

*Humanities & Social Sciences*

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## The Indo-European Homeland in the Near East: New Evidence

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**ABSTRACT.** The problem of the initial place from which the original Indo-European dialects spread over the West part of Eurasia has been studied by several generations of scholars. Few alternative points of view have been proposed: first an area near the North Sea (in the works of some scholars of the turn of the XIX and XX centuries), then the North coast of the Black Sea (an old idea of Schrader revived by Maria Gimbutas and her followers<sup>1</sup>).

35 years ago the author of the present text together with Tamaz Gamkrelidze suggested first in a talk at a conference, then in a series of articles and in a resulting book that the South-East part of Anatolia, close to North-East Syria and North area of Mesopotamia, may be considered as a possible candidate for the Indo-European homeland, Gamkrelidze, Ivanov 1972; 1995, 1990; see map 1 of the possible migrations suggested in the latter publication and reproduced below.

Since that time many linguists, archeologists and specialists in the other fields of studies bearing on the solution of this question have been discussing the arguments for and against this suggestion. Recent research on these topics has brought additional evidence that seems to prove the Near Eastern hypothesis in a definite way. The article sums up the results achieved in the last decades. © 2007 Bull. Georg. Natl. Acad. Sci.

**Key words:** *Proto-Indo-European, Indo-European homeland.*

### 1. Contacts of Proto-Indo-European with other linguistic families. Indo-European elements in Kartvelian.

Indirect evidence on the early presence of Indo-Europeans in the areas close to the Near East can be found in the traces of the ancient contacts between linguistic families in this part of Eurasia. Such contacts between Proto-Indo-European and Proto-Kartvelian have been suggested in the work of T. Gamkrelidze and G. Mach'avariani more than 40 years ago. The following studies have established a number of important loanwords from Proto-Indo-European in Proto-Kartvelian. Particularly interesting discoveries in this field were made by the late

G.A. Klimov<sup>2</sup>. He has found many new common elements of the two families in addition to a relatively long list in our joint work with Gamkrelidze in which we included also the correspondences earlier noticed by Klimov. The main difficulty in interpreting the results of his investigations is connected to the problem of a possible common Nostratic origin both of Proto-Indo-European and of Proto-Kartvelian. If these two linguistic families were originally cognate, then some part of the correspondences found by Klimov and other scholars might have been traced back to the Proto-Nostratic early period<sup>3</sup> (more

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<sup>1</sup> See the chapter on Place and Time in the new textbook: Mallory- Adams 2006, pp. 86-105.

<sup>2</sup> Klimov 1985-1998; Klimov, Khalilov 2003; cf. also Harris 1990, Greppin 1997.

<sup>3</sup> The question was put forward already in : Shevoroshkin 1986.



Map 1. The Indo-European homeland and proposed migrations (after Gamkrelidze and Ivanov 1990).

than 10 000 years ago). Only those words that were not inherited from this ancient time are important as a proof of the later existence of Proto-Indo-European in the area close to the Proto-Kartvelian (to the South-West of the Transcaucasian area in which the latter spread in the historic time, Klimov 1998, pp. IX, XII). In a recent work of the late S.A. Starostin who has tried to select Indo-European elements in Kartvelian distinguishing them from the possible common Nostratic core several definite comparisons have been singled out such as: Proto-Kartvelian *\*ank'es*- 'fishhook' (Georgian *ank'es-i* borrowed in the other Kartvelian languages, Klimov, Khalilov 2003, p. 146) : Indo-European dialectal *\*ankos*-<sup>4</sup> (Avestan *aka* 'a hook to bind a horse to a vehicle'<sup>5</sup>, Sanskrit *अङ्क-*, *अङ्कन्ता-* 'hook', Greek *ἄγκλος* 'crooked, bent', Latin *uncus* 'crook, crooked', Old English *angul* 'fishhook'); Proto-Kartvelian *\*tel-* 'young pig': Proto-Indo-European *\*tel-* 'young animal' (this correspondence is supported by

<sup>4</sup> In Kartvelian this relatively recent borrowing is reflected without a laryngeal which is seen in the other probable Nostratic correspondences of Indo-European stems. If one does not accept the Nostratic hypothesis then it is still necessary to distinguish 2 different strata of Indo-European borrowings: without laryngeal correspondences as in the cited term for 'crook' and with them, cf. forms like Kartvelian *\*γweb-* 'to weave, wattle' : Indo-European *\*Huebh-*, Kartvelian *\*zwed-* 'strap', in Old Georgian and in the modern Dzhavak dialect 'a tie on the yoke, belt' : Proto-Indo-European *\*[H]wedh-* (Klimov 1994, pp. 74-75; 1994b; 1998, p. 225).

<sup>5</sup> The archaic meaning preserved in Old Iranian might help to understand the reasons for the borrowing of a technical term.

<sup>6</sup> Starostin 2007, pp. 818-819, cf. on other (mostly older) common elements in Indo-European and Kartvelian also ib., pp. 807-815.

another one discovered much earlier: dialectal Kartvelian *\*γor* 'pig' has been borrowed from the prototype of the dialectal Indo-European *\*ghoryo-* 'pig', Gamkrelidze, Ivanov 1995); Proto-Kartvelian *\*usxo-* 'sacrificial ox': Proto-Indo-European *uk<sup>w</sup>so-* 'ox' (Klimov 1994a; 1998, pp. 195-196) and other words<sup>6</sup>. These borrowings point to certain spheres of the economy and farming technology (cf. such clear examples as, for instance, : Kartvelian *\*berg-* 'to hoe, to crush the earth': dialectal Indo-European *\*bh(e)r-g-* [= *\*bherk-*], Klimov 1994, pp. 49-50; 1998, p. 11) that were more developed in the society from the language of which the nouns had been borrowed.

## 2. Proto-Indo-European and Proto-North Caucasian.

In our book published in 1984 we suggested some common terms shared by these languages explaining them as possible traces of later Indo-European (probably Indo-Iranian) migrations through the Caucasus. The study of this problem has been enriched through the recent research on Proto-North Caucasian. S.L. Nikolaev and S.A. Starostin have compiled a large etymological dictionary of this family (Nikolaev, Starostin 1994) developing the comparative studies started by the Prince N.S. Trubetzkoy<sup>7</sup>. Starostin has gathered a large collection of the terms of material culture common to North Caucasian and Indo-European (Starostin 2007, pp. 310, 312-358, 818). They include many names of domestic animals (Proto North Caucasian *\*homuwe* 'horse'<sup>8</sup>; *\*?zjrowe*

<sup>7</sup> Trubetzkoy 1987 (with important comments on North Caucasian by S.A. Starostin, pp. 437-447; 453-465).

<sup>8</sup> There are at least two more North Caucasian words for *horse* that might be compared to dialectal Indo-European terms (Ivanov 2002). The Indo-European term for 'foal' *\*polo-s* is found only in some dialects but still belongs to a relatively old part of technical vocabulary since it is attested in Mycenaean

'goat'; \*wHārAΛwə'pig'; \*pāHāAwə'[small-]cattle' corresponding to Proto-Indo-European \*(H)ek'wo-'horse'; \*(H)aig'- [= \*Haik'-] 'goat'; \*pork'o- '(young) pig'; \*pek'u- 'cattle') and parts of the body or products of cattle-breeding (Proto-North East Caucasian \*Awāhni 'wool': Indo-European \*Hu(ə)l(ə)nā), plants (Proto-North East Caucasian \*?qV'grape, fruit'; \*λwin?i 'seed, flax seed', \*HVbVgV/HVgVbV 'a kind of cereals> oats, rye': Indo-European \*(H)ag- = [\*Hak'-] 'berry'; \*lino- 'flax', \*(H)auig-[Hauik'-] 'oats'; a large number of similar names of trees like Proto-North East Caucasian \*χwīrk(w)V 'oak': Indo-European \*perk'o- may be interpreted as pointing to an environment that was similar from the botanical point of view); instruments (Proto-North East Caucasian \*χlwērV 'mill, grind-stone': Indo-European \*g'wērən[=\*k'wērən] 'grind-stone'; Proto-North Caucasian \*ničo 'knife, sickle': Indo-European ηsi- 'sword' and many other terms). In a special work on this subject Starostin suggested that all these terms were borrowed in the beginning of the Vth mil. B.C. probably in the area of the Near East to the South of Transcaucasus (Starostin 2007, pp. 357-358). The area seems to be the only possible one. Although we still use the traditional term "North Caucasian" it is not geographically correct

Greek (*po-ro*, Homeric πῶλος 'foal'), Albanian *pëlë* 'mare' and in all the ancient Germanic languages: Gothic *fula* 'foal, colt' a. o. (the relation to Hittite *pulla*- 'young, son' is not clear). It seems possible to compare it to the North Caucasian \*farnē reconstructed on the base of Avar x'ārni 'horses' (collective form); Khvarshi *χaram* 'foal'; Lezghian *χ'ar* 'mare'; West Caucasian \*χ'ara> Adygh *fāra* 'thoroughbred horse' (Nikolayev, Starostin 1994, pp. 425-426). The North Caucasian word belongs to a very small class of lexical items beginning with *f*. From 7 words included in this class in the dictionary by Nikolayev and Starostin two other lexemes (the numeral 'five' and the noun 'fist' related to it) also are shared with Indo-European, Starostin 2007, p. 321, 2.11. The connection between the North Caucasian and Indo-European terms of this class seems beyond doubt. There is a possibility of a distant (and accordingly very old) relation between a North Caucasian group of words and the Hittite *kurka*- 'foal' compared to Greek κύρνος (Forssman 1980; Melchert 1994, p.132; it is not easy to conclude whether the words should also be compared to Iranian terms like Persian *kurra* 'foal', since the latter is connected to the onomatopoeic appeal to address horses: cf. Vakhani *kurr-kurr* 'Come!' in this function and *kurrás(t)* 'neighing of a horse', Steblin-Kamenskij 1999, p.213; Paria *kurro* 'horse'). The words might represent a common borrowing from the North Caucasian \*gwāV 'horse'>Nakh \*gile 'horse, steed'>Chechen *gila*, Proto-Tsez-Khvarshi \*guRu> Tsez *gulu* 'stallion, horse'. The root could have been the source of both Greek and Hittite words with a characteristic change of voiced into voiceless consonants depending on the rules of the Hittite phonology. Another borrowing from the same source might be Latin *caballus* 'labouring horse' that has ousted the earlier general term in Romance. This word and such dialectal terms related to it as Albanian *kâl* 'horse' might have been borrowed from this North East Caucasian source.

Bull. Georg. Natl. Acad. Sci. vol. 175, no. 3, 2007



Die aktuellen Grabungsprojekte des Altorientalischen Seminars Tübingen in Syrien

Map 2. Tell Mozhan (Urkeš) and the spread of Hurrian in Syria.

even if applied to such living languages as Abkhaz and to the dead Ubykh (spoken originally at the southern part of the South-West Transcaucasian area). Recently it has been established that the Eastern branch of North Caucasian included Hurrian and Urartian (Diakonoff, Starostin 1986; Starostin 2007, pp. 359-406, 629-632, 745-751; Ivanov 2002). In the I mil. BC Urartian was one of the main languages of the Eastern Anatolia. Hurrian was spoken in the Northern Syria as early as the last quarter of the I I I mil. BC in Urkeš (Tell Mozan), see map 2.

According to Giorgio Buccellati who has excavated the city, the Hurrian tradition there goes back earlier than to the middle of the I I I mil. BC. (in Hurrian mythological texts it is a city of the main ancient god). As it is proved by the recent archaeological discoveries, later on Hurrian had been spoken in the same area. It spread much farther to the South in Nuzi, Mari and Arrapha and to the East in Emar and Qatna (from the recently discovered Qatna tablets one may learn about the end of the Hurrian empire of Mitanni; the tablets were written in Akkadian with a lot of Hurrian forms marked by a *Glossenkeil*). Hurrian diffused also to the southern part of Anatolia (Kizzuwatna); already in the beginning of the II mil. BC Hurrians were present in Kanish (in the centre of Asia Minor). The contacts of speakers of Hurrian with Indo-Iranians had started (earlier than the well-known data on Mesopotamian Aryan in Mitanni<sup>9</sup>) by the beginning of the I I I mil. BC: to this time the Hurrian part of a mythological bilingual text can be attributed (Neu 1996) in which the Hittite Ablative form *pa-aḫ-ḫu-e-na-an-za* 'with the fire' is a translation of the Hurrian Ergative *ta-a-re-eš* (from the Iranian *ātar*, Ivanov 2002). A set of correspondences proves that Hattic that was a sacred language of the Hittite empire also belonged

<sup>9</sup> Recent additions to the known list of these words confirming the especial link to Old Indian are discussed in; Mayerhofer 1996 (on *wadura-nmi*).

to the North Caucasian family, probably to its Western branch (Ivanov 1985). In the II mil. BC the language was dead, as in the Hittite archives of Hattušaš and Šapinuwa (Ortaköy)<sup>10</sup> it is found only in the ritual texts (often with Hittite translations). Most of the places of the traditional Hattic cults (like Nerik, Arinna, Zippalanda, Karahna, Tawiniya) can be located in the North Anatolian area. But it is possible that Hattic was spoken also more to the South since it had several prehistoric Semitic loan-words (as *binu* 'son', *milup* 'ox', *zinir* 'lyre'<sup>11</sup>). Since in the III mil. BC both Hurro-Urartian and Hattic were spoken in the regions to the South of Transcaucasia it becomes possible to reconstruct a homeland of the whole family (which at that time was not "North" Caucasian) to which they belonged in the same area close to the supposed Proto-Indo-European and Proto-Kartvelian homelands.

The fricative *š* in the Hurrian name of horse *eššə* and an affricate \**č* (>*š*) in the forms of the other North Caucasian dialects correspond to a Proto-Indo-European palatal stop \**k'* that has become an affricate \**č* and then a fricative *š* / *s* in the Indo-European dialects of the *satəm* type. Similar changes are present in the other borrowings discussed by Starostin (2007, p. 310, n. 28; pp. 339-358). He supposed that the common words discovered by him were mostly borrowed from Proto-North Caucasian (or from a dialect of it) into Proto-Indo-European. The opposite direction of borrowing can be suggested due to the typologically valid laws of sound change. From the point of view of such general typology a phonetic development of a palatal or palatalized velar stop to an affricate and a fricative is a normal one; but the reverse movement from an affricate of dental type to a velar stop seems quite extraordinary. If Starostin is right and there was a system of regular correspondences at an ancient period it might be that a North Caucasian affricate absent in Proto-Indo-European might have been reinterpreted as an old palatal. But a later dialect of a *satəm* type that should have existed in the III mil. B.C. (and maybe even earlier) might have borrowed forms with affricates and/or fricatives from a language having a similar system of consonants. In that case the direction of borrowing may be only from a Proto-Indo-European dialect of a *satəm* type into a North Caucasian dialect since otherwise the existence of a parallel Proto-Indo-European dialectal *centum* form would have remained mysterious. But no matter which direction of the borrowing should be chosen, the fact of the existence of these loanwords is without doubt. They make the decision on the place of the Indo-European homeland a definite one.

<sup>10</sup> Süel, Soysal 2007; on the use of Hattic in other places see Soysal 2004.

<sup>11</sup> In Hattic the original initial phoneme of the West Semitic \**kinor* has been palatalized as also in the Adygh languages and in Old Armenian (Ivanov 1999). In Hattic *m-ilip* 'ox' a prefix *m-* is present which is known in a series of the ancient Semitic terms for animals.

**3. Indo-European and (West) Semitic.** In our monograph written together with Gamkrelidze we suggested that several words shared by these languages (such as the ancient name of the wine, Hittite *wiyana-*) can be considered to be borrowed from Proto-Indo-European (different from the rest of the most ancient common words usually correctly described as old Semitic or Afro-Asiatic loanwords in Proto-Indo-European, Starostin 2007, p. 817). Accepting this idea S.A. Starostin (in an article written some years ago, but published posthumously quite recently, Starostin 2007, pp. 821-826) suggested that a large number of Semitic words (particularly of those characteristic of West Semitic) that did not have correspondences in the other Afro-Asiatic languages had been borrowed from Proto-Indo-European. He came to the conclusion: "the original Indo-European (Indo-Hittite) homeland was somewhere to the North of the Fertile Crescent from where the descendants of Indo-Hittites could have moved in two directions (starting with early 5<sup>th</sup> millennium BC) to the South where they came into the contact with the Semites, and indeed could have driven a part of them further to the South, and to the North (North-East) whence they ultimately spread both to Europe and to India" (ib., p. 825-826). In discussing the origin of the Indo-European borrowings in Semitic Starostin remarked that they should have been very early because they were made before the loss of laryngeals. He concluded: "we may deal here either with the loans from proto-Anatolian or from an extinguished branch of early Proto-Hittite" (ib., p. 835). As an example one may analyze the Indo-European word for the 'earth' \**dhēghom* > Hittite *tekan*, Genitive *tagnaš*<sup>12</sup>, Tocharian A *tkam*. The word that entered into such Anatolian names of the gods as Hittite *Dagan-zipa* 'the Demon of the Earth' (literally "the Earth personified") probably had been borrowed into (West) Semitic where it is used as a name of the god *Dagan*<sup>13</sup>. In

<sup>12</sup> As in Cuneiform Luwian the voiced palatal aspirate \**gh* disappeared and the word changed to *tiya-*. Hieroglyphic Luwian used mostly in the documents of the Syro-Anatolian princes who would like to pose themselves as those who continue the imperial tradition, had a tendency to imitate the Hittite shape of some important (official, particularly sacred) words; hence in this language the form *takam-i* built contrary to the rules of the Luwian historic phonology.

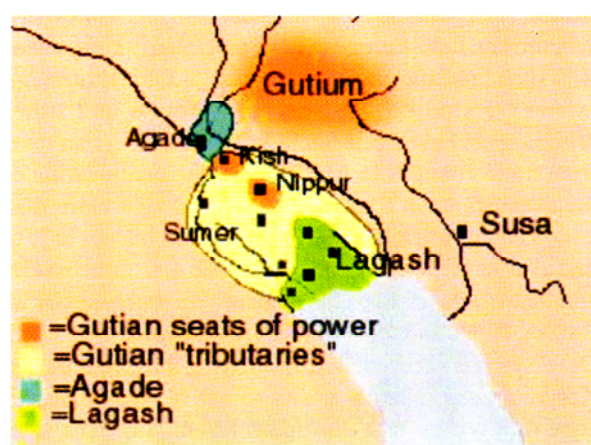
<sup>13</sup> A hypothesis on this borrowing was put forward by several scholars almost simultaneously and independently of each other, cf. Singer 2000; Ivanov 2004, p. 66 a.o. To the (W) Semitic words that were supposed to be connected to the name of Dagan (cf. on the etymology Renfroe 1992, pp. 91-94), the Semitic name of a 'fish' \**dag-* belonged that did not have Afro-Asiatic correspondences and thus also might be borrowed from the Proto-Indo-European \**dhēghu-* (Starostin 2007, p. 823, N 575; on the correspondences see also ib., p. 762 [72]). The word had a similar "accessive" structure of the combination of stops ("Brugmann's fricative", see Gamkrelidze, Ivanov 1995, cf. Ivanov 2007, pp. 344-366). A semantic link of the (god of) the earth and a fish might be based on a mythological view of fishes as animals of a lower subterranean world.



Ebla the god was the main one. In an Eblaite text TM 70 75. G.1560 v. VI 14 VI 3 a phrase <sup>D</sup>BE *Ḫa-šu-wa-an*<sup>KI</sup> 'the (divine) Lord (a logogram based on *bēlum* 'lord' and often designating a god of the city) of *Ḫašuwa*'<sup>14</sup> occurs which may refer either to Dagan (who is very often designated in this way in Ebla and other neighboring cities as Tuttul) or to another god. The toponym *Ḫaš/zuwa* is identical to the Hittite noun *ḫaššu-* 'king' (cognate to several kinship terms in Hittite and Luwian and to the Hieroglyphic Luwian *hasu* 'family'=Phoenician *šrš* 'roots' in the Karatepe bilingual), the Anatolian city name *Ḫaš(š)uwa* (Tänberg 1994., SS. 54, 70) = 'of the King', to the second part of the Old Hittite compound city name *Šal-a-ḫšuwa* (= 'of the great -King') and of the native Anatolian names of the cities *Ša-la-aḫ-šu-a*<sup>15</sup> and *Ḫa-ra-aḫ-su-wa*<sup>16</sup> in the Old Assyrian tablets from the cities in Asia Minor. From the language of such an Anatolian city a name of an Anatolian god might have been borrowed. It is worth noticing that the same Indo-European term for the 'earth' was borrowed in Proto-Kartvelian where it is represented by words with the meaning of the 'fertile (black) soil' (Klimov 1998, p.41). The interference of the early dialects of Proto-Indo-European, Proto-Semitic and of Proto-Kartvelian to which the early Proto-"North" Caucasian can be added might have led to a formation of a sort of a linguistic zone (*Sprachbund*) that shared not only many words related to new farming economy (Starostin 2007, pp. 256-264, 289-358, 806-826), but had also several phonological and grammatical features in common (Gamkrelidze, Ivanov 1995; Ivanov 2004).

**4. Probable Indo-Europeans in the Near East; Henning's hypothesis on Gutians.** After we had published our hypothesis on the Near Eastern homeland of the Indo-Europeans several scholars asked us why at the time when writing already existed there were no written documents testifying to the presence of Indo-Europeans in these areas. It seems that now there are several

possible answers to the question. The great specialist on Iranian Henning who had worked for many years on the problem of the name of Tocharians in his posthumous article suggested that the early ancestors of Tocharians were Gutians who had invaded Mesopotamia in ca. 2350-2200 BC. In an article written after we finished our book we have developed Henning's idea (based mainly on the etymological links of Near Eastern *Guti* and *Tukri* and Central Asian names of corresponding Indo-European *Kuchean* and *Tocharian* ethnic groups<sup>17</sup>) paying attention also to the possible explanation of some names of Gutian kings preserved in Sumerian texts (Gamkrelidze, Ivanov 1990-1991). Gutians ruled a part of Mesopotamia, see the map 3 below.



Map 3. Mesopotamia at the Gutian period (after the Ancient Near East maps of the Oriental Institute of Chicago)

Probably the further study of those ancient toponyms and hydronyms that might be connected to Gutians may add a necessary material for their definite linguistic identification.

**5. "Euphratic": a probable Indo-European dialect reflected in the early cuneiform pre-Sumerian tradition.** Recently it has been suggested that an unknown "Pre-Sumerian" language that had been reconstructed on the base of the special phonetic values of many cuneiform signs having several possible phonetic readings was an archaic "Euphratic" Indo-European dialect (Wittaker 1998; cf. Frayne 1992). Its time should be at the second half of the IV mil. BC.: the place is Southern Mesopotamia. According to this hypothesis the phonetic

<sup>14</sup> Pomponio and Xella 1997, p.97 (with a suggestion that the god of the Thunder was meant here; cf. on the god Dagan in Ebla itself ib., pp. 376-377). On Dagan in Syria see Feliu 2003; Crowell 2001. The role of the Indo-European linguistic elements in the texts of Ebla supposed by such scholars as I. Gelb still is not clear; one may cite such personal names as *Zida* (comparable to Luwian forms), but their etymology is controversial. In the correspondence of the Eblaite administration there are letters of the rulers of the neighboring cities with possibly Indo-European names (one of them probably related to Sumerian and Akkadian terms for the 'horse' of an Indo-European origin, Ivanov 2004, pp.50-51).

<sup>15</sup> In the Old Assyrian text of the Golenishcheff's collection GMMI 1554, Yankovskaya 1968, p.165, n 64, line 16, cf. her comments on pp. 27, 166, 225.

<sup>16</sup> Kennedy, Garelli 1960, pp.7-8. In these ancient compounds the root vowel of the second noun had been reduced: *hasu* > *hsu*. On the Indo-European etymology of this stem comparable to Sanskrit *asu-ra*, Germanic Runic *ansuR* see Gamkrelidze, Ivanov 1995.

<sup>17</sup> See a favorable view of Henning's hypothesis: Thomas 1985, SS.14-17. In his 1965 paper on Tocharians as "The first Indo-Europeans in history" Henning suggested that the ancient pronunciation of the Chinese designation of "Yuezhi" (=Kuchean=Tocharians) could be approximately reconstructed as *\*Gu(t)-t'i* and possibly related to the ancient name of 'Guti'. Since another probable reconstruction of the Chinese ethnonym 月氏 may be *\*ngi wāt-tjēg* that part of Henning's theory may be controversial: Mallory and Mair 2000, pp. 281-2; see further references in: Hill 2004; Liu 2001.

values of approximately one hundred of the early signs that are different from the Sumerian ones go back to the Euphratic words. Some of the etymologies suggested by Wittaker seem plausible as “Euphratic” *hurin* ‘eagle’ (attested already in the Sumerian lexical list A 11/620 in Ebla) identical to the Hittite *hara-n-*, Ancient Greek ὄρνις<sup>18</sup>. Some grammatical features that may be reconstructed for “Euphratic” nominal stems (such as the use of a final suffix *-t* comparable to the ending of Neuter gender in Lydian and in some other archaic Indo-European forms and the role of the adjectival suffix *-u-* similar to an Anatolian-Baltic isogloss, Puhvel 1982; Erhart 1995; Gusmani 1968) are supported by ancient parallels and seem to speak in favor of this hypothesis.

**6. Early Anatolian Indo-European presence in Asia Minor.** A large number of Anatolian personal names (of a very archaic Indo-European type, particularly compounds with such final ancient terms as *-nika-* = Old Hittite *nega* ‘sister’<sup>19</sup>) studied by Goetze, Laroche and other hittitologists have been found in the Old Assyrian texts from trade colonies in Asia Minor. The continuation of the excavations in Kanish that have brought more than 23000 cuneiform tablets has made it possible not only to discover in them many Anatolian Indo-European names and loanwords (besides those identified much earlier by Balkan, Bilgiç and other scholars, cf. Tischler 1995). J.G. Dercksen has succeeded in identifying a number of Old Assyrian texts relating mostly to native Anatolian persons with typical Indo-European names<sup>20</sup>. In such texts several important Indo-European social terms have been found recently (Dercksen 2004a-2007): Hittite *tuzzi-* ‘army’ (Indo-European *\*teu-t->*Lithuanian *taūta* ‘people’, Old High German *diota*, Umbrian *totam* ‘civitatem’, Old Irish *tuath*, the W Indo-European and Balto-Slavic name of ‘community, people, land’); Old Assyrian *ubadinnum* ‘land allotment’: Luwian *ubati-* ‘land grant’ (from the verb *uba-*), Lycian *ube-* ‘to offer’, Carian *ybt* (the original meaning ‘donation’, Adiego 2007, pp. 347, 492); Tocharian B *wepe* ‘corral, paddock’ = Buddhist Hybrid Sanskrit *go-*

*cara*” (cf. Indo-European *\*[H]we-bh-/dh-* “to weave”, metaphoric use “richness, success”, Old English *ead*, Gamkrelidze, Ivanov 1995). Palmer’s old reconstruction of the Indo-European feudal system based on Mycenaean data seems to be proved by these new discoveries. A new interpretation of the whole Indo-European socioeconomic and military structure may be reinterpreted due to these etymologies. The Anatolian term designating a person who is free of taxes (Old Assyrian name *Arawa* = Hittite *arawa-* ‘free from taxes’ with an exact Lycian correspondence, cf. Lithuanian *arvas* ‘free’ and cognate Balto-Slavic terms) refers to neutralization of the semantic opposition of those who can bear weapons and may receive a portion of land according to a general feudal scheme and of those who do not participate in the land-for-the-service system of the relations.

The Old Assyrian documents in Kanish are found in the archaeological levels II and Ib dated ca. 1950–1723 BC (on the base of the recently found lists of eponyms); they precede Old Hittite texts for ca. 250 years. At that time the two Anatolian groups of dialects – a Northern (Hittite) one and a Southern (Luwian) complex – were already completely different from one another<sup>21</sup>. According to dendrochronology that helps to make dates more exact the Old Assyrian colonies existed no less than 2 centuries earlier – in XXII–XXI c. BC (Newton, Kuniholm 2004). No documents from the preceding levels III and IV have been discovered, but it appears that in the half-legendary stories of the earlier revolt of the native Anatolian rulers against Assyrians in the time after Sargon’s victorious march through Asia Minor some elements of the historical truth were present. Such ancient compound Indo-European names of the oldest cities as *Puruš-hand-a*<sup>22</sup> that had existed at this early period testify for a possibility of tracing this Indo-European tradition much farther back into the prehistory of Asia Minor.

**7. A linguistic reconstruction of Indo-European migrations and data of other sciences.** The idea of the Indo-European homeland in the Near East from the very beginning was connected to the discovery of a possible link between the appearance of speakers of Indo-European dialects in Europe and the spread of the new farming technology. This trend of thought has been developed in the archeological works of Sir Colin Renfrew (1987;

<sup>18</sup> From this point of view some correspondences have been reinterpreted that earlier we described (in our book with Gamkrelidze) as cultural terms probably common to Indo-European, Sumerian and other neighboring languages, see on Sumerian *gigira* “chariot” Wittaker 1998, p. 144; Frayne 1992, p. 21.

<sup>19</sup> The word (cognate to Luwian *niya-*, cf. above on *tiya-*) has correspondences in the other Nostratic languages (see on the Altaic kinship term *\*nek* Starostin, Dybo, Mudrak 2003, p. 968; Dravidian matches are added in Starostins Website <starlin@rinet.ru>; a Uralic one was suggested by Čop) and belongs to the oldest type of the Indo-European kinship terms, cf. Ivanov 2001, p. 45. The compounds of this ancient type are not present in the later texts of the historical Hittite period (there are few exceptions as Hittite kings’ names like *Šuppiluliuma* < *\*pure* + *\*pool*’, cf. above on compound city names).

<sup>20</sup> See a particularly impressive collection of some of such texts and fragments: Dercksen 2004 b: pp. 156–174.

<sup>21</sup> They may continue two different Indo-European dialects; Ivanov 2001. They might have acquired many common Anatolian features due to a long coexistence in Asia Minor. According to another view all of these languages developed from a Proto-Anatolian language (Melchert 1994).

<sup>22</sup> The second element of the name is identical to Hittite – *handa* in the Old Hittite *men-a-handa* ‘in front of’ (an archaic compound), *hant-* ‘forehead’ (with a good Indo-European etymology and correspondences in Afroasiatic). The first part may be compared to the ancient ethnonym used also as a name of the Prussian Baltic Indo-European tribe.



2002<sup>23</sup>). The subsequent attempts to support this hypothetical connection have been continued by comparison to genetic data on the time and space characteristics of mitochondrial DNA and Y chromosome of the European population (see a survey in Rexova et al. 2003, with references). Although the genetic counterpart of Sir Renfrew's ideas seems plausible it is not yet definitely proved partly because of the mixed character of the Near Eastern population resulting from the in-breeding (Weng, Sokal 1995). The farming terms common to Indo-European and other linguistic families discussed above show that the innovations were not restricted to one group of languages and were transmitted and exchanged between different ethnic formations (Ivanov 2004). The area of the interference of these families coincides with the kernel of the rising farming in the Near East. That process of a global (multilingual and multicultural) change led to the diffusion of the results of the Neolithic revolution. The main directions of this diffusion (Sherratt 2006) coincide with the trends of the Indo-European migrations, but the new objects might have been introduced earlier than some of their Indo-European names and the latter might precede the coming of those who coined the terms.

The spread of the Near Eastern innovations in Europe developed at the time around the split of Proto-Indo-European (possibly at the beginning of the V mil.BC<sup>24</sup>), but some elements of the new technology and economy might have penetrated it much earlier. The diffusion took several thousand years and probably was all over the whole Europe already ca. 3550BC. At that time Indo-European migrations were only beginning. The speakers of the dialects of Proto-Indo-European living near the kernel of the technological revolution in Anatolia should have acquired the main results of this development. The influence of this civilization already at the V mil.BC was seen in the Balkan area (Merpert 1988). The road through the Balkans for all the newcomers in Europe seems to be the main one (contrary to the still popular concept of the steppes to the North of the Black Sea as the chief source of the development). The growth of

farming economy in Europe became more active with the split of the proto-language and the dispersal of the Indo-Europeans. The astonishing scope and speed of that process was made possible due to use of the domesticated horse and wheeled vehicles. D.W. Anthony insists on the role of the North Kazakh steppes for the horse taming (Anthony, Brown 2000). Since according to hydronymy speakers of early Yeniseyan dialects lived there, the partial similarity of the Proto-Yeniseyan *\*qus* and the *centum* form of the Indo-European horse name deserves a future study<sup>25</sup>. Its *satəm* form has been borrowed into North Caucasian (including Hurrian, see above), Sumerian and Semitic; at the same time another name used in Altaic (Starostin, Dybo, Mudrak 2003, p. 945-946) has been borrowed by Germanic and Celtic, and a Sino-Tibetan form was ousting the ancient name in Balto-Slavic (Ivanov 1998, 2002). This multiplicity of names agrees with the result of genetic studies showing that there were several places of horse domestication in Eurasia (Vilà e.a. 2001; Jansen e.a. 2002). A similar picture of intensive exchange between several Indo-European and neighboring linguistic groups is seen in connection to the invention and spread of the wheeled vehicles and their technical details (Littauer and Crowell 1996; Gökçek 2006; Ivanov 2002; 2007, p. 546-547). Some of their names are common only for Hittite and Tocharian, the first languages the speakers of which went off the common territory probably using the wheeled vehicles called in Hittite *ḫurki*, in Tocharian by a protoform of A *wärk-änt* "wheel"; the term has North Caucasian (including early Hurrian reflected in Old Assyrian) parallels (Ivanov 2002; Starostin 2007, pp. 309, 332). As in connection to some other earlier objects of the Neolithic revolution in this case also one can not insist that Indo-Europeans were original inventors, but probably they were skillful in spreading other peoples' innovations. For approximately a thousand years and a half a serious preparatory work on horse domestication and the use of the wheeled vehicles have been continuing in different parts of Eurasia. Then almost suddenly the results are seen. On the border of the III and II mil. BC both these important innovations appear together, usually in a context that makes evident the presence of the Indo-Europeans: the traces of the Near East-type chariots and the ritual use of horse are clear in (probably Ancient Iranian) Margiana (Gonur-tepe) discoveries of V.Sarianidi's expedition in South Turkmenia (Kozhin 2004; Ivanov 2004), we see the chariots on the Anatolian type of the seals in Kanish; Hurrian sculptures and other symbols of horse abound in Urkeš as if foretelling the future Mesopotamian-Aryan and Hurrian excellent training of horses in Mitanni (as later in Urartu). As we saw already in our book with Gamkrelidze one of the first examples of the sacrificial horses used together with chariots in an archaic ritual was found in Sintashta; the following stud-

<sup>23</sup> In his later publications and public talks C. Renfrew was discussing a possibility of the inclusion of either the South-West Anatolia or Greece into the territory of the Indo-European homeland, cf. Ivanov 2004, p. 53 with references.

<sup>24</sup> Glottochronological calculations by Starostin in a talk at the Workshop on the chronology in linguistics in Santa Fe in 2004 give the date 4670 BC for the split of Hittite that was the first to divide from the proto-language (see for the whole set of dates Blažek 2007). On the theoretical foundation of this calculation cf. Starostin 2007, pp. 827-839, 854-852. This date is close to the one accepted by many linguists. Unfortunately the technique of glottochronological calculation is not at all unified. Thus on the base of Dyen's lexicostatistical lists completely different dates (pointing to the time ca. 8700, i.e. 4 thousand years earlier than Starostin's chronology) are given in Gray, Atkinson 2003 with a general conclusion on the acceptance of the Anatolian homeland.

<sup>25</sup> Some other isoglosses as proto-Yeniseyan *\*karie* 'war' might be a very old Iranian borrowings.

ies of the cities of the Transuralian Sintashta-Arkaim area made it clear that some Indo-European (may be also Iranian) elements were at least partly present there (Grigoryev 2002; Ivanov 2004 with details and literature).

The movement of Indo-Europeans to the North of the Caspian Sea in the North-East direction documented in the Sintashta-Arkaim complex lead them much farther to the Altai-Sayany area where recent genetic investigations found traces of a Caucasoid element (Derenko e.a. 2002). Another Indo-European group moving in a parallel Eastward direction using the South Silk Road caused the presence of a similar anthropological group among the population of Central Asia (Comas e.a. 1998; Perez-Lezaun 1999). It may be supposed that the Caucasoid anthropological type of the Iranian and/or Tocharian population of the Eastern Turkestan attested in the mummies recently found there (Mallory and Mair 2000; Barber 1999) as well as in the contemporary images of the

native people (Gabain 1973) is the result of these migrations from the West to the East<sup>26</sup>. The problem whether the boats played a role comparable to that of chariots at the time of early migrations is still to be decided by the sea archaeology<sup>27</sup>; at the historic time they become important only in the Late Hittic empire and in Ahhiyawa (the Ancient Greek state on the border of the latter); it seems that some kind of sea transport was used by the Greeks in their shift between Asia Minor and the continental Greece. It looks possible that before the efficient use of the chariots and horses very long mass movements were hardly possible. The first changes in the geographical position of separate dialects were caused by rather small movements as when Anatolians separated the Greeks from the rest of the East Indo-European group (that included Armenians and Indo-iranians. These short-range changes probably were performed very close to the place of the original homeland in the Near East.

ისტორია და ფილოლოგია

## ინდოევროპული საწყისი ახლო აღმოსავლეთში: ახალი მტკიცებულებანი

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საკითხი ინდოევროპელთა თავდაპირველი ადგილსამყოფელისა, საიდანაც ინდოევროპული დიალექტები გავრცელდა ევრაზიის დასავლეთ ნაწილში, მეცნიერთა რამდენიმე თაობის შესწავლის საგანს წარმოადგენს. შემოთავაზებულია რამდენიმე განსხვავებული თვალსაზრისი. ჯერ მოიაზრებოდა ჩრდილოეთის ზღვის ახლო ტერიტორია (რამდენიმე მკვლევარის შრომა XIX-XX საუკუნეების მიჯნაზე), შემდეგ შავი ზღვის ჩრდილო

<sup>26</sup> The opposite directions of the supposed movement of languages from Central Asia has been exaggerated by J. Nickols (1997 a,b) suggesting the Indo-European homeland in Sogdiana (near the Aral Sea where Benveniste and other specialists on Iranian had put *Eran Vēž* < *Airyanām Vaež* the Aryan space'). The westward movements of languages from the Central Asia are not so numerous.. Similar objections may be made in connection to several theories on the Indian homeland of Indo-Europeans recently supposed mainly by the authors who suggest the Indo-European character of the Harappan writing (the

attempts of its decipherment still do not have the general recognition).

<sup>27</sup> Another task for the sea archaeology may consist in falsifying a suggestion concerning a possible flood causing the end of many cities resulting from a supposed catastrophe that led to the shaping of the Black Sea (from a much smaller fresh lake to which the salted Mediterranean waters had come through the Bosphorus and the Dardanelles). As the time of catastrophe may be close to the Indo-European dispersal, there are voices suggesting a link between the two events.



სანაპირო (გერმანელი მეცნიერის შრედერის იდეა, გაცოცხლებული ამერიკელი მარია გიმბუტასისა და მისი მიმდევრების მიერ). ამ 35 წლის წინ ამ სტატიის ავტორმა თამაზ გამყრელიძესთან ერთად წამოაყენა ჰიპოთეზა ინდოევროპული წინარე-სამშობლოს ლოკალიზაციისა ძველი ანატოლიის სამხრეთ-აღმოსავლეთ ნაწილში, რაც საბოლოოდ აისახა მათს ერთობლივ მორიგრაფიაში ინდოევროპული ენისა და ინდოევროპული წინარე-სამშობლოს შესახებ. ამ დროიდან მოყოლებული, ლინგვისტები, არქეოლოგები და მრავალი სხვა დარგის წარმომადგენლები მსჯელობენ წამოყენებული ჰიპოთეზის შესახებ და მოჰყავთ სხვადასხვა მოსაზრებები ამ ჰიპოთეზის სასარგებლოდ ან საწინააღმდეგოდ.

ბოლოდროინდელი გამოკვლევები დამატებით მასალას ავლენს ჩვენს მიერ წამოყენებული დებულების განსამტკიცებლად ინდოევროპელთა წინარე-სამშობლოს ძველ მახლობელ აღმოსავლეთში ლოკალიზაციის თაობაზე, რასაც წინამდებარე სტატიაში წარმოადგენთ.

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Received August, 2007