some phonetic environments it is more likely to occur. It especially affects the 'liquids' *l*, *r*, *m*, *n*, especially in words containing two or more consonants from this set, and in stems that are trisyllabic or longer. Other cases of metathesis generally

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[410] Cf Kh *orongi* H398a 'lame in the hind leg(s) (of an animal)', Ord *oroŋgo* M521b 'disease in horses consisting of a kind of paralysis of the hind legs'. Mongghul also has the verb *fo:ro-* X59 'to be paralysed'. If this is related to MMo SH *ho'ara-* H76, *o'ara-* H120 'to neglect, abandon', the **h-* is confirmed.

[411] The Kangjia cognate *utur-* does have a strong *-t-*, but that is itself inexplicable.

involve the exchange of the elements of a cluster. Morphologically transparent stems may resist this general tendency.

EYu *ġulǝr*, BaoD *ġulǝr*	**guril*	flour[412]
EYu *saltu:r*	**sarta.ul*	Hui
MgrH *xaril*	**kalïar*	wild onion
MgrH *ćirval*	**kïlbar*	story
MgrM *balǝr*	**barïl*	handle
BaoÑ *alar*	**aral*	river
BaoÑ *harġal ~ halġar*	**hargal*	dung
Dgx *koroloŋ*	**köl oraŋ*	footprint
Dag *murtul*	(**muldur* <) **möndür*	hail
Dag *urɣil*	**üliger*	story
Mog *ulu:r*	**huruul*	lips

Given the disagreements between the modern dialects, such cases cannot generally be dated back to an early period. On the other hand several instances of metathesis are recorded in Middle Mongol. The form **könerge* (< **köreŋge*) 'yeast' is found in Shirongol, Eastern Yugur and Dagur, and is also reflected by the 'Phagspa form. The form **malaga* (< **magalaï*) 'hat' can also be assumed for Shirongol; only Dongxiang has *maġala* in addition to *malaġa*.

Different tendencies can be observed in the following cases, where Eastern Yugur swapped the labial and velar consonants, whereas Mongghul moved the liquid to the right.

EYu	MgrH	CM	
xalǧwa	*xaulġa*	**kalbuga*	spoon
orɣeme	*murge*	**örmege*	coarse fabric
tarǧwan	*to:rġa*	**tarbagan*	marmot
χarǧwa	[*xarġa:*]	**kaburga*	rib

Other cases of *-r-* moving to a different syllable include the following.

EYu *nurǧusun*	**nugursun*	spinal marrow
EYu *saŋġarčaġ*	**sarkïnčag*	paunch[413]
MgrH *nurdaġa*	**nïdurga*	fist
MgrM *kuǝrmǝgɣ*	**kömürge*	trunk
BaoÑ *udǝrnǝ mǝra ~ urdǝnǝ mǝra*	**üdür(ün) büri*	every day
BaoÑ *ǝmǝrźi*	**öermiče*	other
Kgj *ġadar ~ ġarda*	**kadaar*	bit of a bridle

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[412] This type is also common in central Mongolic, cf. Khalkha *gulir ~ guril* 'flour', *xürel ~ xüler* 'bronze', *čalir ~ čaril* 'crowbar'.

[413] Eastern Yugur resembles Kalmuck *säŋgrcg* here, while Buriat *harxinsag* represents the other form.

Swapping nasals

BaoÑ *menbə- ~ nenbə-*	*nembe-	to cover
MgrM *meŋgen*	*nimgen	flimsy
MgrH *nama:n ~ lama:n*	*manan	mist

Clusters of liquids and nasals

EYu *elməg*	*emlig	untrained (horse)
MgrH *samla- ~ salma-*	*sam.la-	to comb
EYu *kelme-*	*kemle-	to gnaw
EYu *ölmö*	(*ömlö <) < *emüne	front
EYu *nelme-*	*nemle- (?*nemne-)	to cover

Velar/apical clusters

BaoD	BaoÑ	Kgj	CM	
ośiġəi	*ɵχśə*	---	*auškï	lungs[414]
---	*asġa- ~ aġsa-*	---	*aska-	to sprinkle
muśiġə-	*məχśal-*	*mešχe-*	*muškï-	to twist
---	*bɵrke*	*besge*	*bögse	buttocks
səχtə-	*səgte-*	*siχte-*	*sedki-	to think
---	*čigtar* (BaoX)	---	*čidkör	demon

The erratic forms do not permit us to assume these metatheses even for Proto Baoanic alone. The following case shows widespread agreement in Shirongol: MgrH *asġʊ-*, BaoD *asχo-*, Dgx *asuǧu- < *agsu-* 'to lend'.

Clusters -lb- and -rb-

EYu *eblig*	*elbeg	abundant
MgrH *a:blu:*	*albïn	will o' the wisp
BaoÑ *χabrə-*	*karbu-	to shoot
BaoÑ *harwaŋ ~ hawraŋ*	*harban	ten

Other cases of metathesis, usually with one or more of the motivations mentioned above, include:

EYu *χunaġla*, MgrH *xʊnaġla*	*kulugana	mouse
EYu *mökör- ~ kömör-*	*kömeri-	to topple
EYu *šwe:-*	*(h)ebsie-	to yawn
MgrM *amula*	*alïma	fruit
MgrM *aŋɟïgo*	*oŋgača	trough

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[414] This type of metathesis can also be found in central Mongolic, e.g. Khalkha *dogšin ~ došgin < *dogsïn* 'fierce', Ordos *göškön < *kögsin* 'old'.

(continued)

BaoGt *măʂġə*	*margaasï*	tomorrow
BaoX *dalġaŋ*	*daŋgal*	clod
BaoÑ *ćamχa*, Kgj *ćamġa*	*čakïrma*	iris; orchid
Kgj *tumar ~ turma*	*turma*	turnip
Kgj *eteɽ- ~ erte-*	*ötel-*	to age
Dgx *sulara- ~ surala-*	*sula.ra-*	to come loose

Cf. also (Sanchuan) MgrM *ǰagarsï*, BaoÑ *ʒ́alġasøŋ* 'fish', which forms may be relics from a regionally preserved old form **ǰagalsun* or **ǰalgasun*. It is not known which of these forms is the original, since other languages suggest an original form **ǰagasun*.

4.15. Some notes on intrusive consonants

In the sections on **n*, **l*, **r*, and **h* above, the intrusive (non-etymological) occurrence of these consonants has been discussed. Intrusive *n-* appears word-initially in words that lost the initial vowel preceding a weak consonant. Unexpected *l* and *r* mostly appear preconsonantally as well, but they predominantly precede strong consonants. Secondary *h-* occurs word-initially, and is triggered by a strong consonant starting the second syllable. Cases like the *-p-* in MgrM *sanpəʒəġ* <**sarïmsag* 'garlic' are also due to devoicing, in this case caused by the second *-s-*.

Other intrusive consonants are due to a reduplication that makes the syllables of a word stem more alike, usually by assimilating the first to the second. Examples include Dgx *ʒawaŋ ~ ʒaŋwaŋ < *ǰabaan* 'insipid', MgrM *tərmər < *temür* 'iron', BaoX *ǰanǰal- < *ǰalǰal- < *ǰaǰïl-* 'to chew'.

The unexpected *b* in the following cases may stem from an earlier *-w-* which in its turn was due to a reinterpretation of a rounded vowel: Dag *dulb^y < dului < *dülei* 'deaf', *xɔb^y < *kuï* 'sheath', BaoÑ *həbrə < *hərbə < *horoi < *horaï* 'crown of the head', *cəbćə < *siüči* 'chisel'.[415]

For the unexpected appearance of *g* (in syllable-final positions) see 4.5.5.

In other cases there is no obvious explanation for the secondary appearance of the additional consonant. A widespread example is the following: EYu *hambu:l-*, MgrH *xambulə- < *hamuul-* 'to extinguish'. MgrM *xaŋbura-*, Kgj *hambəra- < *hamura-* 'to rest'. Most other instances seem to be limited to the Monguor languages, e.g. MgrH *namur ~ nambur < *namur* 'autumn', *ćomboġ < *čomug* 'heap', MgrM *mandəġai < *menekei* 'frog', *xunduġai < *hünegen* 'fox', *xunbuġai < *hümükei* 'smelly'. Some of these cases may preserve an older form.

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[415] Chén (1986:50) notes that syllable-final *b* can 'sometimes' be pronounced as a fricative, so that the Baoan forms may actually be *həwrə* and *cəwćə*.

LIST OF DERIVATIONAL SUFFIXES

(includes plural endings and *genera verbi*)

N noun; V verb; R root

-A	V>V	causative
-AčI	N>V	(professions, etc)
-Ad	N>N	approximative (numeral)
-A(n)	V>N	
-AsU(n)	V>N	
-bIr	N>N	adjective modifier
-bUrI	V>N	
-čI	N>N	(professions, etc)
-čI	V>V; R>V	intensive
-d	N>N	plural
-d	N>V	verbalizer
-dA	N>N	petrified plural
-dA	V>V	passive
-dA	N>V	verbalizer
-dAl	V>N	
-dUAr	N>N	ordinal number
-dU(n)	R>N; V>N	partly petrified formans
-GA	V>V	causative
-gčIn	V>N	(professions, etc)
-gčIn	N>N	feminine (animals)
-gsI	R>N; N>N	directive (adverb)
-gdA	V>V	passive
-jI	N>V	
-kAi	R>N	petrified formans
-kAn	N>N	diminutive; delimitive (numeral)
-l	V>N	
-l	R>V	forms transitive verbs
-lA	N>V	verbalizer
-lA	V>V	intensive/iterative
-lAŋ	V>N	
-lčA	V>V	reciprocal/cooperative
-ldU	V>V	reciprocal
-lgA	V>N	
-lgA	V>V	causative
-m	V>N	
-mA	V>N	
-mAl	V>N	
-nA	R>N	petrified formans
-r	R>N	petrified formans
-rA	R>V	forms intransitive verbs
-rA	N>V	forms intransitive verbs

-s	N>N	plural
-sA	N>V	desiderative
-sAr	N>N	
-sI	N>V	
-skA	R>N; N>N; V>N	
-sU(n)	R>N; N>N; V>N	partly petrified formans
-tA	V>V	passive
-tU	N>N	
-tAI	N>N	
-U	V>N	
-Ul	V>V	causative
-UlA	N>N	collective numeral
-Un	V>N	
-Ur	V>N	instrument

COMPARATIVE SUPPLEMENT

Alphabetical order:

a b č d e g h ï i ǰ k l m n ŋ o ö s š t u ü y

Order of languages:

CM, MMo (SH, HY, Muq, LV, IV, RH, Ph). WM. Kh. Ord. Bur. Brg. Kalm. Dag.
EYu. MgrH. MgrM. BaoD. BaoÑ. Kgj. Dgx. Mog.

- A -

a**- (?a:**-) 'to stay, live'. In the central languages a defective verb 'to be'. The Dagur vowel length is expected in monosyllables ending in a vowel, but the long vowel in the derived noun Dag *a:dəl* E2, MgrH *a:dal* X2 'life' may support an original long vowel.

MMo SH *a*- H4 'to be, stay, live', HY *a*- M33 'to be, exist, stay'. WM *a*-L1a 'to be, etc'. Kh *ax* H36b. Dag *a:*- E1. QG lgs---. Mog ʌ- W158a.

***aarča** 'curds from fermented milk'. MMo suggests *aarčï, but this is contradicted by Bur, Kh, and Kalm, as well as by the form in the Zirni manuscript.

MMo SH---, HY *a'arči* M33, Muq---, RH *a:rči* 188C3. WM *aɣarča* L13a. Kh *aarc* H3a. Bur *aarsa(n)* C18a. Kalm *aarc* M19a. Dag *a:rč* E2. QG lgs---. Mog---, cf. Zirni *a:rča* (?) 15:5b 'tuǰ' (I could not find this Persian word, but the word is listed among 'curds', 'cheese', 'milk' and 'water').

***ab**- 'to take, to get'. The final vowel in the QG and Mog forms is originally a connective vowel. The MgrM form *xəġ*- probably originated in conjugated forms, first when the suffix started with a strong consonant, e.g. future *xəku* < *ab-ku, perfect *xəsan* < *ab-san < *ab-u-gsan, imperfect converb *xəġʒ́i* < *ab-ču, and then spreading to the other forms, e.g. imperfect *xəba* < *ab(-u)-ba. The origin of the Dgx form is unclear, but it may be a further development of *abu- > abi- found in Kangjia.

MMo SH *ab*- H1, HY *ab*- M31, Muq *ab*- P94a, LV, IV *ab*- (*abumu*) L14. WM *ab*- L1b. Kh *avax* H4a. Bur *abaxa* C21b. Brg *aβ*- U3. Kalm *avx* M23a. Dag *au*-E3, *aw*- E17. EYu *ab*- B2, J93a. MgrH *abu*- SM1, *awu*- SM16, *avu*- J93a, X11. MgrM *abu*- JL467, *xəġ*- (?=) DS225b, *xə*- C149. BaoD *apə*- BL57 'to buy', BL80 'to take'. BaoGt *ap*- C114. BaoÑ *ab*- CN4. BaoX *ab(ə)*- BC70. Kgj *abi*- S278a. Dgx *agi*- (?=) B2. Mog *ab*- R22a, *afu*- R22a, ʌb- W158a, ɔb- W174a.

***abaga** 'paternal uncle'.

MMo SH *abaqa* H1, HY *abaqa* M33, Muq---, LV *abaqa* P1254, IV---. WM *abaɣa* L2b. Kh *avga* H5a. Bur *abga* C23b. Brg *aβag* U4. Kalm *avɣ* M21a.

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Dag---. EYu *abga* P413b. MgrH *a:ga* SM2 (?=) 'father's younger brother'. Bao---. Kgj *aqa* (?=) S278b. Dgx *awuğa* B6. Mog---, but cf. Hazara *abaga* (quoted from Ligeti in TMEN IV:370).

*ābaldu- 'to wrestle'. The WM spelling *abuldu-* suggests that this was the reciprocal of *ab- 'to take', which seems a reasonable etymology. However, both MMo and several QG languages suggest *abaldu-, which cannot be dissected that easily.

MMo SH *abaldu-* H1, HY---, Muq *abaldu-* P93b, RH *abaldu-qči* (?, unclear) 205C31 'wrestler'. WM *abuldu-* L6a 'to seize or hold each other; (...) to fight each other'. Kh *avaldax* (according to Lessing). Ord *awalda-* M36b 'to come to blows'. Bur--- (only *abaldaxa* as the reciprocal of *ab-*). Brg---. Kalm---. Dag---. EYu *aβaldə-* B2. MgrH *ba:ldə-* X42, *va:ldə-* X242 (there derived from *barïldu-*). MgrM---. BaoD *udə-* BL76. BaoJ *vud-* L206. BaoÑ *aude-* CN1. Dgx *amandu-* MC8a. Mog---.

*abčïra- and *ačara- 'to take/bring with one'. Form: The modern forms of these verbs are hardly separable. *ačara-, although already found in early sources, may be a secondary development of *abčïra-, which in its turn seems to derive from the converb *ab-ču + *ire- 'to come'. EYu *hčəra- could* be the result of a form *pčira- < *abčïra- (a parallel development is seen in EYu *hčalğa- < *pčalğa- < *bučalga-* 'to boil'), but *h-* may be simply a relic of the devoiced initial vowel. Thus EYu does not confirm the *h-* of the Moghol form *hačara-* reconstructed (!) by Ligeti (1954b) from Leech's materials. In Bur-Kalm *ačara-* merged phonetically with *asara-.

MMo SH *abcira-* H1, *acira-* H2, HY---, Muq *ačira-* P95a, *ačara-* P122b, LV *abčir-* Pop1254, IV *abčira-, abčara-* L14. WM *abčira-, abčire-* L4a, *ačara-* L7b. Kh *avčrax* H7a, *acrax* H38a. Ord *ačara-* M35a. Bur *asarxa* C63a. Brg *aβšïr-* U4. Kalm *asrx* M53b, cf. *acrχă* (obs) R18b. Dag *ačir-* E14. EYu *hčəra-* BL62. MgrH *awǯi re-* SM16. MgrM *xəǯiri-* (see *ab-*) DS24a. BaoD *apǯi rə-* B60. BaoÑ *awćir-* CN86:230. BaoÑ *abćir-* CN4. Kgj *ačiri-* S279a. Dgx *aça-* MC2a. Mog *ʌbčirʌ-* W158a, *ɔbčirʌ-* W174a, also *ačar-* R22a, *ʌčʌr-*, etc W159a, MogM/Mr *ačaru·-* L62:14 (see above).

*ačï- (< *arčï-) 'to load'. Only the MgrM form reflects the earlier form *arčï-, which is supported by the CT cognate *art-. In view of CT, the original PM form may have been *artï-. The *-t-* in the Dag form seems to be a relic of this form, but the *-r-* of the PM form was lost also in Dag. MgrH *śǯa:-* and MogM *v:čiya-* have been remodeled on the basis of the derived noun *ačïan*.

MMo SH *aci-* H2, HY---, Muq *ači-* P95a. WM *ači-* L8a. Kh *ačix* H38b. Ord *ači-* M35b. Bur *ašaxa* C68a. Brg *aš-* U13. Kalm *ačx* M59b. Dag *at^y-* E13. EYu *ačə-* B6, J93b. MgrH *śǯa:-* J93b, *śǯia:-* SM387. MgrM *arći-* JL479. BaoD *aći-* BL81a. BaoÑ *aći-* CN8. Kgj *ači-* S279a. Dgx *açï-* B5, L109b. Mog *ači-* R22a, *ʌčid-*, *ʌčit-* W159a (?sic), cf. MogM *v:čiya-* L62:15.

*ačïan (< *arčïan) 'burden, load'. From *ačï- above. For the older form with *-r-* see above. The unconfirmed EYu *h-* (lacking in the verb) is secondary.

MMo SH *aci'an* H2, HY *ača'an* M34, Muq *ača'an* P94b, cf. *ači'atu* P95a, IV *ačiya* L15, RH *ača:* 201B26. WM *ačiya*(n) L8a. Kh *ačaa*(n) H38a. Ord *ača:* M35a. Bur *ašaa(n)* C67a. Brg *aša* (*ʔaša:*) U13. Kalm *acan* M58b. Dag *at^ye:* E13. EYu *hča:n* B62, *hǰan* B62, *hǰa:n* J93b. MgrH *śʒ́a:* J93b, *śʒ́ia:* SM387. MgrM *arća* JL474. BaoD *aćiaŋ* BL81b. BaoGt *aćɔŋ* C118. BaoÑ *aćaŋ* CN8. Kgj *ačɔ* S279a. Dgx *açaŋ* B5, *açan* L109b. Mog---.

adalï 'similar, same, as'.
MMo SH *adali* H2, HY *adali* M34, Muq *adali* P95a. WM *adali* L9b. Kh *adil* H10a. Ord *adali* M3b, *adil* M3b, *adila*, *adili* M4a. Bur *adli* C31a. Brg *adıl* U14. Kalm *ädl* M64b. Dag *adil^y* E13. EYu *dalə* (only) S407. MgrH *dalə* J93b, *dali* SM42. MgrM *adaliŋ* (sic) JL468, *adali* T327. BaoD *adəli* BL81b, cf. *nəgtalə* BL11 (+ *nigen* 'one'). BaoJ *adəlí madəlí* L1. BaoÑ---. Kgj *adali* S279a. Dgx *adali* T110. Mog *ado:li* R22a, *ɔdɔli* W174b.

aduun 'herd (usually of horses)'. The *a* of the second syllable suggested by one of the WM spellings cannot be confirmed by any language, but perhaps *ada-ska* 'hide of emaciated livestock' (not listed here) supports it.
MMo SH *adu'u(n)* H3, HY [*adu'uči* M34], Muq---, LV---, IV [*adu:nči* L145]. WM *aduɣu(n)* L11b, *adaɣu(n)* L9b. Kh *aduu(n)* H10b. Ord *adu:* M4b. Bur *aduu(n)* C32a. Brg *adʊ* (*ʔadʊ:*) U14. Kalm *adun* M28b. Dag *adɔ:* E13. EYu---. Mgr---. Bao---. Dgx---. Mog---.

aduula- 'to tend livestock'. The EYu and Mgr forms derive from a shortened form *adula-*.
MMo SH *adūla-* H3, HY---, Muq *adu:la-qči* P377b. WM *aduɣula-* L11b. Kh *aduulax* H10b. Ord *adu:la-* M4b. Bur *aduulxa* C32a. Kalm *adulx* M28b. Dag *adɔ:l-* E13. EYu *adla-* B6, J75. MgrH *dula:-* SM64. MgrM *adula-* J91. BaoD *adal-* BL73. BaoÑ *adala-* CN8. Kgj *adəla-* S279a. Dgx *adula-* B5. Mog---.

aduusun 'livestock'. The Shirongol forms derive from a contracted form *a:sun*. Cf. *mal*.
MMo SH *adūsun*, *adu'usun* H3, HY *adūsun* M34, Muq *adu:sun* P96a, *adu'usu* P96a, cf. *adasun* P95b, Ph *adu'usun* P119a. WM *aduɣusu(n)* L11b, *adaɣusu(n)* L9b. Kh *aduus(an)* H10b, *adguus* H10a. Ord *adagu:s(u)* M3a. Bur *aduuha(n)* C32b, *adaha(n)* (western) C31a. Brg *adgʊ:s* (←Kh) U14. Kalm *adusn* M28b. Dag *adus* E13, *adɔ:s* Z92b. EYu---. MgrH *a:sə* X7 also 'bovine'. MgrM *asə* J91. BaoD *asuŋ* BL81b. BaoÑ *asəŋ* CN7. BaoX *asoŋ* BC64. Kgj *asun* S278b. Dgx *asuŋ* B5. Mog---.

agsu- 'to borrow or lend'.
MMo SH---, HY---, Muq *aqsu-qsan* P104a 'loan'. WM *aɣsu-* (obs) L15a. Kh (?only) *agsan* H8a 'borrowing or lending money at interest'. Ord---. Bur *agsaxa* C29a 'to change, trade'. Brg *ags-* U5. Kalm---. Dag *ars-* E17. EYu *agsa-* B3, *aġsə-* J88. MgrH *asġu-* SM15, *asġʊ-* X8. BaoD *asχo-* BL77. BaoÑ *aχsə-* CN5. Kgj *asġï- ~ asïğ-* S278b. Dgx *asuğu-* B5. Mog---.

*agta ‘gelding’, *agtala- ‘to geld, castrate’. The Mongghul form developed from a form *aχata* with epenthetic vowel or alternatively the strong -t- triggered the appearance of a secondary initial h-.

MMo SH *ahta* H3, HY *aqta* M36, Muq *aχtala-* P108b. WM *aɣta* L15b. Kh *agt* H8. Bur *agta* C29a. Brg *aχt* U5. Kalm *agt* M26a. Dag *art* E17. EYu *agta*, *axta* B3, *aġda* J93b. MgrH *χada* X70, J93b, *χadala-* X70. MgrM---. Bao---. Dgx *atala-* B5. Mog---.

*aïl ‘camp, group of tents; village; neighbour(hood)’. Related to CT *a:gïl*; the Baoanic and Moghol forms are relatively recent borrowings from the same Turkic word.

MMo SH *ayil* H11, HY---, Muq---. WM *ayil* L20a. Kh *ayil* H13a. Ord *ä:l* M39a. Bur *ayl* C36. Brg *ail* U2. Kalm *ääl* M61b. Dag *ail* E2. EYu *ail* B1, J93a. MgrH *ayil* J93a. BaoD---. BaoÑ *aġal* CN5 ‘village (of laypeople opposite a temple)’. BaoX *aġəl* BC66 ‘market’. Kgj *aɣa* S278b. Dgx *agəŋ* B2. Mog *aʋli* W159a ‘house’, MogMr *aɣəl* L68, No.86 ‘flock of sheep, village of tents’.

*aïmag ‘tribe, village’.

MMo SH *ayimaq* H11, HY *aimaq* M34, Ph *ayimaq* P119b. WM *ayimaɣ* L21a. Kh *aymag* H13b. Bur *aymag* C37a. Kalm *äämg* M62a. Dag *aimən* (← Manchu) E2. EYu---. MgrH *yi:maġ* X235, *imaġ* X13. MgrM *imaǧ* C369, *yiməǧ* DS259a. Bao---. Kgj *ima* S280a ‘peasant household’. Dgx---. Mog *aimʌǧ* W158a (tribal name).

*ajïrga ‘stallion’. Agricultural term related to CT *adgïr* ‘id’ (perhaps ~ *adrïg*?).

MMo SH *ajirqa* H4, HY *ajirqa* M34, Muq *ajirɣa morin* Pop97a, LV *ajirǧa* Pop1255, IV *ajirɣa* L15. WM *ajirɣa(n)* L62b. Kh *azraga(n)* H12a. Bur *azarga* C35b. Brg *aʒrag* U14. Kalm *ajrɣ* M30a. Dag *adʲrəɣ* E14, *ajrəɣ* E15, *adrəɣ* Z93b. EYu *ajərǧa* B6, *ajirǧa* J93b. MgrH---. MgrM *ajirga* P413b. Bao---. Kgj---. Dgx---. MogMr *ajərɣa-du ira-* L62:15 ‘to mate (said of female animals)’.

*aka ‘elder brother’. Some forms suggest *aga, while others may be affective formations. In several languages it is only attested in the combination *aka deü* ‘brother(s)’, also used in the meaning ‘friend(s)’. The form with -k- seems to survive in EYu *hġanar* B59 ‘man; husband’ (originally a plural in -nAr).

MMo SH *aqa* H3, HY *aqa* M36, Muq *aɣa dü:* P256a ‘brothers’, LV *aɣa* P1256. WM *aqa* L59b. Kh *ax* H36a. Ord *aχa* M8b, *aġa:* (Otok) M6b. Bur *axa* C65a. Brg *aχ* U5. Kalm *ax* M56b. Dag *aɣ* E7, cf. also *aka:* E7. EYu *aǧa* B3, J93a. MgrH *aǧa* SM2, X4. MgrM *ġa-dəu* C167, *aġa-dï* Z326:204. BaoD *aġə-dəu* BL22. BaoÑ *aġa du* CN5, *adu* (contracted from the previous form?) CN8. BaoX *aġə* BC65 ‘elder brother’ (perhaps only in the combination *aġə du* ‘close friends’). Kgj *aġa* S278b, *aġa devʉ* S278b. Dgx *aġa* S126, *aġa ʒiau* B2. Mog---.

*ala ‘crotch, groin; fork of trousers; hip’. EYu, MgrM, BaoÑ and Kgj display an inexplicable extra consonant (or morpheme), but all in different ways.

MMo SH *ala* H4, HY---, Muq--, IV---, LV---. WM *ala(n)* L26a. Kh *al*

H14. Ord *ala* M11a. Bur *ala* C39a. Kalm *al* M33a. Dag *al* E7. EYu *ala* J93a, *ala:d* S590, ?cf. also *olod* BJ337 'crotch of trousers'. MgrH *ala* J93b. MgrM *alaŋ* JL462. BaoD *alə* BL81b. BaoÑ *alar* CN6. Kgj *anla ǰuǧun* (*ǰuǧun* < **ǰakaun* 'space between') S278a. Dgx *ala* B2. Mog---.

*ala- 'to kill'. The *h-* of Mog *ha:la:* was emended by Ligeti from Leech's spelling *kala-*.

MMo SH *ala-* H4, HY *ala-* M34, Muq *ala-* P97a, LV *alawul-* (caus.) P1257, IV---. WM *ala-* L26a. Kh *alax* H14b. Bur *alaxa* C39b. Brg *al-* U6. Kalm *alx* M37. Dag *al-* E7, Z91b. EYu *ala-* B3, J93b. MgrH *ala-* J93a, SM3. MgrM *ala-* T314. BaoD *ala-* BL81a. BaoÑ *ala-* CN5. BaoX *alə-* BC71. Kgj *ala-* S278b. Dgx *ala-* B3, L109a. Mog *ola-* R35b, *ʌlʌ-* W158a, *ɔlɔ-* W174b, MogMr *v:lv:-*, *hàlà-* (from Leech) L54b:134.

*alag 'multi-coloured, speckled, spotted'. The similar Turkic word found in Muq and Mog cannot be related if the *h-* of Khalaj *ha:la* is original.

MMo SH *alah* H4, HY *alaq* M34 [in *alaq ta'un* 'white-necked crow'], Muq *ala* [←Turkic] P97a. WM *alaɣ* L26b. Kh *alag* H14a. Bur *alag* C39a. Kalm *alg* M33b. Dag *ala:r* E8, Z91b. EYu *alaǧ* B3, *alaǧ* J93a. MgrH *alaǧ* SM3, *alaǧ* J93a. BaoD *alaχ* BL81a. BaoÑ---. Kgj *aləǧ* S278b. Dgx---. Mog *alo:* [←Turkic] R22b.

*albïn 'demon, evil spirit'. Often used with **gal* 'fire'.

MMo SH---, HY---, Muq---. WM *albin* L28b. Kh *albin* H15a 'evil spirit', *albin gal* 'will o' the wisp'. Ord *albiŋ* M13b, cf. *albiŋgĩ: ǧal* 'will o' the wisp'. Bur *al'ba(n)* C45b. Kalm *al'vn* M38b 'naughty; playful'. Dag---. EYu---. Mgr *a:blu:* X1 'will o' the wisp', *abulu: ǧar* SM1 'will o' the wisp'. MgrM *abulin* DS225.

*alčaï-/ *alčala- 'to spread the legs'. The latter, surviving in MgrM and Dgx, may in fact reflect **alčaala-* (cf. Kh *alcaa* H19a 'crotch, etc'). MgrH *x-* is due to the following *-č-*. Perhaps related to **ala* 'groin' above, but not in a morphologically transparent way.

MMo SH---, HY---, Muq---. WM *alčayi-* L28b. Kh *alcayx* H19. Ord *alčä:-* M18a. Bur *alsayxa* C44a. Brg *alsai-* U6. Kalm *alcax* M38b. Dag *alči:-* E9. EYu *alči:-* B4. MgrH *xalʒai-* L168. MgrM *ərçala-* DS205b 'q.v.'. Bao---. Kgj---. Dgx *ançala-* B2, *alanə aŋçï-* B3 (**ala* 'crotch'). Mog---.

*alda 'fathom, armspan'.

MMo SH *alda* H5, HY---, Muq *alda* P98a, LV---, IV *alda* L16. WM *alda* L29a. Kh *ald* H15b. Bur *alda* C41a. Kalm *ald* M34a. Dag *ald* E9, *allə* E9. EYu *alda* B4, J94a. MgrH *alda* J94a. MgrM *arda* J88. BaoD *aldə* BL81b. BaoÑ---. Kgj *anda* S278a. Dgx---. Mog---.

*alda- 'to lose, to let go of, etc'. Cf. **gee-*.

MMo SH *alda-* H5, HY *alda-* M34, Muq---, IV---. WM *alda-* L29a. Kh *aldax* H16a. Bur *aldaxa* C42a. Kalm *aldx* M35b. Dag *ald-* E9, *allə-* E9. EYu *alda-* B4, J94a. MgrH *alda-* J94a. MgrM *ərda-* DS220b 'to err'. BaoD---. BaoGt *andə-* C118. BaoÑ *alda-* CN6. Kgj *anda-* S278a. Dgx *anda-* B1. Mog---.

*alï 'which'. The Baoan and Kangjia forms (unexpectedly not in Dgx) may be due to the incorporation of the 3rd person possessive *ïnu and subsequent contraction. Alternatively the -n- is a relic of the oblique stem *alïn-. Sečenčogt (1999:189) suggests that Kgj ani is a reduced form of aniɣe < *alï nigen (a form ani-ni is also recorded). IV ali L62:16 'where' may not be a mistake, as it is echoed by Dgx alidədu (sic) L85 'where', Kalm al'd M38b, äld (Torgud) M65b 'where', älin (Torgud) M65b 'from where', Bur (Tunka) alšaa C45b 'where'. Dag anin E6 'who' may also be related, as well as the Monguor forms MgrH anǯi: ~ anǯæ ~ anǯə X3 'where', MgrM aŋǯi J87 'where'.

MMo SH ali H5, HY ali M35, whichever, any', Muq ali P98b. WM ali(n) L31b. Kh al' H19a. Bur ali C43a. Kalm al' M38b, äl' M65b. Dag alʲ Z91b. EYu a:lə B1, J93a. MgrH ali SM4, alə J93b, X5. BaoD anə BL81b. BaoÑ anə CN2. BaoX 'anə BC64. Kgj ani S278a. Dgx ali B3. Mog---.

*alï 'give me', with several extended forms. Behaves like a verb and takes objects. The opposite of *maa ~ *maï 'here you are'. Kgj instead uses gere S223, compared there to MgrH gera C306 'id'.

MMo---. Kh al' H19b, aliv H17a. Chakhar εlʲ D107, εlʲa: D43. Ord ali M16b. Bur alyee C42b, ali C43a. Brg alʲβ U8. Kalm al' M38b. Dag---. EYu---. Mgr---. BaoGt ane CN86:320. BaoÑ an CN2. BaoX ane CN86:320. Kgj---. Dgx ani B1. Mog---.

*alïma 'fruit'. With -n in Kalm and part of Baoan. Agricultural term related to CT *alïmla, *alma 'apple'.

MMo SH---, HY alima M5 'pear', Muq---, LV---, IV---. WM alima L32a. Kh alim H17b. Ord alima M16b. Bur al'ma C46a 'apple'. Kalm al'mn M39a 'apple'. Dag alim E8 'pear'. EYu alma B3, J93a 'fruit'. MgrH aləma J93a 'pear', alima SM4 'name of several fruits', aləma X5 'fruit', ləma X113, lama L289, ma:la (?=) L309. MgrM amula C369 'fruit'. BaoD almaŋ BL81a 'fruit'. BaoGt almɔŋ C119 'fruit'. BaoÑ alma CN6 'fruit; apricot'. Kgj alima S278a, amila S41 'fruit (general term)'. Dgx alima B3 'pear; fruit'. Mog---.

*alku 'step'. With secondary h- in Shirongol due to the strong consonant starting the following syllable. See the homophonous verb. Also *alkum, derived from the homophonous verb listed below.

MMo SH---, HY---, Muq---. WM alqu- L34a. Kh alxam, alxaa H18b (new formations). Bur alxa (also alxam) C45a. Kalm alx (also alxm) M38a. Dag alkud (new form.) E100, Z91b. EYu---. MgrH xalġu J93a, xalġʊ X68, χarġu SM161, alġʊ X5, arġu SM13. MgrM xarġu-la- JL476. BaoD χalġuŋ BL81b. BaoÑ---. Kgj halğu S286b. Dgx haŋku B64, hanku L109a, T139. Mog---.

*alku- 'to step'. See the noun *alku 'step' above.

MMo SH---, HY---, Muq alqu- P99a. WM alqu- L34a. Kh alxax H18b. Bur alxaxa C45a. Kalm alxx M38a. Dag alkʷ- E8, Z91b. EYu alqə- B3, alġə- J93a. MgrH xalġu- J93a, xalġʊ- X68, arġu- SM13. MgrM---. BaoD χalġə- BL81b. BaoÑ halġə- CN65. Kgj halğu- S286b. Dgx hanku- L109b. Mog---.

*altan 'gold'. The *h-* in MgrH is due to the *-t-* starting the second syllable. Cf. CT *altun* 'gold'.

MMo SH *altan* H6, HY *altan* M35, Muq *altan* P99a, LV *altan* Pop1257, IV *altat* L16 'piece of gold (money)'. WM *alta(n)* L33a. Kh *alt(an)* H18a. Ord *alta* M17a. Bur *alta(n)* C44a. Kalm *altn* M37a. Dag *alt* E9, Z91a. EYu *ałdan* J94a, *altan* B4. MgrH *χaldan* J93a, *χardan* SM161, *χardam* SM160, *χaldan* T372, *χaldan* X68. MgrM *artaŋ* JL469. BaoD *altaŋ* BL81a. BaoGt *altəŋ* C103. BaoÑ *altaŋ* CN6. BaoX *andaŋ* BL63. Kgj *antə* S278a. Dgx *antaŋ* B4, *antan* L109a. Mog *ʌltãn* W158b, MogMr *altɒ:n* L62:16 'silver piece (money)', R---.

*aman 'mouth' often also 'opening'.

MMo SH *ama(n)* H6, HY *aman* M35, Muq *aman* P99b, LV *aman* P1257, IV *aman* L16. WM *ama(n)* L35a. Kh *am(an)* H19b. Bur *ama(n)* C46a. Kalm *amn* M40a. Dag *am* E10. EYu *aman* B4, J93b. MgrH *ama* X6, SM5, J93b. MgrM *ama* JL462. BaoD *aman* BL81b, *amaŋ* BL5. BaoGt *aməŋ* C101. BaoÑ *amaŋ* CN6. BaoX *amaŋ* BC63. Kgj *amə* S278b. Dgx *amaŋ* B3, *aman* L109b. Mog *aman*, *amun* R22b, *ãmãn* W158b, MogMr *ɒ:mɒ:n* L62:17.

*amasar 'opening (usu. of a vessel)'. Apparently from *aman 'mouth' above.

MMo SH *amasar* H6, HY *amasar* M35, Muq *amasar* P100a. WM *amasar* L36b, *amsar* L39a. Kh *amsar* H22b. Bur *amhar* C51a. Brg *amʊ:r* U11. Kalm *amsr* R10a. Dag *amsər* E10. EYu---. MgrH *amasar* SM5, *amusar* SM7 'cover, lid'; *amasar* X7 'cover; opening'. Bao---. Dgx *amasa* B4, *masa* MC256a. Mog---.

*amïn 'life; breath'.

MMo SH *ami(n)* H6, HY *amin* M35, Muq *amin* P100b, LV *amin* P1257 'soul'. WM *ami(n)* L37a. Kh *am'* (*amin*) H23b. Ord *ami* M20b. Bur *ami(n)* C49b. Brg *am^y* U11. Kalm *ämn* M66a. Dag *am^y* E11. EYu *amən* B5, J93b. MgrH *amun* J93b, *ami* SM6, *amən* X7. MgrM *ami* JL461. BaoD *amuŋ* BL81a. BaoÑ---. BaoX *amoŋ* BC61. Kgj *amin* S278b. Dgx *amiŋ* B4. Mog---.

*amïtu, *amïdu 'alive'. Both derived from *amïn above; the second apparently from the dat.-loc. case ending.

MMo SH *amidu* H7 'living being', *amitu* H7 'alive', HY---, Muq *amidu* P100a, *amitu* P101a, LV *amitu* P1258 'having a soul'. Dag *am^ydun*, *am^ynun*. EYu only *amtan* B6 (originally pl.) 'animal(s)'. MgrH *amutə* J93b. MgrM *amidu* T314. Bao *amtə* BL81b. Dgx *amitu* B4. Mog *amdun* R22b 'living, alive', *amdula-* R222b 'to come alive', *o:mudula-* R35b 'id', MogMr *amudun* L54:127 'alive'.

*amsa-/ *amta- 'to taste' (the latter form influenced by *amtan?). The *h-* suggested by one of the MgrH forms arose due to the *-s-* of the next syllable.

MMo SH---, HY *amsa--* M35, Muq *amsa-* P101a, LV *amsa-* P1257, IV---. WM *amsa-* L39a, cf. *amta-* L39a 'to have a taste for, find tasty'. Kh *amsax* H22b. Ord *amsa-* M21b. Bur *amsaxa* C50b, *amhaxa* C51a. Kalm *amsx* M42b. Dag *ant-* E6, Z91b. EYu *amsa-* B6. MgrH *amʊsa-*, *amsa-* X8, *amasa-* X7, *amsa-* J93b, *amusa-* SM7, *χamsa-* C86:574, *amta-* X8. BaoD-?-. BaoÑ *amsa-* CN7. Dgx *amusa-* B4, L109b. Mog *amsa-* R23a, *ɔmsɔ-* W174b.

*amtan 'taste, flavour'. The *h-* suggested by one of the MgrH forms arose due to the *-t-* of the next syllable. The final *-g* in BaoD is inexplicable.

MMo SH *amta-tai* H7 'tasty, delicious', HY *amtan* M35, Muq *amta*, *amtan* P101a. WM *amta(n)* L39a. Kh *amt* (sic, no *-an*) H22b. Ord *amta* M22a. Bur *amta(n)* C50b. Kalm *amtn* M42b. Dag *ant* E6, Z91b. EYu *amtan* B6. MgrH *amuta*, *amtar* X8, *amuta* SM7, *amta* J93b, *χamta* C86:574. MgrM *aŋtu-doŋ* DS254b 'tasty'. BaoD *amtəg* (sic) BL81a. BaoÑ *amtə-tə* CN7. Kgj *antatʉ* S278a 'fragrant'. Dgx *anda-tu* B1 'tasty, delicious'. Mog *amta* R23a, W---.

*amun 'rice; millet; rice gruel', also used for other cereals, or as a general term. *narɨn amun* generally denotes 'millet'. Note the erratic vowel lengths, the first vowel in Ord, Brg and MgrH, the second vowel in Kh. Missing both in Kalm and Bur.

MMo SH [*amicin* H6, *amucin* H7 'Reisverwalter'], HY *amun* M35, Muq *amun* P102a 'millet', Ph *amu* P119b. WM *amu(n)* L40a. Kh *amuu* (sic, no *-n*) H23a 'cereal, grain'. Ord *amu ~ a:mu* M22b 'millet à panicules'. Bur---. Brg *a:m* U1 'cereal'. Kalm---. Dag *am* E10 'grain, cereal', cf. the amalgamated compounds *maŋŋələm* E194 'broomcorn millet' < **moŋgal amun*, *narʸe:m* E55 'millet'. EYu *amən* B5, J44 'grain, cereal', *narən amən* BJ337 'millet'. MgrH *a:mu* SM6, X1 'millet'. MgrM *amu* C390 'millet'. BaoD---. BaoÑ *amuŋ* CN7 'millet'. Kgj *amu* S278b 'millet'. Dgx *aməŋ* B4 also 'rice gruel'. Mog---.

*amusun 'name of several cereal dishes (not specified in the following); cooked rice'. Apparently derived from **amun* above.

MMo SH---, HY *amusun* M36, Muq---. WM *amusu(n)* L41b. Kh *ams* (sic, no *-an*) H22b. Ord---. Bur *amha(n)* C51a. Brg *amʊ:* U11. Kalm---. Dag---. EYu *aməsən* B5. Mgr---. Bao---. Kgj---. Dgx *amusuŋ* MC10b. Mog ---.

*ana- (?*hana-) 'to heal, get well, recover'. The **h-* suggested by MgrH is not confirmed elsewhere, but this word does not have the structure known to generate secondary *h-*.

MMo SH *ana-* H7, HY---, Muq---. WM *ana-* L42a. Kh *anax* H24b. Bur (only the caus 'to cure') *anaaxa* C51b. Kalm---. Dag *anə-* E5. EYu---. MgrH *χana-* J69, X68, *χana-* SM154, *ana-* X3, SM8. BaoÑ *ana-* CN2, (caus) *anaġa-* CN2 'to cure, treat'. Dgx---. Mog---.

*anda 'sworn friend; friend'.

MMo SH *anda* H7, HY---, Muq *anda* P102b. WM *anda* L42b. Kh *and* H25b. Bur *anda* C52b. Kalm *and* (obs) M43b. Dag *and* E6. EYu---. Mgr---. Bao---. Dgx *anda* B1. Mog---.

*andagar ~ andaga(ï) 'oath'. The form **andagaï* restricted to Mongol proper. The forms with *-m-* perhaps influenced by **aman* 'mouth'. Related to CT **ant* (*?*and*) 'oath'.

MMo SH *andaqar* H7, HY---, Muq *andaɣar* P102b, cf. LV *andaɣa:rad-* P1258 'to swear (an oath)'. WM *andaɣar*, *andaɣai* L42b. Kh *andgar* H26a, *andgay* H26. Ord---. Bur---. Kalm *andɣar* M43b. Dag---. EYu *ndaǧar* B28, *andaǧar* J88.

MgrH *ndəġa* X38 'incantation', *ndaġa* SM261 'oath', *amdaġa* S624 'oath', S625 'incantation', *amdəġa* L13 'incantation; wager; oath'. Bao (unspecif. dial.) *andərəġ* S624 'oath'. Kgj *andaġa* S278a. Dgx *andaġa* B1. Mog---.

anǰasun ~ *anǰïsun* 'plough'. The form *anǰïsun* from PM *andïsun*. The palatal element in Kh andis and some of the Ord and Kalm forms cannot be explained. Kalm apparently from *andaska*. Both Dag and the Shirongol languages derive from *anǰasun*. The unique long vowel in Dagur cannot be explained.

      MMo SH---, HY *anǰasun* H36, Muq *anǰasun-* P103b. WM *anǰisu(n)* L47a. Kh *anǰis(an)* H26a, *andis* H26a. Chakhar *ɛnʸdʸis* D168b. Ord *anǰasu*, *anǰus(u)*, *andüs* M23b. Bur *anzaha(n)* C53a. Brg *anʸǰʊ:* B3. Kalm *andsx* M44a, *ancăsn (ancn)* R11a, *ändïsn*, *äncn* R23b, etc. Dag *anǰa:s* E6. EYu *anǰagsən* Man67. MgrH *nǰasə* J93a. MgrM *(a)nʒasï* JL478. BaoD *anʒisuŋ* BL81a. BaoÑ *anʒisəŋ* CN3. Kgj *anǰasun* S278a. Dgx *anʒasuŋ* B2. Mog---.

aŋgaï- 'to open, open up (intr), to be agape, etc'. Probably from *aŋ* 'crack, fissure'.

      MMo SH---, HY---, Muq---, IV---, LV---. WM *angɣayi-* L43b. Kh *angayx* H24b. Bur *angayxa* C52a. Kalm *aŋɣax* M45a. Dag *aŋgi:-* E6, *xaŋgai-* T173. EYu *aŋġai-*, *aŋġəi-* B2, *aŋǧi:-* J93a. MgrH *ŋġai:-* J93a. MgrM *aŋġai-* C373. BaoD *anɣi-* BL81b. BaoÑ---. Kgj *aŋġei-* ~ *aŋġa-* S278a. Dgx *aŋġəi-* B2. Mog---.

arakï ~ *arïkï* 'alcoholic beverage'. Various forms within Baoan, including forms with an affricate from *k*, normally a Monguor development. Wanderwort found in numerous Asian languages. The MgrH form is likely to stem from Tibetan *a-rag*. Cf. *darasun*.

      MMo SH---, HY---, Muq---, IV---, LV---. WM *araki(n)* L48a, *ariki(n)* L53b. Kh *arxi(n)* H32b. Ord *ariki* M29a. Bur *arxi* C60a. Kalm *ärk* M69b. Dag *arɣʸ* E16. EYu *arəkə*, *arakə* B7, *araʰgə* J94a. MgrH *a:rəg* (only) L22. MgrM---. BaoD *raku* BL82a. BaoGt *rắci* C119. BaoÑ *rakə* CN221. BaoX *račə* BC73. Kgj---. Dgx---. Mog---.

aral 'island; river'.

      MMo SH *aral* H8 (no translation), HY *aran* (sic) M36, Muq *aral* P104a. WM *aral* L48b. Kh *aral* H28b. Bur *aral* C55a. Brg *aral* U15. Kalm *arl* M50. Dag---. EYu *aral* (only) S116. MgrH *ara:l* X9 'river valley', *ra:l* J93b 'river'. MgrM *arur* DS209a 'brook'. Bao *arèl'* P419a 'river'. BaoÑ *alar* CN6 'river valley'. Kgj *aran* S279a 'floodland; small river'. Dgx *araŋ* B6 'river'. Mog---.

aral 'shaft of a cart'.

      MMo SH---, HY *aral* M36 'shaft', Muq---. WM *aral* L48b. Kh *aral* H28b. Bur *aral* C55a 'cart; shaft'. Brg *aral* U15. Kalm---. Dag *arəl* Z92b, *allə* E8 'shaft'. EYu *aral* J94b 'axle'. MgrH *ara:l* X9, *ara:r* SM11, *ara:* SM9. Bao---. Dgx. Mog---.

aralǰï- 'to exchange, trade'. In spite of its vague similarity to *aralǰï-*, Kalm *arcx* M52a 'to trade' rather stems from *arča-* 'to argue'. Both MgrM and Dgx have an unexpected *–u-*. In MgrH and EYu the vowel of the middle syllable was lengthened,

in Bao and Kgj the middle syllable was elided. Dag has a similarly compressed variant. This verb looks like a reciprocal, which makes semantic sense.

MMo SH *aralji-* H8, HY---, Muq *aralǰi-* P104a. WM *aralǰi-* L48b. Kh *arilǰix* H31b. Ord *aralǰi-* ~ *arilǰi-* M27a. Bur *aralžaxa* C55a. Kalm---. Dag *alǰ-* E10, *aralǰi-* NK451a, *allǰi-* NK451a, cf. *arəlja:n* E15 'business, trade, exchange, etc. EYu *aralǰə-* B7, *ara:lǰə-* J21, *ra:lǰə-* J80. MgrH *ara:ǯi-* SM10, *ra:ǯi-* SM309, *ara:lǯi-* L19, *ra:lǯi-* L458. MgrM *arurǯi-* DS211a. BaoD *anǰə-* T134. BaoÑ *alǯa-* CN6. BaoX *anǯi-* C117. Kgj *anǰa-* S278a. Dgx *arunʐa-* B6. Mog---.

*arasun/*arïson 'skin; hide'. The latter form only in Kh. *Mittelsilbenschwund* in several languages, including Bur.

MMo SH *arasun* H8, HY *arasun* M37, Muq *arasun* P104b, IV *ara:sun* L17. WM *arasu(n)* L49a, *arisu(n)* L54a. Kh *ar's(an)* H33b. Ord *arus(u)* M31b. Bur *arha(n)* C60a. Brg *arʊ* (*ʔarʊ:*) U15. Kalm *arsn* M51a. Dag *ars* E17. EYu *arəsən* ~ *arasən* B7, *arsən* J94a. MgrH *rasə* J94b, *arasə* (only) L20. BaoD *arsuŋ* BL82a. BaoÑ *arsoŋ* CN10. Kgj *arasun* S279a. Dgx *arasuŋ* B6 '&bran'. Mog *aro:sun* R23a, *ɔrɔsun* W175a.

*arbaï 'barley'. Agricultural term related to CT *arpa. In view of the CT cognate the PM form may have been *arpaï, but the word is absent from Dagur, the only language that occasionally preserves postconsonantal *p. Secondary *h-* in EYu is normally due to a following strong consonant; maybe WYu *harwa* (< CT *arpa) has played a role here. The reason for the addition of *-ï* in the CM form is unclear. The Bao-Kgj-Dgx forms and the Mog forms lacking the *-i* are more recent loans from CT *arpa.

MMo SH---, HY *arpai* (sic) M37, Muq *arbai* P104b, IV *arpa* (←Tkc) L17. WM *arbai* L49b. Kh *arvay* H29a. Bur *arbay* C55b. Brg. Kalm *arwɛ:* Ram15b, *arva* (Derbet) M47a. Dag---. EYu *hrbai* B63, *rbai* J9. MgrH *ʂbai:* J9. MgrM---. BaoD *arpə* BL41/77. BaoÑ *arpa* CN10. BaoGt *aʂbu* C120. Kgj *aʴpa* ~ *appa* S279a. Dgx *apa* B2, L9. Mog *arfa:* R23a, *arfɛi* R23a, *ɔrpʌ* W175a, MogMr *arpa* L62:17.

*arča 'cypress'. Cognate of CT *a:rtuč.

MMo SH *arca* H8, HY *arča* M37 'thuya', Muq *arči* (sic) P104b, *arčiin modun* P105a. WM *arča* L50b 'juniper'. Kh *arc* H33a. Bur *arsa* C59b. Kalm *arc* M52a. Dag---. EYu *hrča* B63, *arča* BJ320. MgrH---. MgrM---. BaoJ *arći* L4 'incense'. BaoÑ---. Kgj *aʴǰa* ~ *aǰǰa* S279a, *aǰa* S28. Dgx---. Mog---.

*arčï- 'to wipe, to clean; to weed'. Related to CT *arï-t- 'id'. cf. *arčïur, *arïl-, *arïun.

MMo SH *arci-* H8, HY---, Muq *arči-* P104b. WM *arči-* L51a. Kh *arčix* H33a. Ord *arči-* M30a. Bur *aršaxa* C61b. Brg *arš-* U16. Kalm *arc* M52b. Dag---. EYu *arčə-* B7 'to wipe'. MgrH *a:rći-* (only?) L23. MgrM---. BaoD---. BaoÑ *arći-* CN10 'to weed'. Kgj *ači-* S279a. Dgx *aҫï-* B5 'to weed with a hoe'. Mog---.

*arčïur 'rag, dust-cloth; towel; scarf'. The *h-* in MgrH is due to the following –*č-*. cf. *arčï-, *arïl-, *arïun.

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MMo SH---, HY---, Muq *arči'ur* P178a. WM *arčiɣur*, *arčiɣul* L51a, *alčiɣur* L29a. Kh *arčuur* H33a 'cleaning cloth, etc', *alčuur* H19a 'scarf, etc'. Ord *alču:r* M18a. Bur *aršuul* C61b, *aršuur* (western) C61b. Brg *aršʊ:r* U16, cf. *alʸšʊ:r* U8 'tobacco pouch'. Kalm *arčul* M52b 'cleaning cloth'. Dag---. EYu *alču:r* B4, J7. MgrH *xaʒir* (?=) SM149, *xa:ʒir* L164, cf. also *a:rćir* L23 'mop'. BaoD---. BaoÑ---. Dgx *anƈu* MC11b, *anč" T111. Mog---.

*arga 'means, way, method, plan, ruse, shrewdness'.
　　　MMo SH *arqa* H9, HY *arqa* M37, Muq *arɣa* P105a. WM *arɣa* L51a. Kh *arga* H29b. Bur *arga* C56b. Kalm *arɣ* M48a. Dag *arəɣ* E15. EYu *arğa* B7, J94a. MgrH---. MgrM *arğa* J90. Remaining lgs---.

*arïl- 'to become clean, to clear up; to disappear'.
　　　MMo SH *aril-* H9, HY---, Muq---. WM *aril-* L53a. Kh *arilax* H31b. Bur *arilxa* C59a. Brg *arʸl-* U17. Kalm *ärlx* M70a. Dag *aril-* E16, *alli-* E9. EYu---. MgrH *arili-* SM14. MgrM *aru-* C369 'to clear up', caus. *arərğa-* JL462. Bao (unspecified dial) *alər-* S118 'to disappear'. Dgx *arulu-* B6. Mog---.

*arïlga- 'to clean', in several languages also 'to castrate'. The caus. of *arïl- 'to clean' above. With shortened forms in several languages. Cf. *arčï-, *arčïur, *arïun.
　　　MMo SH---, HY *arilqa-* M37, Muq---. WM *arilɣa-* L53b. Kh *arilgax* H31b. Bur *arilgaxa* C58b. Dag *alli-lɣa:-* (newly-formed caus.) E9. EYu *alğa-* B3. MgrH *ariğa-* SM14. MgrM *arərğa-* JL462, *arurğa-* DS212a. BaoD *aləɣəsaŋ mori* BL81a 'gelding'. BaoÑ *alğa-* CN6. Kgj *alğa-* S278b. Dgx *aruluğa-* B6.

*arïa 'molar; canine; fang, tusk' often used with *sidün 'tooth'. Nearly all languages from the assimilated form *araa. One of the rare cases where even Buriat and Dagur do not preserve a palatal element, but note the Brg derivation. Related to CT *azïg 'id'.
　　　MMo SH *ara'a* H8, HY *ara-tai* M37 'river deer', lit '(the one) with fangs', Muq *ari'a sidün* P105b, *?haria* (: *naria*) *šidün* P246a. WM *araɣa* L47b, *ariya* L53b. Kh *araa(n)* H27b. Ord *ara:* M26b. Bur *araa(n)* C54b 'molar; fang, tusk'. Brg *ara:* U15, but cf. *arʸa:-taŋ* U17 'wild animals'. Kalm *aran* M46b. Dag *ara:* (*šid*) E15. EYu *ura:* B19, J94b, *ara:* BJ320. MgrH *ara:* X9, SM9, *ra:* (*ʂdə*) J93b. MgrM---. BaoD *arə duŋ* BL82a, B19 (*duŋ* < *sidün*). BaoÑ *ariya* CN9 (perhaps *arə* + Ch *yá* 'tooth'). Dgx-?-. Mog---.

*arïun 'clean; pure'. Related to *arčï- and *arïl- 'above'. The BaoÑ meaning 'completely' is echoed by Dag *aru:kun* E16 'all', MgrH *arən-də* X10 (originally 'until clean') 'completely'. It may also be present in Kgj *aχɨla ~ aχla* S278b 'all, everyone', Dgx *aʂɨğala* B5 'everybody', which may be abraded forms of *arïu-kan* + plural ending. The final element may also be the comitative *-lUA* or the collective numeral ending *-UlA*.
　　　MMo SH---, HY *ari'un* M37, Muq *ari'un* P105b, *ariyun* P106a, LV---, IV *aru:n* L17. WM *ariyun* L53a. Kh *ariun* H32a. Ord *aru:n* M31a. Bur *aryuun* C62b. Brg *arʸʊ:ŋ* U17. Kalm *ärün* M70b. Dag *aru:n* E16. EYu *aru:n* B7, J94a. MgrH *arən*

J94b, *arin* SM14. MgrM *ariun* T315, *aroŋ*(-*śiroŋ*) DS212a. BaoD *aruŋ* BL82b. BaoÑ *aroŋ* CN10 'completely, totally'. BaoX *aroŋ* BC64. Kgj *arun* S279a. Dgx *aruŋ* B6. Mog *oru:n* R35b, *ɔrun* W175a, MogMr *ɒ:run* L62:17.

aru 'back, posterior side'. Dag *arkən* could be a diminutive of this, but is more likely to stem from neighbouring North Tungusic.

      MMo SH *aru* H9, HY *aru* M37, Muq *aru-* P106a 'back'. WM *aru* L54b. Kh *ar* H27b. Ord *aru* M30b. Bur *ara* C54a. Kalm *ar* M46a. Dag *arkən* (see remark above) E16 'back'. EYu *a:r* (for expected **a:rə*) B1, J94a. Remaining lgs---.

arug 'pannier, basket (carried on the back)', usu. a basket for collecting dung. Any connection with *aru 'back' cannot be established.

      MMo SH---, HY---, Muq *aruq* P113a. WM *aruɣ* L54b. Kh *arag* H28b. Ord *aruq* M31a. Bur *arag* C54b. Kalm *arăġ* R13a. Dag---. EYu---. MgrH *aruġ* SM14. MgrM *aroġ* C369. BaoD *arouġ* BL50. BaoGt *aroġuŋ* C137. BaoÑ *arɵġ* CN10. Bao (unspecif. dial.) *arġoŋ* (sic) S115. Kgj *aruǧ* ~ *arǧu* S279a. Dgx *arəu* B6. Mog---.

asara- 'to take care of; to bring up, raise; to adopt'. The EYu **h-* is secondary, and due to the devoicing triggered by the following –*s-*. In Bur-Kalm this verb was apparently associated and merged with **ačara-*. The MgrM form was incorrectly derived from *asï* < *aduusun 'livestock'.

      MMo SH *asara-* H9, HY *asara-* M37, Muq *asara-* P107a, LV *asara-* P1256 'to defend'. WM *asara-* L56b. Kh *asrax* H34b. Ord *asara-* M32b. Bur *asarxa* C63a. Kalm *asrx* M53b. Dag *asər-* E12 'to nurse'. EYu *hsəra-* B60, *sra-* B104, *asara-* S122. MgrH---. MgrM *asïra-* Slater 2003:311. Bao---. Dgx---. Kgj---. MogMr *ɒ:srɒ:-* L68, No. 124 'to look at; to guard'.

aska- 'to pour out, sprinkle, spill, scatter'.

      MMo SH *asqa-* H9 'to spit', HY *asqa-* M37, Muq *asqa-* P107a, LV *asqa-* P1256. WM *asqa-* L57b. Kh *asgax* H34a. Ord *asχa-* M33a. Bur *adxaxa* C33a. Brg *atag-* U13. Kalm *asxx* M54b. Dag---. EYu *sqa-* BJ342, *sġa-* J93b, *sġa:-* S121. MgrH *saġa-* SM318, *sġa-* X143, *sʒaġa-* L537. MgrM *sïġa-* F119:39. BaoD---. BaoGt *sġə-* (?=) C129. BaoÑ *asġa-* CN8, *aġsa-* CN5. Kgj---. Dgx---. Mog---, but it does have the derived intr. form *asqara-* R23a.

au (& *auï) 'broad, wide, vast'. In some languages apparently supplanted by derivates *audam and *aujïm. The forms with -*g*- in the central languages could normally be explained as borrowings from WM (reading pronunciations), but the Dgx and Mog forms also atypically display an intervocalic uvular.

      MMo SH *a'ui* H10, HY *a'u*, *a'ui* M37, Muq *a'u* P108a, *u:* P371a. WM *uu* L889a, *aɣuu* L18b, *aɣui* L16b. Kh *aguu*, *aguy* H8b. Ord---. Bur *uu* C480a, *aguy*, *aguu* C29a great. Kalm *u* M526a, *aɣu:* R3b. Dag *au* E3. EYu *aɣui* (sic, only) S96 'huge'. MgrH *au:* J93a, *ʊ:* SM462. MgrM---. BaoD *u* BL81b. BaoÑ *u:* CN19. Kgj *u:* ~ *u* S280a. Dgx *aǧui* B2. Mog *ɔǧui* W175a 'spacious'.

      audam, *aujïm: WM *aɣudam* L16b, *aɣujim* L18b. Kh *uudam* Han555a, *uujïm* Han555b. Ord *u:jim* M723b. Kalm *uujm* M541a. EYu *u:jəm* B19. MgrM *udaŋ* C369.

*aula 'mountain'. The Mgr and Dgx forms unexpectedly point at **uula* > **ula*. The Bao and EYu forms may be either from **aula* or **uula*.

MMo SH *a'ula* H10, HY *a'ula* M37, Muq *a'ula* P189a, *u:la* P372a, LV *aula* P1260. WM *aɣula(n)* L17a. Kh *uul(an)* H556a. Bur *uula* C480b. Kalm *uul* M541a. Dag *aul* E4. EYu *u:la* B18, J93b. MgrH *ula* J93a, SM469. MgrM *ula* JL463. BaoD---. BaoÑ *u:la* CN20. BaoX *ө:lə* CN86:16. Kgj *ula* S280a. Dgx *ula* B20. Mog *aʋlɔ* W159, MogM *əula*, MogMr *aula* L54b:140.

*aur 'steam; anger' see ***haur**

*aurag see ***uurag**

*aučï- 'to sip' see ***oačï-**

*aus- (tr.), ***austa-** (intr) 'to smell, taste'. Actually **aus-* may have meant 'to disperse, dissolve (intr)' originally, and may in that case be derived from **au* 'wide'.

MMo---. WM (suppl) *aɣusta-* L1197a. Kh *uusax* 'to dissolve, etc'. Ord *u:s-* M743b 'to be perceptible (taste), etc'. Bur---. Kalm *u:s-* R455b 'to have the right taste'. Dag---. EYu *usda-* B19 'to taste, smell'. MgrH *o:sə-* SM298b 'to be enough to be tasted (e.g. of salt in a brew)'. Bao---. Dgx *suda-* (?=) MC372b, S109 'to taste'.

*auškï 'lungs'. The Kalm, Mgr, and Bao forms point at **ɔ:*. The EYu *u:* could be either from **auškï* or from the form with **ɔ:*. The *-n* is absent in all of Shirongol. MgrH *-s-* is unexpected.

MMo SH *a'uśigi* (?*auśgi*) H10, HY *a'ušigi* (?*a'ušgi*) M37, Muq *a'uški* P108b, LV *awuski* P1259, *awusqi* P1261. WM *aɣušgi(n)* L18b. Kh *uušgi(n)* H558a. Ord *u:ški* ~ *ušigi* M744b. Bur *uušxa(n)* C482a. Brg *ʋ:tɪg* U36. Kalm *oošk* M400a. Dag *aurk^y* E5. EYu *u:šğăn* B18, *u:šğə* J93b. MgrH *o:sgu* J93b, *o:sgi* SM298. MgrM *oški* P415. BaoD *ośiğəi* BL81a. BaoGt *ɔʂği* C100. BaoJ *ɔśğí* L138. BaoÑ *ɵχśə* CN16. Kgj---. Dgx *uʂïğəi* MC409a 'heart, pit of the stomach'. Mog---.

*ayaga 'cup, bowl'. Several forms, including Kalmuck and most QG languages, derive from **aiga* < **ayiga*. Related to CT **ayak* 'id'.

MMo SH *ayaqa* H10, HY *ayaqa* M38, Muq *ayaɣa* P108b, *ayaqa* P237b, LV *ayaqa* P1262, Ph *ayiqa* T138. WM *ayaɣa(n)* L23a. Kh *ayaga* H39a. Ord *ayaġa* M10a. Bur *ayaga* C69a. Brg *ayag* U14. Kalm *aaɣ* M17b. Dag *aiɣə* E2 'the bowl of a pipe'. EYu *aiğa* B1, J93b. MgrH *yağa* J93b, *yæğa* X232. MgrM *yiğa*, *ğa* DS208a. BaoD *ayiɣə* BL82a, *ayiğə* BL23. BaoÑ *ayiğa* CN9. BaoX *aiğə* BL62. Kgj *ayiğa* S279a. Dgx *iğa* B11. Mog---.

*ayïl 'camp' see ***aïl**

*ayu- 'to fear'. All modern forms derive from **ayi-*. P66 connects the (extinct) Old Turkic *ayïn-* 'to fear', cf. EDPT (274b) where Clauson considers the resemblance

'prob. fortuitous'.

MMo SH *ayu-* H11, HY *ayu-* M38, Muq *ayi-* P109a, *ai-* P96b, LV *ayu-* P1264, IV *ayu-* L17. WM *ayu-* L24b, *ayi-* L19b. Kh *ayx* H14a. Ord *ä:-* M39a. Bur *ayxa* C38a. Brg *ai-* U2. Kalm *ääx* M63a. Dag *ai-* E2, *ay-* E15. EYu *ai-* B1, J94b. MgrH *ayə-* J93b. MgrM *ayi-* JL461. BaoD *ayi-* BL82b. BaoÑ *ayi-* CN9. BaoX *ai-* BC66. Kgj *ayi-* S279a. Dgx *ayi-* B6. Mog *ai:-* R22b, *ʌi-*, *ai-* W158a.

- B -

*ba 'we (exclusive)'. Some inflected forms survive in languages that lost **ba* itself, e.g. Bur *man-* C291a (oblique stem of *bide < *bïda*) as well as *maanad(uud)* C289b 'we', Brg *man* U143. In QG the genitive and/or accusative survive, cf. EYu *manə* J21 (postnominal possessive) 'our', BaoD *manə* BL33 'our (incl.), Dgx *mani ~ mayi* (gen./acc.) B102/104, *mai* (postnominal possessive) L44 'our '. New nominatives were also formed, as in BaoD *mangə* BL33, Dgx *mataŋ* B103, L49 'we (incl)', Kgj *mənə* S292a 'we (incl)'. Cf. **bïda* 'we (inclusive)' and **bï* 'I'.

MMo SH *ba* H11, HY *ba* M38, Muq---, WM *ba* L64a. Kh *ba* (obs) H41 'we'. Ord---. Bur---. Brg---. Kalm *ma* M337a, *maanr* (pl.) M337b. Dag *ba:* E65. EYu---. MgrH---. MgrM---. BaoD---. BaoÑ---. Kgj---. Dgx---. Mog---.

*baa- 'to defecate'.

MMo SH---, HY---, Muq *ba:-* P115b, WM *baɣa-* L67b. Kh *baax* H42a. Bur -?-. Brg *ba:-* U65. Kalm *baax* M72b. Dag *ba:-* E66. EYu *pa:-* B38, J97b. MgrH *ba:-* J98b. MgrM---. BaoD *ba-* BL85b. BaoÑ *ba:-* CN47. Kgj *ba- ~ bai:-* S282b. Dgx *ba-* B33. Mog---.

*baasun 'excrement; dung'. Possibly for **baa-asun*.

MMo SH---, HY---, Muq *ba:sun* P115b, IV *baɣasun* (sic) L18. WM *baɣasu(n)* L68b. Kh *baas(an)* H42a. Bur *baaha(n)* C72b. Brg *baxa:* U66. Kalm *baasn* M71b. Dag *ba:s* E66. EYu *pa:sən* B38, J96b. MgrH *ba:sə* J98a. MgrM *basï* DS221. BaoD *basuŋ* BL85a. BaoÑ *ba:səŋ* CN47. Kgj *basun ~ ba:sun* S283a. Dgx *basuŋ* B37. Mog---.

*baatur 'hero'. Wanderwort also found in Turkic, Persian, and Russian. The form in Muq may owe its *-d-* to Persian influence. In view of the shape and meaning, the Dgx forms may instead be connected to, or at least influenced by **batu* 'strong'.

MMo SH *ba'atur* H11, HY *ba'atur* M38, Muq *ba:dur* P115b. WM *baɣatur* L68b. Kh *baatar* H42a. Bur *baatar* C72a. Brg *ba:tar* U65. Kalm *baatr* Mun72a. Dag *ba:tur* E66. EYu *ba:tăr* B29, *ba:tər* J98b. MgrH *ba:tur* J98a, *ba:tər* X43. MgrM---. BaoD---. BaoÑ---. Kgj---. Dgx *baduru ~ baturu ~ batulu* B37 'young and vigorous man'. Mog---.

*baga 'small'. Cf. *bičïkan, *üčüken.
      MMo SH---, HY---, Muq---. WM baγa L67a. Kh baga H42b. Bur baga C73a. Brg bag U66. Kalm baγ M74b. Dag---. EYu baǧa B30, J97b. Remaining lgs---.

*bagta- 'to have the capacity of, to fit into, to suit; to sink'. Interestingly, MgrM, Kgj and Dgx share the same form puda-. However, Kgj has two forms, suggesting interdialectal borrowing. Note the metathesis in BaoGt (cf. *čidkör, *sedki- for the reverse).
      MMo SH baqta'aldu- (caus. + reciprocal) H11, HY---, Muq baqta- P111b. WM baγta- L70a. Kh bagtax H44b. Bur bagtaxa C75a. Kalm bagtx Mun74a. Dag bart- E73 'etc'. EYu bagta- B30. MgrH paǧda- X54. MgrM puda- JL467. BaoD---. BaoGt vatǧa- C116. BaoÑ waǧta- CN226. BaoX ɵǧtə- CN86:283. Kgj paǧda- ~ pəǧta- S284a 'to sink into', puda- ~ puta- S284b 'to fit into'. Dgx puda- B48. Mog baχta- R23b.

*baï- 'to stand still, to stop, to pause'. *baï- 'to be', a semantic development of this verb (as in the verb *a- listed above), is not included here. The auxiliary verb has often developed reduced shapes, e.g. MgrH vai-, vi:-, i:- X242/243/11.
      MMo SH baiyi- H12, HY bayi- M39, Muq bai- P109b, bayi- P115a. WM bayi- L72b. Kh bayx H49a. Bur bayxa C80a. Kalm bääx M89b. Dag bai- E67. EYu bai- B30. MgrH bai- X43. MgrM bai- DS252. BaoJ bi- L14. BaoÑ bi:- CN51. Kgj bei- S283b. Dgx bai- B33. Mog bɛi- R24a, baï- W159b.

*baïdasun/*baïtasun 'mare'. An alternative form *baïtal is found in Turkic languages (cf. *kabtal and *kabtasun 'board, plank'). Cf. *geün.
      MMo SH---, HY---, Muq---. WM bayidasu(n) L74a, bayitasu(n) L76b. Kh baydas H47a, baytas (sic) H48b 'three- or four-year-old barren mare'. Ord bä:das(u), bä:dus(u) M59b '(..) mare of three, four, or five years that has not yet foaled', cf. also bä:tat (pl.) M60b 'young mares that have not yet foaled (..)'. Bur baytaha(n) C80a 'not having had young for some years (of mares and cows)'. Brg baitʊ:ŋ U65 'infertile female domestic animal'. Kalm bääsn M89b 'three-year-old mare'. Dag---. EYu baidasən B30 'three- or four-year-old mare'. Remaining lgs---.

*baka 'frog'. It seems likely that *melekei was the original Mongolic word for 'frog' and that this word is simply ←CT *baka 'id'.
      MMo SH---, HY---, Muq---. WM baqa L92b. Kh bax H58b 'toad'. Bur baxa C92a 'frog; toad'. Brg---. Kalm---. Dag---. EYu baǧa B30, J102b. MgrH---. MgrM---. BaoD---. BaoÑ---. Kgj paka S284a. Dgx baǧa B36. Mog---.

*bal 'honey'. Cf. CT *bal 'id'.
      MMo SH---, HY---, Muq bal P118a. WM bal L78a. Kh bal H49b. Ord bal M46b. Bur bal C83a. Brg bal U67. Kalm bal Mun78b. Dag---. EYu bal B30, J98b. MgrH bal J98a. X45. MgrM bar JL467, bər DS229. BaoD bal BL85b. BaoÑ bal CN48 (only in bal bumbu 'honeybee'). Kgj---. Dgx baŋ B36. Mog---.

*bal(a)gasun 'wall; town'. The variant with four syllables seen in Sino-Mongolian can not be confirmed in the modern languages. CT *balïk 'id'.

MMo SH balaqasu(n) H12 'town', HY balaqasun M38, Muq balɣasun P110a, balqasun P111a 'wall; town'. WM balɣasu(n) L80b. Kh balgas (sic) H50b 'city, town, ruins or site of an ancient town'. Bur balgaaha(n) C83b 'stable, pen', bulgaaha(n) (sic, ?=) C111a 'pen; hut'. Brg---. Kalm balɣsn M79b 'town'. Dag---. EYu *balğasən Her206. MgrH balğasə X45, valğasə X242. MgrM barğasï JL469. Remaining lgs---.

*bara- 'to finish, end'.

MMo SH bara- H13, HY bara- M38, Muq bara- P111b. WM bara- L82b. Kh barax H54a. Bur baraxa C87a. Brg bar- U69. Kalm barx M83b. Dag bar- E72. EYu bara- B31, J98a. MgrH bura:- J98a, bara:- X46. MgrM bura- JL463. BaoD uărə- BL86a. BaoGm warə- CN86:219. BaoÑ wara- CN227. BaoX var- BC70. Kgj bəra- ~ bura- S283b, bʉra- S19. Dgx bara- B38. Mog bʌrʌgdʌ- W160a (pass), MogMr bɒ:rɒ: ɣda-, MogM baraɣda- L64:36.

*baraun 'right (hand side)' Shortening of the expected contraction length in both Dag and Mgr.

MMo SH bara'un H13, HY bara'un M39, Muq bara'un [P: u:] P112a, baran [?bara:n] P111b. WM baraɣun L84a. Kh baruun H56b. Bur baruun C90a 'right; west'. Brg barʊ:ŋ U69 'west; right'. Kalm barun M83b 'right; west'. Dag barən E72 'right; west'. EYu baru:n B31, J98a 'right'. MgrH varoŋ J98a 'right, west', barɔŋ X46, varɔŋ X243 'right'. MgrM baraŋ C396. BaoD---. BaoÑ bayaŋ (?=) CN48 'id'. Kgj---. Dgx boruŋ B43. Mog---.

*barï- 'to grab, to hold, to take' as well as, in several languages also 'to build, make, do'

MMo SH bari- H13, HY bari- M39, Muq bari- P112a. WM bari- L85b. Kh barix H56a. Bur barixa C89a. Brg barʸ- U69. Kalm bärx M92b. Dag barʸ- E73. EYu bar- B31, J98a. MgrH varə- J98, barə- X46, varə- X243. MgrM barï- C396, bari- T316. BaoD uarə- BL86a, uar- BL34. BaoÑ war- CN227. Kgj bari- S283a. Dgx bari- B38. Mog bari- R23b, bʌri- W160a, bʌr- W159b.

*bars 'tiger'. An Iranian word that probably entered via Turkic. The 'un-Mongolic' final cluster -rs was simplified in several ways.

MMo SH barus (?=) H13 'q.v.', HY bars M39, Muq---. WM bars L88b 'tiger'. Kh bar H52b, bars H56b. Ord bar M50a. Bur bar C85a 'panther; tiger', (western) 'lion', baras (sic) C87b 'tiger; panther'. Brg bar U69. Kalm bars M83a 'panther'. Dag---. EYu barəs B31, J98a. MgrH bas J98a, basə X45, pasə X54. MgrM barsə JL469, bar(s) C374. BaoD bas BL86b. BaoÑ basə CN48. Kgj basï S283a. Dgx ꞌbasï B37, basï L114a. Mog---.

*basa 'again; also'. The p- is due to the following –s-. Related to CT *bas-a.

MMo SH basa H13, HY basa M39, Muq basa P113a. WM basa L90a. Kh bas H57b. Bur baha C92b. Kalm bas M84a. Dag bas E71. EYu pəsa B39, J98a. MgrH pusa J98a. MgrM puʒa C390, DS204a. BaoD sa BL58. BaoÑ sa CN121. Kgj

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bǝsa ~ bǝsχa (sic) S283b, *bǝsχa* S219 'also; or; otherwise, or else'. Dgx *pǝsǝ* B46, *pusǝ* L113a. MogMr *bʋ:sa* L62:19.

batu 'strong, sturdy, firm (of people and objects)'. The unexpected –*r*- in BaoGt may be a byproduct of the aspiration of –*t*-. The initial *p*- in Shirongol is also due to the following –*t*-.

      MMo SH *batu* H13, HY *batu* M39, Muq *batu* P113b. WM *batu* L91a. Kh *bat* H57b. Bur *bata* C91a. Brg *bat* U68. Kalm *bat* M84b. Dag---. EYu *batǝ* BJ321, J86, *bat* B31. MgrH *padǝ* J99a. MgrM *batǝ ~ batu* C375. BaoD *batǝ* BL86b. BaoJ *baştɨ̈* L12. BaoGt *bartï* C107. BaoÑ *batǝ* CN48. Kgj---. Dgx *pudu* B48. Mog---.

bau- 'to descend, come down'.

      MMo SH *bao'u-* H12, *ba'u-* H14, HY--- [*ba'ura'ul-* M39 'to diminish (tr.)'], Muq *ba'u-* P114a, *bu'u-* P126b, *bu:-* P126b. WM *baɣu-* L71a. Kh *buux* H86b. Bur *buuxa* C118b. Kalm *buux* M124b. Dag *bɔ:-* E79. EYu *bu:-* B35, J98a. MgrH *bau:-* J98a, *bau-*Khas43, *bu:-* SM30. MgrM *bou-* C374, *bau-* JL482. BaoD *bu-* BL85a. BaoÑ *bu:-* CN53. Kgj *bu-* S283b. Dgx *bau-* B34. Mog *bu:-* R25a, *böʉ-* R24b.

bayan 'rich'. Related to CT *ba:y* 'id'.

      MMo SH *baiyan* H11, HY *bayan* M39, Muq *bayan* P114a. WM *bayan* L76b. Kh *bayan* H60a. Bur *bayan* C93a. Brg *bayaŋ* U68. Kalm *bayn* M77a. Dag *bayin* E72. EYu *bǝyan* B32, *bayan* J98a, *buyan* S255. MgrH *bayan* J98a, *baya:n* X45. MgrM *bayaŋ* JL466. BaoD *bayaŋ* BL85b. BaoGt *bayɔŋ* C103. BaoÑ *bayaŋ* CN48. BaoX *bayaŋ* BC64. Kgj *bayɔ* S283a. Dgx *bayaŋ* B37. Mog---.

bayar 'joy, happiness'.

      MMo---. WM *bayar* L77a. Kh *bayar* H60a. Bur *bayar* C93a. Brg *bayar* U68. Kalm *bayr* M77b. Dag---. EYu *bǝyar* B32, *biar* J13. MgrH *bayar* L42. MgrM *bayǝr* DS232a. Remaining lgs---.

bayas- 'to be glad, rejoice'.

      MMo SH *bayas-* H14, HY *bayas-* M39, Muq *bayas-* P114b. WM *bayas-* L77b. Kh *bayasax* H60b. Bur *bayasaxa* (←Kh) C93b. Brg *bays-* (←Kh) U68. Kalm *baysx* M78a. Dag *bais-* E67. EYu [*pǝyarla-* B32]. MgrH *be:sǝ-* X46, *beysǝ-* X47. MgrM *bayasï* JL467. BaoGt *bɛs-* C108. BaoX *bes-* CN86:222. Kgj---. Dgx *bayasu-* B37. Mog---.

bečin 'monkey, ape; ninth in the Twelve Animal cycle'. The Kalm form *sar-möčn* M442b may be an attempt to make sense of the etymon also found in WM *sarbačin* L675a, *sarmaɣčin* L676b, Bur *harmaɣšan* C677b. An Iranian word that probably entered through Turkic *be:čin* 'id'.

      MMo HY *bečin* M40, Muq *bečin* P115b. WM *beči(n)* L93b. Kh *bič(in)* H63a, *mič(in)* H312b, *meč(in)* H339b. Ord *meči ~ méči* M463b. Bur *meše(n)* C313b. Brg *mǝš* U145. Kalm *möčn* M361a (see above). Dag---. EYu *be:ǰǝn* B32. MgrH *mućin* X127, *mǐećin* SM237. MgrM *mečin* P417a, *mičiŋ* T345, *miśiʒun* (?=) DS237a. BaoD---. BaoÑ *bećaŋ* CN51. Kgj---. Dgx *bieçǝn* B40. Mog---.

*beke 'ink stick; ink'. A cultural word that probably entered from Turkic but is ultimately from Chinese.

MMo SH---, HY *beke* M40, Muq *beke* P115b. WM *beke* L95b. Kh *bex* H98b. Bur *bexe* C134b. Brg *bəx* U70. Kalm *bek* M93b. Dag *bəɣ* E75. EYu *beke* B32. Remaining lgs---.

*belbisün 'widow'. Mog *beβa* W160a 'id' is from Persian, although the similarity raises the question whether the root of the CM word may be of Iranian origin.

MMo SH *belbisun* H14, HY *belbisün* M40, Muq *belbüsün* P116a. WM *belbesün* L96b. Kh *belbesen* (?stable -*n*) H95b, *belevsen* H96b. Ord *belbesen* M63b. Bur *belbehe(n)* C131a. Brg---. Kalm *belvsn* M94a. Dag *bəlibsən* E76. EYu *belβəsən* B33, J98a. Remaining lgs---.

*belčier 'pastureland'. In view of the MMo forms the modern form may be due to dissimilation. The final -*i* in Bur is hard to reconcile with the other languages. In Kalm apparently merged with *belčir*.

MMo SH *belji'el* H14, HY---, Muq *belčil* P116a, *belče'el* P150b. WM *belčiger* L96b, *belčigir* L97a. Kh *belčeer* H96b, *bilčeer* H62a. Ord *belče:r* M65a. Bur *belšeeri* C131b. Brg *bəlšə:r* U71. Kalm *belčr* M95a. Dag---. EYu *belče:r* B33. MgrH---. MgrM *bərće* DS250 'slope', Slater 2003:61 'pasture'. Bao---. Kgj---. Dgx *banʒə* B35. Mog---.

*belčir 'delta; confluence of rivers'. Cf Turkic *beltir*.

MMo SH *belcir* H14, HY---, Muq---. WM *belčir* L97a. Kh *belčir* H96a, *bilčir* H62a. Bur *belšer* C131b. Brg---. Kalm *belčr* M95a. Dag---. EYu *belčir* B33. Remaining lgs---.

*belen 'ready; ready-made'.

MMo SH *belen* H14, *bolen* H17, HY---, Muq *belen* P116a. WM *belen* L97b. Kh *belen* H97a, *bilen* H62a. Bur *belen* C132a. Brg *biləŋ* U71. Kalm *beln* M95a. Dag *bələn* E75. EYu *belen* B33, *bələn* J98a, *bele:n* S148. MgrH *bulen* J98a. MgrM---. BaoD *balaŋ* BL86a. BaoÑ *bəlaŋ* CN49. Kgj *beilian* ~ *bailian* S283b. Dgx *bəlien* B39. Mog---.

*beri 'daughter-in-law; bride'.

MMo SH *beri* H14, HY *beri* M40, Muq *beri* P118a. WM *beri* L99b. Kh *ber* H97a. Bur *beri* C132. Brg *bər* U71. Kalm *ber* M95b. Dag *bər^y* E77. EYu *be:rə* B32, *bi:rə* J98a. MgrH *be:rə* J98a. X46, *ye:rə* X234. MgrM *beri* JL466. BaoD *uerə* BL86a, BL54 'wife'. BaoÑ *werə* CN228 also 'wife'. Kgj *bere* S283b, *šinʉri* (*sini* 'new') S295a. Dgx *bieri* B41 also 'wife'. Mog *beiri* R23b, *bɛiri* W160b.

*berigen and *bergei 'sister-in-law'. EYu perhaps from *bergei* as Bolčuluu suggests but one would expect a long final vowel.

MMo SH *bergen* H14, *berigen* H15, HY *bergen* M40, Muq *berigen* P118a. WM *bergen* L99b. Kh *bergen* H97b 'wife of older brother', cf. *bergey* H97a. Ord *bergen* M66b. Bur *berigen* C132b, *bergen* C132b. Brg *bərgəŋ* U71. Kalm *bergn* M95b. Dag *bərɣə:n* E77. EYu *be:rge* B32, *bi:rge* J98a. MgrH *bergen* J98a, *vergen*

X243, *burgen* L55, *urgen* L616. MgrM---. BaoD *urgaŋ* BL86b. BaoGt *vurgaŋ* C116. BaoÑ *werġaŋ* CN228. BaoX *orgaŋ* BC64. Kgj *bergɔ* S283b. Dgx *bangan* B35, *bənɣən* L114a. Mog---.

beye 'body; person; side'. The meaning 'self' known from several central languages, is also documented for EYu. However, EYu normally uses *eǰen < *eǰen* 'master' in this function. Also compare *öer-*.

    MMo SH *beye* H15, *be'e* H14, HY *beye* M40, Muq *beye* P118a 'body'. WM *beye(n)* L94b. Kh *biye* H61a. Ord *bəye* M62b. Bur *beye* C129b. Brg *bəy* U71 'body'. Kalm *biy* M98a. Dag *bəy* E76 'body', E77 'side'. EYu *biy* B33 'body; self', *bai* J98a. MgrH *beye* J98a, *be:* X46, *buye* X52 'body'. MgrM *bie* DS207b. BaoD *baiyə* BL6. BaoGt *bɛ* C108 'stature'. BaoÑ---. Kgj *be ~ bei* S283b 'body'. Dgx *bəyə* B39, *bəiyə* L114b 'body'. Mog---.

*bï > *bi* 'I'. The original back-vocalic form is suggested by *ba* 'we (exclusive)' and *bïda* 'we (inclusive)'; as well as the parallel 2nd and 3rd person pronouns *čï* and *ï*.

    MMo SH *bi* H15, HY *bi* M40, Muq *bi* P118a. WM *bi* L101a. Kh *bi* H60b. Chakhar *bi:* D173b. Ord *bi* M67b. Bur *bi* C93b. Brg *bi:* U71. Kalm *bi* M97a. Dag *bi:* E78. EYu *bu* B35, *bə* J98a. MgrH *bu* J98b. MgrM *bi* C375. BaoD *bŭ*, *bə* BL86b. BaoÑ *bə* CN49. Kgj *bi* S283b. Dgx *bi* B39, L114a. Mog *bi* R24a.

bïčïkan 'small'. Kh and Ord suggest *bïčakan*, whereas the word became front-vocalic in Kalm. It is unclear whether Baoan *bədi, bədġaŋ* belong here. See also *üčüken*; some of the Baoan forms listed there may instead belong here.

    MMo---. WM *bičiqan* L102a. Kh *byacxan* H100b 'small child; small, tiny; a little'. Ord *bičaχan* M71b. Bur *bišïxan, bišayxan* (western) C95b. Brg *bišxaŋ, biši:xaŋ* U72 'immature'. Kalm *bičkn* M101a. Dag *bači:kən* E71 'small, a little bit'. BaoD *bəjiğoŋ* T135. BaoX *bədi* (?=) BC64 'small'. BaoÑ *bədġaŋ* (?=) CN50.

bïda (?and *biden*) 'we (inclusive)'. The original back-vocalic form was preserved in Ord, Dag, EYu and the Monguor languages. The three central standard languages have the front-vocalic form. Dongxiang and Kangjia, and perhaps all the Baoanic languages (as far as the extant Baoan forms are not simply due to reduction), also have the front form. Moghol is inconclusive. Cf. *ba* 'we (excl) and *bi* 'I'. New inclusive formations in Shirongol, apparently based on inflected forms of *ba*, include BaoÑ *mangə* CN110, Kgj *mənɔ* S292a, Dgx *mataŋ* B103.

    MMo SH *bida* H15, HY *bida* M41, Muq *bida* P118b. WM *bida/bide(n)* L102b. Kh *bid(en)* H60b 'we'. Chakhar *bəd* D174a. Ord *bida* M67b. Bur *bide, bidener* C94a. Brg *bid* U72. Kalm *bidn* M97b. Dag *bed* E78, *bäd* E73. EYu *buda* B35, J98b, J25 'we (exclusive)', *buda-s* B36, J25 'we (inclusive)'. MgrH *buda* J26, *buda-sge* J26, *buda-ŋgula* J98b. MgrM *buda-ŋ* JL484, *buda-daŋ* C198, *da, da-sï, da-taŋ* DS77a (cf. Slater 2003:84, who no longer documents forms with preserved first syllable. BaoD *bədə* BL86a. BaoGt *buda* CN86:389 'we (exclusive)'. BaoJ *budá ~ budə́* L18. BaoÑ *bədə* CN50. Kgj *bəde* S283b 'we (exclusive)'. Dgx *biʑien* B41, L114a 'we (exclusive)'. Mog *bidâ, bidâ-t* R24a 'we'.

*bïlduur ~ *bïlǰïur 'small bird' (cf. *sïbaun). The first variant survives in Dag, the second in EYu and Shirongol. Probably related as well are two sets of further bird names. An apparent diminutive *bïlǰïukaï is found in Kh byalzuuxay H99b 'a general term for small birds'. Ord bilǰu:xä: M69a. Bur bilžuuxay C94b 'small bird', bilzuurxay (šuvuun) C94b 'small songbird', bolžuuxay, bulžuuxay C111b 'small bird', Brg bɔlǰɔ:xɔi U74 'small bird'. A second set is even harder to reduce to a single CM form: WM bolǰimor L119b 'lark'. Kh bolǰmor H67b 'lark', byalzuumar H99b 'lark'. Bur bolžomor (Kab,), bulžamar, bulžamuur C111b. Brg bɔlǰmɔ:r U77 ~ bɔlǰmɔr U74 'small bird'.

   MMo SH bilǰi'ur H16 'small bird, sparrow', bildu'ur H16 'lark', HY---, Muq---, RH bildu:r [eds read short ü] 200.B7. Dag bʸellur, bʸeldur E77 'lark', bʸɔldur NK479b 'lark'. EYu χara βölǰir B46 'swallow' (χara 'black'), belǯɔr Z342:399 'bird', bulyür (sic) Her199 'sparrow'. MgrH see 'bat' s.v. *sarïsun. BaoD---. BaoGt binǯir C106. BaoÑ bəlǯir CN49 'sparrow'. BaoX bənǰir BC62 'bird'. Kgj binǰir ~ binǰirï S283b. Dgx bunʒu B43, bənʒu B39 'small bird; sparrow'.

*bïrau (as based on Kh, Ord, Kalm) 'calf'. Interestingly Bur, Brg, and Khamnigan boro: (Janhunen 26) reflect a form *burau in which the *ï was lost without a trace. This form is confirmed by MMo, but it is ore likely that the original form had *ï. Agricultural term related to CT *buzagu (?*bïzagu). Cf. *tugul.

   MMo SH bura'u H22, HY---, Muq buru: P126 'three-year-old calf'. WM biraɣu(n) L106a 'calf in its second year'. Kh byaruu(n) H100b. Chakhar bïrʊ: D174a. Ord biru: M70a. Bur buruu, buruun C114b. Brg bʊrʊ: U79. Kalm bürü M130. Dag---. EYu---. MgrH buru: X52. MgrM pirù P420b, burər DS210. BaoD---. BaoÑ---. Kgj---. Dgx---. Mog---, cf. Zirni buraul 20:6, buraɣul 20:8.

*bïsïun 'quick, lively, smart'. ?cf. CT *bïšïg 'mature' (lit and fig).
   MMo SH---, HY biši'un M41, Muq bišu:n P119b. WM bisiɣu L106a, busiɣu L140b. Kh bušuu H87b. Ord bušu: M100a. Bur bušuu C119b. Brg bʊšʊ: U78 'quick, nimble'. Kalm bušu: R63b. Dag bɔšɔ:n E82 '(of a child) healthy and lively'. Remaining lgs---.

*biči- 'to write'. One of the most widespread loanwords in Eurasia, ultimately from Chinese (cf. Turkic *biti-). In Dag ki:- 'to do' is used instead, under the influence of the neighbouring North Tungusic languages, where ɔ:- is both 'to do' and 'to write', and/or Manchu/Sibe, where both 'to do' and 'to write' are expressed by arambi/arəm. The Monguoric languages use *ǰïru-.
   MMo SH bici- H15, HY biči- M40, Muq biči- P118b. WM biči- L101b. Kh bičix H63. Kalm bičx M102a. Bur beše- C136a. Brg biš- U72. Dag---. EYu pəčə- B39. Mgr--- [see *bičig]. BaoD pučï- BL86b. BaoÑ pəći- CN54. Kgj pəči- S284a. Dgx piʒï- B47, L114b. Mog biči- R24a, W160b.

*bičig 'book, writing, letter (epistle)'. Dag bitəɣ E78 is from Manchu. The irregular loss of -g in BaoÑ must be due to the verb *biči-.
   MMo SH bicik H15, HY bičik M40, Muq bičik P118b. WM bičig L101b. Kh bičig H63a. Bur bešeg C135b. Kalm bičg M101a. Dag---. EYu pəčəg B39.

MgrH *puʒig* X57. MgrM *puʒiġ* JL467. BaoD---. BaoÑ *pəći* (sic) CN54. BaoX *pəĭəg* BC66. Kgj *pəčiᵤ* S284a. Dgx---. Mog *bičik* R24a.

bidüün 'coarse, crude'. The vocalism of the first syllable is unexpected in several languages. Dag *u* in the first syllable appears instead of expected *i*. Most, but not all, of the Shirongol forms suggest an earlier form *bedun*. Cf. *sirüün* 'coarse', which shows similar phonetic developments.

     MMo SH---, HY---, Muq *bidü:n* P119a. WM *büdügün* L144b, *bidügün* L103a. Kh *büdüün* H89a. Ord *bᴜdᴜ:n* ~ *bᴜdi:n* M101b, *bidu:n* M68a. Bur *büdüün* C121b. Brg *budu:ŋ* U82. Kalm *bödün* M113b. Dag *budu:n* E87. EYu *bodü:n* B35, *budü:n* J98b. MgrH *budən* J98b. MgrM *beduŋ* JL477, *bieduŋ* C375. BaoD *bəiduŋ* BL86a, *beduŋ* BL37. BaoÑ *bedəŋ* CN51. BaoX *bɛdoŋ* BC64. Kgj *beduŋ* S283b, *bəduŋ* S19. Dgx *bieduŋ* B40. Mog *beidᴜ:n* R23b, *bäidun* W160a.

bileü 'whetstone'. Related to CT *bi:legü*.

     MMo SH *bile'u-de-* H16 'to whet', HY---, Muq---, IV *bile'ü* L20. WM *bilegüü* L104b, *bileü* L104b. Kh *bilüü* (and *bilüür*) H62a. Ord *bilᴜ:* M70a. Bur *bülyüü* [written *bülyuu*] C123a. Brg *bulʲu:* U81, *bilᴜ:* S151. Kalm *bülü* M127b. Dag---. EYu *bᴜləi* B36, *bᴜlᴜ:* BJ321, *bulü:* J98a. MgrH *buliu:* J98b. MgrM *biliau* JL465. BaoD *bŭlu* BL86a. BaoÑ *bəlu* CN49. BaoX *bəlu* BC64. Kgj *bəliau* ~ *bᴜliau* S283a. Dgx---. Mog---.

bisire- 'to believe in; to revere, worship'. Dgx *-ś-* instead of expected *-ʂ-*. Cf. *itege-*.

     MMo SH *buśire-* H24, HY *büšire-* M45, cf. *bišire'ül* M41 'good faith', Muq---, Ph *bušire-* P121a. WM *bisire-* L106b. Kh *bišrex* H64a. Ord *bišire-* M70b. Bur *bešerxe* C136a. Kalm *biširx* M102b. Dag---. EYu *šüre-* (only) S152. MgrH *śüre:-* X158, *śʒüre:-* X161. Bao---. Kgj---. Dgx *piśierə-* B47.

boa- 'to tie up, bundle, wrap'. The EYu *p-* is unexpected in the absence of a strong consonant. Cf. CT *bog-*.

     MMo SH *bo'o-* H19 'to block, obstruct', HY---, Muq *bo:-* P122b, *bo'o-* P121a. WM *boγo-* L111a. Kh *boox* H71a. Ord *bo:-* M72a. Bur *booxo* C105a. Brg *bɔ:-* U73. Kalm *boox* M109b. Dag only in *bɔ:ǰ uɣʷ-* E83:21 'to die by hanging' where it is viewed as an expression with *bau-* 'to descend'. EYu *pu:-* B40. MgrH *bo:-* J98b. X47. Remaining lgs---.

boarsag ~ *boarčug* 'name of various types of bread and pastry fried in oil'.

     MMo SH---, HY---, Muq---, IV---, LV---, RH---. WM *boγorsoγ* L113a, *boγorčoγ* L113a. Kh *boorcog* H71a. Ord *bo:rsoq* M81b. Bur *boorsog* C105a. Brg *bɔ:rsɔg* U73. Kalm *boorcg*, *boorsg* M109b. Dag---. EYu *bu:rsaġ* B34, J74. MgrH *bo:rʒɔġ* X48. MgrM *borsok* P421b, *puʒïġo* DS224b. BaoD---. BaoÑ *bərsəġ* CN52---. BaoX *barsaġ* BC67. Kgj---. Dgx---. Mog---.

boas 'pregnant; with foal, calf, etc'. Cf. CT *bogaz*, but the erratic Muq forms seem to indicate that there was a genuine Mongolic form with rhotacism.

MMo SH---, HY---, Muq *bo'ar-* P120a, *boɣar* P120a, *boɣur* P120b, *bo'or-* P121a. WM *boɣos* L113a. Kh *boos* H71a. Ord *bo:s* (~ *bo:sor*) M82b. Bur *bood* C104b. Kalm *boos* (obs) M109b. Dag *bɔ:r* E79. EYu *bo:s* S337. Mgr---. Bao---. Kgj---. Dgx *bosï* B42. Mog---.

boda 'large livestock (collective term for horses, camels, and bovines)'. Possibly the same word as EYu-MgrH *boda* 'deer': EYu *bɔdɔ* B34 'deer, stag', *bɔdɔ* J98b 'deer'. MgrH *bodo* J98a 'deer'.

MMo SH *bodo* H16, HY---, Muq---. WM *boda* L108b. Kh *bod* H65a. Ord *bodo* M72b. Bur *bodo* C96b 'large (of livestock)'. Kalm *bod* M103b. Dag *bɔd* E83. EYu *bɔdɔ* B34. Remaining lgs---.

boda- 'to count; to calculate; to think; to plan'. Cf. *sedki-*.

MMo SH---, HY---, Muq---. WM *bodo-* L109a. Kh *bodox* H65. Ord *bodo-* M72b. Bur *bodoxo* C97b. Brg *bod-* U75. Kalm *bodx* M104a. Dag *bɔd-* E83. EYu *bɔdɔ-* B34. MgrH---. MgrM *bodɔ-* JL487. Remaining lgs---.

boganï 'low, short (not tall)'. There are several unexpected forms. A metathesized form *bogïna* seems to underlie the Ord and Brg forms. MgrM and BaoD share another deviant form, which may represent a dissimilation of an earlier *bogonin*. Also note BaoÑ *bǝġdǝ*. Perhaps cf. CT *bokay*.

MMo SH *boqoni-t-qa-* H17 'to lower', HY *boqoni* M42, Muq *boɣani* P120a. WM *boɣoni* L113a. Kh *bogino* H64b. Ord *boġoni* ~ *boġono* M74a, *bogino* M73b. Bur *bogoni* C96a. Brg *bɔɣɪn^y* U75. Kalm *boɣn'* M103a. Dag *bɔɣun^y* E81. EYu *bɔǧɔnɔ* B34, *bɔǧonǝ* B33, *boğonǝ* J98a. MgrH *boġnǝ* J98b, *boġʊn* ~ *buġʊn* X48/49, *buġun* L51. MgrM *boğoliŋ* DS235a. BaoD *boɣoluŋ* BL86b. BaoJ *boğolúŋ* L17. BaoGm *bǝġñǝŋ* CN86:17. BaoÑ *bǝġni* ~ *bǝġdǝ* CN52. Kgj *bǝğǝni* ~ *bɔğoni* ~ *bağǝni* S283a. Dgx *boğoni* B42, *boɣoni* L114a. Mog---.

bogar (?*bogaar*) and *bagaur* (the same etymon?) 'buttocks; anus'. The form with *a* in the first syllable does not survive in modern languages. It may have been influenced by *baa-* 'to defecate'. Kh and Ord suggest *bukuur* or *bukaur*. Interesting distribution in Kh, Dag, Baoanic and Mog. Cf. *bögse*, *kondalaï*, *konǰïasun*.

MMo SH---, HY---, Muq *baqa'ur* P111a, *baɣa'ur-* P163a (could also be read with -*u*- in the unvocalised first syllable), also *asabaqu:r* P106b with unknown first element, IV *baɣaɣur* (sic) L17, RH *baɣaɣur* (sic) 199A13. WM *buqur* L143a. Kh *buxuur* H87a. Ord *buχu:r* M92a. Bur---. Brg---. Kalm---. Dag *bɔɣɔ:r* E80. EYu---. Mgr---. BaoD *boġor* BL86a. BaoÑ---. Kgj *bɔğɔr* ~ *bɔğɔ* S283b 'female genitals'. Dgx *boğo* B41. Mog *buɣa:r* R24b, MogM *boɣɒ:r* L62:18.

bokï / *mokïn* 'resin'. The form with *m*- and -*n* in Bur-Kalm. The loss of the second syllable in EYu is irregular.

MMo SH---, HY---, Muq---. WM *boki* L114a. Kh *box'* H73b. Bur *moxi(n)* C301a 'tree resin'. Kalm *mokn* M354b. Dag *bɔk^y* E80 'rosin, colophony'. EYu *pɔġ* B40 'gum of a pine; tree sap'. Remaining lgs---.

*bol- 'to become, to be; to be possible or allowed'. Cf. CT *bo:l- 'id'.

MMo SH *bol-* H18, HY *bol-* M41, Muq *bol-* P120a. WM *bol-* L114b. Kh *boloχ* H69a. Bur *boloxo* C102a. Kalm *bolx* M107a. Dag *bɔl-* E81. EYu *bɔl-* B34, *bol-* J98b. MgrH *olə-* J98b, *o:li-* SM296. MgrM *boř-* T318, *bər-* DS210a 'can'. BaoD *ol-* BL52 'to become'. BaoÑ *əl-* CN17 'to become, turn into'. Kgj---. Dgx *olu-* B14 'to be possible, to be proper'. Mog *bol-* R24b, *bol-* W161a.

*bol- 'to ripen, to be cooked'.

MMo SH---, HY---, Muq *bol-* P120b, LV *bolɣa-* (caus.) P1267 'to cook'. WM *bol-* L115a. Kh *boloχ* H69a. Bur *boloxo* C102a. Kalm *bolx* M107a. Dag *bɔl-* E81. EYu *bɔl-* B34. MgrH *balə-* X45, *bɔlə-* X48. MgrM *bar-* T374, *boř-* T318. BaoD *bol-* BL13. BaoÑ *bəl-* CN52 'to ripen (grain)'. Kgj *bɔr-* S283b. Dgx *bolu-* B42. Mog *bol-* R24b, *bol-* W161a.

*bolgan 'all, every'.

MMo SH---, HY---, Muq---. WM *bolɣan* L117a. Kh *bolgon* H67a. Ord *bolğon* M78a. Bur *bolgon* C99a. Brg *bɔlgɔŋ* U74. Kalm *bolɣn* M105. Dag *bɔlɣ^w* E82. EYu *bɔlğɔn* B34, *bolğon* J54. Mgr---. Bao---. Dgx *aliğaŋ boğoŋ* B3 'no matter which, whichever', *kieğaŋ boğoŋ* B75 'whoever' (cf. *alï* 'which', *ken* 'who'). Mog---.

*bora 'grey'. Note also the feminine derivation *boragčïn, as in MMo SH *boroqcin* H19 'chick', MgrH *burɔǵśǯi:* X52 'hen'. Cf. CT *boz.

MMo SH *boro* H19, HY *boro* M42, Muq *bora* P121b. WM *boro* L121a. Kh *bor* H71a. Ord *boro* M80b. Bur *boro* C106a. Brg *bɔr* U75. Kalm *bor* M110b. Dag *bɔr* (in compounds only) E83, *bɔr* Z96a 'brown'. EYu *bɔrɔ* B34 'camel colour', *boro* J98b. MgrH *boro* J98b. MgrM *boro* JL464. Bao *boro* P420b. BaoÑ---. Dgx *boro* B43. Mog *boro:* R24b.

*boraan 'rain'. As Ligeti explains (1974:302) Mog is likely to be borrowed from Persian *bârân*.

MMo SH *boro'an* H19, *boro'on* H19, *boroqan* H19 'snow storm', HY---, Muq---. WM *boroɣa(n)* L121b. Kh *boroo(n)* H72a. Ord *boro:n* M81a. Bur *boroo* C106a, *boroon* (lit) C106b. Brg *bɔrɔ:* U75. Kalm *boraan* M110b. Dag---. EYu *bɔrɔ:n* B34 'precipitation, rain or snow', *boro:* J89. MgrH *buro:n* X52. Bao *bora* [*asxaǰi*] P413a (cf. *aska-*). BaoÑ---. Kgj---. Dgx---. Mog *boron* (?=) R161a.

*bos- 'to get up, stand up'. The BaoÑ reflexes are hard to separate from those of *ös- 'to grow'.

MMo SH *bos-* H19, HY *bos-* M43, Muq *bos-* P122a. WM *bos-* L122b. Kh *bosoχ* H73a. Ord *bos-* M82a. Bur *bodoxo* C97b, *bohoxo* (western) C107b. Brg *bɔd-* U75. Kalm *bosx* M111b. Dag *bɔs-* E82. EYu *pɔs-* B40, *pos-* J98b. MgrH *posə-* J98b, *bosə-* X48, *basə-* X45, *pasə-* X54. MgrM *bosï-* JL467. BaoD *osï-* BL86a, *os-* BL75. BaoÑ *əs-* ~ *əş-* CN18, *wər-* CN230. Kgj *bɔs-* S283b. Dgx *bosï-* B42, L114b. Mog *bos-* R24b, *bos-* 161a.

*bosaga 'threshold'. Kh and Ord suggest an alternant *bosïga, Bur a metathesized form *bogasa; Dagur points at *bosarga (as do Northern Tungus forms). The meaning in the Muqaddimat is reminiscent of Khamnigan (Kőhalmi 187, and footnote 7).

MMo SH bosoqa H20, HY bosoqa M43, Muq (de:dü) bosaɣa P141b 'lintel', bosaqa P143b 'door frame'. WM bosoɣa L122b. Kh bosgo H72a, bošgo H73b. Ord bošoġo M83a. Bur bogoho C96b. Brg bɔgʊ: U73. Kalm bosg M111b, bosxa M112a. Dag basrəɣ E71. EYu---. MgrH bosġo J98b, posġʊ X56. MgrM bosġo JL469. Remaining lgs---.

*botaga(n) 'camel foal'. CT *boto 'id'.

MMo SH botoqan H20, HY---, Muq botaɣan P122b, botaɣa P245a. WM botoɣa, botoɣo(n) L123a. Kh botgo H73a. Ord botoġo M83b. Bur botogo(n) C107a. Brg bɔtɔg U74. Kalm botxn M112b. Dag---. EYu bɔtɔ̌ɣɔn B34. Remaining lgs---.

*bödene 'quail'. Dag suggests final -i.

MMo SH---, HY bödene M43, Muq---, LV bödene P1266, IV bödene L62:21. WM büdüne L144b. Kh büdne(e) H88b, bödnö H74b. Ord bödönö M84a. Bur büdne C121a. Brg budən U82. Kalm bödn M113b. Dag bədənʸ E76. EYu---. MgrH puduri ~ puduru (?=) SM305. MgrM---. BaoD---. BaoÑ---. Kgj---. Dgx---. Mog: Hazara bə:danä (etc) L62:21.

*böe 'shaman, sorcerer'. Cf. CT *bögü 'id'. Cf. *ïdugan.

MMo SH bo'e H16, HY bö'e M42, Muq---. WM böge L123b. Kh böö H75b. Ord bö: M84a. Bur böö C107b. Brg bo: U79. Kalm bö M112b. Dag---. EYu bö: KotL455. MgrH bo: X47. MgrM bo P422a. Remaining lgs---.

*böelǰi- 'to vomit'. This form is confirmed by the three literary central languages. Most of QG (and one of the MMo forms in Muq) suggest *böelje-. Cf. *ogsï-.

MMo SH---, HY---, Muq bö'ölje- P123b, bö:lǰi- P124a. WM bögelǰi-L124a. Kh böölǰix H75b. Ord bö:lǰi- M86b. Bur böölžexe C107b. Brg bo:lǰ- U79. Kalm böölǰx M114b. Dag bə:lǰ- E74. EYu bölǰö- B35. MgrH bo:lǯo- J99a. MgrM barźe- C374. BaoD banźi- BL86b. BaoÑ bəlźa- CN52. Kgj bərji- S284a. Dgx banʒə- B36. Mog---.

*böere 'kidneys'. The SH forms with -k- must be due to an erroneous transcription from the Uigur script. Is Todaeva's form a loan from central Mongolic? All other Dag sources give basərt for 'kidney' (< Tungusic *boso-kto). Cf. also Dag taulʸe: bʉə:r NK502b 'chestnut', lit. 'hare's kidney' as in Kh tuulayn böör 'chestnut'. CT *bögür(-ek) 'id'. The MMo IV form was influenced by Turkic.

MMo SH bo'ere H16, bokore H17, bokorai H17, HY bö'ere M43, Muq---, LV bö:re P1266 ('waist region'), IV bö:rek L21. WM bögere L124b. Kh böör H76a '& testicles'. Ord bö:rö M88a. Bur bööre C108a. Brg bo:r U79. Kalm böör M114b. Dag bə:r (?←Kh) T18, and see above. EYu pü:re B41, pö:rö (Qinglong dial) BJ350, pi:re J99a. MgrH bo:ro J99a. MgrM /bori/ = boʒï C375. BaoD borə BL86b. BaoÑ bə:rə CN52. Kgj bəre S284a. Dgx boro B43. Mog böärä R24b.

***böesüg** ~ ***böesün** 'testicle'. In EYu and BaoÑ in fact with the same shape as 'louse' below. The Ordos form is also more likely to stem from the variant with -*n*. Cf. *böldegen*.

MMo SH---, HY---, Muq---, RH---. WM *bögesüg* L125a 'testicle(s)', *bögesügey* LC 1:276a 'penis'. Kh *böösgiy* LC 1:276a 'penis'. Ord *bö:slö-* M88b 'to castrate (usu. said of rams and billy-goats)'. Bur---. Kalm *böösg* M115a. Dag---. EYu *bəisən* B32 'testicles'. BaoÑ *bɵ:sɵŋ* (?=) CN51 'spleen'.

***böesün** 'louse'. MgrM *bəsïgə* F102:36 'lice' seems to be *bəsï gə*, i.e. *böesün* followed by the modal adverb *gə* (< *nigen*). Possibly related to CT *bö:g* 'spider'.

MMo SH *bo'esun* H16, HY *bö'esün* M43, Muq *böwesün* (P: *bö'e:sün*) P123a, RH *bö:sün* 200A7. WM *bögesü(n)* L125a. Kh *böös(ön)* H76a. Ord *bö:s(ʉ)* M88b. Bur *bööhe(n)* C108a. Brg *buxə:* U80. Kalm *böösn* M115a. Dag *bu:s* E84. EYu *bəisən* B32, *bü:sən* BJ322, J99a. MgrH *bo:sə* J99a. MgrM *bo:sï* C169 (and see above). BaoD *bosuŋ* BL86a. BaoÑ *bɵ:sɵŋ* CN51. Kgj *bɵsʉn* ~ *bɵ:sʉn* S284a. Dgx *bosuŋ* B42. Mog *busu* W161b, MogM/Mr *bɵ:sʉˑn* L62:21.

***bögle-** 'to stop up; to block, barricade'. More frequently attested than its base *bög* 'stop, plug', which survives in Ord and Mog.

MMo SH *bokle-* H17, HY---, Muq---. WM *bögle-* L125b. Kh *böglöx* H74a. Ord *bög* M84a, *bögle-* M84b. Bur *büglexe* C120b. Kalm *böglx* M113a. Dag---. EYu---. MgrH *bugəle-* X49. BaoGt *bugal-* C114. Kgj---. Dgx *buɣulie* B43. Mog *bʉg* R25a 'stopper, cork'.

***bögse** 'backside, buttocks'. Cf. *bogar*, *kondalaï*.

MMo SH *bokse* H17, HY---, Muq *bökse* P123b. WM *bögse(n)* L126a. Kh *bögs* H74a. Ord *bögsö* M85a. Bur *bügse* C120b. Brg *bugs* U81. Kalm *bögs* M113a. Dag *burs* E88 'hindquarters of an animal'. EYu *bəgse* S161, *böxsö* K447. Mgr---. BaoD---. BaoÑ *bɵrke* (via *bɵske*) CN52. Kgj *besge* S283b. Dgx---. Mog---.

***böjen** (?*böǰeŋ) 'young hare'. Ord and EYu support *böǰeŋ* with non-high vowel and -*ŋ*. Kh -*ǰ*- indicates an earlier form *böǰin*; -*i*- is supported by Kalm, which also has a long vowel, probably a secondary development. EYu *p*- is unexpected in the absence of a following strong consonant.

MMo SH---, HY---, Muq *böjen* [P: *bučan*] P357a. WM *böjün* (*böjön*) L128b. Kh *böjin* H74b. Ord *böǰöŋ* M84a. Bur---. Brg---. Kalm *bööǰn* M114b. Dag---. EYu *peǰeŋ* B39. Remaining lgs---.

***böke** 'strong; wrestler'.

MMo SH *boko* H17, HY *bökö* (in pers. name) M43, Muq *böke* P123a. WM *böke* L126b. Kh *böx* H76b. Ord *bökö* M85b. Bur *büxe* C127b. Brg *bux* U80. Kalm *bök* M113b. Dag *buk^w* E84. EYu *bö^hgö* S162. MgrH *buko* L52. MgrM *boko bari-* (Sanchuan) P411a 'to wrestle', *woko bari-* DS261b (cf. *barï-*). Remaining lgs---.

***böken** 'hump of a camel'.

MMo SH---, HY---, Muq *bökün* P345b, RH *böke.tü* 204A18 'hunch-backed'. WM *bökö(n)* L127b. Kh *böx* H76b. Ord *bökö* M86a. Bur *büxe(n)* C128a.

Kalm *bökn* M113b. Dag *buk^w* E84. EYu *bögön* (only) S162. Shirongol lgs---.
Mog---, but cf. Zirni *bökkan* 20:5.

*bökene (?*bökeene) 'gadfly, horsefly' with several unexpected variant forms.
        MMo SH---, HY *bökö'üne* M43 'mosquito', Muq---. WM *bököne* L127a,
bükügene (so read) L145b. Kh *böxnö* H76b. Ord *bököŋ* M86a. Bur---. Brg---. Kalm
bökün M114a 'mosquito'. Dag---. EYu *bögdəg* (?=) B35 'mosquito'. MgrH
pugunaġ X56. Remaining lgs---.

*böldegen 'testicles'. Shirongol and Moghol reflect disyllabic forms in -*g* and -*ŋ*
respectively.
        MMo SH---, HY---, Muq *böldegen* P123b, IV *böldöge* L21. WM
böldege(n) L127b. Kh *böldögöö* H74a 'testicles'. Ord *böldögö* M86b 'penis;
testicle'. Bur *büldege(n)* C122a 'scrotum; testicles'. Brg *buldəg* U81 'penis'. Kalm
böld^ögn R56a 'female genitals'. Dag *bəlluɣ^w* ~ *bəlduɣ^w* E76. EYu---. MgrH *burdu:*
SM35 'penis (of children and animals)', cf. *bu:də* X49, L49 'boy's penis'. MgrM
pərdəġ DS255, (Sanchuan) *purduk* P422a 'testicles'. BaoÑ *bəldəg* (?=) CN49 'ball'.
Kgj---. Dgx *paoda* (?=) MC316a 'scrotum'. Mog *buldaŋ* R25a 'penis', cf. also Mog
buydot (?=) W161b 'id'.

*bös '(piece of) cloth, textile; cotton cloth'. Wanderwort (probably from Arabic
bazz) that entered Mongolic from Turkic.
        MMo SH---, HY *bös* M43, Muq *bös-* (reborrowing ←CT) P124a. WM *bös*
L128a. Kh *bös* H76b (cf. *büs(en)* H92b). Ord *bʉs* M, *bös* M88b. Bur *büd* C121a.
Brg *bud* U82. Kalm *bös* M115a. Dag *bur^y* E88. EYu *pes* B39, J12, *pös* J5. MgrH *bos*
X48. MgrM *bosï* C374. Bao---. Kgj *bəsï* S284a. Dgx *'bosï* B42. Mog---, but cf.
Zirni *bʉz* (so read) 13:3 (-*z* suggests this is the Turkic form).

*bötege 'bird's crop, gizzard'. The central languages display slightly changed
forms, The first vowel was unrounded in Kh-Kalm, suggesting a form *betege. Bur
indicates *k instead of *g (the voiceless -*k*- in Kalm may be due to the preceding
-*t*-). Ord *betege* M67b 'name of a stomach disease', *bʉtege* M107b 'disease of the
heart caused by grief', may be related. However the Buriat disease names *büd'xe*
C121b, *bed'xe* C129a are phonetically different from *büdxe* listed below.
        MMo SH---, HY---, Muq *bötege-* (P reads -*k*-) P123b, RH *bötege* 186C26.
WM *betege(n)* L100b. Kh *beteg* H98a. Ord (see above). Bur *büdxe* C121b. Kalm
betk M96b. Dag---. EYu---. MgrH *podoġo* SM303 'gizzard'. MgrM *piedigər*
DS252b 'stomach of an animal'. Bao---. Kgj---. Dgx---. Mog---.

*bučal- 'to boil (intr)' and *bučalga- 'to boil (tr)'. The Kalm -*s*- (instead of
expected -*c*-) is irregular. BaoÑ *sǯal-* has been compared to WM *sijala-* L722a 'to
boil until soft, etc', but can also be derived from the present etymon. Kgj is too
abraded to be certain, but could be from *bučalga-.
        MMo SH *bucalqa-* H20, HY---, Muq *bučal-* P124a, *bučalɣa-* P124a. WM
bučal- L129a. Kh *buclax* H87b, *bucalgax* H87b. Ord *bučal-* M100b. Bur *busalxa*
C116a. Brg *bʊsal-*, *bʊslag-* U78. Kalm *buslx*, *buslgx* M122a. Dag *bačil-* E71,
bačilɣa:- E71. EYu *hčəlġa-* B53, *pəjalɣa-* J17. MgrH *sǯolə-* X160, *sǯolġa-* X160,

śʒ́üeli- SM392, *śʒ́ieli*- SM389, *śʒ́ieliġa*- ~ *śʒ́ierġa*- SM390, *śʒ́üeliġa*- ~ *śʒ́üerġa*-
SM392. MgrM *pućar*- C393, *bičilga*- P414b, *piʒ́ierġa*- DS207. BaoD *ʒ́iale*- BL79,
ʒ́iəle- BL60. BaoÑ *ṣʒ́al*- CN152, *hʒ́al*- CN73 'to cook'. BaoX *ʒ́al*- CN86:222. Kgj
ǰe- ~ *ǰeṛ*- (?=) S302b, *ǰiġa*- ~ *ǰaġa*- (?=) S303a. Dgx *puʐalu*- B48, *puʐaluġa*- B49,
puʐaġa- B48. Mog *bučo:l*- R24b, *bičol*- W160b (and causatives).

budaan 'grain, groats; porridge; meal'.
  MMo SH *buda'an* H20, HY *buda'an* M43, Muq *buda:n* P247a. WM
budaɣa(n) L129b. Kh *budaa* H77b. Ord *buda:* M89a. Bur *budaa* C109a. Brg *bʊda:*
U78. Kalm *budan* M116a. Dag *buda:* E86, *bada:* E71. EYu *bəda:n* B32, J98a,
buda:n S165. MgrH *buda:* J98a. MgrM *buda* C375. BaoD---. BaoÑ *badaŋ*
('Tongren') T134. Kgj *budɔ* S284a. Dgx *budaŋ* B44. Mog---.

budaŋ 'mist'. Cf. *manan*.
  MMo SH *budan* H20, HY---, Muq *budan* P124a. WM *budang* L129b. Kh
budan(g) H78a. Ord *budaŋ* M89b. Bur *budan(g)* C109a. Kalm *budŋ* M116b. Dag---.
EYu *budaŋ* B35. Remaining lgs---.

budu- 'to dye, paint'. Cf. CT *boda*-.
  MMo SH---, HY---, Muq *budu*- P124b. WM *budu*- L130a. Kh *budax* H78a.
Ord *budu*- M90a. Bur *budaxa* C109a. Brg *bʊd*- U78. Kalm *budx* M116b. Dag *bɔd*-
E83. EYu *budu*- B36, *budə*- J98a. MgrH *budə*- J98a. MgrM *budu*- JL464, *buda*-
T319. Remaining lgs---.

budug 'dyestuff, paint'. Cf. CT *bodog*.
  MMo SH---, HY---, Muq *buduq*- P156a. WM *buduɣ* L130a. Kh *budag*
H78a. Ord *buduq* M90a. Bur *budag* C109a. Brg *bʊdag* U78. Kalm *budg* M116a.
Dag *bɔdɔ:r* E83. EYu *buduġ* B36, *budoġ* J98a. MgrH *budəġ* J98a. MgrM *budag*
T319. Remaining lgs---.

bugu 'deer'.
  MMo SH *buqu* H21, HY *buqu* M43, Muq *buɣu*- P124b. WM *buɣu* L131a
'male deer'. Kh *buga* H77b. Ord *buġu* M91b. Bur *buga* C108b. Brg *bʊg* U76. Kalm
bug M115b. Dag *bɔɣʷ* E81. EYu *bɔǧɔ* S166 'deer', *bɔǧɔ* B33 'deer chess (a kind of
board game)'. MgrH *buġu* S166. MgrM *bogu* P416a. Remaining lgs---.

buïla 'camel's nose-plug'. Apparently not attested in the QG languages, but it is
found in neighbouring WYu *pila*. Cf. *döre*.
  MMo SH---, HY---, Muq *buila* P124b. WM *buyila* L132a. Kh *buyla* H79a.
Ord *buïla* M92b, *bu:li* (?< Oir) M95a. Bur *buyla* C109b. Brg *bʊilag* U76. Kalm
buul' M123b. Remaining lgs---.

buǰar 'dirt; dirty'.
  MMo SH---, HY---, Muq---, LV---, IV---. WM *buǰar* L143a. Kh *buzar*
H79a. Bur *buzar* C109a. Brg *bʊʒar* U78. Kalm *buzr* M116b. Dag *baǰir* E72. EYu---.
MgrH *buʒ́ira:*- X52 'to become dirty'. Remaining lgs---.

*buka 'bull'. Agricultural term related to CT *buka (?*bu:ka, ?*bukka) 'id'. BaoÑ warχan possibly from an Amdo corruption of the Turkic/Mongolic word, but may also involve Tibetan ba- bovine. Dgx may represent an earlier (diminutive) *buka-čuġ; the a in the first syllable is unexpected.

     MMo SH buqa H21, HY buqa M43, Muq---. WM buqa L142b. Kh bux H87a. Bur buxa C119a. Brg bʊx U76. Kalm bux M124. Dag baɣ E70. EYu pəɣqa B39, puġa J98b. MgrH puġa J98b. MgrM puġa Z338:346, pïka P411b. BaoD---. BaoÑ warχan (?=) CN227 'whole yak bull'. Kgj---. Dgx baġaçəu B36 'bull'. Mog buqa R24b.

*bukaur 'buttocks' see * bogaar

*bula- 'to bury'.
     MMo SH---, HY---, Muq bula- P124b. WM bula- L133a. Kh bulax H80b. Bur bulaxa C110b. Brg bʊl- U77. Kalm bul- R60a. Dag bal- E70. EYu bəla- B32, bula:- J98b. MgrH bula:- J98a. MgrM bula- DS209b. BaoD bula- BL86a. BaoÑ bəla- CN49. Kgj---. Dgx bula- B44. Mog---.

*bulag '(water) spring'. Cf. CM *kudug 'well'.
     MMo SH---, HY bulaq M43, Muq bulaq P289a. WM bulag L133a. Kh bulag H80a. Bur bulag C110a. Brg bʊlag U77. Kalm bulg M117b. Dag bula:r E85. EYu bulaġ B35, J98a. MgrH bulaġ J98a. MgrM bulaġ JL477, buləġ DS252b. BaoD bulaġ ~ balaġ BL86b. BaoGt bäləxə C101. BaoÑ bəlaġ CN49. BaoX balaġ BC61. Kgj---. Dgx bula B43. Mog---.

*bulagan (?*bulugan) 'sable'.
     MMo SH buluqan H22, HY buluqan M43, Muq bulgan P125b. WM bulaga(n) L133a. Kh bulga(n) H80b. Ord bulaġa M93b. Bur bulga(n) C111a. Brg bʊlag U77. Kalm bulɣn M118a. Dag balaɣ E70. EYu balağan B31, bulağan S168 'marten'. MgrH bulġa S168 'marten'. Remaining lgs---.

*bulaŋgïr 'turbid, unclear'.
     MMo SH---, HY bulunggir M43, Muq bulanqir P125a. WM bulanggir L133b, bulunggir L136b. Kh bulingar H81a, bulangir H80b. Bur bulangir C110b. Kalm bul'ŋɣr M119b. Dag---. EYu---. Mgr---. MgrM pelenkur P416b. Bao---. Kgj bəlaŋgar ~ bʉlaŋgar S283a. Dgx bulaŋġəi B44. Mog---.

*bulčïrkaï 'gland'. Perhaps related to *bulčïn 'muscle' (not listed here), unless the first vowel was really ï, as suggested by MMo. The Dgx form lacks the ending -kAi. Alternatively it could be related to Kalm buljr̥ R59b (not found elsewhere?), but the strong -ç- speaks against this.
     MMo SH---, HY---, Muq bilčirqai P119a, RH bulčirġa [unvocalised] 205B1. WM bulčirqai L134a. Kh bulčirxay H82a. Ord bulčarχä: M96b, balčarχä: M48b. Bur bulšarxay C112b. Brg bʊlširxai U77. Kalm bul'črxa M119b. Dag---. EYu---. MgrH paɕœrġai X54 'lymph node'. MgrM barćiġai JL467. Bao (unmarked dial) bənćiġi S169. Kgj---. Dgx binçï (?=) MC39b 'lymph node'. Mog---.

*buli- / *bulïa- 'to snatch away, seize'. The latter form, found in central Mongolic and Dag, formally resembles a causative.

   MMo SH buli- H22, HY---, Muq---. WM buli- L134b, buliya- L134b. Kh bulaax H79b. Ord bula:- M93a. Bur bulyaaxa C113a. Brg bʊlʸa- U77. Kalm bulax M117b. Dag bəlʸe:- E75, bɔlʸe:- Z96a 'to snatch, seize', cf. the reciprocal bəlʸe:lč- E75, bɔlʸe:lč- E81 'to fight for sth, to contend, to try to be the first'. EYu bula- B35, J98a, bələ- S167. MgrH bulə- X50. MgrM buli- JL461, bili- C375. BaoD bulə- BL86a. BaoÑ bəl- CN49. Kgj bəli- ~ bʉli- S283a. Dgx bili- B41. Mog---.

*buluŋ 'corner'. Cf. CT *buluŋ 'id'.

   MMo SH---, HY---, Muq---. WM bulung L136 'corner; (..) bend of a river, etc'. Kh bulan(g) H80a. Ord buluŋ M96b. Bur bulan(g) C110b. Kalm bulŋ M118b. Dag---. EYu buləŋ J98a 'corner', BJ321 'river valley'. MgrH buloŋ J98a. MgrM---. Bao---, perhaps survives in BaoD deraŋbəltə BL92b 'square (adj.)' if from *dörben buluŋ-tu. Kgj---. Dgx buluŋ B44 'side, edge (of a road, a field)'. Mog---.

*burčag 'pea, bean'. Note the vowel length in Kh. Agricultural term related to CT *burčak (?< *burč-ak).

   MMo SH---, HY burčaq M43, Muq burčaq P125b. WM burčaɣ L137b. Kh buurcag H86b. Ord burčaq M98a. Bur buursag C118a 'seed, fruit (of a plant)'. Brg boršog U75. Kalm burčg M121b. Dag bɔrčo: (sic) E84. EYu pərćaɣ B39, pərǰaɣ J98a. MgrH puʒaɣ J99a. MgrM puʒiɣ C376 'bean/pea'. BaoD pućiaχ BL86a. BaoGt pəćiɣ C149. BaoÑ pəćaɣ CN54 'bean; pea'. Kgj pəǰəɣ S284a. Dgx puʒa L114b, B48, pïʒa B47 'bean, pea'. Mog---.

*burgasun 'willow'. Cf. *hičesün.

   MMo SH burqasun H22 'elm bark', HY---, Muq burɣasun P234, P237, burɣasut P113a 'twigs', P125b 'leaves'. WM burɣasu(n) L137b. Kh burgas(an) H82b, burgaas(an) 'willow'. Ord burɣasu M98b. Bur burgaaha(n) C113a '&c'. Brg bʊrga: U79 'willow twig, wicker'. Kalm burɣsn M120a 'pussy-willow'. Dag barɣa:s E73 'willow twig, wicker', barɣa:s mɔ:d Z45 'willow'. EYu---. MgrH burɣa:sə L56. Bao---. Kgj---. Dgx---. Mog---, but cf. Hazara (Bēsut) burɣasu L54:107.

*burkan 'Buddha; deity'. Wanderwort that probably entered via Turkic *burkan.

   MMo SH burhan (in toponym) H22, HY burqan M43, Muq---. WM burqan L139b. Kh burxan H84a. Bur burxa(n) C115a. Brg bʊrxaŋ U79. Kalm burxn M121b. Dag barkən E73. EYu pərqan B39, pərɣan J89. MgrH purɣa:n X58. MgrM purɣaŋ JL467, C376. Bao---. Kgj---. Dgx---. Mog---.

*buruu 'wrong, false, incorrect; mistake'. EYu suggests the presence of a palatal element, apparently supported by the rare Kalm variant (cf. *huruu for a similar case). An endemic word, unless it is somehow related to CT *buz- 'to spoil, ruin'.

   MMo SH buru'u H23, HY buru'u M44, Muq buru: P126a. WM buruɣu L138b. Kh buruu H83a. Ord buru: M99a. Bur buruu C114a. Brg bʊrʊ: U79. Kalm buru M121a, bürü: (rare) R69a. Dag bɔrɔ: E83. EYu burui B36, börü: J98b, burü

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S170. MgrH *muru:* X128, *buru:* L57. MgrM---. BaoD *boro* BL86b. BaoÑ---. Kgj---. Dgx *buru* B44. Mog---.

*busï (?*bïsï) '(is) not' (typically the negation for nominal sentences), ***busu** 'other'. The latter also survives in the plural form **busud*, in Dgx also **busus*. The back-vocalic reconstruction of **bïsï* is based on the assumption that **busï* and **busu* may be related. As the two words are morphologivcally opaque, it is difficult to say whether and how they are actually related, but the forms and meanings have influenced each other. However, the two words can usually be distinguished in the modern languages. In QG, **busu* only survives in Kgj and Dgx, whereas **busï* was preserved by all languages. The *p-* in the QG languages is due to the following strong consonant *-s-*. The *p-* in Dgx suggests that this is the native word rather than Chinese *bùshì*; however, the speakers may associate the two, as they use the Chinese borrowing *shì* as a copula as well. The variety of final vowels in the QG languages is due to the amalgamation with following copulas.

MMo SH *busu* H23 'other; (is) not', *buśi* H24 'other; not', HY *busu* M44 '(is) not; other', Muq *biši* P119b 'other', Ph *buši* P121a 'other'. WM *busu* L140b 'other (...); not (...)', *bisi* L106a ('colloquial form of busu'). Kh *bus* H84a 'other, etc', *biš* H63b 'not (...); other (...)'. Ord *busu* M99b 'other; not', *biši* M70b 'not (...); other (...)'. Bur *beše* C135a 'other; (is) not', *busa* (←Kh) C115b 'other; un-'. Brg *biš* U72 'is not', *busad* (←Kh) U78 'others'. *bɔs* U74 'not'. Kalm *biš* M102b '(is) not; other', *bus* (lit.) M122a 'other'. Dag *bišin* E78 'other; not'. EYu *puš* B40, *pušə* J98b 'is not', suffixed also *-šə*. MgrH *puśi:*, *puśa* J98b 'is not'. MgrM *puʒï* JL467 'is not'. BaoD *śi/śo* BL86b 'is not'. BaoÑ *x̌i* CN155, *x̌o* CN159. BaoGt *şï* CN86:297. Kgj *bʉši ~ bəši* S283a 'is not', (*te*) *busun* S283a 'other'. Dgx *puşï* B48 'is not', *pəsədu* (pl) B46 'others', *pu'sədu*, *pu'səʒï* Na (1988:100). Mog *biši* R24a 'an other one', W160b 'no; not; other'.

*butara- 'to be scattered, to fall apart, etc'.

MMo SH *butara-* H24, HY *butara'ul-* (caus) M44, Muq *butara-* [written *bwtr'*] P126b. WM *butara-* L141b. Kh *butarax* H85a. Ord *butara-* M100a, *budχara-* (?=) M90a. Bur *butarxa* C117a. Kalm *butrx* M122b. Dag *bata:ra-* (sic) NK477a. EYu---. MgrH *pudəra:-* X57. MgrM *budəraġa-* (caus.) DS215b 'to damage'. Bao---. Kgj *pudəra- ~ pudara- ~ pudra-* S284b. Dgx *putura-* B48. Mog---.

*buudaï 'wheat'. Agricultural term related to CT **bugday* 'id'. Straightforward reflexes of the CM are in the minority. In view of the preserved *-g-*, the forms in Muq, EYu, Mog represent more recent borrowings from Turkic. Also the forms in Bao-Kgj-Dgx point to recent borrowing (as in the case of **arbaï* 'barley'). Further unexpected developments include the *-i-* and *-y-* in Ord and Mog, reminiscent of Kypchak Turkic forms of this word. In Bur this word may have been confused with **budaa* 'groats, porridge' above.

MMo SH---, HY *bu'udai* M44, Muq *buɣdai* P124b. WM *buɣudai* L131a, *buudai* L142a. Kh *buuday* H85b. Ord *bu:dä:* M90a, *buidä:* M92a. Bur---. Brg *bɔ:dɔi* U73. Kalm *buudya* M132a 'grain'. Dag---. EYu *bogdüi* P418. MgrH *bu:də* J98a. MgrM *bidi* C375. BaoD *baoġdəi* BL86b. BaoÑ *bøġdi* CN52. BaoX *boġdi* BC64.

Kgj *bəġdi* ~ *baġdi* S283a. Dgx *baudəi* B35, *baodəi* L114a. Mog *buɣdäi* R24b, *buɣdäi* W161b, *bi:da:* R24a, etc.

buurul 'grey-haired; certain hair colour of animals, usu. shades of grey'. Agricultural term related to CT *boɣrul*.

   MMo SH---, HY---, Muq *bu:rul* P127a. WM *buɣurul* L132a, *buɣural* L131a. Kh *buural* H86b. Ord *buural* M97b, *buurul* M99a. Bur *buural* C118a. Brg *bʊ:ral* U76. Kalm *buurl* M123b. Dag *bɔ:rul* E80. EYu *bu:ral* B35. Shirongol---.

bü (and *bu*?) 'do not' (negative ('prohibitive') particle used with imperatives and the like). Possibly originally the stem of a negational verb like Tungusic *ə-*. The harmonic class is unclear. The long vowel is probably secondary (a phenomenon often seen in monosyllables ending in a vowel). The distribution of this word and *bʉtegei* below is peculiar, especially the disagreement among the Shirongol languages. Bao and Kgj favour *bʉtegei*, as does EYu.

   MMo SH *bu* H20, HY *bu* M43, Muq *bü* (so read) P182b, Ph *bu* P121a. WM *buu* L141b, *büü* L153a. Kh *büü* H94a. Ord *bu:* (according to Mostaert ←WM) M88b. Bur *bü* C119b. Brg *bu:* U81. Kalm *bü* (obs.) M125b. Dag *bu:* E84. EYu---. MgrH *bi:* J98b. X47. MgrM *bu* T317. BaoD---. BaoÑ---. Kgj---. Dgx *bu* B43. Mog *bi* R24a, MogM/Mr *bi* L62:22.

büdüri- 'to stumble'. The WM spelling with *-l-* is supported by Dgx, and by Manchu *bulduri-* (~ *buduli-*). The Dgx form with *-ź-* rather suggests an earlier form *büdiri-* < *büderi-*.

   MMo SH---, HY---, Muq---, LV---, IV---. WM *büdüri-*, *büdüre-* L144b, *büldüri-* L145b. Kh *büdrex* H88b. Ord *bʉdʉr(e)-* M101b. Bur *büderxe* C122a. Brg *budər-* U82. Kalm *büdrx* M126a. Dag *budər-*, *budir-* E87. EYu *bʉdʉr-* B36. MgrH *budərə-* X52, *pudərə-* X57. MgrM *buduri-* T319. Bao---. Kgj---. Dgx *buʒiri-* B44, *bïnʒirəi-* MC38b. Mog---.

büji- 'to dance', *büjig* 'dance'. HY is the only form supporting *ö* rather than *ü*. Related to CT *bödi-* 'id'. Kypchak developments of the Turkic form were reborrowed by Kalm *bi* M97a, Kh *biye-lex* H61.

   MMo SH---, HY *böji-* M43, Muq *böji-* [so read] P123a. WM *büji-*, *büjig* L153a. Kh *büjig* H89a. Bur *büžeg* C122a. Brg *bujig* U83. Kalm---. Dag---. EYu---. MgrH *bužig* L51. BaoÑ *buʒi-gu* (nomen futuri) CN53. Kgj---. Dgx---. Mog---.

büküli 'all, every'.

   MMo SH---, HY---, Muq---, LV *bükü* P1265. WM *büküli* L145b. Kh *büxel* H94b. Ord *bʉkʉli* M102b. Bur *büxeli* C128a. Kalm *bükl* M126b. Dag *buɣul*ʲ E85. EYu---. MgrH *pugəli:* X56. MgrM *pukule* P421b, *puguliŋ* JL467. Remaining lgs---.

büile 'gums'. The Ord vocalism, the Bur *m-*, and the MgrH *o:* are all irregular.

   MMo SH---, HY---, Muq---, IV---. LV---. WM *büyile* L145a. Kh *büyl* H89a. Ord *buĭla* (sic) M92b. Bur *müyle* C305a. Brg *buil* U80. Kalm *büül* M131b. Dag *buil* E84. EYu *bʉile* B36. MgrH *bo:lə* X47. Remaining lgs---.

*bülien 'warm, lukewarm'. Vowel shortening both in Dag and EYu. The *-g-* in Ord and Bao, as well as one of the WM spellings is unexpected. EYu *bələmbər* stems from *bülien-bir* (or *-bür*) 'warmish'; the Baoan forms could stem from another diminutive *bülieken*.

　　　　MMo SH *bule'en* H21, HY *büli'en* M44, Muq---, IV---, LV---, Ph---. WM *büliyen* L146b, *büligen* L146b. Kh *büleen* H90b. Chakhar *bulʸə̃:* D175b. Ord *bʉle:n* M102b, also *bʉlgen* M103b. Bur *bülyeen* C122a. Brg *bulʸə:ŋ* U81. Kalm *bülän* M126b. Dag *bulun* E85. EYu *bələmbər* B32, J98b. MgrH *bule:n* J98b. BaoD *bəlgan* BL86b. BaoÑ *belġaŋ* CN51. Kgj---. Dgx---. Mog---.

bülǰeg '(finger) ring'. Loanword from CT *bilezük*, probably < *bilek yüzük* 'wrist ring'. It appears in different shapes, possibly representing as many separate instances of borrowing. The Bur form, like that in Muq, suggests *-s-*; Kalm suggests *-č-*, whereas the EYu form with *-z-* apparently represents a more recent borrowing. BaoX resembles *bögeǰi* 'ring, etc', but this is not otherwise attested in QG.

　　　　MMo SH---, HY---, Muq *bilesük* (←Turkic) P119a. WM *bilečüg ~ bilücüg ~ biličeg ~ bülečeg ~ bülüčüg ~ bilisüg* L105b. Kh *bölzög* H74b. Ord *bʉleǰik*, *bʉlǰik* M102b, *bélejik* M64a. Bur *behelig* C135a. Brg *bulʸju:* (sic) U82. Kalm *bilcg* M100a. Dag---. EYu *pelezək* B33. Mgr---. BaoGm *bəlʒïg* CN86:16. BaoÑ *belʒəg* CN51. BaoX *bəġźi* (?=) CN86:16. Remaining lgs---.

bültei- 'to stare, glare, to open one's eyes wide'. EYu may instead stem from back-vocalic *bultaï-* 'to protrude'.

　　　　MMo SH---, HY---, Muq---. WM *bülteyi-* L147a. Kh *bültiyx* H90a. Bur *beltïxe* C131b, *bültïxe* C122b. Brg *bulti:-* U81. Kalm *bültix* M127a. Dag *bulti:-* E86. EYu *palti:-* (sic, ?=) B39. Mgr---. Bao---. Kgj---. Dgx *bənźi-* B39. Mog---.

bürge (?*büürge) 'flea'. Found in MMo. Kh-Kal. and Shirongol. From CT *bürge*, but the long vowel seen in Kh, Kalm, and MgrH is not confirmed in Turkic.

　　　　MMo SH---, HY *bürge* M45, Muq---, RH *bürge* 200A5. WM---. Kh *büüreg* H94b 'lice found on fur-bearing animals'. Ord---. Bur---. Brg---. Kalm *büürg* M132a. Dag---. EYu---. MgrH *bu:rgə* X49, *burgə* X52. MgrM *bargə* C375. BaoJ *bərgə́* L14. BaoÑ *bərge* CN50. BaoX *bargə* BC65. Kgj *bərgi* S283b. Dgx *bəŋǧə* B39. Mog---.

büri 'every, all, whole'.

　　　　MMo SH *buri, burin* H22, HY *büri, bürin* M45, Muq *büri* P105a. WM *büri* L148a. Kh *bür* H90b, *büren* H92a, *büriy* H91a. Bur *büri* C124a. Brg *bur* U83. Kalm *bür* M127b. Dag---. EYu *bʉri* B36, *βürü* J54, cf. also ook EYu *bʉrən* BJ322 'complete, intact'. MgrH *bur* (sic) X52, *bi:ri* (sic) L45. MgrM---. BaoD---. BaoÑ *məra* CN118, *mərta* CN119. BaoX *maru* BC69, *mərəg* CN86:285. Kgj *bʉrʉ* S284a. Dgx---. Mog---.

bürkü- 'to cover; to become cloudy'. Dgx *pukutu-* may represent a denominal verb *bürkügtü-*.

　　　　MMo SH *burgu-* H22, HY *bürkü-* M45, Muq *bürkü-* P127b 'to be closed', cf Ph *burkʰig* P121a 'darkness'. WM *bürkü-* L150a, *bürke-* L149b. Kh *bürxex* H91b.

Ord *bɯrkɯ-* M105b. Bur *bürxexe* C125a. Brg *burəx-* U83. Kalm *bürkx* M129a. Dag---. EYu---. Mgr---. BaoD *biǧə-* BL52 'to build (a house)'. Kgj *pəgri-* S284a 'to become dark/overcast'. Dgx *pugu-* B48 'to cover up, to close the smoke-hole', *pukutu-* B48 '(of the sky) to become overcast'. Mog *bɯrkɯ-* R25a.

*bürküer and ***bürküür** 'lid, cover'. EYu and MgrH must be from **bükeer < *bürkeer < *bürküer.*

MMo SH---, HY---, Muq *bürkü:r* P128a. WM *bürkegül ~ bürkügül* L150a/b, also *bürkeger* L150a. Kh *bürxeer* H91b 'a kind of cone-shaped headgear, etc', *bürxüül* H91b 'cover'. Ord *bɯrke:r* M105a, *bɯrkɯ:l* M105b. Bur *berxeer* C134a. Kalm---. Dag---. EYu *pɯke:r* B40, *puger* J93b. MgrH *puger* X56. MgrM---, but cf. *bərgəsï* DS234a, *bergesï* P415b < **bürküesün.* Remaining lgs---.

*büse 'belt'. In QG the **b-* was strengthened to *p-* due to the following *-s-*. The EYu form suggests **büsei,* but this may merely be a diphthongisation of the secondary long vowel. At first sight MgrM *piʒi* is more reminiscent of **büči* 'string, cord' (not listed here), but *-ʒ-* here results from the weakening of earlier *-ś-*.

MMo SH *buse* H23, HY *büse* M45, Muq *büse* P128b. WM *büse* L151a. Kh *büs(en)* H92b. Bur *behe* C134b, *bühe* C128b. Brg *buxə:* U80. Kalm *büs* M130a. Dag *bəs* E76. EYu *pəsəi* B39, *pəse:* J98b. MgrH *puse:* J98b. MgrM *piʒi-li-* DS207a (to wear a belt). BaoD *se* BL86a. BaoGt *suɛ* C110. BaoJ *suɛ* L160. BaoÑ *se* CN130. BaoX *sɛ* BC31. Kgj *pɯse ~ pəse* S284b. Dgx *piśie* B47. Mog---.

*büsegüi 'woman' < **büse ügüi* 'without belt'. Possibly originally a taboo-related term. The counterpart **büsetü* 'man' < 'with belt' also exists, e.g. Bur *behete* C135a, EYu *sötə* S264.

MMo SH--- H, HY---, Muq---. WM *büsegüi* L151a. Kh *büsgüy* H92b. Bur *behegüy* C135a. Kalm---. Dag---. EYu *pɯsəɣɯi* B40, *pəsəɣui* J94b. Remaining lgs---.

*büte- 'to be covered or blocked, to be shrouded (in mist or smoke); to suffocate'. In Dagur and most central languages phonetically indistinguishable from **bütü-* below. The MgrH form could be the causative form as suggested by Khasbaatar.

MMo SH *bute-* H24, HY---, Muq---, Ph---. WM *büte-* L151b. Kh *bütex* H93a. Ord *bɯte-* M107a 'to suffocate', *bɯtɯ-* (sic) M107b 'to be covered'. Bur *bütexe* C126b. Kalm *bütx* M131b. Dag *but-* E86. EYu *pɯte-* B40, *pude-* J16. MgrH *pudə:-* X57 'to fill the air, to give off steam'. MgrM (Sanchuan) *bite-* P424. Bao---. Kgj---. Dgx---. Mog---.

*bütegei (?***bitegei**) 'do not' (negative particle used with imperatives and the like). Only MMo HY suggests **bütügei* with rounded second vowel. According to Poppe (1955:287) based on **bü-* 'to be' + concessive suffix. However, WM, Kh, Bur go back to a form **bitegei,* while EYu and Kgj could easily be due to secondary rounding. The similar-looking Chakhar, Ord and Kalm forms are irregular. The Baoan forms developed from a form with *p-,* which was due to secondary strengthening. The similarity between the shortened forms in EYu and Kgj is probably coincidental.

MMo SH---, HY *bütügei* M44, Muq---. WM *bitegei* L107b, *betegei* L101a. Kh *bitgiy* ~ *bitiy* H62b. Chakhar *biči:* D174a. Ord *bičige* M71b. Bur *betegey* C134b. Kalm *bičä* M100b, *bičkä* (?=) M101a. EYu *pʉtə* B41, *pudə* J99a. Mgr---. BaoD *təkə* BL86b. BaoÑ *təgə* CN162. BaoX *təgə* BC63. Kgj *bʉde* ~ *bʉdeğei* S284a. Dgx (only) *butəği* Na (1988:100). Mog---.

*büteü (?**biteü*) 'double handful'. Kmg *bʉtʉ* Kőhalmi 187.
MMo SH---, HY---, Muq *büte'ü* P274a, *bütün* (*?bütü:n*) P129b. WM---. Kh *bitüü* LC 1:246b 'handful', cf. Chakhar *bitu:* D173b. Ord *bitʉ:* M71a. Bur---. Brg---. Kalm---. Dag *butu:* E86 'double handful'. EYu *putü:* J98b 'double handful'. MgrH *pudiu* X57 'double handful'. MgrM *pudiau* JL467 'double handful', *bitö* P418b 'handsful'. Bao---. Kgj---. Dgx *pəʒie* L114b, *pišiu* (sic) B47 'double handful', cf. *pišiulie-*, *piʒiulie-* B47 'to hold in both hands'. Mog: cf. Hazara *bʉtəu* (L68, No. 9) 'that what can be held in the cupped hands'.

*bütü- 'to finish, succeed, to be formed, concluded, completed'. In most central languages and in Dagur phonetically indistinguishable from **büte-* above.
MMo SH *butu'e-*, but also *bute'e-* (caus.) H24 'to finish, i.e. to kill', HY---, Muq *bütü-* P128b, Ph *bütü-* P121b. WM *bütü-* L152a. Kh *bütex* H93a. Chakhar *botŏn* D175a. Ord *bʉtʉ-* M107b. Bur *bütexe* C126a. Kalm *bütx* M131b. Dag *but-* E86. EYu *pʉtə-* BJ339, *putə-* J98b, *pudə-* J76. MgrH---. MgrM *pudu-* DS253b. Bao---. Kgj---. Dgx *pudu-* B48, MC323a. Mog *bʉtʉ-* R25a.

*bütün 'complete, whole, entire; all'. Cf. also the following words, which have developed differently in spite of the relatable meaning: *budu:n* J52, *bʉdən* B41 'most (superlative marker)', EYu *budutə* B36 'especially', Dgx *budəi* MC44b 'extraordinary, -ily, unusual, especially, very', *budəidə* MC44b 'especially, etc'.
MMo SH---, HY---, Muq *bütün* P129a, cf. *bütü:* P99b 'q.v.'. WM *bütün* L152b. Kh *büten* H93a. Ord *bʉtʉn* M108a. Bur *büten* C126a 'whole, etc'. Kalm *bütn* M131a. Dag *butun*. EYu *pʉtən* B41, *pətən* J98b. MgrH---. MgrM *puduŋ* C375. BaoD *putuŋ* BL86b. BaoX *putoŋ* BC69. BaoÑ *putəŋ* CN55. Kgj *pʉtʉn* ~ *pʉtɔ* S284b. Dgx---. Mog---.

*büürge 'pommel of a saddle; bow or hind-bow of a saddle'
MMo SH---, HY---, Muq *bü'ürge* P154b. WM *bügürge(n)* L145a. Kh *büüreg* H94a. Ord *bʉ:rge* M104a. Bur *büürge* C127a. Brg *bu:rəg* U80. Kalm *büürg* M132a. Dag *bu:ruɣᵂ* E84. EYu *bü:rge* B36. Remaining lgs---.

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*čaa-da 'over there, on the other side'. Note the meaning 'near' in SH and Baoanic, and the meaning 'yonder' in the central languages. The Monguor languages have **tada* instead, which could be an aberrant development of the same word. In WM

the roots *čaa- and *čïna-, q.v., have become confused and they are treated as spelling variant by Lessing. Cf. *čïna- 'the other side'.

MMo SH ca'ada H24 'close, near', HY---, Muq---. WM čaɣadu L157b, čadu L156b. Kh caad H734b. Bur saada C377b. Kalm caad M620a. Dag---. EYu---. MgrH ta:da X170. MgrM tada DS238b. BaoD tadə ~ tasə BL28 '(in) there', ta:də T147 'to, in the direction of'. BaoÑ ćada CN183 'near'. BaoX čataŋ BC67. Kgj čada S300a. Dgx ʐada B158 'near'. Mog---.

*čaa-gsï 'to(wards) that side'.

MMo SH---, HY---, Muq---. WM čaɣasi L158b. Kh caaš H735b. Bur saaša C378b. Brg sa:ša: U150. Kalm---. Dag---. EYu čagšə B133 'towards that side'. MgrH taġʂə SM406 ~ ćaġʂə SM442. Remaining lgs---.

*čaa-na 'farther, yonder'.

MMo SH---, HY---, Muq---. WM čaɣana L158a, čiɣana L178a. Kh caana H735a. Bur saana C377b. Kalm can' (?=) M625a (*čaa ni). Dag---. EYu ča:nə B132 'that side (somewhat remote)'. Remaining lgs---.

*čaalsun ~ *čaarsun 'paper'. The latter is a Northeastern variant found in Bur and Khamnigan. The loss of *-n in EYu is unusual. As in the case of *mölsün 'ice' and *sölsün 'gall bladder', the preconsonantal -l- was lost in EYu but preserved in Shirongol. Apparently endemic although it belongs to the semantic field of writing technology (cf. the loanwords *nom 'book', *biči- 'to write', *üjüg 'character', *beke 'ink'). Perhaps in some way related to a root *ča- 'white' (see *čagaan).

MMo SH ca'alsun H24, HY ča'alsun M45, Muq ča:lsun P131b, LV---, IV---. WM čaɣasu(n) L159a, čaɣalsu(n) L158a. Kh caas(an) H735b. Ord ča:s(u) M696b. Bur saarha(n) C378b. Brg sa:rʊ: U150, sa:s (←Kh) U150. Kalm caasn M621a. Dag ča:s E292. EYu ča:sə B132, J106a. MgrH ća:lʒə J106b, X202, ća:lsə X202, ća:ʒə ~ ća:rʒə SM441/443. MgrM ʐarsï JL473. BaoD---. BaoÑ---. Dgx---. Mog---.

*čabči- 'to cut, chop, split, fell'. Kalm č- has probably developed from c- due to assimilation to the č of the next syllable. Dissimilatory initial weakening in EYu and BaoÑ (as in Ord). The Dgx i from *a is a rare development.

MMo SH cabci- H25, HY---, Muq čabči- P129a, IV---, LV---. WM čabči- L154b. Kh cavčix H737b. Ord ǰabči- M177b. Bur sabšaxa C380a. Kalm čavčx M644a. Dag čerč- E297, čirč- Z104a. EYu ǰabčə- B142, ǰabča- J106a, ǰabjə- J75. MgrH ćabʒə- J106b, ćæb(ś)ʒə- X203. MgrM čiabči- T378, ćærʒi- C167. BaoD---. BaoÑ ʒabći- CN195. Kgj čeči- ~ čerči- S300a. Dgx ʐïʒï- B162 'id'. Mog---.

*čaču- 'to sprinkle' see *saču-.

*čad- 'to have eaten one's fill'. In some of the QG languages a connective vowel was added. In MgrM and Dgx this connective vowel may have caused the rounding of the *a.

MMo SH cat- H26, HY čat- M45, Muq čat- P131a, LV čat- P1271, IV---, Ph čʰadu- P121b. WM čad- L156a. Kh cadax H740b. Bur sadaxa C382b. Brg sad-

U153. Kalm *cadx* M623b. Dag *čad-* E293. EYu *čad-* B133, J106a. MgrH *ćadə-* J106b. MgrM *ɕudu-* C392. BaoD *ćiadə-* BL93a. BaoÑ *ʒ́ad-* CN197, *ʒ́ar-* CN198. Kgj *čaɽ- ~čeɽ-* S300a. Dgx *ɕudu-* B164 'id'. Mog *čat-qa-* (originally a caus.) R25b.

*čag 'time'. EYu *čeg* may alternatively be related to Ord *čig* M701a 'amount of time, session'. The Dag *-ɣ^y* is unexpected, as is the *-u-* in Kgj. Chen Naixiong compares BaoD *čiχaŋ* BL74, BaoÑ *ćiχa:ʒ́i* CN185, *ćiχa:ŋ* CN186, BaoX *čixaŋ* BC70 'while, during'; cf. also Dgx *nie ɕağaŋ (~ nie ɕa)* B29 'a little while'. If these words are derived from **čag*, the further elements in these words are unclear The diminutive *-kAn* and (for *ćiχa:ʒ́i*) a petrified instrumental *-Ar* may be involved. Cf. CT **čag* 'id'.

MMo SH *cah* H25, HY *čaq* M45, Muq *čaq* P130b, Ph *č^hak^h-* P121b. WM *čaɣ* L156b. Kh *cag* H737b. Ord *čaġ* M690a. Bur *sag* C380a. Brg *sag* U152. Kalm *cag* M621b. Dag *čeɣ^y* E297. EYu *čaġ* B133 'time', cf. also *čeg* (?=) B135 'hour'. MgrH *ćaġ* J106b, X202. MgrM *ɕaġ* JL473, *ɕɤğ* C391, *ɕɤ:* C385. Bao (see above). Kgj *čuq* S301a. Dgx *ɕa* L120a, also as in *un-ɕa* B23 'winter time' (cf. **übül*). Mog---.

*čagaan 'white'. Probably related to **čaï-* below. P60:97 compares CM **časun* (Poppe: **ča:-l-sun*) 'snow', as well as many other Turkic and Tungusic words which do not aid Mongolic reconstruction.

MMo SH *caqa'an* H25, HY *čaqa:n* M45, Muq *čaɣa:n* P130a, *čaqa:n* P131a, *čiɣa:n* P133a, *čiqa:n* P251a, LV *čaqa:n* P1271, P1272, IV *čaɣa:n* L23, Ph *č^haqa'an* P121b. WM *čaɣan* L158a. Kh *cagaan* H738a. Ord *čaġa:n* M691a. Bur *sagaa(n)* C381a. Brg *saga:ŋ* U152. Kalm *caɣan* M622b. Dag *čiɣa:(n)* E300. EYu *čəğa:n* B134, *čğa:n* B139, *čağa:n* J106a. MgrH *ćaġa:n* J106b, X202, *ćiġa:n* X205. MgrM *ɕağaŋ* JL463, *ɕïğaŋ* C392, *čiġaŋ* T379. BaoD *ćiġaŋ* BL93b. BaoGt *ćixɔŋ* C142. BaoÑ *ćiχaŋ* CN186. BaoX *čiχaŋ* BC67. Kgj *čiχɔ ~ čɔχɔ* S300b. Dgx *ɕïğaŋ* B160. Mog *čaɣo:n* R8, *čʌğɔn* R161b.

*čaï- 'to become white or bright' (often used in combination with **ör* 'dawn'). The BaoÑ form seems to be remodeled on the basis of **čagaan*. Probably related to **čagaan* (cf. the parallel pair **gei-* 'to become bright' and **gegeen* 'bright'). The PM form may have been **čaɣ-ï-*.

MMo SH *caiyi-* H25, HY---, Muq *čai-* P130, LV---, IV *čai-* L23. WM *čayi-* L160b. Kh *cayx* H742a. Bur *sayxa* C383b. Kalm *cääx* M628b. Dag *če:-* E296. EYu *čai-* B133. MgrH *ći:-* X204, *će:-* X204. MgrM *durɕai-* (*dur* < **üdür* 'day') DS215b. BaoD---. BaoÑ *čiχi:-* (?=) CN186. Kgj *či- ~ či:-* S300a. Dgx---. MogMr *čäi-* L68, No. 78.

*čakïrma 'iris (flower), orchid'. Perhaps related but with other endings: WM *čakildaɣ* L161b 'iris', Kh *caxildag* H748a 'iris'. Bur *saxilza (übhen)* C387a 'iris'. Kalm *cakldăğ* R420a '*Iris pumila*'. Perhaps there is a relationship with **čakïr* 'blue-eyed'.

MMo SH---, HY---, Muq---. WM *čakirma* L162a 'orchid', *čikirma čečeg* L182a 'orchid'. Kh *čaxirmaa* H748a 'orchid'. Ord *ǰakirmaq* M181a, *ǰarkimaq* M187b. Bur (see above). Kalm (see above). Dag *čikirm^y* (?=) E300 'fringed pink

(medicinal herb)'. EYu *ǰaχərmag* S565. MgrH *ćiǯirma:* X208, *ćiǯima* X208, *ćiǯima:r* L446. MgrM---. BaoD---. BaoÑ *ćamχa* CN183. Kgj *ćamġa* S300a. Dgx---. Mog---.

*čakïur 'flint; steel for flint; lighter; lightning'. From a verb **čakï-* 'to strike fire' which is found in fewer languages than this derivate; cf. CT **čak-* 'id'.
      MMo SH---, HY---, Muq---, IV---, LV---, RH *čaqu:r* 204B26. WM *čakiɣur* L161b. Kh *caxir, caxiur* H748a 'flint, silica'. Bur *saxyuur* C387a 'flint'. Kalm *cäkür* M629a 'flint, etc'. Dag---. EYu *ǰaɣqu:r* B142 'flint'. MgrH *ćügur* X211 'lightning'. MgrM---. BaoD *ćüχor* BL87b 'flint', *ćiuχur* BL51 'lightning'. BaoÑ *ćaχər* CN183 'flint; lightning'. Kgj *čaǧɔr ~ čaǧur* S300a 'flint'. Dgx---. Mog---.

*časun (?**čabsun*) 'snow'. The Mgr, BaoX, and Dgx forms stem from an earlier form with a consonant preceding *-sUn*, perhaps **b*. Cf. the development of **dabusun* which became Dgx *daŋsuŋ* (possibly via **damsun*). MgrM *-ġ-* from **b* has a parallel in **nabčïn* 'leaf' and **tobčï* 'button'. However, the other languages and even the other Mgr, Bao, and Dgx forms make it difficult to consider a form **čabsun* as an early variant, let alone as the original form of this word. Perhaps there is a relationship with a root **ča-* 'white'. Poppe and Ramstedt compare **čaï-* and **čagaan* q.v.
      MMo SH *casun* H26, HY *časun* M45, Muq *časun* P131a, LV *časun* P1271, IV *časun* L24. WM *času(n)* L166b. Kh *cas(an)* H746b. Ord *ǰasu* M189b. Bur *saha(n)* C387b. Brg *saxa:* U151. Kalm *casn* M626b. Dag *čas* E293. EYu *ǰasən* B143, *časən* J106a. MgrH *ćasə* J106b. MgrM *çaġsï* JL470, *ćaġʒï* JL482, *čaχse* T378. BaoD *ćiasuŋ* BL93b. BaoÑ *ǯasəŋ* CN197. BaoX *ćabsəŋ* CN86:16. Kgj *časun* S300a. Dgx *ʒaŋsuŋ* B177, *ʒasuŋ* B178, *çasuŋ* B158. Mog *čo:sun* R25b, *čɔsun, čɔsu* W162b.

*čamča 'shirt'. The unexpected Dag form with *-i-* is due to the two *č*'s in the vicinity; cf. also Manchu *cimci* 'id'.
      MMo SH *camca* H25, HY---, Muq *čamčai* P130b, IV---, LV---. WM *čamča* L164a. Kh *camc* H743a. Bur *samsa* C384a. Kalm *camca* (obs.) M625a. Dag *činč* E299 'unlined garment'. Remaining lgs---.

*čarčaa(-kaï) 'grasshopper, locust'. EYu suggests **čagčaakaï*, reminiscent of western forms like Dörbed *čagčä:xä:* (Vanduy 167a). The Shirongol forms stem from **čarčag*.
      MMo SH---, HY---, Muq---. WM *čarča, čarčaɣa, čarčaɣai, čarčaqai* L185b. Kh *carcaa(n)* H746a, *carcaaxay* H746a. Ord *ǰarča:, ǰarča:χä:* M188a. Bur *sarsaa* (Kiaxta) C385b. Kalm *carcaxa* M626a. Dag *ča:rča:ki:* E83:174b 'cricket'. EYu *ǰagčaqai* BJ324, *ǰaġǰaχqai* J106a. MgrH *ća:rʒaġ* X202. MgrM---. BaoD *ǯiaǯiaχ* BL93b. BaoÑ *ćarćar* CN184. Kgj *ǰarǰa ~ ǰaʐča* S302b. Dgx---. Mog---.

*čaul- 'to tear to pieces' see s.v. **čoal-*.

*čečeg 'flower' often also 'smallpox', as in CT *ček̓ek.

MMo SH---, HY čeček M46, Muq čeček P133a. WM čečeg L168a, čičig L176a, sečeg L680a. Kh ceceg H773a. Ord ǰičik M205a. Bur seseg C404b. Brg səsəg U154. Kalm cecg M633b. Dag---. EYu čečig S568 (only). MgrH ćiʒ́aɡ X208. MgrM ćiʒ́iɡ C392, čičeɡ, čiǰaɡ T381 'flower', čeček P417b 'smallpox'. BaoD---. BaoGt ćiʒ́i C107. Kgj čičiu ~ čiǰiu S301a 'flower; smallpox'. Dgx ɕiǯə B161 'flower; painting; cowpox'. Mog čečák R25b.

*čečen 'intelligent' see *sečen.

*čeeǰi 'chest; memory', cf. *čeeǰile- 'to recite from memory'. The Kalm č- instead of expected c- is perhaps due to the following palatal.

MMo SH ce'eǰi H26, HY---, Muq če'eǰi P238b, če:ǰi P132a, če:ǰin P132b, čiyeǰi P358b (different readings are possible). WM čegeǰi(n) L170a. Kh ceeǰ H773b. Ord če:ǰi M699b. Bur seeže C405b. Kalm čeeǰ M646b. Dag čə:ǰil- E294. EYu čiǰə B136 'human back', čiǰele- B136. Mgr---. Bao---. Dgx---. Mog čeiǰi R25b.

*čene- 'to measure'. The MMo -e- in HY, and the Kh c- support *čene-, but the derivate listed as the following entry has developed differently in the central languages. The EYu and MgrH forms could be from *čene- or *čine-. EYu čen B135 'time', without equivalents in the other QG languages, may be related. Cf. also Muq čen [Poppe: čin] P353b, P378a 'measure'.

MMo SH---, HY čene- M46, Muq čene- [Poppe reads čine:-] P134a. WM čene- L171b, čine- L188a. Kh cenex H771b 'to evaluate, estimate, etc'. Ord činek M706b 'measure (...)'. Bur---. Kalm---. Dag---. EYu čene- B137. MgrH ćine:- X205. Bao---. Dgx---. Mog---.

*čer 'phlegm'. Perhaps also related: Bur ser C403b 'callosity, subcutaneous swelling, tumour', Kalm cer M633a 'callosity, swelling'. Dag čər E296 'swelling, lump in flesh'.

MMo SH---, HY---, Muq čer P132b. WM čer L172b. Kh cer H771b. Ord čir M707b. Bur (see above). Brg sər U155. Kalm (see above). Dag (see above). EYu čer B136. MgrH---. MgrM ɕər DS242b. Bao---. Dgx---. Mog---.

*čerig 'soldier; army'. Dag čəllə has developed from čərəl, which in its turn is a dissimilation of *čərər which is the regular development of *čerig. Cf. CT *čerig 'id', itself of Indic origin.

MMo SH cerik H26, HY čerik M46, Muq čerik P132a, LV čirik/čerig- P1272, IV---, Ph čʰerig, čʰérig P121b. WM čerig L173a, čirig L192a. Kh cereg H772a. Ord čirik M708b. Bur sereg C404a. Kalm cerg M633a. Dag čəllə E295, čərəl E296. EYu čerəg B136, J105b. MgrH ćirəg J105a, X209, ćiraɡ X208. MgrM ćirəɡ JL462. BaoD ćiarəg BL31. BaoGt ćɛrï C107. BaoÑ ćerəg CN184. BaoX čərəg BC74. Kgj čiriu S301a. Dgx ɕïri B86:115. Mog---.

*čï 'you (sing.)'. The vowel length in Dag is secondary. CM *čï was back-vocalic originally, in view of its oblique stem *čïma- and the plural counterpart *ta 'you

(pl.). Based on CM *ta* one may further assume that *čï* goes back to an earlier (PM) form *tï*, compare *bï* 'I' and *ba* 'we'.

MMo SH *ci* H26, HY *či* M46, Muq *či* P132b. WM *či* L174a. Kh *či* H783a. Chakhar *či:* D184a. Ord *či* M700a. Bur *ši* C725b. Brg *ši:* U163. Kalm *či* M647a. Dag *ši:* E232. EYu *čə* B133, J105b. MgrH *ćə* J105a, X209. MgrM *ći* C392. BaoD *ćĭ* BL93b. BaoÑ *ći* CN184. Kgj *či* S300a. Dgx *ʝï* B159. Mog *či* R25b.

čïbugan (? **čïbagan**) 'jujube'. EYu and Bao suggest -*k*-. For the development of the EYu from with -*γq*-, cf. **dabkur*. The Kh and Bur forms appear to have developed from a form **čïbagan*, which may be the original form although the form with -*u*- is documented in MMo. Bao has -*m*- instead of -*b*-.

MMo SH---, HY *čibuqan* M46, Muq---, IV---, LV---. WM *čibaγa(n)* L174a, *čibuγa* L175a. Kh *čavga(n)* H775a. Ord *čiwağa* M709b. Bur *šabga* (in compounds, q.v.) C712a. Brg *šabag* U160. Kalm---, cf. Oirat *čabğa* (Čoyiǰungǰab & Gereltü, 234). Dag---. EYu *ǰuγqan* B147. MgrH *ćuğa* X211, *ćauxa* L438, *ɕuğa* SM439. MgrM *ɕubuğa* JL481. BaoD---. BaoGt *ćimuğɔŋ* C104. BaoÑ *ćɵŋχalma* (?< **čïbugan alïma*) CN189. BaoX *ćoŋχaŋ* BC73. Bao (unspecif. dial.) *ćimχaŋ* S554. Dgx *ɕuɕuga* (sic, ?=) S554. Mog---.

*čïda- 'to be able'. The long vowel in BaoX may be due to **daa*- 'to be able to carry' q.v.

MMo SH *cida*- H27, HY *čida*- M46, Muq *čida*- P132b, IV---, LV---, Ph *čʰida*- P122a. WM *čida*- L176b. Kh *čadax* H777b. Ord *čida*- M700b. Bur *šadaxa* C715a. Kalm *čadx* M644b. Dag *šad*- E230 (in derivations), Z104b. EYu *šda*- B110, J106b, *šəda*- S556, *hda*- S556. MgrH *ṣda*- J106a. MgrM *ćida*- C388, *čida*- T384. BaoD *da*- BL56. BaoÑ *ṣda*- CN149. BaoX *da:*- BC66. Kgj *šida*- ~ *šda*- S295b. Dgx *ṣïda*- B131. Mog *čidʌ*-, *čidɔ*- W162a, MogMr *čidɒ:*- L64:35. Note its negation *la-šta*- R33a, hence MogM *v:šta*- L64:35.

*čïdku- 'to pour'. Kh-Kalm *c*- suggests an early development > **čudku*-. EYu may go back to either form. Cf. **ki*-, **tüsür*-.

MMo SH *citqu*- H28, HY---, Muq *čitqu*- P135b. WM *čidqu*- L177b. Kh *cutgax* H763b. Ord *ǰudχu*- M215a. Bur *šudxaxa* C732b. Brg *šʊtax*- U170. Kalm *cutxx* M642a. Dag---. EYu *čədğu*- B135. Remaining lgs---.

*čïïrag 'strong, sturdy, tight'. The -*ğ*- in the Dgx form, if related, would be irregular. However, the Brg form with the unexpected -*x*- is echoed by several other central Mongolic dialects (cf. S568). In Kh-Kalm the word changed vocalic class. Related to CT **tïgrak*.

MMo SH---, HY *či'iraq* M47, Muq---. WM *čigiraγ* L179b, *čigiireg* L179b. Kh *čiyreg* H785a. Ord *či:raq* M708a, also *čiraq*. Bur *šiirag* C726b. Brg *ši:rəg* U164, *saxʸrag* (sic, ?=) U164. Kalm *čiirg* M648b. Dag---. EYu *čirağ* BJ345, J106b. MgrH *ćirağ* X208. Bao---. Dgx *ʝïğara* (?=) B160 'tight; busy'. Mog---.

*čïkï- 'to squeeze into, to stuff'. Traces of the back-vocalic origin of this word are preserved in the uvular consonants in EYu, Bao-Kgj-Dgx, and Mog. The CM form may go back to an earlier (PM) form **tïkï*-, in view of related CT **tïk*-.

MMo SH---, HY---, Muq *čiqi-* P266b. WM *čiki-* L181a. Kh *čixex* H791a. Ord *jike-* M196a. Bur *šexexe* C751b. Brg *šix-* U165. Kalm *čikx* M650a. Dag *čik^y-* E300. EYu *čəqa-* B134 'id'. MgrH *ćigə-* J106a. MgrM *ɕ̧ïgə-* DS253b. BaoD *ćiχə-* BL93b. BaoGt *ćixə-* C122. BaoÑ---. Kgj *čiχi-* ~ *čigi-* S300b. Dgx *ɕ̧ïğəi-* B161, *ɕ̧ïğu-* L121b 'id'. Mog *čiqà-* R25b.

*čĭkïn 'ear'. Traces of the back-vocalic origin of this word are preserved in Mog, EYu and Bao-Kgj-Dgx.

MMo SH *ciki(n)* H27, HY *čikin* M47, Muq *čiqin* P134b, LV *čikin* P1272, IV *čikin* L25. WM *čiki(n)* L181a. Kh *čix(en)* H789a. Ord *jike* M196a. Bur *šexe(n)* C751a. Brg *šix* U165. Kalm *čikn* M649b. Dag *čik^y* E300. EYu *čkən* B139, *čqən* BJ346, *čəğən* J106b. MgrH *ćigə* J106a. MgrM *ćigi* JL474, *čigi* T378. BaoD *ćiχaŋ* BL93a. BaoÑ *ćiχaŋ* CN185. Kgj *čiχɔ* ~ *čɔχɔ* S300b. Dgx *ɕ̧ïğəŋ* B160. Mog *čekin*, *čikin* R25b, *čiqïn* W162a.

*čĭla- 'to be tired' see *čĭle-

*čĭlaun 'stone'. Interestingly the Shirongol languages use CT *ta:š* instead (usually viewed as an ancient cognate of the Mongolic word); EYu and Kgj have both the Mongolic and the Turkic word. For Mog see *gürü.

MMo SH *cilao'un*, *cila'un* H27, HY *čila'un* M47, Muq---, Ph *č^hila'un* P122a. WM *čilaɣu(n)* L182a. Kh *čuluu(n)* H793b. Ord *čilu:* M704a. Bur *šuluu(n)* C733a. Brg *šulʊ:* U169. Kalm *čolun* M654b. Dag *čɔlɔ:* E304. EYu *člu:* B139, *čəlu:* J106b. MgrH---. MgrM---. BaoD---. BaoÑ---. Kgj *čilɔ* S301a. Dgx---. Mog---.

*čĭlbuur 'martingale, part of a horse's harness, etc'. Kh-Kalm suggest *čulbuur.

MMo SH *cilbur* H27, HY *čilbur* M47, Muq---, LV---, IV *čulbur* L25. WM *čilbuɣur* L182b, *čulbuɣur* L206b, *čirbuɣul* L191b. Kh *culbuur* H761a. Ord *čulbu:r* M718b. Bur---. Kalm *culvur* M640b. Dag *šɔlbɔ:r* E239. EYu *čəlβu:r* BJ345, *čəlbu:r* S581. Mgr---. Bao---. Dgx---. Mog---.

*čĭmarkaï 'temple (anat)'. Bur suggests *čabïrkaï, Brg *čamarkaï. The peculiar EYu form may be influenced by *čoku 'temple'; cf. Bur (Oka dial.) *soxo* C393b 'temple', Bur *soxo* C393b 'forehead', Kalm *cox* M637b 'temple'. Apparently contains the element *-KAi also found in other body parts, cf. *bulčïrkaï 'gland',*herekei 'thumb'.

MMo SH---, HY---, Muq---. WM *čimarqai* L184b. Kh *čamarxay* H778b. Ord *čimarχä:* M704b. Bur *sabirgay* C379b. Brg *samarxai* U153. Kalm---. EYu *ǰɔġɔməi* (?=) B146.

*čĭna- 'to cook'.

MMo SH *cina-* H27, HY *čina-* M47, Muq *čina-* P133b. WM *čina-* L186b. Kh *čanax* H779a. Ord *čina-* M705b. Bur *šanaxa* C719a. Brg *šan-* U159. Kalm *čanx* M645a. Dag *čanə* E292 ('children's language'), *šanə* E229. EYu *čna-* B139, *čəna-* J105b. MgrH *ćina:-* J105a. MgrM *ɕ̧ïna-* JL473, *čina-* T380. BaoD *ćinə-* BL93a. BaoÑ *ćina-* CN185. Kgj *čina-* S300b. Dgx *ɕ̧ïna-* B159. Mog---.

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*čïnaïda, *čïnar (and other derivates of *čïna-) 'the day after tomorrow'. MMo and Bao from *čïnaǰï; Mog from *čïnaǰï-da; EYu and MgrM from *čïnaïda, MgrH from *čïnaada; Dgx from *čïnar. Elsewhere derivates of *čaa- are used, often with *üdür 'day' as a last element: Bur saadder C377b, saada üder (lit.) C377b. Brg sa:dər U150 'three days from now'. Dag ča:ǰ E292, ča:ǰ udur Z95b. Cf. also EYu ča:ǧădăr B132 'three days from now'.

    MMo SH cinaji, cinaru H27/28 'beyond', HY---, Muq činaǰi [P reads čina:či] ödür P134a, LV---, IV čanaǰi ödür L24. WM---. Kh---. Ord---. Bur---. Kalm---. Dag---. EYu čənida B133, čini:da J97b. MgrH ćina:da X205, ćina:daǧ SM451. MgrM ϝïnaida JL473. BaoD ćina̓ȝiə BL86a. BaoÑ ćina:ȝə CN184. Kgj činaye S300b. Dgx ϝïnaər B159, L113a. Mog činɔžd᷍ʌ, čɛnɔžd᷍ʌ W162a, MogMr činɒ:šta L62:24.

*čïŋga 'strong; tight'. The Dag and MgrH verbs from *čïŋgaa-.
    MMo SH---, HY---, Muq---, IV---, LV---. WM čingya L189a. Kh čanga H779b. Ord čaŋga M694b, čiŋga M707a. Bur šanga C719a. Kalm čaŋ M645a. Dag šaŋga:- E229 'to pull tight' (?). EYu čəŋga-ra- B134 'to be tightened'. MgrH ćaŋga J106a 'tight', ćiŋga:- X205 'to pull tight'. MgrM ϝaŋga DS256a. Bao---. Dgx---. Mog---.

*čïno 'wolf'. Some of the QG forms are difficult to explain. EYu čəna and BaoÑ ćina, which echo the form in MMo Muq, apparently unrounded the second syllable before palatal breaking could take place. However, the Monguor forms suggest that breaking did take place there, but the forms in -a instead of -o are unexpected. Cf. *ǰaurangaï/*ǰaurakaï.
    MMo SH činō H28, HY čino M47, Muq čina [ed reads čina:] P134a, LV čina [ed. reads čana:, first syll. unvocalised acc. to Saitô] P1273, IV---. WM činoa L190b. Kh čono(n) H791b. Ord čino M706b, čono M712b. Bur šono C729a. Brg šɔn U167. Kalm čon M655a. Dag---. EYu čəna B133, J105b. MgrH ćino L449, ćuna: L457. MgrM ϝuna C379, čuna T338. BaoD ćina BL93b. BaoÑ ćina CN185. BaoX čina BC70. Kgj---. Dgx---. Mog čino: R25b, činɔ W162a.

*čïŋla- 'to listen'. The central languages developed from an assimilated form *čïŋna-. Some of the QG forms suggest an earlier front version *čiŋle-. Cf. CT *tiŋle- ~ *tïŋla- 'id', perhaps from Chinese tīng.
    MMo SH---, HY---, Muq---, LV---, IV---. WM čingna-, čingla- L190a. Kh čagnax H776b. Ord čiŋna- M707a. Bur šagnax C713b. Brg šagn- U161. Kalm čiŋnx M652b. Dag---. EYu čəŋl-u:r BJ345 'eavesdropper'. MgrH ćaŋla- X202, ćinla- X205. MgrM ćiŋli- J92, ϝəŋle- C384, ϝənli- DS228a. BaoD ćiaŋlə- BL90b, čoŋlə- T151. BaoÑ ćaŋle- CN182. BaoX čaŋlə- BC65. Kgj čiauli- ~ čiɔli- S300b. Dgx ϝanlie- B157. Mog---.

*čïraï 'face; facial expression'. Kh c- suggests a form *čaraï, which would be supported by Ord. NB Dag š-.
    MMo SH cirai H28, HY čirai M47, Muq čirai P135a. WM čirai L191a. Kh caray H744b. Ord čarä: M695b. Bur šaray C721a. Brg šarai U162. Kalm čirä

M652b. Dag *šar* E230. EYu---. MgrH *ćire:* X209. MgrM *ćiræi* C371. Bao---.
Dgx---. Mog R.

***čïrï- 'to pull, drag'. Ord and EYu suggest a monosyllabic **čïr-*. The back-vocalic
form is supported by the EYu caus. formation and by Dag. The Dag form, if related,
suggests an older **čïru-* or **čïro-* (the *š-* is irregular but not unique). As expected,
the central languages developed from a secondary front-vocalic form **čir(i)-*.

   MMo SH *cir-* H28, HY---, Muq---, IV---, LV---. WM *čir-* L191a, *sire-*
L716a. Kh *čirex* H789a. Ord *čir-* M707b, *šir-* M621b. Bur *šerexe* C750b. Brg *šir-*
U167. Kalm *čirx* M653b. Dag *šɔr-* (?=) E240. EYu *čir-ğa-* (caus) B136, BJ78.
Mgr---. BaoD---. BaoÑ---. Kgj *čire- ~ čiri-* S301a. Dgx---. Mog---.

***čïsun 'blood'. Kh-Kalm *c-* seems to suggest **čusun* with palatal breaking, also
supported by Dag, Ord, and EYu. In view of the MgrM and Dgx forms both
Shirongol branches originally had forms with palatal breaking. The *-i-* in Mongghul,
Baoan and Kangjia probably redeveloped later. Mogholi has contradicting forms.
Only MMo and WM certainly have *-i-*. May contain the (?collective) suffix *-sUn*.
The PM root may have been **ču-* or **čï-*.

   MMo SH *cisu(n)* H28, HY *čisun* M47, Muq *čisun* P135a, LV *čisun* P1274,
IV---. WM *čisu(n)* L192b. Kh *cus(an)* H763a. Ord *ǰusu* M221b. Bur *šuha(n)* C736a.
Brg *šoxo:* U169. Kalm *cusn* M641a. Dag *čɔs* E304. EYu *čüsən* B138, *čusun* J106b,
BJ346. MgrH *ćisə* J106a, X207, *cəʒə* X212. MgrM *ɕuʒï* JL470. BaoD *ćisuŋ* BL93b.
BaoÑ *ćisəŋ* CN188. Kgj *čisun* S301a. Dgx *ɕusuŋ* B164. Mog *čusun* R26a, W162b,
čïsu W162a.

***čïul- 'to gather, convene'. Bökh incorrectly derives Dgx *ɕulu-* from **čugla-*, q.v.
   MMo SH *ci'ul-* H29, HY---, Muq---. WM *čiɣul-* L178b. Kh *čuulax* H794b,
čuguulax H793b. Ord *ču:l-* M718a. Bur---. Kalm *cu:l-* (obs) R435b. Dag---. EYu
čul-ğa-ra-ġda- (probably <**čïul-gan* 'gathering' + verbalizer + pass.) S581 'to
gather, assemble, etc'. Mgr---. Bao---. Dgx *ɕulu-* B163, S581. Mog---.

***čiči- 'to stab' see **seči-*.

***čidkör 'demon, devil'. Metathesis in Bao.
   MMo SH---, HY *čitkör* M47, Muq---. WM *čidkör* L177b. Kh *čötgör*
H793a. Ord *ǰödker* M212b. Bur *šüdxer* C737a. Brg *šutgər* U171. Kalm *čötkr*
M656b. Dag *šurkul* E241. EYu *čüdger* (only) S579. MgrH *ćidəgur* (only) S579.
MgrM---. Bao *ćixtïr* P422a. BaoJ *ćidə́r* L188. BaoÑ---. BaoX *ćigtar* BC62. Dgx---.
Mog---.

***čidör 'horse's hobble; shackles'. Dag may be influenced by or reborrowed from
Manchu *sideri* 'id'.
   MMo SH---, HY---, Muq *čider-le-* P305b. WM *čidör* L178a, *čider* L177a.
Kh *čödör* H791a. Ord *čödör* M714b. Bur *šüder* C737b. Brg *šudər* U171. Kalm *čödr*
M656a. Dag *šidər* E236. EYu *čüder* B138, *čödör* S577. MgrH *ćüdor* X211, *ćidor*
J90. Bao---. Dgx---. Mog---.

*čiig 'moisture; moist, wet'. Perhaps related to CT *čï: 'moisture' and/or *čï:g 'dew'. If related to the latter, this is one of the rare cases where a long CT vowel corresponds to a CM double vowel.

MMo SH---, HY---, Muq---, IV---, LV---. WM čigig L179a. Kh čiyg H784b. Ord či:g M701b. Bur šiig C725b. Brg ši:g U163. Kalm čig M647b 'dew, moisture', čiig-tä M648b 'wet'. Dag---. EYu čig B136, či:g J97a. Mgr---. Bao---. Dgx---. Mog---.

*čile- (?*čïla-) 'to be tired, exhausted; to become numb or stiff'. As in other cases where two variants exist, the back-vocalic form *čïla- supported by the QG languages might be the original one. However, in this case it is contradicted by MMo and Ordos.

MMo SH cile- H27, HY---, Muq---. WM čile- L182b. Kh čilex H785b 'to grow numb, lose feeling, etc'. Ord čile- M703b. Bur šelexe C744b. Brg šil- U166. Kalm čilx M650b. Dag šil- E234 'to be weary, tired; to feel numb'. EYu čla- B139, čəla- J65. Mgr---. BaoD---. BaoÑ ćila- CN187 'to ache, tingle'. Dgx ʐïla- B161 'to be tired, to ache, tingle (e.g. of eyes or feet)'. Mog---.

*čilmö- 'to pick' see *čölbe-.

*čilöe (?*čölee) 'free time'. Bur s- suggests *čölee, which then represents an earlier case of breaking than in Kh and Kalm. The breaking in Ordos and Dagur is also atypical, and seems to support the Buriat form.

MMo SH---, HY---, Muq---, IV---, LV---, Ph---. WM čilöge(n) L183a. Kh čölöö(n) H792a. Ord čölö: M715a. Bur sülöö C398b. Brg šulə: U171. Kalm čölän M656a. Dag čulə: E306. EYu čölö: B137, J106b. MgrH---. MgrM---. BaoD---. BaoÑ ćələ CN190. Kgj čələ: ~ čələ: ~ čilə: S301a. Dgx---. Mog (see under *čoal-).

*čimegen (?*čimögen) 'marrow; bone containing marrow'. Although all forms cited below are certainly related, the oldest form is hard to retrieve. Possibly the form *čimegen suggested by MMo is indeed the original shape, and the second vowel was rounded to ö in the form ancestral to Kh and Kalm (before palatal breaking). Bur may represent *čemegen or *čümegen. The vowel rounding in Mgr and Dgx may have been recently triggered by the -m-. Dag š- is unusual.

MMo SH---, HY čimegen M47, Muq čimegen P388a. WM čimöge(n) L186a, čömöge(n) L203a. Kh čömög H792b. Ord čömögö M715b. Bur semge(n) C402b. Brg suməg U158. Kalm čimgn M651a. Dag šiməɣ E235, šimug T183. EYu čeŋgwen B135, čeŋgön J106b. MgrH ćimuge J106a. MgrM ʐumuġai C388 'marrow', čimeke P419a 'arm'. BaoD---. BaoÑ---. Kgj---. Dgx ʐuməğə B164 'marrow, spinal marrow'. MogM čimkɒ:n L64:41 'upper arm'.

*čimki- 'to pinch, nip'. Several of the modern forms suggest an original *čimkü-, but the rounding may have been caused by the -m-. Brg šimšu:r U166 'tweezers' supports *čimki.ür. EYu suggests *čimke-, but Shirongol supports the high final vowel. May be related to *čimö-. The synonymous Dag kimč- E148 could be the result of metathesis, but could also be an independent development based on Dag kimč 'nail' from CM *kïmusun 'nail'.

MMo SH---, HY---, Muq---, IV---, LV---. WM *čimki-* L185b. Kh *čimxex* H786b. Ord *čimke-*, *čimku-* M705a. Bur *šemxexe* C745a. Brg *šimǝx-* U166 (and see above). Kalm *čimkx* M651a. Dag (see above). EYu *čimke-* (only) S571. MgrH *ćiŋgǝ-* X205, *ćimgǝ-* C88:586. MgrM---. BaoD---. BaoÑ *ćuŋġǝ-* (?=) CN190. Kgj *čüŋgu-* S301b. Dgx---. Mog---.

*čoal- 'to pierce, puncture, perforate, make holes in', **čoara-* 'to be pierced, perforated, develop holes'. In BaoÑ **čoara-* may have become confused with **čuburï-* 'to trickle, leak' listed below. Even more confusion is caused by another pair of similar-looking verbs: **čaul-* 'to tear into pieces' and **čaura-* 'to be torn into pieces'. This verb is attested in MMo SH *cao'ure-*, *cao'uru-* H25 'to crumble', Kh *cuulax* (tr.) H764a, *cuurax* (intr.) H764b. The Muq forms display the form of **čaul-/čaura-* but are all translated 'to pierce, puncture' in the Turkic counterparts. Phonetically, the EYu forms could have developed from either set of verbs, and perhaps they represent both. Mog *čo:lo:* R25b 'hole' could belong with **čolo* rather than with **čoal-*.

MMo Muq *ča'ul-* P131a/344b, *ča'ura-* P131a, *ču:ra-* P137b (see above). WM *čoɣol-*, *čoɣora-* L195b. Kh *coolox* H753b 'to pierce, puncture, perforate, etc', *coorox* H753b. Ord *čo:l-* M711a, *čo:ro-* M713b. Bur *sooloxo* C392a, *sooroxo* C392a, *suuraxa* (western) C397a. Kalm *coolx* M637a, *coorx* M637a. Dag---. EYu *ču:l-* B138, J19 'to pierce', *ču:ra-* B138 'to be broken, torn etc'. MgrH *ćo:lǝ-* X210, *ćo:ra:-* X210. MgrM *nuko ҁuar-* C372 (cf. **nöken*), *ҁur-* DS242b, *ҁoro-* F123:10. BaoD *ćorǝ-* T151. BaoÑ *ćөl-* CN189, *ćө:ra-* CN189 'to pierce; to drip; to break'. Kgj *čura-* S301a. Dgx *ҁǝura-* B159 'to be pierced'. Mog (see above).

*čoarga / **čuurga* 'lock'. The MMo variant with *-o-* seems to survive in the Monguor languages. Both this and the Kh-Bur variant may go back to an earlier alternation **čuarga ~ *čaurga*.

MMo SH *co'orqa-tai* H29, *šo'orqa* H143, HY *čo'orqa* M47, Muq---. WM *čuɣurɣa(n)* L206b, *čuurɣa* L208a, *čaɣurɣa(n)* L160a, *suɣurɣa* (?Buriat spelling) L735b. Kh *cuurga* H764b. Ord---. Bur *suurga* C397a. Brg---. Kalm---. Dag---. EYu---. MgrH *ćorġʋ* X210. MgrM *ҁorġo* JL473. Bao---. Dgx---. Mog---.

*čogča 'heap, pile'. EYu reflects **čogčag*, which may also be the source of the MgrM and Dgx forms. In some languages only the derived verb in *-lA* is attested. It cannot be entirely excluded that the QG forms are instead derived from **čug* 'bundle'. The similarly-structured MgrH *soġsoġ* X136 'heap; flock' is from Tibetan *chogs-chogs*.

MMo---. WM *čoɣča* L194b 'heap, pile; mass, etc'. Kh *cogc* H750a. Ord *ǰoġčol-* M207b 'to form a compact group'. Bur *sogso* C389b. Kalm *cogc* M635a. Dag *čɔkč* (?=) E304 'pinch (of tobacco)'. EYu *ǰɔgčʋg* B146. MgrH *ćuӡog* L456, *ćiӡog* L446 'herd', elsewhere only the derived verb: *ćuӡɔġla-* X211 'to gather, assemble, collect', *ćüӡiolo-* SM460 'to pile up (tr); to gather (intr)'. BaoÑ *ćөġӡөġ* (?=) CN189 'full to the brim'. Dgx *ҁuӡo* MC63a. Mog---.

*čogla- 'to gather' Zie **čugla-*.

*čokï- 'to peck, pick', in the central languages and Dagur also with more general meanings like 'to strike'. The Kangjia form with unexpected nasal may have been influenced by *čimki- 'to pinch' or *temgü- 'to pick up'.

MMo SH coki-, šoki- H143 'to drill', HY---, Muq---. WM čoki- L196a. Kh coxix H755b. Ord ǰoki- M208a. Bur soxixo C393b 'to strike, etc'. Kalm cokx M636a 'to strike, etc'. Dag čɔkʸ- E304. EYu čɔ:qə- B136. MgrH ćugu- X212, ćigu- L444. MgrM---. Bao---. Kgj čuŋgu- (sic, ?=) S301b. Dgx ɕuǵu- MC61a. Mog---.

*čolban/*čolman 'Venus'. In view of the Dag -p-, probably < *čolpan, also in view of the CT cognate *čolpan 'id'. The second variant in Ordos suggests an -u- in the second syllable.

MMo SH---, HY---, Muq---, RH čolbon [eds. read čolban] 198A12. WM čolmon, čolman, čolbon L197a. Kh colmon H751a. Ord čolmon ~ čulmun M711b. Bur solbon(g) C390a. Kalm colvŋ M636a. Dag čɔlpun E304. EYu čɔlβɔn B137. MgrH ćolbaŋ (only) S575. MgrM ɕorbaŋ JL481. Bao--- Dgx---. Mog---.

*čola see s.v. *čilöe.

*čöen 'few'. The relation between this word and *öčeen is unclear. Cf. also *üčüken.

MMo SH joyen H93, cf. jo'ekan H92, HY čö'en M47, Muq čö:n P136b. WM čögen L201a. Kh cöön H758b. Ord čö:n (= öčö:n) M716b. Bur---. Brg usə:ŋ U51. Kalm cön M639a. Dag čʷə:n E308. EYu čü:n B138, J106b, čö:n J17. MgrH ćo:n J106a. MgrM ɕoŋ JL473, ɕuaŋ C393. BaoD ćüŋ BL93a. BaoÑ---. BaoX čoŋ BC72. Kgj čun ~ čuŋ S301b. Dgx ɕoǧoŋ B162 (from the dim. *čöe-ken). Mog---.

*čögeče (?*čögüčeg) '(wine) cup'. Dag čɔkč E304 'bowl for a Buddha lamp made of flour' may also be related, although it is of the wrong harmonic class. The MMo form with -g may survive in MgrH; MgrM and Dgx may have lost -g recently (cf. *kürǰeg for a similar case).

MMo SH---, HY---, Muq čögüček P322b. WM čögüče, čögeče, čöčige L200b. Kh cögc H757a. Ord čögöči M314b, ǰöčögö M214b 'cup'. Bur sügse (obs) C398a. Brg sugč U158 'bowl of an oil lamp (used to illuminate a Buddha effigy)'. Kalm cögc M638a. Dag (see above). EYu---. MgrH ćɔǵʒ́ɔǵ X210 'handleless wine cup'. MgrM ɕoǵʒ́o JL474. Bao---. Dgx ʐoǧoɕï MC462b 'handleless cup'. Mog---.

*čölbe- ~ *čölme- 'to pick, peck'. Kalmuck suggests a form *čilmö-. The -p- in Dagur may be old (cf. *čolban 'Venus' above). For the preconsonantal -m-, cf. the Dagur development of ñɔmbus < *nïlbusun 'tears'.

MMo SH---, HY---, Muq---. WM čölbe- L202a, čölme- L202b. Kh cölmöx (?=) H757b 'to requisition, to confiscate'. Ord čölmö- M715a. Bur---. Brg---. Kalm čölmx M656b 'to peck'. Dag čump- E83:185b 'to pick; to pinch'. EYu čölβe- B137 'to examine'. MgrH---. MgrM ɕuaŋmu- C391 'to pick'. Bao---. Dgx---. Mog---.

*čömü- 'to pick, pluck'. MgrH suggests an earlier *čimö- or *čöme-, Ord supports *čöme-. Cf. Kh cömöö 'nut, edible seed'. Perhaps related to *čimki- 'to pinch' and to *čölbe- above.

MMo SH---, HY---, Muq---. WM *čömü-* L202b. Kh *cömöx* H758a 'to crack nuts, to remove the pits from fruit'. Ord *čömö-* M715b. Bur *semexe* C403a, *sümexe* C399b. Brg---. Kalm *cümə-* R436a. Dag---. EYu---. MgrH *ćimo:-* X207 'to pick'. MgrM *čumu-* T379 'to gather'. Bao---. Dgx---. Mog---.

*čösün 'gall bladder' see ***sösün**.

*čuburï- 'to leak, drip'. The Bur *h-* (from earlier **s*) suggests that the development **č > s* took place earlier than usual. In some languages this word has become confused with **čoara-* 'to develop a hole'.

MMo SH *cuburi'ul-* (caus.) H29 'to let flow, shed', HY---, Muq---. WM *čuburi-, čubura-* L204a. Kh *cuvrax* H760b. Ord [*čuwu:l-* M720a 'cause to flow']. Bur *hubarixa* (sic!) C687a. Brg---. Kalm *cüwr-* R436a, *cüvrx* M643b, *cövrül* M638a 'tap, faucet'. Dag *čɔ:rʸ-* E302 'to leak, to flow, to trickle'. EYu *ču:ra-* J87. MgrH *ću:ra-* X210. MgrM *čuburi-* T381. BaoD *ćiurə-* BL84b, *čur-* T151. BaoÑ *ću:r-* CN190, but this meaning also given for *ćθ:ra-* (see **čoara-*). Kgj *čiɨri- ~ čüri- ~ čiri-* S300b. Dgx---. Mog---.

*čug 'bundle'. The original concrete meaning was lost in the central languages and EYu, probably under the influence of the derived verb **čugla-* below. Cf. CT **čug* 'id' (EDPT 405a).

MMo SH *cuh-tai* H29, HY---, Muq---. WM *čuɣ* L205b 'together with, etc'. Kh *cug* H760b 'together with, etc'. Ord *čuġ* M717b. Bur *sug* C395b 'together'. Kalm *cug* M639b 'all'. Dag---. EYu *čɔġ* B137 'all'. MgrH *ćɔġ* X210. MgrM *ɕuġ* JL477. BaoGt *ćoġ* C126. BaoJ *ćoğó* (sic) L192 'sheaf'. BaoÑ *ćθġ* CN189. Kgj *čuqu* (sic) S301a. Dgx *ɕəu* B158. Mog---.

*čugla- 'to bundle; to put together; to gather, assemble'. Derived from **čug* 'bundle' above. The similar-looking MgrH form *ncɔġla-* X39 is from Tibetan.

MMo SH *cula-* (sic) H29, HY---, Muq---. WM *čuɣla-* L205b 'to gather, etc'. Kh *cuglax* H760b 'to gather, assemble; to bundle or tie together'. Ord *čuġla-* M717b. Bur *suglaxa* C396a. Kalm *cuglx* M640b. Dag---. EYu *čugla-* B138. MgrH---. MgrM *ɕugla-* C373. BaoD---. BaoÑ *ćθġla-* CN189. Kgj *čuqla-* S301a. Dgx *ɕəula-* B159. Mog---.

*čuul-, *čuura- see s.v. ***čaul-**.

*čüče 'chisel' see ***siüči**

- D -

*daa- 'to be able to carry or bear, etc'. The peculiar WM spelling perhaps serves to distinguish this word from **daga-* 'to follow', to which it would otherwise be identical in spelling. Some of the Bao forms may have been confused with forms of

*čïda- 'to be able'.

        MMo SH *da'a-* H30, HY---, Muq---. WM *daɣaɣa-* L216a. Kh *daax* H148a.
Bur *daaxa* C178a. Kalm *daax* M173b. Dag da:-. E268. EYu *da:-* B123. MgrH *da:-*
X186. MgrM---. BaoD---. BaoÑ *da:-* CN170. Kgj---. Dgx *da-* B142. Mog---.

daagan 'two-year-old foal; foal'. The strengthening of the *-g-* in MgrH and BaoD
is unexpected. Agricultural term, which, as Poppe (1960:47, etc) noted, is probably
related to Turkic **yapak* 'foal' (not attested early). Cf. also Turkmen *yabï* 'horse',
which points at a shorter stem. Cf. **unagan*.

        MMo SH *da'aqan* H30, HY---, Muq *da:ɣan* P139b. WM *daɣaɣa(n)* L216a,
daɣa(n) L216a. Kh *daaga(n)* H147a. Ord *da:ġa* M111b. Bur *daaga(n)* C177aa.
Kalm *daaɣn* M172a. Dag *da:ɣ* E268. EYu *da:ğan* B124, J105b. MgrH *da:xa* J105b.
MgrM *tagïr* P413b, *daġər* DS224. BaoD *daχaŋ* BL83a/92a. BaoGt *daxɔŋ* C116.
BaoÑ---. Dgx *dağaŋ* B144. Mog---.

daakï '(lump of) shaggy hair'. Remarkably the sequence *kï* did not result in an
uvular pronunciation of the *-k-* in EYu and Shirongol. Agricultural term related to
CT **yapaku* 'matted wool, etc' (cf. EDPT 874b), or, as the correspondence CT **u* -
CM **ï* is irregular, to CT **yapak* (cf. **kumakï*).

        MMo SH---, HY---, Muq *da:qi* P139b, IV---, LV---. WM *daɣaki* L217a.
Kh *daax'* H148b. Bur *daaxi* C178b 'moult; entangled wool'. Kalm *dääk* M187b
'entangled'. Dag---. EYu *da:kə* B124. MgrH *da:kir* SM41. BaoÑ---. Bao (unspecif.
dial.) *da:gə-tə-* S184 'to become tangled'. BaoJ *dagí* (?=) L27 'the first layer of
wool blankets placed on horseback when one saddles a horse'. Dgx *daći* (?=)
MC72b 'wool shorn during the hot summer days'. Mog---.

daara- 'to be cold; to feel cold'.

        MMo SH---, HY---, Muq *da:ra-* P139b. WM *daɣara-* L218a. Kh *daarax*
H147b. Bur *daaraxa* C178a. Kalm *daarx* M173a. Dag *da:r-* E269. EYu *da:ra-*
B124, J105a. MgrH *da:ra-* J105b. MgrM *dara-* DS212b. BaoD *darə-* BL92b. BaoÑ
da:rə- CN170. Dgx---. Mog---.

daarï 'saddle gall, sore on an animal's back'. Agricultural term related to Turkic
*yagïr 'id'.

        MMo SH *da'ari* H30 'sore', HY---, Muq *da:ri* P139b. WM *daɣari* L218b.
Kh *dayr* H155a. Bur *daari* C178a. Kalm *däär* M188a. Dag *da:r* E269. EYu *da:rə*
B124, J105a. MgrH *da:rə* J105b. Bao---. Dgx---. Mog---.

daarï- 'to pass by, drop in; to bump into, run over; to insult'. In spite of the wide
variety of meanings this is a single verb. Poppe's suggestion (P60:41,141) that WM
dabara- and *daɣari-* are ultimately the same etymon, is probably incorrect in spite of
a semantic overlap between the two. The former seems to be an intransitive
formation from **daba-* below. However, western dialects may have forms with *-w-*
with the meanings mentioned above. The spelling variant *dabari-* may confirm the
fact that the two etyma are no longer clearly distinguished. At any rate this is a
problem the peripheral languages do not shed light on.

        MMo SH *da'ari-* H30 'to pass by; to bump against; to offend [or 'to

ridicule]', HY *da'ari-* M48 'to pass by', Muq---, IV---, LV---. WM *daɣari-* L218a, *dabara-* L212a, *dabari-* L212a. Kh *dayrax* H155a 'to hit, brush against (..), to rush, charge (..), to pass by (..), to insinuate; to be stricken by an illness'. Ord *da:ri-* M122a. Bur *dayraxa* C182a. Brg *dair-* U192 'to charge, rush'. Kalm *dävrx* (?=) M189a 'to attack, etc', *dä:rχə* R83a 'to hit, bump into, offend, etc', *däwrχə* R82b 'to pass (by)'. Dag *da:rʸ-* E269 'to pass by or through, to go via; (of lightning) to strike'. EYu *da:r-* J105a 'to rush, charge; to bump against, run into', *da:r-* B124 'to pass by'. MgrH *da:rə-* J105b 'to bump against, run into; to encounter'. MgrM *da:r-* C396 'to surpass'. BaoJ *dar-* L29. Kgj---. Dgx---. Mog---.

*daba- 'to cross, pass; to exceed'.
    MMo SH *daba-* H30, HY---, Muq---. WM *daba-* L211a. Kh *davax* H149a. Bur *dabaxa* C179a. Kalm *davx* M175b. Dag *daw-* E277, *dau-* E270. EYu *daβa-* B125, J105b. MgrH *dava:-* J105a. MgrM---. Bao---. Dgx *dawa-* B146. Mog---.

*dabasug ~ *dabusag (~ *dabasuŋ) '(urinary) bladder'. There is disagreement regarding both the final consonant and the quality of the second and third vowels. Even the QG languages reflect three different forms. EYu supports *dabasug, while Monguoric suggests *dabsag (possibly < *dabusag). The forms in Baoanic seem to stem from a form *dabalag. Although -l- does not otherwise correspond to *-s-, -lag can at this stage not be explained as an alternative ending. Bur-Brg have *čuuka.
    MMo SH---, HY---, Muq *dabasun* P137a. WM *dabusaɣ* L213b, *dabusang* L213b, etc. Kh *davsan*, *davsag* H150a, *davsnag* (sic) H150b. Ord *dawusaq* M130b, *dawusuq* M131a. Bur *dabsag* (western) C179b. Brg---. Kalm *davsg* M174a. Dag *daus* E270 'abdomen', *daus* Z103b 'bladder'. EYu *daβasăǧ* B125, *daβasəǧ* J105b. MgrH *dabsaǧ* J105a, *daṣsaǧ* X191. MgrM *dabsaǧ* JL466. BaoD *doləǧ* BL92a, *dolăχ* BL6. BaoJ *doləǧə́* L34 'the crop of a bird'. BaoÑ *daŋlaǧ* CN171, also 'fish's air bladder'. Kgj *dabələǧ* S298b. Dgx *dawala* B146. Mog---.

*dabkur 'double; row; layer; folded'. The Dagur form *dabkur* (instead of *darkər > *darkəl), with unexpected *u* and retention of the syllable-final *b*, may indicate that it is a reborrowing from Manchu *dabkûri*. Cf. *dabta- 'to repeat' (not listed here).
    MMo SH *dabqur* H30, HY *dabqur* M48, Muq *dabqur* P304a. WM *dabqur* L214a. Kh *davxar* H214a. Ord *dawχur* M130a, *daχur* M113a. Bur *dabxar* C179b. Kalm *davxr* M175b. Dag *dabkur* (sic, see remark below) E272. EYu *daχgur* B125 'times', *daχǧuar* J105b 'double'. MgrH *taǧur* J105a. MgrM *yigə təǧər* DS260 'for a while' (the first element from *nikən and/or Chinese *yīge* 'one'), possibly also in *toǧor kəlie* Z335:317 'uvula', lit. 'double tongue'. Bao---. Dgx---. Mog---.

*dabusun 'salt'. All modern forms apparently developed from a form *dabsun. However, the first -ŋ- in Dgx *daŋsuŋ* is unusual; this Dgx form perhaps stems from an intermediate form *damsun, although it is also possible that *daŋsuŋ* developed from earlier *dasuŋ < *dabsun (see *ǰabaan for a similar 'intrusive' ŋ). Apparently contains the (?collective) suffix *-sUn, so the PM root may have been *dabu-.
    MMo SH---, HY *dabusun* M48, Muq *dabusun* P137. WM *dabusu(n)* L213b. Kh *davs(an)* H150a. Ord *dawus(u)* M131a. Bur *dabha(n)* C180a. Brg *daβʊ:* U139. Kalm *davsn* M174b. Dag---. EYu *da:βsən* (*da:ɸsən*) B124, *da:bsən* J105b.

MgrH *dabsə* J105a, X190. MgrM *dabsï* JL466, *dapuʒï* C390, *dabusï ~ dapuʒï* DS247a. BaoD *dabsuŋ* BL92b. BaoGt *däpsuŋ* C115. BaoÑ *dabsøŋ* CN172. Kgj---. Dgx *daŋsuŋ* B144. Mog *dabsan*, *dabsun* R26a, *dɔbsun* W163b.

*daga- 'to follow', in Bao and Kgj also 'to resemble'.
        MMo SH *daqa-* H30, HY *daqa-* M48, Muq---. WM *daγa-* L216a. Kh *dagax* H153a. Bur *dagaxa* C180b. Kalm *daxx* M187a. Dag *daγ-* E273. EYu *dağa-* B125, *tağa-* (sic) J105b. MgrH *dağa:-* J105b. MgrM *dağa-* DS224a. BaoD *dəğa-* BL2 'follow', *ndəğa-* BL58, BL65 'resemble'. BaoÑ *dağa:-* CN172. Kgj *dağa- ~ dəğa-* S298b, *dəğa-* S208. Dgx *dağa-* B144. Mog---.

*daïn 'war' and *daïsun 'enemy'. Related to CT *yagï 'enemy' (cf. EDPT 868a).
        MMo SH *dayin* H34, *daiyin* H31, *daiyisu(n)* H31, HY---, Muq *dain* P138a 'enemy'. WM *dayin* L222b, *dayisun* L222b. Kh *dayn* H154a, *daysan* H155b. Bur *day(n)* C182a, *daysa(n)* (←Kh) C182b. Brg *daiŋ* U192, *daisaŋ* (←Kh) U192. Kalm *dän* M189b 'war', *dääsn* M188b 'enemy'. Dag *dayin* E276 'war, chaos caused by war'. EYu *dain* B124. Mgr---. Bao---. Dgx---. Mog---.

*daku 'fur coat (with the fur outside), raincoat'. The Dagur form may be from Manchu *dakû*. Related to CT *yagku 'id' (EDPT 898b), according to Clauson from *yag- 'to rain'.
        MMo SH *daqu* H31 'fur-lined coat', HY---, Muq---, RH *daqu* 205B42. WM *daqu* L237b. Kh *dax* H164b 'coat with the fur outside'. Bur *daxa* C189b. Brg *dax* U193. Kalm *daxă* R72b. Dag *daw* E277 'cape, cloak', *daγʉ* NK497a. EYu---. MgrH *da:xu* SM41 'short sleeveless garment worn in the past by Monguor women'. Bao---. Dgx---. Mog---.

*dalaï 'sea'. Apparently related to CT *taluy 'id', itself possibly a geographical name of Chinese origin.
        MMo SH *dalai* H31, HY *dalai* M48, Muq *dalai* P138a 'great'. WM *dalai* L224a. Kh *dalay* H156a. Ord *dalä:* M115a. Bur *dalay* C183a. Brg *dalai* U194. Kalm *dala* M178a. Dag *dali:* E274, *dalai* Z103a. EYu *dali:* B125, J105a. MgrH *dali:* X190. Remaining lgs---.

*dalan 'seventy'. Related to *dolaan (< *daluan) 'seven'. In Bao-Kgj replaced by a new analytical form *dolaan harban 'seven tens', contracted in BaoD *dolaraŋ* BL92a, BaoÑ *dø'laraŋ* CN180.
        MMo SH *dalan* H31, HY *dalan* M48, Muq *dalan* P138a. WM *dala(n)* L223b. Kh *dal(an)* H156a. Ord *dala* M114b. Bur *dala(n)* C183b. Brg *dal* U194. Kalm *daln* M180a. Dag *dal* E273. EYu *dalan* B125, J105a. MgrH *dalan* J105b. MgrM---. BaoD---. BaoÑ---. Dgx---. Mog---.

*dalu 'shoulder-blade, scapula'. The long vowel shared by EYu and MgrH is secondary. Some of the Shirongol languages feature forms suggesting an additional phoneme after *u; MgrH and BaoD suggest a Shirongol form *daluï; Dgx may support this form (cf. *maŋlaï 'forehead' for the treatment of *-aï). MgrM does not share this possible Shirongol word shape. For the forms in a nasal, we may compare

WM *dalang* L224b 'nape of the neck (of animals); withers (of a horse)'. Perhaps **dalu* and **dalaŋ* were confused.

MMo SH---, HY---, Muq *dalu* P138a. WM *dalu* L226b. Kh *dal* H155b. Ord *dalu* M116b. Bur *dala* C183a. Brg *dal* U194. Kalm *dal* M178a. Dag *dal* E273 'shoulder-blade'. EYu *da:lə* B124 'shoulder-blade'. MgrH *da:li:* J102b 'shoulder'. MgrM *dalu* T327, DS249b. BaoD *daləi* BL90b 'shoulder'. BaoÑ *dalaŋ* CN172 'shoulder-blade'. Kgj *dalian ~ dalen* S298b. Dgx *daləu* B145 'shoulder', *dalï* L118b 'shoulder'. Mog *do:lu* R27a.

***damla**- 'to carry on a carrying-pole, in a sedan chair, etc'. A Chinese word (modern Mandarin *dān* 'shoulder pole') that seems to be absent from MMo, but was adopted early enough to be represented widely in the modern languages. The antiquity is supported by the *-m*, which has since merged with *-n* in Northwest Mandarin. MgrH *dänla-* SM43, *danla-* X189 may represent more recent loans. Dgx *daŋla-* may also be recent. Kgj *dama-* must have developed via either **damna-* or **dalma-*. Dag *ǰenǰla:-* E315 could stem from an unattested assimilated variant **ǰamǰïla-* < **damǰïla-*.

MMo---. WM *damna-* L228a. Kh *damnax* H159b, *damlax* H159a. Ord *damna-* M118a, cf. also *damǰil(a)-* M117b. Bur---. Kalm *damnᵛ-* R75b. Dag (see above). EYu *damla-* B125. MgrH *damla-* X191, *darma-* SM46 (naast. BaoD *damələ-* BL32. BaoÑ *dabla-* CN172. Kgj *dama-* S298b. Dgx *daŋla-* B144. Mog---.

***daŋgal** 'lump, clod'. Note the peculiar distribution. Mgr seems to suggest a form **daŋgʋl*. BaoD results from a recent metathesis. Apparently because the word is rare in the central languages, this word is often presented in the vocabularies of QG languages as a loanword of Turkic origin, and compared to NUyg *daŋgal*. However, the initial *d-* in NUyg rather indicates a non-Turkic word. It seems likely that Kashghari's *deŋgel* (or *daŋgal*; it is read as a front-vocalic word in EDPT 520a because of the spelling of *-g-*) 'knob or node' is the same word, but this early occurrence also has the foreign-looking *d-*. Even if ultimately not an endemic Mongolic word, it was probably present in CM. The presence of this word in Dagur also supports its presence in early Mongolic. As it is reminiscent of, and largely in complementary distribution with, **deŋliül*, **deŋliüsün* 'turf, sod; hillock' found in the central languages, this may be an alternate form of the same etymon. Cf. also Ord *deŋgel-doŋgol* M139b 'lumps and bumps in the soil'.

MMo SH *danglasun* H32 'clod of earth', HY---, Muq---, IV *tanglasun* L62:67 'sun-dried brick', RH *tanglasun* 202A5 'brick'. WM---. Kh---. Bur *dagnaha(n)* (western) C181a. Kalm---. Dag *daŋga:l* E272. EYu---. MgrH *daŋgʋl* X189. MgrM *daŋgʋar* C390, *dongul* P421a 'peat', *daŋbulər* (?=) DS237b 'mound'. BaoD---. BaoÑ---. BaoX *dalġaŋ* BC66. Kgj---. Dgx (Longquan) *daŋga* B144. Mog---.

***darasun** 'wine (from fruit or cereals)'. Bur seems to suggest **darsun* (perhaps also the origin of the Kh and Kalm forms), Mgr and Bao point at **durasun*. Apparently formed with the (?collective) suffix **-sUn*.

MMo SH *darasun* H32, HY *darasun* M48, Muq---. WM *darasu(n)* L232a. Kh *dars(an)* H163a. Ord *darasu* M120b, *darusu* M125a. Bur *darhan* (obs) C189a.

Brg *daro:* U195. Kalm *darsn* R78b. Dag *dars* Z39. EYu *dura:sən* (only) S203. MgrH *dəra:sə* J105b, *dura:sə* X201. MgrM *duruasï* C391. Bao *turasï* P412a. Kgj *dərasun ~ drasun* S299a. Dgx *darasuŋ* B146. Mog---.

*daru- 'to press, push down, suppress'.
         MMo SH *daru-* H33, HY *daru-* M48, Muq *daru-* P138b. WM *daru-* L233b. Kh *darax* H161a. Bur *daraxa* C187b. Kalm *darx* M185a. Dag *dar-* E276. EYu *darə-* B126, J105a. MgrH *da:rə-* J105b. BaoD *darə-* BL92b. BaoÑ *dar-* CN173. Dgx *daru-* B146. Mog *daru-, do:ru-* R27a.

*daun 'sound; voice; song'.
         MMo SH *dao'u(n)* H32, HY *da'un* M49, Muq *da'un* P139a, cf. *du:la-* P147b 'to sing'. WM *daɣu(n)* L219a, *daɣuu* L221b. Kh *duu(n)* H183a. Ord *du:* M158b. Bur *duu(n)* C206a. Kalm *dun* M214a. Dag *dau* E270 '&thunder'. EYu *du:n* B130, J105a. MgrH *dau:* J105b. MgrM *dau* JL468. BaoD *duŋ* BL92a. BaoÑ *dəŋ* CN179. Kgj *duŋ* S299b, but cf. *daula-* S298a. Dgx *doŋ* B147 and *duan* B148 (both representing the same pronunciation), but cf. *dəula-* B146. Mog *döʉn* R27a, *daʋn, doʋn, doʋ* W163a.

*daurïa- 'to imitate, follow the example of'. The *n* in EYu is inexplicable.
         MMo SH, HY---, Muq---. WM *daɣuriya-* L219b. Kh *duuriax* H184b. Bur *duuryaaxa* C206b. Kalm *du:ra:-* R104b, *dura:-* R102b. Dag *daurʸe:-* E271 'id, etc'. EYu *du:ran-* J105a. MgrH *daura:-* X189, *dau:ra:-* J105b.

*daus- 'to be finished; to suffer, endure'.
         MMo SH *dao'us-* H32, *da'us-* H33, HY---, Muq *da'us-* P139a, *du:s-* P326b. WM *daɣus-* L220a. Kh *duusax* H184b. Bur *duuhaxa* C206b. Kalm *duusx* M218a. Dag *daus-* E270 'to pull in to shore; to end, finish, reach the end'. EYu *du:s-* J105a 'to end, finish'. Remaining lgs---.

*debis- (>*debüs-) 'to spread'. In the alternative form *debüs- suggested by SH the original *i* was probably rounded because of the preceding *b*. Most modern forms may be either from *debis-* or *debüs-*, but Ord suggests the former, and Dag the latter.
         MMo SH *debus-* H34, HY---, Muq *debis-* P139b. WM *debis-* L238b. Kh *devsex* H190b. Ord *dewis- ~ dewes-* M145a. Bur *debdixe* C213a. Brg *diβd-* U197. Kalm *devsx* M191a. Dag *dəus-* E279. EYu *des-* J88, *deβəsge-* (caus) B127. MgrH *de:sə-* X193. MgrM *debse-* T329. BaoD---. BaoÑ *der-* CN177, *debər-* CN176. Kgj *desï-* S299a. Dgx *ʒ́iausï-* B165. Mog---.

*debisker 'mattress, bedding'. Derived from *debis-* above; Dgx from *debiskü*.
         MMo SH---, HY *debüsger* M49, Muq *debisker* P139b. WM *debisker* L238b. Kh *devsger* H190a. Ord *dewisker* M145a. Bur *debdixer* C213b, *debisxer* (←?) C213b. Brg [ɔr] *diβtgər* U34. Kalm *devskr* M191a. Dag *dəurkul* E279. EYu *deβəsger* B127, *desger* J88. Mgr---. Bao---. Dgx *ʒ́iausïku* B165. Mog---.

*debse 'saddle cushion, undersaddle'. Probably related to *debis-. The three literary central languages and Brg developed as if it was *debsün; Ord and EYu agree with the WM spelling. Dag dəbsəɣ is peculiar: preconsonantal b should have become r, and the final ɣ is unexpected. The expected form is *dərs, i.e. this word would have merged with the reflex of *deresün, q.v.

   MMo SH---, HY---, Muq---. WM debse L239a. Kh devs(en) (obs. in this meaning) H190a. Ord debse M132b. Bur debhe(n) C214a, debese (?←WM) C214b. Brg dəβu: U196. Kalm devsŋ M191a. Dag dəbsəɣ (sic) E280. EYu debse B312, J105a.

*debte- 'to be soaked, to be steeped'.
   MMo SH---, HY---, Muq---, IV---, LV---. WM debte- L239b, debtü- L240b. Kh devtex H191a. Bur debtexe C214a. Kalm devtx M191b. Dag dərt- E282. EYu debte- BJ322, debde- J105a. MgrH təbde:- J105b, təde:- X180, tudie:- SM427. MgrM---. Bao---. Dgx---. MogM defta- L68, No. 58.

*deel 'clothes, garment, jacket, coat, gown'. A clear example of the interaction between WM and the spoken languages. The QG languages stem from CM *deel, The Dag form with its -lʸ seems to suggest a CM *deeli; or it may instead belong with *deelei 'jacket' (not listed here).
   MMo SH de'el H34, degel H35, HY de'el M49, Muq de:l P141b. WM debel L238a, K1698a, Cevel222b, degel K1740b, Cevel231a. Kh deel H199a. Ord de:l M136a. Bur degel C215a. Brg də:l U195. Kalm devl M190b. Dag də:lʸ E278 'fur-lined coat'. EYu di:l B128. MgrH de:l J105a. MgrM der JL468. BaoD---. BaoÑ---. Kgj---. Dgx ʒien B166. Mog---.

*deere 'above, upper'. From a root *dee-, whose other derivates are less widespread in the peripheral languages. In view of the Muq spelling with -h- perhaps from a PM root *depe- > *dehe-.
   MMo SH de'ere H34, HY de'ere M49, Muq de:re P142a, dehere P148a. WM degere L243a. Kh deer H199a. Ord de:re M140b. Bur deere C219b. Kalm deer M194b. Dag də:r E278. EYu di:rə B128, J105b, de:rə B126. MgrH dəre J105a. MgrM dere T329. BaoD ʒiərə BL92b. BaoÑ di:rə CN177. Kgj dere S299a. Dgx ʒierə B169. Mog de:ra, de:rá R26b, dɛrʌ W163a, dirʌ W163b.

*deesün 'rope, cord'. The similar forms with ei Kgj and Mog are probably a coincidence. Possibly related to the Turkic *yep, a NE variant of *yïp 'thread'.
   MMo SH---, HY de'esün M49, Muq de:sün P142a. WM degesü(n) L244b. Kh dees(en) H200a. Bur deehe(n) C220b. Brg dəxə: U196. Kalm deesn M195b. Dag də:s E278. EYu di:sən B128, J105b, de:sən (Qinglong) BJ351. MgrH de:sə J105a. MgrM desə J87. BaoD desuŋ BL92a. BaoÑ---. Kgj deisʉn ~ desʉn S299a. Dgx ʒiesʉŋ B168. Mog deisun R26b, dɛɪsun W163a.

*del 'mane'. The second element of the Dagur form is unclear (it is reminiscent of *deelbüri 'covering'). Agricultural term related to CT *ye:l 'id'.

MMo SH *del* H35, HY del M49, Muq--- but cf. *del-tü-* P141a 'hyena' (lit 'with mane'), RH *deltü čina* 199C19 'hyena' (lit. 'wolf with mane'). WM *del* L247a. Kh *del* H193a. Ord *dél* M136a. Bur *del-he(n)* C216b. Brg *dil* U197. Kalm *del* M196a. Dag *də:lbur* E278, Z103b. EYu *del* B127, J105b. Remaining lgs---.

delbi- 'to wave, to fan', *delbiür* 'fan'. Preconsonantal *-l-* was lost in the central languages (cf. the development of CM *talbï-* 'to put' > *tabï-*). The EYu form is irregular; in view of the *-p-* it also could be a borrowing from Turkic *yelpi-* 'id'.
MMo SH---, HY---, Muq *delbü-* P213b (and *yelbi-* P390b from Turkic). WM *debi-* L238a, *debigür* L238a. Kh *devex* H191b, *devüür* H191a. Ord *dewe-* M144b, *dewʉ:r* M145a. Bur *debixe* C213b, *debyüür* C214b. Kalm *dewü:r* R91a. Dag *dəlbur* E280 'fan'. EYu *lepə-* B87, *lepü:r* B87. Remaining lgs---.

deled- 'to beat'. There is also a variant with *deles-*, usually with different semantics, cf. WM *deles-* L249a, Kh *delsex* H194b, Kalm *delsx* M198a. Both forms may go back to a PM form *delej-*.
MMo SH *delet-* H35, HY *delet-* M49, Muq *delet-* P140a. WM *deled-* L248b. Kh *deldex* H194b. Ord *delde-* M136b. Bur *deldexe* C216a. Kalm *deldx* (obs) M197a. Dag---. EYu *deled-* B127. Mgr---. Bao---. Dgx---. Mog *dïlʌt-* W163b 'to rain', MogM *delat-* L62:27 'to beat, hit'.

deleŋ 'udder'. Ord and Dag seem to reflect a form with *–i-*, which happens to agree with the Turkic cognate *yelin* 'id'. The *-ŋ*, however, does not.
MMo SH---, HY---, Muq---, IV---, LV---. WM *deleng* L249a. Kh *delen(g)* H195a. Ord *deliŋ*, *déliŋ* M138a. Bur *delen(g)* C216b. Brg *dələŋ* U197. Kalm *delŋ* M197b. Dag *dəlin* E280. EYu *deleŋ* B127, J105b. MgrH *dələŋ* J105a, *dəlaŋ* X195. MgrM---. BaoD *dəlaŋ* BL92a. BaoÑ---. Kgj *deliɔ* S299a. Dgx *ʑielien* L120b. Mog---.

delge- 'to spread'. For Dongxiang cf. *gee-*.
MMo SH *delge-* H35, HY *delge-* M48, Muq *delge-* P140b. WM *delge-* L249a. Kh *delgex* H194b. Bur *delgexe* C216b. Kalm *delgx* M197a. Dag *dəlɣə:-* E281. EYu *delɣe-* B127. MgrH *dəlgɜ-* X196. MgrM *derge-* JL462. Bao---. Dgx *ʑieğə-* MC184b 'to roll out (dough); to spread (grain on the threshing floor for threshing)'. Mog---.

deliün 'spleen'. Dag *dəlkin* probably stems from Tungusic, cf. Manchu *delihun*. LV also has *-g-*.
MMo SH---, HY *deli'ün* M50, Muq *delü:n* P141a, LV *delgün* P56. WM *deligüü* L250a. Kh *delüü(n)* H195a. Bur *delüün* C216b, *delyüü(n)* C216b. Brg *dilu:* U198. Kalm *delün* M198a. Dag *dəlu:* E280, *dəlkin* E280 (latter form ←MT). EYu *dölü:n* B130, *dölön* J105b, *dölö:n* (Qinglong) BJ350. MgrH *dəliu:* J105a, *dəliu* X196. Remaining lgs---.

dere 'pillow'. Dag *dərəb* E281 'pillow' is from Tungusic, cf. Solon *dəbbʉ* < *dərbʉ*. This Tungusic word may well be related to Mongolic.
MMo SH *dere* H36 'etc', HY *dere* M50, Muq *dere* P141a. WM *dere*

L253a. Kh *der(en)* H197a. Ord *dére* M140b. Bur *dere* C218b. Brg *dər* U197. Kalm *der* M199a. Dag [see above]. EYu *dere* B127, J57. MgrH *dəre* X196. MgrM *dere* JL462. Remaining lgs---.

*deresün 'name of several reeds and grasses; rush mat'. Probably related to CT *yez.

     MMo SH *deresun* H36, HY---, Muq---. WM *deresü(n)* L253b. Kh *ders(en)* H197b. Ord *déres(ʉ)* M141a. Bur *derhe(n)* C218b. Brg *dəru*: U197. Kalm *dersn* M200a. Dag *dərs* E282. EYu---. MgrH *dəresï* X196. MgrM---. Bao---. Dgx *ʒ́ierəsuŋ* B169. Mog---.

*deü 'younger sibling'. In many languages this word is not used independently. In Muq apparently only in the combinations *aka deü* and *egeči deü*; In Bur and Kalm also restricted to compounds.

     MMo SH *de'u* H36, HY *de'ü* M50, Muq *de'ü*: P303b, *dü*: P256a. WM *degüü* L246a. Kh *düü* H188b. Bur *düü* C211b 'younger'. Kalm *dü* M218a 'younger'. Dag *dəu* E279. EYu *dü*: B132, J105b, *dö*: (Qinglong) BJ350. MgrH *diu*: J105a, *diu* X195, *du*: X199. MgrM *diau* JL465. BaoD *dəu* BL92a. BaoÑ *du* only in *aġa du* CN5. Kgj *devʉ* S299a. Dgx *ʒ́iau* B165. Mog *döʉn* R27a.

*deüǰile- 'to hang up, suspend, attach'. The -ʒ- in the Monguor languages is peculiar. Some of the Chinese authors derive this word from Chinese *diào*, but this is only phonetically compatible with the Dongxiang form. Cf. *elgü-.

     MMo SH---, HY---, Muq---. WM *degüǰile-* L246a. Kh *düüǰlex* H189a. Ord *dʉ:ǰile-* M167b. Bur *düüželxe* C211b. Kalm *düüǰlx* M221a. Dag---. EYu---. MgrH *diuʒəle-* X195. MgrM *diaoʒïli-* DS227b. BaoÑ *du:ʒ́ilġa-* (caus) CN181. Kgj *dəuǰile- ~ dauǰile-* S298b. Dgx *ʒ́iauʒïlie-* B165.

*deüli- 'to jump, leap'. Cf. *hüsür-.

     MMo SH *duyal-* (?=) H40 'to jump for joy', HY---, Muq *dü:li-* P148a. WM *degüli-* L245b. Kh *düülex* H189a. Bur *düülixe* C211b. Kalm *dü:l(')-* R106b 'to strive for, try to get, etc'. Dag---. EYu---. MgrH *diu:lə-* J96a. MgrM *diauli-* JL471. BaoD *dulə-* BL84a. BaoÑ *dulə-* CN181. BaoX *dul-* BC71. Kgj *dauli- ~ dəuli-* S298A. Dgx *ʒ́iauli-* B165. Mog---.

*deür- 'to carry sb/sth in front or behind while riding a horse'. In spite of phonetic problems, possibly in some way related to the Turkic form *ünger-* (?*yünger-). For the phonetic development compare CM *döree - CT *yüzeŋgü* 'stirrup' below. Cf. *sundala-* which occurs in similar meanings.

     MMo SH *de'ur-* H36. WM *deür-* L254a. Kh *düürex* H189b. Ord *dʉ:r-* M171a. Bur -?-. Brg *du:r-* U203. Kalm *düürx* M221b.

*doa-ra 'under'. Note the fluctuations in vowel length. Kh, Ord, Brg do have a long vowel in other derivates of the same root, e.g. Kh *dooš* 'downward', *dood* 'lower' etc. In BaoD this word may have dropped from use after its form has come to resemble *dotara* 'inside' too closely.

MMo SH *do:ro* H37, HY *dora*, *doro* M50, Muq *dora* P143a. WM *doora* L266a. Kh *dor* H171a. Ord *doro* M152b. Bur *doro* C196a, *dooro* C195b. Brg *dɔr* U200. Kalm *dor* M207a. Dag *dʷar* E290. EYu *du:ra* B131, J105, *dɔ:rɔ* (Qinglong) BJ351. MgrH *do:ro* J105a. MgrM *do:ro* C376, *doro* C391. BaoD-?- BL. BaoÑ *dθ:rə* CN178. BaoX *dorə* BC65. Kgj *duru* S299b. Dgx *dəura* B147. Mog *dora* R27a, *dɔrɔ* W163b.

dobtul- 'to gallop; to rush, charge, attack'.
MMo SH *dobtul*- H36, HY---, Muq *dobtul*- P142b. WM *dobtul*- L255a. Kh *dovtlox* H167a. Ord *dubtul*- M155b. Bur *dobtolxo* C193a. Kalm *dovtlx* M202b. Dag *dɔrtul*- E286. EYu *dobdəl*- J7. Remaining lgs---.

dogal- 'to limp' and *dogal-aŋ* 'limping, crippled' (the latter not listed here for all languages where it survives). Bur suggests *-k-*. Most of Baoanic seems to have reinterpreted the verb as *dogla-*.
MMo SH---, HY *doqalaŋ* M50, Muq *doqul*- (or *doqol*-) P143a. WM *doɣol*- L257b. Kh *dogolox* H167b. Ord *doɣol*- M147b. Bur *doxolxo* C199a. Brg *dɔgləŋ* U199. Kalm *doɣlx* M203b. Dag *dɔɣʷl-un* E284. EYu *dəǧol*- B129, *doǧol*- J105b. MgrH *doǧolə*- J105a. MgrM *dərǧo*- (?=) DS234a, *dʲɔǧʊl-aŋ* (sic) C391, *dogolan* P421b. BaoD *doɣol*- BL92b. BaoÑ *dəǧla*- CN180. Kgj *duǧlu*- S299b. Dgx *doǧolo*- B147. Mog---.

dogsïn 'fierce, cruel'. Note the metathesis in Kh, Ord, Bur.
MMo SH---, HY---, Muq---. WM *doɣsin* L256b. Kh *dogšin* H167b, *došgin* H174b. Ord *dogšin* M148a, *doškin* M154a. Bur *došxon* C199a. Kalm *dogšn* M293a. Dag *dɔršin* E285. EYu *dɔgšun* B129. MgrH *dogśin* L91, also *dogśin* L91, *togśin* L580 'sour'. Remaining lgs---.

dolïa- (> *dolaa-*) 'to lick'. The form *dolïa-*, now only present in Bur, must have been the oldest. The QG forms developed from a form *doli-* or *dol-* which can not be explained, unless the final part was mistaken for a causative, and removed. The QG form seems to be supported by Moghol. The length in EYu and MgrH may be due to the word structure (which is a comon development), but perhaps the vowel length of the second syllable was transferred to the first. The assumed relation with CT *yalga-* 'id' is problematic, since an earlier Turkic form *yaluga-* has to be postulated in order to reconcile the actual Turkic forms with the CM *o* in the first syllable, but a Turkic form *yolïga-* would be required if one wants to explain the *ïa* in the CM form.
MMo SH---, HY---, Muq *dola:*- P142b. WM *doliya*- L259b, *doloɣa*- L260a. Kh *doloox* H169a. Ord *dolo:*- M150b. Bur *dolyooxo* C194a, *žolooxo* (rare) C233a. Brg *dɔlʲɔ:*- U199. Kalm *dolax* M205a. Dag *dɔlɔ:*- E284. EYu *dɔ:lə*- B128, *do:l* J105b. MgrH *do:lə*- X297. MgrM *dor*- JL468. BaoD *dolə*- BL92b. BaoGt *dual*- C110. BaoJ *dual*- L36, *dal(ə)*- L30. BaoÑ *dəl*- CN180. BaoX *do:lə*- BC62. Kgj *dɔr*- S299b. Dgx *dolu*- B148. MogMr *dɒ:lu*- L64:45, Zirni *do:l*- 15:6b.

*dolaan 'seven'. In view of *dalan 'seventy', *dolaan may go back to an earlier (PM) *daluan.

MMo SH *dolo'an* H37, HY *dolo'an* M50, Muq *dola:n* P142b. WM *doloɣa(n)* L260a. Kh *doloo(n)* H169a. Ord *dolo:* M150b. Bur *doloon* C194b. Brg *dɔlɔ:*, *dɔlɔ:ŋ* U199. Kalm *dolan* M204b. Dag *dɔlɔ:*, *dɔlɔ:n* E284. EYu *dɔlɔ:n* B129, *dolo:n* J105b. MgrH *dolo:n* J105a. MgrM *dolon* T330, *dolaŋ* (obs.) DS4, but *dolaŋ* DS260a 'week' is still in use. BaoD *doluŋ* BL92a. BaoÑ *dələŋ* CN180. Kgj *danlɔ ~ dɔlɔ* S298a. Dgx *doloŋ* B147. MogM *dɒ:lɒ:n* L54b:135 (rarely used).

*domag 'tale, legend, fairy tale', in some languages 'nonsense; mockery'. The EYu *l-* probably arose due to the influence of EYu *lɔm* from *nom* 'book'. Related to CT *yomak* 'fairy tale'.

SH *domoq-či* H37, HY---, Muq---. WM *domoɣ* L261a. Kh *domog* H169b. Ord *domoq* M151b. Bur *domog* C195a. Kalm *domg* M206a. EYu *lɔmɔg* B88.

*dota-r 'interior', *dota-ra 'in, inside'. Note the development of *d > t from MMo onwards, and the dissimilations of the *d-t sequence in QG. Other derivates from the same root also feature irregular dissimilations, as in *dotaa ~ *dočaa: Buriat *dosoo* C197b, *zosoo* C258a, Brg *dɔsɔ:* U199, apparently shared by Khamnigan (Janhunen 91), as opposed to Kalm *dota* M208a.

MMo SH *dotora*, *dotore* H38, HY *dotora* M50, Muq *dotar* P143b, *dotura* P119b, cf. *dotara-qi* P143b, *totar* P142a 'lining', *totara* P209a. WM *dotor*, *dotora* L265a. Kh *dotor* H173a. Ord *dotor*, *dotoro* M154b. Bur *dotor* C198a. Brg *dɔtɔr* U200. Kalm *dotr* M208b. Dag *dʷatər* E290 'inside', cf. *dɔtur* E285 'internal organs; heart (fig.)'. EYu *htɔr* B61, *hdɔr* B62, *htɔrɔ* B61, *hdoro* J105b. MgrH *tudor* X185, *ćüdor* X211; *toro* J105a, X181, *turo* X185, *şduro* L512, *sduro* SM339. MgrM *tuduar* C390, *dotor* T367, *tudoro*, *cudoro* DS231a. BaoD *dorə* BL93b. BaoÑ---. BaoX *dərə* BC69, *hdər-sə* (abl.) CN86:164. BaoDt *hdərə* CN86:186. Kgj [*tuši ~ tɯši* S297 < *dota-gsï* 'inwards'], *dɯgɯ* S20 'the one on the inside', perhaps < *dotar-kï*. Dgx *sudoro* B119, *tudoro* L120a, cf. also *ənə toro* B7 'in here', *hə toro* B66 'in there'. Mog *doto:-na* R27a.

*döčin 'forty'. In Bao and Kgj replaced by a new form *dörben harban* 'four tens' (BaoD *derăraŋ* BL92b, BaoÑ *deˈraraŋ* CN177). Probably from a root *dö-* and a suffix *-čIn* (cf. *gučin* 'thirty', *dörben* 'four' and (not listed) *dönen* 'four-year-old').

MMo SH *docin* H36, HY *döčin* M50, Muq *döčin* P143b. WM *döči(n)* L266b. Kh *döč(in)* H177b. Ord *döči* M158a. Bur *düše(n)* C213a. Brg *duš* U204. Kalm *döčn* M212b. Dag *duč* E287. EYu *döčən* B130, *döčin* J105a. MgrH *təɉin* J105b. BaoD---. BaoÑ---. Kgj---. Dgx---. Mog---.

*dörben 'four'. The Shirongol forms go back to an unrounded form *derben*. Related to *döčin* 'forty' above and *dönen* 'four-year-old' (not listed).

MMo SH *dorben* H37, HY *dörben* M50, Muq *dörben* P143b. WM *dörbe(n)* L268b. Kh *döröv (dörvön)* H176b. Bur *dürbe(n)* C209a. Brg *durəß*, *durßəŋ* U204. Kalm *dörvn* M211b. Dag *durbʷ*, *durbun* E288, *durəb* Z104b, *durub* Z47. EYu *dörßen* B130, J105a. MgrH *de:ren* J105b. MgrM *derbaŋ* T477, JL477. BaoD *deraŋ*

BL92a. BaoÑ *deraŋ* CN177. Kgj *derɔ* S299a. Dgx *ʑieroŋ* B169, *ʑierwaŋ* (Longquan) B170. Mog *durbɔn* W164a.

*döre 'nose ring, camel's nose peg'.
MMo SH *dore-bci* H37 'ring', HY---, Muq---. WM *dörö* L269a. Kh *dör* H175b. Ord *dörö* M157a. Bur *düre* C210b. Brg *dur* U204. Kalm *dör* M210b. Dag---. EYu---. MgrH *duro:* X201, *duro:l* (sic) L101. MgrM *dori* DS239. Bao---. Dgx---. Mog---.

*döree 'stirrup'. Dag *du:rə:ŋgi:* E288 is from Manchu. Agricultural term which in spite of phonetic difficulties seems to be related to CT *(y)üzeŋ(g)ü* 'id'. The general absence of *y-* in Turkic languages and the loss of *-ŋ-* in Mongolic are most surprising. The Turkic and Manchu forms may pint at a PM form *döreŋe* or *düreŋe*.
MMo SH---, HY *dörö'e* M51, Muq *döre:* P237b. WM *döröge* L269a. Kh *döröö(n)* H176b. Ord *dörö:* M157a. Bur *düröö* C209b. Brg *durə:* U204. Kalm *dörä* M210b. Dag (see above). EYu *dᵾre:* B132, *dure:* J105a, (Qinglong) *döre:* BJ350.

*dösi 'anvil'. Ord and EYu share an unexpectedly lowered final vowel.
MMo SH---, HY---, Muq *döši* P144a. WM *dösi* L269b. Kh *döš* H177b. Ord *döšö* M158a. Bur *düše* C213a. Brg *duš* U204. Kalm *döš* M212b. Dag *duš* E287. EYu *tošo* S231. MgrH *do:śə* J105b.

*döte 'directly; nearby'. The connection between this word and MgrH *ta:da,* suggested by Khasbaatar, is unlikely.
MMo SH *dote-le-n* (converb of denominal verb) 'directly', HY *döte* M51 'directly', Muq---. WM *döte* L269b. Kh *döt* H177a. Ord *dötö* M158a. Bur *düte* C210b. Kalm *döt* M212a. Dag *du:t* E286.

*dötüer 'fourth'. Replaced elsewhere by new formations from *dörben*, e.g. Kh *dörövdügeer* (with reading pronunciation of the ordinal suffix). Cf. *dörben* 'four' and *döčin* 'forty' above as well as *dönen* 'four-year-old' (not listed).
MMo SH---, HY *dötü'er* M51, Muq *döte:r* P144a. WM *dötüger* L270a. Kh---. Ord *dötögö:r* M158a (also *dörwöduġa:r* M157a). Bur---. Kalm---. Dag *dutə:r* E287 (also *durubdə:r* E288). EYu---. Mgr---. Bao---. Dgx---. Mog---.

*dulaan 'warm'. Cf. Dag *dɔ:l-* E283 'to become warm (of the weather)', Kalm *dul* 'warm', Ord *dul* M160b 'without wind and not cold'.
MMo SH---, HY *dula'an* M51, Muq---. WM *dulaγan* L272b. Kh *dulaan* H179a. Bur *dulaa(n)* C200a. Kalm *dulan* M214a. Dag dula:n E287. EYu *dula:n* B131, J105b, *dəla:n* S237. Mgr---. Bao---. Dgx---. Mog---.

*dumda 'middle'. Possibly from a root *dum-* + dat-loc ending.
MMo SH *dumda*, *dunda* H38, HY *dumda* M51, Muq *dumda* P211a, *dunda* P144b. WM *dumda* L273a, *dunda* L274a. Kh *dund*, *dumd* H179b. Ord *dunda* M161b. Bur *dunda* C201a. Brg *dɔnd* U201. Kalm *dund* M214b. Dag *dʷand* E289, *dʷannə* E289. EYu *dunda* B131, J105b. MgrH *dunda* J105a. MgrM *dunda* JL468.

Bao---. Kgj *dunda* S299b. Dgx *dunda* B149. Mog *dunda* R27a.

*duran 'heart, mind; willingness; wish, desire; love, etc'. Monguoric unexpectedly preserved the stable *-n*, while EYu lost it.

　　　MMo SH *dura*, *duran* H39, HY *dura* M51, Muq *dura* P145a, *duran* P145a. WM *dura(n)* L274b. Kh *dur* H180b, *duran* H181a (differentiated semantically). Bur *dura(n)* C202b. Kalm *durn* M215b. Dag *dʷar* E290. EYu *dura* BJ323, J105b 'hobby'. MgrH *dura:n* J105a. MgrM *duraŋ* T332. BaoÑ *dəraŋ* CN176, *deraŋ* CN177 'fondness, interest'. Kgj *durɔ* S299b. Dgx *duraŋ* B150. MogM *durɒ:n* L64:37.

*dusu- 'to drip, drop'. Cf. the caus. **dusaa- < *dusua-*.

　　　MMo SH---, HY---, Muq *dusu-* P146a, *tusu-* P99b, *dusa:-* (caus) P146a, *tusa:-* (caus) P355b. WM *dusu-* L276a. Kh *dusax* H182b, *dusaax* (caus) H182b. Ord *dus-* M164b. Bur *duhaxa* C207b. Brg *dʊd-* U202. Kalm *dusx* M216b, *dusax* (caus) M216b. Dag *dɔs-* E284. EYu---. MgrH *tusa:-* (caus) X184 'to sprinkle wine as an offering'. Bao---. Dgx *doso-ğo-* (caus.) (?only) S240. Mog---.

*duta- 'to lack, to be insufficient'. Note the development of **d > t* from MMo onwards. Muq also has the derivate **dutau* in the variants *dutu:* P147a ~ *tutu:* P356b.

　　　MMo SH *duta-* H39, *tuta-* H156, HY---, Muq *tuta-* P356a, cf. *duta'ul-* (caus.) P147a. WM *duta-* L277a. Kh *dutax* H182b. Ord *duta-* M167a. Bur *dutaxa* C204a. Kalm *dutx* M217a. Dag *dʷat-* E290. EYu *hta-* B60. MgrH *tədau* X179 'lacking'.

*dutaa- 'to flee'. Note the development of **d > t* (due to the following *-t-*) from MMo onwards as in **dotara* above. Cf. **horgu-* 'id'.

　　　MMo SH *tuda'a-* H153, *duta'a-* H39, *tuta'a-* H156. HY---, Muq *tuta:-* P356b. WM *dutaɣa-* L277b. Kh *dutaax* H182b. Ord *duta:-* M167a. Bur -?-. Brg *dʊta:-* U202. Kalm *duta:χă* R103b, a Kh loanword according to Ramstedt. Dag *duta:-* E287. EYu *hda:-* (only) S241. MgrH *tuda:-* X184, *ćüda:-* X211. MgrM *təda-* C390, *cïda-* DS223b. BaoD---. BaoGt *təta-* C117. BaoÑ *təda:-* CN163, *ćida:-* CN188. BaoX *təda-* BC66. Kgj *sïda-* ~ *sda-* ~ *sta-* S293b. Dgx---. Mog *duto:-* R27a, *dɔtɔ-*, *dutɔ-* W164a, *tutɔ-* W182a.

*düil- 'to shave'. A peculiar distribution in MMo, Kh, and Dgx. MMo and Kh support the form **düil-*, the form **düli-* suggested by Dgx may be secondary. Possibly irregularly related to CT **yilü-* 'id'. Cf. **kïrga-*.

　　　MMo SH---, HY---. Muq *düil-* P147b, *düyil-* P148a, IV *délbür* (sic) L62:26 'razor', RH *dülbür* (?, eds. read *delbür*) 205A13 'razor'. WM *düil-* L279b. Kh *düylex* (acc. to Lessing). Bur---. Kalm---. Dag---. EYu---. Mgr---. Bao---. Dgx *duli-* B150 'to have one's head shaved, to have a haircut'. Mog---.

*dülei 'deaf'. The Dag form with *-b-* may be due to strengthening of the second *u* of the expected form of expected **dului* (see **kuï* 'sheath' for a similar case).

　　　MMo SH---, HY *dülei* M51, Muq *dülei* P147b. WM *dülei* L280a. Kh *düliy*

H186b. Ord *dʉli:* M170a. Bur *dülii* C208a. Kalm *dülä* M218a. Dag *dulb^y* E287 'hard-of-hearing'. EYu *duli:* J106a, *deli:* S244. MgrH *dəli:* J106a. MgrM *dulai* JL465, *dulei* T331. BaoD *duləi* BL93a. BaoGt *duəli* C110. BaoÑ---. Kgj---.Dgx *duləi* B150. Mog---.

*düre- 'to sell'. Note the peculiar distribution. Other languages use *kudaldu-. The Dag words forms for to buy are from the reciprocal *düre-ldü-.
  MMo SH---, HY---, Muq *düreǰi ab-* P145a [read *dura-*] 'to buy', *dürekči* P262b 'salesman'. WM---. Kh---. Bur---. Kalm---. Dag *dur-* E288 'to sell', *duruld-* E288 ~ *dull^w-* E287 'to buy'. EYu--. MgrH---. MgrM *durə-* J92 'to buy'. Bao---. Dgx---. Mog *dʉra-* R27a, *durʌ-* W164a 'to sell'.

*düür- 'to be(come) full'. The Bao forms are from the (caus.) form *düürge-; the alternative BaoD form *dəger-* BL93b 'to fill' seems to be a peculiar case of metathesis.
  MMo SH *du'ur-* H40, HY---, Muq *dü'ür-* P147b, *dü:r-* P148b. WM *dügür-* L278b, *degür-* L245b. Kh *düürex* H189b. Bur *düürexe* C212b. Kalm *düürx* M221b. Dag *du:r-* E286. EYu *dü:r-* B132, J106a. MgrH *du:rə-* X199, *diu:rə-* J105b. MgrM *dur-* C391. BaoD *dər-ge-* (caus. 'to fill') ~ *dəger-* BL93b. BaoÑ *dər-gi-* (caus.) CN176. Kgj *dʉr-* S300a. Dgx *duru-* B150. Mog *dʉ:r-* R27a, *dur-* W164a.

*düüreŋ 'full'. From *düür- above. The -g- in Mog probably involves a change of suffix (cf. -gAn in *yabugan).
  MMo SH *du'uren, du'ureng* H40, HY *dü'üren* M51, Muq *dü'üren* P147b, *dü:ren* P148b. WM *dügüreng* L279a, *degürin* L245b, etc. Kh *düüren(g)* H189a. Bur *düüren* C212a. Kalm *düürŋ* M221b. EYu *düreŋ* B132, *dü:reŋ* J87. Bao---. Dgx *duran* B150. MogMr *dʉrgʋ:n* (sic) L64:41 'full; pregnant woman'.

- E -

*ebčeün (~ *ebčiün) 'chest'. The rounding of the initial vowel is only found in the central languages. As to the second syllable, the form with -č- in Kh suggests a CM form *ebčiün. Bur-Kalm, the Monguor languages and MMo suggest an original form *ebčeün. Dag, EYu, Bao, and Mog could have developed from either form. The -a- in BaoÑ and Dgx is due to the following -ŋ. Perhaps related to *ebür 'bosom'.
  MMo SH *ebce'un* H40, HY *ebče'ün* M51, Muq *ebče'ün* P346a, LV *ebčewün* P1254, IV *ebčü:n* (L reads 'closed *e*') L62:28. WM *ebčigün, ebčigüü* L285a. Kh *övčüü(n)* H405a. Ord *öbčü:n* M526b. Bur *übsüü(n)* C488b. Brg *ušu:* U51. Kalm *övcün* M410b. Dag *ərču:* E31. EYu *pəʝü:n* J94b, *pʉčü:n* BJ339. MgrH *śʑau:* J94a, *śʑiu:* SM391. MgrM *śiʑou* C387. BaoD *ebćün* BL82a. BaoÑ *ebćaŋ* CN13. Kgj *išʝɔ* ~ *iʐčɔ* S280a. Dgx *əçan* B9. Mog *ebčʉ:n* R27b.

*ebde- 'to break, destroy'. In view of the -r- it is not certain that the Dgx form belongs here.

MMo SH *ebde-* H40, *obde-* H120, HY---, Muq *ebde-* P148a. WM *ebde-* L285a. Kh *evdex* H827a. Bur *ebdexe* C752b. Kalm *evdx* M689a. Dag *ərd-* E31. EYu *ebde-re-* B9 'to be damaged'. Mgr---. Bao---. Kgj *ebde-* S279b 'to take apart, dismantle'. Dgx *ərǯie-* (?=) MC89b. Mog *öftä-* (?=) R37b, *ɥfta-* R41b.

*ebečin 'illness, disease'. Related to, possibly derived from *ebed-* listed below. However, the form *ebedčin, suggested by some MMo forms and the WM spelling, is not confirmed by any modern language. Dag *əur* E20 seems to be from *ebed, based on the verb stem but with the development of word-final -d expected in nouns.

MMo SH *ebecin* H40, *obecin* H120, *obetcin* H120, HY *ebečin* M51, Muq *ebečin* P149b, RH *ebedči.tei* 204A11 'sick'. WM *ebedči(n)* L286b, *ebeči(n)* L286a. Kh *övčin* H404b. Ord *öwöčin* M544b. Bur *übše(n)* C489a, *ebšen* C753b. Brg *uβšiŋ* U48. Kalm *övčn* M410b. Dag (see above). EYu *βečən* B38, J94a. MgrH---. MgrM *bečin* J90, *be:ćin* C371. BaoD---. BaoÑ---. Kgj *vəićɔ* S307a. Dgx---. Mog---.

*ebed- 'to be ill; to hurt'. The rounding of initial *e is only found in the central languages (and in a derivate in SH, see *ebečin). Note the strong -t- in MgrM, BaoD, and Dgx, as well as in Mog (for which cf. *naad-).

MMo SH *ebet-* H40, HY---, Muq *ebet-* P151a, *ebed-* P150a. WM *ebed-* L286a. Kh *övdöx* H403a. Ord *öwöd(ö)-* M543b. Bur *übdexe* C488a. Kalm *övdx* M409a. Dag *əud-* E20. EYu *βed-* B38, J94a, *βe:d-* B37. MgrH *idə-* J94a, X14, *udə-* X20. MgrM *betu-* JL469. BaoD *etə-* BL82b. BaoÑ *ebdə-* CN13. BaoX *vɛtə-* BC65. Kgj *vəide-* S307a. Dgx *otu-* B15. Mog *ebàt-* R27b, *ɛbʌt-* W164b.

*eber (?*heber) 'horn'. Rounding of initial *e has taken place several times independently. The *h- is only supported by Dag, as Muq is unreliable in this regard.

MMo SH *eber* H40, HY *eber* M52, Muq *eber* P150a, *öber* P272a, *heber* P131b. WM *eber* L286b. Kh *ever* H829a. Ord *ewer, éwer* M251b. Bur *eber* C753b, *über* C489b. Brg *əβər* U19. Kalm *övr* M409a. Dag *xəur* E108. EYu *eβer* B9, J94a, *βer* S249, *eber* (sic) S249. MgrH *ver* J94a, *ver* X234, *yer* X234. MgrM *yəbər/wobər* DS229b, *yebar* Z338:348, *ubür/obör* P419a. BaoD *uer* BL82b. BaoÑ *ewer* CN15. BaoX *vɛ:r* BC62. Dgx *əwə* T144, MC91b, *uər* (Wangjiaji dialect) L5, *wor* (Wangjiaji) BC85:246, *oər* MC302b. Mog---, cf. Zirni *ebar* 20:8.

*ebesün 'grass, weed'. The rounding of initial *e is only found in the central languages. As to the second vowel, the WM spelling *ebüsü(n)* is historically incorrect. Possibly from a PM root *ebe- + the (collective?) suffix *-sUn.

MMo SH *ebesun* H40, HY *ebesü, ebesün* M52, Muq *ebesün* P150b. WM *ebesü(n)* L287b, *ebüsü(n)* L291a. Kh *övs(ön)* H404a. Ord *öwös(ü)* M544b. Bur *übhe(n)* C488b. Brg *uβu:* U47. Kalm *övsn* M410a. Dag *əus* E20. EYu *βesən* B37, J94a. MgrH *vesə* J94a, X243, *usə* X19, *yesə* X234. MgrM *be:sə* C396, *bese* T321, *ebisï* P421a. BaoD *ueseŋ* BL82a. BaoGt *vesuŋ* C116. BaoÑ *ebsəŋ* CN13. Kgj *vəisɥn* 307b. Dgx *osuŋ* B14. Mog *ebàsun* R27b, *ɛbʌsu(n)* W164b.

*ebke- 'to roll up, wrap up, fold'. The χ- in EYu is triggered by the following strong -k-.

MMo SH---, HY ebke- M52, Muq ebke- P151a. WM ebke- L288a. Kh evxex H828b 'to fold, etc'. Ord ebke- ~ ebkᵘe- M228a, ewkᵘe- M251b. Bur ebxexe C753b. Kalm evkx M689b. Dag əbk- E22, əkk- E23. EYu χugue- S251. Remaining lgs---

*ebsie- (?*hebsie-) 'to yawn'. Various forms which nevertheless appear to be related. Bur goes back to an extended form *ebseele- with assimilated diphthong. Brg stems from a similar form, but has a secondary initial x-, possibly of onomatopoeic origin. Dag x- may equally be of onomatopoeic origin. EYu has undergone metathesis. EYu šelɣe- has a causative suffix, which need not imply a semantic change (cf. WYu ehsdet-, also formally a causative). Dgx could be from a variant *emsee- (cf. *dabusun for the development *b > m). Could Muq šini'e:- P335a 'to yawn' be a scribal error for the present word?

MMo SH---, HY---, Muq---. WM ebsiye- L289b. Kh evšeex H829a. Ord ebše:- M228a. Bur ebheelxe C753b. Brg xəβi:l- U101 'to yawn (of people)'. Kalm evšäx M691a. Dag xəbšə:- E109. EYu šwe:- B111, šelɣe- S250 (see above). Mgr---. Bao---. Dgx anśie- S250. Mog---.

*ebüdüg 'knee'. The QG languages lost either the first or the second vowel. These elisions took place quite recently in view of the differences, e.g. between the Bao dialects. The QG forms do not support the early rounding of initial *e-, since the rounded vowels in these languages may be due to the contraction of the first two syllables. The rounding, already found in MMo, is supported by the central languages and by Moghol. The Mog form may owe its peculiar -n- to an assumed relation with *emüdün 'trousers' listed below.

MMo SH ebuduk H40, HY---, Muq öbüdük P272a. WM ebüdüg L290a. Kh övdög H402b. Ord öwödög M543b. Bur übdeg C488a. Brg uβdəg U48. Kalm övdg M408b. Dag---. EYu βədəg B37, J94b. MgrH vudəg J94a, udəg X21, idəg X14. MgrM podok P414b, bodo DS232b. BaoD ebdəg BL82b. BaoGt vɛdï C116. BaoÑ ebdəg CN13. BaoX vɛdəg BC64. Kgj vəidəu S307a. Dgx odəu B15. Mog unduk (sic) R41b.

*ebügen 'elderly man'. Rounding of *e- in the central languages.

MMo SH ebugan, ebuge(n) H40 'old man', HY ebüge M52 'husband's father', Muq öbügen P272b 'old man'. WM ebüge L290a 'ancestor; grandfather', ebügen L290b 'old (man)'. Kh övgön H402a 'old man; övög H403a 'ancestor'. Ord öwögö M543b; öwögön M543b 'ancestor'. Bur übgen C487a. Kalm övgn M408b. Brg uβəg, uβə: U47; uβgəŋ U47. Dag əukə: (?=) E19 (form of address), əukə:n (?=) E19. Remaining lgs---.

*ebül/*öbül 'winter' see *übül.

*ebür/öbür it is not clear whether the following words of similar shape are etymologically of the same origin. It seems to be semantically possible, but the forms in the modern languages have developed differently, and therefore they are

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listed here separately. In Lessing all meanings are listed under a single entry.

CM *ebür* can perhaps be analyzed as *ebü-r*, in which case it could be connected to *emüne* 'front'. Compare parallel pairs like *gada-r* and *gada-na* 'outside' and *dota-r* and *dota-na* 'inside'.

ebür/*öber* (?*h-) 'bosom'. The vocalism in the various languages is reminiscent of *üdür* 'day', but in the present word the unrounded initial vowel is actually attested. Most QG languages suggest *e* in the second syllable, perhaps pointing to an earlier form *öber* or *eber*. The unconfirmed Dag *x-* may be secondary, as in *ebür* 'southern slope' below. The two words may well have the same origin, but as they have resulted in different word shapes in some languages, they are listed separately. Possibly related to *ebčiün* 'chest' (cf. Poppe 1960:43).

MMo SH *ebur* H41, HY---, Muq---. WM *ebür* L291a, *öbür* L628b. Kh *övör* H403b. Ord *öwör* M544b. Bur *über* C489b. Brg *u:r* U45. Kalm *övr* M409b. Dag *xəur* E108. EYu *βer* B38. MgrH *yer* SM492. MgrM *ərbər* F115:221. BaoD *uer* BL20. BaoÑ---. Kgj *ver ~ ve(š)* S307b. Dgx *o* B13. Mog---.

ebür/*öber* (?*h-) 'sunny spot; southern slope; front'. As in the previous entry the unconfirmed Dag *x-* in this word may be secondary. EYu *x́i:lβər* B113 'sunny spot' is derived from *hee-* 'to warm in the sun', cf. Kh *eever* H866b, representing a form *heebür* (the *-l-* in EYu is unclear).

MMo SH *ebur* H41 'front', HY *ebür* M52 'southern slope of the Hing'anling', Muq---. WM *ebür* L291a, *öbür* L628b. Kh *övör* H403b. Ord *öwör* M544b. Bur *über* C489b. Brg *uβər* U47. Kalm *övr* M409b. Dag *xəur* Z94b 'sunny spot'. EYu *βər* J96b 'sunny spot', *βer* B38 'bosom; mountain bosom (?)'. Mgr---. BaoD *ber* BL84a. BaoÑ---. Dgx *wo*, in: *ula nara wo mian* B20 'sunny side of a mountain'. Mog---.

eči- 'to go'. The distribution is striking: only one occurrence in MMo (Muq) and absent in Bur-Kalm. It is found in both Shirongol branches, but EYu and BaoÑ favour *od-*. The unrounded form survives in Shirongol, Dagur and Ordos, as well as in Khorčin (Sun 1990:534). The history of *eči-* is unclear. It could be an irregular development *očĭ-* from *orčĭ-* from *horčĭ-* 'to turn' (q.v.). Cf. MMo Muq *orči-* P269b 'to go', P270a 'to turn', *horči-* P186a 'to turn; to go', WM *oči-* L599b 'to go to a place'. Kh *očix* H402a. Bur *ošoxo* C366b. Brg *əš-* U33. Mog *orči-* R35b 'to go'. Strikingly, Muq has both *eči-* and *(h)orči-*, while neither is found in the Sino-Mongolian sources, where one finds SH *yorči-* H171, HY *yorči-* M111 'to go' which looks like *horčĭ-* but cannot be connected to it. Another solution, suggested by the forms with *o*, may be that it is related to CM *od-* 'to go', perhaps an intensive formation *odčĭ-* (Poppe 1955:30, 113).

MMo SH---, HY---, Muq *eči-* P102a, IV---, LV--- (and see above). WM *eči-* L292a. Kh *ečix* H866a. Ord *iči-* M389b. Bur---. Brg---. Kalm---. Dag *ič-* E35. EYu---. MgrH *ś́ʒ́ə-* J95b, X166, *ś́ə-* J49, X156. MgrM *śi-* JL473. BaoD *ći-* BL83b. Bao Gaser *hʒ́ə-* CN86:232. BaoGt *śi-* C123. BaoÑ---. BaoX *xʒ́ə-* BC64. Kgj *ji-* S302b, *ś́ji-*, *hji-* S58. Dgx *əçi-* B9, L111b. Mog---.

*ečige 'father'. This form in MMo and WM. The Central languages suggest *ečege. The *i* in Dag and EYu could have been triggered by the *č*, and so neither supports nor undermines the reconstruction *ečige.

MMo SH *ecige*, *eci'e*, *ecē* H41, HY *ečige* M52, Muq *ečige* P151b, LV *ečge* P1255, IV *ečige* (L reads 'closed e') L62:28. WM *ečige* 292a. Kh *eceg* H865b. Bur *esege* C776b. Kalm *eck* M705a. Dag *əčiɣ* E28. EYu *čɣe* B139, *čiɣe* J93a. Remaining lgs---.

*ed 'thing; goods, merchandise; material; fabric'. Related to CT *ed*, originally probably a general term 'goods', in some modern languages also 'fabric, textile'.

MMo SH *et* H47, HY---, Muq *et* P167a. WM *ed* L293a. Kh *ed* H831b. Bur *ed* C755a. Kalm *ed* M691b. Dag---. EYu *ed* B11, BJ327 'goods', J87 'property'. Remaining lgs---.

*edege- 'to recover, heal, to come alive'. Chén also compares BaoGt *gɛ-* C125 and BaoÑ *ge:-* CN93 from the present etymon, but these rather stem from *gee-* 'to abandon'.

MMo SH---, HY *edege'ül-* (caus) M52, Muq---. WM *edege-* L293b. Kh *edgex* H832b. Bur *edegexe* C758b. Kalm *edgx* M692a. Dag *ədəɣ-* E28. EYu---. MgrH *dəge-* J94a, X195 'to live'. MgrM *edige-* P423 'to get well', *diga-* DS234b 'to live'. BaoD *edəgə-* BL82b. BaoGt *dəgə-* C105,. BaoÑ (see above). Kgj *edege- ~ edge-* S279b. Dgx---. Mog---.

*edüe (> *edee) and *odua (> *odaa) 'now'. The distribution of the forms *edüe* and *odua* seem to be complementary, although BaoD appears to preserve both forms. The vocalism would normally exclude a relationship between the two forms, but it seems unlikely that they are totally unrelated. Kalm *ödgɛ:* R293a 'now' is a reading pronunciation of the literary form WM *edüge*. Most languages now use a contraction of the back-vocalic variant. The front form survives in Dag, BaoÑ, and Dgx in forms that go back to an assimilated form *edee*. In Dgx the *-d-* resisted the usual palatalisation (as in *tere*). Whether the Monguoric forms represent the front or back form is impossible to determine. The Muq form could perhaps also be read *ödö:*. Both readings are surprising on account of the rounded non-high vowel in a non-first syllable.

MMo SH *edo'e* H41, HY *edö'e* M52, Muq *odo:* (so read) P262b. WM *edüge* L294b, *odo* L600b, *odoo-a* L601a. Kh *odoo* H388a. Ord *odo:* M506b. Bur *odoo* C350a. Kalm *oda* M393a, *ödgɛ:* (dial). Dag *ədə:* E28. EYu *ɔdɔ:* B13, *odo* J95a. MgrH *do* J95a. MgrM *du* C391. BaoD *da* BL57 'now', *de* BL57 'just now'. BaoÑ *ede* CN14, *de* CN176. BaoX *da* BC68. Kgj *da* S298a (cf. also Kgj *doɣo*?). Dgx *ədə* B8, L111b. Mog---.

*edür/ödür 'day' see *üdür

*egeči 'elder sister'. In several languages in the combination *egeči deü*, with *deü* 'younger sibling'. Secondary strengthening of the *-g-* in Kgj.

MMo SH *egeci* H42, HY *egeči* M52, Muq *egeči* P151b. WM *egeči* L297a. Kh *egč* H830b. Bur *egeše* C754b. Kalm *egč* M691b. Dag *əkč* E23. EYu *əɣečə* B8,

γečə J94b. MgrH gəćə X104, kaʒi diu: SM194. MgrM gəćidiau JL462 'sisters'. BaoÑ egći du CN13 'sister'. Kgj əkəči devʉ S279a, kəči devʉ S125 'sister'. Dgx əğəçï B8. Mog---.

*eimü 'such, this kind of'. From the pronominal (proximal demonstrative) root *e-, cf. also *ene 'this', *ende 'here', *ein 'this way' etc. Dagur may involve another suffix (as in *yamar). In Baoanic mostly displaced by new formations with *metü, q.v. The Baoan forms have now adopted the function of *edüi 'this much' (not listed here). Kangjia eme has taken on the meaning of *ein 'like this'. MgrH nəgi: X32 and MgrM niŋtai DS10a 'this kind of' are also new forms based on the demonstrative *ene.
        MMo SH eyimu(n) H48, eimu H42, HY eyimün M56, Muq---. WM eyimü L303b. Kh iym H272b. Bur iime C276b. Kalm iim M266a. Dag əimər E19 (new extended formation). EYu omo B15, umə J26 (possibly a new formation). MgrH namainge L350 'this much'. MgrM---. BaoD---. BaoÑ emi:ngə CN14. BaoX nəmi: nəgə CN86:179 'this much'. Kgj eme S280b 'this way', eme niɣe S192 'this much'. Dgx imi BC85:127 'like this', imi nie BC85:132 'as little as this'. Mog---.

*ein 'like this, this way'. Originated as a converb of *ei- 'to do this way'. See *eimü above.
        MMo SH eyin H48, HY---, Muq eyin P168b, hein P182b. WM eyin L304a. Kh iyn H272b. Bur---. Kalm---. Dag əi E19. EYu i:n BJ332. Mgr---. Bao---. Dgx iŋ B10. Mog---.

*ein ki- 'to do this way', with several contractions and alterations. The forms in the central languages and Dag are new formations based on *ei ki-, cf *ein above.
        MMo SH---, HY---, Muq---. WM inggi- L411b, engge- L318b. Kh ingex H276b. Bur iixe C277a, iigexe C276b. Kalm iigx M266a. Dag əi xi:- Z92a. EYu əŋgə- B8, J94b. MgrH [nəŋgə- J94b]. BaoD əngə-ǰi T152 [nəntəgə- BL83b]. BaoÑ engə- CN12. Kgj eŋgi- ~ aŋgi- S280b. Dgx ingie- L110a. Mog---.

*eǰen 'master, owner, boss'. In Dag, the central languages, and Mog *eǰen has largely retained its original meaning with some small shifts. In the QG languages this word has developed some pronominal functions. In EYu and Mgr *eǰen occurs in the original meaning, but has also became the word for 'self'. In Baoan, which apparently lost the original meaning, *eǰen is a third person personal pronoun. Phonetically, the initial n- in MgrH is peculiar (in Bao the replacement of an initial vowel by n- is seen more commonly, e.g. in *eüden above).
        MMo SH ejen H42, HY eǰen M53, Muq eǰen 153b. WM eǰen L336b. Kh ezen H835a. Bur ezen C759b. Kalm ezn M693a. Dag əjin E28 'emperor; master'. EYu eǰen B11, J94a 'master; self', -ǰen (clitic) J27 'self'. MgrH nʒ́e:n ~ nʒ́e:n-a: J28 'self', nʒ́e:n X40 'master; self'. MgrM ʒ́e:n-aŋ (refl. poss.) C373 'self', ʒ́e:ni (gen.) C174. BaoD nʒ́aŋ BL34, nǰaŋ T145 'he, she'. BaoGm əʒ́aŋ CN86:130. BaoGt ʒ́ɔŋ C179 'he, she'. BaoÑ aʒ́aŋ CN8, θʒ́aŋ CN18 'he, she'. BaoX nǰaŋ BC66, 68 'he, she'. Kgj iǰɔ S280a 'master'. Dgx əʒən B9, L110b 'master'. Mog eǰàn R27b 'lord, ruler', eǰʌn W164b 'husband'.

***eke** 'mother'. The *h-* in EYu is secondary.

MMo SH *eke* H42, HY *eke* M53, Muq *eke* P152a, LV *eke* P1256, IV *eke* (L reads 'closed *e*') L62:28. WM *eke* L305a. Kh *ex* H864a. Bur *exe* C779a. Kalm *ek* M693a. Dag *əγ* E23. EYu *hke* B58, *hge* J94a. MgrH---. MgrM *eke-ner qun* P413b 'woman' (plural + *küün). Bao---. Dgx *əkie* B8 also 'dam'. Mog---.

***ekeyü**- 'to bow, bend over, stoop'. Mostaert compares HY *e'inggü* M52 'sinueux, courbé' to this, but this would involve a mistranscription of WM *-G-* as zero. The WM (Oirat) spellings *ökeyi-*, *öküyi-*, *üküyi-* given by Ramstedt and Čoyiǰungǰab & Gereltü may have been devised to better reflect the present form, possibly influenced by the near-synonym **bökei-* (cf. MgrH *pugi:-* X56). EYu *h-* could be secondary (triggered by the following -*k*-).

MMo SH *eke'ul-* (tr.) H43. WM *egiyü-* (so read) L300a, preclassical *ekeyü-* T384. Kh---. Bur---. Kalm *ökäx* M413a, *ükiχə* R456b. EYu *xogᵾi-* B51, *χugi:-* S181, *hogi:-* S303. Remaining lgs---.

***ekir** or ***ikir** 'twins'. The final vowel in some WM spellings is not confirmed by MMo and the modern languages. Related to CT *ekkiz 'id', from *ekki 'two'.

MMo SH---, HY---, Muq *ikir* P195b, IV---, LV---. WM *ikere* L401b, *ikire* L401b, *ekir* L306a. Kh *ixer* H281a, *ixir* H280b. Ord *éker* ~ *ékir* M233a. Bur *exir* C779a. Brg *ixər* U26. Kalm *ikr* M267a. Dag---. EYu *škər* B110. Remaining lgs---.

***elbeg** 'abundant, superfluous' The unexpected -*p*- in Dagur may be a instance of original -*p*- preserved in postconsonantal position.

MMo---. WM *elbeg* L306b. Kh *elbeg* H836a. Bur *elbeg* C760b. Kalm *elvg* M695v. Dag *əlpur* E24. EYu *elβeg* B9, *eblig* J64. Remaining lgs---.

***elde**- 'to tan (a hide)'. Perhaps this could be a metathesized form of an older **edle-*, which was apparently derived from *ed listed above. However, this **edle-* (also?) survives in Mongolic: WM *edle-* L294a 'to use, utilize, employ; etc', Kh *edlex* H832b, Ord *edle-*, *elle-*, MMo Muq *edele-* (sic) P151b 'to tan a hide', EYu *edle-* BJ327 'to tan, to process'.

MMo SH---, HY---, Muq---. WM *elde-* L307b. Kh *eldex* H837a. Bur *eldexe* C761a. Kalm *eldx* M696a. EYu *elde-* B10. Remaining lgs---.

***ele**- 'to be worn down, to wear out'. Dag *ələ:-* E24 'to torment' may go back to a caus. of this verb, cf. Ord *ǰowoǰi ele-* M235b 'to suffer' (cf. **ǰoba-*).

MMo SH---, HY---, Muq *ele-* P152b. WM *ele-* L308a. Kh *elex* H840b. Bur *elexe* C764b. Kalm *elx* M697b. Dag (see above). EYu *ele-* J87, *ölö-* (?=) BJ338. MgrH *ile:-* Khas12. MgrM---. Bao *ɛlə-* (unspecif. dial.) S257, S258. Dgx *əlie-* MC84b. (?caus). Mog---.

***elesün** 'sand'. Cf. *kumag ~ *kumakï 'sand' (not listed).

MMo SH *elet* (pl) H43, HY *elesün* M53, Muq---. WM *elesü(n)* L306b. Kh *els(en)* H838a. Bur *elhe(n)* C763b. Brg *ilu:* U27. Kalm *elsn* M697b. Remaining lgs---.

*elgü- 'to hang, suspend'. Rounding of the *e- except in Dag (cf. *ergü- below). The first vowel was rounded by the second except in Dag, where the second vowel is also unexpectedly lengthened. Cf. *deüjile-.

MMo SH elgu- H43 'to angle', HY elgü- M53, Muq ölgü- P276a. WM elgü- L309a, ölgö- L633b. Kh ölgöx H408b. Ord ülgü- M755b. Bur ülgexe C499b. Brg ulʸg- U50. Kalm ölgx M414b. Dag əlwə:- E25. EYu olɣo- B15. Mgr---. Bao---. Dgx---. Mog---.

*eljigen 'donkey'. Dag əiɣə:n E17 'id' is from Manchu eihen, which is itself considered to be related to the CM word. Also related to CT *ešgek.

MMo SH---, HY eljigen M53, Muq eljigen P152b. WM eljige(n) L311a. Kh iljig (iljgen) H273b, eljig (eljgen) H837b. Bur eljege(n) C761b. Kalm eljgn M697a. Dag (see above). EYu eljiɣen B10, əljiɣen J94a, əljiɣen (Qinglong) BJ351. MgrH źige J94b, źigʒ X221. MgrM rǰige T356, ərźiga DS218a. BaoD ənźigə BL82a, nźigə BL12. BaoJ źigə́ L47. BaoÑ elźige CN13. Kgj nǰiɣe S282b. Dgx ənʒəğə B7. Mog eljiɣo:n R27b.

*em 'medicine, remedy'. Cultural term related to CT *em 'id'.

MMo SH---, HY em M54, Muq em P152b. WM em L311a. Kh em H840b. Bur em C764b. Kalm em M697b. Dag əm E25. EYu em B10. MgrH---. MgrM an JL481, æm C385. Bao---. Dgx---. Kgj an S278a. Mog---.

*embüre- 'to fall apart, tumble down, collapse'. With a tr. counterpart *embül- which is not attested in QG. Note the peculiar distribution: Kh, Dag, Dgx and Mog. Cf. *nura-.

MMo SH amburu H6 'collapsing', HY---, Muq---. WM embüre- L311a, embüri- L311b. Kh emberex H841a. Ord---. Bur---. Brg umbər- U50. Kalm---. Dag əmbər- E26. EYu---. Mgr---. Bao---. Dgx unbərə- B19, ənbərə- MC86a. Mog umburʌ- W182b.

*emdege(i) 'egg' see *ömdegen

*eme 'woman'.

MMo SH eme H43 'woman; wife', HY eme gü'ün M54 'woman', Muq eme P153a 'woman; female', LV eme P1263, IV eme (Ligeti reads éme) L62:29. WM eme L311b. Kh em H840b 'woman; wife; female'. Bur eme C766a 'woman; female'. Kalm em M698a 'woman'. Dag əmɣun E26 'wife; woman; female' (< *eme + *küün), cf. ərɣun s.v. *ere. EYu eme B10 'female'. MgrH imu X13, yæmu X233 'girl (term of endearment)'. BaoÑ emə CN14 'wife'. BaoX imə BC61, 73 'woman; wife'. Kgj eme S279a. Dgx əmə B8 'woman; wife; female'. Mog---, but cf. Zirni emma (9-6b).

*emegen 'elderly woman; grandmother'. Derived from *eme 'woman', cf. *berigen from *beri.

MMo SH emege H44, HY emegen M54, Muq---, LV---, IV emegen L62:29. WM emege L312a, emegen L312b. Kh emgen H841a, emeg H843b, emgee H841b, emee H844a. Bur emgen C764b. Kalm emgn M698b. Dag əməɣ E26, əmə:ɣʷ

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Z92b. EYu *eŋgwen* B9, *emgen* J94b. MgrH *mugɜn* X125. Bao---. Kgj *mgɔ* S293a. Dgx---. Mog---.

*emeel 'saddle'. Consistently spelled *'yml* in MMo Muq (also on P139b where Poppe reads *eme:l* anyway), but a connection to the shortening in EYu-Mgr is unlikely.

 MMo SH *eme'el* H44, HY---, Muq *emel* (?, see above) P154b. WM *emegel* L312a. Kh *emeel* H844a. Bur *emeel* C766b. Kalm *emäl* M698a. Dag *əmə:l* E26. EYu *emel* B11, J94b. MgrH *imel* J94b. MgrM *imer* JL461. BaoD *eməl* BL82b. BaoÑ---. Dgx---. Mog *emo:l* R27b, *yʌmʌl* R168a, MogMr *yamɐ:l* L62:74.

*emkü- 'to hold in the mouth'. Although Poppe (1955:48) considers it original, the *h- suggested by Mongghul is likely to be due to the following *-k-.

 MMo SH *omgu-* H124, *emgu-* H44 'to swallow', HY---, Muq---. WM *emkü-* L313b, *ümkü-* L1007a. Kh *ünxex* H578b. Ord *üŋkü-* M759b. Bur *ümxexe* C503b 'to hold between the teeth, to bite off'. Brg *uŋk-* U46. Kalm *ömkx* M415 'to bite (off)'. Dag *əŋkʷ-* E22, *ənku-* Z92b also 'to bite, eat'. EYu---. MgrH *χaŋgu-* SM157. Bao---. Dgx *uġgu- ~ uŋgu-* (?=) MC406a 'to gobble up'. Mog---.

*emlig 'wild, untamed'. The literary central languages have developed from an assimilated *emnig. Ord and EYu feature metathesis. The Dag form could instead be related to Kh *emzeg* H841b, which has among its meanings 'spoiled, willful, capricious'. Cf. *oraa and *ǰerlig (the latter not listed here).

 MMo SH---, HY---, Muq *emlik* P154b. WM *emleg, emneg, emnig* L314a. Kh *emneg* H842a. Ord *elmek* M237a. Bur *emnig* C765a. Brg *imləg* U27. Kalm *emng* M698b. Dag *əmǰir* (?=) E27, *əmǰə:r* (?=) E26. EYu *elməg* S258. Remaining lgs---.

*emüdün 'trousers'. Related to *emüs- below. Note the rare loss of the initial vowel in Dgx. The MgrM form may have been influenced by *ebüdüg 'knee'.

 MMo SH *emudun* H44, HY *emüdün* M54, Muq *ömüdün* P276a. WM *ömödün* L635b. Kh *ömd(ön)* H410b. Ord *ömödü* M532a. Bur *ümde(n)* C503a. Brg *uməd* U50, *und* U46. Kalm---. Dag---. EYu *modən* B94, *mudən* J96b. MgrH---. MgrM *mutug* (?=) P422a, *məto* Z358:598, *modo* DS241. BaoD *məduŋ* BL84a. BaoÑ *emdəŋ* CN14. BaoX *mədoŋ* BC74. Kgj---. Dgx *məduŋ* B106. Mog *undɯn* R41b.

*emüne 'south; front, anterior'. Dag, EYu and the Baoanic languages have developed from *emüle, in which the *-l- apparently arose in order to dissimilate the sequence of two nasals. The *-m- in *emüne is probably a secondary nasalisation of *b, assuming that this word is related to *ebür 'front'. This would have a parallel in other pairs like *gadar - *gadana 'outside'). EYu developed from a form with rounded first vowel like that of the central languages. MgrH *muśi* X126 and MgrM *meşï* JL467 seem to be shortened forms of the directive *emüne-(g)si 'forward, to the front'.

 MMo SH *emune* H44 'front', HY *emüne* M54 'south', Muq *emüne* P155a 'front', *ömüne-* P276b 'front', *ömüne* P276a 'opposite'. WM *emüne* L314b. Kh *ömnö* H410b 'south; front'. Ord *ömönö* M532a. Bur *ümene* C504a 'front'. Brg *əmən* U21. Kalm *ömn* M415b 'front; south'. Dag *əməl* E26 'front; south'. EYu *ölmö* B17

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'east; front', *ölmö:* S544 'south; front', *ömle* J94b 'south; front'. MgrH and MgrM see above. BaoD *məilə* BL32. BaoGt *mälə* C115. BaoÑ *eməla* CN14. BaoX *mələ* BC69. Kgj *emele ~ emle* S279b. Dgx *məlie* B105. Mog---.

emüs- 'to put on, to wear (clothes)'. A paragogic vowel was added in some QG languages and MogMr. The initial vowel was lost in QG, even in Dgx. Cf. **emüdün* 'trousers'.

    MMo SH *emus*- H44, HY *emüs*- M54, Muq *ömüs*- P276b, *emüs*- P233b. WM *emüs*- L315b. Kh *ömsöx* H411a. Ord *ömös*- M539a. Bur *ümdexe* C503a, *ümedexe* C504a. Brg *umd*- U51. Kalm *ömsx* M416b. Dag *əms*- E26. EYu *məs*- B91, J94b. MgrH *musə*- J94b, *mosə*- X123, *umus*- (sic) X19. MgrM *musï*- C383. BaoD *musï*- BL82b. BaoÑ *məş*- CN114. Kgj *məsï*- S292a. Dgx *misï*- L110a. Mog *ömus*- R36a, MogMr *umas*-, MogM/Mr *umus*- L62:29.

ende 'here' see s.v. *ene*

ene 'this'. From the demonstrative root **e-*. **ene* had an oblique stem **eün-*, and a plural **ede*, whose modern equivalents are listed here as well. Both **eün-* and **ede* were lost in Shirongol. Cf. also **ende* 'here', and several compounds with **ene* listed as separate entries.

    MMo SH *ene* H44, HY *ene* M54, Muq *ene* P155b, LV *ene* P1263, IV *ene* (L reads *éne*) L62:29. WM *ene* L316b. Kh *ene* H847b. Bur *ene* C768b. Kalm *en* M699a. Dag *ənə* E21. EYu *ene* B9, J94a. MgrH *ne* J94a. MgrM *ni* JL483. BaoD *enə* BL82a. BaoÑ *enə* CN12, *nə* CN27. BaoX *nə* BC66. Kgj *enə ~ eni ~ ene* S279b. Dgx *ənȧ* B7. Mog *enȧ* R27b.

    The oblique stem **eün*- survives in the central languages and EYu. It may also be the source of Kgj *yun* S306a 'this side', if one assumes metanalysis from inflected forms like the dative **eündü*. Survives in its original function as follows.

    MMo SH *e'un*- H47 (*e'un ece*, *e'un i*, *e'uber*), HY *e'ü-ber* M54, Muq *ü:n-e:se* P348a. WM *egün*- L301a. Kh *üün*- H583b. Bur *enüün* (lit, obs) C768a. Brg *u:n* U44. Kalm *enü*-. Dag---. EYu *un*- B20, *un*- J26. Kgj (see above). Remaining lgs---.

The plural form *ede* 'these':

    MMo SH *ede* H41, HY *ede* M52, Muq---. WM *ede(n)* L293b. Kh *ed(en)* H831b. Bur *ede* C758a. Kalm *edn* M692a. Dag *əd(ən)* E27. Remaining lgs---.

ene üdür 'today'. See **üdür* 'day'. With unpredictable assimilations and reductions in most modern languages. Ord, Kalm and EYu share the same reduction of the middle part of the compound, while most of Shirongol lost the initial vowel.

    MMo SH---, HY---, Muq *ene ödür* P158a, IV *ene ödür* L62:29. WM *ene edür* L316b. Kh *ene ödör* H847b, *önöödör* H413b. Ord *undur* M757a. Bur *ene üder* C768b, cf. *ünöö üder* C507b. Brg [*mənə:dər* U144, *munə:dər* U148]. Kalm *en ödr* M699a, *endr* M699b, *öndr* R296b. Dag *ənə udur* E21. EYu *ondor* B15, *undur* J96b. MgrH *niu:dur* J96a, *niudur* X31, *nedur* X29. MgrM *nɔudur* C373. BaoD *nudər* BL84b. BaoÑ *'nudə* CN34. Kgj *niude ~ nude* S282a. Dgx *ənudu* B7, *niudu* L112a. Mog *ɛnaʋdur* W164b.

*ene hon   'this year'. See *hon 'year'. With unpredictable assimilations and reductions. Central Mongolic instead uses *ene ǰil, as in Kalm enǰl M700a.

MMo---. Central languages---. Dag ənə xɔ:n E21. EYu ono:n J49. MgrH nɔŋ X34. MgrM nʸe xuaŋ C372. BaoD nə-hoŋ BL75, nóhoŋ L132. BaoÑ nөŋ CN32. Kgj enʉn S279b. Dgx ənə xoŋ B7. Mog ɛnãn, ɛnɔ W164b.

*ene üdesi(leŋ)   'this evening, tonight'. With unpredictable assimilations and reductions. See *üdesi(leŋ) 'evening'.

Ord ʉndeš M757a. EYu öndögšə B17. MgrH niuşloŋ, niuśloŋ L396. MgrM nɔu-şulen C372. BaoÑ nəχəlaŋ CN27. Kgj niʉši, nʉši S282a. Dgx ənuśiə, ənuśiəşïliə MC87 'tonight, this evening'.

*ende   'here'. Cf. *ene 'this'. MgrM uses a new formation nindi C201.

MMo SH ende H44, HY ende M54, Muq ende P155a, IV ende L62:29. WM ende L315b. Kh end H845b. Bur ende C767a. Kalm end M699a, cf. enünd M700a. Dag ənd E21. EYu ende B9. MgrH nde: X38. MgrM (see above). BaoD---. BaoÑ endə CN12. Kgj ende S279b. Dgx əndə B7. Mog endà R27b.

*eŋger and *eŋge 'front of a garment, flap of a garment'. Dag and Mgr go back to *eŋge. The Dgx form may be from either variant. At any rate the BaoÑ form prevents us from deriving all Shirongol forms from *eŋge. WM enggede- L318a ('to open the flaps of one's garment, etc' also lacks the -r.

MMo SH---, HY---, Muq---. WM engger L318a. Kh enger H845a. Bur enger C766b. Kalm eŋgr R122b, eŋgn R122b 'foot of a mountain'. Dag əŋgə E22. EYu eŋger B9 'collar'. MgrH ŋge X41. MgrM ŋge JL461, angə DS223b. BaoD---. BaoÑ eŋgər CN12. Dgx əŋgie B7.

*eŋgeske 'blush; rouge'. Note the peculiar distribution. Possibly related to CT *eŋ 'cheek' or 'complexion', to which the Mongolic suffix -skA was added. It is unclear how the rounded vowel in Mongghul arose.

MMo SH enggesge H44 'red' (used with qacar 'cheeks'), HY---, Muq engeske P161a, LV---, IV engeske (L reads first e 'closed') L62:29. WM enggeske L318a. Kh engeseg H845b. Ord eŋgeske M241b, 331b 'Salsola soda (plant name)'. Bur---. Kalm---. Dag---. EYu eŋgesge B9 'cheeks (?)'. MgrH ŋgusge SM294.

*erdem 'virtue; specialty; science, learning'. Cf. CT *erdem.

MMo SH erdem H44, HY---, Muq erdem P161a. WM erdem L320a. Kh erdem H852a. Bur erdem C770b. Kalm erdm M702b. Dag ərdəm E31. EYu ərdem B8, erdem J95a, rdem J87 'knowledge, learning'. MgrH rdem J95a 'knowledge, learning'. MgrM ərden C396. Bao---. Dgx ərʑiən MC89b. Mog---.

*ere 'man'. Possibly related to CT *er 'id'. This correspondence is problematic if the Khalaj *h- is correct.

MMo SH ere H45 'husband; man', HY ere gü'ün M55 'man', Muq ere P161a 'man; male animal', LV ere P1262, IV ere (L reads first e 'closed') L62:29. WM ere L321a. Kh er H848b 'man, husband; masculine, male'. Bur ere C775b 'man; male'. Kalm er M701a 'man; male'. Dag ər E28 'man', ərɣun E30 'husband;

male' (< *ere + *küün, cf. *əmɣun* s.v. *eme*). EYu *ere* B11, J94a 'male'. MgrH *re:* SM313 'male; male animal'. MgrM---. BaoD *erə* BL82b 'man'. BaoÑ *erə* CN15 'husband'. BaoX *irə* BC73 'husband'. Kgj *ere* S279b 'man; husband; male'. Dgx *ərə* B9 'man; husband; male'. MogMr *irrä* L62:29.

*ereün 'chin'. Note the -g- in Bur-Kalm, which suggests a variant *eregün, unless this form represents a reading pronunciation of the WM spelling (cf. *kuruun 'finger', *nïruun 'back'). SH suggests CM *eriün.

MMo SH *eri'un* H45, HY---, Muq *erü:n* P165b, LV---, IV *erü:n* (L reads 'closed *e*') L62:30. WM *eregüü* L322a, *ereü* L323b. Kh *erüü(n)* H855a, *ürüü* H581a 'chin, lower jaw'. Ord *erʉ:* M248b. Bur *ürge(n)* C511a. Brg *əru:* U24. Kalm *örgn* M424a. Dag *əru:* E29. EYu *orʉin* B16, *orü:n* BJ337. MgrH *yeru:* X234, *iru:* SM192. MgrM---. Bao---. Dgx---. Mog---, but cf. Kundur manuscript *ʉrʉʉ* (2:2a) 'cheek'.

*ergi (?*hergi) 'shore, bank; cliff, precipice'. The *h- suggested by MgrH is not confirmed elsewhere, but secondary h- does not generally appear in words of this structure. Dag *ərɣʸ* E30 'side, direction' seems to be a loan from the unrelated Manchu word *ergi*.

MMo SH *ergi* H45, HY *ergi* M55, Muq---. WM *ergi* L323b. Kh *ereg* H859a. Ord *erge* M244b. Bur *er'e* C774b. Kalm *erg* M701b. Dag *əriɣ* E29. EYu *erɣə* BJ327, J95a. MgrH *xerge* J95a, *χargi* SM162, T374, *yergi* SM492. MgrM *arge* JL461 'cliff, precipice'. Bao---. Dgx *əǧi* B8, *ərǧəi* MC83b. Mog---.

*ergü- 'to lift, raise; to carry'. The unconfirmed h- in Muq is probably secondary. The development of this word looks less chaotic than that of other stems with the *e-ü* sequence. Central Mongolic, EYugur, Shirongol and Moghol can all be derived from a rounded form *örgü-. Rounding of the *e- did not occur in Dag, as in *elgü- above, which also has the same unexpected long vowel. Because of the meaning in Mongghul (also elsewhere in QG), Poppe (1955:48) assumed contamination with *üür- 'to carry on the back', as in MMo SH *ür-* H165, *u'ur-* H167. Cf. also BaoGt *urgə* C105 'backload'.

MMo SH *ergu-* H45, HY *ergü-* M55, Muq *örgü-* P94b, *hörgü-* P186b, LV *ergü-* P1256/1262, *örge-* P1259. WM *ergü-* L325b, *örgö-* L641b. Kh *örgöx* H417b. Ord *ürgü-* M762a. Bur *ürgexe* C511b. Kalm *örgx* M424a. Dag *ərwa:-* E31, *əkuə-* E83:45b, *ərkuə:-*, *əɥkuə:-* NK454b. EYu *orɣo-* B16, *urɣə-* J95a. MgrH *rgu-* J95a, *urgu-* X22. MgrM *argu-* JL479. Bao---. Kgj--- Dgx *uǧu-* B20. MogMr *ʉrgʉ-* L63:128.

*eri- 'to look for; to want, wish for; to request'. There are some verbs that could easily be confused with *eri- phonetically and semantically. In the first place there is a verb *ere-: MMo SH *ere-* H45 'to hope', HY *ere-* M55 'to hope'. Lessing sees WM *ere-* as a spelling variant of *eri-. Cf. Kh *eremgelzex* 'to wish, hope for, desire'. In the second place there is a verb *eere- or *eeri-: WM *egere-* L298b, *egeri-* L299a, Kh *eerex* H868b 'to seek, search, look for; to importune', and (reading pronunciation) *egeerex* H831b 'to wish, desire, etc', Kalm *eerx* M706b 'to strive for'. Finally note the forms written *'yr'-* in Muq but read in different ways by Poppe:

e:re- P161a 'to want', *e:re-* P225a 'to demand', *ere-* P381b 'to ask for'; *ere-* [*'yrh*] P281b 'to ask'; *e:rel* P162a 'request'. As the Sino-Mongolian forms could be read with long *e:* as well, we may do away with the verb **ere-* altogether. The following forms seem to be certain descendants of **eri-*.

MMo SH *eri-* H45, HY *eri-* M55, Muq *eri-* P163a, IV *er-* L62:30. WM *eri-* L326b. Kh *erex* H860b. Bur *erixe* C772a. Kalm *erx* M704a 'to request'. Dag *ər^y-* E31. EYu *e:r-* B9. MgrH *yarə-* J95a, *yerə-* X234. MgrM *yarrï-* C394, *yərrï-* DS248a (i.e., -*rẓ-*). Bao---. Kgj *ire-* S280a. Dgx *əri-* B9. Mog *eri-* R27b, *ɛri-* W165a.

erte 'early; morning'. Dag *ərd* E31 with -*d-* is from Manchu or from Northern Tungusic. The EYu *h-* is secondary. Related to CT **erte* 'id'.

MMo SH *erde* H44, *erte(n)* H46 'in the past, before', HY *erte* M55 'early', *erde* M54 'in the past, before', Muq *erte* P164b. WM *erte(n)* L331b. Kh *ert(en)* H854a. Bur *erte* C772b. Kalm *ert* M704a. Dag (see above). EYu *hərte* B56, *rde* J95a. MgrH *şde* J95a, *şdie* SM372. MgrM *şïde* C388, *šde* T384. BaoD *etə* BL83a. BaoÑ *erte* CN15. Dgx *əćie* B9 'morning'. Mog---.

erüke 'skylight, smoke-hole (of a yurt)'. see *örüke*

erüül (?**ereül*) 'health(y)'. The Muq form with two *r*'s may in fact represent the original form, in which case the remaining forms are due to dissimilation and metathesis.

MMo SH---, HY---, Muq *erü:r(lik)* P165b, *ele'ür* P156b, LV *eleür* P1262, RH *eleür* 203B21. WM *eregül* L321a, *elegür* L1202b. Kh *erüül* H855a. Ord *eru:l* M248b. Bur *elüür* C763a, *erüül* C773a. Kalm *erül* M704a. Dag---. EYu *ulü:r* BJ347, *lui:r* S270. Remaining lgs---.

ese 'not'. Only lost in EYu. A rare instance of initial vowel loss in Moghol. The defective negative verb does not otherwise survive in the QG languages.

MMo SH *ese* H46, HY *ese* M55, Muq *ese* P165b. WM *ese* L333a. Kh *es* H861b, cf. *esex* H863b (defective negative verb). Ord *ese* M249a. Bur *ese* (rare; ←Kh) C776b. Kalm *es* M704b. Dag *əs* E27. EYu---. MgrH *si:* X134. MgrM *se* T359. BaoD *sə* BL58. BaoÑ *esə* ~ *ese* CN14. BaoX *sə* BC75. Kgj *se* S141. Dgx *əsə* B8, L78. Mog *sa*, *sɛ*, *sö* R37b.

esergü (?**hesergü*) 'opposite side'. With a long final vowel in several central languages. The **h-* suggested by Dag is not supported elsewhere, but on the other hand only contradicted by MMo.

MMo SH *esergu* H46, HY---, Muq---, RH *esergü* 205MC. WM *esergü* L333b. Kh *esreg* H862b. Ord *esergu:* M249b. Bur *üheryüü* [written *üheryuu*] C520a (and *esergüü* C776b ← Kh). Kalm *esrgü* M705a. Dag *xəsruɣ^w* E111. EYu---. MgrH *sargu* X134, SM327, *sẓargu* L540. MgrM *śergu* JL473. Bao---. Dgx---. Mog---.

esige 'kid (young goat)'. Agricultural term, perhaps borrowed from CT **ečkü* 'goat'. The unusual correspondence of Mongolic [*š*] with CT **č* is due to the syllable-final position in Turkic. The original adapted form may have been **ešge*, but a trisyllabic form is supported by several languages. Cf. **ünügün* 'kid goat',

which is almost in complementary distribution with *esige*.

MMo SH *ešige* H46 'ram', HY---, Muq---. WM *isige(n)* L416b, *esige* L334b. Kh *išig* H283a. Ord *išige* M389a, *ešige*, *éšige* M249b. Bur *ešege(n)* C780b. Brg *išig* U28. Kalm *išk* M276a. Dag---. EYu *šeye* B107. Mgr---. Bao---. Dgx---. Mog---.

*eüden 'door'. Note the EYu-MgrH vowel shortening. Kgj and Dgx as well as Mog seem to suggest **üiden*.

MMo SH *e'uden* H47, *e'ute*(n) H48, HY *e'üden* M56, Muq *e'üden* P167b, *ü:den-* P249a. WM *egüde(n)* L300a. Kh *üüd(en)* H583a. Bur *üüde(n)* C516b. Brg *u:d* U44. Kalm *üüdn* M556a. Dag *əud* E20. EYu *üden* B22, J94b, *uden* J94b. MgrH *ude* J94b, X19, *den* (sic) X134, *rde* X241. MgrM *idi* C370, *yidi*, *di*, *dian* DS218a, *ʂuguaidi* DS225a 'gate' (**yeke eüden*). BaoD *ndaŋ* BL82a. BaoGt *dəŋ* C132, cf. *fgindəŋ* C132 'gate' (**yeke eüden*). BaoÑ *ndaŋ* CN34. Kgj *idə* S280a. Dgx *uiʑien* B18, *wəiʑien* B192. Mog *oɪdʌn* W174b.

*eükün/*öekün 'fat, grease'. The central languages and Mgr suggest **öe* in the first vowel slot, the Sino-Mongolian sources and Dag suggest **eü*. In fact the pair of variants may be due to metathesis of diphthong elements, and go back to variants **eükün/*üekün*. EYu may have developed from either form. The *h-* in QG is probably due to the following *-k-*. The vowel of the final syllable is high in MMo, but some of the QG forms suggest **e*. The final *-m* in Baoan is inexplicable.

MMo SH *o'ukun* H129, *e'ukun* H47, HY *e'ükün* M56, Muq *ö:kün-* P279a, RH *ö:kün* [eds. read short *ö*] 199A4. WM *ögekü(n)* L631a. Kh *ööx(ön)* H416a. Ord *ö:kö* M530a. Bur *ööxe(n)* C368b, *üüxe(n)* C517b. Brg *o:x* U43. Kalm *öökn* M420a. Dag *əuɣʷ* E19, *əuɣ* Z94b. EYu *ükʉn* B21, *ü:kön* J96b. MgrH *fo:ge*, *fo:ke* SM100, *o:ke* SM296, *o:ku* J96a. MgrM *oko* JL464, *o:ko* C370. BaoD *ʂgum* BL13, *gum* BL84b. BaoGt *ʂgəm* C129. BaoÑ---. Kgj *gʉn* S290a. Dgx *fuguŋ* B54, *fguŋ* BC85:45. Mog---.

*eülen 'cloud'. The Monguor languages unexpectedly preserved the *-n*. The Donggou Mongghul forms *ləŋ ~ əġləŋ ~ rrləŋ* C382 seem to suggest an original form **eblen*, but these forms may also involve Tibetan influence (cf. LT *rluŋ* 'air, breeze').

MMo SH *e'ule(n)* H47, HY *e'ülen* M56, Muq *e'ülen* P168a, *ü:len* P383a, RH *üilen* (?, eds. *eüilen*) 198A15. WM *egüle(n)* L300b. Kh *üül(en)* H583a. Bur *üüle(n)* C516b. Brg *u:lʸ* U44. Kalm *üüln* M557a. Dag *əulən* E19. EYu---. MgrH *uloŋ* J94b (see above). MgrM *uolen* C382, *ulin* T368. BaoD---. BaoÑ *ɵ:ləŋ* CN16. Kgj *ʉliə* S280b. Dgx *olien* B14, *wəilien* B192. Mog---.

*eün- oblique stem of **ene*

*eüs- ~***eüd-** 'to originate, arise, to be started'. MgrH *o:sə-* (?=) X14, MgrM *o:s-* C370 are more likely to stem from **ös-* 'to grow'.

MMo SH *e'us-* H48, HY *eüsge-* (caus.) M56, Muq *e'üskel* P168b 'base'. WM *egüs-* L302b. Kh *üüsex* H584b, *üüdex* H583a. Ord *ʉ:d-* M747a, *ʉ:s-* M764a. Bur *üüdxexe* (caus.) C516a, *üüsxexe* (caus, ←Kh) C517b. Kalm *üüdx* M556a, *ü:s-*

R462a. Dag *əus-* E20 'to set out, start off'. EYu *yü:s-* B155 'to grow up' (?=, perhaps from **ös-*). Mgr (see above). Bao---. Dgx---. Mog---.

- G -

*gada- 'outside, exterior'. Derivates from this root include **gadaa*, **gadar*, **gadana*, **gadagsï*, as well as **gadaun* (cf. MMo SH *qada'un* H56, HY *qada'un* M86). The Mgr and Bao forms could represent **gada* or perhaps **gadaa*. Bur-Kalm display a form **gajaa* instead of **gadaa*, but Bur and Kalm also feature derivates with *-d-*. The vowel length in Dag may originate in the second syllable if we assume a development **gaada* < **gadaa*.

MMo SH *qada* (and derivates) H55, HY *qada-na* M85, Muq *γada:-du* P173a. WM *γadaγa* L342a. Kh *gadaa* H104a, etc. Ord *ġada:* M284a. Bur *gadaa*, *gadaada* C138b, *gazaa*, *gazaada* C139b. Brg *gaʒa: ~ gada:* U131. Kalm *γaza* M152a. Dag *ga:d* E163. EYu *ġadana* B75, J101a. MgrH *ġada* J101a. MgrM *ġada* C189. BaoD *ġadə* BL89b. BaoŇ *ġadə* CN85. Kgj *ġanna ~ ġana* S288a. Dgx *ġadanə* B80. Mog *γadana*, *γadaqši* R28b.

*gadasun 'stake' and **kadaasun* 'nail'. In central Mongolic these two phonetically and semantically similar words exist separately, although there is some semantic interference in Khalkha. In the QG languages they seem to have become phonetically indistinguishable. Sun Zhu (1990:227) also confuses the two words. In most of MMo they cannot be distinguished either.

*gadasun 'peg, stake, pole'. Bur *gataha(n)* and Dag *gatəs* point at **gatasun*. The 'contracted' Kalm form (cf. **gedesün* for a similar treatment) could be either from **gadasun* or **gatasun*. Dag also has a form without the (collective?) suffix *-sUn*, suggesting a PM **gata-*.

MMo SH---, HY---, Muq---. WM *γadasu(n)* L343a 'stake, picket, pale; peg'. Kh *gadas* (sic, no *-an*) H105a 'stake, picket; pole; peg'. Ord *ġadus(u)* M285b 'peg'. Bur *gadaha(n)* C138b, *gataha(n)* (eastern) C152a, *gahana* (western) C152a. Kalm *γasn* M161a. Dag *gat*, *gatəs* E167 'wooden stake'.

*kadaasun 'nail'. Derived from the verb **kada-* 'to nail' listed separately under **k-*.

MMo SH *qada'asun* H55 'nail', HY---, Muq (see below), RH (see below). WM *qadaγasu(n)* L902b, *qadasu(n)* L903a. Kh *xadaas(an)* H595b 'nail; spike; rivet; peg'. Ord *χada:s(u)* M321b 'nail'. Bur *xadaaha(n)* C529b. Brg *xada:* (according to Uuda from **kadaa*) U96. Kalm *xadasn* M565b, also *xada* M565b. Dag---.

*gadasun 'stake' and/or **kadaasun* 'nail'. The semantics of the QG forms listed below seem to indicate that they represent a merger of **gadasun* and **kadaasun*. The weakening of CM **k- > ġ-* is a common development in QG when the second syllable starts with **d*.

EYu *ġadəsən* B75, *ġasən* B74 'wooden stake', *ġadəsən* J99b 'nail'. MgrH *ġadasə* J99b 'nail'. MgrM *ġadasï* DS238a 'nail'. BaoD *ġadasuŋ* BL87b 'nail'.

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BaoÑ *ġadsəŋ* CN85, *ġarsəŋ* CN86 'nail; wooden stake'. Kgj *ġadasuŋ* S288a 'wooden stake'. Dgx *ġadasuŋ* B80 'nail', L115a 'nail'. Mog---.

In MMo Muq it is equally unclear whether the forms represent **gadasun* or **kadaasun*. Long and short a may be written identically, and initial *ɣ* and *q* are not systematically distinguished in MMo. Whenever a Turkic counterpart is given it is *qazuq* 'stake, peg'; Poppe's Russian translations are *kol* 'stake', gvozd' 'nail', and *drevko* 'arrow shaft'. The Muq forms are *qada(:)sun* P108b, *qada(:)su* P132a, *qatasun* P130a (there are several other occurrences). It is perhaps most likely that at least the forms with *-t-* belong to **gadasun ~ *gatasun*.

In RH the same problem exists, the form *qadasun* occurs twice, as *qadasun* 202A9 'tent peg' (*al-watad*) and *qadasun* 205A29 'nail' (*al-mismār*), in both cases with the same Persian equivalent *mīx* and the same Turkic equivalent *qazuq*.

*gagča ~ ***gaŋča** 'alone'. The form with *-n-* is largely restricted to the central languages and Dagur, but the Sanchuan (MgrM) form given by Potanin disturbs this picture. Some of the forms feature the instrumental and adverb suffix **-Ar/-GAAr* or the diminutive **-kAn*. The emphatic reduplication in Dag *gan gaška:* 'all alone' suggests that *gaška:* stems from **ganč-*. It may in fact be incorrectly back-formed from the instrumental *gaška:r < *ganča-kAn-A:r*. The variation *n ~ g* is also found in other alternant pairs such as **neŋǰi- ~ *negǰi-* 'to search'. Róna-Tas (1966:93) derived the MgrH form *śǯaġna:* from Tibetan *gčig-na*, but this is not necessary for the forms listed below.

MMo SH *qahca* H56, *qahca'ar* H56, HY *qaqča* M88, Muq *ɣaqča* P175a, LV---, IV *qaqča* L62:41, Ph *qaqčʰa* P129a. WM *ɣayča* L343b, *ɣanča* L347b. Kh *ganc* H112b, *gagc* H104a. Ord *ġaġča ~ ġanča* M287a. Bur *gansa* C145b, *gagsa* C138b. Brg *gans* U128. Kalm *ɣanc* M156a. Dag *ganč* E165, *gaška:* E167, *gaška:r* E167. EYu *qagča* B63, *qača* B63, *χǰa:r* J9, *qagča:ra:n* B63, *gakčar* P417a. MgrH *xaǯæ-ġa:r* X70, *śǯa-ġa:r* X159. MgrM *qaǯæ-ġar* JL479, *qəǯï-ġər* DS250a, *gančkar* (sic!) P417a. BaoD *χǯia-χaŋ* BL34 (**gagča-kan*) 'alone, on one's own', cf. *χǯia kuŋ* BL13 (*kuŋ < *köbeün*) 'only son'. BaoÑ [*şǯanaŋ* CN152 'alone' ?< Tib]. BaoX *ǰa:χaŋ* BC62. Kgj *qɔǰɔ-χɔnɔ* S287a. Dgx---. Mog---.

*gaǰar 'land, earth, soil, place'. The Bao forms with *-i-* are peculiar, since **a* is usually palatalized in unaccented syllables only.

MMo SH *qaǰar* H57, HY *qaǰar* M86, Muq *ɣaǰar* P173b, *qaǰar* P288b, Ph *qaǰar* P128b. WM *ɣaǰar* L355b. Kh *gazar* H106a. Ord *ġaǰar* M285b. Bur *gazar* C140a. Brg *gazar* U131. Kalm *ɣazr* M152b. Dag *gaǰir* E167. EYu *ġaǰar* B75, J101a. MgrH *ġaǯar* J101a. MgrM *ġaʒar* JL472. BaoD *ġaǯir* BL71, *ġaćir* BL89a. BaoÑ *ġaǯar, ġaǯir* CN86. BaoX *ġaǰir* BC70. Kgj *ġaǰar ~ ġeǰɛ* S288a. Dgx *ġaʒa* B80. Mog *ɣaǰar* R28b.

*gakaï 'pig'. In all QG languages there are forms with (aspirated) *q < *g-*, which developed under the influence of the following *-k-*. In Mgr, Bao, Dgx the **a* of the first syllable was consequently devoiced or lost. The CM word may contain the formans **-kAi*, in which case the PM root may have been **ga-*.

MMo SH *qaqai* H56, HY *qaqai* M88, Muq *ɣaqai* P175a, LV *ɣaqai* P61,

qaqai P63, IV *qaqai* L62:41. WM *γaqai* L355a. Kh *gaxay* H117b. Bur *gaxay* C152a. Brg *gaxai* U129. Kalm *γaxa* M161b. Dag *gayə* E165. EYu *ġaγqai* B73, *qaγqai* B63, *ġaqai* B145, *qəġai* J101a. MgrH *xġai:* J101a. MgrM *qġai* JL478, *qəġai* DS242b. BaoD *ġai* BL88b. BaoÑ *ġaġəi* CN84. BaoX *ġəi* BC62. Kgj *ġəġai* ~ *ġaġai* S288a. Dgx *qïġəi*, *qïxġəi* B70. Mog *γo:qɛi* R28b.

gal 'fire'. One of the rare cases in which initial *g- has been strengthened in Baoanic although it is not followed by a voiceless CM consonant (cf. *gar*, *gar-*). The unexpected palatalised *-lʸ* in Dagur has parallels in *gar*, *ger*, *seül*).

      MMo SH *qal* H57, HY *qal* M87, Muq *γal* P174b (frequent), *qal* P221a (once), LV *qal* P61, IV *qa:l* L62:41. WM *γal* L346a. Kh *gal* H108b. Bur *gal* C143a. Brg *gal* U129. Kalm *γal* M154a. Dag *galʸ* E166. EYu *ġal* B74, J101a. MgrH *ġal* J101a. MgrM *ġar* JL471. BaoD *χal* BL88a. BaoÑ *χal* CN57. Kgj *χar* S285a. Dgx *qaŋ* B68. Mog *γo:l* R28b, *ǧɔl* W178b.

galaun 'goose'.

      MMo SH *qalao'un* H57, HY *qala'un* M87, Muq---, LV *qalawun* P63, IV---. WM *γalaγu(n)* L346a. Kh *galuu(n)* H110a. Bur *galuu(n)* C144b. Brg *galʊ:* U130. Kalm *γalun* M155a. Dag *galɔ:* E166. EYu *ġalu:* B74. MgrH *ġalu:* SM117 'goose; duck', *galau* (sic) L120 'duck'. Remaining lgs---.

galǰau 'mad, insane', *galǰaura-* 'to go mad'. Original meaning probably 'rabies', as featured in Kh. The *au diphthong suggested by WM is not confirmed, and on the basis of the modern languages a CM form *galǰuu would also be possible. The forms in Dag and QG could also stem from *galǰïu, but this form could not be reconciled with the central languages.

      MMo SH---, HY---, Muq *γalǰu:ra-* P174b, LV *qalǰu:* P63, IV *qalǰa* L62:42. WM *γalǰaγu*, *γalǰiγu* L346b. Kh *galʒuu* H109b. Bur *galzuu* C143a. Brg *galʒʊ:* U130. Kalm *γalzu* M155a. Dag *galǰɔ:*, *galǰɔ:r-* E166. EYu *ġalǰu:* B74, *ġałǰu:* J101a. MgrH *ġalǯiu:* J101a, *ġalǯu:* X94, *ġalǯu:ra:-* X94. MgrM *ġarǯiu* JL464. BaoD *ġanǯir-saŋ* BL89b 'insane', BaoÑ *ġalǯəŋ* CN85, *ġalǯira-səŋ* (from the verb) CN85 'insane', *ġalǯira-* CN85 'to go mad'. Kgj *ganǰira-* S289a. Dgx---. Mog---.

gar 'hand'. One of the rare cases in which initial *g- has become *q-* in Baoanic although it is not followed by a voiceless CM consonant (cf. *gal*, *gar-*). The Dag *-rʸ* is inexplicable, unless it is due to a false analysis of the genitive *gari:* as /gari-i/ instead of /gar + -ii/ (cf. similar cases s.v. *gal*, *ger*, *seül*).

      MMo SH *qar* H60, HY *qar* M88, Muq *γar* P175b, *qar* P111b, LV *qar* P61, IV *γar-* L62:30. WM *γar* L350a. Kh *gar* H113a. Bur *gar* C146a. Brg *gar* U131. Kalm *γar* M157b. Dag *garʸ* E168. EYu *ġar* B76, J101a. MgrH *ġar* J101a. MgrM *ġar* JL463. BaoD *χar* BL89b. BaoÑ *χar* CN58 'hand; arm'. Kgj *χar* 285a. Dgx *qa* B67. Mog *γar* R28b, *qar* R31b, *gʌr* W165a, *ǧʌr* W178b, etc.

gar- 'to come out, appear'. One of the rare cases in which initial *g- has become *q-* in Baoanic although it is not followed by a voiceless consonant (cf. *gal*, *gar*). Cf. BaoÑ *ha:ǯir-* and *ha:ǯər-* CN66 < *garču ire-*, *garču od-*.

MMo SH *qar-* H61, HY *qar-* M88, Muq *ɣar-* P176b, Ph *qar-* P129a. WM *ɣar-* L350b. Kh *garax* H114b. Bur *garaxa* C148a. Brg *gar-* U133. Kalm *ɣarx* M159b. Dag *gar-* E168. EYu *ġar-* B76, J101b. MgrH *ġarə-* J101b. MgrM *ġara-* T325. BaoD *χărə-* BL89a. BaoGm *χar-* CN86:227. BaoÑ *χar-* CN59. BaoX *χarə-* BC62. Kgj *χar-* S285a. Dgx *qïri-* B71, L117b. Mog *ɣar-* R28b, *gʌr-* W165a, *ǧʌr-* W178b, *qʌr-* W176a.

*gasïun 'bitter, sour'. Strengthening of the initial in most Shirongol dialects. The Dag form with -*s*- must stem from a form *gasuun* with assimilated diphthong (for which cf. MMo VI). In spite of the existence of Kh *gušuun* H136a 'bitter taste', the Shirongol forms with rounded first syllable are more likely to derive from *gasïun*. The related verb *gasïl- 'to turn sour' survives in Bur *gašalxa* C152b, Ord *ġašil-* M297b, BaoÑ *ġaśil-* CN85. Dgx *qïšulu-* B70, etc. In view of WM *ɣasila-*, Ord *ġašila-* M297b, there also was a form *gasïla-, which may also be present in Kgj *ġašila-* (rare) S288a.

MMo SH *qasi'un* H62, HY *qaši'un* M89, Muq *ɣašu:n* P178b, IV *qasu:n* L62:43, RH *qasu:n* 202C27. WM *ɣasiɣu(n)* L354a. Kh *gašuun* H118b. Ord *ġašu:n* M298a. Bur *gašuun* C152b. Brg *gašʊ:ŋ* U130. Kalm *ɣašun* M162b. Dag *gasu:n* E167. EYu *ġašu:n* B74, J101a. MgrH *xaśin* J101b, X69, *ġaşïn* X94. MgrM *qəʒəŋ* DS251b. BaoD *χuśüŋ* BL88b 'sour'. BaoÑ *ġaśəŋ* CN85 'sour'. Dgx *qïşuŋ* B70 'sour; bitter'. Mog *ɣašu:n* R28b, *qašu:n, qošu:n* R31b, *qɔšun* W177b 'annoyance, anger, bitterness', MogMr *qʊ:šuˑn* L62:43 'opium', MogM *qʊ:šŭ* L62:43 'tea; bitter'.

*gaulï 'copper, brass'. WM and modern central Mongolic, as well as Dag, support a final -*ï*, but MMo (Muq) and EYu go back to a form with -*a*, perhaps *go:la* or *gu:la*.

MMo SH---, HY---, Muq *ɣula* P179b 'id'. WM *ɣauli(n)* L355a, *ɣuuli* L371a, *ɣaɣuli* L344a 'brass, copper'. Kh *guul'* H135b. Ord *ġu:li* M313a. Bur *guuli(n)* C162a. Brg *gʊ:lʸ* U137. Kalm *ɣuul'* M171a. Dag *gaulʸ* E164 'brass'. EYu *ġɔlɔ* B78, *ġo:lo* S302 'brass'.

*gaursun 'stubble, cut grain stalks; shaft of a feather'.

MMo SH---, HY---, Muq---. WM *ɣaɣursu(n)* L344a, *ɣuɣursu(n)* L365a, *ɣuursu* L371a. Kh *guurs(an)* H135b '(..) quills, tubes, pipes, straws', Kh *xuurs* H697a '(..) chaff, awn or beard of certain kinds of grasses'. Ord *ġu:rsu* M315b. Bur *guurha(n)* C162a 'shaft of a feather; pen'. Kalm *ɣuursn* M171b 'feather'. Dag *gaurs* E164 'stubble', cf. *xudusəi gaurs* S302 'shaft of a feather'. EYu *gu:rs* (sic) (only) S302 'shaft of a feather'. MgrH *χʊ:rʒə* SM185, *xaurʒï* L188. Remaining lgs---.

*ge- 'to say' see *kee-

*gedesün 'intestines, bowels; belly'. There are several interesting variants, reminiscent of the development of *gadasun 'stake', *gudusun 'boots'. Bur-Dag and Muq stem from an older *getesün. In case of Muq this may herald the reduced 'western' form now found in Kalm and Mog. The Bur-Dag -*t*- is also shared by Khamnigan *gətəxɨn* (Janhunen 90), and thus represents a northeastern feature.

However, it has to be kept in mind that this group of words may lose the vowel before s in Dagur and the central languages, e.g. Dag *gətsi:* (gen.-acc.), and this is where the strengthening may originally have taken place. Baoanic has developed from **geǰesün*. As in the case of **gudusun*, BaoGt has a shortened form reminiscent of the one found in Kalm and Mog. This word probably contains the (collective?) suffix *-sUn*, so that the PM root may have been **gede-* or **gete-*.

> MMo SH---, HY *gedesün* M56, Muq *getesün* P238b, LV *gesesün* (sic) P67, *gesüsün* (sic) P69, RH *gesesün* (sic) 199A2. WM *gedesü(n)* L373a. Kh *gedes* (*gedsen*) H141a. Ord *gedes(ʉ)*, *gödös* M268b. Bur *gedehe(n)* C168b, *getehe(n)* C174a. Brg *gətu:* U135. Kalm *gesn* M140b. Dag *kətəs* E146, *gətəs* E83:60a. EYu *gedsən* B82, *gedesən* J101b. MgrH *gədesə* J101b. MgrM *gedesï* JL461. BaoD *gaǯiəsuŋ* BL89b. BaoGt *gəsuŋ* C141. BaoÑ---. Kgj *gəǰisʉn* S289a. Dgx *kiʐesuŋ* B76. Mog *gesàn* R28a, MogM *gesal* (sic) L68, No 3.

*gee- 'to lose; to let go of; to put down'. The Dgx form is a good match semantically, but the development of the initial consonant would be unique (there are however some cases where Dgx *ć* stems from **k*).

> MMo SH *ge-* H48, HY---, Muq---. WM *gege-* L373b. Kh *geex* H145b. Bur *geexe* C176b. Brg *gə:-* U134. Kalm *geex* M135b. Dag *gə:-* E169. EYu *gi:-* B83, *ge-* J49 (auxiliary). MgrH *ge:-* SM130, X101. MgrM *gi:-* C197, *gï-* C380. BaoD *ge-* BL50. BaoÑ *ge:-* CN93. Kgj *ge- ~ gi-* S289a. Dgx *ǯie-* (?=) B166, MC183b 'to put down, to lay aside; to leave over', in MC also 'to abandon, give up (e.g. smoking)'. Mog *ge:-* R28a 'to lose'.

*gegeen 'light, bright'. Related to the verb **gei-* below, parallel to the relation between **čagaan* 'white' and **čaï-* 'to become white'.

> MMo SH *gegen*, *gegeyen* H48, HY *gege'en* M56, Muq *gege:n* P169a. WM *gegege(n)*, *gege(n)* L373b. Kh *gegee(n)*, *gegeen* H140b. Bur *gegee(n)* C167b. Kalm *gegän* M134b. Dag *gəɣə:n* E170; cf. *gəɣə:* E170 'dawn'. EYu *gegen* B82 'living Buddha'. MgrH *gəge:n* J101b. MgrM *gegen* JL461. BaoD *gəgaŋ* BL11. BaoÑ *gegaŋ* CN93. Kgj *gigɔ* S289a. Dgx *gieğaŋ* B89. Mog---.

*gei- 'to become light, to shine'. In QG normally in the phrase **ör gei-* 'to dawn'. Cf. **gegeen* above.

> MMo SH *geyi-* H50, HY---, Muq *gei-* P169b. WM *geyi-* L374b. Kh *giyx* H119a. Bur *giixe* C153b. Kalm *gi:-* R137b. Dag *gəi-* E169. EYu---. Mgr---. BaoD---. BaoÑ *gi:-* CN94. Kgj *gi- ~ gi:-* S289a. Dgx (see s.v. **ör*). Mog---.

*geičin 'guest'. This word and the synonymous **aïlčïn* (not listed) and **ǰočïn* display a chaotic distribution. Perhaps derived from **keid* (q.v.), although in that case a form **kei(d)čin* would be expected.

> MMo SH---, HY---, Muq---, IV---, LV---. WM *geyičin* L374b. Kh *giyčin* H119a. Ord *gi:čin* M267b. Bur---. Brg---. Kalm *giič* M143b. Dag---. EYu *ke:čən* B67, *ge:čən* J107a. MgrH---. MgrM *gečin* P412b. Bao---. Dgx---. Mog---.

*geǰige 'back of the head; neck'. Kh and Bur reflect a form **geǰege*; Dag and EYu could have developed either from **geǰige* or **geǰege*. Cf. **gedei-* 'to bend

backwards', *gedergü 'backwards' (not listed).

      MMo SH---, HY---, Muq *gejige* P170a. WM *gejige* L381a. Kh *gezeg* H141b 'hair; pigtail'. Ord *gejige* M255b 'nape; braid, etc', cf. *gede:* M254b 'occiput'. Bur *gezege* C169a 'braid; (western) nape'. Brg *gəʒəg* U135 'braid'. Kalm *gĭǰg* M142b 'nape; braid'. Dag *gəǰiɣ* E172 'braid', cf. also *gədiɣ ~ gəǰiɣ* E172 'back of a knife'. EYu *gejiɣe* B83, *gejeɣe* J81 'back of the head'. Mgr---. Bao---. Dgx *gieʒiği* B90 'back of the head', *ġïʒïğəi* MC119b 'neck, nape'. Mog---.

geli- 'to follow, catch up with'. The Moghol meaning 'to sow' perhaps < 'to follow the furrow'.

      MMo SH *geli-* H49, HY---, Muq *geli-* [P: *keli-*] P215a 'to drive (livestock)'. WM *geli-* K2477. Kh *gilex* H119b 'to round up livestock'. Ord---. Bur-?-. Brg *gil-* U136. Kalm---. Dag *gəlʲ-* E171 'to drive (livestock)'. EYu--- . Mgr---. BaoD---. Dgx---. Mog *geli-* R28a 'to sow', *gɛlɛ-* W165b 'to drive', MogMr *geli-* L68, No. 126 'to sow; to take along, chase in front of oneself'.

gem 'defect, damage; disease; fault; trouble'. In spite of the unusual *g- apparently related to CT *kem* 'illness' (cf. EDPT 720b).

      MMo SH---, HY---, Muq---, IV---, LV---, Ph *gem-* P123b. WM *gem* L375b. Kh *gem* H142a 'defect; damage, etc. Bur *gem* C170a 'fault, guilt'. Brg *gəm* U135. Kalm *gem* M136a. Dag *gəm* E171. EYu *gem* BJ328, J101b 'illness, disease'. MgrH---. MgrM---. BaoD *gəm* BL89a 'illness, disease'. BaoÑ *gem* CN93. Kgj *gan* S288b. Dgx *gien* B89. Mog---.

gendü 'male (of certain carnivores)'.

      MMo SH *gendu* H49, HY---, Muq---. WM *gendü(n)* L376b. Kh *gendüü* H142b 'male tiger or leopard'. Ord---. Bur (Tunka, Oka) *gende* C171a, *günde* C165b 'male of the sable'. Brg---. Kalm *gendn* M137. Dag---. EYu *ge:ndə* B82 'male dog'. Mgr---. Bao---. Dgx---. Mog---.

genedte 'by accident; sudden(ly)'. Several modern forms have replaced the ending by a more familiar suffix like *-tU* or *-tAI* or added the dim. *-kAn*.

      MMo SH *genete* H49. Muq *genete* P208a. WM *genedte* L377a. Kh *gent*, *genet*, *gented*, *gentxen* H142b/143a. Ord *genedte*, *genete*, *gente*, *gentu* M259a/b. Bur *gente* C171a. Kalm *gent*, *gentkn* M138a. Dag *gənti:*, *gəntkə:n* E170, *gənt* E83:59b. EYu *geneti* BJ328, *genetele* (with attached particle) S292. Remaining lgs---.

ger 'dwelling, house; Mongolian yurt'. The Dag *-rʲ* is inexplicable, unless it is due to a false analysis of the genitive *gəri:* as /gəri-i/ instead of /gər-ii/ (cf. similar cases s.v. *gal*, *gar*, *seül*). MgrH *ges* X102 'family' may represent a contracted plural of this word.

      MMo SH *ger* H49, HY *ger* M56, Muq *ger* P170b, LV *ger* P69, IV---. WM *ger* L377b. Kh *ger* H143a. Ord *ger* M259b. Bur *ger* C171b. Brg *gər* U135. Kalm *ger* M138b. Dag *gərʲ* E172. EYu *ger* B83, J101b. MgrH *ger* J101b. MgrM *ger* JL475. BaoD *gər* BL89a (influenced by Tibetan *gur*?), *gar* BL74. BaoÑ *ger* CN94. Kgj *ger ~ gar* S289a. Dgx *gie* B88. Mog *ger* R28a.

*gere 'brightness; torch; witness'. For the meaning 'witness' also see *gereči. MgrH gerie: SM134 'light' could be from *gerel.

MMo SH gere H49 'brightness', HY---, Muq gere P170b 'witness'. WM gere L378a. Kh geree H144b 'light, brightness; dawn; a torch'. Ord gere (gére) M260a 'light; witness'. Bur gere (western) C173a 'pine torch'. Kalm gerᵊ R134a 'witness; testimony; torch, etc'. Dag gər E172 'torch, torch made out of willow twigs', cf. gər.d- E172 'to fish by means of a torch'. MgrH (see above). Remaining lgs---.

*gereči ~ *gerečin 'witness; proof'.

MMo SH---, Muq---, IM gereči P437b 'witness'. WM gereči L378b. Kh gerč H143b 'witness; testimony, etc'. Ord gereči M260b 'witness'. Bur gerše C173a 'witness; testimony'. Brg gərš U135 'testimony'. Kalm gerč M140a 'witness; testimony'. Dag gərčin E172 'testimony'. EYu gerečə BJ328 'witness', possibly also related is gerče B83 'small scripture' (with -čA). Mgr---. BaoÑ gerǯaŋ CN94 'witness'. Dgx---. Mog---.

*gerel 'light, brightness'. There is some confusion in Mongghul, as well as disagreement between the sources. MgrH gere X102 'sunny', gerie: SM134 'light, brightness, sheen, ray of light' can be from *gerel and/or *gere (cf. gurma < *gürümel, ara: < *aral). There is also a form gerəl X102 'sunny side; southern side', but this may be related to gere X102 'sunny'. Khasbaatar derives gere from *gerü, but this is the word for 'shady side of a mountain; north'. Possibly related to *gei- and *gegeen.

MMo SH gerel H49, HY gerel M56, Muq---, Ph gerel P123b. WM gerel L378b. Kh gerel H141a. Ord gerel M260a. Bur gerel C173a. Brg gərəl U135. Kalm gerl M139a. Dag---. EYu gerel B83, J101b. MgrH gəre:l J101b, X104 'light'. MgrM gərə (?=) DS234a. Bao---. Kgj---. Dgx gieran B90, gierən S292. Mog---.

*gerte/*gertü '(at) home'. This word is simply the dative-locative case of *ger 'house' listed above, although the Shirongol equivalents have been derived from *kotan by several Inner-Mongolian authors. The Shirongol forms with k- are due to the following t which in its turn was originally triggered by the final -r of the stem.

MMo SH---, HY---, Muq gertü, gerteki P171a, LV---, IV gerte L62:30. Ord gerte/gertʉ M261ab. Dag gərʸt > gət E88:167. MgrH kudu SM206. MgrM gərdu DS12b. BaoD kətə BL62, BL78 'home(-wards)'. BaoDt kətə CN86:225 '(at) home'. BaoÑ kətə CN77 '(at) home'. Kgj kete S287a. Dgx kidə L78 'house (loc.)', giedə-du B90, kidə-du B76 'being at home, i.e. wife'. Mog gertʉ R28a, MogM, MogMr gértʉ L62:31.

*ges- 'to melt, thaw'. The fluctuation in consonant strength in Khalkha is unusual. Cf. *sïrï- 'to melt', and Baoanic *sïmtara- 'id'.

MMo SH gesge- (caus.) H50, HY---, Muq ges- (or kes-) P171a. WM ges- (so read) L379b. Kh gesex H145a, xesex H726b. Ord ges- M262a. Bur gedexe C168b. Kalm ges- R134b 'to become cheerful, etc'. Dag gəs- E171. EYu kes- B68, J35. Mgr---. Bao---. Dgx---. Mog---.

*gesiün 'branch'. The Dag form with -s- must stem from a form *gesüün with assimilated diphthong. Bur-Kalm have an additional variant *gesiü-sün. Cf. *salaa 'id'.

MMo SH geši'ut (pl) H50, HY geši'ün M56, Muq---, LV---, IV geši'ün L62:31, Ph kʰeši'un P126a. WM gesigün L380a, gesigüü L380a. Kh gišüü(n) H120b. Ord göšʉ: M272a. Bur gešüü(n) C175b, also gešüühe(n) 'id'. Kalm gešü:n R135a, gešü:sn R135a, gišü:n R137a. Dag gəsu: E171. EYu---. MgrH kaśi, kaʂï L258, keʂï L260. Remaining lgs---.

*geški- 'to step on; to trample'. Perhaps the original form is *geǰki-. Initial strengthening in many forms in the QG languages.

MMo SH getki- H50, geciki-le- H48, HY---, Muq gički- P221b. WM giški- L384b, gičgi- L381b. Kh gišgex H120b. Ord géški- ~ giški- M262b. Bur gešxexe C176a. Brg gitəg- U136. Kalm iškx (?-, cf. *öskel- 'to kick') M276b, giškəχə R137a. Dag gərkʸ- E172, girk- Z99a. EYu kšgə- B72, kəšgə- J101b. MgrH giʂgi- SM137, giśgi- L148, kiʂgi- L267. MgrM kəʂgi- JL472. BaoD kəśigə- BL89b. BaoGt kəʂgə- C124. BaoÑ---. Kgj keṛki- ~ keki- S287b. Dgx qəśi- (sic, ?=) S295. Mog---.

*geškiür 'stairs, (step of a) staircase, (rung of a) ladder'. From *geški- 'to step on'. Initial strengthening and rounding of the unaccented *e.

MMo SH---, HY gečgi'ür M56, Muq---. WM giškigür L385a. Kh gišgüür H120b. Bur gešxüür C175b. Kalm giškür (rarely) M146a. Dag---. EYu---. MgrH kəʂgu:r ~ kəʂgu: X87, kuʂgu:r X92, giʂgu:(r) SM137, kiʂgu:(r) L267. MgrM kugor C379. BaoÑ kurgur CN83. Kgj kʉrgi ~ kʉrki S288a. Dgx qïʂïǧəu 'stairs' B70.

*getül- 'to cross, ford' see ketül-.

*geün 'mare'. Cf. *baïtasun 'id'.

MMo SH ge'u(n) H50, HY ge'ün M57, Muq ge'ün P171b, gü'ün- P115a, LV geün P66, IV---. WM gegün, gegüü L374b. Kh güü(n) H139b. Bur güü(n) C167a. Brg gu: U139. Kalm gün M149a. Dag gəu E169. EYu gʉin B84, gü:n J101b. MgrH gu: SM138, J101b. MgrM gu [mori] P414b. Bao---. Dgx---. Mog---.

*gïl- ~ *gil- ~ *ǰïl- ~ *ǰil- 'smooth; glossy, shiny'. A large and complicated word family, with a strange distribution of derivations crossing the normal subgroup lines. The same g ~ ǰ variation is found in *gïrakaï ~ *ǰïrakaï 'clever, perceptive'. A form *ǰïlman survives in Kalm, EYu and Mog. The unclear Kgj form could be metathesized from *gïlman. A form *gïluan is found in Kh and Ord. MgrH may also be from this word, or from an alternant *ǰïloan < *ǰïluan. Dag and Dgx seem to represent the front-vocalic counterparts *gilöen < *gilüen and *ǰilöen < *ǰilüen, respectively. A selection of morphologically unclear but probably related words is also included below.

MMo SH---, HY---, Muq---, IV---, LV---. WM gilaɣan L382a, giluɣan L383b. Kh gilger H119b, gyalaan H145b, etc. Ord gilo:n M266a 'white' (Ersatzwort). Bur yalaan C798a, geliger C169b, želeger C236b, yalagar C798a, yeleger C221b, gilagar (western) C153b, and other derivates. Kalm jilmn M228b. Dag gilə:n NK539a, gilu:r E173 'shiny and clean', gilba:n E174 'sunny'. EYu

jəlman B144. MgrH *ǯilo:n* X221, *ǯulo:n* X225. MgrM---. BaoD---. BaoÑ---. Kgj *gemeliɔ*, *gemiliɔ* (?=) S289 'smooth'. Dgx *ǯilien* B172 'smooth'. Mog *jilmo:n* R42b 'smooth'.

*gogal, ***gogasun**, ***gogad** 'Chinese chives and other bulbous plants'. The MgrH form most likely reflects the (plural) form **gogad*, but an irregular development of **gogal* cannot be excluded.

     MMo HY *qoqosun* M90. WM *ɣoɣod*, *ɣoɣosu(n)* L358a/b. Kh *gogod* H121a 'variety of wild leek', *gogol* H121a 'a variety of the *Liliaceae* Hall.'. Ord *ġoġot* M304a 'kind of leek'. Bur *googol* (eastern), *googoho(n)* (western) C157a. Kalm *ġoɣᵖsn* R149b. Dag *gʷaɣəs* E183 'wild chives'. MgrH *ġuġor* X98. Remaining lgs---.

*goka 'hook, crook'.

     MMo SH---, HY---, Muq *ɣoɣa* P147a, P223a. WM *ɣoqa* L363a. Kh *gox* H127a. Bur *goxo* C158a. Kalm *ɣox* M167b. Dag *gɔɣʷ* E175 'hook-shaped pattern', cf. also *gɔkɔ:* E175 'hook; hook (name of a wrestling hold)'.

*gol 'river, brook, streamlet, ditch'. Cf. **mören*.

     MMo SH *qol* H65 'mountain brook', HY---, Muq---. WM *ɣool* L362b. Kh *gol* H123a. Bur *gol* C155a. Kalm *ɣol* M165a. Dag *gɔl* T132. EYu *ġɔl* B78 'mountain valley; river', *ġol* J62 'river'. MgrH *ġol* J101b. MgrM *gol* P419a, *(ula) ġuar* C378 (cf. **aula*). BaoJ *ǧuəl* L152. BaoÑ *ġəl* CN87. BaoX *ġol* BC69. Kgj *gɯr* (sic) S290a. Dgx *ġoŋ* B82. Mog *ɣo:l* R28b 'riverbed'.

*gorgï 'hook; buckle, clasp'. Only Kh and one Kalm form suggest **gorkï*. The EYu forms seem to point at an older Mongolic form **gorgaï*. Muq *ɣoɣa* P223a is from **goka* 'hook'.

     MMo SH *qorgit* (pl) (?=) H67 'q.v.', HY---, Muq---. WM *ɣorki* L361b, *ɣorgi* K1043a 'buckle, ring or hook of a belt, clasp' (different readings of the same spelling). Kh *gorxi* H126b. Ord *ġorgi* M307a. Bur *gor'yo* C158a. Kalm *ɣor'k* M167a, *ġorʸgĭ* R151b. Dag *gɔrɣʸ* E3:65a 'ring for attaching a knot'. EYu *ġorği:* S559, *gorğui* S287 'ring, circle', *ġɔrğɔi* B78 'hook; hunchback; winding, crooked'. MgrH *ġuorgi* SM126 'buckle', *ġurgi* L142 'slipknot'. Bao---. Dgx *ġuğǎi* MC126a 'knot on the door, door bolt'.

*göen (?and **göin*) 'shallow'. Very similar to its opposite **gʉn* 'deep' listed below. The structure of the Dagur forms (which also changed harmonic class) is unclear.

     MMo SH---, HY *gö'en* M57 'shallow', Muq---. WM *güi-ken* L390a, *güyü-ken* L390b. Kh *güyn* H137b 'shallow', *göyön* H127b 'shallow', *güyxen* H138a 'weak; shallow', *göyöxön* H127b 'rather shallow'. Ord *gi:n ~ gü:n ~ gö:n ~ ge:n* M266b, M281b. Bur *güyxen* C164b. Brg *guixəŋ ~ guyxəŋ* U140. Kalm *gi:n* R137a 'shallow'. EYu---. Dag *guɣa:n*, *guɣa:-kən* (sic, ?=) E179. Remaining lgs---.

*gölige 'puppy; whelp, cub (of carnivores)'. Most forms apparently from a disyllabic form **gölge*. As the EYu form *gələg* S300 is irregular and not confirmed by other sources, it is most likely a printing error for the normal EYu *gəčəg* B82, probably from CT **kičig* 'small'. HY *güčük* M57 and Dgx *kiʒəu* B76 (there

connected to *gičii 'female of wild animals') have the same origin.

MMo SH---, HY--- (? cf. güligö M58 proper name), Muq---. WM gölöge, gölige L386b. Kh gölög H127b. Bur gülge(n) C165a. Brg gulig U140 'puppy (dog)'. Kalm gölg M146b. Dag gulɣ^w E180. EYu---. MgrH golgo J102a. MgrM kul^ᵞger, kulgar P422b. Bao---. Dgx---. Mog---.

*göre- 'to braid' see *gürü- 'id'

*göree 'hunting; game', *göreesün '(wild) animal'. The k- in MgrH is unexpected.
MMo SH gore'e H51, gore'esu(n) H51, goregesun (sic) H51, HY---, Muq göre:sün P171a 'roe deer', LV göre:sün P68 'antelope', IV---. WM göröge(n) L387, görögesü(n) L387b. Kh göröö H128b 'hunting; wild animal', göröös(ön) H128b 'antelope'. Bur gürööhe(n) C166a 'roe deer'. Brg gurə: U140 'hunting', gurə: U141 'wild animal'. Kalm görä (obs) M147a 'hunting', göräsn M147a 'saiga antelope'. Dag gurə:s E181 '(wild) animal'. EYu gure:sən B85, görösən J102a, görö:sən (Qinglong) BJ350 '(wild) animal'. MgrH korosə J102a 'bear'. Remaining lgs---.

*gučïn 'thirty'. With strengthening in EYu and MgrH due to the following č. In Bao and Kgj replaced by *gurban harban 'three tens' (BaoD guraraŋ BL89a, ǧubaraŋ BL35, BaoÑ ǧuraraŋ CN89). Cf. *gurban 'three' below and *gunan 'three-year-old' (not listed).
MMo SH qucin H70, HY qučin M91, Muq ɣučin P179b. WM ɣuči(n) L364a. Kh guč(in) H136a. Bur guša(n) C162b. Kalm ɣučn M171b. Dag gɔč, gɔčin E177. EYu ǧučən B80, quǰin J101a. MgrH xoǰin J101a. MgrM---. Bao---. Dgx---. Mog---.

*gudusun 'boots' see *gutusun

*gulïr 'flour' see *gurïl

*gura 'roe deer; roebuck'. The modern languages disagree regarding the final -n.
MMo SH---, HY---, Muq---. WM ɣura L368b. Kh gur H133a. Bur gura(n) C160b. Kalm ɣurŭ R155b. Dag gura:n E181. EYu ǧura B80. Remaining lgs---.

*gurban 'three'. Cf. *gučïn 'thirty', *gutuar 'third', and *gunan 'three-year-old' (the latter not listed). A peculiar palatal element is present in a word for 'hobble for three legs': Dag gɔrb^ᵞla:n šidər E177, Bur gur'balaa (šüder) C161b, in fact suggesting a stem *gurbï (not supported by Kalmuck, EYu ǧurßaləd B30. Cf. also the i in Dag gɔrbid E177 '(constellation of) three stars' < *gurban hodun.
MMo SH qurban H72, HY qurban M91, Muq ɣurban P179b. WM ɣurba(n) L369a. Kh gurav (gurvan) H133a. Ord ǧurwa M316b. Bur gurba(n) C160b. Kalm ɣurvn M170a. Dag g^warbə, g^warbən E183, g^warəb Z100a. EYu ǧurßan B80, J102a. MgrH ǧura:n J102a. MgrM ǧurbaŋ T326, gurban^ᵞ P422. BaoD ǧuraŋ BL89b. BaoÑ ǧuraŋ CN89. BaoX goraŋ BC67. Kgj gurɔ ~ ǧurɔ S289b. Dgx ǧuraŋ B85. DgxL ǧurwaŋ B86. Mog ɣurbo:n R60.

*gurïl 'flour'. With metathesis in many languages. Although *gulïr has the earlier

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documentation, either form could be the older. Different simplifications in Kalm and Dag.

MMo SH---, HY---, Muq *γulir* P179b, *γulur-* P152b. WM *γulir*, *γuril* L367a. Kh *guril* H134a, *gulir* H132a. Ord *ġulir* M313a, *ġuril* (rare) M315b. Bur *guril* C161a. Kalm *γuyr* M168a. Dag *gɔlʸ* E176. EYu *ġulər* B79, J101b. MgrH *ġurəl* J101b. MgrM *ġurur* JL477, *ġuru* DS223b. BaoD *ġulər* BL89a, *ġur* (sic) BL30. BaoÑ *ġølər* CN87. Kgj *guru* (sic) S290b. Dgx *ġuruŋ* B86. Mog *γulur* R28b, *gulur* W165b, *ğulur*, *ğuğul* W178b.

gutuar 'third'. In many languages replaced by *gurbaduar*. Cf. *gurban* 'three' and *gučïn* 'thirty' above.

MMo SH *quta'ar*, *qutu'ar* H73, HY---, Muq---. WM *γutaγar* (lit) L370a. Bur *gutaar* (dial.) C161b 'milk of the third milking'. Dag *guta:r* E180. Remaining lgs---.

gutusun and *gutul* 'boots', as well as forms pointing at -d- rather then -t-. Kh-Bur stem from the form *gutul*. The -t- instead of -d- is also found in some of the MMo forms. The remaining MMo forms and the forms in the QG languages are from the variant *gudusun*. Kalm has a shortened form reminiscent of *gadasun* 'stake' (q.v.) and *gedesün* 'intestine' (q.v.). Kgj stands out among the Shirongol languages.

MMo SH *qudusu(n)* H71, HY *qudusun* M91 (but: HY *qudul-či* M91 'cobbler'!), Muq *γutusun-* P180a, *qudusun* (P: *qo-*) P272b, *qutusun* P313a. WM *γutul* L370b, Kow1029a, and *γutusun* Kow1029a. Kh *gutal* H134b. Ord *ġutul* M318a 'leather boot'. Bur *gutal* C161b 'high fur boots', *gutaha(n)* C162a, *godoho(n)* (western) C154a. Brg *gʊtal* U139. Kalm *γosn* M167a. Dag *gɔčɔ:r* (sic, ?=) E177. EYu *ġudəsən* B80, *ġədəsən* B78, *ġudusun* J101b, *gutusun* P419 'boot'. MgrH *ġudusə* J101a. MgrM---. BaoD *ġudəsuŋ* BL89b. BaoGt *ġossoŋ* C120. BaoÑ *ġədsəŋ* CN87, *ġərsəŋ* CN88. Kgj *ġudər ~ gudər* S288b. Dgx *ġudusuŋ* B84, L117a. Mog---.

guya 'thigh'.

MMo SH *quya* H73 'leg', HY---, Muq *γuya* P180b. WM *γuya* L365b. Kh *guya* H136a. Ord *ġuya* M311b. Bur *guya* C162b. Kalm *γuy* M168a. Dag *gʷay* E183. EYu *ġuya* B80, J101a. MgrH---. MgrM *gʊya* C387 'leg'. BaoD *ġuya* BL89b. BaoÑ---. Kgj---. Dgx *ġuya* L117a 'thigh', *ġuya* B85 'shin, shank', *boya* (?=) MC44a 'thigh'. Mog *γuya* R28b.

guyu- 'to request, ask for, to beg'.

MMo SH *quyi-* H74, *quyu-* H74, HY *quyu-* M92, Muq *γui-* P179b, *γuya-* P180b, Ph *quyu-* P129b. WM *γuyu-* L365b. Kh *guyx* H131a. Bur *guyxa* C159b. Kalm *γuux* M171b, *ġu:χǎ* R156b. Dag *gɔi-* E174. EYu *ġɔi-* B78, *ġui-* J101b. MgrH *ġʊi-rla-* X98, cf. *ġʊi-śʑə* X98 'beggar'. MgrM *ġuai-ćiŋ* JL465 'beggar'. BaoD---. BaoÑ *ġui-* CN89. Kgj *gui-* S288b. Dgx *ġoyi-* B83 'to borrow', *ġuai-* MC124a. Mog---.

gübi- 'to shake (off), to beat repeatedly, to thrash'. Unexpected k- in Baoanic.

MMo SH---, HY---, Muq *gübi*- P172a. WM *göbi*- L386a, *gübi*- L388b. Kh *güvex* H136b. Ord *gᴜwe*-, *gᴜwi*- M281b, *göwö*- M273a. Bur *gübixe* C163a. Kalm *güvx* M148a. Dag *gub*ʸ- E179. EYu *gǝßǝ*- B81. MgrH *guwu*- SM144, *gubu*- SM139. MgrM *kubi*- P421a. BaoÑ *kib*- CN79. Kgj *kᴜi*- S287b. Dgx *kuyi*- MC230b. Mog---.

*güi- 'to run'. Cf. *haul- 'to run (mainly of animals)'.

MMo SH *guiyi*- H52, HY *güi*- M57, *güyi*- M59, Muq *güi*- P172a, *güyü*- P173b. WM *gü[y]i*- L389a, *güyü*- L390a. Kh *güyx* H138a. Ord *gui*- M275a. Bur *güyxe* C164b. Brg *gui*- U140. Kalm *güüx* M150b. Dag *gui*- E178, *guy*- E181 ('of people'). EYu---. MgrH *guai*- J102b. MgrM *gui*- JL475. Bao---. Kgj *gᴜi*- S289b. Dgx---. Mog *gᴜi:*- R28b, *gui*-, *guyi*- W165b.

*güiče- 'to catch up with, to overtake; to be completed, fulfilled'. Perhaps related to *güi- 'to run' listed above.

MMo SH *guiyice*- H52, *kuiyice*- H105, HY *küyiče*- M73, Muq *güiče*- P172b. WM *gü[y]iče*- L389a. Kh *güycex* H138b. Ord *guiči*- M278a, *guči*- M280b. Bur *güysexe* C164b. Brg *guis*- U140. Kalm *güücx* M151b. Dag *kuičǝ:*- E154. EYu *güče*- B85, *gᴜiče*- BJ328. MgrH *kuiӡæ*- X91. MgrM *kuići*- JL475. BaoD---. BaoÑ *kića*- CN80. Kgj *kᴜiči*- S287b. Dgx *kuiçe*- B78. Mog---.

*güǰeen 'belly, stomach'.

MMo SH---, HY---, Muq *güǰe:n* P172b. WM *güǰege* L393a. Kh *güzee* H137a 'paunch'. Ord *gᴜǰe:* M274b. Bur *güzee(n)*, *güzöö(n)* C163b '&paunch, peritoneum'. Kalm *güzän* M148b '&paunch; peritoneum'. Dag *guǰǝ:* E180. EYu *gᴜǰe:n* B85, *guǰe:n* J102a 'rumen', *guǰe:n* J78 'stomach'. MgrH *guӡie:* SM140, *guӡe:* L155 'stomach'. MgrM---. Bao---. Dgx---. Mog *guӡʌn*, *gužʌn* W165b.

*gün 'deep'. There are several variant forms which can hardly be derived from a single original form. The long vowel in Kalm and Dag, which may be due to confusion with *göen 'shallow' listed above. The *-m* in MgrM and Bao is also remarkable. The forms in MgrH an extra syllable at the beginning is inexplicable, and is not supported by any other source (cf. *nïs-). Moreover, the *f-* in the variant *fugon* suggests an original form *öken, as secondary *f-* is usually triggered by a following strong consonant. It is not clear whether BaoD *gudaŋ* BL89b 'id' belongs here.

MMo SH *gun* H52, HY *gün* M58, Muq---, Ph *gün* P124a. WM *gün* L391a. Kh *gün* H138b. Bur *gün* C165b. Brg *guŋ* U140. Kalm *gün* M149a (cf. adverb *güün-äär*), *gün* R139a, *gü:n* R140b. Dag *gʷǝ:n* E184. EYu---. MgrH *gom* J102a, *fuguæn* SM104, *fugon* X61, *gun* X105, *gu:n* T323, *go:n* C88:577. MgrM *guŋ* JL475, *gum ~ guŋ* C381. Bao *guŋ* P412a (see above). BaoJ *gum* L77. BaoÑ *gᴓm* CN96. Kgj *gᴜn* S289b. Dgx *gun* B93, L117b. Mog---.

*gürü- 'to plait, braid'.

MMo SH---, HY---, Muq---, LV---, IV *gür*- L62:31. WM *görö*- L387b, *gürü*- L392b [in fact these are two readings of the same spelling]. Kh *göröx* H128b, *gürex* H139b. Chakhar *goron* D188a. Ord *gᴜrᴜ*- M279a, *gᴜri*- M278b. Bur *gürexe*

C166b. Brg *gur-* U140. Kalm *gürx* M150a. Dag---. EYu *gur-* B85. MgrH *gurə-* X108. MgrM *guru-* JL463. Bao---. Dgx---. MogM *gʉriˑ-* L62:31.

***güreen** 'name of certain muscles, tendons, or veins'.

MMo SH---, HY---, Muq *gürü:n sudusun* [*gürö:n?*] P172b 'jugular vein'. WM *gürege(n)* L392a. Kh *güree(n)* H139b 'the area of the neck below and in front of the ears'. Ord *gʉre:* M278a 'the sides of the neck'. Bur *güröö* C166a 'carotid (artery)'. Kalm *gürä* M149 'vein', *güre:n sudăsn* R139b 'jugular vein' (*sudasun). Dag *gurʸe: sʷadal* E83:68a 'neck artery', *gurə sʷadal* S309 'jugular vein' (*sudal). EYu *gʉre:n* BJ328 'the sides of the neck', *gure:n χda:sən* S309 'jugular vein' (*sudasun). Mgr---. Bao---. Dgx---. Mog---.

***gürü** (?*kürü) 'stone'. The *g-* is found in some central languages. MMo in Phagspa script, as well as Mog suggest *k-*. Initial *k-* can also be read in the sources in Arabic script, and also in SH *guru*, because words with *kü-* are often written with characters denoting *gu*. Cf. *čïlaun 'stone'.

MMo SH *guru* H53, HY---, Muq *güri* P133a, *gürü-* P278a, RH *güri* [?eds. read *k-*] 202A2, Ph *kʰuru-* P126b. WM *gürü* L392b 'ironstone; pebble'. Kh *gür* H139a 'ironstone'. Ord *gurʉ* (in compound) M279a. Bur---. Kalm *gür* M149a 'ore'. Dag---. EYu---. Mgr---. Bao---. Dgx---. Mog *quri* (sic) W177b, MogM, MogMr *kʉri* L62:52.

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***haaga** 'bran'.

MMo---. WM *aɣa* L12b. Kh *aaga* H1b. Ord *a:ġ* M6b. Bur *aagahan* C16b 'crushed oatmeal; (Tunka dial.) roasted flour'. Dag *xa:ɣə* E96 'bran; roasted oatmeal'.

***haakaï** and ***haaljïn** 'spider'. The Bur and Mgr forms could perhaps represent a pair of PM variants *habakaï ~ *haakaï from earlier *pabakaï ~ *papakaï (for a similar pair of variants see *hibee-). The last syllable *-kaï* may be the same element which is found in *nokaï, *gakaï, etc. The form *haaljïn may be the same root with a different formans also found in animal and plant names.

*haakaï ~ *habakaï: MMo---. WM *abaɣaqai* ('Buriat and Kalmuck') L3a. Bur *abaaxai* C19b. Brg *aβa:xai* U4. MgrH *χa:χe:* SM151, *xa:xai* X64; C465. MgrM *xaxai* DS251b.

*haaljïn: MMo SH---, HY *ha:ljin* H59, Muq---. WM *aɣalja(n)*, *aɣalji(n)* L12b. Kh *aalz(an)* H2b. Ord *a:lja* M15a. Bur *aalza* C17a, *abaalzay* (Sel.) C19a. Kalm *araljn* (sic, ?=) M46b.

***hača** 'fork, bifurcation'. The EYu *h-* could have been triggered by the following strong consonant; it is however supported by Dagur. Ligeti mentions Tajik *hačča*; cf. also Azeri *hača* 'forked branch'.

MMo---. WM *ača* L7a. Kh *ac* H37b. Ord *ača* M34b. Bur *asa* C62b. Kalm *ac* M58a. Dag *χač* E104. EYu *hača* (?=) BJ330 'rope for tying cows'. Mgr---. Bao--- Dgx---. MogM *ača* L68, No. 82 '(two times three) poles serving to support the tent (in front and back)'.

***hačï** 'grandson; nephew/niece'. Related to CT **atï* 'grandson', which in fact may have been **hatï*.

   MMo SH---, HY *hači köʼün* M59, *ači* HY34, Muq---. WM *ači* L8a. Kh *ač* H38a. Bur *aša* C67. Kalm *ač* M58b. Dag---. EYu *hačəkon* B55 'niece' (see **ökin*), *hačəkün* B55 'nephew' (see **köbeün*). MgrH *aći sunʒə* SM15, *a:ćə* X2. Bao---. Dgx *haçï* B65, *hačï* T140 'nephew'. Mog---.

***hadku**- 'to grab, to hold in the hand'. There is also a noun 'handful' with the same phonetic shape.

   MMo SH *hatqu-* H75, *atqu-* H10, HY---, Muq---. WM *adqu-* L12a. Kh *atgax* H35b. Bur *adxaxa* C33a. Kalm *atxx* M56a. Dag *χatk^w* E103 'handful', *χatɔ:k^w* (sic) Z92b. EYu *adqə-m* BJ320. MgrH---. MgrM *atkò* P412b 'handful'. Bao---. Kgj---. Dgx---. Mog---.

***halagan** 'palm of the hand'. The modern forms are not unanimous. Bur-Kalm suggest **alïgan*, Kh **alaga*; EYu **halagan*; Mgr and Dgx **halga*. Mog **alakaï* with remodeled ending. The Bao forms have surprisingly become identical to the forms of CM **heligen* 'liver'. LV *halaqa* P76 (ms. *ṣalaqa*) is translated 'hand', but the ms. form is also reminiscent of **salaa*.

   MMo SH *halaqan* H74, HY *halaqan* M59, Muq *alaqan* P97b, LV (see above), IV---. WM *alaɣa(n)* L26b. Kh *alga* H15a, Chakhar *alǎğ* D170a. Ord *alaġa* M11b. Bur *alʼga(n)* C46a. Brg *alag* U6. Kalm *alʼxn* M39a. Dag *χaləɣ* E100, Z91b. EYu *halğan* B55, *halağan* J93a. MgrH *xalġa* J93a, X68, *χarġa* SM161, *χalġa* T372, *alġa* X5, *arġa* SM13; MgrM *xarġa* J88, *ġar qarġa* (sic) C377 (+ **gar*), *ġar qərġa* DS241. BaoD *χar həlgə* (?=) BL81b. BaoÑ *helge* (?=) CN67. Kgj---. Dgx *haŋga* B64. Mog *olaqεi* R35b.

***haluka** '(small) hammer'.

   MMo IM *haluɣa* [emended, vocalised *hulɣa*] P437b, RH *aluqa* 204C8. WM *aluqa(n)* L34a. Kh *alx(an)* H18b. Ord *aluχa ~ aluχu* M18a. Bur *alxa* C45a. Brg *alx* U6. Kalm *alx* M37b. Dag *χalluɣ^w* E102, *χalləɣ^w* Z91b. EYu--. Mgr---. Bao---. Dgx---. Mog *aluqa* R22b, W---.

***hamu**- 'to rest'. Cf. the caus. **hamuul-* below. Also compare **hamura-*, although the development of **h* is different in that word, making the relationship between the two uncertain.

   MMo SH *amu-* H7, HY *amu-* M35, Muq *amu-* P101b, LV *amu-* P1257. WM *amu-* L40a. Kh *amax* H21a. Ord---. Bur---. Kalm---. Dag---. EYu *hambu-* (?=) B55 'to go out (fire)', *hamə-* J75 'to go out (fire)', *haməs gə-* J41 (converbum momentanei + **ki-*) 'to rest'. Mgr---.

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*hamuul- 'to put to rest, etc'. The caus. of *hamu- above. The MgrH form may also represent *hamul-, the transitive counterpart of *hamura-. For the semantic development in EYu-MgrH cf. *untara- 'to lie down > to go out'.

MMo SH amu'ul- H7, HY---, Muq amu'ul- P102a, amu:l- P102a, Ph amu'ul- P119b. WM amuɣul- L40a. Kh amuulax LC 1:95a. Ord---. Bur---. Brg---. Kalm---. Dag---. EYu hambu:l- B55 'to extinguish, put out', χamu:l- J16 'id'. MgrH xamuli- SM153, xambulə- X69 'to extinguish, put out'. Remaining lgs---.

*hamura- 'to rest'. The h- is only found in Shirongol, but cannot be explained as a secondary development, at least no mechanism is known in the absence of strong consonants. Some of the Shirongol forms suggest an older form *hambura-. The relationship with *hamu- above is not clear; *hamura- looks like an intransitive formation in -rA derived from *hamu-, but in EYu the latter appears with h-. The related adjective also has vocalic onset in MMo Muq amur P102a, Dag amər E11, EYu amər B5, J93a (MgrH xamur L173 is contradicted by amar J93b).

MMo SH---, HY---, Muq---. WM amura- L40b, amara- L36a. Kh amrax H22a. Ord amara- M19b. Bur amarxa C48a. Kalm amrx M42a. Dag amər- E11, Z91b. EYu aməra- B5, amura- J93a. MgrH xambura:- J93b, X69, χamura:- SM154. MgrM xaŋbura- JL467. BaoD hamar- BL81b. BaoÑ hamara- CN65. Kgj hambəra- S286b. Dgx hamara- B65, hamura- L109b, T139. Mog---.

*haŋga- ~ *haŋka- 'to be thirsty'. Cf. *umdaas- elsewhere.

MMo SH hangqa- H74, HY---, Muq---, IV---. WM angɣa- L43b. Kh angax H25a. Bur angaxa C52a. Kalm-?-. Dag xaŋk- E99, Z91a. Remaining lgs---.

*hanï- and *hanïï- 'to close one's eyes' (slight semantic differences are indicated in languages that have both forms). Bökh derives Dgx xami- from the synonymous *kamkï- (cf. EYu χamɣə- J93a), but the elision of the *-k- would be irregular; cf. the form with -n- in Todaeva.

MMo SH---, HY---, Muq hanis- (sic) P181a. WM ani- L46a, anii- L46b. Kh anix H26b, aniyx H26b. Ord ani:- M23b. Bur anixa C53b, aniixa C53a. Brg anʸ- U2, anı:- U2. Kalm än'x M68a. Dag---. EYu---. MgrH xanə- J93a, χani- SM156. MgrM xani- JL476. BaoD hani- BL81b. BaoJ hon- L81. BaoÑ hani- CN64. Kgj hani- S286a. Dgx xani- T139, xami- (?=) B57, L109b. Mog---.

*hanïska 'eyebrow; eyelash'. Derived from *hanï- above. Bur nidxe may be an altered form of this, perhaps influenced by *nidün 'eye'. Cf. also the problematic MgrH senasġa SM344 'eyelashes', MgrM naosïġa DS221b 'eyelashes'. Cf. CM *sormusun 'id' elsewhere.

MMo SH---, HY hanisqa M60 'eyebrow', Muq hanisqa P181a 'eyebrow', LV hanišqa P76 'eyebrow', IV hanasqa L62:31 'eyebrow'. WM anisqa L46b. Kh an'sga H27b 'eyelid'. Ord---. Bur nidxe (?=) C326a 'eyebrows'. Brg---. Kalm---. Dag---. EYu---. MgrH χanasġa SM155 'eyebrows', xanəsġa J103b 'eyelashes'. MgrM xanisïġa DS221, xaniská P411b 'eyebrow', hanisġa Z331:256, 258 'eyebrow; eyelash'. BaoD χamsəġ (?=) BL90b 'eyelashes'. BaoÑ---. Dgx---. Mog---.

*harban 'ten'. Perhaps *ha + -rban or *har + -ban in view of the similar structure of *gurban 'three' and *dörben 'four'.

MMo SH harban H75, HY harban M60, Muq harban P181b, LV harban P75, IV harba:n L62:31. WM arba(n) L49b. Kh arav (arvan) H28a. Ord arwa M31b. Bur arba(n) C56a. Brg araβ (arβaŋ) U15/16. Kalm arvn M48a. Dag xarəb E105, Z91b, xarbən E106. EYu harβan B55, J94a. MgrH xaran J94a, X71, χaran T374, xarvan J79, χarwan SM165, xarvan X73. MgrM xarbaŋ JL476. BaoD harwaŋ BL82b, harən (in compounds) BL35. BaoÑ harwaŋ CN66, hawraŋ CN67, harən (in compounds) CN66. BaoX xabraŋ BC74. Kgj harɔ S286b. Dgx haroŋ L110a, B65 [the 'variant' haruan B65 represents the same pronunciation]. Mog arbo:n R23a 'ten; several; some', MogMr arbɒ:n L62:32 'ten', MogM 'ten kran coin'.

*hargal, *hargasun 'dung; dried cow dung (used as fuel)'. The MMo form harɣaul also has equivalents in central Mongolic. Agricultural term related to CT *hark 'dung'. Cf. *baasun, *komaul, *korgasun, *öteg (?), *ǰundaul.

MMo SH harqasun H177 (in a name), HY---, Muq harɣal P182a, harɣaul P182a, LV---, IV---. WM arɣal L52a, arɣasu(n) L52b. Kh argal H30a. Ord arǧal M28a. Bur argal C57b, argaha(n) (western) C58a, argaahan (Al., Barg.) C57a. Brg argal U16. Kalm arɣsn M49a. Dag xarɣəl E106. EYu harɣal B55, J94a. MgrH xarɣal X72, χarɣar SM161; MgrM xarɡar J88, qaǧər DS218b. BaoD χalɡar BL19, χalɡər BL62. BaoÑ harɡal CN66, halɡar CN65. Kgj halɣa S286a. Dgx haŋɡa B64, haɣa B65, hanɣa L28. Mog---.

*hasag- ~ *hasagu- ~ *hasau-, etc 'to ask'. On account of the variants and their distribution in the old and modern languages, it is difficult to arrive at a single ancestral form. Several languages feature more than one of the variants. Apart from the number of syllables and the treatment of *-g-, the development of *h- also varies from the earliest sources. The forms in the peripheral languages represent several old forms. Dag goes back to *hasau-. MgrH suggests an earlier form *asaga-, perhaps *hasaga-. MgrM suggests *asag- or *arsag-. The Bao forms go back to *asaga- ~ *asag-. Dgx could go back to *asag-, but is also reminiscent of the short SH form hasa-. Mog goes back to *asug-. For a similar set of early variants cf. *kulag- 'to steal'. If the *h- is correct and the -r- in MgrM is original, the PM form may have been *parsag-. The -u of some of the forms may stem from the connective vowel. Cf. *sura- 'id'.

MMo SH hasa- H75, hasah- H75, asah- H9, asa'u- H9, HY asaq- M37, Muq asaq- P106b, asaɣu- P106b, asqa- P107a, LV---, IV hasaq- L62:32. WM asaɣu- L55b. Kh asuux H35a, asgax (lit) H34a. Ord asu:- M33a. Bur asuuxa (sic, ←Kh) C63b. Kalm-?-. Dag xasɔ:- E102, Z91b. EYu---. MgrH sǧa- J94a, X141, saǧə- J80, sʒaǧa- X145. MgrM arsʏǧ- C384, ərsəǧ- DS231a. BaoD asǧə- BL81b. BaoÑ asaχ- CN7, asχa- CN8. Kgj asïǧ- ~ asǧï- S278b. Dgx asa- B5, L109b. Mog asuq- (present asuɣuna) R23a.

*haul- 'to run'. Note the distribution: *haul- occurs in MMo, Dag, Mog, and Shirongol, but not in the central languages. EYu hi:l- S303 is a better match for CM

*heil- 'to leave'. In most other QG languages *au has become o or u. Cf. *güi- 'to run'.

      MMo SH ha'ul- H75, hao'ul- H74, HY---, Muq---, IV---; WM---. Kh---. Ord---. Bur---. Kalm---. Dag xaul- E97 ('of animals'). EYu---. MgrH xau:lə- J82, χʊ:li- SM180. MgrM xurli- (?=) DS225a 'to gallop', xolgo- (caus.) P412a 'to race (horses)'. BaoD χolə- BL89a, hol- BL40. BaoŇ χəl- CN72. BaoX xolə- BC65. Kgj hɔr- ~ hur- S286b. Dgx xolu- B59, L117a, T139. Mog öʉl- R36a 'to walk'.

*haur 'air; steam; anger'. Within Mongolic, the modern evidence for *h- is restricted to Baoanic, but loanwords in Turkic, such as NUyg hor 'steam', suggest that this word has also occurred with h- outside the QG region. The Baoanic languages also share the development of *au > o in this word.

      MMo SH a'ur H10 'air; anger', HY a'ur M37 'air', Muq ha'ur P270a, hu:r- P189a, a'ur P108a. WM aɣur L17b. Kh uur H556b/557a. Bur uur C481a 'anger'. Kalm ur M534b 'steam; anger'. Dag aur E4/5 'steam; anger'. EYu u:r B19 'steam; anger', J93b 'steam'. MgrH au:r J93b, u:r J77 'steam'. MgrM wər DS208b (s.v. breath), DS204b 'anger', orla- JL481 'to get angry'. BaoD χor BL81b 'steam', hor BL20 'anger'. BaoŇ---. BaoX xor BC71, hər CN86:224. Kgj hɔr S286b 'air; anger'. Dgx xo B58 'air, steam; anger', L109b. Mog---.

*hayag '(double) handful', also used as a classifier, as in Dgx niə xəiya sauƈu 'a broom'. A Shirongol word of unclear etymology. Perhaps this is a foreign word related to Western Yugur haya 'palm of the hand' with unconfirmed h- from CT *a:ya. This leaves the -ġ in Mongghul unexplained; it may have been a recent addition, or it may have been lost in the other languages, which is expected in Dgx, and not unusual in MgrM and Kgj. If Mongolic it may be a derivation from *huya- 'to tie', but this is not supported by the modern vocalism, and an unattested meaning 'bundle'.

      EYu---. MgrH ayaġ X9, SM16, χayaġ X70. MgrM xaya C377, DS227b. Bao---. Kgj χaya S285a. Dgx xəiya B58. Mog---.

?*heber 'horn' see *eber

?*hebür 'bosom' see *ebür

?*hebür 'sunny slope' see *ebür

*heče- 'to become tired or emaciated'.

      MMo SH---, HY---, Muq heče- P182b, eče- P151a, LV heče- P74. WM eče- L291b. Kh ecex H866a. Ord eči- M250a. Bur esexe C777a. Kalm ecx M705b 'to become thin'. Dag xəč- E111 'to lose weight'. EYu χǰe:- S273, hče-ŋgə, hče-ŋki: B62 'emaciated'. Mgr---. Bao---. Dgx həƈə- B66. L121b. Mog ečä- R27b.

*hedke- (~ *heske- ~ *hečke-) 'to cut'. The original form may have been *heǰke-, perhaps from PM *pejke-. The form with -s- is the central Mongolic form (Brg ətəg- derives from this, in view of the Brg treatment of *geški-, *auškï 'lungs'). It is

impossible to tell from which variant Dag derives. Mog, EYu, and MgrH all stem from *hedke-.

SH *etke-* H47, HY *etke-* M55, Muq *hečke-* P182b, *ečke-* P151b, LV *hečke-* P74, RH *hetküme* 187C22 'a kind of vermicelli'. WM *eske-* L334b. Kh *esgex* H862a. Ord *eske-* M249a. Bur *esxexe* C776b. Brg *ətəg-* U22. Kalm *iškx* M276a. Dag *xərk-* E112. EYu *hətge-* B55, *hədge-* J94a. MgrH *dəge-* X195, J94b. MgrM---. Bao---. Dgx---. Mog *etqà-* R27b, *idkʌ-* W167b, *itkʌ-* W168a, MogM *yétka-* L74:301.

*hee- 'to warm; to dry in the sun; to bake, roast'. Several of the peripheral forms were incorrectly analysed as loans from Chinese. Cf. *?*hebür* 'sunny spot'. A form **heelbüri* (the origin of the -l- is unclear) seems to be the origin of EYu *x́i:lβər* B113 'sunny spot'. Bur instead uses the etymologically unclear verb *igaaxa* C276a 'to dry in the sun', *yagaaxa* (western) C795a. However, it may be a deviant form of **hee-*, in view of the parallel case **kegesün* 'spoke', which also became back-vocalic in Buriat.

SH---, HY---, Muq---. WM *ege-* L296b, *egege-* L297b. Kh *eex* H868b. Ord *e:-* M227a. Bur-?-. Brg *narand ə:-* U58 (*narand* 'in the sun'). Kalm *eex* M706b. Dag *še:-* T183. EYu *x́i:-* B113, hi:- J94b. MgrH *xe:-* X73, J94a, T375, *χe:-* SM166, *śe:-* C580. MgrM *śie:-* DS218b. BaoD hi-, hai-, BL82b, he- BL90b, *hə:-* T150. BaoÑ *he:-* CN67. Kgj he- 286b. Dgx *śie-* B110a, L75. Mog---.

*heere- 'to choke from crying, to have a fit of crying or a tantrum'.

MMo---. WM *egere-* L299a. Kh *eerex* H868b. Bur *eerexe* C781b. Kalm *eerx* M706b. Ord *e:re-* M243a. Dag *xə:r-* E83:77b. Remaining lgs---.

*heil- 'to part, to leave each other'.

SH *heyil-* H76. WM *eyil-* L303b. Ord *i:l-* M381a 'to run (for fear)'. Dag *xəil-* E108. EYu *hi:l-* S303 'to run'. Remaining lgs---.

*hekin 'head'. A rare disagreement between MgrH and MgrM concerning the development of -k-. The Dgx form, if indeed from the present etymon, also has -ć-. Cf. **teriün* 'head', **tolagaï* 'head', **tarïkï* 'brain'.

SH *heki* H75 (SH *eki(n)* H43 'brain'), HY *heki* M60, Muq *hekin* P183a, LV *hekin* P77, IV---, RH *heki* 199A29. WM *eki(n)* L305b. Kh *ex(en)* H864a 'beginning, etc'. Ord *ekin* M233 'first', *iki:n* M381 (postp) 'before'. Bur *exi(n)* C779a 'beginning, etc'. Kalm *ekn* M694a 'brain'. Dag *xəkʸ* E109, Z102b. EYu *škən* B110 'at first, originally; top, peak'. MgrH *χəgi* SM166 'source, beginning', *xgə* X83. MgrM (*golni*) *išči* P411a 'upper course (of a river)'. Bao---. Dgx *əćin* (?=) S531 'top, summit', *oćin* (sic) MC308a 'high point; top, peak, highest summit', *ula ćin* MC403b 'mountain top' (cf. **aula*). Mog *ɛkin* R27b. *ɛkin*, *əkin* W164b, *ikin*, *iki* W167b.

*heli- 'to float; to soar'. Note the peculiar distribution. Chen Naixiong and Bökh compared the Bao and Dgx forms to CM **kalï-* 'to float' (not listed), which survives in the central languages, but this correspondence is phonetically unlikely.

SH---, HY---, Muq---. WM *ele-* Cevel 875b.. Kh *elex* H840a 'to soar, hover, skim over; to float in midair'. Ord---. Bur *elixe* C762b 'to soar'. Kalm *elx*

M697b 'to soar'. Dag---. EYu---. MgrH---. MgrM---. BaoD---. BaoÑ *he:lə-* CN67 'to float'. Kgj---. Dgx *həlie-* B66 'to float'. Mog---.

helie name for various birds of prey, usually 'kite'. Possibly originally the nomen imperfecti of *heli-* above. Cf. also MMo Muq *ele:* P164a, RH *eliye* 198A6, MgrH *ile:* X12 'demon', which may be a semantic development of the same stem.

  MMo SH---, HY *hele'e* M60, Muq *el[e:]s* P288a, LV *hele:* P76. WM *eliye* L310a. Kh *elee* H840b 'kite'. Chakhar *əlʲə:* D169a. Ord *éle:* M236b. Bur *elyee* C761b 'black kite'. Kalm *elä* M695a 'black kite'. Dag---. EYu---. MgrH *ile:* J94b. MgrM *xəliuliu* (?=) DS219a/228a 'eagle; hawk'. BaoD *heluŋ* BL82b. BaoÑ *he:lə* CN67. Kgj---. Dgx *həlie* B66, *hərliə* MC157a, *həliəwu* MC156a. Mog---.

heligen 'liver'. Note the *-k-* in both Kalm and Mog. In Bao seemingly merged with *halagan* 'palm of the hand'.

  MMo SH *helige(n)* H75, *elige* H43, HY *heligen* M60, Muq *eligen* P52a, LV *helegen* P76, *helege* P77, IV---. WM *elige* L309b. Kh *eleg (elgen)* H839a. Ord *elege* M238a. Bur *el'ge(n)* C764a. Kalm *elkn* M697a. Dag *xələɣ* E110 also 'purple'. EYu *heleɣen* B56, *heleɣe* J94a. MgrH *χaliege* SM152, *χalige*, *χelige* T375, *xalgʒ* X68, *xelge* J84b. MgrM *xarge* JL476. BaoD *helgə* BL82a. BaoÑ *helge* CN67. Kgj---. Dgx---. Mog *elkàn* R27b 'liver', *ɪlkʌn* W167b 'heart'.

herbeekei ~ *herbekei* 'butterfly'. The MgrH form *χaliege* SM152 may be unrelated and be a corruption of CT *kelepi*, which has developed many irregular variants even within Turkic, cf. Western Yugur *keleʰge*, Salar *kegelex*. This word may contain the element *-kAi* also found in other animal names.

  MMo SH---, HY *herbegei* M60, Muq *herbekei* (or *herbe:kei*) P184a. WM *erbegekei* L319a, *erbekei* L319b. Kh *erveexiy* H849b. Bur *erbeexey* C770b. Kalm *erväkä* M701b. Dag---. EYu---. MgrH *xerbuge* (only) L190, *xairbuǧa* L163. MgrM *xərbigə* DS210a. Dgx *həbəǧi* ~ *həbuǧi* B66, *hənbəǧəi* MC156a. Mog---.

herekei 'thumb'. The EYu and Mgr forms are different formations but could derive from the same stem. Mgr may be from *hereke-bči* (properly 'thumb covering') as suggested by Mostaert. The EYu form may have the same origin, with metathesis. The Dagur form without the diphthong could perhaps be from Manchu *ferge/ferhe* (*x-* < Manchu *f-* is not unique). This word may contain the formans suffix *-kAi* also found in other body parts (see *bulčïrkaï* 'gland', *čïmarkaï* 'temple'); in that case the PM root may have been *pere-* > *here-*.

  MMo SH *heregai* H75, HY---, Muq---, LV *herekeyin* (gen.) P75, *erke* (?=) P1256 'finger', RH *ereke.bči* 205A7 'thimble'. WM *erekei* L322a. Kh *erxiy* H856b. Ord *ereki:* M243a. Bur *erxï* C773a. Kalm *erkä* M703a. Dag *xərəɣ* E111. EYu *hermegčə* (?=) B57. MgrH *ʂgʒćə xʊrə* (?=) X164. MgrM---. Bao---. Dgx---. Mog---.

?*hergi* 'bank, shore' see *ergi*

hergi- 'to turn, to move around'. The caus. *hergiül-* has developed differently from the stem in EYu *xorgü:l-* B51, and MgrH *furgulə-* X63, *xargulə-* X73.

MMo SH *hergi-* H75, HY---, Muq *hergi-* P184a. WM *ergi-* L323b. Kh *ergex* H851a. Ord *erge-* M244b. Bur *er'yexe* C775a. Kalm *ergx* M702a. Dag *xərɣ^y-* E112, cf. *ərɣ^y-* E30 'to return'. EYu *hergə-* B78. MgrH *xergə-* X74, *xargə-* X72, *χergi-* SM167, *χargi-* T374. MgrM *xargɤ-* C377, *xərgə-* DS256b. Bao---. Kgj---. Dgx---. Mog *irgʌ-* W168a 'to spin'.

*herike (?*herke) 'prayer beads'. If the disyllabic form existed early enough, the h- in the QG languages could have been triggered by the following -*k*-. However, the Dag form with *x*- independently suggests original **h*-. Enkhbat derives Dag *xərk* from Manchu, but this is unnecessary and indeed implausible in this case, since the Manchu form begins with a vowel. The etymology of Dag *ərɣis* E30 'pearl' is unknown. Although it looks like an extended form with -*sUn*, the stem differs from *xərk*.

MMo SH---, HY---, Muq *erike* P163b, P239b, P292b 'necklace, tassel, beads'. WM *erike(n)* L328a. Kh *erx* H856b, *erxi* H856b, *erix* H852b. Ord *ereke* M243a. Bur *erxi* C773a. Kalm *erkn* M703a. Dag *xərk* E112. EYu *herge* B57, J95a. MgrH *χarge* SM161, *xargɜ* X72. Bao---. Dgx---. MogM *erka* 'pearl, mother-of-pearl' L68, No. 106.

?***hesergü** 'opposite' see ***esergü**

*hesi 'handle, grip'. Within Mongolic, the **h*- in this word has survived in Bao-Kgj and Dag. Theoretically Dag could have borrowed the word from Manchu *fesin* 'id' (similar cases are known), but Tungusic would at least confirm the antiquity of the **h*-. The *h*- in QG could be secondary development due to the following strong consonant.

MMo SH---, HY---, Muq---, Ibn Muhanna written *hesti*, *hisni* P438a, RH *hesi* 205A11. WM *esi* L334a, *isi* L416b. Kh *eš* H866b, *iš* H282b. Bur *eše* C780a. Kalm *iš* M275b. Dag *xəš* E111. EYu *šə* B105, J80. Mgr---. BaoD---. BaoGt *heʂï* C121. BaoÑ---. BaoX *ɛx́ə* BC61. Kgj *heši* S286b. Dgx---. Mog---.

*heür 'nest; grave'. The Shirongol forms seemingly derive from a form **hö:r* (?< **höer* ?< **hüer*). Khasbaatar connects *fo:r* in the meaning 'grave' to WM *kegür*, which is unnecessary in view of the MMo forms.

MMo SH---, HY *he'üt* (pl) M60, Muq *hü'ür* [P: *hu'ur*] P188a 'grave', *he'ür-* [P: *ha'u:r*] P182a 'grave', *e'ür* P168b 'nest', LV---, IV---. WM *egür* L301b. Kh *üür* H583b 'nest', but cf. Kh *xirgis-üür* H635b 'ancient grave mound' (lit. 'Kirghiz grave'). Bur *üür* C517a 'nest'. Kalm *ür* M553a. Dag *xəur* E108 'nest'. EYu---. MgrH *fo:r* J94b 'nest', SM100 'nest, grave', X59 'nest; lair, den; cave; grave'. MgrM *xor* JL476 'nest', *xuar* C376 'grave', *quar* ~ *hur* (sic) Z315:92 'grave'. BaoD *hor* BL82b. BaoÑ *hɵr* CN69. Kgj *hɵr* S286b 'nest, lair'. Dgx *xo* B58, L110a. Mog---.

*hïbau (**?*hïbuu**) 'shell (mollusk)'. In Dag with the ending -*sUn*. The -*a*- in the spelling is not confirmed elesewhere.

MMo---. WM *ibaɣu*, *ibau* L396a. Kh *yüvüü* H869b (sic) 'mussel'. Bur *yobuun* C226a. Dag *xiwɔ:s* E83:83b, *iwɔ:s* E83:101b. Remaining lgs---.

?***hïbčau** 'narrow, tight'. see ***ïbčau**.

***hïlua** 'fly'. Most modern forms developed from an assimilated *hïlaa*, but Ordos from *hïlo:* < *hïloa*. Bur-Kalm are from an extended form *ïlaa-sun* (cf. Kmg *ila:xun* Janhunen 91, but *ila:* Kőhalmi 191). Cf. *sïmaul*, *sona*.

     MMo SH *hilu'atu-* H76 'to be stung by flies', HY---, Muq---. WM *ilaγa(n)* L402a. Kh *yalaa(n)* H875b. Chakhar *ïla:* D168a. Ord *ilo:* M384a. Bur *ilaahan* C277a, *yalaaha(n)* (western) C798a, also *alyaaha(n)* (?=) C46a. Brg *yala:* U220 'mosquito'. Kalm *iläsn* M267. Dag *xila:* E114 'horsefly'. Remaining lgs---.

***hïra** (?) 'bottom part, underside'. This form suggested by the Baoanic languages. Perhaps related to the MMo form in spite of the absence of *h-* in that form. This word could be related to *hïraur* 'bottom'. The connection between the SH and modern forms was proposed by Bökh. The *-b* of BaoÑ *x̌irab* is inexplicable. The Kgj form with *χ-* (instead of *h-*) is also unexpected.

     MMo SH *irada* H82 (?=) 'downstream', HY---, Muq---. WM---. Kh--. Bur---. Kalm---. Dag---. EYu---. Mgr---. BaoD *śira* BL92a 'underside', *śira-ći* BL84b 'downwards', *śira-gu* BL79 'the one below'. BaoÑ *x̌irab* (?=) CN158 'foundation, base'. BaoX *x̌ira* BC69 'bottom part; under'. Kgj *χara* S285b 'underside', *χarǝnda ~ χanda* S285a 'lower part; lower reaches of river', *ʉde χanda* S119, S308 (lit. 'above below', see *öede*) 'about, approximately'. Dgx *śira* B126 'bottom part; under'. Mog---.

***hïruar ~ *hïraur** 'bottom, base, ground'. The evidence for the precise original form is conflicting. Both *au* and *ua* are already represented in MMo. *hïra* above may support *hïraur* as the original variant. The forms with *-l* are due to dissimilation. Kh *yorool*, the Ord and Kalm forms, as well as Dgx, developed from *hïruar > *hïroar > *hïro:r*. EYu *hru:r* could have developed from either *hïro:r* < *hïruar* or *hïru:r* < *hïraur*. Kh-Bur *oyoor* looks like another irregular development from an earlier *yoroor*. The somewhat similar Dagur form with -γ- is also unexpected.

     MMo SH *hiru'ar*, *hira'ur* H76, HY *hiru'ar* M60, Muq *hiru'ar* P185b, *hiro:r* [*?hiru:r*] P185b, *hira:r* P135a, LV---, IV---. WM *iruγar* [?= *iroγar*] L415a, *iruγal* [?=*iroγal*] L415a. Kh *yorool* H205b, *yoroor* H205b, *oyoor* H388b. Ord *iro:l* M387b. Bur *oyoor* C350. Brg *ɔyɔ:r* U33. Kalm *yoral* M280a. Dag *xiγɔ:r* E114, *šiγɔ:r* E134. EYu *hru:r* B62, *horu:l* S740. Mgr---. BaoGt *holǝr* C140. Kgj *hulur ~ hurlu* S286b. Dgx *śiro* B126. Mog---.

***hïutan** (~ *huïtan*) 'narrow, tight'. The more common form with *uï* survives in NM, Mog, EYu, MgrM, Bao, and Dgx. The MMo form *hïutan* survives in Dag. In MgrH both variants seem to be represented. The Dag forms are the result of a kind of palatal breaking, which caused the *a* of the second syllable to be inserted between the diphthong elements of the first. The *h-* survives in Dag and MgrM, but was strikingly lost in the other QG languages. Perhaps related to *hïbčau* above?

     MMo SH---, HY *hi'utan* M60, Muq *uitan* P362b, IV *hiyutan* (?=) L62:32 'darkness'. WM *uyitan* L867a. Kh *uytan* H542a. Ord *uitan* M727b. Bur *uytan*

C465b. Kalm *uut'xn* M542b. Dag *xʸaut* E131, NK558b, *šaut* NK519a. EYu *ütan* B22. MgrH *yu:tæn*, *yu:tan* SM495, *wi:tæn*, *wi:tan* SM484. MgrM *xuitaŋ* JL469, cf. *φuitaŋ* C396 'poor'. BaoD *itaŋ* BL3. BaoŇ---. Kgj *uitɔ* S280a. Dgx *uitaŋ* B18. Mog *itãn* W168a, MogMr *itɒ:n*, MogM *itɒ̃:* L64:38.

*hibee- (~ *ihee-) 'to protect, defend, to help'. One of the rare words with intervocalic -h- in MMo. In spite of the different forms this seems to be a single etymon. The PM forms may have been *pibee- ~ *pipee-, which resulted in CM variants *hibee- ~ *hihee-. The latter was then dissimilated > *ihee-. The regular modern form of the variant *pipee- > *hihee- would have been *hiee-, which is not actually attested (and in fact this vowel sequence is not otherwise known).

MMo SH *ihe'e-*, *ihe:-* H81, HY *ihe:-* M62, Muq *hibe:-* P347b, cf. 'Phags-pa *ihe'en* 124b 'protection'. WM *ibege-* L396b, precl. also *igege-* T412. Kh *iveex* H268b. Ord *iwege:-* (← WM) M390a 'traiter avec bonté'. Bur-?-. Kalm *iväx* (obs) M262a. Remaining lgs---.

*hiče- 'to be ashamed' Dgx *ʂ-* instead of expected *ś-*. Sino-Mongolian and the QG languages support the reconstruction *hiče-. The form *hiči- suggested by one of the Muq forms and one WM spelling is supported by the central languages (because of the development of the preceding *-č-). Dag *xič-* could be from either form.

MMo SH *hice-* H76, HY *hiče-* M60, Muq *hiči-* P184b, *iči-* P194a, *iče-* P194a. WM *iče-* L397b, *iči-* L398a. Kh *ičix* H282b. Ord *éči-* M250a. Bur *ešexe* C780b. Kalm *ičx* M275b. Dag *xič-* E115, *šič-* Z93b. EYu *hče-* B62, *hije-* J95b. MgrH *śʒ́e:-* J95a, X159, *ʂʒ́e:-* X169. MgrM *śʒ́e-* JL462. BaoD *ʒ́iə-* BL83a. BaoŇ *ʂʒ́e-* CN152. Kgj *šǰi- ~ hǰi- ~ ǰi-* S296a. Dgx *ʂïʒə-* B131, L111a, *šïǰə-* T143, *ʂïʒə- ~ ʂʒə-* BC85:45. Mog---.

*hičesün (?*hičöesün) 'willow'. The MMo forms could be read with long vowels. The vowel length in EYu and MgrH could be secondary, but on the other hand they are supported here by the Bur form. The unconfirmed -r- in EYu may be secondary. Monguoric, Kh and Bur suggest the presence of a rounded element. In view of the -č- and -š-, respectively, Kh and Bur are compatible with the form *(h)öčiesün suggested by the WM spelling. However, this spelling, which I have not seen elsewhere, may have been introduced after 'prebreaking' *(h)ičöesün > *(h)öčöesün had taken place. The semantic generalisation 'willow' > 'tree' in MgrH and Kgj has also occurred in Salar *dal* 'tree'.

MMo SH---, HY *hičesün* M60, Muq *ičesün* P194a, RH *ičesün* 202A20. WM *öčiyesün* LC49a 'poplar'. Kh *öčöös* LC49a 'poplar'. Bur *üšööhe(n)* C520b 'purple willow'. Kalm---. Dag---. EYu *hərči:sən* B56, *rči:sən* S666 'willow'. MgrH *śʒ́o:sə* J102b, X166, *śüʒo:ʒə* X158 'tree'. MgrM *śuʒuesï* DS260b 'willow'. Bao---. Kgj *ǰasun* S302b 'tree'. Dgx---. Mog---.

*hildü 'sword' see *ildü ~ *üldü

*hilidün 'tinea, ringworm (skin affliction)'.
        MMo---. WM ilidü(n) L408a, ilde L403b. Kh yüld H869a. Ord elede ~ eleǰi
(?=) M235b. Bur eldin C761a, el'den C764b. Brg yuld U224. Kalm ildn M268a.
Dag xild E115. Remaining lgs---.

*hileü 'superfluous, etc.' see *hüleü

*hinie- 'to laugh'. The *h- in the reconstruction is supported by Dag and the QG
languages, but is absent in all attested old forms. The geminate in Mog probably
reflects an earlier *iǐne-, with the metathesis also seen in *kanïa- 'to cough', *ünien
'cow'.
        MMo SH ine'e-, ine:- H82, HY ine'e- M63, Muq ine:- P196b, LV ine:-
P1263. WM iniye-, inige- L411b, inege- L411a. Kh ineex H277b. Ord ene:- M240a,
ine:- M386a. Bur enyeexe C768a. Brg inʸə:- U26. Kalm inäx M270a. Dag xinə:d-
(reformed on the basis of xinə:d 'joke') E113. EYu ņi:- B28, J94b. MgrH śine- J95b.
MgrM ṣïni- JL472. BaoD śine- BL83b. BaoGm x́ine- CN86:17, x́ene- CN86:302.
BaoGt ṣïnɛ- C108, ṣne- CN86:17. BaoGm BaoÑ x́ene- CN86:302. BaoÑ x́ine-
CN156. BaoX ñɛ- BC64. Kgj šine- S295a. Dgx śinie- B124. Mog inna:- R29b, inʌ-
W167b.

*hir 'edge of a knife', with several unexpected developments. The final vowel in
Bur and the e in EYu are both irregular. In the Mongghul form both the loss of the
*h- and the preservation of *i are unexpected. Elsewhere in Shirongol *kïtuga aman,
lit. 'knife mouth'.
        MMo SH---, HY---, Muq---, RH irte 187C14 'sharp' from *hir-tei 'having
an edge'. WM ir L412b. Kh ir H277b, Chakhar ir D168a. Ord i:r M386a. Bur eri
(sic) C771b. Brg ir U29b. Kalm ir M272a. Dag xir E115. EYu her J95a,
[qutağa'i:n] her B65 (*kïtuga 'knife'). MgrH ir X14. MgrM---. Bao---. Kgj---. Dgx
śidu (?=) B126 'sharp' if from *hir-tü. Mog---.

*hiröe- 'to wish well, to bless'. With palatal breaking in the three central standard
languages, but with 'prebreaking' (without y-) in Ordos. In EYu no y- was expected
in view of the fact that *i was not in initial position. No breaking in Dagur, and in
view of the ś, the rounding in MgrH was relatively recent, as it took place after the
development *h > ś before i.
        MMo SH---, HY---, Muq hire:- P185a, LV hire- (?, could possibly be read
instead of har-, habar-, habur- proposed by Poppe and Saitô) P75. WM irüge-
(?iröge-) L415b 'to wish well, etc'. Kh yörööx H202a. Ord örö:- M538b. Bur
yürööxe C782b, üryeexe C512a, ürööxe C513a. Brg yurə:- U224. Kalm yöräx
M281b. Dag xirə:- E115 also 'to curse', xirʉə- NK559b. EYu---. MgrH śüro:-
X158, SM402. Remaining lgs---.

*hiröer/*hiröel 'wish; prayer; curse'. From the verb *hiröe- above. The form with
-l due to dissimilation.
        MMo SH hiru'er H76 'prayer &c', HY---, Muq hire:r P185b. WM irügel
(?irögel) L415b, irüger (?iröger) L416a. Kh yörööl (written yerööl) H202a. Ord

örö:l M539a. Bur *yürööl* (written *yurööl*) C782b, *üryeel* C512a, *ürööl* C513a. Brg *yurə:l* U224. Kalm *yörəl* M281b. Dag *xirə:l* E115. EYu *hörö:r* B58.

*hodun 'star'. This word features various phonetic peculiarities in the modern languages. The secondary vowel length in MgrH and BaoÑ is in this case not found in EYu. The *-t-* in MgrM-Bao-Kgj (for which compare **modun*) is unexplained. These two developments can not be used to emend the CM reconstruction. Perhaps most striking is the EYu *p-*, which may be a relic from the PM period. Perhaps **hodun* contains the (collective?) suffix **-dUn*, so that the PM root may have been **po-*.

MMo SH *hodun* H76, HY *hodun* M60, Muq *hodun* P185b. WM *odu(n)* L600b. Kh *od(on)* H388a. Ord *udu* M722b. Bur *odo(n)* C350a. Brg *ɔd* U33. Kalm *odn* M393b. Dag *xɔd* E119, *xɔdɔ* NK561b, *χɔd* Z93b. EYu *hɔdṇ* B57, *hodən* J95a, *pɔdən* BJ339, *podən* Z308:5. MgrH *fo:də* J95a, MgrM *xotu* J88. BaoD *hotuŋ* BL83a. BaoGt *hotï* C107. BaoJ *hotŕ* L82. BaoÑ *hə:taŋ* CN68, cf. *taŋ* in *anʑisəŋ taŋ* CN3 'triple star', lit 'plough star(s)'. Kgj *futɔ* ~ *hutɔ* ~ *φutɔ* S285a. Dgx *xoduŋ* B60, L111a, *xodun* T139. Mog---.

*hogtal- 'to cut, harvest; to fell'. Note the Bur-Kalm form which lost the preconsonantal **-g-*. Could the Kalm form with *u-* be due to the influence of *utx* 'knife'? The **h-* is not confirmed in the modern languages. Like the EYu *q-*, the *h*, *h̥*, *ʂ* in the Shirongol forms may only reflect the CM **-g-*; at an rate they may merely be the last remnant of the devoiced syllable without specifically preserving **h-*. The *-l* is the transitive suffix. There are also an intransitive **hogtara-* and an intensive **hogtačï-*, as in MMo SH *hohtoci-* H76 'to cut, mince'.

MMo SH *hohtal-* H76, HY---, Muq *oqtal-* P268a, *oqtul-* P185b, LV *hotqal-* P74, IV---. WM *oɣtol-* L602a, *oɣtal-* L601b. Kh *ogtlox* H387b. Ord *oǵtol-* M508a. Bur *otolxo* C365b. Brg *ɔtɔl-* U33, *ɔgtɔl-* U32. Kalm *utlx* M540a. Dag---. EYu *qutul-* B65, *qudol-* J95a. MgrH *ʂdolə-* J95a. MgrM *futar-* (?=) C381, *sudur-* (?=) DS215. BaoD *hdolə-* T151. BaoJ *xodal-* L212 'to cut deep'. BaoÑ *hdəl-* CN72, *ʂdəl-* CN151. BaoX *dolə-* BC62, *hdəl-* CN86:229. Kgj *dɔr-* ~ *dur-* S299b, *dər-* S20 'to fell'. Dgx *otolu-* B15, L111a. Mog---.

*hoï 'forest'. Preserved in all of Shirongol, but lost in Dag, EYu and Mog.

MMo SH *hoi* H77, HY *hoi* M61, Muq---. WM *oi* L603b. Kh *oy* H388b. Bur *oy* C350a. Kalm *ö* (obs) M408a. Dag---. EYu---. MgrH *fui:* J95a, *fui* X59, *fi:* X59, *fe:* SM99, *xʋi* X75, *fɤi* C88:34. MgrM *χoi* T369, *xuai* DS224a. BaoD *hi* BL81a 'mountain'. BaoÑ *hi:* CN67 'forest'. BaoX *fi* CN86:229 'forest'. Kgj *he* S286b. Dgx *xoi* P416a. Mog---.

*hokar 'short'. The *h-* is not well represented in MMo, and the QG languages may have developed it under the influence of *-k-*, so that the Dag form is the only unambiguous basis for the reconstruction. The relationship between this word and central Mongolic **akur* 'short' is unclear. If it were not for the Muq form, they could be taken to represent original variants **hukar* ~ **hakur*.

MMo SH *oqor* H122, HY *oqor* M81, Muq *oqar* P267a, *oɣar* P262b, *oɣor* P262b [also *aqar* P103b], LV *hoqar* P76, IV *hoqa* (sic) L62:32, [Ph *aqar* T137].

WM *oqor* L626a. Kh *oxor* H401b [and *axar* H36b]. Ord [*aχur* M9b]. Bur *oxor* C366a [and *axar* C65b]. Brg---. Kalm [*axrxn* M58a]. Dag *x^wakər* E134, Z93b. EYu *hġɔr* B59, *χoġor* J95a. MgrH *χġuar* J95a, *χġar* J55, *χuġuor* SM179, *χuġor* T376, *χuġʊr* X77, *χġʊr* X82. MgrM *qʊġʊar* (sic) C379, *χuġor* T376. BaoD *ġor* BL83a. BaoGt *ġor* C142. BaoÑ *ġəŋ* CN88. BaoX *ġor* BC62. Kgj *χɔr ~ χuar* S285b. Dgx *oqo* B13, L111a. Mog *uqar* R41a, *ɔqʌr* W175a.

*hon   '(the duration of a) year'. Cf. **ǰil* '(calendar) year', **nasun* 'year (of age)'. The Dagur vowel length is not confirmed elsewhere.

　　　MMo SH *hon* H77, HY *hon* M61, Muq *hon* P185a, LV *hon* P77, IV *hon* L62:32, Ph *hon* P124b. WM *on* L611b. Kh *on* H393a. Ord *on* M511b. Bur *on* C355b. Kalm *on* (obs) M397a. Dag *xɔ:n* E115, *χɔ:n* Z105a, *χɔ:ŋ* Z93a. EYu *hɔn* B57, *hon* J95a. MgrH *fon* J95a, *fæn* SM98, *χuæn* SM174, *fan* X58, *fon* X59. MgrM *xuaŋ* C376. BaoD *hoŋ* BL83b, *xɔŋ* T149. BaoÑ *həŋ* CN68. Kgj *hon ~ huŋ* S286b. Dgx *xoŋ* B59, *xuan* B61 (these two notations represent the same pronunciation). Mog---.

*horaï   'crown of the head; top, summit'. The *-b-* in BaoÑ and the *-əu* (instead of *əi*) in Dgx are unexpected.

　　　MMo SH [*horaitala* H77 q.v.], HY---, Muq *horai* P183b 'fontanel, skull suture', LV---, IV---, RH *horai* 198B14. WM *oroi* L621b. Kh *oroy* H397b. Ord *orö:* M522a. Bur *oroy* C361a. Kalm *ora* M400a. Dag *xɔr* E120 (?←Manchu). EYu *hɔrui* B57, *horoi* J6. MgrH *fure:* C86:574, *uri:* SM475, cf. *so:ri:* (sic) X136. MgrM---. BaoD---. BaoÑ *həbrə* (?=) CN69. Kgj---. Dgx *fərəu* B51. Mog--, but cf. Zirni *urai* 1:8a.

*horči-   'to turn (intr); to go'. Although several languages, including MMo Muq, have both **horči-* and **oči-* type forms, this verb may be the origin of **oči- > *eči-* 'to go'. Interestingly a third form **yorči-* (similar-looking but unrelated) is found in some MMo sources: SH *yorci-* H171 'to go', HY *yorči-* M111 'to go', RH *yorči-* 188C25, Ph *yorči-* P133b 'to go, proceed, ride'. cf. **eči-* (**oči-*) and **od-*.

　　　MMo SH *horci-* H77 'to encircle; to turn (intr)', HY---, Muq *horči-* P186a 'to turn, to go', *orči-* P269b 'to turn, to go', LV *horči-* P75 'to turn (intr.)'. WM *orči-* L616b. Kh *orčix* H400a 'to turn around, revolve, rotate'. Ord---. Bur--- [*oršoxo* (lit) (?=) C365a 'to enter, etc' is from **orasï-*]. Kalm *orčï-* (rare) R290b 'to turn (intr)'. Dag *xɔrč-* E123. EYu---. Mgr---. Bao---. Dgx *oɕira-* (?=) B15. Mog *orči-* R35b 'to go way, leave', *ɔrči-* W175a 'to go', *urči-* W183a 'to go'.

*horčiul-   'to turn (tr.)'. Caus. of **horči-* above.

　　　MMo SH---, HY---, Muq *horča'ul-* P186a, *horči'ul-* P186b, *horčil-* P186a, *orča'ul-* P269b, *orči'ul-* P270b, LV *horču:l-* P75 'to turn (tr.)'. WM *orčiγul-* L616b. Kh *orčuulax* H400b 'to rotate; to translate'. Ord *orču:l-* M522b 'to translate'. Bur *oršuulxa* C365a 'to translate'. Kalm *orčulx* M406b 'to translate'. Dag [*xurča:-* E131 could represent an alternative caus. **horčïa-*]. EYu---. Mgr---. BaoD---. BaoÑ *əɕəl-* CN18. Kgj *əčə-* S280b. Dgx *oɕulu-* B16. Mog *orču:l-* R35b.

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*horgï- 'to boil, to bubble, to gush forth'. According to SM, MgrH śȝolə- 'to boil' is the same word as *horgïl- (inchoat. orgila-??), cf. Kh orgilox H396b. It seems that *bučal- is a better etymology for the MgrH verb. Dgx xorolo- MC163b 'for water to make a noise before boiling' was probably newly formed from an onomatopoeic.

MMo SH---, HY---, Muq---. WM orgi- L618a. Kh orgix H396b 'to spurt, gush forth, etc'. Bur or'γolxo C365a. Kalm-?-. Dag---. EYu hɔrǧə- B57 'to boil'. MgrH (see remark above). Dgx (see above). Remaining lgs---.

*horgu- 'to flee'. Absent in Mog and the QG languages, perhaps apart from Mangghuer. Cf. *dutaa- 'id' used in a number of other languages.

MMo SH horqu- H77, HY---, Muq horγu- P186b, horγuul- (caus) P186b, orγu- P265b, RH horγodasun 204A27 'fugitive'. WM orγu- L617b. Kh orgox H396b. Ord urġu- M739b. Bur orgoxo C359b. Kalm orγx M402a. Dag xɔrγʷ- E122 'to hide (oneself)'. EYu---. MgrH---. MgrM xorgo- (?=) P419b 'to gallop'. Bao---. Dgx---. Mog---.

*horïa- 'to bind, wind, spin, wrap' Most languages go back to a form with assimilated diphthong *horaa- (> *horo:-). The palatal element of -ïa- is retained in Buriat.

MMo SH---, HY---, Muq hora:-qči P238b (nomen agentis). WM oriγa- L618a, oroγa- L621a. Kh oroox H398b. Ord oro:- M520a. Bur oryooxo C360a, oroyxo C361b. Kalm orax M401a. Dag---. EYu horo:- J95b, xɔrɔ:- B50. MgrH furo:- J95b, SM111, χuro:- SM185. MgrM xoro- JL475, xoro- in aqar xoroku xulusï P421b (s.v. cevka) 'spool for a loom'. BaoD χorə- BL83b. BaoÑ hərə- CN70. Kgj huru- S286b. Dgx xoro- B60, L111b, T139. Mog---.

?*höčügedür 'yesterday' see *öčügedür

*hödün 'feather'. The MgrH vowel length is secondary. The striking EYu form with p- was retracted by the authors. This word may contain the (collective?) suffic -dUn, in hich case a PM root *pǝ- may be assumed. In Dagur an additional ending -sUn was added.

MMo SH odun H121, HY ödün M83, Muq hödün P327b, LV ödün P327b, IV ödün L62:60 'feather of an arrow', RH ödün 205A4. WM ödü(n) L630a. Kh öd(ön) H406b. Ord üdü M748a. Bur üde(n) C494b. Kalm ödn M412b. Dag xudus E129, χudusʷ Z94a. EYu hodən B58, J96a, pɔdɔn B40 (BJ339 instructs the reader to strike this variant). MgrH fo:də J96b. MgrM---. BaoD hotuŋ BL84a. BaoÑ---. Kgj---. Dgx xoduŋ B60, L112a. Mog---.

*höelǰin (*böelǰin, *höbelǰin, *böbelǰin) 'hoopoe'. This word owes some of its many variant forms to its obviously onomatopoeic nature, and some to the interaction between spoken and written forms. Nevertheless, most forms could ultimately go back to a PM form *pöpelǰin (as suggested by Ramstedt in his Kalmuck dictionary). Independent attempts to reflect the hoopoe's call are present in Dag ɔpɔ:pi: E38 'hoopoe', Dgx xuma 'bubu B64 'hoopoe', and possibly Dgx 'bïnbïnçï (?=) MC38 'name of a kind of bird'.

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MMo SH---, HY---, ZY *ü:gölǰin Kara333 'hoopoe', *hübü'elčin Kara272 'cormorant, heron', Muq hö'ölǰin sara P186b 'jumāda 'l-'āẖīr (6th lunar month)', LV---, IV---, RH hö:lǰin [eds read short ö] 200B8 'hoopoe', cf. öhelǰin 201A12 'the third month of spring', Ph---. WM öbelǰin L627a, ögelǰin L631b, böbegelǰin L123b, bübegelǰin/bübügelǰin (so read) L143b. Kh bövöölǰ(in) H74a, büveelǰin H88a, övöölǰ H403b, övgölǰinö H402a. Ord ö:lǰin M530b, ö:lǰi: sara 'twelfth month (last winter month)'. Bur büböölžen C120a. Brg uβə:lǰ U47. Kalm ö:lǰn, öwä:lǰn R304b. Dag---. EYu---. MgrH barbarǯin SM20 'hoopoe', barbalǯin X46 'woodpecker' (sic). Kgj bəbəçï S284a.

*höesün (*höersün) 'pus, matter'. The word is found in the central languages, MMo, Dagur, and Shirongol, but absent in EYu. However, the identification of the Monguoric forms and the MMo forms in Arabic script is not entirely certain, some may involve a connection with *usun 'water' or *üsün 'milk'. Enkhbat compares Dag xʷə:s to WM kögesün 'foam, froth etc'. Indeed Dag xʷə:s is also attested with this meaning, suggesting that *höesün and *köesün have merged phonetically in Dagur. Cf. *idee 'id'.

MMo SH---, HY---, Muq---, IM hö:sün (ʔhü:sün) P438a 'sperm', LV he:sün P74 'pus', RH hö:sün (eds. read husun) 186c12 'semen'. WM ögesü(n) L632a. Kh öörs H415b. Bur---. Kalm---. Dag xʷə:s E135. EYu---. MgrH (Danma dialect) sun DS248b 'semen'. MgrM soŋ DS248b 'semen'. BaoD hosuŋ BL83b. BaoJ hosúŋ L82 'seminal fluid'. Kgj hʉsʉn S286b. Dgx hosuŋ B66, xosun L111b. Mog---.

*högi- (?) 'to hit, strike, beat'. Note the peculiar distribution of this word in Muq, Mog and a number of QG languages. It is difficult to derive all forms from a single CM form, and perhaps they are best viewed as a set of loosely related onomatopoeics. However, there is no overlap between the variants. EYu suggests a monosyllabic form *hög-; Baoanic suggests unrounded forms, perhaps *eki- and *ig-. The verb *ki- 'to do' may have been originally involved in the formation of *högi-, as is perhaps suggested by Kalm üg ge- R455b 'to suddenly threaten to hit'. The QG forms were compared by Chen Naixiong and Bökh to MMo SH aš(i)gi- H9 'to hit', which is phonetically impossible (cf. Kh asgix H34a 'to beat, hit lightly'). In view of the fact that Ord ög- (< *ög-) 'to give' also has 'to hit' (donner des coups) among its meanings, *högi- may have merged with *ög- rather than simply dying out. However, the verbs 'to hit' and 'to give' did not merge anywhere in the QG languages. All in all this is reminiscent of the etymologically problematic Turkic verbs *ber- 'to give' and *ber- 'to hit'.

MMo SH---, HY---, Muq ögi- (or ügi-, öki-, different readings in Poppe, including oki-, which he corrected in the index) P375a, P229b, ögü-kči P205a. WM---. Kh---. Ord (see above). Bur---. Brg---. Kalm---. Dag---. EYu xɔg- B50, xog- B51, hog- J21. MgrH---. MgrM---. BaoD ekə- BL62. BaoJ ʁgə- L168. BaoGm iχ- CN86:227. BaoÑ yiχ- CN218. BaoX xgə- BC70, x́gə- CN86:173. Kgj ï- ~ ïɣ- S279b. Dgx əğï- B8, ağə- L68. Mog ʉggʉ- R41b; note Leech's hug- 'heat' corrected in 'beat' by Ligeti.

*höŋkeri- 'to roll, tumble'. Apart from the absence in MMo well attested. The character of the final vowel is unclear. Mgr, MgrM, BaoÑ favour *höŋkere-; Dgx suggests -i; BaoD and BaoX suggest a disyllabic form. The h- could be secondary in Shirongol, but it is confirmed by Dagur. The preconsonantal -m- suggested by some of the WM spellings is not confirmed anywhere in modern Mongolic.

MMo SH---, HY---, Muq---, LV---, IV---. WM ömkere-, ömkeri-, ömköri- L635b, öngkeri-, öngköri- L639a. Kh önxröx H414a. Ord öŋkörö- M536b. Bur---. Brg uŋkər- U46. Kalm öŋkr- R297b. Dag xunkir- E83:95b, xɯnkir- NK563b. EYu---. MgrH ŋguro:- X42 'roll; lie down'. MgrM xoŋgur- C374, xongur- P424, χangere- T373. BaoD xəŋgər- T150 'to lie down', ŋgər- T145 'to lie; to sleep'. BaoGt hoŋgàr- C137. BaoÑ həŋġəra- CN68 'roll, tumble; trip'. BaoX xoŋgar- BC71. Kgj həŋgəre- ~ həŋgəri- S286b 'to roll; to lie down'. Dgx hoŋgieri- B66 'to fall, tumble', xuŋguri- T139 'to trip, stumble'. Mog---.

*hörüm 'drill, auger'. The Ord variant öröm would normally represent *hörem; the other Ord form agrees with the high vowel in MgrH.

MMo SH---, HY---, ZY *hörüm (Kara 298), Muq---, RH erim [eds. read thus] 204C14. WM öröm L644a. Kh öröm H418b. Ord öröm M539b, ürüm M764a. Bur ürem C514b. Kalm örm M424b. Dag---. EYu---. MgrH χarin SM163. Remaining lgs---.

*hötü ~ *hödü 'larva, maggot; worm'. Several older forms must have existed, apparently none of them attested in older sources. The literary central languages suggest *ötün. Dag suggests *hödü. The Baoanic forms suggest *hödüg ~ *hötüg. MgrH suggests *höd. Róna-Tas proposes a Tibetan etymology for this word (cf. RT 1966, No. 142), while Khasbaatar suggests a relationship with *korakaï, Čenggeltei derives it from a Chinese fēng(r) 'wasp', which are all unlikely. MgrM may stem from *hötü or *hötüg. EYu, if the same word, supports the monosyllabic form of Mgr. Cf. also the Zirni and Kundur manuscripts.

MMo SH---, HY---, Muq---. WM ötü(n) L646b. Kh öt(ön) H421a, cf. Chakhar ot D172b. Ord ütü M765a. Bur üte(n) C516a. Kalm ötn M427b. Dag xud E129, χud^w Z94a, surprisingly also ut (perhaps from central Mongolic) E47. EYu hö:d (?=) B331 'penis', öt [only] S550 'maggot'. MgrH fod J96b, far X59, SM99 'maggot in meat', fod ~ for ~ far C86:573 'fly'. MgrM xotu JL476. BaoD hodəg BL84b. BaoÑ xɵtəg CN158 'maggot in meat'. Kgj---. Dgx xodəu B59, L112b, T139. Mog---, but cf. Zirni wöd (21:7), Kundur manuscript höd (24-6a) 'worm'.

*huǰaur ~ *hïǰaur 'root; origin, source'. Both variants can be found in old sources and in modern languages. It is not clear which is older. In Shirongol, Mongghul seems to have developed from *hïǰaur, while BaoÑ is in agreement with *huǰaur (although it lost the initial). See also *ündüsün for the literal meaning 'root'. Not to be confused with *hüǰüür 'tip, end' and *učïr 'cause, reason'.

MMo SH huja'ur H78, HY huǰa'ur M61, Muq hiǰa'ur P184a, uǰa'ur P163a, LV (?) huǰawur P76, IV huǰaur L62:33, RH huǰaur 202A17, Ph huǰa'ur P124b. WM iǰaγur L418b. Kh uzuur H541b, yozoor H203b, yazguur H875a. Ord iǰo:r M579b 'bottom, base, etc', iǰu:r M580a 'origin, etc', uǰu:r M724a 'once upon a time'. Bur uzuur C464a 'root etc', izaguur (←WM) C276a 'origin etc'. Kalm yozur

M280a. Dag *xɔǰɔ:r* E120. EYu---. MgrH *śǯau:r* J96a, *śǯiu:r* SM392. MgrM *ǯor* JL472, *ǯur* DS206a (**hüǰüür* has developed the same shape). BaoD---. BaoÑ *өǯөr* CN18 'root'. Dgx---. Mog---.

*hula (?**huula*) 'tinder, etc'. Kh, Bur, and Dag suggest a long vowel; the *h-* is based on both Dagur and Monguoric. Cf. **kete*.

MMo SH---, HY---, Muq---. WM *ula* L868b. Kh *uul* H556a. Ord *ula* M728a. Bur *uula* C480b (translation misprinted *trup* for *trut* 'tinder'), *ula* C465b. Brg *ʋ:l* U35. Kalm *ul* M530a. Dag *xʷa:l* E132 'tinder grass, punk'. EYu---. MgrH *fula* SM105, J5 'mugwort/artemisia', *fula* X61 'Chinese mugwort; tinder'. MgrM *xʋla* [*xɔuʒï*] C376. Bao---. Dgx---. Mog---.

*hulaan 'red'.

MMo SH *hula'an* H78, HY *hula'an* M61, Muq *hula'an*, *hula:n* P187a, *ula:n* P363a, LV *hula:n* P76, *hulaan* 77, IV---. WM *ulaɣan* L869b. Kh *ulaan* H543a. Ord *ula:n* M729a. Bur *ulaan* C466a. Kalm *ulan* M530b. Dag *xula:n* E126. EYu *ła:n* B88, J96a. MgrH *fula:n* SM105, J96b. MgrM *xulaŋ* J88, *χulaŋ* T370. BaoD *fulaŋ* BL83b, *fəlaŋ* T148. BaoÑ *fulaŋ* CN55. BaoX *fəlaŋ* BL65. Kgj *fʉlɔ* S285a. Dgx *xulaŋ* B63, *xulan* L111a, T139, *fulaŋ* (Longquan) B54. Mog *ulo:n* R41a.

*hulaï- 'to become red'.

MMo SH---, HY---, Muq *hulai-* P187a, LV---, IV---. WM *ulayi-* L870a. Kh *ulayx* H543b. Bur *ulayxa* C467b. Kalm *ulax* M531a. Dag *xʷali:-* E134. EYu *łai-* BJ335. MgrH *fulie:-* SM105, *fule:-* X61. BaoD---. BaoÑ *fule:-* CN56. BaoX *fəli-* BL62. Kgj---. Dgx *xuli-* B63. Mog---.

*hulïasun 'poplar, aspen'. In Dag both the *-r-* and the absence of *h-* are surprising. Cf. also Dag *xɔlurda:n* E119 'poplar', which stems from a Northern Tungusic form **hʋlʋ-gda:n*.

MMo SH---, HY---, ZY *huliasun* Kara 299, Muq---, LV---, IV---, RH *huliyasun* 202A21. WM *uliyasu(n)* L873a. Kh *ulias(an)* H544b. Ord *ula:su* M729b. Bur *ulyaaha(n)* C468b 'aspen' (& *ulyaangir* 'poplar'). Kalm *ulasn* M531a. Dag *ɔlʲe:rs* E38 'poplar', *ɔlʲe:s* Z10 'old poplar'. EYu---. Mgr---. Bao---. Dgx *xulasuŋ* B63, *xulasun* L111a 'poplar'. Mog---.

*humba- 'to swim'. The *-p-* in Dagur may well be a relic from PM (cf. **elbeg* for a similar case). If this is the case, the earlier **p* may have triggered the appearance of *h-* in QG. However, the Dagur *x-* can not be explained away like this. The final long vowel in Dagur is inexplicable.

MMo SH---, HY---, Muq *unba-* [Poppe: *onba-*] P266b, LV---, IV---. WM *umba-* L874b, *ombo-* L610b. Kh *umbax* H546a. Ord---. Bur *umbaxa* C469a. Brg---. Kalm---. Dag *xunpa:-* E124, *xumpa:-* E128, *xɔmpa:-* (sic) Z93a, *umpa:-* E83:220b. EYu *mba-* B96, *umba-* J95a. MgrH *xʋmba:-* X78, *xumba-* J96a. MgrM *(u)mba-* JL467, *umba-* T377, *muba-* DS254b. BaoD *mba-* BL83a. BaoÑ *mba:-* CN120. Dgx *unba-* B19, L111a, *funba-* (Longquan) B52. MogMr, MogM *umbʋ:-* L64:37.

*hunïn 'smoke'. The distribution is interesting: *hunïn is attested in MMo, Bur, Dag, and the Shirongol languages, but absent in Kh, Kalm, and EYu. There is a related form *hunïar, which is found in the central languages, and may also be present in Dag xɔnʸe:tɔ- NK560a 'to be covered in mist' from *hunïartu-. Cf. *hutaa 'smoke'.

MMo SH huni H79, HY hunin M61, Muq hunin P187b, LV---, IV hunin L62:34. WM---. Kh---. Ord---. Bur uni(n) C470b. Kalm---. Dag xɔnʸ E117, Z94a. EYu---. MgrH fune J96b, funi SM107; MgrM xuni J88, χuni T371. BaoD fune BL84b, fənə T149. BaoJ honέ L81. BaoÑ funaŋ CN55, hunaŋ CN70. Kgj fʉni ~ funi S284b. Dgx funi L111a. Mog---.

*hunu- 'to ride on horseback; to mount'. The *h- is confirmed by MMo, EYu, Mgr, Bao; it can presently not be explained as a secondary development. A rare case of disagreement between Bao and Dgx.

MMo SH unǫ- H165, HY---, Muq unu- P365a, LV unu- P1261, IV---. WM unu- L877b. Kh unax H546b. Ord unu- M736a. Bur unaxa C470a. Brg ʊn- U37. Kalm unx M534b. Dag ɔnu- E37, ɔnə- Z93b. EYu hɔnə- B57, hunə- J95b. MgrH funə- J95b, funi- SM107, foni- SM100, χoni- SM183. MgrM uni- JL461,T371. BaoD χonə- BL83b. BaoÑ hɵnə- CN68. BaoX xonə- BC62. Kgj une- ~ uni- S280a. Dgx unu- B19, L111b. Mog uni- R41a.

*huŋgu- 'to break wind, fart'. The WM spelling with -a is historically incorrect. The ɔ < *u in Kalm, EYu, BaoÑ may be due to the following -ŋ-.

MMo SH---, HY---, Muq hunqu- P187b, unqu- P98b, LV hunɣu- P76, IV hunɣu- L62:34. WM ungɣa- L876b. Kh ungax H547a. Ord uŋġu- M736b. Bur ungaxa C470a. Brg ʊŋg- U38. Kalm ɔŋɣx M399a. Dag xɔŋgʷ- E118. EYu hɔŋġə- B57, honġə- J95b. MgrH---. MgrM xuŋġu- DS222. BaoD huŋġə- BL83a. BaoÑ hɵŋġə- CN68. Kgj huŋğu- S286b. Dgx huŋğu- B67. Mog uŋğu- W134a, MogM uŋɣuˑ- L62:34.

*huŋgusun 'fart'. From *huŋgu- above.

MMo SH---, HY---, Muq---, LV hunqusun P76, IV---, RH hunɣasun 199B4. WM ungɣasu(n) L876b, ungɣusu(n) L877a. Kh ungas H547a. Ord uŋġus(u) M737a. Bur ungaha(n) C470a. Brg ʊŋgʊ: ~ ʊŋgʊr (sic) U38. Kalm ɔŋɣǎsn R287b. Dag xɔŋgus E118. EYu hɔŋġɔsən B57. MgrH ŋġosə J95b. MgrM xuŋğuʒə JL470, xuŋğusï DS222. BaoD---. BaoÑ hɵŋġəsəŋ CN68. Kgj huŋğusun S286b. Dgx huŋğusuŋ B67. Mog---.

*huraka (?*hurïka) 'lasso, noose, snare, trap'. In spite of the phonetic and semantic similarity to *uurga 'pole for catching horses', these are different words.

MMo SH huraqa-la- H79, HY---, Muq uruqa P367b, uruqu (sic) P351a. WM uraqa(n) L880a, uriqa(n) L884a 'net, snare for catching birds'. Kh urxi(n) H552b 'net, snare for catching birds'. Ord uraχa M737b. Bur ur'xa C478a. Brg ʊrïx U41. Kalm urx M537b 'lasso'. Dag xʷark E135, wark E335. EYu---. Mgr---. Bao---. Dgx---. Mog---.

*hurba- 'to turn (around) (intr)'. In Dag the verb is missing, but the adjectives *xʷarpa:* E83:91, *xurpa:* E83:96b 'with sore, everted eyes', *xʷarpəɣər* E83:91'sore, everted (of eyelids)' derive from it, in which case the original form of the verb may have been *hurpa-* < PM *purpa-*. The adj. *hurba-gar* also occurs in Kh and Bur with similar meanings.

　　　　MMo SH *hurba-* H79, HY *hurba-* M61, Muq *hurba-* P187b, *urba-* P366a, LV---, IV---. WM *urba-* L880a. Kh *urvax* H550a. Ord *urwa-* M743a. Bur *urbaxa* C473b. Kalm *urvx* M535a 'to betray; to change'. Dag (see above). EYu *hurβa-* J78, *harβa-* BJ330. MgrH *fura:-* X62. MgrM *xurba-* DS221 'to fall'. Bao---. Dgx *fura-* MC104a, *fura:-* Ibr75. Mog---.

hurbï (?*hurbaï)　'sling (for hurling stones), slingshot'. A word limited to Shirongol. It is difficult to reduce all of the documented forms to a single reconstruction form. Kgj *χ-* normally stems from *k-*, not from *h-*. The MMo form with its additional syllable and lack of *h-* may be unrelated to. Although absent in EYu, it is found in Western Yugur as *horve* (~ *horeş*) L222b/223a. The ultimate origin of this word is unclear. Both the MMo and the Shirongol forms are reminiscent of Kipchak *orbu* 'ballista' in the Codex Cumanicus (80v:26-1). Also semantically similar, but impossible to connect phonetically, is Central Mongolic. *karbuur* (from *karbu-* 'to shoot'): Kh *xarvuul* H619b 'a device for shooting projectiles, ballista', Bur *xarbuur*, *xarbuul* C554a 'toy arrow'. Given that the word is present in Dgx, a loanword related to LT *'ur-rdo*, Amdo *ᵘur-ča* (Roerich 159) is less likely.

　　　　MMo HY *orbu'ur* (?=) M81 'ballista'. MgrH *fure:* X62. MgrM (Sanchuan) *xurbi* P418b. Bao---. Kgj *χɔbre* S285b 'cannon' or 'ballista' (?, Chinese *pào*) . Dgx *fərəu* B51, *hərğəi* MC156b, *hərbəi*, *hərbi* MC156a/b.

huruu 'downward; downstream'. The palatal element in the Kalm and EYu forms seem to suggest an older *hurïu or *huruï. Cf. *dɔara, *hïra (s.v. *hïraur).

　　　　MMo SH *huru'u* H79, HY---, Muq *huru:* P188a, *uru:* P368b, LV---, IV---. WM *uruɣu* L886a. Kh *uruu* H552a. Ord *uru:* M742a. Bur *uruu* C477b, *oruu* C363b. Brg *ʊrʊ:* U42. Kalm *ürü* M555a. Dag *xɔrɔ:* E121, Z94b. EYu *horʉi* B58, *xorʉi* B51, *hɔrui* BJ331, *hurü:* J95b, *hörü:* S221. MgrH *furu* SM112, *furə* J95b. MgrM---. Bao---. Dgx *furu* B55, T138. Mog---.

huruul 'lip(s)'. Bur-Kalm suggest an older form *hurul with short vowel. Dagur has short and long forms. The length in HY and Muq was assumed on the basis of Kh, but can not be proven from the respective MMo spellings, so that these MMo forms may represent the variant *hurul of Bur-Kalm. EYu *hɔrəl* B57 'dimple', *χo:lor* S422 'inside of the cheek' is unlikely to be related; the WYu equivalent *halvïr* L219b also points to a different phonetic history of this word. Cf. *kosïun 'beak, snout', and *kirbei 'edge' which are now used for 'lips' in some languages.

　　　　MMo SH---, HY *huru:l* M61, Muq *huru:l* P188a, LV *huru:l* P75, IV *huru:l* L62:34, RH *hurul* [eds. read *hürül*] 198B28. WM *uruɣul* L886a. Kh *uruul* H552b. Ord *uru:l* M742b. Bur *ural* C472a. Brg *ʊral* U41. Kalm *url* M536b. Dag *xɔllə* E119, Z94b, *xɔrul* E122, *xɔrɔ:l* NK560b. EYu (see above). MgrH *uro:l* C88:570. MgrM---.

Bao---. Kgj---. Dgx *furuŋ* B55, *furəu, furu* MC104b. Mog *ulur* R41a, MogM *ulu·r*, MogMr *uru·l* L62:34.

*__hutasun__ 'thread'. In EYu easily confused with forms of *sudasun* q.v. EYu-MgrH share secondary vowel length. A rare case of Baoan-type secondary *n-* in Kgj.

   MMo SH---, HY *hudasun* M61, Muq *utasun* P370b, IbnMuh *hutasun* P438b, LV---, IV *hutasun* L62:34, RH *hutasun* [eds. read *huta:sun*] 205C2. WM *utasu(n)* L888b. Kh *utas* (*utsan*) H554b. Ord *utas(u)* M745a. Bur *utaha(n)* C480a. Brg *ʊtʊ:* U40. Kalm *utcn* M540b. Dag---. EYu *sda:sən* B104, *hda:sən* J96a. MgrH *ṣda:sə* J96b, *sda:ʒə, ṣda:ʒə* T358. MgrM in *lumune utasï* P420b 'bowstring'. BaoD *ndasun* BL83b. BaoGt *ndasuŋ* C130. BaoÑ *ṣdasəŋ* CN149. Kgj *ndasun ~ dasun* S282b. Dgx *utasuŋ* B22, *utasun* L111a. Mog---.

*__hutu__- 'to emit smoke'. Not attested in MMo, but the modern distribution points at an old word. Dag suggests that the *h-* is old, but the QG forms could have developed it secondarily. Chén also connects BaoÑ *hta:-* CN71 'to lead into a trap', but this is phonetically and semantically problematic (although WM *utu-* also means 'to smoke out (animals)').

   MMo SH---, HY---, Muq---, LV---, IV---. WM *utu-* L888b. Kh *utax* H554b. Ord *utu-* M745a. Bur *utaxa* C479b. Kalm *utx* M540a. Dag *xɔt-* E119, Z94a. EYu *hdu-* J96a, BJ331, *χdu-* S683. MgrH---. MgrM---. BaoD---. BaoÑ (see above). Kgj *puta- ~ puda-* S284b. Dgx *fudu-* MC98b. Mog---.

*__hutua__ (> *hutaa) 'smoke'. Elsewhere *hunïn* is used.

   MMo SH---, HY---, Muq---, LV---, IV---. WM *utuɣa(n)* L889a, *utaɣa(n)* L888b. Kh *utaa(n)* H554b. Ord *uta:* M744b. Bur *utaa(n)* C479b. Brg *ʊta:* U40. Kalm *utan* M539b. Dag *xuta:* T180. EYu *hta:* B60, *hda:* J96b, BJ331. Remaining lgs---.

*__huuta__ 'bag, sack'. If the HY form was indeed intended to be read *huhuta*, the PM form may have been *puputa*.

   MMo SH---, HY *huquta* (or rather *huhuta*?) M61, Muq *u:ta* P372b, RH *hu:ta* 204C16. WM *uɣuta* L865a, *uuta* L890b. Kh *uut* H557b. Ord *u:ta* M744b. Bur *uuta* C481b. Brg *ʊ:t* U36. Kalm *uut* M542b. Dag *xʷa:t* E132 'scrotum'. EYu *u:ta* B18, J95a. MgrH *fu:da* J95a, X59, *fu:da* SM101. MgrM *xuda* J87, *fuda* JL468, *φʉta* CL390, *ṣuda* DS247. BaoD *fda ~ da* BL83b. BaoÑ *hda* CN71 'q.v.'. Kgj *puda ~ puta* S284b. Dgx *fuda* B54, L111b, *fda* B55. Mog---.

*__huya__- 'to tie, fasten'. The vowel length in Bur, Dag, and Mgr, seems to suggest a form *huyaa-* which is not supported elsewhere. In Kalm this word has apparently absorbed the verb *oya-* 'to sew'. Kgj *fiya-* and Bao *ha-/χa:-* have both meanings 'to tie; to sew' as well. However, CN derives BaoÑ *xa:-* from *kaba-* 'to stitch' (not listed), also cf. *kaa-*.

   MMo SH *huya-* H79, HY *huya-* M61, Muq *huya-* P188ab, *uya-* P113b, LV *huya-* P77, IV---, RH *huya-* 189C7. WM *uya-* L867a. Kh *uyax* H561b. Ord *uya-* M727b. Bur *uyaaxa* C487b. Brg *ʊy-* U41. Kalm *uyx* M530a. Dag *xuya:-* E130, *xɔya:-* T94b. EYu *x́a:-* B113, *hia-* J96a, *haya-* BJ330. MgrH *fuya:-* SM113, X62,

śa:- J96b, X147. MgrM *xuya-* JL474. BaoD *ha-* (?=) BL12, BL83a 'to tie up; to sew'. BaoÑ *χa:-* (?=) CN56 'to tie up; to sew'. BaoX *ha:-* CN86:239. Kgj *fuya- ~ fiya- ~ šüa- ~ šüya-* S285a 'to tie up; to sew'. Dgx *fəiya-* B50, L111a, *xuya-* T139, *xuiya-* B62. Mog---.

hüde- (?*hüdü-) 'to patch, mend'. Phonetically the Mongghul and Baoan forms could also stem from *side-* 'to stitch'.

    MMo SH---, HY---, Muq---. WM *üde-* L995b, *üdü-* L996a 'to fasten with thongs, etc'. Kh *üdex* H566a. Ord *ɯdɯ-* M748a. Bur *üdexe* C495a. Kalm *üdx* M546b. Dag---. EYu---. MgrH *şde:-* X166, *sdie:-* SM334 'to patch'. MgrM---. BaoJ *dɛ-* L31. Kgj---. Dgx *xudu-* B64. Mog---.

hüdesün (perhaps *hüdeesün* < *hüdüesün*) 'patch (on clothes)'. The meanings are quite diverse, but the meaning in Dgx matches the verb *hüde-* (?*hüdü-) 'to patch' above. This makes other phonetically possible etymologies such as *hürtesün* 'scraps' and *öedesün* 'rags' less likely. However, it is remarkable that the development of this noun in Dgx differs from the verb, with *f-* and -*ʒ́*- instead of *x-* and -*d*-. Cf. *kalaasun*.

    MMo SH *hudesu* H78 'leather', HY---, Muq *hüdesün* (?=) P171a 'ceiling'. WM---. Kh *üdees* (?=) H566b 'thong; bookbinding thread, stitching of a book; seam'. Bur---. Kalm---. Dgx *fuʒ́iesuŋ* B55 'patch'.

hügün 'deep' see *gün*

hüjüür (?*üjüür*) 'tip, end'. The *h-* suggested by Dag is not confirmed elsewhere, but cannot be explained secondarily. The preconsonantal *r-* in the MgrH variant *rʒ́u:r* may be a secondary addition under the influence of the final -*r*, but it cannot be excluded that it is an old element (compare variants of *üje-* 'to see', *eüdün* 'door').

    MMo SH *uju'ur* H161, HY *üjü'ür* M108, Muq *üjü'ür* P100a, *üjü:r* P214b, LV---, IV---. WM *üjügür* L1017a. Kh *üzüür* H568b. Ord *ɯjɯ:r* M750b. Bur *üzüür* C496b. Kalm *üzür* M547a. Dag *xuǰu:r* E129. EYu *čü:r* B148, J97a, *ɯčü:r* BJ125. MgrH *śʒ́iu:r* J97b, *uʒ́u:r* X21, *ʒ́u:r* X224, *rʒ́u:r* X241, *rʒ́iu:* SM312. MgrM *ʒur* DS220a. BaoD *uʒ́ir* BL84a, *nǰor* T145. BaoÑ *uʒ́ir* CN21. BaoX *nǰor* BC63. Kgj *uǰir* S281a. Dgx *uʐu* B23, L112a. Mog---.

hüker 'bovine; ox'. Surprisingly without *h-* in Muq. Most of the QG forms suggest an original form *höker*. Agricultural term related to CT *höküz* 'ox'.

    MMo SH *huker* H78, HY *hüger* M62, Muq *üker* P377b, LV *hüker* Pop76, IV *hüker* L62:35, RH *üker* 199B18. WM *üker* L1003a. Kh *üxer* H584b. Ord *ɯker* M754a. Bur *üxer* C518b. Kalm *ükr* M548a. Dag *xukur* E125, Z94b. EYu *hgor* B59, J96b. MgrH *fugor* J96a, X61, *xgor* X83. MgrM *xugor* JL475, *χukur* T370. BaoD *fgor ~ gor* BL84a. BaoÑ *ɵkɵr ~ ɵχgɵr* CN16. BaoX *xgur* BL63. Kgj *gɵr* S289b. Dgx *fugie* B52, L112a, *fuġə, fuġər* MC99a, *fugiərəi* MC101a, Wangjiaji *fugər* L8, Sijiaji *fugieri* L5, Longquan *fugieri* B53. Mog *ɯkär* R41b, *okʌr* etc W182b.

***hülde**-   'to drive; to chase, pursue; to expel, drive out'. The EYu form is reminiscent of WM *elde*- L307b 'to drive, chase, pursue'. However, EYu *helde*- can also be from *hülde-; cf. EYu *eǰe*- 'to see' from *üǰe- for the same development of the vowels.

   MMo SH *hulde*- H78, HY---, Muq---, IV---, LV---. WM *ülde*- L1004a. Kh *üldex* H576b. Ord---. Bur *üldexe* C500a. Kalm---. Dag---. EYu *helde*- B56. MgrH---. MgrM---. BaoD *huŋdə*- BL91b, *hoŋdə*- BL40. BaoÑ *fulde*- CN75, *həlde*- CN29. Kgj *hundi*- ~ *huandi*- S286b. Dgx *fənǰie*- B50, *funǰie*- L119b. Mog---.

***hüle**-   'to remain, to be left'. BaoÑ *x́udə*- may represent a contracted form incorporating the aux. *od-, but cf. also *hülede- 'to remain' as found in SH *hulede*- and modern languages. Cf. *kočar-.

   MMo SH *hule-/hüle*- H78, H80, HY *hüle*- M62, Muq *hüle*- P281b. WM *üle*- L1004b. Kh *ülex* H577a. Ord *uli*- ~ *ule*- M756a. Bur *ülexe* C502b. Kalm *ülx* M550b. Dag *xul*- E126. EYu *hele*- B56, J96b. MgrH *fule:*- J96a, *fulie:*- SM106. MgrM *xuli*- DS246. BaoD---. BaoÑ (see above). Kgj *fule*- S285a. Dgx *fəilie*- B50. Mog---.

hüleü**/hileü**   'superfluous, more than; surplus, excess'. In many languages this word and its base *hüle- 'to remain' developed quite differently. The derivate often features -*i*- in the first syllable. This is puzzling in that the MMo form all suggest *ü, and no forms with -*i*- are found for *hüle-. A dissimilation *hileü < *hüleü is not commonly seen.

   MMo SH *hüle'u* H80, HY *hüle'ü* M62, Muq *hüleü* P190a, *hülü:* P190b, cf. LV *hülüwüle*- Pop76 'to remain'. WM *ilegüü* L405a. *ilegü* L404b, *ilügü* L408b, *ilüü* L408b, *ülegüü* L1005a, *ülügü* L1007a. Kh *ilüü* H274a, *ülüü* H577a. Ord *ilʉ:* ~ *ilgʉ* M384b, *ʉlgʉ:* M756a. Bur *ülüü* C500b. Brg *ilu:* U27. Kalm *ülü* M550a. Dag *xulu:* E127 'many, much'. EYu *holi:* B57, *hölü:* BJ331, *həlü:* J94b, *həlü* J78. MgrH *fuliu:* J83a, *fuliu* X62, *xaliu* X67, *šiliu*, *xiliu* T382. MgrM *xeliau* JL476. BaoD *śilu* BL83a. BaoGt *şïlï* C137. BaoJ *şlʏ* L170. BaoÑ---. Kgj--- (*ulu* < *olan). Dgx *śiliu* B126, *šiliu* T142. Mog---.

***hülie**- (~ ***hüile**-)   'to blow'. Many languages display irregular developments or new onomatopoeic formations with *p*-, long vowels or diphthongs.

   MMo SH---, HY---, Muq *hüile*- P190a, *hüle:*- P190b. WM *üliye*- L1006a. Kh *üleex* H577b, but cf. Chakhar *ulʸə:n* D173a. Ord *ʉle:*- M755a. Bur *ülyeexe* C500a. Brg *uilə:*- U45, *ulʸə:*- U50. Kalm *üläx* M549a. Dag *xu:l*- E124. EYu *pi:le*- B39, J96a. MgrH *pi:le*- J96a, *pu:le*- X56. MgrM *xuili*- DS207b. BaoD *fəilə*- BL84b (with the mouth), *hil*- BL53 (of the wind); *filə*- T148. BaoGt *fil*- C106. BaoÑ *hilə*- CN67. Kgj *fəli*- ~ *fuli*- ~ *φuli*- S284b. Dgx *fəilie*- B50, L112a, *fulia*- T138. Mog---.

***hültüre**-   'to fall apart, to become worn out or gappy'. With a tr. counterpart *hültül-. The EYu *h*- could have developed secondarily, but it is confirmed by Dagur. Kgj *(n)durgi*- S300a, BaoÑ ʕ*dərgə*- CN234 'to cook to a pulp' are from Tibetan ʕ*dur* + *ki-.

MMo---. WM *ültüre-*, caus. *ültüregül-* L1006b. Kh *ültrex* H576b. Bur *ültirxe* C500b. Kalm *ültr-* R457a 'to be compressed, bent down'. Dag *xultur-* E128. EYu *həltru:l-* (caus.) B55 'to boil to a pulp'. Remaining lgs---.

***hümekei** ~ ***hümükei** 'stinking, malodorous'. Probably derived from *hüü- 'to rot' and possibly also related to *höesün 'pus'. Note the unexpected loss of the first syllable in Chakhar and Ordos.

MMo SH *humegai* H79, HY-?-, Muq *hümekei* P191a, LV *hümkei* P76, IV---, *hümekei qoroqai* 200A10 (*korakaï 'insect') 'dungbeetle'. WM *ömökei* L636a, *ömekei, ömöki* L636a. Kh *ümxiy* H577b, *ömxiy* H411b, also *ömx* H411b, also note Chakhar *məxi:* D176a. Ord *ümüki:* M757a, *müki:* M477b, *umuki:* M732b. Bur *ümxey* C503b, *ümxi:* C503b. Brg *umxi:* U50. Kalm *ümkä* M551a. Dag---. EYu *həmuki* J96a, *həmaʰgi:* J78, *xoməkəi* B51. MgrH *fumugi:* J96a, X62, *xamugi:* X68. MgrM *xunbuġai* DS250. BaoD *huŋgi* BL84b. BaoGt *fəŋgi* C118, *hoŋgi* C133. BaoÑ---. Kgj *fuǧai* (perhaps an alternative formation from *hüü-) S284b. Dgx *fumuǧi* B54, *fumuǧəi* L112b. Mog---.

***hümeri**- 'to wrinkle, shrivel, contract'. Not very common, but a derivate *hümeriül 'drawstring' survives in Kh *ümrüül* H577b, Kalm *ümrül* M551b.

MMo SH---, HY---, Muq *hümeri-* P191a, *ümeri-* P380b. WM *ümüri-* L1007b. Kh---. Ord---. Bur *ümerixe* C504a. Kalm *ömrχʾ* R296a. Dag---. EYu *həmər-* B55. MgrH *fumurə-* X62, *finburaġa-* (dial., caus.) DS261b. Remaining lgs---.

***hünegen** 'fox'. Brg, MgrH and Kgj seem to suggest *hünigen.

MMo SH *hunegen* H79, HY *hünegen* M62, Muq *hünegen* P191b, *ünegen* P381a, LV *hüngen* P76, IV---. WM *ünege(n)* L1008a. Kh *üneg(en)* H578b. Ord *ʉnege* M757b. Bur *ünege(n)* C508a. Brg *unig* U45. Kalm *üngn* M551b. Dag *xunuɣʷ* E124. EYu *höneɣen* B58 *heneɣen* J96b. MgrH *funəge* J96b, *funige* SM108, *χunige* SM183. MgrM *xʊnəgɜ* C376, *xundegey* P415b, *xunduġai* DS224b. BaoD---. BaoÑ---. Kgj *fʉnigɔ* S284b. Dgx *funieǧaŋ* B51, *funieɣən* L112b. Mog---.

***hünesün** 'ashes'. Ord and Brg seem to suggest a form *hünisün. Kalm and Bao (accidentally) share a development *n > m* preceding *s*.

MMo SH *hunesu* H79, HY---, Muq *hünesün* P191b. WM *ünesü(n)* L1009b. Kh *üns(en)* H578b, *ünes(en)* H579b. Ord *ʉnisʉ* M759a, *ʉnes ~ ʉnis* M758b. Bur *ünehe(n)* C509b. Brg *unʸu:* U46. Kalm *ümsn* M551a. Dag *xuns* E124. EYu *henesən* B56, J96b, *nesən* S695, *łesən* (sic) S695. MgrH *funesə* J96a, *funie:ʒə* SM107, *fune:sə ~ fune:ʒə* J7, X60. MgrM *xunisï* DS205a. BaoD *homsuŋ* BL84a. BaoGt *hoŋsoŋ* C102. BaoÑ *həmsu* CN69. Kgj---. Dgx *funiesuŋ* B51. Mog *unʌsun* W182a, MogMr *ʉnasun* L62:35.

hünir** (?hünür**) 'smell, odour, aroma', ***hünirde**-, ***hünirte**- 'to smell (tr.)'.

MMo SH *hunor* H79 'smell', *hunir* H79 'breath', HY *hünir-tü* M62 'having a smell', Muq *hünir* P191b. WM *ünür* L1010a. Kh *üner* H579b. Ord *ʉner ~ ʉnir* M758a/b. Bur *üner-dexe* C509b 'to smell'. Brg *unir* U45. Kalm *ünr* M552b. Dag---. EYu *honor* B57, *honər* J96b, *hunər* J78. MgrH *funir* SM108, *funur* SM500, *funər* J96a. MgrM *xunir* JL471, T371, *xunti-* (?< *hünirte-) DS250 'to smell; smell'.

BaoD *hundə-* (?< *hünirde-*) BL84a 'to smell', *humdə-* BL12. BaoÑ---. Kgj *fᴜnᴜr* S284b. Dgx *funićiə-* B51, *fənćiə-* B50, *funiəćiə-* MC103a, *funćiə-* MC103b (< *hünirte-*) 'to smell'. Mog---.

*hünis- ~ *hünüs- 'to smell (tr)'. In Kh-Kalm 'to kiss'. Dag suggests **hü:nü-*. A similar short form seems to be suggested by some of the Kgj forms. Zirni *hunuŋ* 3:8b may also be related. However, the Dag form may be connected to Tungusic **pᴜ:n* 'smell' (cf. SSTMJaII:349a). In EYu only the passive **hünüste-* 'to smell (intr)' survives.

     MMo SH *hunos-* H79, *hünis-* H80, HY---, Muq *hünis-* P192a. WM *ünüs-* L1010b 'to kiss; to smell (obs)', passive WM *ünüste-* L1010b, cf. also WM *ünüri-* L1010b 'to smell (intr)'. Kh *ünsex* H578b 'to kiss'. Ord *ᴜnis-* M758b. Bur *ünedexe* C508a, *ündexe* C506a, *ünesexe* C509a, *ünhexe* C507b. Brg---. Kalm *ümsx* M551b 'to kiss'. Dag *xu:nu-* (see above) E123. EYu *honosdə-* B57, *honəsdə-* J78. MgrH *funis-* SM108, *funəsə-* J96a, pass. *funisdie-* SM108. BaoD---. BaoÑ---. Kgj *fᴜnə- ~ fᴜnu- ~ fᴜnur- ~ huni- ~ huŋni-* S284b. Dgx---. Mog---.

*hüŋgü- 'to crumple; to rub between the hands'. The Kalm form with *-m-* may be the original. Phonetically the Mog form could be an iterative of this verb, but it differs semantically. The vocalism of Dag *xiŋgʷ-* may have been influenced by *xiŋki:-* E113, which is of Tungusic origin. However, it has an equivalent in Kh *ingex* H276b 'to crush, make into powder, etc', suggesting that there are separate Mongolic verbs **hüŋgü-* and **hiŋgü-*. Cf. also Kh *ingüümel* H276b 'a finely-powdered incense, etc' which corresponds to Dag *xiŋgʷmə:l* E113 'rubbed-down tobacco crumbs'. This verb **hiŋgü-* is not found in Ord, Bur, Kalm. Mostaert & de Smedt further compare MgrH *ŋgulie-* SM293 'to rub down; to graze one's skin'.

     MMo SH---, HY---, Muq *hüngü-* P191b, *üngü-* P382a. WM *üngge-* L1010a. Kh *üngex* H577b. Ord *ᴜŋgu-* M759a. Bur *üngexe* C505b. Kalm *ümgx* M550b. Dag *xiŋgʷ-* (?=) E113 (see above). EYu *hoŋgo-* B57. MgrH *fuŋgu-* J7, SM109. MgrM---. Bao---. Dgx---. Mog only the derivate *ᴜŋgula-* R41b.

*hüre 'seed; pip; fruit'.
     MMo SH---, HY *hüre* M62, Muq *hüren* P206b. WM *üre* L1011a. Kh *ür* H580a. Ord *ᴜre* M760a. Bur *üre* C514a. Kalm *ürn* M554b 'child'. Dag *xur* E130. EYu *hᴜre* B58, *hure* J97a. MgrH *fure* J97a, *fure:* J70, *furie:* SM110. MgrM *xuru* JL476, *xʊrʊ* C376, *xurie* T371. BaoD *furə* BL84b. BaoÑ *fure* CN56. Kgj *fure ~ fᴜri* S285a. Dgx *furə* B55, L112a. Mog---.

*hürgü- 'to be startled, frightened (typically of animals)'. Agricultural form related to CT **hürk-* 'id'.
     MMo SH *urgu-* H166, HY---, Muq *hürgü-* P192b, *ürgü-* P345b. WM *ürgü-* L1012b. Kh *ürgex* H580b. Ord *ᴜrgu-* M761a. Bur *ürgexe* C511b. Brg *urəg-* U54. Kalm *ürgx* M554a. Dag *xurɣ ʸ-* E131. EYu---. MgrH *furgu-də-* X63. MgrM *kurga-* (sic, ?=) P418b. BaoD---. BaoGt *hɛrəgə-* C107. BaoÑ *hergə-* CN67. Dgx---. Mog---.

*huⁱrü- 'to rub (off) with the hands, to grind, etc'.

MMo SH *huru-, hur-* H79 'to sharpen', HY---, Muq---. WM *ürü-* L1013a. Kh *ürex* H582a. Ord *urʉ-* M763a. Bur *ürexe* C514b. Kalm *ürx* M555a. Dag---. EYu *horo-* B58. MgrH---. MgrM---. BaoD---. BaoÑ---. Dgx *furi-* L57, B55, *furəu-* L119b, *furəi-* MC104b. Mog---.

*hüsün 'hair'. The EYu and Mgr forms do not confirm the *h-, as it could have been triggered by the following -s-. Note the loss of *h- in Dgx. This word may contain the (?collective) suffix -sUn, so that the PM root may be *hü- (?*pü-).

MMo SH *hüsu(n)* H80, HY *hüsün* M62, Muq *üsün* P382b, LV *hüsün* P76, IV *hüsün* L62:35, RH *hüsün* 198B15. WM *üsü(n)* L1013b. Kh *üs(en)* H582a. Ord *usʉ* M764a. Bur *ühe(n)* C519b. Brg *uxu:* U48. Kalm *üsn* M555b. Dag *xus* E128, *χus^w* Z95a. EYu *hsʉn* B60, *həsun* J96b. MgrH *ʂʒu* J96a, *fuʒə* SM102, *sʒə*, *fuʒə* T359. MgrM *sʒu ~ fʒu* JL468. BaoD *suŋ* BL84b. BaoÑ *hsəŋ* CN71, *səŋ* CN134. Kgj *sʉn* S294a. Dgx *usuŋ* B22. Mog *ʉsʉn* R41b.

*hüsür- 'to jump, leap'. Kalm and Dag seem to suggest *hesür-. The Bur form, if related, would involve the unusual loss of the first syllable, as in *isegei and *ösügei. The Mgr forms traditionally associated with this verb by SM are listed under *tüsür-. Cf. Shirongol *deüli-.

MMo SH---, HY---, Muq---, IV---, LV---. WM *üsür-* L1014a '&to spout, squirt out'. Kh *üsrex* H582a 'to jump, leap, skip; to squirt'. Ord *usur-* M764b. Bur *hürexe* (?=) C698b 'to jump, etc'. Brg *usər-* [←Kh] U51. Kalm *ösrx* M427a. Dag *xəsur-* E110. EYu *hsʉr-* B60, *husur-* J96a 'to jump'. MgrH---. MgrM---. BaoD---. BaoÑ---. Dgx---. Mog *ʉsʉr-* R41b.

*hütügün 'vagina'.

MMo SH---, HY---, Muq *hütügün* P192b, LV *hütgün* P74, *ütügün* P1258, IV *hütügün* L62:35, RH *hütügün* [?, eds. read *hütkün*] 199A10. WM *ütügü(ü)* ('vulgar') L1014b. Kh [*ütree* H582b] *üteg* acc. to Lessing. Ord *ʉtugʉ* M765a. Bur---. Brg *utəg* U51. Kalm *ütkn* M555b. Dag---. EYu---. MgrH *ʂdəgu* X167, *ʂdugu* X169. MgrM *kutugu* (sic) P413b, *dugu* DS258. Bao---. Dgx *fuduǧuŋ* B54. Mog *utkun* W183b, MogM *ʉtkü̃* L62:35.

*hüü- 'to stink' and *höe- 'to rot, fester' (?). These two verbs may have existed separately, as suggested by SH, and by derivates *höesün 'pus' and *hümekei 'smelly', but most of the QG forms could derive from either or represent both. The spellings in Muq could also represent both *hü:-* and *hö:-*. Both meanings can be found in modern languages. Some of the Shirongol forms have been incorrectly derived from Chinese.

MMo SH *hu'u-* H79 'to smell', *ho'e-* (?=) H76 (translated 'Schutt, Abfall sein', but *mèn* is also 'to boil over slow fire', see Dag), HY---, Muq *hü:-*, *hü'ü-* P192b 'to smell; to rot'. WM *ü-* L995a, *üü-* LC 3:433a. Kh *üüx* LC 3:433a. Ord---. Bur---. Kalm *ö:-* R304a, *öw-* R303a 'to rot, fester'. Dag *xu:-* E123, *xʉ:-* NK563a also 'to become soft from overboiling'. EYu *hü:-* B58. MgrH *fu:-* SM101, J36. MgrM *xu-* DS216a 'to decay'. BaoD---. BaoGt *fi-* C115. BaoÑ *fu-* CN55. Kgj *fʉ-* S284b. Dgx *fu-* MC97b. Mog---.

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- Ï -

*ï (?) '(s)he, it'. The stem is extremely rare in the modern languages, but the genitive *ïnu (MMo SH ino̧ H82, HY inu M63, Muq inu P143a) survives in all languages as the third person possessive. The Dag -n has been adopted from the oblique (genitive) stem *ïn-. Cf. also the oblique stem *ïma- from which the other cases are formed, cf. SH ima- H82, HY ima- M63, Muq---, Dag yam- E327/328. Cf. the MMo plural counterpart *a 'they', parallel to the pairs *bï 'I' - *ba 'we' and *čï 'you (sg)' - *ta 'you (pl)'. The h- in Dgx would normally suggest CM *h-, but it is not confirmed elsewhere. However, there is no alternative etymology for the Dgx form.

MMo---. WM---. Kh---. Bur---. Kalm---. Dag in E32, i:n Z51. EYu---. Mgr---. Bao---. Dgx hə (?=) B65. Mog---.

*ïbčau 'narrow, tight'. The original form may have been ?*hïbčau when a connection with *hïutan 'narrow' is assumed. It is unclear whether the Dag word is related (a form *xirčɔ: would have been expected). The Bur form with -g- is also unexpected.

MMo SH---, HY---, Muq---. WM ibčaɣu L396a, ibču(u) L396b. Kh yavcuu H873b; cf. Chakhar ıbčʊ: (ıɸčʊ:) D168a. Ord---. Bur igsuu(n) (?=) C276a '(...) tight (of clothes)'. Brg---. Kalm---. Dag xirčin (?=) E115. Remaining lgs---.

*ïdugan 'shaman(ess)'. Cf. *böe.

MMo SH---, HY iduqan M62, Muq---. WM udaɣan, uduɣan L861a/b, iduɣan L401a. Kh udgan H541a, nyadgan H382b. Ord udaġan M722a 'obstetrician'. Bur udagan C463a, od'ogon (Western dial.) C350a. Brg ʊdgaŋ U41. Kalm udɣn M528b. Dag yadɣən E328. EYu---. Mgr---. Bao---. Dgx yidoğo T122, idoğo S160. Mog---.

*ïlga- 'to choose, select, distinguish'. Cf. *soŋgu-.

MMo SH ilqa- H81, HY ilqa- M63, Muq---. WM ilɣa- L406a. Kh yalgax H876b. Ord ilġa- M382b. Bur ilgaxa C278a. Kalm ilɣ°- R206b, yilɣx M277b. Dag yaləɣ- E327. EYu alğa- B3, əlğa- J94b, BJ327. MgrH ləğa:- X113, lağa:- X111. MgrM aliġa- DS211b. BaoD---. BaoÑ---. Kgj---. Dgx iŋga- B10. Mog---.

*ïmaan 'goat'. Agricultural term related to CT *(y)ïmga 'id'.

MMo SH ima'at (pl) H82, HY ima'an M63, Muq ima'an P153a, ima:n P234b. WM imaɣa(n) L409a, nimaɣa(n) L584a. Kh yamaa(n) H877b. Ord yama: M394b. Bur yamaa(n) C799a, nimaa(n) C328a. Brg yama: U220. Kalm yaman M709b. Dag ima: E33, ima:rs E34 'goat skin', but cf. yama:rs E327 'goat skin'. EYu ma:n B89, J94b. MgrH ima: J94b. MgrM ima JL468. BaoD imaŋ BL83a. BaoÑ yimaŋ CN218. BaoX imaŋ BC64. Kgj imɔ S280a. Dgx imaŋ B11. Mog---.

*ïnagsï 'hither, to this place'. The loss of the initial vowel in some of the central Mongolic forms is unusual. Perhaps as compensation for the lost initial vowel, the

*a is lengthened in some modern forms. From a root *ïna- 'this side' whose other derivates include EYu na:na J53 'here', na:də B23, J60 'that one there'.

MMo SH inahši H82, HY inaqši- M63, Muq inaqši P196b. WM inaɣsi L410a, inasi L410b, naɣasi L557b. Kh naaš H342a, yanaɣš (lit. form) H878b. Ord na:š(i) M485a. Bur naaša C316b. Kalm [naa-ɣar] M364a. Dag---. EYu nagšə B23. MgrH naġṣə SM255. Remaining lgs---.

*ïnǰaga 'fawn, young deer or antelope'. The Kalm form has been reshaped, as if from *ïnǰïïkaï (with the diminutive -kAi). The Dag form could be from an earlier *yanǰiɣ, or reborrowed from Manchu injaha(n) H501b 'id'.

MMo SH---, HY---, Muq---. WM inǰaɣa L412b. Kh yanzaga H879a. Bur inzagan C279a. Kalm inǰixä M270b 'fawn of the saiga antelope'. Dag yenǰiɣ E329. Remaining lgs---.

*ïŋgarčag 'packsaddle'. The evidence for the quality of the middle vowel is contradictory. Some forms with a- in MgrM, Kgj, Dgx. MgrH and Kgj seem to have transferred the aspiration from the -č- to the -g-. There is also another form from the same root, as in WM yanggiya L427b.

MMo SH inggircah H82, HY---, Muq---. WM yanggirčaɣ L427b. Kh yangircag H878b. Ord yaŋġarčaq, yanġurčaq M396b. Bur---. Kalm yaŋɣrcg M710b. Dag---. EYu ŋġarčaġ B29, ŋġərǰaġ J9. MgrH ŋkərẓaġ X42. MgrM aŋqəẓəġ JL477b. enqəçï Z370:716. BaoJ gaćïġ (?=) L69 'a harness placed on the back of a beast of burden for pulling carts'. Kgj aŋkəǰiɣ S278a. Dgx iŋġəça MC175a, aŋġaça MC12b. Mog---.

?*ïrada 'downstream' see ?*hïra 'bottom part'.

*ïrau 'melody, melodious; singing'. CT *yïr-a-gu from CT *(y)ïr 'song'. Mongghul was derived from LT by Róna-Tas (1966, No. 780).

MMo SH---, HY---, Muq yira'u P390b. WM iraɣu L413a. Kh yaruu H881a. Ord iraġu: M386b, irġu M387b. Bur iraguu (←lit) C279b. Kalm irü: R219a (iru:, yaru: R216b) 'clear (of voice)'. Dag irɔ: E36 'melody accompanying a shamanic prayer'. EYu---. MgrH yoro SM494, X236 'sound' (?=, see above). Bao---. Dgx---. Mog---.

*ïro 'omen, premonition, etc'. It seems impossible to connect EYu χɔrġɔr B51, χorġor J5 'omen', χo:rġor S721 'dice', MgrH śorġul ~ śorġol X156 'omen', which seem to stem from a common form, perhaps *hïrgul. However, this word may instead be a Tibetan loanword, an unknown compound of šo 'dice', which would be *xho in Arïk dialect. Possibly related to CT *ïrk 'id', but the connection is morphologically obscure.

MMo SH---, HY---, Muq ira P242b. WM irua L415a, iruua, irva L415b. Kh yor H205a. Ord yɔrɔ M404a. Bur yoro C228a. Kalm yor M280a. Dag yɔr E331. EYu yɔr (sic, ?←InMo, only) S740. Remaining lgs---.

*ïsu (?) 'soot' see *is(ü)

*ïtau   'hazel-grouse, partridge or other large member of the chicken family'. Interestingly, both Kh and Kalm seem to have split this word into two phonetically and semantically distinct words.

 MMo IV *itaun* L62:37, LV *itaun* P1262. WM *itaɣu* L417b. Kh *yatuu* H882b 'partridge', *yotuu* H206b 'hazel-grouse'. Ord *itu:* M389b. Bur---. Kalm *yotun* M281b 'partridge', *itü* M275a 'hazel-grouse'. Dag *itɔ:* E35 (possibly reborrowed ←Manchu *itu*). EYu---. Mgr---. Bao---. Kgj---. Dgx---. Mog *itɒ:n* L62:37, MogM *itəu* L62:37.

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*ibil- (?*ibel-) 'to flow (of milk from the udder)'. Ord and Dag seem to support the form *ibel-, EYu supports *ibil-. Dgx probably < *iyilu- < *ibil-u-.

 MMo SH---, HY---, Muq---. WM *ibil-* L397a, *ibel-* L396b. Kh *ivlex* H268a. Ord *éwel-* M251a. Bur-?-. Brg *iβəlgə:-* (caus.) U26. Kalm *ivlx* M262a. Dag *yəul-* E329. EYu *βəl-* B37 '(of milk) to flow'. Mgr---. Bao---. Dgx *ilu-* T121 'to give milk'. Mog---.

*ide- 'to eat' One of the words with unexpected n- in Baoan (cf. similar cases *eüden, *uda-).

 MMo SH *ide-* H80, HY *ide-* M62, Muq *ide-* P194a. WM *ide-* L398b. Kh *idex* H270. Bur *edixe* C757a. Kalm *idx* M264b. Dag *id-* E35. EYu *ede-* B11, J95b. MgrH *de-* J95b, *ide-* X13 , MgrH (Hongyazi dialect) *ʐdë-*, *ʐda-* C370. MgrM *idi-* JL460, *di-* C370. BaoD *nda-* BL83a. BaoGt *ndä-* C100. BaoÑ *nde-* CN35. BaoX *ndə-* BC64. Kgj *ide-* S280a. Dgx *iʑie-* B12. Mog *idä-* R29b, *ida-*, *idʌ-* W167a 'to eat, drink'.

*idee 'pus'. Some forms suggest *ideeri. Possibly derived from *ide- 'to eat'. Cf. *höesün 'id'.

 WM *idege* L399a, *idegeri* L399b. Kh *idee* (and *ideer*) H271b. Bur *edyeere* C756a. Kalm. Dag *idə:* E83:98a. EYu---. MgrH *ide:* X13, *rde:* X240. MgrM *idi* C395, cf. *de-le-* JL462 'to fester'. Bao---. Kgj---. Dgx---. Mog---.

*ig (?*yig) 'spindle, spindle whorl'. The QG languages may all go back to a variant form *yig, and may represent a separate borrowing event from Turkic (original CT may have been *i:k 'id', but forms *yik and *iyik are also found in modern languages.

 MMo SH---, HY---, Muq---. WM *ig* L401b. Kh *ig* H268b 'spindle'. Ord *i:g* M380a. Bur---. Kalm *ig* M263a. Dag---. EYu *yig* B154 'spindle'. MgrH *iġ* X12. MgrM *yaχ* P411b. Bao---. Kgj---. Dgx *yəu* B188. Mog---.

*iker 'twins' see *ekir

*ilbi 'magic; sleight of hand, conjuring tricks'. The EYu form with *i-* (instead of *əlwə*) suggests that it stems from a variant with *y-*. According to Khasbaatar the MgrH form is related, but SM derive it from *helie*. Cf. Turkic *yelvi*.

　　MMo SH---, HY---, Muq---, RH---, Ph---. WM *ilbi, ilbe* L402b, *yelbi* L432b, *yilbi, yilwi* L433b. Kh *ilbe* H273a. Ord *ilbe, elbe* M381b. Bur *el'be* C763b. Kalm *ilv* M267b. EYu *ilwə* J5. MgrH *ile:* X12, *ilie:* SM191, *ulie:* (?=) SM470 'demon'. Remaining lgs---.

*ilbi- 'to rub; to smooth with the hand'.

　　MMo SH---, HY---, Muq *yilbi-* P390a. WM *ilbi-* L403a. Kh *ilbex* H273b. Ord *ilbe-, élbe-, elbe-* M381b. Bur *el'bexe* C763b. Dag---. EYu *əlßə-* B8 'to stroke; to grope, fumble'. Remaining lgs---.

*ildü 'sword, sabre', with an early 'prebroken' variant *üldü. Both forms survive. The *h-* in Muq is not confirmed by any other language, but is written systematically in this word. For the meaning 'shuttle' in MgrM, cf. CT *kïlïč 'sword', also used for 'shuttle' in several Turkic languages.

　　MMo SH *uldu* H162, HY *üldü* M108, Muq *hildü* P184b, RH *ildü* 204C18. WM *ildü(n)* L403b, *uldu* (sic) L873a (see above). Kh *ild(en)* H273b, *yüld* H869a. Ord *ᴜldᴜ* M755a. Bur *yülde* [written *yulde*] (rare) C782a. Brg---. Kalm *üld* M549b. Dag---. EYu *oldə* B15 'tailor's knife', *uldə* J94b 'sabre', J80 'wooden knife used on a loom'. MgrH *uldə* X19. MgrM *ul^ydu* [i.e., *urdu*?] P421b 'weaver's shuttle'. Bao---. Dgx---. MogMr *ᴜldᴜ* L62:35 'rifle'.

*ile (?*hile) 'clear, visible, obvious, evident'. Bur suggests *eli*, EYu suggests *hile* with *h-* unconfirmed elsewhere.

　　MMo SH *ile* H81, HY---, Muq *ile* P195b, *ilede* P377a. WM *ile* L404a, *iledte* L404b, *ilete* L406a, *ilerkei* L405b. Kh *il* H273a. Ord *ile ~ éle* M382a. Bur *eli* (sic) C761b, adv *elyeer*. Kalm *il* M267a. Dag *il* Z29 'clear, evident' (but *il* E33 'lively, bustling'). EYu *hele* B56. Shirongol---. MogM, MogMr *ila* L74:305.

*ile- 'to go', *ilee- (and newly-formed *ile-ge-) 'to send, dispatch'. *ilee- was the causative of *ile- 'to go'. The modern languages a new causative formed with the suffix -*GA*.

　　MMo SH *ile-* H81 'to go', *ile:-* H81' to send', HY *ile-* M62, Muq *ile-* [*ile:-*] P195b 'to send, etc', *hile-* P184a, 185a. WM *ile-* (obs) L404a 'to send', *ilege-* L404b. Kh *ilex* H276a 'to send, dispatch', *ilgeex* H273b 'to dispatch, send, delegate'. Ord---. Bur *el'gexe* C764a. Brg *ilgə:-* U27. Kalm *ilgäx* M268a. Dag---. EYu *əlɣe-* B8, *ilɣe-* BJ105, *elɣe-* J49 (mostly used as an auxiliary). Mgr---. Bao---. Dgx---. Mog *ilğʌ-* W167a.

*irbis 'leopard, panther'. The equivalents in Turkic (with final -*z* or -*š*, -*l*- instead of -*r*-, sometimes with medial -*p*- or initial *y*-) are too diverse to contribute to reconstruction.

　　MMo SH---, HY, Muq---, RH---. WM *irbis* L413b. Kh *irves* H278a. Ord *erwis* M248b. Kalm *irws* R210a, *irvsg* (sic) M272a 'tiger'. Bur *erbed* (dial) C770a. Brg *irßəs* U29. Dag---. EYu *ərßəs* B8. Mgr *rbuʒə* S411. Remaining lgs---.

*ire- 'to come'.

MMo SH *ire-* H82, HY *ire-* M63, Muq *ire-* P197a, *yire-* P390b. WM *ire-* L413b. Kh *irex* H279a. Ord *ire-* M387a. Bur *yerexe* C222b. Brg *ir-* U29, *yir-* U222. Kalm *irx* M273a. Dag *ir-* E35. EYu *ere-* B11, J95b, *eri-* B12, *ire-* B11. MgrH *re-* J95b. MgrM *ri-* [ʐï-] C395. BaoD *rə-* BL83b. BaoÑ *er-* CN15, *ər-* CN11, *rə-* CN222. Kgj *re-* S306a. Dgx *ire-* B12. Mog *irä-* R29b, *irɛ-*, *irʌ-* W168a.

*irge 'wether'. The *h- that seems to be suggested by MgrH is not supported elsewhere. The second syllable cannot be the source of the *x-*, as all languages point at *-g-* rather than *-k-*. Agricultural term related to CT *irk*.

MMo SH *irge* H83, HY---, Muq---, IV---, LV---. WM *irge* L414a. Kh *ireg* H278a, *irgen* H279a. Ord *i:rge* (sic) M387a. Bur *er'e* C774b. Kalm *irg* M272a. Dag---. EYu *erɣe* B12. MgrH *xerge* X76, *yerge* SM492. MgrM *ergè* P417a 'female sheep' (sic). Bao---. Dgx *inǧə* MC175a 'wether', *inɣə* T121 'billy-goat'. Mog---.

*irgen 'people'. The original meaning was apparently 'people' in the sence of 'ethnic group, nation', although the general meaning 'human beings' appears already in Muq. In the QG languages *irgen* has become a personal pronoun of the third person (cf. the development of *ejen*). Although the ŋ- in Baoan and Kangjia is not a normal reflex of *r*, in view of the other regional forms it is probably the same etymon. The Dag meaning 'Chinese' is also attested (as obs.) in Kh. Cf. Manchu *irgen* H503 'subject(s), population, people'.

MMo SH *irge(n)* H83 'people', HY *irgen* M64 'people', Muq *irgen* P197b 'people, persons', *hirgen-* P185b, LV *irgen* P1256. WM *irgen* L414b. Kh *irgen* H278a 'people; subject, citizen'. Ord *i:rgen* M387b 'subject; Chinese'. Bur *ergen arad* (lit) C770b 'people'. Kalm *irgn kümn* (hist) M272b 'citizen'. Dag *irɣən* E36 'Chinese'. EYu *erɣen* B12, BJ327 'he, she, people (in the sense of persons, not nation)', *ergen* J26. MgrH *rgɜn* X239 '(other) people'. MgrM *gɜn* C199 'he, she'. BaoD *ŋgaŋ* BL34. BaoGt *gɔŋla ~ gɔla* (pl) C132 'others'. BaoÑ *aġaŋ* CN5, *ɵġaŋ* CN17 'others, people'. BaoX *ŋgaŋ* BC63 's/he'. Kgj *ŋgɔ* S33 'other; he'. Dgx *aǧən* B8 's/he'. Mog *irgãn* W168a, *irgɔd* (pl) W168a 'people', MogM *irgʋ:n ~ ergʋ:n*, MogMr *irgʋ:n* L64:42.

*is- 'to turn sour, ferment', caus. *iske-*, and some further derivations. The Kgj verb formally looks like a caus. The Kgj verb and adjective may involve a garbled form of *sirke 'vinegar' (not listed here).

MMo SH---, HY---, Muq---. WM *is-* L416a. Kh *isex* H280a, *esex* H863a. Ord *es-* M248b. Bur *ehexe* C780a, *ed'xexe* C758a. Brg *isgə:-* U27 'to become sour' (sic). Kalm *isx* M274a, cf. *išklŋ* M276a 'sour'. Dag---. EYu *hsə-* BJ331 'to ferment', *səkə-mel* B99, *sgə-mel* J101b 'sour'. Mgr---. BaoD---. BaoÑ *ʂge-ġər* CN147 'yeast'. Kgj *šilǧe-* S295b 'to become sour', *šilǧei ~ širǧei* S295b 'sour'. Dgx---. Mog---.

*isegei ~ *sisegei 'felt, felt blanket'. Both variants occur from the oldest sources onwards. The variant with *s-* survives in Mog, and in Dag if this is not a reborrowing from Manchu *sishe*, Sibe *šisx*. Both Dag and Mog feature a dissimilated variant. EYu-MgrH are probably from *isegei. The Bur form *heyeï* lost its initial vowel, a rare feature in the central languages (cf. *ösegei 'heel' for a similar development).

MMo SH *isgai* H83, *sisgai* H135, HY *sisgei* M94, Muq *sisegei*, *sisügei* P323b, RH *siskei* 202A12, *siske* 204B6 (*sisegei, sisege* can be read as well). WM *isegei* L416a, *esegei* L333a. Kh *isgiy* H279b, *esgiy(n)* H861b. Ord *esegi:* M249a. Bur *heyeï* C703a, *ehegï* C779b, *ešegï* (sic, ←?) C780b. Brg [*išgi:* U28 ←??]. Kalm *iškä* M276a. Dag *šisəγ* E235, *šidəγ* E236, *šidəg* Z92a. EYu *ski:* B103, *sgi:* J94b. MgrH *sgi:* J95b, X143, *šge: ~ sge:* T383. MgrM---. Bao---. Dgx *śiχə* (?=) MC429b. Mog *sisgεi* R38a, *diskεi* W179b.

*iskir- 'to whistle'. HY and one of the WM forms suggest *siskir-. Some modern dialects have an unexpected initial *x-* (cf. Sun 190:413). EYu, if related, could represent a back-vocalic version *ïskar-.

MMo SH---, HY *šiskir-* M98, Muq---. WM *iskire-* L417a, *iskerü-* L417a, *siskir-* L719b. Kh *isgerex* H279b. Ord *iskir-* M388b, also *iškir-*, *eskir-*, *geskir-* etc. Bur *ešxerxe* C780a. Kalm *iškrx* M276b. Dag---. EYu *sqər-* BJ342, *sqar-* B103, *saġar-* (sic) S413. MgrH *śʒürie:-* (?=) SM393. Bao---. Dgx---. Mog---.

*is or *isü or *isün or *ïsu ?? 'soot, lampblack'. Assuming the forms listed below are all related, they represent several old variants. Only Bur explicitly supports the front-vocalic form; the derived verb Kh *išlex* may have been fronted secondarily. The Muq and Dgx forms suggest additional variant with initial *s-*, for which compare *(s)isegei 'felt' and *(s)iskir- 'to whistle' listed above. Poppe translates Muq *sisu-tu* as 'smelly', but in view of the Chagatay Turkic equivalent *islik* a translation 'sooty' is warranted. Muq *susun* P328b 'starch' is semantically difficult to connect. The Muq forms may also be read as front-vocalic.

MMo SH---, HY----, Muq *sisu-tu* (?=, see above) P323b. WM *isü* [or *isu*?] L417a. Kh *is* (sic) H279b. Ord---. Bur *ehe(n)* C779b. Kalm *iš* R210b. Dag---. EYu---. Mgr---. Bao---. Dgx *susuŋ* B119, *sïsuŋ* MC369b 'soot' (?=).

*itege- 'to believe, trust'. Cf. *bisire-.

MMo SH *itege-* H83, HY *itege-* M64, Muq *itege-* P198a, *itegü-* P198b. WM itege- L417b. Kh *itgex* H280a. Ord *etege-* M249b. Bur *etigexe* C778a. Kalm *itkx* M274b. Dag *itəγ-* E35. EYu *həteγe-* B55, *hde: γe-* S414, *łdeγe-* J80. MgrH---. MgrM---. Bao---. Kgj---. Dgx---. Mog---.

*itelgü 'species of falcon'. The back variant *ïtalgu suggested by some Turkic languages does not seem to occur in Mongolic.

MMo SH---, HY *itelgü* H64, Muq *itelgü* P221a, RH *itelgü* 200A21. WM *itelgü* L418a, L1204b. Kh *idleg* H269a 'saker falcon'. Ord *etelge* M250a, *ötölgö* M542b. Bur---. Kalm *itlg* M274b. Dag---. EYu---. Mgr *sdiergu* SM336. MgrM (Sanchuan) *ter'gè* P418b. Remaining lgs---.

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***ǰaa**- 'to tell, announce, indicate'. The *ïa sequence suggested by WM spelling and one of the SH forms can not be confirmed.

MMo SH *ja'a*- H84, *ji'a*- H89, HY *ǰa'a*- M64, Muq *ǰa'a*- P199a, *ǰa:*- P204a 'to promise'. WM *ǰïɣa*- L1049b. Kh *zaax* H221b. Ord *ǰa:*- M175a. Bur *zaaxa* C240a. Brg *ʒa:*- U209. Kalm *zaax* M234b. Dag *ǰa:*- E308. EYu *ǰa:*- B141 'to teach', *ǰa:*- J106b 'to index'. MgrH *ʑa:*- J106a. BaoD *ǰa:*- T139 'to complain'. BaoÑ *ʑa:*- CN194 'to accuse'. Kgj---. Dgx *ʑa*- B175 'to charge, accuse', cf. *ʑala*- B178 'to point, to give directions'. Mog---.

***ǰaarï** 'musk' see ***ǰïarï**

***ǰab** 'interval, spare time'. Dag *ǰabk* may be influenced by the synonymous Manchu *jaka*. Cf. also Dag *ǰe:* E314 from *ǰaï 'gap, interval' (not listed here).

MMo SH---, HY---, Muq---. WM *ǰab* L1018a. Kh *zav* H222a. Bur *zab* C241a. Brg *ʒaβ* U210. Kalm *zav* M235a. Dag *ǰabk* (sic, ?=) E311 'crack'. EYu *ǰab* S419/421. MgrH---. MgrM *ʑabćiġ* C392 'crack', apparently from *ǰab + diminutive *-čag. BaoD *ǰab-tə* T139 'between'. BaoÑ---. Dgx---. Mog---.

***ǰaba** 'gap; gorge, ravine'.

MMo SH *jaba* H84, HY---, Muq---. WM *ǰaba* L1018a, *ǰabi* L1019a. Kh *zav* H222a 'gorge, ravine'. Ord *ǰawa* M190a. Bur---. Kalm---. Dag---. EYu---. Mgr---. Bao---. Dgx *ʒawa* B179. Mog---.

***ǰabaan** 'insipid, tasteless'. Related to CT *yavgan (EDPT 874b).

MMo SH---, HY---, Muq---. WM *ǰabaɣa(n)* L1018a. Kh *zavaa* H222a. Ord *ǰawa:* M190b. Bur *zabaan* C241a. Kalm *zava* M235a 'unpleasant', *zawa:n* R468a 'smell or taste of herbs...', *zama:n* R466a 'meal eaten in the fasting period'. Dag---. EYu---. MgrH *ʑava:n* X216. MgrM---. Bao---. Dgx *ʒawaŋ* MC456a ~ *ʒaŋwaŋ* MC453b. Mog--, but cf. Zirni *ǰaba:n* 14:8b.

***ǰabaǰï** 'corner of the mouth'. The final -*a* in EYu is unexpected.

MMo SH *jabaji(n)* H84, HY---, Muq--. WM *ǰabaǰi* L1018b, *ǰabǰi* L1021a. Kh *zav'ǰ* H224a. Ord *ǰawaǰi ~ ǰawiǰi* M190b. Bur *žabža* C230a, also *žabžuur* C230b. Brg *ʒaβ'ǰ* U206. Kalm *zɛbǰi* R469b, *ǰɛbǰi* R108b. Dag *ǰeb'ǰ* E315. EYu *ǰaβaǰa* BJ234, *ǰaβaǰə* J106a. Remaining lgs---.

***ǰabïla**- ~ ***ǰamïla**- 'to sit cross-legged'. Kalm suggests *ǰamïla-, while Ord has both forms. The long final *a:* in Dag and the additional -*ʑ*- in the MgrH form are inexplicable. At first sight *ǰabïla- looks like a verb formation from a noun *ǰabï or *ǰamï, which stem may survive in MgrH *ʑa:mi:* X214 'crack, crevice; groin' (though both SM and Khasbaatar compare this Mongghul word to Kh *zaam* H221a 'collar, lapel'). The MgrH word is reminiscent of CT *yamïz 'groin' which was

borrowed by EYu and Dgx, and is also found in MMo Muq *ǰamiz* P201a 'groin'. The form *ǰamir-* P130b 'belly', occurring once in Muq and not found in any other Mongolic language, is probably due to the omission of the dot on the *zayn*. However, if not a mistake it suggests a possible etymology **ǰamïr-la-* for the present entry. MgrH *ʒ́a:mi* is also close to **čabï ~ *čamï* 'groin' found in the central languages, but the strong initial of that item makes a connection less likely.

MMo SH *ǰabila-* H84, HY---, Muq *ǰabila-* P199a. WM *ǰabila-* L1019a. Kh *zavilax* H222b. Ord *ǰawila-* M190b, *ǰamila-* M184b. Bur *zabilxa* C241b. Kalm *zämlx* M244b. Dag *ǰe:bla:-* E315. EYu---. MgrH *ʒ́abʒ́i:la-* S420, L220. MgrM *ʒabeila-* DS214. Bao---. Dgx---. Mog---.

*ǰabka- 'to lose, be lost (esp. of animals)'. Cf. also **ǰabkara-* 'to get lost, disappear' in Muq *ǰabqara-* P199b, Ord *ǰiwqᵘara-* M206a, Kalm *zavxarx* M235b, etc., which seems to be (irregularly) related to MogM *apqara-* L68, No. 119 'to get lost'. The *y-* in Bao and Kgj is also unexpected, but not unique (also in **ǰančï-* 'to crush', **ǰarïm* 'half', **ǰasa-* 'to make' below). Cf. **gee-* 'to lose', **töeri-* 'to stray'.

MMo SH *ǰabqa-* H84, HY---, Muq *ǰabqa-* P199a, *ǰabɣa-* P199a, LV *ǰabqa-* P1271, IV---. WM *ǰabqa-* L1020b. Kh *zavxax* H223b. Ord (see above). Bur---. Kalm---. Dag---. EYu---. MgrH *ćüġa-* X211, *çuġua:-* SM439. MgrM---. BaoGt *yaχa-* C156. BaoÑ *yaχa-* CN214. BaoX *yθχa-* CN86:341. Kgj *yabχa-* S305a. Dgx---. Mog (see above).

*ǰabsar 'gap, crack; space or time between, interval'. P60:48 considers **ǰab*, **ǰaura*, and **ǰabïla-* to be related. **ǰabsar* contains the same suffix as **amasar*.

MMo SH---, HY *ǰabsar söni* M64 'last day of the year', Muq *ǰabsar* P199b. WM *ǰabsar* L1019b. Kh *zavsar* H223a. Bur *zabhar* C242a. Brg *ʒaβʊ:r* (sic, ?=) U211, *ʒaβsar* (←Kh) U211. Kalm *zavsr* M235a. Dag---. EYu *ǰaβsar (ǰaɸsar)* B142, BJ324, *ǰabsar* J106a. MgrH *ćabsar* J106b, X202, *ʒ́æsar* X217, *ćæbsar* X203, *ćarsar* X203. MgrM (Sanchuan) *čapsïr* P425. BaoD---. BaoÑ *ʒ́absar* CN195. Kgj---. Dgx *ʒasa* MC456a. Mog---.

*ǰagala- (and related formations) 'to itch, tickle'. Several formations, apparently from a base **ǰaga-*. The forms in MgrM, Kgj, Dgx may simply be a semantic development of **ǰau-* 'bite' (q.v. below).

MMo SH---, HY---, Muq---, LV---, IV---. WM *ǰaɣala-* L1022b. Kh *zagalax* H224b. Ord *ǰaġatana- ~ ǰaġatuna-* M179a. Bur *zoxolxo* (sic, ?=) C259a. Brg *ʒagal-* U211. Kalm *ǰayšix* M223b 'to scratch', *zaɣadăχă* (?) R463a. Dag *ǰaul-* E309. EYu *ǰaġača-* B142. MgrH *ʒ́au-lġa-* X215. MgrM *ʒao-* DS231b. BaoD---. BaoÑ *ʒ́aġde-* CN196, cf. *ʒ́aġə ʒ́əġə* CN196 'itch'. BaoX *ʒ́aġlə-* CN86:224. Kgj *ǰiʉ-* S302b. Dgx *ʒau-* B175. Mog---, but Zirni *ǰaɣal-* (23:9b).

*ǰagasun 'fish'. The central languages suggest a form **ǰagasun*, and none of the remaining modern languages is in conflict with such a form with **a* as the first vowel. One might reconstruct an extra consonant based on MgrM and Bao, either **ǰagalsun* or **ǰalgasun*, one of which may be a metathesized variant of the other. However, the MMo forms contradict the first syllable **a* and do not support the

extra consonant. Poppe (60:57, 61,etc) also reconstructs an extra consonant: *ǰïrkasun, but Poppe's -r- is based on comparison with WM ǰirmaγai 'small fry, young fish' (L1060a 'fish roe, caviar'). Within Mongolic the reconstruction of this word is difficult; it is attested as follows: MMo SH jiramut (pl.) H90, Kh zaram H235a, Bur ǰaraaxay C231b, Kalm jirmäxä M231a. Dag jarəm E312. These forms suggest CM forms *ǰïram, *ǰaram, and diminutives *ǰïraa-kaï and *ǰïr(a)ma-kaï. It is uncertain that this word is related to *ǰagasun.

MMo SH jiqasu(n) H89, HY jiqasun M67, Muq ǰiγasun P205b, ǰiqasun-P206b, LV ǰiqasun P1274, IV---. WM ǰiγasu(n) L1050a. Kh zagas(an) H224b. Ord ǰaġas(u) M179a, ǰaġus M179b. Bur zagaha(n) C243a. Brg ʒagʊ: U211. Kalm zaγsn M236a. Dag jaus E309. EYu jağasən B142, J106b, ǰəğasən B143. MgrH ǰaġasə J106a, ǰæġasə X217, ǰiġasə X221. MgrM jagarsï P419a. BaoD ǰilγasuŋ BL93b. BaoJ ǰal(ə)ğasúŋ L45. BaoÑ ǰalġasəŋ CN196. Kgj jiğasun ~ jağasun S303a. Dgx ʒağasuŋ B177. Mog---.

*ǰaǰïl- 'to chew'. In Bur and Kalm the unexpected palatal initial is due to assimilation to the second *ǰ. Some of the Baoan forms probably from an earlier *ǰalǰïl- or *ǰalǰal- with assimilation of the two syllables.

MMo SH---, HY---, Muq ǰaǰil- P200a. WM ǰaǰil- L1041b. Kh zaǰlax H226a. Ord ǰaǰil- M178b. Bur žažalxa C231a, zažalxa (western) C244b. Brg ʒaǰïl-U213. Kalm jaǰlx M223b. Dag jeǰil- E316. EYu jaǰəl- B143, jaǰil- J106a. MgrH ǰaǰilə- J106b. MgrM ʒaʒər- DS211b. BaoD ǰiaǰial- BL93b. BaoGt ǰinǰäl- C117. BaoÑ ǰaǰil- CN197. BaoX janjal- BC62. Kgj jeǰi- S302b. Dgx ʒaʒulu- B178. Mog jaǰi- (sic) R42a, jʌǰul- W168b 'to eat'.

*ǰaka 'edge; collar'. All peripheral languages would be compatible with a reconstruction *ǰaga. EYu-Mgr also developed the generalized meaning 'above, upper'. Cf. Kgj jiğali S303a 'upside' with unknown last element. Cf. CT *yaka 'collar'.

MMo SH jaqa H84, HY ǰaqa M65, Muq ǰaqa P201b, ǰiγa- P205b, LV---, IV ǰiqa (sic?) L62:38. WM ǰaqa L1041a. Kh zax H237b. Bur zaxa C252a. Brg ʒax U211. Kalm zax M243b. Dag jaγ E311. EYu jaġa B142. MgrH ǰæga X217, ǰiġa: X220. MgrM ǰaġa C189, ʒaġa DS203a 'above'. BaoD---. BaoÑ ǰaġa CN195. Bao (unspecif. dial) ǰiġa S436. Kgj jiğa S303a. Dgx ʒağa B177. MogMr ǰaγa (etc) L62:39, ǰaγe I108 '(river) bank', ǰʌğʌ W168b 'bank'.

*ǰakaun 'space between'. This reconstruction inspired by MMo. The Baoanic forms could also reflect a form *ǰaugun, which would be easier to connect to *ǰab, *ǰaura. Also compare MMo SH dege'un H35 'above', which may be a mistranscription for *deegün. This is supported by MgrH de:xɔŋ X192 'surface', and not contradicted by MgrM dieġoŋ DS240a 'on', BaoD deguŋ BL60 'not only... but also', BaoGt dɛgoŋ BC69 'upside', and Kgj degun S299a 'upside'. A third parallel formation is Kgj duğun S299b 'underside' < *doagun.

MMo SH jaqa'un H84, HY---, Muq---. BaoD ǰoγeŋ T139, BaoDatong ǰəġəŋ CN86:186. Kgj ǰuğun S303b.

*ǰalaa '(red) tassel'. Perhaps related to CT *yalïg 'cock's comb'. BaoÑ ʒ́ala is explained as a loanword from Tibetan sgya-la, but the latter is more likely to be an ill-spelled loanword from Mongolic.

 MMo SH---, HY---, Muq---, IV---, LV---, RH--- (see s.v. *ǰele 'tether'). WM ǰalaɣa L1029b. Kh zalaa(n) H228a. Ord ǰala: M181b. Bur zalaa C246a. Brg ʒala: U211. Kalm zala (obs) M237a. Dag jila: E317. EYu ǰala: B142, J106a. MgrH ʒ́ala: J106b, ʒ́æla X217 'type of hat'. BaoD---. BaoÑ ʒ́ala CN196. Dgx---. Mog---.

*ǰalau 'young (person)'. Probably from a stem *ǰala- related to CT *ya:š 'id'.

 MMo SH jala'ui H85, HY---, Muq jala'u P200a, ǰalu: P200b, LV ǰalawu P1272, IV ǰalau L62:37. WM ǰalaɣu L1029b, ǰalaɣuu L1030a. Kh zaluu H229b. Ord ǰalu: M184a. Bur zaluu C247b. Brg ʒalʊ: U211. Kalm zalu M238b 'man; husband; youth'. Dag jalɔ: E312. EYu ǰalu: B143, J106a. MgrH ʒ́aliu: J106b, ʒ́æliu X217. MgrM ʒalau JL466. BaoD---. BaoÑ---. Kgj ǰalu S302a. Dgx ʒalau B178. Mog ǰʌlaʊ W168b, MogMr ǰalau L62:37.

*ǰalbarï- 'to beg, request; to pray'. Cf. CT *yalvar- 'id'.

 MMo SH jalbari- H85, HY---, Muq jalbari- P200a, Ph ǰalbari- P124b. WM ǰalbari- L1030b. Kh zalbirax H228a. Ord ǰalbari- ~ ǰalbira- ~ ǰalbiri- M182a. Bur zal'barxa C248a. Brg ʒalbɪr- U212. Kalm zal'vrx M239b. Dag jelbir- E315. EYu ǰalβar- B143, J80, ǰalbar- (sic?) J50. MgrH---. MgrM ʒ́ierbari- DS244a. Bao---. Dgx ʒawari- B179. Mog---.

*ǰalga- 'to join, connect'.

 MMo SH jalqa- H85, HY---, Muq ǰalɣa- P200b, LV ǰalqa- P1272 'to reach', IV---. WM ǰalɣa- L1030b. Kh zalgax H228b. Bur zalgaxa C247a. Brg ʒalag- U211. Kalm zalɣx M238a. Dag jaləɣ- E312. EYu ǰalǧa- B143. MgrH ʒ́alǧa-lda- (reciprocal) X216. MgrM ǰalǧa- T333, ʒ́ierǧa- DS213b. BaoD---. BaoÑ ʒ́alǧa- CN196. Kgj ǰalǧa- S302b. Dgx ʒaŋǧa- B176, ʒaǧa- MC451a. Mog---.

*ǰalgï- ~ *ǰalkï- 'to swallow'. MgrH (with consonant strength moved to the initial consonant), MgrM, BaoD, Dgx, and one of the EYu forms point at *ǰalkï-. BaoÑ and Kgj unexpectedly do not support this form, so that the -k- cannot be reconstructed for Baoanic with certainty.

 MMo SH jalgi- H85, jalki- H85, HY---, Muq ǰalɣi- P200b. WM ǰalgi- L1031b. Kh zalgix H229a. Ord ǰalgi- M182b. Bur zalgixa C247a. Brg ʒal'ɪg- U212. Kalm zal'gx M239b. Dag jelɣ'- E315. EYu ǰalqa- B143, ǰałǧa- J106a. MgrH ćalgə- J106b. MgrM ʒərkə- DS227b (s.v. gulp), ʒəkə- DS254. BaoD ʒ́ialχə- BL93b. BaoGt ʒ́àlxə- C121. BaoÑ ʒ́alǧa- CN196. Kgj ǰalǧe- S302b. Dgx ʒaŋqəi- B176. Mog---.

*ǰalkaï and *ǰalkau 'lazy'. In spite of the HY notation not the same word as *ǰalïkaï 'shrewd'. Cf. *kašaŋ 'lazy'.

 MMo SH---, HY ǰaliqai M65 'laziness', Muq---. WM ǰalqaɣu(u) L1032b. Kh zalxay H230a, zalxuu H230b (and zalxag H230a). Ord ǰalχu: M183b. Bur zalxuu C248a. Brg ʒalxʊ: U212. Kalm zalxu M239a. Dag jalkɔ: E312, also ǰalkɔ: ǰalɣai

E312. EYu---. MgrH---. MgrM---. BaoD---. BaoÑ---. Dgx *ʒaǧəi* MC452a, *ʒaŋǧi-la-*
B177 'to become lazy'. Mog---.

*ǰančï- 'to beat, pound (usu. with an axe, hammer, etc)'. Bur-Kalm stem from a
form with nasalized initial **nančï-*. Kalmuck according to Ramstedt displays *n ~ ǰ ~
y*! The Baoanic and Ordos forms with *y-* are closer to the Turkic source form **yanč-*
'id'. However, the disyllabic forms show that this variant is of some antiquity. The
Mog form and meaning seem to be influenced by **čabčï-* 'to chop'.

  MMo SH *janci-* H85, HY---, Muq *ǰanči-* P201a, LV *ǰanči-* P1273, IV---.
WM *ǰanči-* L1034a, *ǰangči-* L1034b, *nanči-* L564b. Kh *ǰančix* H209b, *zančix* H234a.
Ord *yanči-* M396a. Bur *nanšaxa* C321b. Kalm *nančx* M368b. Dag *ǰinč-* E317. EYu
ǰa:nǰə- B141, *ǰanǰə-* J51. MgrH *źanći-* L229. MgrM *ʒaŋći-* C393, DS224a. BaoD---.
Bao Gaser *enće-* CN86:219 'to hit'. BaoÑ *yanći-* CN213 'to beat; to forge'. Kgj
yanči- ~ yenči- S305a 'to thresh'. Dgx *yaŋçï-* B186 'to thresh grain (to husk with a
roller)'. Mog *ǰânči-* R42a, *čânči-* R25a 'to chop'.

*ǰaŋgï, **ǰaŋgïa* 'knot', **ǰaŋgïd-*, **ǰaŋgïla-* 'to tie a knot'. Strengthening of the
*-g- is found in Bao and in one MgrH form.

  MMo SH *janggi* H85 'agreement', HY---, Muq *ǰanqi* P204a. WM *ǰanggiya*
L1035b. Kh *zangia* H233b. Ord *ǰaŋga:* M185b, *ǰaŋgid-* M185b. Bur *zangilxa*
C250a. Kalm *zängä* (obs) M244b 'kind of talisman, q.v.). Dag *ǰeŋ^ye:* E315, *ǰeŋ^ye:-*
E315. EYu *ǰaŋǧăd-* B142, *ǰaŋgad-* J106a. MgrH *źaŋgədə-* J106b, *źængədə-* X216
'to tie a knot', *źænkədə-* X216 'to get into a knot'. BaoD *ʒaŋχəldə-* BL93b. BaoÑ---.
Dgx---. Mog---.

*ǰarïa 'hedgehog'. The form with **ïa* survives in Bur, Dag, and in metathesized
form, in Moghol. The remaining languages go back to an assimilated **ǰaraa*.

  MMo SH---, HY *jari'a* M65, Muq *ǰari'a* P201b, LV *jara:n* P1271, IV
jariasun L62:37, RH *jaria* 200A1. WM *ǰaraγa* L1037a. Kh *zaraa* H234b, Chakhar
ǰïra: D183a. Ord *ǰara:* M187a. Bur *zaryaa* C252a. Brg *ʒara:* (?←Kh) U213. Kalm
zara M241b. Dag *ǰer^ye:* E316. EYu *jara:* B143, *jara* J106a, *ja:ra:* S432. MgrH
źara: L229. MgrM---. Bao---. Kgj---. Dgx---. MogMr *ǰâira* (etc) L62:37.

*ǰarïm 'half (orig. adj)', **ǰarïm-dug/-tug* 'half (noun)'. In the central languages the
meaning of **ǰarïm* develped into 'some'. **ǰarïmdug/-tug* also developed some
derived meanings. Note the *y-* in Baoan and Kangjia, in this case not supported by
Dongxiang. Cf. CT **ya:r-ïm* from the verb **ya:r-* 'to split'.

  MMo SH *jarim* H86, HY *ǰarim* M65, *ǰarimtuq* M65, Muq *ǰarim* P201b.
WM *ǰarim* L1038a 'some, etc', *ǰarimduγ* L1038a 'one half, etc'. Kh *zarim* H235b
'some, a certain', *zarimdag* H235b. Ord *ǰarmin* (< **ǰarïm ïnu*) M188a 'some,
certain'. Bur *zarim* C251b 'some; part of'. Brg *ʒarïm* U213 'some'. Kalm *zärm*
M245a 'some; part of'. Dag *ǰerin* (?=) E316 'not full'. EYu *ǰarəm* J31 'half',
ǰarəmdaǧ BJ325 'defective; paralysed'. MgrH *źærən* X218, *źæmtɔǧ* X217, *źæntɔǧ*
X216. MgrM *ʒaŋtuǧ* JL476, *ǰyarïm* P418a. BaoD---. BaoÑ *yarəm* (sic) CN216. Kgj
yarun (sic) S305b. Dgx *ʒaruŋ* B179 'half', *ʒaruŋtu* MC456a 'paralysed (person)'.
Mog---.

*ǰarma 'groats; hail'. The meaning 'hail' in Shirongol, elsewhere 'groats'. Salar *yarma* (CT *ya:r-ma*) has both meanings. Kgj *cïrima*, especially the *c-*, is an abnormal development if the form is indeed from *ǰarma*. Sečencogt (p. 68) derives it from NUyg *yamǧur*, which is even less likely. Cf. *möndür* 'hail'.

MMo SH---, HY---, Muq---. WM *ǰarma* L1038b 'groats, grits, bran; fine meal'. Kh *zaram* H234b 'coarsely-ground grain; bran, grist'. Ord---. Bur---. Brg---. Kalm *zarm* (Derbed dial.) M242a. Dag---. EYu---. MgrH *źarma:* J102b, *źærma* X218 'hail'. MgrM---. BaoD *ǰarma* P412b 'hail'. BaoÑ *źarma* CN198 'hail'. BaoGt *ǰarmu* C121 'grain from spring'. Kgj *cïrima* (sic, ?=) S302a 'small hail'. Dgx *ʒama ʒaŋsuŋ* B178 'hail' (second element see *časun* 'snow'). Mog---.

*ǰaru- 'to use; to employ; to slaughter'.

MMo SH *ǰaru-* H86, HY *ǰaru-* M65, Muq *ǰaru-* P202b. WM *ǰaru-* L1038b. Kh *zarax* H235a. Bur *zaraxa* C251a. Brg *ʒar-* U213. Kalm *zarx* M242b. Dag *ǰar-* E312. EYu *ǰar-* B143, J106a. MgrH *źarə-* J106a. MgrM *źari-* JL474. BaoD *źiarə-* BL93b. BaoÑ *źar-* CN198. Kgj *ǰari-* S302b. Dgx *ʒaru-* B178. Mog *ǰɔru-* W1698a, MogMr *ǰɒ:ru-* L64:33.

*ǰasa- 'to regulate, bring in order', in modern languages usually 'to repair; to make, manufacture; to fix'. The verb *yasa-* occurring in many Turkic languages, but not in the earliest-sources, is probably from Mongolic. At any rate, some of the Bao forms with *y-* may represent the Turkic form. The abraded forms such as EYu *hsa-* and MgrM *sa-* may be from *ǰasa-* or *yasa-*. The variety of forms within EYu is remarkable. Dag *das-* is from Manchu *dasa-*, which itself may in some (irregular) way be related to CM *ǰasa-*.

MMo SH *ǰasa-* H87, HY *ǰasa-* M65, Muq *ǰasa-* P202b, Ph *ǰasa'ul-* (caus) P125a. WM *ǰasa-* L1039a. Kh *zasax* H237a. Ord *ǰasa-* M188b, *yasa-* (Northeast dial.) M398b. Bur *zahaxa* C254a. Brg *ʒas-* (←Kh) U212. Kalm *zasx* M242b 'to punish', cf. *yasx* M712b 'to castrate'. Dag (see above). EYu *čəsa-* B135, J106a, *čüsa-* BJ346, *hsa-* B60, *χsa-* S435, *sa-* B10 (in *em sama* 'medicine maker', i.e. 'pharmacist'). MgrH *şʒa-* J106b. MgrM *sa-* C386. BaoD *źiasï-* BL93a 'to repair', *iəsə-* BL87b 'to do', *iəsï-* BL3 'to repair'. BaoGt *źås- ~ yås-* C142. BaoÑ *źar-* CN197, *źaş-* CN197, *yar-* CN216. BaoX *ǰas-* BC74. Kgj *sa-* S293a. Dgx---. Mog---.

*ǰau- 'to bite; to sting'.

MMo SH *ja'u-* H87, HY---, Muq *ǰa'u-* P203b, *ǰu:-* P211a. WM *ǰaγu-* L1024a. Kh *zuux* H256b. Bur *zuuxa* C265b. Brg *ʒʊ:-* U215. Kalm *zuux* M259a. Dag *ǰau-* E309. EYu *ǰu:-* B147, J106a. MgrH *źau:-* J106b, *źau-* X215, *źiu:-* SM94. MgrM *ʒau-* JL465. BaoD *źiu-* BL44. BaoGm *źu:-* CN86:227. BaoÑ *źu-* CN202. Kgj *jiu-* S302b. Dgx *ʒau-* B175. Mog *jöʉ-* R42b, *jʌʊ-* W169a.

*ǰaučï 'mediator, go-between, matchmaker'. Possibly related to *ǰaura* 'space between'. The Bur form suggests that *ǰaučï* may go back to *ǰaurčï*, whereas Kalm suggests *ǰaulčï*. However, similar forms with *-l-* in WM and Kh are semantically different: WM *ǰaγulči(n)* L1024b, *ǰiγulči(n)* (sic) L1051a 'traveler, guest, passer-by,

etc', Kh *žuulč(in)* H219b from 'traveler, tourist' (cf. also **ǰo(l)čïn* 'guest' below, which may have influenced form and meaning of the present entry).

MMo SH---, HY---, Muq---. WM *ǰaɣuči* L1024b, *ǰiɣuči* (sic) L1051a. Kh *zuuč* H256b, *žuuč* H219b, [*zuučlagč* H256b]. Ord *ǰu:či* M222a. Bur [*zuurša(-lagša)* C265ab]. Kalm *zu:lčĭ* R482a, *zu:čĭ* R483b. Dag *ǰauč* E309. EYu [*ǰu:rmačə* (< **ǰaurmačĭ*) B147]. Mgr---. Bao---. Dgx *ʒauçï* B176. Mog---.

*ǰaugasun 'lily bulb'. Strange disharmonic form in Dagur.

MMo SH *ǰa'uqasu* H87 'lily root', HY---. Muq *ǰu:ɣasunu čeček* [Poppe reads *čuɣasunu*] P136b 'kind of flower'. WM and central lgs---. Dag *ǰauwə:s* E310 '"lantern flower" [name used for several unrelated plants with bell-shaped flowers], lily; soft hoof of newborn calf', *ǰauwɔ:s* NK524a 'lily bulb; the soft part of the hoof'. Remaining lgs---.

*ǰauǰaï 'heel (of foot or footwear)'. The Dag form is unexpected, as -*aï* is normally either lost completely, or preserved with a palatal element as *e:*, *i:*, or *ai*. Cf. **ösegei* 'heel'.

MMo SH---, HY---, Muq---, IV *ǰauǰai* L62:38, RH *ǰauǰa* 199A20. Kh *zuuzay* H255b 'counter for boots or shoes'. Bur *zuuzay* C264b. Kalm *zuuza* M258a. Dag *ǰauǰa:* E310. EYu---. MgrH *ʒauʒæ* X215. MgrM [*qur*] *ʒaoʒia* DS228b, cf. *ġər ʒouʒia* (lit. hand heel') DS219b 'elbow'. Bao---. Dgx---. Mog---.

*ǰaun 'hundred'. The initial *n-* in some MgrH and BaoÑ forms is likely due to an erroneous analysis of compounds with the units 3-9 which end in -*n*. An *n-* now also appears after **koar* '2' which never had -*n*, and **niken* 'one', which had lost it in Shirongol, e.g. MgrH *ġo:r nʒoŋ* J32, BaoÑ *ġuar nʒəŋ*, BaoGt *ġuarán ǰün* C132, BaoX *ġuari nʒəŋ* CN86:152 '200', BaoGt *nəgan ʒüŋ* BL31 '100', BaoX *nəgin ǰoŋ* BC64 '100'.

MMo SH *ǰa'u(n)* H87, HY *ǰa'un* M66, Muq *ǰa'un* P203b, LV *ǰawun* P1271, IV *ǰawun* L62:38. WM *ǰaɣu(n)* L1024a. Kh *zuu(n)* H255a. Bur *zuu(n)* C264b. Brg *ʒʊ:* U215. Kalm *zun* M255b. Dag *ǰau* E309. EYu *ǰu:n* B147, J106a. MgrH *ʒoŋ* X224, *nʒoŋ* J106b. MgrM---. BaoD *ʒüŋ* BL93a. BaoGt *ǰün* C132. BaoÑ *nʒəŋ* CN37, *ʒəŋ* CN201. BaoX *ǰoŋ* BC64. Kgj *ǰun ~ ǰün* S303. Dgx---. Mog---.

*ǰaura 'space between'. In the central languages 'on the way, halfway; while'. Cf. **ǰauči* 'matchmaker'; possibly also related to **ǰab*, **ǰabsar* 'interval'.

MMo SH *ǰa'ura* H87, HY *ǰa'ura* M66, Muq *ǰu:ra* P211b, Ph *ǰa'ura* P125a. WM *ǰaɣura* L1024b. Kh *zuur* H256a. Bur *zuura* C264b. Brg *ʒʊ:r* U215. Kalm *zuur* M258a. Dag *ǰaur* Z73, *ǰaur, ǰɔ:r* T143. EYu *ǰu:ra* B147. MgrH *ʒo:ro* X223, *ʒu:rə* X224. MgrM *ʒaura* JL466. BaoD---. BaoGt *ʒorə* C103. BaoÑ *ʒə:rə* CN201. Kgj *ǰuru* S303b. Dgx *ʒəura* B179 'at the time that..'. Mog *ǰöuro:* R42b.

*ǰauraŋgaï/*ǰaurakaï 'wolf'. Although lacking in MMo, the distribution shows this could be an old word. It might in reality be more widespread. Apparently an Ersatzwort derived from **ǰau-* 'to bite' with the adjectival suffix -*rAkAi* denoting

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habitual actions; alternatively from *ǰaura- 'to close the mouth tightly' (not listed). Cf. *čïno.

MMo---. Bur (Khori dial.) *zuurangi* C265a '(taboo) wolf'. MgrH *ʒ́iu:raŋġe:* SM95. Kgj *ǰiɨrğei* S303a. Dgx *ʒïraŋġəi* B181, *ʒaŋġəi* B177, *ǰiranqèy* P412a.

*ǰayaan 'fate, destiny, luck, etc'. Cf. Muq *ǰaya:-* P203b 'to create', Kh *zayaax* H239a 'to predetermine, etc', Dgx *ʒaya-san(də)* B178 'come into the world'.

MMo SH *ǰaya'an* H87, HY *ǰaya'an* M66, Muq *ǰiya:n* M66, Muq *ǰiya:-tu* P316a, Ph *ǰaya'an* P125a 'rebirth'. WM *ǰayaɣa(n)* L1028a. Kh *zayaa(n)* H238b. Chakhar *ǰïya:* D183a. Ord *ǰiya:* M195b. Bur *zayaa(n)* C254a. Brg *ʒaya:* U213. Kalm *zayan* M243b. Dag *ǰiya:* E318. EYu *ʒ́a:n* B149, *ǰiya* J106b. MgrH *ʒ́aya:n* J106a. MgrM---. Bao---. Dgx *ʒaya-* B178 'to be lucky'. Mog---.

*ǰebe (?*ǰebi) 'rust'. The final vowel is uncertain. MgrH seems to indicate *-e* rather than *-i*, but MgrM does not support this. Ordos has two variants and cannot decide the matter. The first vowel is also uncertain: Kh-Kalm *z-* points at *e*, but Bur *ž-* suggests *ǰibe* or *ǰibi*. The Dag forms suggest a form *ǰebi* or *ǰibi*, since *-b-* is only preserved in Dag before *ï/*i. Unfortunately this word is absent from the old documents (*ǰebe* in MMo SH, HY, Muq is 'weapon, arm')

MMo SH---, HY---, Muq---, IV---, LV---. WM *ǰibe* L1048a, *ǰibi* L1048b, *ǰebi* L1042a, *ǰabi* (sic) L1019a. Kh *zev* H262a, according to Lessing also *ǰiv, zav'*. Ord *ǰiwe, ǰiwi* M206ab. Bur *žebe* C234b. Brg *ǰiß* U207. Kalm *zev* M245b. Dag *ǰib* E317, *ǰib^y* NK526a. EYu---. MgrH *ʒ́e:* X219, *ʒ́üe:* SM95, cf. *ʒ́o:-də-* X223 'to rust'. MgrM *ʒ́eb-de-* JL474 'to rust'. Bao---. Dgx---. Mog---.

*ǰee 'cousin'. The WM spelling with *-i-* is incorrect in view of the *z-* in the central languages, and the Turkic cognate *yegen 'id'. The complete absence of *-n* in Mongolic is surprising.

MMo SH *ǰe'e, ǰe* H88, HY *ǰe'e* M66, Muq---. WM *ǰige* L1051b. Kh *zee* H266b. Ord *ǰe:* M192a. Bur *zee* (in compounds) C275a. Brg *ʒə:* U213. Kalm *ze* M245a. Dag *ǰə:* E313. EYu *ǰi:* B145, J106b, *ǰe:* (Qinglong) BJ351. MgrH *ʒ́e:* J106a, X219. MgrM (Sanchuan) *čï* [*ʒə] P418a. BaoD---. BaoÑ---. Dgx *ʒə* B179. Mog---.

*ǰeeren 'Mongolian gazelle (kind of antelope)'. Related to CT *yegren 'id'.

MMo SH---, HY *ǰe:ren* M67, Muq *ǰe:ren* P205a, LV *ǰiyren* P1273, IV---. WM *ǰegere(n)* L1043b. Kh *zeer(en)* H267b. Bur *zeere(n)* C275b. Kalm *zeerŋ* M246a. Dag *ǰə:rən* E312. EYu *ǰe:ren* B144, J106b. MgrH---. MgrM *ǰer' imà* P413a (*ïmaan 'goat'). Remaining lgs---.

*ǰele (?*ǰelü) 'long rope to which the tethers of cattle are attached'. Ord, Bur and EYu disagree on the final vowel. Agricultural term related to CT *yelü 'id'.

MMo SH---, HY---, Muq---, IV---, LV---, RH *ǰele* [eds read *ǰala:*] 205A30. WM *ǰele* L1045a. Kh *zel* H263b. Ord *ǰile* M198a. Bur *zele, zeli* C272b, *zeeli* (?=) C275a 'horse hair rope'. Brg *ʒəl* U214. Kalm *zel* M246b. Dag *ǰildə:s* (+ *deesün) E318, *dillə:s* E88:103. EYu *ǰelə* B144. Remaining lgs---.

***ǰeü**- 'to wear (usu. an ornament)'. In EYu-Mgr this word merged phonetically with *ǰöe- 'to transport', and most of the Baoanic forms also suggest an earlier form *ǰo:- rather than the expected *ǰu:-. Cf. *emüs- 'to wear (clothes)'.

MMo SH---, HY ǰe'ü- M67, Muq---. WM ǰegü- L1043b. Kh züüx H262a. Ord ǰʉ:- M222a. Bur züüxe C270a. Brg ʒu:- U217. Kalm züüx M262a. Dag---. EYu ǰü:- B148, J106b. MgrH ź̌o:- J106a. MgrM ź̌o- JL472. BaoD ź̌iao- BL93b. BaoÑ ź̌ə:- CN201. Kgj ǰʉ- S304a. Dgx ʒo- B181, ǰuei- T120. Mog---.

***ǰeüdün** 'dream'. The added preconsonantal -n- in some Baoan dialects may be due to assimilation to the final nasal. Dgx -ź̌- instead of -d- is unexpected, and at first sight more suggestive of an original form *ǰeüden (but cf. *büdüri- 'to stumble'). Apparently from a root *ǰeü-, cf. the verb *ǰeüle-, which survives in Dag ǰəul- E313, EYu ǰö:ɣəle- (sic) B146 'to talk in one's sleep'.

MMo SH jao'udun H86, HY ǰe'üdün M67, Muq ǰü:dü P212b. WM ǰegüde(n) L1043b, ǰegüdü(n) L1044a. Kh züüd(en) H261b. Ord ǰʉ:de M222b. Bur züüde(n) C270a. Brg ʒu:d U217. Kalm züüdn M261b. Dag ǰəud E313. EYu ǰü:dən B148, J106b, ǰö:dən (Qinglong) BJ350. MgrH ź̌iu:dən J106a. MgrM ź̌auduŋ JL474, ǰiuden T334. BaoD ź̌unduŋ BL93a. BaoGt ź̌unduŋ C137. BaoJ ź̌undúŋ L52. BaoÑ ź̌udaŋ CN202. BaoX ǰudoŋ BC64. Kgj ǰʉdʉn ~ ǰüdʉn S304a. Dgx ʒauź̌iŋ B176. Mog ǰöʉdʉ-la- R42b 'to dream'.

***ǰeün** 'left; east'. Cf. *solagaï 'left'.

MMo SH jao'un H86, HY ǰe'ün M67, Muq ǰü'ün P112a, ǰö'en P209a, LV ǰöwen P1271, IV ǰüyün L62:40. WM ǰegün L1044a. Kh züüin H261b. Bur züü(n) C270a. Brg ʒu:ŋ U217. Kalm zün M259b. Dag ǰun T145. EYu ǰʉŋ ('obsolete') B147, ǰü:n J106b. Remaining lgs---.

***ǰeün** 'needle'.

MMo SH je'u H89, HY ǰö'ün M69, Muq ǰe'ün P205a, ǰü'ün- P297a, ǰü:n- P370b. WM ǰegüü L1044b, ǰegün L1044a, ǰeü L1047b. Kh züü(n) H261b. Ord ǰʉ: M222a. Bur züü(n) C270a. Brg ʒu: U217. Kalm zün M260a. Dag ǰu: E320, ǰəu NK525a. EYu ǰü:n B148, J106b. MgrH ź̌iu: J106b. MgrM ʒau C393. BaoD ź̌üŋ BL93a. BaoÑ ź̌əŋ CN201. Kgj ǰʉn ~ ǰün S304a. Dgx ʒuŋ B182. Mog ǰöʉn R42b.

***ǰïa**- 'to announce, etc' see *ǰaa-

***ǰïar(ï)** (> *ǰaar(ï)) 'musk'. There are several phonetic inconsistencies. The *ïa of WM and HY, which is supported by Turkic *yïpar ~ *ïpar 'id', is not preserved in the modern languages; the z- in the central languages indicates an assimilated form *ǰaar. Some of the Kh, Bur, and EYu forms suggest a longer form in -ï not found in the older sources.

MMo SH---, HY ǰiqar (or ǰi-ha-r) M67 'musk deer', Muq ǰa:r P204a, RH ǰa:r 205D4. WM ǰaɣar L1023b, ǰiɣar L1050a. Kh zaar H221b 'musk, etc', zaar' H221b 'musk, etc; gelded reindeer', zair H227b (both meanings?). Ord ǰa:r M187a. Bur zaar C240a, zaari C240b both 'strong smell', cf. zari (Oka dial.) C251b 'gelded

four-year-old reindeer, etc'. Brg *ǯa:r* U209. Kalm *zar* M241b 'musk'. Dag *ǰa:r* E308. EYu *ǰa:r* B141, *ǰa:rə* J106a. Mgr---. Bao---. Dgx---. Mog---.

ǰïda 'spear, lance'. A widespread word in North Eurasia. Dag *gʸad* is from Manchu *gida* 'id'.

MMo SH *jida* H89, HY *ǰida* M67, Muq *ǰida* P205a, LV---, IV *ǰida* L62:38. WM *ǰida* L1049a. Kh *ǰad* H208b. Ord *ǰida* M193b. Bur *žada* C230b. Brg *ǰad* U206. Kalm *ǰid* M226b. Dag (see above). EYu *ǰəda* BJ325, J106b, *ǰuda* B147. MgrH *ʒ́i:da* J106a, *ʒ́ida:* X222. MgrM *ʒ́ida* JL461. Bao---. Kgj *ǰida* S303b. Dgx *ʒïda* B180. Mog---.

ǰïgasun 'fish' see **ǰagasun*

ǰïlga 'ravine, gorge, chasm, abyss'. The Kgj form may also be from **ǰölke*.

MMo SH---, HY---, Muq *ǰilɣas* (pl) P372a 'pad' - tiefe schlucht'. WM *ǰilɣa* L1055a. Kh *žalga* H209a. Bur *žalga* C231a. Kalm *ǰalɣ* M224a. Dag *ǰaləɣ* (?=) E312 'marshland'. EYu *ǰəlǧa* B144. Mgr---. BaoD *ʒ́iŋga* (?=) BL58 'Ganhetan (placename)'. Kgj *ǰirge* (?=) S303b.

ǰïloa 'reins'. The Arabo-Mongolic forms see to involve a metathetic **ǰïlau*.

MMo SH *jilo'a*, *jilu'a* H90, HY---, Muq---, LV *ǰilawu* P1272, IV---, RH *ǰilau* 187C13. WM *ǰiloɣa* L1055b. Kh *ǰoloo(n)* H217b. Ord *ǰilo:* M198b. Bur *žoloo* C232b. Brg *ǰɔlɔ:* U208. Kalm *ǰola* M231a. Dag *dilɔ:* E283, *ǰilɔ:* ~ *dilɔ:* E88:116. EYu *ǰəlu:* B144, *ǰulu:* J106b, *ǰolu:* S452. MgrH *ʒ́olo-ćə* X224 'driver'. Bao---. Dgx---. Mog---.

ǰïlsun 'glue, paste'. The distribution of this word is interesting. The Kgj form suggest a front form, but Kalm supports the present reconstruction. The -l- is preserved in Shirongol as in **čaasun* 'paper', etc. The -i- in the Bao and Kgj forms may be due to secondary palatalisation, rather than represent an archaic form. Perhaps related to Kh *ǰiliy* H214b 'rosin, colophony', Bur *želii* C236a 'tree resin'. A relationship with CT **yelim* 'id' is doubtful.

MMo SH---, HY---, Muq *ǰilsun* (P: *ǰilsün*) P206a, LV---, IV---, RH *ǰilsun* [eds.: *ǰalasun*] 204C28. WM---. Kh---. Bur---. Kalm *zusn* M257b. Dag---. EYu---. MgrH *ʒ́ülʒə* X225. MgrM *ʒursï* JL473. Bao (unspecif. dial.) *ʒ́ilsoŋ* S555. Kgj *ǰilesʉn* S303a. Dgx---. Mog---.

ǰïrga- 'to be glad or happy'.

MMo SH *jirqa-* H90, HY *ǰirqa-* M67, Muq---, Ph *ǰirqa-* P125b. WM *ǰirɣa-* L1059a. Kh *ǰargax* H210a. Ord *ǰirǧa-* M202a. Bur *ǰargaxa* C231b. Brg *ǰarag-* U206. Kalm *ǰirɣx* M230a. Dag *ǰarəɣ-* E312. EYu *ǰirǧa-* B145, *ǰərǧa-* J65. MgrH *ʒ́argal* (only) L230 'happiness'. Remaining lgs---.

ǰïrguan 'six'. The central languages reflect a shape **ǰurgaan* (the result of early breaking), Dagur and Shirongol derive from **ǰïrgo:n* < **ǰïrgoan*. The latter is also

likely to be the source of the EYu form (via an unattested *ǰɔrǧɔ:n). Related to *ǰïran 'sixty' which suggests a root *ǰïr- with an unknown suffix (?-gUAn).

MMo SH jirwa'an H91, jirqo'an H90, HY ǰirwa'an M67, Muq ǰirɤu'an P207a, ǰirɤa:n P206b, LV ǰirɤa:n, ǰurɤa:n P1271, IV ǰurɤu'an L62:39. WM ǰirɤuɤa(n) L1059b. Kh zurgaa(n) H254a. Ord ǰurǧa: M220a. Bur zurgaan C263b, yorgoon (Ekhirit) C228a. Brg ʒorga:ŋ U217. Kalm zurɤan M257a. Dag ǰirɤɔ: E318. EYu jirǧu:n B145, ǰurǧu:n J107a. MgrH ʒ́irǧo:n J106b. MgrM ǰurǧoŋ T334. BaoD ʒ́irǧuŋ BL93a. BaoÑ ʒ́irǧøŋ CN200. BaoX jirǧoŋ BC67. Kgj jirǧuŋ ~ jirǧun S303b. Dgx ʒïǧoŋ B180. MogMr ǰurɤʋ:n (rarely used) L62:40.

*ǰïran 'sixty'. In Bao and Kgj replaced by a new formation *ǰïrguan harban 'six tens', e.g. ʒ́irǧaraŋ CN200. Related to *ǰïrguan 'six' which suggests a root *ǰïr- + decade suffix -An, for which cf. *dalan 'seventy', *yeren 'ninety'.

MMo SH---, HY ǰiran M67, Muq ǰiran P206b, LV ǰiran P1274, IV ǰiran L62:39. WM ǰira(n) L1058b. Kh ǰar(an) H210a. Ord ǰira M200b. Bur žara(n) C231b. Brg ǰar U206. Kalm ǰirn M231a. Dag ǰar E312. EYu jiran B145, J106b. MgrH ʒ́iran J106a. BaoD---. BaoÑ---. Dgx---. Mog---.

*ǰïroa 'amble; ambler'. The CM form *ǰorïa, expected on the basis of the Turkic cognate *yorïga from *yorï- 'to walk', is only attested in MMo sources in Arabic script. Vowel shortening in Mgr.

MMo SH---, HY---, Muq---, LV ǰoriya P1273, IV ǰorya L62:39. WM ǰiroɤa L1061a. Kh ǰoroo H218b. Ord ǰiro: M203a. Bur žoroo C233a. Brg ǰɔrɔ: U208. Kalm ǰora M232b. Dag ǰirɔ: E318. EYu jɔrɔ: B146, ǰoro: J107a. MgrH ʒ́oro J106a, ʒ́uro L251. MgrM---. Bao---. Kgj ǰuru S303b. Dgx---. Mog ǰiro: R42b.

*ǰïru- 'to paint; to write'. The *ï in the first syllable is uncertain. The central languages go back to a form *ǰuru- or *ǰur-. EYu as if from *ǰura-.

MMo SH---, HY---, Muq ǰiru-qsan P207a 'drawn', cf. Muq ǰuri'a-tu P211a 'striped'. LV---, IV---. WM ǰiru- L1060b. Kh zurax H254a. Ord ǰuru- M220b. Bur zuraxa C263b, (western) 'to write'. Brg ʒor- U216. Kalm zurx M257a. Dag---. EYu ǰura- B147. MgrH ʒ́iu:rə- J98b 'to write'. MgrM ʒuri- JL464 'to write', ǰuri- T335 'id'. Bao---. Dgx---. Mog---.

*ǰi- 'two' see *ǰitüer 'second'.

*ǰii- 'to stretch, extend'. The original form may have been *ǰïï-, but the Dgx form does not prove this. In PM, a consonant may have been between the two i's, most likely *g or *p. Cf. *sun-.

MMo SH---, HY---, Muq---, IV---, LV---, Ph---. WM ǰigi-, ǰigii-, ǰigei- L1052a. Kh ǰiyx H213b. Ord ǰi:- M192b. Bur ǰiixe C232b. Brg ǰi:- U206. Kalm ǰiix M227b. Dag ǰi:- E316. EYu---. MgrH ʒ́i:- J106a. BaoD ʒ́i- BL93b. BaoÑ ʒ́i:- CN198. Kgj---. Dgx ʒï- L121b, ʒïǧa- (caus.) B180. Mog---.

*ǰil '(calendar) year, year of the Twelve Animal Cycle'. The Turkic equivalent *yïl 'id' suggests that this word was probably back-vocalic *ǰïl, but there is no

confirmation for this in the Mongolic languages. The extra vowel in Baoan and Kangjia is a later addition, given that Dongxiang has the normal development *-l > -ŋ. Cf. *hon '(duration of a) year'; *nasun '(year of) age'.

MMo SH jil H90, HY ǰil M67, Muq---, LV ǰil P1274, IV---, Ph ǰil P125a. WM ǰil L1054a. Kh ǰil H213b. Chakhar ǰil D182b. Kalm ǰil M227b. Bur žel C236a. Brg ǰil U207. Dag ǰil E317. EYu ǰəl B144, J106b. MgrH ʒ́il J106a, X221, ʒ́ül X225. BaoD---. BaoÑ ʒ́ilə CN199. Kgj ǰile S303a. Dgx ʒəŋ B110, cf. also ʒuŋtu B110 'born in the ... year' (*ǰil.tü or *ǰïl.tu). Mog žil W169a 'time'.

?*ǰir- 'to cut'. Apparently only present in Shirongol, but it may nevertheless be an old verb. Perhaps the base of *ǰirim 'bellyband' (for which a verbal base is known in Turkic). The MgrH form was derived from *ǰor- (listed below) by Khasbaatar, but there is also a MgrH ʒ́o:rə- which suits *ǰor- better. BaoÑ ʒ́ir- could also go back to *ǰisü- 'to cut' listed below. ?cf. also Kh ǰirgex H216a 'to cut into smaller pieces', ǰürmele- L1085b 'to cut into thin strips'.

MMo---. Central lgs---. Dag---. EYu---. MgrH ʒ́i:ri- SM93 'to cut into long strips', ʒ́i:rə- X219 'to cut'. BaoD jarə- (?=) T139 'to cut'. BaoÑ ʒ́ir- (?=) CN200 'to cut' (could be from *ǰisü-). Kgj ǰiri- S303b 'to cut, to slash'. Dgx---. Mog (see *?*ǰor-*).

*ǰirim 'bellyband on the left side of the saddle'. The rounded vowels in the Dag form ǰülum may suggest a relationship with Kh zürem H260b 'thin strips of something'. This would explain the rounded vowel forms but not the -l-. Perhaps related to Turkic *yirim or *yerim 'a single fresh strip of anything' (cf. EDPT 969a) from *yer- or *yir- (cf. EDPT 955a). Cf. *olaŋ.

MMo SH---, HY---, Muq ǰirim P207a 'thong', LV---, IV---. WM ǰirim L1060a. Kh ǰirem H216b. Ord ǰirim M202b. Bur ǰerem C238b. Brg ǰirəm U207. Kalm ǰirm M231a. Dag ǰülum E324, ǰilim NK526b, ǰulim T145. EYu ǰərəm B144. Mgr---. Bao---. Dgx ʒïrəŋ B181, ʒïrïŋ L7, ʒïrun MC462a. Mog---.

*ǰirüken 'heart' see ***ǰürüken**

*ǰisü- 'to cut, slice, split'. The central languages have z- which rather suggests a CM *ǰüsü-. Dagur and Ordos support this as well. It is phonetically possible that BaoÑ ʒ́ir- CN200 'to cut' belongs here, but cf. also *?*ǰir-* listed above.

MMo SH jisu- H91, HY---, Muq ǰisü- P207b. WM ǰisü- L1064a. Kh züsex H261a. Ord ǰʉsʉ- M225b. Bur zühexe C271a. Brg ʒuxu:- U218. Kalm züsx M261a. Dag ǰus- E323 'etc'. EYu čüsə- BJ346 'to chop; to stab', čusu- (?=) S579 'to tear to pieces'. Mgr---. BaoD---. BaoÑ ʒ́ir- (?=, see above) CN200 'to cut'. Dgx---. Mog---.

*ǰisün 'colour (esp. of the hair of an animal); complexion; appearance, looks'. The forms with z- in the central languages suggest CM *ǰüsün. This form is also be supported by Dagur, where one would expect *ǰisün to result in *ǰis. Enkhbat compares Dag ǰus to WM ǰisüm, which is probably incorrect, although the loss of -m is also seen in other Dag words. Some of the EYu and MgrH forms also suggest *ǰüsün rather than a disyllabic form.

MMo SH *jisu(n)* H91, HY---, Muq---, LV---, IV---. WM *jisü(n)* L1064a. Kh *züs(en)* H260b, cf. *züsem*. Ord *jusʉ* M225b. Bur *zühe(n)* C270b, *žühe(n)* C234b. Brg *juxu:* U209. Kalm *züsn* M260b. Dag *jus* E323, Z105a. EYu *jʉs* B148, *jüs* BJ113, *čösön* J106b. MgrH *źus* C88:587 'face', *źusə* S469. MgrM---. Bao---. Kgj---. Dgx---. Mog---.

*jitüer 'second; co-wife' and **jitüen* 'competition'. Morphologically **jitüer* is an ordinal number from the root **ji-* 'two', also occurring in **jirin* 'two', cf. MMo SH *jirin* H90 'two, both (feminine)'.

MMo SH---, HY---, Muq *jitö:r* [Poppe reads *jitür*] P207b 'jealousy'. Kh *jötöör* H218a, *jötgör* H218b 'wives of a polygamist; jealousy, envy', *jötöö(n)* H218b 'jealousy, envy', *jitger* LC2:180a '(youngest) wife of a polygamist'. Ord *jötö:r* M214a 'jealous', *jötö:*, *ata: jötö:* M214a 'jealousy, rivalry'. Bur *žütöö(n)* C234a. Kalm *atan jitään* M231b 'envy, competition'. cf. Dag *xata: jutə:* E323 'aspiration, willpower'. Remaining lgs---.

*jiür 'wing'. The central languages go back to **jibür*, the MMo sources stem from **jiür > *jüür*. The forms with -güü- in Kh and Bur are reading pronunciations. Perhaps then from a set of PM variants **jibür ~ *jipür*, of which the latter went on to become **jihür > *jiür*. The MgrH forms are perhaps related in spite of the aberrant forms. In MgrM this word seems to be confused with **üjüür* 'tip, end'.

MMo SH *ji'ur* H91, HY *jü'ür* M67 (read *ji'ür* by Mostaert), Muq---, LV *jü:r* P1273, IV *jibür* L62:38, RH *jiür* 200B14. WM *jigür* L1053a, *jiber* ('sometimes used instead of *jigür*') L1048b. Kh *jiver* H211b 'fin(s) of a fish', *jigüür* H212a 'wing'. Ord *jigʉ:r* (← WM) M195b. Bur *žeber* C234b 'pinion, wing', *žegüür* C235b 'wing'. Kalm *jivr* M225a 'wing'. Dag---. EYu---. MgrH *źa:r* (?=) X214, *sa:r* (?=) X129. MgrM *jur*, *ujur* P415b. Bao---. Kgj---. Dgx---. Mog---.

*joba- 'to suffer, to worry'.

MMo SH *joba-*, *jobo-* H91, HY *jobo-laŋ* M67 'suffering', Muq *joba-* P207b. WM *joba-* L1065b. Kh *zovox* H239b. Bur *zoboxo* C255a. Brg *ʒɔβ-* U215. Kalm *zovx* M250a. Dag *jɔɣ^w-* E320. EYu *jɔ:-* B145, *jo:-* J91. MgrH *źoblɔŋ* X224, *źæblɔŋ* X217, *źærlɔŋ* X218 < **jobalaŋ*, and perhaps in *źo:rgo-* SM91 (caus.) 'to thank' < **joba-lga-*. MgrM *ʒobo-* DS256a 'to toil'. Bao---. Dgx---. MogMr only in *jobo-lɣa* L68, No. 18 'bad quality meat'.

*jočin 'guest'. Apparently from an older form **jolčin* and related to a CT **yo:l-či* 'traveller' from **yo:l* 'road'. The form with -l- only seems to survive in one Baoan source, and in Kalm *zolčn* R476a 'traveller'. Kalm *zuul'č* M258a 'traveller, tourist, stranger' and *zo:člχă* R477b 'to be a guest (and give presents at the occasion), to ask a girl to marry', *zu:lčĭ* R482a, *zulčĭ* R483a 'mediator' seem to involve a confusion between this word and **jaučĭ* 'mediator, matchmaker'. Two other Mongolic words for guest are similarly formed: **aïlčin* (not listed here) from **aïl* 'camp, village', and **geičin*, perhaps < **keidčin* from **keid* 'dwelling'. The partially overlapping distribution of these three words seems erratic. Ordos has all three words. The peripheral languages typically only preserve one each.

MMo SH---, HY *ǰočin* M67, Muq *ǰočin* P208a. WM *ǰoči(n)* L1066a. Kh *zočin* H245a. Ord *ǰočid* (pl.) M211a. Bur *zošon* (some dialects) C259a. Brg---. Kalm---. Dag---. EYu---. MgrH---. MgrM *ɕućiŋ* JL473. BaoD *ʒ́iaoćüŋ* BL93b, *ʒ́ioćüŋ* BL4. BaoJ *ʒ́olćuŋ* L50. BaoÑ---. Kgj *ǰʉčɔ ~ ǰüčɔ* S304a. Dgx *ʐoɕəŋ* B181. Mog---.

*ǰokï- 'to fit, to suit'.

MMo SH *ǰoki*- H92, HY *ǰokiya*- (caus. form) M67 'to arrange', Muq *ǰoqi*- P208a, Ph *ǰoqiya*- (caus) P125b. WM *ǰoki*- L1068a. Kh *zoxix* H245a. Bur *zoxixo* C259a. Kalm *zokx* M251a. Dag *ǰuɣʸ*- (sic) E322. EYu *ǰɔġə*- B146. MgrH *ćugu*- X211, *ćigu*- L444, *ɕugu*- SM440. MgrM---. BaoD *ǰoɣə*- T139. BaoÑ *ʒ́əġə*- CN201. Kgj *ǰuġu*- S303b. Dgx *ʐoğu*- MC465b. Mog *ǰoɣa:lɣa*- (double caus.) R42b 'to cause to perform, to cause to do, to do', *ǰɔğʌ*- W169a 'to prepare'.

*ǰolga- 'to meet; to visit'. The long vowel in MgrH, although in agreement with Turkic **yo:l-uk*- 'id', is unexpected here. The Turkic is from **yo:l* 'road, path', which is cognate to CM **ǰol* 'good luck' (not listed here).

MMo SH *ǰolqa*- H92, *ǰoluqa*- H93, HY *ǰolqa*- M68, Muq *ǰolqa*- P208a. WM *ǰolɣa*- L1069b. Kh *zolgox* H241a. Bur *zolgoxo* C255b. Brg *ʒɔlɔg*- U215. Kalm *zolɣx* M251a. Dag---. EYu *ǰɔlğɔ*- B146, *ǰolğo*- J93b. MgrH *ʒ́io:rga*-, *ʒ́io:rgo*- SM91, *ʒ́o:lga*-, *ʒ́o:lgo*- X223. BaoD *ʐolɣə*- BL81b. BaoÑ *ʒ́əlġa*- CN201. BaoX *ǰolğə*- BC71. Kgj *ǰulğu*- S303b. Dgx---. Mog---.

*ǰor- 'to plane, shave, peel, pare off'. In spite of Poppe's readings, the Muq forms probably belong here, which is supported by the Chagatai equivalent *yon*-. However, the disyllabic form *ǰuru-qu* is unexpected. EYu-MgrH vowel length probably arose after the connective vowel *U* was incorporated into the stem. Cf. **ǰir*- and **ǰisü*- 'to cut' listed above for some further QG forms that may belong with the present etymon. Ramstedt's Moghol form is hard to connect to either **ǰir*- or **ǰor*-, as *öʉ* normally reflects **au* or **eü*. Ramstedt's etymology **ǰaura*- seems untraceable; Weiers' suggestion to derive *ǰuri*- from **ǰorï*- 'to point at' is semantically problematic.

MMo SH---, HY---, Muq *ǰor*- (Poppe: *ǰur-qu*, *ǰuru-ba*) P211a, *ǰuru-qu* P383a, the second *u* is only written in the last instance. WM *ǰor*- L1070b. Kh *zorox* H243b. Ord *ǰor*- M210a. Bur *zoroxo* C257b. Kalm *zorx* M252a. Dag *ǰɔrɣʷ*- (apparently a caus. formation, but not semantically) E320. EYu *ǰu:r*- B147, S470, *ǰü:r*- S454. MgrH *ʒ́o:rə*- X223. Mog *ǰöʉrʉnǎ* (?=) R42b 'cuts', *ǰuri*- (?=) W169b 'to make', but the context of the only occurrence (in fact the pass. *ǰurigdʌ*- W64, No. 185) is compatible with 'to cut'; cf. Zirni *ǰuru*- 22:5a 'to cut'.

*ǰorï- 'to point at', with derived meanings like 'to aim' and 'to intend'. In some languages most clearly attested in derived forms, e.g. MMo HY *ǰorin* M68 'intentionally', *ǰoriq* M68 'intention', Dgx *ʐoroğoŋ* MC464a 'intentionally'. The Dgx verb listed below is a semantically problematic match.

MMo SH *ǰori*- H93, HY (see above), Muq *ǰori*- P208b 'to show the way, to give directions', Ph *ǰori*- P125b 'to strive'. WM *ǰori*- L1071a. Kh *zorix* H243b. Bur

zorixo C257b 'to aim at'. Kalm *zörx* M254b 'to aim at'. Dag *ǰɔrʸ-* E320. EYu *ǰɔrə-* B146 'to aim at'. Mgr---. Bao---. Dgx *ʐorəi-* (?=) MC464a 'to begin (upwards or downwards)' (?). Mog--- (see *ǰor-* above).

*ǰoraa 'ambler' see ***ǰïroa**

*ǰöb 'right, correct, proper'. Perhaps Dag *ǰu:ɣu:* below and *ǰuɣi(n)* T145 (derived from **ǰöb* by Enkhbat as well as Todaeva) are not related to **ǰöb*, but rather to Dag *ǰuɣʸ-*, which seems to be an irregular development of **ǰokī-* 'to be suitable'.

MMo SH *job* H91, HY *ǰöb* M68, Muq *ǰöbleldü-* P208b 'to promise' (**ǰöbleldü-*). WM *ǰöb* L1072b. Kh *zöv* H245b. Ord *ǰöb* M212a. Bur *züb* C265b. Brg *ʒuβ* U218. Kalm *zöv* M252a. Dag *ǰu:ɣu:* (sic, ?=) E320, cf. *ǰubše:-* E322 'to support' (**ǰöbsie-*). EYu *ǰöb* B146. MgrH *ʑob* X223, *ʑüb* X225, *ʑür* X225, *ʑod* X223. MgrM *ʐo* JL472. Bao---. Kgj *ǰübə-la ~ ǰʉbʉ-la* S304a 'true'. Dgx *ʐo* B181. Mog---.

*ǰöe- 'to carry, transport'. For semantic reasons it is difficult to connect MMo SH *jo'e-* H92, *ju'e-* H94 'to set up, install, etc', Muq *ǰö:-* P209a 'to obtain'. The HY *-g-* may be a mistranscription from the Uigur script, but is also reminiscent of EYu *ǰöke-* B146 'to bring, deliver (betrothal gifts)'. This may have further equivalents in MMo SH *jugeli* H94 'sacrifice to Heaven with meat suspended from a pole', Dag *ǰu:ɣu:-* E321 'to offer up a sacrifice', cf also Manchu *juge-*. In some languages **ǰöe-* has phonetically merged with **ǰeü-* 'to wear (gloves, jewelry, etc)'.

MMo SH (see above), HY *ǰögelge-* M68, *ǰöge'ül-* M69 (caus. forms), Muq (see above). WM *ǰöge-* L1074a, *ǰögege-* L1074b. Kh *zööx* H248b. Ord *ǰö:-* M212a. Bur *zööxe* C260a. Brg *ʒo:-* U217. Kalm *zööx* M253b. Dag---. EYu *ǰü:-* J107a. MgrH *ʑo:-* J107b. MgrM *ǰiu-* T334. BaoD *jo:-* T139. BaoÑ---. Dgx *jue-* T120, *čue-* T141 (sic), *ʐo-* MC462a 'to apply/spread (dung)'. Mog *ǰuwʌ-* W169b 'to bring out'.

*ǰöelen (?**ǰeülen*) 'soft'. The form **ǰeülen* (due to metathesis of diphthong elements) is suggested by Dag, and perhaps supported by MogM. The forms in the QG languages do not strongly favour the form with *-öe-*. Kalm *ǰ-* is unexpected.

MMo SH *jo'olen* H93, HY *ǰö'elen* M68, Muq *ǰö'elen* P209a, *ǰö'ölen* P209a, *ǰö:len* P209b, LV---, IV *ǰö:len* L62:39. WM *ǰögelen* L1074b. Kh *zöölön* H247b. Bur *zööle(n)* C259b. Brg *ʒo:liŋ* U217. Kalm *ǰööln* M233a. Dag *ǰəulə:n* E313. EYu *ǰülen* B148, *ǰü:len* B148, J107a, *ǰö:len* (Qinglong) BJ350. MgrH *ʑo:lon* J107a. MgrM *ʐolen* JL464, *ǰiolon* T334. BaoD *ʑiuləŋ* BL93a. BaoÑ *ʑulaŋ* CN202. Kgj *ǰilɔ* S303a. Dgx *ʐolien* B181. MogMr *ǰə:lan*, MogM *ǰəulã* L62:39.

*ǰöen 'cold'. In central Mongolic **ǰöeg* 'lukewarm, cool'. In some languages only derived verbs **ǰöed-/*ǰöes-* are attested.

MMo SH *ju'en* H94, HY *ǰö'en* M68, Muq *ǰö'öske-* P209a, *ǰö:ske-* P210a (caus.) 'to make cold', LV *ǰöen* P1273, IV *ǰöyen* L62:39. WM---. Kh *zö(g)ön xaluun* H248a/247a 'humid and warm', *zöög* H247b 'lukewarm, etc', *zöösgöröx* H248a *zöötgöröx* H248b 'to cool down, become lukewarm, etc'. Ord *ǰö:s ge-* M214a 'to diminish, decrease'. Bur---. Brg---. Kalm *zö:g* R479a 'lukewarm, no longer too hot', *zö:dəχə* R479a 'to become somewhat cooler or milder'. Dag---. EYu---. MgrH

ǯio:di- SM89. MgrM *ʒosï-* DS214a. Bao---. Dgx *ʒosïya-* S375 'to cool off' (+ caus.). Mog---.

ǰöriü 'transverse; askew; stubborn'.

MMo SH---, HY *ǰöriü* M69, Muq---. WM *ǰörigüü* L1076b. Kh *zörüü* H249a. Bur *züryüü* (written *züryuü*) C269b. Brg *ǰiru:* U208. Kalm *zörü:* R478b. Ord *ǰirʉ:* M203a. Dag *ǰuri:* E323. EYu *ǰörü:* S459. Remaining lgs---.

ǰuǰaan 'thick; dense'.

MMo SH *juja'an* H94, HY *ǰuǰa'an* M69, Muq *ǰuǰa'an* P210a, *ǰuǰa:n* P210b, LV---, IV *ǰuǰa:n* P62:39. WM *ǰuǰaɣan* L1081b. Kh *zuzaan* H250b. Ord *ǰuǰa:n* M215b. Bur *zuzaan* C261a. Brg *ʒʊʒa:ŋ* U216. Kalm *zuzan* M255a. Dag *ǰuǰa:n* E323. EYu *juja:n* B147, J107a. MgrH *ǯuǯuan* L107b. MgrM *ǰuǰaŋ* T335. BaoD *ǯiǯiaŋ* BL93b. BaoÑ *ǯiǯaŋ* CN200. Kgj *jiǰɔ* S303b. Dgx *ʒuʒaŋ* B184. Mog *ǰuǰɔn* W169b, MogM *ǰuǰɒ:n* L62:39.

ǰula '(oil) lamp'. The Kgj form is peculiar, but its similarity to the alternative WM spelling with -ɣ- is probably coincidental. Cf. CT *yula* 'id'.

MMo SH---, HY *ǰula* M69, Muq *ǰula* P210b, LV---, IV *ǰula* L62:39, Ph *ǰula* P125b. WM *ǰula* L1078a, *ǰulaɣa* L1078a. Kh *zul* H251a. Ord *ǰula* M217a. Bur *zula* C261b. Brg *ʒʊl* U216. Kalm *zul* M255b. Dag *ǰ^wal* E325. EYu *ǰula* B147, J107a. MgrH *ǯila:* J107b. MgrM *ʒula* JL464, *ǰula* T333. BaoD *ǯiula* BL93b. BaoÑ *ǯila* CN199. Kgj *jilaǧa* (sic) S303a. Dgx *ʒula* B183. Mog---.

ǰulaï (*ǰula*) 'fontanel, sinciput'. Both EYu and Baoanic support the form *ǰula*; Dag does as well, but in Dag the loss of word-final *ï/i* from diphthongs is very common. The MgrH form may be a semantic development of *ǯiärǯe:* 'ridge between fields; boundary between plots of land' (of unknown etymology).

MMo SH---, HY---, Muq---, LV---, IV---, cf. IM *ǰola:* P439b 'brain'. WM *ǰulai, ǰula* L1078a. Kh *zulay* H251a. Ord *ǰulä:* M217b. Bur *zulay* C261b; cf. also the phonetically aberrant Bur *žoloo* C232b 'fontanel', *yoloon* (Bokh. dial) C227a 'id'. Brg *ʒʊlai* U216. Kalm *zula* M255b. Dag *ǰɔl* E320. EYu *ǰula* B147. MgrH *ǯiärǯe:* (?=) SM83. MgrM---. BaoD---. BaoÑ *ǯila* CN199. Dgx *ʒula* B183. Mog---.

ǰulǰaga(n) 'young of an animal, offspring'. The -*n* found in MMo only survives in EYu. Kalm remodeled as if from a diminutive formation *ǰulǰïu-kaï* (cf. *ïnǰaga* for a similar treatment). MgrM has the final -*r* commonly added to names of young animals, probably under the influence of Chinese -*er*.

MMo SH---, HY---, Muq *ǰulǰaɣan* P211a, LV *ǰulǰiqan* P1272, IV---, Ph *ǰulǰiqan* P125b. WM *ǰulǰaɣan* L1079b. Kh *zulzaga* H252b. Ord *ǰulǰaɣa* M218a. Bur *zulzaga* C262a. Brg *ǰʊlǰïɣ* U208. Kalm *ǰulǰuxa* M233b 'chick'. Dag *ǰelǰiɣ* E316. EYu *jəlǰəɣan* B144, J107a. MgrH *ǯilǯaɣa* J107b. MgrM *ʒuʒuɣar* JL463, *ǰuǰuɣar* T333. BaoD *ǯinǯiɣə* BL93a. BaoÑ *ǯilǯiɣa* CN199. BaoX *jinǰəɣə* BC61. Kgj *jinǰiɣa* S303a. Dgx *ʒunʒuɣa* e.g. in *qïɡəi ʒunʒuɣa* B70 'piglet'. Mog---.

*ǰumuran 'suslik (ground squirrel)'. This form in the oldest sources. Kh-Kalm suggest *ǰuruman* with metathesis of -*m*- and -*r*-. Bur and Dag represent an earlier form *ǰumburan* with added -*b*-.

      MMo SH---, HY *ǰumuran* M69, Muq---, RH *ǰumran* (or *ǰumuran*) 200A2. WM *ǰurama*, *ǰurum* L1080a/b. Kh *zuram* H254a. Ord *ǰurma* M220a. Bur *zumbara*, *zumbaraa(n)* (lit) C262b, *zumara*, *zumari* (western) C262b, *zurman* only in the combination *xerme zurman* C649a 'squirrel' (*keremün* 'squirrel' not listed here). Brg *ʒʊmbara:* U216. Kalm *zurmn* M257a. Dag *ǰɔmbɔr* S464, *ǰumbra:* T145 'suslik'. Remaining languages---.

*ǰun 'summer'. Cf. **naǰïr* 'id'.

      MMo SH *ǰun* H94, HY *ǰun* M69, Muq *ǰun* P211a, LV *ǰun* P1273, IV---. WM *ǰun* L1079b. Kh *zun* H253a. Bur *zun* C262b. Brg *ʒʊŋ* U216. Kalm *zun* M256a. Dag---. EYu *ǰun* B147, J107a. MgrH *ʒ́un* (only) L250, *ʒun* (only) L691. Remaining lgs---.

*ǰuruman 'suslik' see ***ǰumuran**

*ǰuura- 'to mix, stir; to knead'. The WM spelling *ǰiɣura-* (and the form in SH) is unexpected, since Kh, Bur, Kalm have *z*-, not **ǰ*- or *š*-; cf. also the CT equivalent **yogur-* 'id'.

      MMo SH *ǰi'ure-* (sic) H91, HY---, Muq *ǰu:ra-* P234a, *ǰuɣra-* (sic) P224a. WM *ǰiɣura-* L1051a, *ǰuɣura-* L1077b. Kh *zuurax* H256a. Bur *zuuraxa* C265a. Kalm *zuurx* M258b. Dag *ǰʷa:r* E324. EYu *ǰüra-* B149, *ǰü:ra-* J106a. MgrH *ʒ́ira:-* J106b, X222. BaoD---. BaoÑ *ʒ́ira-* CN200. Kgj *ǰira-*S303b. Dgx *ʒuwa-* B184, *ʒura-* MC469b, *ʒurwa-* MC469b. MogMr *ǰu:rʋ:-* L64:36.

*ǰüg 'direction, side'. Also used as a postposition 'towards, to' (already in MMo), e.g. Chakhar *ġɔl ǰu:* D93 'to the river', Dag *adɔ:yi: ǰur* Z72 'towards the herd', EYu *namin ǰug* J42 'to me', MgrH *nda: ʒ́ə* J51 'to me'. Probably also the source of the Monguoric directive ending found in lexicalised formations such as MgrH *do:roʒ́i* X197 'downwards', MgrM *ġadaʒ́i* DS241a 'outwards', *quainoʒ́i* DS205b 'backwards'. Similar-looking Baoan forms like BaoGt *odəʒ́* C121 'upwards', *dorəʒ́* C121 'downwards' may have the same origin, but corresponding forms in other Baoan dialects suggest a different (unknown) final element, e.g. BaoD *śiraći* BL84b 'downwards', BaoGT *yɛć* C122 'hither', BaoÑ *ɵ:dərć* CN16 'upwards', *yərć* C219 'hither', *tərć* C169 'thither' BaoX *yoča* BC72 'hither', *tača* BC72 'thither'.

      MMo SH *juk* H94, HY *ǰük* M69, Muq *ǰük* P211b, Ph *ǰüg* P125b. WM *ǰüg* L1082b. Kh *züg* H257a. Ord *ǰʉg* M223b. Bur *züg* C266b. Brg *ʒug* U218. Kalm *züg* (obs) M259a, nowadays *üzg* (sic) M546a. Dag *ǰu:r* E321, *ǰur* Z105b, *ǰʉr* NK528a, cf. also *ǰu:ɣu:* E321 'direction' with an additional final element. EYu *ǰəg* B143, *ǰug* J66. Mgr (see above). Bao---. Dgx *ʒəu* in *iŋ ʒəu* B10 'on this side', *ćiŋ ʒəu* B154 'on that side'. Mog *žuk*, *ǰuk* W169b.

*ǰürüken 'heart'. All modern forms except Ordos can be derived from a disyllabic form. The central languages and Dagur go back to **ǰürke(n)*. The QG forms stem

from *ǰürge(n). (Note the absence of initial strengthening in Monguoric). Final -n is atypically absent in Baoanic; it may never have survived into Shirongol. The MgrH and Bao forms with -i- are recently palatalized in view of MgrM and Dgx. The -i- in WM and SH may be a spelling mistake; an alternative explanation that it is a very early case of palatal breaking is in conflict with the Turkic cognate (cf. *ǰïar 'musk', *ǰee 'nephew'). The trisyllabic forms in MMo could well represent a pronunciation that once existed, although a form *ǰüregen with -e- would normally be expected on the basis of the Turkic cognate *yürek 'id'.

   MMo SH juruge(n) H95, jiruge(n) H91, HY ǰürüken M69, Muq ǰürüken [?or *ǰürügen] P211b, LV ǰürke P1273, IV---. WM jirüken L1062a. Kh zürx(en) H259b. Ord ǰʉreke M225b. Bur zürxe(n) C268b. Brg ʒurx U218. Kalm zürkn M260a. Dag ǰury^w E324. EYu ǰʉrɣen B149, J107a. MgrH ʒ́irge J106a, ʒ́irgʒ X222. MgrM ʒurgi JL461. BaoD ʒ́irgə BL93b. BaoÑ ʒ́irge CN200. Kgj jirge ~ jirgi S303b. Dgx ʒuǧə B183 'heart; mood, thought, thinking'. Mog ǰʉrkà R42b.

- K -

*kaa, *kaana   'where?'. In addition to the forms listed below, Dag has a Turkic-looking form xaida: E97 'where'. However, this has the same morphological structure as əidə: 'on/to this side', ti:da: 'on/to that side'. Note the -l- in Baoanic, not shared by Kgj in this case.

   MMo qa'a H54, HY qa'a M85, Muq qa:na P297b. WM qamiɣa L923b, qaɣa L905a, qa L895a, qana L927a. Kh xaa H587a. Bur xaa C522a, xaana C523a. Brg. Kalm xa M559a, xama M573a. Dag xa:nə E95, Z97a. EYu χana J99a, J27. MgrH---. MgrM---. BaoD χalə, χali BL87a, halə BL63. BaoGt halə C127. BaoÑ hala CN65. BaoX xalə BC69. Kgj χana S285a. Dgx qala B68, L115b. Mog qana R31b, qʌnʌ W176a.

*kaa-   'to close, enclose; to block, shut off'. EYu χa:- J88 'to sew, stitch' could be a semantic development of the present verb, but it may also belong with χaβa- B43 'to sew with long stitches' (< *kaba-, not listed here). Cf. also BaoX xa:- BC70 'to sew', BaoD ha- BL12 'to sew; to tie', but the latter meaning suggests these forms are irregular developments of *huya-.

   MMo SH qa'a- H54, HY qa'a- M85, Muq qa:- P297b. WM qaɣa- L905a. Kh xaax H588a. Bur xaaxa C524a. Kalm xaax M560b. Dag xa:- E95. EYu χa:- B42 'to cover', J99a 'to close'. MgrH xa:- J99a. MgrM qa:- C376, qa- JL463. BaoD χa- BL87a. BaoÑ χa:- CN56. Kgj χa- ~ χa:- S285a. Dgx qa- B67. Mog---.

*kaan   'khan, king, emperor'. Widespread Eurasian word (see TMEN 1161).
   MMo SH qa'an H54, qahan H56, qan H59, HY qan M87, qahan M86, Muq χa:n P117b, χan P225a [but in fact these are spelled the same]. WM qaɣan L906b, qan L926b. Kh xaan H588a, xan (obs) H611b. Bur xaan C523a, xan C544b. Kalm xan M575a. Dag xa:n E95. EYu xa:n B42. MgrH xa:n X64. MgrM qaŋ

JL477. Bao---. Kgj---. Dgx---. Mog χa:n (←Pers.) R29a 'khan', MogM, MogMr χɒ:n L62:40 (in family names).

*kaarï- 'to roast, burn', in some languages 'to cauterize, to geld'. It is uncertain whether the phonetically and semantically deviating Kgj and Dgx forms belong here. There are some other words with h- < *k-, notably *kamtu 'together', but the vocalism is also problematic. Alternatively they may represent an intransitive formation *heere- derived from *hee- 'to warm up in the sun'.

MMo SH---, HY---, Muq---. WM qaγari- L907a, qayira- L913a (Khalkha-based re-spelling). Kh xayrax H600a. Ord χa:ri- M340a. Bur xayraxa C534b. Kalm xäärx M587a. Dag xa:rʸ- E96. EYu χa:r- B42, S97 'to geld'. MgrH xaira- (sic, unconfirmed by other sources) L163. BaoD---. BaoÑ χa:- (sic, ?=) CN56 'to geld'. BaoX χa:rə- BC62 'to burn, scald'. Kgj here- (?=) S286b 'to become hot'. Dgx həri- (?=) B66 'to become hot'. Mog---.

*kaban/*kabaŋ 'wild boar'.
MMo SH---, HY qaban M85, Muq---. WM qabang L895b, qaban L895a. Kh xavan(g) H589a. Ord---. Bur---. Kalm xavŋ M561b. Dag xau gaγə (?=) E97 'boar' (*gakaï). EYu χaβaŋ BJ347 'breeding boar (?)'. Mgr---. Bao---. Dgx---. Mog---.

*kabar/*kamar 'nose'. The distribution of the two variants is interesting. The forms in the QG languages and Mogholi are all developments of a form with -b-, resembling that in the MMo sources. In the central languages and Dagur the form with -m- is found. In view of the MMo forms the form with -m- looks like an (inexplicable) innovation. The Shirongol' languages share the additional meaning 'snot'; in EYu there is an additional meaning 'front' used in postpositional phrases, perhaps inspired by Turkic, where *burun (also originally 'nose') performs the same function.

MMo SH qabar H54, HY qabar M85, Muq qabar P284a. WM qabar L895b, qamar L923b. Kh xamar H609b. Ord χamar M330a. Bur xamar C542a. Brg xamar U93. Kalm xamr M573b. Dag xamər E102. EYu χwa:r B54, χaβar J99a. MgrH xavar X73 '&snot'. MgrM qabar JL467. BaoD χor BL87b 'nose, BL85a 'snot'. BaoÑ χawar CN59 'nose; snot'. Bao dialects in CN86:16: Datong χor; Ganhetan χor; Xiazhuang χor; Gaser χuar; Gomar χuar. Kgj χuar S285b '&snot'. Dgx qawa B69 '&snot', qawar (Wangjiaji?) B87:311. Mog qabar R31a, qʌbʌr W176a.

*kabïd- (*kabud-) 'to swell'. Shirongol (but not MMo) represents the form *kabïd-. EYu χaβəd- could be from either variant. *kabïd- is probably the older form, as an early development ï > u is more likely than the reverse. Also note the -t- from *d in MgrM, Bao and Dgx (cf. *čad-, *ebed-, *naad-).

MMo SH---, HY---, Muq qabut- P285b. WM qabud- L900a. Kh xavdax H589b. Ord χawud- M345a. Bur xabdaxa C526a. Brg xaβd- U90. Kalm xavdx M561b. Dag xaud- E97. EYu χaβəd- B43, J99b. MgrH xaidə- X65, xe:di- SM166 ~ xawudi- SM165. MgrM qaputu- DS254a. BaoD χitə- BL87b. BaoÑ---. Kgj χər- ~ χur- S286a. Dgx qawitu- B70, qayitu- B69, kaitu- (sic) L115a. Mog---.

*kabïrga 'rib; side, vicinity', also used as postposition. Although the -rga in *kabïrga is unclear, it has been assumed here that this word and *kabïsun are related (*kabï is also attested independently in central Mongolic). The form *kabïrga features several metathetical forms in QG (cf. *tarbagan and *kalbuga 'spoon' for similar alterations). SH qabirqar EYu χarǧuar and BaoÑ harǧal contain an additional element, probably the same -r as in *dotar 'inside' and *gadar 'outside'. Likewise, EYu χarǧwara and χarǧwana developed in parallel with *dotara and *dotana, etc. EYu hərqwaǧ B55 'vicinity' is hard to connect for phonetic reasons (notably the h-, the strong -q- and the final -ǧ).

MMo SH qabirqa, qabirqar H54, HY qabirqa M85, Muq qabirqa, qabirɣa P285a, qaburɣa- P285b. WM qabirɣa(n) L898a. Kh xavirga(n) H590a. Ord χawirǧa M344a. Bur xabirga C526b. Brg xaβʸrəg U90. Kalm xävrɣ M588a 'side of the body; side in general'. Dag xabʸrəɣ E99 'rib'. EYu χarǧwa B49, χarǧua S313, χaβərǧa J98b 'rib', χarǧuar S316 'side', cf. the postpositions χarǧwara B49 'side', χarǧwana BJ348 'one's side'. MgrH xarǧa: L181, ǧarǧa: S316 'side'. MgrM qərǧa DS60a 'near', DS205a 'around', F15:28 'beside'. BaoD χalǧə BL86b, xarga P418b. BaoÑ harǧal CN66. Kgj---. Dgx qaruǧa B69 'rib', qarǧa, qarawa MC208a, qaruwa MC208b 'rib; side', DgxL qaruqa(də) B69 'next door'. Mog qoburɣa R32a.

*kabïsun 'rib; side'. One of the Mgr forms suggests *kabïrsun. Cf. *kabïrga.

MMo SH---, HY qabusun M85 q.v., Muq---. WM qabisu(n) L898a. Kh xavis(an) H590a, xav's(an) H593a. Ord χawis(u) M344b. Bur xabha(n) C527b. Brg---. Kalm xavsn M562a. Dag---. EYu---. MgrH xavuʒa J99b 'rib', xairsə X65 'rib'. MgrM qapuʒï JL477. Bao---. Kgj---. Dgx---. Mog---.

*kabtagaï 'flat'. Cf. *kabtasun 'board'.

MMo SH qabtaqai H54, HY qabtaqai M85, Muq qabtaɣai, qabtaqai P285a. WM qabtaɣai L899a. Kh xavtgay H591a. Ord ǧabtaǧä: M282b. Bur xabtagay C527a. Brg xaβtgai U90. Kalm xabtxa M562 'q.v.'. Dag kartɣəi E142, kabtɣəi E138. EYu ǧabtaǧai B73, ǧabdaǧai J99b. Remaining lgs---.

*kabtasun 'board', often the 'sideboards supporting the saddle'. In Dagur the latter is expressed by the form *kabtal (?*kabtaal), which is rare in Mongolic, but commonly found in Turkic languages. Manchu habta also reflects *kabtal. Cf. *kabtagaï.

MMo SH qabdasun H54, qabtasun H55, HY---, Muq qabtasun P295a. WM qabtasu(n) L899b. Kh xavtas (sic, not -an) H590b. Ord ǧabtasu M282b. Bur xabtaha(n) C527b. Brg xaβtʊ: U90. Kalm xaptăsn R167a, cf. χaptăɣăsn R167a, χapcă R167b. Dag kartəs E142 'board', kabta:l E138 'sideboards of the saddle'. EYu ǧabtasən B73. Remaining lgs---.

*kabturga 'bag, sack, (tobacco) pouch'. The Kh form and one of the Dag forms reflect a simplified form *kabtuga. Perhaps in some way connected to CT *ka:p 'bag', although there is no explanation for the -turga element.

MMo SH---, HY---, Muq qabturɣa P285a. WM qabtaɣa L899a. Kh xavtga H591a. Ord ǧabtarǧa M282b. Bur-?-. Kalm χaptrɣă R167a 'pouch', χaptăχă R167a

'bag'. Dag *kartrəγ*, *kartəγ* E142. EYu *ġabtăr^hqa* B73. MgrH *ṣdarġa* X166 'tobacco pouch'.

*kabur 'spring (season)'.

MMo SH *qabur* H55, HY *qabur* M85, Muq *qabur* P285b. WM *qabur* L900a. Kh *xavar* H589a. Bur *xabar* C525b. Kalm *xavr* M561b. Dag *xaur* E97. EYu *χaβər* B43, J98b. MgrH *xawur* (only) L188. MgrM *kabïr* P411b. Remaining lgs---.

*kačar 'cheek(s)'. Kalm suggests **kačïr*. EYu instead uses an etymologically obscure, but Mongolic-looking word *čagtăğai* B133.

MMo SH *qacar* H55, HY *qačar* M85, Muq *qačar*, *γačar* P187a. WM *qačar* L901a, *qačir* L901b. Kh *xacar* H628b. Ord *ġačar* M299b. Bur *xasar* C559b. Brg *xasar* U94. Kalm *xačr* (obs) M584b. Dag *kačir* E141. EYu---. MgrH *xaćar* J99b. MgrM *kïča* (sic) P422b, *qəẓər* DS211a, *qaẓar* Z331:262. Bao---. Kgj---. Dgx *qïẓa* B71. Mog---.

*kada 'rock; overhanging rock; ravine'. Initial weakening due to the following -*d*-in the QG languages.

MMo SH *qada* H55, HY---, Muq---. WM *qada(n)* L902a. Kh *xad(an)* H595a. Ord *χada* M320b. Bur *xada* C529a 'mountain'. Kalm *xad* M565b. Dag *xad* E103. EYu *ġada* B75, J99b. MgrH *ġada:* J99b. MgrM *ġada* J87. BaoD---. BaoÑ---. Kgj---. Dgx *ġada* T115. Mog---.

*kada- 'to nail down; to sew on (a button or a sole)'. Related to CT **kadu*- (some languages suggest **kadï*-). Cf. **kadaasun* 'nail'.

MMo SH *qada'ul*- (caus) H56 'to have nailed down', HY---, Muq *qada*-P350b 'to sew on (a button)'. WM *qada*- L902a 'to nail', cf. *tobči qada*- L902a 'to sew on a button'. Kh *xadax* H596a. Ord *χada*- 321a. Bur *xadaxa* C530b. Kalm *xadx* M567a. Dag *xad*- E103 'to sew on'. EYu *ġadə*- J22 'to sew on a button', *ġada*- B75 'to nail; to settle'. MgrH *ġada*- X94 'to sew on a patch'. MgrM---. BaoD---. BaoÑ *ġada*- CN85 'to nail'. Dgx *ġada*- B80 'to nail'. Mog---.

*kadaar 'bit of a horse's bridle' see **kaǰaar*

*kadaasun 'nail'. this word derives from **kada*- 'to nail', but in the QG languages it has become indistinguishable from **gadasun* 'peg' (see there for the modern forms)

*kadku- 'to prick, sting, stab, pierce'. The BaoÑ form deviates semantically. The apparent pair of doublets in Mongghul is reminiscent of **kudku*- 'to stir'. Contamination with MgrH *ṣdoġʋ* < CM **kïtʋga* 'knife'?

MMo SH *qatqu*- H63, HY *qatqu-ldu*- (reciprocal) M89 'to fight (with weapons) at close quarters', Muq *qatqu*- P296b. WM *qadqu*- L904a, *qadqa*- L903b. Kh *xatgax* H626b. Ord *ġatχu*- M284b. Bur *xadxaxa* C531a. Kalm *xatxx* M584a. Dag *kark^w*- E142. EYu *qatġə*- B63, *ġadġə*- J8, *χadġə*- J57. MgrH *ġasġʋ*- X94, *ṣdoġʋ*-X168. MgrM---. BaoD---. BaoÑ *χadġə*- (?) CN58 'to hang, put up'. Dgx---. Mog---.

*kadu- 'to cut, harvest'. Initial weakening in QG. As Poppe suggests, perhaps related to CM *kadku- 'to stab' above, and *kaǰa- 'to bite' below.

MMo SH---, HY---, Muq *qadu-* P286a. WM *qadu-* L903a. Kh *xadax* H596a. Ord *χadu-* M322a. Bur *xadaxa* C530b. Kalm *xadx* M567a. Dag *xad-* E103. EYu *ġadə-* B75. MgrH *ġadə-* J99b. MgrM *ġadu-* JL468. BaoD *ġadə-* BL87a. BaoÑ *ġada-* CN85. Kgj *ġade-* ~ *ġadi-* S288a. Dgx *ġadu* B80. Mog---.

*kaduur 'sickle'. Derived from *kadu- above. MgrH vowel shortening.

MMo SH---, HY *qadu'ur* M86, Muq---. WM *qaduγur* L903a. Kh *xaduur* H596b. Ord *χadu:r* M322a. Bur *xaduur* C530b 'sickle', but *xažuur* C532b 'scythe'. Kalm *xadur* M567a. Dag *xadu:r* E104 'knife; kitchen knife; sickle'. EYu *ġadu:r* B75. MgrH *ġadər* J99b. MgrM *ġadur* C381. BaoD *ġadər* BL87b, BaoÑ *ġadər* CN85. BaoX *ġa:dər* BC65. Kgj *ġadər* S288a. Dgx *ġadu* B80. Mog---.

*kadum 'family-in-law', and '-in-law' as added to kinship terms. Initial weakening in QG. Similar to the synonymous CT *kadïn, but the CM *u and *m are not normal correspondences of CT *ï and *n.

MMo SH---, HY *qadum* (*ečige, eke*) M86 (father, mother) -in-law', Muq *qadum* P286a. WM *qadum* L903b, *qadam* L903a. Kh *xadam* H596a. Bur *xadam* C530a. Kalm *xadm* M566b. Dag *xadəm, xadən* E103 'family-in-law' (& several compounds). EYu *ġadam* B75 'family-in-law' (& compounds). MgrH *ġadəm* J99b. MgrM *ġaduŋ* JL477. BaoD---. BaoÑ only in *ġadəm ana* CN85 'mother-in-law', *ġadəm baba* CN85 'father-in-law'. Kgj---. Dgx *ġaduŋ* B80 'father-in-law' (& compounds). Mog---.

*kagača- 'to separate; to part with, etc'. Probably related to *kagal-, *kagara-, below. The loss of -g- in the Monguoric forms is unexpected. However, a connection with *alǰïa- 'to separate' is also problematic, as secondary h- normally appears when the following syllable starts with a strong consonant.

MMo SH *qaqaca-* H56, HY *qaqača-* M88, Muq *qaγača-* P286a, *qaqača-* P291b, *γaqača'ul-* (caus) P329b. WM *qaγača-* L905a. Kh *xagacax* H594b. Bur *xaxasaxa* C563b. Kalm *xaγcx* M565b. Dag---. EYu *χağača-* B44. MgrH *χa:ǯä-* (?=) SM148, *xa:ǯa:-* (?=) X64. MgrM *qəʒia-* (?=) DS248b. Bao---. Dgx *ġağaça-* B80. Mog---.

*kagal- 'to break, split, burst (tr.)'. Bur and Mog suggest *kakal-. The final long vowel in Dag is commonly seen in this suffix, although it only consists of -l in the remaining lgs.

MMo SH *qaqal-* H56, HY---, Muq *qaqala-* P291b. WM *qaγal-, qaγala-* L906a. Kh *xagalax* H593b. Ord *χaġal-* M323b. Bur *xaxalxa* C563a. Brg *xagal-* U91. Kalm *xaγlx* M565a. Dag *xaulɔ:-* E97, *xaγlɔ:-* E100. EYu-?-. MgrH *xġalə-* J99a. MgrM *qġar-* JL480. BaoD *ġalə-* BL87b. BaoÑ *ġaġal-* CN84. BaoX *ġal-* BC70. Kgj *ġəğa-* S288a, S169. Dgx *ġağalu-* B79. Mog *qaqala-* R31a 'to cut up'.

*kagara- 'to break, split, burst (intr.)'. Bur and Mog suggest *kakara-; EYu seems to have both variants.

MMo SH---, HY---, Muq *qaqara-* P291b. WM *qaɣara-*, *qaɣar-* L907a. Kh *xaɣarax* H593b. Ord *χaġar(a)-* M323b. Bur *xaxarxa* C563a. Brg *xaɣar-* U91. Kalm *xayrx* M565a. Dag *xaɣər-* E100. EYu *χaɣara:-* J99a, *hqara-* BJ331. MgrH *xɣara:-* J99a. MgrM *qrɣara-* C379, *qəġəra-* DS208b. BaoD *ġar-* BL13. BaoÑ---. Kgj *ġəra-* ~ *ġara-* S288a. Dgx *ġaġari-* L115b, *ġaġara-*, *ġaġarəi-* MC113b. Mog *qaqara-* R31a, *qʌkʌrʌ-* W176a.

*kaïčï 'scissors'. Probably related to a Turkic form *kapïtï, in which case the PM form may have been *kahïtï < *kapïtï.
        MMo SH---, HY *qayiči* M89, Muq *qa'iči* P346a. WM *qayiči(n)* L912a. Kh *xayč(in)* H601b. Ord *χä:či* M347b. Bur *xayša* C535b. Kalm *xääč* M587b. Dag *kaič* E137. EYu *χaičə* B42, B98b. MgrH *xaiʒ́ə* ~ *xaićə* X65, *xai:ʒ́ə* J98b. MgrM *qaići* JL474. BaoD *χəićiə* BL86a, *χićiə* BL21. BaoÑ *χi:ći* CN61. BaoX *χičə* BC65. Kgj *qaiči* ~ *qeiči* S286b. Dgx *qaiçï* B67. Mog *qɛiči* R32a.

*kaïla- 'to make a noise; to shout; to cry'. The original meaning of this verb was probably very broad. In MMo Muq this verb was used to denote the shouting of humans and all kinds of animal noises except those of dogs, horses, cattle, etc, for which there are special verbs. In the QG languages *kaïla-* is still used in a similar fashion, and even for more animals. However, in the literary central languages the meaning is narrowed.
        MMo SH *qaila-* H57, *qayila-* H57, *qaiyila-* H64 'to call, shout', HY---, Muq *qaila-* P287b (for semantics see above). WM *qayila-* L912b 'to weep, cry, shed tears'. Kh *xaylax* H599a 'to weep, cry'. Ord *χä:la-* M346a 'to moo'. Bur *xaylaxa* C534a (used in comb. with *uylaxa* 'to cry'). Kalm *xäälx* M586b 'to cry'. Dag---. EYu *χaila-* B42 'to neigh'. MgrH *xaila-* X65 'to crow; to neigh; etc'. MgrM *qaila-* C377, *χeila-* T375 '(of animals) to make a sound'. BaoD *χil-* BL51 'to make a sound [of thunder]', *χəila-* T150 'to shout, yell; to make a noise'. BaoÑ *χila-* CN61 'to call; to chirp; to crow, caw; to roar, howl'. Kgj *χaila-* S285a 'to call, to crow, to shout'. Dgx *qaila-* B67 'to shout or call; to cackle, chirp'. Mog *qaɪlʌ-* W176a 'to call'.

*kaïlasun 'elm tree'.
        MMo SH---, HY *qailasun* M86, Muq---, RH *qaliyasun* (sic) 202A23. WM *qayilasu(n)* L912b. Kh *xaylaas(an)* H599a, *xayls* H599b. Ord *χä:las(u)* M346a. Bur *xaylaaha(n)* C533b. Bur *xaila:* U87. Kalm---. Dag *kails* E137. EYu---. MgrH---. MgrM *qailasï* JL477. Bao---. Kgj---. Dgx--- Mog---.

*kaïnag (?and *kaïnug) 'yak'. The *-u-* only occurs in WM spelling, but the MgrM, BaoÑ and Kgj forms would be compatible with a high vowel in the second syllable. In the central languages it denotes a hybrid animal, but in QG *kaïnag* is just 'yak'. The QG languages use *umsu* (from Tibetan) for the hybrid.
        MMo---. WM *qayinuɣ* L913b 'a hybrid between a yak and a cow'. Kh *xaynag* H599b 'a yak-cow hybrid'. Ord *χä:naq* M346a 'yak cow'. Bur *xaynag* C534a 'crossbreed of Tibetan yak and Mongolian cow'. Kalm *xääng* M586b 'crossbreed of yak and domestic cow'. Dag---. EYu *xainaġ* B42, J15. MgrH *χe:naġ*

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SM167. MgrM *qainəġ* P422b. BaoÑ *χi:nəġ* CN60. Kgj *χeinəğ ~ χainəğ* S285b. Dgx---. Mog---.

kaïran '(what a) pity, mercy, care, affection'. In central Mongolic one typically finds a noun *kaïra* 'love, compassion, etc' and an adjective/exclamation *kaïran* 'what a pity; pitiable, poor'; this is reflected in WM.

        MMo SH *qayiran* H64, *qayirala-* H64, HY *qairala-* M86, *qayirala-* M89, Muq *qairala-* P288a. WM *qayira* L913a 'love, etc', *qayiran* L913b 'pitiable, etc'. Kh *xayr*, *xayran* H600a. Bur *xayra* C534a, *xayran* C534b. Kalm *xäär*, *xäarn* M587b. Dag *xairan* E97. EYu *xairan* B42, *χair* (sic) S317. MgrH *χe:ran* SM167 'dear', *χe:rġan* (*kaïrakan*) SM167 'pitiable, poor'. MgrM *qairaŋ* C377b. Remaining lgs---.

kaïrsun 'fish's scale'. Interestingly, Bur and Kalm use *kačïrsun* instead: Bur *xašarha(n)* C566a. Kalm *xačrsn* M584b.

        MMo SH---, HY *qairsun* M86, Muq---. WM *qayirsu(n)* L914a, *qayirasu(n)* L913b. Kh *xayrs* H600b. Ord *χä:rsu ~ χä:rsa* M347a, *ġä:rsu* M301b. Bur---. Kalm---. Dag *xaič* E97. Remaining lgs---.

kaǰa- 'to bite'.

        MMo SH *qaja-* H57, HY---, Muq---. WM *qaǰa-* L947a. Kh *xazax* H598a. Bur *xazaxa* C533b. Kalm *xazx* M568b. Dag *xaǰ-* E104 'to gnaw, bite'. EYu *ġaǰa-* J99b, S316 'to bite', BJ329 'to sever, cut off'. MgrH *ġaʒa-* J99b. MgrM *ġaʒa-* JL472 'to gnaw'. BaoD-?-. BaoÑ-?-. BaoX *ġaǰi-* BC74 'to bite to death'. Kgj *ġaǰa-* S288a. Dgx *ġaʒa-* B81 'to gnaw'. Mog---.

kaǰaar/*kadaar* (<*kadïar*/*kadaar*) 'bit of a horse's bridle'. Haenisch' translation of *pèitóu* reins, halter' is incorrect, cf. *ǰïloa* 'reins', *čïlbuur* 'martingale', *nogta* 'halter'. At first sight the distribution seems to suggest that *kaǰaar* is a central Mongolic innovation, while *kadaar* was the old form, which is preserved both in Dagur and the QG languages. However, there are some problematic forms in Dagur, Mongghul, and Mangghuer. If the Muq form in *-l* is not a mistake, the Dagur form *xada:l* may have a long history in Mongolic. Alternatively it may have been adopted from Manchu *hadala*. The Mongghul variant with *-ʒ-* is puzzling as this affricate usually goes back to *s*; there are no neighbouring central Mongolic donor languages from which it could have been borrowed. The same applies to Mangghuer *qaʒər*, in which both the strong initial and the medial affricate are unexpected. Probably related to *kaǰa-* 'to bite' above.

        MMo SH *qada'ar*, *qada:r* H55, HY *qada'ar* M85, Muq *qada:r* P286a, *qada:l* (?sic) P342a, LV *qada:r* P62. WM *qaǰaγar* L947b. Kh *xazaar* H597b. Ord *χaǰa:r* M323a. Bur *xazaar* C532b. Brg *xaʒa:r* U96. Kalm *xazar* M568a. Dag *xada:l* 'bit (of a bridle)' E103 (see above). EYu *ġada:r* B75 'bit (of a bridle)', *ġadar* J99b. MgrH *ġadar* J99b, X95, note also *ġazar* X96. MgrM *qaʒər* DS207a. BaoD *ġadar* BL87b, *ġadər* BL23. BaoGt *ġədər* C117. BaoÑ *ġadər* CN85. Kgj *ġadar ~ ġarda* S288a. Dgx *ġada* B80. Mog *qada:r* R31a.

*kaka- 'to choke (intr), to be suffocated; for sth to be stuck in one's throat'.
MMo SH *qaqa-* H56, HY---, Muq *qaqa-* P291a. WM *qaqa-* L946b. Kh *xaxax* H627b. Ord *ġaχa-* M287a. Bur *xaxaxa* 563b. Kalm *xaxx* M584b. Dag *xaɣ-* E100 'to choke', ?cf. also *xakʷ-* E100 'to be blocked'. EYu *hġa-* B59 'to obstruct, to block', *χġa-* J9, *qaġa-* S336. Remaining lgs---.

*kalaun 'hot'. From the verb *kala-* which is not well attested in the peripheral languages.
MMo SH *qala'un* H57, HY *qala'un* M87, Muq *qala'un* P288b. WM *qalaɣun* L916b. Kh *xaluun* H606a. Bur *xaluu(n)* C539b. Kalm *xalun* M570b. Dag *xalu:n* E100. EYu *χalu:n* B44, J99a. MgrH *xaloŋ* J99a. MgrM *qaluŋ* JL476. BaoD *χaluŋ* BL87b, *χoluŋ* BL62. BaoGt *xoluŋ* C125. BaoÑ *χөlөŋ* CN62. BaoX *χoloŋ* BC67. Kgj *χulə* S286a. Dgx *qaluŋ* B68. Mog *qalu:n*, *qalöʉn* R31b, *qʌlɔn* W176a.

*kalbuga 'spoon'. Possibly *kalbaga* in spite of the earliest attestations, but the QG languages are indecisive. EYu and MgrH are based on (differently) metathesized forms, cf. *tarbagan* 'marmot' for a comparable case. BaoÑ *kaġa* CN75 'spoon; ladle; fork' is given as development of this word, which seems improbable; perhaps it is of Tibetan origin. Turkic *kašuk*. In Dagur it may survive as *xalbėɣ* E101 'hoe blade', and in the combination *xalbėɣ šid* E101 'incisors', as well as perhaps *čiki: xabləɣ ~ čiki: xa:ləɣ* E300 'tragus' (*čĭkĭn* 'ear'). However, the latter variant suggests *kaalga* (not listed here, but cf. *kaa-*), implying 'gate of the ear' rather than 'spoon of the ear'.
MMo SH *qalbuqa* H57, HY *qalbuqa* M87, Muq *qalbuɣa* P289b, *ɣalbuɣa* P139b. WM *qalbaɣa(n)* L917b, *qalbuɣa* L918a. Kh *xalbaga* H602b. Ord *χalbaġa* M327a, *χablaġa* M320b. Bur *xalbaga* C537b. Brg *xalgaŋ šʸanag* (?=) U92 (cf. *sïnaga*). Kalm *χalwăɣă* R164a. Dag (see above). EYu *xalǧwa* B45. MgrH *xaulǧa* X65. MgrM---. Bao---. BaoÑ (see above). Dgx---. Mog---.

*kalïar, *kalïarsun 'wild onion and similar plants'.
MMo SH *qaliyarsun* H58, HY---, Muq---. WM *qaliyar* L920a 'wild garlic'. Kh *xaliar* H604a. Ord---. Bur *xalyaar* C541b 'species of wild garlic'. Kalm---. Dag *kalʸe:r* E139 'mountain leek'. EYu---. Mgr *χarir* SM163 'small wild (edible) onion', *xaril* X72 '*Allium mongolicum* (plant name)'. Remaining lgs---.

*kalïsun 'bark, rind, peel, outer covering, thin skin'. The EYu variant *χalasən* may be influenced by *kalaasun* 'patch (on clothes)'.
MMo SH *qalisu korisu* H58 (cf. *körisün*), HY---, Muq---. WM *qalisu(n)* L920b. Kh *xal's* (sic, no *-an*) H608a. Ord *χalisu* M329a. Bur *xal'han* C541a. Brg *xalʸʊ* U93. Kalm *xal'sn* M572b. Dag *xalʸs* E102. EYu *χaləsən* B44, *χalasən* J99a. MgrH *xalʒə* J99a, *xalasə* X67. Remaining lgs---.

*kaltara-, *kaltarï- 'to glide, slip'. The MgrH *-m-* (via *-n-*) is unexpected (cf. *malta-*).
MMo SH *qaltari'ul-* (caus) H58, HY---, Muq *qaltari-* P290a, *qaltara-* P290a. WM *qalturi-* L921b. Kh *xal'trax* H608a, *xaltirax* H606a. Ord *ġaltur(i)-* M290b. Bur *xaltirxa* C539b. Kalm *xal'trx* M572b. Dag---. EYu *χaldəra-* B45,

χaldər- S321. MgrH *xandəra:-*, *xanda:ri-* SM155, *xamdəra:-* X69. MgrM---.
BaoD---. BaoÑ *χandara-* B57. BaoX *handər-* CN86:228. Dgx *qantari-* B68. Mog---.

*kama- ~ *kaba- '(of eyes) to be dazzled; (of teeth) to tingle or to feel rough (e.g.
after eating sth. sour)'. The Monguoric variants with -*r*- may be influenced by
*karbu- 'to shoot', which is also used for 'to sting or bite' (of the sun, bees, snakes).
Cf. CT **kama-*, also used in relation to unpleasant sensations of the eyes or teeth (cf.
EDPT625b).

  MMo Muq *qama-* (?=) P290b 'to be blinded (eyes); to become blunt
(teeth)'. WM *qabu-* LC 4:4b, also spelled thus in Inner Mongolia. Kh *xavax* LC
4:4b. Ord *χawa-* M343a (teeth). Bur---. Kalm---. Dag---. EYu *nudun χumağa-*
(caus.) S265 'to cause the eyes to be dazzled'. MgrH *χama:-* L169, SM152, *χarma-*
L184, *xama:-* X68 (teeth), *χarmu-* SM164 (eyes), the latter viewed by SM as
stemming from **karbu-*. MgrM *nudu qurmu-* (?=) DS216a 'to be dazzled' (from
*karbu-?). Bao---. Dgx *qama- ~ qamu-* MC205a (teeth).

*kamčuï ~ *kamčun 'sleeve'. Kalm suggests **kančun*, Bur **kamčuï*. One would
expect that the -*m*- is original and the -*n*- due to later assimilation, but the MMo
forms have -*n*-. Initial weakening in parts of Baoan, in Kangjia and Dongxiang, in
spite of the following strong -*č*- (but this was also weakened itself).

  MMo SH *qancu(n)* H59, HY *qančun* M87, Muq *qančun* P291a. WM
qančui, *qanču* L927b, *qamčui* L923b. Kh *xancuy* H614b. Ord *χanču* M334b. Bur
xamsï C543a, *xansï* C547a, *xanšï* C547b. Brg *xamsai* U94. Kalm *xancn* M576a. Dag
kanč E139. EYu *χanjun* B43, *χanju:n* J99b. MgrH *xamʒə* J99b, X69, *xanćə* X66.
MgrM *qanći* JL475. BaoD *ġanʒüŋ* BL87a, *gaŋʒüŋ* (sic) BL4. BaoGt *xanʒoŋ* C121.
BaoÑ *hanʒu* CN64. Kgj *ġanǰün ~ ġanǰɯn* S288a. Dgx *ġanʐuŋ* B79. Mog *qamči*,
qamču R31b.

*kamtu 'together; at the same time'. In Ordos the initial was unexpectedly not
weakened in spite of the following strong -*t*-. In Shirongol **kamtu* developed as if it
were **hamtu*.

  MMo SH *qamtu* H59, HY *qamtu* M87, Muq *qamtu* P290b. WM *qamtu*
L925a. Kh *xamt* H610b. Ord *χamtu* M331b. Bur *xamta* C543a. Kalm *xamt* M573b.
Dag---. EYu *χamdə* B45. MgrH *χamdə* J8, X69. MgrM *xaŋtu* JL469. BaoD *hamtə*
T150. BaoGt *hamtï* C127. BaoÑ *hamdə* CN65. Kgj---. Dgx *hantu* B64. Mog *qamtu*
R31b.

*kamug 'all'. The Dagur form could stem from the genitive of this word. Cf.
Turkic *kamug < kamag*, which is a Middle Persian loanword according to Clauson
(EDPT 627b). Not related to MgrH *xane*, BaoD *hanə* BL77, BaoÑ *hani* CN64,
which are ← LT *ha-ne*.

  MMo SH *qamuh* H59, HY *qamuq* M87, Muq---. WM *qamuɣ* L926a. Kh
xamag H609a. Bur *xamag* C542a. Kalm *xamg* M573a. Dag *kamɣi:* (?=) E140 'all
kinds of, various', S255 'every'. EYu *xamağ* B45 'every'. MgrH---. MgrM *qamu*
C377. Remaining lgs---.

*kanïa- 'to cough'. A form *kanaa- is reflected by EYu, MgrH, Bao, and Dgx, whereas Mog, and surprisingly MgrM, have retained a palatal element.

MMo SH---, HY---, Muq---, LV *qana:-* (emended), *qana:d-* P64, RH *qania-du* (emended) 204A9 'cough'. WM *qaniya-* L930a. Kh *xaniax* H614a. Ord *χana:-* M332b. Bur *xanyaaxa* C547b. Kalm *xanyax* M576b. Dag *xanʸe:d-* (new formation based on the noun *xanʸe:d*) E98. EYu *χana:-* B43, J98b. MgrH *xana:-* J99b. MgrM *qan'a-* C377, *qania-tu* JL465 'cough'. BaoD *χanə-* BL86a. BaoÑ *χana-* CN57. BaoX *χanə-* BC64. Kgj *χana-* S285a. Dgx *qana-* B68. Mog *qaıɲʌ-* W176a.

*kara 'black'. Related to Turkic *kara.

MMo SH *qara* H60, HY *qara* M88, Muq *qara* P292a. WM *qara* L931a. Kh *xar* H615b. Ord *χara* M337b. Bur *xara* C547b. Kalm *xar* M576b. Dag *xar* E104, also *kara:* E142 'black (horse colour)' from Tungusic. EYu *χara* B46, J99b. MgrH *xara* J99b. MgrM *qara* JL463. BaoD *χəra* BL87b. BaoGt *xʂa* C121. BaoÑ *χara* CN59. BaoX *χəra* BC67. Kgj *χara* S285b. Dgx *qara* B69 'id, dark'. Mog *qaro:* R31b, *qʌrɔ* W176a.

*kara- 'to look at'.

MMo SH *qara-* H60, HY *qara-* M88, Muq *qara-* P292b. WM *qara-* L932a. Kh *xarax* H618b. Ord *χara-* M337a. Bur *xaraxa* C552b. Kalm *xarx* M581b. Dag---. EYu---. MgrH *xarə-* X72. MgrM---. Bao---. Dgx---. Mog *qara-* R31b.

*karbïsun 'placenta, afterbirth (of an animal)'. Reminiscent of *karbïn ~ *arbïn 'belly fat' (not listed).

MMo SH *qarbisu* H61. WM *qarbisu(n)* L935b. Kh *xarvis* H619b 'placenta'. Dgx *qayisun* MC209a 'afterbirth of a sheep'.

*karbu- 'to shoot'. Monguoric *karmu-*; metathesized in some Baoan forms.

MMo SH *qarbu-* H61, HY *qarbu-* M88, Muq *qarbu-* P293a. WM *qarbu-* L936a. Kh *xarvax* H619a. Ord *χarwu-* M342b, *χarwa-* M342a. Bur *xarbaxa* C554a. Kalm *xarvx* M578a. Dag *xarəb-* E105. EYu *χarβə-* B48, J99b. MgrH *xarmu-* X73. MgrM *karmu-* P420a. Bao (unspecif. dial.) *χurə-* S331. BaoÑ *χabrə-* CN57, *hawər-* CN66. Kgj *χar-* S285b. Dgx---. Mog *qʌrbu-xči* W176b 'bayonet', MogMr *qarbuɣči* L62:43 'rifle'.

*karbuur 'ballista' see *hurbï.

*karï- 'to return'. The BaoÑ form may be explained from the fact that this verb is usually combined with other verbs of movement, and appears then in te imperfect converb form *ha:ǯi*.

MMo SH *qari-* H62, HY *qari-* M88, Muq *qari-* P293b. WM *qari-* L937a. Kh *xarix* H622b. Bur *xarixa* C555b. Kalm *xärx* M590b. Dag *xarʸ-* E107. EYu *χarə-* B48, J99b. MgrH *xarə-* J99b. MgrM *qazï-* C377, *qari-* T375. BaoD *χarə-* BL87a, *χar-* BL15. BaoÑ *ha:-* (sic, ?=) CN63. BaoX *χa:rə-* BC62. Kgj *χari-* S285b. Dgx *qari-* B69. Mog *qari-* R31b, *qʌril-* (caus.) W176b.

*karïa- 'to abuse, swear, curse'. Most languages from the assimilated form *karaa-. One of the few words in which (lit.) Bur and Dag do not preserve a palatal element. Related to CT *karga- 'id'. Cf. *sögee-, *hiröe-.

MMo---. WM qariya- L938b. Kh xaraax H617a. Ord χara:- M337b. Bur xaraaxa C549b. Brg xarʸa:- U100. Kalm xarax M578a. Dag xara:- E105. EYu only in the noun χara:r S330. MgrH xara:- L178. MgrM---. BaoD χəra- BL87b. BaoGt xṣa- C138. BaoÑ χara:- CN59. Dgx qara- MC206b. Mog---.

*karïačaï 'swallow'. MMo *karïača, central languages from an assimilated *karaačaï. Reminiscent of Turkic *karlïgač ~ *kargïlač 'id', but hard to connect to it. In some modern languages now associated with *kara 'black'. Dgx qarasuŋ may go back to *kara sïbaun 'black bird' (cf. EYu χara βölǰir B46 'swallow', see *bïlǰïur 'small bird'). MgrH anǯiǧai X3 'sparrow', MgrM (Sanchuan) amickay P418b 'small bird', and even Bao amiči P418b '(domestic) bird', Dgx amiçəu MC8b 'sparrow' may have arisen through metanalysis of this word as xara anǯiǧai.

MMo SH---, HY qariyača M89, Muq---, RH qaryača [spelled q'ryj'] 200B10. WM qariyačai L938b. Kh xaraacay H617a. Ord χara:čä: M338b. Bur xaraasgay C549b. Brg xara:sai U99. Kalm xara:cä: R168b. Dag---. EYu---. MgrH xaraćəǧai X72, xarabćiǧai X72, xara(n)ćiǧe: SM159/160. MgrM (Sanchuan) karaǰyagay P415b. Bao---. Kgj---. Dgx qarança MC207b, qarasuŋ MC207b (see above). Mog---.

*kašaŋ 'lazy, slow (usu. of animals)'. From Turkic *kašaŋ 'id'. Cf. *ǰalkaï and *ǰalkau.

MMo SH---, HY---, Muq qašaŋ P295a. WM qašang L943a, qasing L942a. Kh xašin H629a. Ord ġašaŋ M296b. Bur xašan C565b. Kalm xašŋ M585a. Dag---. EYu ġašaŋ J106a. MgrH xaśaŋ J106b. Dgx qïšan S90.

*katau 'hard', also 'difficult'. It has taken on the shape *kataun in Shirongol, probably in imitation of the numerous adjectives in -n. From CM *kata- 'to be or become hard or dry', cf. CT *katïg 'hard' from the verb *kat-.

MMo SH---, HY qata'u M89, Muq qata'u P295a, qatu: P275a, qadu:- P379a. WM qataγu L943b. Kh xatuu H627a. Ord ġatu: M298b. Bur xatuu C561b. Kalm xatu M583a. Dag katu: E141. EYu ġatu: B75, ġadu J99a. MgrH χadoŋ J99b. MgrM qȓdəŋ C377, qəǧdən DS227b. qatoŋ T372. BaoD χotoŋ BL87b. BaoÑ hdəŋ CN72. Kgj χutuŋ ~ χuduŋ S286a. Dgx qïduŋ B71. Mog---.

*katun 'empress; wife; woman'. Widespread in Asia, which means that some Mongolic languages reborrowed it from neighbouring languages. Note χ- in Muq. CT *ka:tun.

MMo qatu(n) H63 'wife', HY qadun M86, qatut (pl.) M89 'wives', Muq χatun- P384a 'woman'. WM qatun L946a. Kh xatan H625b. Bur xatan C560a. Kalm xatn M583a. Dag katun, katɔ: E141 'sister (form of address)'. EYu ġatən B74. MgrH---. MgrM---. BaoD χutuŋ kuŋ BL82b 'woman'. BaoÑ-?-. BaoX xdoŋ kuŋ BC74 'woman'. Dgx---. Mog χot(un) R29b, MogMr χv:tun, MogM χv:tũ L62:43.

*kau and/or *koa 'all, everybody'. The modern languages do not clearly support either vocalism. The diphthong *au is only confirmed by Dagur. The Mongghul form seems to be absent from the others sources. As suggested by Poppe (1955:70), a CM form *koa could be related to CT *kop 'all' (EDPT 579b). Perhaps related to the structurally unclear MMo Ph qotʰola P129a 'all, everything', Kh xotol H656b 'all, entire', Ord ġotolo M309a 'all', Kalm xotl (obs.) M601a 'all; entirely'.

      MMo SH---, HY---, Muq---. WM <qww> (qoo or quu) Cevel 736b, Inner Mongolian spelling qau. Kh xuu H694b 'all, completely'. Bur xuu C605a. Kalm xu M605a, χo: R191b. Dag xɔ: E115, also xau-ya:r-a:n (+ instr. case and ref. poss.) E97. EYu---. MgrH χo:-la, χu:-lo SM180. Remaining lgs---.

*kaučïn 'old'. The Baoanic form suggest a development from *qoičin.
      MMo SH qa'ucin H63, HY qa'učin M89, Muq qu:čin P313b. WM qaγučin L908b. Kh xuuč(in) H697b. Bur xuušan C607b. Kalm xuučn M616a. Dag kaučin E137. EYu χu:čən B52, χu:ǰən J99a, χɔ:čən (Qinglong) BJ351. MgrH xau:ǰin J99a. MgrM qaućiŋ JL475. BaoD χuićüŋ BL87b. BaoÑ χi:ćaŋ CN61. BaoX xuićoŋ BC62. Kgj χuaičɔ S285b. Dgx quaiȼəŋ B72. Mog---.

*kaul- 'to peel, to skin'. Bur seems to suggest *kaula-. There is also an intr. form *kaura- 'to shed (skin)', cf. Ord χu:ra- M371a, MgrM qaura- J87. Cf. *koltul-.
      MMo SH qa'ul- H63, HY---, Muq qa'ul- P104b. WM qaγul- L909b. Kh xuulax H695b. Ord χu:l- M365b. Bur xuulaxa C605b. Brg xʊ:l- U112. Kalm xuulx M614b. Dag xaul- E97. EYu χu:l- B51, J5. MgrH xaulə- X65. MgrM qur- DS242b. Bao---. Kgj---. Dgx qolu- MC213a. Mog---.

*kaulï 'law, rule'.
      MMo SH qa'uli H64, HY---, Muq---. WM qauli L946a. Kh xuul' H695b. Bur xuuli C605b. Kalm xuul' (obs) M614b. Dag kɔ:lʲ E149. EYu χu:lə S379, χulu B84. Remaining lgs---.

*kaur- 'to stir-fry'. MgrH kurgu- does not belong here. Cf. CT *kagur-. Cf. *kaarï-.
      MMo SH---, HY---, Muq qa'ur- P297b. WM qaγur- L910a, qaγuur- L911a, quγur- L982a. Kh xuurax H696b. Ord χu:r- M370a. Bur xuuraxa C606b. Kalm xuurx M615b. Dag---. EYu χu:r- B52, J99a. Mgr---. BaoD χurə- BL87a. BaoÑ χθr- CN62. Kgj χur- S286a. Dgx quru- B73. Mog---.

*kauraï 'file (the tool)'.
      MMo SH---, HY---, Muq qu:rai P313b, RH qaura 204C13. WM qaurai L946b, qaγurai L910a. Kh xuuray H696a. Bur xuuray C606b. Kalm xüürä M619a. Dag xaur E98. EYu xu:ri: B52. Remaining lgs---.

*kauraï 'dry' see *kuuraï.

*kebeg 'chaff, bran, husks'. A widespread loan from Turkic *kepek. It seems impossible to connect the following Baoanic forms: BaoJ ǧuíǧə L153 'husks of wheat', BaoÑ ġθyθġ CN87 'chaff', Kgj ġuyaǧ S288b 'wheat straw (left after

threshing)', Dgx *ġuyəu* MC129a 'covering of wheat'. Dgx has both this form, suggesting an original **guyVg*, and **kebeg*. Dgx *qəiya* B70 'kind of grass' is yet another word (from **kïag* 'couch grass').

     MMo RH *kebek* 205B6. Kh *xeveg* H712b. Bur---. Brg---. Kalm *kevg* M287a. EYu---. MgrH *kavaġ* X85, *kayaġ* X84. MgrM *qəbəġ* DS208b, *kəbəġə* Slater 2003:370. Bao (see above). Kgj *kivʉ* S287b. Dgx *kəwə* B75, *kəwo* MC201a, and see above. Mog---.

*kebereg and **keüreg*   'fragile, brittle, crisp', usually with some semantic differentiation when both forms are found in a single language. Both seem to stem from Turkic **kevrek*, borrowed in different periods.

     MMo SH---, HY *keberek* M70, Muq---. WM *kebereg*, *keberig* L439a, *keüreg* L462a. Kh *xevreg* H712a, *xüüreg* H708a. Ord *kewerek* M419a, *kʉ:rek* M439a. Bur *xebereg* C639b, *xebreg* C638b. Kalm *kewrəg* R229b, *küürg* M331b. Dag---. EYu *kebreg* (only?) S338. MgrH *ke:rəg* X85, ?cf. *kairan(g)* L253. Bao (unspecif. dial.) *kurəg* S338. Dgx---. Mog---.

*kebi- 'to chew; to ruminate'. Dag *kəmʸ*- may be influenced by **kemile*- 'to gnaw'. Cf. CT **kev*-.

     MMo SH---, HY---, Muq *kebi*- P212a. WM *kebi*- L439a. Kh *xevex* H713a, *xivex* H631b. Bur *xibexe* C569a. Kalm *kevx* M288a. Dag *kəmʸ*- E146. EYu *keβə*- BJ333. MgrH *ke:yi*- SM199, *ke:*-, *kᴣyi*- X85. Bao---. Dgx---. Mog---.

*kebid 'shop' see **keid*.

*kebte- 'to lie down'. The strong *k*- in the Mgr, Kgj, and Dgx forms suggests that they stem from **kebte*- and not from **gedei*- 'to bend backwards, etc' (not listed here). It is not clear how these forms are related to Muq *kete*- P217b 'to lie down', unless this is a misspelling for *kebte*- (with *yā* instead of *bā*).

     MMo SH *kebte*- H96, *kebde*- H95, *gebte*- H48, HY---, Muq *kebte*- P212b. WM *kebte*- L439b. Kh *xevtex* H712a. Ord *gebte*- M254a. Bur *xebtexe* C638a. Brg---. Kalm *kevtx* M288a. Dag *kərt*- E147. EYu *gebte*- B82. MgrH *kəde:*- X87. MgrM *kəde*- C379. Bao---. Kgj *kete*- ~ *kite*- S287a. Dgx *kiᴣie*- B76. Mog *teftä*- R40a, *tɛbta*-, *tɛbtʌ*-, *tɛftʌ*- W181a.

*keče 'slope'. The QG forms possibly from **kiče*; MgrH atypically added -*n*.

     MMo SH---, HY---, Muq---. WM *keče* L440a 'steep'. Kh *xec* H727b 'steep'. Ord---. Bur---. Kalm *kec* M297a 'slope'. Dag *kəč* (?=) E146 'side', cf. *dali: kəč* E274 'seashore'. EYu *kəčə* (sic) B68 'cliff'. MgrH *kəᴣe:n* X87 'slope'. MgrM *kiᴣe* Z310:31. Bao---. Dgx [*ulani*] *kiʒə* B20 'slope, hillside' (cf. **aula*). Mog---.

*kedüi and **kedün* 'how much, how many'. The loss of -*n* in EYu is unexpected. Related to **ken* 'who' and **kejie* 'when'.

     MMo SH *kedui*, *kedun* H96a, HY *kedün* M70, Muq *kedün* P213a. WM *kedü(n)* L441a. Kh *xediy* H713b, *xed(en)* H713b. Bur *xedï* C640a, *xede(n)* C641a. Kalm *kedü* M289a. Dag *xəd*, *xədən* E111. EYu *ke:də* B67, J100a. MgrH *kədə* J100a.

MgrM *kedu* JL463, *kədu* C379. BaoD *kutuŋ* BL87a. BaoÑ *kutəŋ*, *kudəŋ* CN83. BaoX *kutoŋ* BC69. Kgj *gʉdɔ* ~ *gədɔ* S290a. Dgx *gieduŋ* B91. Mog *kedʉ:* R30a.

kee- 'to say'. Modern languages suggest a form **ge**-. Apart from literary forms, neither the *k*- nor the *-m*- are found in modern languages, nor is there a long vowel as is usually the case in contractions. Nevertheless it may once have been **kee-*, and owe its reduction to its frequent position at the end of a quote.

   MMo SH *ke'e*- H96, *kē*- H97, HY *ke'e*- M70, *kē*- M69, Muq *ge*- (or *ke(:)*-) P169a, Ph *kʰe'e*- P126a, *ge'e*- P123b. WM *ge*- L372a, *keme*- ('literary form') L450b. Kh *gex* H145a, *xemeex* (according to Lessing). Ord *ge*- M253a. Bur *gexe* C174a. Kalm *gix* M145b. Dag---. EYu *gə*- B81. MgrH *gi*- SM135. MgrM *gə*- DS20a. BaoD-?-. BaoÑ *gə*- CN91. Kgj *gə*- S289a. Dgx *gie*- B89. Mog *ge*- R28a, *gʌ*- W165a.

keeli 'belly, abdomen'. The MMo *-h*- points at PM **keheli* < **kepeli*, which is suported by Manchu *kefeli*. Kh *xevliy* H711a 'stomach, paunch; womb' and Kalm *kevlä* (obs) M287a 'belly, abdomen; womb' strictly stem from a form **kebelei*.

   MMo SH *ke'eli* H96, HY *ke'eli* M70, Muq *ke:li* P218a, IV *kehli* L48, LV *ke:li*, *keili* P66/68, RH *keheli* (eds. read *kehli*) 198C24. WM *kebeli* L438b, *kegeli* L442b (reflecting the semantic differences as in Khalkha). Kh *xeel* H728b 'embryo, fetus (of an animal), *xevel* H713a 'stomach, belly; womb'. Ord *ke:l* M410b 'fetus', *keweli* M419a 'womb'. Bur *xeeli* C655a '&pregnancy'. Brg *xə:l* U101 'belly; fetus (of livestock)'. Kalm *keel* M289a '&pregnancy (of livestock)'. Dag *kə:lʲ* E143. EYu---. MgrH *ke:le* X85. MgrM---. BaoD *kiələ* BL49. BaoÑ *ke:lə* CN77. Kgj *kele* ~ *kile* S287a. Dgx *kieli* B75. Mog---.

keer 'animal colour (usu. varieties of brown)'. The MMo *-h*- may be an orthographical 'trick' to write the *e* or *e:* sound (as in the Zirni manuscript), but it cannot be excluded that it is an actual consonant, perhaps a vestige of earlier **p*. This seems to be supported by forms with *-h*- in Persian and Korean (P60:66). Bur *xeyer* and Dag *kəir* are reminiscent of Manchu *keire* 'id'.

   MMo SH---, HY---, Muq *keher* (sic, with *h*) P213b. WM *keger* L443a. Kh *xeer* H729a. Bur *xeer* C655b, *xeyer* (western) C641b. Kalm *ker* M294b. Dag *kəir* (?←Manchu) E144. EYu *ke:r* B67. Mgr. BaoD---.

keere (?*keer) 'field, plain, steppe'. The final vowel in WM, Bur, EYu is not confirmed elsewhere. These forms may have reanalysed the old dative-locative *-A* as part of the stem. P60:48,127 compares Ewenki *kəwər*, which is the source of the Dag form *kəur* E144 'grassland, grassy marshland'. Perhaps the Arabic spelling with *-h*- and the Tungusic *-w*- point to the existence of PM variants **keper* ~ **keber*.

   MMo SH *ke'er* H97, HY *ke'er* M70, Muq *ke:r* P218a, IV *keher*- L62:48. WM *kegere* L443a. Kh *xeer* H728b. Bur *xeere* C655b. Kalm *keer* M289b. Dag *xə:r* E107 'open country, wilderness', cf. also *kəur* above. EYu *ki:re* B69, J99a. Remaining lgs---.

kegesün 'spoke'. Although apparently related, it seems impossible to derive all languages from a single CM form. The change of vowel class in some of the Bur

forms is reminiscent of *hee-, q.v.) The Kalm form with -ii- may go back to *üi (as in one of the Buriat forms).

MMo SH *kekesun* H97, HY *kekesün* M70, Muq---. WM *kegesü(n)* L443a. Kh *xegees* H713a, *xigees* H631b (sic, no *-en*),. Ord---. Bur *xüygehe(n)* C615b, *xiigaha(n)*, *xiigadaha(n)* (the latter two forms are marked as 'western') C570a. Brg *xiga:* U105. Kalm *kiiɣs* M298b, *kigɛ:sn* R231a. Dag *xəiɣə:s* E108. Remaining lgs---.

*kei 'wind'. In the central languages often 'air'. In Dagur with *-n*. Cf. **salkïn* 'wind'.

MMo SH *kei* H97, HY *kei* M70, Muq *kei* P213b. WM *kei* L444b. Kh *xiy* H632a. Ord *ki:* M419b. Bur *xii* C569b. Brg *xi:* U105. Kalm *ki* M297b. Dag *xəin* E107. EYu *ki:* B68, J99b. MgrH *ki:* J99a. MgrM *kəi* JL475, *ke* C379. BaoD *ki* BL87a. BaoÑ *ki:* CN79. Kgj *ke ~ ki* S287a. Dgx *kai* B73, *kei* L115a. Mog *kei* R30a, *kɛɪ* W170a.

*keid 'temple' and ***kebid** 'shop'. From CT **kepit*, which in its turn is from Iranian.

MMo SH *geyit* (?=) H50 'houses', HY *kebit* M70 'shop', Muq---, Ph *kʰebid* P125b 'shops', *geyid* (?=) P123b 'dwellings'. WM *keyid* L444b 'convent, monastery, temple'. Kh *xiyd* H632b 'monastery, etc'. Ord *ki:d* M420a. Bur *xiid* C570a 'monastery'. Kalm *kiyd* (obs) M300a 'monastery', *kivd* M298a (obs) 'shop'. Dag---. EYu *ki:d* B68 'temple'. Remaining lgs---.

*keǰie > ***keǰee** 'when'. The reconstruction with *-ie* is based on MMo; the central languages, including Buriat, point at *-ee*; the other languages could be from either form. Related to **kedün* 'how many' and **ken* 'who'.

MMo SH *keji'e* H97 'how far', HY *keǰi'e* M69 [q.v.], Muq *keǰiye* P213b, *keǰe:* P213b. WM *keǰiye* L462a. Kh *xezee* H715a. Bur *xezee* C641b. Kalm *kezä* M290a. Dag *xəǰə:* E111. EYu *keje:* B68. MgrH *kəʒe:* J100a. MgrM *keʒe* JL462. BaoD *kəćiə* BL87a. BaoÑ *kəći* CN77. BaoX *kəǰə* BC69. Kgj *gəǰe* S289a. Dgx *kieʒə* B90. Mog---.

*kekere- or ***kekire-** 'to belch, burp'. Dagur suggests **kekerie-*, a pseudo-causative of a base **kekeri-*. Related to CT **ke:kir-*.

MMo SH---, HY---, Muq *kekere-* [could be read *kekire-*] P213b. WM *kekere-* L446a. Kh *xexrex* H727b. Ord *gekir(e)-* M256b. Bur *xexerxe* C654a. Kalm *kekrx* M290b. Dag *kəkre:-* E145. EYu *ge:gəre-* B82. MgrH *kəgəre:-* X86. MgrM *kəgəri-* JL462. Remaining lgs---.

*kelen 'tongue; speech, language'.

MMo SH *kele(n)* H97, HY *kelen* M70, Muq *kelen* P214b. WM *kele(n)* L447a. Kh *xel(en)* H715a. Ord *kéle* M411a. Bur *xele(n)* C644b. Brg *xil* U105. Kalm *keln* M291a. Dag *xəlʸ* E110. EYu *kelen* B67, J99a. MgrH *kəle* J100a. MgrM *kəlie* DS256b. BaoD *kalaŋ* BL87b. BaoÑ *kelaŋ* CN78. Kgj *kiliɔ* S287b Dgx *kielien* B75. Mog *kelän* R30a, *kɛlʌn*, *kelʌn* W170a.

*kele- (< *kelele-) 'to speak'. All peripheral languages have the shortened form.
MMo SH *kelele-* H98, HY *kelele-* M70, *kele-* M70, Muq *kele-* P213b, *kelle-*
P215a. WM *kele-* L447b, *kelele-* L448b. Kh *xelex* H719a, *xellex* H716b. Ord *kéle-*
M411b. Bur *xelexe* C645a. Brg *xəl-* U102. Kalm *kelx* M292b. Dag *əl-* (sic) E24, *xəl-*
E83:78b. EYu *kele-* B67. MgrH *kəle-* J100a. MgrM *kili-* JL475. BaoD *kalə-* BL84b.
BaoÑ *kel-* CN78. BaoX *kəl-* BC70. Kgj *kele-* S287a. Dgx *kielie-* B75. Mog *kelà-*
R30a, *kɛlʌ-*, *kɛlæ-*, *kɛlɛ-* W170a.

*kemile- 'to gnaw'. Probably derived from a noun *kemi 'soft bone', cf. WM *kemi*
L451b 'marrow of bones'.
MMo SH---, HY---, Muq *kemile-* P215b. WM *kemeli-*, *kemele-* L451a. Kh
xemlex H720b. Ord *kemele-* M413a. Bur *ximelxe* C572a. Brg *ximil-* U106. Kalm
kemlx M293b. Dag---. EYu *kelme-* B67, *kemle-* J101a. Mgr---. BaoD *kaməl-* BL87a
'to bite'. BaoÑ---. Kgj *kemle-* S287a. Dgx---. Mog---.

*ken 'who'. Related to *kedün 'how many' and *keǰie 'when'.
MMo SH *ken* H98, HY *ken* M70, Muq ken P216a. WM *ken* L453b. Kh *xen*
H721b. Bur *xen* C647b. Kalm *ken* M293b. Dag *xən* E108. EYu *ken* B67, J99a,
genitive *ke:nə* BJ73. MgrH *ken* J99a. MgrM *ken* JL475. BaoD *kaŋ* BL87b. BaoÑ
kaŋ CN74. BaoX *kaŋ* BC69. Kgj *kɔ* S287b. Dgx *kien* B75. Mog *ken* R30a.

*keŋgerge 'drum'. With some oddly distributed variants: Bur, Ord and BaoÑ have
an alternative form *keŋgereg or *keŋgerig, Kalm *keŋkereg. EYu suggests
*keŋgerkei.
MMo SH---, HY *kenggerge* M71 'small drum', Muq---. WM *kenggerge(n)*
L454a. Kh *xengereg* (*xengergen*) H721b. Ord *keŋgerge*, *keŋgerik* M414b. Bur
xengereg C648a 'drum', cf. *xengergee(n)* (western) C648a 'thunder'. Kalm *keŋkrg*
M294b. Dag---. EYu *keŋgerki:* S343. MgrH *kзngзrgз* X85. MgrM---. BaoÑ
keŋgərəg CN78 'one-sided hand drum'. Kgj---. Dgx---. Mog---.

*kerči- 'to cut, mince'. Cf. CT *kert- 'id'.
MMo SH---, HY---, Muq---. WM *kerči-* L455a. Kh *xerčix* H724a. Ord
gerči- M261b. Bur *xeršexe* C650a. Kalm *kerčx* M296b. Dag *kərč-* E147. EYu---.
MgrH *kirǯi-* SM204. MgrM *kəʒə-* C379. BaoD *kući-* (?=) BL87a. BaoÑ---. Kgj
kečče- ~ *keči-* S287b. Dgx *kiʒï-* B76, *kiʒiə-* (sic) L115b. Mog ?cf. *kerči* R30b 'large
knife'.

*kereg 'need, necessity; matter, affair, business'. Cf. CT *kergek > *kerek 'id'.
MMo SH *kerek* H99, HY *kerek* M71, Muq *kerek* P157a. WM *kereg* L455b.
Kh *xereg* H724b. Bur *xereg* C650a. Kalm *kerg* M294b. Dag *kərəɣ* (sic) E147. EYu
kereg B68 'needs'. MgrH (only?) *kerig* L260, *kirig* L266. MgrM *kərəġ* JL475. BaoD
kər T141. BaoÑ *kərəg* CN77. Kgj---. Dgx---. Mog---.

*keregle- 'to use, employ; to need, want'. The Baoanic forms seem to stem from a
verb stem *kereg- or *kerge-, which may have secondarily lost the verbalizer -lA.
The MgrH form was derived from Tibetan by Róna-Tas.

MMo SH---, HY---, Muq---. WM *keregle-* L456a. Kh *xereglex* H725a. Bur *xereglexe* C651a. Kalm *kerglx* M295b. Dag *kərɣəl-* E147. EYu---. MgrH *xəgəla-* X74, *xgəle-* X83. MgrM *qarli-* C378, *kərli-* DS204b 'to apply', DS212a 'to claim'. BaoD---. BaoGt *kəşgə-* C124. BaoÑ *kər-* (sic, ?=) CN77. Kgj *ker- ~ kar- ~ keš-* S287b. Dgx *kərau-* B74, *kərə-* MC201a. Mog---.

kereldü- 'to quarrel, have an argument'. Reciprocal of *kere-* 'to fight', which does not seem to survive in the peripheral languages.
MMo SH *kereldu-* H99, HY---, Muq *kereldü-* P216b. WM *kereldü-* L457a. Kh *xereldex* H725b. Bur *xereldexe* C652a. Kalm *kerldx* M295b. Dag---. EYu *kerelda-* B68. MgrH *kəre:də-* X88, *kəreldu-* L266. BaoÑ *keldə-* CN78. Bao (unspecif. dial.) *kandə-* S344. BaoGt *kandə-* CN86:282. Kgj *kandʉ- ~ karəndʉ-* S287a. Dgx---. Mog *kerálda-* R30b, *kɛrʌldu-* W170a.

kerie 'crow'. In this case Buriat supports *keree* with assimilated diphthong.
MMo SH *kere'e* H99, *keri'e* H99, HY---, Muq *keri'e* P220b. WM *keriye(n)* L458a. Kh *xeree(n)* H726a. Bur *xiree* C573b. Kalm *kerä* M294b. Dag---. EYu *kərəi* B67, *kəri:* J100a, BJ351, *kere:* BJ351. MgrH *kəre:* X88. Remaining lgs---.

keseg 'part, piece'. Cf. *kes-ek* from *kes* 'piece', homophone of *kes-* to cut'.
MMo SH--- (see *kesig*), HY *kesek* M71, Muq *kesek* P217a 'piece'. WM *keseg* L459a. Kh *xeseg* H726b. Ord *gesek* M262a. Bur *xeheg* C564b. Brg *xəsəg* U103. Kalm *kesg* M296b. Dag---. EYu *kəseg* B66, J99a. MgrH *kəʒaġ* J100a. Bao---. Dgx *kiśie* B76. Mog---.

kesig 'part, share, lot, fate'. CT *kes-ig* from *kes-* 'to cut'.
MMo SH *kešik* [emended by Haenisch as *kesek*] H99, HY---, Muq *kešik* P217b 'part, share'. WM *kesig* L460a. Kh *xešig* H728a, *xišig* H636b. Ord *gešik* M262b. Bur *xešeg* C564b. Brg *xəšig* U103. Kalm *kišg* M303b. Dag *kəš* E146 'kindness' (probably, as E suggests, reborrowed < Manchu *kesi*). EYu *kšəg* BJ334 'favour, kindness', MgrH *kəşəg* SM199 'share of a sacrified animal (...)'. Bao---. Kgj *kešiʉ* S287a 'share, time(s)'. Dgx---. Mog---.

kete- 'to lie down' see *kebte-*

kete 'steel for striking fire'. Cf. *čakïur*.
MMo SH *kete* H100, HY---, Muq *kete* P174b. WM *kete* L460b. Kh *xet(en)* H726b. Ord *gete* M263a. Bur *xete* C652b. Kalm *ket* M296b. Dag---. EYu *kede* B68. MgrH *kəde:* J100a. MgrM *kəde* JL475. Remaining lgs---.

ketül- 'to cross, to wade across'. The initial is unclear, as the *k-* in Shirongol may be secondarily strengthened by the following *-t-*. Dag *xədul-* with its irregular *-d-* may be influenced by Tungusic *ədəl-* 'id'. Bökh derives the Dgx form from *gatul-* 'id' (not listed here but found in central Mongolic) which is possible phonetically.
MMo SH *ketul-* H100, HY---, Muq *gütül-* P172b (can also be read *kütül-*). WM *getül-* L380b, *ketül-* L461a (different reading of the same spelling). Kh *xötlöx* H675b, *getlex* Cevel171b. Chakhar *gotlŏn* D188a. Ord *getʉl-* M263b, also *geltʉl-*

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M257b. Bur *getelxe* C173b. Brg *gǝtl-* U135, cf. also *xǝdlǝg gar-* U103 'to cross'. Kalm *getl-* (rare) R135a. Dag *xǝdul-* (?=) E111. EYu---. Mgr---. BaoGt *kudàl-* C124. BaoÑ *kutel-* CN83. Dgx *qutulu-ʒɨ dawa-* B72 (*dawa-* < **daba-*). Mog *ketʉlʉ-* R30b.

*keü, **keüken* 'child' listed under **köbeün* for the sake of comparison.

*kïdu- 'to kill, massacre'. An interesting spectrum of forms with respect to palatal breaking. Bur and Kalm feature breaking, with preserved palatality (note velar *k-* in the latter), while Ord features breaking without a trace of palatality. Kh has a recent type of breaking that took place after the second vowel was neutralised to *a*). EYu may represent the unbroken form, but strictly speaking it could be a development of a broken form **kudu-*.

   MMo SH *kidu-* H101, HY---, Muq---. WM *kidu-* L464a. Kh *xyadax* H729b. Ord *χudu-* M363a. Bur *xyudaxa* C656a. Brg *šʊd-* U170. Kalm *kudx* M321b. Dag---. EYu *gǝdǝ-* B77. Remaining lgs---.

*kïǰaar 'side, edge, border'. Initial **k-* was weakened in QG, before it could become *ć-* in Monguoric. Cf. also **kiǰaasun* in central languages and EYu. MgrM may also be related to **kïǰa*, WM *qiǰa*, and Mog *qïǰi(n)* W177a.

   MMo SH *kija'ar*, *kiji'ar* H101, HY *kija'ar* M72, Muq *qiǰa:r* P135a, *yiǰa:r* P221a. WM *kiǰayar* L474b. Kh *xyazgaar* H729b. Ord *kiǰaġa:r* (← WM) M420b. Bur *xizaar* C569a, *xizagaar* (lit.) C569b. Kalm *kizär* (obs) M298b. Dag *kiǰa:r* E149. EYu *gǝǰa:r* B77. MgrH *gǝẓ́a:r* X104. MgrM *xaǰi-du* (?=) P418a 'next to'. Bao---. Dgx *ġïʒa* B81, *ġïʒïra* B81. Mog---.

*kïlbar 'easy'.
   MMo SH *kilbar* H101, HY *kilbar* M72, Muq *qilbar* P298a. WM *kilbar* L466a. Kh *xyalbar* H730b. Ord *kilbar* M420b. Bur *xilbar* C571a, *xyalbar* C657a. Brg *xʸalbar* U127. Kalm *kilwr* R231b, *kilvür* (different formation) M300b. Dag---. EYu---. MgrH *ćirval* J99b, *ćüro:l* X212. MgrM *çǝrbar* JL467, *çubar* C393. Bao---. Kgj---. Dgx *ġǝiwa* B81, *ġïwa* B81, *ġǝira* B81. Mog---.

*kïlgasun 'coarse hair'. Related to CT **kïl*. Cf. **hüsün*, **noasun*.
   MMo SH *kilqasun* H102 '(horse's) tail hair', HY---, Muq *qilɣasun* P298a 'horse hair'. WM *kilɣasu(n)* L466a. Kh *xyalgas(an)* H730b 'hair of the mane and tail, etc'. Ord *kilġasu* M421a. Bur *xilgaaha(n)* C571a 'horse hair'. Brg *šalgʊ:* U161 'coarse hair'. Kalm *kilɣsn* M300b 'hair (usu. of a horse)'. Dag *kilɣa:s* E148 'horse's tail hair'. EYu *χalġasǝn* B45 'pubic hair'. MgrH---. MgrM---. BaoD---. BaoÑ---. Kgj *ġalġasun* S288a 'goat's hair'. Dgx *imaŋ qaġasun* (**ïmaan* 'goat') B11 'goat's hair'. Mog *qilɣasun* R32a (thick) hair, *qïlǧɔsun* W176b 'goat's hair'.

*kïmda 'cheap'. The *k-* (instead of an uvular) in the unconfirmed EYu form is unexpected.
   MMo SH---, HY---, Muq---. WM *kimda* L468a. Kh *xyamd* H731a. Ord *gimda* M266b. Bur *xyamda* C657a 'easy; cheap'. Brg *šʸamd* U172, *xʸamd* U127. Kalm *kimd* M301a. Dag *kʸand*, *kʸannǝ* E160 'cheap; easy'. EYu *kǝmda* (sic?, only) S352 'cheap. Remaining lgs---.

*kïmusun 'nail, claw', sometimes 'hoof'. In Kh, Ord and Kalm the first-syllable *ï was assimilated by the following *u, resulting in the uvular pronunciation of *k in these languages. Palatal breaking took place in Bur and Brg, thus giving rise to forms with palatal consonants and u. In Mog the first syllable *kï has become qi, suggesting an ï-like pronciation of *ï in an earlier stage. It is not clear whether the EYu and Baoanic forms go back to a form with qï- or with assimilated qu-. In Monguoric, *ï developed into i, causing the palatalisation of *k.

In Ord and EYu the initial became a fricative before it could undergo the expected weakening. The development of -sun into -č in Dagur is rare, but not unique (see *kaïrsun 'scale', *nugursun 'spinal marrow'). The Monguor development *s > ʒ is unrelated. The MgrM -p- was probably inserted as a byproduct of the devoicing of the middle syllable by -s-.

MMo SH kimusun 'claw', kimul 'nail' H102, HY kimusun M72, Muq qimusun P298b. WM kimusu(n) L469a, qumusun L986a. Kh xums(an) H687b. Ord χumusu M369a. Bur xyumha(n) C656a. Brg šʋmʋ: U170. Kalm xumsn M609b. Dag kimč E148. EYu χəməsən B49, J99b. MgrH ćimuʒə J99b, ćimsə X207, ćimʒə X207. MgrM ćimpəʒï C392, ҫənpuʒï DS238a. BaoD ġomusuŋ BL87a. BaoÑ ġəmsəŋ CN87. Kgj gemesʉn ~ gimesʉn (sic) S289b. Dgx ġïmusuŋ B81. Mog qimsun R32a.

*kïrau 'hoar-frost'. From CT *kïr-a-gu 'id'.
MMo SH---, HY qira'u M72, Muq---. WM kiraɣu(n) L470b. Kh xyaruu H733b. Ord kiru: M422b as well as girsu: (sic, ?=) M267a. Bur xyuruu C656b. Brg šʸʋrʋ: U173. Kalm kirü M302b. Mgr---. Bao---. Kgj---. Dgx qïrəu B71. Mog---.

*kïrga- 'to shave, shear, scrape'. Cf. CT *kïrk- 'id'.
MMo SH kirqa- H102, HY---, Muq qirɣa- P298b. WM kirɣa- L471b. Kh xyargax H733b. Ord kirġa- M422a. Bur xirgaxa C572b. Kalm kirɣx M302a. Dag---. EYu χarğa-, χərğa- BJ348, χurğa- S354. MgrH ćirġa- J100b. MgrM ćarġa- JL475. BaoD---. BaoJ xarğə- L210. BaoÑ χarġa- CN59. Kgj qar- ~ qarğa- ~ qerğa- S287a. Dgx ġïğa- B81 'to clip; to cut'. Mog qirɣa- R32a, qi&rğʌ- W177a.

*kïrguï 'name of some birds of prey'. As is seen often, Kh suggests *a instead of expected *u, which would be possible here if CM were *kïraguï. Dgx -ŋ normally stems from -l- rather than -r-. Cf. CT *kïrguy.
MMo SH---, HY kirɣui M72, Muq---. WM kirɣui L471b. Kh xyarguy H733b. Ord χurġui M372b. Bur---. Brg---. Kalm kirɣü M302a. Dag kirɣɔ: E149. EYu---. Mgr---. Bao---. Dgx ġïŋği B81. Mog---.

*kïrgaul ~ *kurgaul 'pheasant'. The form with ï survives in Kh, Kalm, Mgr. The MMo form in HY is puzzling in that the breaking (assimilation) to u is unexpected, since the following vowel is actually a.
MMo SH---, HY qurqa'ul M92, Muq---. WM kirɣuul L471b, kiraɣul L470b, ɣurɣuul L369b, quurɣuul L993a. Kh xyarguul H733b, cf. temeen xyaruul H733b 'ostrich' (lit. camel pheasant). Ord ġurġu:l M315a, ġurġu:li (sic) M315b. Bur gorgol (?=). Kalm kirɣül M3302a. Dag xɔrɣɔ:l E122. EYu---. MgrH ćirġol X209. MgrM---. BaoÑ ġulġur CN89. Kgj ġulğuar ~ ġulğɔ S288b. Dgx---. Mog---.

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*kïrǰaŋ 'penis', but with several other meanings in central Mongolic. Kalm suggests *kïrčaŋ.

MMo SH---, HY---, Muq γirǰaŋ (Poppe: -č-) P152b 'penis'. WM kirǰang L473b 'perineum'. Kh χyarzan H733b, šarzan H806a 'perineum'. Ord kirǰaŋ M422a. Bur---. Kalm kircŋ R232b 'bladder; tendons between anus and genitals'. EYu ġərǰaŋ BJ329 'penis'. Remaining lgs---.

*kïrmag 'fine snow'. The loss of -g in Dagur is unexpected. For the semantic development in MgrM, cf. Kgj tʉrʉ časun S64 'dandruff', lit. 'head snow'.

MMo SH---, HY---, Muq---. WM kiramaγ L470b, kirmaγ L472b. Kh χyarmag H733b 'fine or fluffy snow (..)'. Ord kirmaq M422b, also kimarχaq M421b. Bur χirmag (sahan) C572b, χyarmag C657b. Brg šʸarmag saxa: U172. Kalm kirmg M302a 'powdery snow'. Dag kyarəm čas E160 'fine snow'. EYu---. MgrH---. MgrM ćierma DS215b 'dandruff'. Remaining lgs---.

*kïsu- 'to scrape'. Apparently an assimilated variant *kusu- developed quite early. Dagur lacks the verb, but has both kisɔ:r E83:124 'tool for fastening a skin with a hook', and kɔswɔr [?kɔsɣɔr] E83:128 'knife for scraping skins'. The former phonetically matches *kïsuur 'scraper', the latter is closer semantically, but has an unknown suffix. MgrH is peculiar, in that it has velar k-; *kï- should have resulted in MgrH ći-, while early breaking should have resulted in MgrH xu-. The -a- in Bao is also unexpected.

MMo SH---, HY---, Muq---. WM qusu- L992a, kisu- L473b. Kh xusax H693b. Ord ġusu- M317a. Bur xyuhaha C656b. Brg šʊ:- U168. Kalm xusx M614a. EYu qəsə- B63. MgrH kiʒə- SM202, kəsə- L268. BaoD χasə- BL88b. BaoÑ ġasə- CN85. Dgx---. Mog---.

*kïsuraŋ 'infertile, barren'. Agricultural term related to CT *kïsïr, *kïsrak.

MMo SH---, HY---, Muq qisran P298b, qusran (so read) P312b. WM qusurung L992a. Kh xusran(g) H693b. Ord ġusaraŋ M317a. Bur xyuharan C656a 'barren milch cow'. Kalm xusraŋ M613b. EYu qəsəraŋ B63.

*kïtad 'Chinese'. All Shirongol languages except Mongghul use developments of *kïtaï, apparently from Turkic *kïtay < CT *kïtañ (cf. WYu qïdey, Sal χadi).

MMo SH---, HY kitat M72, Muq---. WM kitad L473b. Kh χyatad H734a. Chakhar gɪtăd D108. Ord gitat M267b. Bur xitad C574a. Brg xʸatad U127. Kalm kitd M303a. Dag---. EYu qutad B65, qudad J57. MgrH ćidar X207. MgrM ćidai C392, DS60, BaoD χəti harəb (harəb 'letter' from Ar.) BL64 'Chinese characters', χəti gaćĭ (gaćĭ 'language' from Tib.) BL69 'Chinese language', BaoGt xdi gåća (gåća 'language') C129 'Chinese language', BaoÑ hdi CN72 'Chinese', Kgj χte ~ χde S286a. Dgx qïdəi B70 'Chinese language'. Mog---.

*kïtuga(ï) 'knife'. The final -ï seen in SH only survives in Mog. In this case the EYu form resembles Kh rather than Kalm and Ord. The Shirongol forms seem to derive from a form *kïtogo < *kïtoga < *kïtuga. Dagur lost this word as such but may preserve it in the verb kʸatəyla:- E83:123a 'to stab/prick (of a knife)'. This suggests an earlier form *kïtaga, which cannot easily be explained as a loanword

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from central Mongolic. On the other hand, Dag *kwa:rt* E161 'hunting knife' vaguely resembles **kïtuga* and Tungusic *kɔtɔ* 'knife'.

MMo SH *kituqai* H102, HY---, Muq *qituɣa* P299a, *qutuɣa* P290b. WM *kituɣa* L474a, *qutaɣa* L992a, *qutuɣa* L992b. Kh *xutga(n)* H694a, Chakhar *gʊtăg* D187b. Ord *utaga* M744b. Bur *xutaga* C605a, *xotyogo* (western) C592a. Brg *xʊtag* U116. Kalm *utx* M540a. Dag (see above). EYu *qutağa* B65, *qudağa* J99b, *χudağa* J58. MgrH *ćidoǧo* J99b. MgrM *ćidoǧo* JL477. BaoD *doǧə*, *doǧo* BL87a. BaoGt *doǧo* C117. BaoÑ *ʂdəǧə* CN151 'id, pocket knife'. BaoX *xdoǧə* BC74. Kgj *duǧu* S299b. Dgx *qudoǧo* B72. Mog *qitqεi* R32a.

****kïursun** 'nit'. Many unexpected developments. In Kh, Kalm (and WM) this word has become confused with **kaursun* 'chaff' (not listed here) and **gaursun* 'feather shaft'. The *ïu* has developed in unexpected ways. In Dag the ending *-sUn* was dropped; the form *kʸaur* suggests an earlier **kïura*. MgrM also dropped the ending (unless it is not related but a foreign word). EYu *-ai-* and MgrH *-i-* are also abnormal.

MMo SH---, HY---, Muq---, IV---, LV---, RH---. WM *kiɣurasu(n)*, *kiɣurusu(n)* L464b, cf. also *qaurasun* L910b. Kh *xuurs* H697a '.., nit; chaff, etc', *xiurs* H636a 'flea eggs'. Ord *ǧu:rsu* M316a. Bur *xyuurha(n)* C656b. Brg *šʊ:rar* (sic) U168. Kalm *xuursn* M615b. Dag *kʸaur* E160. EYu *χairsən* B42. MgrH *ćirʒə* SM456. MgrM *ҫər* (?=) DS239a. Bao---. Dgx---. Mog---.

****ki**- 'to do', in Dag also 'to write', under Tungusic influence (e.g. Manchu *ara-* 'to do; to write'). Initial **k-* was apparently weakened in QG before it could become *ć-* in Mgr. The long vowel in Kh, Ord, and Dag may be due to the stem structure as in **a-* 'to be'. This verb is also used as a verbalizer, in the QG languages especially on foreign nouns, e.g. EYu *larɣə-* 'to speak'< *lar* 'speech'. The verb is spelled with *q* twice in Muq (albeit against more than 100 times with *k-*), with equivalents in preclassical spelling. The *q*-spelling was seen as evidence for a connection to Turkic **kïl-* 'to do' (P60:19,114). The peripheral languages do not provide support for a CM reconstruction **kï-*.

MMo SH *ki-* H101, HY *ki-* M71, Muq *ki-* P218a. WM *ki-* L462b. Kh *xiyx* H633b. Ord *ki:-* M419b. Bur *xexe* C653a. Kalm *kex* M297a. Dag *xi:-* E112. EYu *gə-* J100a. MgrH *gə-* J99b. MgrM *gɪ-* C380. BaoD *gə-* (used as verbalizer) BL21, *kə-* T141. Kgj *gi-* S89a. Dgx *gie-* B89. *gei-*. Mog *kə-*, *ki-* R30b.

****ki**- 'to pour'. This could be a semantic development of **ki-* 'to do', via the meaning 'to put into, insert' as attested for MMo SH and Muq *ki-*. Whether or not this is the case, the two verbs now have different shapes in several QG languages. Cf. **čïdku-*, **tüsür-*, **yeü-*.

Kh, Bur, Kalm have the same phonetic shapes listed under **ki-* 'to do'. EYu *ki:-* B68. BaoD *ki-* BL51, BL74. BaoGt *ki-* C124. BaoÑ *ki:-* CN79. Dgx *kie-* B75, MC217b. Mog *ki-* R1 'to put into'.

****kirbei** 'edge'. EYu suggests *g-*, Monguoric favours **k-*. Found only in Monguoric and EYu, but cf. WM *kirbegesü(n)* L471a. Kh *xirvees* H635b 'fur trimming', *xervees* H723a 'trimmings', cf. *xervix* H722b, Ord *kerwe- ~ kérwe-* M418b 'to trim',

Kalm *kirwä:sn* R233 '(..) shearings'. WM *i ~ e* variations usually are from **e*, but here the first vowel needs to be **i* in order to explain the *ć-* in Monguoric.

MMo---. WM---. Kh---. Bur---. Kalm---. Dag---. EYu *aman gərβəi* B5 'lip' (lit. 'mouth edge'), *čkən gərβəi* B139 'helix' ('ear edge'). MgrH *ćire:* X208. MgrM *çaibai* C393, *çaibai ~ çəbie* DS208a. Remaining lgs---.

*kirüe > *kiröe 'saw'. The Shirongol forms may go back to a form **kireü*, a metathetic alternant of **kirüe > *kiröe*. The *ć-* in the Dgx form is unexpected and reminiscent of Monguoric.

MMo SH *kiru'e* H102, HY---, Muq *kirö:* P219a. WM *kiröge* L473a. Kh *xöröö(n)* H674a. Ord *körö:* M430b. Bur *xyüröö* [written *xyuröö*] C656a, *xüree* (western) C630b. Brg *šurə:* U171. Kalm *körä* M318b. Dag *kirə:* E149. EYu *kure:* B71, *kure:* J99b. MgrH *ćiru:* X209, *ćirəu:* J100b. MgrM *ćirəu* C393. BaoD---. BaoÑ *kuru* CN83. Kgj *kiru* S287b. Dgx *ćirəu* B158. Mog---.

*koa 'all' see ***kau**

*koa- 'to dry (intr), wither'. Initial weakening only in Dgx.

MMo SH---, HY---, Muq *qo:-* P306a. WM---. Kh---. Ord---. Bur---. Kalm---. Dag *x*^w*a:-* E131. EYu *χu:-* BJ346, *χɔ:-* (Qinglong) BJ351. MgrH *χo:-* SM168. MgrM *qo-* J86 'to dry'. BaoD---. BaoÑ *χθ:-* CN61. Kgj *χu-* S285b. Dgx *ġo-* B81. Mog *qua-* R32b.

*koala(ï) 'throat' and ***koala(ï)** 'food'. EYu and BaoÑ suggest two words **koala* 'food' and **koalï* 'throat'.

MMo SH *qo'olai* H66 'throat', HY *qowolai* M90 'throat', Muq *qo:lai* P306a 'throat'. WM *qoɣolai* L952b 'throat', *qoɣola(n)*, *qoɣol* L952a 'food, etc'. Kh *xooloy* H650a 'throat', *xool(on)* H649b 'food'. Ord *χo:l* M349a 'food', *χo:lo* M350a 'food; throat, etc', *χo:lö:* M350b 'throat, etc'. Bur *xooloy* C586a 'throat', *xool* C586a 'food', *xuul* (western) C605b 'nutritiousness'. Brg *xɔ:l* U106 'food', *xɔ:lɔi* U106 'throat'. Kalm *xol* M593a 'throat; nutritiousness'. Dag *xɔ:l*^y E116 'throat; neckband', *x*^w*a:l* (?=) E132 'goiter (disease)'. EYu *χula* B53, *χu:la* J100b 'meal, food', and in *ła:n χu:lə* B88, J89 'oesophagus' (*ła:n < *hulaan* 'red'). MgrH *xʊ:la*, *xʊ:lo* X74 'throat; fodder', *xo:lo* J100a 'throat'. MgrM *qolo* J87 'throat'. BaoD---. BaoÑ *χθlə* CN62 'breakfast', but *fulaŋ ġəli* CN56 'oesophagus' (*fulaŋ < *hulaan* 'red'). Kgj *guli* (sic) S290b. Dgx *ġoləi* B82 'throat; fodder, feed'. Mog *qo:lɛı* R32a 'throat', *kɔlɛı* W170b 'neck'.

*koar 'two' see ***koyar**

*koasun 'dry'. See **koasun* 'empty'.

MMo SH---, HY---, Muq *qo'asun* P299a, *qo:sun* P306b. WM---. Kh---. Bur---. Kalm---. Dag---. EYu---. MgrH *xo:sən* J99a, *xʊ:sən ~ xʊ:ʒən* X75 'dry'. MgrM *qɔsuŋ* C378 'dry'. BaoD *χosuŋ* BL87b 'dry'. BaoÑ *χθ:səŋ*, *χθ:saŋ* CN59. Dgx *qosuŋ* B71. Mog *qɔsun* W177a.

*koasun 'empty'. Although this is likely to be the same word as *koasun 'dry' above, it is listed separately to show the different development and distribution.

MMo SH qo'osun H66, HY qo'osun M90, Muq---, IV---, LV---. WM qoɣosun L953a. Kh xooson H650b. Bur xooho(n) C587b. Brg xɔxɔ:ŋ U108, xɔ:sɔŋ (←Kh) U106. Kalm xoosn M597b. Dag xɔ:sun E116. EYu χu:sən B52, J100a. MgrH xo:ʒən J100a. MgrM qɔsuŋ C378. Bao---. Dgx qusuŋ B72. Mog---.

*kočar- 'to remain'. Survives in EYu in reduced form as a perfective auxiliary (parallel to WYu qal-), as in nda-čur- B28 'to sleep', hkʉ-čɔr- 'to die', marta-čɔr- 'to forget' (BJ1990:233, with different etymology). MgrH χuićira:- C88:575 'to remain', there connected to this etymon, rather stems from *koičïra-.

MMo SH qocor- H64, HY---, Muq qočar- P299b. WM qočor- L951a. Kh xocrox H658a. Ord ġočiro- M309b 'to stay behind, disappear; to become poor'. Bur xosorxo C591b 'to disappear (without trace), (..) to die'. Brg xɔšɔr- U110. Kalm xocrx M602a. Dag---. EYu (see above). MgrH--- (see above). MgrM---. BaoD χʒior- BL29, χʒiorći-, ʒiorći- BL84a. BaoGt xoćāl- C119. BaoÑ hʒər- CN73, ʒər- CN202. BaoX jor- BC73. Kgj---. Dgx---. Mog qočar- R32a 'id', qɔčar- W177b.

*kog 'plant waste, sweepings, garbage, filth'.

MMo SH qoh H64, HY---. Muq---. WM qoɣ L951b. Kh xog H638b. Ord χoġ M348a. Bur xog C575a. Kalm xog M591b. Dag---. EYu χoġ S471. MgrH xɔġ X81, faġ X59 'dung; fertilizer', fog DS222 'fertilizer'. MgrM qo DS222 'fertilizer'. Remaining lgs---.

*koïmar 'northern side; seat of honour'. Probably related to *koï- 'behind; north', but the suffix is unclear.

MMo SH qoyimar H69, HY---, Muq qoimar P110b. WM qoyimar, qoyimor L954a. Kh xoymor H640b. Bur xoymor C577b. Kalm xöömr M603b. Dag xʷaima:r E133 'north side of the kang (heatable brick bed)'. MgrH xʋimor X76 'smooth floor indoors; floor'. Remaining lgs---.

*koïna 'back, posterior side, behind, later, etc'. The initial weakening in Kgj is unexpected. There are many other derivations of the same stem *koïgsï 'backwards', *koïtu 'posterior (adj)' (not listed).

MMo SH qoyina H69, HY qoyina M91, Muq qoina P299b. WM qoyina L954a. Kh xoyno H640b. Bur xoyno C577b. Kalm xöön M603b. Dag xʷainə E132 'north; back'. EYu xɔinɔ B49, χoino J99b. MgrH xuaino J100b 'north; back', xʋino X75. MgrM quaino JL465. BaoD χuinə BL82a, 87b. BaoÑ χi:na CN60 back side; behind, back'. Kgj ġuaina S288b. Dgx quina B72, quŋna MC216b. Mog qoina R32a, koɪnʌ W170b, qaʋnʌ W176b.

*kola 'far'. Cf. *alus 'far' (not listed here).

MMo SH qola, qolo H65, HY qolo M90, Muq qola P300a. WM qola L956b. Kh xol H642b. Ord χolo M350a. Bur xolo C580a. Brg xɔl U109. Kalm xol M592b. Dag xɔl E118. EYu χɔlɔ B50, χolo J100a. MgrH xolo J100a. MgrM qolo JL464, qʋlʋ C378. BaoD ġʋlʋ BL87b. BaoGt xolo C102. BaoÑ χələ CN62. BaoX χolo BC67. Kgj ġulu S28b. Dgx ġolo B82. Mog qolo: R32a, qɔlɔ W177a.

*kolaŋsa (?) 'unpleasant smell, smell of sweat'. The precise form is difficult to establish. The *-a-* is supported by Muq, but Ord suggests *koluŋsu. Bur suggests *kolïmsun, Dagur suggests a palatal element as well. A rare case of *s > Dag č that does not involve the ending *-sUn*.

MMo SH---, HY---, Muq *qolanqsa* P301a. WM *qulungsu(n)*, *qulungɣusu(n)*, *qulumsun* L985a, *qulmusu(n)* L984b. Kh *xulmas* H686b, *xulans* H685a. Ord *χuluŋsu ~ χuluŋsa* M368a. Bur *xol'modoho(n)* C582a, *xol'moho(n)* (western) C582a. Kalm *χɔlŋsă* R183a. Dag *kɔlinč* E151 'body odour'. Remaining lgs---.

*kolba- 'to connect, join, unite'. The loss of *-b-* in MgrM is unexpected. Cf. *ǰalga-.

MMo SH (*qolba'ara-*, *qolbara-* H65 'to unite (intr)'), HY---, Muq *qolba-* P301a. WM *qolbo-*, *qolba-* L957b. Kh *xolbox* H643b. Bur *xolboxo* C579b. Kalm *xolvx* M593b. Dag *xɔlb-* E119. EYu *χɔlβɔ-* B50, *χolbo-* J100a. MgrH *xolo:-* J100a. MgrM *xulo-* T377. Remaining lgs---.

*kolï- 'to mix'.

MMo SH *qoli-* H65, HY *qoli-* M90, Muq *qoli-* P301b. WM *qoli-* L959a. Kh *xolix* H644b. Ord *χoli-* M349b. Bur *xolixo* C580a. Brg *xɔlʲ-* U109. Kalm *xol'x* M595a. Dag *xɔlʲe:-* E116. EYu *χulə-* B53, *χɔlə-* J100a. MgrH *xolə-* J100a. MgrM *xolo-* DS237a. Remaining lgs---.

*koltul- 'to peel, to skin', with intr. counterpart *koltura- 'to peel off, fall off, etc'. Related to *koltusun 'bark', cf. MMo RH *qoldasun* (eds. read *quldasun*) 204C27 'thin bark of a tree which is used to wrap around bows', Dag *kɔltus* E151 'outer shell, outer skin', etc. The reconstruction *koltul-* is supported by Ordos; Baoanic seems to suggest *koltal-*. Cf. *kaul-.

MMo SH---, HY---, Muq---. WM *qoltul-*, *qoltura-* L960a. Kh *xoltlox*, *xoltrox* H644b. Ord *ġultul-*, *ġultur-* M313a. Bur *xoltolxo* C581a, *xoltorxo* C581b. Kalm *xoltlx*, *xoltrx* M584a. Dag *kɔltlɔ:-* E83:126a, *kɔltur-* E151. EYu---. MgrH---. MgrM---. BaoÑ *χədal-* (sic) CN62. BaoGt *xundàl-* C118. Kgj *χundi-* S286a 'to skin'. Dgx *qoŋtolu-* MC213a.

*kom 'saddle pad, felt under the packsaddle'.

MMo SH---, HY---, Muq only *qom-la-* P301b 'to saddle (a camel)', and *qom-u-nu* (sic, genitive) P302a 'camel saddle'. WM *qom* L960b. Kh *xom* H645b. Bur *xom* C582a. Kalm *xom* M595b '&saddle; fat spot near a camel's hump'. Dag---. EYu *χɔm* B50. Mgr---. Bao---. BaoÑ *χəm* CN62. Dgx---. Mog---.

*komaul ~ *komual 'horse dung'. Note the peculiar similarity of the Bur and EYu form. Cf. also the 'standard' Bur *tontogool*, *tontoxoodo(n)* C428b 'horse dung', Brg *tɔntɔ:l* U183 'horse dung'. Cf. Turkic *komuk. Cf. for a parallel case *ǰundaul (as in SH) corresponding to CT *yundak.

MMo SH *qoma'ul* H65 'dried dung', HY---, Muq---. WM *qomoɣol*, *qomol* L961a. Kh *xomool* H646a. Ord *xomo:l(i)* M351a. Bur *xontool* (Selenga) (?=) C585a.

Brg. Kalm *χomγl* M595b 'humus', *χomγ̆al* R184b, *χoma:l* R184b 'round pellet of sheep or camel dung'. Dag---. EYu *χɔndu:l* (?=) B49. Remaining lgs---.

konag 'millet'. The present distribution (as well as the fact that other cereal names have been borrowed from Turkic in QG) suggests that this word entered from Turkic in recent centuries.

     MMo SH---, HY *qonoq* M90, Muq *qonaq* [P: *qunaq*] P302a. WM *qonoγ* L964a. Kh *xonog* H648a. Bur---. Kalm *χonŏğ* R185a. Dag---. EYu---. Mgr---. Bao---. Kgj *ğunəğ* S288b. Dgx *ğonau* B81, *ğono* L80. Mog---.

koŋgar 'fallow, light bay, etc'. Cf. CT **koŋur*.

     MMo SH *qongqor* H66, HY---, Muq---. WM *qongγor* L962a. Kh *xongor* H647a. Ord *χoŋġor* M354a. Bur *xongor* C583b. Kalm *xoŋyr* M596a. Dag *kɔŋɔ:r* E150. EYu *χɔŋğur* B49, *χɔŋġɔr* J100b. Remaining lgs---.

koŋka 'bell'.

     MMo SH---, HY---, Muq---. WM *qongqo* L963a. Kh *xonx(on)* H648a. Ord *χoŋxo* M354a. Bur *xonxo* C584b. Kalm *xoŋx* M596a. Dag *kɔŋgilǰa:r ~ kɔŋgulǰa:r* (?=) E150 'small bell'. EYu *χɔŋġɔ* B49, *χoŋġo* J100b. MgrH *xoŋġor* J100b, *xɔŋġur* X81, *xʋŋġʋr* X77. MgrM *qoŋġo* JL477, *quaŋġʋ* C378. BaoD *galalaŋ* (?=) BL87a. Kgj *ğɔlɔlɔŋ ~ ğɔlɔŋlɔŋ* (?=) S288a. Dgx *ğuŋğuŋ* B83, *ğonġon* L115b. Mog---.

konïn 'sheep'. Note the loss of *-n* in EYugur and all of Shirongol. The weakening of initial **k* in Dongxiang and some Baoan dialects is probably due to the following nasal. Agricultural term related to CT **ko:ñ*.

     MMo SH *qoni(n)* H66, HY *qonin* M90, Muq *qonin* P302a, *γonin* P206b. WM *qoni(n)* L963b. Kh *xon'* (*xonin*) H649a. Ord *χoni* M352a. Bur *xoni(n)* C584a. Kalm *xön* (gen *xöönä*) M603a. Dag *xɔn^y* E117. EYu *χɔ:nə* B49, *χo:nə* J100b. MgrH *xonə* J100b. MgrM *qoni* JL464. BaoD *ġonə* BL87a. BaoGt *xonə* C131. BaoÑ *ġəni* CN86. BaoX *χonə* BC62. Kgj *χɔni ~ χuni* S285b. Dgx *ğoni* B81. Mog *qonin* R32b, *qɔnin* W177a.

konǰïasun, *kondasun* 'colon; anus'. Cf. **anǰasun* 'plough' for a similar set of variants. Dag and Bur point at an assimilated form **konǰaasun*. There are many semantically similar words that may all share the same root: **kondalaï*, **koŋ*, **koŋgaï*, **kondaska*; **kondarčag*, all with meanings like 'buttocks, hindquarters' (none of them listed here)', some of which indicate that the *-n-* goes back to **ŋ*. EYu *ġɔŋġor* B78 'buttocks' may also be from this root.

     MMo SH *qonjiyasun* H66, HY---, Muq---. WM *qongǰusu* L963b 'the junction of the two thighs, crotch'. Kh---. Ord----. Bur *xonzooho(n)* C584a 'anus'. Kalm *χondăsn* R185a 'backside, etc'. Dag *kɔnǰɔ:s ~ kɔnñɔ:s* E88:491 'colon'. EYu---. MgrH *gonǯasə* J98b, *ġunǯæsə ~ ġunǯosə* X98. MgrM *ġunʒʋsï* C381. Remaining lgs---.

kora 'poison'. In WM and NM this word has become confused with **kor* 'disaster'. The WM spellings *qoor*, *qoora* now both represent both original words. In this context also note Manchu *horon* 'poison', *koro* 'sorrow, etc'.

MMo SH *qōro(n)* H68, HY---, Muq *qora* P302b, *ɣora* P135b. WM *qoor*, *qoora* L973b. Kh *xor(on)* H651a. Ord *χoro* M360a. Bur *xoro(n)* C590a. Kalm *xorn* M599b. Dag *kɔr* E153. EYu *χɔrɔ* B51, *χoro* J99b. MgrH *xʊro: sman* (*sman* 'medicine' ←Tib) X81. Remaining lgs---.

korakaï 'insect/worm'. A general word for a variety of mainly invertebrates (like Chinese *chóng*). All Shirongol forms stem from a shortened **korgaï*. Initial weakening in Baoanic may have occurred after weakening (itself unexplained) of the second *-k-*. The CM word may contain the (diminutive?) suffix *-kAi*, so that the PM root may be **kora-*.

MMo SH---, HY *qoroqai* M90, Muq *qoraɣai* P302b, *ɣoraɣai* P238a. WM *qoroqai* L970a 'insects and worms in general'. Kh *xorxoy* H655a. Ord *χor(o)χö:* M358b, M360b, sporadically *ġorχö:* M307a. Bur *xorxoy* C591a 'worm, etc'. Brg *xɔrxɔi* U111. Kalm *xorxa* M600a 'worm; moth'. Dag *xɔrɣ^w* E122. EYu *χɔrɔqɔi* B51, *χoro^xġui* J100a. MgrH *xorġuai* J100a. MgrM *qorġai* JL465. BaoD *ġorġai* BL87b. BaoÑ *ġørġəi* CN88 also 'maggot, shrimp; giant salamander, etc'. BaoX *ġorġi* BC65. Kgj *ǧurǧei ~ ǧurǧai* S288b. Dgx *ġuǧi* B84, *ġuŋġai* B83. Mog---.

korgal, *korgasun* 'sheep, goat, or camel dung' The Ord and Bur forms contradict each other as to the quality and quantity of the vowel of the second syllable. The meaning 'earwax' in MgrM is reminiscent of **kulakï* 'earwax' (not listed here).

MMo SH *qorqosun* H67, HY---, Muq *qorɣal* (*qorɣa:l* also possible) P346a 'dung (of camel)'. WM *qorɣal* L965b, *qorɣol* L966a, *qorɣusun* L966a. Kh *xorgol* H651b. Ord *χorġol* M358a, *χurġu:s* M372b. Bur *xorgooho(n)* C588a, *xorgool* C588a, *xorgol* (western) C588a. Brg *xɔrgɔl* U111. Kalm *xorɣsn* M598b. Dag---. EYu *χorgol* (sic, only) S365. MgrH *xʊrġu:sə* X81. MgrM *xorgosï* P418a 'sheep dung', *qurġosï* DS219a 'earwax'. Remaining lgs---.

korïan 'courtyard; enclosure (usu. for keeping livestock in)'. From **korï-* 'to protect'. The *-n* was lost in parts of central Mongolic, but exceptionally preserved in MgrM. Kgj could be from **kürien* instead, on the other hand there are other unexpected cases of velar *g-* in Kgj.

MMo SH *quru'a* H73, *qoriya'an* H67, HY *qoriyan* M90, Muq---. WM *qoriya(n)* L967a, *qoroɣa* L968b, *qoriɣa(n)*, etc. Kh *xoroo(n)* H654a. Ord *χɔrɔ:* M360a. Bur *xoryoo* C588b, *xoroy* (?=) C589b. Brg *xɔr^yɔ:* U112. Kalm *xora* M597b 'room'. Dag *xɔr^ye:* E121. EYu *χɔrɔ:n* in *qəša: χɔrɔ:n* B64 (cf. **kasïa*). MgrH---. MgrM *qoran* JL471, *qʊ:raŋ* C395. Bao---. Kgj *gʉrɔ ~ gurɔ* S290b. Dgx *ġoroŋ* B83 'courtyard, winnowing area inside the courtyard'. Mog---.

korïn 'twenty'. In Kgj replaced by a new formation **koar harban* 'two tens', in MgrM by Chinese. Related to **koar*.

MMo SH *qorin* H67, HY *qorin* M90, Muq *qorin* P303a. WM *qori(n)* L966a. Kh *xor'* (*xorin*) H656a. Bur *xori(n)* C589a. Kalm *xörn* M604b. Dag *xɔr^y* E123, *xɔrin* E121. EYu *χɔrən* B50, *χorən* J100a. MgrH *xorən* J100a. MgrM---. BaoD *χoroŋ* BL87b, *χoruŋ* BL41. BaoGt *xoroŋ* C132. BaoÑ *χørəŋ* CN63. Kgj---. Dgx *qoruŋ* B72. MogM *qorĩ·* '20 kran coin'.

*kormaï 'skirt, lower hem'. Both Dag and MgrM lost the final -ï. Initial weakening only in Dgx.

MMo SH qormai H67, HY qormai M90, Muq qormai P303a, also qoimar (sic, see *koïmar) P340a. WM qormai L967b, qormoi L968a. Kh xormoy H653a. Bur xormoy C589a. Kalm xorma M599b. Dag xʷarəm E135. EYu χɔrməi B51, χormi: J100a. MgrH xormi: J100a. MgrM qurmo DS250, qormo Z358:599. BaoD χurmi BL88a 'front of a Chinese garment'. BaoÑ---. Dgx ġoməi B82 'skirt'. Mog---.

*koš (> *kos) 'pair; double', with many specialised meanings. Although probably adopted from Turkic *koš, in the central languages this word has become part of the paradigm of *koyar, especially the distributive *kosïad. In Shirongol it is only attested in the combination *koš kelen 'uvula' (lit. 'additional tongue').

MMo SH qoš H68 'house', qošiliq [H: qośilih] H68 'tent', HY qoš [M: qoši] M90 'pair', Muq qoš P303a 'pair'. WM qos L970b, qoos L974a, qod L951b. Kh xos H656a, but cf. xošoy 'twice'. xošood 'two each'. Ord χos M361b, ġoši M308a. Bur xos C591b 'pair', but cf. xošoo 'paired', xošood 'two each'. Kalm χos, χoš R189b, xoš (obs) M602a 'second yurt (near the main one)', xošad 'two each'. Dag---. EYu---. MgrH ġʋs kəle X98, L143. Bao (unspecif. dial.) χoś kalaŋ S396. BaoÑ ġθʒa kelaŋ CN87. Dgx qoşï kielien B71.

*kosïun 'bill, beak'. The Dag -s- suggests an early contraction form *kosuun. The intervocalic affricate in the Monguor languages is unusual.

MMo SH qoši'un H68, HY qoši'un M90, Muq--- (P355b is an emendation of Poppe's, q.v.). WM qosiɣu(n) L970b, qusiɣu(n) L991b (spelled identically!). Kh xošuu(n) H659a. Ord ġušu: M317a. Bur xušuu(n) C609b. Kalm χošu: R190a. Dag kɔsɔ: E152 'beak'. EYu qušu:n B65 'beak', J95b 'lips', qəšu: S365 'snout'. MgrH xośə J95b 'lips', xʋśə X79, xʋʒə X80. MgrM quʒu DS206b, košu P416b 'snout'. BaoD---. BaoÑ ġθśθŋ CN87 'lip'. Dgx quşuŋ B72 'beak'. Mog---.

*kotan 'enclosure; walled town'. Not to be confused with Shirongol *ketü < *gertü '(at) home'. Semantic developments comparable to that of *korïa.

MMo SH qoton H68, pl qotot, qotat H68, HY qoton M90 'town', Muq qotan P302a 'enclosure'. WM qota(n) L972a, qoto(n) L972b. Kh xot (sic, not -on) H656a. Ord ġoto M308b. Bur xoto C592a 'town', cf. xoto(n) C592b 'enclosure'. Brg xɔt U110 'town'. Kalm xotn M601a 'settlement, village'. EYu [only S]. MgrH---. MgrM qudaŋ DS242b. BaoJ x(ʋ)dúŋ L215. Kgj χutuŋ S286a. Dgx qudoŋ B73. Mog---.

*koyar (?~ *koar) 'two'. The forms in the QG languages all seem to stem from *ġo:r < *koar. The latter variant may be related to *koarandu 'between' in central Mongolic, as in Ord χo:r(ġ)ondu M358b/361a. Cf. *korïn 'twenty'; perhaps related to *koï- 'after'. Endemic, unless in some way related to *kos.

MMo SH qoyar H68, HY qoyar M90, Muq qoyar P303b. WM qoyar L955b. Kh xoyor H639a. Ord χoyor M348b. Bur xoyor C576a, xoor (Kachug.) C586b. Brg xɔyɔr U111. Kalm xoyr M592a. Dag xɔir E116. EYu ġu:r B79, J100a. MgrH ġo:r J100a, ġu:r X97. MgrM ġuar JL479, ġʋ:r C219, ġor T325. BaoD ġuar

BL87b. BaoÑ *ġuar* CN88. BaoX *ġuar* BC62. Kgj *ġuar* S288b. Dgx *ġua* B83. Mog *qoyo:r* R32a.

*köbči 'bowstring'.

MMo SH---, HY *köbči* M72, Muq *köbči, köbčin* P219b. WM *köbči* L475b. Kh *xövč* H661a. Ord *gᵤbči ~ göbči* M273b. Bur *xübše* C611a. Brg *xußš* U122. Kalm *kövč* M310a. Dag *kurč* E159. EYu *göbčə* J100a. Mgr---. BaoÑ *karǯil* (?=) CN76. Dgx---. Mog---.

*köbeün, *köün, *keü 'boy, child'. In some languages hard to distinguish from *keü 'child', which may be related (irregularly). Forms that preserve *-n* and/or *-b-* can be assumed to reflect *köbeün rather than *keü. Some of the variants in Monguoric have a diphthong which seems more in agreement with *keü (the loss of *-n* is regular in these languages). The form *köbeün is unexpectedly rare in MMo. In Bao and Kgj (but not in related Dgx) *köbeün and *küün 'person' have merged phonetically. In Arabo-Mongolic they are also hard to distinguish.

MMo SH *ko'u(n)* H105, HY *kö'ün* M73, Muq *kü'ün* (or *kö'ün*) P230b, *kü:n-* (or *kö:n* ?) P231b, *ke'üt* (pl) P166b, RH *köün* (or *kü:n*) 200B22, LV *köbewün* P66 'boy, son', (*diyü*) *keün* P57 'younger brother', Ph *kʰe'ün* P126a, *kʰübe'ün* P126b. WM *kübegün* L494b, cf. *küü* ('coll. form') L509a, *keü* L461b. Kh *xövüüн* H660b, *xüvüün* H699a, *xüü* H707b. Ord *kᵤ:* M433b 'son, boy', *köwᵤ:t* M433b (originally pl.) 'slave of the lowest rank'. Bur *xübüü(n)* C610a, cf. *üxibüü(n)* C517b 'child' apparently from *ökin köbeün. Brg *xu:ŋ* U119. Kalm *kövün* M309b. Dag---. EYu only in compounds such as *hajə-kün* B55 'grandson' (cf. *hači) and *köbeün ökin listed below. MgrH *kəu:* J101b, *ko:* X88, *ku:* X90. MgrM *kau* C380. BaoD *χǯia kuŋ* BL13 (*χǯia* < *gagča*) 'only son'. BaoÑ *kuŋ* CN82. BaoX *kuŋ* BC61. Dgx *kəwaŋ* B74. Mog *köün* R30b, *koʊn* W170b.

*köbeün ökin and/or *keü ökin 'children (sons and daughters)'. For the unexpected forms of the second element see *ökin 'girl'. Perhaps some of the Shirongol forms go back to the form *köbeün sïbaun also found in MMo HY *kö'ün šiba'un* H73 'son', Muq *kü'ün šiba'un* P228b 'children'(Chagatai equivalent *oγlanlarï*), P230b 'children' (Chagatai equivalent *oγlï ušaq*) and MogMr *kəu-šibʋ:n* L63:164, cf. also Ord *kᵤ:ket šu:χat, kᵤ:ket šiwu:* M436b 'children'.

EYu *kü:n hkon* B72, MgrH *ko: śǯün* X88, MgrM *kau śuǯun* DS21b. BaoD *koćüŋ* BL48. BaoÑ *kuŋ əkuŋ-la* (with pl. ending) CN82. Kgj *kᵤnšüŋ* S287b. Dgx *kəwaŋ oćin* B74.

*keüken 'child'. Note the semantic development. Although it is merely the diminutive of *keü, the word now denotes specifically the female child in central Mongolic, specifically the male child in EYu, Mgr, and Kgj.

MMo SH *ko'uken* H104, HY *keüken* [written with kou] M71, *kö'üket* (pl) M73, Muq *kü:ken* P231a, LV *kü:ken* P68, RH *küket* 200C18. WM *keüken* L461b, *kegüken* L443b, *keüked* (pl) L461b. Kh *xüüxen* H708b 'child (..), girl, etc', cf. the forms of address *xüüxee(n), xüxee(n)* H709a. Ord *kᵤ:ken* M435a 'daughter; child in general', *kᵤ:ket* M436b 'children'. Bur *xüüxen* C634b 'girl, daughter', *xüüge(n)*

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C634a 'child; girl, daughter', *xüüged* C633b, *xüüxed* C634b 'children'. Brg *xu:gəŋ* U119 'girl'. Kalm *küükn* M329b 'girl', *küükd* M329b 'children'. Dag *kək*ʷ (sic, ?=) E145 'son', *kəkur* (pl.) E145 'children'. EYu *küken* B72, *kü:ken* J101b 'son'. MgrH *kugän* SM208 'small child, boy'. Bao---. Kgj *kʉgɔ* S287b 'son, boy'. Dgx---. Mog *köʉkằt* (pl) R30b, *kaʊka*, *kaʊkʌ* W169b 'boy'.

ködee (?) 'hazel grouse'. This form (or *küdee* or *ködiie*) may be the source of the Dagur form. Kh and Bur suggest *kötüü* and *ködüü* (or possibly *-eü*), respectively. LC give a WM spelling <*gẅdwgww*> which could be read *kötügüü* in accordance with Kh, or *küdügüü* in accordance with Bur.
　　　MMo---. WM (see above). Kh *xötüü* LC4:149a. Ord---. Bur *xüdüü* C612b. Dag *xudə:* E129.

ködel- 'to move (intr)'. Initial weakening in the QG languages.
　　　MMo SH *kodol-* H103, *godol-* H50, HY *gödöl-* M57, Muq *ködel-* P219b. WM *ködel-* L477b. Kh *xödlöx* H663a. Bur *xüdelxe* C614a. Brg *xudlʸ-* U125. Kalm *ködlx* M312a. Dag *xudul-* E129. EYu *gʉdel-* B85, *gödöl-* J100b. MgrH * godolə-* J101b, *gudoli-* SM139. MgrM *guder-* JL475. BaoD *gudəl-* BL88a, *gudal-* BL74. BaoÑ *gudel-* CN98. Kgj *gʉdəle-* S290a. Dgx *goźielu-* L116b. Mog---.

köe 'soot (usu. on the bottom of a pan)'.
　　　MMo SH---, HY---, Muq *köye* P224b. WM *köge* L478b, *kö* L475a, *kögege* L479a. Kh *xöö* H670b. Bur *xöö* C593b 'charcoal; soot'. Kalm *kö* M308b. Dag *x*ʷ*ə:* E135. EYu *kü:* B72, J5. MgrH *ko:* X88. MgrM *ko* C379. Bao---. Dgx-?-. Mog---.

köe- 'to foam; to swell'. Some of the QG forms may also represent *köb-* or *köbe-* 'to float' (cf. Ord *köwö-* M432b, and perhaps Dag *k*ʷ*ə:bəd-* E162). The final consonant in Kgj *kʉr-* is peculiar, but the derived noun *köesün* displays an unexpected *-r-* in Mgr, and there is also an extended verb *köere-*. Cf. CT *köp-ük* 'foam', *köpür-* 'to foam'.
　　　MMo SH---, HY---, Muq *kö:-* P224b. WM *köge-* L478b, *kögege-* L479a. Kh *xööx* H672b. Ord *kö:-* M423b. Bur *xööxe* (some dialects) C595a 'to swell'. Kalm *kööx* M318b. Dag *x*ʷ*ə:-* E135. EYu *kü:-* B72, J69 'to rise (of water)'. MgrH *ko:-* X88. MgrM *ko-* JL464. BaoD *ko-* BL13 'to swell, bulge'. BaoÑ *kə:-* CN180 'to swell, etc'. Kgj *kʉ-* (~ *kʉr-*) S287b. Dgx *ko-* B75 (s.v. *kieli*). Mog---.

köerge (?*küürge) 'bridge'. With similar uncertainty about the vocalism as in *köerge* 'bellows', but here the *öe* is supported by MgrH, but contradicted by Bur. Technological term related to CT *köprüg* 'id'.
　　　MMo SH---, HY *ke'ürge* M71, Muq *kü'ürge* P231a. WM *kögerge* L480a, *kögörge* L481b, *kegürge* L443b. Kh *xöörög* H671b. Bur *xüürge* C634b. Brg *xo:rəg* U119. Dag *xu:ruɣ*ʷ E124. EYu *kü:rge* B72. MgrH *korgo* X89. MgrM *kuərgə* C380. BaoD---. BaoÑ *kurge* CN83. Dgx---. Mog---.

köerge (?*küürge) 'bellows'. The vocalism is unclear. The SH form suggests *üü* (the Dag and EYu forms can be from *öe* or *üü*. Technological term related to CT

kö:rk 'id'. A rare case of Turkic vowel length which seems to have a parallel in Mongolic.

MMo SH *ku'urge* H105, *gu:rege* H52, HY---, Muq---. WM *kögerge* L480a, *kögörge* L481b, *kegürge* L443b. Kh *xöörög* H671b. Bur *xöörge* C593b, *xürxe* (western) C627b. Brg *xo:rəg* U119. Kalm *köörg* M317b. Dag *xu:ruɣ^w* E124. EYu *kü:rge* B72. BaoÑ *kurgəm* CN83 'bellows' is derived by CN from LT *khol-sgam*.

*köesün 'foam, froth'. Some languages suggest **köersün*. Derived from **köe-* above.

MMo SH---, HY---, Muq *kö'esün* P346a, *kö:sün* P240a, *köhesün* P194b. WM *kögesü(n)* L480b. Kh *xöös(ön)* H672b. Ord *kö:rsʉ* M431b. Bur *xööhe(n)* C595a. Brg *xuxə:* U122. Kalm *köösn* M318a. Dag *x^wə:s* E135. EYu---. MgrH *ko:sə* J101a, *ko:rsə* X88. Remaining lgs---.

*kögsin 'old (animate)'.

MMo SH---, HY---, Muq---. WM *kögsin* L481a. Kh *xögšin* H662b. Ord *göškön* M271b. Bur *xügše(n)* C612a. Kalm *kögšn* M311a. Dag *kuršin šɔɣɔ:* (?=) E158 'experienced (trained) falcon or eagle; male falcon or eagle' (cf. **sïbaun*). EYu *kögšən* J68, *kogšən* B69, *qoġšən* (sic) S259. Bao *kokušyun* P420a. Dgx---. Mog---.

*köi, *köisün 'navel, umbilicus; umbilical cord'. The HY form suggests that **üi* may go back to **öi*. The preconsonantal *-l-* of WM is not reflected in Bur and Shirongol.

MMo SH---, HY *köyisün* M73, Muq *küisün* P226a. WM *kü(y)i* L498a, *kü(y)isü(n)* L498b, *kü(y)ilsü(n)* L498a. Kh *xüy* H700a, *xüys(en)* H700b. Chakhar *xi:s* D188b. Ord *kü:* M441a, *ki:* M419b, *kü:s(ʉ)* ~ *kö:s* ~ *kʉis* ~ *ki:s* M441b. Bur *xüy* C615b, *xüyhe(n)* C616b. Brg *xui* U120. Kalm *ki* (obs) M298a, *kiisn* M299b. Dag *kuis* E154. EYu *kü:* B72 'placenta', *kü:sən* B72, J101b. MgrH *kui:ʒə* J101b. MgrM *kuaiʒï nudu* C380 (**nidün* 'eye'). BaoD *kisuŋ* BL88a. BaoÑ *kisøŋ* CN79. BaoX *kisoŋ* BC62. Kgj---. Dgx *kuaisuŋ* B77, *kuisun* L116b. Mog---, but cf. Zirni *kʉsʉn* 3:3b.

*köiten 'cold'. Perhaps connected to **kölde-* and/or **kör-*. Compare the parallel relationship between **nor-* and **noïtan*.

MMo SH *koyiten* H105, HY *köyiten* M73, Muq *küiten* P226a. WM *kü(y)iten* L498b, *kü(y)itün* L499a. Kh *xüyten* H701a, *xüyt* H700b. Chakhar *xi:tə̃* D188b. Ord *kü:tön* ~ *kʉiten* ~ *ki:ten* M441b. Bur *xüyte(n)* C615b. Brg *xuitəŋ* U120. Kalm *kiitn* M299b. Dag *kuitun* E154. EYu *küten* B72, *kü:ten* J101b. MgrH *kui:den* J101b. MgrM *kuiten* JL469. BaoD *kitaŋ* BL88b. BaoÑ *kitaŋ* CN79. BaoX *kitaŋ* BC67. Kgj *kʉitə* ~ *kʉčtə* S287b. Dgx *kuićien* B78. Mog---.

*köke 'blue, green'. Cf. CT **kö:k* 'id'.

MMo SH *koko* H103, HY *kökö* M72, Muq *köke* P220b (also with the meaning 'sky' as in Turkic). WM *köke* L482a. Kh *xöx* H675b. Ord *gökö* M268b. Bur *xüxe* C635b. Brg *xux* U122. Kalm *kök* M312b. Dag *kuk^w* E155. EYu *hkö* B59,

hgö J101a. MgrH *kugo* J101a. MgrM *kugo* C330. BaoD *kugo* BL88a. BaoGt *kəgo* C102. BaoÑ *kugə* CN82. Kgj *kʉkʉ* S287b. Dgx *kugie* B78. Mog *kʉkä* R31a, *kɔkʌ*, *kɔkɔ* W170b.

*köke- 'to suck the breast'. In spite of their peculiar forms Dag *mək* and *mək-* may nevertheless be related in view of their occurrence as noun and as verb. See **köken*.

    MMo SH *koko-* H103, HY---, Muq *köke-* P220b. WM *kökö-* L483a. Kh *xöxöx* H676b. Ord *gökö-* M269a. Bur *xüxexe* C637a. Brg *xux-* U122. Kalm *kökx* M313b. Dag *mək-* (?=) E197. EYu *hkö-* B59, *hgö-* J101a. MgrH *kugo-* J101a. MgrM *kugo-* C380. BaoD *kugo-γo-* (caus) BL88a. BaoÑ---. Kgj *kʉkʉ-* S287b. Dgx *gogo-* B91. Mog *kökà-*, *kökàla-* (new formation from the noun) R30b.

*köken 'breast'. The *-n* was lost in Mohol and all of Shirongol. See **köke-* above.

    MMo SH *kokan*, pl. *kokot* H103, HY---, Muq *köken* P220b. WM *köke(n)* L482a, *kökö(n)* L483a. Kh *xöx* H676a. Ord *gökö* M269a. Bur *xüxe(n)* C636b. Brg *xux* U122. Kalm *kökn* M313a. Dag *mək* (?=) E197. EYu *hkön* B59, *hgön* J101a. MgrH *kugo* J101a. MgrM *kugo* JL475. BaoD *kugo* BL88a. BaoÑ *kugə ~ kukə* CN82. BaoX *kuko* BC67. Dgx *gogo* B91. Mog *kökä* R30b 'nipple', *kɔkʌ* W170b, *qɔqʌ* W177a.

*kökül 'forelock of a horse; braid of hair'. Ordos suggests **kökül*, but the modern forms of EYu and MgrH seem to favour **kökel*. Dag *gəkulən* looks like a loanword from Manchu, but the actual Manchu forms are *kukule*, *kukulu*.

    MMo SH *keguli* (?*kögül*) H97, HY---, Muq *kakil* (←Ir) P239a, RH *ke:kül* 198B16. WM *gököl* L386a, *keköl* L446a, *kökel* L482b, *kököl* L483b. Kh *göxöl* H129a, *xöxöl* H676a. Ord *gʉkʉl* M76b. Bur *xüxel* (Kiaxta dialect) C636b. Kalm *kükl* M323b. Dag *gəkulən* (sic) E170. EYu *hkol* B59, *kogol* (sic) S290, cf. *kukùl'* P415a. MgrH *kugol* X92. MgrM---. Bao---. Dgx---. Mog *qoqu:l* R32a, MogM, MogMr *kɒ:kul* L62:49.

*köküür 'leather vessel for liquids; snuffbottle'. MMo SH *go'ur* H51 'small leather bucket' coould be the result of a mistranscription from a WM spelling, but cf. Kalm *kü:r* R250a 'small leather bag for fluids'. Cf. **köerge*.

    MMo SH (see above), HY---, Muq---, RH (emended) *kökür* 204B21 'leather container for liquor', Ph---. WM *kökügür*, *köküür* L483b, Inner Mongolian spelling *kʷkʷr*. Kh *xöxüür* H677a. Ord *gʉkʉ:r* M276b. Bur *xüxüür* C635b 'leather bag'. Kalm *kökür* M313b. Dag---. EYu *hkü:r* B59. Mgr---. BaoÑ *kəkər* CN80.

*köl 'foot', often also 'leg'. The palatalised final in Brg and Dag seem to suggest a form **köli*.

    MMo SH *kol* H103, HY *köl* M72, Muq *köl* P221b. WM *köl* L483b. Kh *xöl* H664b. Bur *xül* C616b. Brg *xulʸ* U123. Kalm *köl* M313b. Dag *kulʸ* E155. EYu *köl* B69, J100b. MgrH *kol* J100b. MgrM *kʋar* C379, *qur* (sic) DS224a. BaoD *kual* BL88a. BaoÑ *kəl* CN80. Kgj *kuar ~ kər* S287b. Dgx *kuaŋ* (i.e. /kon/) B77, *kon* L116b, *koŋ* MC222b. Mog *köl* R170b, *kol*, *kɔl*, *kʋl*, etc W170b.

*köl- (?) 'to harness an animal (to a cart or plough)'. Both the central languages and Kgj suggest a form *kölle- or *körle-. Dag suggests a long vowel. In MgrH this verb appears to have merged with *küli- 'to bind'.

MMo SH kol- H103, HY kölgen H72 'team of horses' Muq---, Ph kölgen P126a 'vehicle'. WM köl- L484a, cf. kölle- L485b. Kh xöllöx, xölöx H666b. Ord kölö- M427a 'to harness'. Bur xüllexe C618b 'to harness'. Brg xurəl- U126. Kalm köllx (rare) M315a. Dag kʷə:l- E162. EYu---, but cf. kölgö J5 'mount of important person' . MgrH kolə- J101b, X89. Bao---. Kgj gurla- ~ guarla- S288b. Dgx---. Mog---.

*kölberi- 'to roll' see *körbe-

*kölde- 'to freeze'. Perhaps from the same root as *kör-, *kösi- (not listed here) 'to freeze', *köiten 'cold'.

MMo SH---, HY---, Muq---, IV---, LV---. WM köldö-, kölde- L485a. Kh xöldöx H666a. Bur xüldexe C617b. Brg xulʲd- U124. Kalm köldx M315a. Dag xuld- E128, xullə- E127. EYu kölde- BJ334. MgrH---. MgrM kuardi- C380. BaoD gondə- BL74. BaoGt gundə- C112. BaoÑ gølde- CN96. Kgj guandi- S289b. Dgx gonźie- B90. Mog---.

*kölesün 'sweat'. The -r-in the Monguor languages may be a secondary addition adopted from the related verb *köler- 'to sweat'.

MMo SH kolesun H103, HY kölösün M72, Muq kölesün P222a. WM kölösü(n) L486b, kölesü(n) L485b. Kh xöls(ön) H667a. Ord kölös(ʉ) M427ab. Bur xülhe(n) C619a. Brg xulʲu: U124. Kalm kölsn M315a. Dag xuls E128, xullə E127. EYu kʉlesən B70, kölösən J100b. MgrH konorʒa J100b, konorsa X88. MgrM kolesï C379, koliersï DS254a, kurliesï DS242b, kuarlisï Z337:332. BaoD kolsuŋ BL88b, komsuŋ BL88b. BaoGt kumsuŋ C124. BaoÑ kölsöŋ CN81. Kgj kʉlesï S287b. Dgx koliesuŋ B76. Mog---.

*kölle- (?) 'to harness' see *köl-

*kömeri- 'to put upside down; to overturn, topple'. Note the metathesized form in EYu (as if from *möker-). Could there be a relation with MMo SH mokori'ul- 'to decapitate, execute'? The added -r- in MgrM is triggered by the original -r- in the second syllable. Since the final vowel in MgrH and Dgx may be a recent addition, Bur is the only modern form to suggest a trisyllabic CM form. The Dag form seems to support this (the vowel length is unexlained).

MMo SH---, HY---, Muq---, IV---, LV---. WM kömöri- L487b, kömeri- L487a. Kh xömröx H668b. Ord kömör(ö)- M428a. Bur xümerixe C620b. Brg xumər- U124. Kalm kömrx M316a. Dag kumrʲe:- E156. EYu kömör- J101a, mökör- BJ336, J5, mögör- S373. MgrH kumorə- J101a. MgrM kurmər- DS257b. BaoD---. BaoÑ kömör- CN81. Dgx komoru- B76, L116a. Mog---.

*kömeske 'eyebrow'. This vocalism suggested by Ord and MgrH, but not by MMo Muq. Dag kurmult E158 'eyelid' was borrowed from a, possibly related, Tungusic form (dissimilated < *kurmurt < *kʉrməktə ~ *kʉməktə). Cf. *hanïska.

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MMo SH---, HY---, Muq *kömüske* P250b 'eyelid'. WM *kömösge* L487b 'eyebrow(s). Kh *xömsög* H668b. Ord *kömöskö* M428a. Bur *xümedxe* C620b 'eyebrow arches, eyebrows'. Brg *xuntəg* U121 'eyebrow'. Kalm *kümsg* M324b 'eyebrow'. MgrH *komosgo* J101a 'eyebrow'. Remaining lgs---.

kömüldürge 'breast strap of a horse's harness'. Agricultural term related to CT *kömüldürük* < *köŋül- 'heart' (cf. EDPT 722b). Ord suggests *kömeldürge*.

MMo SH *komuldurge* H103, HY---, Muq *kömüldürüg-ün* (gen.) P223a, LV *kömüldürge* P67. WM *kömüldürge(n)* L487a. Kh *xömöldrög* H668a. Ord *kömöldörgö* M427b. Bur *xümelderge* C620b. Kalm *kömldrgə*, also *köm^örəg* R239a. EYu *köndörge* B69.

kömürge 'trunk, chest'. Metathesis in MgrM.

MMo SH---, HY *gümerge* M58, Muq *kömürgei* P108a, P189b, *kömürkei* P141b (but in fact all written *kwmwrki*, which may also represent *gümürgi*, *kömürgi*, etc). WM *kömürge* L487a. Kh *xömrög* H668, cf. *gömrög* H128a. Ord---. Bur---. Kalm *kömrg* M316a. Dag---. EYu---. MgrH *komorgo* X89. MgrM *kuərməgɤ* C379. Bao---. Dgx *kumuğə* B79. Mog---.

köndelen 'horizontal, across, transverse'. In several languages also 'transverse beam' and the like. Kalm, EYu, and Bao suggest -ŋ.

MMo SH *kondelen* H104, *küdelen* (?=) H105, HY *köndölen* M72, Muq---. WM *köndelen* L488a, *köndölen* L488b. Kh *xöndlön(g)* H670a. Ord *köndölön* M429a. Bur *xündelen* C623b. Brg *xundləŋ* U121. Kalm *köndlŋ* M316b. Dag *xundul* E125 'horizontal', E83:95b 'rafter'. EYu *köndəlen* J101a 'horizontal', *köndeleŋ* BJ334 'of a strange land'. MgrH *kondəlen* J101a. MgrM *kondilen* JL468. BaoD *guandəlaŋ* BL88a. BaoÑ *gəndəlaŋ* CN95. Kgj *guandilə* S289b. Dgx---. MogM *kundalṽ:* L64:42 'kind of timber used in the construction of the (black) tent'.

könerge ~ *köreŋge* 'yeast, leaven'. Both variants are attested in MMo; the former survives in Dag and the QG languages; the latter in central Mongolic.

MMo SH---, HY---, Muq *körenge* P224a, Ph *k^hönörge* P126a. WM *köröngge(n)* L491a, precl. *könörge* T453. Kh *xöröngö* H673b. Ord *köröŋgö* M431a. Bur *xürenge* C629a. Kalm *körŋ* M319a, *körŋgə* R240b. Dag *xunuruɤ^w* E124. EYu *kunerge* S376. MgrH *konorgo* X88. BaoD---. BaoÑ *kunge* CN81 'distiller's yeast'. Dgx *kunieğə* B78 'distiller's yeast'. Mog---.

könǰile(n) 'blanket, quilt'. Ord and Bur suggest a disyllabic word, which is not contradicted by Kh and Kalm. The Shirongol languages and Moghol do confirm the third syllable. The distribution of the final -n is peculiar.

MMo SH *konjile* H104, *gonjile* H51, HY *könǰile* M72, Muq *könǰile* P223b. WM *könǰile(n)* L490a. Kh *xönǰil* H670b. Ord *könǰil* M429a. Bur *xünžel* C624b. Brg *xunǰil* U121. Kalm *könǰl* M316b. Dag---. EYu---. MgrH *konǰilen* J101a. MgrM *guanǯielie* DS245a. Bao---. Kgj---. Dgx *gonǯəlie*, *gonǯəlien* B91. Mog *könǰilá* R30b, *kɔnǰilʌ* W170b.

*kö**ŋdei** 'hollow, empty'. EYu and MgrM suggest -t-; the presence of the -t- explains the preserved strong initial *k-.

  MMo SH---, HY---, Muq *köŋdei* P223a. WM *köndei* L487b, *köndöi* L488b. Kh *xöndiy* H669b. Ord *köndi:* M428a. Bur *xündï* C622b. Brg *xundi:* U121. Kalm *köndä* M316b. Dag *kʷə:nnʸe:*, *kʷə:ndʸe:* E162 (also 'pelvis'). EYu *kʉŋtü:* B70. MgrH---. MgrM *kuantey* P413a, *kuantay* DS229a. Remaining lgs---.

*kö**ŋgen** 'light(weight)'. It is unclear whether this is related to Bur *xüygen* (western) C615a, Kalm *giign* M143a 'light'. Baoan features medial strengthening of -k-, which also enabled the initial *k-* to remain.

  MMo SH---, HY *könggen* M72, Muq *köngen* P223a. WM *könggen* L489a. Kh *xöngön* H669a. Bur *xüngen* C621b. Brg *xuŋgəŋ* U122. Kalm *göŋgn* M147a. Dag *xuŋgə:n* E125. EYu *köŋgen* B69, *köŋgön* J101a. MgrH *koŋgon* J101a. MgrM *koŋgen* JL470. BaoD *kuŋkaŋ* BL88b. BaoGt *kuŋkɔŋ* C118. BaoÑ *kəŋkaŋ* CN80. Kgj *gʉŋgɔ* S290a. Dgx *goŋgien* B91, *guaŋgien* B92 (in fact also /goŋgien/). Mog *kʉŋgo:n* R31a.

*kö**r**- 'to freeze, to become cold'. Perhaps related to *köiten* and/or *kölde-*.

  MMo SH---, HY *kör-* M72, Muq---. WM *körö-* L490b. Kh *xöröx* H674b. Ord *kör-* M430a. Bur *xürexe* C630a. Brg *xur-* U126. Kalm *körx* M319b. Dag---. EYu *kör-* B70, J75, J101b. MgrH *korə-* X89. Remaining lgs---.

*kö**rbe** (?*kürbe) 'lamb'. The middle vowel in the WM spelling is not confirmed elsewhere. Unlike its Turkic counterpart *körpe*, Dagur unexpectedly does not feature -p-. Cf. also Sibe *kurvw* (not in Manchu), Solon *xəbbə* 'lamb'. Cf. *kurïgan*.

  MMo SH---, HY---, Muq---, RH *körbe* [so read] 199C25 'lamb born prematurely'. WM *köröbe* (*kʉrʉbe*) LC4: 145b, also spelled thus in Inner Mongolia. Kh *xöröv töl* LC4: 145b 'young animal that has been separated from its mother early'. Ord *körwö* M431b 'no longer very young' (phase after *nïlka*). Bur *xürbe* (Ekhirit dial.) C625b. Kalm---. Dag *kurbʷ* E158 'lamb'. Remaining lgs---.

*kö**rbe**- 'to roll on the back; to turn'. Dag suggests *körbi-*, mirroring one of the WM spellings, but it also has some derivates without any suggestion of *i*. In Bur-Kalm this seems to have been replaced by a similar and possibly related verb *kölberi-*: Bur *xül'berxe* C619b, Kalm *kölvrx* M314b, which also has an equivalent in Kh *xölböröx* H666a.

  MMo SH *korbe-* H104 'to turn', HY---, Muq *körbe-* P224a [P reads long *e:*, probably based on Kalm]. WM *körbe-* L490a, *körbi-*, *körbö-* L490b. Kh *xörvöx* H673a 'to turn, etc'. Ord *körwö-* M432a. Bur *xürbexe* C625b (always used in comb. with *urbaxa* < *hurba-*). Brg *xurəβ-* U126. Kalm *körwᵒχə* (sic) R241a. Dag *xurbʸ-* E130. EYu *körβe-* B70, *körwö-* S375. Mgr---. BaoD---. BaoÑ *kəle-* (?=) CN81. Bao (unspecif. dial.) *kolər-* S375. Kgj *kʉrle-* S288a 'to roll about'. Dgx---. Mog---.

*kö**reŋge** 'yeast' see *könerge

*körisün 'crust'. The -i- is preserved in Bur only.

MMo SH *korisu* H104 'skin', HY---, Muq---. WM *körösü(n)* L491b, cf. also *körödesü(n)* L490b. Kh *xörs(ön)* H674b. Ord *körös(u)* M431b 'upper layer, epidermis'. Bur *xür'he(n)* C628a. Brg *xuru:* U126. Kalm *körsn* M319a. Dag *kurs* E158 'sod, turf', *ars kurs* E17 'hide, pelt' (cf. **arasun*). Remaining lgs---.

*köskele- 'to mince, cut up'.

MMo SH---, HY---, Muq---. WM---. Kh *xöšiglöx* H677a. Ord *göškölö-* M271b. Bur---. Kalm *köšglx* M320b. EYu *kʉsgəle-* B70, *kösgölö-* J100a. MgrH *kosgo* X89 'half; piece'.

*kötel- 'to lead by the hand, to lead along'.

MMo SH *kotol-* H104, HY *kötöl-* M72, Muq---. WM *kötöl-, kötel-* L493b. Kh *xötlöx* H675b. Ord *götöl-* M272b. Bur *xütelxe* C633b. Brg *xutl-* U125. Kalm *kötlx* M320a. Dag *kutlə:-* E157. EYu *kʉtel-* B71, *kude:l-* J100b, *kudü:l-* J51. MgrH *kudolə-* J100b. MgrM *guder-* JL475. BaoD *kudal-* BL35. BaoGt *kudàl-* C124. BaoÑ---. BaoX *kudal-* BC66. Kgj *kʉtarɔ̣- ~ kʉte-* S288a. Dgx---. Mog---.

*kubčasun 'clothes'.

MMo SH *qubcasu(n)* H69, HY *qubčasu* M69, Muq---. WM *qubčasu(n)* L976a. Kh *xuvcas(an)* H680a, cf. Chakhar *gʊbtăs* D187b. Ord *ġubčas(u)* M310a. Bur *xubsaha(n)* C597a. Brg *xʊsʊ:* U116. Kalm *xuvcn* M606a. Dag---. EYu *χobjosən* J100a, *ġɔbčɔsən* BJ336. MgrH---. MgrM---. BaoD---. BaoÑ---. Dgx---. Mog---.

*kubï 'part, share'. Dag *ɔb* is a reborrowing from Manchu *ubu* which lost the initial consonant (as in *orin* 'twenty'< CM **korïn*).

MMo SH *qubi* H69, HY---, Muq *qubi* P305a. WM *qubi* L976b. Kh *xuv'* H680a. Bur *xubi* C596a. Kalm *xüv* M617b. Dag (see above). EYu *χuβə* BJ349, *χuβ* B54. MgrH---. MgrM *qobi* DS235a 'luck'. Remaining lgs---.

*kubïa- 'to divide'. Both MgrM and Dgx (independently) developed from an intermediate form **quġa- < *quba-*. From **kubï* above.

MMo SH *qubiya-* H69, HY *qubiya-qda-* (pass) M91, Muq---. WM *qubiya-* L977a. Kh *xuvaax* H679a. Bur *xubaaxa* C595b. Kalm *xuvax* M605b. Dag *xɔbʸe:-* E118. EYu *χwa:-* B54, *χua-* J100a. MgrH *xgua:-* J100a. MgrM *quba-* DS217b. BaoD *ġua-* BL88b. BaoÑ *ġua-* CN88. Kgj *ġua-* S288b. Dgx *ġuġa-* B83, *ġuġua-* MC126b. Mog---.

*kubïl- 'to change, turn into'. From a root **kubï-*, of which other derivates survive in the central lgs. The MgrM form could alternatively be from **hurbaul-* 'to cause to turn'.

MMo SH---, HY---, Muq---. WM *qubil-* L977b. Kh *xuvilax* H679b. Bur *xubilxa* C596b. Brg *xɔβʸl-* U108. Kalm *xüvlx* (obs) M618a. Dag *xɔbil-* E118. EYu---. MgrH---. MgrM *xuərbər-ġa-* (caus.) (?=) F134:61. Bao---. Kgj---. Dgx *ġolu-* B82, *ġuilu-* B83, *ġuailu-* L80. Mog---.

*kuča 'ram'. Agricultural term related to CT *koč, *kočŋar/*kočgar.
MMo SH---, HY quča M91, Muq quča P307, γuča P150a. WM quča(n)
L979a. Kh xuc H698a. Ord ġuča M318b. Bur xusa C604b. Kalm xuc M616b. Dag
kɔč E152. EYu quča B65, quja J100b. MgrH xuʒa J100b, xʊʒæ X79. MgrM quʒia
DS249a, kučà P411a. Bao---.Kgj---. Dgx quʐa B73. Mog---.

*kuča- 'to bark'.
MMo SH quca- H70, HY quča- M91, Muq quča- P307a. WM quča-
L979a. Kh xucax H698a. Ord ġuča- M318b. Bur xusaxa C604b. Kalm xucx M617a.
Dag kɔč- E152. EYu quča- B65, quja- J100b, χuja- J53. MgrH xuʒa- J100b. MgrM
quʒia- DS206a. BaoD χəʒia- BL88a. BaoÑ hʒa- CN72. BaoX xǰa:- BC63. Kgj
quča- S287a. Dgx quʐa- B73. Mog quǐča- R32b.

*kučï- 'to cover, wrap up in'.
MMo SH quci- H70, HY quči- M91 'q.v.', Muq quči- P307b. WM quči-
L979a. Kh xučix H698b. Ord ġuči- M318b. Bur xušaxa C609a. Kalm xučx M617b.
Dag kɔč- E152. EYu--- . MgrH xʊʒə- X80 'to wrap; to surround, etc'. MgrM---.
BaoD---. BaoÑ χóći- CN62. Dgx quʐï- B73. Mog quǐči- R32b.

*kuda 'men related through the marriage of their children'.
MMo SH quda H70, HY γuda M59, Muq---. WM quda L979b. Kh xud
H682a. Ord χuda M362b. Bur xuda C597b. Brg xʊd U116. Kalm xud M607a. Dag
xʷad E134. EYu ġuda B79, J100b. MgrH ġuda: J110b. MgrM---. Bao---. Kgj---.
Dgx---. MogM quda, γuda L63:153.

*kudagaï 'women related through the marriage of their children'.
MMo SH---, HY---, Muq---. WM quduγui L980b. Kh xudguy H683a. Ord
χuduᵘi: M363b. Bur xudagï C597b. Brg xʊdgai U117. Kalm---. Dag xɔduχʷ E120.
EYu ġudağai B79. MgrH---. MgrM---. Bao---. Kgj---. Dgx ġudaği B84. Mog---.

*kudal 'lie, falsehood'.
MMo SH qudal H70, HY---, Muq qudal P307b. WM qudal L979b. Kh
xudal H682b. Bur xudal C597b. Kalm xudl M607a. Dag xʷadəl E134. EYu ġudal
B79, J100b. MgrH ġudal J100b. MgrM ġudar JL477. Bao---. Kgj ġudar S288b. Dgx
ġudaŋ B84. Mog qudo:l R32b, qudɔl W177b.

*kudaldu- 'to trade, sell'. Cf. *düre- used instead in Dag, MgrM, and Mog.
MMo SH qudaldu- H70, HY qudaldu- M91, Muq qudaldu- P308a,
γudaldu- P231a. WM qudaldu- L980a. Kh xudaldax H682b. Ord χudaldu-, χudalda-
M363a. Bur xudaldaxa C598a. Kalm xuldx M608a. Dag---. EYu ġudald- B80.
MgrH da:ldə- X187. MgrM---. BaoD dandə- BL18 'to sell'. BaoÑ dalda- CN172
'to sell'. Kgj dandi- S298a 'to buy; to sell'. Dgx ġudandu- B84. Mog---.

*kudku- 'to stir, mix, blend'. Surprisingly there are two different forms in
Mongghul, and neither is an obvious loanword (compare the development of
*kadku- for the former, and *hedke- for the latter).

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MMo SH *qutqu-la-* H73, HY *qutqula-* (?=) M92 'to harass', Muq *qutqu-* P312b. WM *qudqu-* L981b, *qudqula-* L981b. Kh *xutgax* H694b. Ord *ġudχu-*, *ġudχula-* M310b. Bur *xudxaxa* C598b. Kalm *xutxx* M614b. Dag *kɔrkʷ-* E153. EYu *qudqula-* B65, *qudġə-* J100b. MgrH *ġʊsġʊ-* X98, *ṣdoġʊ-* X168. MgrM *quduġo-* DS252b, *kotoga-* P416b. BaoD---. BaoÑ---. BaoX *xdaġə-* (?=) BC63. Bao (unspecif. dial.) *doġə-* S394. Dgx *quduğu-* S394, MC215b. Mog---.

*kudug 'well'. CT *kudug from **kud-* 'to pour'. Cf. *bulag 'spring'.

MMo SH *quduh* H70, HY *ɣuduq* M59, Muq *quduq* P308b. WM *qudduɣ*, *quduɣ* L980b. Kh *xudag* H682b. Ord *χuduq* M363b. Bur *xudag* C597b. Kalm *xudg* M607a. Dag *kɔdir* E152. EYu---. Mgr---. Bao---. Kgj---. Dgx *ġudəu* B84 also 'pit for storing water'. Mog---.

*kudurga 'crupper'. Initial weakening in QG. Agricultural term related to CT *kuduruk 'tail' and *kudušgun 'crupper'.

MMo SH *qudurqa* H70, HY---, Muq *qudurɣa* P308b. WM *qudurɣa(n)* L980b. Kh *xudraga* H683a. Ord *χudurġa* M363b. Bur *xudarga* C598a. Brg *xʊdrag* U117. Kalm *xudrɣ* M607b. Dag *xɔdruɣʷ* E120. EYu *ġudurġa* B80. MgrH *ġudərġa* (only) L139. MgrM *ġudurġa* JL481. Bao---. Kgj *ġudağa* S288b. Dgx *ġuduğa* B84. Mog---.

*kugul- (?*kukul-) 'to break (tr.)'. Bur, EYu and Mog suggest *-k-*, but most languages could stem from a form with either *-g-* or *-k-*.

MMo SH *ququl-* H71, HY---, Muq *ququl-* P310a. WM *quɣul-* L981b, *qaɣul-* (sic) L909b. Kh *xugalax* H681b. Ord *χuġal-* ~ *χuġul-* M364a. Bur *xuxalxa* C608a. Brg *xʊgal-* U115. Kalm *xuɣlx* M606b. Dag *xɔɣʷlɔ:-* E118. EYu *huqul-* B58, *χuġul-* J100a, *hġɔl-* (?=) B59. MgrH *xġulə-* J100a, *xʊġʊlə-* X77. MgrM *quġur-* DS208b. BaoD *ġul-* BL88b, *ġol-* BL66. BaoÑ *ġɵġɵl-* CN86. Dgx *ġuġulu-* MC126a, *ġuğula-* B84, *ġulu-* (sic, ?=) S386. Mog *ququl-* R32b 'to bend', *qɔqɔl-* W177a 'to cut up', MogMr, MogM *ququl-* L62:46 'to break; to defeat'.

*kugura- (?*kukura-) 'to break (intr.)'.

MMo SH *ququra-* H71, HY---, Muq *ququra-* P372a, *ququra-* P309b. WM *quɣura-* L982a, *quɣara-* L981b. Kh *xugarax* H681b. Ord *χuġar(a)-* ~ *χuġur(a)-* M364a. Bur *xuxarxa* C608b, *xugarxa* C597b. Kalm *xuɣrx* M606b. Dag---. EYu *huqura-* B58, *χuqura-* BJ42, *χu:ra:-* (sic, ?=, perhaps **kaura-*) J99a. MgrH *xʊġʊra:-* X77. MgrM *quġura-ġa-* (caus.) DS23. BaoD *ġura-* BL87a. BaoÑ *ġɵġɵra-* CN86. Dgx *ġura-* MC127a, *ġuğura-* MC126a. Mog *ququru-* R32b 'to be bent', *qɔqɔrʌ-* W177a.

*kuï 'sheath (of a knife)' The Dag form *xɔbʸ* (instead of expected *xɔi) seems to suggest a form *kubï, but the remaining languages could not have developed from such a form (cf. *dülei 'deaf' for a similar case).

MMo SH---, HY---, Muq *qui* Pop299a. WM *qui* L982b 'scabbard, sheath'. Kh *xuy* H684a. Bur *xuy* C599a 'sheath'. Brg *xŏai* U113. Kalm *xü* (obs) M617b, *χü:* R204a 'sheath (of a sword)'. Dagur *xɔbʸ* E118 'sheath of a knife'. EYu *χui* B52.

MgrH *xʋi* X75, *xui* L202. BaoD---. BaoGt *ġui* C111. BaoJ *ǧui* L152. BaoÑ---. Kgj *ġuai* S288b. Dgx---. Mog---.

kulagaï 'thief; theft'. See *kulagu-* below.

MMo SH *qulaqai* H71, HY *qulaqai* M91, Muq *qulaɣai* P309a. WM *qulaɣai* L983b. Kh *xulgay* H685b 'thief; theft; etc'. Bur *xulgay* C599b 'theft'. Brg *xʋlgai* U115. Kalm *xulxa* M608b 'theft', *xulxa-č* M609a 'thief'. Dag *xʷaləɣ* E134. EYu *χulăġai-čə* B53, *χulaġai-čə* J100a. MgrH *xulġa:* J100b, *xʋlgai* X78, *xʋlga* X78. MgrM *qʋarġai-ći* C378. BaoD *ġulġai* BL88b. BaoÑ *ġəlġəi* CN87. Kgj *ġulǧai* S288b. Dgx *ġuǧi* B84, *ġuğəi* S388, *ġulağəi* S388. Mog *qulaɣɛi* R32b, *qəlʌɣɛi* W177a.

kulag- ~ *kulagu-* ~ *kulau-* 'to steal'. For a similar set of variants cf. *hasagu-* ~ *hasau-* 'to ask'. Related to *kulagaï* above.

MMo SH *qulah-*, *qulaqu-* H71, HY---, Muq *qulaq-* P309a. WM *qulaɣu-* L984a, *qoloɣo-* (*?quluɣu-*) L960a. Kh *xulgax* H686a, *xuluux* H687a, *xulguux* H686b. Ord *χul(u)gu-* M366b. Bur *xuluuxa* C600b. Brg *xʋlgo:-* U115. Kalm---. Dag *xʋlɔ:-* E118. EYu *χulaġ-* BJ348, *χuləġ-* J90. MgrH *χʋlaġa-* SM180, *xʋlga-* X78. BaoD *ġaləɣə-* BL88a. BaoÑ *laġ-* (?=) CN101. Kgj *ġulǧi-* S288b. Dgx *ġula-* B84. Mog *qulo:ɣu-* R32b, *qəlɔǧ-* W177a.

kulugana 'mouse, rat'. The surviving QG forms are rather garbled, but doubtlessly all related. Possibly originally an *Ersatzwort* related to the verb *kulagu-* 'to steal' above.

MMo SH *quluqana* H71, HY *quluqana* M91, Muq *qulɣuna* P309a. WM *quluɣana* L984b. Kh *xulgana* H686a. Ord *χuluġuna* M367b. Bur *xulgana*, *xulganaan* C600a. Brg *xʋlgana* U116, *xʋlgan* U115 'mouse (in the twelve year cycle); thyroid'. Kalm *xulɣn* M608a. Dag---. EYu *χunlaġ* B53, *χunaglaġ* B52, *χunaġla* J100b. MgrH *xʋnaġla* X76, *xanaġla* X66, *xulġanaġ* S388. MgrM *qʋarġʋarna* C378. Bao---. Kgj---. Dgx---. Mog---.

kulusun 'reed; bamboo'. Bur suggests *kulsun*; Dgx suggests *kulasun*.

MMo SH---, HY *ɣulusun* M59, Muq *qulusun* P119a. WM *qulusu(n)* L985a. Kh *xuls(an)* H686b. Ord *χulus(u)* M368a. Bur *xulha(n)* C600b. Brg *xʋlʋ:* U115. Kalm *xulsn* M608b. Dag *kɔls* E151. EYu *χulusun* B53, *χulusən* J100b. MgrH *xuləʒə* J100b, *xʋlusə* ~ *xʋluʒə* X78. MgrM *qulusï* JL469. BaoD *ġuləsuŋ* BL88b. BaoGt *ġumsuŋ* C149. BaoÑ *ġəlsəŋ* CN87. Dgx *ġulasuŋ* B84. Mog---.

kumï- (?~ *kumbï-*) 'to fold, to bundle together, wrap up; to gather'. Dag from a pseudo-causative *kumbïa-*.

MMo SH---, HY *ɣumbi-* M59 'to gather', Muq---. WM *qumi-*, *qumbi-* L985b. Kh *xumix*, *xumbix* H687b, also *xumxix* H688a. Ord *χumi-* ~ *χomi-* M368a. Bur *xumixa* C601a. Kalm *xömx* M603a. Dag *kɔmbʸe:-* E152. EYu---. MgrH *χʋmbu-* X79. Bao---. Dgx---. Mog---.

*kura ‘rain’.

MMo SH *qura* H72, HY *qura* M91, Muq *qura* P310a. WM *qura* L987a. Kh *xur* H689a. Ord *χura* M370b. Bur *xura* C601b. Brg *xɔr* U117. Kalm *xur* M610a. Dag *xʷar* E135. EYu *χura* B53, J100b. MgrH *xura:* J100b. MgrM *qʊra* C378. BaoD *ġura* BL88b. BaoÑ *ġura* CN89. Kgj *gɤra* S290a. Dgx *ġura* B85. Mog---.

*kurča ‘sharp’. Cf CT *kurč ‘tough, hard’.

MMo SH *qurča* H72, HY *qurča* M92, Muq *qurča* P311a. WM *qurča* L988a. Kh *xurc* H692b. Ord *ġurča* M316a. Bur *xursa* C602b. Kalm *xurc* M612b. Dag *kɔrčin* (?=) E153 ‘fast; quick; strong (of taste)’. EYu *qurča* B65. MgrH *xʊʒæ* X79. MgrM *quʒieġ* (sic) DS248b. Bao---. Kgj *χuǰǰa ~ χuča* S286a. Dgx---. Mog---.

*kurdun ‘fast, quick’.

MMo SH *qurdun* H72, HY---, Muq *qurdun* P311b. WM *qurdun* L989a. Kh *xurd(an)* H691a. Ord *χurdun* M372a. Bur *xurda(n)* C602b. Brg *xɔrdaŋ* U118. Kalm *xurdn* M611b. Dag *xɔrdun* E122. EYu *ġurdən* J100a. MgrH *ġurdən* J100a. MgrM *ġʊrdun* C382. BaoD *ġurduŋ* BL88a. BaoÑ *ġørdəŋ* CN88. BaoX *ġordoŋ* BC65. Kgj *ġurdun* S288b. Dgx *ġuduŋ* B84, cf. *ġuʒin* B85 (?=), L80. Mog *qurdun* R32b.

*kurïa- ‘to gather (tr.)’. This is the caus. form of *kurï- ‘to gather (intr)’, which is not as common in the modern languages.

MMo SH *quriya-, quriya’a-* H73, HY *quriya-* M92, Muq *quri’a-* P311b, *qura:-* P358b. WM *quriya-* L989b, *quraγa-* L987a. Kh *xuraax* H690a. Bur *xuryaaxa* C604b. Brg *xɔrʸa:-* U118. Kalm *xurax* M610b. Dag *xɔrʸe:-* E121. EYu *χura:-* J100b. MgrH *xura:-* J100a. MgrM *qura-* DS225b. BaoD-?-. BaoGt *ġurï-* C108. BaoÑ *ġøra-* CN88. Kgj *guru-* (sic) S289b. Dgx *ġura-* B85. Mog---.

*kurïm ‘banquet, feast; wedding (banquet)’. From *kurï- ‘to gather’, for which see *kurïa- above.

MMo SH *qurim* H72, HY *qurim* M92 ‘gathering’, Muq *qurim* P118a. WM *qurim* L990b. Kh *xurim* H691b. Bur *xurim* C602b. Kalm *xürm* M618b. Dag *xɔrin* E121. EYu *χɔrəm* B50. MgrH *xʊrəm, xʊrən* X80, *xurəm* J100b. MgrM *qurəŋ* J89. BaoD---. BaoÑ---. Dgx *ġuruŋ* B86. Mog---.

*kurïgan ‘lamb’. The forms in the old documents suggest trisyllabic *kurïgan or *kuragan. The form *kurïgan is supported by Buriat. The remaining languages, including those of QG, may have developed through a disyllabic form *kurgan. Initial weakening in Baoanic was enabled by this loss of the middle vowel. As in *bɔtagan, the -gan may be a diminutive. Agricultural term related to CT *kozï ‘id’, which supports a PM form with -ï- not -a-.

MMo SH *quriqa(n)* H72, HY *quriqan* M92, Muq *quraγan* P111b, *qulaγan* (sic) P309a. WM *quraγa(n)* L987a, *qurγa(n)* L989a. Kh *xurga(n)* H690b. Ord *χurġa* M372a. Bur *xur’ga(n)* C604a. Brg *xʊrag* U117. Kalm *xurɣn* M611a. Dag---. EYu *χurğan* B54, J100b. MgrH *xurġan* J100b. MgrM *qʊarġʊar* C378, *qurġur* DS233a, (Sanchuan) *kurga* P422b. BaoD *ġurġaŋ* BL88a. BaoÑ *ġurġaŋ* CN89. Kgj *ğurğun*

S288b. Dgx *ġuğaŋ* B84. Mog *qurɣana* R32b, *qurğʌn* W177b, *qɔrğɣ̃n* W177a, MogM/MogMr *qurɣɒ:n ~ ɣurɣɒ:n* L64:39 'sheep'.

kuruun 'finger'. The Bur-Kalm forms may reflect *kurugun*, which possibly represents a reading pronunciation (cf. *eriün*, *nïruun*). The unstable -*n* was lost in all of Shirongol. Initial weakening in Baoanic, without a clear reason.

MMo SH *quru'u(n)* H73, HY *quru'un* M92, Muq *quru:n* P312b, *χuru:n* P385b. WM *quruɣu(n)* L991a. Kh *xuruu(n)* H692a. Ord *χuru:* M372b. Bur *xurga(n)* C602a. Brg *xʊrʊ:-* (?←Kh) U118. Kalm *xurɣn* M611a. Dag *xɔrɔ:* E121. EYu *χuru:n* B53, J100a. MgrH *xurə* J100a. MgrM *quru* JL463. BaoD *ġur* BL88b 'finger, toe'. BaoÑ *ġurə* CN89 'finger; toe'. Kgj *guru* (sic) S289b. Dgx *ġuru* B86. Mog *quru:n* R32b, *qurun*, *quru* W177b.

kuur 'lute, stringed musical instrument'. The -*h*- in RH may be a relic of *h* < *p*; cf. the cognate CT form *kopuz* 'id'. Kgj *χʉχʉər* S286a, S64 looks more like a Northwest Mandarin reduplication form of Chinese *hú* than a cognate of *kuur*.

MMo SH *qu'urda'ul-* H73 'to have string music played', HY---, Muq---, RH *quhurči* 205C29 'lute player'. WM *quɣur* L982a, *quur* L993a. Kh *xuur* H696a. Bur *xuur* C606a. Kalm *xuur* M615a, *xur* M610a. Dag *kɔ:r* Z98a. EYu *χu:r* B52, J100a. Remaining lgs---.

kuuraï (?*kauraï) 'dry'. The presence of the diphthong *au*, as suggested by one of the WM spellings, is not confirmed elsewhere. The Dagur form agrees with the spelling with *uɣu* and suggests *kuuraï*. The other languages could stem from either form.

MMo SH---, HY---, Muq---. WM *qaɣurai* L910a, *quɣurai* L982a. Kh *xuuray* H696a. Bur *xuuray* C606b. Kalm *xüürä* M619a. Dag *xʷa:ri:* E132. EYu *xu:ri:* BJ348. Remaining lgs---.

kuyag 'armour'. Related to CT *kuyag (cf. EDPT 676a).

MMo SH *quyah* H74, HY *quyaq* M92, Muq---. WM *quyaɣ* L983a. Kh *xuyag* H698b. Bur *xuyag* C609b. Brg *xʊyag* U117. Kalm *xuyg* M607b. Dag *kʷair* E161. EYu *χuyaġ* B53, *χayaġ* J91, 100b. MgrH *xuyaġ* J100b. Remaining lgs---.

*küčün ~ *küčin* 'strength, force'. Cf. CT *kü:č.

MMo SH *gucu(n)* H51, HY *güčün* M57, Muq *küčin* P225a. WM *küčü(n)* L496a. Kh *xüč(in)* H709b. Bur *xüse(n)* C632a, *xüše(n)* C637b. Brg *xuš* U124. Kalm *küčn* M332b. Dag *kuč* E157. EYu *kʉčən* B71, *kujən* J101b. MgrH *kuʒə* J101b. MgrM *kuʒi* JL474. BaoD *kućiə* BL88a. BaoÑ---. Dgx---. Mog---.

küiče- 'to overtake' see *güiče-

küji 'incense, incense stick, perfumery'. Cf. Turkic *küži, probably itself a loanword.

MMo SH---, HY *güji* M57, Muq---. WM *küji* L509b. Kh *xüǰ* H700a. Bur *xüže* C615a. Kalm *küǰ* M323a. Dag *kuǰ* E157. EYu *guʒə* B85, *guʒə* J101a. MgrH

guʒ́ə J101a. MgrM *guʒ́i* JL474. BaoD---. BaoÑ *guʒ́i* CN98 'cypress branches'. Dgx---. Mog---.

*küǰüün 'neck'. The *-h-* in SH is unusual.

MMo SH *guju'u(n)*, *gujuhun* (sic) H52, HY *küǰü'ün* M73, Muq *küǰü'ün*, *küǰü:n* P226a. WM *küǰügüü* L510b, *küǰügün* L510a. Kh *xüzüü(n)* H700a. Bur *xüzüü(n)* C615a. Brg *xuʒu:* U125. Kalm *küzün* M323a. Dag *xuǰu:* E129. EYu *guǰü:n* B85, *guǰü:n* J101a. MgrH *guʒ́ə* J101a. MgrM *guʒi* C381. BaoD *guʒ́üŋ* BL88b. BaoÑ *guʒ́uŋ* CN98. Kgj *guǰun* S290a. Dgx *ǧuʐəŋ* B85, *ǧuʐuŋ* L116b. Mog *kuǰʉ:n* R31a, *kuǰun*, *kužun* W171a.

*küli- 'to bind, tie, tighten'. In MgrH this verb appears to have merged with **köli-* 'to harness'.

MMo SH---, HY---, Muq---. WM *küli-* L499b 'to bind, tie, tighten'. Kh *xülex* H702a. Ord *kuli-* M436a. Bur *xülixe* C618b 'to tie up, etc'. Brg *xulʸ-* U123. Kalm *külx* M324a. Dag---. EYu *kʉlə-* B70, *kulu-* J101b. MgrH *kolə-* X89. Bao---. Dgx---. Mog *kʉli-* R31a, *kuli-* W171a, *quli-* W177b.

*kümeli 'kind of onion'. Enkhbat connects this to Dag *xuŋgə:r* E125 '*Allium mongolicum*', but this is another word, also found in Kh as *xünxeel* H704a 'an edible onionlike plant which grows in sandy soil'. Perhaps related to Turkic (NE) **kömürgen/*kövürgen*.

MMo---. WM *kümel(i)* L501a, *kömel(i)* L487a (in fact the same spellings). Kh *xömöl* H668a, *xümel* H702b 'wild onion'. Ord *kümeli* M436a 'kind of wild garlic (a bit larger than *ta:na*)'. Bur---. Kalm---. Dag *kumbil* E156 (?=) 'willow herb', E83:132a 'shoots of *Artemisia integrifolia* (can be prepared as a vegetable)', *kumbilʸ* NK550b 'variety of white goosefoot. EYu *kʉmel* B85 'fragrant-flowered garlic, Chinese chives', *tali:n kʉmelə* B115 'kind of wild chives' (**tala* 'steppe'). Remaining lgs---.

*kündü 'heavy'. The (itself inexplicable) *-t-* in Bao and EYu has helped to preserve initial *k-*. The surprising added *-n* in MgrH is probably due to the fact that numerous MgrH adjectives end in this sound, whereas nouns usually do not.

MMo SH *kundu* H105, HY *kündü* M73, Muq *kündü* P227b. WM *kündü* L501b. Kh *xünd* H703a. Ord *kundu* M437a. Bur *xünde* C622b. Brg *xund* U121. Kalm *künd* M325a. Dag *xund* E125. EYu *kʉŋtə* B70, *kundə* J101b. MgrH *kundun* J101b. MgrM---. BaoD *kuntə* BL88b. BaoGt *kuntï* C107. BaoÑ *kuntə* CN81. Kgj *gʉndʉ* S290a. Dgx *gundu* B93. Mog *kʉndʉ* R31a, *kundu* W171a.

*künesün 'provisions'. Kalm has *-m- < *n* as in **hünesün* and **sünesün*.

MMo SH *gunesu(n)* H52, HY *günesün* M58, Muq *künesün* P228b. WM *künesü(n)* L503a, *künüsü(n)* L503b. Kh *xüns(en)* H704a. Bur *xünehe(n)* C625a. Brg *xunʸu:* U121. Kalm *kümsn* M324b. Dag *xuns* E124. EYu *kunesən* B70. Mgr---. Bao---. Kgj---. Dgx---. Mog---.

*kür- 'to reach, arrive'.

MMo SH gur- H53, HY kür- M73, gür- M58, Muq kür- P229a. WM kür-
L503b. Kh xürex H706a. Ord kʉr- M438a. Bur xürexe C629b. Brg xur- U126. Kalm
kürx M328b. Dag kur- E158. EYu kʉr- B71, J101a. MgrH kurə- J101a. MgrM kur-
JL475. BaoD kurə- BL88a. BaoÑ kur- CN83. BaoX kor- BC65. Kgj kʉr- S288a.
Dgx kuru- B79. Mog kʉr- R31a, kur- W171a.

*kürge- 'to send, deliver'. Originally the caus. of *kür- 'to reach' above, it has
become an independent verb in many languages.

MMo SH---, HY---, Muq kürge- P229a. WM kürge- L505a. Kh xürgex
H704b. Bur xürgexe C625b. Kalm kürgx M327a. Dag kurɣə:- E158. EYu kʉrge-
B71, körgö- J101a. MgrH kurge:- J101a. BaoD kurgə- BL88a. BaoÑ kurge- CN83.
Kgj kʉrge- S288a. Dgx quǧo- (sic) B72.

*küregen 'son-in-law; brother-in-law; husband'. Apart from Bur the modern
languages have all developed from a disyllabic *kürgen.

MMo SH guregan, gurege(n) H52, gurigen H53, HY güregen M58, Muq
küregen P229a. WM kürgen L505b. Kh xürgen H704b. Ord kʉrgən M438b. Bur
xür'ge(n) C628a. Brg xurgəŋ U127. Kalm kürgn M327a. Dag xurɣun E131. EYu
kʉrgen B72, kurgen J101b. MgrH kurge:n J101a. MgrM kurgæn [bulai] C380.
BaoD kurgaŋ BL88b. BaoGt kurgɔŋ C100. BaoÑ kurġaŋ CN83. Kgj kʉrgɔ S288a.
Dgx quǧoŋ B72. MogM kʉʋgɔ̃: L64:42, kʉʋgʋ:n L62:52.

*kürien 'enclosure, etc'. The preserved -n in MgrH is unexpected. The Kgj form
listed under *korïa may in fact go back to *kürien. Cf. *korïa, *kotan.

MMo SH gure'e(n) H52, gureyen H53, HY güriyen M58, Muq---. WM
küriye(n) L506a. Kh xüree(n) H706b. Bur xüryee C626a. Kalm kürä M326b. Dag
kurʸe: E158, kurə: E158, cf. also kurə:n E83:133a 'the old name of Ulaanbaatar'.
EYu---. MgrH kuraŋ L282. Bao---. Kgj (see above). Dgx---. Mog---.

*kürǰeg ~ *kürǰe 'spade, shovel'. Assuming that MgrM and Dgx go back to forms
with -g like their close relatives, the variant *kürǰeg is found in MMo survives in all
QG languages, whereas the shorter form survives in central Mongolic. Dag kullur
could have developed < *kuljur < *kurǰər < *kürǰeg, but could also be related to
Kalm keldü:r R223a 'small shovel for removing the ashes from the hearth' (<
*küldeür). Cf. CT *kürek 'id' < *küre- 'to shovel; to row'.

MMo SH---, HY---, Muq kürjek P230a, cf. also kürek (← Turkic) P175a.
WM kürǰe L508a. Kh xürz(en) H705a 'shovel, spade'. Ord kʉrǰi M438b. Bur xürze
C626a. Brg xurʒ U127. Kalm kürz M327b. Dag kullur ~ kuldur (?=) E155. EYu
gurǰeg J101a, gurǰig S400. MgrH gurʑig J101a. MgrM kurʑi C381. BaoÑ gurʑig
CN99. Kgj gʉrǰiʉ S290b. Dgx ġuʒə L117b.

*küse- 'to wish, desire'. CT *küse- 'id'.

MMo SH guse- H53, HY---, Muq küse- P230b. WM küse- L508a. Kh xüsex
H707b. Bur xüsexe C633a, xühexe C637a. Brg xud- U125. Kalm küs- R248b.
Dag---. EYu kuse- J35 'to hope for'. Mgr---. BaoD kuse- BL90a 'to miss, long for'.
BaoX kuse- BC64 'to miss, long to see again'. Dgx kuśie- B79 'to admire, envy'.

*küün 'person, human being'. In several languages also used as an indefinite 'somebody else'. In some languages this word has become phonetically indistinguishable from *keün and *köbeün 'son'. Loss of stable -n in Dagur is unexpected, but it is preserved in some old compounds (see s.v. *eme, *ere). The -m- in some of the forms in the central languages was likely reintroduced from the WM spelling. Nevertheless it may represent an actual lost consonant, possibly -m- < earlier -p- (cf. *kee- 'to say', WM keme-).

     MMo SH gu'un H53, HY gü'ün M59, Muq kü'ün P231a, kü:n P114b, küwü'ün P385b. WM kümün L501a. Kh xün H702b, xümüüis (pl) H702a, xömüüin (literary form) H702b. Ord kun M436b, also kumun (lit.). Bur xün, xümüüin (elevated style) C620b. Brg xuŋ U121. Kalm kün M324b, kümn (elevated style) M324b. Dag xu: E123, -ɣun in some compounds. EYu kun B70, genitive ku:nə BJ335, ku:n J101b. MgrH kun J101b. BaoD kuŋ BL88b. BaoÑ kuŋ CN82. BaoX kuŋ BC61. Kgj kun S287b. Dgx kuŋ B78. Mog---, but cf. Zirni ku: 10:7a.

- L -

*lauka 'secretion of the eye' see *nauka

*lausa 'mule'. Loanword from Chinese luózi 'id'. Most languages go back to a form *lausa but the Dag form is a recent borrowing closer to the modern Mandarin pronunciation. The Bur form with final -s is contradicted by the final vowel in MMo, Ord, and QG.

     MMo SH laosa-s-ut (double plural) H105, HY lausa M73, Muq lu:sa P232b. WM luusa L518a, laɣusa (sic) L515a. Kh luus H292b. Ord lʷa:sa M447b. Bur luus C288b. Kalm lus M337b. Dag lʷə:s E192. EYu lu:sa B88. MgrH lausa X109. MgrM lusa T343. BaoD lusə T142. BaoÑ lusa CN106. Kgj lusa S291a. Dgx lausa B95. Mog---.

*loŋka 'bottle'. Probably a foreign word; possibly a dissimilation of an earlier *nɔnka.

     MMo SH---, HY loŋqa M73, Muq---. WM longqo L517a. Kh lonx(on) H291a. Ord loŋxo M447a. Bur lonxo C288a. Kalm loŋx M336a. Dag lɔŋkʷ E190. EYu lɔŋqɔ B87. MgrH lɔŋxʊ Khas115. MgrM laŋxuo Z368:690. Remaining lgs---.

- M -

*maa ~ *maï 'here, take it, here you are'. The modern distribution shows that this is an old word in spite of the absence in MMo. Apparently this word was originally an interjection, although some of the forms in Buriat and Kalmuck take verbal

suffixes which suggests that it was seen as an imperative of a verb stem. Most languages suggest an original form *maa. The form *maï as found in Kalm is also a less common variant in Kh. The CM forms can not be reduced to a single PM form. Cf. the opposite term *alï 'give me'.

MMo SH---, HY---, Muq---. WM ma L519a, mai L522a. Kh ma H293a, maa H293a, may H297a. Ord mä ~ mä: M456b, me M458a. Bur maa C289a, also maa aba C289a, maatgï C289a (pl). Brg ma: U142. Kalm mä M346a, mätn (pl, Torgut dial.) M346a. Dag ma: E192. EYu ma B89, ma: J60. MgrH ma: X116. MgrM ma DS225b. BaoÑ ma CN109. Kgj ma S291b 'give (i.e. to hand or pass sth)' (sic), S223 'here, take it, here you are'. Dgx ma B101. Mog---.

*maaǰi- 'to scratch'. The Bao forms feature -ʒ- instead of expected -ǰ-, but the derivate *maaǰïur 'rake' does display the expected -ǰ- in BaoÑ. Not to be confused with *mačü- 'to clamber, climb' (not listed here), which survives in the central languages and EYu.

MMo SH---, HY---, Muq ma:ǰi- P234b. WM maɣaǰi- L519b. Kh maaǰix H293b. Ord ma:ǰi- M449a. Bur maaǰaxa C289a. Brg ma:ǰ- U142. Kalm maaǰx M337b. Dag ma:ǰ- E192. EYu ma:ǰǝ- B89 (also 'to dig'), J102a. MgrH ma:ǰǝ- J101b. MgrM maǰi- JL463. BaoD maʒï- BL89b 'scratch'. BaoÑ ma:ʒǝ- CN109, but ma:ʒir CN109. Dgx maʒï B104 'rake'. Mog---.

*maara- see *maïla- 'to bleat'

*magalaï ~ *malagaï 'hat, headgear'. There are several forms which show a peculiar distribution. The metathesized forms in some languages have probably developed independently. MMo and Kalmuck seem to reflect *magalaï or *makalaï. The occurrence of this form in MMo suggests that this consonant sequence is the original one, although it is not supported by a majority of the modern languages. The Dagur form may be from *magalaï or *makalaï as well (the loss of *-aï is not unique), but may also be a reborrowing from Manchu mahala. The Manchu form itself may be a loan from Kalmuck or Dagur. Kh, Bur, EYu, and Mog forms suggest *malagaï. The Shirongol forms derive from *malaga, with irregular simplification of the final diphthong. This form further developed into disyllabic *malga in Mgr, MgrM and Bao.

MMo SH maqalai H106, HY---, Muq maqalai P233b. WM malaɣai L524a, malaɣa L523b. Kh malgay H299b. Bur malgay C291a. Brg malgai U144. Kalm maxla M344b. Dag maɣǝl E194, malgai Z100a. EYu malăğai B90, malağai J101b. MgrH malğa J102b, X120. MgrM marğa C383. BaoD malğa BL89b. BaoÑ---. Kgj malğa S291b. Dgx malağa, mağala B103. Mog malɣɛɪ R33a, malğɛɪ W171.

*magta- 'to praise'.

MMo SH---, HY maqta- M74, Muq maqta- P233b. WM maɣta- L520a. Kh magtax H296b. Ord mağta- M449b. Bur magtaxa C290a. Kalm magtx M338b. Dag---. EYu maχda- S476. MgrH mağda- L306, maxda- S476. Bao---. BaoÑ---. Dgx---. Mog---.

*maïla- and *maara- ‘to bleat’. At first sight this is not a reliable word for reconstruction purposes, but the form *maïla- survives quite well and must have been the original word in QG. The form *maara- may also be old, and perhaps developed from a PM form *maŋara-, in view of the possible cognate CT *maŋra- (?< *baŋra-) (EDPT 770b). Dag m^ya:r- seems to represent yet another onomatopoeic form.

MMo SH---, HY maila- M73, Muq ma:ra- P234b. WM mayila- L522b. Kh maylax H298a. Bur maaraxa C289a, maylaxa C290b. Brg ma:l^y- U142. Kalm määlx M346a. Dag m^ya:r- (?=) E207 ‘to bleat, low, mew, croak’. EYu maila- B89, J102a. MgrH mai:la- J102b, maila- X117. BaoD mila- T142. BaoÑ mi:la- CN116 ‘to low; to bleat’. Dgx [mia gie- T128]. Mog---, cf. Zirni mailaqči 20:4 ‘sheep’, mεilakči 20:10 ‘goat’.

*maïrug ‘crooked; slanted’. In QG, this adjective seems to be limited to Baoanic. Bökh and Chen Naixiong compared these forms with WM murui- and murui, which are semantically comparable, but unlikely cognates on phonetic grounds. The phonetically most similar Khalkha forms mayrag, mayrdag H298b ‘toothless; dull, blunt’ have unsuitable meanings. It is unclear if there is a relationship with other ‘central’ forms such as Kh maytgar, mayga, mayjig, mayjgar ‘crooked, askew, bow-legged, etc’; Ord mä:ruġur M457b; Bur mayagar C295b, mayaa C295a; Kalm määyg M346a ‘crooked, bow-legged’.

Ord mä:raq 457b. MgrM mer- P424 ‘become crooked’. BaoD məiroġ BL21. BaoÑ me:rɵg CN115. Dgx mairu (Longquan dialect) B101.

*makalaï ‘hat’ see *magalaï

*mal ‘domestic animals, livestock’. Wanderwort, ultimately probably from Arabic māl, also present in Iranian and Turkic languages, and probably borrowed by Mongolic from the latter. The narrowed meaning ‘livestock’ instead of ‘property’ in general is typical of Turkic and Mongolic. Cf. the endemic word *aduusun, which exists alongside *mal in the languages cited above, and is the normal word for livestock in Baoanic.

MMo SH---, HY---, Muq mal P232b. WM mal L523b. Kh mal H299a. Bur mal C290b. Brg mal U143. Kalm mal M339a. Dag mal E194. EYu mal B90, J102a. MgrH mal L309, mar SM232. BaoD---. BaoÑ---. Dgx---. Mog mo:l R33b ‘property’.

*malagaï ‘hat’ see *magalaï

*malta- ‘to dig, excavate’. The -n- in MgrH appears instead of expected -l- or -r-. The final -l in Baoan (also seen in other verbs, see s.v. *muškī-) is another deviation.
MMo SH malta- H106, HY---, Muq---. WM malta- L524b. Kh maltax H300b. Bur maltaxa C291b. Kalm maltx M340a. Dag malt- E195 ‘etc’. EYu malta- B90, małda- J103b. MgrH manta- J102b. MgrM manta- JL467. BaoD malta- BL83b, mantal- BL83b. BaoÑ mantal- CN111 ‘etc’. Kgj manta- S291b. Dgx maŋta- B102. Mog---.

*mana- 'to guard, keep watch'. Possibly from PM *bana-. The Shirongol lgs use *eüden sakï- 'to guard the door' in this meaning.

MMo SH---, HY *mana-* M73, Muq---. WM *mana-* L525a. Kh *manax* H302a. Bur *manaxa* C292a. Kalm *manx* M342a. Dag *mana-* T153. EYu *mana-* B89. Remaining lgs.

*managaar, *margaasï, etc 'morning; tomorrow'. The modern forms listed here are very diverse, but they appear all to be related. The original form was probably *managaar which developed into *mangaar and > *margaar. Dgx and Kgj seem to derive from this form *margaar. The form *margaasï found in many languages may represent *margaar-sï. Some forms have further endings or incorporate *erte 'morning' or *üdür 'day'. There are also words incorporating *ene 'this', such as MgrH *namaġśǝ* X26 'this morning' < *ene margaasï, MgrM *naŋga* DS21 (if not from Amdo *naŋ-hka*), Kgj *na maġa* S281a 'this morning' < *ene managar, BaoÑ *nǝmġuarte* CN28, Kgj *na maġade* S281a 'this morning', probably < *ene managar erte 'this morning early'. The origin of MgrH *malaŋ* J102b 'morning' is unclear. *managaar may be related to *manïar 'mist' (not listed) and *manan 'mist' (listed below).

MMo SH *manaqar* H106 'the next day, the next morning', *manaqaru* H106 'early in the morning', *manaqari* H106 'the next morning', *manaqarši* H106 'on the next day/morning', *manaqaši* H106 'the next morning', HY *manaqar erte* M74 'early in the morning', Muq *manaɣar, manaqar* P233a 'tomorrow'. WM *manaɣar, manaɣarsi* L525a, *marɣasi* L529a, *marɣata* L529a. Kh *managaar* H301b 'tomorrow', *margaaš* H305b 'tomorrow', *margaad, margaadar* H305b 'tomorrow'. Ord *marġa:ta* M455b. Bur *margaar* C293a, *margaaša* C293a, *malgaar* ('western') C291a 'tomorrow'. Kalm *maŋyar* M342a 'mist, mirage (in the morning)', *maŋydur* M342b 'tomorrow' < *managar üdür. Dag---. EYu *marġa:šda* B91, *marġašda* J102b. MgrH *maġaśi* X119, *maġaşǝ* X119 'tomorrow', *maġśi* X120 'next year' (sic!), *maġśǝ* X120 'early morning'. MgrM *maġaše* T343. BaoD *maχśiǝ* BL89a. BaoGt *màşġǝ* C120. BaoÑ *maχśi* CN112. BaoX *moχša* BC62. Kgj *maġa ~ marġa* S29b '(early) morning, etc', *maġaši* S291b 'tomorrow', *maġade* S291b 'morning'. Dgx *maġa* B103 '(early) morning', *maġaşï* B103 'tomorrow', *maġaşï xoŋ* B103 'next year', DgxL *maġudu* B103 'next year'. Mog---.

*manan 'mist, fog'. The -u- in EYu and the metathesis in MgrH are recent developments. Perhaps related to *managaar 'tomorrow' listed above, as well as *manïar 'mist', HY *moniyar* M75, etc. Kalm *manr* 'misty'. Cf. *budaŋ 'mist'.

MMo SH---, HY---, Muq *manan* P233a. WM *manan, manang* L525b. Kh *manan* H301b. Bur *mana(n)* C292a. Brg *man* U142. Kalm *mann* (lit) M341a. Dag *manǝn* E193. EYu *munaŋ* B96, *manaŋ* J102a. MgrH *nama:n* J102b, X26, hence also *lama:n* X111. MgrM *manaŋ* JL462. BaoD---. BaoÑ---. Kgj---. Dgx---. Mog---.

*maŋgïr, *maŋgï(r)sun 'wild onion (and similar bulbous plants)'. The existence of two clearly different Dagur forms is puzzling; both are possible developments from *maŋgïsun (?*maŋgïasun), for *manč cf. Dag *nǝkč* 'spinal marrow' from *nugusun.

MMo SH *manggirsu(n)* H107, HY *manggir* M74, Muq---. WM *manggir* L527a. Kh *mangir* H302b, *mangis* H302b. Ord---. Bur *mangir* C292a, *mandiha(n)*

(Ekhirit) C292b. Brg *maŋgïr* U143. Kalm *mäŋgrsn* M346b. Dag *maŋ^ye:s* E194 '"mountain onion"', *manč* E193 'wild garlic'. EYu *maŋġarsən* S480. Remaining lgs---.

*maŋgus 'a type of (usually female, many-headed, human-eating) demon; a large snake'. In Buriat this word was perhaps lost because it merged phonetically with *mangad* C292a 'Russian'. Or could this actually have the same etymology, as suggested by Poppe 1955:171. The final vowel in Monguoric is a recent addition. The alternative form in Ord *mu:s* M476b, Kalm *mus* M362a was probably borrowed from the (Kipchak) Turkic form *mawuz*, going back to the same etymon. The first element of Dgx *mausuməğəçï* B101 is likely to be related to this Turkic form, but the second part is obscure; it may involve *emegen* 'old lady' or *meke.či* 'trickster'.

MMo SH *manggus*, *mangqus* H107, HY---, Muq---. WM *mangγus* L527a. Kh *mangas* H302b. Ord *maŋġus* M454b. Bur-?-. Brg *mangad* U143. Kalm *maŋɣs* M342b. Dag *maŋ^ye:* (?=) E194. EYu *ma:ŋġăs* B89. MgrH *maŋġuʒə* X119, *mɔŋġʊʒə* X124. MgrM *maŋġuʒï* JL470, *maŋquʒï* DS237a. Bao---. Kgj---. Dgx (see above). Mog---.

*maŋlaï 'forehead'. The central languages developed from an assimilated form *maŋnaï. The peculiar -*əu* in Dgx normally reflects the loss of a *-g. The Dag form is close to the Solon form *maŋ^ye:l*, but the loss of -aï is also seen in other Dag words. The Bur dialect form *maalay* may represent an early variant *maŋalaï* with resolved cluster. The element -*lAi* is also found in some other body parts (e.g. *koalaï*, *koŋdalaï*) and may be a suffix.

MMo SH *manglai* H107, HY *maŋlai* M74, Muq *manqlai* P233a. WM *manglai* L527a, *mangnai* L527b. Kh *magnay* H296a, *manlay* H304a (the latter form mainly in figurative meanings; ←WM?). Bur *magnay* (obs) C290a, *mangilay* (Ekhirit) C292a, *maalay* (Alar and Ekhirit) C289a. Brg *magnai* U143 'back of the head'. Kalm *maŋna* M342b. Dag *maŋgil* E194 (see above). EYu *maŋli:* B90, J102a. MgrH *maŋli:* J102b. MgrM *maŋlai* JL476. BaoD *maŋləi* BL89a. BaoÑ---. Kgj---. Dgx *maŋləu* B102. Mog---.

*margasï 'tomorrow' see s.v. *managar

*marïan ~ *maraan 'flesh; degree of fatness (usu. of livestock)'. The element *ï in the second syllable was only preserved in the central languages. The QG languages share the development *ïa > a: > a. But note that the development *ïa > *aa can already be seen in the SH. Ordos stands apart, suggesting *mïraa.

MMo SH *mara'a* H107, *mariya(n)* H108 '(human) flesh, the body', HY---, Muq---. WM *mariya* L529b, *miriya* L540a 'body, flesh; corpulence, pudginess'. Kh *maria* H306a 'fatness, corpulence, obesity'. Ord *mira:* M465a. Bur *maryaa(n)* C294b. Brg *mar^ya:-tai* U144 fat (adj.). Kalm *merän* in *max merän* M350b 'lean', *merɛ:* R261b 'flesh (esp. in the face)'. Dag---. EYu *maran* B90 'skin', J81 'pork skin'. MgrH *mara* SM233 'flesh, corpulence; face', L314 also 'skin'. BaoD---. BaoÑ *mara* CN113 'fat, (of animals) fattened, well-fed'. Kgj *mara* S291b 'fat (of an animal)'. Dgx *mara* B104 'flesh; fat'. Mog---.

*marïa- 'to spy on, to peek; to stalk, approach stealthily'. Kh and Ord seem to stem from a form *mïraa-. Baoanic seem to go back to *ma:ra- with metathesis of length < *mara:-. Dag marʸe:- E196 'to have sex' corresponds well phonetically, but the semantic connection is perhaps too far-fetched.

     MMo SH *mariya-* H108, HY---, Muq---. WM *mariya-* L529b, *miriya-* L540a, *miraɣa-* L540a, *mira-* L540a. Kh *myaraax* H340b. Ord *mira:-* M465a. Bur *maryaaxa* C294a. Kalm *meræ-* R261b. Dag see above. EYu---. Mgr---. BaoD---. BaoÑ *ma:ra-* CN109 'to hide, lie low'. BaoX *ma:r-* BC75 'to hide'. Kgj *mara-* S291b 'to hide'. Dgx *mara-* B104 'to peek, spy on'. Mog---.

*marta- (< *umarta-) 'to forget'. One of the very rare cases of initial vowel loss in the central languages.

     MMo SH *umarta-* H163, HY---, Muq *marta-* P234a, IV *umarta-* L62:71, LV *umarta-* P1261. WM *umarta-* L874a, *marta-* L530a. Kh *martax* H306b, *umartax* H546a. Bur *martaxa* C293b. Brg *mart-* U144. Kalm *martx* M344a. Dag *mart-* E196. EYu *marta-* B91, J102b. MgrH *maṣda-* J102b, *muṣda:-*, *murṣda:-* SM251. MgrM *marta-* T344. BaoD *martə-* BL89b. BaoÑ *marta-* CN113. BaoX *martə-* BC65. Kgj *marta-* S292a. Dgx *mata-* B103. Mog *mo:rta-* R33b, *mɔrtʌ-* W172b.

*mau 'bad'. Bao may have added the -ŋ because the majority of adjectives end in it. Note the irregularity of the vocalism in the Dag derivations *mɔ:t-* E201 from *maud- and *mɔ:l-* E200 from *maula-, but cf. *maud-, *maurka:-* E193.

     MMo SH *mao'u(n)*, *mao'ui* H107, HY *ma'u* M74, Muq *ma'u* P234a, *mu'u* P321a, *mu:* P242a. WM *maɣu* L520b. Kh *muu* H333a. Bur *muu* C302b. Kalm *mu* M361b. Dag *mɔ:* E200. EYu *mu:* B94, J102a. MgrH *mau:* J102b. MgrM *mɔu* C382. BaoD *muŋ* BL89b. BaoÑ *muŋ* CN119 'bad, ugly, etc'. BaoX *mu* BC73. Kgj *mau ~ mu* S291b. Dgx *mau* B101. Mog---.

*mede- 'to know'.

     MMo SH *mede-* H108, HY *mede-* M74, Muq *mede-* P234b. WM *mede-* L531a. Kh *medex* H336a. Ord *mede-* M458a. Bur *medexe* C310b. Brg *məd-* U145. Kalm *medx* M348a. Dag *məd-* E198. EYu *mede-* B92, J102a. MgrH *mude-* J102a. MgrM *mide-* C383. BaoD *madə-* BL89b. BaoÑ *medə-* CN116 'etc'. BaoX *mədə-* BC70. Kgj *mede-* S292a. Dgx *məźie-* B106, *məiźie-* L117b. Mog *medʌ-*, *mɛdɛ-* W172a, MogM, MogMr *médä-* L62:53.

*melekei 'frog' see *menekei.

*mendü 'peace(ful), tranquil(ity); health, well-being; as usual'.

     MMo SH---, HY *mendü* M75, Muq---. WM *mendü* L535b. Kh *mend* H337b. Ord *möndʉ* M469b. Bur *mende* C312a. Brg *mənd* U144. Kalm *mend* M349b. Dag---. EYu *mendə* B92, *me:ndə* J58, *mö:ndə* J5. MgrH---. MgrM---. Bao *mendu* P425. Kgj---. Dgx---. Mog---.

*menekei 'frog'. MMo and QG point at *menekei, Dagur and the central languages at *melekei. The inexplicable -d- in MgrM and BaoD is probably secondary (cf. the development of *hünegen 'fox'). Historically the form with -l- may be due to

dissimilation of the two nasals. BaoD *lam(ən)dəgi* 'frog' is probably a corrupted compound with **menekei* as a second element, cf. BaoÑ *łamba məngi* CN107 'toad' (according to Chen Naixiong the first element is LT *lhan-pa* 'patch'). It is phonetically possible but semantically unlikely that BaoD is the same compound as MMo HY *naq menegei* M77 'soft tortoise', WM *laɣ melekei*, Ord *laġ meleki:* M442b 'turtle'. The *-kei* may be a suffix (cf. **no-kaï*, **herbee-kei*), in which case the PM root may have been **mene-* or **bene-*.

MMo SH---, HY *menegei* M75 'frog', Muq *menekei* P235b ['turtle' according to Poppe], P287b ['frog']. WM *melekei* L534b, *menekei* L536a. Kh *melxiy* H337a 'frog, toad'. Ord *meleki:* M462b 'frog'. Bur *melxey* C311b 'tortoise'. Kalm *meklä* M348b 'frog; toad'. Dag *mələɣ* E198. EYu---. MgrH---. MgrM *mandəġai* C385, *mendeġei* T357. BaoD *lam(ən)dəgi* BL89a. BaoÑ *məngi* CN113. Kgj---. Dgx---. Mog---.

*meŋge 'mole, birthmark'. Related to CT **beŋ* 'id'.

MMo SH---, HY *mengge* M75, Muq *menge* P235b. WM *mengge* L536b. Kh *menge* H337b. Ord *meŋge* M463a. Bur *menge* C312a. Kalm *meŋ* (?←T) M350a. Dag---. EYu *meŋ* (←T) B92. MgrH *mungi* L339. MgrM *menkə* Z335:305, 306. Bao---. Dgx *mankiə* S485, *mənkə*, *mənkie* MC260a. Mog---.

*mergen 'smart, wise, talented; good marksman'.

MMo SH *mergan* H109, HY *mergen* M75, Muq---. WM *mergen* L537a. Kh *mergen* H338a. Bur *merge(n)* C312b. Kalm *mergn* M350b. Dag *məryən* E198. EYu *meryen* B93. MgrH *murgₔn* X128. MgrM---. Bao---. Kgj *mergə* S292a. Dgx *məryən* T129, *mənǧən* MC260a 'active, vigorous'. Mog *mɪrgʌn* W172a 'hunter'.

*metü 'like, as... as'. The final *-g* in Baoan is probably a secondary addition (this not unique, see **teŋgeri* 'sky'). However, in view of its accent and attributive usage, BaoD *mə'təgə* may represent **metü-ki*. **metü* is also preserved by Baoanic in a number of new formations, which are also present in BaoÑ: BaoD *əntəg* T152, *nəntəgə-nə* (+ poss3) BL82b 'like this', BaoÑ *emtəg* CN14, *əmtəg* CN11, Kgj *entʉ ~ antʉ ~ ʉntʉ* S279b 'like this, this kind of' BaoD *təntəgə* BL91b, BaoÑ *təmtəg* CN163, Kgj *tentʉ ~ tantʉ ~ tʉntʉ* S297b 'like that, that kind of', BaoÑ *yamtəg* CN215 'what kind of', BaoD *iantəg* BL72 'how much' (sic), Kgj *matu* S291b 'what kind of', Dgx *matu-ni* B103 'what kind of'. These appear to stem from **ene metü*, **te(re) metü*, and **yaan* or **yama metü*. Dgx *imutu* BC85:132, *imutu-ni* B11 'this kind of' and *ćimutu* B155 'that kind of', in view of their vocalism, suggest **ein* and **tein* as a first element instead.

MMo SH *metu* H109, HY *metü* M75, Muq *metü* P261b, *mütü* P361. WM *metü* L538a. Kh *met* H338b. Ord *metʉ* M463b, *mötʉ* M472a. Bur *mete* C313a, *bete* C134b. Kalm *met* M351a. Dag *mutʸ* E88:420, *mʉt* NK474a. EYu---. MgrH *madu* X120. MgrM---. BaoD *mə'təgə* BL59. BaoGt *mutï* C107. BaoGm *məġgə* CN86:282. BaoÑ---. BaoX *məti* BC73, *mətəg* BC73, *məntəg* CN86:282. Kgj *mʉtʉ ~ mʉntʉ ~ mətʉ* S292b. Dgx *mutu, mutuŋ* B111. Mog *mɛtu* W172a.

*mïkan 'meat'. In the QG languages **ï* was assimilated to the following **a*, except in Dgx. The vowel rounding in MgrM and BaoX is recent. In the other languages **ï*

was also assimilated to the *a. In Bur, Brg, and Dag m- remained palatalized, whereas in Kh and Kalm the palatal element has completely disappeared. In this word the unstable -n was lost in all of Shirongol.

MMo SH *miqa(n)* H109, HY *miqan* M75, Muq *miqan* P236b. WM *miqa(n)* L540b. Kh *max(an)* H308a. Bur *myaxa(n)* C314a. Brg *mʸax* U150. Kalm *maxn* M345a. Dag *mʸaɣ* E207. EYu *maɣqan* B90, *maχǵan* J102b. MgrH *maxa* J102a, X119. MgrM *muqa* C383, *maqa* T344. BaoD *məǵa* BL89b, *muǧá* L121. BaoGt *muǵa* C104. BaoŇ *maǵa* CN113. BaoX *moǵa* BC73. Kgj *maǧa* S291b. Dgx *miǧa* B107. Mog *miqo:n* R33b, *mʸəqẽn*, *mʸəqɔn* W172, MogMr *mʸaqo:n*, *mʸa:qʋ:n*, MogM *mʸaqqõ:* L62:54.

mïlaa 'whip' see *mïnaa*

mïnaa 'whip'. The variants and their distribution appear rather chaotic; note the striking disagreement between the central languages and between Bao and Dgx. Some of the forms, such as EYu, are apt to be confused with *muna* 'wooden club', WM *muna* L551a 'wooden club, stick, mallet', Kh *muna* H331a, Dag *manə ~ mana:* E193, or with *bïlau* 'cudgel', WM *bilaɣu* L103b. Kh *byaluu* H99b, Dag *bɔlɔ:* E81.

The form *mïnaa* is probably the original form, which is supported by its occurrence in the old documents. The form *mïlaa* could then be the result of a dissimilation of the two nasals (as in *menekei ~ *melekei* 'frog'). The Kh and Kalm forms go back to a form with metathesized vowels *malïa < *mïlaa. Kh *myalga* seems to be an incorrect reading pronunciation of WM *milaɣa*. If the original form was indeed *mïnaa, the PM form may have been *bïnaa (probably with a consonant between the two *a's). Cf. *sïčua* and *tasïur* 'whip' (the latter not listed here).

MMo SH *mina'a* H109, HY *mina'a* M75, Muq *mina:* P236a. WM *milaɣa* L538b. Kh *malia* H300a, *myalga* H339b. Ord *mila:* M464a 'la lanière qui fixe le fouet à son manchet'. Bur *minaa* (western) C296b. Brg---. Kalm *malya* M340b. Dag *mina:*, also *mina:la:n* E199. EYu *muna* B95. MgrH---. MgrM *mila:* C387. BaoD *məla*, also *bula* BL89a (the latter may be from *bïlau* 'cudgel' although the -a is against that). BaoGt *mula* C100. BaoŇ *məla* CN114. Kgj *mila* S292b. Dgx *mina* B106. Mog---.

mïŋgan 'thousand'. Front-vocalic in Kalm, as a consequence of the absence of breaking. Both the -x- and the vocalism in MgrH is unexpected. Related to CT *biŋ ~ *bïŋ 'id', on which one may base a PM form *bïŋgan (cf. P60:72 etc; RI:78 etc.) In the remaining languages replaced by Tibetan, Chinese, and Iranian words.

MMo SH *minqa(n)* H109, HY *minɣan* M75, Muq *minqan* P236b. WM *mingɣa(n)* L539b. Kh *myanga(n)* H340. Ord *miŋǧa* M465a. Bur *myanga(n)* C314a. Brg *mʸaŋg*, *mʸaŋgaŋ* U149. Kalm *miŋyn* M353. Dag *mʸaŋgə* E207. EYu *məŋgan* B91, J102b. MgrH *meŋxan* J102a, *meŋxen* X121. MgrM---. BaoD---. BaoŇ---. Kgj---. Dgx---. Mog---.

modun 'tree; wood'. The aspirated -t- in MgrM and Baoanic is inexplicable. One might think of influence of Chinese *mùtou* 'wood', but there are other words with a similar development, e.g. *hodun* 'star'. The origin of -r- in BaoGt and Kgj is also obscure. Furthermore this is one of the few cases in which an unexpected vowel

length appears in the same word in Dag, EYu, and MgrH. In EYu and MgrH the length seems to be triggered by word structure, whereas the length in Dagur form was perhaps influenced by Northern Tungusic *mɔ:* 'tree'. **modun* may contain the (?collective) suffix **-dUn*, in which case the PM root is **mo-*. This is supported by MMo SH *moci* H109, MgrH *moći* X123 'carpenter', apparently from **mo-čï*.

  MMo SH *modun* H110, *mudun* H111 'tree; wood', HY *modun* H75 'tree, wood', Muq *modun* P237b. WM *modu(n)* L541a 'tree; wood; etc'. Kh *mod(on)* H313b. Ord *mudu* M473a. Bur *modo(n)* C297b 'tree; wood'. Brg *mɔd* U146 'wood'. Kalm *modn* M353b. Dag *mɔ:d* E201 'wood; tree'. EYu *mu:dən* B95, J102b, EYu (Qinglong) *mɔ:dən* BJ351. MgrH *mo:də* X122 'wood', *mo:du* L325 'wood; tree'. MgrM *motu* C383, *mo:tʊ* C166, *mutu* T345. BaoD *mutoŋ* T143. BaoJ *murtóŋ* L121. BaoGt *murtuŋ* C104. BaoÑ *mətəŋ* CN117, *mədəŋ* CN118. BaoX *mətəŋ* CN86:298. Kgj *mʉrtʉn* S293a. Dgx *mutuŋ* B111 'wood; tree'. Mog *modun* R33b 'wood', *mɔdu*, *mudun* W172b 'wood, wooden stick'.

*mogaï 'snake'. Dagur from a form **moga* which lost the *-ï*, for which cf. **gakaï* 'pig', **nokaï* 'dog', etc.

  MMo SH *moqai* H110, HY *moqai* M76, Muq *moɣai* P238a. WM *moɣai* L541b. Kh *mogoy* H313a. Bur *mogoy* C297a. Brg *mɔgɔi* U146. Kalm *moɣa* M353b. Dag *mɔɣ^w* E202. EYu *mɔǧɔi* B93, *mɔǧui* J102b. MgrH *moǧuai* J102a, *moǧʋi* X122. MgrM *moǧai* JL465. BaoD *moǧai* BL89a. BaoGt *moǧui* C110. BaoÑ *məǧəi* CN117. BaoX *moǧui* BC74. Kgj *muǧuai* S292b. Dgx *moǧəi* B109, *moɣəi* L117a. Mog *maɣo:i:* R33a, *mɔǧoι* W172.

*mogadur and **mokudag* 'blunt, dull'. These two adjectives are listed together because of the ambiguous Shirongol evidence. The latter could be the nomen usus of the verb **moku-/*mokï-* 'to become blunt'. The nomen imperfecti of this verb also occurs in central Mongolic: Kh *moxoo* H319b, Bur *moxoo* C301a, Brg *mɔxɔ:* U146, Kalm *moka* M354a. How **mogadur* can be compared to this verb is unclear. The MgrM, Kgj and Dgx forms could have developed from either adjective. Confusingly MgrM suggests **mogadur*, while the BaoD form with -χ may reflect **mokudag*. Cf. also **mukur* listed below.

  MMo SH ---, HY *moqodaq* M76, Muq *moqadaq* P238a. WM *moɣotor* L542a, *moqotor* L544b, *moqodaɣ* L544a. Kh *mogotor* H313b, *moxdog* H319b. Ord *muχudaq*, *muχuduq* M474a, cf. also *muǧdu:*, *muǧduǧur*, *muǧduŋ* M473b. Bur---. Brg---. Kalm---. Dag---. EYu--- *moχɣordəg* (only) S495. MgrH *moǧdər* J102a, *moǧordu*, *moǧordur*, *moǧodur* SM239. MgrM *moǧodo* DS207b. BaoD *moχtəχ* BL89b. BaoÑ---. Kgj *mɔǧdu ~ mɔdu* S292b. Dgx *muǧudu* B110, *muǧutu* L117b. Mog---.

*mokïn 'resin' see **bokï*.

*mona 'future-'. Only in the combinations below. The first element of Dag *bən^y udur* E75, *bɔn^y udur* E80, *bun^y udur* E84 'today' is most likely to go back to an earlier **bunï* and is therefore hard to connect to **mona*.

  MMo SH *mona qoyina*, *mono qoyina* H110 'in the future', HY *mono qoyina* M75 'in the future' (cf. **koïna*), Muq---. WM---. Kh---. Ord---. Bur---.

Kalm---. Dag---. EYu *mɔnɔn* B93 'the year after next' (**mona hon*). MgrH *muno:n* SM248 (**mona hon*). MgrM---. Bao---. Dgx---. Mog---.

*moŋgal 'Mongol'. BaoD *muŋgu* BL89b, Dgx *mungu* B110 are from Ch *Měnggŭ*. Potanin (410) gives *mongol kun* P140 as one of the self-designations of the Baoan speakers. Mog *moyo:l* R33b is the Persian form. Dag *mɔŋgul* may be a central Mongolic form, cf. Dag *maŋŋələm* 'broomcorn millet' < **moŋgal amun*.
     MMo SH *mangqol* H107, HY *moŋqol* M75, Muq *monyol* P238a. WM *mongγol* L542b. Kh *mongol* H315b. Bur *mongol* C298b. Kalm *moŋγl* M355a. Dag *mɔŋgul* E202. EYu *mɔŋgul* B93, *moŋgol* J102b. MgrH *moŋgol* J102a. MgrM *moŋgor* JL464 also 'Monguor', *mɔŋɢuar* C383. Bao (see above). Remaining lgs---.

*morïn 'horse'. Note the loss of -*n* in EYugur and Baoanic (in the Monguor languages this loss is expected).
     MMo SH *mori(n)* H111, HY *morin* M76, Muq *morin* P238b. WM *mori(n)* L543b. Kh *mor'* (*morin*) H318a. Ord *mori* M467b. Bur *mori(n)* C300a. Brg *mɔrʸ(ıŋ)* U147. Kalm *mörn* M360a. Dag *mɔrʸ* E204. EYu *mɔ:rə* B93, *mo:rə* J102b. MgrH *morə* J102b. MgrM *moʐï* /*mori*/ C383. BaoD *morə* BL89b. BaoÑ *mərə* CN118. BaoX *morə* BC64. Kgj *mɔri* S292b. Dgx *mori* B109. Mog *morin* R33b, W172b, etc.

*möčir 'foliage'. Both the Ord long *u:* and the Kalm *b*- are unexpected. Cf. **nabčïn* 'leaf', **salaa* 'branch'.
     MMo---. WM *möčir* L545a 'twig, etc'. Kh *möčir* H328a. Ord *möču:r* M472a. Bur *müšer* C309b 'branch'. Brg *mušir* U149. Kalm *büčr* M132b 'foliage, top, branch, sprout'. Dag---. EYu---. MgrH *mućir* L340 'branch'. MgrM *mučhu* T346 'stick'. Bao---. Dgx---. Mog---.

*möer 'rim of a wheel'. Dag and Bur (some forms) suggest an additional final vowel.
     MMo SH---, HY *mö'er* M76, Muq---. WM *möger* L545b. Kh *möör* H324a. Ord---. Bur *möör, mööri, mööre* C301b 'wheel'. Brg *mo:r* U148. Kalm *mö:r* R268a. Dag *mʷə:r* E208 'rim of a wheel', *mə:r* T18 'rim'. Remaining lgs---.

*möere- 'to moo, low'. Ultimately an onomatopoeic. But nevertheless it may be related to the synonymous Turkic **müŋre-*.
     MMo SH *mo'ore-, mo'ere-* H110, HY *mö'ere-* M76, Muq *mö:re-* P241a. WM *mögere-, mögeri-* L545b. Kh *mööröx* H324a. Bur *möörexe* C301b. Brg *mo:r-* U148. Kalm *möörx* M358b. Dag *mʷə:r-* E208. EYu *mü:re-* B96, J102a. MgrH *mo:ro-* J102b. MgrM *mori-* JL468, *mo:r-* C383. BaoD---. BaoÑ---. Dgx *muri-* B112. Mog---.

*möersün ~ **möŋgersün* 'cartilage, gristle'. The modern forms point at the existence of (at least) two CM variants, **möersün* and **möŋgersün* (cf. **noasun* for a similar set of old variants). MgrM may reflect another form **mögersün*. The Dag -*m*- is unexpected.
     MMo SH---, HY---, Muq---, IV---, LV---, RH---. WM *mögeresü(n)* L545b, *bögersü(n)* L125a. Kh *mögöörs(ön)* H320a, *mögöös(ön)* H320b, *möörs* H324a.

Chakhar *mogo:rs* D176b. Ord *mö:rös(ʉ)*, *mö:rs* M471b. Bur *mengeerhe(n)* C312a, *müngöörhen* C306a, *möörhe(n)* (western) C301b. Brg *muŋgə:ru:* U148. Kalm *möörsn* M358a. Dag *məmč* E198, *mʉəmči* S489. EYu---. MgrH *muŋgərʒə* J102b, X124. MgrM *mərġursï* DS227a, *mogursï xolo* P412b 'windpipe' (cf. **koalaï*). BaoD---. BaoÑ---. Dgx---. Mog---.

****möǰki**- 'to trace'. Possibly in some way related to **mör* 'track, etc'.
      MMo SH *mocgi-* H109, *mutki-* H112, *morgi-* (?) H111, HY---, Muq---. WM *möski-* L550b. Kh *möšgox* H329a. Ord *möškö-* M471b. Bur *müšxexe* C309a. Kalm *möškx* M361b. Remaining lgs---.

****mölkü**- 'to crawl, creep, clamber'. Dag *milkʷ-* may be inspired by Tungusic, but it could represent the original CM form.
      MMo SH---, HY---, Muq---, IV---, LV---. WM *mölkö-* L546a. Kh *mölxöx* H321b. Ord *mölkö-* M468b. Bur *mülxixe* C305b. Brg *mulax-* U149. Kalm *mölkx* M357a. Dag *milkʷ-* E200, *mulkʷ-* Z100b. EYu *molkə-* B94, *məlgə-* J102a. MgrH---. Bao---. Kgj---. Dgx---. Mog---.

****mölsün** 'ice'. Bur *mül'hen* seems to suggest a CM form **mölisün*, but unexpected palatalisations and added vowels appear more often in Bur, which may both be very recent. The Ordos *ö* instead of expected *ʉ*. This word may contain the (?collective) suffix **-sUn*, in which case the PM root may be **möl-*. If there is a relationship with **möndür* 'hail', it is morphologically unclear.
      MMo SH *molsun* H110, HY *mölsün* M76, Muq *mölsün* p239a. WM *mösü(n)* L550b, *mölsü(n)* L546b. Kh *mös(ön)* H326b, *möls* H321a. Ord *mösʉ* M471b. Bur *mül'he(n)* C305b. Brg *mulʸu:* U149. Kalm *mösn* M360b. Dag *məis* E197. EYu *mösən* B94, J75, *mesən* J102a. MgrH *molsə* J102b, *malʒə* X120. MgrM *mirsï* S12, *mərsï* DS230. BaoD *miśiu* BL90a, *minśiu* BL31. BaoGt *miśï* C107. BaoJ *miśŕ* L117. BaoÑ *melsəŋ* CN116. BaoGm *mincu* CN86:16. BaoX *mənsu* S12, CN86:228. Kgj *mərsun ~ məsʉn* S292b. Dgx *mansuŋ* B102, *mənsun* L118b, Dgx (Longquan dialect) *məsuŋ* B106. Mog-?-.

****möltül**- 'to take off, undo', *****möltüre**- 'to fall off, come loose'. Ord suggests **möltel-* and **möltere-*. However, based on MMo and the QG languages one would assume an original *ü* in the first syllable. Cf. also the back-vocalic parallel set **multul-*, **multura-*, which also survive in Buriat.
      MMo SH *multul-* H111, *multure-* H111, HY *mültül-* M76, Muq---. WM *möltöle-* L546b, *möltöre-* L546b. Kh *möltlöx* H321b, *möltröx* H321b. Ord *möltöl-* M468b. Bur (see above). Kalm *möltlx*, *möltrx* M357b. Dag---. EYu---. MgrH *mutalə-* X127, *mutare:-* X127. BaoD---. BaoÑ *məntəl-* CN114 'to take off, cause to fall off', *məntəra-* CN114 'to come off, to fall off'. Kgj *mante-* S291b. Dgx *muturə-* B111 'to wither; to drop, fall off'. Mog---.

****mön** 'real, true; the same, this very; it is so'.
      MMo SH *mun* H111, HY *mün* M76, Muq *mön* P248b. WM *mön* L547a. Kh *mön* H322a. Ord *mön* M469a. Bur *mün* C306a. Brg *muŋ* U148, mən. Kalm *mön* M357b. Dag in *mətər* E198 'yes, right, that's it, etc' from **mön tere*. EYu *mən* B91.

Mgr *nəmba:* X32 (*?*mön baïna*), *nəmbi:* X32 (**mön büi*). BaoD *mba* BL54 (*?*mön baïna*), *mbi* BL55 (**mön büi*). BaoÑ *mba* CN120 (*?*mön baïna*), *mbi* CN120 (**mön büi*). Kgj *mba* (*?*mön baïna*), *mbi* S293a (**mön büi*). Dgx *ənbainə* L75 'is indeed' (*?*mön baïna*). Mog *mun*, *mʉn* W173a.

möndür 'hail'. The Dag and Brg forms with -*l* are unexpected. The -*əu* in Dgx is exceptional in that it normally appears when an original -*g* is lost, whereas -*r* usually disappears without a trace. Somehow related to **mölsün* 'ice'? Cf. the Shirongol word **ǰarma*.

    MMo SH---, HY *mündür* M76, Muq *möndür* (?*mündür*) P354b (form given as Turkic, see Poppe). WM *möndör* L547a. Kh *möndör* H323b. Ord *möndör* M469b. Bur *münder* C307a. Brg *məndəl* U145. Kalm *möndr* M357b. Dag *murtul* (small hailstones) E206. EYu *möndür* B94 (small hailstones). MgrH---. MgrM *mendur* P424. Bao---. Kgj---. Dgx *mandəu* B102; Mog---.

**möŋgersün* 'cartilage, gristle'   see **möersün*

**möŋgün* (?and **meŋgü*) 'silver'. The -*n* was lost in Muq, and is also lacking in all QG languages. The Shirongol languages all point at **meŋgü* with *e*. However, the *e* could also be the result of recent unrounding, as it is in Dagur.

    MMo SH *munggu(n)* H112, HY *münggün* M76, Muq *möngü* P239a [ed. reads thus, but only once (p133) written with *wâw* in the first syllable]. WM *mönggö(n)* L547b. Kh *möngö(n)* H322a. Ord *möŋgö ~ mʉŋgu* M469b. Bur *münge(n)* C306b also 'money'. Brg *muŋg* U148 '&money'. Kalm *möŋgn* M358a also 'money'. Dag *muŋgʷ* E205, *məŋgʷ* E197. EYu *möŋgə* B94, *meŋgə* J102a. MgrH *meŋgu* J102b. MgrM *meŋgu* JL468. BaoD *miaŋgu* BL89a. BaoÑ *mengu* CN115. BaoX *miŋgo* BC62. Kgj *meŋgʉ* S292a. Dgx *miengu* B106. Mog---.

**mör* 'track, trail; path, road'.

    MMo SH *mor* H110, HY *mör* M76, Muq *mör* P239b. WM *mör* L548a. Kh *mör* H324a. Bur *mür* C307b. Brg *mur* U149. Kalm *mör* M358b. Dag---. EYu *mör* B94 (also 'a Chinese mile'), J102a, *mer* J37. MgrH *mo:r* J102b, X122, *mo:r* L330, *mur* L340. MgrM *mor* T345, *mər* DS259b. BaoD *mor* BL90b. BaoÑ *mər* CN118. Kgj *mər* S292b. Dgx *mo* B108, DgxL *mo* B158. Mog *mʉr* R34a, *mər* W172, *mur* W173, MogM, MogMr *mər* L62:55.

**mören* 'river'. Several modern forms suggest **müren*, so that the original first vowel can not be reconstructed with certainty.

    MMo SH *muren* H112, HY *müren* M76, Muq *mören* (could also be read *müren*) P220a and many other occurences, usually translated 'sea'. WM *mören* L548b 'large river or lake'. Kh *mörön* H326a. Ord *mörön* M471a. Bur *müre(n)* C309a. Brg *murəŋ* U149. Kalm *mörn* (obs) M360b. Dag *mur* E206, cf. *xar mur* E104 'Heilongjiang = Amur' (**kara*). EYu *mʉren* B96, *mere:n* J101b. MgrH *muro:n* J102b, X127. MgrM *merǽn* C383, *muren* T347, cf. *šukò muren* P413b 'the Huanghe (Yellow River)'. BaoD *moruŋ* BL89a, BL51 'river; the Huanghe'. BaoÑ---. Kgj *mʉrɔ* S293a. Dgx *moran* B109, *moron* L117b. Mog---.

*mörgü- 'to touch with one's forehead; to bow; to pray; to butt; to run into sb'. MMo and the Shirongol languages point at a CM *mürgü-.

MMo SH murgu- H112 'to touch the floor with one's forehead', murgu-le- H112 'to butt', HY mürgü- H76 'to touch the floor with one's forehead', Muq mörgü- [can also be read mürgü-] P240a. WM mörgö- L549a. Kh mörgöx H325a. Ord mörgö- ~ mʉrgu- M470a. Bur mürgexe C308a. Brg murəg- U149. Kalm mörgx M359b. Dag murɣʷ- E206, cf. also murɣʷlə:- E207 'to butt'. EYu morɣə- B94, murɣə- J102a. MgrH murgu- J102b. MgrM murgu- JL475. BaoD murga- BL90a. BaoÑ mərgə- CN115, murga- CN120 'to run into; to bow'. Kgj mʉrgu- 293b. Dgx muǧu- B110 'to touch; to run into; to contradict sb'. Mog---.

*möri ~ *mörü 'shoulder'. The Muq form in -i may be supported by the palatalized -rʸ in Brg. All other modern forms may be from either *-i or *-ü. However, the Ordos form rather suggests *möre. In most Tungusic languages there is a word məirə (SMT) or mi:rə (Northern Tungusic) meaning 'shoulder'. Dagur mi:r E199 'arm' is probably borrowed from this Tungusic form. Cf. *dalu 'shoulder-blade'.

MMo SH muru H112, HY mürü M77, Muq möri P240a. WM möri, mörö(n) L549b. Kh mör(ön) H324b. Ord mörö M471a. Bur müre C309a, mür C308a. Brg mur U149 'shoulder', also murʸ U149 'back'. Kalm mörn R267a 'armpit, shoulder area', cf. mörgᵒ R266a 'back; harrow', mörgn R266b 'back of an axe, knife, sword'. Dag mur E206. EYu mʉrə B96, murə J102a. Mgr---. BaoD---. BaoÑ---. Kgj mʉrʉ S293a 'back of a knife'. Dgx morəi MC269b 'dorsal skeleton of a chicken'. Mog---.

*möški- 'to trace' see *möjki-

*mukur 'blunt'. The lit. Kalm form, and EYu-MgrH suggest *mokar or *mokur. Cf. the verb *moku- (not listed); see *mokudag above.

MMo SH---, HY---, Muq---, IV---, LV---. WM muqur L553b. Kh muxar H334a. Ord muχur M474b. Bur muxar C304a. Brg mʊxar U147. Kalm moxr M356b, muχä- R268b. Dag mɔɣɔr NK473a 'hornless'. EYu mɔɣqɔr B93, moχɣur J102b. MgrH moǧʊr X122. MgrM---. Bao---. Dgx---. Mog---.

*muruï ~ *murïu 'crooked, slanted'. Cf. Baoanic *maïrug 'id'.

MMo SH---, HY---, Muq muru: P241b, murui P357b, mura P241a, RH muru: 203C16. WM murui L552a. Kh muruy H332b, cf. muriu H332b. Ord murᵘi: M476a. Bur muryuu in haryuu muryuu C679a. Brg---. Kalm murʸu: R269a. Dag---. EYu---. MgrH muri: J102b, X127. MgrM muri JL467, muẓï C384. Bao---. Kgj---, but cf. mɔrlaǧai S292b, from the derived verb mɔrla- ~ murla- ~ marlɔ- S292b/S19 'to become slanted'. Dgx---. Mog---.

*muškï- 'to twist'. The modern languages go back to a form *muškï-, but most likely to be a secondary development of either *muskï- or *mujkï- > *mučkï-.

MMo SH---, HY---, Muq---, IV---, LV---, IM mučki- [thus emended] P442a. WM muski-, muški- L552b. Kh mušgix H335a. Bur mušxaxa C305a. Brg mʊtɪg- U148. Kalm moškx M356b. Dag mɔrkʸ- E203. EYu---. MgrH muşgə- J102b, muśgi- L344. MgrM məẓkə- C383, mərkə- DS257b (ẓ 'phonologised' as /r/), morki-

JL475. BaoD *muśiġə*- BL89a. BaoGt *muʂġə*- C121. BaoÑ *məśal*- CN117, *məχśal*-
CN117. Kgj *mesχe*- ~ *mesge*- ~ *mešχe*- S292a. Dgx *muʂïġi*- B111. Mog---.

*mürgü- 'to bow, etc' see ***mörgü**-.

- N -

*naa- 'this side' see ***ïna**-

*naad- 'to play'. A connective vowel has been added in most of the Shirongol
forms. The development **d > t* in Bao and Mog forms is inexplicable (cf. **ebed*-,
*deled-).

   MMo SH---, HY *na'ad-um* M77, Muq *na:t*- P247a. WM *naɣad*-, *naɣadu*-
L556b. Kh *naadax* H341a. Bur *naadaxa* C315b. Brg *na:d*- U55. Kalm *naadx*
M365a. Dag *na:d*- E51. EYu *na:d*- B22, J97a. MgrH *na:də*- J97a. MgrM *nadu*-
T347, *na:du*- C371. BaoD *natə*- BL85b. BaoÑ *na:d*- CN23, *na:tə*- CN22, *na:r*-
CN23. BaoX *na:tə*- BC62. Kgj *nade*- ~ *na:di*- S281b. Dgx *nadu*- B27. Mog *nɔtu*-
(i.e. *nɔt*-) W174a 'to dance'.

*nabčïn 'leaf, foliage'. In spite of the different variants and their somewhat erratic
distribution, all of these forms have a common origin. The form **nabčïn*, with **n*-
and **-b*- as attested in the old sources, survives in Kh and one of the Bur forms.
Kalm and the other Bur form go back to **namčï*. Initial **n*- has been replaced by *l*-
in the QG languages, in Dagur, as well as in some Inner Mongolian dialects not
listed here. All QG languages and Dag do stem from a form with **-b*- not **-m*-. The
Bur forms in *-ha(n)* and Brg *naβšʊ:* go back to **nabčï-sun* ~ **namčï-sun* with the
(?collective) suffix **-sUn*. The aberrant *-g* and *ł*- in the EYu forms are inexplicable.
For the MgrM *-ġ*- cf. **tobčï* 'button'.

   Likely to be related (although this relationship is morphologically obscure):
CM **nabaa* ~ **namaa* 'foliage' Kh *navč namaa* H348b 'foliage'. Bur *nabša namaa*
C317a 'foliage'. Brg *nama:* U57 'thin end of a twig'. Dag *lawa:* E188 'twigs, bunch
of leaves', *larč lawa:* E188 'branches and leaves'. Ramstedt's suggestion that Mog
no:m R34b is also related to **nabčïn* could be correct.

   MMo SH---, HY *nabčin* M77, Muq *nabčin* P244a. WM *nabči(n)* L555a.
Kh *navč(in)* H343b. Bur *nabša* C317a, *namša* C321b, *nabšaha(n)* C317a,
namšaha(n) C321b. Brg *naβš*, *naβšʊ:* U56. Kalm *namč* M368a. Dag *larč* E188. EYu
labčăġ B86, *łabjəġ* J97a. MgrH *labʒə* J97a, X110, *labśʒi* SM218, *laśʒi* SM222,
larśʒə X112. MgrM *laġći* JL461, *ləġći* DS233b. BaoD *labćüŋ* BL85a. BaoÑ *labćaŋ*
CN100. Kgj *lašjɔ* ~ *lar̥čɔ* S290b. Dgx *laçəŋ* B96. Mog (see above).

*nagaču 'maternal uncle'. The Dag form with the long final vowel may have
originated as a form of address (cf. *aka:* 'brother', *əukə:* 'old man', *katɔ:* 'sister'),
but may also be a reborrowing of the Manchu form *nakcu*. The form *naġai* found in
MgrH has equivalents in central Mongolic, e.g. Ord *naġä:*, also *naġan awä:* M480a.

MMo SH *naqacu* H112, HY *naqaču* M77, Muq---. WM *naγaču* L556a. Kh *naγac* H344a 'maternal relative'. Ord *naġači*, *naġača* M480a. Bur *nagasa* C317a '(maternal) relatives'. Brg [*nagc* U56]. Kalm *naγc-nr* (pl) M366a 'maternal relatives'. Dag *nauč*ɔ*:* E52, *nauč* E83:157. EYu *naġač*ə B23, J97a. MgrH *naġa* J97a, *naġai* (?=) X25 (see above). Bao---. Dgx---. Mog---.

naïman 'eight'. Cf. *nayan* 'eighty' below, which suggests that this is a root *naï- + a suffix *-mAn*. perhaps a nasalized variant of the *-bAn* (or *-rbAn*) found in *gurban* 'three', *dörben* 'four', *harban* 'ten'.
MMo SH *naiman* H113, HY *naiman* M77, Muq *naiman* P244b. WM *na(y)ima(n)* L559a. Kh *naym(an)* H345b. Bur *nayma(n)* C318b. Brg *naim*, *naimaŋ* U55. Kalm *näämn* M371a. Dag *naim*, *naimən* E52. EYu *naiman* J97a, *nəiman* B24, *neiman* B25. MgrH *naiman* X24, *ni:man* X29. MgrM *naimaŋ* (obs.) DS4a, (Sanchuan) *naiman* P422. BaoD *nəimaŋ* BL84a. BaoÑ *nimaŋ* CN30. Kgj *neimɔ* S281b. Dgx *nəimaŋ* B27. Mog---.

naïr 'harmony; joyous gathering, feast'. See *naïra-* below.
MMo SH---, HY *nayir* M77 'intention, sentiments', Muq---. WM *nayir* L559b. Kh *nayr* H346. Bur *nayr* C319a. Kalm *när* M372b. Dag---. EYu *nair* BJ336. MgrH---. MgrM *nïr*ʸ P418a. Bao---. Dgx---. Mog---.

naïra- 'to mix, combine (intr), to be in harmony'.
MMo SH---, HY *naira-qui* M77 'justice, decency', Muq---. WM *nayira-* L559b. Kh *nayrax* H346b. Bur *nayruulxa* (caus.) C319a 'to compose, etc'. Kalm *näärx* M372a. Dag---. EYu *neiru:l-* (caus.) BJ337 'to mix (medicine); to explain'. Mgr---. Bao---. Dgx *nəira-* B28 'to grip; to be suitable, to fit'. Mog---.

naïta- 'to sneeze'. Many languages suggest a pseudo-causative form *naïtaa-*.
MMo SH---, HY---, Muq---. WM *naitaγa-*, *naita-* L561a. Kh *naytaax* H347a. Bur *naytaax* C319b. Brg *naita:-* U56. Kalm *näätxx* (sic) M372a. Dag *nait-* E52. EYu *naita:-* B22, *naita-* J97a. MgrH *naita:-* X24, *nai:ta-* J97a. MgrM *naita-* DS251a. BaoD *nəitə-* BL84b. BaoÑ *ni:ta-* CN29. Kgj---. Dgx *naita-* B24. Mog---.

naǰagaï 'lazy' see **nasïgaï**

naǰïr 'summer'. Note the peculiar distribution of this rare word in Bur, Dag, and MgrM. LC (3:384b) list it as an obsolete word in Khalkha. Cf. the more common CM *ǰun* 'summer'.
MMo SH---, HY---, ZY *naǰïr* Kara311, Muq---. WM---. Kh---. Bur *nažar* (western and lit.) C317a 'summer'. Brg---. Kalm---. Dag *naǰïr* E54 'summer'. EYu--. MgrH---. MgrM (Sanchuan) *naǰïr* P416a, *naʒər* DS254. Bao---. Dgx---. Mog---.

namukan > *nomukan* 'gentle, quiet; calm, tame; honest'. Some metathesis forms in QG. Related to WM *nam* L562b 'low, calm' and its many derivates.
MMo SH---, HY *nomuqan* M79, Muq *nomuqan* P259a, *nomuγan* P259a, *namaγan* P245a, *namuγan* P245b. WM *nomoqan* L591a. Kh *nomxon* H362b. Ord *nomoχon* M496b. Bur *nomgon* C330a, *nomxon* C330b. Brg *nɔmxɔŋ* U61, *nəmɔixɔŋ*

U60. Kalm *nomɣn* M381a, *namxn* M368a. Dag *nɔmu:n*, *nɔmu:kun* E62. EYu *nɔməğɔn* B26, BJ337, *nəğomon* S204. MgrH *nɔğmu* L400. Bao---. Dgx---. Mog---.

namur 'autumn, fall'.

MMo SH *namur* H113, HY *namur* M77, Muq *namur* P245a. WM *namur* L564a. Kh *namar* H349a. Ord *namur* M483a. Bur *namar* C320b. Brg *namar* U57. Kalm *namr* M367b. Dag *namər* E53. EYu *na:mər* B22, J97a. MgrH *namur* L352, *nam(b)ur* C86:570. MgrM *namïr* P417b. Bao---. Dgx---. Mog---.

naran 'sun'.

MMo SH *naran* H113, HY *naran* M77, Muq *naran* P245b; WM *nara(n)* L565a. Kh *nar(an)* H351a. Bur *nara(n)* C322a. Brg *nar* U57. Kalm *narn* M368b. Dag *nar* E54. EYu *naran* B24, J96b (mistranslated). MgrH *nara* J97a. MgrM *nara* T348, JL462. BaoD *naraŋ* BL85b. BaoGt *nàrɔŋ* C112. BaoÑ *naraŋ* CN26. Kgj *narɔ* S281b. Dgx *naraŋ* B27. Mog *nʌrãn*, *nãrān* W173a, *nʌrɔn* W173b, *nɔrɔn* W174a.

narïn 'thin, fine (not coarse)'. The developments of *ï* in Baoanic are due to the -ŋ. Cf. the dim. forms with long vowel: Bur *nari(i)xan*, Dag *nari:kən*. Brg *nʸ*- appears to be due to metathesis of the palatal element. Cf. TMEN 380.

MMo SH *narin* H114, HY---, Muq *narin* P246a. WM *narin* L566a. Kh *nariyn* H352a, *narin* H352b. Ord *nari:n* M484a. Bur *narin* C323a. Brg *nʸaraŋ* U83. Kalm *närn* M372b. Dag *narin* E55, *nari:n* E83:158a, *narʸ* (in some combinations) E56. EYu *narən* B24, J97b. MgrH *narən* J97b. BaoD *naruŋ* BL85b. BaoGt *narï* C112. BaoÑ *na:raŋ* CN23. Kgj *narɔ* S281b. Dgx *naruŋ* B27. Mog *no:rin* R34b, *nɔrin* W174a.

nasïgaï 'slow, lazy'. With a variety of phonetical shapes which nevertheless appear related. The form *nasïgaï* is reflected by MMo, but Kh and Bur go back to *naǰagaï* (?< *naǰïgaï*). Kalm suggests *nasïun* with a different ending. Yet another ending is present in EYu *naǰa:n*, which is reminiscent of Northeastern Turkic *yašaŋ* and *yašïk* 'lazy' (e.g. Khakas *čazaŋ*), of unclear origin and structure. Cf. the synonyms *ǰalkaï* and *kašaŋ*.

MMo LV *našqai* P71, LI *našqa* L56, RH *našqai* 204B27 'slow, lazy (horse)'. WM *naǰaɣai* L567a, precl. *našiɣai* T478, *načiɣai* T475. Kh *nazgay* H344b, cf. also *naazgay*, *naadgay* H341a. Ord---. Bur *nazgay* C317b. Kalm *nošu:(n)* R279b. Dag---. EYu *naǰa:n* B24 'slow moving'. Remaining lgs---.

nasun '(year of) age'. The loss of *-n* in Bao is unusual. Ramstedt (I:75,110) compares this word (according to him < *nalsun*) to CT *ya:š* 'id'. This correspondence will remain problematic until a form with *-l-* is actually attested in a Mongolic language. Cf. *hon* '(the duration of a) year', *ǰil* '(calendar) year'.

MMo SH *nasu-tu* H114 '... years old', HY---, Muq *nasun* P246b. WM *nasu(n)* L566b. Kh *nas(an)* H353a. Bur *naha(n)* C324b. Brg *naxa:* U56. Kalm *nasn* M369b. Dag *nas* E53. EYu *nasən* B23, J97a. MgrH *nasə* J97a. BaoD *nasə* BL85b. BaoÑ *nasə* (sic) CN26. Kgj *nasun* S281b. Dgx *nasuŋ* B26. Mog---.

*nau- (?*no-) 'to aim, to hit (a target)'. In Monguoric also 'to see'. The form with the diphthong is suggested by Shirongol, and compatible with the long vowel of EYu and Dag. The central forms with initial vowel are puzzling and may have a different origin. Cf. also MMo SH *ono-* H125 'to count', HY *ono-* M81 'to think over', Muq *ona-* P266a 'to understand, etc'.

MMo (see above), Ph *no'oqra-* (for *no'oqda-*) P127b 'to come under (the influence of)'. WM *ono-* L615b, *no-* L587a. Kh *onox* H394b, *nox* H364a. Ord *ono-* M512b, also *onoġ-* (?=) M513a, *anuġ-* (?=) M24b 'to take aim'. Bur *onoxo* C357b. Brg *ɔgɔn-* (?=) U32, *ɔnɔxɔ* S529. Kalm *onŏχᵖ* R286b. Dag *nɔ:-* E61. EYu *nu:-* B27, J95a. MgrH *nau:-* J95a, *nau-* X24. MgrM *nau-* JL470. BaoD *noɣə-* (caus?), *nu-* BL83a. BaoGt *nï-* C107. Kgj *nu- ~ nʉ-* S282a. Dgx *nau-* B25, *noɣa-* (caus.) L111a. Mog---.

*nauka 'rheum, mucus discharged by the eye'. The Dag form is unexpected since *n- > l-* is usually triggered by a following nasal. The *nʸ-* in Brg suggests a form *nïuka. Kh and Kalm *nuux* could have derived from either *nauka* or *nïuka*. It seems impossible to connect the synonymous Bur *nyaagaha(n)* C346b; this could be a derivation from *nïa-* 'to be sticky' below.

MMo SH---, HY---, Muq---. WM *luuqa* L518a. Kh *luux* H292b 'rheum discharged by the eyes', *nuux* H372a 'pus from the eyes'. Ord *nu:χa* M500b, *lu:χa* (rare) M447b. Bur---. Brg *nʸʊ:x* U63. Kalm *nuux* M387b, *lox* M336b. Dag *lauɣʷ* E185, hence (*lauw >) *lau* Z26. EYu---. MgrH *nau:xa* J102a. MgrM *nauxa* JL476. Bao---. Dgx---. Mog---.

*naur 'lake, pond'. Some of the modern languages seem to go back to a form *no:r* (cf. *haur*, *auški*). The diphthong has been retained in Dag only. The final vowel heard in MgrH by Junast must be a secondary development, perhaps due to an assumed relation with MgrH *norə-* 'to be wet', for which see *nor-* listed below.

MMo SH *na'ur* H114, HY *na'ur* M77, Muq---. WM *naɣur*, *nuur*. Kh *nuur* H371b. Bur *nuur* C333b. Brg *nʊ:r* U61. Kalm *nur* M386a 'lake'. Dag *naur* E52. EYu *nu:r* B27, J97a. MgrH *no:r* X33, *nʊ:r* SM290, *norə* J97a. MgrM *nor* Z311:39. Bao---. Kgj---. Dgx *no* B31, *noər* MC296b. Mog---.

*nayan 'eighty'. In Bao and Kgj replaced by a new formation *naïman harban* 'eight tens', e.g. BaoD *nəimaraŋ* BL85a. Cf. *naïman* 'eight', which suggests that *nayan is from a root *naï-* + a decad suffix *-An*, cf. *ǰiran* 'sixty', *dalan* 'seventy', *yeren* 'ninety'.

MMo SH *nayan* H114, *naiyan* H113, HY *nayan* M77, Muq *nayan* P246b. WM *naya(n)* L561a. Kh *naya(n)* H354a. Bur *naya(n)* C325b. Brg *nay*, *nayaŋ* U57. Kalm *nayn* M366b. Dag *nay* E54. EYu *nayan* B24, J97b, *neyan* B25. MgrH *nayan* J97a. MgrM---. Bao---. Kgj---. Dgx---. Mog---.

*nee- 'to open'. The SH forms with *-g-* and *-k-* may be mistranscriptions from the spelling in Uigur script.

MMo SH *ne'e-*, *nege-*, *neke-* H114, HY *ni'e-* M78, *ne'e'ülge-* (caus.) M77, Muq *ne'e-* P247b, *ne:-* P175b. WM *nege-* L568b. Kh *neex* H382a. Bur *neexe* C342a.

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Brg *nə:-* U58. Kalm *neex* M374a. Dag *nə:-* E56. EYu *ni:-* B26, J97b. MgrH *ne:-* J97b. BaoD *nəi-* BL85b, *ne-* BL71. BaoÑ *ne:-* CN28. BaoX *ñe-* CN86:239. Kgj *ne-* S281b. Dgx *nie-* B29. Mog---.

*negǰi- see ***neŋǰi-**.

*neile- 'to gather, unite, join; to mix'. The *l-* in Baoanic is due to assimilation. The *ü:* in EYu is abnormal. Derived from **nei* 'agreement, etc', attested in the central languages.

 MMo SH *neyile-* H116, HY---, Muq *neile-* P247b. WM *neyile-* L570b. Kh *niylex* H357a. Bur *niilexe* C327a. Kalm *niilx* M377b. Dag---. EYu *nü:le-* (ʔ=) B28 'to mix, blend'. MgrH *ne:lə-* X27. MgrM---. BaoD---. BaoJ *lεl-* L106. BaoÑ *le:lə-* CN102 'to mix, blend, etc'. Kgj *lele-* S290b. Dgx *lailie-* B95 'to mix, mingle (intr)'. Mog---.

*neke- 'to weave'. The irregular Dgx form with *-o-* is reminiscent of **nöke-* 'to patch', q.v. But for 'to patch' **hüde-* is used in Dgx.

 MMo SH *neke-* H114, HY---, Muq *neke-* P248a. WM *neke-* L572a. Kh *nexex* H381b. Bur *nexexe* C341b. Brg *nəx-* U58. Kalm *nekx* M374b. Dag *nə:ɣ-* Z95b, *nəɣə-* NK483b. EYu *neke-* B25, J97b. MgrH *nəkə-* J97b. MgrM (Sanchuan) *nike-* P420b. BaoD---. BaoÑ---. Dgx *nokie-* B31. Mog *nεkʌ-* W173b.

*nekei '(garment made of) sheepskin'.

 MMo SH *nekei* H114, *nekei de'el* H114, HY *nekei de'el* M78 'fur-lined jacket', Muq *nekei de:l* P248a. WM *nekei* L572b. Kh *nexiy* H381a. Bur *nexï*, *nexey* C341a. Kalm *nekä* M374a 'untanned sheepskin'. Dag---. EYu *nəkə:* B24. MgrH *nəki:* X31. MgrM *nekei* T350, *nəkai* JL462 'fur coat'. Bao---. Kgj *neke* S281b. Dgx *nəki* B28 'fur-lined jacket'. Mog W---.

*nekelei 'illegitimate child'.

 MMo SH---, HY nekelei (name) M78, Muq---. WM *nekelei* L572b. Kh *negliy* H378a, *nexliy* H381a. Bur---. Kalm *neklä* (obs) M374b. Dag *nəɣəl* E58. EYu---. MgrH *nikili:* SM276, *nəkəli:* L387. MgrM---. Bao---. Dgx---. Mog---.

*neken 'one' see ***niken**.

*nembe- ~ ***nemle-** 'to cover (with a blanket, etc)'. In spite of the large number of forms there seem to be some recognizable patterns. The form **nembe-* can be found in MMo, Dag, and the Shirongol languages, whereas **nemle-* is represented in the central languages and EYu.

 MMo SH *nembe'e* H114 'cover', HY *nembe-* M78, Muq---. WM *nemne-* L574b. Kh *nemnex* H378b. Bur *nemnexe* C338a. Kalm *nemnəχə* R275a. Dag *nəmb-* E58 'to cover (with a blanket &c)'. EYu *nelme-* B25, *nemle-* S515, *nembele-* J59 all 'to drape over one's shoulders'. MgrH *nemba-* X29, *nimba-* X31. MgrM *lianbie-* DS259. BaoD---. BaoÑ *menbə-* CN113, *nenbə-* CN28. Kgj *nambe-* S281b. Dgx *nienbə-* B30. Mog W---.

*nembee ~ *nemlee, *nembesün ~ *nemlesün, etc 'cover; blanket'. One of the spellings in Muq could represent *nemle:* (from *nemlee). From *nembe-* 'to cover' above.

MMo SH *nembe'e* H114 'cover', *nembule* H114 'hut', Muq *nemele* [spelled *nmylh*] P238b, [spelled *nymlh*] P239a 'horse-blanket'. Kh *nemnee* H378b 'horse-cloth, etc'. Bur *nemnee* C338a 'horse-cloth, etc'. Kalm *nemne* M375a. Dag *nəmbə:* E58, *ləmbə:* E188 'grass for covering a house', *nəmbəs* E58 'quilt'. EYu *nelmesən* B25 'cape, cloak', *nemne:l* (sic) S505 'horse-blanket'. Mgr---. Bao---. Dgx---. Mog---.

*neme- 'to add'.

MMo SH *neme-* H115, HY *neme-* M78, Muq---. WM *neme-* L573b. Kh *nemex* H379a. Bur *nemexe* C338b. Brg *nəm-* U59. Kalm *nemx* M375a. Dag *nəmə-* B58. EYu *neme-* B25, J97b. MgrH *nəme:-* J97b. MgrM---. BaoD---. BaoÑ---. Kgj *neme-* S281b. Dgx *nimə-* B30. Mog---.

*neŋji- ~ *negǰi- 'to search'. The form *neŋǰi-* is found in MMo and the Shirongol languages, *negǰi-* occurs in the central languages and EYu. The distribution of the *g and *ŋ variants differs from that of *gagča ~ *gaŋča 'alone'. Dag *nərd-* E59 'to search' may in some way be related (if from a form like *negdü-*). Perhaps also to be compared to MMo SH *nende-* H115 'unversehens fangen, etc'.

MMo SH *nengji-* H115, HY *nengǐi-* M78, Muq---. WM *nengǐi-* L575a. Kh *negjix* H337b. Ord *nenǰi-* M491a, *negǰi-* M488b. Bur *negžexe* C336b. Brg *nəgǰ-* U59. Kalm *negǰ-dlx* M373a. Dag--- (see above). EYu *negǰə-* B25. MgrH *nenǰi-* L372 'to collect, look for, hunt for', *nemǯi-* (sic) S503. MgrM---. BaoD---. BaoÑ *nenǯi-* CN28. Bao (unspecif. dial.) *nanǯi-* S503. Dgx---. Mog---.

*nere 'name'. Kalm added an -*n*.

MMo SH *nere* H115, HY *nere* M78, Muq *nere* P248a. WM *nere* L575b. Kh *ner* H379b. Bur *nere* C339b. Brg *nər* U59. Kalm *nern* M376a. Dag *nər* E58. EYu *nere* B25, J97b. MgrH *nəre* J97b. MgrM *nierə* DS238a. BaoD *narə* BL85b. BaoÑ *nerə* CN29. Kgj *nere* S281b. Dgx *nierə* L113a. Mog *nerʌ* W173b.

*nere- 'to press down, to fit into, to put sth on sth'.

MMo SH---, HY---, Muq---, IV---, LV---. WM *nere-* L576a. Kh *nerex* H381a 'to refine, distill; to fill a pipe'. Bur *nerexe* C341b. Kalm *nerx* M376b. Dag *nər-* E59 'to wear, carry; to install'. EYu *nəre-* (?only) S669. MgrH *nərɜ-* X33 'to distill; to find a place for; to install'. MgrM---. Bao (unspecif. dial.) *nalər-* (sic) S669. Kgj *nira- ~ nire-* S282a. Dgx *naira-* (?=) MC279b. Mog *nirä-* R34b.

*neü- 'to move, nomadize'. For MgrH cf. *yeü-.

MMo SH *ne'u-* H116, *nou'u-* H119, HY *ne'ü-* M78, Muq *nü:-* P262b, *nü'ülge-* (caus.) P262b. WM *negü-* L569a. Kh *nüüx* H375a. Bur *nüüxe* C335b. Brg *nu:-* U61. Kalm *nüüx* M390b. Dag *nəu-* E56. EYu *nü:-* B28, J97b. Mgr---. Bao---. Dgx---. Mog *nöu-* R35a, *nou-* W174a.

*neüresün 'charcoal'.

MMo SH---, HY---, Muq *nü:resün* P262b, RH *nü:resün* 202B1. WM *negüresü(n)* L569b. Kh *nüürs(en)* H374b. Ord *nu:res(u)* M504a. Bur *nüürhe(n)* C334b. Bur *nu:ru:* U61. Kalm *nüürsn* M390a. Dag---. EYu---.Mgr---. BaoGt *nərsï* C106. BaoJ *nərsɤ́* L129. Kgj *nursun* S282b. Dgx---. Mog---.

*nïa- 'to be sticky; to stick, paste, glue'. The element *ï* was preserved in all corners of Mongolic: Bur, Dag, Dgx, Mog (also Khamnigan *nie-* J30). It was lost (assimilated) in Kh-Kalm and EYu. Both Monguoric and Baoanic have forms with *-ia-* and assimilated forms.

MMo SH *ni'a-* H116, HY---, Muq *ni'a-* P249b, *niya-* P258b, (reciprocal) *na'a-ldu-* (reciprocal) P244a. WM *naɣa-* L556a, *niɣa-* L578b. Kh *naax* H342a. Bur *nyaaxa* C347a. Brg *nʸa:-* U62. Kalm *naax* M365b. Dag *nʸa:-* NK489. EYu *na:-* B22. MgrH *nia:-* SM269, *na:-* X23. MgrM *nia-* JL465. BaoD---. BaoÑ *na:-* CN22 'to infect, be contagious'. Kgj *niğa- ~ niağa-* (caus.?) S282a. Dgx *nia-* B28. Mog *nio:-ldu-* (reciprocal) R34b.

*nïdanï hon 'last year'. Several MMo and modern forms suggest a form *nïdonï*, but the *o* in the second syllable may also stem from *hon. All of Shirongol supports the form with *-a-*. The EYu, Mgr, and Dgx forms appear to go back a form with initial vowel. The Baoan forms may also stem from a form with initial vowel, because *n-* can develop secondarily there (as in BaoD *nda-* 'to eat' < *ide-). Perhaps all QG forms go back to a form *udanï hon. Interestingly Ordos also features a form without *n-*. The *-r-* and *-dʸ-* in the MgrM form are unclear, and it is somewhat reminiscent of *urjï hon* 'the year before last', q.v. The origin of the similar-looking Kgj *ninda* S27 'next year' is unclear.

MMo SH *nidoni* H116, HY *nidoni* (*hon*) [ed. reads *nidöni*] M78, Muq---, RH *nidani hon* 201A4. WM *nidonon* L578a. Kh *nodnin, nodlin* H360b. Chakhar *nɪdnăŋ* D189a. Ord *idonon* M379a, *nidonon* M492a. Bur *nyodondo(n)*, dial. *nyodonon* C326a. Brg *nɔdnɪŋ* U61 (?←Kh). Kalm *nidn* M377a. Dag *nida:nʸ* E60. EYu *ɔdŏnɔn* B13, *odonon* J97b. MgrH *ʂdanoŋ* J97b. MgrM *urdʸani xʋaŋ* (?=) C388, *wudani xuaŋ* DS261b. BaoD *ndanə hoŋ* BL85b. BaoÑ *nda:noŋ* CN34. Kgj *udanun ~ danun* S280b. Dgx *udani xoŋ* B22. Mog *nidɔni, nidɔ* W173b.

*nïdurga 'fist'. The form with *ï* only left traces in the Northeast; breaking had already taken place in MMo. Related to CT *yïdruk* 'id'.

MMo SH *nodurqa*, HY *nudurqa* M80, Muq *nudurqa* P261a. WM *nidurɣa* L578a. Kh *nudraga(n)* H368b. Bur *nyudarga* C342a. Brg *nʸodrag* U64. Kalm *nudrm* M385b, cf. *nudrɣă* R280b 'clenched fist'. Dag *nʸɔdruɣʷ* E64. EYu *nudurğa* B27, J97b. MgrH *nurdaġa* J97b, *nudurğa* X36, *ndaġa* L364, *andaġa* L17. BaoD *nudəraχ* BL85a, *nodəroġ* BL60. BaoÑ *nədġa* CN28. Kgj *nuduğa ~ nuduğa* S282a. Dgx---. Mog---.

*nïgursun 'spinal marrow' see *nugursun.

*nïku- 'to rub, press, knead'. The Dag form without a trace of *ï* is unexpected.

MMo SH---, HY---, Muq *nuqu-* P316b. WM *niqu-* L586b, *nuqu-* L597a.

Kh *nuxax* H372a. Ord *nuχu-* M500b. Bur *nyuxax* C346a. Brg *nʸʊx-* U63. Kalm *nuxx* M388a. Dag *nɔɣʷ-* E62. EYu---. MgrH *nuġʊ-* X35. MgrM *nuğu-* DS232b. BaoD *nuɣɵ-* BL85a. BaoÑ *nɵġɵ-* CN32. Kgj *nʉġe-* S282b. Dgx *nuqu-* MC300a 'to hit with force'. Mog *nuqu-* R35a 'to crush'.

nïlbusun 'tears'. Note the great variety of forms within Dgx. Also in the other peripheral languages this word has developed many surprising forms. Some seem to stem from an earlier development **nïmbusun*, others from **nïmusun < *nïlmusun*. In the central languages, Kh and Kalm seem to indicate an earlier **nulïmusun*. The development **u > o* in Bur occurs occasionally in the vicinity of labial consonants. Cf. also the (less widespread) verb **nïlbu-* 'to spit': Dag *ñɔmb-* E65. MgrH *numpɘ-* X36. MgrM *linbi-* DS251b. BaoD *numɘl-* BL85b. Dgx *nuğu-* B32.

      MMo SH *nilbusu(n)* H117 'tears', HY *nilbusun* M79 'salive; larme', Muq *nilbusun* P253b. WM *nilbusu(n)*, *nilmusu(n)* L583a. Kh *nulims(an)*, *nulmas* H369a 'tear; mucus; spittle', *nyalmas* (sic) H383a. Ord *nulmusu* M501a. Bur *nyolboho(n)* C326a 'tears; saliva'. Brg *nʸʊlbʊ:* U63 'tear'. Kalm *nul'msn* M387b 'tears; saliva'. Dag *ñɔmbus* E65 'tear; saliva'. EYu *nulusun* B27 'tears', *nulɘsɘn* J97b 'tears'. MgrH *nɘmbuʒɘ* J97b 'tears', *nɘmpɘsɘ* X33 'tears; saliva'. MgrM *niŋpuʒï* JL477, *liŋpuʒï* JL470. BaoD *namsuŋ* BL85a 'tears', *namusuŋ* BL90a 'saliva'. BaoÑ *nimsɵŋ* CN30 'tear; saliva'. Kgj *nʉrsʉn* S282b. Dgx *nuğusuŋ* B32, *niğusuŋ* B30 'tear; saliva', *nubusuŋ* L113b 'tear', *niubusuŋ* L118b 'saliva', *numbusun* T131 'saliva', *niɣusun* L130 'tear'. Mog *nilbusun* R34b.

nïlka 'the youngest (child of a family), baby'. The Monguoric forms may be the result of confusion between **nïlka* and **nïraï*. The *m-* in EYu may be due to influence of EYu *mula ~ mɘla* 'child'. Possibly in some way related to CT **ya:š* 'young', but CM **ǰalau* 'young' is a more likely cognate of this CT word.

      MMo SH *nilqa* H117, HY---, Muq *nilqa* P253b. WM *nilqa* L584b. Kh *nyalx* H383a. Ord *nilχa* M493a. Bur *nyalxa* C347b, *nilxa* C328a. Kalm *nilx* M378a. Dag *ñalk* E64. EYu *mulqa* [*mɘla*] B96, *mulğa* [*mula*] J58. MgrH *narġai* X27 'young and tender'. MgrM *nʸarġai* C371 'tender, delicate', MgrM *nierġai* DS255a. Bao---. Dgx---. Mog---.

nïraï 'newly-born'. Contrary to expectation, Bur lost the palatalisation in the first syllable. For MgrH *narġai*, MgrM *nierġai* see **nïlka* above.

      MMo SH---, HY---, Muq---. WM *nirai* L585a. Kh *nyaray* H384a. Bur *naray* C322a 'child; newly-born (dom. animals)'. Brg *nʸarai* U62 'baby'. Kalm *nira:*, *nirɛ:* R277a. Dag *ñerʸe:* E65. MgrH (see above).

nïruun 'back'. The Bur and Kalm forms with *-g-* suggest a variant **nïrugun*, unless these forms are simply due to WM influence (cf. **eriün* 'chin', **kuruun* 'finger' for similar cases). Note the shortening of the contraction length in Mgr. For MMo HY *nirisun* see **nïgursun*.

      MMo SH *niru'u(n)* H117 'back, backbone', *niri'u(n)* H117 'id, mountain ridge', HY *(ger-ün) niri'un* M56 'roof beam', Muq *niru:n* P257a, RH *niryun* 199A7. WM *niruɣu(n)* L585a. Kh *nuruu(n)* H370b. Ord *nuruu* M502a. Bur *nyurga(n)* C343b, cf. also *nyuruu* C344a 'surface; crest'. Brg *nʸʊrʊ:* U64 'back; purlin'. Kalm

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nurɣn M386b. Dag *nirɔ:* E61, *ñirɔ:* E65 'back; purlin'. EYu *nuru:n* B27, J97b. MgrH *nurə* J97a 'back, waist'. MgrM *nuru* C376. Bao---. BaoÑ *nərəŋ* CN86:35 'slope'. Kgj *nuru* S282a. Dgx *nuruŋ* B33. Mog---.

*nïs-/*nis-* 'to fly'. This word occurs in a number of strange variants, which are nevertheless all related. In most of the QG forms and in Mog the connective vowel has become part of the stem. The form *nïs-* is found in MMo, Kh-Kalm, Mog, and MgrH, although the back vowel is only hinted at by the caus. form in Muq and the enigmatic first syllable in EYu. In the central languages it changed harmonic class > *nis-*. In Bur the vowel was lengthened which is a rare phenomenon; in fact Khamnigan *neid-* suggests an early alternant *neid-*, which may also underlie the Bur form. In EYu one finds an inexplicable disyllabic form, as if from *hunïs-* or the like. The forms in Mangghuer and Baoanic suggest the existence of an early regional form *mis-*.

MMo SH *nis-(gu)* H117, HY *nis-* M79; Muq *nis-* P257b, caus. *nisqa-*. WM *nis-* L585b (and *nes-?*). Kh *nisex* H359a. Ord *nis- ~ nés-* M494b. Bur *niidex* C326b. Brg *nid-* U58. Kalm *nis-* M379b, *nis-* R277. Dag---. EYu *hɔnəs-* B57, *hunəs-* J97a. MgrH *nesə-* H29, J97a. MgrM *mese-* (?to be read *məsə-*) T350, *musï-* DS224a. BaoD *musï-* BL85b, *məs-* BL12. BaoÑ *məʂ-* CN114, *mər-* CN86-76. Kgj *məsï-* S292a. Dgx *misï-* B108, *musï-* B111, L113a. Mog *nisa-, nisi-* R34b.

nïsun 'snot, nasal mucus'. Perhaps related to *nii-* 'to blow one's nose' (listed below), if this stems from earlier *nïï-*. Cf. also *nïsukaï* 'runny-nosed (person)', which developed differently in Bur *nyosxay* C326a (cf. Kh *nusgay/nusxay* H371a, Ord *nusu(ŋ)χä:* M502b. Kalm *nusxa* M387a, Dag *ñɔskui* E65).

MMo SH *nisun* H117, HY *nisun* M79, Muq---. WM *nisu(n)* L586a. Kh *nus(an)* H371a. Ord *nusu* M502b. Bur *nyuha(n)* C346b. Brg *nʸʊxʊ:* U63. Kalm *nusn* M386b. Dag *ñɔs* E65. MgrH *nu:soŋ* SM291. Bao---. Dgx---. Mog---.

nïu- 'to hide'. The *-k-* in Mog is puzzling. The assimilation of the *ï* in Dag is unexpected.

MMo SH *ni'u-* H117, HY---, Muq *ni'u-* P257b, *nu:-* P262a, *niyu-* P258a, *nuyu-* P261b. WM *niɣu-* L579a. Kh *nuux* H372a. Bur *nyuuxa* C346a. Brg *nʸʊ:-* U63, *nʊ:-* S517. Kalm *nuux* M387b. Dag *nɔ:-* E61. EYu *nu:-* B27, J97b. MgrH *niu:-* J97b. MgrM *niu-* T351. Bao (unspecif. dial.) *nu-* S517. BaoÑ *nu:-* CN34. Kgj---. Dgx *niu-* B30. Mog *niku-* W173b.

nïun 'boy'. Only preserved in the central languages and Dag, unless the MgrM is really related (DS derive it from Ch *nán* 'man, male'). The Kh and Bur forms with *-g-* are reading pronunciations of the WM form. Cf. *köbeün* 'son'.

MMo SH *no'un* H119, HY *nu'un* M81, Muq---. WM *niyun* L580a, *nuɣun* L595a. Kh *nugan* H368a, *nuguun* H368b. Bur *nugan* C333a (lit, obs). Brg---. Kalm---. Dag *nɔ:n* E61, *ñɔ:n* E65 'boy, man'. EYu---. MgrH---. MgrM *noŋ koŋ* DS235b, *nun qun* (sic, ?=) P419b 'man' (for the second element cf. *küün* 'person'). Bao---. Dgx---. Mog---.

*nïur 'face'. The Bur and Brg forms go back to *nïur, which is the original form if the WM spelling is historically correct. In Kh, Kalm, EYu, and apparently in Mog, this word goes back to a form *niür. The harmonic class of the MMo forms can not be determined. The Mgr, Bao, and Dgx forms do not hold any clues as to their former harmonic class.

MMo SH ni'ur H117, HY ni'ur M79 'face', Muq ni'ur P258a, nu:r(tu) P251a, RH niɣur (sic) 198B21. WM niɣur L580a. Kh nüür(en) H374a. Ord nʉ:r M504a, niġu:r (in songs, ←WM) M492b. Bur nyuur C345a. Brg nʸʊ:r U63. Kalm nür M389b. Dag [nʸadəm]. EYu nü:r B28, J97b. MgrH niu:r J97b. MgrM nur JL470, niur T351. BaoD nur BL85a. BaoÑ nər CN29. Kgj nʉr ~ nør S282b. Dgx nu B32 'id'. Mog nʉ:r R35a, nur W174a.

*ničügün 'naked, bare'. The Monguoric forms apparently stems from the adverb *ničügüer. The Dag and Kgj forms have altered the final part, without obvious morphological motivation. Some of the Dag forms are also surprising in that breaking of *i by following *ü is rare. The Dgx m- instead of *n- is inexplicable.

MMo SH nicugun, nicuhun H116, HY---, Muq ničügün P221b, nüčügen, nüčügün P262a. WM ničügün L577b. Kh nücgen H375b. Ord nʉčugʉn M504b. Bur nyusegen C344b. Brg nusgəŋ U62. Kalm nückn M391a. Dag niškwə: E60, nuškui Z95a, nʸʉšikʸe: NK489b, nušikʸ: S521. EYu---. MgrH nəćigo:r J97a, X33, nigućo:r L387. MgrM noćigər DS238a. BaoD nəsïgan BL85a. BaoGt nəṣġɔŋ C103. BaoÑ niṣġaŋ CN31. Kgj nišiliʉ ~ nišliʉ ~ niʉšile S282a. Dgx muɕuġuŋ B111. Mog---.

*nidü- 'to pound, crush'. Surprisingly, Dag nid- seems to be more archaic than SH. A palatal element also survives in Bur. The meaning in BaoÑ may have become more general due to the influence of nədġa 'fist', for which see *nïdurga.

MMo nodu- H118, HY---, Muq---. WM nidü- L578a [Inner Mongolian spelling nüdü-]. Kh nüdex H373b. Bur nyüdexe [written nyuedexe] C343a. Brg nʸudəx S521. Kalm nüdx M389a. Dag nid- E60. EYu nodʉ- B26, nudu- J97b, nudə- J88. MgrH nədə- J97b. MgrM nedu- JL470. BaoD nodə- BL85a. BaoÑ nədə- CN28 'to hit, strike'. Kgj nʉde- ~ nʉdʉ- S282b. Dgx nudu- B32 'to crush (garlic); to build (a wall)'. Mog---.

*nidün 'eye'. May contain the (?collective) suffix *-dUn, so that the PM root may have been *ni-.

MMo SH nidun H116, HY nidün M78, Muq nidün P249b. WM nidü(n) L578a. Kh nüd(en) H372b. Bur nyüden [written nyueden] C342b. Brg nʸud U64. Kalm nüdn M388b. Dag nid E60. EYu nʉdʉn B27, nudun J97a, nödön (Qinglong) BJ350. MgrH nudu J97a. MgrM nudu C373, T353. BaoD nəduŋ BL85b. BaoÑ nədəŋ CN33. Kgj nʉdʉ S282b. Dgx nuduŋ B32, nuŋdu, nuŋduŋ MC300a. Mog nʉdʉn R35a, nudun W174a.

*nii- 'to blow one's nose'. Perhaps from *nïï-, if related to *nïsun 'snot' above.

MMo SH---, HY---, Muq----. WM nigi- L582b. Kh niyx H358a. Bur niixe C327b. Kalm niix M378a. Dag ñi:- E65. Remaining lgs---.

*niǰiel 'one each'. Also *niǰied, with the usual distributive ending -Ad, which appears to be the plural counterpart of -Al (see Poppe 1955:108). The morphology is unclear, but the root should be the same as that in *niken 'one'. EYu at first sight looks like a metathesis of the WM-influenced central Mongolic form *neǰeɣe:d, but it is more likely that an earlier neǰe:d was changed in analogy with neɣe < *niken 'one'. Mongghul may go back to *niǰied, as the -r is also found in Mongghul varieties that do not usually have the development -r < *-l. Dgx nieʐən stems from *niǰiel. Dgx nieʑia B30 'one each' may contain an unknown second element from Chinese (if from *niǰiel it should have had -ʐ- rather than -ʑ-).

MMo SH niji'el H117 'handful', HY niǰeget (sic) M79, Muq niǰe:t [spelled nyǰt] P197a. WM niǰeged L587a. Kh niǰ(g)eed H355a, neǰ(g)eed H378a. Ord---. Bur nežeed C338a. Kalm nejäd M374a, also nejäɣäd M374a. Dag nijə:l E61. EYu neɣeɣe:d BJ90:204. MgrH nəʑe:r X33 'some, a number of; very few, one or two', ni:ʑe:r C88:571 'one or two', also nəʑu:dur X33 'on some days; sometimes' (*niǰiel üdür). MgrM---. Bao---. Dgx niʐan B31 'some', nieʐən MC293a 'very few, one or two', also nieʐən udu ~ niʐʐaudu MC293a '(in) one or two days, in the next couple of days' (*niǰiel üdür). Mog---.

*niken ~ *neken ~ *negen ~ *nige 'one'. In all of Shirongol except Dongxiang also used as a suffixed or postclitic indefinite/singular marker (article), usually in a reduced shape, such as Mgr, BaoÑ -ŋgə.

The modern forms favour different reconstructions. The central languages go back to *nege(n). The QG languages suggest a form *nige (with loss of -n in all languages, unlike the other numerals), although it survives in some derived forms such as MgrH nigəndu L385, Dgx niendə B30 'all of a sudden'. Mog suggests *niken. At first sight Dagur stems from *neken, but the development of *-k- and *-g- in Dagur is rather erratic. Kgj niχɔ probably stems from an extended (diminutive) form *nige-ken, cf. Dgx nieǧaŋ B30 'only one'. The loss of the velar in Dgx nie is unusual, although loss of *k can be seen in some suffixes.

MMo SH nike(n) H117, nikan H117, HY niken M79, Muq niken (or nigen?) P251a. WM nige(n) L580b. Kh neg(en) H376b. Bur nege C336b, negen C337b. Brg nəg, nəgəŋ U58. Kalm negn M373b. Dag nək, nəkən E57. EYu neɣe B25, niɣe J97b. MgrH nəge J97b. MgrM nigi JL479, nigə DS4. BaoD nəgə BL85a. BaoÑ nəgə CN27. Kgj niɣe S282a, niχɔ S282a. Dgx nie B29. Mog nika, nikʌ, nikʌn W173b.

*nimgen 'thin, flimsy, fine'.
MMo SH---, HY nimgen M79, Muq nimgen P257a. WM nimgen, nimegen L584b. Kh nimgen H358b, ningen H359a. Bur nimgen C328a. Brg nimgəŋ S508, nimi:xəŋ U59. Kalm nimgn M378b. Dag ningə:n E59. EYu neŋgʷen B25, neŋgön S508, nemgen J97b. MgrH nəŋgen J97b, nengen X28, but also meŋgʐn X121. MgrM meŋgen JL475, meŋgen T42. BaoD niŋgaŋ BL85b. BaoÑ niŋǧaŋ CN29. BaoX niŋgaŋ BC65. Kgj niŋgɔ S282a. Dgx niŋkien B30. MogM nimgṽ: L64:43.

*noasun 'wool' see *nogasun

*__nogaan__ 'green'.

      MMo SH *noqo'an* H118 'green, fresh grass', HY *noqo'an* M79, Muq [*nob*] *noɣa:n* P259a. WM *noɣoɣan* L588b. Kh *nogoon* H360a. Ord *noǧo:n* M495a. Bur *nogoo(n)* C328b. Brg *nɔgɔ:ŋ* U60. Kalm *noɣan* M380a. Dag *nuwa:* E63 'vegetables'. EYu *nɔǧɔ:n* B26, *noǧo:n* J97a. MgrH *noǧo:n* J97a. MgrM *noǧʋaŋ* C372, *noǧoŋ* T352. BaoD *noǧoŋ* BL85a. BaoÑ *nøǧuŋ* CN32. Kgj *nuǧun* S282a. Dgx *noǧoŋ* B31. Mog---.

*__nogasun__, *__noasun__, *__uŋgasun__ 'wool'. These three forms have different distributions. Most languages only have one of the three, but there is some overlap. The different forms are problematic, but it is still likely that all of them are related. In this case it is impossible to attribute a number of variants to literary influence, since the unwritten peripheral languages are also ambiguous. The Baoanic form *nogasun* is hard to explain as these languages are not known to have undergone WM influence. EYu and Monguoric agree. The Kangjia form *nuŋǧusun* is puzzling; rather than stemming from *nuŋgasun*, it may be an independent development from the other Kangjia form *nuǧusun*, which is the normal development of Baoanic *nogasun*. Dagur and Moghol did not preserve any of the variants.

      Agricultural term related to CT *ɣuŋ* 'id'. The original PM form may have been *nuŋa-* to which the (?collective) suffix *-sUn* was added. After that two variants may have developed. In one variant the *-ŋ-* was lost, resulting in a form *nuasun* which further developed > *noasun*. In the other variant *-ŋ-* was rendered as *-ŋg-*. The resulting form *nuŋgasun* then developed a dissimilated form *uŋgasun*. A form *uŋguasun* with 'echo labial' developed, perhaps independently, in EYugur, Monguor, and Ordos. For a similar set of variants Ø ~ ŋg resulting from earlier PM *ŋ* see CM *möersün* ~ *möŋgersün* 'cartilage'.

      (1) *__noasun__ (< *nuasun < *nuɣasun): WM *noɣosu(n)* L589a. Kh *noos(on)* H363b 'wool, etc', *noors(on)* H363b 'the down of birds'. Ord *no:s* M497a. Bur *nooho(n)* C331a. Brg *nɔxɔ:* U60. Kalm *noosn* M381b.

      (2) *__nogasun__ (< *nugasun): BaoD *noǧosuŋ* BL85b. BaoÑ *nøǧsøŋ* CN33. BaoX *noǧsoŋ* BC61. Kgj *nuǧusun* S282a. Dgx *noǧosuŋ* B32.

      (3) *__uŋgasun__ and *__nuŋgasun__: MMo SH *ungqasun* H164 'hair, wool', *nungqasu* H120 'wool', HY---, Muq *unqasun* P124b, (cf. Poppe's reading *onqasun* P266b). WM *ungɣasu(n)* L876b, *ungɣusu(n)* L877a. Kh *ungas* H547a. Ord *uŋǧʷas(u)* M736b. EYu *ŋǧwa:sən* B29, *uŋǧuasən* J97a. MgrH *ŋǧua:sə* J97a. MgrM *ŋǧuasï* JL465. Kgj *nuŋǧusun* S282a.

*__nogta__ 'halter'. The Dag form is probably a recent loanword from Ch *lóngtou*. Any relationship between the the Mongolic and the Chinese word is unclear.

      MMo SH---, HY---, Muq *noχta-* P259b. WM *noɣto* L588a. Kh *nogt* H360b. Ord *noǧto* M495a. Bur *nogto* C329a. Brg *nɔxt* U60. Kalm *nogt* M380a. Dag *lɔnt* E190. EYu *nɔgtɔ* B26, *noǧdo* J97a. MgrH *noǧdo:* SM281, J97a, *noǧsdo:* SM281. MgrM *nɔ(ǧ)tɔ* C372. BaoD *loχtə* BL85a. BaoGt *loǧdo* C119. BaoÑ *ləχta* CN105. Kgj *luǧdu* S291a. Dgx *loto* B99. Mog---.

*__noïr__ 'sleep', with the additional meaning 'pancreas' in Kh, Bur, Brg, Kalm, Dag, EYu. All QG forms seem to derive from a form *no:r*, which is an unexpected

development (cf. *hoï, *koïna, *noïtan for other reflexes of *oi). Perhaps the obscure MMo verb in HY *norus-* M80 'to take a nap' is somehow related.

MMo SH *noyir* H120, HY---, Muq *noyur* P260a, *noyir* P382b, *noir-* P320b. WM *noyir* L589a. Kh *noyr* H361a. Bur *noyr* C329b. Brg *nɔir* U60. Kalm *nör* M384b. Dag *nɔir* E61. EYu *nu:r* B27, J97a. MgrH *no:r* J97a. MgrM *nor* T352. BaoD *nor* BL85a. BaoÑ *nər* CN34. Kgj *nʉr* S282b. Dgx *no* B31. Mog *noır* W173b.

*noïtan 'wet'. Perhaps related to *nor- 'to become wet', which (morphologically unclear) relationship could have a parallel in *kör- and *köiten, q.v.

MMo SH *noyitan* H120, HY---, Muq *noitan* P259a. WM *noyitan* L589b. Kh *noyt, noyton* H361b. Bur *noyto(n)* C330a. Brg *nɔitɔŋ* U60. Kalm *nöötn* M384a. Dag *nɔitun* E61. EYu *nɔitɔn* B26. MgrH *ne:ten* J97a. MgrM *niuten* JL469. BaoD *nəitaŋ* BL85a. BaoGt *nitɔŋ ~ nɛtɔŋ* C107. BaoÑ *ni:taŋ* CN29. Kgj *neitɔ ~ nitɔ* S281b. Dgx *naićien* B25. Mog---.

*nokaï 'dog'. If this word contains the (?diminutive) suffix *-kAi, the PM root may be *no-.

MMo HY *noqai* H118, HY *noqai* M79, Muq *noqai* P259a. WM *noqai* L592a. Kh *noxoy* H364a. Bur *noxoy* C331b. Brg *nɔxɔi* U60. Kalm *noxa* M382a. Dag *nɔɣʷɔi* E62. EYu *nɔɣqɔi* B26, *noχǧoi* J97a. MgrH *noxuai* J97a. MgrM *nʊqʊai* C372, *noǧoi* T352. BaoD *noǧoi* BL85a. BaoÑ *noǧəi, nəχəi* CN32. Kgj *nuǧuai* S282a. Dgx *noǧəi* B31. Mog *noqɛi* R34b, *nɔqaı* W174a, MogM *noqqɛi* L62:58.

*nom 'doctrine; religion; scripture, book'. The *l-* in Dag and EYu-Mgr is due to the dissimilation of the sequence of two nasals (cf. *mïnaa and *menekei for earlier cases). A foreign word, ultimately Greek.

MMo SH---, HY *nom* M79, Muq---. WM *nom* L590a. Kh *nom* H362a. Bur *nom* C330a. Brg *nɔm* U60 'book'. Kalm *nom* M380b. Dag *lɔm* E190. EYu *lɔm* B88, *lom* J97a. MgrH *lom* J97a. MgrM *luan* J89, *lan* C382.

*noman 'mole; vole; zokor'. Often used with *sokar 'blind' (which is apparently the origin of the international name zokor). There is a wide variety of forms. Some forms, such as Dag *mɔ:mɔ:* and the *manan form in Bur, EYu, and Dgx could be unrelated to *noman. There are, however, no obvious alternative etymologies for these forms.

MMo SH---, HY *noman* M79, Muq---. WM *nomon* L591a. Kh *soxor nomin* H362b. Ord (*soχor*) *nomoŋ* M496b, (*soχor*) *numuŋ*, (*soχor*) *numu:n* M501b. Bur *mana hoxor* C291b. Brg *xɔxɔr nɔm* U108. Kalm *soxr numn* M456b, (*soχŏr*) *nomn* R279a, 329b. Dag *sɔɣur mɔ:mɔ:* (?=) E222. EYu *manan sɔǧɔr* B89. MgrH *nəmo:n* X32, *ləmo:n* X113, *lumo:n* X115, *soǧuor lumo:n* SM227. MgrM---. Bao---. Dgx *manaŋ* B102. Mog---.

*nomukan 'gentle' see *namukan

*nor- 'to become wet, soaked'. Perhaps related to *noïtan 'wet' listed above. The Dag form with -*i*- is perhaps influenced by the adjective *noïtan. In Mgr and Dgx a connective vowel became part of the stem.

MMo SH---, HY---, Muq---, RH *nor-ma* [eds. read *norama*] 203C21 'moistened'. WM *nor-* L591b. Kh *norox* H363b. Bur *noroxo* C331b. Kalm *norx* M382a. Dag *nɔir-* (sic) E62. EYu---. MgrH *no:rə-* J97b. MgrM *nori-* T352. Bao---. Dgx *nuru-* B33, *noro-* T131, *noru-* S513. Mog---.

*noyan 'lord, chief'.
      MMo SH *noyan* H119, HY *noyan* M80, Muq *noyan* P260a. WM *noyan* L589b. Kh *noyon* H360b. Bur *noyon* C329a. Brg *nɔyɔŋ* U61. Kalm *noyn* M380b. Dag---. EYu *niyɔn* B26, *nyɔ:n* B28, *nion* J97a. MgrH *noyo:n* J98a, *nəyɔ:n* X33, *naivan* C88:570. MgrM *noyan* JL470. Bao---. Kgj *niɔ* S281b. Dgx *noyan* B32, *noyən* L113a. Mog---.

*nögči- 'to pass'. The central forms with -c- suggest *nögče-.
      MMo SH *nokci-* H118, HY *nökči-* M80, Muq *nökči-* P260b. WM *nögči-* L592a. Kh *nögčix* H365b, *nöxcöx* (sic) H367b. Bur *nügšex* C334a (elevated) 'to die'. Brg---. Kalm *nökc-* R280a 'to die'. Dag *nurš-* E63. EYu---. MgrH *noǵźǰi-* SM281. MgrM *noǵči-* T352 'to pass the time', *no:ći-* C395. Bao---. Dgx---. Mog---.

*nögee (?*nökee) 'other'. In view of its equivalents in Bao, Kgj *ŋgɔ* S33 'other; he' probably stems from *irgen, q.v. Also compare the functional development of *öer- 'self'.
      MMo SH *noko'e* H118 'second, further, other', HY *nökö'e* M80 'second', Muq---. WM *nögöge* L592b. Kh *nögöö* H365b. Bur *nügöö* C334a. Brg *nugə:* U62. Kalm *nögä* M383a. Dag *nuwə:* E63. EYu---. MgrH---. MgrM *nugu-sï* DS255b 'they'. BaoD---. BaoÑ *nøgø* CN33 'that one, another one, other'. BaoX *nogə* BC68 's/he'. Kgj---. Dgx---. Mog---.

*nöker 'friend; spouse'.
      MMo SH *nokor* H119, HY *nökör* M80, Muq *nöker* P261a, *nökör* (P: *nökür*) P376b. WM *nökör* L593b. Kh *nöxör* H367a. Ord *nökör* M498a. Bur *nüxer* C335a. Brg *nuxər* U61. Kalm *nökr* M383b. Dag *nuɣur* E63. EYu *nökör* B26, J97b. MgrH *nokor* J97b. MgrM *nukuar* C372. BaoD *nokor* BL85b. BaoÑ *nøkør, nøχgør* CN32. Kgj *nøχgʉ* S282b. Dgx *nokie* B31. Mog---.

*nöke- 'to patch', *nöke-esün 'patch'. For Dgx see *neke-. Cf. *hüde- 'to patch', *kalaasun 'patch'.
      MMo SH---, HY *nökö-* M80, Muq *nöke-* P217a. WM *nökö-* L592b. Kh *nöxöx* H367b. Ord *nökö-* M498a. Bur *nüxexe* C335b. Brg *nux-* U61. Kalm *nökö̈-* M279b. Dag---. EYu---. MgrH *nəko:sə ~ nəko:ʒə* J7, *nukuo:ʒə* SM289. MgrM *nogosï* JL470. Bao---. Dgx---. Mog---.

*nugasun 'duck'. MMo SH, HY suggest *nogasun. Muq could be read with *o*; Dagur could have developed from either *nogasun or *nugasun. Ord suggests *nugusun or *nogusun.
      MMo SH *noqosu* H118, HY *noqosun* M79, Muq *nuɣasun* P261b. WM *nuɣusu(n)* L595b. Kh *nugas(an)* H368b. Ord *nuǵus(u)* M500a. Bur *nugaha(n)* C333a. Brg *nɔgʊ:* U60. Kalm *nuɣsn* M385b. Dag *nʷaɣəs* E64. Remaining lgs---.

***nugura**- 'to be bent, to be folded'.

MMo SH---, HY---, Muq---. WM *nuɣura*- L595a. Kh *nugarax* H368a. Ord *nuġura*- M499b. Bur *nugarxa* C333a. Kalm *nuɣrx* M385a. Dag---. EYu---. MgrH *nuġʋra:*- X35 'to become crooked'. Bao---. Dgx---. Mog *nuquru*- R35a.

***nugursun** 'spinal marrow'. The *ï* suggested by the WM spelling is not confirmed by any modern language, unless Brg *nʸʋglʋ:r* U63 'id' is a related word with different ending. The peculiar Muq form muqursun is also reminiscent of **möersün* 'cartilage' listed above. For MMo HY *nirisun* M79 'backbone' see Mostaert's remark. For the *-č-* in Dag *nɔkč*, cf. **möersün* 'cartilage', **kaïrsun* 'scale'. The metathesis in EYu perhaps occurred under the influence of *nuru:n < *nïruun* 'back' (listed below).

MMo SH---, HY---, Muq *muqursun* (sic, ?=) P241a. WM *niɣursu(n)* L580b, *nuɣursu(n)* L595b. Kh *nugars(an)* H368b. *nugas(an)* H368b, *nigurs* (sic) H354b. Ord *nugus(u)* M500a. Bur *nugarha(n)* C333a. Brg (see above). Kalm *nuɣrsn* M385a. Dag *nɔkč* E62. EYu *nurǧusun* B27, *nurǧusən* J97b. Mgr---. Bao---. Dgx---. Mog---.

***numun** 'bow'. The *l-* in the Mgr languages is due to nasal dissimilation. The *-ə-* in Dag and EYu is peculiar. The loss of *-n* in Kgj is unexpected. Bur *-o-* is caused by the *-m-*.

MMo SH *numu(n)* H120, HY *numun* HY80, Muq *numun* P261b. WM *numu(n)* L595b. Kh *num(an)* H369a. Bur *nomo* C330b. Brg *nɔm* U60. Kalm *numn* M386a. Dag *nəm* E58. EYu *nəmən* B24, J97b, but cf. *nɔmɔda*- BJ337 'to shoot an arrow'. MgrH *nəmu* J97b, *lumu* SM227. MgrM *lumu* JL471, *loŋmu* DS205a (s.v. arrow). Bao---. Kgj *nïmʉ* S282b. Dgx---. Mog---.

***nura**- 'to collapse, crumble'. The Dag form suggests an ancestral form **nurga*-; MgrH seems to suggest an older **nïura*-. Note the peculiar distribution. Cf. **embüre*-, **yeüre*-.

MMo SH---, HY---, Muq---, IV---, LV---. WM *nura*- L596a. Kh *nurax* H370a. Bur *nuraxa* C333a. Kalm *nurx* M386b. Dag *nɔrɣʷ*- (sic, ?=) E62. EYu---. MgrH *nura:*- J97b, *nu:ra:*- X35, *niura:*- X30. MgrM---. Bao---. Dgx *nura*- L113a. Mog---.

***nutug** (?) 'camp; homeland, region'. Several languages suggest a different phonetic shape. Bur-Brg as well as Kmg suggest a form **nïtug*, which in view of its regional character cannot be confirmed as the original form, even though a development of **nutug* from earlier **nïtug* makes more sense than the reverse. The form **nuntug*, as seen in Sino-Mongolian, Mgr, and Mog, could be old; the form **nutug* may in that case be due to dissimilation. Cf. **(n)uŋgasun* 'wool'.

MMo SH *nuntuh* H120, *nutuh* H120, HY *nuntuq* M80 'camp', Muq *nutuq* P261b 'homeland'. WM *nutuɣ* L596b. Kh nutag H371a. Bur *nyatag* C344b. Brg *nʸʋtag* U63. Kalm *nutg* M387a. Dag *nɔtɔg* (sic) T156. EYu *nutuġ* B27 'site', J97b 'countryside'. MgrH *nontoġ* J97b 'countryside'. MgrM *nomtïk* P413a 'courtyard'. Bao---. Kgj---. Dgx---. Mog *nuntuɣ* R35a 'homeland'.

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*nüken 'hole'. The QG languages mostly favour a CM *nöken.

   MMo SH nukele- H120 'to bore a hole', HY---, Muq nüken P262a. WM nüke(n) L597b. Kh nüx(en) H375a. Ord nüke ~ nükü M503b. Bur nüxe(n) C335a. Brg nux U61. Kalm nükn M389a. Dag nuɣʷ E63 'hole, cave, pit'. EYu nökön B26, nöken BJ200, nöʰgö J97b. MgrH noko J97b. MgrM nuko JL470. BaoD nokuŋ BL85b. BaoÑ nɵkuŋ CN32 'cavern, hole'. Kgj nuχgu ~ nuχguŋ S282b. Dgx nokieŋ B31 'pit'. Mog---.

*nümǰige 'fat, oil'.

   MMo---. WM nümǰige L597b. Kh nümǰig ~ nünǰig H373b (adjective). Ord---. Bur nemžege(n) (western) C338a, nimžegen (western) C328b, ünžege(n) C507a. Kalm---. Dag---. EYu nönǰgə B26 'oil, fat (general term)', nunǰig S189 'grease stain'. Mgr---. Bao---. Dgx---. Mog---.

- O -

*oačï- 'to take a sip, drink'. If the central Mongolic forms with o: are correct, *oačï- can not be related to *uu- 'to drink'. The Muq form a'urči- P108a 'to take in the mouth', if the same word as *oačï-, may be influenced by its Turkic counterpart *avurtla-.

   MMo SH---, HY---, Muq---. WM oɣoči- L602b, ooči- L625b. Kh oočix H396a. Ord o:či- M523b. Bur oošoxo C359a. Kalm oočlx (iterative) M400a. Dag---. EYu u:čə- B18 'take a sip'. MgrH o:ći- SM299, uća- X20. MgrM---. BaoD---. BaoÑ aćal- CN8 (caus.) 'to water'. Kgj uči- S280b. Dgx oćï- B15. Mog ɔči- W175a.

*oalï 'adze'. The *h- suggested by Muq and RH is contradicted by SH and Dgx. The -q- in SH is probably due to a mistranscription from the Uygur script, unless it was supposed to indicate -h- rather than -q-, in which case it reflects a rare relic *-h- (< PM *-p-). MC mark the Dgx form as a borrowing from Chinese, without giving a source form.

   MMo SH uqali H160, HY---, Muq ho:li P186b, RH ho:li [eds read hu:li] 204C10. WM oɣoli L603a. Kh ool' (oolin) H396a. Bur ooli C358b. Kalm ool' M399b. Dag---. EYu---. Mgr---. Bao---. Dgx uali S522, wali MC414b. Mog---.

*obaa 'stone heap, shamanistic cairn'. The preserved -b- in Dag and Mgr is unexpected, as if the word was reborrowed from Chinese.

   MMo SH---, HY obo'o M81, Muq---. WM oboɣa(n) L598b. Kh ovoo H386a, obaɣa L598a. Bur oboo C348b. Kalm ova M391b. Dag ɔbɔ: E37 'pile, heap; oboo'. EYu ɔβɔ: S523, ɔβɔ B13, oβo B15, oβo: J95a. MgrH o:bo: X14, SM296. MgrM wobo F11. Bao---. Dgx---. Mog---.

*obag 'family name; clan'   See *omag

*oči- 'to go' see *eči-

*od- 'to go'. Unexpectedly rare, and with a strange distribution. In EYu it is mainly used as an auxiliary verb, whereas the etymologically obscure verb *hanə-* is the normal verb for 'to go'. Apart from BaoÑ, all of Shirongol uses *eči-* 'to go', which is also used in Dag.

MMo SH *ot-* H129, HY *ot-* M82a, Muq *ot-/od-* P209a/256a. WM *od-* L600a. Kh *odox* H388b. Ord---. Bur *odoxo* C350a. Brg---. Kalm *odx* M393b. Dag---. EYu *ɔd-* BJ338, *(o)d-* J50 (used as an auxiliary). MgrH---. MgrM---. BaoD---. BaoÑ *ɵd- ~ ɵr-* CN18. Dgx---. Mog---.

*odua 'now' See *edüe

*ogsï- 'to vomit, throw up'. Cf. the more common verb *böelǰi-* 'id'.

MMo SH---, HY---, Muq---. WM *oɣsi-* L601b, ?cf. WM *ogis-* L603b 'to be nauseated; to belch'. Kh *ogšix* H388a. Ord *oǧši-* M507b. Bur---. Kalm---. Dag *xɔigsɔ-* (?=) NK559b, *xɔiwɔsɔ:-* (?=) E83:84b 'id ('of children'). EYu *oǧšə-* J98a, *ɔgšə-* B13, BJ338. Mgr---. MgrM *oşï-* JL464. Bao---. Dgx---. Mog---.

*oïn 'thought, intellect'. The NM languages point at a form *oyun* or *oyuun*, the remaining forms could be from *oïn*, or perhaps *oyïn*.

MMo SH *oyi(n)* H130 '&feelings, love', HY---, Muq *oin-* P262b, Ph *oyi-tʰu* P128a 'endowed with intellect'. WM *oyun* L606b, also *oi* L604a. Kh *oy* H389a, *oyun* H402b. Ord *oyu:n* M508b. Bur *oy* C350b, *oyuu(n)* C367a. Kalm *oyun* M407b, *oyn* M393b. Dag *ɔyin* E40. EYu *ɔin* B12, *öin* BJ338 'consciousness', *öin* J5 'memory'. Mgr---. Bao---. Dgx *oyin* B16. Mog---.

*oïra 'nearby'. Note the inconsistent development of the Dag derivates *wair-ɔ:n ~ ɔir-ɔ:n*, *wair-kən*, *wair-t-*, etc. Cf. the (near) synonymous *čaada* in Baoanic, and *döte*.

MMo SH *oyira* H130, HY *oyira* M83, *oyiri* M83, Muq *oira* P263a, LV *oira* P1262, IV *oira* L62:59. WM *oyira* L605a. Kh *oyr* H389b. Bur *oyro* C352a. Kalm *öör* M421b. Dag *wair* E333. EYu *ɔirɔ* B12, *ö:rə* B17, *öiro* J95a. Mgr---. Bao---. Dgx *uira* B19. Mog *oiro:* R35, *oirʌ* W174b, MogM *əura*, MogMr *oĭrà* L62:59.

*oǰagaï 'penis'. Possibly intentionally omitted from some dictionaries. Cf. *kïrǰaŋ*.

MMo SH---, HY---, Muq *oǰaɣai* P263b, *oǰoɣai-* P191a, IV *oǰoqai* L62:59. WM *oǰuɣu, oǰuɣui* L626b. Kh *ozgoy* LC 3:462a. Ord *oǰoɣö:, oǰoɣo* M506b. Bur---. Brg---. Kalm *ozŏɣɛ:* R292a (also *oza:* R292a). Dag---. EYu---. MgrH *ǰoǧʋi* X224, *ǰiǧʋi* X221. MgrM---. BaoD---. BaoÑ---. Dgx *oʒoǧi* B16. Mog---.

*oka- (?*hoka-) 'to have sexual intercourse'. This word is probably more common than shown here.

MMo SH---, HY---, Muq *oqa-* P266b, LV *hoqa-* P75. WM *oqo-* L626a. Kh *oxox* L626a. Ord *oχo-* M508a. Bur---. Kalm *oχŏ-* R284a. Dag---. EYu *oqa-* Kot445. Mgr---. BaoD-?-. BaoÑ *ɵǧə-* CN17. Kgj *ɔǧɔ- ~ uǧu-* S280a. Dgx *aoǧo-* MC14b. Mog *ɔkʌ-, ɔku-* W174b.

*okïn 'daughter, girl'   see *ökin

*ol- 'to find; to get, obtain'. Moghol and the Shirongol lgs have developed forms with paragogic vowels. Cf. MgrH lo:lə- X113, BaoD lolə- BL82b, 46 'to look for' < 'not to find'.

   MMo SH ol- H123, HY ol- M81, Muq ol- P265b. WM ol- L607a. Kh olox H392a. Ord ol- M509a. Bur oloxo C355a. Kalm olx M396a. Dag əl- E38. EYu ɔ:l- B12, o:l- J95a. MgrH olə- J95a, ulə- X18, o:li- SM296. MgrM olu- T354, lu:- (sic) C394. BaoD ol- BL83a 'to find', olə- BL92a 'to give birth'. BaoÑ əl- CN17. Kgj uli- S280a. Dgx olu- B14. Mog ɔl- W174b also 'to hear', MgrMr ɒ:lu- L64:45.

*olan 'many'. Kgj ulu could also reflect *hüleü 'more than', but the loss of *h- would be unexpected.

   MMo SH olon H123, HY olon M81, Muq olan P265a, olon P230b. WM olan L607b. Kh olon H391b. Ord olon M510b. Bur olon C354a. Kalm oln M395a. Dag walən E334. EYu ɔlɔn B13, olon J95a. MgrH ulon J95a. MgrM ulaŋ JL471. BaoD oloŋ BL83b. BaoÑ ələŋ CN17, ləŋ CN104. Kgj ulu S280a. Dgx oloŋ B14. Mog---.

*olaŋ 'bellyband (of a horse)'. An alternative form in -m is found in Kh, Bur, and Dag. BaoD ġolə BL83a may be from LT glo; BaoÑ ʕlə CN233 'bellyband' is certainly from LT glo, cf. sga-glo 'saddle-girth'. Kgj may (but need not) be from LT as well. Perhaps related to CT *kolan (?*kolaŋ) 'saddle-girth' (cf. EDPT 622b).

   MMo SH olang H122, HY---, Muq olaŋ [olang] P265a, LV olan P1260, IV---. WM olong L610b. Kh olom, olon H391b 'the right-hand saddle girth'. Ord oloŋ M510b. Bur ulam C468a, olom (some dialects) C550a. Kalm olŋ M396a. Dag ɔlɔ:n ~ ɔlum E38. EYu ɔlɔŋ B13, oloŋ J95a. MgrH uloŋ J95a. MgrM---. Bao (see remark below). Kgj ɔlu ~ lu S280a. Dgx oluŋ B14. Mog---.

*olusun 'hemp'. The evidence for the original vocalism is ambiguous. The forms with o in the second syllable found in MMo HY and EYu-MgrH support *olasun. The Kh, Kalm and Brg forms could be from *olasun as well, or from *olusun. Ord ulusu points at *olusun or *ulusun. The Bur form, which in this rare case disagrees with Brg, also suggests *ulusun. Dag ɔls suggests a form *olusun or *ulusun, since the expected Dag development from *olasun would have been *wals.

   MMo SH---, HY olosun M81, Muq---. WM olosu(n) L610a. Kh ols(on) H392a. Ord ulusu M731b. Bur ulha(n) C468b. Brg ɔlɔ: U32. Kalm olsn M396a. Dag ɔls E39. EYu losən (only) S528. MgrH losə J95a. Bao---. Dgx---. Mog---.

*omag ~ *obag 'clan, family; family name'. It is hard to determine which of the variants is the oldest.

   MMo SH oboh H120, HY---, Muq---. WM oboɣ L598b, omoɣ L611a. Kh ovog H385b, omog H392b. Ord omoq M511a. Bur omog C355b, obog C348a. Kalm omg (obs) M396b. MgrH omɔġ X15. Remaining lgs---.

*omag 'courage; arrogance, haughtiness'. The negative meaning appears in the modern languages.

SH *omoh* H124 'courage', HY *omoq* M81 'power and influence', *omoq-tan* M81 'courageous', Muq---. WM *omoγ* L611a. Kh *omog* H392b. Ord *omoq* M511a. Bur *omog* C355b. Kalm *omg* M396b. EYu---. Mgr---. BaoD---. BaoÑ *ɵmɵġ* CN17. Dgx---. Mog---.

*oŋgača 'boat; trough'. In Muq, WM, Kh, Bur, Kalm, and EYu both meanings are attested. Added -*g* in Mgr. Transfer of consonant strength from -*č*- to -*g*- in MgrM.

MMo SH---, HY *ongqača* M81 'trough', Muq *onqača* P266b, LV---, IV *oŋqača* (*ongqača*) L62:59 'boat', Ph *oŋqočʰa.s* P128a 'boats'. WM *ongγoča* L613a. Kh *ongoc* H393b. Ord *oŋġočo ~ oŋġoči* M515a. Bur *ongoso* C356b. Brg---. Kalm *oŋγc* M399a. Dag---. EYu *ɔŋġɔčɔ* BJ338 'trough', *oŋġočo* J95a 'boat'. MgrH *ŋgućɔġ ~ ŋgućaġ* X42 'trough'. MgrM *ɔŋkuʐo* C387 'horse's trough', *aŋquʐo* DS252a 'stable', *aŋçïgo* F85:12 'trough'. Bao---. Dgx *oŋġoço* B13 'trough'. Mog---.

*onï/*ona (?*honï) 'notch on an arrow'. The *h- suggested by Muq is unconfirmed. Cf. also *onubčï (?) 'knife for making notches in arrows', MMo SH *onubci kituqai* H125. Kh *onovč* H394a. Kalm *onovč* M397b. Dag *ɔnč* E37 'knife'.

MMo SH *ono* H125 (q.v.), HY---, Muq *honi* P186a. WM *oni* L614b, *ono* L615a. Kh *on'* H395b. Ord *oni* M512b. Bur *oni* C357a, *onoo* C357b. Brg *ɔnʸ* U31. Kalm *on* (obs) M397a. Dag *ɔnɔ* (*ɔnʸ*) NK461b. QG---. Mog---.

*ora 'track, trace, footprint, fingerprint'. In Mgr and Dgx one finds the forms *oraŋ and *köl oraŋ (*köl 'foot'). The forms in -*m* in the central languages may be influenced by *horum 'road' (cf. SH *horim*, *horum*).

MMo SH *oro* H126, HY---, Muq---. WM *oro* L620a, *orom* L623a. Kh *or* H396b, *orom* H398a. Ord *oro* M518b, *orom* M521a. Bur *orom* C362a, *oro* (in expressions, q.v.) C360b. Brg *ɔr* U34. Kalm *orm* M403a. Dag *ɔr* E41. EYu---. MgrH *kurloŋ* L283. MgrM *uraŋ* C395, *kurruaŋ* DS224. Bao---. Kgj---. Dgx *koroloŋ* B76, *koloroŋ* MC222b, *kororoŋ* MC224a. Mog---.

*ora- 'to enter'.

MMo SH *oro-* H127, HY *oro-* M82, Muq *ora-* P269a, LV *or-* P1259, IV *ora-* L62:60. WM *oro-* L620a. Kh *orox* H399a. Bur *oroxo* C362b. Kalm *orx* M405a. Dag *war-* E335. EYu *ɔrɔ-* B13, *oro-* J95b. MgrH *oro-* J95b, *uro-* X22. MgrM *oro-* JL480, *uro-* C370. BaoD *orə-* BL83a. BaoÑ *ɵr-* CN18. Kgj *uru-* S280b. Dgx *oro-* B16. Mog *ora-* R35b.

*oraa (?*orïa) 'wild, untamed, undomesticated'. Cf. *emlig.

MMo SH *oro'a* H127, *ora'a* H125, *ura'a* H165, HY---, Muq---. WM *oroγa* L621a. Kh *oroo* H398b 'difficult to catch', also 'estrus, heat'. Bur *oryoo morin* C360a 'agile horse', cf. *oroo(n)* C362b 'rut, heat; mating'. Kalm *ora* M401a, *orä:* R287b. Dag *ɔrɔ:* E41 'stubborn and unruly'. EYu *ɔrɔ:* B13. Mgr---. Bao---. Dgx---. Mog---.

*oraï 'evening; late'.

MMo SH *orai* H125, HY---, Muq---. WM *oroi* L621b. Kh *oroy* H397b. Ord *orö:* M522a. Bur *oroy* C361a. Kalm *ora* M400b. Dag *ɔrʸe:* E41. EYu *ɔrui* B14,

öröi J95b. MgrH *urui:* J95b. MgrM *wurai* DS19, *orey* P411b. Bao---. Dgx---. Mog---.

*oran 'place, spot; seat; throne; bed; country'. Ramstedt's suggestion that this word be related to **horum* 'road' is incorrect because of the **h-* in this word. In later languages, the two words may have become confused (cf. the forms with *-m* in Kalm and Mog). Cf. CT **orun* 'place'.

  MMo SH *oro(n)* H126, H128, HY *oro* M81, Muq *oran* P269a, *orun* P325a, *ora* P269a. WM *oro* L620a, *oron* L623a. Kh *or* H396b, *oron* H398a (with semantic diversification). Ord *oron* M521b. Bur *oro(n)* C362a 'bed', *oron* C362a 'country', 'place, etc'. Kalm *orn* M403b 'land, state'; 'bed', *orm* M43a 'place', cf. *or-der* M402a 'bed' (cf. **dere*). Dag *ɔr* E41 'place; bedding'. EYu *ɔrɔn* B14, *oron* J95b, *oro:n* S531 'place', *ru:n* S339 'kennel'. MgrH *oron* J95b, *uran, uron, urɔŋ* X22. MgrM *uran* C370. BaoJ *roŋ* L147. Kgj *uru* S280b. Dgx *oroŋ* B16. Mog *ɔram* R35b 'place', MogM *orɒ:n* L68, No. 46 'bed'.

*orkï- 'to throw, cast away; to abandon, release; to put' The peculiar spelling in SH could be influenced by **hoara-* or **ugur-*, q.v. There is no evidence for a long vowel in the living languages. Cf. **soŋgu-* which is spelled *so'onggu-* in SH.

  MMo SH *o'orki-* H125, HY---, Muq *orki-* P270b, *orqi-* P271a. WM *orki-* L619b. Kh *orxix* H400a. Bur *orxixo* C364b. Kalm *orkx* M402b 'to put down, etc', cf. *okx* M394a 'to put down'. Dag *orkʸ-* E41. EYu---. Mgr---. BaoD *uaśialdə-* (recipr.) (?=) BL66. BaoJ *vuṣál-* L206. BaoÑ *wargə-* CN227, *waṣgə-* CN226. Dgx---. Mog---.

*oya- 'to sew'. In Kalm this verb has become indistinguishable from **huya-* 'to tie up'. The same may have happened in Bao, where the shape *ha-* is used in both meanings. The fact that one of the verbs has *h-* seems to make this phonetically unlikely, but it is supported by Kgj *fiya-* which also seems to represent both **oya-* and **huya-*. Alternatively, Baoan *ha-* may represent a merger of **kaba-* 'to stitch' and **huya-* 'to tie up', although this is still irregular.

  MMo SH---, HY---, Muq *oya-* P272a, LV *oyo-* P1261, IM *hoyu-* [ed. reads thus, in fact unvocalised] P438a. cf. RH *hoy[o]qči* 205C28 'taylor'. WM *oyo-* L606a. Kh *oyox* H388b. Ord *oyo-* M508b. Bur *oyoxo* C350b. Brg *ɔy-* U33. Kalm *uyx* M530a. Dag *ɔy-* E40, *ɔi-* E36. EYu---. MgrH *yo:-* X235, J95b. MgrM---. Bao---. Dgx---. Mog *oi:-* R35b, *wɔyʌ-* W184a, MogM *oya:-*, MogMr *ɒ:yɒ:-* L68, No. 41.

?***oyun** 'thought, intellect' see ***oïn**

- Ö -

*öber, ***öbür** 'bosom' see ***ebür**

*öbür 'southern slope' see ***ebür**

*öčeen 'few' see *čöen

*öčügedür (< ***öčigen üdür**) 'yesterday'. The initial *h* in the MMo forms in Arabic script is not confirmed elsewhere. Dgx *f-* may be a secondary development due to the following *-č-*. Dag *xečige udur* (Poppe 1934-1935:23) is not related but the same word as *kəčiɣ ~ kəčiɣ udur* E146 'the day before yesterday'. Dag *udiš* E47, *udiš udur* Z94a from *üdesi is used for 'yesterday'. The loss of the initial vowel in most of the QG forms is not unusual, but a similar development is atypically seen in some of the Ord and Mog forms. Note the *-l-* in Bur-Kalm (also in Khamnigan).

MMo SH *ocigen udur* H121, HY *öčigen* M83 'recently', Muq *öčüge ödür* P273a, LV *hečegen* P74, IV *höčken ödür* L62:33. WM *ečügedür* L292b, *öčögedür*, *öčögeldür*, *öčigeldür* L629a, and cf. *öčigen* L629a. Kh *öcögdör* H422a. Ord *(ʉ)čugʉdur* M765b, *čug(ʉ)dʉr* M720b. Bur *üsegelder* C515b, *üsegder* 515b, *üster* (western) C515a. Brg *usəgdər ~ usdər* U51. Kalm *öckldür* M427b. Dag---, see above. EYu *čogdor* B137, *čügdur* J96a. MgrH *ćigudur* J96b, *ćigu ~ ćigudur* SM449. MgrM *ɣugodur* JL464, *čugudur* T379. BaoD *gudər* BL84a. BaoÑ *ʂgudə* CN148. Kgj *šigʉdə ~ šgʉdə* S295b. Dgx *fuʐuɣudu* B55, *ʂuʐuɣudu* B134, *fuʐuɣu* 'last' in compounds B55. Mog *ʉčko:n*, *ʉčko:n ʉdʉr* R41b, *uškɔn*, *uškɔdur*, *uškudur* W183b, *čikaʋdur*, *čikɔdur* W162a, *čikun* W162a 'last'.

*öčüken 'little, small' see ***üčüken**

*ödken 'thick, dense'. The Shirongol languages go back to a form with an epenthetic vowel between the elements of the *-dk-* cluster. The *h- suggested by the EYu form is not confirmed elsewhere, except perhaps Mgr. It may be due to the following *-k-*. In view of Kh *ötgön ~ ösgön* there may have been an old variant *ösken; in that case both forms may go back to a PM *öčken (*öǰken). The Bur variant *üsxen* may be a direct descendant of a form *öčken but could also be borrowed from Kh.

MMo SH *otkan* H129, HY---, Muq *ötken* P279b. WM *ödken* L629b. Kh *ötgön* H421a, *ösgön* H421a. Ord *ödkön* M527a. Bur *üdxe(n)* C494a, *üsxen* C515b. Kalm *ötkn* M427a. Dag *urkun* E50, Z94a. EYu *hʉtgwen* B58, *hödgön* J96a, *χödgön* S551. MgrH *ʂdogo:n* J96b, *dugo:n* C88:584. MgrM *ś(i)digen* JL473. BaoD *dəgaŋ* BL84b. BaoGt *dəgɔŋ* C118. BaoÑ-?- CN. Kgj *dagɔ ~ ǯïgɔ* S298b. Dgx *oćiɣaŋ* B15, *oćiɣən* L112b. Mog *ʉtko:n* R42a.

*ödme (and ***ödmeg**) 'kind of bread or cake'. The emended ZY form agrees with HY, but it can also be read without the final consonant, as this variant is also attested in MMo. The Shirongol languages derive from a form ***öteme** with dissolved cluster. The Kalm form is the only certain survival of the variant *ödmeg. Cf. CT *etmek 'bread', which also has variant forms *ekmek and *epmek which were borrowed by Moghol.

MMo SH---, HY *ütmek* M109, ZY *üdme(k) (wu-du-ma) Kara331, Muq *ötmek* P279a, *etmek* P167a, LV---, IV *ötüme* L62:61.---. Kh---. Ord---. Bur---. Kalm *ödmg* M412b. Dag *utum* E47. EYu---. MgrH *ʂdəma* X167, *ʂdəme* J63. MgrM *(ʂ)diməi* C386, *diməi* C388, *šdime* T384. BaoD *damə* BL59. BaoÑ *ʂdemə* CN151.

Kgj *deme* S299a. Dgx *ičime* P421b. Mog (prob. recently borrowed) *uftäŋ* R41b, *ukmʌŋ* W182b, etc.

*ödür 'day' see ***üdür**

*öede 'upwards, upstream; above'. In EYu-Mgr replaced by **ǰaka*. However, according to Bolčuluu & Jalsan (1991:175-176), **öede* has become a directive suffix *-i:d* in EYu, as in *ġadi:d* 'up a cliff' < **kada öede*. This has a parallel in Ordos, as in *gere:t* M260b 'to(wards) the house' < **ger öede*.

 MMo SH *o'ede* H121, HY---, Muq---. WM *ögede* L630b, precl. also *öbede* T502. Kh *ööd* H414b. Ord *ö:d* M526b, *ö:dö* M527a. Bur *ööde* C367a. Brg. Kalm *ööd*, *ööden* M419a. Dag *wə:d* E336. EYu---. MgrH---. MgrM---. BaoD *odə* BL84a. BaoÑ *ɵ:də* CN18. BaoX *odə* BC69. Kgj *ude* S281a. Dgx *oźie* L112a. Mog *öädä* R35b, *udʌ* W182a, *ɔdʌ* W174a, MogM *ŭɵdə*, MogMr *ɵ:da* L54b:39.

*öer- 'self'. Kh *övsveen* H404a is a reading pronunciations of WM *öbersüben*. Used as a (first or third person) personal pronoun in Baoanic. This functional shift arose in, and is in some languages still restricted to use in indirect speech. The final element may represent a petrified genitive **öerün* or the reflexive possessive form **öerien*. Baoanic uses a Northwest Mandarin word in the meaning 'self': BaoD *goźiə* BL35. BaoÑ *gɵ:źi* CN95. Kgj *guǰa ~ guǰa* S290a, Dgx *goźia, goyə* B91. In EYu and Monguoric **eǰen* is used instead to express 'self'. It is unclear whether EYu *ewer* 'soul' is related, as suggested by Kotwicz.

 MMo SH *o'er* H121, *or* H125, *or-iyen* (with ref. poss.) H126, HY *ö'er* M83, *ö:r-* M84, Muq *ö:r* P279b. WM *öber* L627b, *öbesüben* L628a. Kh *öör* H415b. Ord *ö:r-i:n* M537b, *ö:r-ö:n* M539b, *ö:s* M541a, *ö:s-ö:n* M541b. Bur *öör-* C368a. Kalm *evr-än* M690a, *erv-ä:n* M701b. Dag *wə:r* E336. EYu---. MgrH---. MgrM---. BaoD---. BaoÑ *ɵrɵŋ* C18 'I', cf. also *ɵrsə* CN19 'we'. BaoX *oroŋ* BC68 'I', cf. also *osə* BC68 'we'. Kgj *uru* S281a 'he/she', *urusun ~ urusï* S281a 'they', *usï* S280b 'they'. Dgx *oruŋ* B17 'I (myself)', *oruntan* L53 'we (ourselves)'. Mog *öàrini* R35 'he himself', *orin* W183a.

*öere 'other, different'. The form **öere* itself is rather poorly attested. However, EYu *gö:rö* J27, *gure* B85, *gu:rə* S529, MgrH *go:ro* X104, MgrM *gori* C381 may represent an aberrant form of this same word. The derived form **öermiče* is found in Bao. The disappearance of **öere* from Baoanic and Dag and the disappearance of **öer* from EYu and Monguoric are understandable since the two words developed similar or identical pronunciations, whereas their meanings are opposites. Possibly related to CT **özge* 'other', if one assumes a metathetic variant **ögze*.

 MMo SH *o'ere* H121, *ore* H126, HY---, Muq *ö:re* P279b, *ö:rö* P283b. WM *ögere* L631b, *öbere* L627b, both spellings also preclassical. Kh *öör* H415b. Ord *ö:rö* M538b. Bur *ööre* C368b. Kalm-?-. Dag---. EYu (see above). MgrH (see above). MgrM (see above). Bao (see **öermiče* below). Kgj---. Dgx---. Mog---.

*öermiče 'other'.

MMo SH *o'ermici-le-* H122, HY *ö:rmiče* M84 'different'. WM *öbermiče* L628b. Kh *övörmöc* [←WM] H404a. BaoD *məčə, mərčə* T143. BaoÑ *əmərʒi* CN17 'other', cf. also Bao (unknown locality) *ərʒi* CN87:129, Bao (unspecif dial) *moći* S529 'other'. BaoX *məčə* BC69 'other'.

*ög- 'to give'. Moghol, some of the QG forms, and even Dagur, have developed a paragogic vowel. In Monguoric this verb changed vowel class, resulting in -*ġ*- rather than expected -*g*-. In Mangghuer the initial vowel was lost, after which the *g* was strengthened, probably due to the many inflected forms with strong consonants, such as conditional converb *xusa*, perfect *xusan*, future *xuku*.

MMo SH *ok-* H122, HY *ök-* M84, Muq *ög-* P274a, LV *ög-* P1256, IV *ök-* (ms. *ᵐʷwl*) L62:60. WM *ög-* L630a. Kh *ögöx* H405b, *öx* H422a. Ord *ög-* M527b. Bur *ügexe* C493a, *üxe* (coll.) C518a. Brg *ug-* U49. Kalm *ögx* M412a. Dag *ukʷ-* E44. EYu *og-* B15, J96a. MgrH *oġo-* J96a, *uġʊ-* X17, *ġʊ-* X97. MgrM *uġu-* T368, *xu-* DS225b. BaoD *oka-* BL84a. BaoÑ *əχ-, ək-* CN16. Kgj *ʉɣ- ~ ʉ-* S280b. Dgx *ogi-* B13. Mog *ögʉ-* R36a.

*ökin (~ ***okïn**) 'daughter, girl'. Not all forms can be reduced to a single ancestral form. The form **ökin* is found in Bur, Dag, EYu, BaoD, BaoÑ, and Mog. A back-vocalic **okïn* form survives in Kh-Kalm. The SH form could represent either variant. A completely unrounded variant **iken* is found in some central Mongolic dialects (see Sun 1990:396). The **h-* suggested by Mgr and EYu appears to be triggered by the following -*k*-.

The forms in Mgr, BaoD, BaoX, Kgj, Dgx which instead of **k* have a palatal fricative or affricate are problematic. In Monguoric, **k > ć* is a common development before **i/*ï* (usually in initial position), but in Baoanic this is exceptional. Perhaps the forms with affricate are due to confusion between **ökin/*okïn* 'girl' and the early loanword *füjin* 'lady' (← Ch. *füren*), cf. MMo SH *ujin* H161, Kh *üjen* (obs.) H568b 'lady'. On the other hand the modern meaning is clearly 'girl'. That the Monguoric forms stem from **ökin* rather than **füjin* cannot be decided on the basis of the modern pronunciations, but is likely based on the neighbouring languages.

MMo SH *oki(n)* [or *öki(n)*] H122, HY *ökin* M84, Muq *ökin* P275a, LV *ökin* P1260, IV *ökin* L62:60, RH *hökin* 202C13 'virgin', *ökin* 200B24 'daughter'. WM *ökin* L633a, *okin* L607a. Kh *oxin* H401b. Ord *okin* M508b. Bur *üxi(n)* C518a. Brg *uxiŋ* U48. Kalm *okn* M394a. Dag *uyin* E44, *uyin* E49. EYu *hkon* B58, *hgun* J99b. MgrH *fuʒün* SM103, *śʒün* J99a. MgrM *fuʒiŋ* JL468, *śuʒiŋ* JL468, *(x)učin dyu* P419b 'younger sister' (cf. **deü*) and *kao-śuʒun* DS21 'children' (cf. **keü* or **köbeün*). BaoD *okən* T145, but cf. *ko-ćüŋ* BL48 'children' (cf. **keü* or **köbeün*). BaoGt *śindï* C117 'younger sister' apparently from **ökin deü*. BaoÑ *əkuŋ* CN17. BaoX *xǰoŋ* BC63. Kgj *iχgɔ* S279b; *kʉnšüŋ* S287b 'boys and girls, offspring' may represent either **köbeün ökin* or **köbeün sïbaun*. Dgx *oćin* B15, L28. Mog *ukin* R41a, *ukin* etc W182a, MogM/Mr *əkin, ŭokin* L62:60, see further s.v. **sïbaun*.

*ölegčin 'female of carnivorous animals; she-dog'. In Bur homophonous with the feminine form of the colour name üle < *öle. Perhaps this is originally a taboo-related term 'the grey one', cf. MgrH burɔġśʒ́i: < *bora-gčin 'hen', lit. 'the grey one' (feminine). In spite of the similarity Dag may not be related, as the loss of the initial vowel is abnormal.

MMo---. WM ölögči(n) L634a. Kh ölögcin H409b. Ord ölögčin M531b. Bur ülegšen C502a. Kalm ölgčn M414b. Dag lukča:n (?=) E44 'she-dog', however ukča:n E83:44. EYu lögčən B88 'she-dog'. Remaining lgs---.

*ölegei 'cradle'. EYu goes back to a form *ölege.

MMo SH olegai H123, HY---, Muq ölegei P275b, LV---, IV ölöge L62:60. WM ölögei L634a, ölegei L633b. Kh ölgiy H408b. Ord ölögi: M531a. Bur ülgï C499b. Brg ulgi: U50. Kalm ölgä M414a. EYu ölöɣö B17, ölöɣe J86. Remaining lgs---.

*öles- 'to be hungry'. The initial *h- suggested by Dag is not confirmed elsewhere. Could the x- in Dag be due to the influence of xuns < *künesün 'provision'? The -n- in the Dag form is also peculiar. Chen Naixiong compares BaoÑ ələr- to WM ölber- 'to starve', which is phonetically possible, but unlikely in view of the other Shirongol languages (BaoÑ -r < -s is common). Some of the meanings in Kh seem to point at an etymology *öl-se- with the desiderative suffix 'to want nourishment'. However, the MMo, Mog, and Shirongol forms are clearly incompatible with such a reconstruction.

MMo SH oles- H123, olos- H124, HY öles- M84, Muq öles- P275b, LV ölüs- P1260, IV ölös-külen L61 'hungry'. WM ölös- L634b. Kh ölsöx H410a. Ord ölös- M532a. Bur üldexe C500a. Brg ulʲd- U50. Kalm ölsx M415a. Dag xuns- (sic, ?=) E124, xʉnsʉ-. EYu---. MgrH losə- J96b. MgrM losï- JL469. BaoD olos- BL84b, olesï- BL75. BaoÑ ələr- CN17, ɵlɵr- CN17. Kgj ləsï- ~ lesï- S290b. Dgx oliesï- B14, oliesu- L112b. Mog ʉlàs- R41b, ɔlʌs- W174b.

*örgü- 'to hang' see elgü-

*ölmei 'instep'. MMo reflects a form *ölmi, which may survive in Bur ül'me. The Dag form, if at all related, also goes back to a form *ölmi or *ölme, which then dissolved the cluster.

MMo SH olmi H123, HY ölmi M84, Muq---. WM ölmei L633b. Kh ölmiy H409a 'sole of the foot or a boot; (hon.) feet', Luv319b 'foot, instep'. Ord ölmi: M531a 'foot (hon.)'. Bur ül'mï, ül'me C502a 'metatarsus'. Brg ulmi: U50 'instep'. Kalm ölmä M414b 'front part of the foot'. Dag urum (?=) E50 'instep'. Remaining lgs---.

*ömüdün 'trousers' see *emüdün

*ömdegen (?< *emdegen or *emdügen) 'egg'. It seems impossible to reconstruct a single CM form for all the modern forms. Note that the various languages suggest forms in -e, -ei, or -en. It is unclear wether the initial vowel was *e or *ö originally. An original *e could have been rounded by an *ü of the following syllable, or by the

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*m. Dagur and the Shirongol languages have unrounded first syllables. The Monguoric languages suggest *endege, Baoanic *emdege or *emdegei. However, the Dagur -u- does suggest an original rounded second vowel, which is not confirmed in MMo.

MMo SH ondegen H124, HY ömdegen M84, Muq ömdegen P341a, ömdögen P136b, cf. öndegele- P276b. WM öndege(n), öndöge(n) L636b, ömdege(n), ömdöge(n) L635a. Kh öndög (öndgön) H413a. Ord öndögö M533b. Bur ündege(n) C505b. Brg undəg U44. Kalm öndgn M416b. Dag ənduɣʷ E21. EYu---. MgrH ndəge J96a. MgrM andige JL479. BaoD əndəgi BL84b. BaoÑ emdəge CN14. Kgj ndeɣe ~ əndeɣe ~ andeɣe S282b. Dgx endeɣi B7, endeɣei 112a. Mog ʉndáɣo:n R41b, ɔndʌgʌn W175a.

*öndege 'egg' see *ömdegen

*öndür (?*höndür) 'high'. The *h- suggested by the Dag form is not confirmed elsewhere in Mongolic, but cf. Azeri höndür. The Middle Mongol vocalism seems to be confirmed by Shirongol, while EYu ondor sides with Khalkha and Kalmuck (cf. *üdür 'day').

MMo SH undur H164, untur H165, HY üntür M109, Muq öndür (or ündür) P276b, Ph ündür P133a. WM öndör L637a. Kh öndör H413a. Ord ʉndʉr M757a. Bur ünder C505b. Brg undər U46. Kalm öndr M416b. Dag xundur E125. EYu oŋdor B15, uŋdur J96b. MgrH ndur J96a, X39, undur X16. MgrM undur JL479. BaoD undər BL84b. BaoÑ undər CN20. Kgj ʉndər S280b. Dgx undu B19. L112a. Mog---.

*önečin 'orphan(ed)'.
MMo SH onecit (pl) H124, onocit (pl) H125, HY---, Muq önečin- P107a. WM önöčin. Kh önčin H414a. Ord önöčin M534b. Bur ünšen C507b, ünešen C509b. Brg unšiŋ U46. Kalm önčn M417b. Dag wənčin E337, unčin E43. EYu nöčən B26. MgrH noćin X34, nućün X37. MgrM wuniećin DS240b, miśǯin (sic) Z329:238. Bao---. Kgj---. Dgx onieçəŋ B13, olieçïn MC304b. Mog---.

*öŋge 'colour; appearance'. Related to CT *öŋ 'colour'.
MMo SH ongge H124 'colour', HY öŋgö M84 'colour', Muq önge P277a 'surface', P306b 'colour'. WM öngge(n) L637b. Kh öngö(n) H412a. Ord öŋgö M535a. Bur ünge C504a. Kalm öŋg M418a. Dag uŋgʷ E43 'facial expression'. EYu öŋgö J96b 'colour', B17 'colour; appearance, look', BJ338 'face', öŋge J90 'face'. MgrH ŋgo J96a 'colour'. MgrM aŋgo JL478. Bao---. Kgj---. Dgx oŋgie B13, waŋgie B191 'face, facial expression'. Mog---.

*öŋgere- 'to pass by'. The h- in MMo (Muq) in the causative form höngere'ül- P326a is incidental. Note the atypical loss of the initial syllable in Dgx.
MMo SH---, HY öŋgere- M84, Muq öngere- P277a. WM önggere- L638a. Kh öngöröx H412b. Ord öŋgörö- M536a. Bur üngerxe C505a. Kalm öŋgrx M418b. Dag ungərə- T171. EYu öŋgere- B17. Mgr---. Bao---. Dgx gieru- B90. Mog---.

*ör 'dawn', often used with *čaï- 'to become white' or *gei- 'to become bright'. Note the vowel length in Kh, Bur, and EYu-Mgr, as if CM were *öer. Dag could have developed from *ör or *ür. The Muq form could be read ö:r, ür or ü:r just as well.

MMo SH---, HY---, Muq ör P382a. WM ür L1010b. Kh üür H583b. Ord ör M537b, örö M538a, but určä:- M741b. Bur üür C517a. Brg u:r U45. Kalm ör M422a. Dag ur če:- 'to dawn'. EYu ö:r B16, J34, oyir (sic) S686, perhaps also in urćaǧ B20 'morning; tomorrow' (cf. *čag). MgrH o:r X15, u:r će:- X16. BaoD---. BaoÑ ər gi:- CN18. Dgx o ği- B13, oɣəi- L37.

*öre '(pit of the) stomach'.

MMo SH ore H126 'heart', oro H126 'pit of the stomach', HY örö M84 'pit of the stomach', Muq---. WM öri, örö L643b, öri L642a 'interior; heart; abdomen; coronary artery; pit of stomach, precordia'. Kh örön [ör(n)] H416b. Ord ör(ö) M538a 'heart (fig.)'. Bur üre C514a 'inner part, middle'. Kalm ör M422a 'core, centre; chest, soul'. Dag---. EYu---. Mgr---. BaoD orə BL87a 'stomach'. BaoÑ ramaŋ CN221 (+ *aman 'mouth, opening') 'chest; pit of the stomach'. Kgj uramɔ S281a (+ *aman). Dgx oro B16 '(pit of the) stomach', cf. also oro amasa, oromasa B16/17 (*amasar 'opening'). Mog---.

*öreče 'diaphragm'. Ord, Kalm and EYu suggest *öreči. Probably derived from *öre.

MMo---. WM öröče L643b 'diaphragm, etc'. Kh örc H420a. Ord öröči M540a. Bur ürse C513a. Brg urs U54 'the bottom of one's heart'. Kalm örč M425b 'diaphragm'. Dag---. EYu orečə B16 'pleura'. Remaining lgs---.

*öreele 'type of hobble' and *öreesün 'half (one of a pair)'. Due to the final vowel of the first variant, the suffix alternation is not quite the same as the well known alternation -l ~ -sUn seen in *hargal ~ *hargasun, *baïdal ~ *baïtasun 'mare', *gudul ~ *gudusun 'boots', although HY features -l-sUn. The QG languages developed from a shortened form *örle; the -ö: in EYu was probably lengthened recently. The surprising Dag -ɣ- may be a secondary development of earlier -w-. Dag initial e- is also unexpected in view of the MMo forms. The similarity to Turkic *örk 'hobble' is probably fortuitous, as the Turkic word seems to derive from the verb *hö:r- 'to weave, plait', which means that initial h- would be expected in CM as well. Cf. *čidör 'hobble'.

MMo SH ore'ele H126, oro'ele H127 'one (of a pair)', HY örö'elsün M84 'one (of a pair)', Muq öre:le P95a 'one (of a pair)', P277b 'half'. WM örögel L643b '(..) hobble..', örögesün L644a, örögelsün L643b 'half of a pair, etc'. Kh örööl H419a 'half of a whole; hobbles for the legs of only one side of a horse', öröös(ön) H419a 'odd, unpaired; unmatching'. Ord örö:l M539a (kind of hobble), örö:sön M539b 'one of a pair'. Bur ürööl C513a 'one of a pair', ürööle C513a, üreele C512a 'one of a pair, half; kind of hobble', ürööhe(n) C513a 'one of a pair; half'. Kalm öräl M422b 'half', öräsn M422b 'one of a pair'. Dag arɣʷlə: E30 'hobble', arɣulə:n S548. EYu örlö B18 'half; hobble for the legs on one side', örlö: J96a 'hobble', örlö: S549 'one (of a pair)'. Mgr---. Bao olər Z387 'half'. BaoD olə BL84a 'hobble'. BaoÑ əle CN17 'half', cf. kuŋ əlenə CN82 'some people' (cf. the semantic

development of *ǰarïm 'half'). Kgj ule ~ uli S280b 'half'. Dgx olie L112a 'hobble', olie B13 'half', wanlie B191 'half'. Mog---.

*örege 'skylight' see *erüke

*öreme 'skin on boiled milk'. Bur, EYu suggest a form with final -n, which is surprisingly comfirmed by Mgr, which usually eliminates final -n. Several forms lack the middle vowel.

   MMo SH---, HY---, Muq öreme P329b. WM öröme L644a. Kh öröm H418b. Ord örmö M538a. Bur ürme(n) C513a. Kalm örm M424b 'sour cream; skin on milk'. Dag urum E50. EYu örmön B18 'fat'. MgrH rəmen J96b, rme:n X240, L467, yermiæn SM492. Bao---. Dgx---. Mog---.

*örgen 'broad, wide, vast'.
   MMo SH orgen H126, HY örgen M84, Muq---. WM örgen L641a. Kh örgön H417a. Ord örgön M537b. Bur ürge(n) C511a. Kalm örgn M424a. Dag---. EYu---. MgrH rgon X239. Bao---. Dgx---. Mog---.

*örgeesün, *örgesün 'thorn'. Note the disagreement of the vowel quantity of the syllable preceding -sUn. The Ordos forms seem to reflect earlier variants *örgüsün and *örgesün. Kgj ŋ- is unusual. Cf. the regional word *adaakaï used in Bur adaaxay C30a and Dag ada:ki: E13 ~ aduk'e: E14.
   MMo SH orugesun H128, HY---, Muq örgesün P278a. WM örgegüsü(n), örgesü(n) L641a, örgösü(n) L641b. Kh örgös(ön) H417b. Chakhar orgo:s D172b. Ord urgusu M762a, örgös(u) M537b. Bur---. Brg---. Kalm örgs M424a 'splinter; thorn', örgɛ:sn Ram299a, ürgəsn Ram459b. Dag urɣis E50. EYu orgwe:sən B16, örgösən J96a also 'bristle', rgü:sən J57, örgö:sön S548, örgösən (Qinglong) BJ352. MgrH rgo:sə J96a also 'bristle', rgo:ʒə X239. MgrM argo:sï C395. Bao---. Kgj ŋgusun ~ gusun S282b. Dgx əğəsuŋ B8. Mog urgʌsu W183a 'camel-thorn', MogMr, MogM ɵrgàsun L62:61.

*örgü- 'to lift' see ergü-

*öri 'debt'. With -n in Kh and Kalm.
   MMo SH---, HY---, Muq öri P278b. WM öri L641b. Kh ör(ön) H416b. Ord örö M538a. Bur üri C512b. Kalm örn M425a. Dag ur E49. EYu ö:r B17, J96a, ö:rə S546. MgrH urə X22. MgrM---. Bao---. Kgj uri S281a. Dgx ori B16. Mog---.

*örmege 'kind of coarse fabric'. In EYu metathesized > *örgeme; in Mgr and Dgx metathesized > *ömerge. Related to CT *hö(:)r-mek from the verb *hö(:)r- 'to plait'.
   MMo SH ormege, ormuge H126 'woollen garment', HY---, Muq---, IM örmege P443b 'upper garment'. WM ermüge(n) L331b 'coarse fabric made of hair of camel or sheep's wool, etc', örmöge L642b. Kh örmög H418 'gingham'. Ord örmögö M538a. Bur ürmege (Bokh. dialect) C513a 'doormat'. Kalm örmg M424b 'peasant's cloth coat; overcoat'. Dag---. EYu orɣeme B16. MgrH mierge SM236, murgʒ X128, murge L340. MgrM merge P411a. Bao---. Dgx muğə B110. Mog---.

*örüke 'skylight, smoke-hole (of a yurt)'. The initial vowel is not certain. The *e- is only confirmed by SH and the WM spelling; the round vowel in the other sources could be original or secondary. Ord rather suggests an original vocalism *öreke, whereas EYu favours -g- rather than -k-. According to Enkhbat Dag urɣə: E88:498 'felt tent, yurt' also belongs here. Although Kh örx has also developed the meaning 'household', Dag urɣə: is more likely to be related to Kh örgöö H417a 'yurt' (honorific), from *örgee 'palace'.

     MMo SH eruge H46, oruge H128, HY---, Muq örüke P278b, RH örüke 186C29. WM erüke L322b, örke L642a. Kh örx(ön) H420a 'smoke hole cover of a yurt'. Ord örökö M538b. Bur ürxe C513b. Kalm örk M424b. Dag (see above). EYu öröɣö B17, ruɣe S206. MgrH---. MgrM---. Bao---. Dgx---. Mog---.

*ös- 'to grow'. In MgrH perhaps confused with *eüs- 'to arise, develop'. In Bao this verb has become hard to distinguish from *bos- 'to get up'.

     MMo SH os- H128, HY ösge- (caus) M84, Muq ös- P279a. WM ös- L645a. Kh ösöx H421a. Bur üdexe C494b. Kalm ösx M427a. Dag---. EYu---. MgrH o:sə- (?=) J96b 'to grow, to develop'. BaoD osï- BL84a. BaoÑ wər- CN230. Kgj usï- S280b. Dgx osï- B14. Mog---.

*öskel- (?*hisköl-) 'to kick'. The evidence concerning the vocalism and initial h- is ambiguous. The first-syllable -i- as found in the WM spelling is only found in MMo and Kalmuck. It may be the original form, while the other central languages derive from an assimilated form *öskel- (via *ösköl-). The initial h- is only found in a single MMo source, and supported by the possible Manchu cognate feshele- (P60:11, 65 etc), but a CM *h- is not confirmed by the modern Mongolic languages that normally preserve *h-. The Dag forms appear to be reborrowings from Tungusic. In the QG languages the first syllable is too abraded to provide evidence for or against *h-. The MgrH form sgolda- seems to be a new formation based on the noun sgol X143 'kick', which itself looks like a back-formation from *öskel-.

     MMo SH---, HY---, Muq---, LV hiskel- (hisköl-?) ms. 73a-04-7. WM iskül- (?isköl-) L417a, öskile- L645b, ösköl- L646a. Kh ösiglöx H422b. Ord ösköl- M541a. Bur üd'xelxe C494a, üšxelxe (Bokh.) C520b. Brg utigəl- U51. Kalm išklx M276a. Dag əšklə:- (←Manchu/Tungus) Z93a, pəšklə:- (←Manchu) E91. EYu sʉkel- B103, sgöl- J95b. MgrH sgolda- J95b. MgrM---. BaoD gala- BL83a. BaoGt sgäl- C130. BaoJ sgal- L158. BaoÑ şgel- CN147. Kgj sïgeṛ- ~ sge- S293b. Dgx---. Mog---.

*ösegei 'heel'. SH and Bur suggest *(ö)sügei, Dgx supports *ösegei. The loss of the initial vowel in Bur is unusual (cf. *isegei 'felt'). The vaguely similar EYu ʒɔŋəi B151 'heel' is probably unrelated. Cf. *ǰauǰaï.

     MMo SH osügei H128, HY ösögö M85, Muq ösegei P279a. WM ösögei L646a, ösgei L645a. Kh ösgiy H420b. Ord ösögi: M541b. Bur hüyeï C695a, ühegï C519b. Brg xugi: U123. Kalm öskä M426a. Dag---. EYu (see above). Mgr---. Bao---. Dgx oşïği B14. Mog---.

*öteg 'dung'. This vocalism (rather than *ötüg) suggested by Ord and EYu. The RH form is an emendation. Although it is not contradicted by other languages, EYu

h- is probably due to the following *-t-*. Cf. also Kh *ötgön* H421a, Bur *üdxe(n)* C494a 'excrement (euphemism)' (listed under *üdxen < *ödken* 'thick'. Possibly related to Turkic **ötük*.

      MMo SH---, HY---, Muq---, RH *hötük* [ms. *hwrwn*] 200A16. WM *ötög* L646b. Kh *ötög* H421b. Ord *ötök* M542a (with altered meaning). Bur *üteg* C515b (in compounds). Kalm *ötg* M427a. Dag---. EYu *hdög* BJ331 'sheep dung' (the authors instruct the reader to strike the form *hərtög* B56; the *-r-* might have been intrusive rather than wrong, cf. the EYu treatment of **hičesün*). Remaining lgs---.

*ötege (and ***ötegü**) 'old, old man', also used as an Ersatzwort for 'bear', usually in the form **ötege*. Note the disappearance of *-g-* in Bur and Dgx. The Kgj form was apparently newly derived from the related verb **ötel-* listed below.

      MMo SH *otogu* H129 'old (person)', HY *ötögü* (*gü'ün*) M85 'old person', *ötögö* M85 'bear'. Muq *ötege* P279a 'bear', *ötegü* P279a, *ötöge-* P228a 'old man', LV *öt(e)ge* P1258 'bear', *ötegü* P1258 'old man', RH *ötege* 199C20 'bear'. WM *ötege* L646a 'bear', *ötegü* L646b 'old man'. Kh *ötög* H421b 'bear', *ötgös* (pl.) H421b 'elders, seniors'. Bur *ütöö* (folkl. & western) 'grandmother'. Kalm *ötg* (obs.) M427a 'bear', *ötŏgə, ötkŏ* R302a 'old man; bear'. Dag---. EYu---. MgrH *şdo:gu* X167 'old'. MgrM (Sanchuan) *itigù* P420a. Bao---. Kgj *eteğai ~ ɵteğai* S279b 'old'. Dgx *oćiau* B15 'old'. Mog *ʉtàɣʉ:* R41b 'old man', *wataga* Leech785 'bear', MogM *ŭɵtaga* 'old man; bear'.

*ötel- 'to get old, to age'. Cf. **ötege/*ötegü* above. Dgx *oćiaulu-* B15 seems to be newly form based on the latter.

      MMo SH *otol-* H129, HY---, Muq *ötel-* P279a. WM *ötel-* L646b, *ötöl-* L647a. Kh *ötlöx* H421b. Ord *ötöl-* M542a. Bur *ütelxe* C516a. Kalm *ötlx* M427b. Dag *utul-* E47 'to become old, to dry out (e.g. vegetables)'. EYu---. MgrH *şdo:lə-* X168. MgrM *śidier-* DS240a. BaoJ *dual(ə)-* L36. Kgj *ete- ~ eteɣ- ~ erte-* S279b. Dgx *oćielu-* MC308a. Mog---.

*öyee 'feed, fodder'. Dag, Mgr and Dgx suggest a CM **üyee* or **öyee*. The Kh form suggests that this is a derivate *?*ögyee* of **ög-* 'to give', but this is not confirmed elsewhere, and does not make sense morphologically. Cf. MMo SH *oyese-* H129 'to be voracious'.

      MMo SH---, HY---, Muq---. WM *ögjöge* (sic) L633a, *ögyöge* Cevel 432b. Kh *ög'yöö* [written *ög'eö*] Cevel432b 'food for birds and rodents'. Ord---. Bur *üyee(g)* C496b 'bait (esp. in a trap)'. Kalm---. Dag *uyə:* E48 'pig food'. EYu---. MgrH *uye* X21 '(pig-, dog-)food'. MgrM *uyi* JL474. Bao---. Dgx *uyə* B23 'food (for chicken, dog or bird)'. Mog---.

- S -

*saa- 'to milk'. The peculiar MgrH and Mog forms, which seem to reflect a CM form **sua-*, are inexplicable. This variant is incompatible with the regular

reconstruction (and with Turkic). To assume that these have developed under the influence of *sün 'milk' seems far-fetched. An agricultural term related to CT *sag-'id' (EDPT 804b), suggesting a PM form *saɣa-.

MMo SH sa'a- H130, HY---, Muq sa:- P319b. WM saɣa- L656a. Kh saax H430a. Bur haaxa C660b. Brg xa:- U86. Kalm saax M434b. Dag sa:- E209. EYu sa:- B96, J102b. MgrH sa:- J102a, sua:- (sic) SM356. MgrM sa- JL469, sa:- C384. BaoD sa- BL90a. BaoÑ sa:- CN121. Kgj sa- ~ ca- S293a. Dgx sa- B112, cf. also sayi- MC348b with an unexpected final element, reminiscent of the verbalizer yi which is typically restricted to stems of Chinese origin. Mog sɔ- W179b, MogM suʋ:- L63:157.

*saaral 'name of several colours of horses' coats (usu. shades of grey)'. The Dag form sa:lla developed the final vowel after the r and l were assimilated (cf. *huruul for a similar deveeopment), unless this form is influenced by the Manchu form sarla H770. Agricultural term which, unlike other animal colour names, seems to lack a CT cognate.

MMo SH---, HY---, Muq---, RH saral 187C8. WM saɣaral L657b, saral L675a. Kh saaral H429b. Bur haaral C660a. Brg xa:ral U87. Kalm saarl M434a. Dag sa:rəl E209, sa:ral, sa:lla NK87. EYu sa:ral BJ341, S584. Remaining lgs---.

*saarï 'buttocks, hindquarters; names for types of leather'. The loss of the final vowel in EYu is irregular, as is the vowel shortening in Mgr. Related to CT *sagïr or *sagrï (EDPT 815a). Kh sayr H433a 'cracked skin, chapping'. EYu sa:r S588, Bao sirəġ (?=) S588 'callus' probably represents a development of the same etymon. The WM spelling sayir L660b seems to be a Khalkha-inspired innovation. There may have been semantic interference between *saarï and *sarïsun.

MMo SH sa'ari H130 'buttocks', Muq sa:ri P319b 'Russia leather', P140a 'hindquarters (of a horse)' (P: 'back'). WM saɣari(n) L657b 'horsehide, leather, shagreen'. Kh sayr H433a 'suede...'. Bur haari C660a 'red spots on the hands; skin of the spine'. Brg xairʸ U88 'callus'. Kalm säär M444a 'croup'. Dag sa:r E209 'leather bootstrap'. EYu sa:r B97 'buttocks (of livestock)'. MgrH sari SM328 'short-haired skin; fur'. Bao---. Dgx---. Mog sairin R37b 'thin leather, shagreen'.

*saaǰagaï 'magpie' see *saǰagaï

*saba 'vessel, household container; utensil'.
MMo SH saba H130, HY saba M92, Muq saba P148a. WM saba L653a. Kh sav H430a. Bur haba C660a, saba (←Kh) C379b. Kalm sav M434b. Dag only in tiɣ saw E256 (tiɣ is a regional word). EYu saβa B97. MgrH sava: X134. MgrM saba JL467. BaoD---. BaoÑ sawər (?=) CN127. Kgj---. Dgx---. Mog---.

*saba- 'to beat'.
MMo SH---, HY---, Muq saba- P314a. WM saba- L653a. Kh savax H430b. Bur habaxa C661a. Kalm savx M435a. EYu sawa:- S585. Mgr---. Bao--. Dgx---. Mog saba- R37b.

*sačȗ- 'to sprinkle, scatter, shed'. An assimilated form *čacu- arose early, and prevails in the central languages. The -ġ- in MgrM may be a byproduct of devoicing. BaoÑ sar- is reminiscent of *sarnï-, but that verb is not attested elsewhere in QG. Related to CT *sač- 'id'.

MMo SH sacu- H131, HY---, Muq sači- P314a, čači- P129a. WM saču- L655a, čaču- L156a. Kh cacax H748b, sacax H443a. Ord ǰaču- M189b. Bur sasaxa C386a. Brg sas- U153. Kalm cacx M628a. Dag čeč- E297. EYu saǰə- B98, J50. MgrH saʒə- J94a. MgrM səġʒ́i- DS217. BaoD---. BaoÑ sar- (?=) CN126. Dgx sʒ̈ï- B120, ʂ̈ïʒ̈ï- MC362b. Mog---.

*sačura- 'to be sprinkled, scattered, shed'. At first sight a Mongolic intransitive formation from *saču-, the counterpart of the transitive *sačul-, but cf. also CT *sačra-.

MMo SH---, HY---, Muq čačira- P129b, čačara- P135b. WM sačura- L655b. Kh cacrax LC 4:255b. Bur sasarxa C386a. Kalm cacr- R423b. Dag---. EYu saǰəra- B98, saǰira:- J5. MgrH saʒira:- X132. MgrM---. Bao---. Dgx ʂ̈ïʒ̈ïra- MC363a, sʒ̈ïra-ğa- (caus.) B120. Mog---.

*sagad ~ *sagadaï ~ *sagag 'buckwheat'. The extant forms are rather diverse, and all of them are poorly attested (none of them in the old sources). The Dgx form could have developed from *sagag, but in MgrH the loss of -g would be abnormal. Perhaps there was yet another variant *saga. The vaguely similar-looking Kalm saksa: R308b 'buckwheat' may go back to a further variant *sagasaï. The sagadaï form is structurally similar to *buudaï. The phonetic variation within Mongolic could indicate that this is a loanword. Unlike other names of cultivated plants this word does not seem to have a cognate in early Turkic.

MMo SH---, HY---, Muq---. WM saɣaɣ L656b, saɣada L656b. Kh sagag, sagaday H431b. Ord saġaq ~ saġat M551b. Bur---. Kalm (see above). Dag---. EYu sïgd(ï) P398. MgrH saga SM318. MgrM ska P398. BaoD saġəd BL77. BaoGt səġədə C117. BaoJ səğə́də L158. Dgx saġa B114.

*saïkan 'beautiful, good-looking'. Originally the diminutive of *saïn 'good'. The meaning in Muq is taboo-related, cf. Dag ǰarɣa:l E312 'smallpox', lit. 'joy', EYu χara pərqan B46 'smallpox', lit. 'black Buddha'.

MMo SH---, HY---, Muq saiqan P317b 'smallpox' (sic), Ph sayiqan P129b. WM sayiqan L661b. Kh sayxan H433b. Bur hayxan C666a. Brg xaixaŋ U87. Kalm sääxn M444a. Dag saikən E210. EYu seiɣqan B99, saiɣqan B97, saiᵏ̌gan J101b. MgrH sgan J101b, sai:ġan J102a, saiġan X130, saixan X129. MgrM saixaŋ JL476, ʒaixaŋ DS206b. BaoD saixan BL89b. BaoÑ---. BaoX seġaŋ CN86:226. Kgj sχɔ ~ sïχɔ S294b. Dgx səiğaŋ B115. Mog---?

*saïn 'good'. The unexpected Baoan form saŋ and Kangjia sɔ could be borrowed from or at least influenced by LT bzang 'id'.

MMo SH sayin, sayi H133, HY sayin M94, Muq sain P315a, sayin P96a. WM sayin L660b. Kh sayn H433a. Bur hay(n) C664a. Brg xaiŋ U87. Kalm sän M445a. Dag sain E209. EYu sain B97, J102b, sein B99. MgrH sai:n J102a. MgrM śæn (?) C384. BaoD saŋ (?=) BL90b. BaoÑ saŋ (?=) CN122. BaoX saŋ (?=) BC67.

Kgj *seini* S293b, alongside *sɔ* (?=) S294a. Dgx---. Mog *so:i:n* R38b 'correct', *soɪn* (~ sandhi form *soɪn*) W179b.

***saïnug** 'ox; billy-goat' see ***seinüg**

***sakal** 'beard'. Related to CT **sakal* 'id'.

MMo SH *saqal* H131, HY *saqal* M93, Muq *saqal* P318a. WM *saqal* L677b. Kh *saxal* H442a. Ord *saχul ~ saχal* M553a. Bur *haxal* C679b, *haxuul* (Alar) C679b. Brg *xaxal* U90. Kalm *saxl* M443a. Dag *saɣəl* E213. EYu *saġal* B97, J102b. MgrH *sġal* J102a. MgrM *sġar* JL478, *sïġar* C385. BaoD *saġal* BL90b. BaoÑ *saχal* CN124, *caχal* CN190 'pubic hair'. Kgj---. Dgx *saġaŋ* B114. Mog *sayal* R37b.

***sakï-** 'to wait; to protect; to guard, keep watch'. Note the lengthening of the **a* due to word structure both in EYu and Bao, in this case contradicted by Mgr where the vowel was lost. Perhaps related to CT **sa:k-* 'to think'. Cf. **mana-*.

MMo SH *saki-* H131 'to protect', HY *saki-* M93, Muq *saqi-* P318a 'to protect,' WM *saki-* L662b. Kh *saxix* H442b. Bur *haxixa* C679b. Kalm *säkx* M445a 'to keep watch; protect; etc'. Dag *saɣʸ-* E213. EYu *sa:ġə-* B96 'wait; keep watch'. MgrH *sgə-* X143 'protect; wait'. MgrM *ś(i)gi-* JL473, *ś(i)gə-* C385. BaoD *sa:ġə-* T146. Bao (Gaser) *sa:ġa-* CN86:227. BaoÑ *sa:ġa-* CN121. BaoX *sa:ġi-* CN86:180. Kgj *saχi-* S293a. Dgx *saği-* B114.

***sal** 'raft'. The peculiar Buriat and Dagur forms suggest CM forms **sala*, **sula*, **salï*, which are incompatible with the remaining languages. Related to CT **sa:l* 'id'.

MMo SH *sal* H131, HY---, Muq---. WM *sal* L663a. Kh *sal* H434a. Ord *sal* M554a. Bur *hala* C669b. Brg---. Kalm *sal* M436b. Dag *sʷal* E227, *salʸ* E213. EYu *sal* B98 'boat', J8 'raft made of inflated skins'. Remaining lgs---.

***sal-** 'to loosen; to be divided; to part'. The final -*a* in MgrH is peculiar; original connective vowels that become part of the stem are normally *ə* or *u*.

MMo SH *salqa-* (caus.) H131, HY *salqaqda-* (caus. + pass.) M93, Muq---. WM *sal-* L663a, *salu-* L666a. Kh salax H434b 'to separate, part with..'. Ord *sal-* M554a. Bur *halaxa* C667b. Kalm *salx* M438a. Dag *sal-* E213. EYu *sal-* B98 'to leave, depart from', *salə-* BJ340. MgrH *sala-* (only) L475. Remaining lgs---.

***salaa** 'branch; space between fingers'. Possibly derived from **sal-*. See **gesiün* 'branch'.

MMo SH---, HY---, Muq---, RH *sala:sun* (emendation) 202A19. WM *salaɣa(n)* L663b. Kh *salaa(n)* H434a. Ord *sala:* M554b. Bur *halaa* C667b. Brg *sala:* (←Kh) U153. Kalm *sala* M436b. Dag *sala:* E213. EYu *sala:* B98, *sala* J102b. MgrH *sala* J102a. MgrM *sala* JL471. Bao---. Kgj---. Dgx *sala* B114, L118a. Mog---.

***salkïn** 'wind'. The MgrH form with its long *i:* may be influenced by CM **kei* 'wind'.

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MMo SH---, HY---, Muq---. WM *salki(n)* L665b. Kh *salxi(n)* H436a. Ord *salkin* M556b. Bur *halxi(n)* C669b. Brg *xalx*^y U92. Kalm *sal'kn* M438b. Dag---. EYu *salğən* J102b 'wind', *salqăn* B98 '(soft) wind', corrected by BJ340 as *salqən* 'apoplexy'. MgrH *salki:* X132 'gentle breeze'. Remaining lgs---.

*sam 'comb'. The Dag form *sannə* 'comb' appears to be remodeled after the verb (listed below).
MMo SH---, HY *sam* M93, Muq *sam* P317b. WM *sam* L666b. Kh *sam(an)* H436a. Bur *ham* C670a. Brg *xam* U93. Kalm *sam* M438b. Dag *sannə* E212, *sand* Z101a. EYu *sam* B98, J102b. MgrH *sam* J102a, *san* X130. MgrM *saŋ* JL463. BaoD *sam* BL90b. BaoÑ *sam* CN124. Kgj *san* ~ *saṛ* S293a. Dgx *saŋ* B113. Mog---.

*samla- 'to comb'. Dag *sannə-* < *samna-* < *samla-*, or < *sandə-* < *samda-*, or from *samud-*, for which cf. IV *samud-* L62:62.
MMo Muq *samla-* P317b, central Mongolic Brg *xamal-* U93, etc. Dag *sannə-* E212. EYu *samla-* J102b. MgrH *samla-* J102a, *salma-* X132, *samna-* X132. MgrM *saŋbula-* DS212b. BaoD *samlə-* BL90a. BaoGt *sȧmȧl-* C115. BaoÑ *samla-* CN125, *sabla-* CN123. Kgj *sama-* S293a. Dgx *sanla-* B113. Mog---.

*samur- 'to throw up in the air and scatter; to ladle; to stir'. In the first meaning reminiscent of CT *savru-* 'to winnow'.
MMo SH---, HY---, Muq---. Kh *samrax* (?=) H437a 'to ladle up and pour back', cf. also *zamrax* H232b 'to ladle or pour liquid back into a boiling P'. Ord *samur-* M577a 'to stir with a ladle (...)', *semur-* M572a 'to throw (grains) up in the air (...)'. Bur *hamarxa* C670b. Brg *xamar-* U94. Kalm *samrx* M439a 'to stir'. Dag---. EYu *samər-* BJ340. MgrH *samurə-* X132.

*sana- 'to think'. Cf. *bodo-*.
MMo SH---, HY *sana-* M93 'to calculate', Muq *sana-* P178a 'to consider as'. WM *sana-* L668b. Kh *sanax* H438b. Bur *hanaxa* C674a. Kalm *sanx* M441a. Dag *sana-* E212. EYu *sana-* S593. MgrH *sana-* J102a. MgrM *sana-* DS210a. BaoD---. BaoÑ---. Kgj *sana-* ~ *sïna-* S293a. Dgx *sana-* B113. Mog---.

*sančig 'hair on the temples'. It is not certain that all forms below are indeed related. Brg *samsag* (instead of expected *xanšag*) may have developed from an assimilated intermediate form with initial *č-*, but the *-m-* and the second *-s-* are also irregular. EYu seems to suggest *sanǰïg*, although weakening of *č* is possibly quite recent. Dag is perhaps related instead to *?*saŋnaï* or *saŋmaï* 'forelock', cf. Ord *saŋmä:* ~ *saŋnä:* M560b, Bur *hambay* C671a, dial *hamnay* C671b, Kalm *saŋna* M441b. As to the Ch translations, the characters *jì* 'hair worn in a bun or coil' and *bìn* 'hair on the temples' might have been confused.
MMo SH---, HY---, Muq *sančiq* [Poppe reads *sanǰiq*] P318a 'curls'. WM *sančiɣ* L671a, *sanǰiɣ* L673b (both forms spelled identically). Kh *sančig* H439b 'hair on the temples'. Ord---. Bur *hanšag* C676a 'hair on the temples'. Brg *samsag* U153, *sansag* U151 'hair in a bun'. Kalm *sanǰĭg* M312a '(...) short hairs over the forehead'.

Dag *sannuɣ^w* (?=) E212 'hair in a bun'. EYu *sanǰəɡ* B97 'hair on the temples', BJ340 (?=) 'corner'. Mgr---. Bao---. Dgx---. Mog---.

*sar 'bird of prey' [several species]. Rather poorly attested. Absent in Bur and Kalm, but perhaps Kalm *särc* M446a 'male of the saker falcon' is from **sarĭča* as Ramstedt suggests, although this suffix is otherwise unknown.

     MMo SH---, HY *sar* M93 'buzzard', Muq---. WM *sar* L674a. Kh *sar* H440a. Ord *sar* M561a. Bur---. Kalm---. Dag---. EYu *sar* B99. MgrH *sa:r* X129. BaoD---. Dgx---. Mog---.

*sara 'moon; month'.

     MMo SH *sara* H132, HY *sara* M93, Muq *sara* P318b. WM *sara, saran* L674a. Kh *sar* H439b. Bur *hara* C676a. Brg *xar* U100. Kalm *sar* M441b. Dag *sar* E214. EYu *sara* B99, J102b. MgrH *sara* J103b. MgrM *sara* JL469. BaoD *sarə* BL90a. BaoÑ *sara* CN126. Kgj *sara ~ cara* S293a. Dgx *sara* B114. Mog---.

*sarïmsag 'garlic'. The rounded vocalism in MgrH is peculiar. Baoanic seems to go back to a form **samsag*. Agricultural term related to CT **sarïmsak* 'id'.

     MMo SH---, HY *sarimsaq* M93, Muq *sarimsaq* P179a. WM *sarimsaɣ, sarimsang* L676a. Kh *sarimsag* H440b. Ord *sarimsaq ~ sarmisaq*. Bur---. Brg---. Kalm *särmsg* M445b. EYu *sarəmsaɡ* B99, J102b. MgrH *sərəmsaɡ* J103b, *surəmsɔɡ* X140, *surunsag* L537. MgrM *sanpəʒəɡ* DS225b. BaoD *samsəɡ* BL90b. BaoGt *samsəɡ* C115. BaoÑ *samsəɡ* CN125. Kgj *samasĭɡ ~ suamsĭɡ* S293a. Dgx *samusa* B114.

*sarïsun 'membrane, thin skin'. Apparently **sarïsun* was lost as an independent word in Mgr. It developed the narrowed meaning 'bat' in Dgx; possibly via a compound word 'membrane bird' or the like. The rounding in MgrH is peculiar. In spite of a semantic and phonetic resemblance to **saarï* these two words can hardly be related.

     MMo SH---, HY---, Muq *sarisu* P319a 'morocco leather'. WM *sarisu(n)* L676a. Kh *sar's(an)* H442a. Ord *saris(u)* M563a. Bur *har'ha(n)* C679 'thin softly tanned skin', cf. *har'han erbeexey* C679a 'bat'. Brg *xarʲʊ: ərβəxi:* U100 'bat' (lit. 'membrane butterfly', cf. **herbeekei*). Kalm *särsn* M446a. Dag---. EYu *sarəsən* B99. MgrH *sorosə buldu:* X136 'bat' (lit. 'membrane bird', cf. **bïldïur*). MgrM *ami sara* DS206a 'bat', *urmen sara* P415b 'bat' (if *sara* represents a garbling of the present entry, these compounds literally mean 'fate membrane' and 'cream membrane' respectively, see **amïn, *öreme*). Bao---. Kgj---. Dgx *sarisuŋ* B115 'bat'. Mog---.

*sarta- 'Muslim'. Many modern forms from **sartaul > *saltaur*. On colour names *-gčïn* usually denotes females, but this is not the case in *sartaqčin*. Foreign word related to Turkic **sart*. The *-n-* in MgrH, Bao and Dgx should normally go back to *-l-* rather than *-r-*.

     MMo SH *sartaqcin, sartaqtai* H132, *sarta'ul, sarda'ul* H132, HY *sartaqčin* M93, Muq *sarta'ul* P319a 'Sart (language)'. WM *sartaɣul* L677a. Kh *sartuul* (tribal name) Cevel 472a. Bur---. Brg. Kalm *sartul* M443a (tribal name).

EYu *saltu:r* B98 'Hui (Chinese muslim)'. MgrH *santa* SM324 'name of a Muslim ethnicity (...) speaking a Mongolic dialect'. MgrM *sartur* P419a 'Salar', *sərtur* DS238a 'Muslim'. Bao *santïr* P419a 'Salar'. BaoD [ʒalər BL55 'Salar']. Dgx *santa* B113 'Hui; Muslim'. Mog---.

*sau- 'to sit (down); to settle down, to live'.
        MMo SH *sa'u-* H133, HY *sa'u-* M93, Muq *sa'u-* P319b, *su:-* P328a. WM *saɣu-* L658b. Kh *suux* H458b. Bur *huuxa* C693b. Kalm *suux* M464a. Dag *sau-* E211. EYu *su:-* B102, J102b. MgrH *sau:-* J102a, *su:-* SM355. MgrM *sau-* JL466. BaoD *səu-* BL90b, *sou-* BL56. BaoÑ *su:-* CN136. Kgj *su-* 294a. Dgx *sau-* B113. Mog *sʌʊ-* W179a, *soʊ-* W179b, MogM *səu-*, MogMr *sau-* L54b:141.

*saulga 'bucket, pail'. Possibly related to *saa- 'to milk', cf. Turkic *sagu 'bucket' from *sag- 'to milk').
        MMo SH *sa'uluqa* [or *sa'ulqa*] H132 'leather pail', HY---, Muq *sa'ulɣa* P319b. WM *saɣulɣa* L659a, *suul(a)ɣa* L740b. Kh *suulga* H457a. Bur *huulga* C692a. Brg *xʊ:lag* U112. Kalm *suulɣ* M463b. Dag---. EYu only in *saβa su:lǧa* B97 'furniture, etc'. MgrH *sau:lǧa* J102a. MgrM *sorgo* P411b. BaoD *solǧo* BL90a. BaoÑ *səlǧa* CN135. Kgj *sulǧu* S294a. Dgx *soǧo* B116, *soŋgo* B116. Mog---.

*saǰagaï 'magpie'. Many modern languages do not support this exact reconstruction. Dagur reflects *saaǰïgaï, the central languages with *š-* suggest *sïaǰïgaï, unless the *š-* is due to assimilation to the *-ǰ-*. EYugur suggests *saǰakaï. The Shirongol forms could have developed from either *saǰagaï or *saǰakaï. In spite of the erratic correspondence probably related to CT *sagïzgan 'id', apparently with remodeling of the ending.
        MMo SH---, HY *saǰiqai* M92, Muq---. WM *šaɣaǰaɣai* L748a, *siɣaǰiɣai* L700a. Kh *šaazgay* H796a. Ord *ša:ǰaǧa:* M601a. Bur *šaazgay* C710b, *šaažgay* (Khori) C710b. Brg *ša:ǰgai* U159. Kalm *šaazɣa* M657a. Dag *sa:ǰiɣ* E209. EYu *saǰaqai* B98, *saǰaχǧai* J103b. MgrH *saźaǧai:* J103a. MgrM *sazaǧai* JL472. BaoD *śiaśiǧai* BL91a. BaoGt *sɛćiǧi* C120. BaoÑ * şźiǧəi* CN152 (not from LT *skye-ka*). Kgj *saǰiǧei* S293a. Dgx *saʒiǧi* B114, *saʒiǧəi* L119a. Mog---.

*sečen 'intelligent, bright'. The initial *č-* suggested by Kh *cecen*, as well as the Bur, Kalm, and Dag forms, is due to assimilation to the following *-č-*.
        MMo SH *secen* H133, HY *sečen* M94, Muq---. WM *sečen* L680a, *čečen* L168b. Kh *cecen* H773a, *secen* H472a. Bur *sese(n)* C404b. Brg *səsəŋ* U154, *səcəŋ* (←Kh) U155. Kalm *cecn* M634a. Dag *čečin* E297 'diligent'. EYu---. MgrH---. MgrM *šičen* P421a. Bao---. Dgx *şïʒan* B131. Mog---.

*seči- 'to poke, prod, prick, pierce'. Problematic. If all of these forms are indeed related, most of them show irregular developments. Kh and Kalm are from a form *čiči-. The Dgx form may be from Ch *chuō* 'id', as the verbalizer *-ʒi* is commonly used with Chinese stems. The *-u-* in Dag is unexpected, but a Chinese borrowing is unlikely.

MMo SH *seci-* H127, HY---, Muq---. WM *čiči-* L176a, *čeči-* L168b, *seči-* L680a. Kh *čičix* H791a. Ord *jiči-* M205a. Bur---. Brg *səs-* U154. Kalm *čičx* M654a. Dag *čuč-* (?=) E307, *čiči-* NK532a. EYu---. Mgr---. Bao---. Dgx *ʐuʑi-* (probably ←Ch) B164 'to poke, stab, prick'. Mog---.

*sedki- 'to think'. Many languages lost this verb, but see *sedkil* below.
        MMo SH *setki-* H134, HY *setki-* M94, Muq *setki-* P321a. WM *sedki-* L680b. Kh *setgex* H471a. Bur *sed'xexe* (←Kh) C402a. Kalm (see below). Dag---. EYu---. Mgr---. BaoD *səχtə-* BL86b. BaoÑ *səgte-* CN128. Kgj *sïχte-* S293b. Dgx--. Mog---.

*sedkil 'heart (fig), mind, thought'. Derived from *sedki-* above.
        MMo SH *setkil* H134, HY *setkil* M94, Muq *setkil* P321b. WM *sedkil* L680b. Kh *setgel* H470b. Bur *hešxel* C709a 'conscience', *sed'xel* (←Kh) C401b. Brg *sətgəl* (←Kh) U154. Kalm *sedkl* M447a. Dag---. EYu *setgəl* B100, *sedgəl* J90. MgrH *sgəl* J102a. MgrM *ś(i)gər* JL462. Bao---. Kgj---. Dgx--. Mog---.

*seer 'backbone, spinal column'. Perhaps related to CT *seŋir* in spite of the fact that this is usually 'mountain ridge' rather than an anatomical term.
        MMo SH---, HY---, Muq---, IV---, LV---. WM *seger* L682a. Kh *seer* H472a. Bur *heer* C709b 'end of rib bone, etc', *nyurga heer* 'vertebrae, spinal column' (cf. *nïruun*). Brg *xə:r* U101. Kalm *se:r* R328a. Dag *sə:r* E216. EYu *si:ra ~ sü:r* (?=, both only) S596. Shirongol---. Mog *se:r* R38a 'back; neck', cf. Zirni *sehir* (sic) 3:3b 'slender part under the short ribs'.

*sei- 'to pull out, to weed'. In this form and meaning in Baoanic. The meaning may originally have been 'to make sth. more widely spaced'. If so, Kh *siyx* H443b 'to become thin; to develop gaps' should be related although it is an intransitive verb. A verb *sei-* is also the base of forms such as Kh *siymxiy* H443b 'open-textured; with gaps or open spaces'. Ord *si:megi:* M579a 'loose, transparent (of fabrics)', Dag *səimərk^y e:* E216 'id'. CM *seire-* 'to thin out (intr.)', which survives mostly in the Central languages, may derive from this, but may alternatively be a borrowing from CT *sedre-*. The vague similarity of Dag *is-* E34 'to pull out' is a coincidence; it is probably from *isü-* 'id' (cf. T419). A borrowing from Manchu *isi-* is less likely as the <s> should have been pronounced *š*. Cf. *arčï-*, *ügtee-*.
        BaoD *səi-* BL10. BaoJ *si-* L158. BaoÑ *si:-* CN132, cf. also *ci-* CN191 'to thin out young plants'. Kgj *sei- ~ si-* S293b. Dgx *śi-* B120, L71.

*seil- 'to carve, engrave'.
        MMo SH---, HY---, Muq---. WM *seyil-*, *seyile-*, *seyilü-* L684a/b. Kh *siylex* H443b. Bur *hiilexe* C680b. Kalm *siilx* M452a. Dag *səilə-* S603. EYu *si:l-* BJ341, S603. Remaining lgs---.

*seinüg ~ *saïnug '(kind of) ovid or bovid'. Semantically this term is peculiar as the languages do not even agree on the species, so perhaps the age group or castratedness provides a semantic link. It is also strange phonetically, in that it has back- and front-vocalic variants. There are no old forms to help establish the original

shape and meaning. Structurally similar to *kaïnug 'yak'. Cf. *serke and *teke, other words for 'billy-goat', and the peculiar regional word EYu sɘis B99 'two-year-old billy-goat', MgrH śiäs SM395 'castrated billy-goat'.

MMo SH---, HY---, Muq---, RH---. WM seyinüg L684b 'two-year-old goat'. Kh siɣneg LC 3:103b 'two-year-old billy-goat'. Ord---. Bur (Bokh) haynag C665b ~ hiineg C680b 'ox, castrated bull', (Ekhirit dial.) haynag C665b 'two-year-old billy-goat', (some dialects) hiineg C680b 'castrated billy-goat'. Brg xi:nəg U105 'castrated goat'. Kalm si:nəg R38b 'two-year-old billy-goat'. MgrH se:naġ SM344 'wild yak'. MgrM kuneġ (?=) P414b 'billy-goat'.

*seleme 'sword'. Perhaps an early loanword from Tungusic in view of Tungusic *sɘlɘ 'iron' (P60:29, 125).

MMo SH---, HY---, Muq---, LV---, IV---, RH---. WM seleme L686b, selme L687a. Kh selem H467a. Bur helme C704b. Brg xɘləm U102, sɘləm (←Kh) U154. Kalm selm M449a. Dag sɘlmi: E218. EYu seleme Kot449. MgrH slim L521. Remaining lgs---.

*sem, (diminutive) *sem-ken 'silent', (instrumental) *sem-eer 'silently, secretly, stealthily'. Kalm cem M631b 'quietly', and Dag čɘmu:r E296 'silently, stealthily' can hardly be related.

MMo SH sem H133, semiyer H133, HY---, Muq sem P320a. WM sem, sem iyer, semeger L687a, semken L687b. Kh sem H467a, semxen H467b, semeer H467b. Bur hemeexen(eer) C706a, hemüüxen (western) C705b. Brg xɘmɘ:rxəɣ U102. Kalm sem semɛ:r R323b. Dag (see above). EYu seme:r B100. MgrH sɨmɘge:r X135, smuge:r X145. MgrM---. BaoD saɣkaɣ BL76. BaoÑ semkaɣ CN131. Kgj saɣkuda ~ caɣkuda (?=) S293a. Dgx śiemɘ S598. Mog---.

*semeǰin 'fat (around the intestines)'. Possibly related to CT *semiz 'fat (adjective)'.

MMo SH---, HY---, Muq semeǰi P320a. WM semeǰi(n), semeǰe L687b. Kh semǰ(in) H467b. Ord semeǰi M571b. Bur hemže C705b. Kalm semǰn M449b 'epiploon; fatty covering of the peritoneum, belly fat'. Dag---. EYu---. Mgr---. Bao---. Dgx---. MogM semaǰin, MogMr šemaǰin L68, No. 60 'fat'.

*seri- 'to wake up, be awake' (? and *sere- 'to notice, feel'). MMo distinguishes between these two verbs. Dagur and the QG forms all derive from *seri- phonetically and mean 'to wake up'. Moghol appears to stem from *sere-. Both Mongolic verbs have been compared to CT *sez- 'to notice, be aware of'.

MMo SH sere- H134 'to doubt, notice, suspect', seri- H134 'to notice, learn of, know', HY seri- M94 'to wake up' as well as sere- M94 'to notice', Muq seri- P320b 'to wake up', sere- P320a 'to feel, sense'. WM sere- L689a, seri- L690b (no semantic difference between both spellings). Kh serex H470a. Bur herixe C708a, herexe C708b. Brg xɘr- U104, sɘr- (←Kh) U155. Kalm serx M451b. Dag sɘrʸ- E220. EYu ser- B100, J103a. MgrH serɘ- J103b, sarɘ- X133. MgrM śeri- JL473. BaoD serɘ- BL90b. BaoÑ ser- CN132. Kgj sere- 294a. Dgx śieri- B123. Mog serä- R38a.

*seriün 'cool'. Note the vowel shortening in Mgr.

MMo SH seri'ut- H134 'to become cool', HY seri'ün M94, Muq---. WM serigün L691a, seregün L689b. Kh serüün H469b. Ord serʉːn M576a. Bur heryüün [written heryuun] C708b. Brg xəruːŋ U104. Kalm serün M451b. Dag sɑruːn E219. EYu sʉrʉin B103, surüːn J103a. MgrH sarən J103b. MgrM śerən JL461. Bao---. Dgx śieruŋ MC428b. Mog---.

*serke 'castrated billy-goat'. The -l- in Dagur is peculiar.

MMo SH serkes (pl) H134, HY---, Muq serke P330b 'billy-goat', RH serke 199B29. WM serke L691a. Kh serx H469b. Bur herxe C708a. Kalm serk M451a. Dag sələk (?=) NK513b. EYu serke B100. MgrM serkì P414b 'female goat'. Remaining lgs---.

*setel- 'to break, tear, crack open (intr)'.

MMo SH---, HY---, Muq---, LV---, RH---. WM setel- L691b. Kh setlex H471a. Bur hetelxe C708b. Kalm setlχə R327a. Dag sətləː- E219, sətlʉː- NK514a. EYu sedel- B100. MgrH sdieli- SM335. Remaining lgs---.

*setere- 'to break, tear, crack open (intr)'.

MMo SH---, HY---, Muq setere- P321a. WM setere- L692a. Kh setrex H471a. Bur heterxe C708b. Brg heterxe C708b. Kalm setrχə R327a. Dag sətər- E218. EYu sedere- B100. Remaining lgs---.

*seüder 'shadow'. In spite of the -t- and the vocalism the Baoan forms must be related. The forms with -k- are very peculiar if related. MgrH, Bao and Kgj could stem from a form with high vowel in the final syllable, but MgrM and Dgx reflect *seüder.

MMo SH se'uder H134, HY se'üder M94, Muq se'üder P322a, süːder P267a, RH seüder 198A24. WM següder L683a. Kh süüder H462b. Ord sʉːder M596a. Bur hüüder C699b. Brg xuːdər U120. Kalm süüdr M466a. Dag səudər E217. EYu suːder (only) S615 [the normal word is kölöki ←CT]. MgrH suːdər (only) L527. MgrM śiudiar C384. BaoD ʒetər BL90b, as well as ʒəikə (sic, ?=) BL9. BaoGt ʒitər C107. BaoJ ʒitár L39. BaoÑ siːtər CN133. BaoX ʒikər (sic, ?=) BC62. Kgj sʉtər ~ səʉtər S294a, sʉtʉr S21. Dgx śiauʒie B121, śiauʒiau (sic) MC423a. Mog---.

*seüʄi 'hip, hipbone'. Perhaps related to *seül 'tail', but both words are morphologically opaque.

MMo SH---, HY---, Muq süːʄi P219b. WM següʄi(n) L684a. Kh süüʄ H462b. Bur hüüʄe C699b. Brg xuːʄ U120. Kalm süüʄ M466b. Dag səuʄ E217. EYu sʉiʄə B103, süːʄə J103a. MgrH suːʒə X138, səuːćə J103b. MgrM śauʒi JL473. Bao---. Dgx---. Mog---.

*seül 'tail; end'. Bao-Kgj-Dgx, as well as the modern MgrM form, seem to derive from a form *sel (or *sel-čig). May be related to *seüʄi 'hip' and/or *seürel 'pubic hair' (the latter not listed here).

MMo SH *se'ul* H134, HY *se'ül* M94, Muq *se'ül-* P322a, *sü'ül* P330b, *sü:l* P131b. WM *segül* L683b. Kh *süül* H462b. Ord *sʉ:l* M597b. Bur *hüül* C699b. Brg *xu:l* U120. Kalm *sül* M465a. Dag *səulʸ* E217. EYu *sü:l* B103, J102b. MgrH *su:l* X137, *səu:l* J103b. MgrM *sölʸ* ('pronounced *sör'*) P421b, *śier* DS254b, *śar* Z338:352 'tail', *śuər* DS32 'end'. BaoD *śiənćiχ* BL90a. BaoGt *sanćï ~ śanćï* C133. BaoÑ *sel* CN130 'tail hair', *selćig* CN130 'tail'. Kgj *saŗ ~ cer* S293a. Dgx *śien* B122 '&tail hair'. Mog *söʉl* R38b.

seüresün 'sigh'. Note the peculiar distribution of this word.

MMo SH *seo'urel-* H134 'to breathe, sigh', HY---, Muq---. WM *següresü(n)* L683b, *seür(e)sü* L692b, *sigüresü(n)* L703b. Kh *süürs* H463b, *šüürs* H824b. Ord---. Bur---. Brg---. Kalm---. Dag *su:s* E83:200b. MgrH *su:re:sə* X138, *surie:ʒə* SM365, *su:re:sï* L536, *səru:səle-* X135 'to sigh'.

sïa 'ankle' see *sïgaï*

sïba- 'to plaster; to smear on'. Dagur *šaɣ-* combines the meanings of *sïba-* and *sïka-*, and since Dag *ɣ < w < *b* is not uncommon, the Dagur form most likely represents both CM verbs.

MMo SH---, HY----, Muq *suba-* (sic, ? ←Turkic) P326b, IV---, LV---. WM *siba-* L693a. Kh *šavax* H797b. Ord *šawa-* 610b. Bur *šabaxa* C712a. Kalm *šavx* M659b. Dag *šaɣ-* (?=) E229. EYu *šβa-* B110. Mgr---. BaoÑ *x́iwa-* CN158. Kgj *šiva-* S296a. Dgx *ʂuwa-* B134. Mog---.

sïbar 'mud, loam'. Poppe derives this word from *sïba-* above.

MMo SH *šibar* H139, HY *šibar* M96, Muq *šibar* P332a. WM *sibar* L694a. Kh *šavar* H797a. Ord *šawar* M611a. Bur *šabar* C712a. Brg *šaβar* U160. Kalm *šavr* M659b. Dag *šaur* E228. EYu *šβar* B110, *šəβar* J103a. MgrH *śavar* J103b, *śævar* X149. MgrM *ʂbar* C386, *šabar* T381. BaoD *băr* BL90b, *bar* BL13, *ʂbar* BL13. BaoGt *śibăr* C123. BaoÑ *x́iwar, x́əwar* CN158. BaoX *xbar* BL63. Kgj *šivaŗ ~ šivɛ* S296a. Dgx *ʂuwa* B134. Mog---.

sïbaun 'bird'. In Mog this word seems to survive in *koʋ-šibʌ(n)* W170b 'boy' (for the first element cf. *köbeün*). A similar looking compound is present in Kgj *kʉnšüŋ* S287b 'sons and daughters, offspring', but the second element is perhaps more likely to be an irregular reflex of *ökin* 'girl', as is the first element of BaoGt *śindï* 'younger sister'. Cf. *bïldïur*, which has become the generic name for small birds in Baoan and Dongxiang. The second element of Dgx *qarasuŋ* MC207b 'swallow' might be a contracted form of *sïbaun*, although it differs considerably from the form recorded by Potanin.

MMo SH *šibao'un* H139 'small bird', HY *šiba'un* M96, Muq *šiba'un* P332b. WM *sibaɣu(n)* L693b, *sibau* L694b. Kh *šuvuu(n)* H819b. Ord *šiwu:* M626a, (sporadically) *šuwu:* M636a. Bur *šubuu(n)* C731b. Brg *šʊβʊ:* U169. Kalm *šovun* M678a. Dag *šɔɣɔ:* E238, *šɔwɔ:* E240 'falcon'. EYu *šu:n* B109. MgrH *śau* X147, *śu:* X157. MgrM *ʂïbau* JL472. Bao---. Kgj (see above). Dgx *šiwaŋ* P418b, see above. Mog (see above).

*__sïbkara__- 'to be squeezed out, to flow out, to lose fluid, to be emptied'. Apparently originally an intransitive form of *sïbka- 'to remove the fluid from sth'. This word seems to survive in Dag šibk- E234 (although the expected development of *sïbka- would have been Dag *šark-).

MMo---. WM sibqar- L696b. Kh šavxrax H798a. Ord šiwχ^uara- M625b ~ šibχara- M612b. Bur šabxarxa C712b. Kalm šavxrx M660a 'to scoop out'. Dag (see above). EYu šəβqaru:l- (caus) BJ342. MgrH śúġora:- X158, ṣġura:- SM378.

*__sïčua__ 'whip'. Monguoric suggests a form *sïčau with metathesized vowel sequence. The Ordos word may be the same word, but in that case it probably represents a misinterpretation of a spelling with -γ-. Cf. also Manchu šusiha. Cf. *mïnaa.

MMo SH cicu'a H27, HY---, Muq---. WM---. Ord ǰičaġa (?=) M204b 'twisted thread or rope (...)'. MgrH śǯau X159. MgrM śǯau JL474, (Sanchuan) rču P418a. Remaining lgs---.

*__sïgaï__ ~ *__sïa__ 'anklebone; bone used in games'. The forms are rather diverse and may have different origins. Some languages feature a form with -g- and a form without -g-. The form *sïa may have developed from *sïgaa (through intermediate stages *sïγa > *sïya), but such developments normally belong to the PM period. Another possibility is that *sïa represents the regular development of this etymon, whereas the forms with -g- are due to WM influence. This solution is unlikely, since both śiġai and śa: are used in MgrH, which language doesn't seem to be influenced by WM. Kh šagaa seems to go back to a third variant *sïgaa which is not in the old sources (note that Kalm šaγa could be a regular development of *sïgaï). It is also possible that Kh šagaa represents a reading pronunciation of the WM spelling siγa. As to Dag sak, this could be one of a small set of Dagur words in which *s failed to palatalize before *ï/*i. However, sak could also represent yet another etymon, *saka(ï), which is found in the 'central' languages, cf. Kh sax H442a, Bur haxï C680a, haxa (dial.) C679b, haxay C679a, which all denote small bones used in games. It is unclear whether there is a relationship with *sïïra 'leg'.

MMo SH ši'a H138, HY ši'a M96 'ankle', Muq šiγai- P333a 'ankle', LV šiγai P61 'ankle'. WM siγai L699a, šaγa(n) L747b, siγa(n) L699a. Kh šagaa H798b, šagay H799a. Ord ša: M600a 'ankle'. Bur šagay C713a. Brg šagai U161. Kalm šaγa M661a 'ankle; knucklebone', ša M657a 'small bones (used in fortune-telling)'. Dag sak (?=) E212 'anklebone'. EYu šqai B110 'anklebone', šəgai J103b. MgrH śa: J103a, X147 'anklebone', śiġai X152, ṣġai X163 'leg'. MgrM ẓġai JL478 'shin, shank', ẓïġai C387 'leg', ẓaġe Z333:283 'heel'. Bao---. Kgj---. Dgx---. MogM šiγεi L62:66 'ankle'.

*__sïgaï__- (~ *__sïgaa__-) 'to peep at, spy on; to gaze at, to stare'. Dgx ś- is unexpected. MgrM ćigə- DS248a 'to see', and Kgj čigi- ~ čiki- S300b 'to look' may also be related in spite of the irregular initial. On the other hand, there is also a Kgj verb šiġara- S295b 'to look sideways at' (of which the last part is unclear).

MMo SH---, HY šiqaǰi üje- M97, Muq---. WM siqaγa- L721b, siγa- L699a, siγayi- L699a. Kh šagaax H799a, šagayx H799a. Ord šaχa:- M602a. Bur šagaaxa C713a. Brg šïga:- U167, sagai- U152. Kalm šaγax M661a. Dag šiγ^ye:-

E234. EYu *sġəi-* B104, J6. MgrH *sge-* X142. MgrM (see above). Bao---. Kgj (see above). Dgx *śiġəi-ʒï uʒə-* B125 (**üje-* 'to see'). Mog---.

***sïïra** 'leg'. The Dgx form with -*ġ*- is puzzling. In the central languages the appearance of such consonants can be explained as WM influence, but nothing is known about a WM writing tradition among the Dgx. The -*ġ*- could also be due to the influence of **sïgaï* but this word is now absent from Dgx.

MMo SH *šiyira* H143 'hoof', HY---, Muq *ši:ra* (ed. reads *šira*) P335b 'legs', LV *si:ra* (ed. reads *seïre*) P60 'shin'. WM *sigira* L702b, *sigere* L702a. Kh *šiyr* H811a 'shank, leg (of animals), hoof &c'. Ord *ši:ra* M621b. Bur *šiire* C726b. Brg *ši:r* U163. Kalm *šiir* M671b 'shank; leg (of furniture)'. Dag---. EYu *šira* B108 'leg', *ši:ra* S713 'shank'. MgrH *śira:* SM397 (q.v.). Bao---. Dgx *ṣiġara* B130 'leg'. Mog---.

***sïka-** 'to squeeze, press, pinch'. Related to CT **sïk-* 'id'.

MMo SH *šiqa-* H140, HY *šiqa-* M97, Muq *šiqa-* P335b, *šiγa-* P333a. WM *siqa-* L721a, *siγa-* L699a. Kh *šaχax* H807b. Ord *šaχa-* M602a. Bur *šaχaχa* C724b. Kalm *šaxx* M668b. Dag *šaγ-* E229. EYu *šəqa-* B105, *šəγqa-* BJ302, *šǧa-* J9. MgrH *śixa:-* X152, *śiġa:-* X152, *ǧga:-* X163. BaoD---. BaoÑ *x́iχa-* CN156. Kgj---. Dgx *ṣiġa-* B130. Mog---.

***sïluun** 'straight (literally); upright, honest'.

MMo SH *šili'un* H140 'noble', HY---, Muq---. WM *siluγun* L708a. Kh *šuluun* H820b. Bur *šuluu(n)* C733b also 'quick'. Kalm *šulun* M683a 'quick'. Dag *šɔlun* E239. EYu---. Mgr---. Bao---. Dgx *ṣuluŋ* B134 'straight; honest'. Mog---.

***sïlǰa** 'sheep tick'. Sun's Mongghul form is not confirmed by other vocabularies. The unexpected *s-* in Dgx agrees with the form in Muq.

MMo SH---, HY---, Muq *salǰa* [Poppe reads *selče*] P389b, RH *šalǰa* (thus emended, ?*salǰa*) 200A8. WM *silǰa* L708b, *šalǰa* L751a. Kh *šalz(an)* H802a. Ord *šilǰa* M616a. Bur *šalza* C716b. Kalm *šalz* M663a. Dag---. EYu---. MgrH *śa:lǯa* S704. BaoD---. BaoÑ---. Dgx *saŋʒa* MC346a. Mog---.

***sïmalï-** (?**sïmal-*) 'to tuck up, roll up'. SH seems to suggest a CM form **sïmalï-*, although the Chinese notation may also be read without vowel. The vowel lengthening in EYu and MgrH, for which a following syllable is typically required, points at a trisyllabic form as well, but this need not be original. The WM form in -*a* may be historically incorrect. If the intransive counterpart **sïma-ra-* in Kh is not a recent invention, one would expect the transitive verb to be **sïma-l-*. Ordos *šima-* may represent the original root.

MMo SH *šimaliqa-* (caus) H140, HY---, Muq---. WM *simala-*, *simali-* L709a. Kh *šamlax* H803a. Ord *šima-* M617b 'tuck up', *šimal-* 'to graze the skin'. Bur *šamaxa* C718a. Kalm *šamlx* M664a. Dag *šamal-* E230. EYu *šəma:l-* (only) S725. MgrH *śima:lə-* X153. Remaining lgs---.

***sïmtara-** 'to become blunt, calm, weak'. This meaning occurs in the central languages and in Dagur. In Shirongol it has the meaning 'to melt, thaw, dissolve',

and in shapes suggesting an earlier form *simtere- (BaoÑ excepted). Here we will assume that all these forms are indeed related, and that the back-vocalic variant is the older one. In the central languages there are further related forms, all semantically related. An early related form may be Muq *šimta-* (?) [Poppe reads *šimet-*] P333b 'to melt'. Poppe's reading agrees with LV *simed-* 73a-03 'to liquefy', but the Muq form allows for the reading *šimta(ba)*.

MMo--- (see above). WM *sintara-* L713a, precl. *šintara-*, *šiŋtara-* T564. Kh *šantrax* H804b. Ord *šintara-* M619b 'to become blunt, calm, weak, etc'. Bur---. Kalm *šamtr-*, *šantr-* R348a 'to become blunt, etc'. Dag *šantar-* (only) NK517b. EYu---. MgrH *śindəre:-* X152. MgrM *ʂïntər-* C386, *ʂəntər-* JL472. BaoJ *śindər-* L23. BaoÑ *x́umdara-* CN159, *x́imdara-* CN157. Kgj *šintəri-* S295a. Dgx *šimičire-* P424. Mog---.

sïmuul 'mosquito'. The WM form with *-aɣu-* is not supported by the modern languages, except perhaps Ramstedt's Kalmuck form with *-o-*. Note the different ending in Kalmuck. Reminiscent of CM *simi-* 'to suck', to which it can hardly be related because of the different vowel class.

According to Bökh, Dgx *sunbəŋ* B117, *ʂunbəŋ* B133 'fly' is related to this word. The following forms could be related as well: MMo LV *sinsa:wul* (thus Saitô) P58, RH *šišau:l* 200B12, MgrH *śimsu:l* X153, *śamsu:l* L634. MgrM *šumušer* T382 (the modern forms all meaning 'fly'). Cf. also MgrH *ćimsu* C88:586, MgrM *ćimsar* JL460, and BaoD *bəsmal* BL83b 'fly', which are similar to but hard to connect to *sïmuul*, unless perhaps by assuming compounds with an unknown first element.

MMo SH---, HY *šimu'ul* M97 'fly', Muq *šimu:l* P333b, RH *šimu:l* 200B11. WM *simuɣul* L710b, *simaɣul* L709a. Kh *šumuul* H821a '&gnat'. Ord *šimu:l(i)* M618b, *šumu:l(i)* M634b. Bur *šumuul* C733b 'insect'. Kalm *šumu:sn* R368a, *šomu:l* R364a. Dag *šɔmɔ:l* E239. EYu---. MgrH *śæmu:l* X149, *śimul* X153, *śimur* L643 all meaning 'mosquito'. MgrM *ʂïmər* DS224a, (Sanchuan) *šumul* P416b 'fly'. Bao (see above). Kgj *šimi/šimu ǧurǧei* (*korakaï) S295b. Dgx (see above). Mog---.

sïnaa 'wedge; temple of the head; promontory'. It will be assumed here that the three main meanings belong to the same etymon. The modern WM spelling *sina* with single *a* may well be historically incorrect. Although reminiscent of Kh *šaantag* H769a. Ord *ša:nčaq*, *ša:nčik* M606b 'wedge'. Bur *šaantag* C711a 'wedge'. Kalm *šaancg* M657b, this word, written WM *šančaɣ*, *šantuɣ* L751b, *siɣantuɣ*, *siɣantuɣ* L699a/b 'wedge', may be from the verb *sïa-* (WM *siɣa-*) 'to drive in' (?= CT *sïg-*).

MMo SH *šina'a* H141 'island, land surrounded by water', HY, Muq---, Ph---. WM *sinaɣa* L710b 'spur of a mountain', WM *sina*, *sinaɣa* L710b 'temple of the head'. Kh *šanaa* H803b 'cheeks; (..) spur of a mountain'. Ord *šina:* M618b 'spur of a mountain'. Bur *šanaa* C718a 'temple'. Kalm *šana* M664b 'temple; border'. Dag *šina:* E233 'wooden wedge'. EYu---. MgrH *śina:* X151 'wedge'. Remaining lgs---.

sïnaga 'spoon, ladle, scoop'. Baoan reduced the first syllable, and MgrM the second. Endemic and without obvious segmentation.

MMo SH *šinaqa* H141, HY---, Muq *šinaɣa* P333b. WM *sinaɣa* L710b. Kh *šanaga(n)* H803b. Ord *šinaġa* M618b. Bur *šanaga* C718b. Brg *šʸanag* U172. Kalm *šanɣ* M664b. Dag---. EYu *šənaġa* B105, J103a. MgrH *šinaġa* J103b, *ṣnaġa* X162. MgrM *ṣəŋġa* JL462. BaoD *naġa* BL90b. BaoGt *niaġa* C110. BaoJ *niɛǧə́* L131. BaoÑ *naġa* CN25. BaoX *ñiġə* BC62. Kgj *šiniğa* S295a. Dgx *ṣinaġa* B130, L118a. Mog---.

*__sïndasun__ 'tendon'. Only in the central languages + EYu.
        MMo SH---, HY---, Muq---. WM *sindasu(n)* L710b. Kh *šandas(an)* H804a. Ord *šindasu* M618b. Bur *šandaaha(n)* C720a. Kalm *šandsn* M664b 'Achilles' tendon'. Dag---. EYu *šəndasən* B105, *šəldasən* (sic) S723. Remaining lgs---.

*__sïra__ 'yellow'.
        MMo SH *šira* H141, HY *šira* M97, Muq *šira* P335b. WM *sira* L714b. Kh *šar* H805a. Ord *šara* M608a. Bur *šara* C720b. Brg *šʸar* U172. Kalm *šar* M665b. Dag *šar* E230. EYu *šra* B111, *šəra* J103b. MgrH *šira* J103a. MgrM *ṣïra ~ ṣa* JL472, *ṣa:* C387. BaoD *śira* BL90a. BaoÑ *x̌ira* CN157. Kgj *šira* S295b. Dgx *ṣïra* B132, L118b. Mog *šɩra* R39b, *šɩrɔ* W180b, MogMr, MogM *širɒ:* L73:173.

*__sïra__- 'to roast'.
        MMo SH *šira-* H141, HY *šira-* M97, Muq *šira-* P335b. WM *sira-* L714b. Kh *šarax* H805b. Ord *šara-* M608a. Bur *šaraxa* C721b. Brg *šar-* U162. Kalm *šarx* M667a. Dag *šar-* E230. EYu *šəra-* B106, J103b. MgrH *šira:-* J103a, X154. MgrM *ṣïra-* JL471. BaoD---. BaoGt *ṣa-* C121. BaoÑ *x̌ira-* CN157. Kgj *šira-* S295b. Dgx *ṣïra-* B132, *ṣïra-* L118a. MogM *širɒ:-* L63:173 'id'.

*__sïrau__/*__sïrua__/*__sïroï__ 'earth, ground, soil, dust'. The first two forms display metathesis of diphthong elements; the *sïroï* variant is probably from *sïruaï*, as Poppe (1955:43,80) suggests. The forms *sïrua* and *sïroï* are found in the North. The Shirongol languages all seem to stem from *sïrau*. The Dgx form represents yet another metathesis of that.
        MMo SH *širo'ai* H142, HY *šira'u* M97, Muq *šira'u* P336a, *širu:* P336a, *široi* P336a, RH *široa* 201C17 'dust' [or 'earth'], *šira* 202A4 'clay'. WM *siroi* L719a, *siroɣa*, *siroɣai* L718b. Kh *šoroy* H818a, *šoroo* H818a. Ord *šoroo* M629a. Bur *šoroy* C730b. Brg *šɔrɔ:* U168. Kalm *šora* M680a. Dag *širɔ:* E237 'grit (in cereals)'. EYu *šəru:* J103b, BJ343, *šɔru:* B108, *šoru:* B108. MgrH *širəu:* J103a, *širu:* X155, *śüru:* X158. MgrM *ṣao* DS219a, *ṣïran* (?=) DS227a. BaoD *śirou* BL90b. BaoÑ *x̌iru* CN158. Dgx *ṣəura* B129.

*__sïrga__ 'certain horse colour, isabella, etc'. One would suspect a relationship with *sïra* 'yellow'.
        MMo SH *širqa* H142, HY---, Muq *širɣa* P336a. WM *sirɣa* L716b. Kh *šarga* H805b. Ord *šarġa* M609b. Bur *šarga* C722a. Kalm *šarɣ* M666a. Dag *šarəɣ* E231 (and *širɣa:* E237 ←Manchu). EYu *šərğa* B106. Remaining lgs---.

***sïrgolǰïn**   'ant'. Note the vowel length in Kh and Bur. In Dag the *-ui-* is unexpected, and so is the *s-* rather than *š-*.

　　　　MMo SH---, HY *širqalǰin* (or rather *široqalǰin*) M98, Muq---. WM *sirɣolǰi(n)* L717a, precl. *sir(o)ɣolǰin* T565. Kh *šorgoolǰ(in)* H818a. Ord *šurġulǰi ~ šurġu:lǰi ~ šorġolǰi* M635b. Bur *šorgoolzon ~ šorgoolžon* C730a. Brg *šɔrgɔ:lǰ* U168. Kalm *šorɣlǰn* M142a. Dag *suiɣalǰin, suiɣalǰ* E224. EYu *šɔrğɔlǰən* B108. MgrH *śirġʋlǰin* X155, *śorġʋlʒ́in* X156. Remaining lgs---.

***sïrgu-**   'to penetrate; to get through; to insert'.

　　　　MMo SH *širqu-* H142, HY---, Muq---. WM *sirɣu-* L717a, *šurɣu-* L758a. Kh *šurgax* H821b. Bur *šurgaxa* C734a. Kalm *šurɣx* M684a. Dag---. EYu *šurğu-* B109. Mgr---. Bao---. Dgx---. Mog *šurɣu-* R39b.

***sïrï-**   'to stitch (usually the sole of a shoe)'. That this word belongs to the back vowel class is based on the Turkic cognate *sïrï-* 'id'.

　　　　MMo SH---, HY---, Muq---, LV---, RH---. WM *siri-* L717b. Kh *širex* H815b. Ord *šire- ~ širi-* M622a. Bur *šerexe* C750b. Kalm *širx* M677a. Dag *šir-* E236. EYu *šər-* B106, J103b, J35. MgrH *śirə-* J103a. BaoD *śirə-* BL90a. BaoÑ---. Kgj *širi-* S296a. Dgx *s̪ïri-* L118a. Mog---.

***sïrka**   'wound'. EYu suggests *sïrga*.

　　　　MMo SH *širqa-* H142 'to injure', HY---, Muq---, LV---, RH---. WM *sirqa(n)* L719a. Kh *šarx* H806a. Ord *šarχa* M610a. Bur *šarxa* C723a. Kalm *šarx* M667a. Dag---. EYu *šərğa* B106, *šərğa* J103b. Remaining lgs---.

***sïro**   'pointed stick; spit'. In Muq this word shows the same unrounding as *čïno* 'wolf'. However, Ordos and EYugur behave differently here. In spite of the modern forms that suggest *šoro*, the original form must have been *sïro*, because modern *š-* owes its palatality to *ï/*i*.

　　　　MMo SH *širo* H142, HY---, Muq *šira* P335b 'spit'. WM *šoro* L756b, *siro* L718b. Kh *šor* H818a. Ord *šoro* M629a. Bur *šoro* C730b. Brg *šɔr* U168. Kalm *šor* M680a. Dag *šɔr* E239. EYu *šoro* J19. Remaining lgs---.

***sïta-**   'to catch fire, to burn (intr.)', ***sïtaa-**   'to light (a fire), to burn, set fire to'. The surprising variants Dag *xita:-* and Ord *išta:-*, with equivalents in other central dialects, such as Khorčin *xɛt-* (Chagankhad 1995:28; also see Sun 1990:710;), can not be incorporated into the reconstruction. CM *sïta-* and its caus. *sïtaa-* probably merged phonetically in EYu and Mgr, but today only the transitive seems to survive there. In Baoanic the original forms were replaced by new forms *sïtara-* 'to catch fire, burn (intr)', and caus. *sïtaraga-* 'to set fire to, to burn (tr)': BaoD *darə-* BL90a. BaoÑ *hdara-* CN86:382, *s̪dara-* CN150, *s̪darġa-* CN150. BaoX *darə-* BC62. Kgj *dəra-* S318, *dağa-* S298b. Dgx *sdara-* B120, *sdarağa-* B120. Bökh's suggestion that the Dgx forms are related to Kh *sadrax* H432b 'to spurt, etc' is less likely.

　　　　MMo SH---, HY---, Muq *šita-* P336b. WM *sita-* L719b, *sitaɣa-* L720a. Kh *šatax* H807a, *šataax* H806b, cf. Chakhar *yatăn, yata:n* D186a. Ord *šita:-* M624a, *išta:-* M389a. Bur *šataxa* C724a. Brg *šat-, šata:-* U161. Kalm *šatx* M668a. Dag

šita:- E235, *xita:-* E114. EYu *šəta:-* B106, *šda:-* J103a. MgrH *ẓda:-* J103a, X164 also 'to prepare a meal'. MgrM *śida-* DS209b, *šda-* T384. Bao (see above). Kgj (see above). Dgx (see above). MogM *šitɒ:-* L63:173 'to cook'.

*sïurgan 'storm'.

MMo SH---, HY---, Muq---. WM *siɣurɣa(n)* L701a, *šuurɣa(n)* L758b. Kh *šuurga* H822b. Ord *šu:rǵan* M635a. Bur *šuurga(n)* C735a. Brg *šʸʋ:rag* U173. Kalm *šuurɣn* M684b 'blizzard'. Dag *šɔ:rɔɣ* NK521a. EYu *šu:rǧan* B109 'blizzard'. Remaining lgs---.

*siber (?***siberi**) 'sweat on the palms or feet'. In view of Ord and Bur, the *-i* in WM seems to historically incorrect. However, in EYu the loss of a high vowel after *r* is not unusual.

MMo SH---, HY---, Muq---, IV---, LV---. WM *siberi* L695a. Kh *šiver* H808b. Ord *šiwer* M625a. Bur *šeber* C741a. Brg *šiβər* U164. Kalm *šivr* M669b. Dag *šəur* E231. EYu *šəβer* B105. Mog---.

*sibüge (?***sibege**) 'awl'. As in case of **čimegen*, the original form is hard to determine due to contradictory evidence. The *s-* in BaoX and Dgx is unexpected, and the *-m-* in Dgx is irregular. The central languages suggest a form **siböge* with **ö* as the second vowel. This **ö* in its turn may have been rounded from earlier **e* by the preceding **b*, or lowered from **ü* due to the following **e*. If this word is related to **sibe-* 'to perforate', **sibege* is the most likely original form.

MMo SH *šibüge* H139, HY---, Muq *šibüge* P332b, RH *sibege* 204C2. WM *sibügen* (*?siböge(n)*) L696b. Kh *šövög* H818b. Ord *šöwögö* M630b. Bur *šübge* C736b. Brg *šʉbəg* S723. Kalm *šövg* M681a. Dag *šəuɣʷ* E231. EYu *šəβɣe* B105, *šəβəɣe* J103a, *šʉɣe* BJ343, *šuɣe* J86. MgrH *śiu:ge* J103b, *śu:gʒ* X157, *ʂubuge* SM383, *ʂu:ge* SM384. MgrM *ʂubigi* JL472. BaoD *śibǵu* BL90a. BaoGt *sikə* C108. BaoÑ *x́uke* CN159. BaoX *su:kə* BC62. Kgj *səuki ~ sikəu* S293b. Dgx *sumuǧə* B118. MogM *siβika* L68, No. 112.

*side- 'to sew, stitch, baste'. In Dgx *ś-* appears instead of expected *ʂ-*. Dag *šiǰ-* E236 is a borrowing from Manchu *siji-* (which could ultimately be the same word as CM **side-*).

MMo SH---, HY---, Muq---. WM *side-* L697b. Kh *šidex* H810a. Ord *šide-* M613a. Bur *šedexe* C743a. Kalm *šidx* M671a. Dag---. EYu---. MgrH *ʂde:-* X166 'to patch'. MgrM *šide-* T382, *ʂïdi-* DS248b. Bao---. BaoÑ *ʂde-* CN150. Kgj *šte- ~ šde-* S296a. Dgx *śiʒie-* B126. Mog---.

*sidün 'tooth'. Perhaps a collective form from a PM root **si-* (See **nidün* 'eye' for a similar formation).

MMo SH *šidu* H139, *sudu* H136, HY *šidün* M97, Muq *šidün* P332b, *sidün* P105b. WM *sidü(n)* L698b. Kh *šüd(en)* H823a. Ord *šʉdʉ* M636a. Bur *šüde(n)* C737a. Brg *šud* U171. Kalm *šüdn* M685b. Dag *šid* E235. EYu *šdən* B110, J103b, *šədən* S728. MgrH *ẓdə* J103a, *śdi* L642. MgrM *ʂudu* JL472, *ʂdu* JL478. BaoD *ʂduŋ ~ duŋ* BL90b. BaoÑ *ʂdəŋ* CN151. Kgj *šiduŋ ~ šduŋ* S295b. Dgx *ʂïduŋ* B131. Mog *sʉdʉn* R39a.

*sie- 'to urinate'. The Dag form suggests *see-. See *siesün 'urine'.

MMo SH ši'e- H139, HY---, Muq še:- P331b, šiye- P337a. WM sige-
L701b. Kh šeex H825b. Ord še:- M611b. Bur šeexe C752b. Brg šə:- U162. Kalm
šeex M669a. Dag sə:- E216. EYu ši:- B107, J103a. MgrH še:- J103b. MgrM şe- J88.
BaoD śiə- BL90b. BaoÑ x́e- CN155. Kgj še- S295a. Dgx şə- B128. Mog--- (see
above).

*siesün 'urine'. Mog points at *seisün with metathesis of diphthong elements.

MMo SH---, HY---, Muq še:sün P331b. WM sigesü(n) L702a. Kh šees(en)
H825b. Ord še:s(ʉ) M612a. Bur šeehe(n) C752b. Brg šixə: U165. Kalm šeesn
M669a. Dag sə:s E216. EYu ši:sən B107, J103a, še:sən (Qinglong) BJ351. MgrH
śe:sə J103b. MgrM şesï JL472, şərsï DS258b, şarsï Z336:330. BaoD śiəsuŋ BL90a.
BaoÑ x́esoŋ CN155. Kgj šesʉn S295a. Dgx şəsuŋ B129. Mog seisʉn R38a.

*silbi 'shank, shin'. Note that Muq šili P333b is also translated 'shank' (cf. CM
*sili below).

MMo SH---, HY šilbi M97, Muq šilbi- P202a. WM silbi L705b. Kh
šilbe(n) H811b. Ord šilbi ~ šilbe M615b. Bur šelbe C744a. Brg siləβ U166. Kalm
šilv M672a. Dag širəm (?=) E237, šiləm T183. EYu šəlβə BJ343. Remaining lgs---.

*sileü(l)sün 'lynx'. The -l- of the MMo is unexpectedly not confirmed by Bur. The
breaking of *i > u in Dagur is unexpected. The similar-looking Dgx şəlie B129 is
from Ch shēli.

MMo SH---, HY šile'ülsün M97, Muq---. WM silügüsü(n) L708b,
silegüsü(n) L706a. Kh šülüüs H823a, šilüüs(en) H812a. Ord šölʉ:s M630a. Bur
šelüühe(n) C744b. Brg šulu: U171. Kalm šilüsn M673a. Dag šulu:s E240. EYu
šəle:sən B106. Dgx (see above).

*silgüd- 'to shake, tremble'. The -r- instead of -l- is unexpected in MgrH (except in
Narin Guol dialect) and Dag.

MMo SH šilgutke- (caus) H140, HY---, Muq šilgüt- P333b. WM silgüd-,
silged- L706b. Kh šilgedex LC 4:353b. Ord---. Bur---. Kalm---. Dag šurkud- (?=)
E241. EYu---. MgrH śirgudi- SM399, śirgudə- X155. MgrM şukutu- DS249a,
şugudu- DS257a. Remaining lgs---.

*sili 'nape of the neck'. Muq šili P333b is translated 'shank' (see *silbi).

MMo SH---, HY---, Muq (see above). WM sili L706b. Kh šil(en) H811b.
Ord šile ~ šili M616a. Bur šele C744b. Brg šil U166. Kalm šil M672a 'neck tendon;
neck'. Dag---. EYu šlə B110. Mgr---. Bao---. Dgx---. Mog---.

*silön (?) 'meat broth; soup'. The original form is hard to determine, especially the
first vowel. Even if *i is the original vowel of the first syllable, breaking is already
present in the Sino-Mongolian sources SH and HY. On the other hand the -i- form
survives in Dag. The forms with -i- in the QG languages are probably secondary.
Possibly related to *silükei and *silüsün listed below.

SH šulen H143, HY šülen M98, Muq šilen P333a, RH sülen 205B44. WM
silö(n) L708a, šülen L759b, šölö L757a. Kh šöl(ön) H818b. Ord šölö M630a. Bur

šüle(n) C738a. Brg *šul* U170. Kalm *šöln* M681a. Dag *šil* E234. EYu *šelen* B107, *šölön* B109, *šəlen* J103b. MgrH *śilo:* J103a, *şulo:* SM385. MgrM *şuli* C380. BaoD *śile* BL91b. BaoJ *şlɛ* L170. BaoÑ *x́ile* CN157. Kgj *šile* S295b. Dgx *şulie* B134. Mog---.

silükei 'saliva; slobbering'. Ord and MgrH seem to suggest **silökei*. Related to **silüsün*, and possibly to **silön*. Cf. also MMo SH *šilemelce-* H140 'to salivate'.

MMo SH *šiluget* (?) H140 'who can't keep their saliva in', HY---, Muq---, RH *silütkü* (sic) 199A27. WM *silükei* L708b 'slobbery, etc'. Kh *šülxiy* H823b 'slobbery &c'. Ord *šölöki:* M630a. Bur *šülxï* C737b 'foot-and-mouth disease'. Brg *šulxi:* U171 'foot-and-mouth disease'. Kalm *šülkä* M686a 'foot-and-mouth disease; slobbery'. Dag---. EYu---. MgrH *śolgo* X156, *śorgo* J103a 'saliva'. MgrM *şurkə* DS247a, *şurkɛ* Z337:335 'saliva'. Bao---. Dgx *şəŋki* B129 'saliva'. Mog---.

silüsün 'saliva'. See s.v. **sirbösün* for further possible cognates in MgrH and BaoÑ. Probably related to **silükei*, and possibly to **silön*. Mostaert and de Smedt instead compare MgrH *şuluʒə* to CM **silbüsün* 'pine needle' (not listed here).

MMo SH *šilusun* H140, HY---, Muq---. WM *silüsü(n)* L708b. Kh *šüls(en)* H823a, cf. also *aalzan šüls* H2b 'spider web'. Ord *šölös(ʉ)* M630a. Bur *šülhe(n)* C738a, cf. also *abaaxayn šülhe(n)* C738a 'spider's web'. Brg *šulu:* U171. Kalm *šülsn* M686a. Dag *šullʷ* E240 also 'spider's silk', cf. *ata:ki: šuls* E13 'spider's silk' (*ata:ki:* from Tungusic). EYu---. MgrH *şuluʒə* SM385 'thread, fibre (in meat, fruit, wood)'. Bao (see remark above). Dgx---. Mog---.

sime(n) 'juice'. The *-n* in MgrH is unexpected. Perhaps related to CM **simi-* 'to suck'.

MMo SH---, HY---, Muq---. WM *sime* L709b. Kh *šim* H812b. Ord *šime* M618a. Bur *šeme* C745a. Brg *šim* U166. Kalm *šimn* M673a. Dag *šim* E235 'nutritiousness; juice'. EYu *šəme* BJ343 'taste, flavour'. MgrH *śime:n* X153. Remaining lgs---.

simi- 'to suck'. The form **simi-* with *-i* is supported by MMo, Mog and the QG languages, and not contradicted elsewhere. The spelling WM *sime-* may be historically incorrect, although Ordos seems to support this variant. Perhaps related to **sime* 'juice' listed above. In spite of the different harmonic class somehow related to **sïmuul*? Cf. also Dag *šəmɔ:r* E239 'mouthpiece for pipe/cigarette holder', suggesting **sïmïul*.

MMo SH *šimi-* H141, HY---, Muq *šimi-* [P: *šime-*] P333b. WM *sime-* L709b, *simi-* L710a. Kh *šimex* H813a. Ord *šime-* M618a. Bur *šemexe* C745b. Brg *šim-* U166. Kalm *šimx* M673b. Dag *šim-* E235. EYu *šəmə-* B106. MgrH *śimu-* X153, *šimə-* X153. MgrM *şumi-* JL464. BaoÑ *x́imə-* CN157. Kgj *šimi-* S295b. Dgx *şïməi-* MC358b 'to sip, take in the mouth and taste'. Mog *simi-* R38a.

simtere- 'to melt' see *sïmtara-*

sini (?~ *sine*) 'new'. The QG languages all stem from **sini*. The form **sine* suggested by Muq and WM may be confirmed by Ordos and Khamnigan (J21). The

remaining modern languages are inconclusive (the -e in Bur and Kh spelling could stem from either variant). The rounding in Brg is unexplained.

MMo SH *šini* H141, HY *šini* M97, Muq *šine* P334a, *šini* P334b, Ph *šine* P130b. WM *sine* L711a, *sini* L713a. Kh *šine* H814a. Ord *šine* M619a. Bur *šene* C747b. Brg *šʸun* U173. Kalm *šin* M673b. Dag *šiŋ-kən* E233, *šəŋ-kən* E231. EYu *šənə* B105, J103a. MgrH *śinə* J103b. MgrM *ʂïni* JL470. BaoD *śinə* BL90a. BaoJ *ʂnə* L170. BaoÑ *x́inə* CN156. BaoX *x́ənə* CN86:274. Kgj *šini* S295a. Dgx *ʂïni* B130. Mog---.

****siŋge**- 'to be digested', and '(of the sun) to set'. Cf. CT **siŋ-*.

SH *šingge-* H141 'to set (sun)', HY---, Muq *šinge-* P334a 'to be digested; to set (heavenly bodies)', *singe-* P194b 'to be digested', Ph *šiŋge'e-* (caus.) P130b 'to absorb'. WM *singge-* L711b. Kh *šingex* H813b. Ord *šiŋge-* M620b. Bur *šengexe* C746b 'absorb; be digested; sink'. Brg *šiŋ-* U164 'to be digested; to set'. Kalm *šiŋgx* M675a 'to be digested, etc'. Dag *šiŋgə:-* (caus.) E234 'to digest, etc'. EYu *šeŋge-* J103a 'to digest'. MgrH *śiŋge:-* J103b 'to digest'. MgrM *ʂaŋgə-* DS217a. BaoD *śiŋgə-* BL90a 'to digest'. Kgj---. Dgx---. Mog *siŋgä-* R38a 'to set (sun)'

****siŋgen** 'thin, watery'. Probably from **siŋge-*. Muq *šinqan* in *šinqan saqaltu* P335b 'having a thin beard' may also belong here in spite of the vocalism.

MMo SH---, HY---, Muq *singen* P323a. WM *singgen* L712a. Kh *šingen* H813a. Ord *šiŋgen* M621a. Bur *šengen* C746b. Brg *šiŋgəŋ* U164. Kalm *šiŋgn* M675a. Dag *šiŋgə:n* E234. EYu *šeŋgen* B106, J103a. MgrH *śiŋgen* J103b, *śæŋgan* X149. MgrM *ʂeŋgen* JL472. BaoD *śiŋgaŋ* BL90b. BaoÑ *x́iŋgaŋ* CN156. Kgj *šiŋgɔ* S295a. Dgx *śiŋgən* L118a, *ʂəŋgien* B129 'watery'. Mog *siŋgo:n* R38a.

****sirbüsün** (?****sirbösün**) 'tendon, muscle'. The Kh form requires an earlier **ö* in the second syllable. MgrH *śiu:lʒə* and BaoÑ *x́ilsəŋ* are perhaps rather related to **silʉsʉn* listed above, although this connection is semantically more difficult.

MMo SH *širbusun* H141, HY *širbüsün* M97, Muq *širbüsün* P130a, RH *sirbüsün* 199A23. WM *sirbüsün (?sirbösü(n))* L716a, *sirmüsün (?sirmösü(n))* L718b. Kh *šörvös* H819a, *šörmös(ön)* H819a. Ord *šörwös(ʉ)* M630b. Bur *šürbehe(n)* C738b, *šürmehe(n)* C738b. Brg *šurmu:* U171. Kalm *šürüsn* M687a. Dag *širbəs* E237. EYu---. MgrH *śiu:lʒə* (?=) J103a, *śurbusə* S723, *ʂbuʒï* L502. MgrM *šyurpusï* P420a. BaoD---. BaoÑ *x́ilsəŋ* (?=) CN157 'tendon; ligament'. Bao *šinson benǰir* (?=) P415b, perhaps 'tendon bird' (cf. **bïlǰïur*). Dgx---. Mog---.

****siree** 'table'. Only Kh treats this word as a stem with unstable -n. The Bao forms with -l- could perhaps be a corruption of LT *šiŋ-leb* 'table', cf. WYu *ʂïŋlep*.

MMo SH---, HY *širi'e* M98, Muq *šire:* P166a. WM *sirege(n)* L716a. Kh *širee(n)* H816a. Ord *šire:* M622a. Bur *šeree* C750b. Brg *šira:* U167. Kalm *širä* M675a. Dag *širə:* E237. EYu *šere* B107, J103b. MgrH *śire:* J103a, X154. MgrM *ʂïri* JL461. BaoD *śile* (?=) BL10. BaoÑ---. BaoX *x́əlɛ* (?=) BL66. Kgj *šire* S296a. Dgx *ʂïrə* B132. Mog---.

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*sirüün 'coarse'. The -e- in Bao-Dgx is unexpected, and suggests an earlier form
*serun (cf. *bidüün 'coarse' for a similar case). MgrH vowel shortening.

MMo SH---, HY---, Muq *širü:*, *širü:n* P336b, *sirü:n* P323b, *sirü'ün* P323b,
sire'ün P323a. WM *sirügün* L719b, *siregün* L716b. Kh *širüün* H815a, *šürüün*
H823b. Ord *šʉrʉ:n* M638a. Bur *šerüün* C750a. Brg *šʸuru:ŋ* U173. Kalm *šürün*
M686b. Dag *širu:n* E237. EYu *šorⱨin* B108, *šürü:n* J103b. MgrH *śirən* J103a, *śürun*
X158. MgrM *ʂurun* JL464. BaoD *śiəruŋ ~ seruŋ* BL90a. BaoÑ---. Kgj---. Dgx
śieruŋ B123, L118b.

*sisegei 'felt' see *isegei

*siü- 'to strain, filter; to skim off; to scoop out of a fluid'. In some languages
impossible to separate phonetically from *siür- 'to sweep'.

MMo SH *ši'u-* H142, HY---, Muq *šü:-* P337b, *sü:-* P330b; cf. *ši'ü-kü*
P336b 'filter'. WM *sigü-* L702b, *šügü-* L759a. Kh *šüüx* H825a. Ord *šü:-* M636a.
Bur *šüüxe* C740a. Kalm *šüüx* M688b. Dag *su:-* E223 'to scoop up'. EYu *šü:-* B109.
MgrH *śu:-* X157, *ʂu:-* SM383. Mgr---. Bao---. Dgx---. Mog---.

*siüči 'chisel'. The variations in the initial consonant are due to the assimilation to
the following -č- and to the assimilation in some languages of *iü > *üü. Kh *cüüc* <
čüüče < *süüči*; Bur *hüüše* < *süüči*; Kalm *šüünč* < *šiü(n)či*. The BaoÑ c- and
Dgx s- indicate an earlier form with *ü:* rather than *iü. Kalm -n- is inexplicable. The
Kgj form, if at all related, is also inexplicable. Perhaps in some way related to CM
sibege 'awl'?

MMo SH *ši'uci* H142, HY---, Muq---. WM *čüče* L209a. Kh *cüüc* H768a.
Ord *čü:či* M721a. Bur *hüüše* C701a. Brg *su:s* (?←Kh) U158. Kalm *šüünč* M687b.
Dag *ču:č* E306. EYu---. MgrH *śu:ćə* X157. MgrM *ʂəući* JL465. BaoD---. BaoÑ
cəbćə CN191. Kgj *šɔbθ ~ šɔbər* (?=) S296a. Dgx *suʐï* B119, *suçï* MC372b. Mog---.

*siüderi(n) 'dew'. The many irregular variant forms are doubtlessly all related. The
central languages, Dag, and one of the EYu forms, do not confirm the final -i. Dag
points at *siüder with metathesized vowel sequence. Surprisingly Chakhar and
Ordos also have s- instead of expected s- (perhaps influenced by *seüder). Dgx -ŋ
may go back to -m as in EYu and Mog, or to -n as in HY.

MMo SH *ši'uder* H142, HY *ši'üderin* M98, Muq---, RH *sü:derin* [eds. read
seü-] 198A20. WM *sigüder(i)* L703a. Kh *šüüder* H824a, Chakhar *su:dǝ̆r* D182b.
Ord *sʉ:der* M596a 'hoarfrost'. Bur *šüüder* C739b. Brg *šʸu:dər* U173. Kalm---. Dag
suidur E224. EYu *šudŭrum* B109, *šudurum* BJ343, *šöddöröm* BJ343, *sⱨdtü:r* BJ343,
šugurum (sic) J103a. MgrH *śiu:dərə* J103a. MgrM *ʂəuderi* JL472. Bao---. Kgj---.
Dgx *ʂauʑieruŋ* B127, *śiaoʑieruŋ* L118b. MogMr *sitrum* L68, No. 66 'hoarfroast', cf.
also Hazara dialects *sⱨdri*, *šⱨdri* L54:108.

*siür 'broom; fine-toothed comb'. For the etymology see *siür- below. The Dagur
form *suŋkʷ* is a new derivation of *su:-* < *siü-*.

MMo SH---, HY---, Muq *ši'ür* P336b 'broom'. WM *sigür* L703b 'broom
(..) strainer (..) fine comb'. Kh *šüür* H824 'broom; comb with fine teeth; filter, etc'.
Bur *šüür* C739a 'sieve (..); broom'. Kalm *šür* M686b 'sieve; strainer', also *sam šü:r*

R372b 'coarse comb', R310b 'comb and the like'. Dag [*suŋkʷ sannə* E224 'fine-toothed comb']. EYu *šü:r sam* (only in this combination, cf. **sam*) B109 'fine-toothed comb'. MgrH *śu:(r)sam* X157 (only in this compound) 'fine-toothed comb'. BaoD *śir* BL21 'fine-toothed comb'. BaoÑ *x́ir* CN157 'fine-toothed comb'. Kgj *šir* S295b 'fine-toothed comb'. Dgx *ʂu* B133 '(fine) comb'. Mog---.

*siür- 'to sweep'. The central languages use **siürde*-, a new derivation of the noun **siür*. The Monguoric forms are likely to be from **siü*-. Dgx *ʂu*- may be either from **siü*- or from **siür*-. In Kgj these two verbs have merged. LV *sibir*- seems to be a recent borrowing of the Turkic cognate **sipür*- 'to sweep'. The relationship with the central Mongolic verb **sirbe*- 'to sweep' is unclear.

    MMo SH---, HY *ši'ür*- M98, Muq *ši'ür*- P336b, LV [*sibir*- P58]. WM---. Kh---. Ord [*šörwö*- ~ *širwe*- M630b]. Bur---. Kalm---. Dag---. EYu *šü:r*- B109. MgrH *śu:*- X157, *ʂu:*- SM383. MgrM *ʂou*- DS254a. BaoD *śir*- BL62. BaoÑ *x́ir*- CN157. BaoX *x́ərə*- BL70. Kgj *šir*- ~ *šür*- S295b also 'to strain'. Dgx *ʂu*- B133, *ʂuru*- B134. Mog---.

*siüsün 'juice; portion of meat allocated to a certain person'. Dag *ču:s* would be an irregular development of **siüsün*, if related.

    MMo SH *ši'usun* H142 'ration', HY---, Muq---, RH *süsün* 187C23 'provision for travelling', Ph *ši'usu* P130b 'food, provisions'. WM *sigüsü(n)* L704a, *šügüsü* L759b, *šüsü* L759b. Kh *šüüs(en)* H824b 'sap, juice; food (usually meat) for offerings &c'. Ord *šu:s(u)* M638a. Bur *šüühe(n)* C740a 'juice'. Brg *šu:* U170 'tree juice'. Kalm *šüüsn* M688a. Dag *ču:s* (?=) E306 'half-cooked meat juice, etc'. EYu---. MgrH *su:sən* SM366 'sheep cooked in its entirety (..)'.

*soči- 'to be startled'. The variations in the initial consonant are due to assimilation to the following -*č*- (as in **saču*-, **seči*-).

    MMo SH *soci*- H135, *coci*- H29, *šoci*- H143, HY---, Muq---. WM *čoči*- L193b, *soči*- L723a. Kh *sočix* H450a, *cočix* H756a. Ord *ǰoči*- M211a. Bur *sošoxo* C394b. *šošoxo* (western/dial) C731b. Brg *sɔš*- U156. Kalm *čočx* M656a. Dag *čɔč*- E305. EYu *čɔčə*- BJ346. MgrH *saʒ́ə*- X133.

*sogaa 'doe, hind'. The Dagur form could be a borrowing from Manchu *suwa* H835b 'small red deer', or the Manchu form could be from Dagur. Ord suggests **sogu* instead. The word is reminiscent of CT **sïgun* 'deer', but this should normally have corresponded to a Mongolic **süun*, which may in fact be reflected by Kh *šoo buga* H817b 'spotted deer', Dag *čɔ: bɔɣʷ* (sic) E301 'sika deer'.

    MMo SH---, HY---, Muq---. WM *soɣo* L724b. Kh *sogoo* H444a. Ord *suġu* M590a. Bur *hogoo(n)* C681a 'female of the (Siberian) red deer'. Kalm *soɣa* M453b 'female reindeer'. Dag *suwa:* E227, *suɣua* NK517a. Remaining lgs---.

*sogta- 'to be drunk'.
    MMo SH *soqta*- H135, HY *soqta*- M95, Muq *soqta*- P324b. WM *soɣta*-, *soɣto*- L723b. Kh *sogtox* H444a. Ord *soġto*- M580a. Bur *hogtoxo* C681a. Brg *xɔgt*- U109. Kalm *sogtx* M453b. Dag *sɔrt*- E223. EYu *sɔgtɔ*- B101, *soġdo:*- J5. MgrH

soġdo:- SM3515, *sdo:-* SM336, *soġdo:-ŋgi:* J103b 'drunk'. MgrM *sɔğdʊ-* C384, *sodo-* DS218b. BaoD *soχtə-ʒigu* BL90b 'drunk'. BaoGt *soġtə-* C105. BaoÑ *søχta-* CN135. Kgj *suqta- ~ suġta-* S294a. Dgx *sudo-* B119. Mog---.

sokar 'blind (person)'.

      MMo SH *soqor* H135, HY *soqar* M95, Muq *soqar* P324b, *soqur* P255b. WM *soqor* L730a. Kh *soxor* H450a. Ord *soχor* M581a. Bur *hoxor* C686a. Brg *xɔxɔr* U108. Kalm *soxr* M456a. Dag *soɣur* E222. EYu *sɔğɔr* B101, *soğor* J103b. MgrH *suġor* J103a, *sġʊr* X142. MgrM *sʊġʋar* C385, *suġur* DS207b. BaoD *soġor* BL90a, *soχur* BL90a. BaoÑ *søχør* CN135. Kgj---. Dgx *suġo* B118, *suġo* L118b. Mog---.

solagaï 'left, left hand side'. The Bur -*a*- and the Dag -*au*- are both unusual. Related to CT **so:l* 'left', **so:l-ak* 'left-handed (person)'. Cf. **ǰeün* 'left'.

      MMo SH---, HY---, Muq---, IV---, LV---. WM *soloɣai* L726a. Kh *solgoy* H446b. Ord *soloġö:* M582a. Bur *halgay* C669a, cf. *holgoy* (?=) C682a 'idler'. Brg *xalgai* U92. Kalm *solɣa* M454a. Dag *sɔlɣui* E222, *saulgui* Z101a. EYu *sɔlɔğɔi* B101, *sološui* J103b. MgrH *solġuai* J103b. MgrM *sarġai* C384. Bao---. Kgj---. Dgx *soği* B116. Mog---.

solaŋga 'rainbow'.

      MMo SH---, HY *solaŋqa* M95, Muq---. WM *solongɣa* L726a. Kh *solongo(n)* H446b. Ord *soloŋġo* M582a. Bur *holongo* C682b. Brg *xɔlɔŋg* U109. Kalm *solŋɣ* M454a. Dag---. EYu *sɔlɔŋğɔ* B101, *soloŋġo* J103b. MgrH *soloŋġo* J103b, *slanġʋa* C385. MgrM (Sanchuan) *solongu* P418b. Bao---. Dgx---. Mog---.

sona 'gadfly, horsefly'. Enkhbat convincingly derives Dag *sɔ:ni:kʸe:* E220 'wasp or bee', *sɔ:nɔ:kʸe:* E220 ~ *sɔrɔ:ki:* E223 'wasp' from Manchu *sorokiyan*, but in view of the -*n*- in the Dag forms, they may at least be influenced by **sona*. The *ʒ*- in the QG forms is inexplicable. The Bao forms with –*l*- and -*ŋ* seem even further removed from the CM form. MgrH has been seen as a borrowing from LT *sbraŋ-ma* 'bee' (cf. RT 1966, No. 104), but *ʒ*- from Tib *sbr*- (*hʒ*-, *wʒ*- in the relevant Amdo dialects) would be phonetically equally problematic. Li derives his Baoan form from Chinese (without giving a source form).

      MMo SH---, HY---, Muq---, LV *sona* P59. WM *sono* L727b. Kh *sono* H448a. Ord---. Bur *hono* C684a. Brg *xɔn* U107. Kalm *sonŏ* M331a. Dag (see above). EYu *ʒu:na* B151, *ʒu:na:* J7 'fly'. MgrH *ʒɔŋna:* (?=) X228 'bee'. MgrM *ʒono* JL470. BaoD *ʒulaŋ* BL9 'gadfly', BaoGt *ʒïlɔŋ* C119 'bee'. BaoJ *ʒɤláŋ* L40. BaoÑ *ʒina* CN205 'fly'. BaoX *ǰulaŋ* BC64 'bee'. Kgj *zunna ~ zuna* S305a 'bee'. Dgx---. Mog---.

sonas- 'to hear'. Cf. **čiŋla-* 'to listen'.

      MMo SH *sonos-* H135, HY *sonos-* M95, Muq *sonas-* P324a. WM *sonos-* L728a. Kh *sonsox* H448b. Ord *sonos-* M583a. Bur *sonosxo* (←Kh) C391a. Brg *sɔns-* (←Kh) U155. Kalm *soŋsx* M455b. Dag *sɔns-* E221. EYu---. MgrH *sonosə-* J103a, *sunosə-* X139. MgrM *sonosï-* DS228a. Bao---. Kgj *sunsï-* S294a. Dgx *sonosu-* B117. Mog *sonus-* R38b.

*sonïn 'news; new, newsworthy, interesting'.

     MMo SH *sonin* H135, HY---, Muq---. WM *sonin* L727a. Kh *sonin* H447b 'news, etc', *son'* H448b 'interest in something'. Ord *soni:n* M582b. Bur *honi(n)* C683b. Brg *xɔnɪŋ* U107 Kalm *son'n* M455a. Dag *sɔnin* E83:196a. EYu *sonoŋ* (only) S606. Dgx *soni* MC371a. Mog---.

*sonǰï- 'to mock; to imitate'.

     SH---, HY *sonǰi-* M95, Muq---. WM *sonǰi-* L728b. Kh *sonǰix* (?=) H447b 'to consider unfit or unworthy, etc'. Ord only *sori- sonǰi-* M582b 'to interrogate'. Bur---. Kalm *sonǰï-* R331a 'scharf kritisieren, etc'. Dag---. EYu *sɔ:nǰə-* B100, *so:nǰə-* J63 'to imitate, learn from'. MgrH *suænʒi-* (?=) SM356, *sonći-* C86:579. MgrM *sanʒi-* DS232 'to joke'. Bao *suanʒi-* S257 'to mock'. Kgj *sanči-* ???? S293a. Dgx *sonʒï-* Bökh1986:53 'to mock'. Mog---.

*soŋgïna 'onion'. Ord, as well as Mgr, MgrM and BaoD suggest a form *soŋgunag with final -g. The Dgx form could also stem from such a form. BaoGt and Kgj involve further deviations. The CM word was probably borrowed from a CT diminutive *sogan-kïña from *sogan 'onion'. The expected CM form would be *soankïna, which seems to be supported by the form in MMo HY, although there is no long o in the central languages. Turkic origin is likely since the names of cultivated plants are often of CT origin. EYu uses *cɔǧɔŋ* B140, a new borrowing from Turkic *sogan. The c- in Kgj may be due to the influence of Chinese *cōng*.

     MMo SH---, HY *songgina* M95 (spelled as if *so'onggina*), Muq *sonqina*, *sonqinan* P324a. WM *songgina* L727b. Kh *songino* H446a. Ord *soŋgino(q)* M583b. Bur *hongino* C683b. Brg *sɔŋgɪn* (←Kh) U156. Kalm *soŋgïn* R331b. Dag---. EYu (see above). MgrH *suŋgunɔǧ* X139. MgrM (Sanchuan) *sangïnïg* P415b. Bao (unspecif. dial.) *sonoǧ* S605. BaoD *soŋgonəǧ* BL5. BaoGt *suŋgoluŋ* C102. BaoÑ---. Kgj *cuŋgulu ~ cuŋgulǧu* S302a. Dgx *suŋguna* B117. Mog---.

*soŋgu- (~ *suŋgu-) 'to choose, select, elect'. Bur-Kalm -u-. Cf. CM *ïlga-.

     MMo SH *so'ongqu-* H135, HY *songqu-* M95 (spelled as if *so'oŋqu-*), Muq *sonqu-* P324a. WM *songɣo-* L726b. Kh *songox* H447a. Ord *suŋgu-* M593a. Bur *hungaxa* C690a. Brg *soŋg-* (←Kh) U156. Kalm *suŋɣx* M462a, *soŋgăχă* R331b. Dag---. EYu *sɔŋgə-* BJ341, *soŋgo-* J103a. MgrH *sɔŋgʊ-* X137. Bao---. Kgj *cuŋgu-* (?=) S302a. Dgx *suŋgu-* B17. Mog---.

*sorbï 'cane, walking-stick'. Apparently a 'regional' survival in Bur-Dag. *sorbï 'scar' is probably unrelated.

     MMo SH---, HY *sorbi* M96 [read *sörbi* by Mostaert], Muq---. WM *sorbi* K1416a, precl. *sorbi* T553. Kh *sorvi* LC 3:115a 'stick, shaman's staff'. Ord---. Bur *hor'bo* C685b, *horbi* C684b. Brg---. Kalm---. Dag *sɔrb*ʸ E223. Remaining lgs---.

*sora- 'to suck'. Related to CT *so:r- 'id'. Cf. *simi-, *köke-.

     MMo SH---, HY---, Muq---. WM *soro-* L729b. Kh *sorox* H449b. Ord *soro-* M584b. Bur *horoxo* C685a. Kalm *sorx* M456a. Dag---. EYu *sɔrɔ-* B101. Mgr---. Bao---. Dgx---. Mog---.

*soriïsun 'edible flowers of wild leek' and other bulbous plants.
MMo SH---, HY---, Muq---, RH---. WM *sorisu* L729b. Kh *sor's* H450a, *sors* H449b (different translations, the latter spelling not in LC). Ord *sorisu* M584b. Bur---. Brg---. Kalm *sorsn* R332b 'spice, originally preserved leek flowers'. Dag *sɔrs* E223 'flowers of leek'. EYu---. MgrH *sorosə* X136 'flowers of wild onion'. Remaining lgs---.

*sormusun 'eyelash'. The Bur form seems to recall the SH *surimusun*, but could also have developed from *sormïsun*. Dag *sarmilt* 'id' is from *sarmirt* < Tungusic *sarmikta*. Cf. *hanï-ska*.
MMo SH *surimusun* (?=) H138 'hair', HY *sormisun* M95, Muq *sorbisun* P325a. WM *sormusu(n)*, *sormuusu(n)* L729b. Kh *sormos*, *sormuus* (sic, not *-on*) H449a. Ord *sormu:s(u)* M584b, *surmu:s* M594b. Bur *hor'moho(n)* C685b. Brg *xɔrmʊ:* U111. Kalm *surmsg* M463a, *sormsn* R332b. Dag---. EYu---. MgrH *sormu* L526. BaoD---. BaoÑ *semsoŋ* CN131 'eyebrow'. Kgj *samasun* S293a. Dgx *somosuŋ* B117. Mog.

*soyaa 'stalk, shoot; fang, tusk'.
MMo SH---, HY---, Muq---, IV---, LV---. WM *soyoɣa* L724b. Kh *soyoo(n)*, *soyoo* H445a. Ord *soyo:* 581a. Bur *hoyoo* C681a, cf. *hobyoo* (western) C681a, *hoboy* (rare, ?=) C681a. Brg *xɔyɔ:* U110. Kalm *soya* M457a 'fang'. Dag *sɔyɔ:* E222 'branch of antler'. EYu *sɔyɔ:* B101, BJ343, *söyɔ:* B102, B141, *sio* J6. Mgr---. Bao---. Dgx *soyə şïduŋ* B117 (*sidün* 'tooth').

*söem 'small handspan, the space between thumb and index finger'.
MMo SH---, HY---, Muq---. WM *sögöm* L731a, *sögem* L730b. Kh *sööm* H451b 'span'. Ord *sö:m* M596b. Bur *hööm* (obs) C686b. Brg *xo:m* U119. Kalm *söm* M457b. Dag *sum* E225. EYu *sö:m* BJ341, *siom* J13. Remaining lgs---.

*sögee- 'to scold, curse, blame'. Some of the forms deviate semantically and/or phonetically, so it is uncertain if they belong to this etymon. The EYu forms below may be an unidentified Tibetan or Chinese stem (perhaps Ch *cuì*) made into a verb with *ki-*. EYu also has a vaguely similar-looking, but likely unrelated verb *usqa-* 'to scold'. In spite of the long final vowel probably related to CT *sö:k-* 'to scold'. Cf. *karïa-*.
MMo SH---, HY *sökö-* M95, Muq *söge:-* (can also be read wirth short e and/or with *-k-*) P325b, *sökü-* (can also be read *söge-* or *sök-*) P301a 'to scold'. WM *sögege-* L730b 'to blame, call names, curse, etc', precl. *söke-* T554. Kh *söxööx* (?=) H452a 'to disapprove, rebuke'. Ord---. Bur *hügexe* (?=) C695a 'to hit with the fists; to lie'. Kalm *sögɛ:-* R333a. Dag *suwə:-* E227 'to refute, to criticize'. EYu *sɔiɣə-* B100, *söɣ-* S448 (?=) 'to torment, maltreat', *söɣə-* S203 (?=) 'to oppress'. MgrH *sgo:-* X143, J99b. MgrM *sugo-* C385. Bao---. Kgj *sugu-* S294a. Dgx *sugie-* B118. Mog *sukʌ-* W179b, *suqʌ-* W180a.

*söged- 'to kneel'. With extended forms in Bao (?*sögedčile-*), and Dgx (?*söged(ü)le-*) which look like intensives. Kgj *guidele-* S289b is considered a Chinese loanword by Sečenčogt (presumably *guìdǎo*), but it may also be from

*?*söged(ü)le-*. The Kgj synonym *vəidela-* S307a looks similar but derives from *ebüdüg* 'knee'. Reminiscent of Old Turkic *sök-* 'id'.

MMo SH *sogot-* H135, HY *sögöt-* M95, Muq *söged-* P325b. WM *sögöd-* L731a. Kh *sögdöx* H450b. Ord *sögöd(ö)-* M586a, *suɡude-* M596b. Bur *hügedexe* C695a. Brg *xuɡd-* S608, *sugd-* (←Kh) U158. Kalm *sögdx* M457a. Dag---. EYu *sögöd-* B102, J103a. MgrH *sgodə-* J104b. MgrM *sogodi-* C385. BaoD *gaćialə-* BL91a. BaoGt *səgdi-* C133. BaoJ *sgədə-* L158, *skti-* L160. BaoÑ *ʂgerćila-* CN147. Kgj---. Dgx *śiaoʑie-* L119a, *śiaudulie-* B121.

söike 'earring'. With regard to the development of *öi*, Ord and Bur behave differently compared to *köiten* 'cold', q.v. The peripheral languages have little to offer to distinguish between the sequences *öi* and *üi*.

MMo SH---, HY---, Muq *süike* P328b. WM *süike* L742a. Kh *süyx* H460a. Ord *suike* M597a. Bur *hiixe* C680b. Brg *xi:x* U105. Kalm *siik* M452a. Dag---. EYu---. MgrH *su:gʒ* X137. Bao---. Kgj---. Dgx *śiauɣə* B120. Mog---.

sölsün (~ *čölsün*) 'gall bladder; bile'. Although all listed forms are doubtlessly related, it seems impossible to derive them from a single CM form. Kalm, Ord, and one Kh form suggest *čösün*, Dag *čulč* suggests *čölsün*, EYu suggest *sösün*, MMo and Bur *sölsün*. Cf. also Kmg *suɬs* Kőhalmi 198. Bao and Dgx, but not Kangjia in this case, share a secondary unrounded form *selsün* < *sölsün*. The MgrH forms seem to indicate *seülsün,* but the diphthong may be a development of the long vowel which is itself probably of a secondary nature. The variants have a curious distribution. The *-l-* is preserved in Bur and Shirongol as in *mölsün* 'ice', but here Dagur also preserves it. The *č-* is supported by Kh, Kalm, Dag, and unexpectedly by Kgj. Dag *sus* may be from Kh; at any rate the existence of two divergent forms in Dag requires an explanation. Possibly from a root *söl-*. A relationship with CT *söl* 'meat juice' seems unlikely (RI:70).

MMo SH *sülsu* H138 'bile; courage', HY *sölsün* M95, Muq *sölsün* (assuming that Persian *zire* is mistaken for *zahra*, and Chagatay *ot* for *öt*) P329a. WM *sösü(n)* L732b, *sölsü(n)* L731a, *čösü(n)* L203a. Kh *sös* (sic, instead of *sös(ön)*) H452a, *cös* H759b. Ord *ǰusu* M225b. Bur *hülhe(n)* C696a. Brg *xilu:* U106. Kalm *cösn* M639b. Dag *čulč* E307 'gall bladder', cf. *sus* E83:200a 'courage, guts'. EYu *sösən* B102, J103a, *sö:sun* S618. MgrH *səu:lʒə* J104b, *su:lʒə* X138, *su:rʒə ~ su:ʒə* SM364/357. MgrM *śuarsï* JL473. BaoD *selsuŋ* BL91a. BaoÑ---. Kgj *čürsʉn* S54, *čürsa* (sic) S301b. Dgx *śiensuŋ* L119a. Mog---.

söne- 'to go out (fire)'. Dag *su:-* E223 'to extinguish' could be a loan from Northern Tungusic (see Poppe60:30), unless this should be compared to MMo SH *sü'e-* H138 'to end, disappear'. In both cases it is not (at least not directly) related to the present entry. Related to CT *sö:n-* 'id'.

SH *süno'e-* (caus) H138, HY---, Muq *söne-* P325b. WM *sönö-* L732a. Kh *sönöx* H451a 'to perish, etc'. Ord *sönögö:-* (reading pronunciation of caus.) M587a 'to dispose of'. Bur *hünexe* C697a. Brg *xun-* U121. Kalm *sön-* R333b. Dag (see above). EYu---. MgrH *suno:-* SM361, *sne:ġa-* (new caus.) X141. MgrM *suni-* DS221b, *suniġa-* (new caus.) DS221b. BaoGt *ʂïnɛgə-* (new caus.) C109. BaoJ *sïné-* L160. Kgj *sïni-* S293b. Dgx *śinie-* B124. Mog---.

*söni 'night'. Khalkha and Chakhar have unexpected š-.

MMo SH *süni* H138, HY *söni* M95, Muq *söni* P326a. WM *söni* L732a. Kh *šönö* (sic) H819a, Chakhar *šon* D185b. Ord *sönö ~ söni* M586b. Bur *hüni* C696b. Brg *xun^y* U121. Kalm *sö* M457a. Dag *sun^y* E224. EYu *sö:nə* B101, J103a. MgrH *sonə* J103b. MgrM *soni* C384. BaoD *sonə* BL91b. BaoÑ *səni* CN133. Kgj *sïni* S293b. Dgx *śieni* B122, *śieyi* MC429a. Mog *sᵾni* R39a, *suni* W180a.

*sösün 'gall bladder' see *sölsün

*subag 'ditch, canal'. Probably related to CT *suba-* 'to water', from *sub* 'water'.

MMo SH---, HY *subaq* M96, Muq---. WM *subaɣ* L733a, cf. *ǰubaɣ* L1077a 'irrigation channel, gutter, etc', *čubuɣ* L203b [refers to *subaɣ*]. Kh *suvag* H452b. Ord *suwaq* (as well as *suwa:*) M595a. Bur *hubag* C687a. Kalm---. Dag---. EYu *sβaġ* B103. Mgr---. BaoD *ʒaġ* (?=) BL62. BaoGt *səġ* (?=) C126. BaoÑ *suwaġ* CN137. Kgj *suχu* (?=) S294a. Dgx *suwa* B119. Mog---.

*subaï 'barren (of livestock)'. Cf. *kïsuraŋ.

MMo Muq---. WM *subai* L733a. Kh *suvay* H452b. Ord *suwä:* M595a. Bur *hubay* C687b. Brg *xʋβai* U114. Kalm *suwɛ:* R338b, [*suvrxa* M459b]. Dag *sɔɣui* E222. Remaining lgs---.

*subud 'pearl'. See *subusun.

MMo SH *subut* H136, HY *subut* M96, Muq *subut* P327a. WM *subud* L733b, *subad* L733a. Kh *suvd(an)* H452b. Ord *suwut* M595b. Bur *hubad* C687a, *subad* (←Kh). Brg *xʋβad* U114. Kalm---. Dag *sɔr* (?=) E222. EYu *sβəd* B103. Mgr---. Bao---. Dgx---. Mog---.

*suburgan 'stupa, pagoda'. Buriat must be borrowed from Mongol proper because of the *s-*. Dagur instead of expected *s^wabərəɣ*. From Sogdian, via Turkic. EYu, MgrH and Baoan use Tibetan *mčhod-rten*.

MMo SH---, HY *suburqan* M96, Ph *supurɣan* P130a. WM *suburɣa(n)* L733b. Kh *suvraga* H453a. Ord *suwurġa* M595b. Bur *subarga* C395b. Brg *sʋ:rag* U157. Kalm *suvrɣn* M459b. Dag *sabərɣa:n* E212. MgrH *suburġa* (only) L527. MgrM *suburġa* JL481, *surbərġa* DS241a.

*subusun 'pearl'. Perhaps both *subusun* and *subud* are from a PM root *subu-*, *subud* originally being a plural, and *subusun* a collective form.

WM *subusu(n)* L735a. Kh *suvs* H453a necklace. Bur *huvha(n)* C687b 'beads', (Alar) *hobho(n)* C681a 'pearl'. Kalm *suvsn* M460a 'pearl'. Remaining lgs---.

*sučal- 'to unravel, undo, take apart, to make gaps'. with the intr. counterpart *sučara-.

MMo SH *cucal-* H29, HY---, Muq----. WM *čučala-* (sic), *čučara-* L204b/205a. Kh *cuclax, cucrax* H766a. Ord *ǰučal- , ǰučara-* M221b. Bur *susarxa* C397a only in the derived meaning 'to become tired'. Kalm *cuclx, cucrx* M643a.

Dag *čɔčlɔ:-*, *čɔčir-* E83:184b. EYu---. Mgr---. Bao---. Dgx---. Mog *sučul-* W35 'to remove', *sučara-* W34 'to be released', MogMr *sučul-* L68, No. 21 'to uproot'.

sudal 'vein, etc'. See *sudasun*.

     MMo SH---, HY---, Muq---. WM *sudal* L734a. Kh *sudal* H453b. Ord *sudal* M588b. Bur *hudal* C688a 'pulse'. Brg *xʊdal* U116, *sʊdal* (←Kh) U158. Dag *sʷadəl* E227. Dgx *sïdaŋ* L119a 'vein, artery'.

sudasun 'blood vessel, vein, artery'. Both the *-ǰ-* and the complex vowel in the SH form are peculiar. The long vowel in EYu and MgrH has developed independently. Like *sudal* above apparently from a PM root *suda-*. Unlike in other cases, such as *gudusun* 'boots', several languages have both the form in *-l* and that in *-sUn*.

     MMo SH *suji'asu*, *sujiyasu* (sic, ?=) H136 'neck vein', HY *sudasun* M96, Muq *sudasun* P327a, *sudusun* P327a. WM *sudasu(n)* L734a. Kh *sudas* H454a. Ord *sudas(u)* M589a. Bur *hudaha(n)* C688a. Brg *xʊdʊ:* U117, *sʊdʊ:* U158 (*s-* due to Kh influence). Kalm *sudsn* M460a. Dag---. EYu *sda:sən* B104, *hda:sən* J103a. MgrH *ẓda:sə* J103b, X165. MgrM (Sanchuan) *sutasï* P413b. Bao---. Kgj *sdasun ~ sïdasun* S294b. Dgx *sdasuŋ* B119 '&muscle', *sïdasun* L118a 'muscle'.

sugul- 'to pull out a long thin object, to unsheath', perhaps with a variant *ǰugul-*. This variation with *s- ~ *ǰ-* in initial position would be remarkable. However, the *ǰ* of SH and WM corresponds to *ʒ-* in Ord and EYu, languages that normally retain the palatal pronunciation of *ǰ*. The loss of the *-g-* in MgrH is peculiar.

     MMo SH *juqul-* H94 and iterative *suquči-* H136, HY---, Muq---, IV---, LV---. WM *suɣul-* L735a, *ǰuɣul-* L1077b, *ǰiɣul-* (sic) L1051a 'to pull out, pluck out, etc'. Kh *sugalax* H453b. Ord *ʒuġal-* M174b, *ʒuġul-* M175a. Bur *hugalxa* C688a. Brg *xugal-* U115. Kalm *suɣlx* M460a. Dag---. EYu *ʒuġul-* B151. MgrH *su:lə-* X138, *su:li-* SM358. Remaining lgs---.

sula 'loose, lax; empty'.

     MMo SH *sula-ra-* H137 'to loosen', HY---, Muq *sula* P327a. WM *sula* L736a. Kh *sul* H454a. Ord *sula* M590b. Bur *hula* C688b. Brg *xʊl* U115. Kalm *sul* M460a. Dag *sʷal* E227 [*sula:* ←Manchu]. EYu *sula* B102, J103a. MgrH *sula* J103b. MgrM *sula* JL471, *sula:* C385. BaoD *sula* BL91b. Kgj *sula* S294a. Dgx *sula* B118. MogM *sulʊ:* L64:35.

sumal 'bag'. Note the vowel length shared by EYu and MgrH, whic cannot easily be explained as a secondary development.

     MMo SH---, HY---, Muq---, RH *sumal* 204C15 'a small leather bottle'. WM *sumal* L737a. Kh *sumal* (according to Lessing). Ord *sumal* M592b. Kalm *suml* R337a. EYu *su:mal* B102. MgrH *su:mar*, *su:ma* SM358/359. Remaining lgs---.

sumun 'arrow, bullet'. In EYu with the same unrounding as *numun* 'bow'. With loss of *-n* in Bao and Kgj, but surprisingly not in Dgx.

     MMo SH *sumu(n)* H137, HY *sumun* M96, Muq *sumun* P327b. WM *sumu(n)* L737a. Kh *sum(an)* H455a. Ord *sumu* M592b. Bur *human* (folkl) C689b, *homo(n)* C683a 'bullet, etc'. Brg *xɔm* U110. Kalm *sumn* M461a. Dag *sɔm* E222.

EYu *səmən* B99, J103a. MgrH *sumu* X140, *səmun* J103b. MgrM *sumu* JL471, *sïmu* DS205a. BaoD *sumu* BL91a, *səmu* BL24. BaoÑ *smθ* CN137. Kgj *sïmʉ* S293b. Dgx *sumuŋ* B118 'id'. Mog---.

sundula- 'to ride on a horse with a passenger or luggage in front or behind'. Bur from a cooperative form *sunduldu-*. Cf. *deür-*.

    MMo SH *sundula-* H137, HY---, Muq *sundula-* P327b. WM *sundala-*, *sundula-* L737b. Kh *sundlax* H455b. Ord *sundala-* M593a. Bur *hundaldaxa* C690a. Brg *xʊndald-* U114. Kalm *sundlx* M461a. Dag *sɔndla:-* E221. EYu *sundəla-* B102. MgrH *sundula-* X139. MgrM *suŋdala-* JL476.

sun(u)- 'to stretch, extend (intr)', *sunïa-* 'to stretch oneself', *suŋga-* 'to stretch, extend (tr)'. *sun-* is related to CT *su:n-* 'to stretch, extend', *suŋga-* (*sun-ga-*) is its causative. The morphological structure of *sunïa-* is unclear. Dag *sɔni:-* rather seems to suggest *sunaï-* instead of *sunïa-*. The *-m-* in Dgx and the *-t-* in Mog are both unexpected. Dgx *sumu-* is also reminiscent of the structurally obscure MgrH *sumba:-* SM359 'to alternately stretch and contract the limbs (..)'.

    MMo SH---, HY---, Muq *suna:-* (P reads *suna-*) (intr) P327b, *suni'a-* (intr) P328a, *sunu-* P176a. WM *sunu-* L738a, *sun-* L737b, *sung-* L738a, *suniya-* L738a, *sungya-* L738a. Kh *sunax* H455b, *suniax* H456a, *sunaax* H455b, *sungax* H455b. Ord *sun-*, *suna:-* M592b, *suŋġa-*, *suŋġu-* M593a. Bur *hunaxa* C689b, *hunyaaxa* C690a, *hunaaxa* C689b, *hungaaxa* (western) C689b. Brg *xʊnʸa:-* (intr.) U114, *xʊna:-* (tr.) U114 (also the borrowed forms *sʊŋg-*, *sʊŋga:-* U157). Kalm *sunx* M461b, *sunyax* M461b, *suŋyax* M461b. Dag *sɔnə-* E221, *sɔni:-* E221, *sɔnɔ:-* E221. EYu *sun-* BJ342, cf. the new intransitive formation *sunara-* B102 'to stretch oneself'. MgrH *suna:-* X138. MgrM *sunia-* JL463. BaoD---. BaoÑ---. Dgx *sumu-* MC375b, *sumuġa-* B118. Mog *suntu-* (?=) R39a.

sur 'strip of leather, leather strap'. The length and the *-au-* in the Dagur forms are inexplicable. Kmg *su:r* Kőhalmi 198.

    MMo SH---, HY---, Muq---, LV *sur* P59 'animal skin', IV *sur* L62:65. WM *sur* L738a. Kh *sur(an)* H456a. Ord *sur* M593b. Bur *hur* C690a. Kalm *sur* M462a. Dag *sɔ:r* E221. EYu *sur* B102. Remaining lgs---.

sur- 'to learn'. Mog and some QG languages feature an added vowel. The resemblance to *sura-* 'to ask' is probably fortuitous, although the forms of both verbs have become indistinguishable in the central languages.

    MMo SH *sur-* H137, HY *sur-qa-* (caus) M96, Muq *sur-* P328a. WM *sur-* L738b. Kh *surax* H456a. Ord *sur-* M593b. Bur *huraxa* C691a. Brg *sʊrga:-* (←WM) U158 'to teach'. Kalm *surx* M463a. Dag *sɔr-* E223. EYu *sur-* B102, J103a. MgrH *surə-* J103b, *suru-* SM365b. BaoD *suru-* BL91b. BaoÑ *sər-* CN129. Kgj *sur-* S294a. Dgx *suru-* B119. Mog *suru-* R39a.

sura- 'to ask'. The resemblance to *sur-* 'to learn' is probably fortuitous. CM *sura-* may be related to CT *sɔr-*. Al of Shirongol uses the synonymous CM *hasa(g)u-*.

MMo SH *sura-* H137, HY----, Muq---. WM *sura-* L738b. Kh *surax* H456b. Ord *sura-* M593b. Bur *huraxa* C691a. Brg *xʊra-* U117. Kalm *surx* M463a. Dag *sʷar-* E228 'to inquire, ask about'. EYu *sura-* B102, J93b.

*suu (~ **sugu) 'armpit'. Ramstedt compares Mog *suqa-* R38b 'to embrace', which is morphologically and phonetically problematic. The forms with *-g-* in Kh and Bur might be due to literary influence. However, this seems to be a strangely unliterary word for such borrowing from WM. Furthermore, an intervocalic consonant also appears in Bao-Dgx. Kangjia *sɨ̆ɨ̆ɣun* may have *ɨ̆ɣun* < **jakaun* 'between' as a second element; alternatively it could be a metathesis of a form related to Dgx *suǧə ʒawa* 'armpit'. The Dgx form with *-ŋ-* is even more problematic (preconsonantal *-ŋ-* typically goes back to **n* or **l*).

MMo SH *su'u* H138, HY *su'u* M96, Muq *su:* P328b. WM *suɣu(n)* L734b, *suu* L740b. Kh *suga(n)* H453a, cf. Chakhar *sʊ:* D182a. Ord *su:* M588a. Bur *huga* C687b. Brg *xʊg* U115, also *ʊla:ŋ xʊg* U39 (**hulaan* 'red'). Kalm *sü* M464a, *su:* R339a. Dag *sɔ:* E220, cf. *sau* Sun85:685. EYu *su:* B102, J103a. MgrH *sǝu:* (sic) J103b, *su:* X137. MgrM *su* JL469, *su: do:ro* (*do:ro* 'under') C384. BaoD *soǧo* BL91b. BaoÑ *cǝχǝi* CN191. Kgj *sɨ̆ɨ̆ɣun* (see above) S65. Dgx *suǧe* B118, cf. *suŋgo* MC376b. Mog---.

*sü(n) ~ **üsün* 'milk'. The form **sün* is represented in MMo, Mog, Kh, Bur and Dag, whereas Kalm, Ord, and EYu go back to **üsün*. Cf. also Kmg *sʉ:* Kőhalmi 198. The *h-* in EYu indicates the former presence of a syllable, although it is probably secondary itself. MgrH *sun* could have developed from either variant. Of the two, **üsün* is probably the original form, since the loss of an initial vowel seems more likely than the later addition of a vowel in some languages. Admittedly one would have expected theolder form to be reflected in MMo. If **sün* is indeed a secondary form, it is impossible to connect the CM word to CT **sü:t* 'milk', of which the *-t* was already problematic. (cf. P60:141).

MMo SH *sun* H138, HY---, Muq *sün* P329a, *sü* P328b, IV *sün* L62:65. WM *sün* L744a, *sü* H741a. Kh *süü(n)* H462b. Ord *üsü* M764b. Bur *hü(n)* C696a, *ühe(n)* (western) C520a, *süü* (Tunka) C399b, *sün* (←Kh) C399b. Brg *xu:* U119. Kalm *üsn* M555b. Dag *su:* E223. EYu *hsʉn* B60, *sun* J103a. MgrH *sun* J104b, L532, *su:* L527. Bao---. Dgx---. Mog *sʉn* R37a.

*sübe 'small hole, eye of a needle'.
MMo SH *subes* (pl.) H136 'narrow passages', HY---, Muq *sübe* P205a. WM *sübe* L741a 'eye of a needle; small hole, etc'. Kh *süv* H459a. Ord *sʉwe* M599b, *söwö* M587b. Bur *hübe* C694b. Brg---. Kalm *süv* M464a. Dag *suɣʷ* E225. EYu---. MgrH *su:lie-* SM358 'to thread a needle' (**sübele-*). Bao---. Dgx---. MogMr, MogM *sʉba* L68, No. 104.

*sübee 'flank, side of the chest'.
MMo SH *sube'e* H136 'hollow of the back', HY---, Muq *sübe* (*sübe:*) P328b. WM *sübege* L741a. Kh *süvee* H459a, *sövöö* H450a. Ord *söwö:* M587b. Bur *hübee* C694b. Kalm *süvä* M464a. Dag *subi:* (sic, ? ←Kh) *xabʸrǝɣ* E225 'false ribs'. EYu---. MgrH---. MgrM *subian* (?=) DS234b 'loin'.

*süǰig 'faith, belief'. From CT *süzüg 'pure', from the verb *süz- 'to filter'. The Mongolic languages feature several solutions to adopt the alien consonant z.

   MMo SH---, HY [cf. *südzülge-* M96 'to reform'], Muq---, IV---, LV---, Ph [cf. *süsul-* P130b 'to revere']. WM *süsüg* L745b, *süǰüg* L746b. Kh *süseg* H462b, *süǰig* H459b, *süzeg* H459b. Ord *sʉǰʉk* M596b. Bur *hüzeg* C695a. Brg *suǰig* (←Kh) U159. Kalm *süzg* M464b. Dag *suǰir* E226. EYu *sʉǰ°g* B103, *suǰ°g* J102b. Remaining lgs---.

*süke 'axe'.

   MMo SH *suke* H137, HY *süke* M96, Muq *süke* P329a. WM *süke* L742b. Kh *süx(en)* H463b. Ord *sʉke* M597b. Bur *hüxe* C701a. Brg *xux* U122. Kalm *sük* M464b. Dag *suɣ^w* E225. EYu *sʉke* B103, *suge* J104a. MgrH *sgo* J103a. MgrM *sugo* JL478, *sgo* C167. BaoD *sïge* BL91a, *ge* BL91a. BaoÑ *ᶎge* CN147. Kgj *sugʉ* S294a. Dgx *sugie* B118. Mog---.

*süme 'temple; Buddha effigy'. Interestingly with an added -n in MgrH, where CM *-n is usually lost. The EYu form may survive indirectly in Western Yugur *seme* (~ *sume*) 'temple'. For the origin see Rybatzki 2006:676b.

   MMo SH *sume* H137 'Buddha (image)', HY *süme* M96 'temple', Muq *süme* P329a 'temple', P327b, P207a 'portrait, picture'. WM *süme* L743b 'temple, etc'. Kh *süm* H461a. Ord *süme* M598b, *sömö* M586b. Bur *hüme* C696a, *süme* (←Kh) C399a. Brg *sum* (←Kh) U158. Kalm *süm* M465a. Dag *sum* E225. EYu--- (see above). MgrH *səme:n* J103a, *sme:n* X144. MgrM *śime* JL462 'temple', *śme* C385, *śimian* DS255a. BaoD---. BaoÑ *cïme* CN191 'picture or statue of a deity'. Dgx---. Mog---.

*sünesün 'soul'. The –m- both in Kalm and Dag is probably shared accidentally (cf. however the Kalm development of *hünesün 'ashes' and *künesün 'provisions'). MgrH *f-* is inexplicable, unless due to *hünesün 'ashes'.

   MMo SH---, HY---, Muq---. WM *sünesü(n)* L744a. Kh *süns(en)* H461b. Ord *sʉnes(ʉ)* M598b. Bur *hünehe(n)* C697a. Brg *xunu:* U121. Kalm *sümsn* M465a. Dag *sums* E225. EYu *sönösən* B101, *sune:sən* J104a. MgrH *fune:sə* (sic) J103a, *sune:ᶎə* X139. MgrM *sunisï* JL469. Bao---. Dgx---. Mog---.

*sür 'grandeur, majesty, might, power'. Dag *sul^y* could alternatively be related to *sülde or *sülder (not listed here).

   MMo SH---, HY---, Muq---. WM *sür* L744b. Kh *sür* H461b. Ord *sʉr* M598b. Bur *hür* C697a. Kalm *sür* M465b. Dag *sul^y* (?=) E225, *sur* E83:199b. EYu *sʉr* B103, *sur* J104a. MgrH *sur* J103a. MgrM *sur.dai* DS255a 'terrible', DS257b 'ugly'. Bao---. Dgx---. Mog---.

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*ta 'you (plural and/or polite)'. In some forms in the QG languages suffix were added, such as the plural suffix *-s.

　　　MMo SH *ta* H143, HY---, Muq *ta* P337a. WM *ta* L760a. Kh *ta* H472a. Chakhar *ta:* D179a. Ord *ta* M639a. Bur *ta* C406a. Brg *ta:* U173. Kalm *ta* M467a. Dag *ta:* E242. EYu *ta* B114, J103b, *tas* J53, see also J25. MgrH *ta* J26 (usually in compound forms). MgrM *ta-sï* JL484. BaoD *ta* BL91a. BaoÑ *ta* CN159, *ta-la* CN161. Kgj *ta-sï* S178. Dgx *ta* B135. Mog *to* (also *tod*, *tot*) R40b.

*taa- 'to guess; to suppose'. Dagur does have the apparent derivation *taul*ʸ E244 'riddle' (although related words in central Mongolic mean 'tale'). Probably related to CT *tap-* 'to find'.

　　　MMo SH---, HY *ta'a-* M98, Muq *ta'aldu'ul-* (coop + caus) P338a, IV---, LV---. WM *taɣa-* L763b. Kh *taax* H473b. Bur *taaxa* C407a. Kalm *taax* M469b. Dag see above). EYu *ta:-* B113, J104b. MgrH *ta:-* J104b. MgrM *ta-* JL469. BaoD *ta-* BL91a. BaoÑ *ta:-* CN159. Dgx *ta-* B135. Mog---.

*taala- 'to like, to love; to caress'. Related to CT *tapla-* 'to be pleased'. WM *tab(a)la-* 'to feel content, etc' may be a different relative of the same Turkic word.

　　　MMo SH *ta'ala-* H143, HY *ta'ala-* M98, Muq *ta:la-* P343b, LV *ta:la-* P1268, IV *ta:la-* L67. WM *taɣala-* L763b. Kh *taalax* H472b. Bur *taalaxa* C406a. Kalm *taalx* M468b. Dag *ta:l-* E242. EYu---. Mgr---. Bao---. Dgx *tala-* B137. MogM *tɒ:la⸱-* L62:67.

*tabï- 'to put' see **talbï-**

*tabïn 'fifty'. In Bao and Kgj replaced by a new formation *tabun harban* 'five tens', e.g. BaoÑ *taˈwaraŋ* CN162.

　　　MMo SH *tabin* H143, HY *tabin* M98, Muq *tabin* P338a, LV *tabin* P1267, IV *tabin* L66. WM *tabi(n)* L760b. Kh *tav'* (*tavin*) H476a. Ord *tawi* M650a. Bur *tabi(n)* C408b. Kalm *tävn* M485a. Dag *tab*ʸ E246. EYu *taβən* B115. MgrH *tayin* X174. MgrM---. BaoD---. BaoÑ---. Dgx---. Mog---.

*tabun 'five'. Famously with a long vowel in Dagur and Mongghul (and in EYugur). However, the long vowel in QG is likely be due to the structure of the word, with a high vowel following a non-high vowel. Cf. *modun* 'wood' for a similar case.

　　　MMo SH *tabun* H143, HY *tabun* M98, Muq *tabun* P338a. WM *tabu(n)* L761b. Kh *tav(an)* H474a. Ord *tawu* M652a. Bur *taba(n)* C407b. Kalm *tavn* M471a. Dag *ta:wu*, *ta:wun* E243. EYu *ta:βən* B115, J103b. MgrH *ta:vun* J104a. MgrM *tabən* JL462, *taben* T362. BaoD *tawuŋ* BL91a. BaoÑ *tawɵŋ* CN162. Kgj *tavun ~ tavuŋ* S297a. Dgx *tawuŋ* B137. Mog *tabun* R60.

*taï- 'to make an offering, to sacrifice'. In Mongghul this verb may not have been lost, but absorbed by *talbï- 'to put'. Related to CT *tap- 'to worship', which indicates a PM form *tahï- < *tapï-. Cf. the unrelated but semantically overlapping *takï-.

MMo SH *tayi- H146, HY---, Muq *tayi-qči* P246a 'worshipper', IV---, LV---. WM *tayi-* L767b. Kh *tayx* H479a. Bur *tayxa* C410b. Kalm *tääx* M485a. Dag *tai-* E83:202a. EYu *tai-* BJ343. Shirongol see above. Mog---.

*taïl- 'to undo, untie, unwrap'. Note the loss of -l in Baoanic and Mangghuer, which is unexpected at least in Baoan. In Baoanic *taïl- may have merged with *talbï- 'to put', but the Monguor languages continue to distinguish the two.

MMo SH---, HY---, Muq *tayil-* P343a. WM *tayil-* L768b. Kh *taylax* H478a. Ord *tä:l-* M652b. Bur *taylaxa* C410b. Kalm *täälx* M484a. Dag *taila-* T165. EYu *tail-* B114, J103b. MgrH *tai:lə-* J103a. MgrM *tai-* DS258a. BaoD *təi-* BL91b. BaoÑ *ti:-* CN167. Kgj *te-* S297a. Dgx *tai-* B135. Mog---.

*taka 'horseshoe'.
MMo SH---, HY---, Muq *taγa* P134a, IV---, LV---. WM *taqa* L788b. Kh *tax* H489b. Ord *daχa* M112b. Bur *taxa* C418b. Kalm *tax* C482a. Dag *tak* E246. EYu *daqasən* (!) B125, *taka* P418a. Remaining lgs---.

*takï- 'to serve; to worship, to make an offering'. Cf. *taï-.
MMo SH *taki-* H144, HY *taki-* M98, Muq---, IV---, LV---. WM *taki-* L770a. Kh *taxix* H490a. Ord *daki-* M113b. Bur *taxixa* C418b. Kalm *täkx* M486b. Dag *tak^y-* E246. EYu *dakə-* B125. Remaining lgs---.

*takïa 'chicken'. EYu, Bao, Kgj, and Dgx all stem from a form *takaa with assimilation of the *ïa. Deviating forms in Mgr, MgrM, Mog are borrowings from the related Turkic form *takagu ~ *takïgu. Front-vocalic Dag *dəyi:* 'bird' is not related to *takïa as Enkhbat suggests, but a Tungusic loanword.

MMo SH *takiya* H144, HY *takiya* M99, Muq *taqi'a* P341a, LV *taqiya* P1268, *taγawut* (pl) P1269 (←Turkic), IV *taγaqu* L66 (←Turkic), RH *daqaun* 200B9, *taqaqun* [in animal cycle] 199C16. WM *takiya(n)* L770b. Kh *taxia(n)* H489b. Chakhar *dεx^ya:* D177a. Ord *daka:* M113b. Bur *taxyaa* C419a. Brg *tax^ya:* U176. Kalm *taka* M473a. Dag---. EYu *dayqa* B125, *da^χga* J104b, *daqa* S628. MgrH *taġau:* J104a, *təġau* X178. MgrM *taġau* C388, *toqò* P415b, cf *taġa* Z340:372 'chicken', but *tġɔ* Z400:1000 [in animal cycle]. BaoD *təχa ~ tχa* BL91b. BaoÑ *təχa* CN162. Kgj *taχa ~ tïχa ~ tχa* S296b. Dgx *tïġa, tïxġa* B139. MogMr *taχɒ:qu* L62:67.

*talbï- 'to put, lay down; to release, let go of'. The form *talbï- itself does not survive. In the modern languages one finds two unexpected developments, one of which involves the loss of -b-, the other the loss of –l-. The distribution of the variants is peculiar. The form *tabï- already appears in MMo Muq. It survives in the central languages and in the Shirongol languages. In Baoanic *tabï- further developed into *taï-; the MgrH form independently developed in the same way (cf. *kabïd- for a similar phonetic history). Another simplified form *talï- seems to underlie the Dag, EYu, and Mog forms. There is no attested old variant without -b-,

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but it would be quite a coincidence if -b- was elided in three peripheries separately. In Baoanic merged with *taïl- 'to undo', in Mongghul perhaps with *taï- 'to sacrifice'.

MMo SH talbi- H144, HY talbi- M99, Muq talbi- P339a, tabi- P338a, LV talbi- P1270, IV---. WM talbi- L772a, tabi- L760b. Kh tavix H475a. Ord tawi- M650a. Bur tabixa C409a. Kalm tävx M485b Dag tal^y- E247, tal^y- ~ t^yala- NK503b. EYu tal- B125, J104a. MgrH tai:- J104b, te:- SM413, ti:- SM415. MgrM tebi- JL487. BaoD ti- BL32. BaoÑ ti:- CN167. Kgj te- S297a. Dgx tai- B135. Mog tali- R40a, tʌli- W181a.

*talkan 'flour; roasted flour; bread'. Agricultural term related to CT *talkan.
MMo SH---, HY---, Muq talqan P339b 'oat flour', IV---, LV---. WM talqa(n) L773b. Kh talx(an) H480b. Ord dalχa M116a. Bur talxa(n) C411b. Kalm talxn M474b. Dag---. EYu talǧan B115, J52. MgrH talǧa X173. MgrM tarxa JL469. BaoD talǵaŋ BL72. Dgx tağaŋ B136. Mog---.

*tamtul- 'to smash, to rip, to tear to pieces', *tamtura- 'to be smashed, torn, ripped'.
MMo SH tamtul- H144, tantul- H145, HY---, Muq tamtul-, tamtura- P340a. WM tamtura- L775b. Kh tamtrax H482a, cf. tamtax H482a. Dag tantlɔ:-, tantar- E83:204b, cf. tantɔ:- NK503b. EYu---. MgrH tandələ- X172, tandəra:- X172. MgrM taŋtər- (tr.) DS26a, F55:178. Bao---. Kgj tande- ~ tamdi- (tr.) S296b, tantəra-, tandəra-, tantra- S296b (intr.). Dgx tantura- B136.

*tamu- and *tomu- (*toma-) 'to rub; 'to twist or spin thread or rope'. It will be assumed here that these two forms are related (cf. *dalan 'seventy' and *dolaan 'seven' for a similar pair). As the two variants do not seem to have a meaningful distribution, and some languages have both, they are listed here together. Another variant *tomï- seems to be suggested by one of the Kalm and one of the MgrM forms. Dag tɔŋg^w- is from Tungusic *tɔmkɔ- and replaces the CM word.
MMo SH tamu- H144, HY---, Muq toma-, tomu- P340b, doma- P142b, IV---, LV---. WM tamu- L776a, tomo- L823a 'to twist or spin thread or rope'. Kh tamax H481a, tomox H499b 'to twist or spin thread or rope'. Ord tamu- M644a. Bur tomoxo C427b. Brg tɔm- U185. Kalm tomx M504a, tömχə R407a. Dag---. EYu tɔmɔ- B120, toma- J104a, tomu- J18. MgrH tamu- J104b, X174. MgrM tomo- DS257b, tomi- P411b. BaoD tamăl-, toməl- (originally intensive forms?) BL91b. BaoÑ tøm- CN169. Kgj tumu- S297b. Dgx tamu- B137. Mog---.

*tana 'large pearl'. In the central langages 'mother-of-pearl'. Cf. *subud 'pearl'.
MMo SH tana H145, HY tana M99, Muq---, IV---, LV---. WM tana L776a. Kh tana H482b. Ord tana M644b. Bur tana C413a. Kalm tan M475b. Dag tanə E244. EYu tana.čə B114 (unclear suffix). MgrH tana: X172. Remaining lgs---.

*tanï- 'to know, to recognize'.
MMo SH tani- H145, HY tani- M99, Muq tani- P340b, IV---, LV---. WM tani- L778b. Kh tanix H483b. Bur tanixa C414a. Kalm tan'x M477a. Dag tan^y- E245. EYu tanə- B114, 103b. MgrH tanə- J103a. MgrM tani- JL469. BaoD tani-

BL91b. BaoÑ *tani-* CN159. Kgj *tani-* S296b. Dgx *tani-* B135. Mog *tɔni-* W181b, MogMr, MogM *tɒ:niˑ-* L64:35.

taŋlaï 'palate'. May contain a suffix *-lAi* (cf. other body parts *maŋlaï*, *kondalaï*), in which case the PM root may have been *taŋ-*.

  MMo SH---, HY---, Muq *tanqlai* P341a, LV *tanglai* P1270, IV---. WM *tangnai* L777b, *tanglai* L777b. Kh *tagnay* H477a. Ord *taŋnä:* M646b. Bur *tangalay* C413b. Brg *taŋlai* U175. Kalm *taŋna* M477a 'hard palate'. Dag *tannə* E245. EYu *taŋli:* B114, J103b. MgrH *taŋli:* J104a. MgrM *taŋlai* DS241b. BaoD *taŋləi* BL91a. Dgx *taŋləi* B136, NB *taŋləi* MC384a 'hard palate', but *taŋgalai*, *taŋɡolai* MC382b 'soft palate'. Mog---.

tarag 'sour milk, clabbered milk, yoghurt, cottage cheese, etc'.

  MMo SH *tarah* H145, HY *taraq* M99, Muq *taraq* P341a. WM *taraɣ* L779b. Kh *tarag* H484b. Bur *tarag* C414a. Kalm *targ* M478a. Dag---. EYu *taraġ* B116. MgrH *taraġ* X175. MgrM---. Bao---. Dgx---. Kgj---. MogMr *tarɒ:ɣ* L64:38.

taragaï or *tarakaï* 'mange; bald'. Apparently related to CT *taz* 'bald' to which an element *-GAi* or *-kAi* was added (the evidence is ambiguous). RI:111 compares CM *tarbaljï* 'vulture' (not listed here), which is there assumed to reflect CT *ta:z-baš* 'bald head'; Cf. MMo Muq *tarbaǰi* 341a 'name of a bird', surviving in Bur *tarba(l)ža* C415a, Kalm *tarvǰ* M478a (names of eagle species).

  MMo SH---, HY *taraqai* M77 'bald', Muq *taraɣai* P341a 'mange, scab (skin disease)'. WM---. Kh---. Bur---. Brg---. Kalm *tarxa* M479a. Dag---. EYu---. MgrH *tarġai* X175 'mange; empty, smooth, bare terrain'. Bao---. Dgx *taġi* B137 'bald person'. Mog---.

tarbagan 'marmot'. Some EYu and MgrH forms are from metathesized forms *targawan* and *tawargan*. This word may contain a suffix *-GAn*, so that the PM 'root' may have been *tarba-*.

  MMo SH *tarbaqan* H145, HY---, Muq---, IV---, LV---. WM *tarbaɣa(n)* L780a. Kh *tarvaga(n)* H484b. Ord *tarwaġa* M649a. Bur *tarbaga(n)* C415a. Brg *tarβag* U178. Kalm *tarvlɣn* (sic) M478a. Dag *tarbəɣ* E249. EYu *tarġwan* B116, *tarġuan* J104a, *taβarġan* (Qinglong dial) BJ352. MgrH *to:rġa* J104a, SM424, *tarbuġa* S625. MgrM *tarbagà* P420a. Bao---. Kgj---. Dgx---. Mog---.

targun 'fat (adj)'.

  MMo SH *tarqut* (pl) H146, HY *tarqun* M99, Muq *tarɣun* P341b. WM *tarɣu(n)* L780b. Kh *targa(n)* H484b. Bur *targan* C415a. Kalm *tarɣn* M478b. Dag *tarɣun* E250. EYu *tarġan* B116, *tarġən* J104a. MgrH *tarġun* J104b. MgrM *tarġoŋ* C388. BaoD *tarġuŋ* BL91a. BaoÑ *tarġɵŋ* CN162. Kgj *tarǧuŋ* S297a. Dgx *taġuŋ* B137. Mog---.

tarï- 'to sow, plant'. Agricultural term related to CT *tarï-* 'id'.

  MMo SH---, HY---, Muq tari- P341b, LV *tara-* P1269, IV---. WM *tari-* L780b. Kh *tarix* H485b. Ord *tari-* M648a. Bur *tarixa* C415b. Brg *tarʸ-* U179. Kalm *tärx* M487a. Dag *tarʸ-* E251. EYu *tarə-* B116, J104a. MgrH *tarə-* J104b. MgrM *tari-*

DS243a. BaoD *tarə-* BL91a, *tar-* BL76. BaoÑ *tar-* CN161. Kgj *tari-* S296b. Dgx *tari-* B137. Mog---.

tarïan 'crop; grain, cereal; agricultural field'. The QG languages all reflect a form *taraan* with assimilation of the *ïa*. Either derived in Mongolic from CM *tarïa* or directly related to CT *tarïg* 'wheat'.

MMo SH *tariyat* (pl) H146, HY *tariyan* M99, Muq *tari'an* P341b, LV *tara:n* P1269, IV---, Ph *tʰariyan* P131a. WM *tariya(n)* L781a. Kh *taria(n)* H485a. Ord *tara:* M647a. Bur *taryaan* C416b. Brg *tarʸa:* U179. Kalm *tärän* M486b. Dag *tarʸe:* E248 'crop; field'. EYu *tara:-laŋ* BJ344 'crop', *tara:-lǰən* B119 'farmer' (with unclear suffix). MgrH *tara:* J104b. MgrM *tara* JL462. BaoD *taraŋ* T147. BaoÑ *taraŋ* CN161. Kgj *tarɔ* S297a. Dgx *taraŋ* B137. Mog---.

tarïkï 'brain'. Kh, Chakhar and Bur derive from a form *tarkï*. The structure of the MgrH form is peculiar, cf. *taraġ* (sic) X175 'brain; skull', *taraġ śi:* X175 'crown; brain', *taraġ śǯi:* X175 'brain'; the latter forms are treated as compounds with *śǯi* 'centre' (from LT *dkyil*). Kalm *tarxa* is also puzzling; perhaps this form is due to confusion with *taragaï* 'bald' listed above. Cf. *heki(n)*.

MMo SH---, HY---, Muq---, IV---, LV---. WM *tariki(n)* L781a, *taraki(n)* L779b '&occiput'. Kh *tarxi(n)* H486a. Chakhar *derʸxʸ* D177a. Ord *tariki* M648a. Bur *tarxi* C415b 'head; brain; Buriat sausage'. Brg *tarɪx* U178. Kalm *tarxa* (obs) M479a also 'head', *targ* M478a 'brain'. Dag---. EYu---. MgrH *taraġśi:* J104b, X175, see remark above. Bao---. Dgx---. Mog---.

tarka- 'to scatter, spread, disperse'. Perhaps in some way related to the verb *tara-* (or *tar-*?) reflected by WM *tara-* L779b, Kh *tarax* H484b 'to disperse, etc', Ord *tara-* M646b, Bur *taraxa* C414b (intr). Kalm *tarx* M479a (intr).

MMo SH *tarqa-* H145, HY *tarqa-* M99, Muq---, IV---, LV---, *tarqa-* P131a. WM *tarqa-* L782a. Kh *tarxax* H486a. Ord *darχa-* M121b. Bur---. Brg---. Kalm *tarχăχă* R381a. Dag---. EYu *tarqa-* BJ344. Mgr---. Bao---. Kgj---. Dgx *taġa-* B136. Mog---.

tasma 'strip of leather, thong'. Wanderwort that may have entered Mongolic from Persian. Perhaps Kh *tams* H481b 'edging, bordering, etc' and Bur *tamha(n)* C413a 'small strip of textile' go back to a metathesized variant of this word.

MMo SH---, HY---, Muq *tasma* P342a 'thong', IV---, LV---. WM *tasama* L782b, *tasma(n)* L784a. Kh *tasam* H487a 'border, edging'. Ord *dasma* M126a. Bur *tahama* C420a 'leather thongs'. Kalm *tasm* M480a. Dag---. EYu---. MgrH *təsma* X179. MgrM (Sanchuan) *tsma* P420b 'ribbon'. Bao---. Dgx *sïma* S613, S1985:686 'strip of leather'. Mog *tasma:* R40a 'untanned goatskin'.

tasura- 'to break (intr)'. Several unexpected forms are found. The *-ġ-* in MgrH is intrusive, and may be a byproduct of the devoicing of the first syllable. The affricates in the MgrM form *cïǯir-* are caused by the reduction of the first vowel. In the BaoD and Dgx forms the *a* of the first syllable has disappeared completely, after which the *t* and the *s* formed an affricate. In EYu and BaoÑ the *t-* was

weakened (dissimilated) due to the following -*s*-. Cf. the peculiar development of *tata-.

MMo SH *tasura-* H146, HY---, Muq *tasura-* P342a, IV---, LV---. WM *tasura-* L785b. Kh *tasrax* H487b. Bur *taharxa* C420a. Brg *taxa:r-* U175. Kalm *tasrx* M480a. Dag *tasər-* E248. EYu *dasăra-* B126, *dasər-* J104a. MgrH *daġsəra:-* J104b, *taġsəra:-* X173. MgrM *tasïr- ~ cïʒïr-* JL470, *cïsara-* P418b. BaoD *ʒara-* BL91a. BaoÑ *dasar-* CN173. Kgj *cïra- ~ cra-* S302a. Dgx *cïra-* B156, L11, *sïra-* B116, L119b. Mog---.

*tata- 'to pull' in many languages also 'to grind, mill', or 'to smoke'. In the QG languages the first syllable was reduced and devoiced between the two strong consonants, which led to several unexpected developments which even affected the initial consonant.

MMo SH *tata-* H146, HY *tata-* M99, Muq *tata-* P342a, LV *tata-* P1268, IV---, Ph *tʰatʰa-* P131a. WM *tata-* L785b. Kh *tatax* H488a. Ord *data-* M127b. Bur *tataxa* C417b. Kalm *tatx* C481b. Dag *tat-* E248. EYu *hta-* B60, *hda-* J79. MgrH *təda-* X179, *ćida-* SM444. MgrM *tida- ~ cïda-* JL470. BaoD---. BaoGt *ṣda-* C121. BaoÑ *ṣda-* CN149. Kgj *sta- ~ sda- ~ sïta-* S294b. Dgx *sda-* B119, *ćida-* MC328b. Mog *tata-* R40a, *tʌtʌ-* W181a, *tɔtɔ-* W181b.

*tau- 'to drive (usu. animals)'.

MMo SH *ta'u-* H146, *tao'u-* H145, HY---, Muq---, IV---, LV---. WM *taɣu-* L766a. Kh *tuux* H519a. Bur *tuuxa* C438a. Kalm *tuux* M521a. Dag *tau-* E244. EYu *tu:-* B121, J104b. MgrH *tau:-* J104b. MgrM *tau-* T366. BaoD---. BaoGt *tï-* C117. BaoÑ *tu:-* CN169. Kgj *tu-* S297b. Dgx *tau-* B135. Mog---.

*taulaı 'hare'.

MMo SH *taolai* H145, *ta'ulai* H146, HY *taulai* M100, Muq *ta'ulai* P343a, *tu:lai-* P357a, LV *taulai* P1270, IV *taulai* L68, *tu:lai* L70, Ph *tʰavlayi* P131a. WM *taulai* L788b, *tulai* L840b. Kh *tuulay(n)* H518a. Bur *tuulay* C438a. Kalm *tuula* M520a. Dag *taulʸ* E244. EYu *tu:li:* B121, J103b. MgrH *to:li:* J103a. MgrM *taulai* JL469. BaoD *taoləi* BL91a. BaoÑ *təli* CN168. Kgj *tuli* S297b. Dgx *tauləi* B135. MogMr *tauläi* L62:68.

*taun and/or ?*tagan/*tagun 'jackdaw'. It is impossible to derive all forms from a single CM form. Vowel length in Brg and Dag. The MMo Muq form seems to be related to (or rather a borrowing from) the synonymous CT *taŋan (EDPT 523a). The other Mongolic forms may be connected in some way as well. A variant Turkic form *tagan may have existed, cf. *yaŋan ~ *yagan 'elephant' as opposed to CM *ǰaan. However, the Mongolic equivalent of CT *taŋan should have been *taŋgan or *taan and the Mongolic equivalent of *tagan should have been *taan.

MMo SH---, HY *alaq ta'un* M34 (see *alag 'multi-coloured'), Muq *taqan* (perhaps for *tayan*) P341a. WM *taɣu* L766a, *alaɣ taɣu* L26b. Kh *tuu* H518a, *alagtuu* H14b. Ord---. Bur *tuun* C438a. Brg *ta:g* U173. Kalm---. Dag *ta:wu* E243. Remaining lgs---.

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*tayag 'stick, walking cane'. Loan from CT **tayak* 'id'. Derived from the CT verb **taya-* 'to support'. Cf. **sorbï*.

MMo SH---, HY---, Muq *tayaq* P346b. WM *tayaɣ* L769b. Kh *tayag* H491b. Ord *tayaq* M641a. Bur *tayag* C421a. Kalm *tayg* M472b. Dag *tayiɣ* [?←Kh] Z102b. EYu *tiyaġ* B118, *t'a:ġ* B123, *tiaġ* J104a. MgrH *tiaġ* J104b, *teġ* X176. MgrM---. Bao---. Dgx *təiya* B138. Mog *tʌyʌǧ* W180b.

*te see ***tende** and ***tere**

*tebeg (?*tebüg) 'shuttlecock'. Apparently borrowed from CT **tepük*, derived from **tep-* 'to kick'. Cf. Salar *tiux* 'id'. A late loan on account of the correspondence CT **-p-* = CM **-b-*. BaoÑ *te:* CN164 'id' is from Amdo *tʰe-wu* (written *the-bug*) HL259b 'id', which in its ultimately from the same Turkic word.

MMo SH---, HY---, Muq---. WM *tebeg* L789b. Kh *teveg* H529b. Ord *tewek* M662a. Bur *tebeg* C451a. Kalm *tewg* R395a. Dag---. EYu *teβəg* B117. Mgr---. BaoD---. BaoÑ (see above). Dgx *ćiau* B151, cf. *ćie-da-* MC328b 'to kick about a shuttlecock'. Mog---.

*tebene (?*temene) 'large needle'. Note the *–m-* in Ord-Kalm-Dag, which may be older than the forms with *-b-* in view of the Turkic cognate. The Dag vowel length is unexpected, as is the *-nʸ*, which may suggest a CM form **teme(e)ni*. Related to CT **temen* 'id'.

MMo SH *tebene* H147, HY---, Muq---, IV---, LV---. WM *tebene* L790a. Kh *tevne* H528b. Ord *temene* M656b. Bur *tebene* C451a. Brg *təβən* U180. Kalm *temn* M492b. Dag *təmə:nʸ* E253. EYu---. Mgr---. Bao---. Dgx---. MogM *tēβana* L68, No. 111.

*teberi- 'to embrace'. EYu reformed from the noun **teber* 'armful; embrace'. Dag ends in an inexplicable long vowel.

MMo SH *teberi-* H147, HY---, Muq *teberi-* P343b, LV *tebri-* P1268, IV---. WM *teberi-* L790a. Kh *tevrex* H529a. Ord *tewere-* M662a. Bur *teberixe* C451a. Brg *təβər-* U180. Kalm *tevrx* M488a. Dag *təurʸe:-* E251. EYu *teβer-le-* B117, *töβer-le-* J22. MgrH *te:rə-* X175, *to:rə-* X181, MgrH *tüe:ri-* SM437. MgrM *t'arbar- /terbar-/* C389, *tierbər-* DS229b. BaoD *te:re-* T148. BaoÑ *te:r-* CN164. BaoX *tɛrə-* BC62. Kgj *tər-* S297b. Dgx *ćiauru-* B151. Mog---.

*tebsi 'plate, dish'. With added *-g* in EYu. From Chinese *diézi*, perhaps via Turkic **tevsi*.

MMo SH---, HY---, Muq *tepši* (so read) P239a, LV *tebšin* P1268, IV---. WM *tebsi* L790b, *debsi* L239b. Kh *tevš* H529b. Ord *debši* M132b. Bur *tebše* C451a 'small trough; wooden dish'. Kalm *tevš* M488a 'wooden trough, tub, oblong wooden tray'. Dag---. EYu *tebšəg* B117 'trough; a wooden implement used for winnowing'. MgrH *diewśi* SM50 'small dish'. BaoD---. BaoÑ *debśi* CN176. Dgx---. Mog---.

*tede 'those' see ***tere**

*teeli 'axle' see ***teŋgeli(g)**

*teermen 'mill', in the QG languages *termen, with unexpected vowel shortening also in EYu-MgrH. Technical term related to CT *tegirmen 'id'. In view of the Turkic cognate the loss of the -n in central Mongolic is an innovation of that subgroup. MMo Muq and Ph have borrowed the Turkic word again at a later stage.

MMo SH---, HY---, Muq tegirmen (←Turkic) P344b, IV---, LV---, Ph tʰegirmed (pl.) P131b. WM tegerme L793b. Kh teerem H538a. Bur teerme C460a. Kalm teerm M489b. Dag---. EYu termen B118, J104b. MgrH tərme J104a. MgrM tʸarme /terme/ C389. BaoD tarmaŋ BL92b. BaoÑ termaŋ CN166. Kgj tɔmɔ ~ tɔrmɔ S297a. Dgx ćieman B153a, ćiemən L119b. Mog te:rmo:n R40a.

*tegsi 'level, even'. Cf. *tübsin.

MMo SH---, HY---, Muq tekši P345b 'fair, just'. WM tegsi L794a. Kh tegš H530a. Bur tegše C451b. Kalm tegš M488b. Dag tərš E255, təkš E252. EYu degšə B117, J104b, tegšə BJ344. Remaining lgs---.

*tegüs- 'to end (intr)'.

MMo SH---, HY tegüs-ge- (caus.) M100, Muq---. WM tegüs- L796a. Kh tögsöx H507b. Bur tügesexe (←Kh) C442b. Kalm tögsx M512a. EYu dögəs- BJ323.

*teimü 'such, that kind of'. From the pronominal (distal demonstrative) root *te-, cf. *te(re) 'this', *tende 'there', *tein 'thus'. Dagur may involve another suffix (as in *yamar). Kangjia teme has functionally replaced *tein 'thus', the Baoan forms have replaced *tedüi 'that much' (not listed). Most Shirongol forms include *nige 'one'. For new Baoanic formations replacing *teimü, see s.v. *metü. MgrH təgi: X178, MgrM tiŋtai DS30a 'that kind of' are other new formations based on *te-.

MMo SH teyimu H150, HY---, Muq ti:m (probably < ti:n assimilated to boltuɣai following it) P345a. WM teyimü L796b. Kh tiym H492a. Bur tiime C422a. Kalm tiim M498a. Dag ti:mər E255. EYu tomo [in compounds] B120, tumə J104a. MgrH tamaiŋgə H173 'a lot of', tamaingə L553 'that much'. BaoD təmiŋgə BL75 'that much'. BaoÑ temi:ngə CN165 'that much'. BaoX təmi: nəgə CN86:179 'that much'. Kgj teme (?=) S297a 'that way', teme niye S192 'that much'. Dgx ćimi nie BC85:132 'as little as that'. Mog---.

*tein 'like that, so'. Cf. *teimü above.

MMo SH teyin H150, HY teyin M101, Muq teyin P168b, ti:n P345a, LV---, IV tein L68. WM teyin L796b. Kh tiyn H492b. Bur tiin C422a. Kalm---. Dag ti: E255. EYu ti:n B118, BJ344, J53. Mgr---. Bao---. Dgx ćiŋ B154.

*teingi- < *tein ki- 'to do that way'. The forms in the central languages and Dag are new formations based on *tei ki-. The Dgx form takes any negation particles between the original components (cf. BC85:175). From the pronominal root *te-, cf. also *tere 'that', *tende 'there'.

MMo SH---, HY, Muq---. WM tenggi- L802b, tege- L792b, also činggi- L190a. Kh tegex H530b. Bur tiigexe C421b, tiixe C422b. Brg ti:g- U182. Kalm tiigx M498a. Dag ti:xi:- Z102a, cf. the gerund ti:ɣa: E255, tiɣə: E256. EYu təŋgə- B116. Mgr tiŋgə- X176, təŋgɜ- X178. MgrM tiŋgə- DS32b. BaoD təŋgə- BL74. BaoÑ təŋgə- CN162. Kgj teŋgi- ~ taŋgi- S297a. Dgx ćiŋ giə- B154.

*teǰie- 'to feed, nourish'. The ć- in Bao is irregular (in Kgj it is also a rare development but other cases are documented, see *temür 'iron'). But in view of the Dgx form this irregularity does not date back to Proto Baoanic (in which case Dgx would have had initial ç-). The same irregularity occurs (alongside the expected form) in MgrH. Mostaert compares the MgrH form to Ord čide:-. Although theoretically the latter could represent another verb, it could be another odd alteration of *teǰie-.

      MMo SH teji'e-, tejiye- H147, HY teǰe'e-mel M100, Muq---, LV teǰe:- P1268, IV---. WM tejiye-, tejige- L808b. Kh teǰeex H531a. Ord teǰe:- M655a, čide:- (?=) M701a. Bur težeexe C453a. Kalm tejäx M490a. Dag təǰə:- E254. EYu---. MgrH təǯe:- J104a, ćiǯie:- SM446. MgrM teže- JL462. BaoD ćiǯiə- BL91a. BaoÑ ćiǯe- CN188. Kgj čije- S301a. Dgx ćieʒə- B153, L119a. Mog---.

*teke 'billy-goat'. Agricultural term related to CT *teke 'id'. Cf. *ukuna and *serke.

      MMo SH---, HY---, Muq teke P267b, IV---, LV---. WM teke L797a 'wild goat, ibex'. Kh tex H537a 'wild goat, mountain goat'. Ord deke (in riddles) M136a. Bur texe C458a. Brg təx U180. Kalm tek M490b. Dag---. EYu teke, tege B117. Mgr---. Bao---. Dgx---. Mog tàkà R59.

*temeče- 'to struggle, to strive for, to exert oneself, to compete'. Dagur suggests *temečie-. Not to be confused with *teŋče- (not listed here).

      MMo SH temece- H148, demece- H36, HY---, Muq temeče- P345b, IV---, LV---. WM temeče- L799b. Kh temcex H532a. Bur temsexe C453b. Kalm temcx M493a. Dag təmče:- E253. EYu temče- J90. MgrH tənǯe:- X178, təmǯe:- L571. Bao---. Dgx ćieməçə- MC329b. Mog---.

*temeen 'camel'. Agricultural term related to CT *teve 'id'. The CM -m- has apparently developed under the influence of the following -n of the element -en that was added after borrowing.

      MMo SH teme'en H148, HY teme'en M100, Muq teme:n P345b, LV teme:n P1270, IV---. WM temege(n) L800a. Kh temee(n) H532a. Ord teme: M656b. Bur temee(n) C453b. Brg təmə: U181. Kalm temän M491b. Dag təmə: E253. EYu teme:n B117, temen J104b. MgrH təme:n J104a. MgrM teme JL461. Bao---. Dgx---. Mog temɔ, temɔn W181a.

*temgü- 'to gather, pick up'. Note the peculiar distribution of this verb and *teü-. Only MMo and Dgx seem to preserve both verbs. *temgü- appears in MMo, Shirongol, and perhaps in Dagur and Moghol; *teü- is found in MMo, the central languages, EYu, and Dgx. It is unclear whether these two nearly complementary verbs are in some way related. Both the long ə: and the -k- of the Dag form are unexpected. The former suggests a connection with Manchu tunggiyembi 'to pick up'; the latter may indicate that the Dagur form is instead related to *töŋki- 'to peck' (cf. Ord töŋkö-). The irregular Mog form is reminiscent both of *temgü- and *čömü-.

      MMo SH temgu- H148, tenggu- H148 'to pick up, to gather', HY---, Muq---, IM temgü- P448a. WM---. Kh---. Ord---. Bur---. Kalm---. Dag tuŋkə:- (?=)

E262. EYu---. MgrH *tuŋgu*- J104a, X183. MgrM---. BaoD *tuŋgə*- BL91a 'to pick up, gather'. BaoÑ *toŋgə*- CN168 'to pick up, gather'. Kgj *tuŋgi*- S298a. Dgx *ćiauŋğu*- B151 'to pick up, collect, gather'. Mog *təmu*- W181b 'to gather', MogM/Mr *tomu*- L74:301 'to pick (flowers or fruits)'.

*temtel-, ***temtere**- 'to feel, grope'. Unlike other similar-looking verb pairs this is not a pair of transitive/intransitive counterparts. Central Mongolic has the form with -*r*-, Shirongol has the form in -*l*-. Dag *təmʸe:lə:*- E253 'to grope' may be related to the latter, but the morphological relationship between the two shapes is unclear.

MMo SH *temtel*- H148 'to whet', HY---, Muq---, IV---, LV---. WM *temteri*- L800b, *temtel*- ('old form') L800b. Kh *temtrex* H532a 'to feel, grope'. Ord *temtere*- M657a, *temtur*- M657b. Bur *temterxe* C453b. Kalm *temtrx* M492b. Dag (see above). EYu---. MgrH *temdələ*- X176. BaoD---. BaoÑ *temdel*- CN165. Dgx *ćienćielu*- B153. Mog---.

*temür 'iron'. Related to CT **temir* 'id'. The rounding of the second vowel seen in most recorded Turkic forms is also found in the earliest Mongolic. Subsequent rounding of the first syllable only took place in central Mongolic. Dagur famously stands out with a different lexeme *kasɔ:* E140.

MMo SH *temur* H148, HY *temür* M100, Muq *temür* P346a, LV *temür* P1270, IV---. WM *temür* L800b. Kh *tömör* H509a. Ord *tömör* M674a. Bur *tümer* C444b. Brg *tumər* U190. Kalm *tömr* M513a. Dag---. EYu *temər* B117, J104b. MgrH *təmur* J104a. MgrM *tərmər* C389. BaoD *təmər* BL91b. BaoÑ *temər* CN165. Kgj *čimɔ* S301a. Dgx *ćiemu* B153. Mog---.

*tende 'there'. The same stem as **tein* 'like that', **tere* 'that', etc.

MMo SH *tende* H148, HY *tende* M100, Muq *tende* P346b. WM *tende* L801a. Kh *tend* H533a. Ord *tende*, *ténde* M657b, *te:nde* (emphatic) M657b 'over there'. Bur *tende* C454b. Kalm *tend* M493a. Dag *tənd* E251. EYu *tende* B116, J104a. MgrH *təndai:* J104a, *tənde:*, *təndi:* X177. MgrM *tindu* DS42a, *tendekuni* P420b 'from there'. BaoD *təndə* BL91b. BaoÑ *tendə* CN164, *təndə* CN162. Kgj *tende* S129. Dgx *təndə* B138. Mog *tendä* R40a.

*teŋgeli(g) 'axle'. An apparently related form **teeli* also exists: WM *tegeli* L793a, Kh *teel* H538a 'pivot pin of tools such as scissors and pliers', *degliy* H192a 'the pivot of scissors or thongs', Bur *teeli* C459b 'axle, pivot pin'. Not to be confused with MMo Muq *töngelik* P211b, 367b 'ring of the bridle', Ord *töŋgölök* M674b 'rings on the bit for the reins', Kalm *töölg* M513b 'iron (metal) ring'.

MMo SH *tenggeli* H148, HY---, Muq *töngelik modun* P358b (*modun* 'wood'). WM *tengelig* L802b. Kh *tenxleg* H533b. Ord *teŋgel*, *teŋgelik* M658b. Bur---. Brg *təŋgələg* U180. Kalm---. Dag *təŋgəl* E251. Remaining lgs---.

*teŋgeri 'sky, weather; heaven; god', in Shirongol 'sky'. Note the added -*g* in Baoan. Potanin (424) gives Dgx *tengir*, in which both the preserved *t*- and the final -*r* are unexpected. Unfortunately the word is quoted in a sentence which does not specifically look Dongxiang, and may be mislabeled. Related to CT **teŋri* 'id'.

MMo SH *tenggeri*, *tenggiri* H148, HY *tenggiri* M100, Muq *tengiri* (or *teŋri*) P347a, LV *tengri* P1270, IV *tengri* L68, Ph *déŋri* P122a. WM *tngri* L809b, *tenggeri* L802b, *tegri* (?misreading of *tngri*) L794a. Kh *tenger* H532b. Ord *teŋger* M658b. Bur *tengeri* C454a. Kalm *teŋgr* M493b. Dag *təŋgər* E251. EYu *teŋger* B116, B104b 'sky'. MgrH *təŋgerə* J104a. MgrM *tiangərə* DS250a, (Sanchuan) *tengrì* P416b. Bao *tengrì* P416b. BaoÑ *teŋgərəg* CN164. BaoX *təŋgərəg* BC61. Kgj---. Dgx (see above). Mog---, but cf. Zirni *tengari* 1:4.

*tere (and *te?) 'that; s/he, it'. The distal demonstrative, in many languages also used as the third person singular pronoun (cf. *ejen, *irgen, *nögee, *öer-). The monosyllabic forms in Mgr, Bao, Kgj, and Mog are interesting, but it can not be determined whether these are older forms or recent reductions. In view of the oblique stem listed below, and related words such as *tein, and *tende discussed above, it is not impossible that the short forms are old. The retention of the *t- in Dgx (instead of *ć-) is unexpected.

MMo SH *tere* H149, HY *tere* M101, Muq *tere* P348a. WM *tere* L804b. Kh *ter* H534b. Ord *tere* M660a. Bur *tere* C457a. Kalm *ter* M495a. Dag *tər* E254. EYu *tere* B118, J104b. MgrH *te* J104a. MgrM *ti* JL479 'that one; he'. BaoD *tə* ~ *tərə* BL34, *tər* BL91b. BaoÑ *terə* CN165, *tərə* CN163, *tə* CN162. Kgj *te* S297a. Dgx *tərə* B138. Mog *te* R40a, MogMr *te:* L62:68.

The oblique stem *teün-. As such lost in most peripheral languages, but it seems to survive in Dag *tu: ča:ǰ* E261 'day after next', *tu: nuwə: xɔ:n* E261 'year after next'. MgrH *təŋ* X182 'year after next', *təŋ ćina:daġ* X182 'in three days' (cf. Ord *tǖ: nögö:dör* M498a 'in three days' in central Mongolic). The oblique stem may also be the source of Kgj *tʉn* S298a 'that side', in which case it was metanalysed from inflected forms like the dative *teündü. Survives in its original function as follows.

MMo SH *te'u(n)-* H149, HY *te'ü-ber* M101, Muq *tü:n-* P360a. WM *tegün-* L795b. Kh *tüün-* H527a. Ord *tʉ:n* M686a. Bur *tüün* C448b. Kalm *tüün-* M525b. Dag---. EYu *tʉn-* B122, *tun-* J26. Remaining lgs---.

The plural *tede 'those'. This old plural uses the same suffix as *ede, the plural of *ene 'this', and, apparently *bïda 'we'.

MMo SH *tede(n)* H147, HY *tede* M100, Muq *tede* P344a, *teden-* P344b. WM *tede(n)* L791a. Kh *ted(en)* H530b. Ord *tede* M654a. Bur *tede, teden-, tedeen-* C452ab. Kalm *tedn* M489a. Dag *təd* E254 (gen. *tədni:*). Remaining lgs---.

*tergen 'cart'.

MMo SH *terge(n)*, *tergan* H149, HY *tergen* M101, Muq *tergen* P349b, IV---, LV---. WM *terge(n)* L805a. Kh *tereg (tergen)* H535b. Ord *terge* M660b. Bur *terge* C456a. Kalm *tergn* M495a. Dag *tərəɣ* E254. EYu *terɣen* B118, J104b. MgrH *tərge* J104a, *tie:rge* SM417. MgrM *tʸargə* C389. BaoD---. BaoÑ---. Kgj---. Dgx *ćiərgə* B154, *ćiərəiǧan* MC331b. Mog---.

*teriün 'head', with many derived meanings such as 'chief' and 'beginning'. A phonetic variant *türüüin developed already in MMo, usually associated with the meaning 'first' as an adverb of time and as an ordinal number. Reading pronunciations with -g- can be found in central Mongolic. The peripheral languages

tend to preserve only a single variant. Dgx developed as if from *teürün or *törün. For 'head' in the anatomical sense also see *hekin and *tolagaï. *teriün is also the base of the verb *teriüle- 'to begin' (not listed here).

MMo SH teri'u(n) H149 'head', turun H155 'at first', HY teri'ün M101 'head', törün M103 'at first', Muq---, LV terü:n, tirü:n P1269, IV térgün L62:68. WM terigün L805b, türügüü L856a 'head (of a group), etc', türügün L856a. Kh tergüün H535a 'head, chief; first; beginning; leading', türüü(n) H525b 'head of a group, etc'. Bur türüü C446a 'first, head, main, etc', türüün C446b 'earlier, etc'. Brg tərgu:ŋ U182 'chief', turu: U191 'chieftain; ear (of grain)'. Kalm tergün (obs) M495b 'head, chief; first, etc', türün M524b 'first, head, main, etc'. Dag turun E264 'first; champion'. EYu hkö tʉrʉ:n B59 'gadfly' (*köke 'blue'). MgrH turu: SM436, turɔŋ X186, torɔŋ X181 'for the first time', etc. BaoD təruŋ BL92b 'head'. BaoJ troŋ L181. BaoŇ tərəŋ CN169, also 'beforehand'. Kgj tʉrʉ S298a 'head; ear (of grain)'. Dgx ćiauruŋ B151 'head'. Mog---.

*teü- 'to gather, pick up' (e.g. dried dung or firewood). Cf. *temgü- 'id'.
MMo SH---, HY---, Muq tü:- P359b. WM tegü- L794b. Kh tüüx H527b. Ord tü:- M683b. Bur tüüxe C449b. Brg tu:- U188. Kalm tüüx M525b. Dag---. EYu tü:- B123, J104a. MgrH---. MgrM tiu- F44:32. BaoD---. BaoŇ---. Dgx (haŋğa) ćiau- B64 'to collect (manure)'. Mog---.

*teün- oblique stem of *tere

*toa(n) 'number, figure'. The -n was exceptionally lost in Kalm-Bur.
MMo SH to'a H150, to'o H151, HY to'a M101, to'an M101, to'on M101, Muq to'an P350a, to:n- P352a. WM toγa(n) L813a. Kh too(n) H501a. Ord to: M663b. Bur too C428b. Kalm to M499a. Dag tɔ: E257, tɔ:n E257. EYu tu:n B121, J104a, tɔ:n (Qinglong) BJ351. MgrH to: J104b, SM422, to:r (sic) SM424. MgrM (Sanchuan) to P420a. Bao---. Dgx---. Mog toa R40b.

*toala- 'to count'. From *toa(n) 'number' above.
MMo SH to'ola- H151, to'ula- H152, HY---, Muq to:la- P352a, LV to:la- P1271, IV---. WM toγala- L814a. Kh toolox H501b. Dag tʷa:l- E266. EYu tu:la- B121. MgrH to:la- SM423, to:rla- SM426. MgrM tolo- C389. BaoGt tolə- C103. BaoŇ tə:la- CN167. Kgj tula- S297b. Dgx təula- B138. Mog toala- R40b.

*toarag and *tobarag 'earth; dust, dust cloud, speck of dust,'. The latter form is found in the central languages. Both stem from the same Turkic word *toprak 'earth. Dgx tura B142 is compared to WM tobaraγ by Bökh, but it could also be from *toarag. Kgj durpa could represent a recent loan from Turkic (with metathesis). Cf. *toasun 'dust'.
MMo SH---, HY---, Muq---, IV---, LV---. WM tobaraγ L810a, tobraγ L811b, toγuraγ L817b. Kh toorog H502a, tovrog H493a. Ord [to:s] toworoq M672a. Bur toorog C429b, toborog C423a. Kalm toorm (sic) M506b, tovrg M499b. Dag tʷa:rəl E266. EYu---. Mgr---. Bao---. Kgj turu ~ turğu S297b, cf. also duṛ ~ durpa (?=) S299b. Dgx tura B142 'earth'. Mog---.

*toarï- 'to turn around; to circle; to enclose'. In Kalmuck *toarï- appears to have merged with *töeri- 'to get lost'. The meaning 'to roam' found in several Baoanic languages may have developed from *toarï- 'to circle' or *töeri- 'to get lost' or may be also due to confusion of the two. Strangely enough the two Kangjia forms seem to correspond to the single BaoÑ form. The ø of tørli- normally suggests a front-vocalic CM form.

MMo SH to'ori- H151, HY to'ori- M101, Muq to:ri- P352a, IV---, LV---, Ph tʰo'ori- P131b. WM toɣori- L817b. Kh toɣrox H497b, toɣrix H497a. Ord to:ri- M670b. Bur toɣroxo C425b, toorixo C429b. Brg tɔirʸ- U183 'to wind'. Kalm (see above). Dag tɔ:rʸ- E258 'to return on the same day'. EYu tɔrɔ- B120, toro:- (length metathesized) J104a. MgrH to:rə- J104b. MgrM---. BaoD torə- BL92a. BaoGt tor- C112. BaoÑ tø:rə- CN167 'to wind; to turn; to be dizzy; to surround; to roam'. Kgj turi- S297b 'to go for a stroll, wander', tɔri- ~ turi- S20 'to call at people's homes', cf. turiǧai S297b 'who likes to call at people's homes', but also tørli- (?=) S297b 'to be dizzy, to lose consciousness'. Dgx tori- B140 'to stroll, roam', torəi- MC392b 'to stroll, roam, stroll about, go sightseeing'. Mog---.

*toasun 'dust'. Perhaps related to Turkic *tog 'id' or *topa 'id'.

MMo SH to'osun H151, to'usun H152, HY to'osun M101, Muq---, LV---, IV to:sun L69. WM toɣosu(n) L818b. Kh toos(on) H502b. Ord to:s(u) M672a. Bur tooho(n) C430a. Brg tɔ:s (←Kh) U183. Kalm toosn M506a. Dag (tʷa:rəl) tɔ:s E266 (first element from *toarag). Remaining lgs---.

*tobčï 'button'.

MMo SH---, HY---, Muq tobči P350b, IV---, LV---. WM tobči L810b. Kh tovč(in) H493b. Ord dobči M146a. Bur tobšo C423a. Kalm tovč M499b. Dag tɔrč E261. EYu tɔbčə B119, tobčə J104b. MgrH tebʒ́ə X176, teś́ʒ́ə J104b, X177, deś́ʒ́i SM54. MgrM tʊǧ́ʒ́i C389, toǧči T328, təǧ́ʒ́i, tuʒ́i DS210a. BaoD tabćiə BL92a. BaoÑ døbći CN179. Kgj---. Dgx təʒï B138, tïʒï L119a. Mog---.

*togaan 'pot, pan, cauldron'. Cf. *kaïsun.

MMo SH toqo'an H150, HY toqo'an M101, Muq toɣa:n P350b, toqa:n P351a, IV---, LV---. WM toɣoɣa(n) L817a, toɣo(n) L816b. Kh togoo(n) H494b. Ord toǧoo M664b. Bur togoo(n) C423b. Kalm toɣa:čĭ R397a 'cook'. Dag tuwa: E265. EYu tɔǧɔ:n B119, toǧo:n J104a. MgrH toǧo: J104b, tuǧʊ: X183. MgrM tuǧo C389. BaoD tuχuŋ BL92b, tχuŋ BL13. BaoÑ təχøŋ CN162. Kgj tuχuŋ ~ tχuŋ S297a. Dgx tuǧoŋ B141, tuǧon L120b. Mog---.

*togaraun (?*toguraun) 'crane (the bird)'. In Chinese sources often confused with 'wild goose'. The EYu form in Sun is likely to be wrong; the normal EYu word for 'crane' is sʉre:čə B103, of unclear etymology.

MMo SH toqora'u(n), toqura'un H150, HY---, Muq tuɣra'un P354a, LV toqaraqaun (sic) P1269, IV toɣora'un (spelled toɣorwa:n) L69. WM toɣoruu L818b, toɣoriu L818b, toɣoriɣun L818a. Kh togoruu H495a. Ord tuǧuru: M677a. Bur toxoryuu(n) C432a. Brg tɔgrʊ: U185. Kalm toɣrun M501a. Dag tɔɣʷlɔ:r E259. EYu tuǧuroŋ [only] S638. MgrH tuǧʊrɔŋ X183. MgrM tuǧurun DS226a. BaoD təχərəŋ BL88b. Kgj---. Dgx toŋgori B139, tongori L108, toǧoro L117b. Mog---.

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*togta- 'to be steady; to stand still, to stop; to take shape'.
        MMo SH *toqta-* H150, HY *toqto'a-* (caus.) M102 'to memorize', Muq *toqta-* P351a. WM *toɣta-* L815a, *toɣto-* L816b. Kh *togtox* H495b. Bur *togtoxo* C424a. Kalm *togtx* M501a. Dag *tɔrt-* E261. EYu *tɔgtɔ-* B119, *toġdo-* J79. Remaining lgs---.

*tokaï 'elbow'. The form *tokanag* in Bur and EYu may be based on the same root.
        MMo SH---, HY *toqai* M101, Muq *toqai* P351a, LV *toqai* P1270, IV *toqai* L69. WM *toqoi* L829b, *toqai* L829a. Kh *toxoy* H506a. Ord *doχö:* M149b. Bur *toxoy* C432a (and *toxonog* C432a). Brg *tɔxɔi* U184. Kalm *toxa* M509b. Dag---. EYu (*dɔqɔnɔġ* B129). MgrH *tuġui:* J104b. MgrM *tuġuai* DS219b. BaoD *toχəi ~ toġoi* BL92b. BaoÑ---. Dgx *toği* B139, *toɣəi* L119b. Mog *tuqei* R40b.

*toku- (?*toka-) 'to saddle, to cover with sth'. The form with *a* is suggested by Ord. the *-k-* was weakened in several languages.
        MMo SH *toqu'ul-* (caus) H150, HY *toqu-* M102, Muq *toqu-* P351a, IV---, LV---. WM *toqo-* L829a. Kh *toxox* H506a. Ord *doχo-* M149a. Bur *toxoxo* C432a. Brg *tɔx-* U183. Kalm *toxx* M510a. Dag *tɔɣʷ-* E259. EYu *tɔğɔ-* B119, *toğə-* J104b. MgrH *tuġu-* J104b. BaoD *taoġə-* BL92a. BaoÑ *təχө-* CN168. Kgj *tuğu-* S297b. Dgx *toğu-* B139, L119a. Mog---.

*tokum (?*tokam) 'saddle-pad, sweat-cloth', in some QG languages 'felt'. Derived from *toku-* above. The form with a is suggested by Ord. The final consonant was completely lost in Dag and Kgj.
        MMo SH---, HY---, Muq---, LV *toɣum* P1270, IV---, RH *ṭoqum* 205A19. WM *toqom* L830b. Kh *toxom* H506a. Ord *doχom* M149a. Bur *toxom* C432a. Kalm *toxm* M510a. Dag *tɔkʷ* (sic) E259. EYu *tɔğɔm* B119 'sheep's wool felt', *toğəm* J104b 'saddle-pad'. MgrH *tuġum* J104b 'saddle-pad'. MgrM---. BaoD *tuχəm* BL92b 'saddle-pad', *tχum* BL32 'felt'. BaoÑ *təχəm* CN162 'felt; saddle-pad'. BaoX *təxom* BC62 'saddle-pad'. Kgj *tuğu* S297b 'saddle-pad'. Dgx *tuğuŋ* B141, *toɣuŋ* L119b. Mog---.

*tolagaï 'head'. The shorter form *tola*, as seen in Dgx *tolo*, is perhaps mirrored by MgrM *tolò* P420a 'haystack'. See *hekin, *teriün* 'head'.
        MMo SH---, HY---, Muq---, IV---, LV---, RH---, Ph---. WM *toloɣai* L822a. Kh *tolgoy* H498a. Ord *tologö:* M665b. Bur *tolgoy* C425b. Kalm *tolɣa* M502a. Dag *tɔluɣ* only in *xəkʸ tɔluɣ* E4-491 'the main points of a matter' (cf. *hekin*). EYu *tɔlɔğɔi* B119, *tologui* J104a. MgrH *tolġʋi* X181, *tolġuai* J104b. MgrM *tarġai* JL477, *torġui* T366 (and see above). Bao---. Kgj as such---, but perhaps preserved in *turğu(n)či* S297b 'chieftain, tribal headman'. Dgx *tologəi* MC392a 'hill', *tolo* MC392a, S221. Mog---.

*toma- 'to spin thread, etc' see *tamu-

*tor 'net'. Related to CT *tor (?*to:r) 'id', and some of the forms below may represent recent borrowings.

MMo SH---, HY---, Muq---, IV---, LV---. WM *toor* L829a. Kh *tor* H503a
[*toor* 'bird trap' is from Chinese]. Ord *tor* M670a. Bur---. Brg *tɔr* U185. Kalm *toor*
M506a. Dag---. EYu *tɔr* B120 'net; wire; railing', *tor* J104b. MgrH *to:r* J104a.
MgrM *tor* P420b, *xaxaitər* DS212b 'cobweb' (see **haakaï* 'spider'). Bao---. Dgx---.
Mog *tor* R40b, *tɔr* W181b.

*torga(n) 'silk'. Also in view of CT **torku* 'id', the *-n* is a Mongolic addition, but
not necessarily in the CM period. Note that it is absent in Muq, as well as in EYu,
which normally preserved both stable and unstable *-n*.

MMo SH *torqan* H152, HY---, Muq *torqa* P210b. WM *torɣa(n)*, *torɣu(n)*
L826ab. Kh *torgo(n)* H503a. Ord *torġo* M670b. Bur *torgo(n)* C430b. Kalm *torɣn*
M507a. Dag *tɔrɣ^w* E261. EYu *tɔrǧɔ* B120, *torǧo* J104a. MgrH *torǧʊ* X182. MgrM
torgo P422a. Bao---. Dgx---. Mog---.

*tosun 'fat, oil, butter'. EYu and MgrH share secondary vowel length. May contain
the (collective?) suffix **-sUn*; the PM root may have been **to-*.

MMo SH *tosun* H152, HY *tosun* M102, Muq *tosun* P351b, LV *tosun*
P1270, IV *tosun* L69. WM *tosu(n)* L828a. Kh *tos(on)* H504b. Ord *dusu* M165b. Bur
toho(n) C432b. Brg *tɔxɔ:* U184. Kalm *tosn* M508b. Dag *tɔs* E260. EYu *tu:sən* B121,
J104a, *tɔ:sən* (Qinglong) BJ351. MgrH *to:sə* J105b. MgrM *tosï* JL464. BaoD *tosuŋ*
BL92a. BaoÑ *təsəŋ* CN169. Kgj *tusun* S297b. Dgx *tosuŋ* B139, *dosuŋ* B148. Mog
tusun R40b, *tɔsun* W181b, *tusun* W182a, MogMr *tɒ:sun* L62:69.

*töbed 'Tibetan'. In EYu **taŋgud* is used instead.

MMo SH *tobodut* (pl.) H150. WM *töbed* L831a. Kh *tövd* H507a. Ord *töwöt*
M676a, cf. also the pl. *töwödʉ:t* used as a clan name. Kalm *tüw^ü d* R417b. Bur *tübed*
C441b. Dag---. EYu---. Mgr *tever ~ teved* Khas177, *təver* Khas180. MgrM *t^yebe*
C389, *tiebie* DS9. BaoD *ted* BL65, BL66. BaoX *tɛ* BC71. Kgj *tør ~ tʉr* S297b.
Dgx---. Mog---.

*töe 'handspan'.

MMo Muq *töwe* P353b, IM *töhe* [Poppe reads *töhe:*] P448b. WM *töge*
L832a. Kh *töö* H509b. Ord *tö:* M672b. Bur *töö* C433a. Kalm *tö* M511a. Dag *t^wə:*
E267. EYu *tü:* J105a, BJ345. Remaining lgs---.

*töene 'cauterisation, moxibustion', and the related verb **töene-*. Related to CT
*tögün, originally 'brand', and **tögne-* 'to brand'. As Lessing notes, the first
meaning in Bur is reminiscent of **töel(i)*, Kalm *tööl* M513b 'white spot, blaze (on
the forehead of domestic animals)'.

MMo SH---, HY---, Muq *tö'ene* P352a, *tö'e'üne* P352b, *tö:ne* P353b. WM
tögene, *tögene-* L832a. Kh *töönö* H509b 'cauterisation etc'. Ord *tö:n* (sic) M674b,
verb *tö:nö-* M674b. Bur *töön* C433a 'white spot; brand'. Kalm *töön* M513b 'burn;
brand'. Dag *tuənə* and *tuənə-* E3:216, also *t^wə:-* (sic) Z103b. EYu *tü:ne* B123, *tü:ne-*
J105a 'to apply moxibustion'. MgrH *to:no-da-* J104b 'to apply m.'. Bao---. Kgj
tene- S297a 'to apply m.'. Dgx---. Mog---.

*töeri- 'to get lost'. EYu with -e as if from *töere-, which variant is supported by the Dag form with breaking *tʷə:r-. See *toarï- 'to turn around, which may have been confused with *töeri- in Baoanic. Cf. *jabka-

MMo SH to'ori- H151, HY---, Muq tö:ri- P353b, IV---, LV---. WM tögeri- L832b. Kh töörox H510a. Ord tö:rö- M675a. Bur töörixe C433a. Brg to:r- U188. Kalm töörx M514a. Dag tʷə:r- E267, tu:rʸ- E261. EYu türe- B123, tü:r- J54. Mgr---. Bao---. Kgj---. Dgx---. Mog---.

*tögerig 'circle or sphere; round, circular, spherical'. MMo also has a variant *töerig and an extended form *tögerigei. Bur and Dag suggest *tökerien.

MMo SH togorigai H150, HY tögörik M102, Muq tö'erik P352b, cf. naranu tögerik P246a 'solar disc' (*naran 'sun'), IV---, LV---, Ph tʰökʰörigeé- P131b 'circle'. WM tögerig, tögörig L832b. Kh tögrög H507b. Ord tögörök M673a. Bur tüxeryee(n) C449b, tüxerig C450a 'ruble'. Brg tugrəg U189. Kalm tögrg M512a. Dag tukrʸe:n E263. EYu tʉgreg B122, tögörög S236, cf. töyörögdə- J48 'to become round'. MgrH tuguri: L589. MgrM togori DS211b. Bao---. Dgx---. Mog---.

*töre- 'to be born or to give birth'. Cf. CT *törü- (EDPT 533a).

MMo SH tore- H152, toru- H152, dore- H37, HY töre- M102, Muq töre- P353a, IV---, LV---. WM törö- L836a. Kh töröx H510b. Ord törö- M675a. Bur türexe C448a. Brg tur- U191. Kalm törx M515a. Dag tur- E264. EYu törö- B121, töröː- J104b. MgrH turo- J104a. MgrM tur- C390. Bao---. Kgj tere- S297a. Dgx---. Mog tʉrä- R41a, tɔrʌ- W181b.

*tugul 'calf'. In view of the other bovine terminology shared by Turkic and Mongolic, this word is probably related to CT *toklï 'id', in spite of the flawed phonetic correspondence. Dag has -k-, but many documented cases of -k- < *-g- occur in that language.

MMo SH tuqul H153, HY tuqul M103, Muq tuyul P354a, IV---, LV---. WM tuyul L838b. Kh tugal H512a. Ord tuǧul M676b. Bur tugal C433b. Brg tʊgal U187. Kalm tuyl M516b. Dag tɔkulʸ E259. EYu---. MgrH tuǧul J105b. MgrM tuǧur-la- DS208 'to breed calves (sic, for to give birth to)'. BaoD toχol BL92b. BaoGt təl-ćəǧ CN86:286 (dim. formation). BaoÑ təl-ćəǧ CN169 (dim.). BaoX toǧla- (sic, ?for *toǧol-la-) BC64 'to calve'. Kgj tuǧu S297b, tuǧula- S297b 'to calve'. Dgx tuǧuŋ B141, also tuǧunça B141 (dim.); DgxL tuǧu B53. Mog tuyul R40b, tuǧul W182a.

*tuïla- 'to buck; to kick with the hind legs'.

MMo SH---, HY---, Muq tuila- P354a. WM tuyila- L840a. Kh tuylax H513a. Bur---. Brg---. Kalm tuul'x M521a. Dag---. EYu tü:la- B123, J42. Mgr---. BaoÑ ti:la- CN167. Dgx---. Mog---.

*tul- 'to support'.

MMo SH---, HY---, Muq tul- P354a, IV---, LV---. WM tul- L840a. Kh tulax H513b. Bur tulaxa C435a. Kalm tulx M517b. Dag tɔl- E260. EYu tulu- J105a, BJ344. MgrH tulə- J105b. Bao---. Dgx tulu- B142. Mog---.

*tulga 'support, pillar, column'. This meaning in MMo and the peripheral languages; in the central languages more specifically 'cooking tripod, support for the

cooking pot over the fire'. Note the vowel length in Dag and EYu, which is unexpected in view of *tul- above, from which it must be derived.

MMo SH---, HY *tulqa* M103, Muq *tulɣa* P354a, IV---, LV---. WM *tulɣa(n)* L840b. Kh *tulga(n)* H514a. Ord *tulġa* M679a. Bur *tulga* C435a. Brg *tʊlag* U187. Kalm *tulɣ* M517b. Dag *tʷaːləɣ* E266. EYu *tuːlġa* BJ345, *tuɫġa* J105a. MgrH *tulġa* J104a, X184, *tʊlġa* X182. MgrM *turxa* JL475, DS242b, *tʊrxa* C390. BaoD *tolġa* BL92b. BaoGt *talxa* C118. BaoÑ---. Kgj *tulġa* 297b. Dgx *tuğa*, *tuğua* B141, *tuxua* L120b. Mog---.

tulum 'animal skin used as a container, leather bag'. The Dag form is semantically and phonetically aberrant, but it is equally problematic to connect it with Bur *tuulmag* C438a 'small bag'. Cf. CT *tulum*.

MMo SH---, HY---, Muq *tulum* P351b, IV---, LV---. WM *tulum* L841b. Kh *tulam* H513b. Ord *tulum* M86b. Bur *tulam* C434b. Kalm *tulm* M517a. Dag *tulmaː* (?=) E263 'wooden bucket'. EYu *tulum* B122. MgrH *tulum* X184. MgrM *tuluŋ* T367. BaoD---. BaoÑ---. Kgj *tulun* ~ *tuluŋ* S297b. Dgx *tuluŋ* B142. Mog *tulum* W182a.

tur- 'to be or become emaciated'. The stem shape is not entirely certain, but if it was disyllabic *turu-* is more likely than *tura-*. The caus. *turaax* would support a disyllabic base verb. Some languages only have the derived adjective *turukan*.

MMo SH *turu-* H155, *tura-* H155, HY *turuqan* M103 'lean', Muq *turu-qsan* P355b, IV---, LV---. WM *tura-* L843a. Kh *turax* H516a. Bur *turaxa* C436b. Kalm *tur-* R411b. Dag---. EYu *tur-* B122, J96a 'to be hungry'. MgrH (only) *turġan* X186 'lean'. Bao---. Dgx *turi-* B142, cf. *tuğaŋ*, *tuxaŋ* B141 'lean'. Mog---.

turma 'turnip'. This word may have been borrowed from CT *turma* (of IE origin) by MMo and the QG languages separately rather than representing a CM word.

MMo SH---, HY *turma* M103, Muq---. WM---. Kh *toorom* (?=) H502a 'tuberous vegetable such as the carrot or turnip'. Ord---. Bur---. Kalm---. Dag---. EYu *turma* J83. MgrH *tərmaː* X180. MgrM *turma* C390, *turmaː* J82. BaoÑ *terma* CN166. Kgj *turma* ~ *tumar* S297b. Dgx *tuma* B142. Mog---.

turuun 'hoof'. This form is shared by MMo, Bur-Kalm, Dag, and EYu. The aberrant Kh forms *tuur* and *tuuray* suggest a form *tuura(ï)*, also supported by Ord. Neither form survives in the Shirongol langues (some of which use *kïmusun* 'nail' also in the meaning 'hoof'). The relationship between the two forms is unclear.

MMo SH---, HY *turu'un* M103, Muq *turuːn* P239a, LV---, IV *turuːn* L70. WM *turuɣu* L844b, *tuɣura*, *tuɣurai* L839a. Kh *tuur* H518b, *tuuray* H518b, *turuu* H516a. Ord *tuːrä* M682a. Bur *turuu(n)* C437a. Brg *tʊrʊː* U188, *tʊːrai* (←Kh) U186. Kalm *turun* M518b, *turuːn* R412a. Dag *tɔrɔː* E261. EYu *turuːn* B122, J105a. Mgr---. Bao---. Kgj---. Dgx---. Mog---.

tusa 'assistance; benefit, profit'. Cf. CT *tusa* 'id'.

MMo SH *tusa* H156, HY *tusa* M103, Muq *tusa* P355b. WM *tusa* L845a. Kh *tus* H516b. Bur *tuha* C439a. Kalm *tus* M519a. Dag *tʷas* E267. EYu *tusa* J105a.

MgrH *tusa:* X184, *dusa:* J104a. MgrM *tusa* P424, T367. Bao---. Dgx *tusa* B142. Mog---.

***tuš** (> *tus) 'straight, upright, vertical; opposite'. From CT **tuš* 'equal; opposite'.
MMo SH *tus* H156 'rightful', HY *tus* M103 'rightful, legitimate', Muq---, Ph---. WM *tus* L844a '(...) opposite, face to face, in front of'. Kh *tuus* H519a 'direct, straight', *tuuš* H519a 'straight, etc', *tus* H516b 'aforementioned (..) this very, etc'. Ord *tus* M683a 'opposite'. Bur *tus* C437b. Kalm *tus* M519a 'right in front, opposite'. EYu *toš* B120 'straight, etc', *duš* J84, *tuš* J8 'straight'. MgrH *tus* X184, L595 'straight; equitable', SM437 'opposite', *tusu* SM437 'straight'. Remaining lgs---.

tuturgan 'rice'. Agricultural term related to CT **tuturkan* 'id'.
MMo SH---, HY *tuturqan* M103, Muq *tuturɣan* P356b, LV *tuturɣan* P1268, IV---. WM *tuturɣa(n)* L847a. Kh *tutraga* H518a. Ord *duturɠa* M167b. Bur---. Brg---. Kalm *tutrɣ* M519b. Dag---. EYu *hturɣan* B61, *hdurɣan* J14. MgrH *tudorɠa* X185. MgrM---. Bao---. Dgx---. Mog *tuturɣãn*, *tuturɣɔn* W182a.

tuu- 'to land, swoop down'. Enkhbat derives the Dagur form from Manchu *dombi*, which is unnecessary, although it has the same meaning. Perhaps related to **tun-* 'to precipitate, settle, sink'.
MMo SH *tu'u-* H157 'to sit down', HY---, Muq *tu:-* P332b 'to sit down [in the example of a bird on a tree]'. WM *tuu-* (?=) L847a 'for a spirit to enter the shaman'. Kh *tuux* LC 3:262b 'to shamanize, to summon spirits'. Bur---. Kalm---. Dag *tɔ:-* E257. Remaining lgs---.

tuulga 'tin; lead'. The Dagur form deviates. The MgrM form, the only one documented in the QG area, suggests **tuulgaï*.
MMo SH---, HY *tu'ulqan* M103, Muq---, RH *tuqulɣan* 205C21. WM *tuɣulɣa(n)*. Kh *tugalga(n)* H512a. Ord *tu:lɠa* M679b. Bur *tuulga(n)* C438a. Brg---. Kalm---. Dag *tuɣna:* E263. EYu---. MgrH---. MgrM *tolgay* P417b. Bao---. Dgx---. Mog---.

tuura(ï) 'hoof' see sv **turuon**

tübsin 'flat, level, smooth; peaceful, quiet'. The Sino-Mongolian forms and Khalkha support this form, but Ord, EYu, and perhaps the Shirongol languages favour a reconstruction **töbsin*. The Kalm form as if from **töbsiün*. The EYu form with *-g-* may be due to the influence of **tegsi*.
MMo SH *tübsin* H153, HY *tübšin* M103, Muq *tübšin* P357a, IV---, LV---. WM *tübsi(n)* L849a. Kh *tüvšin* H520b. Ord *döbšin* M135b. Bur *tübšen* C441a. Kalm *tövšün* M511b. Dag---. EYu *dogšün* (sic) B130. MgrH *tebśin* X176, *teʒɟin* X177, *debśin* J104a. MgrM *tebšin* P418b. BaoD---. BaoGt *däbṣuŋ* C114. BaoÑ *debśaŋ* CN176. Kgj *dešɔ* S299b. Dgx---. Mog---.

tüimer '(unwanted) fire, steppe fire'. The vowel of the last syllable is **e* according to WM, apparently supported by Ordos. The remaining central forms are

indecisive, as is Dagur (both Khalkha -*e*- and Dag -*u*- are automatically generated). The EYu sources contradict one another.

MMo SH---, HY---, Muq---. WM *tüyimer* L851b. Kh *tüymer* H523a. Ord *tuimer* M684b. Bur *tüymer* C443a. Kalm *tüümr* M525a. Dag *tuimur* E262. EYu *tü:mər* B123, *tü:mer* J104b. Remaining lgs---.

*tüle- (**tüli-*) 'to light, set fire to, burn'. For the vocalism in EYu cf. **hüle-* 'to remain', **üje-* 'to see'.

MMo SH *tulē-* (so read) H154, HY---, Muq *tüle-* P358a, LV *tüleül-* (caus) P1270, IV *tüle-* L70. WM *tüle-* L852a. Kh *tülex* H524a. Bur *tülixe* C443b, *tülexe* C444b. Brg *tulʸ-* U190. Kalm *tülx* M522b. Dag *tul-* E263. EYu *tele-* BJ344, *tele:-* J104b. MgrH *tule:-* J104a; there are two forms according to Khasbaatar: *tule:-* X183 'to burn (one's hand)', and *təle-* X196 'to light, set on fire'. MgrM *tuli-* JL460. BaoD *tuliə-* BL92b. BaoÑ *təli:-* CN7 (s.v. *amaŋ*). Kgj *čile-* (?=) S301a 'to get hot'. Dgx *tulie-* B141. Mog---.

*tülien 'firewood'. Derived from **tüle-* (**tüli-*).

MMo SH---, HY---, Muq *tüle:n* P358b, LV *tüle:n* P1270, IV *tüle:n* L70. WM *tüliye(n)* L852a. Kh *tülee* H524a. Bur *tülyee(n)* C443b. Kalm *tülän* M522a. Dag *tulʸe:* E263. EYu *tele:n* B117, J104b. MgrH---. MgrM---. BaoD *talaŋ* BL92a. BaoÑ *telaŋ* CN165. Kgj *čilɔ* S301a. Dgx *tulien* B141. Mog *tule:n* R41a, *tulʌn* W182a.

*tülki- 'to push'. All MgrH dialects have -*r*-, while normally only Narin Guol does.

MMo SH---, HY *tülki-* M103, Muq---, IV---, LV---. WM *tülki-* L852b. Kh *tülxex* H523b. Ord *dulki-* M170a. Bur *tülxixe* C444a. Brg *tulʸx-* U190 'to lock'. Kalm *tülkx* M522b. Dag *tulkʸ-* E263. EYu *tulkə-* B122, *tulgə-* J104b. MgrH *turgu-* J105a, X186. MgrM *turgo-* JL464. BaoD *tolgə-* BL92b. BaoÑ *təlgə-* CN163. BaoX *tolgə-* BC65. Kgj *turgu-* S298a. Dgx *tuŋku-* B140. Mog *tulku-* R41a.

*tülkiür 'key'. Derived from **tülki-* 'to push'. HY *türiür* 'key' appears to be from **türi-* 'to drag; to push' (not listed).

MMo SH---, HY---, Muq---, IV---, LV---. WM *tülkigür* L852b. Kh *tülxüür* H523a. Ord *dulku:r* M170a. Bur *tülxyüür* [written *tülxyuur*] C444a. Brg *tulxʸu:r* U190. Kalm *tülkür* M522b. Dag *tulk-uŋkʷ* E263 (new formation). EYu *tukü:r* B122, *tülgü:r* S659. MgrH *turgur* SM433 'agricultural implement serving to push grain or straw on the threshing floor'. Remaining lgs---.

*tümen 'ten thousand; multitude'. Widely occurring Eurasian word related to CT **tümen* 'id'.

MMo SH *tume(n)* H154, HY *tümen* M103, Muq---, LV---, IV *tümen* L70. WM *tüme(n)* L853a. Kh *tüm(en)* H524a. Bur *tüme(n)* C444b. Kalm *tümn* M523a. Dag *tum* E263. EYu *temen* B118, J104b. MgrH *tumun* X184, *tumie:n* SM432, *təme:n* J104a. Mog---.

*türei 'bootleg'. Dag *tur* could be a reborrowing from Manchu *ture* 'id', but there are several other Mongolic words that lost their final diphthong in Dagur.

MMo SH---, HY---, Muq---, IV---, LV---. WM *türei* L854b, *türüi* L856b. Kh *türiy* H525b. Bur *türii* C446a. Brg *turi:* U191. Kalm *türä* M523b. Dag *tur* E264, *turi:* T169. EYu *ture:* B122, *törö:* (Qinglong dial.) BJ350. MgrH *ture:*, *turi:* X185 'trouser leg'. BaoD---. BaoÑ *təri:* CN164. Kgj---. Dgx---. Mog---.

*türgen 'fast, quick'.

MMo SH *turgen*, *turgun* H155 'fast, tight', HY *türgen* M104, Muq *türgen* P359b. WM *türgen* L855a. Kh *türgen* H525a. Bur *türge(n)* C445b. Kalm *türgn* M524a. Dag *turɣun* E264. EYu *turɣen* B123. Mgr---. Bao---. Dgx---. Mog---.

*türüün 'at first' see s.v. ***teriün**

*tüsür- 'to sprinkle, to pour, to cast (metal)'. In Dagur both the treatment of the initial and the final vowel length are unexpected. The Monguor forms are also unexpected, as they rather seem to reflect a form **üsür-*. However, the suggested connection with the intransitive verb **hüsür-* 'to jump' is problematic. Cf. **čïdku-*, **ki-*.

MMo SH *tusur-* H156 'to pour', HY *tüsür-* M104, Muq---. WM *tüsür-* L857b. Kh *tüsrex* H526b. Ord---. Bur (dial) *tüherxe* C450a 'to dilute'. Kalm---. Dag *tusrə:-* E264, *susrə:-* E226, *surə:-* E226. EYu---. MgrH *fuʒuru-* SM103, *fuʒuri-* L117, *suri-* L536, *sʒuri-* L544, *surə-* X140, *sʒurə-* X146. MgrM *sur-* DS243b. Remaining lgs---.

*tüükei ~ *tüükü 'raw'. The QG forms apparently go back to the form **tüükü*. In Dagur the final *-n* and the *-ui-* are unexpected. EYu *tü:kə:* is also strange, as long *ə:* is a rare marginal phoneme. It is not a normal development of either variant.

MMo SH---, HY---, Muq *tü:küi* P359b, LV---, IV *tü'ükü* L70, RH *tüiküi* 205A37. WM *tügükei* L850b. Kh *tüüxiy* H527b. Ord *tu:ki:* M685a. Bur *tüüxey* C449a. Brg *tu:xi:* U188. Kalm *tüükä* M525a. Dag *tuiɣun* E262. EYu *tü:kə:* B123, *tü:ʰgə* J104b. MgrH *tu:gu* X182, *tiu:gu* J105a. MgrM *tugu* JL464. BaoD *tugu* BL92a. BaoÑ *tugu* CN170. Kgj *tʉgʉ* S298a. Dgx *tugu* B141. Mog---.

- U -

*ubuǰï 'feeding horn' see ***ugǰï**

*učïr 'reason; circumstance; occasion'. The Dagur form *wačir*, which would suggest an earlier **učar*, may owe its form to remodeling after the verb *wačir-* from **učïra-* (see below).

MMo SH---, HY *učir* M104 'time', Muq---. WM *učir* L859a. Kh *učir* H560a. Bur *ušar* C485b. Kalm *učr* M544a. Dag *wačir* E334 'opportunity'. EYu *hčʉr* B62, *ɬǰür-tə* J9. Mgr---. Bao---. Dgx---. Mog---, but cf. Zirni *učur* (19:5b) 'time' (L68, No. 88).

*ucǐra- 'to meet'. Possibly derived from CM *ucǐr listed above. Perhaps related to a non-attested Turkic form *utïr- 'to meet' (cf. EDPT 67b), the basis of the reciprocal utruš- (EDPT 69b). If this correspondence is correct, the PM form may be *utïra-.

MMo SH ucira- H157, HY ucira- M104, Muq---. WM ucira- L859b, ucara- L859a. Kh ucrax H561b. Bur ušarxa C486a. Kalm ucrx M544b. Dag wacir- E334. EYu---. MgrH śǯüra:- X161. MgrM ucura- P412a. Bao---. Dgx ocïra- B15. Mog---.

*uda- 'to be late'. The n- in Bao is unexplained (cf. other cases *eüden, *ide-).

MMo SH uda- H158, HY---, Muq uda- P361b. WM uda- L860a. Kh udax H541a. Bur udaxa C463b. Kalm udx M529a. Dag---. EYu uda- B19. MgrH uda:- X19. MgrM wuda- DS233b, cf. udaŋ (*udaan) JL477 'slow'. BaoD nda- (given as a noun) BL83a. BaoGt nda- C128. BaoÑ nda:- CN34. Kgj uda- S280b. Dgx uda- B22. Mog---.

*udku- 'to scoop up'. The EYu form may belong here (cf. EYu qusun < χsun from *usun 'water'), but is more likely to be from *kudku- 'to stir' (which can also have the meaning 'to scoop up' as it has in Khalkha).

MMo SH utqu- H167, HY---, Muq---. WM udqu- L863a. Kh utgax H555a. Bur udxaxa C464a. Kalm utxx M540b. Dag ɔrkʷ- E42. EYu qutġǝ- (?=) B65. Mgr---. Bao---. Dgx---. Mog---.

*udurïd- and *udurï- 'to lead, guide'. Both variants are already attested in MMo, but the form *udurïd- only survives in the central languages. The function of the added -d is unclear. The form *udurï- survives in the Shirongol lgs Mgr, Bao, and Dgx. The *h- suggested by the MgrM form is not confirmed by MMo or elsewhere in QG, but there may be a connection with the unexpected strong -t- in Kgj. On the other hand secondary h- does not normally appear before a weak consonant; the MgrH and Bao forms which lost the entire first syllable do not speak *against* *h-. Apparently related to CT *uduz- (EDPT 74b), a caus. formation of *ud- 'to follow'.

MMo SH udurit- H159, HY udurit- M105, Muq---, LV---, IV---, Ph uduri'ul- (caus) P132a. WM udurid- L862a. Kh udirdax H541a. Ord uduri-, udurid- M723a. Bur udaridaxa C463a. Kalm udrdx (obs) M529a. Dag---. EYu---. MgrH durǝ- X201. MgrM χuduri- T332, ɸdur(ʒï)- C391, dur- DS233. BaoD durǝ- BL88b. BaoGt dor- C139. BaoÑ dǝr- CN175. Kgj utǝr- ~ utur- S280b. Dgx uduru- B22. Mog---.

*ugïa- (> *ugaa-) 'to wash'. With many unexpected phonetic developments. The -ïa- suggested by SH and WM is not supported by modern forms, not even in Bur which usually preserves this complex. The SH form with -k- appears to be a mistranscription from the Uygur script. The modern forms and their distribution are unexpected. The form *ugaa- is found in MMo, the central languages, and Mog. EYu seems to go back to *ugua-, in which the second u is an echo labial triggered by the first vowel (not uncommon, cf. also *uŋgasun 'wool'). This echo labial is also present in Ordos. A form *ugua- may also be the origin of the BaoD and BaoX forms. The Mgr forms stem from a similar form with an 'intrusive' nasal. Yet

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another form *uaga- is found in BaoÑ and Dgx, possibly a metathesized form of *ugua-. Dag wa:- may have developed from *uwa:- < *ugaa-.

MMo SH ukiya- (sic?) H161, HY---, Muq uɣa:- P362a, LV uɣa:- P1260, IV---, Ph---. WM ugiya- L865b, ukiya- (misreading of the same spelling) L868a, uɣa- L863b, cf. precl. uɣiya- (Poppe 1924). Kh ugaax H539a. Ord uġ^ua:- M725a, ġ^ua:- M310a. Bur ugaaxa C461b. Kalm uɣax M528a. Dag wa:- E332. EYu uğwa:- B19, ğua- J95b. MgrH ŋġua:- J95b. MgrM ŋġua- JL478, uŋġua- T535, ġua- DS259. BaoD ġua- BL83a. BaoGt ġua- C111. BaoGm waġa- CN86:219. BaoÑ waġa- CN226. BaoX ġua- BC71. Kgj uğua- ~ ğua- S280a. Dgx waġa- B192. Mog uɣa:- R41a, uğʌ- W183a, ɔğʌ- W175a.

*ugǰï, *ubuǰï 'feeding horn, feeding bottle'. The form *ugǰï is found in Kh and Bur and *ubuǰï is found in Kalm and EYu, although the second vowel in WM and EYu is not confirmed by Kalm. Dag ɔrǰ must be from *ugǰï or perhaps from a form *ubǰï. Morphologically obscure, and therefore hard to connect to *uu- 'to drink'.

MMo SH---, HY---, Muq---, LV---, IV---, RH ubuǰi 186C5 'nipple of the breast'. WM uɣǰi L865b, ubuǰi L859a. Kh ugǰ(an) H539b. Ord uġǰi M724b. Bur ugža C461b. Kalm uvǰ M526a, ovǰ M392a. Dag ɔrǰ E42 'feeding bottle'. EYu βəǰə B37. Remaining lgs---.

*ugulǰa 'ibex, mountain goat', also used for ornaments in the shape of stylized spiralling horns. The loss of the initial vowel is not unusual in EYu, but unexpected in Kalm and Mog.

MMo SH uqulǰa H160 'ibex', HY---, Muq---, RH uɣulǰa 186C18 'ibex'. WM uɣulǰa L864b, uɣalǰa L863b. Kh ugalz H539b also 'spiral pattern'. Ord uġ^ualǰi 725b 'argali; spiral pattern (..)', uġalǰi M724a, uġulǰi M725b 'spiral pattern'. Kalm uɣ^ulzɒ, (Torgut) ġulzɒ R447a. Bur ugalza C461b 'embroidery, pattern'. Brg---. Dag ɔwurǰin (?=) E83:169a 'antelope'. EYu ğulǰa (?ġulǰa) xɔ:nə B79 'argali' (cf. *konï), ɣulǰa Mannerheim 64 'wild sheep'. Shirongol lgs---. Mog---, cf. Zirni ɣulǰa [eds. read -o-] 20:11 'mountain goat'.

*ugur- (?) 'to throw'. The reconstruction of this word is problematic, especially since MMo -'- corresponds here to a fricative in EYu and Mog. The forms with -'- disagree on the CM vowel sequence: *oa, *uu, or *au. The SH form seems to hint at a relationship with *orkï- 'to throw' (which is written o'orki- in SH). The WM form and Kalm u:r- seem to have absorbed *hoara- 'to abandon, neglect'. Kh ogoorox H387a 'to abandon'; to neglect' is a reading pronunciation of the WM spelling.

MMo SH o'or- H125 'to throw away', ōr- H126, HY---, Muq u'ur- P352b, u:r- P108b, u:ra- P372b, u:ru- P143a, a'ur- P94b 'to let go of, to put (down), etc', LV u:ru- P1259 'to throw'. WM oɣur- L603a, uɣur- L865a (see above) 'to leave, abandon; to neglect'. Kh (see above). Ord---. Bur---. Kalm u:r- R455a 'to throw away; to abandon; to stop (doing sth.)' (see above). Dag---. EYu ɔğɔr- B13 'to throw', (u)ğur- J49 'auxiliary (indicates that the action is performed completely)'. Mgr---. Bao---. Dgx---. Mog uɣuru- R41a 'to pour into, to lay in', uğur- W183a 'to put, lay, etc'.

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*uïla- 'to cry'. The *h-* in Muq, unconfirmed by other languages, is secondary, perhaps onomatopoetically inspired. Given that it is not confirmed elesewhere, Kh *uxila-* probably is a borrowing from WM. It is unclear how this spelling came about.

MMo SH *uiyila-* H161, HY---, Muq *uila-* P362a, *huilawul-* (caus.) P186b, LV *uila-* P1261, IV *uila-* L62:71. WM *uyila-* L866a, *ukila-* (?to be read *ugila-*) L868a. Kh *uylax* H542a, *uxilax* (←WM) H559b. Ord *uila-* M727a. Bur *uylaxa* C465a. Brg *ŏail-* U37. Kalm *uul'x* M541b. Dag *wail-* E332. EYu *ü:la-* B21, J95b. MgrH *ula:-* J95b, X17, *la:-* X109. MgrM *ila-* C382, *yila-* T341. BaoD *la-* BL83b. BaoÑ *la:-* CN99. Kgj *ila-* S279b. Dgx *uila-* B17, *wəila-* B192. Mog *ui:la-* R41a, *uɪla-* W182b.

?*uïsun 'birchbark' see *üisün.

*ukana 'billy-goat'. Ord, Dag and Mog support the reconstruction *ukana*. MMo suggests *ukuna* (the *ɣ* in HY deviates). The forms in the central languages could be from either form. Cf. *seinüg*, *serke*, *teke*.

MMo SH---, HY *uɣuna* M105, Muq *uquna* P365b. WM *uquna* L892b, *uqana* L892b. Kh *uxna* H559b. Ord *uχana* M725b, *uχᵘana* M726b. Bur *uxana* C483b 'young billy-goat'. Kalm *uχŭnă* R447a 'young billy-goat'. Dag *wakən* E333. EYu---. Mgr---. Bao---. Dgx---. Mog *uqo:na* R41a.

*ula 'sole of the foot (or shoe)'. The *h-* in MMo Muq is secondary. Related to CT *ul* (?*hul*) (EDPT 124a).

MMo SH *ula* H162, HY *ula* M105, Muq *hula* P186b. WM *ula* L868b. Kh *ul* H542b. Bur *ula* C465b. Kalm *ul* M530a. Dag *wal* E334 '&bottom'. EYu *ula* B19, J96a. MgrH *ula* J96b, *ula:* X17, cf. *kol la:* X89 'sole of the foot' (*köl* 'foot'). MgrM *ulà* P418a. BaoD *la* T142. BaoGt *vula* C116. BaoÑ---. Kgj *ula* S280a '&palm of the hand'. Dgx *ula* S671, cf. *xai-wula* L106 'sole of a shoe' (*xai* ← Chinese). Mog *ulo:* R41a '&floor'.

*ulus 'people; state, country'. Related to CT *uluš* 'id' (EDPT 152b). Unlike in other loans from Turkic ending in *-š*, none of the Mongolic languages has *-š* (cf. *koš*, *tuš*)

MMo SH *ulus* H163, HY *ulus* M105, Muq *ulus-* P204a, Ph *ulus* P132a. WM *ulus* L873b. Kh *uls* H545a. Ord *ulus* M731b. Bur *ulad* C467a. Brg *uld* U40 'people (i.e. humans)', *ulɔs* U40 'people (nation)', the latter a borrowing. Kalm *uls* M532a. Dag *ɔlur* E38 'people, everybody', *ɔrɔl-sul* (pl.) Z32 'people'. EYu *ulus* S673. MgrH *lus* X115. MgrM---. Bao---. Dgx---. Mog---.

*umarta- 'to forget' see *marta-

*umdaan 'drink, beverage'. In the central languages there is also a form *umdan* with simplex vowel. Cf. *umdaas-* 'to be thirsty'.

MMo SH *undan* H164, HY---, Muq *unda'an* P364a 'ayran', *unda:n-* P364b, LV *umdaan* P1257, IV *umdaan* L62:71. WM *umdaɣa(n)* L874b, *umda* L874b, *unda* L876a. Kh *undaa(n)* H547a, also: *und* H547a, *umd* H546a. Ord *unda* M734a. Bur *unda(n)* C470a. Kalm *undn* M533a. Dag---. EYu *nda:n* B28 'sour cow

milk (from which the fat has been taken)'. Mog *undo:* R41a 'drink', *undɔn* W183a 'Sauermilch'.

*umdaas- 'to be thirsty'. Derived from *umdaan* above. Dag uses *haŋka-*, q.v.
　　　MMo SH *unda'as-* H64, *undas-* H164, *umtas-* H164, HY---, Muq *unda'as-* P364a, *unda:s-* P364b. WM *umdaɣas-* L874b. Kh *undaasax* H547a. Bur [*undarxaxa* C470a]. Brg---. Kalm *undasx* M533a. Dag---. EYu *nda:s-* B28, *ndas-* J95a. MgrH *undasə-* J93a. MgrM *ndasə-* JL478. BaoD *ndasə-* BL81a. BaoÑ *ndar-* CN35. BaoX *nda:sə-* BC63. Kgj *ndasu-* ~ *ndasï-* S282b. Dgx *undasa-* B19, *undasu-* L109a. Mog---.

*umsu (perhaps *ümsü* in view of the EYu and Kgj forms) 'yak hybrid'. A Tibetan word (*mdzo*, see Nugteren & Roos 1998:71), but already attested in MMo. The QG forms may represent independent borrowings, but there is no phonetic argument that suggests they must be recent. Cf. *kaïnag* 'yak'.
　　　MMo Ph *umsu* P132a. Central lgs---. Dag---. EYu *omsə* B15. MgrH *musu* SM251, *musə* X126. MgrM *musun* DS261b 'yak', *musùn* P421b 'yak hybrid'. BaoÑ *ɵmsə* CN71. Kgj *muʂun* S292b. Dgx--. Mog---.

*una- 'to fall, to come down'. Cf. *bau-* 'to descend'.
　　　MMo SH *una-* H164, HY---, Muq *una-* P363b, LV *una-* P1261, IV---. WM *una-* L875b. Kh *unax* H546b. Bur *unaxa* C469b. Kalm *unx* M534a. Dag *wanə-* E333. EYu *na:-* B22, *na-* BJ336, J95b. MgrH *una:-* J95b, X16, *na:-* X23. BaoD *na-* BL83b. BaoÑ *na:-* CN22. BaoX *na:-ġə-* (caus.) BC73. Kgj *una-* S280a. Dgx *una-* B19. Mog *uno:-* R41a, *unɔ-*, etc W183a.

*unagan 'foal, colt'. The QG forms point at *unagan*; the SH and HY forms suggest *unugan*. The forms in the central languages could have developed from either form. May contain a (?diminutive) suffix as in *kurïgan* 'lamb'.
　　　MMo SH *unoqan* H165, HY *unuqan* M105, Muq *unaɣan* P364a, LV *unaɣan* P1258, IV---. WM *unaɣa(n)* L875b. Kh *unaga(n)* H546a. Ord *unaġa* M733a. Bur *unaga(n)* C469b. Kalm *unɣn* M532a. Dag---. EYu *naġan* B23, J95b. MgrH *naġa* J95b. Bao---. Kgj *nuǧun* S282a. Dgx *unaǧaŋ* B19. Mog---.

*unta- 'to sleep'. The *-m-* in one of the WM forms is not confirmed elsewhere, but could be original. The *n-* in Mog (also in *untara-* below) seems to be recent, or at least a secondary development rather than a relic of an older form.
　　　MMo SH *unta-* H165 'to sleep', HY *unta-* M105 'sleep', Muq *unta-* P365a, IV---, LV---. WM *umta-* L874b, *unta-* L877b. Kh *untax* H548a. Bur *untaxa* C471a. Kalm *untx* M534a. Dag *want-* E333. EYu *nda-* J95b, B28 ('to have intercourse'), *ndačur-* B28. MgrH *nta:-* X37. MgrM *nta:-* C373, *(u)nta-* JL478, *nuta-* DS234a. BaoD---. BaoÑ *ta:-* CN159. Dgx---. Mog *nunta-* R35a 'to sleep'.

*untara- 'to lie down; to sleep'. Derived from *unta-* listed above. The *h-* in Dgx and Kgj is probably due to the following *-t-*. The forms with *-m-* in WM, although not confirmed elsewhere, may represent earlier forms. For the *n-* in Mog cf. *unta-*). Cf. *hamu-* for similar semantic developments.

MMo SH *untara-* H165, *umtara-* H164 'to sleep', HY---, Muq *untara-* P222a 'to be numb (of body parts)', IV---, LV---. WM *umtara-* L875a, *untara-* L877b. Kh *untrax* H548a 'to be extinguished, etc'. Ord *untara-* M735b 'to go out; to have a tingling sensation (e.g. in the leg)...'. Bur *untarxa* C471a 'to be extinguished, etc'. Kalm *untrx* M533b 'to be extinguished, etc'. Dag---. EYu *ndara-* B28 'to become numb'. MgrH *ntəra:-* J95b 'to sleep'. BaoD *təra-* BL83a 'to sleep'. BaoÑ---. BaoX *təra-* BC72. Kgj *huntəra- ~ huntra-* S286b 'to sleep'. Dgx *huntura-* B66, L111a, *funtura-* MC103b, *fintura-* MC97a, *untura-* MC406b. MogMr *nuntɒ:ra-* L64:37 'to become numb'.

uŋgasun 'wool' see *nogasun

*uŋsï- ~ *umsï-* 'to read'. There are many variants in the modern languages and these show a peculiar distribution. Therefore evidence for the CM form is ambiguous. The central languages indicate initial *u-*. EYu, BaoÑ, and Dgx indicate initial *o-*. The -m- survives in many central dialects (cf. Sun 1990:676). Mgr and BaoD lost the initial vowel altogether, and seem to derive from a form *muši-* or *moši-*. This form apparently arose after the break-up of the original consonant sequence and the loss at a later stage of the initial vowel. The forms with -ŋ- seem to be original, *n* and *m* resulting from assimilation to the *š* and *u* respectively. BaoÑ and Kgj share a development of the -š- into an affricate.

MMo SH *ungši-* H164 'to call', HY *uŋši-* M105, Muq *uŋši-* (*ungši-*) P364b, IM *humši-* P438b, LV *uŋši-* (*ungši-*) P1261, IV---. WM *ungsi-* L877a. Kh *unšix* H548b. Ord *omši-* M511b. Bur *unšaxa* C471b. Brg *ʊŋš-* U38. Kalm *umšx* M532b. Dag *ɔnš-* E37. EYu *ɔŋšə-* B13, *ɔnšə-* B13, *oŋšə-* J95b. MgrH *mośə-* J95b. MgrM *mośï-* J88. BaoD *muśi-* BL83b. BaoGt *məş-* C121. BaoÑ *əmći-* CN18. Kgj *unči-* S280a. Dgx *oŋšï-* B13, *wanşï-* B191, *oşï-* MC310b. Mog *umši-* W182b, *ɔmši-* W174b.

uran 'master, craftsman; skill; skillful'. Related to CT *u:z* 'id'.
MMo SH---, HY *uran* M106, Muq *uran* P365b, IV---, LV---. WM *uran* L879b. Kh *ur(an)* H548b. Bur *uran* C472b. Kalm *urn* M537a. Dag *warən* E335. EYu---. MgrH *uran* J96b. Bao---. Dgx *uran* L111b. Mog---.

urgu- 'to come up, appear (usu. of celestial bodies); to grow, sprout'. The *h-* in one Muq form is secondary.
MMo SH *urqu-* H166, HY---, Muq *urɣu-* P366a, *hurɣu-* P187b. WM *urɣu-* L881a. Kh *urgax* H220b 'grow/rise(sun)'. Bur *urgaxa* C474a 'grow'. Kalm *urɣx* M535b 'grow/come up'. Dag *ɔrɣ^w-* E42. EYu possibly in *uǧarma* S679 'plant' if this is < *urgu-ma*. Mgr---. Bao---. Dgx---. Mog *urɣu-* R41a 'to grow'.

urï- 'to call; to invite'.
MMo SH *uri-* H166, HY *uri-* M106, Muq *uri-* P366a 'invite'. WM *uri-* L881b. Kh *urix* H551b 'invite'. Bur *urixa* C476a. Kalm *ürx* M555a. Dag *ɔr^y-* E42. EYu---. MgrH *urə-* J96b. MgrM---. BaoD *ur-* BL80. BaoGt *vuri-* C116. BaoÑ *ur-* CN21. Kgj *uri-* S280b. Dgx *uru-* B23. Mog---.

***urïda** 'before, earlier', *urïdu 'former, previous; front; south'. Cf. *urïjï below.
        MMo SH *urida* H166, *uridu* H166, HY *urida* M106, *uridu* M106, Muq *urida* P366a, *uridu* P366a. WM *urida* L882a, *uridu* L883a. Kh *urd* H550b, *ur'd* H553a. Bur *urda* C474b. Brg *ʋr'd* U43, *ʋrɪd* U42. Kalm *urd* M536a. Dag *ward* E335, *ɔrdɔ:n* E42 'before, previously' (cf. SH *urida'un* 'in front'). EYu *urda* B20, J95b. Mgr---. Bao---. Dgx---. Mog *urdɔ* W183a 'vicinity; near', MogMr, MogM *urdʋ:* L64:35.

***urïjï üdür** 'the day before yesterday'.
        MMo SH---, HY---, Muq *urïju ödür* P366b, LV *urǰi ödür* P1259 'the day after tomorrow (sic)', IV---. WM *urǰi edür*, *urǰidur*, *urǰïɣdur* L887a. Kh *urǰdar*, also *urǰigdar* H551a. Ord *urǰidur* M739a. Bur *uržader* C475b. Brg *ʋrǰidər* U42. Kalm *urǰ ödr* M536a. Dag---. EYu *urʑudŭr* B20, *urǰüdur* J96b. MgrH *rʑudur* J96a, *uʑüdur* X21, *ʑüdur* X225. MgrM *urʑudur* JL478, *uʑüdur* JL474. BaoD *nʑiudər* BL84a, *'nʑiudə* BL32. BaoÑ *ʕʑudə* CN237. Kgj *ujide* ~ *ur̥jide* S280b. Dgx *uruʐu du* B23, *uruʐudu* L112b. Mog *ujaʋdur* W182a.

***urïjï hɔn** 'the year before last'. The forms represent several stages of contraction. Bur-Kalm -z- suggests that *a or *u not *ï followed the *ǰ-. Central Mongolic and EYu suggest that *hon 'year' may have been incorporated in the stem twice.
        MMo SH---, HY---, Muq---, RH *urǰi hon* 201A5. WM *urǰinan*, *urǰinon* L887a. Kh *urǰnan(g)* H551a. Ord *urǰinan* M739a. Bur *urzanan* C475b '... before last'. Brg *ʋrǰinʋŋ* U42. Kalm *urzn* M536b '... before last'. Dag *ɔrǰwɔ:n* E42, *ɔrǰɣɔ:n* Z94b. EYu *ɔrǰinɔn* B14, *urǰüno:n* J95b. MgrH *rʑɔŋ* J96a, *rʑɔŋ* X241, *urʑɔŋ* X23, *urʑixon* L619. MgrM *wuʑini xuaŋ* DS261b 'year before last', *ʋrdʲanixʋaŋ* C388 'last year' (sic). BaoD *nʑiuhoŋ* BL84b. BaoÑ *ʕʑɵŋ* ~ *ʕʑɵŋ hɵŋ* CN237. Kgj *ujun* ~ *ur̥jun* S280b. Dgx *uruʐu xoŋ* B23. Mog *urǰãn* W183a 'year before last'.

***urïjïïn urïjï üdür** 'three days ago'. Apart from Ordos, only in the QG languages. In Shirongol the genitive ending of *urïjïïn was replaced by the Shirongol ending -*ni*.
        MMo SH---, HY---, Muq---. WM---. Kh---. Ord *urǰi:n urǰidur* M739a, also the variant *urǰiduri:n urd ʉdʉr* M739a. Bur---. Brg---. Kalm---. Dag---. EYu *urʑü:n urʑudŭr* B20. MgrH *uʑü-nə uʑüdur* X21, *ʑü-nə ʑüdur* X225. BaoÑ *ʕʑinə ʕʑudə* CN236. Dgx *uruʐuni uruʐu du* B23. Mog---.

***urtu** (~ *utu ~ *utur) 'long'. The variants and their distribution seems rather chaotic. The MMo forms all indicate a form *urtu without *h-. This is supported by Kh and Dag. The standard Bur and Kalm forms go back to *utu. The Shirongol forms go back to *utu ~ *utur. The EYu forms may stem from the original form *urtu. Both the EYu and the Shirongol forms apparently developed h- and the like due to the following -t-.
        MMo SH *urtu* H166, HY *urtu* M106, Muq *urtu* P366b, *utu* P370b. LV *urtu* P1255, IV---. WM *urtu* L884b. Kh *urt* H552a. Ord *urtu* M741b. Bur *uta* C479a, *urta* (Selenga) C477a. Brg *ʋrt* U42. Kalm *ut* M239a. Dag *ɔrt* E42, *ɔrt^w* Z94b. EYu *hurtu* B58, *rdə* J95b, *hdur* Yu19. MgrH *ʂdur* J96a, *fudur* SM101. MgrM *ʂudur* DS234.

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BaoD *fudə*, *futə* BL84a, *ftə* BL13, *fdu* T149. BaoGt *ftï* C129. BaoÑ *ẓdər* CN150. Kgj *šdu* ~ *štu* S296a. Dgx *fudu* B54, L112b, *fu̠du*, *fdu* BC85:45. Mog *urtu* R41a.

*urug 'relatives by marriage'. Also in the combination **urug tarïg* (elsewhere in central Mongolic replaced by **urug törel*). CT **urug*, **urug tarïg*.

MMo SH *uruq* H167, HY *uruq, uriq tariq* M106, Muq *uruɣ, uruq* P367b. WM *uruɣ, uruɣ tariɣ* L885b. Kh *urag* H549a. Ord *uruq* M742b. Bur *urag, urag tarig* C472a. Kalm *urg* M535a. EYu *urəġ* J65, *ɔrɔġ taraġ* B14. MgrH *urɔġ* X22, *urɔġ turɔġ* X22. MgrM *wuro* DS231a 'inlaws', *ʊrʊǧ* C371, *ʊrʊǧ tarʊǧ* C371. Bao---. Kgj---. Dgx *urəu* B23. Mog---.

*urugsï 'forward'. In spite of the different vowel in the second syllable apparently related to the words with **urï-* listed above. Replaced by **emüne-gsi* in the QG languages.

MMo SH *uruhši* H67, HY *uruqši* M106, Muq *uruqši* P367b. WM *uruɣsi* L885b. Kh *uragš* H549a. Bur *uragša* C472a. Kalm---. Dag---. EYu---. Mgr---. Bao---. Dgx---. Mog *uruqši* R41a, *uruxš* W183a.

*uruldu- 'to race (horses)'. Some forms suggest **urïldu-*. Like **kudaldu-* 'to trade' apparently a reciprocal verb of which the base has become extinct. Dagur *yɔll^w-* E331, which was connected to this etymon by Enkhbat, is phonetically hard to derive from it, and may instead be from **yabuldu-*, the reciprocal of **yabu-* 'to walk' listed below.

MMo SH---, HY---, Muq *urildu-* P366b, *uruldu-* P238b. Kh *uraldax, uraldaax* H549b. Ord *uruldu-* M742b. Bur *urildaaxa, urildaxa* C476a. Brg *ʊrıld-* U41. Kalm *urldx* M536b. Dag (see above). EYu *uruldə-* J37. Mgr---. Bao---. Dgx---. Mog---.

*urus- 'to flow'. Dgx *usuru-* is also reminiscent of **hüsür-*.

MMo SH *urusqa-* (caus) H167, HY---, Muq *urus-* P368a, LV *urus-* P1256, IV *urus-* L62:71. WM *urus-* L886b. Kh *ursax* H551b. Ord *urus-* M743a. Bur *urdaxa* C475a. Brg *ʊrd-* U42. Kalm *ursx* M537a. Dag *ɔrs-* E42. EYu *urus-* B20, J95b. MgrH *orosə-* J96b. Bao---. Dgx *urusu-* L112a, B23, *usuru-* (?=) B21. Mog---.

*usun 'water'. The *q-* in EYu is peculiar. It may have developed as a kind of hypercorrect form from **χusun* < **husun*, in the period when original *q-* was developing into *χ-*. See **udku-* for a possible similar development in EYu. The *h-* itself, like that in Mgr, is probably secondary and triggered by the following *-s-*. However, Ligeti (1962:72) points out that there is a single MMo form with *h-*: *husu* 'water' in the Hei-Da Shilüe. Ramstedt assumes, based on Kalm *šar usn* R452 'rheumatism' that there was a word **husun* 'pus', which was not related to **usun* 'water' (or to front-vocalic **höesün* 'pus'). This may be supported by the inclusion of <usun> in a list of 'impurities' in preclassical WM (The Twelve Deeds of Buddha, T117). However, combinations corresponding to Kalm *šar usn* elsewhere have meanings (e.g. 'serum' in EYu and Ord) that can easily be derived from **sïra usun*, lit. 'yellow water'. Cf. also Rybatzki 2006:177. The final *-n* in this word was atypically elided in all of Shirongol; in most words this only happened in the

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Monguor languages. Perhaps derived from a root *u- by means of the (?collective) suffix *-sUn.

MMo SH usu(n) H167, HY usun M106, Muq usun P368b, LV usun P1259, IV usun L62:72. WM usu(n) L887b. Kh us(an) H553b. Ord usu M744a. Bur uha(n) C484a. Brg oxʊ: U38. Kalm usn M538a. Dag ɔs E39, Z93a. EYu qusun B65, J96a. MgrH ʂʐu J96b, fuʐu SM102, sʐu ~ fuʐu T359, sʐu X146. MgrM fʐu ~ sʐu JL468, suʐu DS259b. BaoD sɵ, sə BL83a. BaoÑ sə CN127. BaoX sə BC62. Kgj sʉ ~ sü S294a. Dgx usʊ B21, L111b. Mog usun R41a, usun, ʊsʊ, ʊsun W183b.

*uu- 'to drink'. The etymological reality of the WM spelling aɣu- can not be confirmed. Cf. *ugǰï 'feeding bottle' and *oači- 'to drink' (an etymological relationship with these words cannot be established).

MMo SH ū- H160, u'u- H167, HY---, Muq u:- P371b, LV au- P1258, IV---. WM uɣu- L864b, uuɣu- L889b, uu- L889a, aɣu- L15b. Kh uux H557b. Bur uuxa C481b. Brg ʊ:- U35. Kalm uux M542a. Dag ɔ:- E36. EYu u:- B18. MgrH u:- X15. MgrM u- JL463. BaoD u- BL83a. BaoÑ u:- CN19. BaoX o:- BC64. Dgx u- B17 'to drink (water in large gulps)'. Mog---.

*uuča 'back; sacrum; crotch, hindquarters, rump'. The WM spellings aɣuča and uɣuči are certainly incorrect, but the -ɣ- in uɣuča is also unetymological, as this word corresponds to CT *u:ča. This is one of the rare cases where a CM double vowel corresponds to a CT long vowel (a similar case is *köerge 'bellows').

MMo SH---, HY---, Muq uča (u:ča) P371b 'back', LV uča P1255, IV uča L62:71 'back'. WM uɣuča L864b, uɣuči L864b, aɣuča L16a. Kh uuc H558a. Bur uusa C481b. Kalm uuc M543a. Dag wa:č E332. EYu u:ča B18 'sacral area'. Mgr---. Bao---. Kgj---. Dgx---. Mog učʌ W183b 'back', MogMr, MogM uča L62:71 'id'.

*uur- (?) 'to throw' see *ugur-

*uurag 'biestings, colostrum'. The Muq form with unexpected -ɣ- may be due to WM spelling or to the Turkic equivalent. The Dag form, although strange looking, is a regular development. Note the vowel shortening in EYu-Mgr. An agricultural term related to CT *aguz 'id', to which an element -Ak was added (cf. Yak uohax). In view of the Turkic cognate the Mongolic form may stem from earlier (PM) *aɣurag. However, the *a of the Turkic form is not found in any Mongolic form.

MMo SH---, HY---, Muq uɣraq (sic) P362a, LV---, IV---, RH u:raq 205B8. WM uɣuruɣ (sic), uɣuraɣ L865a. Kh uurag H557a. Ord u:raq M737b. Bur uurag C481a. Brg ʊ:rag U37. Kalm uurg M542a. Dag wa:rəl E332. EYu uraġ B20, J95a. MgrH uraġ J95a. BaoGt orġə C103. Dgx---. Mog---.

*uurga (?urga) 'urga, pole with a noose at the end used for catching horses'. The vowel length was lost in Bur. Not to be confused with *huraka 'lasso, snare'.

MMo SH u'urqa H165, uqurqa (sic) H160, HY---, Muq---. WM urɣa(n) L881a, uɣurɣa L865a. Kh uurga H557a. Ord u:rġa M739a. Bur urga C474a. Brg ʊrag U41. Kalm uurɣ (obs) M542a. Dag---. EYu---. Mgr---. Bao---. Dgx---. Mog---.

- Ü -

*übül (?***ebül**) 'winter'. The Muq form *ö:l-* could also be read *ü:l*, *ewül*, *öwül*, or *üwül*. In any case most forms are unexpected since **-b-* is normally preserved as such in Muq. Although it seems certain that all the listed forms are related, they can hardly be reduced to a single CM form. Most languages, including MMo and Dag, indicate a CM form **übül*. The **e-*, as written in WM is only supported by one of the Moghol variants; Kh and Ord suggest **ö-*. The *-g-* in Brg and MgrM is puzzling (in Dagur the alternation *w ~ γ* is not unique).

The Baoan words for 'winter', BaoD *ŋgun* BL82a, BaoÑ *ʕgən* CN232, BaoX *ərgən* BC64 have been borrowed from Tibetan (cf. Amdo *rgən*, LT *dgun* Jä84b). The Monguoric forms seem to involve a contamination with the Tibetan form (cf. Róna-Tas 1966, No. 464).

MMo SH *ubul* H157, HY *übül* M107, ZY **üwül* (emended) Kara333, Muq *öbül* P272b, *ö:l-* P279a, cf. *ebülje-* P151a 'to pass the winter', RH *öbül* 201A21. WM *ebül* L290b. Kh *övöl* H403b. Ord *öwöl* M544a. Bur *übel* C489b. Brg *ugul* U49, *uβəl* U47. Kalm *üvl* M544a. Dag *uγul* E44, *uwul* E50, *u:l* E43. EYu *βəl* B37, J94b. MgrH *rgul* J94b, X240, L464 (see remark above). MgrM *ugur* C395, *uğur* T355. BaoD *ul^y* P414a. BaoGt *vulə* C116. BaoJ *vul* L206. BaoÑ---. Dgx *un* B19, *uwən* B23, cf. *unça* L110b (+ *čaγ*). Mog *ubul* R41b, *ebulà, ubulà* R27b 'in winter'.

*üčüken (?*öčüken) 'little, small'. In view of the very numerous occurences (the forms without *h-* each occur once) there is no doubt that the language of the Muq had a *h-* in this word. It is however not confirmed by any other source. The Bao and Kgj forms could also stem from **bičïkan* 'small'. The speakers of several languages also seem to associate this word with **čöeken*, **čöen* 'little, few'. Cf. also **baga* 'small'. Also note the regional word in MgrH *mula:* X125, MgrM *mula:* C383, Dgx *mila* B107; EYu EYu *məla* B91, with equivalent in WYu, means 'small child'.

MMo SH *ucugan*, *ucugen*, etc. H157, HY *üčügen* M107, Muq *hüčüken* P189a, *üčüken* P273a (P: *ö-*), *üčü:n* P273a (P: *ö-*), LV *üčken* P1258, IV---. WM *öčüken* L629a, *üčüken* L995a (same actual spelling). Kh *öcüüxen* H422a, *öčüüxen* H422b. Ord *öčö:kön*, *öčö:n* (= *čö:n*) M543a. Bur *üsööxen* C515a, *üsöö(n)* C515a. Brg *usə:ŋ* U51. Kalm *üčükn* M558b. Dag *uškən* E46, *uči:kən* E48, *učkən* E48. EYu---. MgrH---. MgrM---. BaoD *šǰiǧaŋ* T152. BaoGt *śigəŋ* C123. BaoGm *hǰiǧaŋ* CN86:17. BaoÑ *ǰigaŋ* CN199. BaoX *jigaŋ* BC65. Kgj *šǧɔ* S296a. Dgx---. MogMr *učkʋ:n*, *učkan*, MogM *uškʋ̃:* L64:43 'light; bad; lousy'.

*üde 'noon, midday'. In the Shirongol languages there is some confusion between **üde* 'noon' and **üdür* 'day'. In Dgx they both have the word shape *udu*, in Kgj both are represented by *udər*. This suggests that the word shape of 'day' absorbed the meaning of **üde* 'noon'. Cf. also the confusion in BaoÑ *udərgu* CN21 (adj.) 'daytime; noon', and also *χi:ćudə* CN61 'on the second day' (first element **koïčï*), *kudu:d* CN83 'a couple of days' (first element **kedün*), *tərə'nudə* CN83 'that day' (**tere nege*). Namcarai & Khaserdeni (p. 465b) translate Dag *udur* as 'day; noon',

suggesting the same confusion, which is however not confirmed by Enkhbat. Enkhbat does have *udur əməl* 'before noon', *udur x^wainə* 'after noon' based on **üdür* rather than **üde*. Mostaert and de Smedt derive MgrH *dur* in the meaning 'noon' from **düli* 'middle' (not listed here). This would be semantically fitting but not phonetically.

MMo SH *ude* H158 'evening, late', HY---, Muq---, LV---, IV---. WM *üde* L995a. Kh *üd* H565b. Ord *ʉde* M747a. Bur *üde* C494b. Kalm *üd* M545b. Dag *udu* (*?ud^w*) T170 (see above). EYu *ʉde:* B21, *ude* J96a. MgrH *dur* (sic, merged with *dur ~ udur* 'day') SM68. MgrM *dursuġo* DS239b 'noon' (the second element perhaps < Ch *shíhòu*). BaoD---. BaoÑ see above. Kgj *ʉdər* (sic, merged with 'day') S281b. Dgx *udu* (sic, merged with 'day') B22, L112b, (Longquan dial.) *uduru* B22 'noon'. Mog---.

*üdesi '(in the) evening, (at) night'. Perhaps from the same root as **üde* above, although the function of the element **-si* is unknown. The *-g-* in EYu is reminiscent of the directives derived from spatial nouns with the suffix **-gsi*, such as **gada-gsï* 'outwards', **dota-gsï* 'inwards'. Based on the meaning of **üde* in SH, there may indeed have been a form **üdegsi* with the original meaning 'towards the evening', but the *-g-* in that word should have been reflected in the MMo forms. Alternatively, the EYu form is a contraction of **üde koïgsï* 'after noon'.

MMo SH *udeši* H158, HY *üdeši* M107, Muq *üdeši* P373a, *hüdeši* P190a, LV *üdeši* P1259, IV---. WM *üdesi* L995b, *üdüsi* (sic) L996b. Kh *üdeš* H566b. Ord *ʉdeši* M748a. Bur *üdeše* C495a. Kalm-?-. Dag *udiš* E47 'yesterday'. EYu *ödögšə* B17, J97a. Mgr---. Bao---. Kgj *ʉdəši ~ ʉdeši* S280b. Dgx *uʒieʂï* B22. Mog---.

*üdesileŋ '(in the) evening, (at) night'. Derived from **üdesi* above. Note the interesting distribution of this word: Bur and the Shirongol languages, assuming that the short Mgr and Bao forms are indeed related. These forms could simply result from the reduction of unaccented syllables; or perhaps this word was popularly considered a compound containing **üde* 'noon' which element has since been dropped. Since the form **sileŋ* is only found in Mgr and Bao, which underwent the strongest Tibetan influence, one suspects that this could be also a loanword from that language, perhaps a compound with *phyi-* (Amdo *śə-*). Cf. also **ene üdesileŋ* 'tonight', also BaoÑ *gəʂgəlaŋ* CN92 'last night', which should be from *ʂgudə(gu) śilaŋ*, cf. MgrM *çuguʂulian* DS58 (cf. **öčügedür*).

MMo SH---, HY---, Muq---. WM---. Kh---. Ord---. Bur *üdešelen* C495b. Brg---. Kalm---. Dag--. EYu---. MgrH *śuloŋ* J97b, *śiloŋ* X153, *śülɔŋ* X158, *ʂlɔŋ* X164. MgrM *šuloŋ* T389. BaoD *śilaŋ* BL84a. BaoGm *śilaŋ* CN86:302. BaoGt *ʂïlɔŋ* C108. BaoJ *ʂlɔŋ* L170. BaoÑ *śilaŋ* CN141. BaoX *šilaŋ* BC74. Kgj *šilaŋ* S65. Dgx *uʒieʂïlien* B22. Mog---.

*üdür/*ödür 'day'. As in the case of **übül* 'winter' above, the WM spelling with *e-* is not supported by the other documented forms. MMo, Mog and the Shirongol languages indicate an ancestral form **üdür*. Kh-Kalm suggest **ödür*, which could also the source of the Ord and Bur forms. The Dag and EYu forms are ambiguous; Dag may be from **ödür* or **üdür*; EYu *odor* would normally suggest **ödör < *öder*. For a similar distribution of forms cf. **öndür* 'high'. In Dgx and Kgj this

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word has merged with *üdeÑ 'noon', in Mgr and BaoÑ there is also some overlap or confusion between the two words.

MMo SH *udur* H158, HY *üdür* M107, Muq *ödür* (?or *üdür*) P273a. WM *edür* L295a. Kh *ödör* H407a. Ord *üdür* M748b. Bur *üder* C494b. Kalm *ödr* M412b. Dag *udur* E47. EYu *odor* B15, *udur* J94a. MgrH *dur* J94a, X200, *udur* X20. MgrM *udur* JL471. BaoD *udər* BL82b. BaoGt *udər* C100. BaoÑ *udər* CN21. BaoX *ndor* BC63. Kgj *udər* S281a. Dgx *udu* B22. Mog *udur* R41b, *udur* W182a, *ɔdur*, *ɔdʋr* W174b, MogM *udur*, MogMr *ədur* L54b:140.

*üge 'word; speech'.

MMo SH *uge* H159, HY *üge* M107, Muq *üge* P373a. WM *üge(n)* L996b. Kh *üg(en)* H561b. Bur *üge* C492a. Kalm *üg* M544b. Dag---. EYu *uye* B20. MgrH *ugo* J96a, *go* X104. MgrM *uge* T368. Bao---. Dgx---. Mog---.

*ügei (?***ügüi**) 'there is not; without; not', in some languages also 'poor'. In all Shirongol languages it can take verbal suffixes.

MMo SH *ugai* H159, HY *ügei* M107, Muq *ügei* P373b, LV *ügei* P1260, IV *ügei* L62:72. WM *ügei* L997a. Kh *ügüy* H564a. Bur *ügï* C491a. Kalm *-go*, *uga:*, *uɣa:*, *ügæ:*, *üge:* R446b. Dag *uwəi* E50. EYu *uɣui* B20, *uɣwei* B21, *uɣo* B20, *uɣui* J96b. MgrH *gui:*, *gua:* J96a. MgrM *ugui* JL465, *ugo* T368. BaoD *gi-* BL84b. BaoÑ *gi-* CN95. Kgj *uǧi*, *uǧua* (+ cop.) S280b. Dgx *ui-* L112b B. Mog *ugɛi* R41b, *ugɛɪ* W182b.

*ügtee- 'to pull out, tear out'. The Dagur form appears instead of expected **urt-* or **urtə:-*. The *f-* in MgrM is also surprising. It may be a side-effect of the vowel devoicing. If original it suggests **hügtee-* which is not supported elsewhere. The Muq form occurs in the sentence *hanisqayin üsüni üktebe* (Poppe: *öktebe*) which could be translated 's/he pulled out/plucked an eyebrow hair'. The equivalent Chagatay sentence seems inappropriate: *qašïŋ tüketi boldi* which Poppe translates as 'your eyebrows are dense'. The following forms may also be related in spite of the different consonants: Kalm *ümtäx* M551b 'to pinch; to pull out', *ömtɛ:-* R296a, *üntɛ:-* R458b. Mog *uptʌ-* W183a 'to tear out', *ufta-* W182. Cf. **sei-*.

MMo SH---, HY---, Muq *ükte-* P181a (?=; see explanation above). WM *ügtege-* L998b, *üdkege-* L996a. Kh *ügteex* H564a 'to pull, tear at'. Ord *ügte:-* M751a, *üte:-* M764b. Bur---. Brg---. Kalm (see above). Dag *ut-* E47. EYu *kute-* B70 'to pull out (weed)'. MgrH *şde:-* X166, *sdie:-* SM334 'to pull out, weed, uproot'. MgrM *fu̧di-* C388, *şudi-* DS258b. Bao---. Dgx---. Mog (see above).

*üile 'work, deed, affair'. BaoD *le* 'work' could be either from **üile* or a loanword from Amdo Tibetan *le* (LT *las*). As in other cases the similarity between Dagur and Manchu (*weilen* in this case) may indicate borrowing in either direction. The *h-* in MogMr is secondary (CM **h-* was lost in Mog).

MMo SH *uiyile* H161, HY *üile* M108, Muq *üile* P375b, IV *üile* L62:72. WM *ü(y)ile* L999a. Kh *üyl* H572b. Bur *üile* C498b. Kalm *üül* M556a. Dag *wəil* E336. EYu *ule* B21, *ule:* J93b, *ölö* J24, *ulö* S690. MgrH *ule* J96b, X17. MgrM *weilie* DS261a. BaoD *le* (?=) BL77. BaoGm *yile-gə-* CN86:302 'to work'. BaoÑ---. Kgj *ile* S280b. Dgx *uilie* B17, *wəilie* B192. MogMr *hula*, MogM *ula* L62:72.

*üisün (?*uïsun, ?*uïlsun) 'birchbark'. In view of Dagur this word may have been back-vocalic originally, and later shifted vowel classes due to the *i* (cf. *nïur > *niür*, and perhaps *saïnug > *seinüg*), although Dagur is outnumbered by the front-vocalic forms, the reverse development is less likely. WM spelling is ambiguous with regards to the harmonic class, as is MMo. The MMo -*l*- is not preserved in Bur in this case. Cf. also Kmg *ʉxʉn* Janhunen 49.

MMo SH *uyilsun* (?*üyilsün*) H168, HY---, Muq---, RH---. WM *üisün* L1001b (could be read *uyisun* or *oyisun*) 'birchbark', *uyilsun* L1213a 'birchbark quiver'. Kh *üys(en)* H575a. Bur *üyhen* C499a. Brg *uxi:* U48. Kalm *ü:sn* R462a. Dag *ɔis* E36.

*üje- 'to see'. For the *n*- in BaoD and BaoX cf. *ide-*, *uda-*, etc.

MMo SH *uje-* H161, HY *üje-* M108, Muq *üje-* P377a, *hüje-* P190a, LV *üje-* P1258, IV *üje-* L62:72. WM *üje-* L1014b. Kh *üzex* H571a. Bur *üzexe* C498a. Brg *uʒ-* U52. Kalm *üzx* M547a. Dag *uǰ-* E48. EYu *eǰe-* B11, J97a. MgrH *uǯæ-* X20. MgrM *uǯi-* JL474. BaoD *nǯiə-* BL84b. BaoGt *nǯä-* C129. BaoJ *nǯa-* L126. BaoÑ *uǯi-* CN21. BaoX *nǰə-* BC71. Kgj *uǰe- ~ uǰi-* S281a. Dgx *uʐə-* B22. Mog *uǰä-* R42a, *uǰʌ-* W182a.

*üjüg ~ *üsüg 'letter, character; writing'. Related to CT *üžük*, itself a loanword from an unknown source. For phonetic and semantic reasons difficult to compare to Dag *usuɣ^w* E46, *us^w* Z94b 'word, speech', *xuswulǰ-* Enk83:96b 'to talk, chat, converse'. According to to Ramstedt (1935:460) *üjüg* and *üsüg* are originally unrelated words.

MMo SH---, HY---, Muq *üžük* P383a 'pen'. WM *üsüg* L1013b, *üjüg* L1017a the latter also 'reed-pen'. Kh *üseg* H582b 'letter, writing, script', *üzeg* H569b 'pen'. Bur *üzeg* C497a, *üseg* C515b. Kalm *üzg* M546a. Dag (see above). EYu * öǰəg* J96b, B17. Dgx *urəu* [= *uʐəu*] B23, L112b, *užig* P418a, *užìg* P411b. Mog---.

*üjüür 'tip, end' see *hüjüür

*ükü- 'to die'. The *h*- found in most QG forms was triggered by the following -*k*-. The single occurrence of *h*- in MMo is coincidental.

MMo SH *uku-* H162, HY *ügü-* M107, Muq *ükü-* P378b, LV *ükü-* P1260, *üküdel* P1260 graveyard, IV---, RH *ükü-* 204A25 'to die', *hüküdel* 202A15 'grave'. WM *ükü-* L1003a. Kh *üxex* H585b. Bur *üxexe* C519a. Kalm *ükx* M549a. Dag *uɣ^w-* E45, *u:-* E43. EYu *hku-* B59, *hgu-* J96b. MgrH *fugu-* J96a. MgrM *fugu-*, *xugu-* DS217. BaoD *fgu- ~ gu-* BL84b. BaoGt *fgə-* C129. BaoÑ *ʂgu-* CN148, *hgu-* CN70. BaoX *xgo-* BC63. Kgj *gʉ-* S289b. Dgx *fugu-* B53, L112b, *fgu-* B55. Mog *ʉkʉ-* R41b, *uku-*, *ʊkʊ-* W182b.

*üldü 'sword' see *ildü

*üliger 'story, tale; example; proverb'. Kalm *ülgür* (instead of **ülgr*) suggests
*ülgüür.
        MMo SH---, HY---, Muq---. WM *üliger* L1005b. Kh *ülger* H575b. Bur
ül'ger C501b. Kalm *ülgür* M549b. Dag *urγil* E50. Remaining lgs---.

*üle, *ülü 'not'. At first sight the form **ülü* seems to survive in EYu, Mgr, and
Bao, the form **üle* in Dgx, and both forms in Mog. This is not certain. As this word
is unaccented and may lose its vowel before the verb it negates, it is difficult to
interpret the history of the isolated forms in the vocabularies. Cf. EYu *lere-* 'not to
come' (from **ire-*), MgrH *lo:lə-* 'not to find' (from **ol-*), Mog *lašta-* 'not to be able'
(from **čïda-*). Cf. the other negative particles **bisi*, **bütegei*, **ese*, **ügüi*.
        MMo SH *ulu* H163, HY *ülü* M108, Muq *üle* P379b, *ülü* P380b, IV *üle*
L62:72, *ülü* L62:73. WM *ülü* L1006b. Kh *ül* H575a. Bur *üle* C502a, *üli* C500a.
Kalm---. Dag *ul* E45. EYu *lə* J96b. MgrH *li:* J96a. MgrM *lai* JL465, *li* T342. BaoD
lə BL84a. BaoÑ *elə* CN13. Kgj *ne* S281b. Dgx *ulie* B18. Mog *lʉ*, *lɛ*, *la* R33a, Mog,
MogM *la*, *lɛ*, MogMr *ʉla, ʉl* L54b:138.

*ündesün 'root'. There is no *h*-less variant in Muq; nevertheless it seems unlikely
that the **h-* is original. Peculiar distribution. Cf. **hĭǰaur ~ **huǰaur* 'id'.
        MMo SH---, HY---, Muq *hündüsün* P238a. WM *ündüsü(n)* L1007a. Kh
ündes (*ündsen*) H577b. Bur *ündehe(n)* C506b. Brg *undu:* U46. Kalm *ündsn* M552a.
Dag *undus* E43. EYu---. Mgr---. Bao---. Kgj---. Dgx *undusun* S693, *untusun* P415a.
Mog---.

*üne 'price'. MgrH and Bao apparently stem from a form **ünem*. Confusingly the
same shape **ünem* occurs in derivates of **ünen* 'true' in central Mongolic, such as
Kh *ünemlex* H579b 'to testify'.
        MMo SH--, HY---, Muq *üne* P380b. WM *üne* L1008a. Kh *üne* H578b. Ord
ʉne, *ʉni* M757b. Bur *üne* C508a. Brg *un* U45. Kalm *ün* M551b. Dag---. EYu *ʉne*
B20, *une* J96a, S694; *u:ne* S550 'cost'. MgrH *nem* J96b. MgrM---. BaoD *nem*
BL84b. BaoÑ *unəm* CN20. BaoX *ñəm* CN86:226. Kgj---. Dgx---. Mog---.

*ünen 'true'. Chakhar and Bargu seem to suggest **ünin*.
        MMo SH *unen* H164, HY *ünen* M109, Muq *ünen* P381a. WM *ünen*
L1009a. Kh *ünen* H579a, cf. Chakhar *un^yĩ* D173a. Ord *ʉnen* M758a. Bur *ünen*
C508a. Brg *uniŋ* U45. Kalm *ünn* M552b. Dag *unun* E43, *unəŋ* Z94. Remaining
lgs---.

*ünien 'cow'. Moghol shows the metathesis of the palatal element also seen in
*kanïa- 'to cough'. Kalm *üngn* M551b 'female (of wild animals or birds); (obs) cow
that has calved for the first time' may be a contamination of **ünien* 'cow' and
*iŋgen 'camel mare' (the latter not listed here). Poppe (60:62,141, etc), and
Ramstedt (I:89,114,157) compare CT **in(g)ek* 'cow'. However, the expected CT
cognate of CM **ünien* would have been **üni* or **ünig*.
        MMo SH *uniyen* H165, HY *üne'en* M109, Muq *üneyen* P381b. WM
üniye(n) L1010a. Kh *ünee(n)* H580a. Bur *ünyeen* C507a. Kalm (see above). Dag
uñe: E44. EYu *ni:n* B26, J96b, (Qinglong dial.) *ne:n* BJ351. MgrH *une:* J96a.

MgrM *une* [*xuguar*] C370. BaoD *uniaŋ* BL84b. BaoGt *uniɔŋ* C111. BaoÑ *unaŋ* CN20. BaoX *ñaŋ* BC63. Kgj *ʉniɔ* S280b. Dgx---. Mog *ʉinà* R41b, *ʉinʌn* W182b.

ünügün 'kid (goat)'. This word was lost in most central languages, perhaps because it phonetically merged there with *hünegen* 'fox'. In Kalm there is a word *üngn* 'female', with which *ünügün* could also be confused, see s.v. *ünien* above. The WM and Kh forms given by LC are unexpected; the latter should have been *üneg* or *ünegen*. The loss of the initial vowel in Dgx and Mog is unusual. The final -*r* in MgrM is an addition this language usually has in designations of young animals. The -*l* in BaoGt may stem from the derived verb *ünügüle-*.

     MMo SH *uno.gun* H165 'looking like a male lamb', HY---, Muq *ünügün* P382a, LV *üngen* (Saitô reads -*r*) P1258, IV---, RH *ünügün* 199B26. WM *ünüg* (sic) LC 3:414b. Kh *ünüg* (sic) LC 3:414b. Ord *ʉnʉgʉ* M759a. Bur---. Brg---. Kalm---. Dag *unuk* S414. EYu *noγon* B26, *nuγun* J95b. MgrH *nugu* X36, *nəgu* J95b. MgrM *nugur* DS232b, *unyugur* P414a. BaoD *imaŋ nəguŋ* BL83b (*imaŋ* 'goat'). BaoGt *nogol* C117. BaoÑ *ungu* CN20. Kgj *nʉγun* S282b. Dgx *unuǧuŋ* B19, *nuǧuŋ* MC300a. Mog *nʊku* W74, cf. Zirni *nʉkʉ:t* (pl.) 20:10.

ürie 'young stallion (of three, four, or five years)'.
     MMo SH *uri'e* H166, HY---, Muq---. WM *üriye* L1013a, *ürege* L1011b. Kh *üree* H582a, cf. Chakhar *urʸə:* D173a. Ord *ʉre:* M760a. Bur *üryee* C512a. Kalm *ürä* M553b. Dag *urʸe:* E49, and (erroneously?) *ura:* E83:221. EYu *ʉre:* B21. Remaining lgs---.

üsün 'milk' see *süü*

*ütergen ~ *ütürme* 'threshing floor'. The form *ütergen (?*ütürgen)* that appears to be reflected by the Shirongol languages is also found in a number of Inner-Mongolian dialects. Forms like the synonymous Khorčin *itrəg* (Chagankhad 1995:200) and Dag *itləγ ~ itəl* E83:101a/b may also belong here in spite of the *i*- and the -*l*-. Cf. the Dagur verb *itəl*- E83:101a 'to thresh grain', and Solon *itulgə* D346a 'threshing floor'. *ütergen* and *ütürme* seem to be two derivates from the same stem, but the morphology is unclear. Perhaps a corruption of Turkic *örtgün* 'id'?

     MMo SH---, HY---, Muq---. WM *ütürme* L1014b. Kh *ütrem* H582b. Ord---. Bur---. Brg---. Kalm---. Dag (see above). EYu---. MgrH *sdierge* SM335, *ʂdergʒ*, *ʂdərgʒ* X167. MgrM *śdərge* JL478, (Sanchuan) *iterge* P412b. BaoD---. BaoÑ *terǧaŋ* CN166. BaoX *targaŋ* BC66. Kgj *tɔrǧɔ ~ tarǧɔ ~ təǧɔ* S297a. Dgx *tuǧoŋ* B141. Mog---.

üye 'joint; generation'.
     MMo SH *üye qaya* H167 'relative', HY *üye üye* M109 'from generation to generation', Muq *üye* P382b. WM *üye* L1001b. Kh *üye* H566b. Bur *üye* C495b. Kalm *üy* M547b. Dag *wəy* E337, *ui* Z11. EYu *ywe:* B156 'generation'. MgrH *uye* X21. Bao---. Dgx *uyə* B23. Mog---.

üyee 'feed, fodder'. see *öyee*.

- Y -

*yaan** and ***yaun*** 'what; what kind of'. Both formations are old. The form *yaun* seems to be extinct in the QG languages, although MgrM *yoŋ* may be a last surviving form. Cf. *yama, *yamar.

MMo SH *ya'u(n)* H169 'who, what, what kind of', HY *ya'u* [*ba*] M110 'whatever', Muq *ya:n* [Poppe reads *yan*] P387a, and an assimilation form *ya:m* [Poppe: *yam*] P386b. WM *yaɣu(n)* L424b. Kh *yuu(n)* H869b, *yüü(n)* H870a, cf. Chakhar *yu:* D186b. Ord *yʉ:* M407a 'what', but instr. case *yu:ġa:r*, com. case *yu:tä:*, etc; also *yu:n* M406a, *yʉ:n* M408a 'which'. Bur *yüü(n)* [written *yuu(n)*] B785a. Brg *yu:* U223. Kalm *yun* M707b. Dag *yɔ:* E33. EYu *ya:n* B152. MgrH *ya:n* J107a. MgrM *ya:n* C204, *yoŋ* T337. BaoD *iaŋ* Bl93b. BaoÑ *yaŋ* CN213. BaoX *yaŋ* BC65 'what'. Kgj *yɔ ~ yaŋ* S305b. Dgx *yaŋ* B185. Mog---.

*yaakï-** 'to do what/how' (interrogative verb). Apparently from *yaan* + *ki-*. In some QG languages we find *yama* + *ki-* instead or in addition. A verb *yaa-* is found in central Mongolic and Dagur: Kh *yaax* H872a, Bur *yaaxa* C789a, Kalm *yaax* M708a, Dag *ye:-* E329. Dag *yɔ: xi:-* E330 is an alternative formation *yaun* + *ki-*. See *yaan* and *yaun.

MMo SH *yeki-* H170, cf. SH *yaki-n* H169 (gerund) 'how', HY---, Muq---. WM *yaɣaki-* L423b, *yaki-* L425a, etc. Kh *yaaxi-n* H872a 'how; why'. Bur *yaa geže* C787a 'how; what'. Brg---. Kalm *ya:ɣă-* R213b. Dag (see above). EYu *ya:kə-* B152, *ya:ɣ-* J69. MgrH *ya:ġa-* X231. MgrM *yaŋgə-* DS23. BaoD *iaŋgə-* BL49, *iangə-* BL63. BaoÑ *yaŋgə-* CN213. Kgj---. Dgx *yaŋ gie-* MC435a. Mog---.

*yaara-** 'to be in a hurry'. The Muq form is unexpected but not a misspelling as it is very common.

MMo SH *ya'ara-* H168, HY *yāra-* M110, Muq *ǰa:ra-* P204a. WM *yaɣara-* L423b. Kh *yaarax* H871b. Bur *yaaraxa* C789a. Kalm *yaarx* M707b 'to huddle together'. Dag *ya:r-* E325. EYu in *yara:ŋgʉi* B153 'slowly' (< without hurrying). MgrH---. MgrM---. BaoD---. BaoÑ *ya:r-* CN231. Kgj *yara-* S305b. Dgx---. Mog---.

*yabu-** 'to go; to walk'. The -*b*- was atypically lost in MgrM. In some MgrH sources confused with *yeü-* (?*yüü-*) 'to transfer'.

MMo SH *yabu-* H168, HY *yabu-* M109, Muq *yabu-* P385a. WM *yabu-* L420a. Kh *yavax* H872b. Bur *yabaxa* C793a. Brg *yɔβ-* U222. Kalm *yovx* M279b. Dag *yau-* E326, *yaw-* E328. EYu *yaβə-* B153, J106b. MgrH *yau:-* J107b, *yau-* X232, *yu:-* X236, *yævu-* X234. MgrM *yɔu-* C394, *yau-* JL474, T338. BaoD *iu-* BL93a. BaoÑ *yawu-* CN217, *yu-* CN220. BaoX *yu-* BC65. Kgj *yu-* S306a. Dgx *yawu-* B187. Mog *yobu-* R30a, *yɔbu-* W168b.

*yada-** 'to be unable'.

MMo SH *yada-* H168, HY *yada-* M110, Muq *yada-* P386b. WM *yada-* L422a. Kh *yadax* H874b. Bur *yadaxa* C796a. Kalm *yadx* M709a. Dag *yad-* E328 'to

be scared, to be shy'. EYu *yida-* B155, *ida-* J48, cf. *ida-* J107b 'to become tired'. MgrH *ada-* J45, cf. *yada:-* J106a 'to be tired'. MgrM *da-* T313. BaoD *edə-* BL56. BaoÑ *yada-* CN216. BaoX *idə-* BC70. Kgj *ada-* S278b. Dgx *da-* B143, L75. Mog---.

yadara- 'to be(come) tired'. Apparently an inchoative formation to *yada-* above.

MMo SH---, HY---, Muq---. WM *yadara-* L422b. Kh *yadrax* H874b 'to be tired; to become poor'. Bur *yadarxa* C796a. Kalm *yadrx* M708b. Dag *yadər-* E328. EYu *yidara-* BJ333 'to be weak, feeble', *yadara-* B153. MgrH---. MgrM---. BaoD *edər-* BL93b. BaoÑ *yadara-* CN104. BaoX *idar-* BC71. Kgj *yadəra- ~ yadra-* S305a. Dgx---. Mog---.

yama 'what; something; thing'. Apparently a semantic narrowing of the same word: MgrM *yama* JL474, *ya:ma* C391 'food'. BaoD *iamə* BL59, BL86a, *iamo* BL42 'food; meal'. BaoGt *yàmu* C123 'meal', Dgx *yama* P421b 'cereal (crop on the field)'. Note the distribution of this form in MMo Muq, Mog, and the QG languages (the remaining languages use *yauma*). Perhaps *yaa-ma* from *yaan* 'what' + (particle) *ma* 'whatever'. See *yaan* 'what' listed above.

MMo SH---, HY---, Muq *yama* P386b. WM---. Kh---. Bur---. Kalm---. Dag---. EYu *yima* B154, *ima* J106b. MgrH *ama* J107b, *yama* X232, *yæma* X233. MgrM *yama* T337. BaoD *iamə* BL35 'whatever'. BaoÑ *yama* CN215 'thing'. Kgj *yama* S305a. Dgx *yama* B187. Mog *yema* R30a 'what', cf. *yem* 'id', *imʌ* W167b 'what (kind of)', *ɛmʌ* W164b 'what', MogMr *yəmà*, *imà*, MogM *yama* L62:73.

yamar 'what, what kind of'. Note *yambar* in Sino-Mongolian (and WM spelling). Unlike *yama* this form also occurs in the central languages and Dag. In Dgx, *yamar* has been lost or it has simply merged with *yama* phonetically. See further *yaan* 'what' listed above. In Baoanic replaced by *yaan metü* (see the latter ellement).

MMo SH *yambar* H169 'how; what', HY *yambar* M110 'which', Muq *yamar* P387a. WM *yambar*, *yamar* L426b. Kh *yamar* H877b. Bur *yamar* C799b. Kalm *yamr* M710a. Dag *yamər* E327 'what kind of'. EYu *imar* J107b, *yimar* B155. MgrH *amar* J107b, *yamar* X233. MgrM *yamar* C204. Bao---. Kgj---. Dgx---. Mog *yema:r* R30a 'how' (perhaps from *yamaar*, instr. of *yama* above).

yara 'ulcer, sore; syphilis', in MMo and Dag 'wound'. As in *yaara-* above, Muq has a form with *ǰ-*. The vowel length in EYu, MgrH and BaoÑ may be due to the *-r-*.

MMo SH *yara* H169, HY---, Muq *yara* P387b, *ǰara* P297a. WM *yara* L428b. Kh *yar* H879b. Ord *yara* M397b. Bur *yara* C801b. Brg *yar* U221. Kalm *yarǎ* R215b. Dag *yar* E328. EYu *ya:ra* B152, J107b. MgrH *ya:ra* J107a, X231. MgrM *yara* C394. BaoD---. BaoÑ *ya:ra* CN213. Kgj *yara* S305b. Dgx *yara* B187. Mog---.

yasun 'bone(s)'. The unusual MgrM *-ġ-* is not confirmed elsewhere. Kgj *-c-* is also peculiar (cf. *yesün* 'nine'). Apparently formed with the (?collective) suffix *-sUn* from a PM root *ya-*.

MMo SH *yasu(n)* H169, HY *yasun* M110, Muq *yasun* P388a. WM *yasu(n)*

L430a. Kh *yas(an)* H881a. Bur *yaha(n)* C802b. Kalm *yasn* M711b. Dag *yas* E328. EYu *yasən* B153, J107b. MgrH *yasə* J106a. MgrM *yaġsï* JL474, *yïġsï* C394. BaoD *iasuŋ* BL93a. BaoÑ *yasəŋ* CN215. BaoX *isəŋ* CN86:228. Kgj *yasun ~ yacun* S305a. Dgx *yasuŋ* B187. Mog *yo:sun* R30a, *yɔsud* (pl) W168b.

*yauma 'something, thing'. Cf. **yama* 'id' listed above, which is used elsewhere.
      MMo HY---, Muq---. WM *yaɣuma* L425a. Kh *yüüm* H869a, cf. Chakhar *yim* D185b. Ord *yum, yumu* M405b. Bur *yüüme(n)* [written *yuume(n)*] C783b. Brg *yum* U224, *yu:m* U223. Kalm *yumn* M707a. Remaining lgs---.

*yaun 'what' see s.v. ***yaan**.

*yeke (?) 'large, big, great'. All these forms are apparently related, but it is impossible to reduce them to a single reconstruction form. The form **yeke* as found in the old sources only seems to survive in Bur. Kh, Kalm, and Mog go back to a form **ike*. Both Dag and QG seem to point at CM **h-*, but in the QG languages the appearance of **h-*like reflexes may be due to devoicing of **y-* by the following *-k-*. Dag suggests an older form **hike*. As there is some degree of confusion or variation between *š-*, *x-* and *y-* in Dagur (cf. also *xita:- < *sïtaa-* 'to light', *xʸaŋkən < *yaŋkan* 'prostitute'). A development **y > *x́ > *x* in Dagur is conceivable, but not common. The MgrM and Baoanic forms (but not MgrH) seem to represent a form like **hüke*, with a peculiar rounded vowel. In Dgx, **yeke* has come to be pronounced the same as **hüker* 'bovine'. This reminds of the collocations WM *üker čilaɣu(n)* 'boulder', *üker quluɣana* 'rat', *üker ɣal* 'campfire', in which *üker* may be an independent word for 'large', but is more likely to be an extended meaning of **hüker*. Within central Mongolic, Dörbed features another rounded form *yüx*.
      MMo SH *yeke* H169, HY *yeke* M110, Muq *yeke* P388a. WM *yeke* L431a. Kh *ix* H280b. Chakhar *ix* D168a. Ord *ike* M380a. Bur *yexe* C223a. Brg *yix ~ yik* U222. Kalm *ik* M266a. Dag *xiɣ* E113, *šiɣ* E234. EYu *šike* B107, * şge* J107b. MgrH * şge* J107a. MgrM *şugo ~ şgo* JL464, *xge* T384. BaoD *fgo ~ go* BL93a, *hgo* T150. BaoGt *fgo* C129. BaoÑ *şgə* CN147. BaoX *xgo* BC65. Kgj *gʉ* S318, cf. *gʉ-da-* S290a 'to become large'. Dgx *fugie* B52, L121b. Mog *ikà, ekà* R29b.

*yeren 'ninety'. Related to **ye(r)sün* 'nine' below. In Bao and Kgj replaced by a new formation **ye(r)sün harban* 'nine tens', as in BaoÑ *yirˈsaraŋ* CN219.
      MMo SH *yeren* H170, HY *yeren* M110, Muq *yiren* (?*yeren*) P390b. WM *yere(n)* L433a, *yire(n)* 434a. Kh *yer(en)* H201b, *ir(en)* H277b. Bur *yere(n)* C222a. Kalm *yirn* M278a. Dag *yər* E329. EYu *yeren* B154, J107b. MgrH *yerən* J107b, X234. Remaining lgs---.

*yesün < ***yersün** 'nine'. **ye(r)sün* is the only numeral formed with *-sUn*. Only BaoÑ preserves the *-r-*, but it is confirmed by the corresponding decad **yeren* 'ninety' listed above. The EYu and Mgr initials are devoiced due to the following strong consonant. The affrication of *-s-* is common in Mgr but less so in Kgj.
      MMo SH *yesun* H170, HY *yesün* M111, Muq *yisün* (?*yesün*) P390b. WM *yisü(n)* L434a. Kh *yös(ön)* [written *yesö(n)*] H202b. Ord *yisʉ ~ yʉsʉ* M402b. Bur *yühe(n)* [written *yuhe(n)*] C787a. Brg *yuxu: ~ yus* U224. Kalm *yisn* M278a. Dag *is*

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E34, *yis* NK568b. EYu *x́isən* B113, *šisən* J107b. MgrH *ʂʒən* J107a, X169, *sʒən* X146. MgrM *šʒeŋ* T384, *ʂïʒaŋ* (obs.) DS4. BaoD *iəsuŋ* BL93a. BaoGt *yəsuŋ* C142. BaoÑ *yirsəŋ* CN219. BaoX *isoŋ* BC67. Kgj *yasuŋ* ~ *yacun* ~ *yaʒuŋ* S305a. Dgx *yesuŋ* B188. Mog---.

*yeü- (?**yüü*-) 'to scoop or ladle out and transfer into another container; transfuse, transplant, etc'. The form with *e* is based on the assumption that this word is related to **yeüd*-. In MgrH the situation is complicated, as **yeü*- has also taken on the meaning of **neü*- 'to migrate', and in most sources it has merged phonetically with **yabu*- 'to go'. Perhaps as a consequence of this, MgrH *yu:*- now has tr. and intr. meanings. MgrM *wei*- could instead be related to **üi*-, for which cf. MgrH *i:*- X11, Ord *ü:*- M765a, *yü:*- M408b, *i:*- M377a 'to put sth. into a cooking pot which has water in it; to drop into the water'; see WM *üi*- L999a, *üyü*- L1002b.

 In the central languages we also find a derived (?intensive) form **yeüle*- 'to transfer a fluid': WM *yegüle*- L431a, Kh *yüülex* H870b 'to transfuse, etc', Ord *yʉ:le*- ~ *yʉ:li*- M407b 'to empty', Bur *yüülexe* C738b, Kalm *yü:l*- R221b.

 MMo---. WM---. Kh---. Ord *yʉ:*- M407b 'to transfer into another container'. Bur---. Kalm *yü:*- R221b 'to pour from one container into another'. Dag---. EYu---. MgrH *yu:*- SM494, *yu:*- X236. MgrM *wei*- (?=) DS208a 'to put into a bowl', DS247b 'to scoop', F41:175 'to dip water (with a bucket)'. BaoÑ *yu*- CN220.

*yeüdke- 'to move, shift (tr.)'. Caus. of **yeüd*-, which is not as widely attested. The relationship with **yeü*- (?**yüü*-) 'to transfer' is not clear.

 MMo SH *ye'ütge*-, *ye'ütke*- H170 'to change', HY *ye'ütge*-, *ye'ütke*- M111 'to change', Muq *ye'ü:tke*- P392a 'to translate'. WM *yegüdke*- L430a. Kh *yüütgex* H870b. Ord---. Bur---. Kalm *yü:tkə*- R221b 'to end, to die'. Dag *yəurkə:*- E329 'to plant, to transplant seedlings'. EYu *ü:tge*- B21 'to move'. Remaining lgs---.

*yosun 'custom, habit, rule'. The loss of the *-n* in EYu is a rare phenomenon. Appears to contain the (?collective) suffix *-sUn*, although it does not fit the category semantically, and the root is not known.

 MMo SH *yosu(n)* H171, HY *yosun* M111, Muq---. WM *yosu(n)* L435b. Kh *yos(on)* H205b. Ord *yusu* M406a. Bur *yoho(n)* C228b. Kalm *yosn* M280b. Dag *yɔs* E331. EYu *yɔsɔ* B155, *yosə* J107b. MgrH *yos-la*- X236 'to respect; extend greetings'. Remaining lgs---.

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Samenvatting in het Nederlands

Mongoolse fonologie en de Qinghai-Gansu-talen.

Dit proefschrift behandelt de relatie tussen de fonologie (de ontwikkeling van het systeem van spraakklanken) van de Mongoolse oertaal en die van de Mongoolse talen die worden gesproken in de Noord-Chinese provincies Qinghai en Gansu. Enerzijds behandelt het de ontwikkeling van de oorspronkelijke klanken en klankcombinaties in de Qinghai-Gansu-talen. Anderzijds wordt ingegaan op de bijdrage die waarnemingen in deze talen leveren aan de reconstructie van genoemde oertaal.

De Mongoolse taalfamilie is een geografisch wijdverbreide taalfamilie die zich uitstrekt van de Kaspische Zee tot in Oost-Siberië en Noord-China. Taalkundige verschillen tussen de talen zijn naar verhouding gering, en veelal direct terug te voeren op de invloed van buurtalen.

De Mongoolse talen worden door velen niet als onafhankelijke taalfamilie gezien, maar als een onderdeel van de Altaïsche taalfamilie, die in engere zin ook de Turkse en de Mantsjoe-Toengoezische talen omvat; in bredere zin ook het Koreaans en Japans. De aard van de relaties met niet-Mongoolse talen valt buiten het bestek van dit onderzoek. Hier zal vooral de groeiende verscheidenheid binnen de Mongoolse talen in het laatste millennium worden belicht. Verwante vormen uit Turkse en Mantsjoe-Toengoezische talen worden enkel aangehaald wanneer deze bijdragen tot de reconstructie van het prehistorische Mongools.

De Mongoolse talen kunnen in verschillende groepen worden ingedeeld. De centrale groep omvat de Mongoolse talen met de meeste sprekers: Mongools in engere zin (inclusief Chalcha in de Republiek Mongolië en Tsjachar in de autonome regio Binnen-Mongolië in China), Kalmuks-Oiratisch (onder meer in de republiek Kalmukkië, een deelrepubliek van de Russische Federatie, en in Dzjoengarije), en het Boerjatisch (onder andere in de republiek Boerjatië, eveneens in de Russische Federatie). De kleinere randtalen behoren tot verschillende groepen. In Mantsjoerije vinden we het Dagoer, een geheel op zichzelf staande taal. Het Mogoli, eveneens een taal zonder directe zustertaal, werd in Afghanistan gesproken, maar is wellicht uitgestorven. In Qinghai en Gansu, op het grensgebied van de Mongoolse, Chinese en Tibetaanse invloedssferen, worden de talen gesproken die het onderwerp van dit proefschrift vormen. Het Oost-Joegoer vormt hierbinnen een eigen groep. De Shirongol-groep omvat de overige Mongoolse talen van het gebied, waarbinnen ik twee takken onderscheid. Tot de Baoan-tak behoren het Baoan (Bonan), het Dongxiang (Santa) en het Kangjia. Tot de Monguor-tak behoren het Mongghul (Huzhu-Monguor) en het Mangghuer (Minhe-Monguor).

Het proefschrift bespreekt een ruime selectie van fonetische en lexicale overeenkomsten en verschillen tussen de Qinghai-Gansu-talen die bovenstaande classificatie onderbouwen. Hoe nauw het Oost-Joegoer en de Shirongol-talen verwant zijn kan evenwel niet eenduidig worden vastgesteld, aangezien veel van de aanwezige overeenkomsten op taalcontact kunnen berusten.

De reconstructie van de Mongoolse oertaal is traditioneel overwegend gebaseerd op de vergelijking van de centraal-Mongoolse talen, archaïsche spellingen in het Mongoolse ('Oeigoerse') schrift, en oude teksten in verschillende andere

schriftsoorten. Het betrekken van de Qinghai-Gansu-talen (en in mindere mate de overige randtalen) bij deze reconstructie is een hoofddoel van dit proefschrift. De Qinghai-Gansu-talen zijn inmiddels redelijk goed onderzocht, zodat we beschikken over uitgebreide woordenlijsten en grammaticale beschrijvingen. Desondanks zijn ze tot op heden slechts beperkt gebruikt voor taalhistorisch onderzoek, afgezien van een aantal 'bilaterale' vergelijkingen van een enkele randtaal met het literair Mongools of het gesproken Mongools van Binnen- en Buiten-Mongolië.

De bijdrage van de Qinghai-Gansu-talen ligt hoofdzakelijk in het verbeteren van de reconstructie van individuele woordvormen. Voordeel hierbij is dat deze randtalen grotendeels van de rest van het Mongools afgesneden waren, zodat de woordvormen gevrijwaard zijn gebleven van de invloed van de schrijfwijze in het Mongoolse schrift, of de gestandaardiseerde centrale talen.

De Qinghai-Gansu-talen bewaren enkele oude fonetische kenmerken die in de centrale standaardtalen verdwenen of gewijzigd zijn, zoals de *h- (verdwenen in centraal Mongools), tweeklanken zoals *au (in centraal Mongools samengetrokken tot lange u:), het onderscheid tussen klinkers *a/e en *u/ü in niet-eerste lettergrepen (samengevallen in de meeste centrale talen), en medeklinkercombinaties die in de centrale talen vereenvoudigd zijn. Eveneens van belang is het bewaren van de klinkers van de laatste lettergreep, welke in de Qinghai-Gansu-talen beklemtoond is. Naast deze fonetische kenmerken hebben de Qinghai-Gansu-talen, evenals het Dagoer en het Mogoli, woorden en woordvarianten behouden die in de centrale talen zijn verdwenen.

Daarentegen is de bijdrage van de Qinghai-Gansu-talen aan de reconstructie van klinkers in de onbeklemtoonde niet-eerste lettergrepen gering. Hier kan namelijk elke oorspronkelijke klinker bijna elke moderne klinker opleveren. Dit komt doordat aangrenzende medeklinkers de klinkers kunnen ronden, ontronden of palataliseren ('umlauten'), geholpen door het feit dat het oorspronkelijke systeem van klinkerharmonie in alle Qinghai-Gansu-talen gereduceerd of geheel verdwenen is. Ook vallen de klinkers van onbeklemtoonde lettergrepen gemakkelijk weg.

Uitval van klinkers in de eerste lettergreep heeft geleid tot het ontstaan van - in andere Mongoolse talen niet toegestane - medeklinkercombinaties aan het begin van woorden, bijvoorbeeld Mongghul *nta:-* < *unta- 'slapen'. Dit was mede mogelijk doordat het naburige Tibetaans ook dergelijke clusters bezit. Anderzijds zijn veel slotmedeklinkers uitgevallen, vooral in het Mangghuer en Dongxiang, die het meest zijn beïnvloed door het Mandarijn, dat slechts weinig slotconsonanten toestaat.

Bij de medeklinkers zijn veranderingen in medeklinkersterkte de meest opvallende ontwikkeling. Dit behelst het verlies of ontstaan van aspiratie bij plosieven en affricaten. De omstandigheden en regels waaronder dit gebeurt, verschillen van taal tot taal. Versterking (aspiratie) van zwakke beginmedeklinkers kan ontstaan wanneer de tweede lettergreep met een sterke medeklinker begint, bijvoorbeeld Oost-Joegoer *pəčə-* < *biči- 'schrijven'. Verzwakking (verlies van aspiratie) van sterke medeklinkers kan ook door de volgende lettergreep worden veroorzaakt, zoals in Mangghuer *ġada* < *kada 'rots' (assimilatie aan zwakke medeklinker), of Baoan *debśi* < *tebsi 'bord' (dissimilatie van een van de aanwezige sterke medeklinkers). Het Mongghul heeft een afkeer voor sterke medeklinkers ontwikkeld, behalve aan het begin van woorden. De meest stabiele woorden zijn die

waarin in de oertaal geen sterke medeklinkers voorkwamen, zoals *daba-* 'oversteken', of die waarin de medeklinkersterkte niet zou kunnen worden verplaatst, zoals *kara* 'zwart' en *mïkan* 'vlees'.

Versterking van *b* heeft geleid tot het ontstaan van *p-*, een klank die in het systeem ontbrak, althans in de historische periode. Eenzelfde ontwikkeling heeft in de naburige Turkse talen plaatsgevonden. Versterking van de glottisslag (klinkeraanzet) heeft geleid tot het verschijnen van *h-*, als in Baoan *hgu-* < *ükü-* 'sterven'. Deze nieuwe *h-* heeft zich in de moderne Qinghai-Gansu-talen parallel ontwikkeld aan de oorspronkelijke *h-* van de oertaal. In dergelijke gevallen moeten bij wijze van 'second opinion' het Dagoer en het Middel-Mongools worden geraadpleegd, waar dit verschijnsel niet optreedt. Zo kan de *h-* van Oost-Joegoer *hkor* 'rund' onder invloed van de sterke medeklinker *-k-* zijn ontstaan, maar Dagoer *xukur* en Middel-Mongools *hüker* tonen aan dat de *h-* in dit woord oorspronkelijk is.

Het proefschrift wordt afgesloten met een vergelijkende woordenlijst van circa 1350 gereconstrueerde oer-Mongoolse woorden, vergezeld van de moderne vormen waarop de reconstructies berusten.

Curriculum vitae

Hans Nugteren werd op 5 maart 1968 geboren in Rotterdam. Na het behalen van de propedeuse Turks in 1987 begon hij aan de studie Vergelijkende Altaïsche Taal-wetenschap aan de Rijksuniversiteit Leiden. Deze studie rondde hij af in 1992. Hij was AiO van 1993-1997, in welke periode de basis werd gelegd voor dit proef-schrift. In de periode hierna verzorgde hij enkele colleges voor de studierichting Turks, en was werkzaam in het woordenboekproject Nederlands-Turks. In 2001-2002 en 2006-2007 was hij werkzaam aan de Goethe-Universität te Frankfurt am Main. Verder was hij de afgelopen tien jaar werkzaam als docent Nederlands als Tweede Taal en vertaler Turks-Nederlands.