Václav Blažek, Michal Schwarz

TOCHARIANS
WHO THEY WERE, WHERE THEY CAME FROM
AND WHERE THEY LIVED*

ABSTRACT

In 2008 one century will be passed after the recognition of inhabitants of Tang's Chinese Turkestan as speakers of until that time unknown original branch of Indo-European languages. So the eastern border of the Indo-European pre-colonial space passed even the 90th meridian eastwards from Greenwich (to be exact, in the same time also Indo-Iranian peoples overpassed this line in the area of contemporary Bangladesh and the Indian confederative state of Assam). Tocharians kept their Indo-European identity not only by their long trans-continentlal drift through Eurasia, but still some thousands years after their arrival to the Chinese border. Interesting is that they didn’t yield Chinese cultural and linguistic assimilation; on the contrary, the ancestors of Tocharians brought to the early Chinese civilization achievements from field of technology (war chariot), food (honey), knowledge of some exotic animals (lion) and religion (especially buddhism). Situation of the 9th (or 10th?) century, when the Tocharians began to disappear from the history of Central Asia, remains in darkness of informational vacuum. The only thing that we certainly know is that they didn’t yield assimilation, but vanished away in expansion of the Turkic nations, represented in this area by Old Uyghurs.

1. HISTORY OF EARLY RESEARCH

The first Tocharian text came to Europe at the end of 19th century. It was a photograph of one page of a manuscript written in an unknown language in the northwest variant of the North Indian Brāhmī script. The page was published by Sergei Oldenburg in 1892, who received two sheets of the manuscript from Russian consul Petrovski in Kalghar (in North-Western China, Xinjiang province with the majority of Uyghur population). British Hoernle edited the same text in 1893, transcribing it and identifying one Sanskrit name. German Leumann was the first one who had published both sides of the manuscript from Petrovski-collection, transcriped them accurately and recognized other Sanskrit proper names. Thanks to Leumann, both sides of the manuscript were later identified as translation of Sanskrit text Buddhaśūtra. But the first Tocharian manuscripts were discovered earlier. In 1890 two Uyghurs sold two manuscripts to British lieutenant Bower.

* The present work is one of partial outputs of interdisciplinary Research project focused to the old languages and older periods of modern languages (code 0021622435).
These manuscripts written on birch bark were found in a stupa near Qumtura. Bower brought them to the Asian Society in Calcutta, from where they got into Hoernles' hands. Although poor, this discovery stimulated high interest not only on the side of European orientalists but also by native citizens (really amazing discovery in the敦煌莫高敦Dunhuang Mogao caves was done by the local Daoist priest Wang Daoshi in 1900 during his amateur reconstruction of wallpaintings in an abandoned temple). If we determine the earliest era of the tocharology by the beginning of the First World War, it is very remarkable how many expeditions to Chinese Turkestan were lead by Russians or by European orientalists in the Russian employment: V.I. Rorovorvski (1893–1895), D.A. Klementz 1897–1898), A.I. Kochanowski (1906–1907), M.M. Berezovsky (1905–1907), S.E. Malov (1909–1911, 1913–1915), S. Oldenburg (1909–1910: Xinjiang; 1914–1915: Dunhuang). Also Swedish Svden Hedin (1894–1896) inquired in the region. British Bow- er (1890) and M.A. Stein (1906–1908) travelled here as well; the leaders of French expeditions were Dutreil de Rhins (1902) and Paul Pelliot (1906–1909: Kuqa), and some of the best German expeditions lead Albert Grünwedel and A. von Le Coq (1902–1903: Turfan; 1904–1905: Turfan, Qomul; 1905–1907: Kuqa, Qarażahr, Turfan, Qomul; 1913–1914: Kuqa, Maralbash). It is evident that original reason to finance this expensive expeditions was not altruistic interest about unknown language, but power ambitions of European superpowers to control over the Central Asia. From the time of Napoleon’s hauling to Egypt (1798–1799) the European strategists knew the importance of presence of experts in the areas. So it shouldn’t surprise that most of the above mentioned names belongs to the top orientalists in the world in that time. In the first decade of the 20th century most of the expeditions establishing inventaria of the Tocharian manuscripts in museums in Sankt-Peterburg, Berlin, London and Paris were realized. In the same time a fundamental progress in understanding texts, grammatical structure and generical relations of language succeeded. In 1908 the Berlin indologists E. Sieg and W. Siegling published a short article about this language, identifying it with “Tocharian” (to this time the working name was “Indo-Scythian”) and determining its two different, although closely related dialects: in traditional terminology Tocharian A and B or Eastern and Western Tocharian. Important was a clear proof of their Indo-European identity and so establishment of the additional and independent branch of Indo-European languages. Their discovery that this eastern IE language resembles western IE languages with some of its features, particularly Baltic or Celtic, e.g. the preservation of the velar nature of the hypothetical IE palatal velars *k₂, g₂, q₂, which are changed in Baltic, provoked an immense surprise. Slavic and Indo-Iranian to sibilants and affricates (Toch. A kant, B kante next Greek kektos, Lat. centum (still in the time of Caesar it was pronounced with /k/, even his name), Celtiberian kantom, Old Irish cēt, Welsh cant, Goth. pl. hunda. Another obvious common feature is so called “r” mediopassive. Similar characteris- tics were identified in Hititite only some years later. To this time we consider them more likely as peripheral archaism, hence no isoglosses confirming closer generical relations.

2. TOCHARIAN A, B, C?

Today the term Tocharian covers two closely related languages from Chinese Turkestan. They constitute an independent branch of the Indo-European languages and in these languages an abundant translational buddhist literature was written. Appendix I demon- strates close relations and differencies of both languages. Some researchers (T. Burrow, D.Q. Adams) see the tracers of another member of Tocharian languages, hypothetical southern Tocharian “C”, in loanwords in the Middle Indic language of the oasis-state Kroraina (Chin. 楼兰 Loulan) in southeastern Tarim Basin. The language called Prakrit nyi or, according to the script, Kharoṣṭhī-prakrit was used to the administrative purposes of the state depending on caravan trade in the 3rd century A.D. The loanwords reminding Tocharian (see Burrow 1935) cannot be ranked either to language A or to B. So the hypothesis of the third Tocharian idiom seems quite promising. Let us quote some examples:


“C” meta = B mit ~ mīt “honey” < *medh-. Researchers generally conclude that Chinese mi “honey” < Old Chinese *mjīt (so first Polivjanov 1916; cf. Lubotsky 1998: 379) is also of Tocharian origin. There is interesting Old Turkic mīr, its final -r can indicate the Chinese mediation (Clauson; see Lin 1998: 478).

“C” oğana “some agricultural product” = B oço “fruit” (Burrow 1935: 673; Mallory, Mair 2000: 278).

“C” pakē, pl. pakeya “package” = B pâke, A pāk “part, share” (Burrow 1935: 671–672).

“C” kṣais “elder” = B kṣaisste “old (of age)”, A kṣets “ended, perfect” (Burrow 1935: 673).


There are also many personal names, which can be interpreted as Tocharian (Burrow 1935: 675):

Campe – cf. AB câmp- “be able (to)”, A tampe “power, ability”.
Laroe – cf. B lāre “clear, beloved”.
Mogacu – cf. A mokats “strong”.
Poşarsa – cf. B po “all” & AB kârs-/sârs- “know”, something as “all-kower”. Similar compound appears in A puk knânmâm, also in B poši (po- àik- “know”), as a calque from Sanskrit compound Sârvâjña denoting Buddha (Adams 1999: 403).

3. TOCHARIAN TEXTS – SITES AND DATING OF FINDS

Most of the Tocharian manuscripts have been dated from 6th to the end of 8th century. The recent results of detailed paleographical studies (Malzahn 2007: 277) and the radio-carbon tests (Adams 2006) shift the oldest B manuscripts even before AD 400, while the youngest manuscript designated as B-296 is dated between AD 1178 and 1255.
The known A texts originate from the period c. AD 700 to c. AD 1000 (Adams 2006: 382–383). Until now the manuscripts were found only in the Chinese autonomous region Xinjiang – in a town- oasis at the northern rim of the Tarim Basin (chin. 塔克拉木盆地 Ta-limu Pendi) with the desert Taklamakan (chin. 塔克拉玛干 Táeklamagan). Today about 500 texts, fragments or graffiti in the language A are known, and about 3200 in the language B. The A documents were found only in the east, while the B texts come from the west and from most of the places of the A text’s origin. The alphabetical order of places, where Tocharian manuscripts were found, follows. Except of usual names, variants, alternatives and actual Chinese local names are added. Only locations of founds of A texts are especially marked.

Bäaźjiq = Bezeklik = Bezklik, chin. 伯孜克里克 Beziklikche (A).
Dudur Aqu – near of Kuça.
Chami, chin. 哈密 Hami, also Qumul, Kumul, Konul – oasis, where 293 sheets of manuscripts and fragments of Old Uyghur version of the Mai-trēiasamitāntaka-texts were found; according to this text was reconstructed the same text in Tocharian, discovered in Yanqi 1974.
Kuça/Kuça = chin. 奎车 Kuche, early also 鄂车 Qiuci.
Maralbaši = Maralwexi, chin. 巴里满 Bacu.
Ming-dī Qizil = Qizilchoqa, chin. 明折尔额满 Kezi’erqueqia.
Murtaq (A).
Qara-choq, chin. 哈拉和卓 Halahzechuo.
Qarasah = Qarasahār = Karșahr, early Agni; this name obviously appears in today’s Chinese name 喀什 Yañqi; in 1974 there were found 44 sheets of fragments of Mai-trēiasamitāntaka A text here (A).
Qoço = Kocho; also Idiqut (Sähär), chin. 高昌 Gaochang (A).
Quntrat = Kuntrat, chin. 库木吐拉 Kumutula.
Qumul – see Chami.
Sāngim = Singim, chin. 胜金口 Shengjinkou (A).
Subaši = Subesi, chin. 苏巴斯 Subashi.
Šorcuq = a temple near of Qarasah (A).
Turfan = Turpan, chin. 吐鲁番 Tulufan (A).
Tuyuq = Toyuk = Toyok = Toek Mazar, chin. 土峪沟 Tuyugou (A).
Yañqi = see Qarasah (A).

We should also mention the city of Kaşghar (= Qašqar, chin. 喀什 Kashi) where many texts were purchased from merchants, and the city of Khotan = Chotan, chin. 和田 Hetian, place of abundant founds of Khotan-Saka buddhistic texts.

The A texts come from Turfan, Qarasah and surroundings. They have religious character, all are buddhistic, some of them continue in Indian dramas of jātaka and avadāna. In many cases we have Turkic names of donors of these texts. The B manuscripts have a gayer content. Most texts are also buddhistic, but some have a medical content. There are also magical and astronomical works and completely secular records: commercial correspondences, caravan passes and economical records of temples. The German researcher Werner Winter (1984: 16) differentiates three local dialects of Tocharian B: western from the area of Kuça (especially around Qizil), central from Šorcuq near Qarašahr; eastern from Turfan, as well as from the area of Qizil in the far west. Orientalists Lévi and Lüders very struggled for dating of the texts. Some date from the beginning of 7th century A.D. Winter (1984: 17) discovered another chronological information. The Chinese pilgrim Xuanzang visited Kuça in 630 and noted presence of monks from the kingdom of Agni. They lived in southeastern part of the town. In 648 Kuça was destroyed by Chinese armies and their allied Turkic tribe Töös. Subsequently the spiritual centre of Tocharians B moved to Qarašahr, where – near Šorcuq – the temple Yurpapsulation was cited in many texts. This is also an explanation of the fact that the language of these texts attained more and more character of Šorcuq’s dialect, although texts come from another places.

4. CLASSICAL (WESTERN) REPORTS ABOUT THE “TOCHARIAN” SPEAKERS / NATION

Although Central Asia is far from Mediterranean, antique authors recorded surprisingly abundant information about Middle-Asian populations. We can compare some testimonies: first from Pompeius Trogus (1st century BC – 1st century AD) in abstract of Epitome historiarum Philippicarum from Marcus I. Iustinus (3rd century AD.), second from Strabo (the same time as Trogus), and third from Ptolemaeus from the mid of the 2nd century AD. (italics have to reflect – if possible – exact forms of the given ethnonyms, including Greek plurals):

Pompeius Trogus > Marcus Iustinus [XLII, 2]
“On this place Artabanus, his uncle (i.e. Phraata), became a king. Scythians, satisfied by their victory and devastation of Parthia, returned to the homeland. But Artabanus fighting with Tocharians [Tocharia], was wounded on arm and after this immediately died. He was substituted by his son Mithridates, whose seeds brought him epiteth The Great.”

Nation known as Tocharist permeated to the west of Pamir about 124 or 123 B.C., where they fought with Parthian king Artabanus.

Strabo [XI, 8.2]
“From the area of Caspian sea, the most (tribes) of the Scyth names Dādi [Dāsō], Races living to the east name Massagetai and Sakai, another are called with common name Skythai, but every nation uses its own name. They all are especially nomads. Particularly famous are this nomads, which took up Bactria from hands of Greeks, that is to say Astoi, Păsianoi, Tokhāroī [Tūkaraip], and Sakarouoi, they moved from area of opposite bank of Iaxares along the territory of Sakkas and Sogdians, in the hands of Saktas. From the Dāi one part is called Aparnai, another Xanthiainoi, the third Passaroi. The Aparnai live in the nearest to Hyrcania and it’s bordering see, another nations extend to the area opposite to Aria.”

Ptolemaios [VI, 11.6]
“The northern parts of Bactria, edging the river Oxos, inhabit Salatarai and Zariaspaï, to the south from Salatarai (below from Salatarai) live Khomaraï,
southernly Kónoi, then Akinakai and Tambyzoi, but below Zariuspai the strong nation Tokkaroi, below them Marakaiotai/Marikaitai, then Skordai and Varnoi, and still below from them Auadiotai/Sabadiotai, then Orsiotai/Orisipoi and Ama-riposi.”

Ptolemaios [VI, 12.4]

“The territories edging mountain Oxæa inhabit Pasikai, areas edging northern part of the river Faxartæ inhabit lateiota a Takhkori. Below from them live Autaliotai/Augaliotai, then along the Sogdian mountains Oxæangkai and Drybakai and Sandaro. Under mountains live Mardýnoi and along the Oxus Oxianoi and Khiríasomi.”

Ptolemaios [VI, 16.6–8]

“The towns noted to be suited in Séríke (= China), are this: Damna, Piada, Asmiruia, Throana, Isséédon Séríke: Aspakara, Dróssakhe, Patiana, Thogara, Abragana, Daxata, Orosana, Ototokara, Solora, Sérí Metropilis.”...

5. CHINESE REPORTS ABOUT THE ETHNICITY OF AREAS INHABITED (NOT ONLY) BY TOCHARIANS

According to contemporary Chinese sources, inhabitants of areas where Tocharians lived from 6th to 8th century are depicted as farmers and breeders of livestock and horses largely living in towns. The men and women have their hair long to shoulders or even shorter. In frescoes in abandoned Buddhist temples we can see typical Mongoloids, “Iranians” and people of Caucasoid physognomy with straight narrow noses and blue eyes as well (Winter 1984: 13). The most detailed Chinese reports about the Tocharians can be found in information from buddhist scholar Xuanzang (600-602-664). He mentioned them in A.D. 630 (during his travel to the Central Asia and India. We can cite his description of Agni and Kuça – areas of the Tocharians A and B [2002: 21-25; after Josef Kolmaš]: “The region of Agni have more than 600 li [1 li = 576 m] from the east to the west and above 400 li from the south to the north. The capital city have circuit 6 or 7 li and is surrounded by mountains from all four directions. There are dangerous paths in that place, but it's easy to defend them. Many flows are united in one stream, by it fields are irrigated. Land is suitable for growing of millet, winter wheat, dates, grapes, pears, plums and other fruits. Climate is mild and convenient. Customs and habits of people are simple and modest. Their script has Indian origin and only some minute changes and supplements. Clothes are made from cotton or wool. People cut their hairs and wear any caps. They use gold, silver and small copper coins in a trade. The ruler was born just in this land. He is courageous man. Although he gives not too much time to military affairs, he very like boasting by his war expeditions. The land has no stable legal rules, the laws are cruel and have no order. When one walks above 200 li further to the southwest and crosses one small mountains and two large rivers, arrives to the west to the flat valley. When one continues further 700 li and more, arrives to Kuça. The land of Kuça have more than 1000 li from the east to the west and more than 600 li from the south to the north. The circuit of the capital city is about 17 or 18 li. Land is suitable for growing of millet and wheat, people grow rice keng-tao as well. The land also give grapes, pome-

granate and many sorts of pears, plums, peaches and apricots. The land produces gold, copper, iron, lead and tin. Climate is mild and customs of peoples are simple. The script has Indian origin and many modifications. The local peoples dominate between all countrymen in the play on woodwind and strings. Their clothes are made from fine brocade or rough wool. They cut their hairs and wear turbans on their heads. They use money from gold and silver and small copper coins in a trade. The ruler was born in the local family Bai. His natural talent isn’t large and he is controlled by influential ministers. If a baby is born, they usually compress its head between the tablets to make it flat.”

6. ORIGIN OF THE ETHNONYM IN THE LIGHT OF ANCIENT AND EARLY MEDIEVAL RESOURCES

A very complex question remains the name of Tocharians – from themselves and as well as from their neighbours. Adams (2000) tried to put an order to a little bit chaotic mixture of views. He is our most important guide here. We can start from the term Agni, which refers to the Tocharians using the A language. The Central Asian Sanskrit texts use the term and derivatives Agnidesa & Agnivastva “the land of Agni” to denote the city and its surroundings. The Uyghurs called it Qaraşahr and in Chinese the name Yanqi is used. The people in the neighbouring oasis-state Tumšuq spoke one of the Saka-dialects. The land was named Agüye xésera “the land of Agni” in this language. Another testimony is brought by Chinese pilgrim Xuanzang (he visited the area in the 7th century A.D.). In his records we read name Á-g'ji-ni (in Karlgen’s reconstruction of Middle-Chinese, c. A.D. 800), or Pa-gii-ni (Pulleyblank’s reconstruction to c. A.D. 600). The same toponym appears in one of the oldest Tocharian B manuscripts found in Kuqa in 1907, published in 1913. In the manuscript the fifth year of reign of king Suvarnapuspa is mentioned. We know that he died in 624, when his son Suvarnadvaja succeeded in the reign. He governed until 646 and in this year he was replaced by his younger brother Haripuspa. We don’t know how long was Suvarnapuspa reigned, but he was successful ruler, so it could be, that the time of his reign was the same as his son. Manuscript is then related to events from the beginning of the 7th century, i.e. this time precede the time of origin of the oldest dated graffiti and caravan passes (641–656) at least about one generation. In the manuscript we read the fourth line: Akehe yypo6-moko Nahnisthe “Nahnista, the older of the land Akehe”. The term akehe is probably adjective (we would expect *akehê), which can be derived from åke “end” = A åk. So it may be the land “at the end” at the edge”. This semantical motivation isn’t unusual. We know many similarly motivated toponyms: for example Slavic Ukrajina, Krajina, the Old English kingdom Mierce, Italian Le Marche, German Mark around Brandenburg, and other. The name of today’s Chinese town 即其 Yanqi (= Uyghur Qaraşahr) was pronounced jāng’ji (Karlgen) or Tjiang’i (Pulleyblank) in the time of Tang’s dynasty. In addition final -n can reflect elder -r in adaptation of originally non-Chinese words. Today’s Iranian sources confirm the old -r. The Khotan-Saka toponym Argina appears in the list of places on the Silk-Road. Sogdian rkeïk (from the work Nāfnānakt) follows after toponyms: Kulghar, Khotan and Kuqa. A possible continuation is just today’s Yanqi/Qaraşahr. Corresponding is also Middle Persian rkeïk xvet = *arkeïk
ywatāw “the lord of [the city] Ark” according to the text Mahārnāmag. Adams (2000: 9) links these toponyms to modern Persian ārg-e ārk “small stronghold”, Pahlavi ir-patāy “the lord of citadel”. Related could be Latin arx “stronghold, citadel, castle”.

The A language is sometimes called Āršī. Really, the compounds āršī-kānāt “the āršī language” and āršī-pē “the land of āršī” indicate it could be an ethnonym. But there is no evidence of its relation to the A Tocharians. The word appears only in translations from Buddhist Hybrid Sanskrit, so more probable is that it is a mechanical equivalent of the standard Sanskrit compounds ārṇabhāya “language of the Āryas”, i.e. “Sanskrit” and ārṇavata “land of the Āryas” (also land of those who keep the laws of the Āryas). Another Tocharian A text specifies further meaning of the word āršī, i.e. “Buddhist monk” (= who keeps the law of the Āryas or brought the buddhist doctrine to the areas of Tocharians). Distraction of the meaning of the word has analogy in Khotan Saka āṣī. This word denoted both the Āryas and monks. This is not a new conclusion, its authors are British iranists Henning & Bailey (30th years of the 20th century). But identification āršī = Tocharian A is still repeated and is evident that it cannot be a palatalized form derived from root *ark-, which obviously denoted a metropolis of the Tocharians A.

The West Tocharian metropolis is denoted Kuča in Ugyhur now, in the 9th century its Old Ugyhur name was Kūṣān. This obviously reflects Toch. B adjective kūšīrhe, which we know from titles written in carvan passeg: kūšīrhe orotste walo “the great Kuchem king/the great king of Kucha”. The correlative noun is *kūši, as it is confirmed by parallels in other languages: Khot. kūṣi, Sogd. kwyivy – kwyiy, Skt. Kusi, Chin. 奎氏 Qiūs < Middle Chinese Kuī-zi (Pulleyblank). The Sanskrit and Sogdian names can be traced already in the first century A.D. Together with Chinese forms they indicate original affricate. According to this we can point out that these change *<kūši- > -ā- operated in the first centuries A.D. Adams (2000: 20) still discusses the attractive hypothesis on identification of Tocharians and Northwestern barbarians, called in Chinese records Μου Yuezhi. In 126 B.C. returned Zhang Qian – the ambassador of the Han dynasty – from his travel to the land Daxia, i.e. Bactria to inform the Emperor Wu. In the 123rd chapter of the chronicle Shiji we can read his notes: “The nation of Yuezhi originally lived in the area between the Qilian mountains (= Tianshan) and the city of 綁州 Dushan, but after their total defeating by the Xiongnu tribes (= Huns), they moved far to the west behind 大宛 Dawan/Dayuan (= Ferghana), where invaded and dominated people of the land 大夏 Daxia (= Bactria) and founded settlement of their king on the northern bank of river Kür” (Lin 1998: 476). Chinese sources also mention that part of the defeated, so called 小月支 Xiao Yuezhi “the Lesser Yuezhi”, didn’t go to the west but settled in mountains to the northwest from Gansu (Adams 2000: 10). In 108 B.C. the king of the Lesser Yuezhi subordinated to China. In sources as Shiji or Han shu he was called Ruoyu [= pinyin; i.e. Jo-čh[i] in Wade-Giles] King. Pulleyblank (1966: 19) suppose that in fact his name is a title in Middle Chinese form nyāk-tsiā and in time of Han dynasty *nyak-tsiā. He identified it as the Tocharian adjective A nākic, B nākic[ye] “divine, heavenly”, formed from A nāk, B žak “god”. So the ruler of the Xiao Yuezhi was titled “the Divine King” or “the Heavenly/ Celestial King”. The similar title Po-yo po “god-king” appears in an inscription of the most prominent Bactrian king Kanishka. Interesting is that the kings of 頓族 Xiongnu tribes probably accepted these titles of Tocharians. In the time of Han dynasty their names were accompanied by the epithet ruoi (= jo-čh after Giles) < *nyak-tsiā (Pulleyblank 1966: 19–20).

Pulleyblank’s Middle Chinese reconstruction of the ethnonym Yuezhi is *ywat-ciā, in other variants: yuzhi < *yudz-ciā, nucu < *yuvi-ciā. The Chinese annalists knew these tribes from the end of the 2nd millennium B.C. According to the book I Zhou shu they firstly appeared in semimythical list of tribes bringing the tributis to the court of Zhou dynasty. Fully realistic is already information from the book Guanzi which contents documents from the 5th to the 1st century B.C. According to the book the western nation Yuezhi used jade with only one possible origin from surroundings of Chotan (Pulleyblank 1966: 19). Adams supports the starting point *gwat-yit. This reconstruction perfectly corresponds with the external Indo-European etymology of this ethnonym (Witzcak 1993), based on the etymological analysis of the name of East Germanic Goths: Goth. Gultbya < *Gutu-peuda “the nation of Goths”; Gr. Γοθοί, Lat. Guiones, Old Engl. Gotan < *gtan-ā-, cf. Old Nord. gotnar “men”, between Old Eng. Geatas, Old Nord. Gautar < pl. *gautəz, cf. Old Nord. gautar “men”, from this sg. *gautaz. Otrębski (1950: 79–98) was the first who published this analysis, later developed by Hamp (1991: 85–86). Otrębski added comparison with Nor. gut & gut “boy”, also Danish gud and Swedish gutt. Hamp projected these forms to the later IE forms: collect. *gut-: singular *gud-on: “god-ō”. The ethnonym, if motivated by the original meaning “young man, boy”, is not isolated in the IE context. Compare the name Cech, which in fact is the apellative “boy” preserved in two archaic peripheral dialects: Kashubian and Slovenian (Bläžek, Klair 2002). There is still another alternative etymology deriving the name of the capital of the western Tocharians Keci from the pl. *kitewies “the whites, the luminous”. This etymology is supported by the Chinese denotation of the reign dynasty in Kuča called Bo = “white / luminous”. But there are some arguments against this hypothesis: (i) genitive of Kucif proofs that Keci is singular; (ii) the reign dynasty in Kuča used its own designation – in Sanskrit sources savarāṇa “gold”; the corresponding Tocharian B term was Y̬aṣṣaṇe.

The most complex situation seems to be in the case of the ethnonym Tochar. The Chinese designation of Ferghana Dayuan was probably pronounced as *Tawdr in the last centuries B.C. (Henning 1938; Pulleyblank 1962: 90, 224; 1966: 22). Strabo (referring to Apollodoros) and in the 2nd century Ptolemaeus [VI, 11,6] localized the tribe Tjgopos to Bactria (now Afghanistan) in the 1st century A.D. But Ptolemaeus still knew Ṭhagapost from northern Sogdiana [VI, 12,4] and the town Ṭhagār, now in Gansu province [VI, 16,8] = Ṭagārae which mentioned Plinius. Greek -o reflects *-a- in loanwords. This is confirmed by Sanskrit etonyms Ṭhakara, Ṭhakara-, Ṭuṣara-, Ṭuṣara- and others. Kamara, member of Kuchean royal family and famous translator of buddhist texts to Chinese gives the definite equality between Ṭhakara- and Yuezhi. He explained Sanskrit ethnonym by Chinese term Xiao Yuezhi, i.e. “the Small Yuezhi” at the beginning of 5th century A.D. (Adams 2000: 10, footnote 19).

The Sanskrit ṭh- can function as transcription of Middle Iranian -thr- as Skt. vahu from Bactrian hago “god” proofs. Sogdian texts (economic records in book Naṉanmok – about 800 A.D.) give two variants: ṭhr-rk and ṭhr-rk. This forms may be vocalized as *ṭhvardrak (or *ṭhvardak; from this possibly derived Khot. ṭhvardā) and *ṭhvardak
Both variants could be derived from original proto-forms *tuwarak or *tuskorak. Curious evidence of the second form could be the Ossetic tosar “warlord” (if tosor “war” is reversely derived form). We can demonstrate analogical functional drift from etymology to appellative in Slavic word *vitok “victor, hero, warrior”, which could be an adaptation of Old Nor. viking “sea robber, pirate, viking”, later commonly “Norman” (detailed discussion to the problem: see VVKYÆL 2004: 120–129). We have also two transcriptions from Chinese: dou-qia-luo < *tu-k’ia-lâ (Karlgren) = *tu-k’ia-la (Pulleyblank) a tu-huo-lo < *uo-xwâ-lâ (Karlgren) = *t’o-xwâ-la (Pulleyblank). Some modern Chinese toponyms document notable traces of historical presence of the Tocharians in the Tarim Basin: central village 托呼拉 Tuohula to the west from Khotan (LI YINBIN 2006: 15), village 托乎拉 Tuohula north from Aqsu = Чин, Ак-Су Аксус. The same origin has most probably the name of the village 豨胡同 Tuhulu in area of ancient Tocharian settlement near 喀吾 Yiwu. We can still mention Tibetan term Thogar used for northeastern Tibet (ADAMS 2000: 10, note 19). Probably both Chinese variants and the Tibetan word have origin in Sogdian term without prothetic vocal. ADAMS (2000: 16–17) reconstructs original form as *tugar- which gives common Tocharian *tukâr-; this may be inherited word or loan, most probably from Iranian. Presented existence of loadable (“epenthetic”) vowel before -r- is just typical for Tocharian languages and it is at least indirect evidence that historical Tocharians (also?) used this etymology. In 1907 the orientalist F.W.K. Müller from Berlin identified ethnical name τωρκός in Old Uyghur colophon of the Toch. A drama Mattrēsainmūntatâk. He vocalized it as Togăr and Sieg and Siegling (1908) identified it with the ethnym Togatap, which Strabo and Prolemaeus located to Bactria, i.e. Afghanistan today. In Old-Uyghur version of drama Mātriśīmity Aryanca (Old Uyghur Aryançiniri) is mentioned as translator of the work from Sanskrit to toq̱ īli. Müller deciphered his origin as the land of Nakardesâ (Nkrdyš). That is near the modern Jalalâlbâd, south from Kâbul. But in 1949 British iranian Henning clearly demonstrated that this toponym must be read as *knrdyś and this can be vocalised only as Agnidēsâ, i.e. area of the Tocharians A. It makes sense: Aryanca translated drama from Sanskrit original into his mother tongue Tocharian A, then the Tocharian A text was translated in Old Uyghur. There are also other arguments, unknown to Müller, for identification of Tocharians A and etymology τωρκός. There was found a tri-lingual Sogdian-Uyghur-Chinese inscription honoring deities of the Uyghur ruler, in the Uyghur kingdom capital of Qara Balgasu. It contains information about total defeating of Tibetan army and nation of the four τωρκός (Sogd. cīfr’t twrκ’h). This is related to the war 791–792. Similar terms are also in Manichean documents in two forms: Middle Persian (ch’r twytr’h) and Old Uyghur (twytr twrκ’h). The Sogdian book Mahrnāmāg (written about 800) informs us about members of Manichean church. There are five small city-states among them in north of the Tarim Basin. Four of them were in areas where Tocharian language was probably spoken. There are contemporary places Qočo, Kuqa (with Kaśghar and Aqsu), Qarašahr, Ué.

7. DEBATE ABOUT HYPOTHETICAL TRAJECTORIES OF MIGRATIONS OF ANCESTORS OF THE TOCHARIANS TO THE CENTRAL ASIA

Historical notes of antique and Chinese authors document presence of the Tocharians in the Central Asia in the last centuries B.C. Analysis of early Tocharian loanwords in Chinese (“chariot” and its parts) moves datation of the first contact to 1200 B.C. The famous mummies with typical Caucasian features were discovered in the Tarim Basin and can be 4000 years old (MALLORY, MAIR 2000). If we accept the most probable hypothesis that they represent the ancestors of the Tocharians (also confirmed by analysis of DNA – cf. FRANÇALACCI 1998: 537–547), their migration from the west must have happened after horizon 2000 B.C. Researchers formulated two alternative hypothesis reconstructing routes of their migration from supposd Indo-European original homeland to Central Asia. Let us compare arguments of both: the northern and the southern hypothesis. The promoters of the northern hypothesis find the strongest arguments in the presence of some primarily Indo-European cultural words in Fenno-Ugric and Samoyedic languages which cannot be explained as Iranian loanwords. We gather from the work of A. JOKI (1973) who was the first who tried to explain some Indo-European words in Fenno-Ugric as loanwords from Tocharian. J. JANHLJNEN (1983) made the same conclusion in the case of some Samoyedic etymons. The number of potential Tocharian loanwords in Uralic languages was extended to 18 by V. NAPOLESKIHI (2001). The following mini-list contains 5 etymons and presents a choice only of the most convincing etymologies.


2) FP *sölō (Fin. suola) / sōla (Mord. sal, Mari šonal, Udm. sölá, Komi solšul) *salit < *söλ (corresponding Balto-Fin. *sl : Mord. a reflects old *s in stems of words ending by *-e; see ILLİC-SVITIC 1971: XXV) < OToch. *saliët(ν) (cf. HELMARSSON 1986: 231) : A sālē, pl. sāleyantu, B sälīye, acc. sāly “salt” (JOKI 1973: 316; NAPOLESKIHI 2001: 373–374). In Indo-Iranian languages we know only one cognate in semantic and word-formation distant Ondl. salīlām “see, flood”. The adj. salīlā-sarīrā still could mean “salty”.


A hypothetical contact between Tocharian and Fenno-Ugric languages should occur before the disintegration of the Fenno-Ugric protolanguage, traditionally dated to the end of 3rd millennium B.C. (HAJDU 1985: 173). The dating is confirmed by the glottochronological test applied to Uralian languages by the team of Sergei Starostin, the author of the recalibrated method (Santa Fé 2003). According to his conclusion, the interval between the dissolution of the Uralic proto-language and dissolution of Fenno-Ugric was c. from 35th to 22nd centuries B.C. (see the next genetic schema):

<table>
<thead>
<tr>
<th>-3500</th>
<th>-2500</th>
<th>-2000</th>
<th>-1500</th>
<th>-1000</th>
<th>0</th>
<th>+500</th>
<th>+1000</th>
<th>+1500</th>
<th>+2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Samoyedic</td>
<td>720</td>
<td>600</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uralic</td>
<td>500</td>
<td>340</td>
<td>150</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Finno-Ugric</td>
<td>210</td>
<td>0</td>
<td>130</td>
<td>570</td>
<td>560</td>
<td>570</td>
<td>1300</td>
<td>1730</td>
<td>1730</td>
</tr>
<tr>
<td>Volga</td>
<td>650</td>
<td>660</td>
<td>2200</td>
<td>1300</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Balto-Finnic</td>
<td>580</td>
<td>1800</td>
<td>1300</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vepsian</td>
<td>570</td>
<td>2220</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Finnish</td>
<td>1300</td>
<td>570</td>
<td>2220</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lapo</td>
<td>720</td>
<td>600</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In application of the same recalibrated test on Indo-European languages, the separation of the Tocharian languages from the remaining mainstream can be dated to 3800 B.C. There is no reason to suppose a direct contact between peoples speaking Tocharian and Uralic protolanguages. Hence the ancestors of Tocharians needed at least 4 and at most 16 centuries to reach neighbouring areas of independent, but still undifferentiated Finno-Ugrian. An original homeland of the Finno-Ugrians has been located in the area between the middle stream of the Volga and the central part of Ural. The contact between the early Tocharians and Fenno-Ugrians should happen in the southern part of the forest-steppes area where only forest hunters and fishermen (= Finno-Ugrians) and breeders of horses and cattle (= ancestors of Tocharians) could be met. The hypothetical Tocharian stock in Samoyedic lexicon was realized undoubtedly later, when ancestors of the Tocharians moved to the east. But this occurred certainly before the 8th century BC, when the Samoyedic protolanguage dissolved. Some of the mummies come from 2000 B.C. If their Tocharian identity is true, we can confirm the contact between the Tocharians and Samoyedic people in the 3rd millennium B.C. Again, it may have most probably occurred in the forest-steppes area in the southern part of Siberia. Even if a direct identification of archeological culture with specific ethnic is always problematic, there is a broad consensus about important role of ancestors of the Tocharians in archeological complex of Afanasievo culture from 3500 to 2500 B.C. This culture is localized between the upper flow of the rivers Ob and Angara, to the north from the Altai with the centre around the area of Minusin valley by northern Yenisei. This culture is characterized by knowledge of copper and bronze, there are interesting and evident cultural parallels with such North Pontic cultures as the Srednij Stog (4500–3500 B.C.), see Mallory, EIEC 4–5, MALLORY, MALLORY 2000: 294–297. We can add that the Afanasievo culture was followed by the culture of Okunevo in the 2nd millennium B.C. and that the bearers of this culture probably were early Samoyeds (VADDEKAA 1990: 73). Geographically the territory of both cultures significantly coincides with the original homeland of the Samoyeds, determined by the method of linguistic archeology into the quadrangle Naryn-Tomsk-Tenisjk-Krasnoyarsk by E. ZELENSKII (1988: 13–14).

The hypothesis of the southern trajectory of ancestors of the Tocharians was firstly formulated by the British iranian P. HESVING in 1962 (published first in 1978). His concept was further developed by the Georgians and Russian authors T. GAMSURIDZE & V. IVANOY (1989) and Polish K. WITCZAK (1993). The advocates of the southern route see the main argument in a similarity of the proper names Guiri and Tokešĭ, attested already in the 3rd and especially from the 2nd millennium B.C. in the Western Iran, with the name of the capital of the Western Tocharians Kuča, and the ethnonym Tochar respectively (see above). This concept is certainly seductive, but it spoils the linguistic proof of mutual loanwords between Tocharian and one of the ancient Near-Eastern languages. It may be especially Sumerian, Alkadian and Elamite, with which the Proto-Tocharians must be contacted. The only exception is the contribution of K. Witzcak. He collected 10 lexical parallels, which should document a mutual contact of ancestors of the Tocharians as well as of the Hurrians and the Urartians. This is a key argument for the Near Eastern migration, so we will cite this comparisons with short commentaries:

1) Hurr. ag-, Ur. ag- “lead, bring” || Toch. AB ĭk- “lead”, Hurr.-Ur. ĭg- “has the closest cognates in Nakh languages, concretely in Chech. -ĭg-a, Bats -îk- “lead, manage”; other parallels in Dagestani languages as Archi aka-s “manage”, Dargi -îrk-s/-urk- lead to plDagestani *’VivV (DIAKONOFF, STAROSTIN 1986: 57).

2) Hurr. man-, Ur. man- “to be, exist” || Toch. AB mãsk- “to be, become, be situated” < *mp-sk (ADAMS 1999: 458). Hurr.-Ur. verb could be without problems derived from Dagest. *i-mu(w) “stay” (DIAKONOFF, STAROSTIN 1986: 21).
3) Hurr. & Ut. pul- “know, express, say” || Toch. AB pāḥk- “think, consider” (not “know”). Toch. word is probably the sk-derivative from the verb pālā “see, look” (ADAMS 1999: 377, 380–381).

4) Hurr. wail “worn” || Toch. A wāl, B yel id. The Hurrian word in modern transcription wali, has the closest cognates in Nakh languages: Chechen bōhalla, Ingush bīchel “snake”; also Tsez bekol, Bezhit bekela, Avar borox “snake”, Tindal bek a “snake, worn” (DIANKONF, STAROSTIN 1986: 50).


6) Ut. šuš “sheep” || Toch. A šōš id. It is not possible to separate šōš from A šāyə, B šāyyə < *sāwy-ye (ADAMS 1999: 634); W. WINTER (1999: 251–254) appointed the meaning “small domestic animals”. For A šōš Winter expected the assimilation from *śōš, this may be the acc. pl. with analogical development as the acc. pl. kōš “cows” < *gʷōvga. Toch. A šōš and B šāyyə are undoubtedly derived from the verb attested in B šāw-sāyə- A šō “live”; due to semantics cf. Welsh bw “Hornvieh” ; Lat. vivār. Also B šānta “sheep” derivable from *śāwntā (ADAMS 1999: 634) is ranked here.

7) Hurr. ē proport-djm “left”, Ut. salmati id. || Toch. A šālī, B švalyai id. But the Toch. words do not mean “left”, but in contrary, “right”. This is the fossilized acc. f. gerdón šwalá “convenient to eat” from the verb šu- “to eat”, cf. Khotanese hvvardan-a “right hand”, hvard- “to eat” (WINTER 1985: 590; ADAMS 1999: 645). On the other hand, the Hur word has persuasive etymology in Dagestian *cáH(y)pįl “left” > Agul čalpl-an-, Lezgin čapl, Dargwa čipil (DIANKONF, STAROSTIN 1986: 54; the authors reject the Urtarian parallel, actually it could be a loanword, for example from some Semitic languages, cf. Akkadian šumēlu, Uguric šmāl, Hebrew šmōd-ī, Syriac šmālā “left side”).


In confrontation of the northern and southern hypotheses the first seems more convincing, presuming the starting point of transcontinental drift of ancestors of the Tocharians in the Western Eurasian wood-steppe area, most probably in the area between Danubius and Donier. Only this ecological niche allowed to Indo-Europeans to preserve the skills of agropastorists, as well as surpassing mobility. The northern trajectory is also confirmed by important contribution to the cultural vocabulary of Fenno-Ugric and Samoyedic languages. Interesting is also the affinity of the first South Siberian chalcolithic Afanasievskaya culture with North Pontic archeological complexes as the culture of Srednij Stog.

8. APPENDIX I

THE APPLICATON OF LEXICOSTATISTICS FOR TOCHARIAN

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Etymology</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. all</td>
<td>pønt &amp; pu-k</td>
<td>*pønti; cf. Gr. nág, mæro- id.</td>
</tr>
<tr>
<td>2a. ashes</td>
<td>tōr</td>
<td>&lt; Turk. *tör dust; cf. also Yakut tor smut (LS, 259; EDAL 1465); comparison with R. dur fatuity, Br. dura stagger (*dōuro-) is semantically not persuasive</td>
</tr>
<tr>
<td>2b. ashes</td>
<td>twey</td>
<td>*twey-; IE *dweyH- to blow, smoke, cf. Lit. dūtā “fine dust, Khit. dura-dusty</td>
</tr>
<tr>
<td>3. bark</td>
<td>esmēre</td>
<td></td>
</tr>
<tr>
<td>4. belly</td>
<td>kātis</td>
<td>*gʷeśtin-; cf. Goth. gipus abdomen, bosom</td>
</tr>
<tr>
<td>5a. big</td>
<td>sāw-</td>
<td>cf. A sāw-, B sāwy- (64b; problematic is the comparison with OInd. sāvy-) power</td>
</tr>
<tr>
<td>5b. big</td>
<td>tiopats</td>
<td>*tiopats-; cf. Goth. diups id.; zero grade is in A tiÜR high &lt; *tōp-</td>
</tr>
<tr>
<td>6. bird</td>
<td>kwaša</td>
<td></td>
</tr>
<tr>
<td>7. bite</td>
<td>tsāk-</td>
<td>*tsāk-; cf. OInd. dāsati he bites</td>
</tr>
<tr>
<td>8. black</td>
<td>arkan-</td>
<td>*Hg()-os, cf. OInd. rāṣānti- night, Arm. erek evening. Goth. rīgaz darkness</td>
</tr>
<tr>
<td>10a. bone</td>
<td>āy-</td>
<td>*Hs’-et+y-?</td>
</tr>
<tr>
<td>10a. bone</td>
<td>āy</td>
<td></td>
</tr>
<tr>
<td>11. breast</td>
<td>pāśaān</td>
<td>*pāša-; cf. OInd. mānār dust; Avest. βaβa-, Aram. tēm, Gr. epiuvrētēvβog</td>
</tr>
<tr>
<td>12a. burn</td>
<td>tsāk-;tsāk-</td>
<td>*tša-; cf. OInd. dāša Sahe burns, Alb. dīk, Lit. degū I burn</td>
</tr>
<tr>
<td>12b. burn</td>
<td>pāik-</td>
<td>*Hg’; cf. Lat. fulgē I blaze, Gr. φλογή I burn</td>
</tr>
<tr>
<td>13. law</td>
<td>moku</td>
<td>*sHn-ŋōrogw; cf. Hit. sancaw- &lt; *sänąka-, Arm. sōngor id. &lt; *tāng-, &lt; *sH-nōrg-, Gr. μύρων, single-hoofed &lt; *sHn-ŋōrog-</td>
</tr>
<tr>
<td>14. cloud</td>
<td>tārkār</td>
<td>*tūr, cf. Lit. dārugs rainy weather, OR. padurug stormy weather</td>
</tr>
<tr>
<td>16. person</td>
<td>kams-</td>
<td>*kams-; cf. OInd. gāmat he walks, Goth. gaman come, Lit. gēma: gāhtī be born</td>
</tr>
<tr>
<td>17a. die</td>
<td>wāl/wal-</td>
<td>*weelih, cf. Hit. wāle: he beat, Hier. Luvian wāl-le: decease</td>
</tr>
</tbody>
</table>
29. bear  
*kryst*; cf. Ond. *jr*ozatí he hears, OChSl. *slikatí* hear, Lit. klausír hear

40a. heart  

40b. heart  
(kri will)  
pl. krájová

41. born  
(kor cresc.moment of)  
korjová  

*křeř* or *ěrtar*; cf. Lit. *karv*(-ar) id. or Myc. *ono-ka-rar* = *omôn-krar* unicorn

42. 1  
*nás m* /  
*huk f. *huk*  

*ěrt*(-me) crossed with nom. *ěř-g* > *ják*,-  

*ěnt*(-a) gen. *-en*; *m*-er, Goth. *-g*; *ěnt*(-a) gen. *m*-er; cf. OIr. *-g*; hoc. *-g*; hock

43. kill  
ko-  

*kv*; cf. O Saxon kazwan, Lit. kauti beast, bang

45b. kill  
*ěrtar*  

*ěrtar*; cf. B *brak*(-ar) die (*17b*)

45c. know  
(ě attendance)  
*ěrt*  

*ěrt*; possess, cf. Goth. *aht* aigm id., have, Ond. *lir* he is master (of something)

46. leaf  
päll  

*pall* coll. *-ěrt*; cf. OChSl. *lát* id.

47a. lie  
*ěrt*  

*ěrt*; cf. Ond. *lát* he is tired, lát* he was tired

47b. lie  

*ěrt*; cf. Goth. *lát* id., OIr. *lát* he lies, he lies down

48. liver  

*wě*n*; cf. OIr. *wě*n* stomach, liver bosom; Ond. *wě*n* abdomen, Lit. *wě*p* abdomen

49. long  
párk  

*párk*; cf. Lit. *párk*., Arb. *börk* high

50. louse  
párk (~*párk*  

*párk*; cf. Lit. *párk*., Arb. *börk* high

51. man  
onk  

*ěnt*(-ar) mortal, cf. OIr. *ěnt* death < *ěnt*- kill, die > AB nát destroy; be lost, disappear; cf. Lat. *necé* necé kill

51b. man  
átal  

*ěnt*(-ar) mortal, cf. OCHSl. *átar* (-al) gentle

52a. many  
mák  

*mák*; cf. Lit. *mák*(-ar) many

52b. many  

*mák*; cf. Lit. *mák*(-ar) many

53a. meat  
swá  

*swá* (-ar) eat (*23a*)

53b. meat  
pl. měs  

*měs* (pl. of měs) men; cf. Goth. *mim* id.

54. moon  
měs  

*měs*; cf. Goth. *mim* id.

55. mountain  
sul  

*sul*; cf. Lat. *silva* wood

56. mouth  
ko  

*ku* (-ar) open mouth < *ě*tar(-ar) (-ar) open mouth, OChSl. *t* or *ě*tar(-ar) - open mouth, OChSl. *t* or *ě*tar(-ar) - open mouth

57. name  
*ém*  

*ě*m*; cf. Arm. *anaw* name, Gr. *dóxa* honor, OBEsl. *zj*at id.

58a. neck  
*ěn*  

*genu*; cf. MHG knock neck or *kneon*; cf. Goth. *mī* head

58b. neck  
kor  

*kor*; cf. Gr. *kó*op eye of needle, hole of ear, Av. *s*ar*., Arm. *or* hole
58c. neck  
krāši

59. new  
īva

60a. night  
ve

60b. night  
kāštner at night

61. nose  
pl. malāν

62. not  
mā

63. one  
sas m. / sām f.

64a. person  
napan

64b. person  
(sōm youth)  
sāumo

64c. person  
ohi < *tēkāτi

64d. person  
ono

65. rain n.  
swāse

66. red  
raše

67a. road  
yme

67b. road  
yår

68a. root  
timār

68b. root  
swāse

69. round  
akrārār

70. sand  
wārārāc

71. say  
weh-

72. see  
lāk-lāhāk

73a. seed  
sārām Sāt

73b. seed  
sākālāyī

73c. seed  
sauเวkha

74a. sit  
īyām- / lam

74b. sit  
śām-

75. skin  
vats

75b. skin  
kāc

75c. skin  
eve

76. sleep  
klīs- / kles-

77a. small  
lykāly / lykāly-

77b. small  
mākālo

78. smoke n.  

79a. stand  
kāly-

79b. stand  
śām

80. star  
śār

81a. stone  
khā- 

81b. stone  
pāyem, perl.

82. sun  
kom

83. swim  
ndāk-

84. tail  
pākā

85a. that  
samp m. : sam f.

85b. that  
tām ntr.

86a. this  
sār m. : sās f.

86b. this  
sa

87. tree  
śām

88. tree  
šām, pl. stānā

89. two  
wū m. / we f.

92a. walk  
i- 

92b. walk  
ja-

93a. warm  
omāl

93b. warm  
sāi

94. water  
war

95. we  
we

96. what  
kāc

97a. small  
lykāly / lykāly-

97b. small  
mākālo

98. what  
kuve

99a. small  
lykāly / lykāly-

99b. small  
mākālo

100. water  
war
9. APPENDIX 2

POSITION OF THE TOCHARIAN BRANCH
BETWEEN OTHER INDO-EUROPEAN LANGUAGES

Following diagrams are ranked chronologically according to the year of publication, documenting views of distinguished Indo-Europeranists on development and mutual relations of Indo-European languages:

- Vladimir GEORGEI (1981: 363)
- GAMSXELIDZE, IVANOV (1984: 415)

If Tocharian A and B were contemporary living languages, we could conclude that they diverged about 1050 years ago, i.e. they should separate during the 10th century A.D. But these languages are dead and known only from literary – even asychronic – tradition. It is difficult to express the age of Tocharian texts by the only date. It can be only a statistical average: Tocharian A to A.D. 700 and Tocharian B to A.D. 600 (see §3). Then there are two strategies of calculation of the time of their divergence. According to Swadesh's method we subtract the time of divergence (i.e. 1050 years) from an arithmetic mean of dates of recording of both languages, i.e. from the fictive average A.D. 650.

The result 400 BC seems quite realistic. Starostin's approach is different. Starostin uses the projection of historically documented languages to the present. The time space of 1300 years separates the language A (A.D. 700) from the present and 1400 years separates the language B (A.D. 600). The corresponding coefficients of preservation are for the proto-language common to A and B would have the following share of preservation of the basic lexicon c = R · pA · pB = 0.906 · 0.913 · 0.925 = 0.765 (about the method see BURLAK, STAROSTIN 2005: 163). This result corresponds to the date A.D. 200 (thus just before the end of the Han dynasty, A.D. 220, when the Chinese influence spread to the area of the Tocharian people). We can add that according to Starostin Tocharian A and B differentiated about 20 B.C. (Dvvo 2006: 782–783). But details of this calculation were not published. Summing up, the oldest dating of the A vs. B divergence, 400 BC, seems to be in the best agreement with expectation of both historians and linguists.
In three fifths of cases Indo-Europeanists agree in conclusion that Tocharian is a branch separated from the Indo-European dialect continuum as the second after the separation of the Anatolian branch. Georgiev ranked Tocharian in the so-called northern bloc, represented by Germanic and Balto-Slavic languages, Hamp accents vicinity of German and Tocharian.

10. CONCLUSION

In the present study we gathered and dared to assess material allowing to formulate the following scenario. The Indo-European dialect continuum is split for the first time in the first half of 5th millennium B.C., when the Anatolian branch is separated. Roughly after 8-9 centuries, c. 3800 B.C., another dialect, developing to the Tocharian branch, made independent. The ancestors of the historical Tocharians separated probably from the eastern part of the Indo-European ostkumena, perhaps in the area between Danubius and Dniepr. The area is a logical platform to the further penetration to the east, where the contact with populations speaking still undisintegrated Finno-Ugrian proto-language could be realized. This happened probably in the second half of the 4th millennium B.C. We can conceive the area of middle stream of the Volga and Ural (or southern Ural respectively) as pertinent contact zone. The route of Proto-Tocharians led further to the
east it stopped on the northern slopes of the Sajany-Altai, between the upper Irtys and Angara, where the archeological complex Afanasiyevskoe was constituted from 3500 to 2500 B.C. The complex has an evident genetical relation to the culture Srednij Stog, which had dominated in regions to the north from the Black Sea one millennium ago. Culture Okunievo appears in the northern periphery of Afanasiyevskoe culture after 2000 B.C. The Okunievo culture obviously contained part of ancestors of Samoyedic populations separating from their Finno-Ugrian relatives around the half of 4th millennium B.C. The vicinity or succession of ancestors of Tocharians and Samoyedic people left some traces in Samoyedic lexicon. The main stream of Proto-Tocharian population moved perhaps to the south in the last centuries of the 3rd millennium B.C. The most possible route of their migration could lead along the upper flow of Irtys across the Jungar Basin (Zhungar er Pendi) to the Tarim Basin (Talima Pendi). They were likely to penetrate here from the east (Mallory, 2000: 315) and to gradually colonize the northern edge between the river Tarim and southern uphills of Хуан Tien Shan mountains, where the eastern language A and western B were later crystallized. They settled also at the southern rim along the river Qarhan and by northern uphills of the Kunlun mountains where hypothetical language C left some traces. The contact with Chinese civilization occurred at the latest about 1200 B.C. Spreading of war chariots in Chinese army was the main result (Shaughnessy 1988), documented also in loanword from pre-Toch. *kliełę > A kliat, B klietis “wagon”, AB kläkk - “to go by wagon”, to Old Chinese *lakw “wagon”, *lak “run” (Lubotsky 1998: 379–390; Bläze 1999: 82). Another cultural loans between Tocharian and Chinese follow, in adverse order as well (for example Toch. AB klü “rice” < Old Chinese. *culu “rice” - see Bläze 1999, 81–82). In the first half of the 2nd century B.C. the Tocharians were invaded by nomadic ethnic of Xiongnu, who appears as the Huns at the European borders after some centuries. Tocharian’s militant elite runs away to the west, where dominated Bactria for some time. Then some exclusive Bactrian loanwords penetrated in Tocharian et vice versa, although Bactrian was not spoken in the Tarim Basin. This fact confirms that part of the Tocharians returned back from Bactria to Xinjiang. In the following examples chosen from Tremblay (2005: 435–436) the semantics or phonetic peculiarities typical for Bactrian exclude other Middle Iranian languages as a southernd.


ABBREVIATIONS


BIBLIOGRAPHY