

[Text version of database, created 28/07/2013].

## **Annotated Swadesh wordlists for the Yeniseian group (Yeniseian family).**

Languages included: Ket [yen-ket], Yugh [yen-yug], Kott [yen-kot], Arin [yen-ari], Pumpokol [yen-pum].

Reconstruction: Proto-Yeniseian reconstruction available.

## **DATA SOURCES**

### **I. General.**

#### **Main sources**

Castrén 1858 = Castrén, M. A. Versuch einer jenissei-ostjakischen und kottischen Sprachlehre nebst Wörterverzeichnissen aus den genannten Sprachen. Sankt-Petersburg. // *First systematic and detailed description of Ket and Kott grammar, accompanied by representative vocabularies for both languages. The Ket part is mostly obsolete in the light of newer data, but still contains important information on some phonetic peculiarities of XIXth century Ket. The Kott part is the most important source of data on that language.*

Dulzon 1961 = Dulzon, A. P. Slovarnyje materialy XVIII v. po ketskim narechijam [XVIIIth century vocabularies of Ket idioms]. In: Uchenyje zapiski Tomskogo gosudarstvennogo pedagogicheskogo instituta, Tomsk, pp. 152-189. // *Transliterated and briefly annotated data collections, extracted from old field records and compiled sources. Besides containing valuable old data on Ket and Kott, this publication serves as the only source of data for the extinct Pumpokol language, and the primary source of data for the equally extinct Arin.*

Werner 2002 = Werner, Heinrich. Vergleichendes Wörterbuch der Jenissej-Sprachen. Wiesbaden: Harrassowitz Verlag. // *Huge comparative lexicon that includes most of the known lexical data on Yeniseian languages. Also contains the author's own Proto-Yeniseian reconstructions.*

S. Starostin 1995 = Starostin, S. A. Sravnitel'nyj slovar' jensejskix jazykov [Comparative dictionary of Yeniseian languages]. In: Ketskij sbornik. Lingvistika [Ket Volume, Linguistics], Moscow, pp. 176-315. // *First comprehensive comparative dictionary of Yeniseian languages that includes protolanguage reconstructions based on S. Starostin's system of phonetic correspondences.*

YED = Starostin, S. A. Yeniseian Etymological Database. // *Computerized version of the Proto-Yeniseian corpus, available at <http://starling.rinet.ru/cgi-bin/main.cgi?flags=eygtntl>. Includes some etymologies that have not been included in [S. Starostin 1995], for the most part, due to the author's taking into account the new data that became available with the publication of [Werner 2002]. A significant number of old reconstructions has also been revised in this version.*

## **II. Ket, Yugh.**

Werner 1977 = Werner, G. K. Akcentirovannyje sravnitel'nyje slovarnyje materialy po sovremennym jensejskim dialektam [Accentuated comparative lexical data on modern Yeniseian dialects]. In: Jazyki i toponimija [Languages and Toponymy], Tomsk, pp. 131-195. // *First ever comparative vocabulary of Ket dialects that fully accounts for the suprasegmental features of all the words. Most of the data have been incorporated into [Werner 2002].*

Werner 1993 = Werner, G. K. Ketsko-russkiy / russko-ketskiy slovar' [Ket-Russian, Russian-Ket dictionary]. Saint-Petersburg. // *Large dictionary of Ket, based primarily on the South Imbatsk dialect. All data are given in "official" Ket Cyrillic orthography, since the dictionary's primary purpose is educational.*

Werner 2011 = Werner, Heinrich. Die Jugen (Sym-Jenissejer) im Lichte ihrer Sprache. München: Lincom Europa. // *Large monograph on Yugh, most of which is occupied by an extensive German-Yugh dictionary. This latest source on Yugh lexicon is used as the default source for Yugh data, although it should be noted that most of the data are directly copied from [Werner 2002].*

### III. Kott.

Verner 1990 = Verner, G. K. Kottskij jazyk [The Kott Language]. Rostov-na-Donu. // *A large monograph (in Russian) describing the phonetics, grammar, and available lexical data on Kott. In terms of data, it is generally dependent on [Castrén 1858], but it also adds valuable materials from earlier, less accurate sources on Kott.*

## NOTES

### I. Ket.

#### I.1. General.

The main entry, transliterated into UTS, is quoted after [Werner 2002], reflecting the Southern dialect. It is immediately followed by the standard Cyrillic orthographic representation of the word as presented in [Werner 1993]. Comments include:

(a) basic grammatical info on the words, such as gender and plural form for nouns, and information on conjugation, along with some paradigmatic evidence, for verbs. All of the info is also quoted from [Werner 2002];

(b) re-transliteration of the item's representation in [Werner 1977], along with all the dialectal data presented there. This information is useful to assess the dialectal variety of Ket. Abbreviated names of the dialects are: S.-Imb. = South Imbat; N.-Imb. = North Imbat; Bak. = Baklanikha; Sur. = Surgutikha; Kur. = Kureyka;

(c) re-transliteration of the item's representation in the early dictionary of M. Castrén [1858]. It should be noted that, although Castrén generally distinguishes between Ket (Imbat) and Sym (Yugh), forms from both dialects are frequently conflated in the dictionary without adequate differentiation. Forms specifically marked as "Sym" in Castrén's dictionary, or forms that specifically betray Sym phonetic features without being marked as such (e. g. entries beginning with *f*- as opposed to Imbat *h*-), are not entered in the notes on "Ket", but this does not necessarily mean that each single form quoted in the notes belongs to the Imbat variety of the language.

## I.2. Transliteration.

UTS	Werner 2002	Werner 1993	Castrén 1858
p	p	п	p
b	b	б	b
m	m	м	m
t	t	т	t
d	d	д	d
s	s	с	s
s <sup>y</sup>	s'	сь	s with stroke
l	l	л	l
l <sup>y</sup>	l'	ль	ł
r	r	р	r
r <sup>y</sup>	r'	р ~ рь	r
n	n	н	n
n <sup>y</sup>	n'	нь	n with stroke
k	k	к	k
g	g	г	g
ɣ	ɣ	г	g
q	q	қ	k'
ʁ	ʁ	г	g'
ŋ	ŋ	ҥ	ŋ
h	h	х	h
y	j	й	-i ~ -j-
ʔ	ʔ	'	' ~ not marked
a	a	а	a
ä	ä	я	ä ~ eä
e	e	е	e
ɛ	ɛ	э	ä ~ eä
i	i	и	i
o	o	ө	o

ɔ	ɔ	o	o
u	u	y	u
ĩ	ĩ	ɣ	y
ɜ	ʌ	ɸ	è
ə	ə	ə	è
V·	V·	V	V ~ $\hat{V}$
V:	V:	VV	$\hat{V}$

Notes:

M. Castrén's data are notably different from XXth century data and may represent both peculiarities of earlier phonetics and the author's own mistranscriptions (the author does not distinguish between *o* and *ɔ*, or *ɛ* and *ä*; his *g'* should be graphically interpreted as voiced uvular affricate *ɟ*, but probably represented fricative *ʁ*, etc.).

*Tones.* [Werner 1977] and subsequent publications by the same author consistently mark four different tones, plus two more contour tones on polysyllabic forms. The numeric notation has been reproduced here in the notes section, next to the quoted variants of forms from [Werner 1977]. However, tonal notation as such is mainly superfluous in Ket words if the accompanying features are marked instead, such as:

- (1) Tone 1 is automatically correlated with semi-long vowels (V·);
- (2) Tone 2 is automatically correlated with the presence of a glottal stop (ʔ);
- (3) Tone 3 is automatically correlated with fully long vowels (V:);
- (4) Only Tone 4 in South Imbat dialects, with a falling contour ( $\hat{V}$ ), is fully phonologized as such. North Imbat dialects usually accompany this contour with additional vowel length and a reduced *-ə* at the end of the word (cf. South Imbat *tĩɣ* 'snake' vs. North Imbat *tĩɣə* id.), but, since the South Imbat form does not have this *-ə*, it is important to mark the tone explicitly.

Tones 5 and 6 may be interpreted as different types of stress in a bisyllabic word: tone 5 = stress on the first syllable, tone 6 = stress on the second syllable. We mark stress

position according to the data in [Werner 2002] and list the numeric tonal notation for the corresponding entries in [Werner 1977].

## II. Yugh.

### II.1. *General.*

The default source for data on the now extinct Yugh (= Sym) dialect are fieldnotes collected by H. Werner and subsequently published in numerous sources, chief among them [Werner 1977, 2002, 2011]. Apart from that, Yugh data are consistently quoted from [Castrén 1858] where they are explicitly marked as such or betray usually archaic phonetic peculiarities that are specifically characteristic of the Yugh dialect (such as *f* instead of Imbat *h*, *r* instead of Imbat *l*, etc.).

Most of the grammatical and other types of notes are the same as for Ket proper (Imbat), to which Yugh is very closely related.

### II.2. *Transliteration.*

Transliteration rules are mostly the same as for Ket (see above). Minor additions are as follows:

UTS	Werner 2002/2011	Werner 1977	Castrén 1858
f	f	ϕ	f
χ	χ	x	k <sup>ʻ</sup>
č	č	ɕ	t <i>with stroke</i>
d <sup>y</sup>	d <sup>j</sup>	ɖ <sup>ʻ</sup>	d <i>with stroke</i>

Castrén's transcriptions of *k<sup>ʻ</sup>* and stroked *t* actually surmise phonetic values of *q* and *t<sup>y</sup>*, which may have been the pronunciation norm in the XIXth century; in Werner's transcriptions, these sounds consistently correspond to *χ* and *č*.

*Tones.* The basic tonal system of Yugh is the same as in Ket, but the phonetic realization of particular tones may be slightly different. Namely, Tone 1 is correlated with short vowels (instead of semi-long in Ket); Tone 4 is correlated with long breathy vowels (as in some, but not all, subdialects of Ket); Tones 2 and 3 are essentially the same as in Ket.

Additionally, Yugh distinguishes between three degrees of vowel length (short, semi-long, long); cf. the difference between 'fish' (semi-long) and 'eye' (short) on the wordlist.

### **I-IIa.** Notes on Common Ket-Yugh.

This field contains the intermediate reconstruction for Ket-Yugh. The forms are taken either from [S. Starostin 1995] (where the reconstructions, distribution-wise, are exclusively Ket-Yugh rather than Proto-Yeniseian) or constructed by G. Starostin based on S. Starostin's system of correspondences, with minor modifications.

## **III. Kott.**

### *III.1. General.*

The default source for data on the long-extinct Kott language is [Castrén 1858], a source that is fairly reliable, although hardly free of occasional phonetic and semantic inaccuracies.

Small selections of Kott data have also been recorded in earlier sources; all of them are summarized in [Verner 1990] and, where necessary, quoted in transliterated forms in the Notes section. These are marked as follows: (M.) = lexical data from G. F. Miller's records (collected in 1731); (Dict.) = lexical data from the anonymous "Dictionary of Five Arin Lects", supposedly from the mid-XVIIIth century; (Pal.) = data from P. S. Pallas' late-XVIIIth century collections, usually derived from (Dict.); (Kl.) = data from J. Klaproth's "Asia Polyglotta", for the most part, also derived from (Dict.); (Kh.) = XVIIIth century archival data, discovered and published by Ye. Khelimsky in 1986.

### III.2. *Transliteration.*

Castrén's Kott data have been recorded according to the same principles as Ket-Yugh data; UTS transliteration issues are, therefore, mostly the same as already specified for Ket-Yugh. Data from earlier sources have already been retransliterated into "conventional" Latinized notation in [Verner 1990] and are, for the most part, left unchanged in the database (with the exception of standard UTS conventions, such as, e. g., changing *j* to *y*, etc.).

## IV. Arin; Pumpokol.

### IV.1. *General.*

Both the Arin and Pumpokol languages, unfortunately, became extinct before proper scholarly work, at least on M. Castrén's level of professionalism, could be done on both of them. Most of the available sources, dating from exploratory work performed in the XVIIIth century, were carefully assembled, transliterated, and reprinted by A. P. Dulzon in [Dulzon 1961], which remains the major source on Arin and Pumpokol data. The sources compiled in this work are the same ones that have already been listed above in the section on Kott (M., Dict., Pal., Kl.). The only notable source to be added to this are some records of Arin made in 1735 by A. Loskutov, found and published by Ye. Khelinskiy in 1986 and later reprinted in [Werner 2002] (Kh.).

It can be easily guessed that the majority of the lexical data was recorded with relatively poor transcriptional quality; semantic accuracy of the transcribed words can also be frequently put under doubt. In addition, the sources on Pumpokol are heavily flawed by regularly mixing "proper" Pumpokol words with words that, in reality, represent one of the Yugh dialects - this can be very easily established through a large number of "doublet" forms, where one of the two members of the "doublet" coincides with or is very close phonetically to the corresponding Yugh word. Most of these suspicious cases have been filtered out in the lexicostatistical list, but the status of a small handful of entries is still unclear. Nevertheless, it has been possible to fill in almost 60 positions in the Pumpokol list and close to 80 positions in the Arin list, which enables us to make important classificatory conclusions based on these results. (For Arin, it may be

assumed that Loskutov's and Miller et al.'s data come from more or less the same dialect, with minor variations possibly reflecting the inaccuracy of data collectors).

#### IV.2. *Transliteration.*

Transliteration from A. Dulzon's Cyrillic-based system into the Latin-based UTS system generally follows the same straightforward principles as adopted by H. Werner in [Werner 2002] and hardly needs detailed explanation. The only non-trivial convention employed by Dulzon is to mark velar *k* as Cyrillic *κ* and uvular *q* as Latin *k*. An entirely different question is how well XVIIIth century transcriptions actually convey all the phonological oppositions of Arin and Pumpokol; for a detailed discussion of the matter, see [Dulzon 1961].

### V. **Proto-Yeniseian.**

#### V.1. *General.*

The first comprehensive attempt at a systematic reconstruction of the Proto-Yeniseian phonological system was published by Sergei A. Starostin in 1982 (*Sergei Starostin. Prayeniseyskaya rekonstrukciya i vneshniye sv'azi yeniseyskix yazykov /Proto-Yeniseian reconstruction and the external relations of Yeniseian languages/, in: Ketskiy sbornik. Antropologiya, etnografiya, mifologiya, lingvistika /The Ket Volume. Anthropology, ethnography, mythology, linguistics/, Leningrad, Nauka publishers, pp. 144-237.) A decade later, it was followed by a compact comparative-etymological dictionary of the Yeniseian family [S. Starostin 1995], which featured very minor "cosmetic" changes to the reconstruction. All of the Proto-Yeniseian etymologies were also computerized in the StarLing database format [YED]; the database was significantly expanded and updated by S. Starostin around 2003-2004, after the publication of H. Werner's comparative dictionary.*

Alternate variants of the Proto-Yeniseian reconstruction have been offered by H. Werner and E. Vajda, although neither of the two specialists has published a separate, sufficiently detailed description. H. Werner's reconstructions for multiple Proto-Yeniseian lexical items have, however, been published in [Werner 2002]: many of

them are significantly different from S. Starostin's, and have often been criticized by the latter in his 2003-2004 notes in [YED].

The present attempt at the reconstruction of a Swadesh wordlist for Proto-Yeniseian takes S. Starostin's reconstruction as its starting point; however, Werner's alterations to the reconstructions are considered on a regular basis, and some modifications to the etymologies have also been suggested by G. Starostin (all such modifications are stated and justified in the notes section).

The phonetic correspondences between Ket-Yugh, Kott, Arin, and Pumpokol are relatively complex; for a detailed explanation, the user should probably refer to [Starostin 1982]. In this introductory section, however, it is possible to summarize the major correspondences in a short table.

Proto-Yeniseian	Ket	Yugh	Kott	Arin	Pumpokol
*p	h- / -0- / -p	f / -p	f- ~ p <sup>h</sup> - / p	p- ~ p <sup>h</sup> - ~ f- / p	pf- ~ f- ~ p- / p
*b	b- / -b- / -p	b / -p	p	p	p
*m	m	m	m	m	m
*w	b- / -0- / -w	b- / -0- / -w	b- / -p- / -w	b / -w	w ~ m
*t	t	t	t <sup>h</sup> - / t	t / -d- ~ -t-	t / -d- ~ -t-
*d	d- / -d- ~ -r- / -t	d / -t	t- / r	t- / -0 ~ -y	d-
*n	n	n	n	n	n
*r	l <sup>y</sup> ~ l	l ~ r	r	r	r
*l	l <sup>y</sup> ~ l	l	l	l ~ r	l
*c	t	č- / t <sup>y</sup>	h- ~ t- / t	k- ~ t- / t	x- ~ c- / t
*ʒ	d- / -d- ~ -r- / -t	d / -t	d <sup>y</sup> - / y	k- / y	k- / d
*r <sub>1</sub>	l <sup>y</sup> ~ l	r	l	l	l
*s	s <sup>y</sup> ~ s	s	š- / -č- / -š ~ -t	s ~ š ~ č / -s ~ -š ~ -t	t- ~ c- ~ s- / -t ~ -č ~ -š
*č	t	č- / t <sup>y</sup>	š- / -č-	s- ~ š- ~ č- ~ k-	x- ~ k- / -č
*ʒ	d- / -d- ~ -r- / -t	d <sup>y</sup> - / -t <sup>y</sup>	č- / y	s- ~ š- / y	č- / -y- ~ -d <sup>y</sup> -
*ŋ	n <sup>y</sup>	n	n	n	ŋ ~ n

Proto-Yeniseian	Ket	Yugh	Kott	Arin	Pumpokol
*r <sup>y</sup>	l <sup>y</sup>	l- / r	d <sup>y</sup> - / y	t- ~ d- / l	l
*y	0- / y	0- / y	d <sup>y</sup> - / y	0- ~ y- / y	d- ~ 0- / -y
*λ	l <sup>y</sup>	l <sup>y</sup>	d <sup>y</sup> - / l	r ~ l	l
*k	k- / -γ-	k / -g-	h- / k ~ g ~ x	k- ~ x- / g ~ y ~ 0	k- ~ x- / -0- ~ -y- / -t ~ -č
*g	k- / -g- / -ŋ	k- / -g-	k- / -k- ~ -g-	k- / -g-	-k- ~ -g-
*ŋ	ŋ	ŋ	ŋ ~ n	ŋ ~ g	ŋ
*x	0- / -γ-	0- / -g- / -k	0- / -y- ~ -0-	0- ~ k- / 0	0- ~ h-
*q	q- / -ɸ- ~ -0-	x- / -x ~ -q	x- ~ k <sup>h</sup> - / k ~ g ~ x	k- ~ q- / 0	k- ~ x- / -k
*ɢ	q- / 0	x- / 0	k- / k ~ g ~ x	k- ~ q- / -0- ~ -g-	x- / -k- / -0
*χ	q- / -0- / -k	x- / -0- / -k	h- / -0- ~ -ʔ- ~ -y- / -k ~ -g ~ -x	k- ~ q- / -g- ~ -0- ~ -y- / -0	k- ~ x- / g ~ k
*h	0-	0-	h-	0-	?
*i	i	i	i ~ e	i (a, e)	i (a, e)
*e	e ~ ε	e ~ ε	e	i (a, e)	a (e, i, u)
*ä	a	a	e	a (i)	a (i, o, e)
*i̇	i̇	i̇	i̇	e (i, a, u, o)	i (i̇, o, a)
*ə	ɜ	ɜ	i ~ a ~ e	a (u, o, i, e)	a (o, i, i̇, u)
*u	u ~ i̇	u ~ i̇	u	u (o, i, e)	u (o)
*o	o ~ ɔ ~ u	o ~ ɔ	o	o (u, e, a)	o (u, e)
*ɔ	o ~ ɔ	o ~ ɔ	a	o (a, u)	a

Additionally, Ket-Yugh prosody, well studied and described by H. Werner (accurate data on the prosodic features of other, now extinct, Yeniseian languages are non-existent) is projected by S. Starostin onto the Proto-Yeniseian level as follows:

Proto-Yeniseian	Ket	Yugh
*CṼ	CV <sub>1</sub>	CV <sub>1</sub>
*CṼ?	CV <sub>2</sub>	CV <sub>2</sub>
*CṼC	CV·C <sub>1</sub>	CVC <sub>1</sub>

Proto-Yeniseian	Ket	Yugh
*CṼ?C	CV?C <sub>2</sub>	CV?C <sub>2</sub>
*CV:C	CV:Cə <sub>4</sub>	CV: <sup>h</sup> C <sub>4</sub>
*CṼCa	CV·C <sub>1</sub>	CVC <sub>1</sub>
*CṼCe	CV·Cə <sub>1</sub>	CV·C <sub>1</sub>
*CṼ?CV	CV?C(ə) <sub>2</sub>	CV?C <sub>2</sub>
*CV:CV	CV:Cə <sub>4</sub>	CV: <sup>h</sup> C <sub>4</sub>

Notes:

(1) In the table, the slash sign ( / ) separates positional reflexes; the tilde sign ( ~ ) separates "fluctuating" reflexes that are sometimes conditioned by phonetic context, sometimes by the dialectal affiliation of the form (especially in the case of Ket), and sometimes represent conflicting orthographies in old, phonetically inaccurate sources (especially true for Arin and Pumpokol, less so for Kott). More detailed information on all this may be found in S. Starostin's paper from 1982.

(2) S. Starostin's reconstruction model may be defined as "maximalist", assigning as many series of phonetic correspondences as possible to individual Proto-Yeniseian phonemes: this particularly concerns the affricates (\*c, \*ʒ, \*č, \*ʒ̣), the uvular series (\*G, \*χ), the velar fricative \*x, and some of the resonants (\*r<sub>1</sub>, \*r<sup>ʲ</sup>), none of which are found as autonomous phonemes in attested languages. In comparison, H. Werner's reconstruction is more "cautious", trying to stick to actually attested phonetic inventories when reconstructing Proto-Yeniseian forms. Nevertheless, the extra series of correspondences, described by S. Starostin, do exist, and most of them cannot be easily explained away as unmotivated splits of reflexation. This does not necessarily mean that S. Starostin's system should be regarded as completely finalized and "waterproof", but it does mean that the phonological oppositions set up therein should be respected until one can come up with a suitable explanation for all the "extra" splitting of reflexes.

(3) In our reconstruction of the Swadesh wordlist, we have eliminated only one consonant from the Starostin model: Proto-Yeniseian uvular fricative \*χ. In word-initial position, it is only distinguished from \*q- because of a questionable reflex splitting in

Kott (\**q*- > *x*- ~ *k*<sup>h</sup>-, but \**χ*- > *h*-), which may at least partially be explained by contextual conditioning; in word-medial position, it is practically indistinguishable from \**ç*, and in word-final position, from \**k*. On the other hand, the velar fricative \**x* is still necessary in order to account for Arin word-initial *k*- in such cases, as Ket *u:sʲə*, Kott *u:ča* = Arin *kus* 'birch tree', Ket *in*, Kott *i:na* = Arin *kina* 'two', etc.

(4) Multiple questions with individual etymologies still remain unresolved - in particular, vocalism of the first and *especially* the second syllable still remains reconstructed very approximately. Unfortunately, this is at least partially caused by very poor transcription quality in the early sources on Arin and Pumpokol. In the table above, the most frequent ("default") vowel reflexes for Arin and Pumpokol are listed at the beginning, then all the alternate (statistically less frequent) representations are listed in parentheses; it is practically impossible to determine which of them represent real phonetic developments and which ones are simply the result of inadequate transcription.

Database compiled and annotated by: G. Starostin (last update: July 2013).

## 1. ALL

Ket *b'il<sup>y</sup>da* ~ *b'il<sup>y</sup>dε* {бѳлѳдѳ} (1), Yugh *b'il<sup>y</sup>:a* (1), Kott *bar* ~ *ba:r* (-1), Proto-Yeniseian *\*bił-* # (1).

## References and notes:

**Ket:** Werner 2002: I, 159; Werner 1993: 30. Quoted as *bildə* in [Werner 1977: 142]; as *bild<sup>y</sup>ε* in [Castrén 1858: 190]. Not segmentable on the synchronic level, although Werner reasonably suggests that *-da* is an old suffix in Ket.

**Yugh:** Werner 2011: 60. Quoted as *bil<sup>y</sup>:a<sub>5</sub>* in [Werner 1977: 142]. Derived by H. Werner from earlier *\*b'il<sup>y</sup>d<sup>y</sup>a*.

**Kott:** Castrén 1858: 223. A rather transparent borrowing from a Turkic source (cf. Yakut *bar*, etc. < Common Turkic *\*bar* 'all'). Distinct from *u:tam* 'all = whole, totus' (German *ganz*), with the same root as in 'full' q.v.

**Arin:** Not attested.

**Pumpokol:** Not attested.

**Proto-Yeniseian:** S. Starostin 1995: 211. Alternately transcribed as *\*bəl-* in [Werner 2002: I, 159]. **Distribution:** Not very reliable, since the form is properly reconstructible only on the Ket-Yugh level. The Kott form is a transparent borrowing from Turkic, and the Arin and Pumpokol equivalents are not attested. However, there is no internal explanation for the root on the Ket-Yugh level, either, so it could easily be archaic.

## 2. ASHES

Ket *q'əl'in* ~ *q'ələn* ~ *q'ələn* {қолан ~ қоллан} (1), Yugh *χ'onti* (2), Kott *fenəŋ* ~ *finəŋ* ~ *funəŋ* ~ *p<sup>h</sup>enəŋ* (3), Proto-Yeniseian *\*qol-* [ *\*qor-* ] # (1).

## References and notes:

**Ket:** Werner 2002: II, 98, 101; Werner 1993: 67. Neuter gender. Quoted as *qəl'ən6* ~ *qəllən6* in [Werner 1977: 163]; as *qolen* in [Castrén 1858: 170]. Final *-Vn* may be a fossilized (collective) plural suffix.

**Yugh:** Werner 2011: 69. Quoted as *xont*, pl. *xont-en-eŋ* in [Castrén 1858: 172].

**Kott:** Castrén 1858: 225. Plural form: *fenəŋ-an*.

**Arin:** Not attested.

**Pumpokol:** Not attested.

**Proto-Yeniseian:** S. Starostin 1995: 263 (*\*qorVn-* / ~ *χ-*, *-ɔ-*, *-l-*). **Distribution:** The three attested forms (in Ket, Yugh, and Kott) are all etymologically different. The Kott word for 'ashes' (*fenəŋ*) corresponds to words with the meaning 'sand' q.v. in all other Yeniseian languages, and its meaning, according to the majority rule, should be acknowledged as secondary ('sand' > 'ashes'). The Yugh form is not particularly transparent, but has a certain chance of secondary formation from the verb 'to burn' (see notes on Ket-Yugh). Only Ket *qəl'in* lacks any internal etymologization, and may therefore be tentatively regarded as the optimal candidate for Proto-Yeniseian 'ashes' at the moment. **Reconstruction shape:** Since the Ket form is isolated, there are multiple variants for the corresponding Proto-Yeniseian protoform: *\*qol-* / *\*qəl-* / *\*qor-* / *\*qɔr-* (since Ket, among other things, does not distinguish between Proto-Yeniseian *\*-l-* and *\*-r-*). The final *-n* is not segmentable on the Ket level, but from a historical perspective it is most likely some sort of fossilized suffix.

## 3. BARK

Ket *î:n* {ыыиН} (1), Yugh *ê:n* (1), Kott *farpax* ~ *farpag* ~ *p<sup>h</sup>arpak* (2), Proto-Yeniseian *\*ʔiç-* [ *\*χiç-* ] # (1).

#### References and notes:

**Ket:** Werner 2002: II, 433; Werner 1993: 131. Feminine gender. Quoted as *i:n<sub>3</sub>* in [Werner 1977: 195]; as *i:gen* in [Castrén 1858: 163] (reflecting the archaic bisyllabic stem with an intervocalic uvular). The latter source also has another phonetically similar, but etymologically different word in the same meaning of 'tree bark': *i:ŋ*, pl. *i:gen* [Castrén 1858: 162], not confirmed in more modern sources.

**Yugh:** Werner 2002: II, 433. Quoted as *i:n<sub>3</sub>* in [Werner 1977: 195]. For some reason, not found in [Werner 2011].

**Kott:** Castrén 1858: 225. Plural form: *farpak-an* ~ *farpag-an* ~ *farpak-ŋ*. Clearly a compound, in which the second element could be *ax* 'trees, wood' q.v., but the first root has no known individual semantics.

**Arin:** Not attested.

**Pumpokol:** Not attested.

**Proto-Yeniseian:** S. Starostin 1995: 196 (*\*ʔi ǵn* / ~ *x-,ʔ-,χ-/*). **Distribution:** The situation is somewhat difficult. Ket-Yugh *\*ʔi ǵ* 'bark' (for the isolation of this root from the complex stem *\*ʔi ǵn* see notes on Common Ket-Yugh) is opposed to the Kott form *farpax*, which is also clearly a polymorphemic formation, where only *-ax* ('trees, wood') is reliably segmentable. S. Starostin [YED # 997] compares Kott *farpax* with the Ket form *hǵlʷ* 'outer side; face', reconstructing Proto-Yeniseian *\*pɔ:r* with the same meaning. This is a possible etymology (correspondences are regular and the semantic matching is close), but does not account for *-p-* in Kott. One would have to assume, then, that Kott *farpax* < *\*far-ap* + *\*ax* 'outer side of trees', where *-ap* is the same suffix as in Kott *fat-ap* 'palm of hand', *pul-ap* 'sole of foot', i. e. denoting (among other things) the external parts or surface of the object, whereas in Ket the word is preserved without this suffix. There are some obvious problems with this explanation, but on the whole, it does constitute a strong case for the secondary origin of the word 'bark' in Kott. This leaves Ket-Yugh *\*ʔi ǵ* as the sole uncontested candidate for Proto-Yeniseian 'bark', lost in Kott and not attested in either Arin or Pumpokol. **Reconstruction shape:** Since the word is only attested in Ket-Yugh, there are multiple possibilities for the reconstruction of either of the two consonants; most importantly, initial *\*ʔ-* could just as well have been *\*x-*.

## 4. BELLY

Ket *hi:y* {*xvüü*} (1), Yugh *fiy* (1), Kott *t<sup>h</sup>alo:x* ~ *t<sup>h</sup>alo:k* ~ *talo:x* (2), Arin *p<sup>yh</sup>orga* (3), Pumpokol *kaŋ* (4).

#### References and notes:

**Ket:** Werner 2002: I, 348; Werner 1993: 124. Neuter gender. Plural form: *hǵy* {*хъй*}. Quoted as *hi:y<sub>1</sub>*, pl. *h:zy<sub>4</sub>* (Kur.) / *h:zy<sub>4</sub>* ~ *h:zy<sub>4</sub>* (Bak., Sur.) / *h:zy<sub>4</sub>* (S.-Imb.) in [Werner 1977: 193]; as *hi:*, pl. *hi:y-aŋ* ~ *hi:ey-aŋ* in [Castrén 1858: 174].

**Yugh:** Werner 2011: 83. Plural form: *fǵ:y*. Quoted as *fiy<sub>1</sub>*, pl. *fǵ:y<sub>4</sub>* in [Werner 1977: 193]; as *fi:*, pl. *fiy-eŋ* in [Castrén 1858: 174].

**Kott:** Castrén 1858: 216, 218. Cf. the derivatives: *t<sup>h</sup>alo:g-a* 'pregnant', *t<sup>h</sup>alog-u:ti* 'satiated' (lit. 'belly-full'). Cf. in older sources: *tul'ok* (Kl., M., Pal., Dict.), *tolok* (Kh.) [Werner 1990: 289].

**Arin:** Dulzon 1961: 159 (M., Dict., Pal., Kl.).

**Pumpokol:** Dulzon 1961: 159 (Dict., Pal., Kl.).

**Proto-Yeniseian:** The proper equivalent for Proto-Yeniseian 'belly' (= 'external part of the body') is not reconstructible based on available data.

The strongest etymology ties together Proto-Ket-Yugh *\*piy* 'belly' and Kott *fui* ~ *p<sup>h</sup>ui* 'the inside (of smth.)' [Castrén 1858: 226] < Proto-Yeniseian *\*piy*. However, considering that the Ket-Yugh word also shows additional semantics that is close to the Kott meaning (e. g. may be used to form the postposition 'in, inside'), there is no clear argument here that the original meaning was 'belly' or polysemous ('external/ belly; internal parts, inside').

Kott *t<sup>h</sup>alo:x* (*tulok*, *tolok* in alternate sources) is compared in [S. Starostin 1995: 290] with Proto-Yeniseian *\*tu:ʎ-* 'thin intestine' (> Ket *tu:lʷi*, Yugh *tu:<sup>h</sup>ʷy*, Kott *t<sup>h</sup>utu:li* with suggested reduplication). If the comparison is correct, then *t<sup>h</sup>alo:x* is a derived form with a not particularly clear nominal suffix ('intestine-holder?'), although the vocalization *-a-* in Castrén's

notation remains unclear. If it is incorrect, then the Kott word for 'belly' has no etymology and a CVCVC structure that still hints at the possibility of a derived (secondary) origin.

Arin *p<sup>h</sup>orga* is compared in [S. Starostin 1995: 250] with Ket-Yugh *\*piʔiʔ* 'intestine' (more precisely, 'thick intestine' as opposed to *\*tu:ʔ* 'thin intestine'). The strange correspondence "-rg- : -ʔ-" seems reasonable, given additional examples (most notably, Kott *t<sup>h</sup>empul* 'root' = Arin *t<sup>h</sup>embirga-ŋ* id. q.v.): the old transcription *-rg-* may, in fact, represent some specific manner of articulation of the palatal *-r<sup>h</sup>-*. However, if the etymology is correct, Arin 'belly' is once again analyzable as some sort of 'intestine-holder'.

Finally, Pumpokol *kaŋ* 'intestines, belly' is compared in [YED # 404] (but not in the corresponding printed entry in [S. Starostin 1995: 239]) with Ket-Yugh *\*kiʔŋ* 'belch (n.)', which is extremely dubious and seemingly unprecedented from the point of view of semantic typology. (Additionally, it is not even all that clear if *kaŋ* was indeed the primary equivalent for 'belly (external)' in Pumpokol).

All things considered, we prefer to refrain from filling in this particular slot, although the root *\*piy* should probably be at least remembered for the purposes of further external comparison.

## 5. BIG

Ket *qâ* {к̑̑} (1), Yugh *χeʔ* (1), Kott *fača*: ~ *p<sup>h</sup>ača*: (2), Arin *b'irka* (3), Pumpokol *xä:-se* (1), Proto-Yeniseian *\*qeʔ*(1).

### References and notes:

**Ket:** Werner 2002: II, 58. Plural form: *qâ-ŋ* {к̑̑̑̑ ~ к̑̑̑̑}. Quoted as *qeʔ2* (N.-Imb.) / *qâ4* (S.-Imb.), pl. *qe:ŋ1* ~ *qâŋ4* in [Werner 1977: 160]; as *qeε* in [Castrén 1858: 170].

**Yugh:** Werner 2011: 160. Plural form: *χe-ŋ*. Quoted as *χeʔ2* ~ *χe<sup>h</sup>:4*, pl. *χe-ŋ1* in [Werner 1977: 160].

**Kott:** Castrén 1858: 225. Cf. in older sources: *pačaga* (KL, M., Pal., Dict.) [Verner 1990: 288].

**Arin:** Dulzon 1961: 158 (M., Dict., Pal., Kl.). Quoted as *ber* ~ *ber-ke* 'big' in (Kh.) [Werner 2002: I, 140].

**Pumpokol:** Dulzon 1961: 158 (Dict.). Quoted as *xäese* in (Kl.); as *xε:m* ~ *x<sup>h</sup>aese* in (Pal.).

**Proto-Yeniseian:** S. Starostin 1995: 300 (*\*χ[e]ʔ*). Alternately reconstructed as *\*qeʔ* in [Werner 2002: II, 58]. **Distribution:** In its original form and meaning, the word is well preserved in Ket-Yugh, as well as Pumpokol (where *xä:-se* = Ket *qe:-s<sup>h</sup>i* 'big; chief /substantivized form/' [Werner 2002: II, 73]). It seems to be absent as such in Kott and Arin. However, it is also preserved as a fossilized component in several additional complex nominal stems, such as *\*qe-b* 'grandfather' (< *\*qeʔ* + *\*ʔab* 'father'), *\*qe-ma* 'grandmother' (< *\*qeʔ* + *\*ʔama* 'mother'), both of which do have explicit reflexes in Kott (*hi:pa*, *hi:ma*) and Arin (=kib, =kima) [S. Starostin 1995: 300]. It may, therefore, be quite safely assumed that Ket-Yugh here preserves the original situation. **Replacements:** (a) Kott *fača*: is compared in [S. Starostin 1995: 245] with Pumpokol *barčoy* 'high' < Proto-Yeniseian *\*pa(r)sa* (?) 'big', but the etymology is very weak, since the consonantal correspondences are irregular, so the word could just as well be considered an isolate with no suggested origins; (b) Arin *birka* is compared in [S. Starostin 1995: 213] with Ket *bʔʔ<sup>h</sup>* 'thick' < PY *\*bVʔʔ*; the word-medial consonantal correspondence would be the same as in the Arin word for 'belly' q.v., but the vocalism is again irregular. In any case, even if the etymology is correct, it would probably surmise the development 'thick' > 'big' (gen.) in Arin, judging by the situation in general. **Reconstruction shape:** Since we prefer not to distinguish between S. Starostin's Proto-Yeniseian *\*q* and *\*χ*, we reinterpret his reconstruction of *\*χeʔ* as *\*qeʔ* (more in line with H. Werner's reconstruction).

## 6. BIRD

Ket *k'e-ŋ-as<sup>h</sup>:el<sup>h</sup>* {кеҥасель} (1), Yugh *k'ey-at-atčē<sup>h</sup>:r* (1), Kott *al=tu:ma* # (2), Proto-Yeniseian *\*duma* (2).

### References and notes:

**Ket:** Werner 2002: I, 422; Werner 1993: 52. Masculine gender. Plural form: *k'e-ŋ-as<sup>y</sup>-en<sup>y</sup>*. Literally analyzed as 'wings-animal'. Another synonymous form from the same root is *ke-ŋ-s<sup>y</sup>*, pl. *ke-ŋ-s<sup>y</sup>-in* [Werner 2002: I, 423].

A close quasi-synonym is *dum*, pl. *dum-n* ~ *num-n*, but its meaning is always glossed as 'small bird', 'youngling': 'kleiner Vogel', 'Vögelchen' [Werner 2002: I, 211], *дуm<sub>1</sub>* 'птичка' [Werner 1977: 147], *dum* 'Vöglein, Sperling' [Castrén 1858: 185]. The item is, therefore, less eligible for the wordlist, even if, as a simple root stem, it is obviously more archaic than the recent compound form in Ket.

**Yugh:** Werner 2011: 326. Literally analyzed as 'wing-animal' (< *k'ey-at* 'wing' + *atče<sup>h</sup>r* 'animal'). The quasi-synonymous form *dil-tim* [Werner 2011: 326], consisting of *dil* 'child; little' and *\*tim* 'bird', is used to denote the meaning 'small bird'.

**Kott:** Castrén 1858: 197. Plural form: *al=t'u:ma-n*. Questionable, since the meaning is given as 'little bird, youngling' ('Vöglein'), but no alternate Kott equivalent is known for the more generic meaning of 'bird'. The component *al=*, based on comparative evidence, may be safely analyzed as a fossilized prefix with an unknown meaning (see 'dog', etc.).

**Arin:** Not attested.

**Pumpokol:** Not attested.

**Proto-Yeniseian:** S. Starostin 1995: 225. Distribution: The word is found in both Ket-Yugh and Kott and is clearly of Proto-Yeniseian provenance, but see further notes on semantics. Replacements: In Ket-Yugh, replaced either on the proto-level or on the levels of independent dialects by an idiomatic formation: 'bird' < 'winged-animal'. Reconstruction shape: Correspondences are fairly regular and straightforward. In Kott, the word is only attested in conjunction with the old fossilized prefix *al=*, whose original function remains unclear (see 'dog', 'star', etc., for further examples). Semantics: In all the attested variants, the reflexes of Proto-Yeniseian *\*duma* have always been glossed as either 'small bird' or 'youngling; chick'. This means that it should be primarily reconstructible in this particular meaning; however, there is no separate term for 'bird (gen.)' or 'large bird' that could be reconstructed in opposition to *\*duma* '(small) bird', which leaves the latter as the only generic term in the entire field to be projected onto a higher level.

## 7. BITE

Ket *l'ap-t-aq* ~ *l'ap-t-ɔq* {*лaптaк*} (1), Yugh *l'app-iŋ* (1).

### References and notes:

**Ket:** Werner 2002: II, 3; Werner 1993: 76. Composite verb, formed with the frequent compound verb formative *-aq*. Cf. individual forms: *da=l'ap-t-aq* 'she bites', past tense *da=l'ap-t-ɔ-n-ɔq*; *da=l'ab-ba-t-aq* 'she bites me', past tense *da=l'ab-ba-t-ɔ-n-ɔq*. In [Werner 1977: 168], quoted only for the Yugh dialect, but, as seen from other sources, clearly present in Ket proper as well. Quoted as *laptokŋ*, past tense *laptanokŋ* in [Castrén 1858: 174].

Potential synonyms include: (a) *arɔŋ* 'to bite' [Werner 2002: I, 58] = {*apɔŋ*} in [Werner 1993: 18], glossed as 'to bite /of dog/'; the fact that the only derivative from this word is *arɔŋ-s<sup>y</sup>* 'prone to bite /of dog/' confirms that the word is primarily applicable to dogs, rather than the required human act; (b) *h'il<sup>y</sup>daŋ* [Werner 2002: I, 343], glossed with polysemy: 'to bite /to chew', and only in the meaning 'to chew', as {*xɔlbɔdɔŋ* ~ *xɔlbɔdɔŋ*}, in [Werner 1993: 123]; primary semantics here, judging by the statistical frequency of examples and general presentation in sources, is 'to chew' rather than 'to bite'.

**Yugh:** Werner 2011: 85. Infinitive form. The finite verbal paradigm is formed in several different ways. The most archaic variant, parallel to the one in Ket, is probably a compound formation with *č=aŋŋ* ~ *č=aχŋŋ*: *di=l'ap-č-a-ŋŋ* ~ *di=l'ap-č-a-χŋŋ* 'I bite', past tense *di=l'ap-č-ɔ-n-ŋŋ*. Other variants are derived from the infinitive and include: *di=l'appiŋ-a-geŋ<sup>y</sup>* 'I bite', *di=l'appiŋ-χ-a-y-it<sup>y</sup>* 'I bite him', etc. [Werner 2011: 86].

Potential synonyms include: (a) *ayin-aχ* (*d=ayin-aχ-a-geŋ<sup>y</sup>* 'he bites'), parallel to Ket *arɔŋ* and possibly also with the primary meaning 'to bite /of dog/'; (b) *fil-d<sup>y</sup>-a* (*di=fil-d<sup>y</sup>-a-y-a* 'I bite him'), a verb whose primary meaning might be 'chew' rather than 'bite' [Werner 2011: 190]).

**Kott:** Not attested.

**Arin:** Not attested.

**Pumpokol:** Not attested.

**Proto-Yeniseian:** Not reconstructible due to insufficient attestation (and the main Ket-Yugh equivalent is quite obviously of recent secondary origin as well).

## 8. BLACK

Ket *tu'm-s<sup>y</sup>* {*тумсб*} (1), Yugh *tum* (1), Kott *t<sup>h</sup>um* (1), Arin *t<sup>y</sup>u:m-a* (1), Pumpokol *t'um-a* (1), Proto-Yeniseian *\*tum-* (1).

### References and notes:

**Ket:** Werner 2002: II, 295; Werner 1993: 103. Plural form: *t'um-ajs<sup>y</sup>-in*. The non-predicative form is simply *tum* (e. g. *tu'm di'l<sup>y</sup>* 'black child'). Quoted as *tum<sub>1</sub>* in [Werner 1977: 185]; as *tum ~ tuom* in [Castrén 1858: 178].

**Yugh:** Werner 2011: 272. Plural form: *t'um-ij*. Quoted as *tum<sub>1</sub>* in [Werner 1977: 185].

**Kott:** Castrén 1858: 219.

**Arin:** Dulzon 1961: 188 (M., Dict., Pal., Kl.). Predicative form ('it is black').

**Pumpokol:** Dulzon 1961: 188 (Dict., Pal., Kl.). Predicative form ('it is black').

**Proto-Yeniseian:** S. Starostin 1995: 289. Alternatively reconstructed as *\*t<sup>h</sup>um* in [Werner 2002: II, 296]. **Distribution:** Preserved in all daughter languages. **Reconstruction shape:** Correspondences are generally regular and trivial.

## 9. BLOOD

Ket *s<sup>y</sup>u'l<sup>y</sup>* {*сиуль*} (1), Yugh *sur* (1), Kott *šur* (1), Arin *sur* (1), Proto-Yeniseian *\*sur* (1).

### References and notes:

**Ket:** Werner 2002: II, 219; Werner 1993: 91. Neuter gender. Quoted as *s<sup>y</sup>u'l<sup>y</sup><sub>1</sub>* in [Werner 1977: 178]; as *su:l ~ sul* in [Castrén 1858: 187].

**Yugh:** Werner 2011: 96. Quoted as *sur<sub>1</sub>* in [Werner 1977: 178]; as *sur*, pl. *sur-e:ŋ* in [Castrén 1858: 187].

**Kott:** Castrén 1858: 215. Plural form: *šur-aŋ*. Cf. in older sources: *šur* (Kh.) [Verner 1990: 325].

**Arin:** Werner 2002: II, 219. Attested only in Khelinskiy's records.

**Pumpokol:** Not attested.

**Proto-Yeniseian:** S. Starostin 1995: 278. Alternately reconstructed as *\*suλ* in [Werner 2002: II, 219]. **Distribution:** Preserved in all daughter languages (but not attested in Pumpokol). **Reconstruction shape:** Correspondences are completely regular. **Semantics:** The same root also served (already on the Proto-Yeniseian level) as the main derivational stem for the word 'red' q.v.

## 10. BONE

Ket *aʔt* {*a'm*} (1), Yugh *aʔt* (1), Kott *xagal ~ xakal ~ qagal* (2), Proto-Yeniseian *\*ʔaʔd* [*\*xaʔd*] (1).

### References and notes:

**Ket:** Werner 2002: I, 86; Werner 1993: 20. Neuter gender. Plural form: *'ar<sup>y</sup>-eŋ* {*a pŋ*}. Quoted as *aʔt<sub>2</sub>*, pl. *ar<sup>y</sup>eŋ<sub>5</sub>* (Imb.), *adeŋ<sub>5</sub>* (Bak., Sur.) in [Werner 1977: 136]; as *at*, pl. *a:deŋ* in [Castrén 1858: 158].

**Yugh:** Werner 2011: 195. Plural form: *'ad-iŋ ~ 'ad-iŋ*. Quoted as *aʔt<sub>2</sub>*, pl. *ad-iŋ<sub>5</sub>* in [Werner 1977: 136].

**Kott:** Castrén 1858: 206. Plural form: *xagal-aŋ*.

**Arin:** Not attested.

**Pumpokol:** Not attested.

**Proto-Yeniseian:** S. Starostin 1995: 178. Alternately reconstructed as *\*aʔt* in [Werner 2002: I, 86]. **Distribution:** Preserved in Ket-Yugh; not attested in Arin and Pumpokol. In Kott, the etymological parallel is *ar-an* ~ *ar-an-an* 'joint; limb', which may be analyzed as a former collective plural form ('limb' = '(a set of) bones'). This implies the semantic shift {'bone' > 'limb'} and, most likely, the archaicity of the Ket-Yugh semantics. **Replacements:** Kott *xagal* has no known parallels in other Yeniseian languages; its CVCVC structure is slightly suspicious, but there are no known potential sources of borrowing. **Reconstruction shape:** Since there are no parallels in Arin, the word-initial position could be represented by either *\*ʔ-* or *\*x-*.

## 11. BREAST

Ket *tʔʒa* {*mʒa*} (1), Yugh *tʔga* (1), Kott *fa* ~ *p<sup>h</sup>a* (2), Arin *p<sup>hi</sup>-aŋ* (2), Pumpokol *tʔike* (1), Proto-Yeniseian *\*təga* # (1).

### References and notes:

**Ket:** Werner 2002: II, 300; Werner 1993: 104. Neuter gender. Plural form: *tʔʒenʒ* ~ *tʔʒanʒ* {*mʒenb* ~ *mʒaanb*}. Quoted as *tʔga<sub>5</sub>* ~ *tʔʒa<sub>5</sub>*, pl. *tʔʒənʒ<sub>6</sub>* / *tʔʒanʒ<sub>6</sub>* (Bak.) in [Werner 1977: 183]. Quite distinct from *maʔm* 'female breast' [Werner 2002: II, 19].

**Yugh:** Werner 2011: 101. Neuter gender. Plural form: *tʔga-n* ~ *tʔg'a-n*. Quoted as *tʔga<sub>5</sub>*, pl. *tʔgən<sub>5</sub>* ~ *tʔgən* in [Werner 1977: 183]. Quite distinct from *maʔm* 'female breast' [Werner 2011: 101].

**Kott:** Castrén 1858: 224. Plural form: *fa-yikŋ*. This is the only word with the meaning 'breast' ('Brust') attested in Castrén's data. Cf. in older sources: *pfa* (M., Dict., Kl.) [Werner 1990: 302]. Entirely different word, however, quoted in (Kh.): *xanti* [ibid.].

**Arin:** Dulzon 1961: 163 (M., Dict., Kl.). Quoted as *apien* (Kh.) in [Werner 2002: I, 348]. Final *-aŋ* (*-en*) seems to be detachable as a plural (plurale tantum?) suffix.

**Pumpokol:** Dulzon 1961: 163 (Dict.).

**Proto-Yeniseian:** S. Starostin 1995: 284. Alternately reconstructed as *\*t<sup>h</sup>əga* in [Werner 2002: II, 300]. **Distribution:** Preserved in Ket-Yugh and in Pumpokol. **Replacements:** The Ket-Yugh / Pumpokol item is distinctly opposed to the Kott-Arin isogloss, reconstructible with difficulty (Kott *pa* and Arin *p<sup>hi</sup>-* are hard to reconcile; perhaps the vowel fluctuation is due to different ways of contraction of an earlier cluster, e. g. < *\*paxV* or *\*pixV*). Which of the two should be considered the primary candidate for Proto-Yeniseian '(male) breast', remains uncertain. We choose the Ket-Yugh / Pumpokol isogloss as the default candidate only because (a) it poses fewer phonetic difficulties as far as the phonetic shape of the reconstruction is concerned and (b) there is a vague chance that the Kott / Arin forms may in some way be related to the Proto-Yeniseian word for 'heart' q.v. and, perhaps, be historically derived from it (although no transparent scenario may be suggested at the present time).

## 12. BURN TR.

Ket =*dut* {*duɛpom*} (1), Yugh *χʔt* ~ *χʔt-n* (2), Kott *č=augan-aŋ* (3), Proto-Yeniseian *\*qʔʔt* (2).

### References and notes:

**Ket:** Werner 2002: I, 209; Werner 1993: 36. The infinitive is not attested; known paradigmatic forms are *d'i-v-rʔut* 'I burn it / I light it', past tense *d-b-i-lʔ-dut* 'I burned it / I lit it' [ibid.]. The same stem is also present in the composite verb *du:d...bet* 'to fish at night (with lit lights)', literally 'to-lighting-make' [Werner 2002: I, 210].

A complicated case, as there are synonyms: (a) the composite verb *inɔ-q...da* with the same polysemy 'to light / to burn': *d=inɔ-q-a-v-rʔa* 'I light/burn it', past tense *d-inɔ-q-ɔ-v-i-lʔ-da* [Werner 2002: I, 366]; the infinitive form is *inɔ-wat* ~ *inɔ-wɔt*; (b) in [Castrén 1858: 168], the verb 'to light (fire)' is rendered as *kot-a-bit* ~ *kot-a-bitʔ*, which is probably a mistranscription for *\*qʔt-a-bet* = Ket *qʔt-a-vet* 'to heat (the oven)', infinitive *qʔtet* ~ *qʔt-qʔt* 'to put wood on the fire'. Considering the external parallels of this stem in Yugh (as well as its basic meaning 'fire' in Kott), it is quite likely that *\*qʔt* is the original Ket verb denoting 'burning' in the transitive sense. However, its current basic meaning seems to have

narrowed down to a peripheral sphere ('put wood on the fire').

**Yugh:** Werner 2011: 315. An infinitive form. The finite forms of the verb usually feature this root as the first lexical stem within a compound formation, e. g.: *di=χ'ot-a-b-di?* 'I burn it', past tense *di=χ'ot-ɔ-b-i-r-di?*, or *di=χ'ot-i-y-it<sup>y</sup>* 'he burns her', past tense *di=χ'ot-d<sup>y</sup>it<sup>y</sup>-n<sup>y</sup>-e*, etc.

An additional synonym is an expressive, probably more recent formation: (a) *b'ok-d-iriŋ* 'to burn' [Werner 2011: 316], lit. 'fire-gen.-to eat', e. g. *da=b'og-d-iriŋ-a-b-di?* 'she burns it'.

**Kott:** Castrén 1858: 215. 1st person sg.; the stem consists of the verbal prefix *č=* and the root *=augan-*. The simple stem, without the verbal prefix, is attested with a different meaning: *augan-aŋ* 'I am cooking' [Castrén 1858: 195]. A less certain candidate is the composite expression *hat akfa:tekiŋ*, glossed as 'to burn; to set fire (to)' [Castrén 1858: 195, 234]. Since the expression consists of *hat* 'fire' q.v. + *akfa:tekiŋ* 'to set, establish', it is much more likely that it refers to the inchoative situation of lighting a fire rather than to 'burning down smth.'. Cf. in older sources: *atakpodī* 'I burn' (Kh.) [Verner 1990: 311] = *hat akfa:t-*.

**Arin:** Not attested.

**Pumpokol:** Not attested.

**Proto-Yeniseian:** S. Starostin 1995: 304 (\**χot* 'to burn; fire'). Alternately reconstructed as \**qoʔt* ~ \**qɹʔt* 'fire; to burn' in [Werner 2002: I, 305]. **Distribution:** In the Kott-Arin branch, this word is preserved only as a nominal stem ('fire'), where it has wiped out the original root for 'fire' (\**boʔk* q.v.), although the exact situation in Arin is actually unknown (no equivalent for the verb 'to burn' attested in that branch). **Replacements:** (a) In Ket, the old verb seems to have become specialized {'to burn /smth./' > 'to roast; to put wood on the fire'} and replaced by *=dut* {'to light / fire/' > 'to burn /smth./'}; (b) In Kott, provided Castrén's semantic glossing is accurate, the old verbal stem is replaced by a combination of the old verbal root \**ʔaqan* 'to boil' (= 'to cook') [S. Starostin 1995: 191] with a preverbal directional morpheme.

### 13. CLAW(NAIL)

Ket *in<sup>y</sup>* {*унь*} (1), Yugh *i<sup>h</sup>:n<sup>y</sup>* (1), Kott *halčig* ~ *halčix* (2), Proto-Yeniseian \**ʔi:ŋe* [ \**xi:ŋe*] (1).

#### References and notes:

**Ket:** Werner 2002: I, 367; Werner 1993: 47. Neuter gender. Plural form: *i<sup>n<sup>y</sup>-eŋ</sup>* {*унен*}. Polysemy: 'claw / nail'. Quoted as *in<sup>y</sup><sub>4</sub>* / *i:n<sup>y</sup><sub>4</sub>* (Kur.) / *i:n<sup>y</sup><sub>4</sub>* ~ *in<sup>y</sup><sub>4</sub>* (Sur.), pl. *i<sup>n<sup>y</sup>-eŋ</sup>*<sub>1</sub> in [Werner 1977: 151]; as *i:n*, pl. *i:n-eŋ* in [Castrén 1858: 162].

**Yugh:** Werner 2011: 223. Neuter gender. Plural form: *in<sup>y</sup>-iŋ*. Polysemy: 'claw / nail'. Quoted as *i<sup>h</sup>:n<sup>y</sup><sub>4</sub>*, pl. *in<sup>y</sup>-iŋ*<sub>1</sub> in [Werner 1977: 151].

**Kott:** Castrén 1858: 208. Plural form: *halčik-iŋ*. Polysemy: 'nail / claw / hoof'. Cf. in older sources: *xalčik* (Kh.) [Verner 1990: 322].

**Arin:** Not attested.

**Pumpokol:** Not attested.

**Proto-Yeniseian:** S. Starostin 1995: 195 (\**ʔi:ŋ-*). Alternately reconstructed as \**iʔəŋə* ~ \**iʔəŋə* in [Werner 2002: I, 364, 367]. **Distribution:** Preserved only in Ket-Yugh. **Replacements:** In Kott, merged with *halčig* 'hoof' = Ket *qol<sup>ʔ</sup>es<sup>y</sup>*, Arin *kalis* 'hoof' < Proto-Yeniseian \**χolVčič* [S. Starostin 1995: 304]. Since there are no internal etymologies or areal explanations for Ket-Yugh \**ʔi:ŋe* as an innovation, the most economic solution is to assume this secondary semantic merger in Kott {'hoof' > 'finger-nail'}. **Reconstruction shape:** Lack of Arin parallels means that the word-initial position, instead of the glottal stop, could have been occupied by the weak velar fricative \**χ-*.

### 14. CLOUD

Ket *'as<sup>y</sup>pu<sup>ʔ</sup>* {*асъпуль*} (1), Yugh *'asfīl* (1), Kott *ašpar* ~ *ašp'or* (1), Arin *esper-aŋ* (1), Proto-Yeniseian \**ʔas=pur* (1).

## References and notes:

**Ket:** Werner 2002: I, 71; Werner 1993: 20. Neuter gender. Plural form: *'as<sup>y</sup>pul<sup>y</sup>-aŋ* {аѠ пӡяӡ}. Quoted as *as<sup>y</sup>pul<sup>y</sup><sub>5</sub> ~ as<sup>y</sup>pul<sup>y</sup><sub>6</sub>*, pl. *as<sup>y</sup>pul<sup>y</sup>-aŋ<sub>5</sub>* in [Werner 1977: 135]; as *a:sf3l*, pl. *asfil<sup>y</sup>* in [Castrén 1858: 159] (although phonetically the form is Yugh).

Secondary synonym: *'es<sup>y</sup>qay* {e а̄ aū} 'cloud, cloudy' [Werner 2002: I, 248]; Werner 1993: 44]. Quoted as *esxai*, pl. *esxajnaŋ* in [Castrén 1858: 160]. A compound form, literally: 'sky' + 'mountain' q.v.; clearly a more recent formation than *'as<sup>y</sup>pul<sup>y</sup>*, and not confirmed textually as a proper "basic" candidate for the slot.

**Yugh:** Werner 2011: 343. Neuter gender. Plural form: *asfi:l<sup>y</sup> ~ asfil<sup>y</sup>-iŋ*. Quoted as *asfil<sub>5</sub> ~ asfil<sub>6</sub>*, pl. *as3fi:l<sup>y</sup>* in [Werner 1977: 135].

Secondary synonym: *'esxay* 'cloud' [Werner 2011: 343]; see the corresponding Ket entry for notes on this compound formation.

**Kott:** Castrén 1858: 197. Plural: *ašpar-aŋ ~ ašp'or-aŋ*. Cf. in older sources: *ašpar-an* (M.) [Verner 1990: 339].

**Arin:** Dulzon 1961: 175 (M.). Final *-aŋ* is obviously the plural marker.

**Pumpokol:** Not attested.

**Proto-Yeniseian:** S. Starostin 1995: 255 (*\*ʔas*, *\*ʔas-pVr*). Alternately reconstructed as *\*es-p<sup>h</sup>ɔl* in [Werner 2002: I, 71]. Distribution:

Preserved in all daughter languages (although not attested in Pumpokol). Reconstruction shape: Vocalic reconstruction is highly approximate, since correspondences show irregularities both in the first and second syllables. Structure-wise, the word is clearly a compound, in which the first part is the Proto-Yeniseian word for 'sky': Ket *e:s<sup>y</sup>*, Yugh *es*, Kott *e:š*, Arin *es*, Pumpokol *eč* < Proto-Yeniseian *\*ʔes* [S. Starostin 1995: 188]. The protolanguage variant here, however, must have been *\*ʔas-* rather than *\*ʔes-*, with a somewhat obscure, but recurrent, model of vowel gradation; in Arin, original *\*as-per* probably changed to *es-per* through later analogy with simple *es* (Werner's reconstruction of both 'sky' and 'cloud' with root vowel *e* is less satisfactory than Starostin's in this respect). The second component is not encountered on its own, but it may be the same as *-par* in Kott *ti:-par* 'fog' [Werner 2002: II, 265], i. e. the original word denoting all forms of cloudy condensation. The root vowel is tentatively identified as *\*u* based on the Ket form, since it is the hardest one to explain as secondary: Kott and Arin vowels duplicate the vocalism of the first syllable, and Yugh *i* represents the same development as in the word for 'knee' q.v.

## 15. COLD

Ket *taʔy* {ma'ū} (1), Yugh *taʔy* (1), Kott *čal* (2), Arin *s'oloŋa* (2), Pumpokol *ki:č-idin ~ kič-idin* (3).

## References and notes:

**Ket:** Werner 2002: II, 250; Werner 1993: 95. Quoted as *taʔy<sub>2</sub>* in [Werner 1977: 179]; as *tai* in [Castrén 1858: 175]. Polysemy: 'cold (adj.) / cold (n.) / frost' (only glossed as 'frost' in [Werner 1977] and [Werner 1993]).

**Yugh:** Werner 2011: 189. Polysemy: 'cold (adj.) / cold (n.) / frost'.

**Kott:** Castrén 1858: 215. Plural form (the word functions both as noun and adjective): *čal-aŋ*. Cf. in older sources: *čol-tu* (M., Dict., Pal., Kl.), *čal-tu* (Kh.) [Verner 1990: 386] (*-tu* is the 3rd p. predicative suffix).

**Arin:** Dulzon 1961: 187 (M., Dict., Pal., Kl.). Cf. also *šil-t<sup>y</sup>u* 'it is cold', *šil-tu* 'cold (n.)', maybe also *sol-ma* 'frost' (Kh.) [Werner 2002: I: 162].

**Pumpokol:** Dulzon 1961: 187 (Dict., Pal., Kl.). A synonymous form, recorded for Pumpokol, is *tayem* (Dict., Kl.); however, it is highly suspicious that this is in reality a Ket-Yugh form rather than proper Pumpokol.

**Proto-Yeniseian:** It is currently impossible to determine the optimal candidate for the meaning 'cold' in Proto-Yeniseian, since at least two choices have the exact same probability: Ket-Yugh *\*taʔy* [S. Starostin 1995: 280] and Kott-Arin *\*ʒVr<sub>1-</sub>* [S. Starostin 1995: 311] (the vocalism in the case of the latter is hard to recover due to morphological vowel gradation in the attested forms). Neither of the two forms finds any etymological parallels in the other branch, nor do they have any internal etymologies or identifiable sources of borrowing. According to S. Starostin, Ket-Yugh *\*taʔy* has generally more reliable and semantically close parallels on the Sino-Caucasian level, but we currently prefer not to use this macrofamily-level connection as an argument, and leave the position open.

## 16. COME

Ket *i-g-bes<sup>y</sup>* {uzōecv} (1), Yugh *i-g-bes* (1), Kott *i=to:y-an* (2).

## References and notes:

**Ket:** Werner 2002: I, 351; Werner 1993: 45. Infinitive form; the word is a highly non-trivial composite verb consisting of the 1st stem ("modifier") *i*, the preverb *k* (phonetically *g*) and the "nuclear" stem *bes<sup>y</sup>*. That *k* (*g*) is formally a preverb and not part of the 1st root is proven by the paradigm: *d=i-k-s<sup>y</sup>-i-bes<sup>y</sup>* 'I (will) come' vs. *d=i-b'ɔ-k-s<sup>y</sup>-i-ves<sup>y</sup>* 'he brings me with him', literally 'he-with-me-comes' (in the latter form the preverb *-k-* is separated from the root *-i-* with the 1st p. indirect object marker *-b'ɔ-*). On the other hand, the latter form is also attested in the dialectal variant *d=ig-b'ɔ-k-s<sup>y</sup>-i-ves<sup>y</sup>*. If this is not the result of analogical contamination with the infinitive, it might mean that the 1st root is, after all, *\*-ik-*. As for the morpheme *bes<sup>y</sup>*, it is encountered, albeit very rarely, in other Ket stems as well, cf. *bɔ<sup>y</sup>-bes<sup>y</sup>* 'to become thick' [Werner 2002: I, 122], meaning that, as is usually the case with biradical verbs, it is probably *\*-i-* (*\*-ik-*) that carries the main original directional semantics of 'coming'.

Quoted as *igbis<sup>y</sup>* / *iyvis<sup>y</sup>* (S.-Imb.) 'to bring' in [Werner 1977: 150]; as *di=ek-s-i-bes* in [Castrén 1858: 181]. The latter source adds an extra synonym: *d=a=d=d<sup>y</sup>i* [Castrén 1858: 180], but in most modern sources this verb is usually explicated with the slightly different meaning 'to reach', 'to arrive' (e. g. in [Werner 1993: 32]: *d=a=d=diy* {d̩ad̩uū} 'I will reach, arrive' = Russian 'д̩а̩д̩ у̩ η̩μ̩д̩ ̩̩').

**Yugh:** Werner 2011: 197. Infinitive form. See notes on the corresponding Ket entry for morphological analysis. Quoted as *igbes<sub>6</sub>* 'to bring' in [Werner 1977: 150]. The quasi-synonymous form *=d<sup>y</sup>i* [Werner 2011: 196] rather means 'to reach, arrive at (one's final destination)' than 'to come'.

**Kott:** Castrén 1858: 201. 1st p. sg. Cf. also past tense: *ha=ito:y-an*, imperative: *o=ta*.

**Arin:** Not attested.

**Pumpokol:** Not attested.

**Proto-Yeniseian:** The Proto-Yeniseian form is not reconstructible, since the Ket-Yugh and Kott forms lack mutual etymologization; furthermore, the basic verb 'to come' in Ket is a composite verb, which makes its archaic nature quite dubious, and the morphophonology of the verbal root in Kott remains to be explored in more detail.

## 17. DIE

Ket *qɔ-r<sup>y</sup>an* ~ *qɔ-r<sup>y</sup>en* {κοραη ~ κορεη} (1), Yugh *χo:* ~ *χou* (1), Kott *d<sup>y</sup>=a=xa-y-an* (1), Arin *=qo* # (1), Pumpokol *ka-* # (1), Proto-Yeniseian *\*qɔ* (1).

## References and notes:

**Ket:** Werner 2002: II, 114, 124; Werner 1993: 69. Paradigm: 1st sg. *d'i=y=ɔ* ~ *d'i=y=ɔ=ɔ* 'I (will) die', past tense *d=i'=n=ɔ* (< *d=i'=n=ɔ=ɔ*). The adduced infinitive is a complex bimorphemic formation; the simple infinitive form *qɔ* {κ̩ α̩} ([Werner 2002: II, 124; Werner 1993: 66]) is glossed as 'kill' rather than 'die', but this semantic gloss is actually quite dubious (see notes on 'kill'). Nevertheless, only the morpheme *\*qɔ*, in different allomorphic variants, participates in the general verbal paradigm. Quoted as *qɔ-r<sup>y</sup>en<sub>5</sub>* / *qɔ-den<sub>5</sub>* (Bak., Sur.) in [Werner 1977: 162]; as present tense *di=ey=ɔ*, past tense *di=n=ɔ* in [Castrén 1858: 181].

**Yugh:** Werner 2011: 291. Paradigm: 1st sg. *di=y=ɔ* (< *\*di=y=χɔ*) 'I (will) die', past tense *di=n=ɔ* (< *\*di=n=χɔ*). A more complex variant of the same verb is attested as infinitive *χ'ɔ-din* 'to die', 1 sg. *di=χ'ɔ-din-a-ge<sup>y</sup>* 'I (will) die' [Werner 2011: 291]; the infinitive is also quoted as *χɔ-den<sub>5</sub>* in [Werner 1977: 162].

**Kott:** Castrén 1858: 220. 1st p. sg. Cf. the past tense: *o=n=xa-y-an*, imperative: *a=n=xa*. Cf. also the substantival stem: *xa* ~ *qa*, pl. *xa-yik-η* 'death' [Castrén 1858: 206]. Cf. in older sources: *ɔ=n=xa* 'dead (person)' [Werner 1990: 332] (basically a verbal form, 3rd p. past tense: 'he died').

**Arin:** Dulzon 1961: 187 (M., Dict., Kl.). The root is attested as part of the form *'in-qo* 'dead (person)'; cf. also *in=ko-to* (Kh.) 'death'

[Werner 2002: II, 124]. Technically speaking, none of these forms prove that  $*=qo$  was the default root forming the basic verb 'to die' in Arin, but no alternatives are available, and external data confirm the Proto-Yeniseian status of the item anyway.

**Pumpokol:** Dulzon 1961: 187 (Dict.). Only attested as part of the form *ka-don-du* "he is dead", where *-du* is the 3rd p. m. suffix, but the component *-don-* remains grammatically and etymologically obscure. Dubious.

**Proto-Yeniseian:** S. Starostin 1995: 264 ( $*qo-$ ). Alternately reconstructed as  $*qo \emptyset$  in [Werner 2002: II, 123]; in [S. Starostin 1995: 264], the reconstruction  $*qo: \check{V}$  is reserved for the closely similar item with the meaning 'to hunt' (Ket *qɔ:*, Yugh *χo:*) - probably a near-homonymous, but etymologically different entry, although H. Werner conflates the two (unjustly, since the necessary intermediate meaning 'to kill' is not attested in Ket-Yugh). Distribution: Preserved in all daughter languages. Reconstruction shape: The vocalism  $*o$  is based on S. Starostin's correspondence of "Ket-Yugh  $*o \sim *o$  : Kott *a*".

## 18. DOG

Ket *tip* {*mun*} (1), Yugh *čip* (1), Kott *al=šip* (1), Arin *il=čap* (1), Pumpokol *čip* # (1), Proto-Yeniseian  $*čip$  (1).

### References and notes:

**Ket:** Werner 2002: II, 269; Werner 1993: 99. Masculine gender. Plural form: *taʔp* {*má ɲ*}. Quoted as *tip*<sub>1</sub>, pl. *taʔp*<sub>2</sub> in [Werner 1977: 181]; as *tip* ~ *ti:p* in [Castrén 1858: 177].

**Yugh:** Werner 2011: 182. Feminine gender. Plural form: *čaʔp*. Quoted as *čip*<sub>1</sub>, pl. *čaʔp*<sub>2</sub> in [Werner 1977: 181].

**Kott:** Castrén 1858: 196. Plural form (with vowel gradation): *al=šap*. The word contains the same fossilized prefix as 'bird' q.v. Cf. in older sources: *al=šip* (M., Dict., Kl.), *al=šib* (F.) [Verner 1990: 369].

**Arin:** Dulzon 1961: 182 (M., Dict., Kl.). Quoted as *il=čep* (Kh.) in [Werner 2002: II, 269].

**Pumpokol:** Dulzon 1961: 182 (Kl.). Also attested as *ci* in (Kl., Dict.); it is not clear if this is the same word as *čip*, nor is it entirely clear that *čip* itself is not, in fact, a Yugh form.

**Proto-Yeniseian:** S. Starostin 1995: 217. Alternately reconstructed as  $*tʲip$  in [Werner 2002: II, 269]. Distribution: Preserved in all daughter languages. Reconstruction shape: Correspondences are generally regular, slightly disturbed by two factors: (a) a vowel gradation scheme between sg. and pl. forms - the Proto-Yeniseian paradigm was probably the same as Ket-Yugh, i. e. sg.  $*čip$ , pl.  $*čaʔp$ , but the vocalism of the plural variant may have become generalized in Arin; (b) the Kott-Arin forms are attested in conjunction with a desemanticized prefix (Kott *al=*, Arin *il=*, original vocalism unclear) that is also encountered in several other entries on the 100-word list ('bird', 'star'); this seems to have been a shared Kott-Arin innovation.

## 19. DRINK

Ket *u=r'ɔ* ~ *ulʲ=d'ɔ* {*ypɔ* ~ *γλβδο*} (1), Yugh *dɔp* ~ *dɔf* (1), Kott *o:=p-aŋ* (2), Arin *tʲa:gur* (3), Pumpokol *hokoy* (4), Proto-Yeniseian  $*=op$  (2).

### References and notes:

**Ket:** Werner 2002: II, 321, 337; Werner 1993: 110, 112. Quoted as *ur'ɔ* (Imb.) / *ud'ɔ* (Bak., Sur.) in [Werner 1977: 186]. Composite infinitive form, in which the first component = *ulʲ* 'water' q.v. Of the two variants, the first one is more archaic, since it fuses together the final consonant of the first stem with the initial consonant of the second one ( $*xurɪ-dɔ > ur'ɔ$ ); the second variant more likely represents the "reinstated" stem, based on regularized analogy with the word 'water'.

Since the Yugh equivalent of this form shows final *-p* (*u=dɔp* ~ *ur=dɔp*), it is reasonable to suppose irregular elimination of *-p* in Ket proper as well, possibly triggered by analogy with various complex verbal forms in which *-p* is lost for samdhi reasons (e. g. *ulʲdɔ-ba=γ=a=van* "I begin to get drunk"), or with the plural forms of the simple paradigm in which *-p* is regularly lost in the intervocalic position. The paradigm in question is: *d'=a=b=dop* 'I drink it', past tense

$d=ʼɔ=g=dɔp \sim d=ʼɔ=m=dɔp$  [Werner 2002: I, 200]. Loss of final  $-p$  in the infinitive form also explains why the infinitive form is used in conjunction with  $ul^y$  'water': to avoid homonymy with other verbal roots of the same form. However, the conjugated complex verb  $ul\dots dɔp$  'to drink (water)' also exists per se, and is attested as early as in [Castrén 1858: 184]:  $d=ul=e=dap$  'I drink', past tense  $d=ul=e=g=dap$ .

An even more complicated question is the relation between the Ket stems  $=dɔ(p)$  and  $=ɔp$ , also 'drink', as in:  $d=a=b=ɔp$  'I drink it', past tense  $d=ɔ=b=a=l=ɔp$  [Werner 2002: II, 44]. The semantic difference between  $d=a=b=dop$  and  $d=a=b=ɔp$  is unclear; it can only be seen from available texts that the latter form is much more rare, possibly archaic in origin. Whether they are connected etymologically is quite debatable; to link them together, one would have to demonstrate that  $-d-$  in  $d=a=b=dop$  is an old preverb, fused with the root. But apparently, this is impossible to do on available Ket material, since even the external parallels in Kott show that the two stems must have been differentiated already on the Proto-Yeniseian level (there is, however, some evidence for such segmentation in Yugh, see notes on the Yugh entry). In any case, at the moment it seems that  $=ɔp$  has to be excluded from lexicostatistical calculations.

**Yugh:** Werner 2011: 306. Infinitive form; another variant of the infinitive is the complex formation  $u=d'ɔp \sim u=d'ɔf$  (<  $*ur-dop$ , literally 'water-drink'; the form  $ur=dop$  itself is also attested, but is likely to be a back-formation through analogy, cf. the same situation in Ket). Quoted as  $u=d'ɔp$  in [Werner 1977: 186]. Both infinitives correspond to the same finite paradigm: 1 sg.  $d=a^h=b=dop$  'I drink it', past tense  $d=ɔ=b=i=y=op$ , imperative  $a=y=ɔp$  'drink it!'. There is also a composite paradigm: 1 sg.  $d=ur=a=dop$  'I drink', where  $=ur=$  is 'water'; quoted as  $d=ur=e=daf$ , past tense  $d=ur=e=g=daf$  in [Castrén 1858: 185]. It is notable that in all these paradigms, the root has the form  $=dop$  in the present tense, but  $=op$  in the past tense and in the imperative mood. This suppletivism cannot be explained through regular Yugh morphophonology.

**Kott:** Castrén 1858: 202, 213. 1st p. sg. Cf. also past tense:  $o=l=a=p-an$ , imperative:  $a=l=č=ep$ , infinitive:  $ši=g=ap$ . The root is either  $=p-$  or  $=ap-$ , with the vowel sometimes deleted through contraction with preceding prefixes. Cf. in older sources:  $opaŋ$  (M., Dict., Pal., Kl.) [Verner 1990: 348].

**Arin:** Dulzon 1961: 177 (M., Dict., Pal., Kl.). Morphologically obscure; most likely, a complex stem with an adverbial prefix, but proper segmentation seems impossible.

**Pumpokol:** Dulzon 1961: 177 (Dict., Pal., Kl.). Morphologically obscure; as in Arin, probably a complex stem is involved, but segmentation is unclear. The form  $du-ž-dop$  'to drink', listed in (Pal.) and (Kl.) as a synonym, is most likely a corrupt transcription of Yugh (not proper Pumpokol)  $d=ur=a=dop$  q.v.

**Proto-Yeniseian:** S. Starostin 1995: 202 ( $*?VbV$ ); superseded by the newer reconstruction  $*?ɔp-$  in [YED # 173]. Also reconstructed as  $*op$  in [Werner 2002: II, 44]. **Distribution:** Best attested in Kott, as well as in a part of the Ket-Yugh paradigm. **Replacements:** (a) The forms in Arin and Pumpokol, as is common for most verbal forms attested in these languages, are very hard to interpret. S. Starostin [1995: 203] suggested that they are cognate, segmenting the Arin form as  $t^h=a:gu-r$ , comparing the "root" to  $/h/ok-$  in Pumpokol and reconstructing a rather vague stem  $*?VKV-$  'to drink'. This reconstruction, however, depends on way too many unprovable assumptions, not to mention that any Arin or Pumpokol forms attested in XVIIIth century sources without reliable external cognates in Ket or Kott are highly questionable to begin with. Provisionally, we treat them as independent replacements with obscure etymologies; (b) In Ket-Yugh, the old root  $*=op$  has been confined to certain suppletive parts of the paradigm, being generally replaced by  $=dop$ . This latter stem is compared by S. Starostin to Kott  $to:p-$  in  $to:p-a:k-ŋ$  'I eat', etc. < Proto-Yeniseian  $*dop$  'to eat' [S. Starostin 1995: 223]. If this comparison is right, the Ket-Yugh meanings are probably innovative, appearing through frequent usage of the compound stem  $*xur-dop$ , literally 'to consume water', where  $*dop$  would be a verb with originally vague semantics ('to consume, devour?'). Another possibility is that Ket-Yugh  $*=dop$  (and maybe Kott  $to:p-$  as well?) are historically fusions of the same old root  $*=op$  with a directional prefix; however, it remains unprovable. Overall, the entire situation is beset with etymological problems, so the selection of  $*=op$  as an optimal candidate for Proto-Yeniseian 'to drink' rests only on its position as the currently strongest isogloss between Ket-Yugh and a non-Ket-Yugh language (Kott) in the required meaning. **Reconstruction shape:** Correspondences between Ket-Yugh and Kott are regular and trivial.

## 20. DRY

Ket  $tɔb'ɔyŋ-s^y \sim tɔ'yŋ-s^y$  {*мо̀ро̀уиҕсб*} (1), Yugh  $tɔxɔ'yŋ \sim tɔxɔ'ŋ$  (1), Kott  $ši:=gal$  (2), Arin  $qoiya$  (1), Pumpokol  $ič=k'oy-ŋa$  (1), Proto-Yeniseian  $*qɔy-$  [  $*qɔɕ-$  ] (1).

## References and notes:

**Ket:** Werner 2002: II, 277, 283. Final *-sʷ* is a predicative suffix. Quoted as *toyiŋ<sub>1</sub> / toɣɔiŋ* (S.-Imb.) in [Werner 1977: 181]; as *to ayey* in [Castrén 1858: 177]. This stem forms numerous derived composite verbs with the meaning 'to dry': *toɣɔyiŋ-diy*, *toɣɔyiŋ-at*, etc. [Werner 2002: II, 277]. The quasi-synonymous form *qolʷaŋ(-sʷ)* 'dry' [Werner 2002: II, 99] has very limited usage, predominantly in the meaning 'withered' (of trees or grass), so it is not eligible for inclusion.

**Yugh:** Werner 2011: 306. Quoted as *toχʷkŋ ~ toχʷaiŋ* in [Werner 1977: 181] (*toχʷkŋ* may be a misprint). As in Ket, this complex adjectival / infinitive stem serves as the basis for verbs with the meaning 'to dry', e. g. *toχɔyiŋ-etʷ* [Werner 2011: 306].

**Kott:** Castrén 1858: 213. The prefix *ši=* indicates that the form is really an infinitive, but the verb 'to dry' in Kott has only been preserved as compound formations: *ši=gal-ai-č-e-ja:k-ŋ* 'to dry out (intr.)', *dʷ=ä=ši=gal-aŋ* 'to dry (tr.)', etc. The older sources usually cite a different word in the meaning 'dry': *xuiŋa* (M., Dict., Kl.) [Werner 1990: 375].

**Arin:** Dulzon 1961: 185 (M., Dict., Kl.).

**Pumpokol:** Dulzon 1961: 185 (Dict.). The status of the prefixal component *ič=* is unclear; if the form is really predicative ('it is dry'), it could be a sequence of auxiliary verbal morphemes (conjugation markers).

**Proto-Yeniseian:** S. Starostin 1995: 265 (*\*qVl ǵi-*). Alternately reconstructed as *\*qoy ~ \*qoyiŋ* in [Werner 2002: II, 283]. **Distribution:** Preserved in all daughter languages except for the Kott dialect described by M. Castrén. **Replacements:** In Kott, the old word for 'dry' (as in 'dry clothes', etc.) may have merged with the old word for 'dry, withered' (as in 'dry tree', etc.): Kott *=gal-* = Ket *qolʷ-* in *qolʷ-iŋ o'ksʷ* 'dry tree', etc. [Werner 2002: II, 101]. This is hard to ascertain due to the possibility of inaccurate semantic glossing in known sources on Kott, but may still be regarded as the optimal scenario under the present circumstances. **Reconstruction shape:** Correspondences are regular. Word-medial *\*-ε*, tentatively suggested by S. Starostin, is not very likely in this root (although the only form that explicitly contradicts such a reconstruction is Kott *xui-ga*), but its probability becomes higher if we decide to establish a further etymological link with Proto-Yeniseian *\*qɔq-ante* 'hunger' [S. Starostin 1995: 265]; the derivation 'dry' > 'hunger' is typologically possible, e. g. encountered in Burushaski.

## 21. EAR

Ket *ʷgdε {oɔdə}* (1), Yugh *ʷχtiŋ ~ ʷχtiŋ* (1), Kott *kalo:x* (-1), Arin *utqʷö:n-oŋ* (1), Pumpokol *atkin* (1), Proto-Yeniseian *\*ʷdǵε* (1).

## References and notes:

**Ket:** Werner 2002: II, 31; Werner 1993: 81. Neuter gender. Plural form: *ʷgdε-n {ədən}* ~ *ʷgdε-niŋ*. Quoted as *ɔgdεs*, pl. *ɔgden<sub>6</sub>* in [Werner 1977: 171]; as *ogdi* in [Castrén 1858: 163].

**Yugh:** Werner 2011: 234. Neuter gender. Plural form: *ʷχtiŋ-in ~ ʷχtiŋ-in*. Quoted as *ɔχtiŋ<sub>6</sub>, ɔχtiŋ-in<sub>5</sub>* in [Werner 1977: 171]; as *oqteŋ* in [Castrén 1858: 163].

**Kott:** Castrén 1858: 204. Plural form: *kalo:g-an*. Most likely, borrowed from a Turkic source (cf. Yakut *kulga:k*, Tatar *qolaq*, etc.), although the "vowel metathesis" remains unexplained. Cf. in older sources: *kalogan* (M., Dict., Pal., Kl.), *kolog* (Kh.) [Werner 1990: 385].

**Arin:** Dulzon 1961: 187 (M., Dict., Kl.); quoted as *utkʷen-oŋ* (Pal.). The form is marked as plural (Lat. *aures*), so *-oŋ* is most likely the plural marker. Cf. also *utkuy* 'ear' in (Kh.) [Werner 2002: II, 372].

**Pumpokol:** Dulzon 1961: 187 (Dict., Pal.).

**Proto-Yeniseian:** S. Starostin 1995: 198 (*\*ʷgdε ~ \*ʷqɔtV*). **Distribution:** Preserved in all daughter languages except for Kott. **Replacements:** Kott *kalo:x* is most likely borrowed from a Turkic source (see notes on the Kott entry). **Reconstruction shape:** This issue is very problematic. H. Werner places under doubt the common etymologization of Ket-Yugh items, on one hand, and the Arin / Pumpokol forms, on the other. However, the only serious problem preventing such a comparison is the metathesized order of consonants, and it may be easily circumvented. *Pace* S. Starostin's reconstruction, it seems more reasonable to view the Arin / Pumpokol consonantal sequence as original, since (a) Arin and Pumpokol belong to different primary branches of Yeniseian, with

metathesis in Proto-Ket-Yugh a more economic solution than independent metatheses in Arin and Pumpokol; (b) all other instances of \*-KT- ~ \*-QT-type sequences in Proto-Yeniseian generally yield assimilated -T(T)-type sequences in Arin. The somewhat tentative reconstruction \*ʔɔd e, despite the uniqueness of its medial cluster, accounts for all the resulting diversity, except for stem-final -n in Arin and Pumpokol, which is probably just the old plural marker, sometimes fused with the root (cf. the variation between the old singular *utkuy* and the plural-turned-singular *utqʷö:-n-* in Arin). Semantics and structure: The unusual stem structure \*ʔɔd e almost certainly implies a compound origin, but whatever it was, the fusion probably pre-dated the Proto-Yeniseian stage, and it is doubtful that this particular mystery will ever be resolved to general satisfaction.

## 22. EARTH

Ket *baʔŋ* {ба'ŋ} (1), Yugh *baʔŋ* (1), Kott *paŋ* (1), Arin *peŋ* (1), Pumpokol *biŋ* (1), Proto-Yeniseian \**baʔŋ* (1).

### References and notes:

**Ket**: Werner 2002: I, 110; Werner 1993: 22. Neuter gender. Plural form: *baŋ-in* {баŋэн}. Polysemy: 'earth / land / place'. Quoted as *baʔŋ*<sub>2</sub> in [Werner 1977: 137]; as *baŋ*, pl. *ba:ŋ-an* ~ *ba:ŋ-en* in [Castrén 1858: 188].

**Yugh**: Werner 2011: 122. Neuter gender. Quoted as *baʔŋ*<sub>2</sub> in [Werner 1977: 137].

**Kott**: Castrén 1858: 221. Plural form: *paŋ-an*. Polysemy: 'earth / land / place'. Cf. in older sources: *pak* (Kh.) [Verner 1990: 314].

**Arin**: Dulzon 1961: 168 (M., Dict., Pal., Kl.). Quoted as *pem* in (Kh.) [Werner 2002: I, 110].

**Pumpokol**: Dulzon 1961: 168 (Dict., Pal., Kl.).

**Proto-Yeniseian**: S. Starostin 1995: 205; Werner 2002: I, 110. Distribution: Preserved in all daughter languages. Reconstruction shape: Correspondences are generally regular, although the front row vocalism in Arin (*peŋ*) and Pumpokol (*biŋ*) remains unexplained. Based on some additional evidence, it is quite possible that this situation reflects a former bisyllabic structure (i. e. Proto-Yeniseian \**baʔŋi* or \**baʔŋe*), with deletion of the final vowel after a glottal stop in Ket-Yugh and root vowel assimilation in Arin and Pumpokol; however, this hypothesis requires further verification.

## 23. EAT

Ket *sʷi* ~ *sʷiy* {cuü} (1) / =a ~ =0 (2), Yugh *siʰ:y* (1) / =a ~ =0 (2), Kott *to:p-a:k-ŋ* (3), Arin *šau* (1), Pumpokol *sogo* (1), Proto-Yeniseian \**si:-* (1).

### References and notes:

**Ket**: Werner 2002: II, 191; Werner 1993: 87. This form phonetically functions as the 1st/2nd/3rd m. p. sg. member of the intransitive verbal paradigm ('I eat', etc., without explicit marking of the object within the verbal form), but in reality, as seen in comparison with the rest of the paradigm as well as data from phonetically conservative dialects, is to be analyzed as \**d=sʷiy-a* / \**k=sʷiy-a* etc., where the first morpheme is the subject marker, and *sʷi-...-a* is a composite verbal stem (usually assimilated to *si-...-e* in actual conjugation). Cf. the paradigmatic data in [Werner 2002: I, 359-360]: *t=sʷiy* ~ *t=sʷiy-e* ~ *t=sʷiy* 'I eat', past tense *t=sʷi-lʷ* ~ *t=sʷi-lʷ-e* ~ *t=sʷi-lʷ* 'I ate'. Werner 2002: I, 359; Werner 1993: 36. This root is encountered in the transitive verbal paradigm ('I eat smth.', with the normally inanimate object of eating marked with the usual morpheme *-b- ~ -v- ~ -p-*), where it is phonetically preserved only in archaic dialects. Cf. *di=p- ~ di=b-a ~ di=v-a* {du n- du n} 'I eat it', past tense *d=b-i-lʷ-e ~ d=b-i-lʷ-e* {dбулб} 'I ate it'. It must be exactly the same root as in the intransitive verb *sʷi-...-a*, and, since it is encountered in both paradigms, should be considered the main basic equivalent for the meaning 'eat' in Ket. However, we still include the morpheme *sʷi-* as a lexicostatistical synonym, since it is also encountered in basic usage, and neither internal nor external data show it to have ever possessed a meaning different from 'eat' or 'food'.

Other peculiarities of the meaning 'eat' in Ket include: (1) the infinitive for both *-a* and *sʷi-...-a* is *ʷilʷiŋ ~ ʷilʷeŋ* [Werner

2002: I, 359]. While *-ij* is a well-known productive suffix participating in the formation of infinitives, the morpheme *il<sup>y</sup>* looks suppletive, unless it is actually the result of a (rare, but attested) incorporation of the past tense marker within the infinitive. If so, *il<sup>y</sup>ij* historically = *\*i-l<sup>y</sup>-a-ij*, with the original root once again lost due to complex morphophonology. Cf. also the perfectly regular imperative form *i=l<sup>y</sup>* = 'eat!' (< *\*i=l<sup>y</sup>=a*), which could itself serve as the basis for this infinitive formation;

(2) An entirely different paradigm is available for situations that require multiple animated participants (e. g. 'I eat him', 'she eats me', etc.): in this case, the usual stem is *-dɔq* [Werner 2002: I, 201]: *d'i=ɣ=a=rɔq* 'I eat him', *d=i:rɔq* (< *\*di=ɣ=i=rɔq*) 'I eat her', etc. Since the meaning 'to eat smbd. (people, animate creatures etc.)' is less usual and basic than the meaning 'to eat (food)', we do not see this paradigm as eligible for inclusion. One old source (Dulzon 1968) also mentions the existence of the variant *-dɔ* in addition to *-dɔq*, but this has not been confirmed.

**Yugh:** Werner 2011: 127. The paradigm of this formally intransitive (without explicit object marking within the paradigm) verb is structured exactly the same way as in Ket: 1sg. *di=si<sup>h</sup>:y* ~ *t=si<sup>h</sup>:y* 'I eat', past tense *di=si<sup>h</sup>:-r* ~ *t=si<sup>h</sup>:-r* 'I ate' (reduced from earlier *\*di=si<sup>h</sup>:-y-a*, *\*di=si<sup>h</sup>:-r-a*, etc., where *\*-a* is the same verbal root as in *\*di-p* < *\*di=b=a* 'I eat it', see below). Werner 2011: 127. As in Ket, this root is primarily encountered in the transitive verbal paradigm: 1 sg. *di=p* = 'I eat it' (< *\*di=b=a*), past tense *d=i=b=i=r* 'I ate it' (< *\*di=b=i=r=a*). The original root is still seen in the plural form: 1 pl. *di=b=a-n* 'we eat it', past tense *di=b=i=r=a-n* 'we ate it'. The infinitive form is *'irij* = Ket *'il<sup>y</sup>ij* (see notes on Ket). Also, as in Ket, the meaning 'to eat (smbd. rather than smth.)' is expressed by a separate verbal root, *=dɔχ* [Werner 2011: 127].

**Kott:** Castrén 1858: 217. Past tense: *to:p-o-l-o:k-ij*, imperative: *to:p-a-l-če-k*. Composite verb; the simple root *to:p* has either an infinitive meaning ('to eat') or a substantive one ('food'). The older sources quote a different, not easily identifiable form: *baq* (M., Dict., Pal., Kl.) [Verner 1990: 309], where *b=* may be the 3rd p. inanimate object prefix, but the root remains unclear.

**Arin:** Dulzon 1961: 166 (M., Dict., Pal.); quoted as *šan* in (Kl.).

**Pumpokol:** Dulzon 1961: 166 (Dict., Pal., Kl.). The forms *di=si-an* (Kl.), *di=siy-an* (Pal.) are, in all likelihood, really Yugh in origin.

**Proto-Yeniseian:** S. Starostin 1995: 274 (*\*si* ɛ; later amended to *\*si:-* in [YED # 632]). Alternately reconstructed as *\*siʔəgə-* [Werner 2002: I, 360]. **Distribution:** Preserved as a verbal root with its original basic meaning in Ket-Yugh and possibly in Arin and Pumpokol, but only in derived stems in Kott. **Replacements:** In Kott, the old verbal root 'to eat' is still preserved in the nominal derivative *ši-g* 'food, meal', but in the verbal paradigm, it has been replaced with a complex formation on the basis of the verbal root *to:p-* = Ket-Yugh *\*=dɔp* 'to drink'. The semantic shift {'to drink' > 'to eat'} seems strange, but the situation may have been more complex (see notes on 'to drink' for further details). **Reconstruction shape:** The reconstruction *si:-* is essentially based on Ket-Yugh forms, as well as on Kott *ši-g* if the velar element is detached as an old nominal suffix. Attested Arin and Pumpokol forms are more difficult to interpret as far as their morphemic constituency is concerned; in addition, initial *s-* in Pumpokol *sogo* is irregular (normally, the standard development *\*s- > t-* should be expected). Unfortunately, we know so little of Arin and Pumpokol verbal morphology that no satisfactory explanations can be foreseen; we have to rely on the initial consonant as the only significant piece of evidence for not suggesting lexical replacement in any of these languages. **Semantics and structure:** There is no way of telling if the complex, tripartite system of lexical roots used to express the meaning 'to eat' in Ket-Yugh, was an innovation or should be traced back to the Proto-Yeniseian stage. Currently, Ket-Yugh *\*si:-* is the only root out of the three (*\*si:-*, *\*=a*, *\*=dɔq*) that finds more or less reliable external parallels, and for that reason, we choose it as the default equivalent for 'to eat' in Proto-Yeniseian.0

## 24. EGG

Ket *ɛʔy* {ə'ü} (1), Yugh *eŋ* (1), Kott *šuley* (2), Arin *aŋ* (1), Pumpokol *tan<sup>y</sup>aŋ* (1), Proto-Yeniseian *\*yeʔy* (1).

### References and notes:

**Ket:** Werner 2002: I, 256; Werner 1993: 131. Neuter gender. Plural form: *eŋ* ~ *'eŋən* {eŋ}. Quoted as *ɛʔy<sub>2</sub>*, pl. *eŋ<sub>1</sub>* in [Werner 1977: 148]; as *eŋ* ~ *e:ŋ*, pl. *äŋ-en* in [Castrén 1858: 236].

**Yugh:** Werner 2011: 112. Neuter gender. Plural form: *'eŋ-ən* ~ *eŋ-in*. Quoted as *eŋ<sub>1</sub>*, pl. *eŋ-ən<sub>5</sub>* in [Werner 1977: 148].

**Kott:** Castrén 1858: 215. Plural form: *šuley-aŋ*. It has been suggested by Ye. Khelmskiy that the word is a borrowing from Samoyed

(cf. Mator *šl'oy* 'egg'), but the word has no Common Samoyed, let alone Uralic, etymology, so for the present moment it is not recommended to score it as an obvious loanword. Cf. in older sources: *šul'ey* (M., Dict., Kl.), *šulep* (Kh.) [Werner 1990: 394].

**Arin:** Dulzon 1961: 189 (M., Dict., Kl.). Quoted as *ag-en* 'eggs' in (Kh.) [Werner 2002: I, 256].

**Pumpokol:** Dulzon 1961: 189 (Dict., Kl.). Presumably a plural form, where *-aj* is the plural suffix. The alternate form *eg* (Kl.) is really Yugh (= *ej* q.v.).

**Proto-Yeniseian:** S. Starostin 1995: 232 (*\*yej* ~ *\*yɔj*). Alternately reconstructed as sg. *\*eʔy*, pl. *\*ej* in [Werner 2002: I, 256].

**Distribution:** Preserved (often in a morphologically modified form) in most Yeniseian records, with the exception of Kott (probably).

**Replacements:** Kott *šuley* has no clear etymology. It is either (a) a borrowing from Samoyed (see notes on the Kott entry); or (b) a compound formation: *šul-* '?' + *-ey* 'egg'. If it were possible to prove the latter case, there would be no need to postulate lexical replacement; but since the origins and meaning of the mysterious component *šul* remain unclear, such a replacement has to be postulated, at least "technically". **Reconstruction shape:** A very tricky situation here. In Ket-Yugh, apart from the general paradigm 'egg' (sg. *\*eʔy*, pl. *\*e-ŋ*), there is also a form *ɔj*, attested in the words for 'roe': Ket sg. *ɔj-disʔ* (where the second component = 'eye' q.v.), pl. *ɔj-nʔij*. H. Werner regards 'egg' and 'roe' as two different etyma; S. Starostin suggests that the two may be etymologically linked if the vowel gradation reflects some sort of old "Ablaut", as in certain other nominal stems (e. g. 'dog', etc.). The opposition between 'egg' and 'roe' is also not as well pronounced in the rest of the Yeniseian languages as it is in Ket-Yugh (cf. Arin *aj* 'egg', but Kott *dʔanan* 'roe', Assan dialect *anan* id.). One possible scenario is therefore to suggest this early paradigm: sg. *\*yeʔy* (> Ket *eʔy*), pl. *\*yɔ-ŋ* (> Ket-Yugh *ɔj-* 'roe'; Arin *aj* 'egg', with pl. > sg.) with various subsequent shifts: (a) in Yugh, plural *ej* has replaced singular *eʔy*; (b) in Arin, *\*yɔ-ŋ* 'eggs' > *aj* 'egg', *\*yɔj-nəŋ* 'roe' > *uy-nun*; (c) in Pumpokol, *\*yɔj* > *\*taj* (regularly, *\*d-* should rather be expected, cf. 'leaf' q.v., but a transcriptional mistake is not out of the question); the old plural form becomes singular, and a new plural is formed: *\*taj-aj* > *\*tanʔ-aj* with dissimilation. The vowel gradation between *\*yeʔy* and *\*yɔ-ŋ* would then date back to pre-Proto-Yeniseian (e. g. early *\*yɔʔy* > *\*yeʔy* under the influence of two palatal glides?).

## 25. EYE

Ket *de:sʔ* {*decɔ*} (1), Yugh *des* (1), Kott *ti:š* (1), Arin *tie-ŋ* (1), Pumpokol *dat* (1), Proto-Yeniseian *\*de-s* (1).

### References and notes:

**Ket:** Werner 2002: I, 187; Werner 1993: 35. Neuter gender. Plural form: *dɛsʔ* {*ɔɔ*} (dual) / *dʔesʔ-taj* {*ɔɔ mətaj*} (plural). Quoted as *de:sʔ*, pl. *dɛʔ:sʔi₄* (N.-Imb.) / *dɛsʔi₄* (S.-Imb.) /dual/, *dɛsʔtəŋi₆* /plural/ in [Werner 1977: 143]; as *des*, pl. *dees* in [Castrén 1858: 181].

**Yugh:** Werner 2011: 77. Neuter gender. Plural form: *dɛʔ:s* ('pair of eyes'), but *dʔes-aj* ~ *dʔes-iŋ* ('many eyes'). Quoted as *des*, pl. *dɛʔ:s₄* ('pair'), *dɛs-eŋs* ('many') in [Werner 1977: 143].

**Kott:** Castrén 1858: 217. Plural form: *te:č-ag-an* (partial suppletion, formed from an unattested complex sg. stem *\*te:č-ag/al*). Cf. in older sources: *tečagan* (M., Dict., Kl.), *tiej* (Pal.) [Werner 1990: 298] (all of these forms are plural, but the one in (Pal.) must be more archaic than the rest).

**Arin:** Dulzon 1961: 162 (M., Dict., Kl., Pal.). Probably a plural form ('eyes'). Cf. also *tenkt* 'eye' in (Kh.) [Werner 2002: I, 187] (probably = *te-ŋ* 'eyes' + an unidentified suffix).

**Pumpokol:** Dulzon 1961: 162 (Dict., Kl., Pal.).

**Proto-Yeniseian:** S. Starostin 1995: 220. Alternately reconstructed as *\*detʔ* ~ *\*des* in [Werner 2002: I, 187]. **Distribution:** Preserved in all daughter languages. **Reconstruction shape:** Correspondences are quite regular (Pumpokol *-t* is a regular reflexion of Proto-Yeniseian *\*-s*). **Semantics and structure:** In S. Starostin's reconstruction, final *\*-s* is interpreted as a fossilized singulative suffix, a fuller variant of which may also be seen in *\*xu-sa* 'one' q.v. and several other archaic nominal stems (e. g. 'stone' q.v.). This argumentation is solidly supported by Arin *tie-ŋ*, which probably preserves a trace of the archaic paradigm: sg. *\*de-s*, pl. *\*de-ŋ* (the latter form shifted to *\*des-ŋ* in Proto-Ket-Yugh by analogy).

## 26. FAT N.

Ket *kiʔt* {*κβi'm*} (1), Yugh *kiʔt* (1), Kott *ki:r* (1), Proto-Yeniseian *\*giʔd* (1).

#### References and notes:

**Ket:** Werner 2002: I, 481; Werner 1993: 61. Neuter gender. Quoted as *kiʔt*<sub>2</sub> in [Werner 1977: 158]; as *kit* ~ *ki:t* ~ *kiet*, pl. *kit-ɜŋ* ~ *kied-eŋ* in [Castrén 1858: 168].

**Yugh:** Werner 2011: 133. Quoted as *kiʔt*<sub>2</sub> in [Werner 1977: 158].

**Kott:** Castrén 1858: 205. Plural form: *ki:r-aŋ*.

**Arin:** Not attested. Cf., however, *ki* '(it is) fat' in (Kh.) [Werner 2002: I, 481], which probably contains the same root.

**Pumpokol:** Not attested.

**Proto-Yeniseian:** S. Starostin 1995: 228. Alternately reconstructed as *\*kiʔl* ~ *\*kiʔt* in [Werner 2002: I, 481]. Distribution: Preserved in all daughter languages where attested, but not found in Arin and Pumpokol. Reconstruction shape: Correspondences are fully regular. Semantics and structure: As in the attested language, the Proto-Yeniseian word was probably applicable to both hard 'fat' and liquid 'oil'.

## 27. FEATHER

Ket *âsʷ* {*acv*} (1), Yugh *aʰ:s* (1), Kott *iči* ~ *iče* (1), Arin *is-en* (1), Proto-Yeniseian *\*ʔa:si* (1).

#### References and notes:

**Ket:** Werner 2002: I, 66; Werner 1993: 19. Neuter gender. Plural form: *'asʷ-eŋ* {*aɛŋ*}. Quoted as *asʷ*<sub>4</sub> (S.-Imb.) / *a:sʷ*<sub>4</sub> ~ *asʷ*<sub>4</sub> (Bak., Sur.), *a:sʷ*<sub>4</sub> ~ *asʷ*<sub>4</sub> (Kur.), pl. *asʷ-eŋ*<sub>5</sub> in [Werner 1977: 135]; as *as*, pl. *as-eŋ* in [Castrén 1858: 159].

**Yugh:** Werner 2011: 131. Neuter gender. Plural form: *'as-iŋ* ~ *'as-eŋ*. Quoted as *aʰ:s*<sub>4</sub>, pl. *as-iŋ*<sub>5</sub> ~ *as-eŋ*<sub>5</sub> in [Werner 1977: 135].

**Kott:** Castrén 1858: 201. Plural form: *ič-aŋ*. Cf. in older sources: *ič-an* (Kh.) [Werner 1990: 347] (the form is plural).

**Arin:** Werner 2002: I, 66. Attested only in (Kh.); the form is transparently plural ('feathers').

**Pumpokol:** Not attested.

**Proto-Yeniseian:** S. Starostin 1995: 205 (*\*ʔV:si*). Alternately reconstructed as *\*aʔsə* in [Werner 2002: I, 66]. Distribution: Preserved in all daughter languages (but not attested in Pumpokol). Reconstruction shape: Consonantal correspondences are regular and transparent. Vocalic correspondences are unclear (S. Starostin does not reconstruct the root vowel), but the data suggest that, most likely, the stem-final *\*-i* has influenced the root vocalism in the Kott-Arin branch (*\*ʔa:si* > *\*ʔi:si*).

## 28. FIRE

Ket *bʔʔk* {*βo'κ*} (1), Yugh *bʔʔk* (1), Kott *hat* (2), Arin *qott* (2), Pumpokol *buč* (1), Proto-Yeniseian *\*boʔk* (1).

#### References and notes:

**Ket:** Werner 2002: I, 145; Werner 1993: 28. Neuter or feminine gender. Quoted as *bʔʔk*<sub>2</sub> in [Werner 1977: 140]; as *bok*, pl. *bog-eŋ* ~ *bog-aŋ* in [Castrén 1858: 190].

**Yugh:** Werner 2011: 133. Neuter or feminine gender. Plural form: *bʔʔ'eŋ* ~ *bʔʔ-in*. Quoted as *bʔʔk*<sub>2</sub> in [Werner 1977: 140].

**Kott:** Castrén 1858: 208. Plural form: *hat-i* ~ *hat-an*. Cf. in older sources: *xott* (M., Dict., Kl.), *xot* (Pal.), *xat* (Kh.) [Werner 1990: 340-341].

**Arin:** Dulzon 1961: 75 (M., Dict., Kl.). Quoted as *qot* in (Pal.); as *kot* in (Kh.) [Werner 2002: I, 305].

**Pumpokol:** Dulzon 1961: 75 (Dict., Pal., Kl.).

**Proto-Yeniseian:** S. Starostin 1995: 212. Distribution: Preserved in Ket-Yugh and Pumpokol. Replacements: In Kott and Arin

(probably, in Proto-Kott-Arin), replaced by a nominalization of Proto-Yeniseian *\*qɔʔt* 'to burn' q.v.; the shift {'to burn' > 'fire'} is typologically trivial. Reconstruction shape: Correspondences are regular and trivial except for the palatalization *\*-k* > *-č* in Pumpokol (there are very few examples on final *\*-k* in Pumpokol altogether); it is possible that this palatalization reflects traces of an original second syllable vowel, i. e. the reconstruction could be amended to *\*boʔke* or *\*boʔki*.

## 29. FISH

Ket *i'sʲ* {*ucb*} (1), Yugh *i's* (1), Kott *te:g* ~ *te:x* (2), Arin *'il=ti* (2), Pumpokol *h'ite* (2), Proto-Yeniseian *\*ci:k* (2).

### References and notes:

**Ket**: Werner 2002: I, 396; Werner 1993: 49. Feminine gender. Singular and plural forms are identical. Same word as 'meat' q.v.; in the meaning 'fish', the idiomatic expression *ulʲ-d i'sʲ* (literally 'water's meat') may be used if necessary. Quoted as *i'sʲ* 'fish / meat' in [Werner 1977: 151]; as *isʲ* 'fish' in [Castrén 1858: 162].

**Yugh**: Werner 2011: 134. Feminine gender. Singular and plural forms are identical. Same word as 'meat' q.v. Quoted as *i'sʲ* 'fish / meat' in [Werner 1977: 151].

**Kott**: Castrén 1858: 216. Plural form: *te:g-an*. Cf. in older sources: *tig* (M., Dict., Pal., Kl.), *teg* (Kh.) [Werner 1990: 361].

**Arin**: Dulzon 1961: 180 (M., Dict., Pal., Kl.). Initial *il=* is most likely a fossilized prefix, same as in 'dog' q.v. Quoted as *il=ta* in (Kh.) [Werner 2002: II, 267].

**Pumpokol**: Dulzon 1961: 180 (Dict.). Quoted as *g'ite* in (Pal., Kl.).

**Proto-Yeniseian**: S. Starostin 1995: 214. Alternately reconstructed as *\*tʲiʔəgə* in [Werner 2002: II, 267]. Distribution: Preserved in the original meaning in Kott-Arin and in Pumpokol. Replacements: In Ket-Yugh, replaced in the meaning 'fish' with *\*ʔi's* 'meat' and only preserved in the meaning 'snake': Ket *tʲiʔ*, Yugh *či:ʰk* (see under 'snake'). The shift chain {'meat' > 'fish / meat'}, {'snake' > 'fish'} is, overall, the most economic solution, given the distribution of cognates in daughter languages. Reconstruction shape: The correspondence "Kott-Arin *\*t-* : Pumpokol *h-* ~ *x-*" is regular and reflects Proto-Yeniseian *\*c-* (see 'hair'), although the proper phonetic interpretation of this phoneme is questionable. Likewise, Pumpokol *-t-* is known to at least occasionally reflect Proto-Yeniseian *\*k* (cf. *\*ʔok* 'sterlet' > Pumpokol *ot*), so this correspondence is also regular.

## 30. FLY V.

Ket *dʰɔq* {*ɔoɔ*} (1), Yugh *dɔʰ:χ* (1), Kott *f=a=ta-g-a i:naŋ* (2), Proto-Yeniseian *\*=do:q* # (1).

### References and notes:

**Ket**: Werner 2002: I, 200. In Ket proper, this verbal root participates in several paradigms with very close meanings: (a) simple verb, cf.: *d'i=rɔq* 'I fly', past tense *d=i=n=dɔq*; (b) with directional preverb *=t=*, cf.: *da=t=i'a=y=dɔq* 'she flies', past tense *da=t=i'ɔ=lʲ=dɔq* (possibly in the meaning 'to fly (around)' rather than 'to fly (somewhere)').

Possible secondary synonym: *ki* {*κβ*} 'to fly (forth)' [Werner 2002: I, 483; Werner 1993: 60], as in: *da=k'i-(y)-a-vet* 'she flies', past tense *da=k'i-y-ɔ-lʲ-bet*.

Still another option is a verb for 'flying' that usually appears in the form *-ɔk* or *-ɔk* in several paradigms, such as: *d'i=y=ɔk* ~ *d'i=y=ɔk* 'I (will) fly (forth)' [Werner 2002: I, 201, 482]; cf. also, with the preverb *=k=*, *da=k=a=y=ɔk* 'she flies forth', past tense *da=k=i'ɔ=y=ɔk*. (It is this paradigm that is probably surmised in Castrén's present tense *ko:igaq*, past tense *kolʲaŋoq* 'to fly' [Castrén 1858: 168], although his final uvular is quite out of place). Overall, the situation here is very complex, possibly with several contaminated stems. For the most basic entry, we choose the form that appears to be the least marked in terms of specifying the direction of flight.

**Yugh**: Werner 2011: 137. Infinitive form; quoted as *dɔʰ:χ* in [Werner 1977: 145]. As in Ket, this verbal root has two different paradigms: (a) simple, cf. *d'i=y=dɔχ* 'I fly', past tense *d=i=r=dɔχ* ~ *d=i=n=dɔχ*; (b) with directional preverb *=č=*, cf.:

*di=č=a=y=dɔχ* 'I fly', past tense *di=č=ɔ<sup>h</sup>:r=dɔ<sup>h</sup>:χ*.

Possible secondary synonyms are also the same as in Ket: (a) *ki<sup>h</sup>:χ* 'to fly' in *da=ki<sup>h</sup>:χ-a<sup>h</sup>:-get<sup>y</sup>* 'she flies', etc. [Werner 2011: 138]; (b) *gɔk* 'to fly (forth, away)' in *d'i=g=a=gɔk* 'I fly away', etc. [ibid.].

**Kott:** Castrén 1858: 225. An idiomatic expression, consisting of an auxiliary verb and the nominalized stem *f=a=ta-ga*, which is the same as the first half of the verb *f=a=ta-g-a:k-ŋ* 'to stand up, rise' (directional preverb *f=* + root *=ta-*).

**Arin:** Not attested.

**Pumpokol:** Not attested.

**Proto-Yeniseian:** S. Starostin 1995: 223. Alternately reconstructed as *\*doʔəqə* in [Werner 2002: I, 200]. **Distribution:** Preserved in Ket-Yugh, but not in Kott; not attested in either Arin or Pumpokol. **Replacements:** In Kott, the word may have been replaced by an idiomatic expression, derived from the verbal root 'to rise', provided that the semantic notation of M. Castrén ('to fly' and not 'to fly up, to soar', etc., was correct. The root *\*=do:q*, nevertheless, is still attested in Kott in the meaning 'to jump': *a=š=to:k-ŋ*, past tense *a=l=to:k-ŋ*. **Reconstruction shape:** Correspondences between Ket and Yugh are regular and trivial. **Semantics and structure:** Based on the Kott parallels, the verb may have been polysemous in Proto-Yeniseian: 'to jump / to fly' (although the situation could also reflect a semantic shift from 'fly' to 'jump' in Kott). S. Starostin suggests analyzing the verbal stem *\*=do:q* as composite, with a fused directional prefix, based on the occurrence of semantically similar verbs with different initial consonants, e. g. Kott *i=t<sup>h</sup>ak-ŋ* 'jump' (? < *\*t=əq-*) and Ket-Yugh *\*k=i:q-* 'to fly (forth)' (see notes on Ket-Yugh). However, there is no firm Yeniseian-internal evidence to justify this conclusion: all of these verbs might just as well represent different roots (note also the significant differences in vocalism between all the three). More systematic research on this issue is necessary to clarify the situation; for now, it is premature to confidently segment out *\*=d=* as a separate morphological element.

## 31. FOOT

Ket *bu<sup>l</sup>y* {бyлb} (1), Yugh *bul* (1), Kott *pul* (1), Arin *pil* (1), Pumpokol *an-iŋ* # (2), Proto-Yeniseian *\*bul*(1).

### References and notes:

**Ket:** Werner 2002: I, 153. Neuter gender. Plural form: *b<sup>ul</sup>y-an* {бyлaŋ}. Quoted as *bu<sup>l</sup>y*, pl. *bu<sup>l</sup>y-əŋ<sub>5</sub>* in [Werner 1977: 142]; as *bul*, pl. *buol-eŋ* in [Castrén 1858: 190]. Quite distinct from *kiʔs<sup>y</sup>* 'leg' [Werner 2002: I, 434].

**Yugh:** Werner 2011: 145. Neuter gender. Plural form: *b<sup>ul</sup>-iŋ*. Quoted as *bul<sub>1</sub>*, pl. *bul-iŋ<sub>5</sub>* in [Werner 1977: 142]. Quite distinct from *kiʔs* 'leg' [Werner 2011: 85].

**Kott:** Castrén 1858: 222. Plural form: *pul-an*. There is no indication of any lexical opposition between 'foot' and 'leg' in Castrén's materials. Cf. in older sources: *pul* (Kh.) [Verner 1990: 338].

**Arin:** Dulzon 1961: 174 (M., Dict., Pal., Kl.). Quoted as *a=pil* in (Kh.) [Werner 2002: I, 153]; status of initial *a=* is unclear - it may be a fossilized possessive prefix.

**Pumpokol:** Dulzon 1961: 174 (Dict., Pal., Kl.). The form is most likely plural in origin ('feet'). Actually, the meaning 'feet' is somewhat dubious in the light of external evidence - 'legs' seems to would have been a more accurate semantic equivalent, but, since the original language of the dictionary is Latin ('pedes'), the semantics remains ambiguous.

**Proto-Yeniseian:** S. Starostin 1995: 213; Werner 2002: I, 153. **Distribution:** Preserved everywhere except for Pumpokol, but even there the attested "replacement" is somewhat dubious. **Replacements:** In Pumpokol, Proto-Yeniseian *\*bul* 'foot' may have been replaced with *an-* = Arin *an* 'thigh', Kott *a:n-ar* 'thigh' id. [S. Starostin 1995: 181]. The semantic development 'thigh' > 'foot' is, however, more dubious than the development 'thigh' > 'leg', so there is a probability that Pumpokol *an-iŋ* really means 'legs', whereas the proper word for 'feet' was not recorded. **Reconstruction shape:** Correspondences are regular except for the enigmatic *i* instead of *u* in all Arin sources.

## 32. FULL

Ket *u:t* {*ym*} (1), Yugh *u:t* (1), Kott *u:ti* (1), Proto-Yeniseian *\*?ute* (1).

## References and notes:

**Ket:** Werner 2002: II, 381-382. Predicative form: *u:t-sʷ*. Plural form: *'ut-iŋ ~ 'ut-iŋ-sʷ-in*. In [Werner 1993: 115], listed only in the derived form *'ut-al* {*ymal*}; it may be so that in Ket proper it is this derived stem that has a more frequent usage, unlike in Yugh. Quoted as *u:t ~ ut-a:l ~ u:t-al* 'voll, ganz' in [Castrén 1858: 165]. Secondary synonym: *qɔ* ([Werner 2002: II, 93; Werner 1993: 66]), more frequently used in idiomatic expressions (such as *sʷi:lʷe-qɔ* "all summer", *qip-qɔ* "full moon", etc.).

**Yugh:** Werner 2011: 326. Plural form: *ut-iŋ*. Predicative form: *'ut-si* 'it is full'. Quoted as *u'ti*, pl. *ut-iŋs* in [Werner 1977: 189]. As in Ket, also attested as a derivative form with an additional suffix: *'ut-al* 'full' [Werner 2011: 326]. Secondary synonyms also include (a) *χo ~ χɔ* 'whole, full, complete' (usually in idiomatic expressions such as *χep-χo* "full moon", etc.); (b) *p'ɔɔn-* in *p'ɔɔn-aʰ-b-an* 'it becomes full' (borrowed from Russian *пѳлнѳ* 'full').

**Kott:** Castrén 1858: 204. Cf. also *u:t-am* 'all, whole' [ibid.].

**Arin:** Not attested.

**Pumpokol:** Not attested.

**Proto-Yeniseian:** S. Starostin 1995: 201. Distribution: Preserved in all daughter languages where attested, but not found in Arin or Pumpokol. Reconstruction shape: Correspondences are regular and generally trivial (the vowel in the second syllable could probably have been *\*i* as well).

## 33. GIVE

Ket *n=...=o* (1) / *aq* {*aκ*} (2), Yugh *n=...=o ~ n=...=u* (1) / *=aʰ.χ* (2), Kott *hi=pe:n-an* (2), Arin *koya=penʷ-a* # (2), Proto-Yeniseian *\*n=...=o* # (1).

## References and notes:

**Ket:** Werner 2002: II, 23. A complicated verb, used only with the rare preverb *n=* and with the obligatory inanimate object marker *=b=*. Specific forms include *d'=a=nʷ=b=o* 'he gives (to) him', past tense *d'=a=nʷ=b=i-lʷ=o*, *d'=i=nʷ=b=o* 'he gives (to) her', past tense *d'=i=nʷ=b=i-lʷ=o*, etc. Werner 2002: 1, 49; Werner 1993: 32. Cf. specific forms: *d'=a=v=aq* 'he gives (to) him', past tense *d'=ɔ=v=iγ=aq*; *d'=i=v=aq* 'he gives (to) her', past tense *d'=i=v=iγ=aq*. The same forms are quoted as *d=a-b=a:aq*, past tense *d=o:=b=e=d=i:γ=aq* in [Castrén 1858: 180]. Like *n=...=o*, this verb is also always used with the inanimate object marker *=b=*, although, when the indirect object is expressed by the 1st or 2nd p., the object marker inexplicably migrates to the position *preceding* the indirect object (as in: *d=b=i=γ=oq* 'he gives to you', past tense *d=b=i=γ=aq*; *d=b=i=r=aq* 'he gives to me', past tense *d=b=u=r=aq*). This may only be explained through a suppletive paradigm, where forms with the 3rd p. obj. follow a different model from those with the 1st/2nd p. object. In these forms, *=b(i)=* should be judged as an independent root ("modifier"), derived from *bi?* 'thing', rather than a grammatical marker. Hence, the complete paradigm would be *aq* / *bi...-aq*.

The semantic difference between *n=...=o* and *(bi...)-aq* is not entirely clear, although the latter verb is usually suspected of denoting momentary action, contrasting with the "prolonged" (habitual) semantics of the former. The issue is not entirely resolved, and in any case, even if this is correct, we have to include both verbs as synonyms.

**Yugh:** Werner 2011: 148. See notes on Ket. Specific forms include *d'=a=n=b=u* 'he gives (to) him', past tense *d'=a=n=b=i=r=u*, *d'=i=n=b=u* 'he gives (to) her', past tense *d'=i=n=b=i=r=u*, etc. Werner 2011: 147. Cf. specific forms: *d=a=b=aʰ.χ* 'he gives (to) him', past tense *d=o=u=m=nʷ=aʰ.χ*; *d=i=b=aʰ.χ* 'he gives (to) her', past tense *d=i=m=nʷ=aʰ.χ*. The same irregular inversion of the object marker *=b=* as in Ket happens here as well: *d=b=i=g=aʰ.χ* 'he gives (to) you', etc. The verb is also encountered in compound formations, e. g. with *=us=* 'away': *d'=us=a=y=aʰ.χ* 'he gives him' (literally 'gives away to him'), etc.

**Kott:** Castrén 1858: 130, 210. 1st p. sg.; cf. also past tense *hi=l=i=pe:n-an*, imperative *hi=lʷ=en*. This complex verb consists of the root *=pe:n-* (although the fact that *p* disappears in the imperative could hint at its original affixal status) and an unclear prefixal

component *hi=* or *h=*. The strange form *farak* 'I give' (Kh.) in one of the older sources is unclear [Verner 1990: 302].

**Arin:** Werner 2002: I, 438. Attested only in (Kh.). The first two syllables are unclear (separate lexical stem in a compound verb? a string of adverbial prefixes and conjugation markers?), but *=pen<sup>y</sup>-* is segmentable as a root and comparable with Kott *=pen- q.v.*

**Pumpokol:** Not attested.

**Proto-Yeniseian:** No previously postulated reconstructions. **Distribution:** Only attested in Ket-Yugh. **Replacements:** There are altogether three different roots / stems attested with the meaning 'to give' in various Yeniseian languages. Of these: (a) Kott-Arin *\*=pen-* (always functions as the second root in a composite stem, with differing first elements) is compared by S. Starostin in [YED # 962] with Yugh *=fin* in the composite verbal stem  $\chi^{\prime}3d^yij=f\dot{i}n \sim \chi^{\prime}3d^yij=f\dot{a}n$  'to give back; to give away' (also attested as  $\chi^{\prime}3d^yij=f\dot{i}t^y$  with unclear consonantal mutation). However, external Ket evidence shows that it is Yugh  $\chi^{\prime}3d^yij-$ , not *=fin*, that carries the main lexical meaning of 'give back, give away' (= Ket  $q^{\prime}3r-am \sim q^{\prime}3r-an$  id. [Werner 2002: II, 146]). Considering that in Kott and Arin, *=pen-* is also not found on its own, it is more likely that the verb was a general "directional" auxiliary in Proto-Yeniseian rather than an original 'to give'; (b) Ket-Yugh *=aq*, likewise, is a verbal root with much broader semantics than 'to give'. Consequently, the only verbal stem that is attested *exclusively* in the meaning 'to give' is Ket-Yugh *\*n=...=o*. Furthermore, its highly unusual shape (monovocalic root + very rare directional prefix) is an additional indirect hint at archaicity. We very tentatively set it up as the optimal candidate for the Swadesh meaning 'to give' in Proto-Yeniseian. **Reconstruction shape:** Since the stem *n=...=o* is only attested in Ket-Yugh, the Proto-Yeniseian equivalent could be slightly different, but at least it is not highly likely that the monovocalic root could have contained additional consonants (in this position, most of them would have yielded traces in modern dialects).0

### 34. GOOD

Ket *'aqta-s<sup>y</sup>* {ақта-с<sup>ы</sup>} (1), Yugh *axt'a* (1), Kott *hag-ši* (1), Arin *=iktu #* (1), Proto-Yeniseian *\*haq-* (1).

#### References and notes:

**Ket:** Werner 2002: I, 54; Werner 1993: 14. Predicative form; cf. *'aqta keʔt* 'good man' without the suffix. Quoted as *a:qta ~ aqta* 'good, fresh' in [Castrén 1858: 157]. Cf. *aqta-m<sub>6</sub>* 'good' (adverbial form) in [Werner 1977: 183].

**Yugh:** Werner 2011: 161. Quoted as *axta<sub>6</sub>* in [Werner 1977: 183].

**Kott:** Castrén 1858: 207. The root is *haq-*; *-ši* is an infrequent adjectival suffix. Synonymous form: *hama* 'good' [Castrén 1858: 209], cf. also *hano* 'better'. It is not clear if the two words are related through some morphological model, or belong to different etymologies. Cf. in older sources: *xamagit* 'good' (Kh.) [Verner 1990: 386] (probably *xama-xit* 'good person').

**Arin:** Werner 2002: I, 52. Attested only in (Kh.), as part of the compound *bergar=iktu*, probably = 'very good' (where *berga-r-* = 'big' q.v.).

**Pumpokol:** Not attested properly. The recorded forms *ekte-ket* '(it is) good' [Dulzon 1961: 170], *ekte-m* 'good' (German *gut*) [Dulzon 1961: 187] are only present in (Pal.), where Yugh forms are frequently recorded as "Pumpokol", and these particular ones definitely look Yugh rather than "proper" Pumpokol.

**Proto-Yeniseian:** S. Starostin 1995: 230. Alternately reconstructed as *\*aqta* in [Werner 2002: I, 54]. **Distribution:** Preserved in all daughter languages (but not attested in Pumpokol). **Reconstruction shape:** Proto-Ket-Yugh *\*aqta* is segmentable into the original root morpheme *\*aq-* + the same suffix as in *im-da* 'small' q.v. (with phonetic assimilation). This allows for an easy and direct comparison with Kott *haq-*, where all the correspondences are regular. If Arin *=ik-tu* belongs here as well, *-tu* is the predicative suffix, i. e. Arin would be preserving the original root without any further derivational suffixes, unlike Ket and Kott.

### 35. GREEN

Ket *s<sup>y</sup>3n<sup>y</sup>-s<sup>y</sup>* {с<sup>ы</sup>н<sup>ы</sup>с<sup>ы</sup>} (1), Yugh *sil<sup>y</sup>ɔna* (-1), Arin *itt'ima* (2), Pumpokol *k'omul-si #* (3).

## References and notes:

**Ket:** Werner 2002: II, 221. With the predicative suffix *-sʷ*; cf. also *sʷʒnʷ-iy* 'to become green' [ibid.]. Meaning glossed as 'blue / green / brown' (although 'brown' is very suspicious: it is only confirmed by North Ket *sʷʒnʷ qɔ:ye* 'brown bear', quoted by Werner without justification; note also the glottal stop, lacking in other examples - the expression should be verified). Quoted as *sʷon* 'blue' in [Castrén 1858: 188]; this source attributes the meaning 'green' to *xa al-ey* 'blue / green', derived from *xa: al* 'gall' [Castrén 1858: 171], but this is a Yugh form, not Ket proper, and the gloss is not confirmed in more recent sources.

**Yugh:** Werner 2011: 161. Transparent borrowing from Russian *зеленый* 'green'. Werner also lists the form *xaval-ey* (= *xa al-ey*) from [Castrén 1858: 171], but it is not attested in his own Yugh records (see notes on Ket for etymology).

**Kott:** Not attested. Cf., however, the form *šapkan* 'it is green' (Russ. *зелен ы*) (Kh.) in one of the older sources [Verner 1990: 314].

**Arin:** Dulzon 1961: 167 (M., Dict., Kl.). Polysemy: 'green / yellow'. Quoted as *itt'ima* in (Pal.). Attested as *itima* 'blue', *itima-ko* 'green' in (Kh.) [Werner 2002: I, 385].

**Pumpokol:** Dulzon 1961: 168, 182 (Dict.). Polysemy: 'green / blue'. Quoted as *k'omul-zi* in (Pal.). Dubious (the form could actually be Ket-Yugh rather than Pumpokol; cf. Adelung's *kialmas* 'green' for Ket [Dulzon 1961: 168]). Final *-si* is a standard Yeniseian adjectival suffix.

**Proto-Yeniseian:** Not reconstructible. The item is poorly attested in all extinct languages; not a single isogloss between two different languages can be detected; and there are reasons to assume that the meaning 'green' was not lexically distinct even in Proto-Ket-Yugh.

## 36. HAIR

Ket *təŋ* {*məŋ*} (1), Yugh *čəŋ* (1), Kott *heŋ-ay* (1), Arin *qʷaga-ŋ* (1), Pumpokol *xinə* (1), Proto-Yeniseian *\*cəŋe* (1).

## References and notes:

**Ket:** Werner 2002: II, 304; Werner 1993: 105. Plural (collective) form only. Quoted as *təŋə*<sub>1</sub> (N.-Imb.) / *təŋ*<sub>1</sub> (S.-Imb.) in [Werner 1977: 184]; as *tʷz:ŋ ~ teeŋ ~ t̄:ŋ*, pl. *tʷz:ŋ-en* in [Castrén 1858: 178].

**Yugh:** Werner 2011: 161. Quoted as *čəŋ*<sub>1</sub> in [Werner 1977: 184].

**Kott:** Castrén 1858: 209. Plural form: *heŋay-ay*. Synonym: *ek* 'hair' [Castrén 1858: 200]. Although the semantic difference is not indicated in Castrén's dictionary, external comparanda make it very probable that *heŋai* meant 'head hair', whereas *ek* would rather mean 'body hair', 'fur', etc. The suffix *-ay* is a frequent body part suffix in Kott (cf. 'head', etc.). Cf. in older sources: *h'iŋay-an* (M., Kl., Pal., Dict.), *inagay* (Kh.) [Verner 1990: 294].

**Arin:** Dulzon 1961: 161 (M., Dict., Pal., Kl.). Also quoted as *qiaqan* in (Dict.); as *kegan* in (Kh.) [Werner 2002: I, 313].

**Pumpokol:** Dulzon 1961: 161 (Dict., Pal.). Quoted as *qinə* in (Kl.). Distinct from *tümen* 'hair (on body)' [ibid.].

**Proto-Yeniseian:** S. Starostin 1995: 213. Alternately reconstructed as *\*tʷəŋə* in [Werner 2002: II, 304] and analyzed as a compound form ('head' q.v. + 'skin' q.v.). Distribution: Preserved in all daughter languages. Reconstruction shape: The correspondence "Ket-Yugh *\*č-* : Kott *h-* : Arin *q-* or *k-* : Pumpokol *x-*" is recurrent and, in S. Starostin's system, is interpreted as reflecting Proto-Yeniseian *\*c-*. Such an interpretation is open to debate - in particular, due to the typologically unlikely velarization of affricates in Arin and Pumpokol, and also because of the comparable rarity of Proto-Yeniseian *\*c-*, which would rather imply some non-trivial cluster or contextual development (cf. especially the transcription *qʷ-* in Arin), but there is little doubt that all the listed items do indeed belong together.

## 37. HAND

Ket *hʒŋn* {*xʷŋn*} (1) / *lʷaʒŋ* {*lʷaʒŋ*} (2), Yugh *biʒŋ* (3), Kott *ke:gär ~ ke:ʔär* (4), Arin *pʷhʷyaga* (1), Pumpokol *ton #* (5).

## References and notes:

**Ket:** Werner 2002: I, 339; Werner 1993: 124. Neuter gender. Plural form: *hʒɪnʲ-ey* {хъһнеһ}. Quoted as *hʒɪnʲ*, pl. *hʒɪn-ey*; in [Werner 1977: 193]; as *hʒɪnʲ-ey* in [Castrén 1858: 174] (where this word, quite clearly plural in form, is still translated as 'Hand (von der Wurzel an)'). The stem also forms part of a large number of compound forms, e. g. *hʒɪn..teɲ* 'to touch', *hʒɪn-tet* 'to move (with the hand)', *hʒɪn-anʲ-sʲ* 'handless', etc. Werner 2002: II, 9. More frequently encountered as *lʲaɲ-at* (< *lʲaɲ* + *aʔt* 'bone' q.v.). In [Werner 1993: 78] only this compound form *lʲaɲat* {лӕһам} is translated as 'hand' ('рӕа'); *lʲaɲ* {лӕһ} is glossed only as 'part of hand close to the wrist' ('æи æание ки æи'). In [Castrén 1858: 175], the form *lʲaɲ-at* is translated as 'Arm mit der Hand'.

The exact difference between *hʒɪn* and *lʲaɲ(-at)* is hard to define. On one hand, dictionary glosses and derivatives speak in favor of a basic distinction between *hʒɪn* as 'hand (with fingers)' and *lʲaɲ(-at)* as 'hand + arm'. However, *lʲaɲ* is not 'arm' per se (in this meaning Ket uses the word *iʲlʲ* [Werner 2002: II, 434]). Also, published texts (such as collected by Kreynovich, Dulzon, and others) seem to regularly feature the word *lʲaɲat* in contexts like "take with the hand", etc., whereas *hʒɪn* is encountered quite rarely, if ever. For the time being, we propose treating the two words as synonymous; however, it seems that *hʒɪn* is the more "marked" member of the opposition, referring specifically to 'hand' as 'the fingers and the part of the hand closest to the fingers', used for 'touching', 'groping', etc., rather than 'taking'. If this explanation is proven to be correct, then *hʒɪn* has to be eliminated from the wordlist.

**Yugh:** Werner 2011: 164. Neuter gender. Plural form: *bʲiɲ-in*. Quoted as *bien*, pl. *bien-en* in [Castrén 1858: 189].

**Kott:** Castrén 1858: 205. Plural form: *ke:gär-ey*. Cf. in older sources: *k'eyar-an* (M., Dict., Pal., Kl.) 'hand', *henar-an* (M., Dict., Pal., Kl.) 'arm', *kenar* (Kh.) [Werner 1990: 361] (the difference between 'hand' and 'arm' is most likely fictitious).

**Arin:** Dulzon 1961: 180 (M., Dict., Pal., Kl.). Quoted as *upega* in (Kh.) [Werner 2002: I, 338]; *u=* may be an obscure prefix, as in *u=pusir* (Kh.) 'forehead', *u=kuriy* (Kh.) 'throat' etc.

**Pumpokol:** Dulzon 1961: 180 (Dict., Pal., Kl.). Glossed as both 'hand' (*manus*) and 'arm' (*brachium*). This actually looks like a reasonable plural form from *tok* (Dict., Pal., Kl.) 'finger' [Dulzon 1961: 176], so the accuracy of the semantics 'hand' is somewhat questionable.

**Proto-Yeniseian:** Not reconstructible. The meaning 'hand' is notoriously unstable in Yeniseian languages: almost every language has its own etymological equivalent (sometimes two!), and most of the etymological connections are problematic. In the order of increasing probability of representing the Proto-Yeniseian equivalent for 'hand', here is what may be said about the individual candidates:

(1) Pumpokol *to-n* is, in all likelihood, historically a plural from *tok* 'finger' = Ket *tʒʔq*, etc. < Proto-Yeniseian *\*tʒʔq* 'finger' [S. Starostin 1995: 283], a concept that turns out to have been much more stable in Yeniseian than 'hand';

(2) Yugh *biɲ* 'hand', despite phonetic similarity with Ket *hʒɪn*, does not regularly correspond to this word, and has no other parallels whatsoever;

(3) The only etymological parallel for Ket *lʲaɲ* 'hand' is in Arin: *lan-tʲu:ɲ* (M., Kl.), *lʲan-puy* (Kh.) 'wing' [YED # 936], and it is not very clear (e. g. both forms are clearly compounds, but their second halves remain unetymologized); nevertheless, the semantic shift 'hand' > 'wing' is theoretically possible;

(4) Kott *ke:gär* is compared in [YED # 341] with Yugh *kʒgdʲ-at* 'arm', and also, possibly, with Arin *koro-nun* (Kh.) 'mittens'. The Arin parallel is dubious, but the Yugh form is a good match that allows to reconstruct Proto-Yeniseian *\*kəgdi-ʔaʔd*, where *\*ʔaʔd* = 'bone' q.v., possibly with the meaning 'arm' or 'armbone', but less probably 'hand' (it must be noted that Kott, apparently, does not distinguish between 'hand' and 'arm');

(5) The best "chances" lie with the pairing of Ket *hʒɪn* and Arin *pʲhʲyaga* (= *pega*), which allows S. Starostin to reconstruct the protoform as *\*pVg-* [S. Starostin 1995: 254]. The semantic matching is exact, and the correspondences are generally reconcilable. However, there is some doubt as to whether the Ket word is indeed the primary equivalent for 'hand' (see notes on Ket), and, subsequently, this would influence Proto-Yeniseian semantics.

Given this very complicated situation, we currently prefer to leave the Proto-Yeniseian spot empty, even if the Ket and Arin forms may, at least technically, be counted as lexicostatistical matches (without any serious semantic or phonetic obstacles).0

## 38. HEAD



Ket  $=da$  { $=\partial\partial$ } (1), Yugh  $=de$  (1), Kott  $h=o:=ti$  (1), Arin  $ut^yaut^y u-m$  (1), Proto-Yeniseian  $*=ta$  (1).

#### References and notes:

**Ket:** Werner 2002: I, 287 (listed as  $=g...=da$ ); Werner 1993: 21. Cf. actual forms such as  $ba=\gamma='a=b=da \sim ba=g='a=b=da$  { $\delta a a \delta \partial \partial$ } 'I hear it', past tense  $ba=\gamma=\gamma=v='i=l^y=da$ ,  $a=\gamma='a=b=da$  'he hears it', etc. The proper root is  $=da$ ;  $=g= \sim =\gamma=$  ( $\sim =k=$ ) is the obligatory preverb following the indirect object prefixes. (The verb has no "proper" subject markers and may be formally analyzed as impersonal: 'for-me-it-is-heard', 'for-him-it-is-heard', etc.). Quoted as  $ba=g=a:=p=ti$ , past tense  $ba=g=a=b=i=l=di$  in [Castrén 1858: 188]. The strange vocalic variation ( $=da \sim =de \sim =di$ ) probably has to do with the occasional suffixation of the intransitive/passive suffix  $-i$ , contracting with the root vowel. Not to be confused with  $'eq-saq$ ,  $'eq-tiy$  'to listen' [Werner 2002: I, 237].

**Yugh:** Werner 2011: 181. Cf. actual forms such as  $ba=g=a^h:=b=de$  'I hear it', past tense  $ba=g=\gamma=b=i^h:=r=de$ ,  $a=g=a^h:=b=de$  'he hears it', etc. The proper root is  $=de$ ;  $=g=$  is the obligatory preverb following the indirect object prefixes. (As in Ket, the verb has no "proper" subject markers and may be formally analyzed as impersonal: 'for-me-it-is-heard', 'for-him-it-is-heard', etc.).

**Kott:** Castrén 1858: 211. Impersonal form (literally 'it is heard'). Past tense:  $h=o:=l=a-ti$ . Cf. in older sources: *goloti* 'I hear' (Kh.) [Werner 1990: 368] (actually  $=ho:lati$  'it was heard').

**Arin:** Werner 2002: I, 326. Attested only in (Kh.); the form is glossed as 1st p. sg. 'I hear'; final  $-m$  possibly represents the personal ending; the rest of the form is hard to segment (looks like a reduplication, but that would be fairly strange for a form with the meaning 'I hear').

**Pumpokol:** Not attested.

**Proto-Yeniseian:** S. Starostin 1995: 291 ( $*tV$ ). Distribution: Preserved in all daughter languages (not attested in Pumpokol, but the root may be present in the form *hiti-fun* 'to be silent', literally 'without hearing'). The Arin form is also somewhat dubious: it is formally possible to see traces of  $*=ta$  in it, but a complete and transparent morphological analysis is implausible. Reconstruction shape: Of the two encountered variants of the verbal stem ( $*=ta$  and  $*=ti$ ), the second is explicable as the result of replacement of the original root vowel with the Proto-Yeniseian passive / intransitive marker  $*-i$ . Both variants of the stem may have already been present in Proto-Yeniseian, but  $*=ta$  is the better choice for the original form of the root. Semantics and structure: The basic semantics of the root must have been impersonal/passive ('to be heard').

## 40. HEART

Ket  $hu$  { $xyy \sim xy$ } (1), Yugh  $fu$  (1), Kott *šitap* (2), Arin *šen'ougbu* (2), Pumpokol *pfu* (1), Proto-Yeniseian  $*pu$  (1).

#### References and notes:

**Ket:** Werner 2002: I, 332; Werner 1993: 121. Neuter or feminine gender. Plural form:  $hu: \sim hu:n$  { $x y \eta$ }. Quoted as  $hu_1$ , pl.  $hu_3 \sim hu:n_3$  in [Werner 1977: 193]; as  $hu$ , pl.  $hu:ga\eta$  in [Castrén 1858: 174].

**Yugh:** Werner 2011: 175. Neuter gender. Plural form:  $fu:n$ . Quoted as  $fu_1$ , pl.  $fu:-n_3$  in [Werner 1977: 193]; as  $fu$ , pl.  $fu:-n$  in [Castrén 1858: 192].

**Kott:** Castrén 1858: 214. Plural form: *šitap-anj*. Cf. in older sources: *šitabu* (M., Dict., Kl.), *šitabii* (Pal., Dict.), *šitapu* (Kh.) [Werner 1990: 365].

**Arin:** Dulzon 1961: 181 (M., Dict., Pal., Kl.). Transcribed as *šenebo* in (Kh.) [Werner 2002: II, 441] - clearly the same word.

**Pumpokol:** Dulzon 1961: 181 (Dict., Pal.). Slightly dubious (the form could really be Yugh).

**Proto-Yeniseian:** S. Starostin 1995: 251 ( $*p[u-]$ ). Alternately reconstructed as  $*p^hu$  in [Werner 2002: I, 332]. Distribution: Preserved in Ket-Yugh and Pumpokol. Replacements: Kott *šitap*  $\sim$  *šitabu* and Arin *šenougbu*  $\sim$  *šenebu* are forms that are quite probably etymologically connected, even if the second consonant in this complex structure remains undecipherable. They are, furthermore, phonetically similar to Ket *s<sup>y</sup>edap* 'spleen; pancreas' [Werner 2002: II, 186], and also correspond well enough except for the second

consonant. It is possible that all of these forms reflect an original compound structure with a non-trivial consonant cluster (on a morphemic boundary?), which is why the resulting correspondences are relatively unique. If the Arin form, in particular, may be interpreted as an obscure way of transcribing something like *\*senŋ-bu*, it could be seen as a historical collocation of *\*sen/Vn/* 'liver' [S. Starostin 1995: 272] + *\*pu* 'heart'. But this analysis is not so well applicable to the Kott form, since it does not explain denasalization of the word-medial resonant. Altogether, evidence for the presence of the original *\*pu* 'heart' somewhere within this stem is scarce. Reconstruction shape: Correspondences are regular. Semantics and structure: It is not a certified fact, despite the confidence in [S. Starostin 1995: 251], that Ket-Yugh / Pumpokol *\*pu* 'heart' is etymologically connected with *\*piy* 'belly' q.v., despite phonetic similarity and semantic proximity. For the time being, it is preferable to judge it as an individual root with a precise Swadesh meaning ('heart') and not a member of any Proto-Yeniseian "word-family".

## 41. HORN

Ket *qɔʔ* {*κɔʔ*} (1), Yugh *χɔʔ* (1), Kott *hau* (1), Proto-Yeniseian *\*qɔʔ* (1).

### References and notes:

**Ket**: Werner 2002: II, 122; Werner 1993: 66. Neuter gender. Plural form: *qɔʔŋ* {*κ* *óŋ*}. Quoted as *qɔʔ*, pl. *qɔʔ-ŋ<sub>2</sub> ~ qɔ-ŋ-en<sub>5</sub>* in [Werner 1977: 162]; as *qoʔa*, pl. *qoʔa-ŋ* in [Castrén 1858: 170].

**Yugh**: Werner 2011: 181. Neuter gender. Dual form: *χɔʔ-ŋ*, plural form: *χɔŋ-in*. It is interesting that in [Werner 1977: 162], the form *χɔʔ-ŋ<sub>2</sub>* is actually listed as singular 'horn', and the form *χɔŋ-in<sub>5</sub>* as plural 'horns' (with no distinction between "proper" plural and dual); neither is there any mention of Yugh sg. *χɔʔ* in [Werner 2002: II, 122].

**Kott**: Castrén 1858: 207. Genitive: *hau-ʔi*, plural form: *ho-k-ŋ*. Polysemy: 'horn / thumb / big toe'.

**Arin**: Not attested.

**Pumpokol**: Not attested.

**Proto-Yeniseian**: S. Starostin 1995: 303 (*\*χɔʔ*). Alternately reconstructed as *\*qoʔ* in [Werner 2002: II, 122]. Distribution: Preserved in all daughter languages where attested, but not found in Arin or Pumpokol. Reconstruction shape: Correspondences are generally regular, although the diphthong *-au* in Kott is somewhat strange.

## 42. I

Ket *at* {*am*} (1), Yugh *at ~ ad* (1), Kott *ay* (1), Arin *ay* (1), Pumpokol *ad* (1), Proto-Yeniseian *\*ʔaʒ* (1).

### References and notes:

**Ket**: Werner 2002: I, 72; Werner 1993: 20. Positional variants include *ar<sup>y</sup> ~ ad ~ ä*. Declinable personal pronoun with the same root throughout the paradigm. The possessive pronoun, represented by an etymologically different stem *ab* (*~ ap ~ av*) [Werner 2002: I, 11], is not eligible for inclusion. Quoted as *a<sup>t</sup><sub>1</sub> ~ a<sub>1</sub>* in [Werner 1977: 136]; as *a:de* in [Castrén 1858: 159].

**Yugh**: Werner 2011: 183. Declinable personal pronoun with the same root throughout the paradigm. The possessive pronoun, represented by an etymologically different stem *ab* (*~ ap*) [Werner 2011: 183], is not eligible for inclusion. Quoted as *at<sub>1</sub>* in [Werner 1977: 136].

**Kott**: Castrén 1858: 195. Cf. *a-n-še* 'my(own)' [Castrén 1858: 198]; *m-in-šo* 'my' (formed from *m-*, an entirely different stem).

**Arin**: Dulzon 1961: 189 (M., Dict., Kl.). Also quoted as *ä* in (Kl.).

**Pumpokol**: Dulzon 1961: 189 (Kl.).

**Proto-Yeniseian**: S. Starostin 1995: 185. Alternately reconstructed as *\*ad/ə/ ~ \*ad<sup>y</sup>/ə/* in [Werner 2002: I, 72]. Distribution: Preserved in all daughter languages. Reconstruction shape: Reconstruction of the final consonant is questionable. The correspondence "Ket-Yugh + Pumpokol *\*-d* : Kott-Arin *\*-y*" is interpreted by S. Starostin as a reflexion of the rare Proto-Yeniseian phoneme *\*-ʒ* in word-final position, but in reality it is practically indistinguishable from word-final *\*-ʒ*, so that the reconstruction might ultimately be amended

to \*ʔaʃ. Semantics and structure: The protoform \*ʔaʃ (or \*ʔaʃ) reflects the direct stem of the Proto-Yeniseian 1st p. sg. pronoun, and it also served as the basis for certain series of subject and object verbal markers. It is opposed to the indirect (possessive) stem that was, already on the Proto-Yeniseian level, represented by two allomorphs in complementary distribution: \*b- (word-initially) vs. \*-ŋ (word-finally); for more details, see [S. Starostin 1995: 205].

#### 43. KILL

Ket  $\hat{e}y$  {əü ~ eü} (1), Yugh  $\varepsilon^h:y$  (1), Kott *oga-ʔa-če-aŋ* (2), Proto-Yeniseian \*ʔe:y [ \*xε:y ] (1).

##### References and notes:

**Ket**: Werner 2002: I, 226; Werner 1993: 131. Cf. such forms as  $d^=aŋ-s^y-ey$  'he kills them', past tense  $d^=aŋ= \sigma ey$ ;  $d'u=r^y=iy$  'he kills me', past tense  $t=q^=r^y=ey$ . Quoted as  $\hat{e}y_4$  (S.-Imb.) /  $\varepsilon:y_4$  (Kur.) /  $\varepsilon:y_4 \sim \varepsilon:y_4$  (Sur.) in [Werner 1977: 148].

Contrary to [Werner 2002: II, 123], there is no verb  $q\text{-}$  'to kill' in Ket that could be related to  $q\text{-}$  'to die' q.v.: the verbal stem  $q\text{-}$  means 'to hunt', 'to procure game', etc., but never 'to kill' as such, and there is no internal evidence (and, in fact, very shaky external evidence) that this verb could have ever meant 'to kill'. It is interesting that the morpheme  $=q\text{-}$  ( $= \sigma$ ) is encountered in the past tense paradigm of  $\hat{e}y$ , but in this case, it occupies the slot of the past tense marker, and is better treated as a very archaic, "relict" grammatical morpheme. (But even if it can be equated with  $q\text{-}$  'to die', after an old hypothesis of Ye. Kreynovich, there is still no evidence of it meaning 'kill' per se: the past stem of the verb would simply be interpreted as 'die-kill').

**Yugh**: Werner 2011: 302. Cf. paradigmatic forms: 1sg.  $di-y-ey$  'I kill', past tense  $d^=aŋŋ-ey$ ;  $d'u=g^=a=y=ey$  'he kills him', past tense  $d^=a^=x=ey$ ;  $d^=aŋ=i^s=ey$  'he kills them', past tense  $d^=aŋ=ŋ=ey$  ( $< *d^=aŋ=x=ey$ ), etc. Quoted as  $\varepsilon^h:y_4$  in [Werner 1977: 148].

**Kott**: Castrén 1858: 202. 1st p. sg. Cf. the past tense: *oga-ʔa-l-a-če-aŋ*, imperative: *oga-ʔa-l-čex*, infinitive: *ok-čex*. A compound formation: the second stem ( $-če-$  /  $-čex$ ) is a frequent formative in verbs denoting forceful action with a sharp object ('to stick', 'to shave', etc.), the first one (*og/al-*) carries the main meaning of 'killing'. Cf. in older sources: *okča git* 'killer' (Kh.) [Verner 1990: 382] (where *git* = 'person' q.v.).

**Arin**: Not attested.

**Pumpokol**: Not attested.

**Proto-Yeniseian**: S. Starostin 1995: 190. Alternately reconstructed as \*eʔaʃ in [Werner 2002: I, 226]. Distribution: Attested only in Ket-Yugh; not attested in either Arin or Pumpokol, and most likely replaced in Kott. Replacements: Although formal proof of the Kott equivalent for 'to kill' being less archaic than the one in Ket-Yugh is missing, this scenario is nevertheless more probable than the opposite one, since the Ket-Yugh verb paradigm is simple (not a compound formation) and beset with unique irregularities, whereas in Kott the verb is fully regular and belongs to the "newer" stock of compound formations. If S. Starostin is right in equating Kott *oga-* with Ket  $q\text{-}$ , Yugh  $\chi\text{-}$  'to hunt'  $<$  Proto-Yeniseian \* $q\text{-}$ :  $\delta$  [YED # 569] (phonetically, the comparison is dubious because of the deletion of the initial consonant in Kott; S. Starostin suggests the possibility of dissimilation), then the Kott compound verb may literally be interpreted as 'to-hunt-pierce'. Reconstruction shape: The word is attested only in Ket-Yugh, so the word-initial zero could just as well have been \* $x-$ .

#### 44. KNEE

Ket *b'at-pul<sup>y</sup>* {бампулб} (1), Yugh *b'at-pil* ~ *b'at-pul* (1), Kott *arša* ~ *arša:n* ~ *aranša:n* (2), Arin *pat-as* (1), Proto-Yeniseian \**baʔt* (1).

##### References and notes:

**Ket**: Werner 2002: I, 108; Werner 1993: 24. Neuter gender. Plural form: *b'at-pul<sup>y</sup>-aŋ* {бам пул<sup>я</sup>ŋ}. The second part of this compound form is clearly *bu<sup>l</sup>y* 'foot' q.v. (reflecting the archaic nature of this compound, since *bu<sup>l</sup>y* means 'foot' rather than 'leg' in Modern Ket). The first part is equated by Werner with *bat* 'face / forehead' [Werner 2002: I, 112], which is semantically plausible. However, a

separate word *baʔt* is also attested in the meaning 'joint' (and 'knee' as well) [Werner 2002: I, 108], and it makes more sense to directly interpret 'knee' as 'joint-(of)-leg' rather than 'face-(of)-leg' if there is such a possibility. Quoted as *batpul*<sup>5</sup>, pl. *batpul*<sup>5</sup>-*əŋ*<sub>5</sub> ~ *batpul*<sup>5</sup>-*əŋ*<sub>6</sub> in [Werner 1977: 138]; as *batpel* ~ *ba:tpil* ~ *batl*, pl. *batpel-ey* in [Castrén 1858: 189].

**Yugh:** Werner 2011: 195. Neuter gender. Plural form: *b'at-pil-iŋ* ~ *b'at-pul-iŋ*. Quoted as *batpil*<sub>5</sub>, pl. *batpil-iŋ*<sub>6</sub> in [Werner 1977: 138]. See notes on Ket for the word's internal structure.

**Kott:** Castrén 1858: 197. Genitive: *arše-i*, plural form: *arša-n*. The root morpheme seems to be the same as in *araj* ~ *araj-an* 'limb, joint' [ibid.]. Cf. in older sources: *arši* (Kh.) [Verner 1990: 321].

**Arin:** Werner 2002: I, 109. Attested only in (Kh.). Segmentation as *pat-as* is justified through comparison with *karam-pat* 'elbow' (Kh.) [ibid.].

**Pumpokol:** Not attested.

**Proto-Yeniseian:** S. Starostin 1995: 206. Distribution: Preserved everywhere except for Kott; not attested in Pumpokol. Replacements: Replaced in Kott with *arša*, an etymologically obscure form. S. Starostin segments it as *ar-ša* (probably following the alternate variant *aranšan*) and compares it with Kott *araj* 'joint, limb' < Proto-Yeniseian 'bone' q.v. However, the origins and nature of the component *-šan/* still remain unclear under such a scenario; the link with *araj* consequently remains without a firm basis. Reconstruction shape: All correspondences are regular and trivial. Semantics and structure: The root *\*baʔt* per se must have had the general meaning 'joint' in Proto-Yeniseian (it is still preserved as such in Ket; see notes on Ket). In Ket-Yugh, the more precise meaning 'knee' was represented by a compound (*\*baʔt-pul*); in Arin, *pat-as* is a suffixal formation whose second morpheme is not quite clear, but cf. also *karam-pat* 'elbow'. This does not, however, technically prevent us from setting up *\*baʔt* as the main bearer of the meaning 'knee' as well for Proto-Yeniseian.

## 45. KNOW

Ket *'it-ey* {*um-*} (1), Yugh *it-* ... *-de* (1), Kott *η=a:liga* (2).

### References and notes:

**Ket:** Werner 2002: I, 384; Werner 1993: 50. Infinitive. The paradigm is a composite verb in which the stem *it-* occupies the slot of "modifier", cf. *it-p-ε-d-am* 'I know', *it-ku-m* 'you know', *it-a-l'am* 'he knows', *it-l'am* (< *\*it-i-l'am*) 'she knows', etc. (the second "kernel" stem alternates between *-(a)m* and *-l'am*). The 1st p. sg. form is quoted in [Castrén 1858: 74] as *iet=pe-d-εm*.

**Yugh:** Werner 2011: 342. No infinitive form. The paradigm is structured the same way as in Ket, although the second verbal root is different (*-e* rather than Ket *-am*): 1sg. *'it-p-a-d-e* 'I know (it)', past tense *it-p-ɔ<sup>h</sup>-r-d-e*, 2sg. *it-p-a-g-e* 'you know (it)', past tense *it-p-ɔ<sup>h</sup>-r-g-e*, etc. The 1st p. sg. form is quoted in [Castrén 1858: 74] as *iet=pe-d-e*.

**Kott:** Castrén 1858: 196. Transcribed as *a:liga*, i.e. with prenasalization, which is really just a pronunciation variant of *η=a:liga*, where *η=* is the subject prefix of the 1st p. pr. The exact shape of the root is unclear, since no other forms are attested in the paradigm.

**Arin:** Not attested.

**Pumpokol:** Not attested.

**Proto-Yeniseian:** Not reconstructible. Ket-Yugh *\*ʔit-* is probably the best candidate, but even in Ket-Yugh the complex structure of this verb is not thoroughly understood, and it has no external parallels. Kott *η=a:liga*, structured more like a nominal than a verbal formation, is even more obscure. For the moment, we prefer to leave the slot empty.

## 46. LEAF

Ket *ɜ: {ʋʋ}* (1), Yugh *ɜ<sup>h</sup>:p* (1), Kott *d<sup>h</sup>ipi* (1), Arin *ip-'oŋ* (1), Pumpokol *d'ip-un* (1), Proto-Yeniseian *\*yə:pe* (1).

### References and notes:

**Ket:** Werner 2002: II, 416; Werner 1993: 126. Neuter gender. Plural form:  $\text{з:}\eta$  { $\text{v}\text{v}\eta$ }. Quoted as  $\text{з:}\text{з}$ , pl.  $\text{з:}\eta\text{з}$  in [Werner 1977: 172]; as  $\text{зaf} \sim \text{зa}\eta$ , pl.  $\text{зaf-e}\eta$  in [Castrén 1858: 161] (Yugh form?).

**Yugh:** Werner 2011: 83. Neuter gender. Plural form:  $\text{зf-i}\eta$ . Quoted as  $\text{з}^h\text{p}_4$ , pl.  $\text{зf-i}\eta\text{з}$  in [Werner 1977: 172].

**Kott:** Castrén 1858: 221. Plural form:  $d^y\text{ip-}\text{a}\eta$ . Cf. in older sources:  $d^y\text{ib-}\text{a}\eta$  (M., Dict., Kl.),  $\text{ib-an}$  (Kh.) [Verner 1990: 328] (all forms are plural).

**Arin:** Dulzon 1961: 171 (M., Dict., Kl.). Quoted as  $\text{ip-in}$  in (Kh.) [Werner 2002: II, 416]. Both transcriptions clearly represent the plural form ('leaves').

**Pumpokol:** Dulzon 1961: 171 (Dict.). Attested in the idiomatic form  $x'ogon=d^y\text{ip-un}$ , where  $xogon$  = 'trees' q.v. Final  $-(u)n$  is unquestionably a plural suffix. The form  $\text{ef-ig}$  (Pal., Kl.), listed as another Pumpokol equivalent for 'leaves' [ibid.], must actually represent Yugh.

**Proto-Yeniseian:** S. Starostin 1995: 232. Alternately reconstructed as  $*d^y\text{a}\text{z}\text{a}\text{p}^h\text{a} \sim *z\text{a}\text{z}\text{a}\text{p}^h\text{a}$  in [Werner 2002: II, 416]. Distribution: Preserved in all daughter languages. Reconstruction shape: Correspondences are regular, although reconstruction of  $*-e$  as the final vowel is questionable.

## 47. LIE

Ket  $t=...=qot$  (1), Yugh  $=\chi\text{ot}$  (1), Kott  $d^y=a:t\text{-}\text{a}\eta$  (1), Pumpokol  $ak$  # (2), Proto-Yeniseian  $*=q\text{ot}$  (1).

### References and notes:

**Ket:** Werner 2002: II, 360-361; Werner 1993: 94. Polysemy: 'to lie / to sleep'. A suppletive verb: singular person forms are derived from the stem  $-qot$ , plural forms follow the stem  $-dam-in$ . Use of the preverb  $t=$  is also obligatory. Cf. specific forms:  $d^y\text{it}=a=\text{lot}$  'I lie / sleep', past tense  $(t)=t^c=\text{lot}$  ( $< *d^y\text{it}=t^c=\text{lot}$ );  $d^y\text{it}=a=r^y\text{am-in}$  'we lie / sleep', past tense  $(t)=t^c=\text{dam-in}$ .

**Yugh:** Werner 2011: 211. As in Ket, a suppletive verb, where singular person forms are derived from the stem  $-\chi\text{ot}$ , plural forms follow the stem  $-dam-in$ . Cf. 1sg:  $d^y\text{it}=a=\chi\text{ot} \sim d^y\text{it}=tt=a=\chi\text{ot}$  'I am lying', past tense  $d^y\text{it}=t^c=r=\text{ot}$  ( $< *d^y\text{it}=t^c=r=\chi\text{ot}$ ), 3pl.  $d^y\text{ut}=tt=a=d^y\text{am-in}$  'they are lying', past tense  $d^y\text{it}=t^c=r=d^y\text{am-in}$ . Another verb formed with the same root is  $d^y\text{isk}=a=\chi\text{ot}$  'I am lying' [Werner 2011: 211]; semantics are not quite clear, but the main morpheme is the same in any case.

**Kott:** Castrén 1858: 220. 1st p. sg. Past tense:  $a=l=a:t\text{-}\text{a}\eta$ , imperative:  $a=l=at$ . Different from the dynamic verb  $i=te:n\text{-}\text{a}\eta$  'to lie down' [Castrén 1858: 201].

**Arin:** Not attested.

**Pumpokol:** Dulzon 1961: 171 (Pal.). Very dubious (glossed as 'to lie down' and not attested in any other sources).

**Proto-Yeniseian:** S. Starostin 1995: 183 ( $*z\text{aq-}\text{ot}$ , with probably incorrect segmentation). Alternately reconstructed as  $*qot$  in [Werner 2002: II, 360-361]. Distribution: Preserved in Ket-Yugh and Kott; in Arin definitely preserved in the meaning 'sleep' q.v., but not attested in the meaning 'lie'; unclear situation in Pumpokol. Replacements: Pumpokol  $ak$  is an unclear form without any obvious parallels. Reconstruction shape: Ket-Yugh  $*=qot$  and Kott  $=a:t-$  are compatible if we also take into consideration the archaic attestations in older sources on Kott/Assan: Kott  $d^y=a=gat$  'I sleep' (M., Dict., Kl.), Assan  $y=a=hat\text{-}an$  'I sleep' (M., Dict., Kl.). (See below on the polysemy 'lie / sleep'). These forms show that the Kott form was originally  $*d^y=a=gat\text{-}\text{a}\eta$ , which allows to reconstruct Proto-Yeniseian  $*=qot$ . The irregular dropping of  $-g-$  in Castrén-era Kott may, perhaps, be due to analogy with the non-present tense forms, where the consonant was dropped in a cluster:  $*a=l=qat\text{-}\text{a}\eta > a=l=at\text{-}\text{a}\eta$ , etc. Semantics and structure: The verb  $*=qot$  was most likely polysemous in Proto-Yeniseian, meaning both 'to lie' and 'to sleep'. The paradigm must have been suppletive, since Ket-Yugh  $*=dam-$  in plural forms corresponds to Kott  $=tam-$  in such forms as  $d^y=a=tam\text{-}an\text{-}ton$  'we lie / we sleep', etc.; the opposition  $*=qot$  /sg./ :  $*=dam-$  /pl./ is thus safely reconstructible, although Kott shows no signs of the directional prefix  $t=$ , obligatory in Ket-Yugh.

## 48. LIVER

Ket  $s^y\text{e}\eta$  { $\text{ce}\eta$ } (1), Yugh  $\text{se}\eta$  (1), Kott  $\text{šičil}$  (2), Arin  $\text{sal}$  (2), Proto-Yeniseian  $*\text{se}\eta$  # (1).

## References and notes:

**Ket:** Werner 2002: II, 190; Werner 1993: 86. Neuter gender. Plural form:  $s^y\text{e}\eta\text{-an}^y$  { $\text{e}\eta\text{an} \sim \text{e}\eta\text{an}$ }. Quoted as  $s^y\text{e}\eta_1$ , pl.  $s^y\text{e}\eta\text{-an}_5$  in [Werner 1977: 175]; as  $\text{se}\eta \sim \text{sie}\eta$ , pl.  $\text{se}\eta\text{-en} \sim \text{se}\eta\text{-en}$  in [Castrén 1858: 186].

**Yugh:** Werner 2011: 208. Neuter gender. Plural form:  $\text{se}\eta\text{-in}$ . Quoted as  $\text{se}\eta_1$ , pl.  $\text{se}\eta\text{-in}_5$  in [Werner 1977: 175].

**Kott:** Castrén 1858: 214. Plural form:  $\text{ši}\check{\text{c}}\text{il-aj}$ . Cf. in older sources:  $\text{ši}\check{\text{c}}\text{il}$  (Kh.) [Verner 1990: 347].

**Arin:** Werner 2002: II, 438. Attested only in (Kh.).

**Pumpokol:** Not attested.

**Proto-Yeniseian:** S. Starostin 1995: 272. **Distribution:** Preserved only in Ket-Yugh. **Replacements:** Kott  $\text{ši}\check{\text{c}}\text{il}$  and Arin  $\text{sal}$  are most likely related, although phonetically, the Kott word is closer to Arin  $\text{ši}\check{\text{s}}\text{ali}$  (Kh.) 'lungs', which, in turn, triggers comparison with the phonetically similar, but not well-corresponding Kott form  $\text{ši}\check{\text{c}}\text{a:tn}$  'lungs' [Werner 2002: II, 438]. Relations between all these words remain obscure. If Kott  $\text{ši}\check{\text{c}}\text{a:tn}$  is an old fossilized plural (<  $*\text{ši}\check{\text{c}}\text{al-n}$ ; the consonantal gradation is regular, cf.  $\text{i:pal}$ , pl.  $\text{i:pat-n}$  'asp tree'), then the difference between 'lungs' and 'liver' in Kott rests on differing models of paradigmatic behaviour, but the word is essentially the same, and its original meaning must have been generic ('internal organ?') - this is further confirmed by the fact that Arin  $\text{ši}\check{\text{s}}\text{ali}$  was glossed as 'lungs', not 'liver'. As for Arin  $\text{sal}$ , S. Starostin suggests (dialectal?) reduction from  $*\text{sisal}$ ; in this particular case, such a development seems less likely than a transcriptional error. Ultimately, it seems that we are dealing with Kott-Arin  $*\text{sisal}$  'internal organ', a form with no transparent internal etymology and vague semantics. In this context, Ket-Yugh  $*\text{se}\eta$  is a more reliable candidate for Proto-Yeniseian 'liver', although somewhat weakened by lack of parallels in Kott-Arin.

## 49. LONG

Ket  $'ugde\text{-s}^y$  { $\text{y}\check{\text{z}}\check{\text{d}}\check{\text{e}}\text{c}\check{\text{b}}$ } (1), Yugh  $'ugde$  (1), Kott  $uy$  (1), Arin  $uta$  (1), Proto-Yeniseian  $*\text{?ux-}$  (1).

## References and notes:

**Ket:** Werner 2002: II, 323; Werner 1993: 108. The suffix  $\text{-s}^y$  marks the predicative form. Quoted as attrib.  $ugde_s$ , pl.  $ugdo\eta_5$  in [Werner 1977: 186]; as  $ugdi$  in [Castrén 1858: 164].

**Yugh:** Werner 2011: 204. Plural form:  $ugde\text{-}\eta$ . Quoted as  $ugde_s$ , pl.  $ugdo\eta_5$  in [Werner 1977: 186].

**Kott:** Castrén 1858: 202.

**Arin:** Werner 2002: II, 323. Attested only in (Kh.) as an adverbial form.

**Pumpokol:** Not attested.

**Proto-Yeniseian:** S. Starostin 1995: 201. Alternately reconstructed as  $*ug/\partial \sim *ug\text{-}d\partial$  in [Werner 2002: II, 323]. **Distribution:** Preserved in all daughter languages, but not attested in Pumpokol. **Reconstruction shape:** Reconstruction of the word-medial consonant (or cluster) is problematic. If Ket-Yugh  $*\text{?ugde} < *\text{?ug-de}$ , where  $\text{-de}$  is a fossilized suffix, it is comparable with Kott  $uy$  as a potential reflex of Proto-Yeniseian  $*\text{?ux-}$ ; the Arin adverbial form  $uta$ , in this case, also has to be analyzed as  $u\text{-}ta < *\text{?ux-ta}$ . On the other hand, H. Werner reasonably suggests that original  $*\text{?ugd-}$  is also a possibility: Arin  $uta$  may be a reflexation of  $*\text{?ugda}$  (cf. Arin  $kute$  'autumn' = Ket  $q\check{x}gdi$  id. < Proto-Yeniseian  $*\text{?ogdi}$  [S. Starostin 1995: 302]). But then we would probably expect Kott  $*uri$  or  $*ure$  instead of  $uy$  (cf. Kott  $h\check{o}ri$  'autumn'). So, in the end, we prefer to regard the Ket-Yugh cluster here as the result of contraction with a former suffix, and agree with the reconstruction of a single velar consonant in word-medial position.

## 50. LOUSE

Ket  $\hat{\text{z}}\gamma$  { $\text{v}\check{\text{z}} \sim \text{v}\check{\text{x}}$ } (1), Yugh  $\text{z}^h\text{:k}$  (1), Kott  $ik'i$  (1), Arin  $serga$  (-1), Proto-Yeniseian  $*\text{?a:ke}$  [ $*\text{x}\check{\text{a:ke}}$ ] (1).

## References and notes:

**Ket:** Werner 2002: II, 415; Werner 1993: 126. Masculine gender. Plural form:  $\text{'z}\gamma\text{-en}^y$  { $\text{v}\check{\text{z}}\text{en}\check{\text{b}}$ }. Quoted as  $\text{z}\gamma\check{\text{e}}_4$  (N.-Imb.) /  $\text{z}\gamma_4$  (S.-Imb.),

pl.  $\text{ʒ}\gamma\text{-en}^y_5$  in [Werner 1977: 172]; as *ʒag*, pl. *ʒag-en* in [Castrén 1858: 161].

**Yugh:** Werner 2011: 207. Masculine gender. Plural form:  $\text{ʒg-in}$ . Quoted as  $\text{ʒ}^h\text{k}_4$ , pl.  $\text{ʒg-in}_5$  in [Werner 1977: 172].

**Kott:** Castrén 1858: 200. Plural form: *ik-lan*.

**Arin:** Werner 2002: II, 164. Attested only in (Kh.); similarity with Koibal *sirgä* 'nit' (M. Castrén) hints at a borrowed origin for this word in Arin (not to mention the possibility of incorrect semantic glossing).

**Pumpokol:** Not attested.

**Proto-Yeniseian:** S. Starostin 1995: 192. Alternately reconstructed as  $*(d^y)lʔəgə$  in [Werner 2002: II, 415] (initial  $d^y$ - is suggested based on an additional comparison with Kott *dʲoga* 'nit', which is an entirely different lexical root). **Distribution:** Preserved in both of the primary Yeniseian branches (including Ket-Yugh and Kott). **Replacements:** In Arin, the word was probably either replaced with a borrowing, or not attested at all (if the only attested source really confused it with 'nit'). **Reconstruction shape:** Correspondences are regular. Lack of Arin parallels means that either  $*ʔ$ - or  $*x$ - were present in the word-initial position.

## 51. MAN

Ket *hiγ* {*xuz*} (1), Yugh *fi:k* (1), Kott *fi:* (1), Proto-Yeniseian *\*pixe* (1).

### References and notes:

**Ket:** Werner 2002: I, 320. Masculine gender. Plural form: *hiγ-en<sup>y</sup> ~ hʔl-n<sup>y</sup>* {*x ðnb*}. Quoted as *hiγ<sub>1</sub>* (S.-Imb.) / *hiγə<sub>1</sub>* (N.-Imb.), pl. *hʔl-n<sup>y</sup><sub>2</sub> ~ hiγ-en<sup>y</sup><sub>1</sub>* in [Werner 1977: 190]; as *hi:gi ~ hi:gie*, pl. *hi:gi-n* in [Castrén 1858: 174].

**Yugh:** Werner 2011: 216. Masculine gender. Plural form: *fiγ-in*. Quoted as *fi:k<sub>1</sub>*, pl. *fiγ-in<sub>1</sub>* in [Werner 1977: 190]; as *fi:g*, pl. *fi:g-en* in [Castrén 1858: 191].

**Kott:** Castrén 1858: 225. Genitive: *fi-a*, plural form: *fā-n*. Also attested in the meaning 'man' (= 'male person') as part of the compound form: *fi-hit*, where *hit* = 'person' q.v. Cf. in older sources: *piyal* (Kh.) [Werner 1990: 334] (final *-al* is not clear).

**Arin:** Not attested properly. Cf. *panalikip* 'man' in (Kh.) [Werner 2002: II, 52], where the initial *pa-* could, with some effort, be etymologically related to Ket-Yugh *\*pi'ke*, etc.; however, the overall structure of this compound remains quite confusing, and the correctness of the semantics 'man' (= 'male human being') may be put under doubt.

**Pumpokol:** Not attested.

**Proto-Yeniseian:** S. Starostin 1995: 249. Alternately reconstructed as  $*pʰigə$  in [Werner 2002: I, 320]. **Distribution:** Preserved in all daughter languages where attested, but not found in Pumpokol, and dubious in Arin. **Reconstruction shape:** Correspondences are regular; according to S. Starostin, the correspondence "Ket-Yugh  $*-k$  : Kott  $-0$ -" reflects Proto-Yeniseian  $*-x$ -. This solution may yet be amended in the future, but the presence of a back consonant in word-medial position is unquestionable.

## 52. MANY

Ket  $\hat{\text{ʒn}}^y$  {*oHb*} (1), Yugh  $\text{ʒ}^h\text{:n}$  (1), Kott *payan* (2), Proto-Yeniseian *\*bəy-* # (2).

### References and notes:

**Ket:** Werner 2002: II, 42; Werner 1993: 82. Quoted as  $\text{ʒn}^y_2 \sim \text{ʒn}\epsilon_4$  (N.-Imb.) /  $\text{ʒn}^y_4$  (S.-Imb.) in [Werner 1977: 172]; as *oan-s<sup>y</sup> / oan-di* in [Castrén 1858: 163]. Castrén glosses the word with polysemy: 'many / seven', but more recent sources distinguish between the two: thus, in [Werner 2002: II, 42, 48] 'seven' is  $\text{ʒn}$  (glottal stop + tone 2), whereas 'many' is  $\hat{\text{ʒn}}^y$  (tone 4). This does not, however, exclude an old morphophonological connection between the two words. It is to be noted that 'seven' is the highest simple cardinal number in Ket (except for '10'), and, thus, its association with 'many' would be quite understandable. Cf. also *bʒäyäm ~ bzyäm* 'many' in [Castrén 1858: 189].

**Yugh:** Werner 2011: 324. Quoted as  $\text{ʒ}^h\text{:n}_4$  in [Werner 1977: 172]; as in Ket, distinct from  $\text{ʒn}$  'seven' [Werner 2011: 280].

**Kott:** Castrén 1858: 221.

**Arin:** Not attested.

**Pumpokol:** Not attested.

**Proto-Yeniseian:** S. Starostin 1995: 209. Alternately reconstructed as *\*b3yeŋ* in [Werner 2002: I, 153]. **Distribution:** Preserved in Kott, but possibly still active in its original meaning in mid-XIXth century Ket as well. **Replacements:** Attestation of Ket *b3äyäm* 'many' in Castrén's records, clearly related to Kott *payan*, shows that the modern Ket descendant of this proto-item, *b3yan* 'enough' [Werner 2002: I, 153], may have undergone a semantic shift {'many' > 'enough'}, whereas Ket-Yugh *\*ɔːn* 'many' may have been a specific case of generalization of a high numeral {'seven' > 'many'}, provided that the words for 'seven' and 'many' are indeed etymologically related. That said, it is also not excluded that Castrén's 'many' is a semantically inaccurate glossing; that the Ket words for 'many' and 'seven' are only accidentally similar; and that, consequently, Proto-Yeniseian *\*bɔy-* = 'enough', whereas Proto-Yeniseian (=Ket-Yugh) *\*ɔːn* = 'many'. **Reconstruction shape:** Correspondences between Ket-Yugh and Kott are regular.

### 53. MEAT

Ket *isʷ* {*ucv*} (1), Yugh *i's* (1), Kott *i:či* (1), Arin *is* (1), Pumpokol *cič* (2), Proto-Yeniseian *\*iise* (1).

#### References and notes:

**Ket:** Werner 2002: I, 396; Werner 1993: 49. Feminine gender. Polysemy: 'meat / fish'. Quoted as *isʷ<sub>1</sub>* 'fish / meat' in [Werner 1977: 151], but only as *isʷ* 'fish' in [Castrén 1858: 162]. For the meaning 'meat', the latter source yields the word *kitʷ* ~ *ki:t* [Castrén 1858: 167]; but this seems to be a somewhat more specialized hunting term, since Werner ([Werner 2002: I, 436; Werner 1993: 54]) lists it as *ki:t* {*κum*} 'body / (animal) flesh' (Russian '*m yu d*', German '*Fleisch ausgeweidetes Tier*').

**Yugh:** Werner 2011: 136. Feminine gender. Polysemy: 'meat / fish'. Quoted as *isʷ<sub>1</sub>* 'fish / meat' in [Werner 1977: 151]. Concerning *kitʷ* 'animal flesh' [Werner 2011: 136], the same notes apply here as in the case of Ket.

**Kott:** Castrén 1858: 201. Plural form: *i:č-an*. Cf. in older sources: *ič* (M., Dict., Pal., Kl.), *iči* (Kh.) [Werner 1990: 335].

**Arin:** Dulzon 1961: 173 (M., Dict., Pal., Kl.). Quoted as *iži* in (Kh.) [Werner 2002: I, 396].

**Pumpokol:** Dulzon 1961: 173 (Dict., Pal., Kl.).

**Proto-Yeniseian:** S. Starostin 1995: 194. Alternately reconstructed as *\*hitə* ~ *\*itə* > *\*ičə* in [Werner 2002: I, 396] (the reconstruction is almost certainly incorrect, since Pumpokol *hite* ~ *gite* 'fish' q.v. cannot be related to these forms). **Distribution:** Preserved in all daughter languages except for Pumpokol. **Replacements:** In Pumpokol, replaced with *cič* = Kott *šig* 'food' < Proto-Yeniseian *\*si:-k* 'food', a nominal derivative from *\*si:-* 'to eat' q.v. The phonetic development from Proto-Yeniseian to Pumpokol is perfectly regular, and the semantic shift {'food' > 'meat'} is typologically normal. This seems a better etymological decision than S. Starostin's earlier comparisons of Pumpokol *cič* with either Ket *tiγ* 'snake, fish' q.v., or with Ket *ki:t* 'flesh; animal body' [YED # 397], both of which suffer from phonetic problems, e. g. Proto-Yeniseian *\*k-* is not supposed to be palatalized in Pumpokol, etc. **Reconstruction shape:** Correspondences are regular. **Semantics and structure:** The polysemy 'meat / fish' in Ket-Yugh is most likely a secondary innovation, tied in with the semantic shift 'snake' > 'fish' in the same languages (see under 'fish').

### 54. MOON

Ket *qi:p* {*κun*} (1), Yugh *χep* (1), Kott *šuy* (2), Arin *'ešuy* (2), Pumpokol *tuy* (2), Proto-Yeniseian *\*suy* (2).

#### References and notes:

**Ket:** Werner 2002: II, 90. Masculine gender. Plural form: *qi:n*. Polysemy: 'moon / month'. Distinguished from the homonymous word *qi:p* 'grandfather' with a different plural form: *qi:b-an* [Werner 2002: II, 90], although this difference is not reflected in [Werner 1993: 65], where the plural for both words is listed as {*κυδαν*}. It is, however, reflected in [Werner 1977: 161], cf.: *qi:p<sub>1</sub>* 'moon / grandfather', but *qi:-n<sub>3</sub>* 'moons / months' vs. *qi:b-an<sub>5</sub>* ~ *qi:b-en* 'grandfathers'. In [Castrén 1858: 170], only the singular form is listed as *qip* ~ *qip* for



**Distribution:** Preserved in Kott and, with slightly modified semantics, in Ket-Yugh. **Replacements:** The situation with Proto-Yeniseian 'mountain' is quite complex. Ket-Yugh \*qaʔy 'mountain; steep bank' corresponds to Kott xey ~ kʰey 'back side of axe / knife'; the same root is most likely present in Kott xe-le:x ~ kʰe:-le:g 'back side of mountain' [Castrén 1858: 207]. The semantic development 'mountain' > 'side of axe / knife' is suspicious; a more likely common invariant would be 'elevation', 'protruding part', etc., implying that the primary semantics of 'mountain' for this root on the Proto-Yeniseian level is not likely. In Ket-Yugh, the word was probably originally applied to 'cliffs' or 'steep riverbanks', then extended to denote 'wood-covered mountains' as well. The same may be true in the case of Pumpokol, if the plural form ko-nnoŋ is indeed the default equivalent for 'mountain(s)' in that language; if so, the 'mountainization' of \*qaʔy should be pushed back to the Ket-Yugh-Pumpokol level. But the original word for 'wood-covered mountain' (the default kind of mountain for Yeniseian territory) must have been \*rʰiʔʒ. (Arin kar 'mountain' is isolated in Yeniseian and has no etymological connections whatsoever).

**Reconstruction shape:** Ket-Yugh \*lʰiʔʒ and Kott dʰi: correspond well to each other, reflecting Proto-Yeniseian \*rʰiʔʒ. Certain problems arise due to a variant with the final velar: Kott dʰix 'mountain', possibly connected with -le:x in xe-le:x 'back side of mountain', cf. also the -k in such plural forms as Ket lʰikken, etc. The nature of the relation between the variants \*rʰiʔʒ and \*rʰiʔk is unclear: the final consonants could be two different suffixes, or one might somehow be a historical allomorph of the other (but H. Werner's treatment of \*rʰiʔʒ as a compound formation is unwarranted), but separating them as two different roots is simply impossible.

## 56. MOUTH

Ket qoʰ {kʰə} (1), Yugh xo (1), Kott ho:pi (1), Arin bʰu=qo-n (1), Pumpokol qa-n (1), Proto-Yeniseian \*qowe (1).

### References and notes:

**Ket:** Werner 2002: II, 126; Werner 1993: 70. Neuter gender. Plural form: qoʰ-n {kʰəni}. Quoted as qoʰ-1, pl. qoʰ-n2 in [Werner 1977: 161]; as qu-, pl. qo-an ~ qu:g-an in [Castrén 1858: 170].

**Yugh:** Werner 2011: 221. Neuter gender. Plural form: xoʰ-n. Quoted as xoʰ-1, pl. xoʰ-n2 in [Werner 1977: 161].

**Kott:** Castrén 1858: 211. Plural form: ho:p-an. Cf. in older sources: hobii (M., Dict., Pal., Kl.), xobuy (Kh.) [Werner 1990: 360].

**Arin:** Dulzon 1961: 180 (M., Dict., Kl.). Quoted as bü=kʰon in (Pal.). The component bʰu= ~ bü= is most likely the 1st p. possessive prefix 'my' (labial vowel instead of -i-, as in bi=kʰal '(my) son', etc., may be due to assimilation with the labial vowel of the root); cf. the simple variant qon 'mouth' in Strahlenberg's notes [ibid.], as well as o=kun with a different prefix ('his mouth?') in (Kh.) [Werner 2002: II, 126]. Polysemy: 'mouth / face' in (Dict.).

**Pumpokol:** Dulzon 1961: 180 (Dict., Pal., Kl.). Polysemy: 'mouth / face'.

**Proto-Yeniseian:** S. Starostin 1995: 302 (\*qowe). Alternately reconstructed as \*qo in [Werner 2002: II, 126]. **Distribution:** Preserved in all daughter languages. S. Starostin separates the Arin and Pumpokol forms into a different root, comparing them with Ket qoŋ 'form, shape' and reconstructing Proto-Yeniseian \*qoŋ ([YED # 433]; in the earlier source [S. Starostin 1995: 244] the Arin/Pumpokol forms are not compared with Ket, but are still separated from \*qowe). This is dubious for both semantic ('form, shape' and 'face, mouth' are quite distinct meanings) and phonetic reasons (Ket -ŋ does not normally correspond to both Arin and Pumpokol -n). On the other hand, both Arin =qo-n and Pumpokol qa-n are perfectly explicable as the results of fusion of the plural suffix \*-n (cf. Ket-Yugh) with the old root; this is noted in Werner's dictionary and represents the more economic and understandable solution. **Reconstruction shape:** Correspondences are generally regular. The intervocalic \*-w- in S. Starostin's reconstruction is meant to account for -p- in Kott hopi, inexplicable otherwise. **Semantics and structure:** The polysemy 'mouth / face', observed in Arin and Pumpokol, may be archaic (although there are other candidates for expressing the meaning 'face' in Proto-Yeniseian as well).

## 57. NAME

Ket iʰ {u} (1), Yugh i (1), Kott ix ~ i:x (1), Pumpokol i (1), Proto-Yeniseian \*ʔiɕ (1).

**References and notes:**

**Ket:** Werner 2002: I, 392. Neuter gender. Plural form:  $\varepsilon\lambda\text{-}\eta$  { $\varepsilon\eta$ }. Quoted as  $i\lambda$ , pl.  $\varepsilon\lambda\text{-}\eta_2$  in [Werner 1977: 150]; as  $i$ , pl.  $e\varepsilon\eta$  in [Castrén 1858: 161] (apparently, Castrén thought that  $i$  'sun' q.v. and  $i$  'name' were the same polysemous word, and listed the same plural form for both, which is clearly erroneous in the light of all other data sources).

**Yugh:** Werner 2011: 225. Neuter gender. Plural form:  $\varepsilon\lambda\text{-}\eta$ . Quoted as  $i\lambda$ , pl.  $\varepsilon\lambda\text{-}\eta_2$  in [Werner 1977: 150].

**Kott:** Castrén 1858: 200. Plural form:  $i:k\text{-}\eta \sim ek\text{-}\eta \sim \ddot{a}k\text{-}\eta$ .

**Arin:** Not attested.

**Pumpokol:** Dulzon 1961: 168 (Dict.). It must be noted that the form coincides with the Yugh equivalent and could very well be Yugh rather than Pumpokol.

**Proto-Yeniseian:** S. Starostin 1995: 193. Alternately reconstructed as  $*\eta ig\theta$  in [Werner 2002: I, 392]. Distribution: Preserved in all daughter languages, although not attested in Arin (the Pumpokol form could also, in theory, be Yugh rather than Pumpokol).

Reconstruction shape: Correspondences are fully regular, with root-final  $*$ - reconstructed based on its complete disappearance in Ket-Yugh but preservation in Kott.

## 58. NECK

Ket  $k\acute{\alpha}qt \sim k\acute{\alpha}qta$  { $k\acute{\alpha}qm \sim k\acute{\alpha}qm\acute{\alpha}$ } (1), Yugh  $k^{\lambda}z\chi t\acute{i}$  (1), Kott  $fuymur \sim p^huymur$  (2), Arin  $pem^{\lambda}a$  (2), Proto-Yeniseian  $*k\acute{\alpha}q\acute{\alpha}nt$  (1).

**References and notes:**

**Ket:** Werner 2002: I, 474; Werner 1993: 59. Neuter gender. Plural form:  $k^{\lambda}qta\text{-}n^{\lambda}$  { $\kappa\upsilon\kappa\mu\alpha\iota\upsilon$ }. Polysemy: 'neck / collar'. Quoted as  $k\acute{\alpha}qt\acute{i}$  /  $k\acute{\alpha}qt\acute{i}$  (S-Imb.), pl.  $k\acute{\alpha}qta\text{-}n_5$  in [Werner 1977: 156]; as  $k\acute{\alpha}qte \sim kaqte$ , pl.  $k\acute{\alpha}kte\text{-}ne\eta$  in [Castrén 1858: 167].

**Yugh:** Werner 2011: 163. Neuter gender. Plural form:  $k^{\lambda}z\chi t\acute{i}\text{-}\eta in$ . Quoted as  $k\acute{\alpha}qt\acute{i}$ , pl.  $k\acute{\alpha}qt\acute{i}\text{-}n\acute{i}\eta_5$  in [Werner 1977: 156].

**Kott:** Castrén 1858: 226. Plural form:  $p^huymur\text{-}a\eta$ . Cf. in older sources:  $pumur$  (Kh.) [Verner 1990: 391].

**Arin:** Werner 2002: I, 283. Attested only in (Kh.).

**Pumpokol:** Not attested.

**Proto-Yeniseian:** S. Starostin 1995: 237. Alternately reconstructed as  $*k\acute{\alpha}qta$  in [Werner 2002: I, 475]. Distribution: Preserved in Ket-Yugh. Replacements: In Kott-Arin, replaced with  $*puyme \sim *puymur$ , of unclear origin. The reason why the Ket-Yugh word is seen as more archaic is the Kott parallel in  $ag^{\lambda}antan$  'collar' (<  $*kagantan$  with dissimilation): the semantic development 'neck' > 'collar' is typologically normal, whereas the opposite would be quite strange. Subsequently, it is logical to suggest the metonymic shift {'neck' > 'collar'} for Kott-Arin, and a replacement of the original 'neck' by an innovation. Reconstruction shape: Correspondences between Ket and Kott largely follow the same pattern as in the word for 'hunger': Ket  $q\acute{\alpha}t \sim q\acute{\alpha}wat =$  Kott  $kayante$ , indicating a  $*CVCVnt$ -type structure. Semantics and structure: Due to its sheer length, Proto-Yeniseian  $*k\acute{\alpha}q\acute{\alpha}nt$  must have contained a suffix, although the element  $*\text{-}nt$  is hardly segmentable as a productive derivative morpheme on any level.

## 59. NEW

Ket  $k\acute{i}\text{-}s^{\lambda}$  { $\kappa\upsilon\kappa\upsilon$ } (1), Yugh  $ki?$  (1), Kott  $ki$  (1), Proto-Yeniseian  $*gi?$  (1).

**References and notes:**

**Ket:** Werner 2002: I, 429, 434; Werner 1993: 53. Predicative form (attributive form is  $ki?$ ). Polysemy: 'new / fresh'. Quoted as attributive  $ki?$ , predicative  $ki\text{-}s^{\lambda}i_4$  (Kur.) /  $ki\text{-}s^{\lambda}e_4$  (Bak.) in [Werner 1977: 153]; as  $kie \sim ki?e$  in [Castrén 1858: 167].

**Yugh:** Werner 2011: 227. Quoted as  $ki?$  in [Werner 1977: 153]. Synonym:  $tulim$  [Werner 2011: 227], quoted as  $tulim_5 \sim tulim_6$  in

[Werner 1977: 184]. The semantic difference between the old and the new synonyms (this may be a case of "transit synonymy", see notes on Common Ket-Yugh) is not clear.

**Kott:** Castrén 1858: 205.

**Arin:** Not attested.

**Pumpokol:** Not attested.

**Proto-Yeniseian:** S. Starostin 1995: 227. Alternately reconstructed as \**ki?* in [Werner 2002: I, 429]. **Distribution:** Preserved in Ket-Yugh and Kott, not attested in Arin and Pumpokol. **Reconstruction shape:** Correspondences are regular and trivial.

## 60. NIGHT

Ket *s<sup>y</sup>i* {*cu*} (1), Yugh *si* (1), Kott *šig* ~ *šix* (1), Arin *say* (1), Pumpokol *teč* (1), Proto-Yeniseian \**siG* (1).

### References and notes:

**Ket:** Werner 2002: II, 206; Werner 1993: 87. Neuter gender. Plural form: *s<sup>y</sup>iγ-a* ~ *s<sup>y</sup>iγ-ek-η* {*аза ~ азэкη*} (the latter form is a composite noun, with *ek-η* 'days' /pl./ as the second part; see 'sun' for further details). Quoted as *s<sup>y</sup>i<sub>1</sub>*, pl. *s<sup>y</sup>iγ-ə<sub>5</sub>* in [Werner 1977: 176]; as *si*, pl. *si-eη* ~ *sig-aη* in [Castrén 1858: 186].

**Yugh:** Werner 2011: 222. Neuter gender. Plural form: *si-ek-η* (see notes on Ket for analysis of the plural form). Quoted as *si<sub>1</sub>* in [Werner 1977: 176]. Secondary synonym: *sa<sup>h</sup>:r*, pl. *s<sup>h</sup>ar-iη* ~ *sa<sup>h</sup>:r-iη* [Werner 2011: 222]; the plural form of this noun is also frequently employed as a suppletive form for *si*. This word corresponds to Ket *sal* 'to spend the night; staying the night' [Werner 2002: II, 162], and refers to 'night' as a "time period devoid of human activity" rather than the "dark period of time".

**Kott:** Castrén 1858: 213. Plural form: *š-aη*. Cf. in older sources: *šig* (M., Dict., Pal., Kl., Kh.) [Verner 1990: 339].

**Arin:** Dulzon 1961: 174 (M., Dict., Pal., Kl.). Also quoted as *say* in (Kh.) [Werner 2002: II, 206].

**Pumpokol:** Dulzon 1961: 174 (Dict., Pal., Kl.). Secondary synonym: *to:l* 'night' (Dict., Pal., Kl.) [ibid.]. The latter, judging by external comparanda, could really mean 'time of night', 'spending the night', etc.

**Proto-Yeniseian:** S. Starostin 1995: 274. Alternately reconstructed as \**šigə* in [Werner 2002: II, 206]. **Distribution:** Preserved in all daughter languages. **Reconstruction shape:** Correspondences are mostly regular. Word-final \*-cis reconstructed primarily on the basis of its deletion in Ket-Yugh (the other uvular consonants are usually preserved). One problem is with Pumpokol -č, which, according to S. Starostin, is an unexpected reflexation and could reflect an additional suffix or, perhaps, a compound formation with *eč* 'sky'. Cf., however, a similar situation with 'fire' q.v., where Pumpokol -č is also found as the equivalent of a back consonant in Ket-Yugh. This implies that the reflexation may be due to some regular conditioning, although the data are too scarce to establish this regularity.

## 61. NOSE

Ket *ʔlɪn* ~ *ʔlən* {*олын ~ олан*} (1), Yugh *ʔlɪn* ~ *ʔlən* (1), Kott *aη* ~ *a:η* (2), Arin *ʔar-quy* (3), Pumpokol *haη* (2), Proto-Yeniseian \**xaη* (2).

### References and notes:

**Ket:** Werner 2002: II, 38; Werner 1993: 82. Neuter gender. Plural form: *ʔlɪn-iη* {*аын-ыη*}. Quoted as *ɔlɪn<sub>5</sub>* ~ *ɔlən<sub>5</sub>*, pl. *ɔlɪn<sub>6</sub>* in [Werner 1977: 171]. Quoted as *oln*, pl. *olen-eη* in [Castrén 1858: 163].

**Yugh:** Werner 2011: 225. Neuter gender. Plural form: *ʔlɪn-iη*. Quoted as *ɔlɪn<sub>5</sub>* ~ *ɔlən<sub>5</sub>*, pl. *ɔlɪn-iη<sub>5</sub>* in [Werner 1977: 171].

**Kott:** Castrén 1858: 196. Genitive: *a:η-i(e)*, plural form: *a:η-an*.

**Arin:** Dulzon 1961: 74 (M., Dict., Pal., Kl.).

**Pumpokol:** Dulzon 1961: 74 (Dict., Pal., Kl.).

**Proto-Yeniseian:** S. Starostin 1995: 295. Distribution: Preserved in Kott and Pumpokol; replaced in Ket-Yugh and Arin. Replacements: The isogloss between Kott and Pumpokol is further strengthened with the existence of Ket *anɣɔm* 'nostrils', which H. Werner convincingly explains as \**an* 'nose' + \**qɔn*, pl. from *quk* 'hole' [Werner 2002: I, 45]. This means that two replacements have to be postulated: in Ket-Yugh, the old word for 'nose' was replaced with \**ʔɔlin*, and in Arin, with *'ar-quy*, where *-quy* = 'hole', as in *t'im-quy* 'window'. In theory, Ket-Yugh and Arin forms may be related [S. Starostin 1995: 197], since there are no phonetic obstacles for their common etymologization. However, significant discrepancies in the morphological structure of both words suggest that they have different origins: the Ket-Yugh form looks like a fossilized plural from \**ʔɔl-*, while the Arin form is a compound formation with an unidentified first part. For that reason, and also in order to avoid undesirable semantic "criss-crossing", we prefer, following H. Werner, to keep Ket-Yugh and Arin forms separate from each other for the moment. Reconstruction shape: The presence of *h-* in the Pumpokol form caused S. Starostin to reconstruct the Proto-Yeniseian equivalent as \**xan*, but it should be kept in mind that the presence / absence of a word-initial laryngeal in Pumpokol is hardly conclusive evidence; Proto-Yeniseian \**ʔan* 'nose' is definitely not excluded.

## 62. NOT

Ket *bən<sup>y</sup>* {*бəһь*} (1), Yugh *bən<sup>y</sup>* (1), Kott *mon* ~ *mo:n* (1), Arin *bon* (1), Pumpokol *amut* (1), Proto-Yeniseian \**wən* (1).

### References and notes:

**Ket:** Werner 2002: I, 157; Werner 1993: 30. This is the main particle of verbal negation in Ket (should be strictly distinguished from the prohibitive *at* 'not!, don't!') [Werner 2002: I, 72]. Quoted as *bən<sup>y</sup><sub>1</sub>* ~ *bən<sup>y</sup><sub>1</sub>* in [Werner 1977: 141]. Quoted as *bien* in [Castrén 1858: 190].

**Yugh:** Werner 2011: 228. This is the main particle of verbal negation in Yugh; should be strictly distinguished from the prohibitive *at'a* 'not!, don't!' [Werner 2011: 228]. Quoted as *bən<sup>y</sup><sub>1</sub>* in [Werner 1977: 141].

**Kott:** Castrén 1858: 227. Cf. also *bo*: 'not!' (prohibitive) [Castrén 1858: 224]. Cf. in older sources: *mon* (M., Dict.) [Verner 1990: 337].

**Arin:** Dulzon 1961: 174 (M., Dict.). In (Kl.), the meaning is glossed as 'no', but the few available examples confirm that this is indeed the verbal negative particle 'no' (e. g. *bon penaul<sup>y</sup>on* 'I do not see').

**Pumpokol:** Dulzon 1961: 174 (Dict.).

**Proto-Yeniseian:** S. Starostin 1995: 294 (\**wə*). Alternately reconstructed as \**bə* ~ \**bən* in [Werner 2002: I, 157]. Distribution: Preserved in all daughter languages (but see notes on Pumpokol). Reconstruction shape: Initial \**w-* is reconstructed by S. Starostin on the basis of the voiced stop (or nasal *m*, assimilated from \**b* under the influence of the following *n*) reflexation in all languages and dialects. Semantics and structure: Proto-Yeniseian \**wən* is internally segmented into \**wə-n* by S. Starostin on the basis of Kott prohibitive *bo*, which is supposed to reflect original \**wə* without the nasal suffix. However, the mechanism of \**wə-n* being generated from \**wə* remains unclear. Pumpokol *amut* is also a strange form; if it is related here, it must go back to \**a=mun-t*, with an additional prefixal *and* suffixal component, but the nature of these components is unclear - perhaps the attested form is not really just a simple negation ('not'), but a complex predicative form (e. g. 'there is not').

## 63. ONE

Ket *qu-s<sup>y</sup>* {*кycв*} / *qɔʔ-k* {*кo'к*} (1), Yugh *χu-s* / *χɔʔ-k* (1), Kott *hu:-ča* (1), Arin *q'u-sey* (1), Pumpokol *x'u-ta* (1), Proto-Yeniseian \**qu-s-a* (1).

### References and notes:

**Ket:** Werner 2002: II, 122, 132; Werner 1993: 67. The two forms are respectively quantifying inanimate and animate objects. Predicative form: *q'us<sup>y</sup>-am* / *q'ɔk-du* "he is one (alone)" ~ *q'ɔk-da* "she is one (alone)". The suffixes are not productive, but it hardly

makes sense to regard the two forms as not representing an original single root. Quoted as  $qu's^y_1 / q\text{?}k_2$  in [Werner 1977: 162, 166]; as *kuok* (anim.) / *kog-dε* (anim. predic.) / *kus^εm* in [Castrén 1858: 40-41].

**Yugh:** Werner 2011: 113. The two forms are respectively quantifying inanimate and animate objects. Quoted as  $\chi us_1 / \chi\text{?}k_2$  in [Werner 1977: 162, 166].

**Kott:** Castrén 1858: 212. The root is *hu-*, as seen from the old derivative formation *hu-piga* 'alone' (where *-piga* is derived from the same root as 'man' q.v.). Cf. in older sources: *h'uča* (M., Dict., Pal., Kl.) [Verner 1990: 341]. Cf. also *xanči-xit* 'one' (Kh.), where *xit* = 'person' q.v., but *xanči* shows a significantly deviant phonetic shape [ibid.].

**Arin:** Dulzon 1961: 75 (M., Dict., Kl.). Quoted as *k<sup>h</sup>u-zey* in (Pal.) and as *kui-sa* in Strahlenberg's records. Cf. *kus-ket* 'one person' (Kh.) in [Werner 2002: II, 132].

**Pumpokol:** Dulzon 1961: 75 (Dict., Pal., Kl.).

**Proto-Yeniseian:** S. Starostin 1995: 306 (*\*χu-sa*). Alternately reconstructed as *\*qus* ~ *\*qut* in [Werner 2002: II, 132]. Distribution: Preserved in all daughter languages. Reconstruction shape: Correspondences are regular. Semantics and structure: Forms such as Ket-Yugh *\*q\text{?}-k* 'one (animate)' and Kott *hu-piga* 'alone' clearly imply that *\*-s(a)* was a suffixal element in Proto-Yeniseian. Word-final *\*-a* is a suffixal element common for most of Proto-Yeniseian numerals. As for the component *\*-s-*, it may be compared with the singulative suffix *\*-s* that is segmented out of archaic nominal stems such as 'eye' q.v. or 'stone' q.v. If this is the case, then it is also highly probable (as originally proposed by S. Starostin) that *\*-s-* is the original numeric morpheme ('one'), whereas *\*qu-* is an old deictic element, perhaps to be compared with some of the Yeniseian demonstrative pronouns. Nevertheless, on the exact Proto-Yeniseian level it was clearly the morpheme *\*qu-* that already functioned as the primary carrier of the numeric meaning, which is why the protoform is entered as *\*qu-s-a* and not *\*qu=s-a*.

## 64. PERSON

Ket *kε?t* {*κε'm*} (1), Yugh *kε?t* (1), Kott *hit* ~ *het* (1), Arin *qit* (1), Pumpokol *kit* (1), Proto-Yeniseian *\*ke?t* (1).

### References and notes:

**Ket:** Werner 2002: I, 420; Werner 1993: 52. Suppletive plural: *dε?η* {*δ'η*} 'people' [Werner 2002: I, 185]. Quoted as *kε?t<sub>2</sub>*, pl. *dε?η<sub>2</sub>* in [Werner 1977: 143, 153]; as *ket* ~ *kiet*, pl. *keed-εη* (sic!) in [Castrén 1858: 167].

**Yugh:** Werner 2011: 218. Suppletive plural: *d<sup>y</sup>ε?η* 'people' [ibid.]. Quoted as *kε?t<sub>2</sub>*, pl. *d<sup>y</sup>ε?η<sub>2</sub>* in [Werner 1977: 143, 153].

**Kott:** Castrén 1858: 210. Suppletive plural: *čěňη* 'people' [ibid.]. Cf. in older sources: *il=it* (M., Dict., Pal., Kl.), *xit* (Kh.) [Verner 1990: 388] (the "prefix" *il=* may be the same as in Ket *il<sup>y</sup> kε?t* 'living person').

**Arin:** Dulzon 1961: 187 (M., Dict., Kl.). Quoted as *k<sup>y</sup>it* in (Pal.); as *kit* in (Kh.) [Werner 2002: I, 420].

**Pumpokol:** Dulzon 1961: 187 (Dict., Pal., Kl.).

**Proto-Yeniseian:** S. Starostin 1995: 236; Werner 2002: I, 421. Distribution: Preserved in all daughter languages. Reconstruction shape: Correspondences are regular (some uncertainties remain about the original vocalism). Semantics and structure: The word had a suppletive plural on the Proto-Yeniseian level, reconstructed as *\*žε?η* [S. Starostin 1995: 309], probably the original plural of an unpreserved singular *\*žε?* 'person'.

## 65. RAIN

Ket *'ul<sup>y</sup>-es<sup>y</sup>* {*γλεcb*} (1), Yugh *ur-es* (1), Kott *ur* ~ *u:r* (1), Arin *kur* (1), Pumpokol *ur-'ait* (1), Proto-Yeniseian *\*xur* (1).

### References and notes:

**Ket:** Werner 2002: II, 338; Werner 1993: 109. Masculine gender. Plural form: *'ul<sup>y</sup>-et-εη*. Literally: 'water' q.v. + 'sky' (although the first

root may actually be etymologically different from 'water'). Quoted as  $ul^y-es^y_5 \sim ul^y-es^y_6$  in [Werner 1977: 187].

**Yugh:** Werner 2011: 242. Masculine gender. Plural form:  $u'r-es-aj$ . Literally: 'water' q.v. + 'sky' (although the first root may actually be etymologically different from 'water'). Quoted as  $ur-es_5 \sim ur-es_6$  in [Werner 1977: 187].

**Kott:** Castrén 1858: 203. Plural form:  $ur-aj$ . Cf. in older sources:  $ur$  (M., Dict., Pal., Kl., Kh.) [Verner 1990: 306].

**Arin:** Dulzon 1961: 165 (M., Dict., Pal., Kl.). Quoted as  $kur-asa$  in (Kh.) [Werner 2002: II, 338] (where the second component is an Ablaut variant of  $es$  'sky').

**Pumpokol:** Dulzon 1961: 165 (Dict., Pal., Kl.). The second root morpheme  $-ait$  is a morphophonological variant of  $eč$  'sky'.

**Proto-Yeniseian:** S. Starostin 1995: 297. Alternately reconstructed as  $*?ul(es) \sim *k^hul(es)$  in [Werner 2002: II, 338]. **Distribution:** Preserved in all daughter languages (but see notes on structure below). **Reconstruction shape:** Correspondences are regular. **Semantics and structure:** There is a problematic relationship between the listed forms and the original Proto-Yeniseian word for 'water'. In Ket-Yugh, 'rain' is easily analyzable as a compound form:  $*?ur$  'water' +  $*?es$  'sky'. This has led to H. Werner merging the 'water' and 'rain' roots in one ( $*?ul$  'water',  $*?ul$  or  $*?ul-es$  'rain'). However, Kott, Arin, and Pumpokol consistently feature *different* resonants in the root morphemes for 'water' and 'rain', e. g. Arin  $kur$  'rain' vs.  $kul$  'water', Pumpokol  $ur-ait$  (where  $-ait < *?es$ ) 'rain' vs.  $ul$  'water'. This remains unexplained in Werner's reconstruction, but is accounted for in S. Starostin's, where original  $*xur$  'rain' is opposed to  $*xur_1$  'water'. It is not excluded that the two roots are, in the end, related (through some non-trivial morphophonological connection) on a higher level than Proto-Yeniseian, but for PY it is indeed preferable to separate them. In Ket-Yugh,  $*xur$  and  $*xur_1$ , according to S. Starostin's correspondences, must have merged phonetically, so, technically, the Ket-Yugh forms listed here could just as well go back to 'water', not 'rain', but ultimately there is no strong evidence to separate them from their Kott, Arin, and Pumpokol correlates in the lexicostatistical aspect.

## 66. RED

Ket  $s^yul^y-am-s^y \sim s^yul^y-em-s^y$  { $\text{сЮЛЕМсв}$ } (1), Yugh  $sur-be^h:s$  (1), Kott  $\check{s}ur-um-$  # (1), Arin  $t^yura$  (2), Pumpokol  $t^ul-si$  (1), Proto-Yeniseian  $*sur-$  (1).

### References and notes:

**Ket:** Werner 2002: II, 213; Werner 1993: 91. A transparent derivative of  $s^yul^y$  'blood' q.v., formed with the aid of an inanimate object class predicative suffix. Cf. also the verb  $s^yul^y-ey$  'to become red' [Werner 2002: II, 213]. Quoted as  $s^yul^y-am_1$  in [Werner 1977: 178]; as  $s^yul-em$  in [Castrén 1858: 188].

**Yugh:** Werner 2011: 246. Plural form:  $sur-bes-ij \sim sur-bes-ij$ . A transparent derivative of  $sur$  'blood' q.v., formed with the aid of the prosecutive marker  $-be^h:s$  (here, with the meaning 'like', 'such as'). Quoted as  $sur_4-be^h:s$ , pl.  $sur_5-bes-n$  in [Werner 1977: 178]; as  $sur-bes$  in [Castrén 1858: 187].

**Kott:** Castrén 1858: 215. Only attested in the infinitive form  $\check{s}ur-um-ai-čei$  'to paint red; to dye' (also  $\check{s}urumai ba:ttaj$  id.); with some doubt, the root  $\check{s}ur-$  (same as 'blood' q.v.) could also be present in the adjectival form 'red', although it is not directly attested in Castrén's materials. However, no alternate equivalent is attested, either, and both internal and external data suggest that no alternative equivalent actually existed. Furthermore, cf. in older sources:  $\check{s}urama$  'red' (M., Dict., Pal., Kl., Kh.) [Verner 1990: 324].

**Arin:** Dulzon 1961: 170 (M., Dict., Kl.). Strangely quoted as  $t^ygura$  in (Pal.); cf. also  $tula$  '(it is) red' in (Kh.) [Werner 2002: II, 213]. The probability of borrowing from Pumpokol, discussed in [Werner 2002: II, 213] and in S. Starostin's notes, is quite low (very few, if any, such cases in the rest of Arin data).

**Pumpokol:** Dulzon 1961: 170 (Dict., Kl.). Quoted as  $t^ul-zi$  in (Pal.). The morpheme  $-si$  ( $-zi$ ) is a standard adjectival suffix.

**Proto-Yeniseian:** S. Starostin 1995: 278. **Distribution:** Preserved everywhere, with the likely exception of Arin (but see further notes). **Replacements:** Arin  $t^yura$  cannot be regarded as a regular reflexation of Proto-Yeniseian  $*sur-$  (the regular reflexation is found in Arin  $sur$  'blood' q.v.). Since in all other Yeniseian languages the word for 'red' is transparently derived from 'blood', S. Starostin suggests either contamination with Proto-Yeniseian  $*tu$  'raw' (not likely, since 'raw' and 'red' are rather distant from each other semantically, not to mention that  $*tu$  has no known reflexation in Arin), or borrowing into Arin from Pumpokol, which is even less likely, since this is the only such case in the entire corpus. It seems that, given the sharp distinction in consonantism, the Arin word has to be counted as etymologically different from the rest. It is possible to suggest an alternate etymology: cf. Ket-Yugh  $tul^y et$  'red currant', Pumpokol  $turčari$  'strawberry' [Werner 2002: II, 286], reconstructed as  $*tu\check{c}$ - in [S. Starostin 1995: 289]. Arin  $t^yura$  is

phonetically and semantically ('red /berry/') compatible with these forms; in fact, it is not even excluded that *\*tuʎ-* is the archaic Yeniseian root for 'red', preserved in most languages only within derived formations for names of red berries, whereas Arin is the only language to preserve the original form. Nevertheless, given the distribution of 'blood'-based derivatives, it is not permissible to rank it as the optimal candidate for Proto-Yeniseian 'red'. Reconstruction shape: Correspondences are regular (see notes on 'blood'). Semantics and structure: Comparison of Ket *sʉulʉ-am-* and Kott *šur-am-* allows to suggest Proto-Yeniseian status for the adjectival stem *\*sur-am-*, but it should be noted that Pumpokol and Yugh both show different ways of stem formation. This means that the semantic connection between 'blood' and 'red' must have been well understood at all stages of development of Yeniseian languages, allowing the derived formation to be "reformed" from time to time according to various productive models.

## 67. ROAD

Ket *qəʔt* {*κəʔm*} (1) / *qik* {*κβικ*} (2), Yugh *χəʔt* (1) / *χik* ~ *χik* (2), Kott *hek* (2), Arin *kut* (1), Pumpokol *koat* (1), Proto-Yeniseian *\*qəʔt* (1) / *\*qik* (2).

### References and notes:

**Ket**: Werner 2002: II, 123; Werner 1993: 70. Neuter gender. Plural form: *qin-eŋ* {*κβινειŋ*}. Quoted as *qəʔt*, pl. *qin-eŋ*<sub>1</sub> in [Werner 1977: 164]; as *qoat*, pl. *qoad-eŋ* in [Castrén 1858: 170]. The meaning for this word is glossed as 'winter road' ('Winterweg') in [Werner 2002]. It should be noted that the plural form is actually suppletive, but, contra [Starostin 1995: 261], it is not a plural formation from *qik* 'road' q.v. (the consonantal mutation would be unprecedented), but rather from *qinʉ* 'current, flow' [Werner 2002: II, 154] - perhaps as a result of the semantic shift from 'currents' to 'water-ways' to 'ways' in general. Werner 2002: II, 154; Werner 1993: 74. Neuter gender. Plural form: *qiksʉ-eŋ* {*κβικσειŋ*} ~ *qin-eŋ*. Quoted as *qik*<sub>1</sub>, pl. *qiksʉ-eŋ*<sub>5</sub> in [Werner 1977: 167]. The meaning for this word is glossed as 'summer road' ('Sommerweg') in [Werner 2002].

With the peculiar distinction between two types of 'road / way' (one for the winter, one for summer, which is not particularly surprising for a Siberian hunter culture), it seems impossible to determine which one is more "basic"; for the moment, we include both words as synonyms.

**Yugh**: Werner 2011: 333. Neuter gender. Plural form: *χin-eŋ* ~ *χin-iŋ*. Quoted as *χəʔt*, pl. *χin-eŋ*<sub>1</sub> in [Werner 1977: 164]. See notes on Ket for detailed semantics and explanation of the suppletive plural. Werner 2011: 333. Neuter gender. Plural form: *χin-iŋ* ~ *χik-iŋ*. Quoted as *χik*<sub>1</sub> ~ *χik*<sub>2</sub>, pl. *χin-iŋ*<sub>5</sub> in [Werner 1977: 167]. Same semantic properties as in the case of the Ket word.

**Kott**: Castrén 1858: 209. Plural form: *hay-aŋ*. Castrén does not record any opposition between 'summer road' and 'winter road' (but neither does he record one for Ket, where it certainly exists, so it is quite probable that the Kott situation was inadequately described as well). Cf. in older sources: *xik* (Kh.) [Verner 1990: 306]; other sources list an entirely different stem - *itik* (M., Dict., Kl.).

**Arin**: Dulzon 1961: 166 (M., Kl.). Quoted as *kat* in (Dict.). Cf. the composite form *kol-kut* 'road' in (Kh.) [Werner 2002: II, 123] (etymology of the first root is unknown).

**Pumpokol**: Dulzon 1961: 166 (Dict.).

**Proto-Yeniseian**: S. Starostin 1995: 261. Alternately reconstructed as *\*qəʔt* in [Werner 2002: II, 123]. Distribution: This root is attested everywhere except in Kott. Reconstruction shape: Correspondences are generally regular (some usual vocalic fluctuations in Arin and Pumpokol aside). Semantics and structure: The Ket-Yugh situation with semantics is probably archaic, i. e. Proto-Yeniseian *\*qəʔt* should be reconstructed with the meaning 'winter road'. Overall, it seems as if Ket-Yugh preserved the original lexical distinction between 'summer road' and 'winter road', whereas Kott, Arin, and Pumpokol generalized one word of the two (alternately, it is possible that only one word of the two was elicited by the inquirers - for instance, depending on the season in which the research was carried out?..). S. Starostin 1995: 301 (*\*χik*). Alternately reconstructed as *\*qək* in [Werner 2002: II, 154]. Distribution: This root is attested in Ket-Yugh and Kott, but not Arin and Pumpokol. Reconstruction shape: The exact phonemic nature of the uvulars remains unclear, because various assimilative / dissimilative processes could have obscured the original structure. However, the alternation *-k* / *-y-* in Kott does firmly suggest that the second consonant was also a uvular. Semantics and structure: The semantics 'summer road', attested in Ket-Yugh, is likely to be archaic.

## 68. ROOT

Ket *tîr<sup>y</sup>* {*mupɔ*} (1), Yugh *ti<sup>h</sup>t<sup>y</sup>* (1), Kott *t<sup>h</sup>em-pul* ~ *t<sup>h</sup>e:m-pul* (1), Arin *t<sup>y</sup>e:m-bir<sup>y</sup>-aŋ* (1), Pumpokol *k'ed-iŋ* (1), Proto-Yeniseian *\*ci:ž* (1).

## References and notes:

**Ket:** Werner 2002: II, 265; Werner 1993: 99. Neuter gender. Plural form: *tîr<sup>y</sup>-eŋ* {*mu pŋ*}. Quoted as *tîr<sup>y</sup>i<sub>4</sub>* (Kur.) / *ti:də<sub>4</sub> ~ tidə<sub>4</sub>* (Bak., Sur.) / *tîr<sup>y</sup><sub>4</sub>* (S.-Imb.), pl. *tîr<sup>y</sup>-eŋ<sub>1</sub>* / *tîd-eŋ<sub>1</sub>* (Bak., Sur.) in [Werner 1977: 180]; as *tiedi ~ tiedie*, pl. *tîd-eŋ* in [Castrén 1858: 176].

**Yugh:** Werner 2011: 344. Neuter gender. Plural form: *tîd<sup>y</sup>-iŋ*. Quoted as *tî<sup>h</sup>t<sup>y</sup><sub>4</sub>*, pl. *tîd<sup>y</sup>-iŋ<sub>1</sub>* in [Werner 1977: 180].

**Kott:** Castrén 1858: 219. The word is most likely a compound, where the second part = *pul* 'foot' q.v. and the first part is etymologically unclear (the original root may be *\*t<sup>h</sup>eC-*, with many possible choices for the second consonant due to high probability of assimilation with *-pul*). Cf. in older sources: *tî:embulaŋ* (M., Dict., Kl.), *lgiembulaŋ* (Pal.) [Werner 1990: 322] (the strange orthography of the latter variant is unclear). Different stem listed in (Kh.): *ačigan* (obviously connected with *ači* 'tree' q.v.).

**Arin:** Dulzon 1961: 169 (M., Dict.). Quoted as *t<sup>y</sup>e:m-bir-gaŋ* in (Kl.); as *l<sup>y</sup>gem-bir<sup>y</sup>-yaŋ* in (Pal.) (all the forms are really plural, 'roots'). Quoted as *ten-bir* in (Kh.) [Werner 2002: II, 317]. The structure of the form is the same as in Kott q.v.

**Pumpokol:** Dulzon 1961: 169 (Dict., Pal., Kl.). The form is quite obviously plural ('roots'). The quasi-synonymous entry *tîči* (Dict.), *tîči* (Kl.) [ibid.] in reality represents the Yugh form q.v.

**Proto-Yeniseian:** S. Starostin 1995: 217 (*\*ci:ž*). Alternately reconstructed as *\*t<sup>h</sup>i?ad<sup>y</sup>ə ~ \*t<sup>h</sup>i?ad<sup>y</sup>ə* in [Werner 2002: II, 265]. **Distribution:** Preserved in all daughter languages, although in a seriously modified form in Kott-Arin. In Kott-Arin, replaced with *\*tem-bul*, where *\*bul* may be the same root as 'foot' q.v. (S. Starostin rejects this idea because the regular Arin word for 'foot' is *pil*, not *\*pir*; however, reflexes of liquid resonants in Arin are known to fluctuate rather chaotically, and it is not excluded that this particular split was influenced by different phonetic contexts or paradigmatic levellings, etc.); the first part, *\*tem-* (*-m-* could be the result of assimilation with *\*bul*, so the second consonant is really obscure), has no known etymology. **Reconstruction shape:** A complicated situation. First, Ket-Yugh *\*ti:ž* and Pumpokol *ked-* are compatible with each other under the condition that the initial consonant was an affricate (*\*č-* or *\*c-*), dissimilated (*\*ci:ž-* > *\*ti:ž-*) in Ket-Yugh. Second, *pace* S. Starostin, it is actually possible to tie these forms to their Kott and Arin equivalents. Proto-Kott-Arin has *\*tem-bul*, where *\*bul* may be the same root as 'foot' q.v. (S. Starostin rejects this idea because the regular Arin word for 'foot' is *pil*, not *\*pir*; however, reflexes of liquid resonants in Arin are known to fluctuate rather chaotically, and it is not excluded that this particular split was influenced by different phonetic contexts or paradigmatic levellings, etc.); the first part, *\*tem-* (*-m-* could be the result of assimilation with *\*bul*, so the second consonant is really obscure), has no known etymology, but cf. also such dialectal Assan forms as *tîy-b'ul ~ tuy-b'ul* 'root': this variation can only be explained in terms of an original nominal paradigm *\*tey*, pl. *\*te-n*. The word 'foot' was probably attached to the original root in order to reduce homonymy (*\*tey-bul*, pl. *\*te-n-bul ~ \*te-n-bul-aŋ* > *\*tem-bul/aŋ*). Subsequently, a Proto-Yeniseian reconstruction like *\*ci:ž* could regularly yield Kott-Arin *\*tiy* (> *\*tey* with vocalic dissimilation).

## 69. ROUND

Ket *kr'uŋl<sup>y</sup>ay-s<sup>y</sup>* {*кpугляйсь*} (-1), Yugh *m'impil* (1), Kott *e:per* (2).

## References and notes:

**Ket:** Werner 2002: II, 446; Werner 1993: 55. Borrowed from Russian *кpулыи*. Potential earlier synonyms include: (a) South Ket *hîr<sup>y</sup>imtaŋ-s<sup>y</sup>* [Werner 2002: I, 345], a morphologically complex form of unclear origin and not very secure from a semantic point of view; (b) *teep* in [Castrén 1858: 176], with no modern attestation.

**Yugh:** Werner 2011: 249. Plural form: *m'impil-iŋ*.

**Kott:** Castrén 1858: 200. Meaning glossed as 'circle; round'.

**Arin:** Not attested.

**Pumpokol:** Not attested. Cf. *filim* 'circle' (Pal.) [Dulzon 1961: 170] (unless this is really a Yugh form, cf. Yugh *filim* 'spindle').

**Proto-Yeniseian:** Not reconstructible due to lack of sufficient data. The closest Proto-Yeniseian root would probably be *\*puʔl* 'to turn, swirl' [S. Starostin 1995: 252], from which the Yugh form for 'round' is derived, but it is hard to make a firm statement based on data from just one language in this case.

## 70. SAND

Ket *h'znʲan* ~ *h'znʲen* {*хънъян* ~ *хънаня*} (1), Yugh *fʒniŋ* (1), Kott *tʰagan* ~ *tʰak'an* (2), Arin *pʰinʲ-an* (1) / *tan-en* (2), Pumpokol *pʰinn-iŋ* (1), Proto-Yeniseian *\*pən-əŋ* (1).

### References and notes:

**Ket:** Werner 2002: I, 337; Werner 1993: 123. Quoted as *hʒnəŋ* in [Werner 1977: 192]; as *hʒenəŋ*, pl. *hʒenəŋ-en* in [Castrén 1858: 174].

**Yugh:** Werner 2011: 252. Quoted as *fʒniŋ* in [Werner 1977: 192]; as *fʒenəŋ* ~ *fa:nəŋ*, pl. *fʒenəŋ-en* in [Castrén 1858: 191].

**Kott:** Castrén 1858: 217. Plural form: *tʰagan-an*. Cf. in older sources: *tag'an-an* (M., Dict., Pal., Kl.), *tagan-an* (Kh.) [Werner 1990: 347].

**Arin:** Dulzon 1961: 177 (M., Dict., Kl.). Quoted as *finʲy-an* in (Pal.). All forms represent morphological plurals. Werner 2002: II, 314. Attested only in (Kh.). One of the few cases on the 100-wordlist where different data sources contradict each other in a manner that is significant for lexicostatistical processing. Since there is no way to determine the accuracy of the semantics, we have to include both forms as synonyms.

**Pumpokol:** Dulzon 1961: 177 (Dict., Pal., Kl.). The synonymous entry *fen-ig* (Dict., Kl.) most likely represents Yugh rather than Pumpokol. All forms represent morphological plurals.

**Proto-Yeniseian:** S. Starostin 1995: 248 (*\*pənVŋ*). Alternately reconstructed as *\*pʰənəŋ* in [Werner 2002: I, 337]. **Distribution:** Preserved everywhere except in Kott (where the meaning shifted to 'ashes' q.v.). **Replacements:** Kott *tʰagan* and the synonymous Arin form *tan-* are probably related to Kott *tʰagar* 'clay', Yugh *tax* id., and Pumpokol *tik* 'dirt, mud' < Proto-Yeniseian *\*taq-* 'clay; mud' [S. Starostin 1995: 284]; the semantic shift {'clay' > 'sand'} seems plausible. **Reconstruction shape:** Consonantal correspondences are fully regular; root vocalism *\*ə* is reconstructed primarily based on Ket-Yugh data. **Semantics and structure:** The form *\*pənəŋ* is obviously complex and, most likely, represents a *plurale tantum*, with *\*pən-* as the original root.

## 71. SAY

Ket =*ma* (1) / *s'aŋ-a-bet* {*сазабем*} (2), Yugh =*ma* (1) / *s'ag-a-bεʰ:tʲ* (2), Kott *dʲ=a=čagar-an* (2), Proto-Yeniseian *\*saga-* # (2).

### References and notes:

**Ket:** Werner 2002: II, 17. A highly irregular verb, cf. the paradigm: 1sg *n'i=ma* 'I say' (< *\*di=ma* with assimilation), 2sg *k'u=ma* 'you say', but 3sg m. *b'a-da* ~ *b'a-rä* ~ *b'a-rʲa* 'he says', 3sg f. *m'a-nä* ~ *m'a-nʲa* 'she says' (the subject markers are prefixed in the 1st and 2nd persons, but suffixed in the 3rd person). This verb is generally used in complex sentences to introduce indirect speech ("I say that...", etc.). Werner 2002: II, 157; Werner 1993: 84. A composite verb, consisting of the "kernel" verbal stem *-bet* 'to do' and the "modifier" *say-* conveying the main meaning 'say'. Quoted as *sag-a-betʲ* in [Castrén 1858: 185] (actually a Yugh form).

**Yugh:** Werner 2011: 251. Cf. the paradigm: 1sg *n'i=ma* 'I say' (< *\*di=ma* with assimilation), 2sg *k'u=ma* 'you say', 3sg m. *n'u=ma* 'he says' (< *\*du=ma* with assimilation), 3sg f. *n'a=ma* 'she says' (< *\*da=ma*). Like in Ket, this verb is generally used in complex sentences to introduce indirect speech ("I say that...", etc.). Werner 2011: 251. See notes on Ket.

**Kott:** Castrén 1858: 220. 1st p. sg. Cf. past tense: *a=l=a=čagar-an*, imperative: *a=l=čagar*. The infinitive form *čagar* is glossed in the substantive meaning 'speech' [Castrén 1858: 215].

**Arin:** Not attested properly. Cf. the form *qed'ilči* (M., Dict., Kl.), glossed as 'speak' in [Dulzon 1961: 162]; there is no evidence for it being the default verb for 'to say' in Arin, nor is it even clear how it is to be morphologically segmented.

**Pumpokol:** Not attested properly. Cf. the form *kal'u* (Dict.), glossed as 'speak' in [Dulzon 1961: 162]; there is no evidence for it being the default verb for 'to say' in Pumpokol.

**Proto-Yeniseian:** S. Starostin 1995: 269. Distribution: Preserved in all the languages where it is attested, but the original semantics raises doubts (see further notes). Reconstruction shape: Correspondences are generally regular, although the nature of *-r-* in Kott *=čagar-* is problematic: it is not identifiable as a suffix, yet it can hardly be part of the original root, since there are no traces of such a resonant in either Ket or Yugh. Semantics and structure: It is possible that the actual meaning of Proto-Yeniseian *\*saga-* was closer to 'speak, talk' than to 'say', considering that in Ket-Yugh at least, the highly irregular verb *\*=ma* 'to say' looks more archaic than *\*saga-*; formally, however, it is difficult to project *\*=ma* onto the Proto-Yeniseian level due to its conspicuous absence from Castrén's records of Kott material.0

## 72. SEE

Ket *t=uy* ~ *t=oy* {*møŋ*} (1), Yugh *t=oy* (1), Kott *t<sup>h</sup>=a:ŋ-aŋ* (1), Arin *peng'aul<sup>y</sup>oy* (2), Pumpokol *ya=xal-di* (3), Proto-Yeniseian *\*t=...=oy* (1).

### References and notes:

**Ket:** Werner 2002: II, 228; Werner 1993: 101. (Quoted as {*ŋ* *ɨ*} in the latter source, clearly a misprint for {*ŋ* *ɨ*}). Verbal root *-uy* used only in conjunction with the preverb *t=*. Cf. particular forms: *d'i=t=oy* 'I see', past tense *t=t'=ɔ=l<sup>y</sup>=oy*, *d=b'a=t=oy* 'he sees me', past tense *d=b'a=t=ɔ=l<sup>y</sup>=oy*, etc.

The preverb-only complex verb *ŋ=...ɔ* ([Werner 2002: II, 29]; 1st p. sg. *d=b'a=ŋ=s=ɔ*, etc.) is also frequently translated as 'to see'. Superficial analysis of existing Ket texts, however, shows that this verb's primary meaning is that of intentional activity, i.e. 'to look', as opposed to *t=...uy* 'see'; it is therefore ineligible for inclusion in the wordlist. Same goes for the preverbal verb *k=...dɔ* ([Werner 2002: I, 194]; *d'i=y=a=r<sup>y</sup>o* 'I look at him', etc.), whose main difference from *ŋ=...ɔ* is that it is generally used with animate objects ('to look at someone'), whereas *ŋ=...ɔ* is generally used in the meaning 'to look at smth.'.

**Yugh:** Werner 2011: 277. Infinitive form, clearly segmentable into the preverb *t=* and the root *=oy*, cf. particular forms: *d'i=t=oy* 'I see', past tense *d'i=t'=ɔ=r=oy*, *d=b'a=t=oy* 'he sees me', past tense *d=b'a=t=ɔ=r=oy*, etc. Preverbal verbs *k=...=d<sup>y</sup>ou* and *ŋ=...=ɔ ~ ŋ=...=χɔ* [Werner 2011: 277-278], as in Ket, both mean 'to look' rather than 'to see'.

**Kott:** Castrén 1858: 218. 1st p. sg. Cf. past tense: *t<sup>h</sup>=o=l=oy-aŋ*, imperative: *t<sup>h</sup>=a=l-aŋ*. As in Ket, the complex stem consists of the preverbal formative *t<sup>h</sup>=* and the root morpheme *=a:ŋ- ~ =o:ŋ-*.

**Arin:** Dulzon 1961: 160 (M., Kl.). Quoted as *pong'aul<sup>y</sup>oy* in (Dict.), with no specification as to the exact nature of the form. In (Kh.), the segmentally similar form *peneul<sup>y</sup>u* is glossed as 'I see' [Werner 2002: II, 53]. If *-l<sup>y</sup>-* can be analyzed as the past tense marker, then we are dealing with a composite verb, where the first root is *\*pen-* (?) and the second is a monovocalic *\*o / \*u* (?). Quite obscure.

**Pumpokol:** Dulzon 1961: 160 (Dict.). The complete citation is *buy ya=xal-di*, which probably means "I see them"; *-di* is the 1st p. sg. suffix and *ya=* is segmentable as an auxiliary morpheme complex (cf. *ya=iči-du* (Dict.) 'I laugh' [Dulzon 1961: 182]). The root morpheme seems to be *=xal-*.

**Proto-Yeniseian:** S. Starostin 1995: 290 (*\*t-uy*). Distribution: Preserved in Ket-Yugh and Kott, but apparently lost in Arin and Pumpokol (at least, as the default equivalent for 'to see'). Replacements: Both the Arin and Pumpokol forms are difficult to segment, and neither of the two has a decent etymology (S. Starostin's attempt to compare the Pumpokol form with Ket *d-ba-ŋ-sɔ-ɔ* 'I see', actually 'I look', in [YED # 1057], is based on a probably incorrect segmentation of the Pumpokol form and has to be rejected). Reconstruction shape: Correspondences between Ket-Yugh and Kott are regular; labial vocalism in Ket-Yugh corresponding to *a* in Kott generally reflects Proto-Yeniseian *\*ɔ*. Semantics and structure: Ket-Yugh and Kott agree on the basic structure of the verb, consisting of the directional prefix *\*t=* and the root *\*=oy*, separated by grammatical morphemes such as the tense and conjugation markers.

## 73. SEED

Arin  $\check{c}^y ui=n=urli\check{g}a$  # (1).

## References and notes:

**Ket:** Not attested.

**Yugh:** Not attested.

**Kott:** Not attested.

**Arin:** Werner 2002: I, 167. Attested only in (Kh.). The first component is most likely  $\check{c}^y uyu$  'grass', just as in  $\check{c}^y ui=n=boson$  'straw' [ibid.]. Since it is somewhat dubious that the word for 'seed' should contain a root with the meaning 'grass', the whole entry is quite suspicious.

**Pumpokol:** Not attested.

**Proto-Yeniseian:** Not reconstructible due to lack of data.

## 74. SIT

Ket  $s^y \varepsilon s^y -ta$  {*сесѳмѳ*} (1), Yugh  $s^y \varepsilon s -ta \sim s^y \varepsilon s -t\varepsilon$  (1), Kott  $d^y =a=uy-an$  (2), Arin  $a=ku-m$  (2), Pumpokol  $t\check{i}t-k'o-du$  (1), Proto-Yeniseian  $*xu-$  (2).

## References and notes:

**Ket:** Werner 2002: II, 187; Werner 1993: 86. Composite verb; the "kernel"  $-ta$  is a very frequent formative part of (usually) static action verbs. Cf. specific forms:  $t=s^y \varepsilon s^y -ta \sim t=s^y \varepsilon s^y -t\varepsilon$  'he sits', past tense  $t=s^y \varepsilon s^y -\check{c}^y l^y -ta \sim t=s^y \varepsilon s^y -\check{c}^y l^y -t\varepsilon$ , etc. Quite distinct from the dynamic action verb  $k=\dots=y\check{c}^y n^y$  'to sit down' [Werner 2002: I, 402], formed with the preverb  $k=$  ( $t=k=a=ddi=y\check{c}^y n^y$  'I sit down', etc.). Quoted as *sesta*, past tense *sesogalta* in [Castrén 1858: 186].

**Yugh:** Werner 2011: 282. Composite verb, as in Ket. Cf. specific forms: 1sg  $di=s^y \varepsilon s -t\varepsilon$  'I sit', past tense  $di=s^y \varepsilon s -\check{c}^y r -t\varepsilon$ , etc. Quite distinct from the dynamic action verb  $ka^h:p \sim k'af-i\eta$  'to sit down' [Werner 2011: 279].

**Kott:** Castrén 1858: 220. Polysemy: 'to sit / to live'. 1st p. sg. Cf. past tense:  $a=l=a=uy-an$ , imperative:  $a=l^y=ek$  (with suppletivism). Cf. also  $u\eta$  'sitting, living' (glossed in [Castrén 1858: 203] as a participial form). Quite distinct from the dynamic action verb  $i:g=pan-an$  'to sit down' [Castrén 1858: 200]. Cf. in older sources: *yau* 'I sit / I live' (Kh.) [Verner 1990: 366] (actually, this seems to be the 3rd p. form rather than the 1st p.).

**Arin:** Werner 2002: I, 221. Attested only in (Kh.). To be segmented, probably, as  $a=$  (conjugation marker) +  $=ku-$  (root) +  $-m$  (a variant of 1st p. sg. marker  $-n$ ). The strange distinction between *akum* 'I sit' and *akume* 'I live', marked in the source, may be fictitious.

**Pumpokol:** Dulzon 1961: 182 (Dict.). Glossed as 'I am sitting' (actually, more likely to be 'he is sitting', in the light of the personal ending  $-du$ ). Structurally, the verb looks like a composite formation, with *tit-* as the main lexical root.

**Proto-Yeniseian:** S. Starostin 1995: 297. Distribution: Preserved in Kott-Arin, but probably replaced in Ket-Yugh and Pumpokol. Replacements: Other than Kott-Arin, the old root  $*xu-$  is also preserved in the Ket-Yugh infinitive form  $u-n$  'to sit' [Werner 2002: II, 380] ( $< *xu-/V/n$ ; Werner doubts that  $-n$  is segmentable as a suffix, but this component is quite often met in various infinitives); this makes it the optimal candidate for the basic Proto-Yeniseian 'to sit', but also raises the issue of the replacement of the original paradigm in Ket-Yugh and Pumpokol with  $*ses-$  [S. Starostin 1995: 279]. Reconstruction shape: Root-initial  $x-$  is reconstructed on the basis of the Arin form ( $a=ku-m$ , etc.).

## 75. SKIN

Ket  $\hat{r} \{u\}$  (1), Yugh  $i\check{c}l \sim iy\check{c}l \sim ig\check{c}l$  (1).

**References and notes:**

**Ket:** Werner 2002: I, 393. Neuter gender. Plural form: *iŋ*. Polysemy: 'skin (human) / hide, pelt'. The plural form *iŋ* ~ *i-ŋ* may itself be used in the singulative meaning 'skin' as well [Werner 2002: I, 395]. Quoted as *i*; pl. *i-eŋ* in [Castrén 1858: 161].

**Yugh:** Werner 2011: 167. Neuter gender. Plural form: *iŋgɔl-iŋ*. Quoted as *iɣɔlɔs* ~ *igɔlɔs*, pl. *iŋgɔl-iŋɔs* in [Werner 1977: 151].

**Kott:** Not attested.

**Arin:** Not attested.

**Pumpokol:** Not attested.

**Proto-Yeniseian:** Not reconstructible due to lack of data. The Ket-Yugh word is comparable with Kott *ek* 'hair' (see notes on 'hair'), meaning that the original meaning of the etymon was probably closer to 'body hair; animal hair, fur' than to 'skin'.

## 76. SLEEP

Ket *t=...=qot* (1), Yugh =*χɔt* (1), Kott *d<sup>y</sup>=a:t-aŋ* # (1), Arin '*a=qod-oŋ* (1), Pumpokol *bun'e-du* (3), Proto-Yeniseian *\*=qɔt* (1).

**References and notes:**

**Ket:** Werner 2002: II, 360-361; Werner 1993: 94. Polysemy: 'to lie / to sleep'. See notes on 'to lie' for paradigm details. Should be distinguished from the dynamic action verb *us<sup>y</sup>en<sup>y</sup>* 'to go to sleep' [Werner 2002: II, 360], occasionally translated as simply 'sleep' in some sources as well (e. g. [Werner 1993: 113]), but in a somewhat inaccurate manner.

**Yugh:** Werner 2011: 259. Polysemy: 'to lie / to sleep'. See notes on 'to lie' for paradigm details. As in Ket, should be distinguished from the dynamic action verb *usan* 'to go to sleep' [Werner 2011: 259].

**Kott:** Castrén 1858: 220. Same word as 'to lie' q.v. The entry is dubious, since Castrén only gives the meaning 'to lie'; however, the past form *a=l=a=tan* is so frequently glossed in older sources with the meaning 'I sleep' that this seriously looks like a flaw in Castrén's semantic notation. In the German-Yeniseian semantic index, he renders the meaning 'to sleep' (*schlafen*) as Kott *čagal-a-k-ŋ* (p. 252), but on p. 215 *čagal-a-k-ŋ* is only translated as 'to drowse' (*schlummern*). External cognates in Ket also indirectly support the idea that *d<sup>y</sup>=a:t-aŋ* may have been the basic equivalent for both 'lie' and 'sleep', whereas *čagal* expressed a more specific meaning. Cf. the actual form in the older sources: *a=l=a=ten* 'sleep' (M., Dict., Pal., Kl.) [Werner 1990: 371].

**Arin:** Dulzon 1961: 183 (M., Dict., Kl.). Glossed as 'I sleep'; segmentable as *a=* (conjugation marker) + *=qod-* (root) + *-oŋ* (1st p. sg. marker); in (Kh.), attested as *a=xot* without the personal ending [Werner 2002: II, 361]. There is also a suppletive - possibly infinitive - stem: *kus* (M., Dict., Pal., Kl.) [Dulzon 1961: 183], also attested in the composite verb *kus-paya* (Kh.) 'I am drowsing' [Werner 2002: II, 359].

**Pumpokol:** Dulzon 1961: 183 (Dict.). Cf. the suppletive - infinitive? - stem: *ut'u* 'to sleep' (Dict., Pal., Kl.), and the synonymous *xotik* 'to sleep' (Pal., Kl.) [ibid.]. The latter form of the two might actually be Yugh rather than proper Pumpokol.

**Proto-Yeniseian:** See notes on 'to lie'; in Proto-Yeniseian, the meanings 'lie' and 'sleep' were most likely expressed by the same root.

## 77. SMALL

Ket *h'zn<sup>y</sup>a* {*хъня*} (1), Yugh *fən<sup>y</sup>a* ~ *fen<sup>y</sup>a* ~ *fən<sup>y</sup>n<sup>y</sup>a* ~ *fen<sup>y</sup>n<sup>y</sup>a* (1), Kott *kišla*: (2), Arin *kalq'ona* (3), Pumpokol *xil<sup>y</sup>uŋ-du* (3), Proto-Yeniseian *\*pəŋ-* # (1).

**References and notes:**

**Ket:** Werner 2002: I, 337; Werner 1993: 123. Secondary synonym: '*im-da* 'small / fine / thin' [Werner 2002: I, 362]; this word has more limited distribution (applied to thin slices of meat, fine sand, etc.). Quoted as *h3na6* in [Werner 1977: 192]; as *h3ne* ~ *h3nε* in [Castrén 1858: 174].



Quoted as *ifin<sub>6</sub>* in [Werner 1977: 151]; as *dī=fen*, past tense *d=ɔ=r=fen* in [Castrén 1858: 183].

**Kott:** Castrén 1858: 220. 1st p. sg. Cf. past tense: *a=l=a=tek-ŋ*, imperative: *a=l=tek*. Quite distinct from the dynamic action verb *f=a=ta-g-a:k-ŋ*, past tense *f=a=l=tay-aŋ*, imperative *f=a=l=ta* [Castrén 1858: 225] (with suppletive structure of the paradigm: past tense and imperative reflect the preverb *f=* joined with the simple root *=ta(y)-*, whereas the present tense adds yet another auxiliary verbal stem, *=a:k-*). Cf. in older sources: *ay yat'ik ~ yät'ik* 'I am standing', etc. [Verner 1990: 273].

**Arin:** Dulzon 1961: 184. For this verb, several paradigmatic forms are attested in known sources: 1st p. sg. *ai 'ä=t'ay* (M., Dict.), *a=t'ay* (Kl.); 2nd p. sg. *au 'a=xun-ku* (M., Dict.; the same form is also listed as the 3rd p. sg., but this is probably a mistake); 1st p. pl. *aiŋ ä=t'ay-taŋ* (M., Dict.), 2nd p. pl. *a=xoren-t'ay* (M., Dict.), 3rd p. pl. *itaŋ ä=t'ay-taŋ* (M., Dict.). Although some of the forms may be inaccurate, it still looks as if the paradigm was suppletive, with the root *\*=t'ay* encountered in the 1st p., the root *\*=xun-* ~ *\*=xod-* encountered in the 2nd p., and both encountered in the 3rd p.

**Pumpokol:** Dulzon 1961: 184 (Dict.). For this verb, several paradigmatic forms are attested in known sources: 1st p. sg. *ič'a-diŋ-d'i*, 2nd p. sg. *'ue ič'a-diŋ-du*, 3rd p. sg. *'adu ič'a-diŋ-du*, 1st p. pl. *'adiŋ ič'a-diŋ-du-n*, 2nd p. pl. *ay'aŋ ič'a-diŋ-an*. The structure of the stem *ič'adiŋ-* remains unclear: it either contains two roots (*i/ič'al-* and *diŋ-*), or the first several phonemes all constitute grammatical morphemes (e. g. a complex of conjugational markers and adverbial prefixes).

**Proto-Yeniseian:** S. Starostin 1995: 221 (*\*d/i/k-*). **Distribution:** Preserved everywhere except for Ket-Yugh. **Replacements:** The basic equivalent for 'stand' in Ket-Yugh (*\*?ipin*) finds no parallels in Kott, Arin, and Pumpokol, and so, technically, counts as a replacement, although from an unknown source. **Reconstruction shape:** The main problem is with the second consonant, attested as a velar nasal in Arin (*=taŋ*) and in Pumpokol (*=diŋ*), but as a velar stop in Kott (*=tek-*). One possible solution is that the original root shape was *\*=dikŋ*, with different paths of cluster simplification followed in Arin, Pumpokol, and Kott; another is that nasalization or denasalization of the second root consonant was an irregular development in one or more of these languages, perhaps triggered by a sandhi process in some of the forms and then generalized throughout the paradigm. Since there seems to be no way to establish an optimal scenario, all three variants may be taken into consideration when submitting the root for further external comparison. **Semantics and structure:** One should also pay attention to the rather weird suppletivism (*=t'ay* / *=xun*) in the Arin paradigm, which may be archaic, although the formation mechanism for such a paradigm remains completely unclear.

## 80. STAR

Ket *qɔʔ* {*κɔʔ* ~ *κɔʔ*} (1), Yugh *χɔʰ:χ* (1), Kott *al=aga* ~ *al=ak* ~ *al='ax* (1), Arin *'il=qoy* (1), Pumpokol *'kak-en* (1), Proto-Yeniseian *\*qɔ:qa* (1).

### References and notes:

**Ket:** Werner 2002: II, 122; Werner 1993: 66. Neuter gender. Plural form: *qɔ:n* {*κɔ ɔn*}. Quoted as *qɔʔ<sub>2</sub>* / *qɔʔ<sub>4</sub>* (S.-Imb.), pl. *qɔ:n<sub>3</sub>* in [Werner 1977: 162]; as *qoa* *ϕ* pl. *qoa* *εaŋ* in [Castrén 1858: 170].

**Yugh:** Werner 2011: 291. Neuter gender. Plural form: *χɔχ-in*. Quoted as *χɔʰ:χ<sub>4</sub>*, pl. *χɔχ-in<sub>5</sub>* in [Werner 1977: 162]; as *xoax*, pl. *xoax-an* ~ *xoa* *εan* in [Castrén 1858: 172].

**Kott:** Castrén 1858: 196. Plural form: *alag-an* ~ *alak-ŋ*. The word-initial sequence *al=* is segmented out as a fossilized prefix, due to external comparison and complete analogy with such cases as 'dog', 'bird' q.v., etc. Cf. in older sources: *alag'a-n* (M., Dict., Pal., Kl.), *alaka-n* (Kh.) [Verner 1990: 314] (plural forms).

**Arin:** Dulzon 1961: 167 (M., Dict., Kl.). Quoted as *il'=koy* in (Pal.); as *il=xok* in (Kh.) [Werner 2002: II, 122]. Initial *il=* is the same fossilized prefix as in 'dog' q.v.

**Pumpokol:** Dulzon 1961: 167 (Dict., Pal.). The form is clearly plural ('stars').

**Proto-Yeniseian:** S. Starostin 1995: 265. Alternately reconstructed as *\*qoʔə ə* in [Werner 2002: II, 122]. **Distribution:** Preserved in all daughter languages. **Reconstruction shape:** Correspondences are regular. In Kott and Arin, the word shows fusion with the same obscure prefix as in the word for 'dog' q.v. (*\*al=qɔ:qa* ~ *\*il=qɔ:qa*).

## 81. STONE

Ket *tʰiʔsʷ* {*mbi'cb*} (1), Yugh *čiʔs* (1), Kott *ši:š* (1), Arin *qes* (1), Pumpokol *kit* (1), Proto-Yeniseian *\*ciʔ-s* (1).

#### References and notes:

**Ket:** Werner 2002: II, 312; Werner 1993: 106. Neuter gender. Plural form: *tʰiʔ-ŋ* ~ *tʰiʔ-ŋa:nʷ* {*mb'ŋ*}. Quoted as *tʰiʔsʷ*, pl. *tʰiʔŋ*<sub>2</sub> in [Werner 1977: 185]; as *tʰiʔs*, pl. *tʰiʔŋ* in [Castrén 1858: 177].

**Yugh:** Werner 2011: 290. Neuter gender. Plural form: *čʰiʔ-ŋ* ~ *\*čʰiʔ-ŋ-a:n*. Quoted as *čʰiʔs*<sub>2</sub>, pl. *čʰiʔŋ*<sub>2</sub> in [Werner 1977: 185]; as *tʰiʔs*, pl. *tʰiʔŋ* in [Castrén 1858: 178].

**Kott:** Castrén 1858: 214. Plural form: *še-ŋ*. Cf. in older sources: *šiš* (M., Dict., Pal., Kl.), *ši-n* (Kh.) [Verner 1990: 318] (the latter form is plural).

**Arin:** Dulzon 1961: 168 (M., Dict., Pal., Kl.).

**Pumpokol:** Dulzon 1961: 168 (Dict., Pal., Kl.).

**Proto-Yeniseian:** S. Starostin 1995: 217 (*\*čʰiʔs*). Alternately reconstructed as *\*tʰiʔs* in [Werner 2002: II, 312]. Distribution: Preserved in all daughter languages (H. Werner separates the Arin and Pumpokol forms, but, according to S. Starostin's tables of correspondences, they are in complete agreement with the others). Reconstruction shape: S. Starostin reconstructs initial *\*č-* in this root, but it must be noted that this is the only case where both Arin and Pumpokol show an initial *q-* or *k-* in their reflexation. We propose to amend the reconstruction to *\*ciʔ-s* (with the same consonant as in 'hair' and 'head' q.v.); this solution is more economic, since the only "irregularity" that it implies is the development *\*ciʔ-s* > *ši:š* in Kott instead of the expected *\*hi:š*, which could be explained through additional assimilation / palatalization in a specific context. Semantics and structure: The original paradigm is reconstructible as sg. *\*ciʔs*, pl. *\*ciʔŋ*; this means that *-s* is most likely a fossilized singulative suffix (cf. a similar case with the word for 'eye' q.v.).

## 82. SUN

Ket *i' {u}* (1), Yugh *i* (1), Kott *e:ga* ~ *e:gä* (1), Arin *'eya* (1), Pumpokol *hix-em* (1), Proto-Yeniseian *\*xiġ-a* (1).

#### References and notes:

**Ket:** Werner 2002: I, 392; Werner 1993: 44. Feminine gender. Plural form: *iŋ'an* {*uʔat*}. Cf. *iʔ*, pl. *ek-ŋ* 'day' [Werner 2002: I, 389]. Quoted as *i'*, pl. *iŋ'an* in [Werner 1977: 150]; as *i*, pl. *iŋ-aŋ* in [Castrén 1858: 161].

**Yugh:** Werner 2011: 283. Feminine gender. Plural form: *iŋ-a:n*. Cf. *iʔ*, pl. *ek-ŋ* 'day' [Werner 2011: 298]. Quoted as *i'* in [Werner 1977: 150].

**Kott:** Castrén 1858: 200. Genitive: *e:ge-i*, plural form: *e:ga-ŋ*. Cf. *i:g* ~ *i:x*, pl. *äġ-k-ŋ* 'day' [ibid.]. Cf. in older sources: *'ega* (M., Dict., Pal., Kl.), *ega* (Kh.) [Verner 1990: 370].

**Arin:** Dulzon 1961: 183 (M., Dict., Pal.). Quoted as *'ega* in (Kl.); as *ega* in (Kh.) [Werner 2002: I, 392]. Cf. *yi* (M., Dict., Pal., Kl.) 'day' [Dulzon 1961: 183] (historically, contains the same root).

**Pumpokol:** Dulzon 1961: 183 (Dict., Pal., Kl.). The form is somewhat strange, since it includes the predicative (adjectival) suffix *-e/m*; H. Werner tentatively explains it as the predicative formation 'it is sunny'. Cf. *ha* (Dict.), *xeg* (Kl.) 'day' [Dulzon 1961: 165].

**Proto-Yeniseian:** S. Starostin 1995: 296. Alternately reconstructed as *\*(h)ego* in [Werner 2002: I, 392]. Distribution: Preserved in all daughter languages. Reconstruction shape: Correspondences are regular; complete elimination of uvular articulation in Ket-Yugh vs. preservation of *-g-* in Kott corresponds to *\*c* in S. Starostin's system. Semantics and structure: Proto-Yeniseian *\*xi ġa* 'sun' formally looks like an old suffixal derivative from *\*xiʔ ġ'day* [S. Starostin 1995: 296] > Ket *iʔ*, etc.

## 83. SWIM

Ket *s<sup>y</sup>uy* {срюӱ} (1), Yugh *su<sup>h</sup>:y* (1), Kott *ul=šuy* (1), Proto-Yeniseian *\*su.y* (1).

#### References and notes:

**Ket:** Werner 2002: II, 210; Werner 1993: 90. Within the paradigm, this infinitive form occupies the slot of the "modifier": cf. *da=s<sup>y</sup>uy-a-vet* 'she swims', past tense *da=s<sup>y</sup>uy-ɔ-l<sup>y</sup>-bet* (-bet ~ -vet is the verb-forming "kernel" with the original meaning 'to do, make'). (The old simple paradigm was still preserved in the Yugh dialect). This is the most frequently used and neutral verb in the meaning 'to swim' (other specific directional verbs are also found, e. g. 'swim with the current', etc., but we do not list these). Quoted as *s<sup>y</sup>uy<sub>4</sub>* (S.-Imb.) / *s<sup>y</sup>u:yi<sub>4</sub>* (Kur.) / *s<sup>y</sup>u:yo<sub>4</sub> ~ s<sup>y</sup>uy<sub>4</sub>* (Sur.) in [Werner 1977: 177].

**Yugh:** Werner 2011: 274. The simple paradigm (1sg *di=y=su<sup>h</sup>y* 'I swim', past tense *di=r=su<sup>h</sup>y*, etc.) co-exists in Yugh with several extended variants, such as *di=č=a=y=su<sup>h</sup>y* 'I swim' (with the preverb =č=) and *di=suy=a=get<sup>y</sup>* 'I swim'. Quoted as *su<sup>h</sup>y<sub>2</sub> ~ su<sup>h</sup>:y<sub>4</sub>* in [Werner 1977: 177].

**Kott:** Castrén 1858: 203. Infinitive form; the finite tense forms also include the auxiliary stem -a:k-, e. g. *ul=šuy-a:k-ŋ* 'I swim', etc. The first component = *ul* 'water' q.v.; the second component is etymologically related to Ket *s<sup>y</sup>uy* q.v., but may also be the same verbal root as in Kott *šuyen* 'to wander, go astray' [Castrén 1858: 215].

**Arin:** Not attested.

**Pumpokol:** Not attested.

**Proto-Yeniseian:** S. Starostin 1995: 279. Alternately reconstructed as *\*su<sup>h</sup>əyə* in [Werner 2002: II, 210]. **Distribution:** Preserved in all daughter languages where it is attested, but not found in Arin or Pumpokol. **Reconstruction shape:** Correspondences are regular and trivial. **Semantics and structure:** In Kott, the verb only exists in conjunction with *ul* 'water'; this may be a hint at some earlier meaning, but it might just as well be a Kott innovation, carried out in order to reduce homonymy with multiple other words that have the same phonetic shape (*šuy* 'moon', *šuy* 'midge', etc.).

## 84. TAIL

Ket *hu:t* {xyym} (1), Yugh *fu:t* (1), Kott *fugay ~ fukay ~ p<sup>h</sup>ugay* (1), Arin *p<sup>h</sup>ug'ay* (1), Proto-Yeniseian *\*pug-aʒ* (1).

#### References and notes:

**Ket:** Werner 2002: I, 332; Werner 1993: 122. Neuter gender. Plural form: *h'ur<sup>y</sup>-aŋ* {x yŋ ŋ}. Quoted as *hu:t<sub>3</sub>*, pl. *h'ur<sup>y</sup>-əŋ<sub>1</sub> / hu'd-əŋ<sub>1</sub>* (Bak., Sur.) in [Werner 1977: 193]; as *hu:tut* in [Castrén 1858: 174]. This is the basic word denoting the 'tail' of animals; specific terms are also known for 'tail of bird': *hi's<sup>y</sup>* [Werner 2002: I, 320], and for 'tail of fish': *h'ɔrap ~ h'ɔrəp* [Werner 2002: I, 326]. Neither of the two is eligible for inclusion.

**Yugh:** Werner 2011: 271. Neuter gender. Plural form: *fu'd-iŋ*. Quoted as *fu:t*, pl. *fu'd-iŋ<sub>1</sub> ~ fu:d-iŋ<sub>3</sub>* in [Werner 1977: 193]; as *fu:d*, pl. *fu:d-eŋ* in [Castrén 1858: 192]. This is the basic word denoting the 'tail' of animals; specific terms are also known for 'tail of bird': *fis* [Werner 2011: 271], and for 'tail of fish': *fəyɔp* [Werner 2011: 271]. Neither of the two is eligible for inclusion.

**Kott:** Castrén 1858: 226. Plural form: *fugay-aŋ ~ fukay-aŋ*. Cf. in older sources: *puk'ay* (M., Kl.) [Verner 1990: 385]. The form *pis* 'tail' (Kh.), listed *ibid.*, is clearly related to Ket-Yugh *\*pis* 'tail of bird' and, most likely, referred to that particular meaning in Kott as well.

**Arin:** Dulzon 1961: 187 (M., Kl.). Quoted as *it=buɣey* (Kh.) in [Werner 2002: I, 332]; the first component is obscure.

**Pumpokol:** Not attested.

**Proto-Yeniseian:** S. Starostin 1995: 253 (*\*pu ʒʒ*). Alternately reconstructed as *\*p<sup>h</sup>uk-at ~ \*p<sup>h</sup>uk-ay* in [Werner 2002: I, 332]. **Distribution:** Preserved in all daughter languages, but not attested in Pumpokol. **Reconstruction shape:** All correspondences are regular. **Semantics and structure:** The stem ends in the same morpheme that is also found in Ket *ul<sup>y</sup>-et* = Kott *ul-ay* 'rib' (< Proto-Yeniseian *\*ʔuʌ-aʒ* [S. Starostin 1995: 200]) and several other words denoting body parts ('heel', 'jaw', 'cheek', etc.); according to the phonetic correspondences laid out by S. Starostin, this suffix reflects Proto-Yeniseian *\*-aʒ* and may not be equated with *\*ʔaʔd* 'bone' q.v., as suggested by H. Werner; consequently, Werner's interpretation of the word as a compound formation from an unattested root with the hypothetical meaning 'fluffy, woolly' + 'bone' remains unfounded.

85. THAT<sub>1</sub>

Ket  $t=u$  {*my*} (1), Yugh  $t=u$  (1), Kott *uy-o*: (2), Proto-Yeniseian *\*ʔu* (1).

## References and notes:

**Ket:** Werner 2002: II, 294; Werner 1993: 102. Within the standard triple opposition in Ket, this pronoun indicates the intermediate (not-too-distant from the speaker) degree of deixis. The usual attributive forms are: *tu-rʲ* (masc. sg.), *tʲu-rʲe* (fem. / neuter sg.), *tʲu-nʲa* (pl.). The masc. attributive form is quoted as *tuḍaḍi* (Bak., Sur.) / *turʲḍi* (Kur.) / *tuḥḍi* (S.-Imb.) in [Werner 1977: 184]. Frequently translated as 'this' (Russian *этот*), but we still include it in the wordlist under the Swadesh meaning 'that', since it forms a frequent opposition with the near-deixis pronoun *ki* 'this' q.v.

**Yugh:** Werner 2011: 104. The usual attributive forms are: *tut* (masc. sg.), *tʲu-da* ~ *tu-dʲa* (fem. sg.), *tʲu-na* ~ *tu-nʲa* (pl.). The masc. attributive form is quoted as *tutʲi* in [Werner 1977: 184]; as *tu-t* ~ *tu-du*, pl. *tʲu-na* in [Castrén 1858: 50].

**Kott:** Castrén 1858: 55. Masculine form; the feminine equivalent is *unʲa*, the plural form is *uni-oŋ*. The same root is responsible for the formation of the 3rd p. pronouns: *uy-u* 'he', *uy-a* 'she', *uni-aŋ* 'they'. Internal reconstruction suggests that the original stem is *\*ʔu-*, with the plural variant *\*ʔu-n-*; these are further combined with markers of gender and (superfluous) plural suffixes and subject to some analogical levelling.

**Arin:** Not attested.

**Pumpokol:** Not attested.

**Proto-Yeniseian:** The Ket-Yugh and Kott systems of demonstrative pronouns (for Arin and Pumpokol, these systems remain unknown) are, upon first sight, so dissimilar that no adequate protolanguage reconstruction seems possible. However, a more thorough comparison of Ket-Yugh *\*ka- ~ \*qa-* 'that (far away)' / *\*tu-* 'that / this (intermediate)' / *\*ki-* 'this' with Kott *\*u-* 'that' / *\*i-* 'this' shows that the systems are still compatible, with two assumptions: (a) that Kott has reduced the original tripartite system to a binary opposition; (b) that the Ket-Yugh forms are composite in origin, and reflect a fusion of three original vocalic stems (*\*a* 'that / far away', *\*u* 'that / intermediate', *\*i* 'this'; typologically, this is a very natural system) with additional monoconsonantal "modifiers". These formerly separate morphemes (*\*k-*, *\*t-*, maybe also *\*q-*) could have an adverbial origin, and might even be etymologically identical with some of the Yeniseian verbal prefixes. Any alternative solution would either have to resort to substrate hypotheses (borrowing of the entire system of demonstratives in either Ket-Yugh or Kott from an unknown source) or to projecting all of the attested morphemes onto the Proto-Yeniseian level, increasing their overall count to unrealistic levels. For that reason, we tentatively reconstruct the tripartite system *\*ʔa* 'that (far away)', *\*ʔu* 'that (intermediate)', *\*ʔi* 'this' for Proto-Yeniseian.

85. THAT<sub>2</sub>

Ket  $q=a$  {*qa*} (2), Yugh  $k=a$  (2), Proto-Yeniseian *\*ʔa* (2).

## References and notes:

**Ket:** Werner 2002: II, 80. Within the standard triple opposition in Ket, this pronoun indicates the "far away from the speaker" degree of deixis. The usual attributive forms are: *qa-rʲ* (masc. sg.), *qa-rʲa* (fem. / neuter sg.), *qa-nʲa* (pl.).

**Yugh:** Werner 2011: 186. The usual attributive forms are: *kat* (masc. sg.), *ka-dʲa* (fem. sg.), *ka-nʲa* (pl.). The masc. attributive form is quoted as *katʲi* in [Werner 1977: 153]; as *ka-t* ~ *ka-du*, pl. *kʲa-na* in [Castrén 1858: 50].

**Proto-Yeniseian:** 0

## 86. THIS

Ket  $k=i$  {*ku*} (1), Yugh  $k=i$  (1), Kott *i-nʲ-u* (1), Proto-Yeniseian *\*ʔi* (1).

**References and notes:**

**Ket:** Werner 2002: I, 435; Werner 1993: 52. Within the standard triple opposition in Ket, this pronoun indicates the "near the speaker" degree of deixis. The usual attributive forms are: *ki-r<sup>y</sup>* (masc. sg.), *ki-r<sup>ye</sup>* (fem. / neuter sg.), *ki-n<sup>ya</sup>* (pl.). The masc. attributive form is quoted as *kiṛḁ<sub>1</sub>* (Bak., Sur.) / *kiṛ<sup>y</sup>ḁ<sub>1</sub>* (Kur.) / *kiṛ<sup>y</sup><sub>1</sub>* (S.-Imb.) in [Werner 1977: 153].

**Yugh:** Werner 2011: 104. The usual attributive forms are: *kiṭ* (masc. sg.), *ki-da ~ ki-d'a* (fem. sg.), *ki-na ~ ki-n'a* (pl.). The masc. attributive form is quoted as *kiṭ<sub>1</sub>* in [Werner 1977: 153]; as *ki:-t ~ ki:-du*, pl. *ki-na* in [Castrén 1858: 50].

**Kott:** Castrén 1858: 54. Masculine form; the feminine equivalent is *in<sup>ya</sup>*, the plural form is *inni-ay*. The simpler form, stripped of gender and number suffixes, is attested as the adverb *ini* 'here' [ibid.]; comparison with other demonstrative stems (e. g. 'that' q.v.) shows that the word can be further segmented into the original root *\*?i-* and the fossilized suffixal extension *\*-n(i)-*.

**Arin:** Not attested.

**Pumpokol:** Not attested.

**Proto-Yeniseian:** See notes on 'that'.

## 87. THOU

Ket *u ~ u: {y}* (1), Yugh *u* (1), Kott *au* (1), Arin *au* (1), Pumpokol *'ue* (1), Proto-Yeniseian *\*?aw* (1).

**References and notes:**

**Ket:** Werner 2002: II, 318; Werner 1993: 107. Declinable personal pronoun with the same root throughout the paradigm. Quoted as *u* {*ψ* in [Werner 1977: 185]; as *u:ge* in [Castrén 1858: 48]. The possessive pronoun, represented by an etymologically different stem *uk* (~ *uyi*) [Werner 2002: II, 327], is not eligible for inclusion.

**Yugh:** Werner 2011: 108. The possessive pronoun, represented by an etymologically different stem *uk ~ ug-i* [Werner 2011: 102], is not eligible for inclusion. Quoted as *u* {*ψ* in [Werner 1977: 185].

**Kott:** Castrén 1858: 52. Cf. the plural formation: *au-on* 'you' and the possessive form: *au-še* 'thy', pl. *au-šin*.

**Arin:** Dulzon 1961: 186 (M., Dict.).

**Pumpokol:** Dulzon 1961: 186 (Dict.).

**Proto-Yeniseian:** S. Starostin 1995: 185. Alternately reconstructed as *\*əg/ə/ ~ \*ug/ə/* in [Werner 2002: II, 318]; this reconstruction is transparently influenced by the attested reflexions of the possessive stem and cannot be accepted for the Proto-Yeniseian level. **Distribution:** Preserved in all daughter languages. **Reconstruction shape:** The "diphthongic" structure of this pronoun is rather unique for Proto-Yeniseian, so the regularity of the correspondences cannot be ascertained, but no better reconstruction can probably explain the discrepancy between Ket-Yugh *\*?u* and Kott-Arin *\*au*. **Semantics and structure:** The form *\*?aw* represents the direct stem of the 2nd p. sg. pronoun. The etymologically different oblique stem, lost in Kott-Arin, is still preserved in Ket-Yugh as *\*?uk* (possessive pronoun: 'your') or *\*ku* (verbal prefix of subject or object). These forms may have been influenced by Ket-Yugh *\*?u* 'you', but their velar constituent is completely autonomous, and there is no direct or indirect evidence that it was, at any time, present in the direct stem as well.

## 88. TONGUE

Ket *ey {eü}* (1), Yugh *ey* (1), Kott *alup ~ alu:p* (2), Arin *'al<sup>y</sup>ap* (2), Pumpokol *ay* (1), Proto-Yeniseian *\*?ey* (1).

## References and notes:

**Ket:** Werner 2002: I, 272; Werner 1993: 43. Feminine gender. Plural form:  $\hat{e}y$  { $\hat{e}u$ }. Quoted as  $ey_1$ , pl.  $eyi_4$  (Kur.) /  $\varepsilon:y\partial_4 \sim \varepsilon:y\partial_4$  (Bak., Sur.) /  $\varepsilon:y_4$  (S.-Imb.) in [Werner 1977: 147]; as  $ei$ , pl.  $eci \sim ey-\varepsilon\eta \sim \varepsilon:y-\varepsilon\eta$  in [Castrén 1858: 160].

**Yugh:** Werner 2011: 354. Feminine gender. Plural form:  $\varepsilon^h:y \sim \varepsilon-\eta\eta^h\eta$ . Quoted as  $ey_1$ , pl.  $\varepsilon^h:y_4$  in [Werner 1977: 147].

**Kott:** Castrén 1858: 196. Plural form: *alup-an*. Cf. in older sources: *alub* (Kh.) [Verner 1990: 394].

**Arin:** Dulzon 1961: 189 (M., Dict., Pal., Kl.). Quoted as *elep* in (Kh.) [Werner 2002: I, 27].

**Pumpokol:** Dulzon 1961: 189 (Dict., Pal.).

**Proto-Yeniseian:** S. Starostin 1995: 187; Werner 2002: I, 272 (*\*ey*). **Distribution:** Preserved in Ket-Yugh and Pumpokol. **Replacements:** In Proto-Kott-Arin, *\*ey* was replaced by *\*alup* (vocalism provisionally follows the Kott form rather than the controversial Arin variants), of unclear origin. Proto-Yeniseian *\*ey* 'tongue' is still preserved in Kott *ey*, pl. *ey-an*, but only in the meaning 'voice; sound' [Castrén 1858: 199]; since the semantic shift {'tongue' > 'voice'} (the actual meaning in Castrén's vocabulary may have been 'speech, language') is more probable than the opposite, this increases the chances of *\*ey* as the original Proto-Yeniseian equivalent for 'tongue'. **Reconstruction shape:** All correspondences are regular.

## 89. TOOTH

Ket *it* {*um*} (1), Yugh *i<sup>h</sup>:t* (1), Kott *iti* ~ *ite* (1), Arin *iti-n* (1), Proto-Yeniseian *\*ʔi:ti* (1).

## References and notes:

**Ket:** Werner 2002: I, 382; Werner 1993: 49. Neuter gender. Plural form: *i:t-ey* {*uməy* ~ *uməy*}. Quoted as *it<sub>4</sub>* (S.-Imb.) / *i:ti<sub>4</sub>* (N.-Imb.) / *it<sub>4</sub> ~ it<sub>4</sub>* (Bak., Sur.), pl. *i:t-ey<sub>1</sub>* in [Werner 1977: 152]; as *i:ʔet* ~ *i:ti*, pl. *i:t-ey* in [Castrén 1858: 161].

**Yugh:** Werner 2011: 345. Neuter gender. Plural form: *it-ey* ~ *it-iy*. Quoted as *i<sup>h</sup>:t<sub>4</sub>*, pl. *it-ey<sub>1</sub>* in [Werner 1977: 152].

**Kott:** Castrén 1858: 201. Plural form: *it-an*. Cf. in older sources: *iten* (Kh.) [Verner 1990: 315].

**Arin:** Werner 2002: I, 382. Attested only in (Kh.); the form is plural ('teeth').

**Pumpokol:** Not attested.

**Proto-Yeniseian:** S. Starostin 1995: 195. Alternately reconstructed as *\*ʔi:ʔə* in [Werner 2002: I, 382]. **Distribution:** Preserved in all daughter languages, but not attested in Pumpokol. **Reconstruction shape:** Correspondences are regular (vocalism of the second syllable is somewhat questionable; the exact protoform could be either *\*ʔi:ti* or *\*ʔi:te*).

## 90. TREE

Ket *o'ks<sup>y</sup>* {*θκcb*} (1), Yugh *oksi* (1), Kott *atči* ~ *atče* (1), Arin *kus=ošče* (1), Pumpokol *h'ox-on* (2), Proto-Yeniseian *\*ʔaksi* (1).

## References and notes:

**Ket:** Werner 2002: II, 50; Werner 1993: 83. Masculine gender. Plural form: *aʔq* {*áκ*} (suppletive paradigm on the synchronic level). Quoted as *o'ks<sup>y</sup>*, pl. *aʔq<sub>2</sub>* in [Werner 1977: 133, 171]; as *uks<sup>y</sup> ~ uoks<sup>y</sup>* in [Castrén 1858: 164].

**Yugh:** Werner 2011: 83. Masculine gender. Plural form: *aʔχ* (suppletive paradigm on the synchronic level). Quoted as *oksi<sub>1</sub>*, pl. *aʔχ<sub>2</sub> ~ aʔq<sub>2</sub>* in [Werner 1977: 133, 171]; as *uks*, pl. *aq* in [Castrén 1858: 164].

**Kott:** Castrén 1858: 198. Plural form: *ak* ~ *ax* (suppletive paradigm on the synchronic level). Cf. in older sources: *ačši* (M., Dict., Pal.), *ači* (Kh.) [Verner 1990: 305].

**Arin:** Dulzon 1961: 165 (M., Dict., Pal., Kl.). The "prefixed" component is really *kus* 'one' q.v.; the simple form *ošče* (M., Dict., Pal., Kl.) is listed in all sources in the meaning 'forest' [Dulzon 1961: 170]. Quoted as *otši* 'tree / forest' (Kh.) in [Werner 2002: II, 50].

**Pumpokol:** Dulzon 1961: 165 (Dict., Pal., Kl.). Polysemy: 'tree / forest', although the presence of the plural marker *-o/n* indicates that the primary semantics here is plural. The quasi-synonymous form *oksi* (Pal., Kl.) 'tree', as well as *ak* (Pal., Kl.) 'forest', is really Yugh

rather than proper Pumpokol.

**Proto-Yeniseian:** S. Starostin 1995: 198. Alternately reconstructed as  $*(x)oksi \sim *(x)otsi$  in [Werner 2002: II, 50]. **Distribution:** Preserved everywhere except in Pumpokol, where the suppletive plural has replaced the old singular form. **Reconstruction shape:** Correspondences are regular; the correspondence "Ket-Yugh *-ks-* : Kott-Arin  $\check{c} \sim t\check{c} \sim \check{s}\check{c}$ " is recurrent and normally reflects Proto-Yeniseian  $*-ks-$ . **Semantics and structure:** The word 'tree' was suppletive on the Proto-Yeniseian level; the plural form is reconstructed as  $*xaʔq >$  Ket-Yugh  $*ʔaʔq$ , Kott *ak ~ ax*, Pumpokol *hox-* in *hox-on*; possibly also Arin *o:* (Kh.) 'firewood' [S. Starostin 1995: 295]. In Arin, the situation seems to have been as follows: (a) original  $*xaʔq$  has undergone the shift {'trees, wood' > 'firewood'}; (b) the old singular form *ošče* 'tree' consequently shifted to denoting the plural 'trees, wood'; (c) a new singulative was formed by the prefixation of *kus*='one' to *ošče* 'trees'.

All attempts by S. Starostin and H. Werner to trace  $*ʔksi$  and  $*xaʔq$  back to the same lexical root through various scenarios of internal reconstruction are problematic and ultimately unnecessary: the two forms share a general phonetic similarity, but do not really have even a single segment in common, and suppletive formations for 'tree (sg.)' and 'forest / trees (coll.)' are well attested throughout the world. It should be noted that, in [YED # 139, 759], S. Starostin himself finally abandoned the idea (based on external Sino-Caucasian evidence, although some of that evidence is questionable in itself).

## 91. TWO

Ket *in* {*ɨn*} (1), Yugh *in* (1), Kott *ina* (1), Arin *k'ina* (1), Pumpokol *h'ine-aŋ* (1), Proto-Yeniseian  $*xin-a$  (1).

### References and notes:

**Ket:** Werner 2002: II, 423; Werner 1993: 130. Predicative forms: *in-am* '(there are) two' (with inanimate objects), *in-aŋ* '(there are) two' (with animate objects). Quoted as  $in_1 \sim in_2$  in [Werner 1977: 194]; as *in* (attributive form), *ien-eŋ* (predicative form) in [Castrén 1858: 40, 163].

**Yugh:** Werner 2011: 356. Predicative forms: *in-ε* '(there are) two' (with inanimate objects), *in-eŋ* '(there are) two' (with animate objects). Quoted as *in\_1* in [Werner 1977: 194].

**Kott:** Castrén 1858: 201. Cf. also the derived forms: *in-šin* 'both', *in-pa:š* 'second', etc. [ibid.]. Cf. in older sources: *inʷa* (M., Dict., Pal., Kl.) [Verner 1990: 303].

**Arin:** Dulzon 1961: 163 (M., Dict., Pal., Kl.).

**Pumpokol:** Dulzon 1961: 164 (Dict., Kl.). Incorrectly copied as *nine-aŋ* in (Pal.).

**Proto-Yeniseian:** S. Starostin 1995: 296. Alternately reconstructed as  $*(k)in$  in [Werner 2002: II, 423]. **Distribution:** Preserved in all daughter languages. **Reconstruction shape:** Correspondences are regular. Initial  $*x-$  is reconstructed based on the presence of back consonants in Arin and Pumpokol. **Semantics and structure:** The suffix  $*-a$  is a common element in the formation of Yeniseian numerals; the original root is simply  $*xin-$ .

## 92. WALK (GO)

Ket *e-iŋ* ~ *ey-iŋ* {*euŋ*} (1) /  $=tn^y$  {*mnb*} (2), Yugh *e-iŋ* ~ *ey-iŋ* (1) /  $=de$  (2), Kott *eä-xe:y-aŋ* (1) / *i:n-aŋ* (2), Pumpokol *bul'un* (4), Proto-Yeniseian  $*hey-$  (1) /  $*=ze- \sim *=zen$  # (2).

### References and notes:

**Ket:** Werner 2002: I, 261; Werner 1993: 43. Infinitive form, frequently used as the "modifier" in composite verbs, e. g. *eiŋ-ba-γ-a-qan* 'I am preparing to go', etc. Quoted as  $ey-eŋ_1 \sim ey-eŋ_2$  in [Werner 1977: 148]. Werner 2002: I, 261; Werner 1993: 28. This stem is used in finite forms of the paradigm, cf.:  $bɔ=γ=ä=tn^y \sim bɔ=γ=ɔ=tn^y$  {*o mnb*} 'I go', past tense  $bɔ=γ=ɔ=n^y$  (<  $*bɔ=γ=ɔ=n^y=tn^y$ ), etc. The most archaic phonetic variant of the root is seen in the North Ket past tense form  $bɔ=γ=ɔ=n=den$  (without reduction of the root vowel).

**Yugh:** Werner 2011: 151. Infinitive form, frequently used as the "modifier" in composite verbs, e. g. *eyiŋ-ba-g-a-χan* 'I am preparing to go', etc. Quoted as *ey-iŋ<sub>1</sub>* in [Werner 1977: 148]. Werner 2011: 151. This stem is used in finite forms of the paradigm, cf.: *bɔ='ɔ':r=de* ~ *bɔ='ɔ':n=de*.

**Kott:** Castrén 1858: 199. 1st p. sg. Cf. the past tense: *eä=l=a=xey-anj*, imperative: *eä=l=xex* ~ *eä=l=xeg*. The verb consists of two stems: basic stem *=xey-* and "modifying" stem *eä-*. Castrén 1858: 126. The paradigm is: 1st p. sg. present tense *i:n-anj*, 1st p. pl. *oŋ=in-tonj* (with double marking of plural); 1st p. sg. past tense *a=l=i=g=i:n-anj*, 1st p. pl. *a=l=oŋ=in-tonj*; imperative *a=l=ta* (with suppletion?). The lexical difference between *eä=...xey-* and *=in-* is not explained in Castrén's description; we have to accept both words as technical synonyms. Cf. also a different form in the older sources: *anuga* 'to go' (M., Dict., Kl.) [Verner 1990: 316], where *-n-* is quite likely the past tense affix (verbs are generally noted in past tense in these sources), but the root remains unclear.

**Arin:** Not attested properly. In [Dulzon 1961: 168], there is a form that is glossed as the infinitive 'to go': *'unqut* (M., Dict.); however, it coincides completely with the adverb *'unqut* 'in front of' (M., Dict., Kl.) [Dulzon 1961: 161], and in the light of this circumstance per se as well as external comparison, we prefer to exclude this form due to a high risk of inaccurate attestation.

**Pumpokol:** Dulzon 1961: 168 (Dict.).

**Proto-Yeniseian:** S. Starostin 1995: 231 (*\*heyVŋ*). Distribution: Probably preserved in both Ket-Yugh and Kott, but not attested in Arin; the Pumpokol situation is dubious. Reconstruction shape: The verbs of movement form a rather complex system both in Ket-Yugh (where we at least have sufficient data) and in Kott (where Castrén's description seems very sketchy and approximate in terms of semantics). Here, we only concentrate on morphemes that seem to have reflexes both in Ket-Yugh and in Kott. As it is, Proto-Yeniseian *\*hey-* 'to go' is reconstructible based on: (a) the Ket-Yugh infinitive (verbal noun) form *\*ey-iŋ* 'to go', where *-Vŋ* is an auxiliary formant frequently seen in infinitives; (b) the exactly corresponding Kott infinitive *hey-anj*; (c) possibly also Kott *eä-* in *eä-xey-anj* < *\*hey-a-key-anj* (?), although the deletion of *h-* in this case would be rather strange. Distribution: Attested in Ket-Yugh and perhaps in Kott. Reconstruction shape: This is a highly tentative reconstruction that can, nevertheless, reasonably reconcile two of the most basic Ket-Yugh and Kott equivalents for the meaning 'to go'. Namely, the Kott root *\*=in-* (most explicitly seen in the 3rd p. form: *d'<sup>h</sup>ä=in-i* 'he goes') and Ket-Yugh *\*=de(n)* may be etymologized together if the root-initial consonant is reconstructed as *\*ɜ*. In this case, the development *\*=ɜen* > *\*=den* in Ket-Yugh is completely regular, and in Kott, according to S. Starostin's correspondences, *\*=ɜen* should have yielded *\*=yen*, with subsequent contractions (*\*i=yen-anj* 'I go' > *i:nanj*, etc.). There are no significant problems with this scenario, other than the fact that *\*ɜ* is a relatively rare phoneme in Proto-Yeniseian (but see 'I').

## 93. WARM (HOT)

Ket *u:s<sup>y</sup>* {*ycv*} (1), Yugh *u:s* (1), Kott *fal* ~ *p<sup>h</sup>al* (2), Arin *k'uši* (1), Pumpokol *utti-či* (1), Proto-Yeniseian *\*xus-* (1).

### References and notes:

**Ket:** Werner 2002: II, 380-381; Werner 1993: 113. Quoted as *u:s<sup>y</sup><sub>1</sub>* ~ *u:s<sup>y</sup><sub>3</sub>*, pl. *u:s<sup>y</sup>-eŋ<sub>1</sub>* in [Werner 1977: 188]; as *u:s<sup>y</sup>* in [Castrén 1858: 166]. Lexically distinct from *a* 'hot / heat' [Werner 2002: I, 92].

**Yugh:** Werner 2011: 330. Plural form: *'us-eŋ*. Quoted as *u:s<sub>1</sub>* ~ *u:s<sub>3</sub>*, pl. *us-eŋ<sub>1</sub>* in [Werner 1977: 188]. Lexically distinct from *'afinŋ* 'hot' [Werner 2011: 170] (although the latter word is also sometimes translated as 'warm').

**Kott:** Castrén 1858: 224. Meaning glossed as 'hot, warm'; it remains unclear whether the two meanings were or were not distinguished lexically in Kott. Cf. in older sources: *pal-tu* '(it is) warm') (Kh.) [Verner 1990: 378] (*-tu* is the 3rd p. predicative suffix).

**Arin:** Dulzon 1961: 167 (M., Dict., Pal., Kl.). Meaning glossed as Latin 'calidus'. Cf. also *kuze-t<sup>h</sup>u* 'he is warm' (Kh.) in [Werner 2002: II, 381].

**Pumpokol:** Dulzon 1961: 167 (Pal.). Also attested in (Dict.) in the extended variant *uttiči-d'in*. Meaning glossed as Latin 'calidus'. The quasi-synonymous form *afam* (Pal.) is really Yugh 'hot'.

**Proto-Yeniseian:** S. Starostin 1995: 299. Alternately reconstructed as *\*usə* ~ *\*ut<sup>y</sup>ə* ~ *\*kusə* ~ *\*kut<sup>y</sup>ə* in [Werner 2002: II, 380-381]. Distribution: Preserved in all daughter languages, with the probable exception of Kott. Replacements: In Kott, there may have been a merger of the lexically distinct Proto-Yeniseian meanings 'warm' and 'hot': Kott *fal* ~ *p<sup>h</sup>al* is compared both by S. Starostin and H. Werner to such forms as Yugh *ap*, Ket *a*: 'heat', Yugh *af-iŋ*, Ket *a:-ŋ* 'hot', etc. < Proto-Yeniseian *\*?ap-* 'hot' [S. Starostin 1995: 182; Werner 2002: I, 91-92], with the somewhat weakly founded assumption of development from *\*?ap-al* (neither the suffix nor the

word-initial vowel reduction are well explained, but the word has no alternate etymology). Reconstruction shape: Correspondences are regular; initial \*x- is reconstructed on the basis of k- in Arin. Final -čī in Pumpokol is equivalent to the predicative suffix -sʸ in Ket-Yugh. Semantics and structure: The semantic opposition \*xus- 'warm' : \*ʔap- 'hot', best attested in Ket-Yugh, is quite probably of Proto-Yeniseian origin.

## 94. WATER

Ket *uːlʸ* {*γλb*} (1), Yugh *ur* (1), Kott *u:l* (1), Arin *kul* (1), Pumpokol *ul* (1), Proto-Yeniseian \**xur*<sub>1</sub> (1).

### References and notes:

**Ket**: Werner 2002: II, 378; Werner 1993: 110. Neuter gender. Quoted as *uːlʸ*<sub>1</sub> in [Werner 1977: 186]; as *ulʸ* ~ *uolʸ* in [Castrén 1858: 165].

**Yugh**: Werner 2011: 332. Quoted as *ur*<sub>1</sub> in [Werner 1977: 186]; as *ur*, pl. *ur-e:ŋ* in [Castrén 1858: 165].

**Kott**: Castrén 1858: 203. Plural form: *u:l-aŋ*. Cf. in older sources: *ul* (M., Dict., Pal., Kl., Kh.) [Verner 1990: 293].

**Arin**: Dulzon 1961: 160 (M., Dict., Pal., Kl.); Werner 2002: II, 378 (Kh.).

**Pumpokol**: Dulzon 1961: 160 (Dict., Pal., Kl.). There is also a strange quasi-synonymous form *dok* 'water' (Pal., Kl.) with no supporting parallels whatsoever [ibid.].

**Proto-Yeniseian**: S. Starostin 1995: 298. Alternately reconstructed as \*(k)uλ ~ \*(k)uλə in [Werner 2002: II, 378]. Distribution: Preserved in all daughter languages. Reconstruction shape: Correspondences are regular. Initial \*x- is reconstructed based on the velar reflexion k- in Arin. For the difference between 'water' and 'rain', see notes on 'rain'.

## 95. WE

Ket *ət* ~ *ət-n* {*əт ~ əтн*} (1), Yugh *ət-n* (1), Kott *ay-oŋ* (1), Arin *ai-ŋ* (1), Pumpokol *'ad-iŋ* (1), Proto-Yeniseian \**ʔaʒ-əŋ* (1).

### References and notes:

**Ket**: Werner 2002: II, 419; Werner 1993: 129. This form is clearly connected with *at* 'I', but cannot be derived from it synchronically. Cf. also the possessive pronoun *'ətn-a* 'our' [ibid.]. Quoted as *ət*<sub>1</sub> / *ət*<sub>1</sub> ~ *ət*<sub>1n</sub> (S.-Imb.) in [Werner 1977: 173]; as *ətn* in [Castrén 1858: 48].

**Yugh**: Werner 2011: 342. This form is clearly connected with *at* 'I', but cannot be derived from it synchronically. Cf. also the possessive pronoun *ən-na* (< \**ət-n-da*) 'our' [Werner 2011: 313]. Quoted as *ətn*<sub>1</sub> in [Werner 1977: 173].

**Kott**: Castrén 1858: 52. Formally, can be regarded as a suffixal plural of *ai* 'I' q.v. Cf. the possessive stem: *ayon-še* 'our', pl. *ayon-ši:n*.

**Arin**: Dulzon 1961: 173 (M., Dict., Kl.).

**Pumpokol**: Dulzon 1961: 173 (Dict.). The quasi-synonymous form *ətn-in* 'we' (Pal., Kl.) is really Yugh, not proper Pumpokol.

**Proto-Yeniseian**: S. Starostin 1995: 185 (forms quoted in association with \**ʔaʒ* 'I' q.v.). Alternately reconstructed as \**'ad-əŋ* in [Werner 2002: II, 419]. Distribution: Preserved in all daughter languages. Reconstruction shape: The Proto-Yeniseian equivalent for 'we' was clearly the regular plural form of 'I'; hence, see notes on 'I' for reconstruction peculiarities. The plural marker was probably \**-əŋ* (\**ʔaʒ-əŋ*), with contraction and assimilation in Ket-Yugh (> \**ʔəʒ-ŋ* > \**ʔəʒn* > \**ʔətn*).

## 96. WHAT

Ket *'akusʸ* ~ *aksʸ* {*акысб ~ аксб*} (1), Yugh *'assa* (1), Kott *ši-na* ~ *še-na* (1), Proto-Yeniseian \**si* ~ \**ʔa=si* (1).

## References and notes:

**Ket:** Werner 2002: I, 66; Werner 1993: 13. This default inanimate object pronoun may be used both independently (e. g. *aksʷ k'u=b=bet* "what are you doing?") and as a "modifier" in the incorporating verb 'to do what?', e. g. *d='akusʷ-i-vet* "what am I doing?". The earlier source of [Castrén 1858: 51] lists the following forms: *assa ~ ai* 'what?' (at least the former is probably Yugh), *a:kusʷ ~ a:ku* 'what then?'

**Yugh:** Werner 2011: 332. Cf.: *u 'assa ku=b=betʷ* "what are you doing?" Quoted as *assa* in [Castrén 1858: 51].

**Kott:** Castrén 1858: 55. The sequence *-na* is tentatively segmented out as a suffix due to (most likely) the same root morpheme *\*ši* in *a=ši-x* 'who?' q.v.

**Arin:** Not attested.

**Pumpokol:** Not attested.

**Proto-Yeniseian:** S. Starostin 1995: 183 (*\*ʔas-* / *\*sV-*). **Distribution:** Preserved in all daughter languages where attested, but not found in Arin or Pumpokol. **Reconstruction shape:** The Proto-Yeniseian morpheme clearly had the fricative *\*-s-* as its main distinctive component, but the vocalic "framing" differs in between Ket-Yugh and Kott and is hard to reconstruct convincingly. The hypothetical variant *\*ʔasi* surmises reduction of the second syllable in Ket-Yugh (> *\*ʔasʷ*) and of the first syllable in Kott (*\*ʔasi-na* > *\*si-na* > *ši-na*). However, it is more probable that *\*ʔa=* was a separate prefixal morpheme, considering that it does not elide in Kott *ašix* 'who?' (if this were a strictly phonetic process, one would expect reduction in both of the interrogative pronouns).

## 97. WHITE

Ket *tʰay-im* {*магым*} (1), Yugh *tig-beʰ:s* (1), Kott *tʰe:g-am ~ tʰe:k-am* (1), Arin *ta:ma* (1), Pumpokol *t'amxo* (1), Proto-Yeniseian *\*tak-am* (1).

## References and notes:

**Ket:** Werner 2002: II, 249; Werner 1993: 94. The suffix *-im ~ -am* is an adjectival formant, but the word is not properly segmentable on the synchronic level (there is no separate noun from which it could be derived; see, however, notes on Common Ket-Yugh for additional discussion). Quoted as *tayam<sub>5</sub>* in [Werner 1977: 179]; as *taum* in [Castrén 1858: 175].

**Yugh:** Werner 2011: 335. Transparently derived from *tik* 'snow' with the prosecutive suffix *-beʰ:s* (cf. the same model in the formation of 'red' q.v.). Cf. also the verb: *tig-ey* 'to become white' [ibid.]. Quoted as *tig<sub>4</sub>-beʰ:s* in [Werner 1977: 179]; as *tig-bes* in [Castrén 1858: 177].

**Kott:** Castrén 1858: 218. Formally, could be analyzed as an adjectival derivate from *tʰi:k* 'snow' [Castrén 1858: 219]. Cf. in older sources: *tegama* 'white' (M., Dict., Pal., Kl.), *inka=tekam-a* 'it is white' (Kh.) [Verner 1990: 286].

**Arin:** Dulzon 1961: 158 (M., Kl.). Quoted as *tʰa:ma* in (Dict., Pal.); as *tamo ~ tama* 'is white', *berik=tam-tu* 'is (very) white' (Kh.) in [Werner 2002: II, 249].

**Pumpokol:** Dulzon 1961: 158 (Dict., Pal., Kl.).

**Proto-Yeniseian:** S. Starostin 1995: 282 (*\*tāk-*). Alternately reconstructed as *\*tʰeg/am/* in [Werner 2002: II, 249]. **Distribution:** Preserved in all daughter languages, but morphologically restructured in Yugh. **Reconstruction shape:** The situation here is complicated. Most of the attested forms can rather easily be analyzed as derived from Proto-Yeniseian *\*tik* (= S. Starostin's *\*tiχ*) 'snow' > Ket *ti:k*, Yugh *tik*, Kott *tʰi:k*, Arin *te*, Pumpokol *tig* [S. Starostin 1995: 285] with the aid of the productive derivational suffix *\*-Vm*. This scenario is further corroborated by the absolutely identical situation with the adjective 'red' q.v., derived in the exact same way from Proto-Yeniseian 'blood'. The only fact that goes directly against such a scenario is the root vocalism in Ket: *tʰay-im* instead of the expected *\*tiy-am*. This is such a serious argument that it caused S. Starostin to separate Proto-Yeniseian *\*tik* 'snow' from *\*tāk* 'white', and then look for separate external comparanda for each of these roots. However, there is an alternate explanation: namely, that Ket *tay-im* actually reflects a different "Ablaut" grade of *\*tik* 'snow' (parallel to such Proto-Yeniseian variants as *\*čip ~ \*čaʔp* 'dog', *\*ʔes ~ \*ʔas* 'sky', etc.). In fact, the same grade of vocalism may be implicitly present in the contracted Arin and Pumpokol forms as well (i. e. it is possible to regard Arin *ta:ma*, Pumpokol *tamxo* as contracted from *\*tak-am* rather than *\*tik-am*), while Kott may have restructured the vocalism by analogy with the noun 'snow' - and Yugh has carried the restructuring even further, by replacing the old suffix with

a new one. Whatever be the case, it seems that Ket vocalism simply does not constitute sufficient evidence for postulating an extra Proto-Yeniseian root; the more economic solution is to propose the derivation {'snow' > 'white'} already at an early stage of Proto-Yeniseian.

## 98. WHO

Ket *b'its<sup>y</sup>e* / *bɛs<sup>y</sup>a* {*бумсе* / *беса*} (1) / *'ana* ~ *'anät* {*аня* ~ *анет*} (2), Yugh *as-* (3) / *an'eit* (2), Kott *a=š*i*-x* (3), Proto-Yeniseian *\*ʔan-* # (2).

### References and notes:

**Ket:** Werner 2002: I, 134; Werner 1993: 25, 28. Masculine and feminine variants respectively. According to E. Vajda, these forms, "...being gender-specific, can be used in rhetorical questions or when the speaker knows the gender of the person asked about" [Vajda 2004: 31]. Quoted as *bis<sup>y</sup>s<sup>y</sup>e<sub>5</sub>* / *bis<sup>y</sup>ə<sub>5</sub>* ~ *bets<sup>y</sup>ə<sub>5</sub>* (masc.), *bɛs<sup>y</sup>a<sub>6</sub>* / *bɛs<sup>y</sup>ɛ<sub>6</sub>* (Kur.) (fem.) in [Werner 1977: 139]. Werner 2002: I, 34; Werner 1993: 16. Free variants. This is the gender-less interrogative pronoun, used in situations where there is no need to indicate masculine or feminine sex of the referent. Accordingly, we treat *b'its<sup>y</sup>e* and *'ana* as synonyms. Quoted as *aney<sub>6</sub>* ~ *ana<sub>6</sub>* (S.-Imb.) in [Werner 1977: 134]; as *anet* ~ *ana* ~ *anas<sup>y</sup>* in [Castrén 1858: 51].

**Yugh:** Werner 2011: 337, 338. This stem forms the feminine gender interrogative pronoun (*'ase-ra*) and the plural form of the interrogative pronoun, indifferent to gender (*as'e-in*). Quoted as *asera<sub>5</sub>* 'who (of woman)' in [Werner 1977: 135]. Werner 2011: 338. This stem forms the masculine gender interrogative pronoun. Quoted as *anet<sub>6</sub>* ~ *anet<sub>5</sub>* ~ *a<sub>3</sub>neit* in [Werner 1977: 134].

**Kott:** Castrén 1858: 55. Plural form: *a=š*i*-g-an*. Possible internal analysis of the form: *a=* is a common Yeniseian pronominal prefix (same as *a=* in Ket *\*ʔa=s-* 'what?', *\*ʔa=n-* 'who?', etc.); *=š*i*-* is the main interrogative morpheme (same as in *š*i*-na* 'what?' q.v.); *-x* is the final suffix that conveys the meaning of animacy, possibly < *ig* 'male' [Castrén 1858: 200] (this would mean that the form originally referred only to the masc. gender).

**Arin:** Not attested.

**Pumpokol:** Not attested.

**Proto-Yeniseian:** S. Starostin 1995: 181. Distribution: Preserved only in Ket-Yugh. Replacements: Apart from Ket-Yugh, the animate interrogative pronoun is attested only for Kott (*aš*i*x*), where it shares the same root with the inanimate pronoun (*š*i*-na*) and has a probable internal etymology: < *\*a=š*i*-ig*, lit. 'what male?' (not secure, since the final velar consonant may have other origins as well). In Ket-Yugh itself, both Ket and Yugh show two sets of equivalents for 'who?', one of them common and probably inherited from the common ancestor (*\*ʔan-*), the other one different in the two languages and probably innovated (see notes on Ket-Yugh). Tentatively, we choose *\*ʔan-* as the original 'who?', since there are no reasonable scenarios of its secondary origin. The overall confusion may have been caused by a tendency to reform the original system of interrogative pronouns by introducing new "gender-sensitive" stems, formed from alternate interrogative morphemes (*\*š*i**, *\*bi*, etc.).0

## 99. WOMAN

Ket *q*i*'m* {*қим*} (1), Yugh *χem* ~ *χim* (1), Kott *alit* ~ *ali:t* (2), Arin *kem-el<sup>y</sup>a* # (1), Proto-Yeniseian *\*qem* (1).

### References and notes:

**Ket:** Werner 2002: II, 90; Werner 1993: 65. Feminine gender. Plural form: *q*i*'m-n* {*қимн*}. Quoted as *q*i*'m<sub>1</sub>*, pl. *q*i*'m-n<sub>1</sub>* in [Werner 1977: 161]; as *q*i*:m* ~ *qim*, pl. *q*i*:m-ɛŋ* in [Castrén 1858: 170].

**Yugh:** Werner 2011: 141. Feminine gender. Plural form: *χem-n* ~ *χim-n*. Quoted as *χem<sub>1</sub>* ~ *χim<sub>1</sub>*, pl. *χem-n<sub>1</sub>* ~ *χim-n<sub>1</sub>* in [Werner 1977: 161]; as *xim*, pl. *xim-en* in [Castrén 1858: 172].

**Kott:** Castrén 1858: 196. Plural form: *alit-n* ~ *ali:t-n*. It should be noted that *al=* could quite possibly be the same fossilized prefix here

as in 'dog', 'bird', 'star' q.v. However, since the word has no parallels in Ket-Yugh, this time there is no external evidence to justify this segmentation. Cf. in older sources: *alat* 'woman', *alit* 'wife' (Kh.); *al'it* 'wife' (M., Dict., Pal.) [Verner 1990: 310].

**Arin:** Werner 2002: I, 25. Most of the sources only record the word 'wife' for Arin, which seems to be a compound form: *bi=qam'alte* (M.), *bi=qam'-alte* (Dict.), *bi=qam-al* (Pal.) [Dulzon 1961: 167], where *bi=* ~ *bi'* is the possessive prefix 'my', *=qam-* corresponds to Ket *qim*, etc. 'woman', and *-al* ~ *-alte* is to be equated with Kott *alit* 'woman' q.v. Only in (Kh.), next to the form *kek melte* 'wife' (= *ke=km-elte* 'your wife?'), we also find *kem-el'a* 'woman'. Since Proto-Yeniseian seems to have had a firm lexical distinction between 'husband' / 'man' and 'wife' / 'woman', the Arin forms, for the most part, seem like collocations of both terms (i. e. 'wife' = 'wife-woman').

**Pumpokol:** Not attested. Cf. *ils=em* (Dict.), *ilz=em* (Pal.) 'wife' (where *ils=* is a semantically obscure component, also attested in *ils=et* (Dict., Kl.), *ilz=et* (Pal.) 'husband') [Dulzon 1961: 167, 173].

**Proto-Yeniseian:** S. Starostin 1995: 266 (\**qVm*). Distribution: Preserved in Ket-Yugh and, most likely, in Arin; possibly also in Pumpokol, if the word for 'wife' in that language had the same root as 'woman'. Replacements: In Kott-Arin, there is another stem for the meanings 'woman' and 'wife', functioning on its own in Kott (*alit*) and as part of a compound with the older word for 'woman' in Arin (\**qem-alit*, with various assimilations and reductions in the actual attested dialectal forms). There are no parallels for this \**alit* in Ket-Yugh, and it is not clear why Arin turned the old word into a compound, and Kott retained only the newer part of this compound, but from the point of view of cognate distribution, this is the most economic scenario. Reconstruction shape: Consonantal correspondences between all the languages are fully regular (in Pumpokol, the root-initial uvular is lost inside a compound formation: \**ils-qem* > *ilsem*). Reconstruction of the vocalism is less secure: \**qem* seems like the optimal variant, as it is attested in both Yugh and Pumpokol, but the discrepancy between \**qem* and \**qim* in Ket-Yugh lacks an explanation so far.

## 100. YELLOW

Ket *q'ɜl<sup>y</sup>-ay-s<sup>y</sup>* {кѳляйѳсѳ} (1), Kott *šuy* (2), Arin *itt'ima* (3), Pumpokol *t'ul-si* # (4).

### References and notes:

**Ket:** Werner 2002: II, 143; Werner 1993: 73. A transparent formation from *qɜ:l<sup>y</sup>* 'gall'.

**Yugh:** Not attested.

**Kott:** Castrén 1858: 214. Same word as 'moon' q.v.

**Arin:** Dulzon 1961: 167 (M., Kl., Dict.). Same word as 'green' q.v.

**Pumpokol:** Dulzon 1961: 167 (Dict.). Somewhat dubious, since this is the same word as 'red' q.v.

**Proto-Yeniseian:** Not reconstructible: the Ket word is transparently derived from 'gall', the Kott word is the same as 'moon', the Pumpokol word is the same as 'red', and the Arin word has no etymological parallels whatsoever.

## 101. FAR

Ket *bîl<sup>y</sup>* {буль} (1), Yugh *bi<sup>h</sup>:r* (1), Kott *pi:l* ~ *pil* (1), Arin *pa-ta* (2), Proto-Yeniseian \**bi:r<sub>1</sub>* (1).

### References and notes:

**Ket:** Werner 2002: I, 125; Werner 1993: 26. Adverbial form; the predicative variant is *bil<sup>y</sup>-am*. Quoted as *bil<sup>y</sup><sub>4</sub>* (S.-Imb.) / *bi:l<sup>y</sup><sub>4</sub>* ~ *bi:l<sup>y</sup><sub>3</sub>* (N.-Imb.) in [Werner 1977: 139]; as *biel* ~ *biel-es* ~ *biel<sup>y</sup>* in [Castrén 1858: 189].

**Yugh:** Werner 2011: 132. Quoted as *bi<sup>h</sup>:r<sub>4</sub>* in [Werner 1977: 139]; as *bier* in [Castrén 1858: 189].

**Kott:** Castrén 1858: 222. Secondary synonym: *u:ša* 'far (away)' [Castrén 1858: 204]. Cf. in older sources: *pil<sup>y</sup>a* 'far (adv.)' (Kh.) [Verner 1990: 303].

**Arin:** Werner 2002: I, 125. Attested only in (Kh.), as an adverbial form; *-ta* seems to be a segmentable suffix.

**Pumpokol:** Not attested.

**Proto-Yeniseian:** S. Starostin 1995: 211. Alternately reconstructed as *\*biʔalə* in [Werner 2002: I, 125]. Distribution: Preserved in Ket-Yugh and Kott; preservation in Arin is under serious doubt. Replacements: Arin *pa-ta* 'far' is regarded by both S. Starostin and H. Werner as cognate with Ket-Yugh *\*bir* and Kott *pi:l*, but this is a problematic judgement. Even if the segmentation into *pa-ta* is correct (cf. *u-ta* 'long' which seems to corroborate this assumption), vocalic and consonantal correspondences are not easily confirmed: in particular, elision of the root resonant seems quite suspicious, since Arin usually preserves resonants in clusters. We prefer to count the Arin form as a lexical replacement for the moment, albeit without any reasonable etymology. Reconstruction shape: Correspondences between Ket-Yugh and Kott are quite regular.

## 102. HEAVY

Ket  $s^{y_3}:-s^y$  {*cb̄bc̄b̄*} (1), Yugh *sə:* (1), Kott *š:i:k-ŋ* (1), Arin *šoga* (1), Proto-Yeniseian *\*səG-* (1).

### References and notes:

**Ket:** Werner 2002: II, 221; Werner 1993: 92. The non-predicative form is  $s^{y_3}$ . Quoted as  $s^{y_3}:-s^y_3$  (predicative),  $s^{y_3}:$  (attributive) in [Werner 1977: 177]; as  $s_3:-s^{oaga}$  in [Castrén 1858: 186].

**Yugh:** Werner 2011: 273. Quoted as  $s_{3:3} \sim s_{3u_3}$  in [Werner 1977: 177].

**Kott:** Castrén 1858: 213.

**Arin:** Werner 2002: II, 221. Attested only in (Kh.) as an adverbial (or predicative) form ('it is heavy').

**Pumpokol:** Not attested.

**Proto-Yeniseian:** S. Starostin 1995: 273. Alternately reconstructed as *\*səkə* ~ *\*səgə* in [Werner 2002: II, 221]. Distribution: Preserved in all daughter languages, but not attested in Pumpokol. Reconstruction shape: Consonantal correspondences are completely regular; vocalic reconstruction is approximate, but generally indicative of Proto-Yeniseian *\*ə*.

## 103. NEAR

Ket *'utis<sup>y</sup>* {*ymuc̄b̄*} (1), Yugh *'utis* ~ *'utis* (1), Kott *i:ma-ŋ* (2), Proto-Yeniseian *\*ʔuti* [ *\*xuti* ] (1).

### References and notes:

**Ket:** Werner 2002: II, 371; Werner 1993: 115. Final *-s<sup>y</sup>* here is not the usual predicative suffix, since it never disappears in attributive forms, cf. *'utis<sup>y</sup> baʔŋ* 'nearby land', 'vicinity'. Quoted as *utis<sup>y</sup><sub>1</sub>* in [Werner 1977: 189]; as *utes* in [Castrén 1858: 165]. The word should not be confused with *i<sup>l</sup>y* ~ *i<sup>l</sup>yga* 'near' = 'close to', 'beside' (smth. or smbd.) [Werner 2002: II, 434-435].

**Yugh:** Werner 2011: 223. Cf. the predicative form: *utis-ε?* ~ *utis-ε?* "it is near". Quoted as *utis<sub>1</sub>* in [Werner 1977: 189].

**Kott:** Castrén 1858: 201. Adjectival form. Cf. in older sources: *immanga* 'near (adv.)' (Kh.) [Verner 1990: 287].

**Arin:** Not attested.

**Pumpokol:** Not attested.

**Proto-Yeniseian:** S. Starostin 1995: 201 (*\*ʔut-*). Distribution: Preserved only in Ket-Yugh. Replacements: In Kott, PY *\*ʔuti* 'near' is preserved in the adverbial form *uti-ga* 'here' (directional) [Castrén 1858: 204], i. e. {'near' > 'here'}. Kott *i:ma-ŋ* 'near' is compared by S. Starostin with Ket *im-da* 'small; (to grow) thickly, densely' [YED # 100], implying the semantic shift 'small (gen.)' > 'small (of distance)' > 'close, near'. The plausibility of such a shift may be put under doubt, but this is currently the best etymology for the Kott word anyway. Reconstruction shape: Lack of parallels in Arin means that the Proto-Yeniseian equivalent of the Ket-Yugh forms could have been *\*ʔuti* or *\*xuti*. Semantics and structure: Although final *-s<sup>y</sup>* is not segmentable on the Ket-Yugh level, it is not likely that it could have constituted part of the root on the Proto-Yeniseian level, for general structural reasons.

## 104. SALT

Ket *tʰʰ* {*mʷ*} (1), Yugh *čʰʰ* (1), Kott *ši-n-čēt* (1), Arin *tus* (-1), Pumpokol *tus* (-1), Proto-Yeniseian *\*čəʔ* (1).

#### References and notes:

**Ket:** Werner 2002: II, 301; Werner 1993: 104. Neuter gender. Quoted as *tʰʰ* in [Werner 1977: 183]; as *tʰʰʰʰ ~ tʰʰʰʰa ~ tʰʰʰʰa*, pl. *tʰʰʰʰ-n* in [Castrén 1858: 178].

**Yugh:** Werner 2011: 251. Quoted as *čʰʰ* in [Werner 1977: 183].

**Kott:** Castrén 1858: 214. Plural form: *šinčēt-aj*. Phonotactic considerations and external comparison suggest the analysis of this form as a compound. Cf. in older sources: *šinčēt* (M., Pal., Dict., Kl.), *šinšet* (Kh.) [Verner 1990: 370].

**Arin:** Dulzon 1961: 183 (M., Dict., Pal., Kl.). A transparent Turkic borrowing (< Common Turkic *\*tuz* 'salt').

**Pumpokol:** Dulzon 1961: 183 (Dict.). A transparent Turkic borrowing (< Common Turkic *\*tuz* 'salt'). The other quasi-synonymous form, *če* (Pal., Kl.), is most likely Yugh rather than proper Pumpokol.

**Proto-Yeniseian:** S. Starostin 1995: 216. Alternately reconstructed as *\*tʰəʔ* < *\*tʰəʔə* in [Werner 2002: II, 301]. Distribution: Preserved in Ket-Yugh and in Kott (as part of a compound). Replacements: Arin and Pumpokol *tus* 'salt' are borrowed from Turkic; H. Werner's attempts to relate them to Ket-Yugh and Kott forms are unnecessary. Reconstruction shape: Correspondences between Ket-Yugh *\*čəʔ* and Kott *ši-* are quite regular. Semantics and structure: Kott *šinčēt* is not a particularly transparent form. Its first part may be the original plural form of 'salt' (i. e. *ši-n* = Ket *tʰʰʰʰ-n* in Castrén's notation), but the component *-čēt* has no reasonable etymology. There is also an alternate possible analysis, completely different: *šinčēt* = *\*ši-η ~ šē-η* 'stones, rocks' q.v. + *\*čəʔ* or maybe *\*čəʔč* 'salt'; the main obstacle here is the final consonant, which then finds no equivalent in Ket-Yugh and whose disappearance there has to be ascribed to an irregular / sporadic process (e. g. an original *\*čəʔč* with dissimilation?). In any case, there are multiple possible scenarios that allow to etymologize the Kott word on the same basis as the Ket-Yugh item, but no clear preference for an optimal one.

## 105. SHORT

Ket *hʰʰ-sʰʰ* {*χολьсв*} (1), Yugh *fʰʰ* (1), Kott *tʰu:ki* (2), Arin *kamara* (3).

#### References and notes:

**Ket:** Werner 2002: I, 324; Werner 1993: 120. The non-predicative form is *hʰʰ*. Plural form: *hʰʰ-aj* {*χ α ηη*}. Quoted as *hʰʰʰ*, pl. *hʰʰʰ-aj*, in [Werner 1977: 191]; as *holi* in [Castrén 1858: 174].

**Yugh:** Werner 2011: 202. Plural form: *fʰʰ-ij*. Quoted as *fʰʰ* in [Werner 1977: 191]; as *fol* in [Castrén 1858: 192].

**Kott:** Castrén 1858: 219. Cf. in older sources: *tuki-ga* 'it is short' (Kh.) [Verner 1990: 323].

**Arin:** Werner 2002: I, 407. Attested only in (Kh.).

**Pumpokol:** Not attested.

**Proto-Yeniseian:** Not reconstructible: Ket-Yugh *\*pʰʰ* 'short' and Kott *tʰu:ki* (< *\*tuk-* ?) have more or less equal chances at representing the Proto-Yeniseian item. Arin *kamara* is slightly more suspicious: in [YED # 100], it is tentatively compared by S. Starostin with Ket *im-da* 'small', Kott *imirajaga ~ imgara* id. Vocalic correspondences are suspicious, but if *kamara* is indeed a "corrupt" variant of *\*kimara*, it is then easily comparable with *imgara* < Kott-Arin *\*xim-gara*, and in this case, the semantics of 'short' for Arin is most likely secondary.

## 106. SNAKE

Ket *tʰy* {*muʷ ~ mux*} (1), Yugh *čʰi:k* (1), Kott *oη-xoy ~ oη-koy* (2), Arin *an-koy* (2).

**References and notes:**

**Ket:** Werner 2002: II, 267; Werner 1993: 98. Masculine gender. Plural form: *t'iy-in<sup>y</sup>*. Quoted as *tiy<sub>4</sub>* (S.-Imb.) / *tiy<sub>24</sub>* (N.-Imb.), pl. *tiy-in<sup>y</sup>* ~ *tiy-in<sup>y</sup>* in [Werner 1977: 181]; as *tie* ♂ pl. *tie een* in [Castrén 1858: 176].

**Yugh:** Werner 2011: 261. Feminine gender. Plural form: *č'ig-in*. Quoted as *č'i<sup>h</sup>k<sub>4</sub>*, pl. *č'ig-in<sub>5</sub>* ~ *č'ig-in<sub>1</sub>* in [Werner 1977: 181].

**Kott:** Castrén 1858: 202, 252. Plural form: *oηxo-n* ~ *oηxot-n*. The second part in this compound formation is clearly *hoi* 'worm' q.v.; the first part remains unclear. Cf. in older sources: *onxoy* (Kh.) [Verner 1990: 315].

**Arin:** Werner 2002: II, 47. Attested only in (Kh.). The structure of this compound is exactly the same as in Kott q.v.

**Pumpokol:** Not attested.

**Proto-Yeniseian:** Not reconstructible. The original meaning of Proto-Ket-Yugh *\*čik*, considering the external evidence and distribution of cognates, must have been 'fish' q.v. As for Kott-Arin *\*ʔaη-koy*, it is clearly a composite formation where the second component is *\*koy* 'worm' q.v.; the first component is tentatively equated by H. Werner with *\*ʔaη* 'rope' [Werner 2002: II, 47], thus, 'rope-worm'? (this is by no means a finalized etymology). In both cases, it seems as if the original Proto-Yeniseian form for 'snake', whatever it might have been, has undergone different paths of "tabooization" in Ket-Yugh and Kott-Arin.

107. THIN<sub>1</sub>

Ket *h'aks<sup>y</sup>e-m* ~ *h'aks<sup>y</sup>i-m* {*хаксем*} (1), Yugh *faksi-m* (1), Kott *fača-m* ~ *p<sup>h</sup>ača-m* (1), Proto-Yeniseian *\*pakse-m* (1).

**References and notes:**

**Ket:** Werner 2002: I, 293; Werner 1993: 116. Said of flat objects (paper, leaves, bread, etc.). Quoted as *haks<sup>y</sup>-em<sub>5</sub>* in [Werner 1977: 189]; as *ha:qs-em* in [Castrén 1858: 173].

**Yugh:** Werner 2011: 110. Said of flat objects (such as bread, etc.). Quoted as *faks-im<sub>5</sub>* in [Werner 1977: 189]. Quoted as *faqs-em* in [Castrén 1858: 191].

**Kott:** Castrén 1858: 225.

**Arin:** Not attested.

**Pumpokol:** Not attested.

**Proto-Yeniseian:** S. Starostin 1995: 245 (*\*pak-si-m*). Alternately reconstructed as *\*p<sup>h</sup>aksəm* in [Werner 2002: I, 293]. **Distribution:** Preserved in all daughter languages where attested, but not found in Arin or Pumpokol. **Reconstruction shape:** Correspondences are regular, although vocalism of the second syllable is hard to determine. **Semantics and structure:** In Proto-Yeniseian, as in attested languages, the word must have been applied to flat objects. S. Starostin's morphological segmentation of the stem into *\*pak-si-m* is conditioned by external comparison; Yeniseian-internally, *\*-m* is indeed a derivational suffix, but *\*pakse-* (or *\*paksi-*) functioned as a monolithic stem already in Proto-Yeniseian.

107. THIN<sub>2</sub>

Ket *t̂β̂ ~ t̂β̂a* {*мо̂р ~ мо̂ра*} (2), Yugh *t'ɔχɔl<sup>y</sup>a* ~ *t'ɔχal<sup>y</sup>a* (2), Kott *t<sup>h</sup>a:ge* (2), Proto-Yeniseian *\*tɔq-* (2).

**References and notes:**

**Ket:** Werner 2002: II, 276; Werner 1993: 99. Meaning glossed as 'schmal, eng'; applied to 'snowshoes', 'ropes', i. e. 3D-objects. Quoted as *t̂β̂<sub>5</sub>* in [Werner 1977: 182]; as *to a<sup>y</sup>a* ~ *to: a<sup>y</sup>a* ~ *to ø* in [Castrén 1858: 177] (the first two forms contain an extra suffix and are probably Yugh).

**Yugh:** Werner 2011: 110. Said of 3D-objects (trees, people, etc.). Quoted as *tɔχul<sup>y</sup>a<sub>6</sub>* in [Werner 1977: 182].

**Kott:** Castrén 1858: 217. The difference between *fačam* and *t<sup>h</sup>a:ge* 'thin' is not made clear in Castrén's description, but it is quite likely that it was the same as in the etymologically related Ket-Yugh pair.

**Proto-Yeniseian:** S. Starostin 1995: 287 (\*tɔqV-). **Distribution:** Preserved in all daughter languages where attested, but not found in Arin or Pumpokol. **Reconstruction shape:** Consonantal correspondences are regular; vocalism of the second syllable is not reconstructed with any degree of certainty. **Semantics and structure:** In Proto-Yeniseian, as in attested languages, the word must have been applied to 3D-objects.

## 108. WIND

Ket *be:y* {*ḡeü*} (1), Yugh *bey* (1), Kott *pe:y* (1), Arin *pay* (1), Pumpokol *bay* (1), Proto-Yeniseian \**bey* (1).

### References and notes:

**Ket:** Werner 2002: I, 122-123; Werner 1993: 24. Neuter gender. Plural form: *bey-en*. Quoted as *be:y* in [Werner 1977: 138]; as *bei*, pl. *bey-en* in [Castrén 1858: 189].

**Yugh:** Werner 2011: 341. Neuter gender. Plural form: *b'ey-en*. Quoted as *bey* in [Werner 1977: 138].

**Kott:** Castrén 1858: 222. Plural form: *pe:y-an*. Cf. in older sources: *pei* (M., Dict., Pal., Kl.) [Verner 1990: 291].

**Arin:** Dulzon 1961: 160 (M., Dict., Pal., Kl.).

**Pumpokol:** Dulzon 1961: 160 (Dict., Pal.). Quoted as *boi* in (Kl.).

**Proto-Yeniseian:** S. Starostin 1995: 208. Alternately reconstructed as \**bay* in [Werner 2002: I, 122-123]. **Distribution:** Preserved in all daughter languages. **Reconstruction shape:** Correspondences are fully regular.

## 109. WORM

Ket *ut'iγ* ~ *u'tix* {*ymux*} (1), Yugh *'ḡlli* ~ *ḡl* (2), Kott *hoy* (3), Proto-Yeniseian \**koy* (3).

### References and notes:

**Ket:** Werner 2002: II, 371; Werner 1993: 115. Masculine gender. Plural form: *'uti-n* {*γnun*}. Quoted as *utiy<sup>6</sup>* ~ *utiy<sup>5</sup>*, pl. *utin<sub>5</sub>* (S.-Imb.) in [Werner 1977: 189]. A highly localized word, not encountered beyond the Southern area. Less viable candidates include (a) *kin<sup>s</sup>* 'caterpillar, earthworm', a rare, not too well confirmed word that is completely homonymous with *kin<sup>s</sup>* 'Russian' (!) [Werner 2002: I, 477]; (b) *ki<sup>n</sup>*, pl. *kin<sup>y</sup>* = 'worm' [Werner 2002: II, 436], which is actually 'maggot' rather than the required 'earthworm'.

The word *ut'iγ* is clearly a composite formation: the second part is easily identifiable as *t'iγ* 'snake' q.v. The first part is more problematic; possibly = *u:* 'meadow' [Werner 2002: II, 376] (i. e. 'worm' as 'meadow-snake').

**Yugh:** Werner 2011: 344. Feminine gender. Polysemy: 'worm / small insect'. Plural form: *'ḡlli-n* ~ *'ḡli-n* ~ *'ḡli-η*. Quoted as *ol*, pl. *ol-en* ~ *ol-an* in [Castrén 1858: 163].

**Kott:** Castrén 1858: 211. Plural form: *ho-n*. Cf. in older sources: *o-n* (Kh.) [Verner 1990: 388] (plural form).

**Arin:** Not attested.

**Pumpokol:** Not attested.

**Proto-Yeniseian:** S. Starostin 1995: 242 (\*kVy). **Distribution:** Preserved only in Kott (although the Arin and Pumpokol equivalents are simply not attested). **Replacements:** (a) In Ket, replaced in the meaning 'worm' by *ut'iγ*, a compound of 'snake' with an unclear first component (see notes on the Ket form); (b) in Yugh, replaced by *'ḡlli* 'worm / small insect', cognate with Ket *ḡlḡḡs* 'spider' [Werner 2002: II, 48], indicating a more generic term than simply 'worm'. **Reconstruction shape:** The reconstruction depends almost exclusively on the Kott form, meaning that reconstruction of the vocalism is quite approximate. **Semantics and structure:** Kott *hoy*, pl. *ho-n* is cognate with Ket *kin<sup>y</sup>* 'maggot, larva', reflecting the Proto-Yeniseian paradigm \**koy*, pl. \**koy-n*. In Ket, the latter form was generalized as a (collective) singular and contracted.

## 110. YEAR

Ket *sʲi:* {cʷʷi} (1), Yugh *si:* (1), Kott *še:ga* ~ *še:gä* (1), Arin *š<sup>h</sup>ey* (1), Pumpokol *c'iku* (1), Proto-Yeniseian *\*s<sup>i</sup>ca* (1).

**References and notes:**

**Ket:** Werner 2002: II, 223; Werner 1993: 92. Neuter gender. Plural form: *sʲik-ŋ* {əʷkŋ}. Quoted as *sʲi:*, pl. *sʲik-ŋ* in [Werner 1977: 178]; as *si*, pl. *sik-ŋ* in [Castrén 1858: 187].

**Yugh:** Werner 2011: 185. Neuter gender. Plural form: *sik-ŋ*. Quoted as *si:*, pl. *sik-ŋ* in [Werner 1977: 178].

**Kott:** Castrén 1858: 213. Plural form: *še:k-ŋ*. Cf. in older sources: *šega* (M., Dict., Pal.), *guš šek* 'one year' (Kh.) [Verner 1990: 299].

**Arin:** Dulzon 1961: 162 (M., Dict., Pal.). Cf. also *kus=šey* 'year' (Kh.) in [Werner 2002: II, 223] (literally = 'one year', see under 'one').

**Pumpokol:** Dulzon 1961: 162 (Dict., Pal.).

**Proto-Yeniseian:** S. Starostin 1995: 275. Alternately reconstructed as *\*s gə* in [Werner 2002: II, 223]. Distribution: Preserved in all daughter languages. Reconstruction shape: Correspondences are generally regular, although vocalic reconstruction in both syllables is somewhat questionable. Semantics and structure: S. Starostin has proposed that *\*-a* is an old suffixal element, present also in such words denoting time as *\*si-* 'c'night' q.v., *\*xi?*- 'c'day' (see under 'sun'), but this is questionable.