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PROTO-FINNIC AND INDO-EUROPEAN LINGUISTIC AND GENETIC CONTACTS

I. Prehistorical Linguistic Contacts in Eastern Europe

Proto-Finnic – Indo-European language contacts begin with the appearance of the Indo-Europeans (IE) in the steppes of Eastern (E.) Europe. This means that these contacts had existed for thousands of years. The most ancient evidence consists of numerous iranisms and isolated tokharisms in Finnic languages (see Joki; Gamkrelidze, Ivanov). Also, some Proto-Finnic borrowings appear in Tokharian, Avestian and later in Baltic, Germanic and even Latin (squalus < kala, – Manzelli, p. 474; cf. the survey in Tyschenko 2001). More recent direct turcisms are known in all Uralic languages except for Baltic-Finnic and Saami; numerous germanisms appear in Baltic-Finnic and Hungarian; – and slavisms, balticisms and iranisms are common to all Finno-Ugrian (FU) languages (cf. Manzelli, p. 492). Hundreds of Baltic and German borrowings into Finnish have been studied (cf. Hakulinen, Joki, SSA etc.). It is worth noting that all of the numerous common Slavic iranisms are also presented in one of the FU languages. The Slav. *богъ, съто, хата, сياتъ* “he says” correspond to Mord. *pavas*, Fin. *sata, kota*, Udm. *sižini* “promise”. Taking into consideration the fact that the period of Slavic-Iranian language contacts was incomparably shorter than that of Irano-Finnic (cf. Tyschenko 2000), the above mentioned correlation becomes more important. Borrowing the expression of V.Toporov and O.Trubachev, at a certain time period Slavic “joined” Finnic-Iranian language contacts (p. 245).

Linguists pay special attention to numerous more recent Slavic-Finnic language correspondences. It is assumed that contacts of medieval Baltic-Finnic tribes with ancestors of present-day Slavs can be traced as far back as the 6th c. AD. However, “some borrowings, as their phonetic forms suggest, occurred already in the I mil. BC (sic) being received from W. Slavs who settled the Vistula area at the time” (Osnovy, p. 8; Häkkinen, p. 162 – 166). Indeed, Ptolomaeus in the 2nd c. AD mentioned the ΦΙΝΝΟΙ people near the mouth of the Vistula (Manzelli, p. 198). Not so far to the NE off the Vistula the Finnic-speaking Livonian state was founded some centuries later. It existed until the 13th c.

As to the prehistoric ethnic processes in Upper Dnipro area, “the analysis of the river names to the N from Prypiat’ up to the Niemen sources proves quite undeniably that E. Slavs ... came here from the East; it means from the Dnipro left bank, and only later, already in historic times, expanded towards the N, displacing or assimilating the local population” (Toporov, Trubachev, p. 244).

If this assumption stands, then in the times before the coming of E. Slavs to the Dnipro area, direct contact between Baltic and Volga-Finnic speaking tribes would have been possible to the E of the Dnipro. Some language evidence has been collected on the topic. In particular, such Baltic borrowings as “pe(j)el” “knife”, k’ertš “left” can be found in Mordovian and one Mordovian borrowing is known in Lithuanian: Lit. *sóra* “millet” – Mord. *suro, surā* “idem” (ibidem, p. 248). Even traces of Balto-Mari contacts have been detected: Lit. *šermuo*, let. *sarmulis* “stoat, ermine”, – cf. Mari *šormo* “lynx, marten” or quite isolated etymologically Lit. *lopšys* “cradle”, – cf. Mari *lepš, lep š* “idem; also cradle-pole” (ibid.). The ancient Mari, well known to their W. neighbours and in medieval W. Europe as Meri or Merens later were partly assimilated and partly migrated across the Volga. V.Toporov and O.Trubachev point to the names of villages located to the west (sic) of Moscow – Staraya Meria, Meria Molodaya (16th c., district of Zvenigorod) – as indicating approximately the limits of Mari-Meri diffusion: cf. the etymology of the proper name Kuchka of the local prince who in the 12th c. was the owner of the village of Kuchkino, which later became the city of Moscow – Mari *kučkež*; “eagle”, Meri **kučke*, Mord. *kučkan* “id.” (p. 249).

At the time of publication of V.Toporov’s and O.Trubachev’s book on the hydronyms of the Upper Dnipro area (1962) no one supposed that Baltic tribes were so widely scattered to the East. However, later this hypothesis was confirmed by archaeologists and toponymists (cf. Sedov 1971, 1974, 1979). Both linguists discovered numerous Baltic river names between the Dnipro and the Oka, and found a dense group of Baltic hydronyms in close

neighbourhood with Iranian river names on the right bank of the Seym. This provided good evidence for the localization of the region of intensive Baltic-Iranian lexical contacts, which is also evidenced by present-day vocabularies, e.g.:

– Lit. miežys, Let. miezis “barley”; Lit. duona “bread”; Lit. javā “corn”; Lit. sviestas “butter”; Lit. balandis, Let. baladis “pigeon”; Old Prus. keutaris “pigeon”; Lit. “kakta” “forehead”, – to which correspond such Iranian words as: Ir. maiz “sow”; Ir. dana, Old Ind. dhana “corn”; Avest., Old Ind. yava “corn”; Avest. xšvid “milk”; Osset. bālon/bālāv “pigeon”; Farsi kabūtar “pigeon”; Soqd. čakt, Pahl. čakāt “forehead” (Toporov, Trubachev, p. 231).

Up until the last decades, direct Finnic borrowings into Old Slavonic (OS) were considered hardly possible. Thus, quite typical is M. Vasmer’s well known denial of Finnic etymology of Slavic nevod “seine, sweep-net”: “Not only the meaning, but also a diffusion of this word in Slavic languages testifies against its origin from Fin. *neuvo(t)* pl. “means, tools” ...” (Vasmer, 3, p. 56). However, another possible etymon was not yet taken into consideration: Fin. *nuotta* “seine, sweep-net”, which was borrowed from a Scandinavian source as was established some time ago (cf. SSA, 2, p. 241).

V. Toporov and O. Trubachev believe that “in fact the Finnic borrowings in OS or some of its dialects were quite possible” (p. 245). In their opinion, at the beginning of the 1st mil. AD the Slavonic language area was comparatively small and homogenous, so that the borrowed words – if they penetrated from the outlying zone – may have expanded into it quite freely. As to FU, at that time it was much more differentiated as a result of earlier evolution. “Just this circumstance became a real obstacle for the further penetration of loan words outside one language group or even one language. Here is the main difference in possibilities of the expansion of borrowing into Slavonic as compared to FU” (ibid.). Thus, among the scientific achievements of both scholars was the creation of a solid ground for the facts of Finnic loanwords into OS. The below quoted examples illustrate the Finnic lexical influence on Common Slavonic, “and not E. Slavic which became at a certain stage, as it is known, a unique partner in language relations with Finnish” (ibid., p. 247).

1. Polovina “half”. Common Fin. **puoli* – is the only numeral which can be traced with certainty up to the Old Uralic period. This suggests its endemic nature, because similar forms exist in all the FU languages. As to the Slavic word, its IE relations are quite obscure. V. Toporov and O. Trubachev consider it a Finnic loanword “despite recent protests” (p. 246). Baltic words are quite different. The morphological structure of *polovina* is obvious: *polov-ina*, with an ancient suffix -*ina*, easily detected: cf. Ukr. *dyt-yna*, *l’ud-yna*, *ptaš-yna*, *ryb-yna* “child, man, bird, fish”, where the sg form is derivative (!) from an older collective noun: *dity*, *l’udy*, *ptaxy*, *ryba*. An analogous proceeding is known for the same words in Celtic: cf. Welsh *plent-yn*, *ader-yn*, *pysgod-yn* “child, bird, fish”. The morpheme *pol-* “half” seems old enough to be widely used in composita: Ukr. *pivden*, *pivnič*, *pivroku*, *pivsvitu*, *pivneba*, *pivhodyny* etc. (“noon, midnight, half a year, half world, half sky, half an hour”).

2. Dub “oak”. Finn. *tammi*, Mord. *tumo*, *tumā* (again, Baltic has quite a different word **anžolas* “oak”). It has been pointed out that Fin. *tammi* has lost its native consonant alternance *mp/mm* and this fact may indicate a non-Finnish loanword. However, the forms similar to modern Komi-zyr. *tu-pu*, Udm. *ti-pi* “oak” (SSA, 3, p. 265) could have been the source of OS **dobъ*. The element -*pu*, -*pi* correspond to Fin. *puu* “tree” and this consideration seems to strengthen the hypothesis of Finnic loanword in Slavic.

3. Som “sheat-fish; Silur”. Old Slav. **somъ*. The one possible fennicism with Baltic correspondences: Lit. *sāmas*. Let. *sams* “idem”, – but still without similar forms in other IE languages. A possible etymon might have been Fin. *sampi* “esturgeon, big fish, king of fishes”, Mari *šamba* “tench”, Mansi *šupu* “sheat-fish” (see SSA, 3, p. 153).

4. Ščur “rat”. Ukr. *ščur* from Pol. *szczur* “idem”, – cf. Mord. *tševēf*, *tšejēf*, *šejēf*, Fin. *hiiri* “mouse”, Udm. *šir* “id.” Both scholars consider that “a limited diffusion of the word **ščur* in Slavic (only in the N (?) part of Slavic but Russian) points to recent borrowing as for *ščuka* (see below. – *K.T.*). However, this borrowing also proceeded the period of E. Slavic expansion. Other explanations of the word *ščur* cannot be considered as reliable” (p. 247). The data of OLA proves a diffusion of this word from Polish into Ukrainian and Ukrainian dialects of Belorussia (p. 51, map 13). The word is unknown in Slovak and almost absent in Czech.

5. Ščuka “pike”. OS1. *šč(i)aukā* (SSA, 1, p. 147), Ukr. *ščuka*, *ščupak* Pol. *szczupak*, LSorb. *ščipeļ*, – cf. Fin. *hauki* “pike”, Udm. (not included in SSA) *tšipei* (!) (Toporov, Trubachev, p. 246). Both authors stress that the FU etymology of Slav. *ščuka* makes it possible to offer a new explanation for variants with suffix -*p-* as a reflection of different forms of the ancient Finnic paradigm. Other analogous words should be mentioned: Est. *haug*, sg. *havid*, dial. *havi*; Vod. *áutši*, dial. *hauki*. Gen. case *havve*” (cf. SSA, 1, p. 147). Again, the OLA (p. 99, map 37) proves that Pol. *szczupak* was borrowed by Ukrainian and Belorussian.

In our view, this material rises the possibility of a Finnic etymology for Germ. *Hecht* “pike”. Kluge’s Dictionary illustrates a spontaneous evolution of its thematic vowel: Ang.-Sax. *hacod*, *hoeced*, *heced*; OHG *hachit*, OSax. *hacht*. After all, the most precious language facts, completely unexpected here, are the MLG *hōk* and especially Westph. *hauk* (!) (Kluge, p. 295). Is it really a peripheric archaism on the extreme West of the Germanic language

area? Anyway this new etymological link expands the zone of Proto-Finnic – West-European language contacts (cf. Tyschenko 2001).

As to the k/p alternance, it exists indeed only in a few other Finnish words as *liukua* “gliss”/ *lipua* “idem”, *lepeä* “alkali” (SSA, 2, p. 82, 84), – cf. also *lika* “dirt” “of unknown origin” (SSA, 2, p. 76). Another example is *kepeä* “easy” / *köykäinen* “easy, not heavy” (SSA, 1, p. 344). Taking into consideration this unusual alternance of k/p in Finnic languages, it is worth mentioning the historical differentiation of Celtic into Goidel, and British groups, which have, among other distinctive features of probable Finnic substratum, the opposition of the initial *qu- / *p- (cf. Tyschenko 2001). As it is known, “according to some researchers, the Celtic languages of the British Isles owe their system of initial consonant lenition as well as other features, to a pre-IE substratum” (Zvelebil 1995, p. 195).

A. Popov quotes also a dozen other Russian fish names borrowed from Finnic languages, viz.: *sig*, *xarius*, *lox*, *kor’uška*, *salaka*, *kil’ka*, *tajmen’*, *r’apuška*, *kambala*, *soroga*, *kumža pal’ja* etc. (Popov, p. 50).

The very idea of researching the lexical traces of pre-IE substratum in Europe (not inevitably Proto-Finnic) is stipulated by numerous words which have no etymological explanation within the IE language material. Their list includes among others:

- common Slavic *les* “wood” (Safarewicz, p. 549);
- Czech and Slovak *kuna*, *kanec*, *krosna*, (“marten, boar, basket/container”, – Zvelebil 1995, p. 195);
- Fr. *roc*, *rat* “cliff, rat”, Occitan *clap*, *suc*, *garric* “stone, mountain summit, oak” (ibid.);
- Eng. *pig*, *lark*, *larch*, *cliff*, *luck*, *stoat*, *rain* (Oxford...);
- common Germanic words as Eng. *sea*, *earth*, *blood*, *evil*, *little*, *sick*, *bring*, *leap*, *run* (Lockwood, p. 80); *boat*, *ebb*, *keel*, *mast*, *rudder*, *sail*, *ship*, *strand*, *east*, *north*, *south*, *west*, *bow*, *helmet*, *shield*, *sword*, *bear*, *calf*, *eel*, *lamb*, *stork*, *bone*, *bread*, *drink*, *leap*, *wife*, *knight*, *thing*, (Walter, p. 286).
- “non-IE terms pertaining to the exploitation of undomesticated resources, such as “spawn of a fish”, *dill*, *clover*, *dove* etc; or geographical features important in hunting and fishing activities such as “narrow bay” or “water hole in a marsh” (after Polomé)” (Zvelebil 1995, p. 195).

Uralian etymologies are also possible for the following words:

- in Celtic languages: Gael. *suil* “eye” – cf. Fin. *silmä* “idem”; Gael. *bec*, Welsh *bach* “little” (It. *piccolo*?) – cf. Fin. *pikku*(inen) “id”; Gael. *leath* “half” with a semantic analogy in Hungarian (Greene, p. 38); Welsh *daunaw* “18” as “two nines” is similar to Nenets number 18 (details in: Tyschenko 2001);
- in Rumanian: *pădure* “wood”, similar in phonetics and semantics to Nenets *pëdara* (!) “idem” (our observation);
- in Germanic languages: Eng. *whale* (and Prus. *kalis*), – cf. Fin. *kala* (Gamkrelidze, Ivanov, p. 934); Eng. *boy* via East Frisian and Scandinavian, – cf. Fin. *poika*, Hung. *fiú* “idem” (cf. Manzelli, p. 516); Eng. *kilt* from Scand. *kilta*, – cf. Fin. *kitoa* “envelop” (?) (cf. SSA, 1, p. 364); Eng. *pot* “of unknown origin” (Oxford...), “prélatin” (Dauzat, p. 577), – cf. Fin. *pata* “idem”, existing in all Uralian languages without exception (SSA, 2, p. 322), which is an advantage of the Finnic word on its English correlate; finally, the etymology proposed above for the Germ. *Hecht* “pike”, – cf. Fin. *hauki* “idem”.

This list of Finnic possible loanwords might be completed with lexical similarities of Ukrainian and Volga-Finnic, collected by M. Fedorova: Ukr. *haj*, *bažaty*, *riasnyj*, *čekaty*, *čub*, *čupryna*, *hurtom* (“wood, to be eager, obfitous, wait for, forelock, hairs, together”) (p. 19, 20, 29), – Mord.-Erzia *haj* “thickets, jungle”, *bažame* “to be eager” (with rich derivatives); hydronyms in Lipetsk region of Russia: rivers *Riasa*, *Stanovaya Riasa*, *Guschina Riasa* (explained as “big, rich in water”) Mord.-Erzia *ška* “time”, *Komi čuk* “top”, Mord. *prä* “head”, Udm. *gurt* “village”. Finnish-Suomi correspondence to the above mentioned river names is *runsas* “dense, rich” existing in almost all Baltic-Finnic languages. Some researchers give the following MHG etymology for this word: *runs(a)* “flood, torrent” (Kluge mentions it even as “common German”, p. 615) from *rinnen* “run”, but the very verb of *rinne* has been considered until now “of unknown origin” (!) (Oxford..., p. 410).

Another example of a “German-Slavic fennicism” is the word family *sorrow*, *sorry*, *sore* – all of them again “of unknown origin” (Oxford...). These words can be related phonetically and semantically with Fin. *suru*, *surullinen* “sad”, *surra* “fade, dye” (with parallels in Khanty/Ostiak), and *surma* “death” (with correspondences in Ugric languages). Another possibly related groupe is Ukr. *žurba*, *žurlyvyj*, *žurytys’a* “sadness, sad, to be sad”: as to *ž* / *s* correspondence, cf. recent Russian loanword in Finnish *sääli* < *žal’* “sorry” (SSA, 3, p. 244).

The Finnish etymology of the Slavic *lopata* “spade, shovel” is also quite plausible: cf. Fin. *lapio* from the Samod. *labea* “oar”, which originates from the common Uralian *lopa* “flat bottom of an allonged tool” (SSA, 2, p. 46), – cf. also Rus. *lopast’* “id.”. Certain reserves and doubts were expressed (Vasmer, 2, p. 518 – 519; ESUM, 3, p. 287; SSA, 2, p. 47) as to the possible Slavic or Baltic origin in Finnish, – but in our opinion the opposite direction of the borrowing is better substantiated.

One more group of words, being now stylistically low, seems to be a very old FU borrowing in Slavic: Ukr. *škandybaty* – “limp”, *kandyba* “lame person”, known also in Belor., Rus., Pol. (ESUM, 2, p. 363: “not too clear”);

Rus. kovyl'at', , okolet' "limp, dye"; Ukr. kul'haty; šamotity, šomratys'a "limp; hurry". Their possible sources might be correspondingly Fin. kontti (common FU) "leg bone"; kävellä "to go for a walk" (SSA, 1, 482); kuolla "dye"; kulkea "walk" = Est. kulg(eta), Saami gol'gât. Mord. kol'gems "to mistake" (SSA, 1, 489); Fin. samota "to hurry up, walk, run" – with analogies in Karelian, Est., Liv., cf. also Mansi som, šöm, šüm "run" (SSA, 3, p. 153).

This list would have been incomplete without the important conclusion of A.Joki (1973). The linguist not only corroborated the importance of the IE loanwords stock in Finnish, but also argued the existence of reverse language influences (together with H.Petersson, A.Nehring, C.Uhlenbeck and other scholars). The evidence of the FU influences would have been such IE words as: bee, honey, fox, fish, mushroom, bramble, pot, sinew, copper/gold, to pull, to sale/change (p. 373 – 374).

II. Genetic and Cultural Context of Proto-Finnic Linguistic Contacts

In M.Zvelebil's opinion "the evidence as it stands... indicates that, more than any other demographic event, the late glacial population extension and colonisation of areas freed by deglaciation accounts for the modern genetic composition of European populations (...) The genetic evidence corroborates the archaeological sources showing that the late Palaeolithic hunter-gatherers of the Magdalenian tradition, originating in SW. France / N. Spain (where the concentration of the key genetic variants is the highest), moved north between 15000 and 10000 BC colonising areas hitherto covered by ice, water or polar desert" (Zvelebil 2001, p. 39). "In the mitochondrial DNA, which is passed on in the female line only, the key haplotype groups are H and V. Haplotype V group... shows the highest concentration in N. Iberia / SW. France and among the Saami populations in N. Finland (...) This haplogroup V reaches 0 in Estonia, Bulgaria and Caucasus" (ibid.) "As Torroni et al note, "haplogroup H is the most common haplogroup in all European populations (...) The expansion of the population with this haplotype has been dated to the Upper Palaeolithic and would have included communities in both the western (Franco-Iberian) and eastern (Ukraine) refuge areas" (ibid., p. 40).

Until now it was assumed that the primitive homeland of Finnic and wider, Proto-Uralic peoples was the Volga-Kama region. New archaeological research discredits this theory (cf. Zalizniak 2001). Also, "Russian archaeologists... see no evidence of Palaeolithic or Mesolithic westward migration from Siberia" (Carpelan, p. 10). On the other hand, "mitochondrial DNA tests have revealed the presence of a western component in the Finns genetic makeup" (Carpelan, p. 3).

The historic role of the Saami (Lapp) has become obvious. As it has been pointed by M.Zvelebil (2001) (cf. Savontaus 1995) modern genetic researchers "maintain that genetically the Saami possess 82% European and 18% Samoyed (Uralic speaking) admixture while the Finns harbour 90% European (Baltic and Germanic. – *K.T.*) and 10% Uralic genes (...) This overall pattern is sharply divided along gender lines. In the maternal line, only 6% of the Saami mitochondrial DNA reflects Asian origin, while among the Finns, the mitochondrial DNA so far sampled, is almost completely European in origin. Among the males, however, 25% of the Saami and 52% of the Finns (sic) possess Y-chromosomal DNA containing mutations that originated in central Asia" (Zvelebil 2001, p. 41).

The data of Torroni et al does not explain "why the number of males from this original founding population (of the Komsa culture, some 11000 – 9000 BC. – *K.T.*) declined (...) Equally, the history of the gene exchange between this population and males originating in the east is crucial, but unclear (...) The hunter-gatherer context of this situation and the relative absence of females might suggest... a strong possibility" of "long-term, small scale gene exchanges" (ibid., p. 41).

After twenty years of research efforts in bioanthropology, archaeology and linguistics, the main stages of Finnish prehistory are as follows. During the Wurm glaciation (20000 – 16000 BC) a huge volume of ice was concentrated in continental glaciers reducing the level of the ocean. As a result, the territory of the present day Northern Sea was a large plain inhabited by some tribes of the Lyngby culture. After 14000 BC the Scandinavian ice cap began to thaw. Approximately in 10000 BC the Atlantic coast of Scandinavia became free of ice (as did the shore of today's Greenland). According to Norwegian archaeologists, the first peoples who migrated here from the sinking North Sea Continent at the end of the Ice Age were fisher tribes of the Komsa culture (see fig. 1). The lands on the eastern side of the Scandinavian ice cap received the migrants from Ukraine, which is regarded by a number of linguists and archaeologists (Wiik 2000, Dolukhanov 1998), as the original homeland of ancestors of FU speakers (Zvelebil 2001, p. 36). Around 8 kya (=6000 BC) a new wave of migrants came from Yutland after another sea transgression. A part of the Lyngby population moved eastward reaching the Pripiat area (Swider culture). One of the cultural innovations of great significance was the adoption of ceramics by the hunter-gatherer communities in about 6,5 kya (Zvelebil 2001, p. 38) due to contact with the farming cultures in Western Ukraine (Dolukhanov 1979, Timofeev 1998). The adaptation of ceramics produced characteristic pointed-based pots with pit and comb decoration, considered by R.Indreko (1948) to be an indicator of the distribution of the FU speaking people (ibidem). There had been about 15 migration waves from the NW Europe to Polissia from the late Palaeolithic to the Middle Age (Zalizniak 2001): that is why all archaeological cultures from N Germany up to the Dnipro during

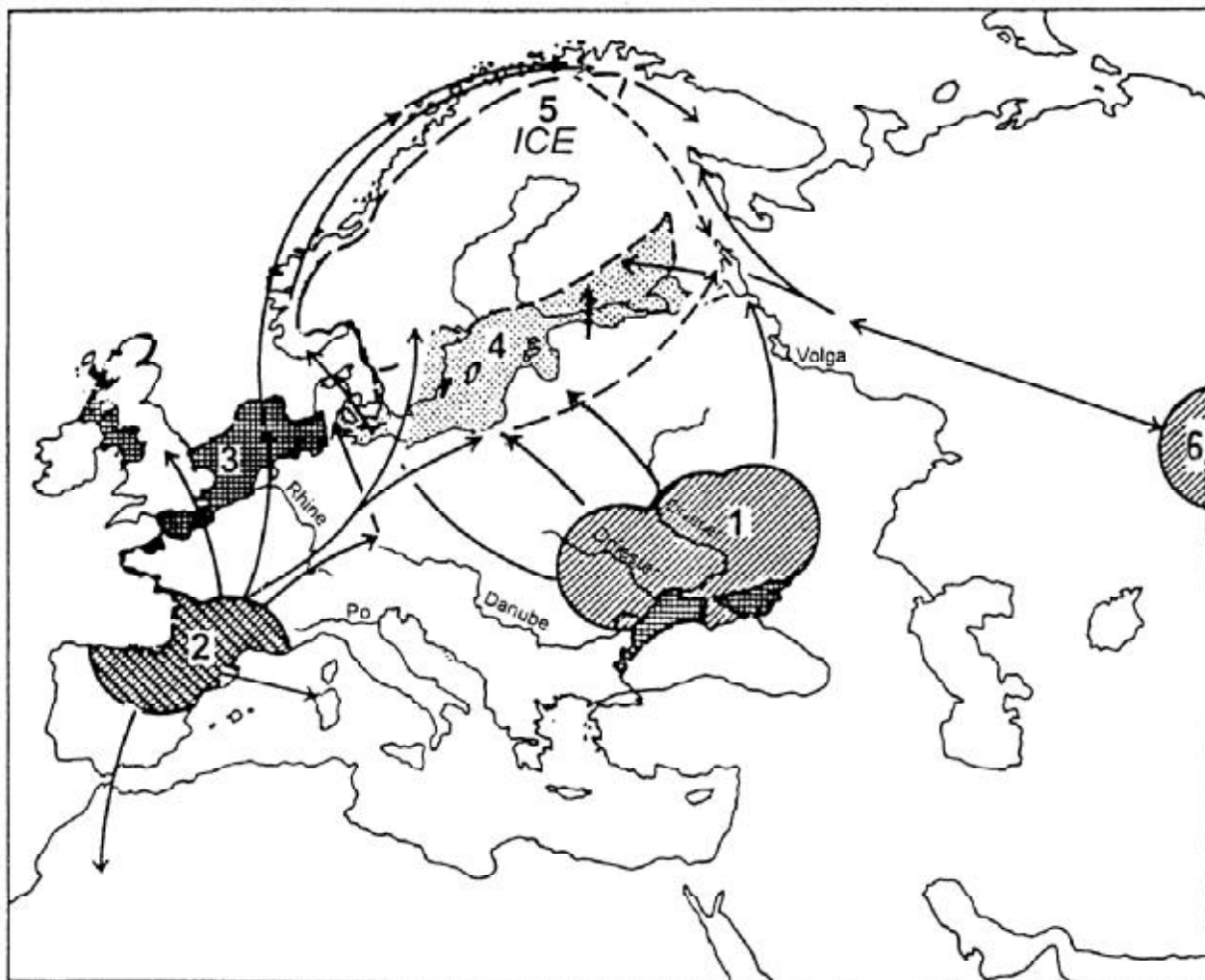
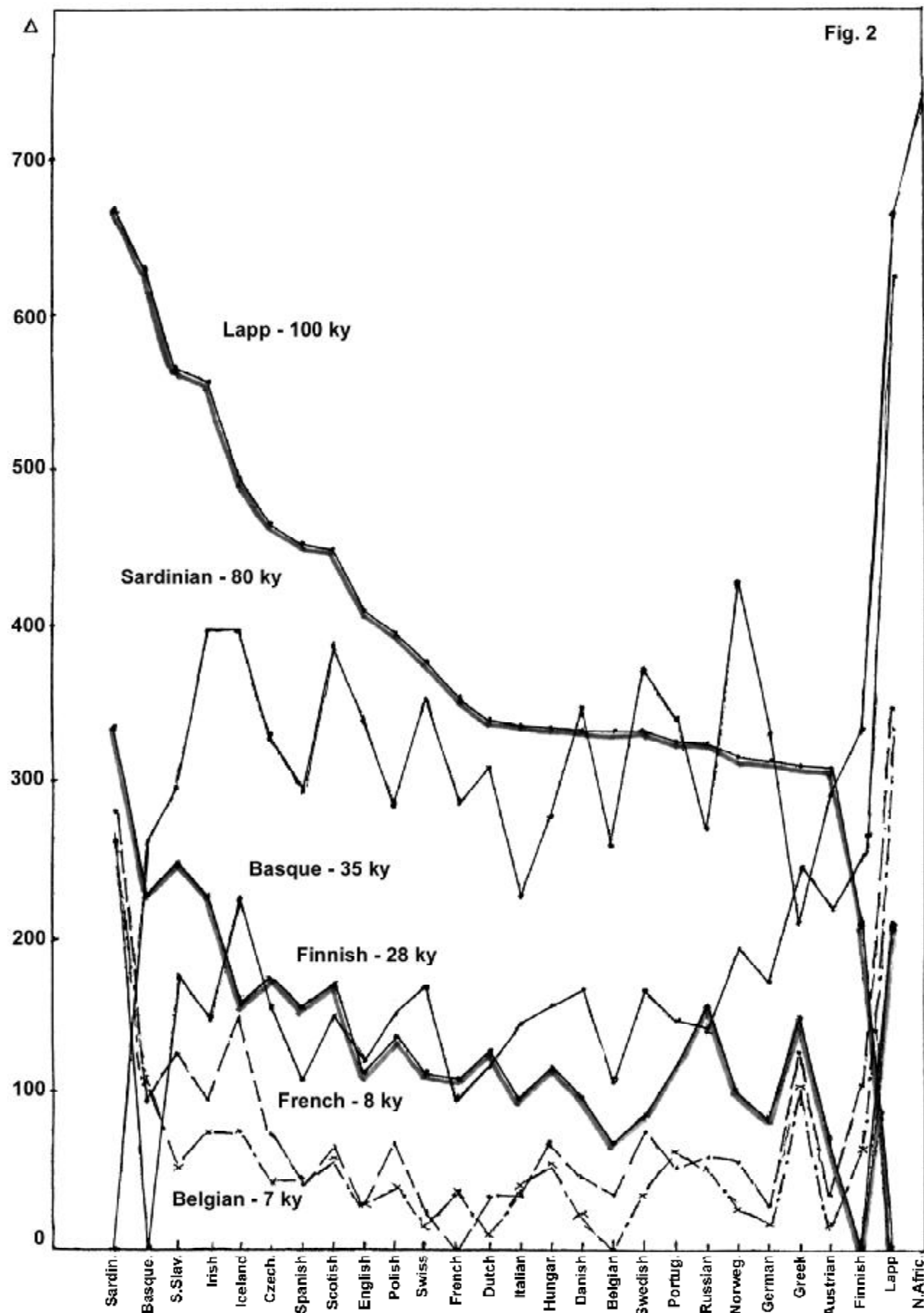


Fig. 1. Dual centre model for the recolonization of Northern Europe (after M.Zvelebil 2001, fig. 1, 2; precised). 1. North Pontic/ Ukraine population centre 14 – 8 kya, attributed to Proto-Finnic-Ugric speakers. 2. Franco-Iberian population centre, attributed to non-Indo-European ancestral population of which the Basques are a modern isolate. 3. Dry land, now flooded. 4. Ice-dammed Yoldia Sea. 5. Scandinavian ice cap. 6. The geographical source of genetic mutations found on the Y chromosome among males in Finland.



this time have the same Lapp anthropological component (Ch.Moor, P.Ariste, quoted by Sidorov, p. 400).

When both stream of migrants met themselves, a new anthropological reality began for the Scandinavian region. Mesolithic cultures from Scandinavia to the Ural mountains became an area for the expansion of the Proto-Uralic language which “began to branch out into its various offshoots (...) Early Proto-Finnic, – the “grandmother language” of the Finnish and Saami languages, – traces back to the period in which the “Pit-Comb Ceramic culture” spread thorough the region in about 4000 BC. Proto-Saami and Proto-Finnic parted ways when the “Battle-Axe or Corded Ware culture” arrived in SW Finland around 3000 BC. This linguistic differentiation continued during the Bronze Age in about 1500 BC”, when old Baltic and German loan words began to appear in Finnish (Carpelan, p. 12).

According to C.Carpelan, “the peoples inhabiting Norrland and the North Cap changed their original language – whatever it may have been – in favour of Proto-Saami in the Bronze Age” (Carpelan, p. 12). That is why “the present day Saamis stem from a different genetic stock as well as a largely different culture than the original “Proto-Saamis” who later become integrated with the rest of the Finnish population” (ibid.). After exposing the facts it would be proper to precisely identify the role of the Saami in Finnish ethnogenesis. Their Swedish name lapp is related to löpa “runner” and corresponds to Norw. finn. The finnish lapps are called in Swedish kvänn, Russian lapps are lopari. Their own common ethnonym is sabme (same, sabmélâš), which has the same etymology as suomi and Häme region (Rus. yem’), – all these names stemming from Balt. *zemē “ground” (SSA, 3, p. 138, 215 – 216).

The mongoloid component in the Saami is more prominent (18 – 47%, cf. Kiszely, p. 562). Apart from the fact that they are related to Siberian populations they are also an old local European people. According to E.Eickstedt (1934), Lappids are considered a northern adaptation of Alpides (cf. Kiszely, p. 560 – 562). In Ukrainian Polissia the Lapps of the Yanislawica culture appeared unexpectedly in an accomplished form (Kiszely, p. 562; Zalizniak 2001): their time-honoured presence in Ukraine might shed light on the higher percent of blood group A in the present day Ukrainian population in comparison with the population of Russia (see below). The general supposition of Kozlowskis as to the slow migration of the Saami northwards following the reindeer is confirmed with numerous traces of the Saami during the Middle Ages near Novgorod (a lot of facts about lop’ in ancient chronicles, – Popov, p. 108 – 110), in S. Finland (cf. toponyms as Fin. Lappeenranta liter. “Lapps’ shore”), as well as the historically documented shifting of the Saami progressively northwards in 12th – 18th c. (cf. map in Manzelli, p. 495). The linguistic proof of this millenary migration are also convincing. Besides one third of Lappish vocabulary which is endemic and has no clear etymological links, the oldest loanwords in Lappish are Baltic (Prussian, Lithuanian and Lettonian) and generally dated back to the end of the 1st mil. BC up to 500 AD: Lap. sar’v’es’, sul’n’, suīn, sal’t, luss “reindeer, hoarfrost, hay, floor, salmon” correspond to Old Prus. sir’v’is’, Lit. šalna, šienas, tiltas “bridge”, Let. lasis. Though the same loanwords are also available in Finnish-Suomi (hirvas, halla, heinä, silta “bridge”, lohi), the latter are more evaluated if compared with archaic Lapp forms (see Kert). The problem is not exhausted as established by the existence of Finnish river names in Lithuania (see Vanagas).

Summarizing the actual data of modern cytogenetics L.Cavalli-Sforza (1994) points that “Lapps show some relationship (to other European populations – *K.T.*) in more than one PC (principal genetic component – *K.T.*) synthetic map; this may indicate that part of the Caucasoid background of Lapps is of Palaeolithic origin” (p. 295). Recently, a linguist, V.Tauli explained the IE features of the Lappish as the result of extremely old contacts with IE languages or a possible western IE substratum in Saami (Tauli, p. 436).

According to genetic distances of DNA calculated by L.Cavalli-Sforza (p. 227), the Saami are the oldest European population. The so called “Saami motive” (a combination of three genetic mutations) found in more than one-third of Saami samples, proves their very long evolution in complete genetic isolation (Savontaus, p. 3). 65% of Saami have blood group A. The nearest numbers are known for the Finnish – 44,1%, Moldavian 40,8%, Ukrainian 40,5%. The Russian and Mordva-Moksha have both 37%, while Mari only 24% (according to V.Bunak, quoted by Kiszely, p. 461, 518). Besides, the Saami have the lowest percentage of negative Rhesus-factor in Europe: 5% (the highest one is known for the Basque: 55%; – ibidem, p. 564, 214).

The greatest genetic distance of DNA (Cavalli-Sforza, p. 270) exists between the Saami and the Sardinians: 667 points; Saami-Basque 629; Basque-Sardinian only 261. The last number is comparable with such distances as “Saami-Finnish” 210 or “Scottish-Greek” 253. The Hungarian population has a striking proximity to all other European populations, partly explained historically. The same is true for following pairs: Basque-French, Basque-Spanish, Greek-Italian or Icelandic-Norwegian. The complete genetic table is calculated by L.Cavalli-Sforza on the base of 88 genes (which cover 3/4 of all genetic information) for 26 European populations. The scientist underscores that “the central part of Europe is fairly homogenous genetically”, which “may be due to the Neolithic diffusion”, while “the extreme outliers are Lapps followed by Sardinians” (p. 268). Their genetic distances correspond to their time of separate evolution of ca 100 000 and 80 000 years (ibid.). To make the cytogenetic information more visual we provide the table (Fig. 2), where the data of L.Cavalli-Sforza is organised according

to the decreasing order of distances of the major outlier Lapp to the rest of the European populations. It is obvious that the third place belongs to the Greeks (40 ky), the fourth – to the South Slavs (38 ky). Then come the Basque (35 ky), the Icelandic (30 ky?), the Finnish (28 ky), the Goidel Celtic (20 ky), the N. Slavic and the Hungarian (15 ky), the Western Romance (12 ky), Czech and Slovak (10 ky), the Scandinavian Germanic (9 ky), the French (8 ky) and finally the Western German (7 ky) populations.

This chronology reveals the genetic formation of the main European hunter tribes as far back as the Palaeolithic. It is much deeper than traditionally admitted in historical linguistic reconstructions. Does this mean that the oldest language data can be reconstructed only for the periods when the genetic formation of European populations is in fact over?

On the other hand, some archaeologists find it necessary to prolong the FU time scale, which signifies that “the Uralic language unity might have existed for some ten thousand years ago, in the depth of the Palaeolithic, – where linguists do not seek it” (Sidorov, p. 401). However, such linguistic evidence is available (sf. Andreev, Starostin, Julku, Klimov).

A more convincing summary (see Fig. 1) was obviously offered by M.Zvelebil (2001): “Having renewed the evidence, he writes, we can draw the following conclusions. (1) Archaeologically, material culture remains... clearly indicate how N. parts of Europe were colonised by populations moving from TWO major population centres, one in S. Europe, the other in the Ukraine (...) (2) Modern genetic evidence provides conditional support for Indreko’s hypothesis. If the patterns observed at present are real..., than the late glacial population dispersal from SW. Europe is reflected in the genetic composition of modern populations in W. and N. Europe (...) (3) Neither archaeological nor genetic evidence alone sheds any light on the linguistic identity or ethnicity of the colonizing populations (...) Populations moving from the eastern centre in the Ukraine are sometimes associated with the Uralic or Proto-Finnic speakers (...) In this context, Indreko’s argument is an intriguing one. If, as he suggested, the original populations in the Upper Palaeolithic of W. Europe were Proto-Finno-Ugrian, than this implies that the entire Mesolithic population in temperate and N. Europe was Finno-Ugric speaking too at this time. Large section of this population... would have to adopt IE speech subsequently from IE farming groups penetrating Central Europe from the Near East...” (Zvelebil 2001, p. 43).

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Костянтин ТИЩЕНКО
Київ

ПРОТОФІНСЬКО-ІНДОЄВРОПЕЙСЬКІ МОВНІ Й ГЕНЕТИЧНІ КОНТАКТИ

1. Доісторичні мовні контакти у Східній Європі були спрямовані переважно від індоєвропейських до фіноугорських мов. Однак низка публікацій останніх десятиліть приділяє чимраз більше уваги дослідженню давніх фінських запозичень в індоєвропейських мовах (В.Топоров, О.Трубачов, А.Йокі, Т.Гамкрелідзе, В.Іванов). 2. Генетичний контекст протофінських мовних контактів вивчений найновішими методами дослідження ДНК (праці Х.Карпелана, М.-Л.Савонтаус, Л.Каваллі-Сфорца та ін.) Мовна і культурна атрибуція місцевого палеолітичного населення Східної Європи (Р.Індреко) співвіднесена з сучасною концепцією неолітичної креолізації Європи, опрацьованою археологами (П.Долуханов, М.Звелебіл, Л.Залізник).