Toward the question of Yeniseian homeland in perspective of toponymy

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Abstract
The present contribution was remade and expanded from the article written in 2014 and published in the journal *Man in India* 2016. It analyzes the river and lake-names from Western Siberia, Kazakhstan and Uzbekistan, i.e. outside the territory, where were known speakers of the Yeniseian languages from the 18th century. Some of these hydronyms are geographic names more or less used till the present time, especially in Western Siberia and Northern Kazakhstan. Most of them are transparent compounds, where at least one component is the typical Yeniseian word for "river" or "water", anticipated already by Radloff and Ramstedt. Less numerous are hydronyms hidden in Chinese annals situated in more southern parts of Kazakhstan and Uzbekistan. Their projection in Middle Chinese or earlier stages of development of Chinese indicate that some present or alternative older names of relatively big rivers and lakes as Irtyš, Ili, Ču, Amudarya/Oxos and Balkhaš, are etymologizable as Yeniseian. This conclusion agrees with the hypothesis of Pulleyblank (1962) about a Yeniseian components in the 'Steppe federation' called Xiongnu. Alongside these Central Asiatic traces of the Yeniseian hydronyms imply the earlier location of the Yeniseian homeland in neighborhood of the northern slopes of the Tianshan and Pamir mountains, if the aforesaid rivers spring there or flow not so far as the Irtyš. And it means a relative near geographic distance from the closest relative, Burušaski, situated in Hindukush, but widespread in the Pamir in past too, judging upon the traces of the Burušaski-like substratum in the Iranian Pamir languages.

There are several strategies whose application in combination serve to localize the homeland of a given language group and to reconstruct hypothetical trajectories of (pre)historical migrations of this language entity and its continuants in space and time:

(a) Analysis of historical documents of neighboring languages with longer literary and historical traditions.

(b) Determination of both close and distant genetic relationship within and outside the studied language group, indicating the language family and macro-family, respectively, of the subject language group.

(c) Estimation of absolute chronology of divergence within the language family and macro-family, if possible. The following approaches may be used: (i) Relative chronology of phonetic changes in confrontation with borrowings; (ii) Recalibrated glottochronology.

(d) Study of mutual interference with neighboring languages in past and present.

(e) Analysis of toponyms, especially outside the area of historical settlement of the studied language entity.

(f) Analysis of myths and legends, mediating old neighbors and migrations.

(g) Linguistic paleontology, based on geographical location of plants and animals whose designations can be reconstructed in protolanguages in perspective of paleobotany and paleozoology.

(h) Linguistic archaeology, confronting the lexicon of the material culture with results of archaeological research.

In the present contribution, with the exception of some comments, points (d), (g) and (h) are deferred, since they require monographic studies.

Ad (a)
### Witness of Chinese historical annals
Pulleyblank (1962: 242-265) has collected serious arguments identifying so-called Xiong-nu glosses in the Han and later texts as Yeniseian. His arguments were further developed by Vovin (2000: 2003). They both interpret a brief poem about the war between two Xiong-nu chieftains, Liu Yao and Shi Le, for the rule of North China in 329 CE, written in the Chinese characters in the tribal language *Jié*, as

Yeniseian. This passage was included in the historical text 晉書 *Jin shu* "History of [the dynasty] Jin" (280-420 CE). Pulleyblank and Vovin also agree that the *Jié* language was probably closer to Kott than to Ket (Pulleyblank 1962: 264; Vovin 2000: 98-102). It is attractive to identify the ethnonym 羯 *Jié* 'people subject to the Xiongnu; castrated ram' < Late Middle Chinese **kiat* < Early Middle Chinese **kɨat* (Pulleyblank 1991: 154) = Late Han Chinese (Schuessler 2007: 312), besides Old Northwest Chinese (400 CE) **kat* (ibid.), Old Chinese **krat* (ibid.) or **kat* (Schuessler 2009: 231), with the Yeniseian word **keʔt* "man, person" > Ket & Yugh *kɛʔt*; Kott *hit*; Assan *hit*; Arin: *k̓it*, *qit*; Pumpokol *kit* (Starostin 1995: 236; Werner 1: 421), serving as the self-designation of Kets (Vovin 2000: 91-92; Pulleyblank 1962: 246 mistakenly connected the ethnonym with Arin *kes*; Pumpokol *kit* "stone", both regular continuants of Yeniseian **čiʔs* "stone" - see Starostin 1995: 217-18). If (some) Yeniseian tribes formed a part of the Xiong-nu tribal union, it means that they lived on the steppes at that time.


Ad (b) & (c)
Internal and external genealogical classification in chronological perspective
The traditional model of classification of the Yeniseian language family follows Kostjakov 1979 and Verner 1997: 172:
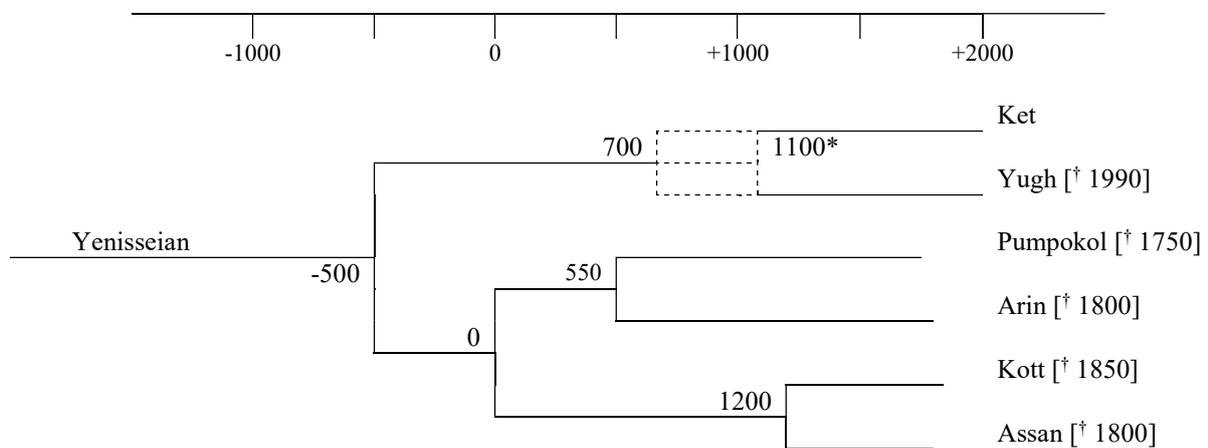

Note: Dating after <http://en.wikipedia.org/wiki/Yeniseian_languages#pulle02>, but 1100* after Verner.

In the most recent classification model (G. Starostin 2014, p.c.), based on recalibrated glottochronology, the position of Pumpokol is closer to the Ket-Yugh branch than to the Kott-Arin branch, in contrast to Verner´s model above:
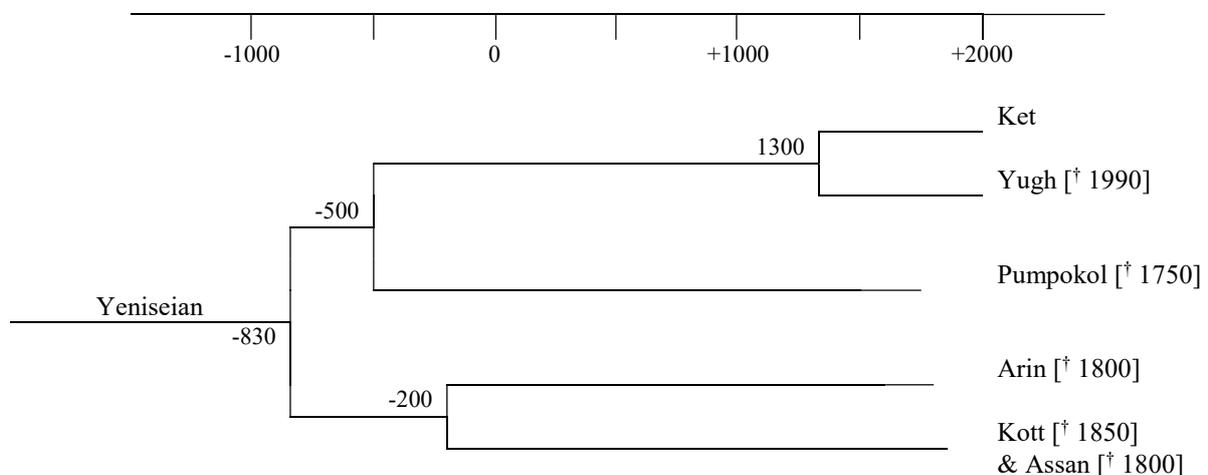
In perspective of distant relationship the Yeniseian language family was connected with various hypothetical relatives. Finally, the series of bilateral comparisons proposed by Karl Bouda (Yeniseian with Basque, North Caucasian, Burushaski, Sino-Tibetan) was more or less confirmed after reconstruction of partial protolanguages and formulation of the most probable sets of regular sound correspondences between them by Sergei Starostin and his followers, especially his son George Starostin, John Bengtson and others. Similarly, after bilateral comparisons of Na-Dene with Sino-Tibetan by Sapir, Shafer and Swadesh, Na-Dene with North Caucasian by Nikolaev and Nadene with Yeniseian by Vajda, the Na-Dene member of the vast Sino-Caucasian macrophylum was accepted too (see Blažek & Bengtson 1995 and Bengtson 2010 for older references). The first preliminary model of classification of this macro-phylum based on recalibrated glottochronology was realized by George Starostin (2010, p.c.). He confirmed the so-called Karasuk hypothesis about a closer relationship between Yeniseian and Burushaski languages, formulated by George van Driem[1] (2001: 1186-1201) and supported by John Bengtson (2010), although the chronological level of the Karasuk culture (1500-800 BCE) does not correspond with the hypothetical Yeniseian-Burushaski unity. On the other hand, the time and area of the culture widespread from the Upper Yenisei to the Aral sea (Mallory, EIEC 325-26) may be connected with ancestors of Yeniseian before their disintegration (cf. van Driem 2001: 1203).
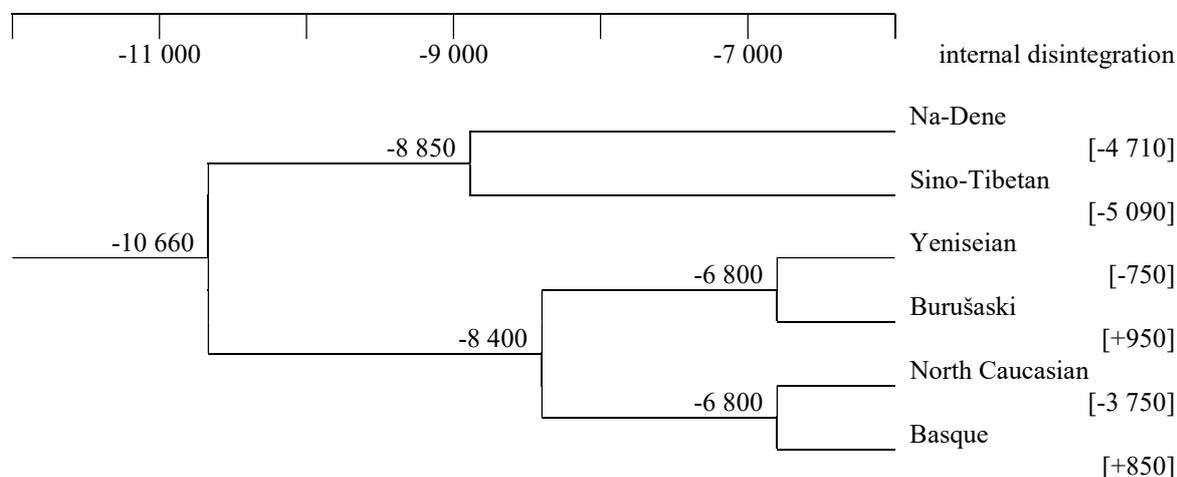
Ad (e)
1. Historical territory of the Yeniseian languages
The historical extension of speakers of the Yeniseian languages described in the last three centuries is limited to the basin of the Yenisei (Yenisei-Angara-Selenga 5539 km) from the Kureika river (888 km) in the north (near the polar circle) to the city of Sajanogorsk in the south (*c*. 53rd latitude). The eastern border of the southeasternmost tribe, Kotts, was *c*. the 99th longitude. The western border of Kets was near the 84th longitude.
Taking into account the witness of toponyms, especially hydronyms, the eastern border more or less remains, the southern border of the Yeniseian dialect continuum in the Yenissei basin should be shifted to the basins of the rivers Abakan in Khakasya and Bolšoi Yenisei in North Tuva (Dul'zon 1959: 97; 1963: 289-95), i.e. to the *c*. 52nd latitude. The witness of hydronyms informs us that traces of populations speaking the Yeniseian languages appear predominantly in the southern part of the Western Siberian Lowlands, where the northern border was approximately the 58th longitude, with exception of the Yenisei basin, where the northernmost border of the Yeniseian hydronyms was identified along the Kureika river at *c*. 67° 30', and the basin of the river Tym (950 km), the right tributary of Ob, around the 60th latitude. The westernmost border of the area of the Yeniseian hydronyms could be the *Iset'* river (606 km long), the left (i.e. western) tributary of the Tobol river, which itself is the left tributary of the Irtyš. The Iset' empties in the Tobol at the *c*. 67th longitude and its spring is located near the 60th

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[1] The first who connected Burushaski & Yeniseian languages was Hyde Clark in 1869, published 1870, how van Driem has demonstrated (2001: 186).

longitude. The hydronym is etymologizable from the compound *is-set[2] "fish-river". The border in south or southwest will be discussed below in §3.

2. Traces of Yeniseian hydronyms to the west of their historical settlement

It was already Radloff (1884: 188-89) who mentioned: 'Was mich aber vor allem veranlasst, ... , ist der umstand, dass die namen der flüsse im quellgebiete des Tom nirgends tatarische, sondern ihre namen tragen, zu drei vierteilen aus *sas*, *säs* endigen, was im Jenissei-ostjakischen "fluss, bach" bedeutet. Es lässt sich eine ganze reihe von flussnamen aus dem Jenissei-ostjakischen erklären, z.b.: *Päisäs* (windfluss) = JenO *bei* "wind" und *säs* "fluss", *Kamsas* (Pfeilfluss) = *cham* "pfeil", *Amsas* (mutterfluss) = *am* "mutter", *Sinsäs* (schmutzfluss) = *sine* "schmutz", *Paisas* (cederfluss) = *fai* "ceder".'

Later Duľzon (1959a: 98-111) and Maloletko (2000: 111-153) have collected and determined as Yeniseian more than 400 hydronyms from the areas outside the historical settlements of Yeniseian tribes. The following illustrative examples, reduced to *c.* 80, are chosen from the western part of this territory, i.e. from the basin of the Ob & Irtyš. Almost all are characterized by specific hydrological components:

A. Yeniseian *ses* "river" > Ket *śēś*, pl. South *śaś*[4], Kureika *śa:śi*[4], Yugh *ses*, pl. *sa:*[h]*s*; Kott *šēt*, pl. *šati* "river, brook"; *šētōk* (-*g*), pl. *šētōkŋ*, *šētōgan* "brook"; Assan *šet* "river (fluvius)", "brook (amnis)"; Arin *sat* "river (fluvius)"; Pumpokol *tataŋ* "river (fluvius)", "brook (amnis)" (Duľzon 1961: 179; Toporov 1967: 313; Starostin 1995: 271; Werner 2: 191: **set / *tet*).

B. Yeniseian **xur₁* "water" > Ket *ūĺ* id.; *uĺij*[6] "vapour above the water", Yugh *ur*; *urfɨ*[5] "dew"; Kottish[6] *ūl*; Assan *ul*; Arin *kul*; Pumpokol *ul* (Starostin 1995: 298; Werner 2: 378: **(k)uʌ̒ / *(k)uʌ̒(ə)*).

These historically documented appellatives, most frequently forming hydronyms, reflect variants which appear outside the Yeniseian territory too (E = a/e/i):

Aa) **sEs/*śEś* (Yug & Ket), Ab) **sEt* (Arin), Ac) **šEt* (Kott & Assan), Ad) **tEt* (Pumpokol). Duľzon (1963: 291) and Maloletko (2000: 152-54) have added the variant Ae) **tEs*, attested e.g. in the following hydronyms: Bak*tas* → Tym; Kaj*tes* → Elbagan lake → Ob; Kan*tas*, Keľ*tas*, Ken*tas* → Mras-Su; Ku*tis* → Šiš → Irtyš; Taj*tas* → Uj → Irtyš; Ten*tis* → Irtyš; U*tis* → Demjanka → Irtyš; etc.

Ba) **ur* (Yugh); Bb) **ul* (Ket, Kott, Assan, Pumpokol); Bc) **kul* (Arin).

Irtyš basin: Ar*zes*, A*sis*, A*ses*-Igan (cf. Khanty *jogan* "river"), Bajan*zas*, Balan*zas*, En*cɨs*,
      Im*cɨs*, Is*is*, Ka*čis*, Kain*sas*, Kaj*čes*, Kɨn*zas*, Kɨp*sɨs*, *Šiš*, Taj*sas*, U*sis*;
      Tobol (1660 km): I*seť*, *Tet* (lake);
      Išim (2450 km): Čal*dat* (lake on the steppe in neighborhood of the Išim), *Ir*, Ratsi*det*,
          Sa*zat*;
      Tara (806 km; cf. Yug *ta*[h]*:r*, Kott *t*[h]*eʔär* "otter" - see Werner 3: 49);
      Om (724 km): Iči*ndat*.

Ob basin: I*žet*, Jara*ur*, Pok*ur*, Se*uľ*, *Šiš*-Joga;
      Vakh (964 km): Pan*ur*, Pɨ*seś*-Jogan, *Ses*-Jogan;
      Tym (950 km): Kogo*zes* / Kogu*zes*, Puľ*sec*, Tol*zes*;
      Vasyugan (1082 km): *Kuľ*-če,
          Čižapka (512 km): *Tom*-ka
      Keť (1621 km): Čouz*et*, Kagɨz*et*, Keľ-*Tom*, Ki*dat*, Onguz*et*, Simuz*et*, *Tet* (lake);
      Čulym (1799 km): Ajga*dat*, Alba*tat*ka, An*dat*, Argu*tat*, Baran*dat*ka, Biľ*at*ka, Čego*dat*,
          Čet, Čiľ-*Koľ*, Čin*dat*, I*det* / E*det*, *Īr*, Ki*tat*, Komu*dat*, Kubi*tat*, Ribi*tat* /
      Irbi*tat*, Sul*zat*, Tepľ*at*ka;
      Tom (871 km; cf. Pumpokol *tōm* "river"): Kiči-On*zas*, Kuŋ*zas*, Si*zes*, Śan*zas*, Ulu-
          On*zas*, *Zas*;
          Kondoma (392 km): Pa*zas*;

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[2] Cf. Ket *īś* "meat, fish", Yug *īs* "meat, fish"; Kottish *īči*, pl. *īčaŋ*; acc. *ič* "meat"; Arin *is* meat" < Yenisseian **ʔise* (Starostin 1995: 194) & Kott *šēt*, pl. *šati* "river, brook"; Assan *šet* "river, brook"; Arin *sat* "river" < Yenisseian **ses* (Starostin 1995: 271).

Mras-Su (338 km): Ak*sas*, Čau*zas*, Kam*zas*-gol, Pov*zas* / Pouk*zas*, Ram*zas*,
Si*ɫes* / Si*zes*, Taen*zas*;

Čumyš (644 km): Tog*ul*, Ači*kuľ*, *Tom'*-Čumyš.

3. Traces of Yeniseian substratum to the southwest of their recent settlement

Ču r., 1067 km
Kirgiz *Čüj*, Kazakh *Šū*

Konkašpaev (1963: 126) found no etymology: "The sense is not clear." It is possible to connect it with Yeniseian **čəʔ* "salt" > Ket *tʌʔ* "salt", *tʌɣet⁵* "to salt", Yug *čʌʔ* "salt", *čʌgit⁵* "to salt"; Kott *ši-nčēt*, pl. -*čētaŋ* "salt"; Assan *či-nʒet* (М., Кл.), *tinʒet* (Сл., Срсл.), *šinčet* (Кл.) "salt"; Pumpokol *če* (Срсл., Кл.) is most likely a Yug form (Starostin 1995: 216; Werner 2: 301: **t'əʔ < *t'əgə*). This "salt" solution may be supported by the fact that the river empties into the salt lake *Aščy-köl*, lit. "salty lake" (Konkašpaev 1963: 25), and during floods links the salt lake Issyk-Kul ("warming lake"), earlier called *Tuz-köl*[3], i.e. "salty lake" in Kirgyz (Bičurin III: 50-51), via old riverbed Ketmaldy (also Buugan). Besides the "salty lakes" there are also *Aščy-su* "salty river" and *Ašči-özek* "salty rivulet" in Kazakhstan (Konkašpaev 1963: 26) or Russian hydronyms such as *Soljanka*, belonging to the river emptying into the lake Žaksy-Alakol, northeast of the Kostanajskaja oblasť.

Interesting are Chinese transcriptions of the names of the river Ču known from the 'New Book of Tang' (新唐書 *Xīn Tángshū*), datable to 630s, see Bičurin III: 195, 180; Chavannes 1903: 9-10):

素葉 *sù⁴ yè⁵* < Late Middle Chinese **suə̀ *jiap* < Early Middle Chinese **sɔʰ *jiap* (Pulleyblank 1991: 295, 364). It corresponds to the Iranian name *Sūyāb* of the river Ču and the city of the same name, today Tokmak. The name probably means "canal (= *āb*) on the Ču river" (Minorsky apud Bosworth). Cf. Sogdian *''p, 'p, 'b /āp/* "water" (Gharib 1995: 8), Manichean Middle Persian *'b /āb/* "water". The first component probably represents an adaptation of the hydronym of the type Kirghiz *Čüj*.

碎栗 *suì⁶ lì⁷* < Late Middle Chinese **suaj` *lit* < Early Middle Chinese **swəjʰ *lit* (Pulleyblank 1991: 297 & 190). The first component probably again represents an adaptation of the hydronym of the type Kirgyz *Čüj*. The second member may reflect an Iranian word **rixta-*, part.perf.pass. from the verb **raik̯-* "to pour", cf. Manichaean Middle Persian *ryxt* "cast of (gold)" or **raik̯-* "to leave", cf. Manichaean Middle Persian *wryxt* "fled away" (Cheung 2007: 187-88: **Hraič-*; 307-08: **raič-*). Let us mention that

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[3] *Тузкюль,* на тюркском языке соляное озеро; лежит в 300 ли от Или на западе; в длину от востока к западу содержит 400, в ширину от юга к северу 200 ли. Со всех сторон впадает в него множество речек. По истории династии Тхан в повествовании о Ван Фан-и: в седьмой луне расположился лагерем при реке *Йе-хэ.* Судов не было, а река покрылась льдом. В повествовании о тукюесцах сказано: Су-дин-фан, преследуя Хэлу, пришел к *Суй-йе-шуй,* и овладел его народом. По исследованию, *Суй-йе-шуй* находится от Или-гола на западе. Ныне от Или на западе самое большое озеро есть Тузкюль, и, без сомнения, оно названо *Суй-йе-шуй.* Ван Фан-и, разбив Янькюйево войско при реке Или, преследовал его до реки *Йе-хэ,* Эта река Йе-хэ есть другое название озера Суй-йе-шуй, и, без всякого сомнения, есть озеро *Тузкюлъ.* Сие озеро ныне еще называется по-тюркски *Иссы-кюль,* горячее озеро, по-монг. *Тэмурту-нор,* железное озеро. (Bičurin III: 50-51).

[4] Modern Chinese (Beijing) 素 *sù* "white, undyed, silk; white; in its original state, plain" < Late Middle Chinese **suə̀ ` < Early Middle Chinese **sɔʰ* (Pulleyblank 1991: 295) = Modern (Beijing) *sù* < Middle Chinese **sò* < Postclassic Chinese **sò̄* < Eastern & Western Han Chinese **sāh* < Classic Old Chinese **sāh* < Preclassic Old Chinese **sās* (~ **sāks*) (Starostin, DB).

[5] Modern (Beijing) Chinese 葉 *yè* "leaves, foliage, generation" < Late & Early Middle Chinese **jiap* (Pulleyblank 1991: 364) = Middle Chinese **jep* < Postclassic Chinese **zhap* < Eastern Han Chinese **zhap* < Western Han Chinese **lhap* < Classic Old Chinese **lhap* < Preclassic Old Chinese **lhap* (Starostin, DB).

[6] Modern Chinese (Beijing) 碎 *suì* "to break; splinter, broken piece" < Late Middle Chinese **suaj` < Early Middle Chinese **swəjʰ* (Pulleyblank 1991: 297) = Middle Chinese **sòj* < Late & Middle Postclassic Chinese **shwə̀j* < Early Postclassic & Han Chinese **shwə̄j* < Classic Old Chinese **shwə̄ć* < Preclassic Old Chinese **shūts* (Starostin, DB).

[7] Modern (Beijing) Chinese 栗 *lì* "chestnut (Castanea mollissima)" < Late & Early Middle Chinese **lit* (Pulleyblank 1991: 190) = Middle Chinese **lit* < Postclassic Chinese **lhjit* < Eastern & Western Han Chinese **rhjət* < Classic & Preclassic Old Chinese **rhit* (Starostin, DB).

in Ossetic and its predecessor the sequence *ri/*rị changes into l(i), cf. Ossetic Digor lixsun/lixst "to spit" vs. leʒun / liǧd "to run away".

葉河 yè hé[8] < Late Middle Chinese *jiap *xha < Early Middle Chinese *jiap *ɣa (Pulleyblank 1991: 364 & 122). It is probably a tautological Iranian-Chinese compound meaning "water"-"river".
External relations: Burušaski Hunza & Nagar ṣáo "oversalted".

Esil r., 1818/2450 km
The upper stream of the river Išim, the left tributary of the Irtyš / Ertis. It is etymologizable on the basis of the Yeniseian material: Ket iśĺ[5] "whirlpool" (Starostin 1995: 196: *ʔis- (~x-); Werner 2: 432: * is- "to whirl" & *u·ĺ "water").

Irtyš r., 4 248 km
Old Turkic Ärtis (Tekin 1968: 329) or Ertis, firstly attested in the Orkhon inscriptions of Toñukuk[9] (730-731 CE) and of Kultegin[10] (732 CE), Kāšɣari Ärtis[11], Tatar Irteš, Kazakh Ertis, Middle Mongolian Ärdiš ('Secret History', §§ 207, 264) or Ärdis (Ibid., § 198), Ertič (Kirakos, 'History of Armenians', written 1241-65), Written Mongolian Ercis (Lessing 1960, 320), Kalmuck Ersᵊs (Ramstedt 1935: 127), and Modern Chinese 额尔齐斯河 É'ěrqísī hé. In the first approximation it is natural to try to etymologize the hydronym as Turkic. With respect to the oldest vocalization Ärtis ~ Ertis, it is possible to think about derivation from the verb attested in Old Turkic är- [12], "to reach, come to, arrive" (Tekin 1968: 328), Old Uyghur är- "vorübergehen, ankommen", Turkish är, ir "erreichen, erlangen" etc. (Räsänen 1969: 46). But there is no appropriate suffix *-tis[13] in Turkic languages which could form the whole hydronym. The same may be said, if the first component is identified with the Turkic root *ir/*ïr-, attested in *ïrmak "river", *ïran "flowing", *iren "water", *irim "bay" etc. (Sevortjan 1974: 664-65). Already Ramstedt (1907: 4), followed by Donner (1916-20: 5), formulated a hypothesis about the role of the Yeniseian word "river" attested in Ket śēś, Kottish šēt "river, brook" in formation of the hydronym Irtyš. This idea was accepted by Duľzon (1959a: 98, 105; 1963: 290, mentioning the Pumpokol counterpart Irdet) and Werner (3: 45, 52). But the component *-tis does not agree with any of the variants Aa-Ad (see §2), only with Ae. The first component can be of Turkic origin (*är- "to reach, come to" or *ir-/*ïr- *"to flow"?). Such a hybrid Turkic-Yenisseian compound is naturally thinkable, but it is possible to find an internal Yeniseian etymology in Ket ɛr' / jɛr', pl. e·r'eŋ / e·r'iŋ "reed" (Werner 1, 240). In this case it

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[8] Modern (Beijing) Chinese 河 hé "river; the Yellow River" < Late Middle Chinese *xha < Early Middle Chinese *ɣa (Pulleyblank 1991: 122) = Middle Chinese *ɣâ < Postclassic Chinese *ɣā < Eastern Han Chinese *ɣā̆ < Western Han Chinese *ɣāj < Classic & Preclassic Old Chinese *ghāj (Starostin, DB).

[9] §35 Ertis ügüzig : kečigsizin : kečdimiz "We crossed without the ford the Irtysh river." Tonyukuk inscription; §37-38 Ertis ügüzig : keče keltimiz "Went across the Irtysh river without the ford" (cf. Amanžolov 2003: 183). The inscription dated to 730-731 CE was found in Tsagaa Ovoo district in northwest from Bayan-Zurh mountain, in 65 km southeast from Ulaanbaatar.
<http://irq.kaznpu.kz/?lang=e&mod=1&tid=1&oid=17&m=1>

[10] ol jïlqa : Türügeš... toɣa : Ertis ügüzüg : keče : yorïdïmïz "In that year we marched to Turgesh … crossing over the Irtysh river." Kultegin inscription, §37, 732 CE. The inscription was found on left Orkhon riverside in 45 km north from an ancient Karakorum city, in 400 km southwest from Ulaanbaatar. <http://irq.kaznpu.kz/?lang=e&mod=1&tid=1&oid=15&m=1>.

[11] Pelliot 1959: 299: The same obtains in the case of the Irtysh, called in the 'Secret History' Ärdiš (§§ 207, 264) or Ärdis (§ 198; the latter form is a misreading of the transcribers; the ancient Mongolian script did not distinguish -s and -š), Yeh-êrh-ti-shih (Ardiš) in YS, I, s. a. 1206 and 1208; 122, 1 b; Yeh-li-ti-shih in YS, 22, 1 a; Yeh-êrh-ti-shih in the Shêng-wu ch'inchêng lu (47 a); cf. Ärtis in Kāšɣari (misread «Artiš» by Brockelmann); Ertič in Kirakos (Patkanov, Istoriya Mongolov, u, 82). But the Mongol name is Ärčis in « Sanang Setsen » (cf. Schmidt, Gesch. der Ost-Mongolen, 211, 412), or more probably Ärǰis as in the Chinese translation of that work (Mêng-ku yüan-liu chien-chêng, 6, 22 b). <http://dsr.nii.ac.jp/toyobunko/III-2-F-c-104/V-1/page-hr/0315.html.en>

[12] I am grateful to Michal Schwarz (p.c.) for this solution and introduction of data of the Orkhon inscriptions at all.

[13] Hypothetically it would be possible to construct a compound suffix consisting of the deverbal adjectival suffix *-ti, plus the collective suffix *-s (cf. Serebrennikov & Gadžieva 1979: 229-30 and Kononov 1980: 145-46 respectively), but it is highly speculative without any support in concrete language facts.

would be the "reedy river". Concerning semantic typology, this would correspond to the 105 km long Reedy River in South Carolina.

The Chinese name of the Irtyš from the 'New Book of Tang' (新唐書 *Xīn Tángshū*), datable to 640s, (cf. Bičurin I, 347; III, 43, 180, 191; Chavannes 1903: 33, fn. 8) was written as 僕固振水, i.e. in modern pinyin transcription *pú*[14] *gù*[15] *zhèn*[16] *shuǐ*[17] < Early Middle Chinese **bawk *kɔʰ *tʂin` *ɕwi'* (Pulleyblank) = **buk *kò *ćìn *świ* (Starostin), where the sign 水 referred to the Chinese word for "water, river", used to designate all rivers on the Chinese map (Bičurin III, Appendix 8). The hydronym proper projected in the Middle Chinese pronunciation is perhaps etymologizable with help of Ket *³bʌ* "eine Stelle am Ufer, die im Frühling bei Hochwasser überschwommen ist" & *kɔ́jeśeń* "Flut; Steigen des Wasserpegels" (Werner 1, 157; 431). Alternatively, the hydronym is analyzable as a hypothetical compound consisting of Yeniseian **pōqe* "deep" > Ket *hɔʁu⁴* (Kur.), South *hɔʁ⁴ / hɔuʁ*; pl. *hɔqŋ⁵*, Yug *fɔ:hx*, pl. *fɔqŋ⁵*; Kott *fōge, phōge* id.; Pumpokol *foźbaǵ* "depth"? (Starostin 1995: 251; Werner 1, 326) & **quk (~χ-)* "river (Yenisei)" > Ket *qūk*, Yug *xuk*; Arin *jikhuj* (M.) "Yenisei", (Лоск.) *ikai* "river" (Starostin 1995: 265; Werner 2, 140). The final component could be connected with Kott (Castrén) *šinaŋ*, pl. *šinakŋ* "Flussquelle"; maybe also Ket *śinlʼ*, Yug *sínir* "eine Stelle im Fluss, die nicht zugefroren ist" (Starostin 1995, 274; Werner 2, 166).

Kang a. (see Blažek & Schwarz 2017, 50-51)

Area along the middle stream of the river Syr-Darya in south Kazakhstan, known already from the Orkhon inscriptions (Murzaev 1964: 6 added still *Kanga-Darya*, one of the dry riverbeds of the Amu-Darya, emptying into the Sarykamyš depression on the border between Uzbekistan and Turkmenistan). It is tempting to add the Chinese name 康[18] 居[19] *Kangju* belonging to an ancient nomadic tribal federation of unknown multiethnic and linguistic origin and the area dominated by them in Central Asia, namely the Talas basin, Taškent and Sogdiana. The name is explainable as "home of Kang" or "home of peace". But with respect to information of the Chinese traveller and diplomat Zhang Qian who visited the area *c*. 128 BCE about 80.000 or 90.000 skilled archers the latter possibility is rather improbable. Independently of linguistic affiliation of the *Kang* tribes the name is probably inherited from older times. Related may be Yenisseian **Kaŋ* "river (Kan)" > Kottish *kaŋ*; Assan *kaŋ*; Arin *xaŋ* (Dulson 1969: 24; Starostin 1995: 243; Werner 1: 409). The hydronym is etymologizable on the basis of Yeniseian **kāŋ-* (~ g-) "(hunting) path" > South Ket *kaŋ⁴*, North Ket *ka:ŋə⁴*; pl. *kāŋen¹*, Yug *ka:ʰŋ*, pl. *kaŋin¹* "Weg des großen Winternomadisierens" (Werner 1: 409; Starostin 1995: 235).

External cognates: Burušaski Yasin, Hunza, Nagir *gan* "road".

Note: Rivers were the only means of transport on the taiga; on the steppes or deserts river valleys, shores or beds represent natural roads too. Comparable examples in perspective of semantic typology appear

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[14] Modern (Beijing) Chinese 僕 *pú* "servant; groom; hide, conceal" < Late Middle Chinese **pəwk* < Early Middle Chinese **bawk* (Pulleyblank 1991: 243) = Middle Chinese **buk* < Late Postclassic Chinese **bwōk* < Middle & Early Postclassic Chinese **bōk* < Eastern & Western Han Chinese **bōk* < Classic & Preclassic Old Chinese **bōk* (Starostin, DB).

[15] Modern (Beijing) Chinese 固 *gù* "secure, make sure; strong, firm" < Late Middle Chinese **kuə̀* < Early Middle Chinese **kɔʰ* (Pulleyblank 1991: 243) = Middle Chinese **kò* < Postclassic Chinese **kằ* < Han Chinese **kāh* < Classic Old Chinese **kāh* < Preclassic Old Chinese **kā(ʔ)s* (Starostin, DB).

[16] Modern (Beijing) Chinese 振 *zhèn* "to shake, rouse, alarm; to marshal" > Late Middle Chinese **tʂin`* < Early Middle Chinese **tɕinʰ* (Pulleyblank 1991: 402) = Middle Chinese **ćìn* < Postclassic Chinese **ćìn* < Eastern Han Chinese **ćə̀nh* < Western Han Chinese **tə̀nh* < Classic Old Chinese **tə̀nh* < Preclassic Old Chinese **tə̀rs* (Starostin, DB).

[17] Modern (Beijing) Chinese 水 *shuǐ* "water, river" < Late Middle Chinese **ʂyj`* < Early Middle Chinese **ɕwi'* (Pulleyblank 1991: 290) = Middle Chinese **świ* < Late Postclassic Chinese **ćwí* < Middle & Early Postclassic Chinese **ćwíj* < Eastern Han Chinese **ćwə̀j* < Western Han Chinese **twə̀j* < Early Postclassic Chinese **twə̀j* < Classic Old Chinese **twə̀j* < Preclassic Old Chinese **tujʔ* (Starostin, DB).

[18] 康 *kāng* "to be at ease, have peace of mind; be prosperous, healthy; tranquility, peace; prosperity" < Late & Early Middle Chinese **kʰāŋ* (Pulleyblank 1991: 171) = Middle Chinese **khâŋ* < Old Han-Preclassic Chinese **khāŋ* (Starostin, DB).

[19] 居 *jū* "to stay at, remain, dwell; part" < Late Middle Chinese **kiə̆/*kyə̆* < Early Middle Chinese **kiə̆* (Pulleyblank 1991: 162) = Middle Chinese **kö* < Postclassic Chinese **ko* < Han-Preclassic Chinese **ka* (Starostin, DB).

e.g. in Afroasiatic languages: East Cushitic: Oromo Macha *laga* "river", *lage* "valley"; Somali *laag* "water-channel", Bayso *lága* "river-bank" vs. North Cushitic: Beja *lagi* "path, pathway, beaten track" (Roper), "road" (Reinisch); South Cushitic: Qwadza *lagalako* "path, road"; Central Chadic: Wamdiu *làgu*, Margi *lagn*, West Margi *lakù*, Kilba *laakù* "road" (Blažek 2006: 405-06).

Selety r., 407 km; ***Selety-Tengiz*** l., 777 km^2

The river *Selety* empties in the lake *Selety-Tengiz*. There was also a village *Selety-Buguly* in the Kzyltuskij region of northern Kazakhstan, where both the preceding hydronyms are located too. Sultaňjaev (1980: 115-16), summarizing these data, rejected the etymology of Konkašpaev (1959: 95), who had explained *Selety* on the basis of 'Mongolic' *čulun*[20] "stone". Later Konkašpaev (1963: 102) observed: 'The sense was not clarified'. Sultaňjaev (l.c.) offered his own solution, assuming the original semantics "deer's river or lake". He sought support in identification of the second component of the place-name *Selety-Buguly* with Kazakh *buγu* "deer" (see Räsänen 1969: 86; he also mentioned Written Mongol *buγu* "male deer"). His second argument is based on the toponym *Sögety* from the eastern part of the Zailijskij ('Transilian') Alatau, designating a mountain, valley and spring, which was etymologized by Konkašpaev (1962: 241) with help of Mongolic (Khalkha) *sogot* pl. "female marals", Written Mongol *soγut*, pl. from *soγu* "female deer or maral" (Lessing 1960: 724). Sultaňjaev speculated about transformation of *Sögety* into *Selety* in the process of borrowing. But later Konkašpaev (1963: 103) came to prefer another etymology of *Sögety*, explaing it from Turkic **següt* "willow" > Old Uyghur *sögüt*, Uzbek *sögät*, Sary-Yughur *sögüt*, *segɨt* etc. (Räsänen 1969: 429; ÈST₆ 313). Sultaňjaev's solution is apparently wrong concerning the *ad hoc* substitution g → l. But his idea about the tautological compound *Selety-Buguly*, where both components bear the same meaning "deer", is provocative. Instead of Mongolic *soγut* "female deers" it is attractive to seek a source of the first component in Yeniseian **sēr₁e* "deer" > Ket *śɛĺi⁴* (South), Kureika *śɛːĺi⁴*, pl. *śɛʔn*, Yug *sɛːʰr*, pl. *sɛʔn*, Kott *šeli*, gen. *šelā*, pl. *šetn* "wild animal"; Arin *sin* (М., Сл. Кл.,) "deer (cervus)"; Pumpokol *ssálat* (Miller) "deer (rangifer)" (Duľzon 1961: 175; Xelimskij 1986: 210; Starostin 1995: 272: the plural form **seʔn < *sēr₁-n*?, to which Arin *sin* belongs too; Werner 2: 183: **seʔə⟨ə*, pl. **seʔn*), especially with respect to Pumpokol *sálat* (see Blažek 1995).

Šet r., l., s.

In the compound hydronyms of Kazakhstan the form *šet* appears in the following formations a) 6 river names; b) 1 lake-name; c) 1 spring-name:

a) Rivers:

Šet-Bakanas (the second component, unexplainable through Turkic, resembles Arin *b'úqon* "mouth" < **bV-* "my" + **qɔŋ* "mouth, face" - see Starostin 1995: 244 & Werner 2: 108; in the final -*as* the Ket derivational suffix -*as* may be identified - see Werner 1, 61);

Šet-Irgiz (cf. Kazakh *yrγy-* "to jump", Tatar *yrγy-* "to pour, stream" - see Sevortjan 1974: 662); *Šet-Kajindy* (cf. Kazakh *kajyn* "birch" - see Räsänen 1969: 218);

Šet-Karasu (cf. Kazakh *kara sū* "black water");

Šet-Merke (could *Merke* be motivated by the Mongolian ethnonym *Mergid* 'Merkits'?);

Šet-Terekty (cf. Kazakh *teräk* "alder" - see Räsänen 1969: 475);

Šet-Ulasty (cf. Written Mongolian *ulijasu(n)*, Kalmuck *ulāsŋ*, Urdus *ulāsu*, Buryat *uljāha* "poplar" - see Räsänen 1969: 513).

b) Lake:

Šetkara (cf. Common Turkic **kara* "black" - see Räsänen 1969: 235).

c) Spring:

Šetkuduk (Šetküdyk) (cf. Kazakh *kuduk* "water well" - see Räsänen 1969: 296-97).

In *šet* Konkašpaev (1963: 128) saw Kazakh *šet* "edge, border, periphery" (cf. Räsänen 1969: 106: Turkic **čät*). It is improbable that a word with this meaning would be so frequent in toponyms. More expectable is a component bearing a more 'hydronymical' meaning. A good candidate is Common Yeniseian **ses*

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[20] The real Mongolic forms are as follows: Middle Mongol *čilao'un* (Secret History) ~ *č'ila'un* (ḥPʻags-pa), Written Mongol *čilaγun* "stone, rock", Written Oirat *čiloun*, Kalmyk *tšolūn*, Aga Buryat *šulūŋ*, Khalkha *tšulū*, Urdus, Kharchin *tčilū*, Khamnigan *čilō*, Shira-Yughur *čelū*, Daghur *tšolō* (Poppe 1955: 68, 112; Schwarz & Blažek 2013: 191, 200).

"river", especially with respect to the form *šet, common for Kott, Assan and Arin: Ket śēś, pl. South śaš[4], Kureika śa:śi[4], Yugh ses, pl. sa:[h]s; Kott šēt, pl. šati "river, brook"; šētōk (-g), pl. šētōkŋ, šētōgan "brook"; Assan šet "river (fluvius)", "brook (amnis)"; Arin sat "river (fluvius)"; Pumpokol tataŋ "river (fluvius)", "brook (amnis)" (Duľzon 1961: 179; Toporov 1967: 313; Starostin 1995: 271; Werner 2: 191: *set / *tet).

Taškent c., 2,309,200 inhabitants (2012)

The name of the biggest city of Central Asia has been, undoubtedly correctly, interpreted as "stony city", cf. Old Turkic (Orkhon) taš, Old & Modern Uighur, Kirghiz taš, Uzbek tɔš, Kazakh tas, Turkmen dāš etc. "stone" (Räsänen 1969: 466) & Old Uyghur känt, Middle Turkic känd, känt, Kazakh kent "city", Uzbek (arch.) kent "town, small city, big village" etc. (Räsänen 1969: 252; EST₄ 44) < Sogdian knδ(h), qnθ, knδ(δ) /kand/t/ or /kanθ/ (Gharib 1995: 150), cf. also Khotanese kanthā- "city", Zoroastrian Pahlavi Samar-kand ~ Μαράκανδα [Plutarch], further New Persian kand "village", Pashto kandai "ward", Ossetic Iron känt "building" (Bailey 1979: 51). Already in the mid-2nd cent. C.E. in Sakaland Ptolemy [VI, 13.2] recorded Λίθινος Πύργος, 'Stone Tower' (Marquart 1901: 155; Humbach & Ziegler 1998: 176-77). The annals of Chinese dynasties of Sui and Tang mention the possession named 石 Shí or 赭 時 Zhěshí with a capital of the same name since the fifth century AD (Bičurin II: 242, 243, 264, 313; Chavannes 1903: 140, 273). The name 石 Shí[21] means "stone" in Chinese, while the name 赭時 Zhěshí[22], recorded also by the Buddhist monk and pilgrim 玄奘 Xuánzàng (602/603? – 664 AD), corresponds to the non-Turkic and non-Chinese name Čāč[23] or Šāš[24] of the city and the area surrounding it, known from pre-Islamic and early Islamic times, including Šāhnāmeh of Firdausi, written in 977-1010. It is quite natural to expect the meaning "stone" for the place-name Čāč or Šāš too. It was E. Pulleyblank (1962: 248) who first connected it with the Yeniseian word "stone", reconstructed as *čiʔs > Ket tiʔś, pl. tʌʔŋ / tʌɣa:n³, Yugh čiʔs, pl. čʌʔŋ; čʌɣa:n³ "rock"; Kott šīš, pl. šeŋ "Stein"; šiŋeäŋ, pl. šiŋeäkŋ "rock"; Assan šiš; Arin kes "stone"; Pumpokol kit "stone"; the form čis ascribed to Pumpokol in Sravniteľnyj slovaŕ & by Klaproth is in reality the Yug form (Starostin 1995: 217-18: In the plural the ablaut protoform *čəʔ-ŋ is reconstructible, which may indicate a suffixed nature of *-s in singular; Werner 2: 312: *t'iʔs; Werner separates the Arin and Pumpokol reflexes kes and kit respectively, in spite of their complete regularity).
External cognates: Burushaski: Yasin ćiṣ, Hunza ćhiṣ, Nagar ćhiṣ "mountain"; cf. also Dardic: Shina ćhĩ̄ṣ id. (Blažek & Bengtson 1995: 28).

Lake Balkhash (see Blažek & Schwarz 2017, 140-42)

Surface 16 400 km² in 2000, but 17 400 km² in 1950; maximum depth 26 m.

Balkhaš

The lake-name represents Kazakh balqaş "marshy area covered by humps"; further cf. Altai, Shor palɣaš, Sagai palɣas "clay" (Vasmer I, 116; Räsänen 1969, 60).

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[21] Modern (Beijing) Chinese 石 shí "stone, rock" < Late Middle Chinese *ṣhiajk < Early Middle Chinese *dziajk (Pulleyblank 1991: 283) = Middle Chinese *ȝek < Postclassic Chinese *ȝjek < Eastern Han Chinese *ȝiak < Western Han Chinese *diak < Classic & Preclassic Old Chinese *diak (Starostin; DB).

[22] Consisting of these components: Modern (Beijing) Chinese 赭 zhě "reddish-brown; burnt ochre" < Late Middle Chinese *tṣia` < Early Middle Chinese *tɕia' (Pulleyblank 1991: 42) = Middle Chinese *ćá < Postclassic Chinese *ćá < Eastern Han Chinese *ćá́ < Western Han Chinese *tiá < Classic Old Chinese *tiá < Preclassic Old Chinese *tiaʔ (Starostin, DB), & Modern (Beijing) Chinese 時 shí "season, time" < Late Middle Chinese *ṣhi < Early Middle Chinese *dzi/*dzi (Pulleyblank 1991: 282) = Middle Chinese *ȝi < Postclassic Chinese *ȝ(h)i < Eastern Han Chinese *ȝ(h)ə < Western Han Chinese *d(h)ə < Classic & Preclassic Old Chinese *d(h)ə (Starostin; DB).

[23] Sogdian c'c /Čāč/, c'c(y)ny /čač(ē)nē/ 'from Čāč, i.e. Tashkent' (Gharib 1995: 122).

[24] In the inscription on the Kaʿba-ye Zardošt at Naqš-e Rostam of the Sassanian king Šāhpuhr I (reign 240/42 - 270/72 C.E.) the toponym recorded in the Greek transcription as Τσατσηνῆς and in Parthian as š ʾšs[tn?] /Čāčestān/ appears (Tremblay 2004: 127). Following Gershevits, Livshits (2007: 179) thinks that Čāč originally designated the Aral sea and only later the name was shifted to the Tashkent oasis. He derives Čāč from hypothetical Iranian *čāiča-, reconstructed after Avestan lake called Čaēčista- [Yašt 9.18, 22]).

Yibo

In the "New Book of Tang" (新唐書 *Xīn Tángshū*), completed by Ouyang Xiu and Song Qi and their collaborators in 1060, the lake was called 夷撥 *yí*[25] *bō*[26] < Middle Chinese **ji pwât* < Late & Middle Postclassic Chinese **jij pāt* < Early Postclassic Chinese **źij pāt* < Eastern Han Chinese **źij pāt* < Western Han Chinese **ləj pāt*.

Etymology:

The limnonym is apparently a compound. It seems that the second component, in the pre-Tang Chinese reconstruction **pāt*, may be identified with South Yeniseian **pat* "knee": Arin *karam-pat* "elbow", *patas* "knee", Kottish *pul-patap* "metatarsus" (*pul* "foot, leg"), further related to Ket *baʔt* "joint, knee", *bátiŋ* pl. "joints of reindeer", *batpul̇*[5] (Imbatsk), pl. *batpuĺəŋ*[5,6] "knee", Yug *baʔt* "joint, knee", *batpiĺ*[5], pl. *batpiĺiŋ*[6] "knee" (a compound with **bul* "foot, leg"); cf. also Ket *bāt-kup*[1] "bend (of a river)" (Starostin 1995, 206: **baʔt-* "knee"; Werner 1, 108). Geographical names inspired by "knee" are not rare, e.g. the ancient city of Genua (of Ligurian origin?), today Genova, was probably named after the coastline of the Golfo di Genova, which actually resembles a knee; cf. Latin *genū* < **ĝenu-* (Pokorny 1959, 380-81). If this is the case, it remains to determine the function of the first component. The lake resembles a leg with a bent knee, i.e. the walking leg. Such an interpretation allows us to explain the first component with help of Kottish *ijaŋ* "fortgehen / to go away; continue", pret. *uijaŋ* (Castrén 1858, 200), perhaps related with *hejaŋ* "to go"; further Assan *ujáha* "to ride on horse", *pulán-ujáha / pulan-ajáha* "to walk" : *puláŋ* "feet"; Ket *ējeŋ*[1] / *ɛjeŋ*[5], Yug *ejiŋ*[1] (Starostin 1995, 231: **hejVŋ* "to go"; Werner 1, 265-266). Less probable is identification of the first component with Ket *ĺɔ́jeŋ* "neigen, beugen, biegen" (Werner 2, 11), based on the Western Han Chinese reconstruction **ləj pāt*, shifting chronology to the 1st-2nd cent. BCE.

Deyi

The lake was designated 得嶷 *dé*[27] *yí*[28] in the text 資治通鑒 *Zizhi tongjian* "Comprehensive mirror to aid in government", completed by Sima Guang (司馬光) and his team in 1084 CE, when the events from the 7th cent. were described. The lake-name may be projected into Middle Chinese **təkŋi/ɨ* (Pulleyblank) or **təkŋjɨ* (Schuessler).

Etymology:

There are several possible solutions, Iranian, Turkic, and Yeniseian:

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[25] Chinese 夷 *yí* "to be level" < Middle Chinese **ji* < Late & Middle Postclassic Chinese **jij* < Early Postclassic Chinese **źij* < Eastern Han Chinese **źaj* < Western Han Chinese **ləj* < Classic & Preclassic Old Chinese **ləj* (Starostin, *ChEDb*; *GSR* 0551 a-c). Comments: Used also for homonymous **ləj* 'name of non-Chinese tribes; barbarian' and **ləj* "be at rest, at ease, peaceful'; somewhat later also for **ləj* "rule, custom". Vietnamese *lì* "level; motionless" is an archaic loan; regular Sino-Viet. is *di*. Another old loan from the same source may be Viet. *lo'i* "to loosen, slacken, ease". Vietnamese reading: *lì*. Shijing occurrences: 14.3. Sino-Tibetan **jə̄l* "straight, level, even" > Old Chinese 夷 **ləj* "level, even; equal"; Kachin *gəjan*[1] "straight, not bent or crooked"; Lushai *zal* "to be level, even or smooth (as road)" (*CVST* IV, 82).

[26] Chinese 撥 *bō* "to dispose of, arrange, establish order" < Middle Chinese **pwât* < Postclassic Chinese **pāt* < Han Chinese **pāt* < Classic & Preclassic Old Chinese **pāt* (Starostin, *ChEDb*; *GSR* 0275 d).

[27] Chinese 得 *dé děi dǎi dě* "to find, get, obtain; booty, bounty" < Late Middle Chinese **təǎk*, Early Middle Chinese **tək* (Pulleyblank 1991, 74) ~ Middle Chinese **tʌk* < Postclassic Chinese **tāk* < Han Chinese **tāk* < Classic & Preclassic Old Chinese **tɜk* (Starostin, *ChEDb*; *GSR* 0905 d). Comments: Another loan from the same source is Vietnamese *dụ'o'c* "to obtain, get". Vietnamese reading: *dắc*. Schuessler (2007, 208): Middle & Eastern Han Chinese **tək* < Old Chinese **tə̂k*. Sino-Tibetan **tɜ̄k* "to obtain, get, gather" > Old Chinese 得 **tāk* "to obtain, get" / Tibetan *gtog* (pl. *btog*) "to pluck off, gather, tear out", *ãthogs* (p., i. *ãthogs*) "to take, seize, take up"; Burmese *nəuŋ-thak* "to seize (by force)"; Kiranti **[t]ək* (*CVST* II, 139).

[28] Chinese 嶷 *yí* (used in a name of the mountain 九嶷 *Jiǔyí*) < Late Middle Chinese **ŋi* < Early Middle Chinese **ŋi/*ŋi* (Pulleyblank 1991, 366; *GSR* 0956 c) & *nì* "to stand firmly" < Late Middle Chinese **ŋiǎk* < Early Middle Chinese **ŋik* (Pulleyblank 1991, 224). Schuessler (2009, 97, §4-23) reads the character 嶷 as *yí* 'a mountain name' and *yì* "firmly" and derived them as follows: *yí* < Middle Chinese **ŋjɨ* < Eastern Han Chinese **ŋiə* < Old Chinese **ŋə*; *yì* < Middle Chinese **ŋjək* < Eastern Han Chinese **ŋik* < Old Chinese **ŋək*.

(a) The first syllable could be compatible with the Iranian verb *tak-/*tač- "to flow, run", cf. such nominal derivatives as Khotanese *ttāka* "pool" < *tāka-ka- vs. *ttāja* "river" < *tāči-, Sogdian *tγ-* "stream", Bactrian ταγο "river-valley", Pashto *tōe* "stream" < *tāka-, Ossetic *täx* id. (Cheung 2007, 372-74; Bailey 1979, 125, 121; Gharib 1995, #9566). But the primary meaning was apparently "stream" and the final part of the Middle Chinese reconstruction is difficult to explain from Iranian.

(b) Another candidate could be Turkic *täŋgiŕ* "sea" > Old Bulgharian *täŋgir*, reconstructed on the basis of the loan in Hungarian *tenger* "sea", place name *Tengurdi* (AD 1152); Xakani by al-Kashghari (11th cent.), Old Uyghur (*Qutadγu bilig* from the 11th cent. in the Cairo ms. from the 14th cent.) *teŋiz* "sea", Kypchak (13th cent.), Old Oghuz, Qumanic (14th cent.), Chaghatai (15th cent.) *teŋiz*, Old Osman (14th cent.) *deŋiz*, Turkish *deniz*, dial. also *deŋiz*, *deñiz*, *deyiz*, *deγiz*, Gagauz *deniz*, Azerbaijani *dəniz*, Karaim of Crimea, Tatar of Crimea, Kirgiz, Turkmenian, Uzbek, New Uyghur *deŋiz*, Bashkir *diŋgĭz*, Kazan Tatar *dingəz* > Chuvash *tinəs*, Karaim of Galicia & Trakai *tengiz*, Kazakh, Karakalpak, Nogai *teŋiz*, Balkar *teŋgiz*, Oirat *täŋis*, Altai, Teleut, Kumandin *teŋis*, Khakas *tiŋis* "sea"; a little different semantics appears in New Uyghur dial. [Jarring] *teŋgiz* "lake", East Turkestani [Zenker] *tengiz* "river", Kazakh (= Kirgiz by Radloff) *teŋiz* "Lake Balkhash" (Räsänen 1969, 474; *DTS* 552; Clauson 1972, 572; Sevortjan 1980, 194-95; *EWU* II, 1502). Doerfer (*TMEN* II, 207, §1192), reconstructing the protoform *täŋyěř*, thought that the final *-ř* was originally the plural suffix. The forms without this final suffix were probably preserved in East Turkestani *tengi*, documented by Budagov and Zenker, and by al-Kašγari *teŋ*, i.e. *täŋ*, glossed by Arabic *γudur* "pool, brooks, rivers". The suffixed form would designate "place of {many} waters". The suffixless form *täŋgi* could be just the lake-name, which was transcribed in Middle Chinese of the 7th cent. as *təkŋi/ɨ* or *təkŋɨ*. Let us mention that in Kazakh Lake Balkhaš is simply called *Teŋiz*.

(c) A source of Middle Chinese designation *təkŋi/ɨ* or *təkŋɨ* for Lake Balkhash could also be of Yeniseian origin, more exactly from a language preceding Kott and Assan, languages extinct already in the 19th and 18th centuries respectively, when the following forms were recorded: Kott *ûr-têg*, *ûr-têx*, pl. *ûr-takŋ* "lake" (Castrén 1858, 203), Assan (Miller) *ur-tég*, Arin (Miller) *kur-t́ú*, (Loskutov) *kur-tük* id. (Duľzon 1961, 175; Toporov 1968, 297; Xelimskij 1986, 196). The first component corresponds to Kott (Castrén) *ur* & *ûr* "rain", Assan *ur* (Miller) "rain", Arin (Miller) *kur* "rain, humidity" (Duľzon 1961, 165; Toporov 1968, 289; Xelimskij 1986, 189; Starostin 1995, 297). The same second component also appears in the Kott compound expressing "swamp": *ol-tēg*, *ol-tēx*, *ol-tex*, pl. *ol-takŋ*. The first component *ol-* is more probably compatible with Ket & Yug *uʔl* "swamp, bog, mud" (Starostin 1995, 199) than with Yeniseian *ʔol* "grave, *hole", as Starostin had it in his Yeniseian database. Assan (Klaproth) *ol-tegan* probably represents the same compound in plural, although Klaproth translated the word as "lake". The Middle Chinese reconstruction *təkŋi/ɨ* or *təkŋjɨ* could reflect the proto-Kott gen.pl. *tekŋi*, with the genitive ending in *-i*, serving also as a base for some other cases, namely dative, locative, ablative, cf. the declension of the words *tagai* "head" and *hûś* "tent" (see Castrén 1858, 33-37):

Table 4: Kottic nominal declension

	sg.	pl.	sg.	pl.
nom.	*tagai*	*tagaj-aŋ*	*hûś*	*hu-ŋ*
gen.	*tagaî*	*tagaj-aŋ-i*	*hûć-i*	*hu-ŋ-i*
dat.	*tagai-ga*	*tagaj-aŋ-i-ga*	*hûć-i-ga*	*hu-ŋ-i-ga*
loc.	*tagai-hât*	*tagaj-aŋ-i-hât*	*hûć-i-hât*	*hu-ŋ-i-hât*
abl.	*tagai-ćaŋ*	*tagaj-aŋ-i-ćaŋ*	*hûć-i-ćaŋ*	*hu-ŋ-i-ćaŋ*
instr.	*tagaj-ô*	*tagaj-aŋ-ô*	*hûć-ô*	*hu-ŋ-ô*
com.	*tagaj-os*	*tagaj-aŋ-oś*	*hûć-oś*	*hu-ŋ-oś*

The proto-Kott form *tekŋi* "of lakes" could also be a source of the Turkic word *täŋi* discussed above. A deeper age of the Yeniseian forms is indicated by the cognates in the Ket branch: Ket *dɛʔ*, pl. *dēŋ*, Yug *dɛʔ*, pl. *deŋ*, Pumpokol pl. *dánniŋ* < Yeniseian *deʔG* "lake" (Starostin 1995, 219). The devoicing *d > t* is a regular change in the Kott branch, confirming the common heritage. The disintegration of the Yeniseian language family, estimated to *c.* 9th cent. BCE (G. Starostin – see the diagram), preceded the disintegration of the Turkic languages, dated to *c.* 100 BCE (A. Dybo and O. Mudrak).

Oxus = Amudarya river

Hanlou (see Blažek & Schwarz 2017, 149-50)

According to "History of the Northern Dynasties" (北史 *Běishǐ*), describing the period 386-581 CE, which was completed by Li Yanshou (李延壽) in 643-659, there was a big river in Central Asia, called 漢樓 *hàn*[29] *lóu*[30]. Markwart (1938, 38) identified it with the Oxus.

<u>Etymology</u>

(a) Markwart (l.c.) speculated about replacement of the first character in its name, assuming priority of the sign 濮 *pú*[31]. Using the reconstructions of Pulleyblank and Schuessler respectively, the hydronym should look like **pəwkləw* in Early Middle Chinese (the end of the 6th cent. CE) and **poklo* in Late Han Chinese (1st-2nd cent. CE). According to Markwart, such a similar form had to represent a transcription of the predecessor of Middle Persian *wēh-rōt*. Although Chinese *p-* can be a substituent of Middle Persian *w-*, more problematic looks the substitution of Middle Persian *h* by Middle (and earlier) Chinese *k* and the absence of any final in earlier phases of Chinese, which would correspond to Middle Persian *-t*. In sum, this solution remains artificial.

(b) Let us return to the original record, 漢樓 *hànlóu*. Various scholars reconstruct its predecessors as follows: Pulleyblank: Early Middle Chinese **xanʰləw*; Starostin: Middle Chinese **xâǹlʌw* < Postclassic Chinese **hâǹlə̄w* < Han Chinese **ŋānhrwā*; Schuessler: Late Han Chinese **hɑnlo*. Let us try to etymologize it on the basis of Iranian. It could be a compound consisting of the following roots, **xan-* & **hrau̯-*:

(i) **xan-* "source" > Zoroastrian Middle Persian *h'n* /xān/, *h'nyk*, Manichaean Middle Persian *x'nyg* /xānīg/ "source, spring", Parthian *x'nyg* id. (*MPP* 363; Cheung 2007, 440);

(ii) **hrau̯-* "to flow" > Parthian *r'w-* "to pour off" /rāw-/, Khwarezmian *rw-* "to flow", caus. *r'wy-* "to let (it) flow", (+ **fra-*) *hlw-* "to drip; flow (of urine)", caus. *hl'wy-* "to let it drip, drop", Sogdian *rwš-* "to flow, stream" with *-š-* from the sigmatic aorist, cf. Sanskrit *asrauṣīt* [ŚB] "flowed" (*MPP* 293; Cheung 2007, 141-42). Further cf. Vedic [RV] *srávati* "flows, streams, gushes forth", Sanskrit [MBh, R] *srava-* m. "flowing, streaming, a flow", [MBh] *giri-sravā-* f. "mountain-torrent" (MW 1274, 355).

The meaning of this hypothetical compound could be a *"source of flowing", a probable language – Parthian (during the greatest extent of the Parthian empire in the 1st cent. BCE the Oxus formed its northeast borderline) or an earlier form of Khwarezmian (the Oxus represented a real *axis* of Khwarezm), where the word for "source, spring" was still preserved.

(c) Alternatively, a non-Indo-European origin of this hydronym cannot be totally excluded. A good candidate may be found in Yeniseian languages, formerly probably widespread in the steppe belt of Kazakhstan. Also in this case the hydronym is analyzable as a hypothetical compound, consisting of (a) **ʔäṅ / *xäṅ* "wave" & (b) **xur₁* "water" (in reconstructions of Starostin 1995):

(i) **ʔäṅ* (~ **x-*) "wave" > Ket *ā́ńbɔk¹*, pl. *ā́ńbɔkŋ¹* (Imbatsk); Kottish *en*, pl. *ēnaŋ* id. (Starostin 1995, 186. Werner 1, 267).

(ii) Yenisseian **xur₁* "water" > Ket *ūĺ*, Yug *ur*, Pumpokol *ul*; Kottish *ūl*; Ass. *ul*, Arin *kul* (Starostin 1995, 298; Werner 2, 378).

The compound consisting of these components may be identified in Yug, only in the opposite order (ii) + (i): *ullej*, pl. *uláŋńiŋ* "wave" (Starostin 1995, 186).

The primary meaning of this hydronym, "wavy water", is quite natural for a long river whose sources are situated in the Pamir Mountains, among the highest mountains in the world. Let as mention, that the

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[29] Chinese 漢 *hàn* "the Han river; Han river in the sky; the Milky Way; the Han Dynasty" < Late Middle Chinese **xanˋ* < Early Middle Chinese **xanʰ* (Pulleyblank 1991, 119) ~ Middle Chinese **xâǹ* < Postclassic Chinese **hâǹ* < Han Chinese **ŋānh* < Classic Old Chinese **ŋānh* < Preclassic Old Chinese **sŋārs* (Starostin, *ChEDb*; *GSR* 0144 c). Notes: Vietnamese reading: *hán*. Shijing occurrences: 9.1, 9.2, 9.3. Schuessler (2009, 253, §24-10 c): Middle Chinese **xân* < Late Han Chinese **hɑn* < Old Chinese **hâns*.

[30] Chinese 樓 *lóu* "storey, several-storeyed building" [Late Zhou] < Late Middle Chinese **ləw* < Early Middle Chinese **ləw* (Pulleyblank 1991, 199) ~ Middle Chinese **lʌw* < Late & Middle Postclassic Chinese **lə̄w* < Early Postclassic Chinese **lōw* < Han Chinese **rwā* < Classic & Preclassic Old Chinese **rō* (Starostin, *ChEDb*; *GSR* 0123 k). Comments: Vietnamese reading: *lâu*. Regular Sino-Vietnamese is *lâu*. For **r-* cf. Xiamen, Chaozhou, Fuzhou *lau²*, Jianou *le²*. Schuessler (2009, 151, §10-29 b): Middle Chinese **ləu* < Late Han Chinese **lo* < Old Chinese **rô*.

[31] Chinese 濮 *pú* 'river name' < Late Middle Chinese **pəwk* < Early Middle Chinese **pəwk* (Pulleyblank 1991, 243) ~ Middle Chinese **puk* < Late Han Chinese **pok* < Old Chinese **pôk* (Schuessler 2009, 161, §11-23).

oldest name of this river known from the Chinese sources, 媯水 *guī shuǐ* < Western Han Chinese **kwaj*, may represent the Chinese transcription of a predecessor of Khotanese *khuī* "waves".

Ili River (see Blažek & Schwarz 2017: 166-69)

The river is 1439 km long (with the Tekes river) and its basin is 140 000 km^2. The Ili River proper, originating in the confluence of the Kunges (or Künes) and Tekes rivers, is 1001 km long. The mouth of the Ili River is a big delta (*c*. 8000 km^2) draining into the southwestern part of Lake Balkhash.

Turkic sources

Ili
In the 11th cent. the river-name *Ili* was mentioned by Maḥmūd of Kašġar in his *Dīwānu l-Luġat al-Turk* (1072-1074 CE).

Chinese sources

Yili
In the "Transcribed record of the western regions" (西域同文志 *Xīyù tóngwénzhì*), completed in 1782, the river-name was transcribed as 伊犁 *Yīlí*

Yile he
In "Records on Western Countries" (西域錄 *Xīyù lù*) by Yelü Chucai (耶律楚材 *Yēlù Chǔcái*; 1190-1244; the Confucian scholar of Kitan origin, administrator and advisor in the court of Genghis Khan and his son Ögedei), and in the "History of Yuan" (元史 *Yuán Shǐ*), compiled in 1370 during the Ming dynasty under supervision of Song Lian (1310–1381), the hydronym was recorded as 亦勒河 *yi*[32] *le*[33] *he*. Its reading in the Yuan era was reconstructed by Pulleyblank as **jiˋləjˋ*. This pronunciation dated to *c*. 1300 CE can represent a continuation of the Late Middle Chinese pronunciation of 伊麗, reconstructed by Pulleyblank as **ʔjiliajˋ* to c. 900 CE.

Yili
In both "Old Book of Tang" (舊唐書 *Jiù Tángshū*; compiled by Zhao ying and Liu Xu in 941-945) and "New Book of Tang" (新唐書 *Xīn Tángshū*; compiled by Ouyang Xiu and his team in 1060) appears the record 伊麗 *yi lì*[34] (later the character 麗 was simplified as 丽). From the point of view of chronology

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[32] Chinese 亦 *yì* "also, furthermore, then, and" < Yuan **jiˋ* < Late & Early Middle Chinese **jiajk* (Pulleyblank 1991, 370) ~ Middle Chinese **jek* < Postclassic Chinese **zhjek* < Eastern Han Chinese **zhiak* < Western Han Chinese **lhiak* < Classic & Preclassic Old Chinese **lhiak* (Starostin, *ChEDb*; *GSR* 0800 a-c). Schuessler (2009, 71, §2-27a) reconstructs Middle Chinese **jiäk* < Late Han & Old Chinese *jak*. Comments: The graph is originally a drawing of two armpits, being homophonous with 掖 "armpit". Old Chinese **lh* is reflected irregularly as Middle Chinese *j-*; aspiration is revealed by Min reflexes, Xiamen *iaʔ⁷*, Chaozhou *ia⁶* (reflecting **lhiak-s*). Sino-Tibetan **lăk* "great, big, more" > Old Chinese: 奕 **liak* "great", 亦 **lhiak* "also, furthermore, and"; Tibetan *lhag* "more, beyond"; Burmese *hlaʔ* "very; affix of intensification"; Kachin *niŋ-la* "great, important"; Lushai *leʔ* "again, then" (Shafer 1974, 76; *CVST* III, 8).

[33] Chinese 勒 *lè* "reins, to rein in, bridle; hip, rib; to engrave; restrain, compel" < Yuan **ləjˋ* < Late Middle Chinese **ləǎk* < Early Middle Chinese **lək* (Pulleyblank 1991, 184) ~ Middle Chinese **lʌk* < Postclassic Chinese **lə̄k* < Han Chinese **rə̄k* < Classic & Preclassic Old Chinese **rə̄k* (Starostin, *ChEDb*; *GSR* 0928 f-g). Schuessler (2009, 110, §5-21f): Middle Chinese **lək* < Late Han Chinese **lək* < Old Chinese **rə̂k*. Comments: For **r* cf. Xiamen *lik⁸*, Chaozhou *lek⁸*, Fuzhou *lek⁸*.

[34] Chinese 麗 *lì* "to be beautiful; to attach, assign; paired, parallel; big amount" < Late Middle Chinese **liajˋ* < Early Middle Chinese **lɛjʰ* (Pulleyblank 1991, 189) ~ Middle Chinese **lìej* < Postclassic Chinese **liě̆j* < Eastern Han Chinese **riēh* < Western Han Chinese **rēh* < Classic Old Chinese **rēh* < Preclassic Old Chinese **rēs* (Starostin, *ChEDb*; *GSR* 0878 a-b). Schuessler (2009, 126, §7-21a): Middle Chinese **liei* < Late Han Chinese **le* < Old Chinese **rêh*. Baxter & Sagart (*ChDb*): Middle Chinese **lejH* < Old Chinese **[r]ˤe-s*. Comments: For **r* cf. Xiamen *le⁶*, Chaozhou *li⁴*, Fuzhou *la⁶*.

the appropriate layer is Middle Chinese: *ʔjəjlìej (Starostin) ~ *ʔiliei (Schuessler) ~ *ʔjiliaj` < *ʔjilɛjʰ (Pulleyblank) ~ *'jijlejH (Baxter & Sagart).

Yilie

In "Book of Han" (漢書 *Hànshū*) describing the events of the Former (or Western) Han dynasty from 206 BCE to 23 CE, finished by Ban Gu (班固) in 111 CE, the hydronym is attested for the first time as 伊列 *yi*[35] *lie*[36]. Similarly in "Old Book of Tang" (舊唐書 *Jiù Tángshū*; compiled by Zhao ying and Liu Xu in 941-945) and "New Book of Tang" (新唐書 *Xīn Tángshū*; compiled by Ouyang Xiu and his team in 1060). The pronunciation in Late Han according to Schuessler should be *ʔiliat, Starostin reconstructed the same form *ʔjəjrhat for both Late (Eastern) and Early (Western) Han Chinese.

Etymology:

(a) If the hydronym was really recorded in the time when the liquid *-r- still preceded the later *-l-, there is a promising Yeniseian etymology: a compound consisting of (a) Ket *ēje¹*, South. *ēj¹*; pl. *ɛjəŋ⁵*, Yug *ēj¹* "island"; in compound Ket *ei-tu*, pl. *ejäŋ tuneŋ* (Castrén) "Flussbusen" / "bay, backwater" ~ Kottish *hau-tu* "Flussbusen" (Castrén) (Starostin 1995, 230: *h[e]j- "island" & Id., 1995, 288: *tu "bay, backwater"; Werner 1, 272 <*eje> & Werner 2, 309: *tu); also Arin *ji-khuj* (Miller) "Yenisei"; (Loskutov) *i-kai* "river", where the second component is derived from *quk (~ χ) "river (Yenisei)" > Ket *qūk*, Yug *xuk* (Starostin 1995, 265; Werner 2, 140), and (b) Proto-Yenisseian *ŕaʔt (~ -c,-č) "beaver" > Ket *Íaʔt*, pl. *Íatn⁵* (Starostin 1995, 267). The compound *h[e]jŕaʔt would designate a river with islands, characteristic by beavers. The beavers are and were really widespread in the Kazakhstan-Tuvinia-Mongolia-Xinjang borderland[37].

If the older *-r- was already changed into *-l-, i.e. Schuessler's Late Han reconstruction is taken in account, the Yeniseian etymology remains possible, the initial Ket *Í-* could be easily substituted as Chinese *li-*.

(b) But there is also an alternative solution, based on the Tocharian word for "gazelle":

A *yäl**, loc.sg. *ylaṃ*, possessive adj. *yleṃ* (Poucha 1955, 243, 251);
B *yal*, nom.pl. *ylyi*, acc.pl. *ylaṃ*, gen.pl. *ylaṃts* (Adams 2013, 523: *H₁eli-).

Just the form of the gen.pl. *ylaṃts* (cf. Pinault 2008, 500 about this case ending) could have been transcribed in the Late Han Chinese as *ʔiliat.

The later transcription 伊麗 *yī lì* ("Old Book of Tang") < Middle Chinese: *ʔjəjlìej (Starostin) ~ *ʔiliei (Schuessler) ~ *ʔjiliaj` < *ʔjilɛjʰ (Pulleyblank) ~ *'jijlejH (Baxter & Sagart).

These forms are more or less identical and may be identified with the Tocharian B nom.pl. *ylyi* "gazelles" < *H₁el-ei̯-es (cf. Pinault 2008, 498). For support of the 'gazelle'-etymology it is possible to refer to one of the source-streams of the Ili River, Tekes River, whose name is explainable as Uyghur *tekä*[38] *su*[39]

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[35] Chinese 伊 *yī* "personal equational copula: it is, they are; he, she, it, they" < Late & Early Middle Chinese *ʔji (Pulleyblank 1991, 365) ~ Middle Chinese *ʔji < Late Postclassic Chinese *ʔji < Middle & Early Postclassic Chinese *ʔjij < Han Chinese *ʔjəj < Classic & Preclassic Old Chinese *ʔij (Starostin, *ChEDb*; *GSR* 0604 a-c). Schuessler (2009, 278, §26-13): Middle Chinese *ʔi < Late Han Chinese *ʔi < Old Chinese *ʔi. Baxter & Sagart (2014, 289): Middle Chinese *'jij < Old Chinese *ʔij. Comments: Vietnamese reading: *y*. Sino-Tibetan *ʔĭ "this" > Old Chinese 伊 *ʔij "this"; Burmese *i* "this"; Lushai *i* "this"; Kiranti *ʔè (*CVST* V, 4-5).

[36] Chinese 列 *liè* "row, rank, order; to arrange in a row" < Late & Early Middle Chinese *liat (Pulleyblank 1991, 193) ~ Middle Chinese *let < Postclassic Chinese *lhet < Han Chinese *rhat < Classic & Preclassic Old Chinese *rhat (Starostin, *ChEDb*; *GSR* 0291 a). Schuessler (2009, 235, §21-25a): Middle Chinese *ljät < Late Han Chinese *liat < Old Chinese *rat. Comments: For *rh- cf. Jianou *lie⁷*. Vietnamese reading: *liệt*.

[37] Halley, D., Rosell, F. & Saveljev, A. 2012. Population and Distribution of Eurasian Beaver (Castor Fiber). *Baltic Forestry* 18(1), 168-175.
    <http://www.balticforestry.mi.lt/bf/PDF_Articles/2012-18[1]/Halley_2012%2018%20(1)_168_175.pdf>

[38] Proto-Turkic *teke "he-goat, billy goat" > Old Uyghur *teke*, Karakhanid *teke* (Mahmud of Kashghar), Middle Turkic *teke*, Turkish, Gagauz, Oirat, Sary-Yughur, Kirgiz, Karakalpak, Turkmen, Nogai, Balkar, Kumyk *teke*, Karaim *teke*, *tege*, Tuva *de`ge*, *te*, Tofalar *te'he*, Uyghur, Kazakh *tekä*, Khalaj, Azerbaijani, Bashkir, Tatar *täkä* (also "ram"), Uzbek *taka*, Chuvash *taga* (also "ram") (Räsänen 1969, 470; Clauson 1972, 477).

[39] Proto-Turkic *sib "water" > Old Turkic: Orkhon *śub*, Old Uyghur *sub, suv*, Karakhanid [Mahmud of Kashghar] *suv*, Middle Turkic *su*, Turkish, Gagauz, Karaim, Kazakh, Azerbaijani, Salar, Uyghur, Sary-Yughur *su*, Kirgiz, Oirat, Balkar *sū*, Uzbek, Turkmen *suv*, Kumyk, Karakalpak, Khalaj, Nogai *suw*, Tatar *sɨw*, Bashkir *hɨw*,

"billy goat´s water", cf. the hydronym *Tekesu* "billy goat´s water" in Kazakhstan (Konkašpaev 1963, 112).

Note: One of two source-tributaries of the Ili river is the Kunges river. It is tempting to see in its name traces of the Turkic designation of "beaver" (as in *Kunduz*, 420 km long, left tributary of Amu Darya): Middle Turkic, Chaghatai *kunduz*, Turkish, Gagauz, Azerbaijani, Kirgiz, Uzbek, Modern Uyghur *kunduz*, Kazakh, Karakalpak, Nogai *kundyz*, Kazan Tatar *kŭndyz*, Bashkir *kŭndŭẕ*, Tuvin, Tofalar *xundus*, Altai, Teleut, Sagai *kumdus*, Uyghur dial. *kumdos*, Shor *qaŋdus*, Chuvash *χăntăr* id., in Turkish, Bashkir, Kirgiz, Nogai, Tofalar "otter" (*ESTJ* 6[2000], 146-47; *TMEN* 3, 522-24, §1534). The substitution of the Turkic cluster *-nd-* with *-ng-* could have been caused by Chinese adaptation, cf. Chinese 葉爾羌河 *Yèěrqiāng hé* 'Yarkand river' (Xinjiang).

(c) According to Adil Arup[40], the hydronym Ili has to be explainable as the Uyghur word *il* "hook", resembling the river's geographical shape. But the stream of the Ili River is more or less straight in the western direction, and only the lower stream flows in a northwestern direction. The only exception is one of its source-streams, the Tekes River, flowing to the east before its confluence with the Kunges River, together forming the Ili River; this means that the Tekes and Ili after the confluence really form the big bend. Let us also mention that Modern Uyghur *il-* means "to hang". Only the derivative *ilmek* expresses "hook" (*ESTJ* 1, 343-46). It means that this solution is also untenable and the turkicized form *Ili* likely represents an adaptation of the older river-name, whose Tocharian origin remains as the most probable solution.

(d) In the "Transcribed record of the western regions" (西域同文志 *Xiyu tongwenzhi*), completed in 1782, the river-name 伊犁 *Yīlí* was etymologized as an adaptation of 'Dzungarian' 伊勒 *Yīlè*, i.e. Mongolic Oirat. There are relatives in other Mongolic languages: Written Mongol *ile* "clear, manifest, perceptible, visible, distinct, obvious, open(ly), public(ly), overtly, in reality" (Lessing 1960, 404), Middle Mongol *ile*, *ilǎ*, Khalkha *il*, Buryat *eli*, Kalmyk *ilʲ*, *īlʲ* "offen, vor den Augen, bar; auf der Hand, klar, bereit, bekannt" (Ramstedt 1935, 206), Ordos *ile*, *ele* id., but the primary meaning of this Common Mongolic word was "clear" in the sense "self-evident". It does not seem to be a typical semantic motive for a river-name. On the other hand, there is probably a more promising candidate in the Mongolic languages: Written Mongol *ili* "a young deer, fawn", Middle Mongol *ele'ut* "a kind of camel", Khalkha *il*, Buryat *eli*, Kalmyk *ilʲ* "neugeborenes Hirschkalb; Ili Fluss". Cf. also Written Mongol *ilgi* "chamois leather", Khalkha *ileg*, *ilgen*, Kalmyk *ilgṇ* "Ziegenleder" (Lessing 1960, 407; Ramstedt 1935, 206-07). This animal-name more or less exactly corresponds to its hypothetical Tocharian predecessor in both the form and semantics.

Didi

In the "New Book of Tang" (新唐書 *Xīn Tángshū*), completed by Ouyang Xiu and Song Qi and their collaborators in 1060, the river was called 帝帝河 *dì*[41] *dì hé* in the 7th cent. (Chavannes 1903: 13). The hydronym, in the Tang era reconstructible as Middle Chinese **tìejtìej* < Postclassic Chinese **tièjtièj* < Eastern Han Chinese **tiēhtiēh*. The root of this hydronym could perhaps be a derivative of the Iranian verb **taH(i̯)-* "to flow, stream, melt" > Khotanese *attāyā* "unpolluted", Ossetic Iron *tajyn*, Digor *tajun* "to melt, thaw", ?Pashto *toy*, *tōe* "spilt, overflowed", further probably Avestan *taṯ.āp-* "with flowing water", Khwarezmian *t'sy-* "to melt" etc. (Abaev III, 222-23; Cheung 2007, 375), but its reduplicated form is strange.

It seems more promising to seek its origin in Yeniseian. There are even several possible etymological solutions:

Khakassian, Shor, Tuvin, Tofalar *suɣ*, Yakut & Dolgan *ū*, Chuvash *šiv* (Räsänen 1969, 431; *TMEN* 3, 281-82; Clauson 1972, 783-84).

[40] Ili atalghusi heqqide ("Etymology of Ili"), Journal of Ili Darya 2007, cited according to <https://en.wikipedia.org/wiki/Ili_River>.

[41] Chinese 帝 *dì* "a God, divine king, deceased king, emperor" < Late Middle Chinese **tiaj`* < Early Middle Chinese **tɛjʰ* (Pulleyblank 1991, 76) ~ Middle Chinese **tìej* < Postclassic Chinese **tièj* < Eastern Han Chinese **tiēh* < Western Han Chinese **tēh* < Classic Old Chinese **tēh* < Preclassic Old Chinese **tēks* (Starostin, *ChEDb*; *GSR* 0877 a-d). Note: Shijing occurrences: 47.2. Sino-Tibetan: Tibetan *the* "celestial gods of the Bon religion" (Coblin 1986, 164).

(a) Cf. Pumpokol pl. *tataŋ* "river (fluvius)", "brook (amnis)", related to Ket *śēś*, South Ket pl. *śaś*[4], Yug *ses*, pl. *sa:ʰs*; Kottish *šēt*, pl. *šati* "river, brook"; Assan *šet* "river (fluvius)", "brook (amnis)"; Arin *sat* "river (fluvius)" (Starostin 1995, 271: **ses* "river"; Werner 2, 191 *<*set / *tet>*). It is not excluded that the hydronym was in reality a compound, where the second component could be identified in Ket *ēje*[1], South. *ēj*[1]; pl. *ɛjəŋ*[5], Yug *ēj*[1] "island"; in compound Ket *ei-tu*, pl. *ejäŋ tuneŋ* (Castrén) "Flussbusen" / "bay, backwater" ~ Kottish *hau-tu* "Flussbusen" (Castrén) (Starostin 1995, 230: **h[e]j-* "island" & Id., 1995, 288: **tu* "bay, backwater"; Werner 1, 272 *<*eje>* & Werner 2, 309: **tu*); also Arin *ji-khuj* (Miller) "Yenisei"; (Loskutov) *i-kai* "river", where the second component is derived from **quk* (~ *χ*) "river (Yenisei)" > Ket *qūk*, Yug *xuk* (Starostin 1995, 265; Werner 2, 140). In this case the hydronym would mean "river with islands". It is characteristic especially for the delta of the Ili River.

(b) Kottish *t'ît*, pl. *t'âtn* "Taimen (fish)" (Castrén 1858, 219), further related to Ket *tɔʔt*, pl. *tɔtn*[5], Yug *tɔʔt*, pl. *tɔtn*[5] id. (Starostin 1995, 291: **tVʔt* "a k. of fish (таймень)"; Werner 2, 282 **tʰoʔt / *tʰat* "Weisslachs"). Cf. Samoyed: Selkup *tut, tutɨ* "crucian; Cyprinus carassius" (< Uralic **totke*?; see UEW 532). Again, the compound with Yeniseian **h[e]j-* "{river with} island(s)" (see above) is not excluded. In this case the hydronym would mean "river with islands, where taimen fish lives".

(c) **toj-* "arm of river" > Ket *tôj*, pl. *tojaŋ* (Castrén 1858, 177), Kureika *tōji*[1], pl. *tɔ́jeń*[5], Yug *tōj*, pl. *tɔ́jeŋ*[5] (Starostin 1995, 287; Werner 2, 283 **tʰojə*), plus Kottish *t'e / t'i*, pl. *t'ikŋ / t'ekŋ* "Rand", related to Ket *tiʔ*, pl. *tūŋ*, Yug *tiʔ*, pl. *tiŋ* "Randseil, Bogensehne" (Castrén 1858, 218-19; Starostin 1995, 285: **tiʔ* "string (of net); bow-string; edge"; Werner 2, 267, 317). The compound could designate the "rim of the arm of river".

(d) **tɨ* "down, below" > Ket *tɨ̄* "coming from upstream" (= "flowing downwards"), *tɨ-ɣa*[5,6] "downstream"; Yug *tɨ* "coming from upstream"; *tɨgéj* "down"; *tɨ:r* "lowland (of river)"; Kottish *t'iga* "downwards" (Starostin 1995, 286; Werner 2, 311-13), plus **toj-* "arm of river" (Castrén 1858, 177; Starostin 1995, 287; Werner 2, 283; see above). The compound would designate a "river branching into arms on the lower stream", i.e. in the north, cf. Ket *tɨĺ / tɨ́ɣaĺ* "on the lower stream (of the Yenisei); north(ern)" (Werner 2, 312).

Ad (f)

Mythology as a historical source

Anučin (1914: 4) recorded the Ket myth about ancient migrations northwards caused under the pressure of two tribes of invaders coming from the south, first *Týstad*, "mountain or stony people", and later *Kiliki*. Vajda thinks that *Týstad* came from mountains (← "stony people") and were perhaps of Indo-European (Iranian?) origin, while *Kiliki* are identified with ancestors of the Siberian *Kirghiz* tribes.

Pulleyblank (2002: 99) has collected Chinese transriptions of the ethnonym *Kirghiz*, known from the Orkhon inscriptions as *Qïrqïz*:

鬲昆 *Gekun* < EMC **kɛʳjk kwən* (2nd cent. BCE.; *Shiji* 110, *Hanshu* 94a).

堅昆 *Jiankun* < EMC **kɛn kwən* (1st cent. BCE onward; *Hanshu* 70).

契骨 *Qigu* < EMC **kʰɛt kwət* (6th cent. CE; *Zhoushu* 50).

紇骨 *Hegu* < EMC **ɣət kwət* (6th cent. CE; *Suishu* 84).

結骨 *Jiegu* < EMC **kɛt kwət* (6-8th cent. CE; *Tongdian* 200, *Book of Tang* 194b, and *Tang Huiyao* 100).

Earlier Pulleyblank (1962: 123, 240) proposed a deeper reconstruction **Qïrqur*, later corrected to **Qïrqïr* (Pulleyblank 2002: 101).

The reconstruction **Qïrqïr* based on Chinese records perfectly agrees with the projection of the ethnonym *Qïrqïz* back into proto-Turkic **Qïrqïř*. The ethnonym *Kiliki* (or *Kilik*, if *-i* is the Russian plural) appearing in the Ket myth mediated by Anučin can reflect the form **Qïrq* (in Turkic languages it means "forty") without the final **-ïř*, interpretable as the plural suffix.

Ad (d)

Lexical interference with other language entities

There is only a limited number of studies mapping the mutual lexical interference between Yeniseian and neighboring languages. Besides the comprehensive article by Karl Bouda (1957) collecting loans from various neighboring languages, but also from Iranian, only two authors have focused on bilateral

contact with one neighboring language entity: Xelimskij (1982a) for Uralic (Ob-Ugric & Samoyedic) and Timomina (1985; 2004) for Turkic, although not all her examples are valid[42]. Serious and detailed studies of mutual borrowings of Yeniseian and (not only contemporary neighboring) languages are a big challenge for the future.

Ad (g) & (h)
Linguistic archaeology & paleontology
These approaches are very fruitful in their results, but extraordinarily complex in their realization. In the present study the Yeniseian zoonym "horse" and its traces in time and space will be discussed as an illustrative example of the potential of linguistic archaeology in historical study of Yeniseian languages. For the Yeniseian protolanguage it is possible to reconstruct the designation of "horse" in the form reconstructed by Starostin (1995: 240) as *kuʔs and by Werner (1: 457) as *kuʔt / *kuʔs. The continuants appear in all five historically attested Yeniseian languages: Ket kuʔś, pl. kuśn[5] "cow", Yugh kuʔs, pl. kusn[5] "horse"; Kott huš, pl. hučan; Assan penguš (М., Сл., Кл.), pen-kuš (Кл.) "mare"; huš (М., Сл., Кл.), hɨš (Кл.) "steed"; Arin kus (Стр.) "steed"; qus (М., Сл., Кл.) id.; quše (М., Сл., Кл.) "mare"; pinü-kuče (Лоск.) "mare"; Pumpokol kut (Сл.) "steed, mare", (Сл., Кл.) "horse"; while the record kus (Кл.) "horse" is in reality the Yugh form. Pulleyblank (1962: 245-46), followed by Vovin (2000: 91), judged that the Xiongnu gloss 駃騠 "a superior type of horse of the northern barbarians" [Xu Guang (352-425 CE), Shiji], in the modern pinyin transcription jué tí = chüeh-t'i (Pulleyblank) < Late Middle Chinese *kjyat thiaj < Early Middle Chinese *kwɛt dɛj (Pulleyblank 1991: 168, 305) = Middle Chinese *kwet-dei < *kwet-deĥ (Pulleyblank 1962: 245-46) = Later Han *kuet dei (Schuessler 2007: 326; 2009: 227, #20-3), probably reflecting the original form *kuti or *küti "horse", resembling the Pumpokol form kut, could be of Yeniseian origin.
Gamkrelidze & Ivanov (1984: 561, fn. 1) notice at least a formal similarity of the Yeniseian denotation of "horse" with its Indo-European counterpart *H₁eḱu̯os. It is an attractive hypothesis, but without explanation of the first syllable in Indo-European it remains only speculative. A promising solution was offered already 26 years before publication of the compendium of Gamkrelidze & Ivanov, namely by Naert (1958: 137-38): In Kott, there is a compound ig-huš "stallion", consisting of ig "male" & huš "horse", analogically feŋ-hučeä "mare", where feŋ = "female". The same compound "stallion" in Ket was modified as ⁱèk-kʷòn, where the second component was borrowed from Russian koň "horse" (the meaning of Ket kuʔś, the etymological counterpart of Kott huš, was shifted to "cow"). The proto-Yeniseian compound *ʔiʔχ-kuʔs "stallion", where the first component is reconstructed on the basis of Ket ī, pl. i:n / iɣəń[5] "male deer"; ikś "male, male deer", Yug iʔk / iksi[5] "male, male deer"; Kott ig "male", eg "goat" (= "he-goat"?); Assan eg "male"; Arin au "wild goat; male" (Starostin 1995: 196; Werner 2: 433: *iʔk / *igə), suggestively corresponds to Indo-European *H₁eḱu̯os "horse (stallion)". But this conclusion implies crucial spatial & chronological questions: where and when was this adaptation realized? The preceding arguments lead to the conclusion that Yeniseians still lived in the steppe region of Central Asia including Kazakhstan in the first centuries of CE and certainly earlier. Northern Kazakhstan, namely the area of the Botai[43] culture, was probably the place where the wild horse (Przewalsky-horse, i.e. Equus ferus przevalskii Poljakoff) was already in the mid 4th mill. BCE domesticated (cf. Bökönyi 1994: 116; Becker 1994: 169; Anthony 1994: 194; Outram 2009: 1332-35). The creators of this culture were totally specialized in breeding of horses (133.000 horse bones were found here already in the early 1990s!). The traces of fats from horse milk on pottery from Botai represent the strongest proof of domestication. The hypothesis that the people who domesticated the

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[42] Her idea (Timomina 2004: 137) about a Turkic origin of Yeniseian *kuʔs "horse", only in Ket (but not in Yugh) "cow", is based on an accidental similarity with a counterpart in only one Turkic language, Sary Yughur, where the forms kus "horned cattle", and kʲus "yak, bull, cow", are attested. But this form is not primary, the relatives give witness about a different starting-point, cf. Old Uyghur & Karakhanid öküz, Uyghur öküz, höküz, Uzbek hǫkiz, Kazakh ögĭz, Tatar ugĭz, Yakut oɣus, Chuvash vъʷgъʷr, Old Bulgarian > Hungarian ökör, all from proto-Turkic *öküŕ "ox" (Räsänen 1969: 370; Sevortjan 1974: 521-23), related to Mongolian *φüker "ox" and Tungusic *puKur / *puKun "cow" (EDAL 1168-69).

[43] The archaeological site is localized on the Iman-Burluk River, a tributary of the Išim/Esil River in northern Kazakhstan. The eneolitic culture called according to this locality, flourished in the time period 3700-3100 BCE according to present knowledge.

horse in Northern Kazakhstan were ancestors or relatives of Yeniseians, is legitimate, although unproven. The proximity of the Yeniseian *ʔiʔχ-kuʔs "stallion" and Indo-European *H₁ek̂u̯os "(domesticated) horse" is apparent and explainable through borrowing. If the Indo-European term cannot be transparently derived from IE *ōk̂u- "swift" = *HoHk̂u-, while the Yeniseian compound "stallion" = "male-horse" is quite understandable, the vector of borrowing should be oriented from Yeniseian to Indo-European (see Blažek 1999). To accept this logical conclusion, it is necessary to solve two serious problems: (i) Geographical distance of Northern Kazakhstan from a hypothetical Indo-European homeland, independently of its concrete location; (ii) Chronological distance between disintegration of Indo-European, dated to the first half of the 5th mill. BCE, and disintegration of Yeniseians, dated by various scholars to the 1st mill. BCE. Even in the case that the creators of the Botai culture were early Yeniseians, the Indo-European disintegration preceded them by one millennium. In case (i) the only solution is a spread of the knowledge together with the term, representing a first-class cultural discovery. It could have been mediated by a small group of qualified horsemen, or by a fragment of a tribe later integrated into the dominant population, much as the spread of metallurgy was not accompanied by massive migrations, and metal-names common to several branches of e.g. Indo-European represent more probably the results of mutual borrowing than common heritage. Concerning the chronological discrepancy, there are several hypothetical answers. Perhaps too optimistic is the assumption that the present dating of horse-breeding in Kazakhstan will be shifted to the deeper past, pending future excavations. A cultural term present in a group of related languages need not be borrowed before their disintegration, but also after it. Such spreading of the cultural terms connected e.g. with Christianity is well-attested in Germanic or Slavic languages already after their disintegration. It remains to add the question: In the case of the domesticated horse who were more mobile than the first riders?

Conclusion

Summing up, the traces of the early Yeniseians lead to the steppe zone of Central Asia, especially in Kazakhstan and probably also Uzbekistan. This determination of the early Yeniseian homeland is significantly closer to the home of Burušaski, the closest relative of the Common Yeniseian protolanguage, than was the distance of the Northern Kets from the Kureika river and Kotts from the Abakan river in the 18th cent. The disintegration of Yeniseian unity was realized in this steppe area. During the first mill. BCE the Yeniseian dialect continuum is first divided into western and eastern parts. Western Yeniseians, ancestors of Kets & Yughs and Pumpokols[44], proceeded northwards along the streams of the Irtyš and Ob and went on to the mid stream of the Yenisei, while the Eastern Yeniseians, ancestors of Kotts & Assans and Arins, moved through the basin of the upper Ob to the basin of the upper Yenisei. These migrations from the (forest-)steppe zone to taiga were probably caused by a domino effect, primarily perhaps caused by the press of the Persian Empire in Central Asia (cf. Herodotus'[45] description of the battle between the Persian king Cyrus and Tomyris, the queen of the

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[44] On the basis of the common areal isogloss *s > *t Xelimskij (1982b: 124) judges that the ancestors of Pumpokols probably lived for certain time between Ob-Ugrians and Samoyeds and their languages formed a specific West Siberian *Sprachbund*. Let us mention that the biggest density of Pumpokol-like hydronyms in -*tet* outside their historical settlement on the west shore of the Yenisei in front of the mouth of the Angara appears in the basin of the Čulym, the tributary of the upper Ob.

[45] [I, 201] ὡς δὲ τῷ Κύρῳ καὶ τοῦτο τὸ ἔθνος κατέργαστο, ἐπεθύμησε Μασσαγέτας ὑπ᾽ ἑωυτῷ ποιήσασθαι. τὸ δὲ ἔθνος τοῦτο καὶ μέγα λέγεται εἶναι καὶ ἄλκιμον, οἰκημένον δὲ πρὸς ἠῶ τε καὶ ἡλίου ἀνατολάς, πέρην τοῦ Ἀράξεω ποταμοῦ, ἀντίον δὲ Ἰσσηδόνων ἀνδρῶν. εἰσὶ δὲ οἵτινες καὶ Σκυθικὸν λέγουσι τοῦτο τὸ ἔθνος εἶναι.
"When this nation [= Babylonians] also had been subdued by Cyrus, he had a desire to bring the Massagetai into subjection to himself. This nation is reputed to be both great and warlike, and to dwell towards the East and the sunrising, beyond the river Araxes [= Volga] and over against the Issedonians: and some also say that this nation is of Scythian race."
[I, 204] τὰ μὲν δὴ πρὸς ἑσπέρην τῆς θαλάσσης ταύτης τῆς Κασπίης καλεομένης ὁ Καύκασος ἀπέργει, τὰ δὲ πρὸς ἠῶ τε καὶ ἥλιον ἀνατέλλοντα πεδίον ἐκδέκεται πλῆθος ἄπειρον ἐς ἄποψιν. τοῦ ὦν δὴ πεδίου τούτου τοῦ μεγάλου οὐκ ἐλαχίστην μοῖραν μετέχουσι οἱ Μασσαγέται, ἐπ᾽ οὓς ὁ Κῦρος ἔσχε προθυμίην στρατεύσασθαι.
"On the West then of this Sea which is called Caspian the Caucasus is the boundary, while towards the East and the rising sun a plain succeeds which is of limitless extent to the view. Of this great plain then the Massagetai occupy a large part, against whom Cyrus had become eager to march; ..."
The History of Herodotus, parallel English/Greek, translation G. C. Macaulay [1890]

Massagets, one of the Saka tribes, around 530 BCE). The mobilization of the Saka tribes probably also led to movement of other Iranian tribes of Central Asia and consequently their eastern neighbors, the early Turkic continuum. The spreading of Central Asiatic Iranian and Turkic tribes to the north caused the migrations of Yeniseians. And probably under their press the Samoyeds left their homeland[46] and moved to the north – the ancestors of Selkups along the Ob and ancestors of the North Samoyeds along the Yenisei (Blažek 2013).

Abbreviations: a. area, c. city, l. lake, r. river, s. spring.

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First appeared online: 2012; First Print Edition: isbn: 9789004161214, 1960-2007.

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[46] The Samoyedic homeland is localized by Xelimskij (1989[2000]: 15-17) in the Southwest Siberian taiga, in the area delimited by a triangle formed by the cities Tomsk - Krasnoyarsk - Eniseisk.

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Summary

present hydronym	historical name	source & chronology	etymology
Irtyš₁	Old Turkic *Ärtis* Middle Mongol *Ärdiš* & *Ärdis* *Ertič*	Toñukuk & Kultegin inscriptions - 730s 'Secret History', §§ 207, 264 & 198 - 13th cent. Kirakos, *Armenian History* 1241-1265	Ket *ɛr' / jɛr'*, pl. *e·r'eŋ / e·r'iŋ* "reed" + Yen. **ses* > Kott *šēt*, pl. *šati* "river, brook"; Assan *šet* "amnis, fluvius:, Pumpokol *tataŋ* id.
Irtyš₂	僕固振 *pú gù zhèn* < MCh **bawkkɔʰtʂin* `Pulleyblank` ~ **bukkòćìn* Starostin	新唐書 *Xīn Tángshū* 'New Book of Tang' events from 640s	Ket *³bʌ* "place on a shore, inundated in spring by flood" & *kɔjeśeń* "flood" or Yen. **pōqe* "deep" & **quk (~χ-)* "river (Yenisei)" & Kott *šinaŋ* "source of a river"
Ču Kirgiz *Čüj* Kazakh *Šū* empties in *Aščy-köl*, lit. "salty lake"	素葉 *sù yè* < LMCh **suə̆` \*jiap* < EMCh *\*sɔʰ \*jiap*Pul  碎栗 *suì lì* < LMCh *\*suaj` *lit* < EMCh **swəjʰ *lit*Pul	新唐書 *Xīn Tángshū* 'New Book of Tang' events from 630s	Yen. **čəʔ* "salt" > Ket *tʌʔ* "salt", Yug *čʌʔ* id.; Kott *ši-nčēt*, pl. *-čētaŋ* id.; Assan *či-nʒet, tinʒet, šinčet* id.; Pumpokol *če* id. & Sgd *''p, 'p, 'b /āp/* "water"/ Iranian **rixta-* "left"
Syrdarya / Oxos	漢樓 *hàn lóu* < EMCh **xanʰləw*Pul ~ MCh **xànlʌw* < HanCh **ŋānhrwā* Starostin	北史 *Běishǐ* "History of the Northern Dynasties" (386-581)	Yen. **ʔäń (~ *x-)* "wave" > Ket *āńbɔk¹*; Kott *en* & **xur₁* "water" > Ket *ūĺ*, Yug *ur*, Pumpokol *ul*; Kottish *ūl*; Ass. *ul*, Arin *kul*; cf. Yug *ullej*, pl. *uláŋńiŋ* "wave"
Ili₁	帝帝 *dì dì* < MCh **tìejtìej* < Postcl.Ch **tiě̀jtiě̀j* < LHan Ch **tiēhtiēh* Starostin	新唐書 *Xīn Tángshū* "New Book of Tang" – 7th cent.	Yen. **toj-* "arm of river" > Ket *tôj*, pl. *tojaŋ*, & Yen. **tiʔ* > Kott *t'e / t'i*, pl. *t'ikŋ / t'ekŋ* "Rand", related to Ket *tiʔ*, pl. *tūŋ*, Yug *tiʔ*, pl. *tiŋ* "Randseil, Bogensehne" → *"rim of the arm of river"; alternatively **ti* "down, below" > Ket *tī* "coming from upstream" (= "flowing downwards"), *ti-ɣa⁵,⁶* "downstream"; Yug *ti* "coming from upstream"; *tigéj* "down"; Kott *t'îga* "downwards" & **toj-* "arm of river" → *"river branching into arms on the lower stream", i.e. in the north, cf. Ket *tīĺ / tíɣaĺ* "on the lower stream (of the Yenisei); north(ern)"
Ili₂	伊列 *yi lie* < LHanCh **ʔiliat* Schuessler ~ EHanCh **ʔjəjrhat* Starostin	漢書 *Hànshū* "Book of Han" 206 BCE - 23 CE	Yen. **h[e]j-* "island" > Ket *ēje¹*, South. *ēj¹*; pl. *ɛjəŋ⁵*, Yug *ēj¹*, cf. Arin *ji-khuj* (Miller) "Yenisei" & **ŕaʔt (~ -c,-č)* "beaver" > Ket *ĺaʔt*, pl. *ĺatn⁵*

Balkhaš₁	夷撥 *yí bō* < MCh **ji pwât* < L&M Postcl. Ch **jɨj pāt* < EPostcl.Ch **źɨj pāt* < EHanCh **źəj pāt* < WHanCh **ləj pā* [Starostin]	新唐書 *Xīn Tángshū* 'New Book of Tang'	SYen. **pat* "knee" > Arin *karam-pat* "elbow", *patas* "knee", Kott *pul-patap* "metatarsus" (*pul* "foot, leg"), vs. Ket & Yug *baʔt* "joint, knee", Ket *bāt-kup¹* "bend (of a river)" < Yen. **baʔt-* (Star.)
Balkhaš₂	得嶷 *dé yí* < MCh **təkŋi/ɨ* [Pulleyblank] or **təkŋjɨ* [Schuessler]	資治通鑒 *Zizhi tongjian* "Comprehensive mirror to aid in government" - 7th cent.	proto-Kott gen.pl. **tekŋi* "of lakes": Kott *ûr-têg*, pl. *ûr-takŋ* "lake", Assan *ur-tég*, *kur-tük* id., besides Ket *dɛʔ*, pl. *dēŋ*, Yug *dɛʔ*, pl. *deŋ*, Pumpokol pl. *dánniŋ* < Yen. **deʔG* "lake" (Star.)

Abbreviations: Ch Chinese, E Early, L Late, M Middle, cl. classic, Pul. Pulleyblank, S South, Star. Sergej Starostin, Yen. Yeniseian.
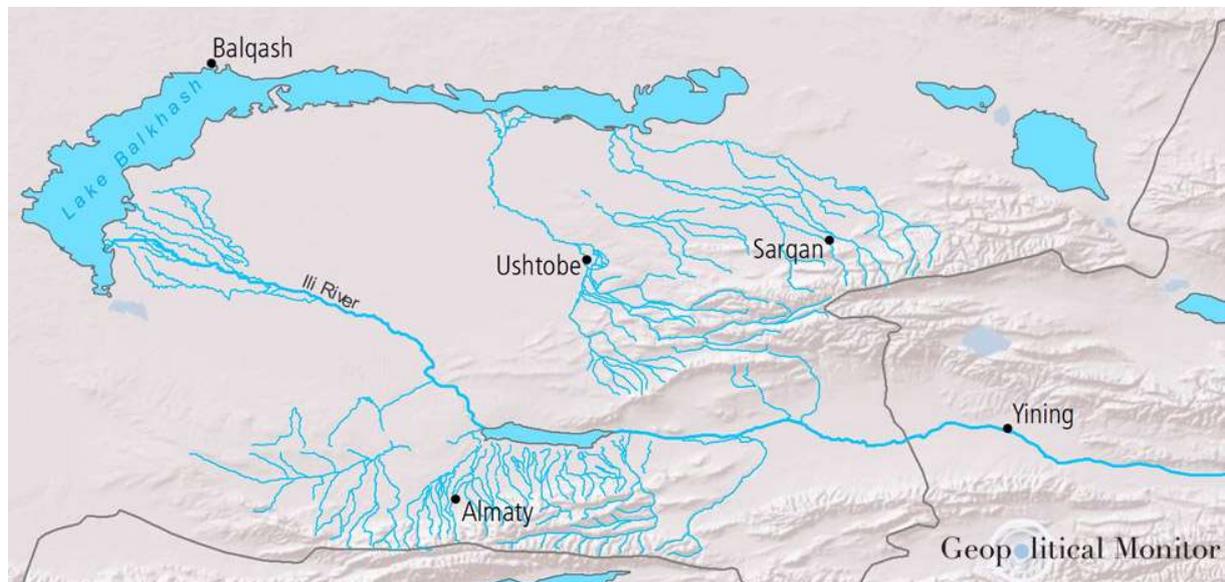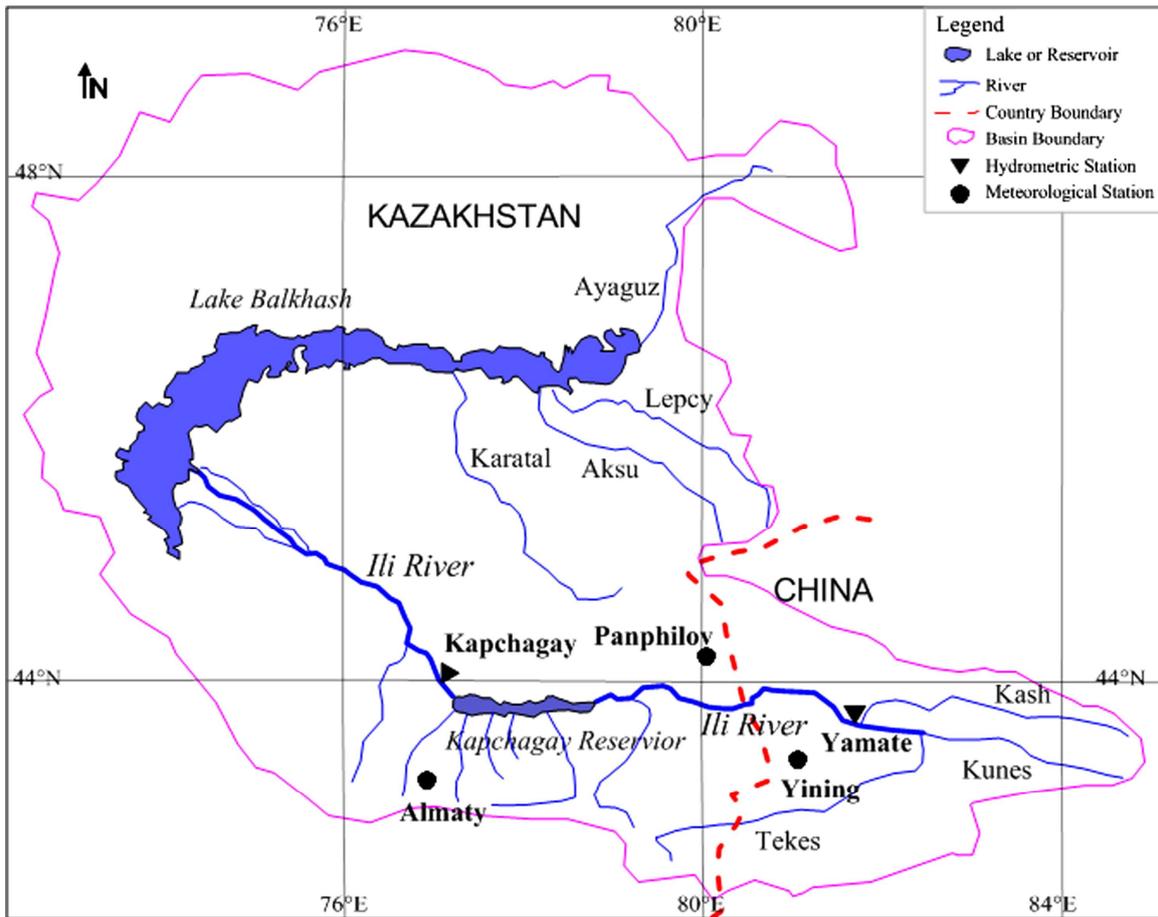
Ču river
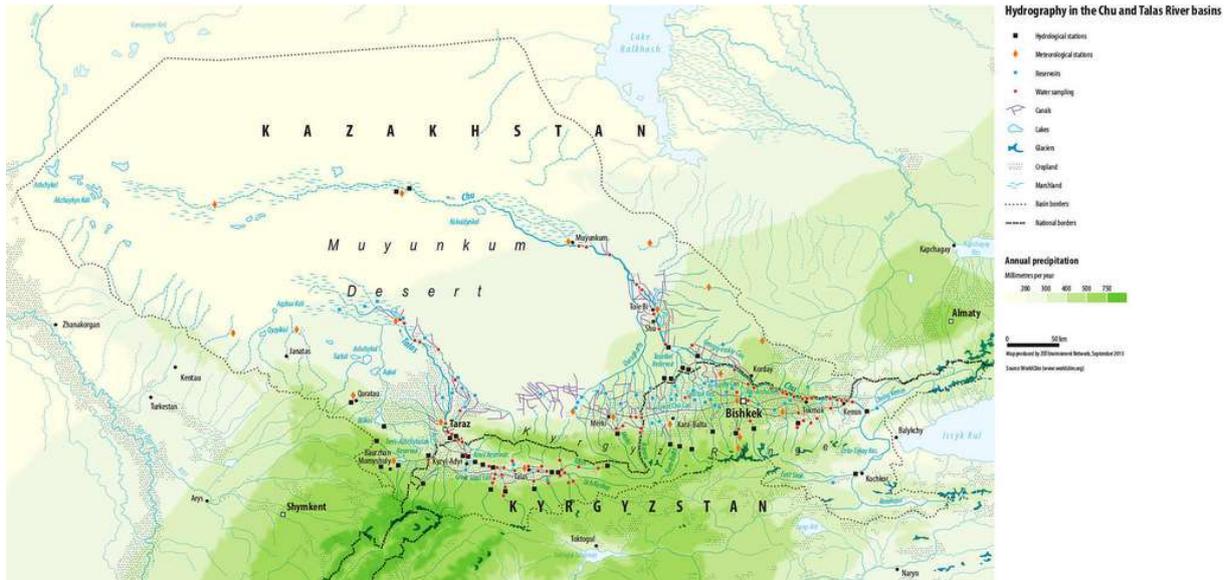
Amudarya / Oxus River with waves

http://balkhandshambhala.blogspot.com/2012/12/shamis-en-balkh-oxus-river.html
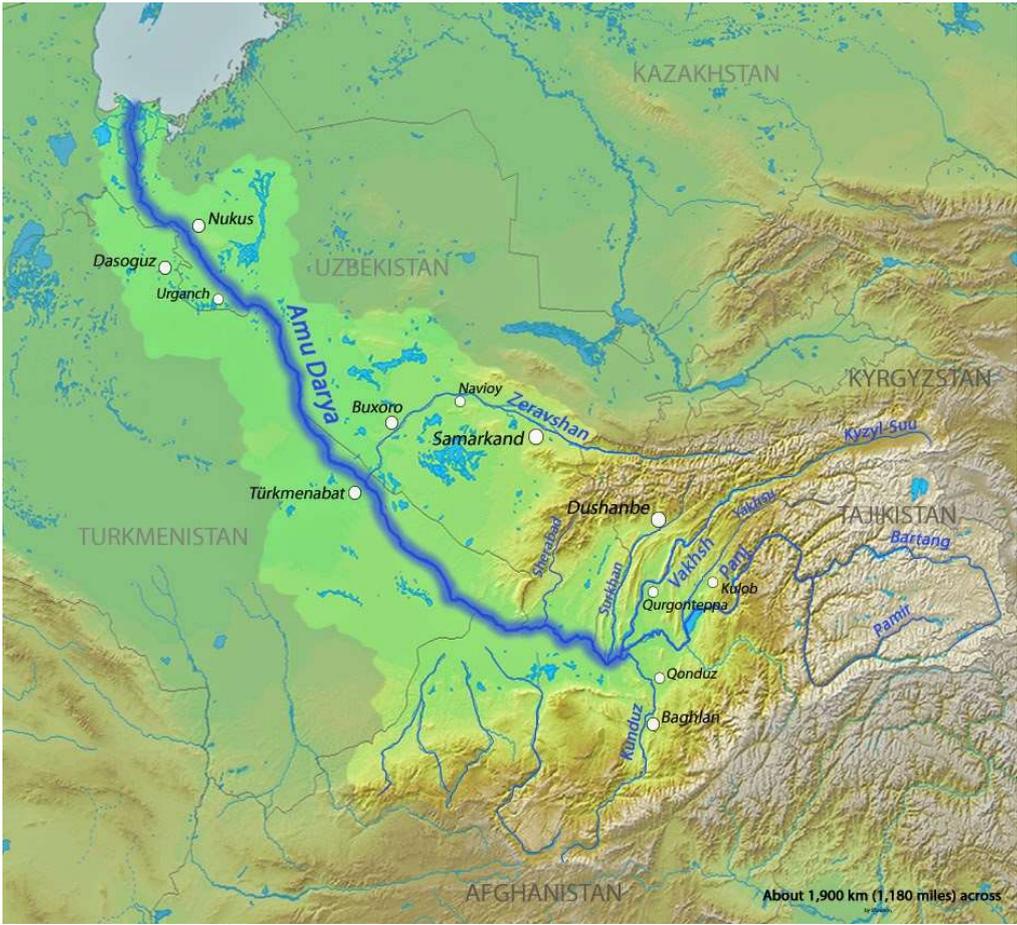
Irtyš River with reed on its shores

Irtysh river basin map

Selety Tengiz / Siletiteniz

Kazakhstan

Distribution of Yeniseian languages in the 17th century (hatched) and in the end of 20th century (solid).
<http://upload.wikimedia.org/wikipedia/commons/d/d4/Yeniseian_map_XVII-XX.png>
<http://en.wikipedia.org/wiki/Yeniseian_languages>

Historical Map of the Yeniseian Family

(Santa Fe Institute: <http://ehl.santafe.edu/maps34.htm**>)**

Arctic Ocean

Yenisei River

Ob River

Ket

Yugh

Pumpo

Arin

Assan

Kott

Yastin

Yarin

Baikot

Lake Ba
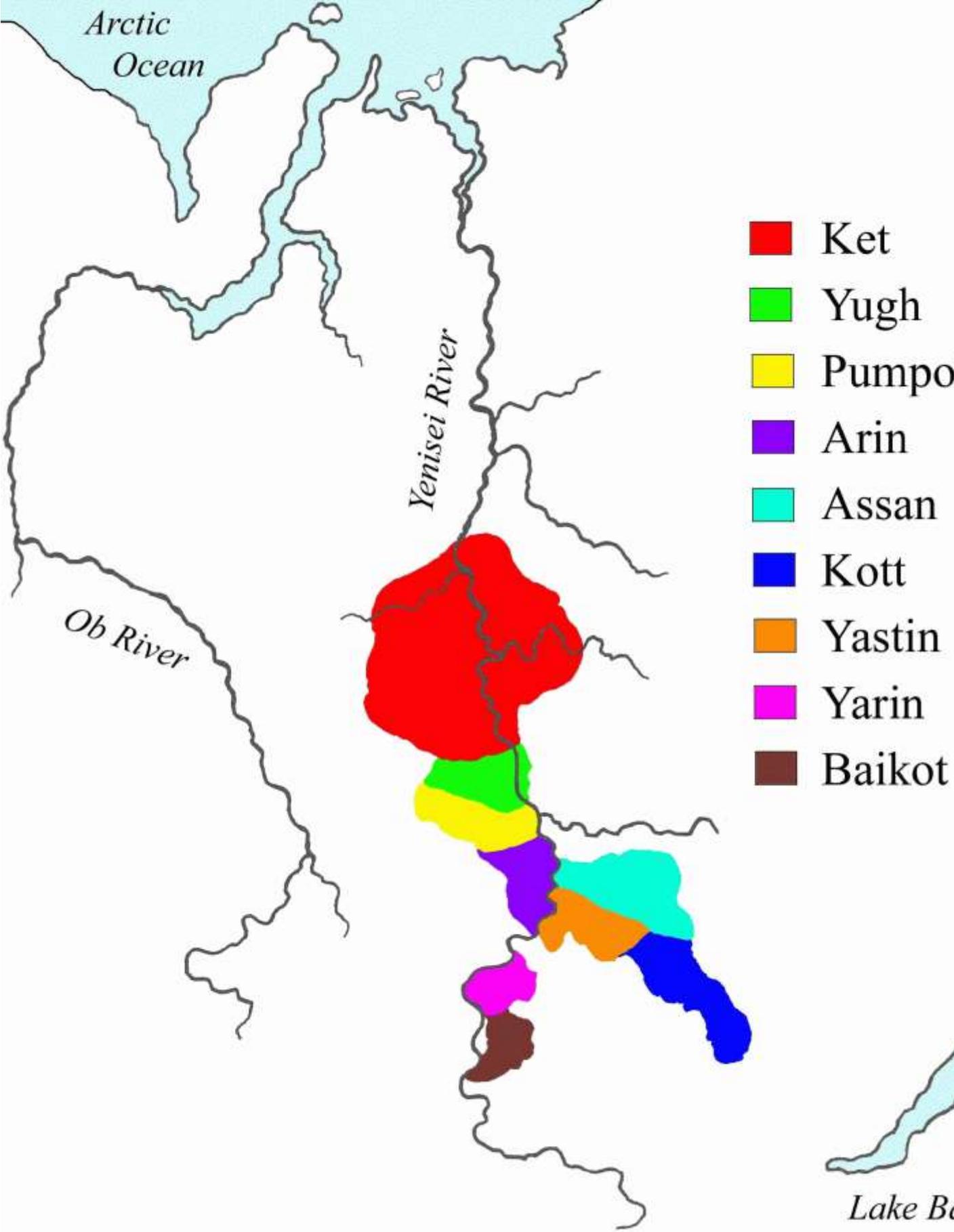
Some Central Asiatic hydronyms,whose Yeniseian origin is probable or possible

Blažek & Schwarz 2017: 357