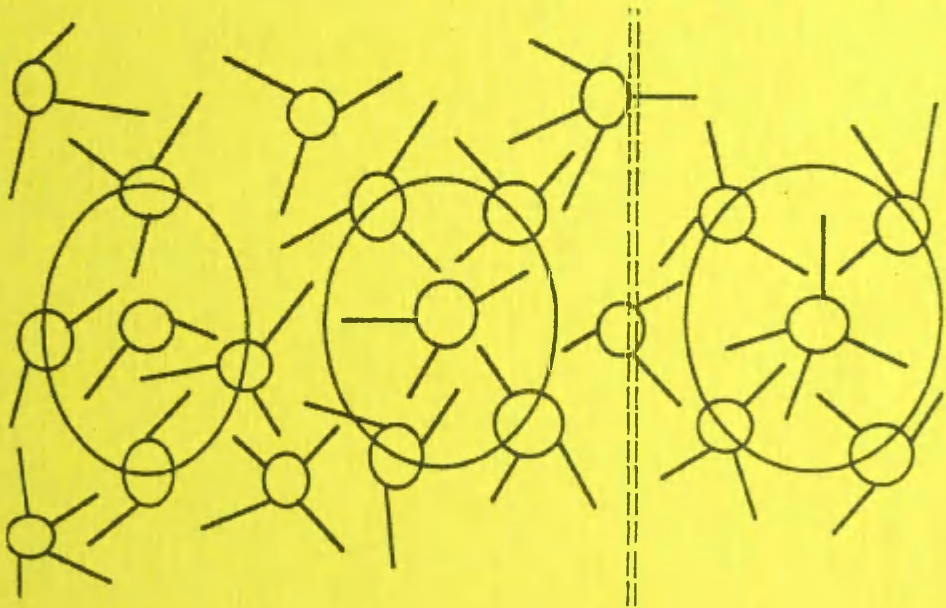


**AGO KÜNNAP**

**BREAKTHROUGH IN PRESENT-DAY  
URALISTICS**



**TARTU 1998**

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**URALISTICS**

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UNIVERSITY OF TARTU  
CHAIR OF URALIC LANGUAGES

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There is no doubt that today the Uralic linguistics is undergoing a major change. The proof of the fact comes from great breakthroughs in the sciences studying a human being, in general. First of all, the vigorous development of human genetics has to be mentioned. Secondly, the possibility of the spread of objects and patterns of activity rather than a considerable population migration should be considered. The third change consists in the status of a language: a linguistic majority transferring to a more prestigious language of a linguistic minority. Fourthly, a decisive role of language contacts related to linguistic changes has been emphasized. Linguistic affinity, in principle, is no other than the assimilation of more or less different languages, whereas an intermediary of a *lingua franca* type can be of help. The fifth change involves the correction by means of calibration of the results in dating archaeological finds, based on the radiocarbon <sup>14</sup>C analysis.

The book is trying to show not only the problematics of Uralic languages' origin but to retell a little about the background of the problems from the point of view of nature, human genetics, archaeology etc. as well as about the Uralic – Siberian non-Uralic and Uralic–Indo-European linguistic similarities.

Key-words: linguistics, archaeology, genetics, history, geology, sociology.

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## PREFACE

The roots of Estonian and Finnish national-romantic treatment of history go back to the previous century when national awakening was accompanied by the desire of finding a dignified history together with great relatives, mainly such as Altaic peoples in the Far East, to compensate for having been subjected by foreign-language-speaking hegemony and practically without any written history. Since Uralic languages were scattered eastward from our place and expanded up to the so-called Altaic languages, so, sharing noticeably many common features with them, it was easy to proclaim: we are related to the Altaic-speaking peoples who had developed the history of Oriental high-level culture. This way our assumed migration from the east was marked by our eastern linguistic relatives who "tailed off" on our way westward. The idea of the migration from the east was seconded by the contrivance of the Uralic language tree whose stem was in the east. In the course of the investigation into the matter definite contradictions and problems appeared but they were attempted to overcome by more and more sophisticated explanations.

There is no doubt that today the Uralic linguistics is undergoing a major change. The proof of the fact comes from great breakthroughs in the sciences studying a human being, in general. First of all, the vigorous development of human genetics has to be mentioned. Secondly, the possibility of the spread of objects and patterns of activity rather than a considerable population migration should be considered. The third change consists in the status of a language: a linguistic majority transferring to a more prestigious language of a linguistic minority. Fourthly, a decisive role of language contacts related to linguistic changes has been emphasized. Linguistic affinity, in principle, is no other than the assimilation of more or less different languages, whereas an intermediary of a *lingua franca* type can be of help. So the latter can be considered as a proto-language of a group of related languages and no wonder it is hard to be reconstructed: a *lingua franca* is not a full-value living language. The fifth change involves the correction by means of calibration of the results in dating archaeological finds, based on the radiocarbon  $^{14}\text{C}$  analysis.

The wish of the majority of Uralists is to take the origin of possibly more numerous features of modern Uralic languages back to a single and unitary source – to Proto-Uralic; it is psychologically understandable: a simple starting position emerges. Unfortunately it has become clear to date that alongside this an inadmissible simplification takes place. The simplification which casts aside the abundance and variety of languages, their irregularities and internal contacts. The simplified factology of Proto-Uralic has often been regarded as the truth of last instance, proceeding from which the actual factology and its origin of modern Uralic languages is interpreted. In most cases the reconstruction of Proto-Uralic is declared to be an indispensable methodological means in the research of historical linguistics. Is it really so if we bear in mind the number

of misinterpretations it can create about modern Uralic languages? I am firmly convinced that this methodological approach means more harm than good. A linguistic game with combined rules has been created but its incompatibility with the evidence of modern Uralic languages and with regularities of the development of the world languages today becomes more and more evident by the day. I started my writing about these problems more seriously in 1992.

I agree with Janos Pusztaý's views on the origin of Uralic languages which in most essential points coincide with Kalevi Wiik's respective standpoints. On the whole, Pusztaý upholds the point of view, according to which Proto-Uralic – as any other proto-language – is not a starting point for the rise of languages but just only a single and thereby a very recent phase in the development of languages. Proto-Uralic was formed on the basis of the onetime different types of languages and so it should not be unitary as to its own type, although researchers often attempt to reconstruct it as such. The languages which made up a proto-language preserved their own peculiarities and each one of them had different contacts with languages outside the given proto-language group.

But the majority of Uralists proceed from the traditional conception of Proto-Uralic as well as from its later division up to the contemporary Uralic languages. I have my strong doubts about the former existence of such a unified proto-language and about the meaningfulness of the "back-reconstruction" of the reconstructed forms of the proto-language into the present-day Uralic languages, in particular. The "back-reconstruction", as I see it, interferes with a clear sight about the contemporary Uralic languages as they actually are and forces upon them phenomena which must or had to be in them. The reconstructed forms of the supposedly fairly unified Proto-Uralic language itself are extremely hypothetical and as such, they do not have sufficient evidence to enable the "back-reconstruction". To date the "back-reconstruction" has turned into a game of rules in accordance with an agreement while we have no more linguistic evidence at our disposal but the practical evidence of contemporary Uralic languages.

Discarding the whole, more profound theoretical debate which is connected with the "back-reconstruction", I would say, I appeal – for simply finding a new point of view at least and so, cross-checking earlier suppositions – to giving up the "back-reconstruction" originating from the postulated Proto-Uralic and to rely on the actual evidence of the contemporary Uralic languages. I certainly understand that this way I am digressing from one extreme to another and the true result may be found between the two extremes. But I suppose that the present moment demands falling into the other extreme since the former has practically exhausted itself. The time will tell and eventually settle everything better from a respective future point of view.

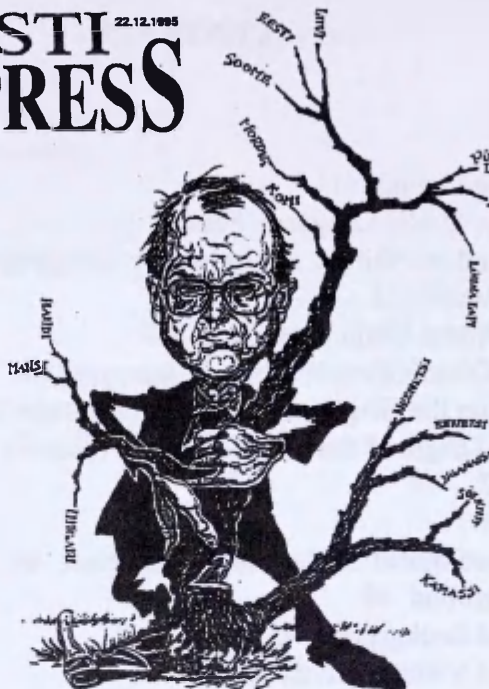
I am trying to show in the following not only the problematics of Uralic languages' origin but to retell a little about the background of the problems from the point of view of nature, human genetics, archaeology etc. as well as about the Uralic – Siberian non-Uralic and Uralic-Indo-European linguistic similarities.

I am very grateful to all my colleagues and friends who have helped me with numerous published and unpublished materials and personal advice, especially Prof. Emer. Kyösti Julku, PhD Helle Metslang, Cand. Phil. Kristian Nilsson, Prof. János Pusztaý, PhD Urmas Sutrop, Prof. Richard Villems and Prof. Emer. Kalevi Wiik. I am very thankful, too, to my opponent Prof. László Honti and participants in a heated

discussion which has started recently about the origin of Uralic and North-Indo-European languages – PhD Cornelius Hasselblatt, Ass. Prof. Esa Itkonen, Lic. Phil. Petri Kallio, Prof. Jorma Koivulehto, Prof. Asko Parpola and Prof. Tiit-Rein Viitso.

And it is here where I am working:

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## Ago Künnap

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## 1. INTRODUCTION

The prominent theoretician of Uralistics **Valter Tauli** proceeded from the point of view, "Der Prozeß der Entstehung der gemeinsamen Züge der uralischen Sprachen ist bisher unbekannt: außer der Abstammung von einer gemeinsamen Ursprache haben diese auch infolge einer längere Zeit dauernden Nachbarschaft und Kontakt der ursprünglich unverwandten Sprachen entstehen können. Das Existieren einer gewissen grammatischen Kategorie oder eines Morphems in verschiedenen Sprachen braucht nicht nur die Abstammung derselben von einer gemeinsamen Ursprache zu bedeuten oder die parallele Entwicklung während des Sonderlebens der Sprachen – so wie die klassische Ansicht ist –, sondern es kann deren wellenweise Verbreitung aus der einen Sprache (dem Entstehungszentrum) in die anderen, mit dieser Sprache geographisch benachbarten Sprachen bedeuten. Solcher Umstände wegen ist es oft schwer, festzustellen, ob das Fehlen einer gewissen morphologischen Erscheinung in einer Sprache ergibt, daß sie aus dieser Sprache verschwunden ist oder in dieser Sprache überhaupt nicht existiert hat.

Außerdem muß in Betracht gezogen werden, daß alle uralischen Sprachen mehr oder weniger Mischsprachen sind, auch morphologisch. Die Forschungen der letzten Zeit scheinen immer deutlicher zu beweisen, daß ebenso, wie Wörter und Phonetische Elemente entlehnbar sind, auch Morpheme, grammatische Kategorien und morphologisch-syntaktische Konstruktionen entlehnt werden und aus einer Sprache in die andere, auch genealogisch unverwandte, wandern können. In großen Zügen genommen bildet die Struktur der uralischen Sprachen ein Zwischenglied zwischen den indoeuropäischen und den altaischen Sprachen. [...] Es ist schwer festzustellen, welches ein typisch finnisch-ugrischer oder uralischer Strukturzug ist und welche Sprachen den reinsten und ursprünglichsten uralischen Sprachtypus darstellen." (Tauli 1952 : 27).

The matter has not been made any clearer during the last years, either, rather **on the contrary**. I have drawn attention to Tauli's reasonable prudence in a recent paper where I stated that "sich V. Tauli als ein hochgelehrter, weitsichtiger und ausgeglichener Sprachwissenschaftler niemals der Mehrheit der Forscher, die von der Hysterie des Sprachbaums und der Ursprache befallen waren, angeschlossen hat. Und von dieser Hysterie beginnen wir uns Schritt für Schritt zu befreien, so wie ein Mensch eine lange und schwere Krankheit überwindet." (Künnap 1997e : 53).

Traditional method of the investigation of the origin of the Uralic language family is the **comparative method**. It would be interesting to observe what recent scholarly writings can offer on this method. Anthony Fox in his book "Linguistic Reconstruction" (1995) treats of the method of comparative linguistics very thoroughly and, as I see it, rather objectively. Fox indicates that in recent years linguists' interest in the comparative method has increased noticeably (p. 1). My attention was caught by the author's assumption, "Linguistic reconstruction may ... become not merely a *tool* in the historical analysis of languages but the *goal* of this analysis: we reconstruct earlier forms of

languages not merely to explain historical relationship between present-day languages but in order to find out what the earlier languages themselves were actually like" (p. 3). There it is! In his book "The rise and fall of languages" (1997) R. M. W. Dixon recollects a fairly widely acknowledged argument, "As languages change over time, they tend – very roughly – to move around a typological circle: isolating to agglutinating, to fusional, back to isolating, and so on" (pp. 41–42). And so he concludes that "it may never be possible to reconstruct even an outline of what the shape of the proto-language was like. Present-day agglutinative languages may have had an ancestor of more isolating profile" (p. 42). This conclusion is hard to contradict. But what about Fox's *goal* then? I tend to believe that Fox sounds unrealistically optimistic in this respect.

Everyone who reads Fox's book finds that the comparative method is rigidly limited as to its choices. The author himself writes, "the comparative method is seriously inadequate in a number of important respects, since it demands a view of linguistic relationships and of language change which conflicts with accepted theories. In particular, the tree model, which is implicit in the method, requires a single historical source for a language, and excludes language convergence; it is, furthermore, unable to deal with waves of innovation which cut across branches of the tree. The method also illegitimately assumes uniformity in the proto-language, and requires – contrary to the facts – complete regularity in the implementation of changes. In view of these weaknesses, it may appear surprising that the comparative method not only is still in use, but continues to be confidently relied upon to provide information about language relationships, and to reconstruct proto-languages." (Fox 1995 : 137–138). That makes me wonder, too. Of course, Fox reassures that the goals of the comparative method are limited to a certain extent (pp. 138–142). It sounds as if someone goes out to have dinner at a restaurant but as his pockets are empty, he contents himself with reading the menu only. So what? Fox's warning is to the point – language reconstructions are always accompanied by idealization of reality, "What we are *not* entitled to do, of course, is to mistake our idealizations for reality. It is all too easy to interpret our idealization of reality as though it were reality itself, and to draw inappropriate conclusions on this basis." (p. 140). However, as we can observe, the warning is constantly ignored (I would call this mistake "back-reconstruction"). Such a mistake does a lot of harm to linguistics, much more than the little and questionable good brought about by reconstructing language forms.

The development of both natural and social phenomena is traditionally described through the patterns of trees, generally binary in their structure. Recently the binary structure of the Uralic language tree was criticised by Tapani Salminen in his presentation at the Lammi symposium in Finland "The roots of Finnish population" in October 1997 (see more closely in Künnap 1998a : 62–63). However, in addition to this critique of simplifying binarism, internationally, among philosophers and social scientists, in particular, a note of protest against the use of tree patterns (arborealism) has become stronger and louder, in general. One of the mottoes to William E. Connolly's book "The Ethos of Pluralization" (1995) is from Gilles Deleuze's and Félix Guattari's work "A Thousand Plateaus" (1987): "We're tired of trees. They've made us suffer too much."

Arborealism is proposed to be replaced by rhizomatics. But let us follow the same authors themselves as pointed out by Connolly, "A rhizome as subterranean stem is

absolutely different from roots and radicles. Bulbs and tubers are rhizomes. ... *A rhizome ceaselessly establishes connections between semiotic chains, organizations of power and circumstances relative to the arts, sciences and social struggles.* A semiotic chain is like a tuber agglomerating very diverse acts, not only linguistic but also perspective, mimetic, gestural and cognitive. ... To be rhizomatic is to produce stems and filaments that seem to be roots, a better yet connect with them by penetrating the trunk, but put them to strange new uses." (Connolly 1995 : 94). Deleuze and Guattari continue writing about linguistic issues, "Binary logic is the spiritual reality of the root-tree. Even a discipline as "advanced" as linguistics retains the root-tree as its fundamental image ... [...] Chomsky's grammaticality, the categorical S symbol that denotes every sentence, is more fundamentally a marker of power than a syntactic marker: you will construct grammatically correct sentences, you will divide each statement into a noun phrase and a verb phrase (first dichotomy ...). Our criticism of these linguistic models is not that they are too abstract but, on the contrary, that they do not reach *abstract machine* that connects a language to the semantic and pragmatic contents of statements, to collective assemblages of enunciation, to a whole micropolitics of the social field. [...] Language is, in Weinreich's words, "an essentially heterogeneous reality". [...] It forms a bulb. It evolves by subterranean stems and flows, along river valleys or train tracks; it spreads like a patch of oil." (Deleuze, Guattari 1987 : 5-7).

Given the background of the present state of the academic discourse on these issues, the Uralists do little more, concerning language history, than continue to busy themselves with **their proto-languages and a language tree**. I can certainly understand them, convinced, that human consciousness is a phenomenon in the society which changes the slowest. Traditions are the foundation of the society, after all. However, in the respect of science the latter is not valid to the extent as in some other area. This is something never to be forgotten.

## **2. THE URALIC LANGUAGE FAMILY**

Traditionally the Uralic language family is divided into two major groups – **Finno-Ugric** and **Samoyed**. In both groups these languages are branched off according to their respective affinity. (All languages have their dialects but only the most imperative data about them are presented here.) In the following register the more related languages are placed closer, the more distant ones stand further apart from one another.

### **2.1. Overview of the Uralic Language Family**

#### **The Finno-Ugric sub-family**

##### **1. The Finnic branch**

###### **1.1. The northern sub-branch**

1.1.1. The Finnish language (divided into the western and eastern dialects)

1.1.2. The Karelian language

1.1.3. The Ingrian language

1.1.4. The Veps language

###### **1.2. The southern sub-branch**

1.2.1. The Estonian language (divided into the northern and southern dialects)

1.2.2. The Votic language

1.2.3. The Livonian language

##### **2. The Lapp branch**

The Lapp (or Saami) language (divided into 10 dialects which can also be linked together as 6–8 single languages)

##### **3. The Volga branch**

###### **3.1. The Mordvin sub-branch**

3.1.1. The Erza language

3.1.2. The Moksha language

### **3.2. The Mari sub-branch**

The Mari language (earlier: Cheremis; divided into the Meadow, Mountain and eastern dialects)

Recently both Mari and Mordvin languages have been regarded as those forming separate sub-branches, i.e. as independent as those of Komi and Udmurt.

## **4. The Permic branch**

### **4.1. The Komi sub-branch**

4.1.1. The Komi-Syryan language

4.2.2. The Komi-Permyak language

### **4.2. The Udmurt sub-branch**

The Udmurt language (earlier: Votyak)

## **5. The Ugric branch**

### **5.1. The Hungarian sub-branch**

The Hungarian language

### **5.2. The Ob-Ugric sub-branch**

5.2.1. The Mansi language (earlier: Vogul)

5.2.2. The Khanty language (earlier: Ostyak)

## **The Samoyed sub-family**

### **1. The northern branch**

1.2. The Nenets language (earlier: Yurak (Samoyed); divided into the Tundra and Forest dialects)

1.2. The Enets language (earlier: Yenisey Samoyed)

1.3. The Nganasan language (earlier: Tavgy (Samoyed))

### **2. The southern branch**

The Selkup language (earlier: Ostyak Samoyed; divided into the northern, middle and southern dialects)

The now extinct sub-branch of: Sayan Samoyed languages which earlier belonged to the southern branch of Samoyed languages include Kamass (divided into the Kamass and Koibal dialects) and Mator (divided into the Mator, Taigi and Karagass dialects). More recently Selkup, Kamass and Mator have been observed as those forming independent branches, i.e. as independent as the northern branch and Selkup: 1. the northern branch, 2. Selkup, 3. Kamass, 4. Mator. There are obviously more extinct Uralic languages but very little information about them has reached us or is lacking altogether.

Earlier and partly also at present the Uralic language family is supposed to have comprised Yukaghir languages belonging to the so-called Paleo-Siberian languages (Uralic-Yukaghir language family), or even all the so-called Altaic languages (Turkic, Mongol, Tungus-Manchu) (Ural-Altaic language family). But despite the numerous similarities Uralic languages share with both Yukaghir and Altaic languages, they cannot be incorporated into one and the same language family together with Uralic languages. The Nostratics have regarded Uralic languages as belonging to the Nostratic language family, on the other hand, they have also been linked with the Eurasian linguistic phylum by the supporters of the existence of such a phylum.

For a clearer survey I will present the data of the last four censuses of Uralic peoples in the Soviet Union, revealing the total number of each of the peoples and the percentage of the speakers of the national language as their mother tongue (Estonia and Latvia were then a part of the Soviet Union):

	1959		1970		1979		1989	
	Persons	%	Persons	%	Persons	%	Persons	%
Estonians	988,616	95.2	1,007,356	95.5	1,019,851	95.3	1,026,649	95.5
Finns	92,717	59.5	84,750	51.0	77,079	40.9	67,359	34.6
Karelians	167,278	71.3	146,081	63.0	138,429	55.6	130,929	50.1
Vepses	16,374	46.1	8,281	34.3	8,094	38.3	12,501	50.8
Ingrians	1,062	34.7	781	26.6	748	32.6	820	36.8
Lapps	1,792	69.9	1,884	56.2	1,888	53.0	1,890	42.2
Mordvins	1,285,116	78.1	1,262,670	77.8	1,191,65	72.6	1,153,987	67.1
Maris	504,205	95.1	598,628	91.2	621,961	86.7	670,868	80.9
Udmurts	624,794	89.1	704,328	82.6	713,696	76.4	746,793	69.6
Komi-Syrians	287,027	89.3	321,894	82.7	326,700	76.2	344,519	70.4
Komi-Permyaks	143,901	87.6	153,451	85.8	150,768	77.1	152,060	70.1
Khanties	19,410	77.0	21,138	68.9	20,934	67.8	22,521	60.5
Mansis	6,449	59.2	7,710	52.4	7,563	49.5	8,474	37.1
Hungarians	154,738	97.2	166,451	96.6	170,553	95.4	171,420	93.9
Nenetses	23,007	84.7	28,705	83.4	29,894	80.4	34,665	77.1
Nganasans	748	93.4	953	75.4	867	90.2	1,278	83.2
Selkups	3,768	50.6	4,282	51.1	3,565	56.6	3,612	47.6
Together	4,321,002	86.5	4,519,343	84.4	4,484,355	80.4	4,550,345	76.2
Livonians							226	43.8
Enetses							209	45.5
All together							4,550,780	76.2

It is true that the Soviet censuses were rather questionable but in many cases they were the only source of data. Based on the survey, it is evident that in the Soviet Union the number of the native speakers of Uralic languages was rapidly declining. Estonians and Hungarians were the only exceptions. Concerning Vepses, it was rather

the rise of their national self-consciousness by 1989 than the actual increase of the number of native speakers: they dared to name their actual nationality and mother tongue again during the census. The Uralic languages spoken in Russia are threatened by extinction as the native language competence in children and young people is very low (the percentages offered by the survey are first of all based on the data of the native language competence in older and middle generations), they are mostly educated only in Russian and grow up in a predominantly Russian environment.

## **2.2. Acquisition and Forfeiture of the Uralic Languages by the Youngest Age Cohorts in Russia**

The perspectives of a language depend upon the children's language acquisition and the further retention of the acquired language. In the following I am trying to give a certain picture about the situation of Uralic languages in Russia in this respect.

I will also continue revealing an analysis and a relevant figure by Seppo Lallukka from one of his publications in English (Lallukka 1990 : 198–199). In his analysis Lallukka has considered only four bigger Uralic peoples living in Russia: Maris, Komis, Udmurts and Mordvins (whereby *Komis*, in fact, means *Komi-Syrians*). In one of Lallukka's earlier analysis in Finnish we can find a figure which deals with all the respective data of the Soviet census on Uralic peoples, i.e. in addition to those four peoples mentioned above a reference has also been made to Estonians and Karelians (Lallukka 1982 : 60). I will add these to the 1990 figure by Lallukka.

So, in 1990 Lallukka writes that "it is possible to monitor the development by cohorts only for the 1959–70 intercensal period and it is likely that the picture that emerges is only a rough indication of the true cohort-specific pattern of language retention. [...] For example, I have just taken the percentage of Komis aged 10–19 years in 1959 who have stated that the Komi language is their native tongue and compared it with the percentage of Komis who made the same statement in 1970 and were 20–29 years of age." He says that in the figure "the slope of the arrows depicts the changes in the native-language retention rate from 1959 to 1970 by birth cohorts. At the top of the figure are shown the birth years included in each of the cohorts and at the bottom, on the horizontal axis, the x-coordinates of the tails of the arrows indicate the age of the persons belonging to each cohort at the moment of the 1959 census. The y-coordinates of the tails, in turn, show for 1959 the percentage of persons for each cohort who claimed the nationality's indigenous language as their native tongue. The y-coordinates of the arrowheads show the analogous percentage for the year 1970." (Lallukka 1990.)

Lallukka continues, "The monitoring of the cohorts discloses that in all the nationalities the steepest declines in native-language retention were in the two youngest cohorts, i.e. among people who by 1970 were approaching or were in their teens, or who were young adults. Among the older, those who had passed their 20th birthday by the 1959 census, the declines in native-language retention are much smaller. [...] Even in the youngest cohorts over 90% of Maris maintained the traditional native tongue through the 1960s. [...] In the two youngest Komi and Udmurt cohorts the decline is quite sharp, from 7 to 11 percentage points ...

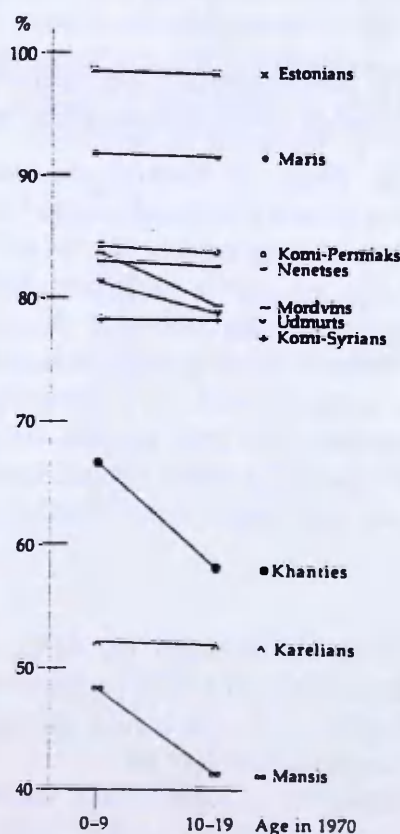
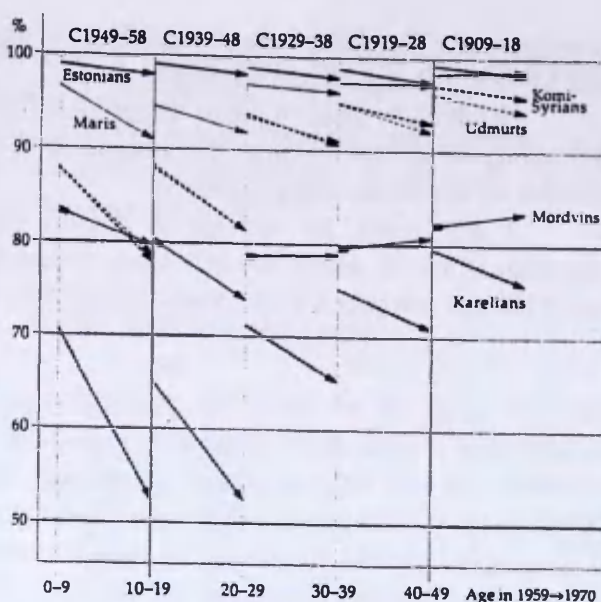
Finally, the Mordvin arrows clearly score the lowest in Figure ...: they oscillate on both sides of the 80% level." (Lallukka 1990.)

In addition it appears that the decline in the use of the traditional native tongue in the two youngest cohorts has been greater still in the not numerous Karelians. The data about Estonians, then belonging to the Soviet Union, were, in fact, presented by way of comparison as an example about stability.

Applying the co-ordinate system of the figure by Lallukka I will in the following present the points rendered possible by the 1970 census data to accentuate the percentage of the use of the traditional native tongue by the peoples mentioned above, and in addition to them, the two youngest cohorts of Komi-Permyaks, Khanties, Mansis and Nenetses:

It appears in the figure that in the youngest cohort (0-9) of Maris, Komi-Syrians, Udmurts and Karelians the level of proficiency of the national language as the native language is considerably lower in 1970 than that of the youngest cohort of 1959, being approximately located at the point where the youngest cohort of 1959 fell in the forfeiture of their mother tongue by 1970. Or, in other words: in 1970 the youngest cohort of these peoples only began from where the youngest cohort of 1959 had declined by 1970. In Estonians and Mordvins the youngest cohorts of 1959 and 1970 were more or less equal by their respective levels. It is quite unexpected in Mordvins, its reason unknown.

Considering the national language as the native language proficiency in 1970 in the two younger cohorts (0-9 and 10-19), the language proficiency of the older cohort in Maris, Komi-Syrians, Udmurts and Mordvins is somewhat lower in comparison with the



younger one. The difference is significantly smaller in Komi-Permyaks but in Khanties and Mansis it is significantly bigger.

Wishing to attain a more complete survey about the forfeiture of Uralic languages in Russia, we should consider the proportion of the youngest cohorts as related to the total number of the respective population.

I will make an attempt to display the proportion on the basis of available materials. First we know the following percentages of the two youngest cohorts of 1959 and 1970 (as compared with those of Russians):

	1959		1970	
	0-9	10-19	0-9	10-19
Estonians	14.1	14.4	15.8	12.1
Karelians	19.6	10.8	11.9	15.6
Mordvins	22.9	14.9	18.8	17.9
Maris	28.6	14.4	27.0	20.6
Komi-Syrians	26.9	13.5	23.2	20.1
Udmurts	28.0	14.2	23.8	20.5
Russians	21.9	15.1	18.2	17.5

(Lallukka 1982 : 92).

For further comparisons we have to consider the proportion of the age group 0-15 as the published data would not afford anything else:

	1970	1989
Karelians	19.6	16.6
Mordvins	27.6	22.1
Maris	36.5	28.7
Komi-Syrians	33.4	24.6
Komi-Permyaks	34.0	25.8
Udmurts	33.1	25.1
Khanties	45.5	33.5
Mansis	44.9	31.9
Nenetses	44.1	37.8-44.8
Russians	28.0	24.5

(Lallukka 1992 : 10).

As can be observed, the significance of younger age groups tends to be falling but yet in the majority of Uralic peoples it has been and remained relatively big (cf. the data about Russians). So, as a rule, the age groups which are largest, are losing their old mother tongue quickest of all.

Based on Lallukka's data, the children of Uralic peoples in Russia attend, in part at least, nursery schools of their mother tongue, acquire their education in the mother tongue or learn the mother tongue at school in such an inconsiderable number that practically it need not be taken into account at all. In addition to this it appears that in 1985 only a little more than 40% of grown-up Maris spoke the Mari language to their children. In 1968 in the families of mixed marriages the Udmurt language was used only

by 10.5% of Udmurts in the countryside and by 1% in town. In 1979 20% of Udmurts belonged to the families of mixed marriages. (Lallukka 1990 : 211–212, 240.)

It is self-evident that all the above-said will not promise any perspectives for the retention of Uralic languages in Russia (see also Künnap 1994a). In conclusion there is nothing else to be done but hoping for the best fear the worst.

### 2.3. Newest Data About Uralic Languages

The newest data about Uralic languages can be found in the book "Northern Minority Languages. Problems of Survival" (Shoji, Janhunen 1997). In this book Michael Krauss presents probable data observed concerning Uralic peoples and the number of speakers of their languages. Since these data often differ considerably from official figures, as e.g. concerning the 1989 census results of the Soviet Union, I find it to the purpose to fully indicate them here. The count of the languages reflects well-grounded conceptions of the author about the relationships among languages and dialects (the languages have been enumerated). The marking of the enumeration is explained by Krauss as follows (p. 25–26): "I have tried to provide an evaluation of the degree of viability of the language to remain alive through traditional oral transmission by parents to the next generation, creating new generations of active fluent speakers. This evaluation of viability by age distribution of speakers is as follows: **a** (language spoken by all generations, learned by practically all children), **a-** (learned by nearly all or most children), **b** (spoken by all adults, parental age and up, but learned by few or no children), **b-** (spoken by adults in their thirties and older, but not by younger parents, and probably no children), **c** (spoken only by middle-aged adults and older, forties and up), **c-** (fifties and up), **-d** (sixties and up), **d** (seventies and up), **d-** (seventies and up, and fewer than 10). These latter categories are probably fairly liberal in terms of active fluency, and may in some cases be constituted largely of "semi-speakers". The final category, **e**, extinct, thus probably means, throughout, no living person able to carry on a conversation or perhaps even able to understand the language (other than by virtue of perhaps being able to understand some closely related language). In many cases more than one letter is given." Krauss propounds such a list (p. 34):

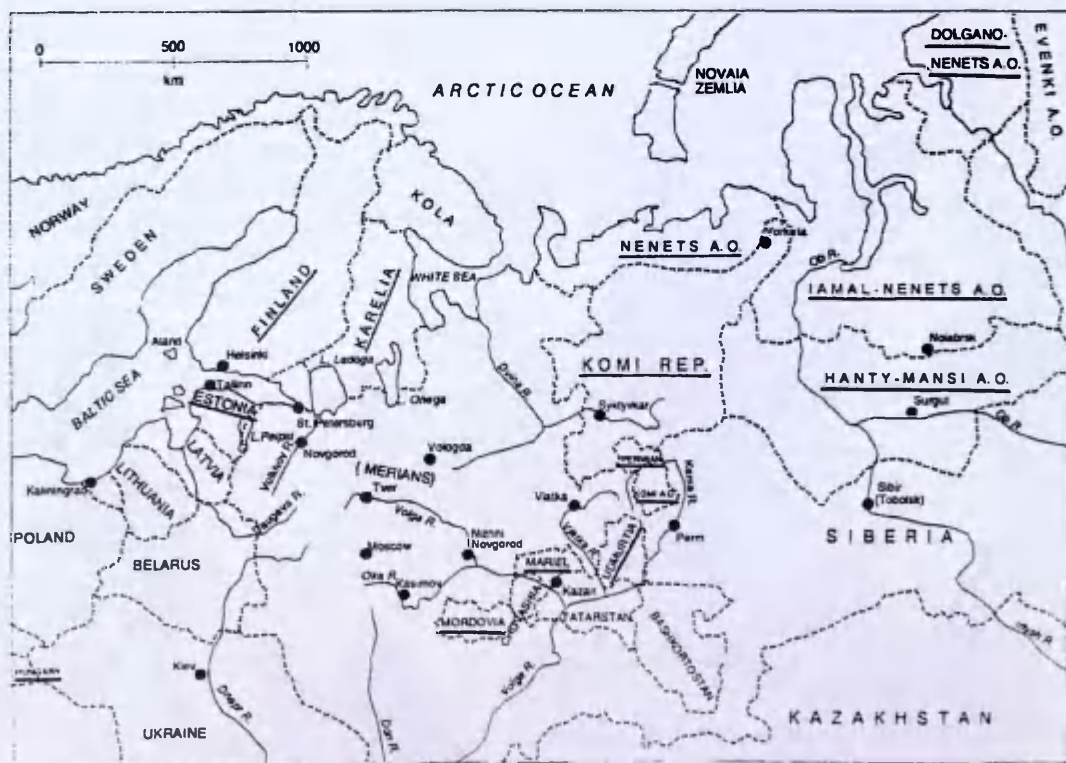
		Total Population	Number of Speakers	Viability Status	Country
<b>URALIC</b>					
65	Nganasan	1,300	500	a?-c	R[ussia]
66	Tundra Enets	100	10	c-d	R
67	Forest Enets	100	40	b-c	R
68	Yurats		0	e	R (19th century)
69	Tundra Nenets	33,000	27,000	a-b	R
70	Forest Nenets	2,000	1,500	a-b	R
71	Northern Sel'kup	1,700	1,400	a?-c	R
72	Central Sel'kup	1,700	150	c-d	R
73	Southern Sel'kup	200	20	d	R
74	Kamas		0	e	R (1989)
75	Mator		0	e	R (ca. 1840)
76	Northern Khanty	15,000	7,500	a-c	R
77	Eastern Khanty	5,000	4,500	a-	R
78	Southern Khanty	<1,000	0?	d-e?	R
79	Northern Mansi	7,000	3,000	a?-c	R
80	Eastern Mansi	<1,000	100	c	R
81	Western Mansi	100?	0?	e?	R (recently)
82	Southern Mansi	100?	0	e	R (first half of 20th century)
83	Ter Saami	500	6	d	R
84	Kildin Saami	1,000	650	a?-c	R
85	Akkala-Babinsk Saami	<100	7	d	R
86	Skolt Saami	1,000	425	b-c, d	F[inland] 600-400 b-c, R 400-25 d
87	Inari Saami	900	300	b-c	F
88	Northern Saami	>42,500	21,000	a-c	N[orway] 30,000-15,000 a-c, S 8,000?-4,000? a-c, F 4,500-2,000 a-c
89	Lule Saami	7,000?	3,000?	a?-c	S[weden] 6,000-1,500 a?-c, N 1,000?-500? a?-c
90	Pite Saami	2,000	50	d	S 2,000-50 d, N 20?-e
91	Ume Saami	1,000	50	d	S
92	Southern Saami	1,200	600	b-c	N 600-300 b-c, S 600-300 b-c

Based on his count, Krauss draws **the conclusions** (p. 25-27) that from part of the Uralic languages here so listed some have already become extinct in the last two centuries: <sup>68</sup>Yurats, 19th century; <sup>74</sup>Kamass, 1989; <sup>75</sup>Mator, ca. 1840; <sup>82</sup>southern Mansi, by 1950; also possibly by now <sup>78</sup>southern Khanty and <sup>81</sup>western Mansi. Some languages will probably be extinct in the next ten years: <sup>75</sup>southern Khanty and <sup>81</sup>western Mansi, if not already extinct; <sup>83</sup>Ter Saami, <sup>85</sup>Akkala Saami. After 2055 (sixty years hence and the end of the expected lifetime of the youngest speaker of those languages known no longer to be spoken by children), though extinctions of Uralic languages are quite likely to continue, such extinctions become of course much less predictable. Some of them have a (best) viability status designation of a?, meaning that there may be some children, but generally few, if any, who speak the language, which, accordingly, may have some chance of survival into the indefinite future: <sup>65</sup>Nganasan,

<sup>71</sup>northern Selkup, <sup>79</sup>northern Mansi, <sup>84</sup>Kildin Saami, <sup>89</sup>Lule Saami. Of the remaining which definitely or presumably still have children speakers, in several cases, e.g. <sup>70</sup>Forest Nenets, such children are a minority, often a small minority, in continuously shrinking isolated areas or communities. The condition of these languages may be termed critical or severely endangered. Krauss writes, "Larger numbers still and the heavy concentration in the Obdorsk-Yamal region of <sup>76</sup>northern Khanty of traditional speakers of all generations and exceptionally strong maintenance of <sup>77</sup>eastern Khanty qualify those languages as the next strongest northern languages in Russia, after <sup>69</sup>Tundra Nenets, with far larger numbers still, and still critical mass of great traditional strength in the Taymyr and Yamal parts of its area; it remains to be seen how conditions in Russia, especially in view of industrial developments in the Yamal, are going to favor maintenance of this strength. The situation of <sup>88</sup>northern Saami is of course rather complex; that has relatively large numbers, critical mass, and recently improving political and cultural support, but Saami-speaking children may not be the majority. In any case even these most favored northern languages might be considered endangered. Very probably they will still be spoken in the year 2100, but for how much longer, and by children?"

## 2.4. Geographical Distribution of Uralic Languages

Uralic and other surrounding Northern Eurasian administrative territories (Taagepera 1996):

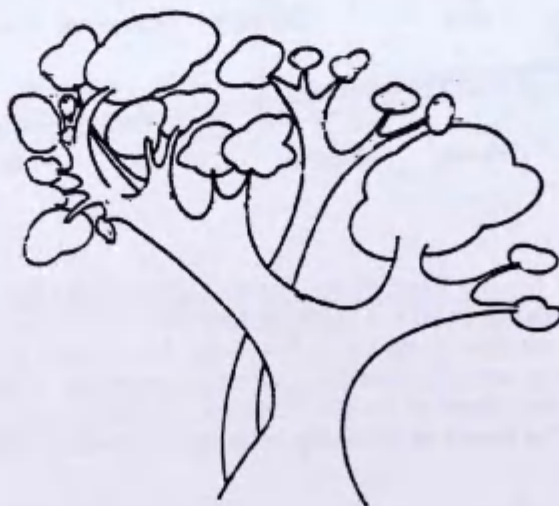




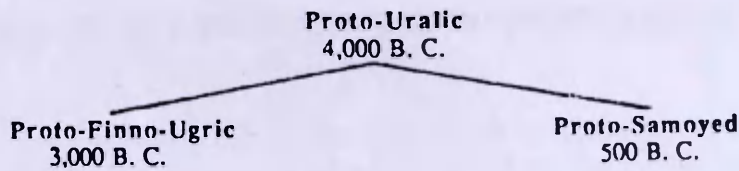
### 3. TRADITIONAL VIEWS ON THE ORIGIN OF THE URALIC LANGUAGE FAMILY

The speakers of Uralic languages are now dispersed on a vast territory which extends from Hungary and the Baltic Sea in the west, to the Taimyr Peninsula in the east and the Arctic Ocean in the north and up to the middle course of the Danube, the Volga and the Irtysh in the south. Hence, since the time of the discovery of common features in Uralic languages, mainly in the 19th century, the problem how to explain their occurrence on such a vast area has remained. It was considered reasonable that the common features originated from a certain narrower area and in the course of time began to spread farther and farther away.

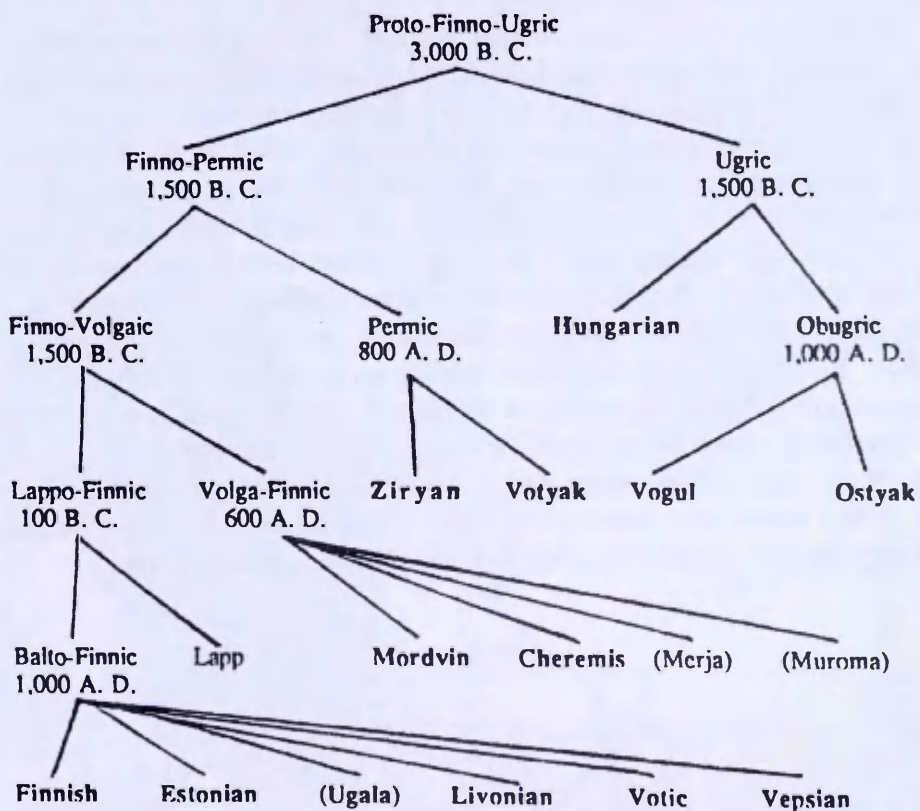
In addition to this Uralic languages were observed to have quite a number of common features with the so-called Altaic, i.e. Turkic, Mongolian and Tungus-Manchu languages, spoken basically in Asia. It was supposed, therefore, that the narrower area of origin of Uralic common features was near there. Based on the interpretation of the data of linguistics, archaeology and the other adjacent sciences a conception was forwarded mainly on the initiative of linguists according to which the Uralic (i.e. Finno-Ugric and Samoyed) ancient home was situated somewhere in the east, on the Volga or around the southern Urals inhabited by the ancient Uralic people. They spoke the Uralic proto-language, enjoyed the Uralic proto-culture and possibly, were also of a Uralic proto-race. It was a Uralic proto period, ending no sooner than 8,000 and no later than 4,000 years ago. After that started the emigration mainly westward from their ancient home. Gradually, during thousands of years, the descendants of the ancient Uralic peoples of the east shifted more and more towards the west until they reached the vicinity of the Baltic Sea. Based on the idea about the Indo-European language tree, a Uralic language tree model (Sprachbaum) was created (see the figure):



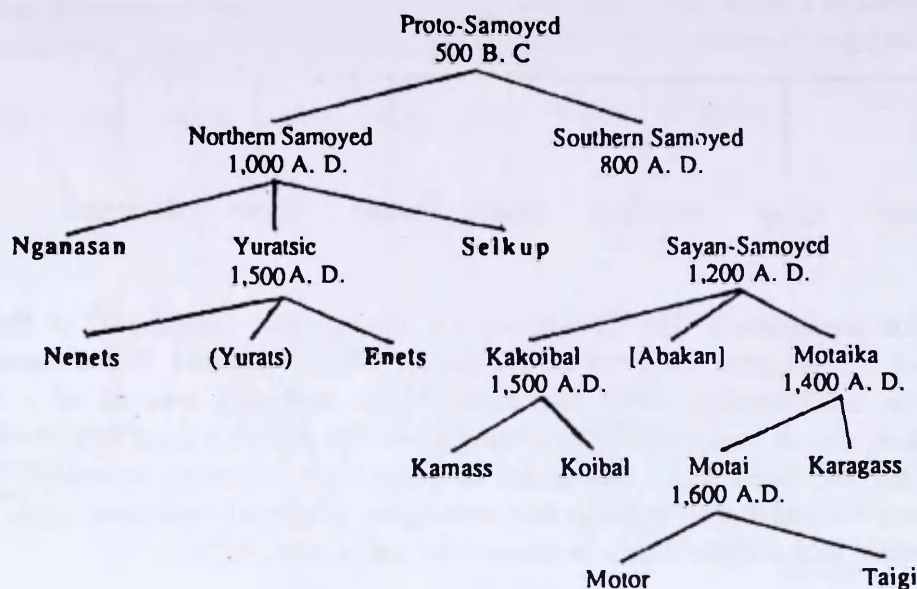
According to Gyula Décsy (Décsy 1990 : 12–13) the Uralic language tree with the Finno-Ugric and Samoyed language subtrees is depicted as follows:



Family Tree of the Uralic Languages with estimated time of dissolution of the protolanguages.



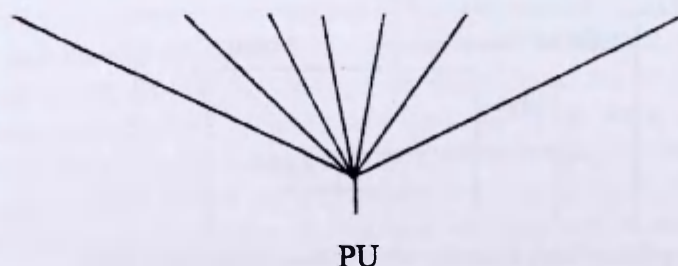
Family Tree of the Finno-Ugric Languages with approximate time of dissolution of the subbranches. The names of the living languages (terminal affiliates) appear in boldface. Meshchera is not included as its affiliation is not determined (may be Hungarian or Volga-Finnic). Ugala is the old tribal form of South Estonian. Karelian and Ingrian are Finnish dialects. The names of the living languages (terminal affiliates) are printed in boldface.

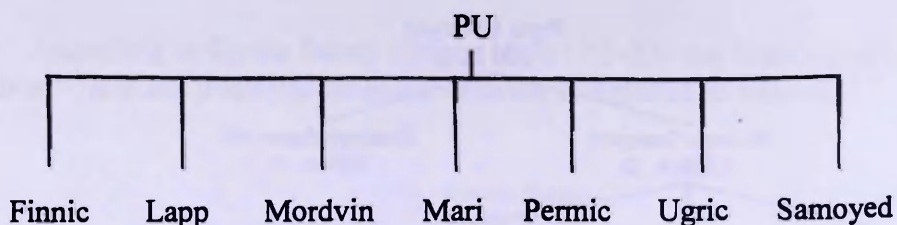


Family Tree of the Samoyed Languages with estimated times of dissolution of the particular subbranches. The position of [Abakan] can not be properly determined. Motai (Motor and Taigi) were also called Soyot (a language spoken "Samojedis monticulis Sajanensibus" at Pallas), probably the pre-Turkic language in the area of the present-day Tuva ASSR. Yurats was an intermediate dialect between Nenets and Enets. The names of the living languages (terminal affiliates) are printed in boldface.

Although the possibility of interpreting the language tree model has been questioned for some time already, it has persisted in the researches into the history of Uralic languages as its backbone. Sometimes the term **language tree** is replaced by another, a **language bush or comb model**, proceeding from the same single Proto-Uralic (PU):

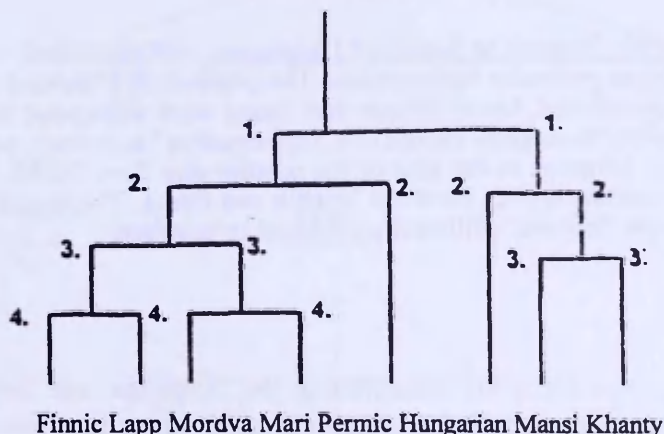
Finnic   Lapp   Mordvin   Mari   Permian   Ugric   Samoyed



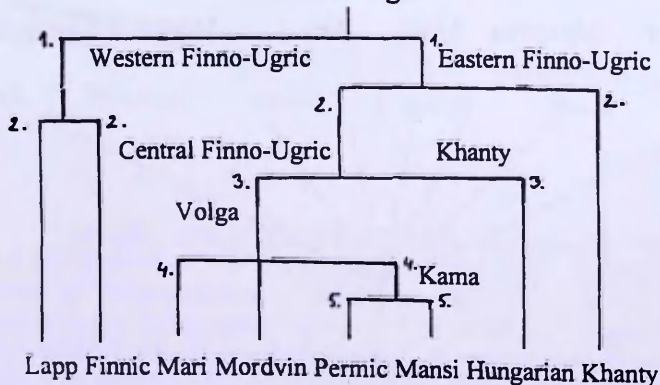


In his presentation "On Classifying the Finno-Ugric Languages" at the VIII International Finno-Ugric Congress in Jyväskylä, 1995, **Tiit-Rein Viitso** essentially corrected the understanding about the **Finno-Ugric language tree** as of a linear, gradually from east to west outgrowing phenomenon. He proceeds from typical changes in word-initial and intervocalic consonants in Finno-Ugric common wordstock. These changes query the traditional language tree conception in several important issues. Later Viitso proposed such a Finno-Ugric language tree (see Viitso 1997):

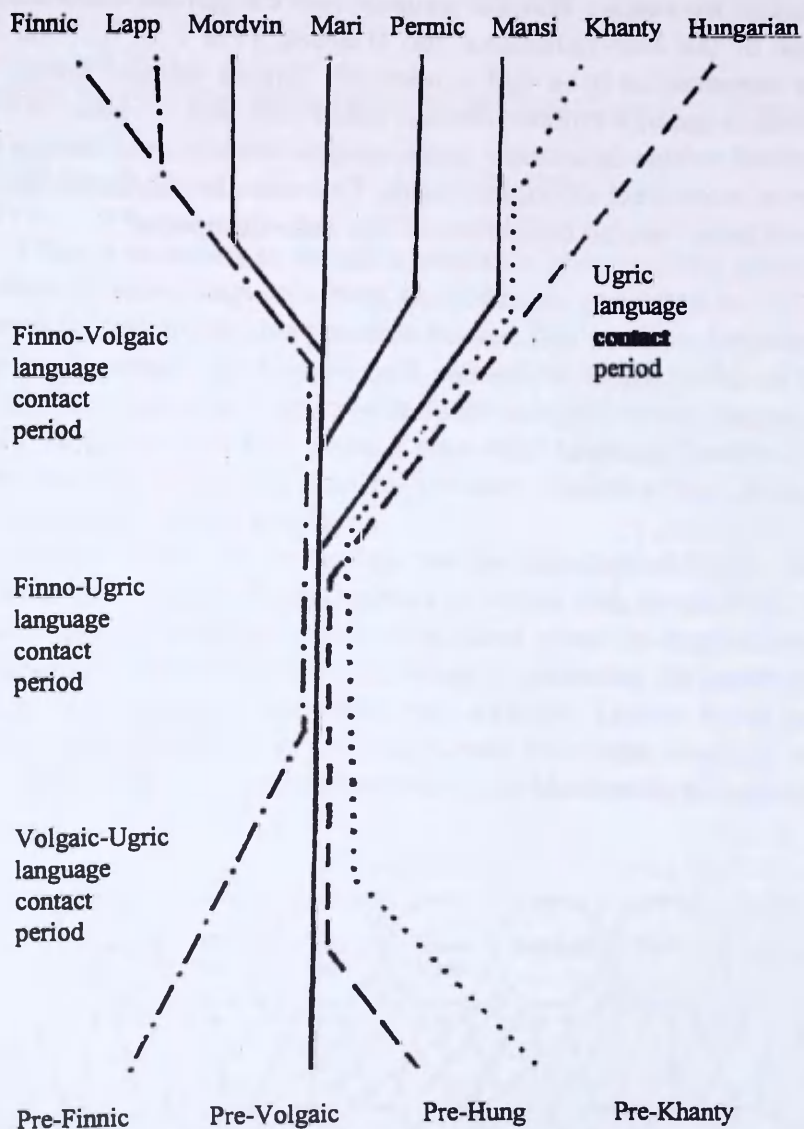
**Traditional language tree**  
Finno-Ugric



**Tiit-Rein Viitso's language tree**  
Finno-Ugric



**Rein Taagepera** (based on Viitso 1997) proposed a new version of Finno-Ugric language tree with (possibly non-Uralic) **roots** and **non-unitary stem** (Taagepera 1997):



I think Taagepera's tree is the best from all existing Finno-Ugric (Uralic) language trees.

The linguist **Seppo Suhonen** is undoubtedly right when he writes: "At the present time at least seven treatments of the original home are possibly favoured (a narrow area along the Volga and its tributaries; on both sides of the North-Urals; on both sides of the Central and South-Urals; on the European side quite far to the east; on the European side quite far to the west; a vast area between the Urals and the Baltics; *lingua franca*) and they indicate that a unanimously acceptable original home has not been found yet and hardly will. At any rate, it should be born in mind that 6000 years ago there was no Garden of Eden any more, there were many

languages which must have been in contact among themselves. The incidence of a common Proto-Uralic is logically highly improbable." (Suhonen 1997 : 89).

The archaeologist **Alexander Häusler** sounds very categorical concerning the narrow original home of the Indo-Europeans, too (Häusler 1998 : 147): "The Indo-Europeans are often supposed to have had a relatively limited original home, from which they spread with a specific culture, distinct burial rites and a vision of life to come after death. Isolated written documents, archaeological records from various times and regions are taken to reconstruct an original status. This contribution shows that such attempts are wrong and there were no burial rites of "the Indo-Europeans"."

## 4. NEW VIEWS ON THE ORIGIN OF THE URALIC LANGUAGE FAMILY

### 4.1. 1970–1994

I find it necessary to submit a number of excerpts from Ants-Michael Uesson's, a Swedish Estonian linguist's book on Uralistics, published in 1970 and, as it seems, undeservedly lacking the due attention to date. The excerpts demonstrate that more than a quarter of century ago Uesson held viewpoints which strike as most contemporary today and therefore should again be included into the current discussion about the origin of Uralic languages and their contacts with other language families. I would also like to indicate that the Grand Old Man of Estonian Uralistics Paul Ariste had a favourable impression about Uesson's book.

Uesson writes, "As we accept that the hypothetical Uralic, the different Turkic, Mongolian and Manchu-Tunguz primitive stages and, in addition, the Indo-European primitive stage, all have had a past when these primitive stages may have been formed from *different* constituents, there is nothing to contradict the assumption that several of these *old* constituents (from which the different Uralic, Altaic and Indo-European primitive stages have been crystallized) could have been identical at the same time as several other of these *old* constituents were non-identical in all certainty.

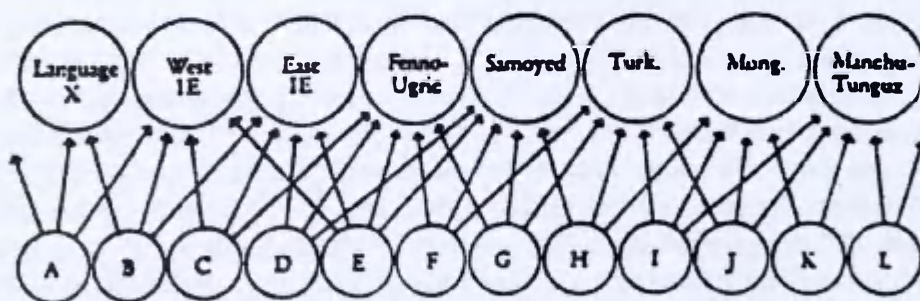


Fig. 10.

Figure 10 presents in diagrammatic form the conclusions that have been arrived at above. The large circles represent the different Indo-European, Uralic and Altaic primitive stages as they have been presumed to have existed in earlier times, while the small circles (A, B, C, D, etc.) denote the *old* constituents in the past of the accepted primitive stages. Basically the small circles do not represent anything other than *old primitive stages*, i.e. primitive stages which are older than the different Indo-European, Uralic and Altaic primitive stages that one considers have been possible to reconstruct.

Naturally, the impulses from the old primitive stages (denoted by letters) can be considered to be "genetically" more related to the accepted Indo-European, Uralic and Altaic primitive stages, while in the case of others the "genetic" links have worn so thin that one can talk only of contact relationship. [...] One can suggest in conclusion that the concept of linguistic affinity at least as far as old linguistic stages are concerned, should include both genetic affinity and contact relationship, because basically it is a question of the same phenomenon, but viewed from different angles." (Uesson 1970 : 100–117.)

The archaeologist **Pavel Dolukhanov** writes (Dolukhanov 1994 : 117–121): "*Hypothesis 1.* The Periglacial zone of the upper Paleolithic corresponded to the Proto-Uralic language family. [...] The time of existence of this ancestral language and of its subsequent disintegration remains an object of debate. [...] The exact location of the original Proto-Uralic homeland is the cause of considerable controversies. Based on the affinities with the Altaic language family (including Turcic and Mongolian), several linguists have suggested that the ancestral language (the Ural-Altaic) was located in southern Siberia, in the vicinity of the Altai and Sayan mountain. This hypothesis, advanced in the late 19th century, is no longer considered to be tenable ...

Currently, the majority of scholars tend to locate the initial Proto-Uralic homeland in a vast area stretching from the Baltic Sea to the Urals. [...] The uninterrupted settlement of the Baltic Finns in the area from the late Glacial times onwards may be proved by the continuity in the archaeological assemblages ...

*Hypothesis 2.* The Mediterranean upper Palaeolithic zone corresponded to the Basque-Caucasian language entity.

The Basque language is currently used in a narrow area of about 10,000 sq. km immediately to the south and to the north of the Pyrenees in Spain (Basque country) and in France (the western region of the department of Pyrenees Atlantique). The number of Basque speakers (who are predominantly bilingual) is estimated at ca 1,300,000 (>900,000 in Spain, ca 130,000 in France and ca 250,000 in Latin America). Judging from the distribution of toponyms and other linguistic records, the Basque language in antiquity occupied a much larger area. Basque has been compared with the long-extinct Iberian language, known from the inscriptions in eastern Spain and the Mediterranean coast of Spain. [...] The only languages which may convincingly be compared with Basque by normally accepted comparative rules are the Caucasian ones. [...] No less than 30–40 different languages belong to the Caucasian family. The total number of speakers is more than 6,600,000 ... The Caucasian languages can be divided into three groups, which are usually regarded as distinct language families. The north-western (Abkhazo-Adyghian) languages (Abkhazian, Circassian or Adyghe, Ubykh); the central (Nakho-Dagestanian) languages: Chechen or Nakh and the numerous languages of Dahgestan forming three distinct groupings. The southern (Kartvelian) group comprises Georgian (3,600,000 speakers in 1980), Mingrelian (Megrelian), Laz (Chan) and Svan. The interrelationships within the Caucasian languages (particularly between the northern and southern groups) remain uncertain, notwithstanding considerable progress made in the last twenty years. [...] How have scholars explained the Basque-Caucasian linguistic relationship? In most cases, by means of migrations. [...] It is inconceivable that such large-scale migrations would leave no trace in archaeological records. [...]

Summing up the existing archaeological and linguistic evidence one may suggest that a number of related languages existed in the prehistoric Mediterranean basin. These languages included: the pre-Basque, pra-Caucasian, Ligurian, Etrurian, Sumerian, Hattic, Hurrian-Urartian, Elamite, and a number of extinct languages of which no records were left. The existence of this 'Mediterranean linguistic layer', of which the Basque and the Caucasian languages are the only survivals, may be attributed to the upper Palaeolithic, to the maximum of the Last Glaciation, ca 25,000–25,000 years ago. [...] Yet the most convincing arguments come from the archaeology. These are, primarily similarities in ecology, settlement, subsistence, mode of life and in the material culture of the upper Palaeolithic inhabitants of the Mediterranean zone. No less important are the negative arguments: the lack of archaeological evidence indicative of any large-scale migration in the Mediterranean area at a later stage."

And Dolukhanov summarizes, "Based on the analysis of both archaeological and palaeoenvironmental evidence, two large upper Palaeolithic provinces may be distinguished in Europe and in the greater Mediterranean area. The first one referred to as the Periglacial, included the greater part of central and eastern Europe south of the ice-sheet. The second area, referred to as the Mediterranean, included the sites situated in Atlantic Europe (the highest concentration being restricted to Franco-Cantabria); Liguria, the Apennines, the Balkan peninsula, the Levant and the Caucasus. The first province is identified with the Pre-Uralic languages. The second one allegedly corresponded to the populations which used the Basque-Caucasian languages." (p. 389).

#### 4.2. 1995–1998

Here we have a good reason to refer to the presentation at the VIII International Finno-Ugric Congress in Jyväskylä, 1995, "Language and Roots" by the linguist **Pekka Sammallahti** (1995). It should be kept in mind that Sammallahti believes in the operativeness of the traditional language tree model. But quite a different thing is how he sees the Uralic settlement area through ages, when denying the formation of Uralic peoples in the course of migration from east to west – which is usually an obligatory supplement to the theory of the Uralic language tree model (primarily it was even regarded as a starting point). Sammallahti indicates that the geographical location of the modern Uralic languages in regard of one another – with the "stray" Hungarians as an exception – fully corresponds to the level of their mutual genetic similarity/difference. Sammallahti claims that this state of affairs can be explained in two ways. The older explanation consists in a pattern of migration which assumes migration from a linguistically unitary small-dimensional proto-home. The newer explanation concerns a pattern of desintegration, suggesting that Proto-Uralic was spoken on a very vast territory where, in the course of time, smaller language units were formed by way of desintegration. The latter developed their distinctive features up to the formation of modern Uralic languages.

According to Sammallahti there is cause to suppose that the first wave of people migrating to Europe and so the first arrivals northwards in the wake of the icecap were Uralic peoples, inhabiting an extensive area from about present-day Denmark to the

Ural Mountains. Since agriculture provided subsistence for a **hundred times larger** masses of people in the same area in comparison with hunting and/or fishing, great amounts of southern Indo-European tillers from about the region of the Black Sea also gradually shifted northwards, assimilating groups of Uralic peoples one after another, and pushing the Uralic-Indo-European border of languages more and more northwards. After all, there were about a hundred tillers per one hunter or a fisherman!

Commenting upon Sammallahti's presentation **Lars-Gunnar Larsson** wondered that the last century's language tree model is still holding its dominant position in Uralic studies. Larsson considered as one of the reasons most likely the view that the present areas of Uralic languages reflect their genetic relationship, or in other words, the Uralic family tree is "**a map in disguise**" (Larsson 1996 : 35). "Map in disguise" – there could hardly be found a more apposite remark!

Within the framework of the VIII International Finno-Ugric Congress a symposium "The Fenno-Baltic Cultural Area" was conducted by Seppo Suhonen. The collection of papers of the symposium, published earlier, contained a text of the presentation "The 'Pragmereal' Challenge to Genetic Language Tree Models" by the linguists **Jarno Raukko** and **Jan-Ola Östman** (Östman, Raukko 1995).

Raukko and Östman present a customary thesis "Finnish is more closely related to Mordvin than it is to Swedish" and construct an antithesis of their own "(Even genetically,) Finnish is more closely related to Swedish than it is to Mordvin". They make an attempt to indicate that, when casting aside the traditional point of view about the genetic relationship of Uralic languages, and turning to the language union (Sprachbund) which formed in the **Fenno-Baltic language area**, the antithesis does not seem more speculative than the thesis.

The Fenno-Baltic language area is indicated on the map (Dahl, Koptjevskaja-Tamm 1992 : 6):



Instead of a graphic depiction of the traditional Uralic language tree Raukko and Östman would rather draw a genetic scheme for any definite modern language which would reflect all the (known) language sources. Concerning Finnish, these sources would include, among many others, former non-Finno-Ugric languages, bordering on the Baltic Sea, which left their traces both into Finnish and Swedish as well as former Finno-Ugric languages, also leaving their traces into Finnish and Mordvin. There is no hitch in the authors' logic.

Raukko and Östman write (Östman, Raukko 1995 : 54–58), "There should be no theoretical difference in viewing family trees of people as going both upwards (back in time) and downwards (forward in time). It is therefore somewhat surprising that when the family tree model is used as a metaphor in genetic linguistics, its proponents have largely been interested in 'downward' family trees of languages (cf. Figure 1). However, one does encounter such statements as "Finnish has a Germanic syntax" or "peripheral Indo-European languages have more traces of the languages that were spoken in Europe before the Indo-European invasion" (Nichols 1992), but these are idiosyncratic statements which have not so far led to systematic studies of 'upward relatedness' and 'genetic composition of present-day languages'.

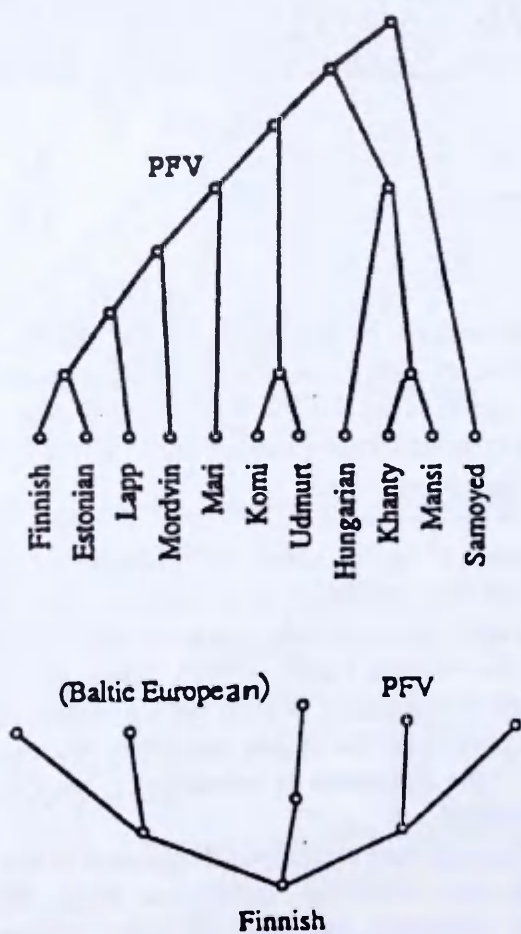


Figure 1. 'Downwards' and 'upwards' in language-genetic terms, with illustrations of the genetic place of Finnish.

When in our alternative program the diachronic perspective is inverted, we easily acknowledge that each language has several ancestors. It then becomes quite reasonable to suggest that while Finnish and Mordvin may have a common 'core-lexical-grammatical' ancestor that carries the label 'Proto-Finno-Volgaic', Finnish and Swedish may also have some kind of common ancestor. [...]

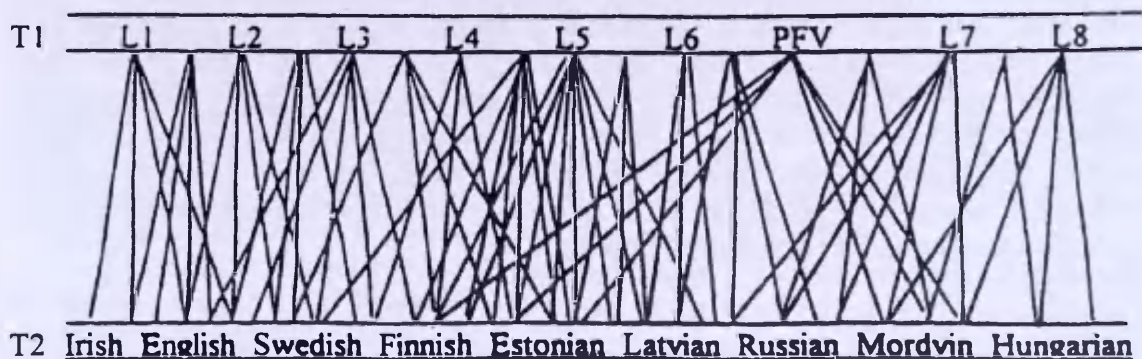


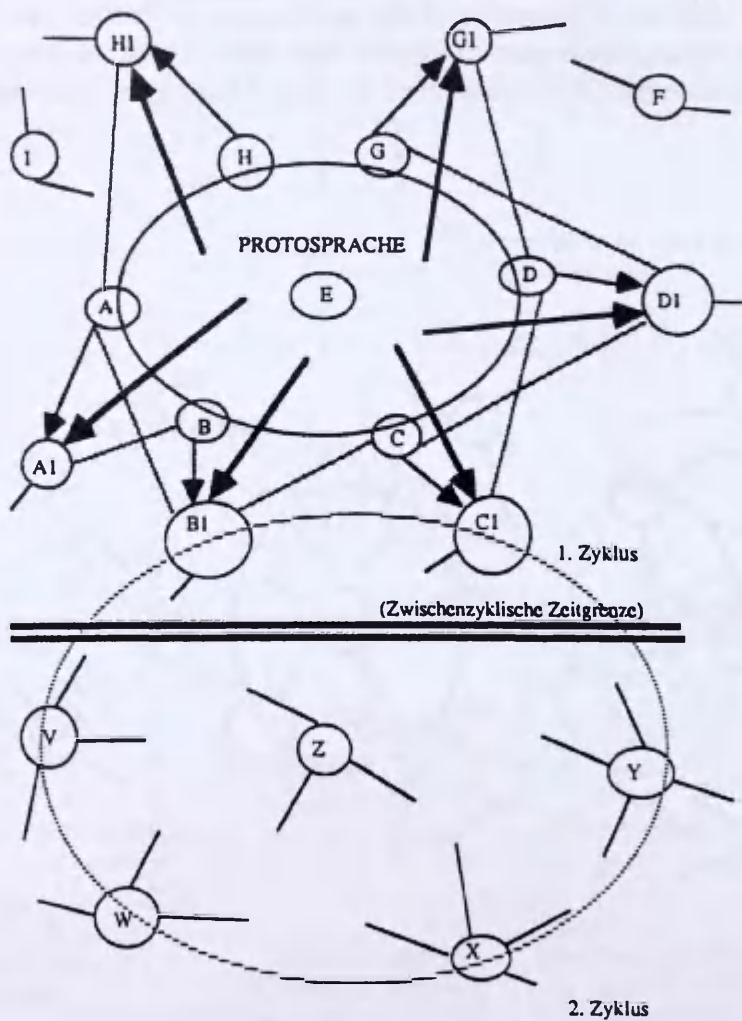
Figure 2. An alternative to the language tree model, with hypothetical past languages marked as L1, L2, etc., and Proto-Finno-Volgaic as 'PFV'. (The figure is oversimplified in several respects: it is only two-dimensional and it only contains a comparison of time-points T1 and T2, with no reference to the intermediate stages.)

Figure 2 illustrates a highly simplified alternative model of links between present-day languages and their ancestors. It is supposed that both at the past moment (T1) and at present (T2) there exists a wide range (or continuum) of language varieties; this view is supported by Nichols (1992, 1994). This 'criss-cross' model is thus in opposition to hierarchical tree models. We do not know the exact patterns of human mobility and contacts in past times, but if they resemble the complex patterns of modern times to any extent – i.e. the difference is quantitative, not qualitative – a tree model seems an realistic hypothesis."

Linguist János Puszta was not personally present at the Jyväskylä Finno-Ugric Congress 1995 but he sent there his brand-new book "Diskussionsbeiträge zur Grundsprachenforschung. (Beispiel: das Protouralische)" (Puszta 1995). For the last decade Puszta has published numerous shorter or longer papers about **Siberian language contacts** and the tendencies of language development there in general, thus

his book stands for his final conclusions of the research, and in a discussional form at that. (Obviously the author's earlier experience about the attitude of his colleagues towards his novel ideas has made him add a somewhat melancholy motto "An old error has more friends than a new truth.") This book by Pusztay deserves a separate, more comprehensive introduction, so here I would confine myself only to a few illustrative features which best coincide with our subject.

On the whole, Pusztay upholds the point of view according to which Proto-Uralic – as any other proto-language – is not a starting point for the rise of languages but just only a single and thereby a very recent phase in the development of languages. There are and were very different types of languages in Siberia. Proto-Uralic was formed on the basis of these onetime different types of languages and so it could not be unitary as to its own type, although researchers often attempt to reconstruct it as such. The languages which made up a proto-language preserved their own peculiarities and each one of them had different contacts with languages outside the given proto-language group (p. 120):

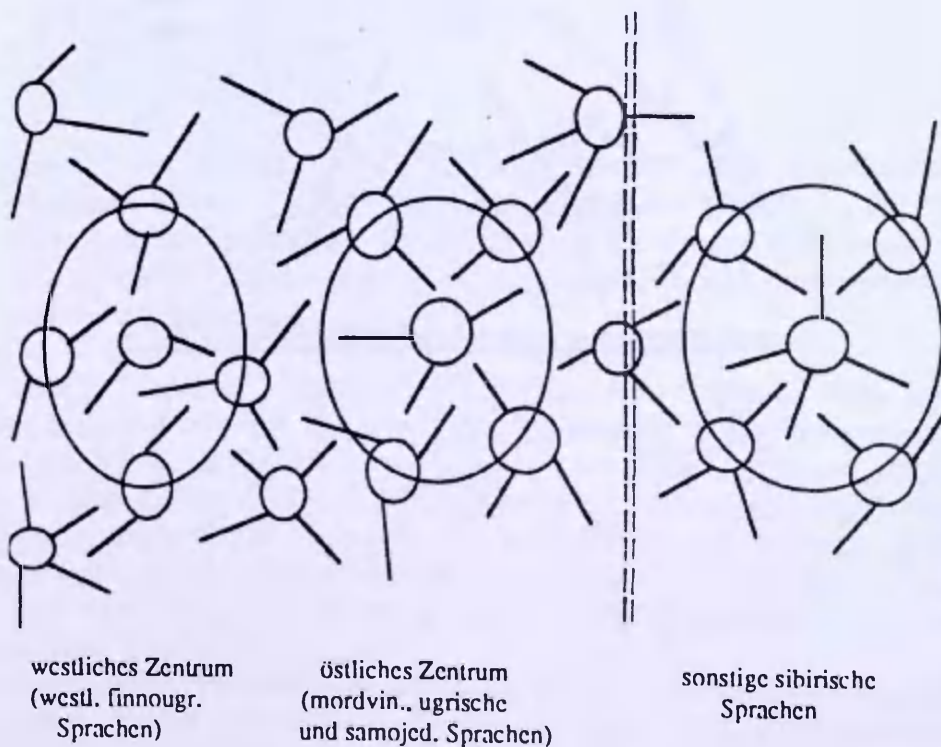


Die Auflösung der Protosprache

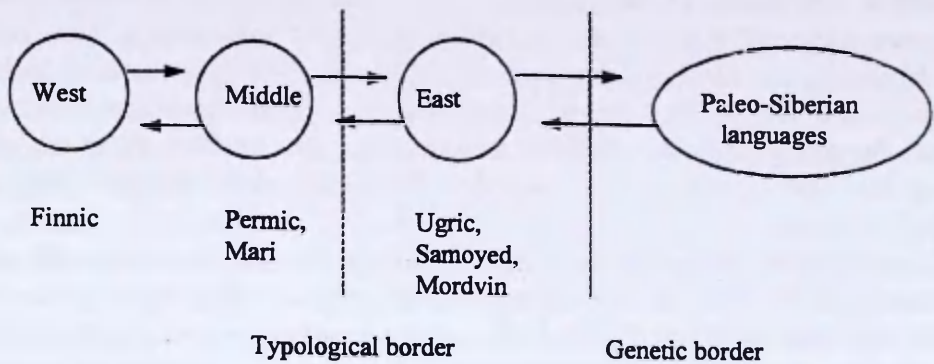
Thus, originally Proto-Uralic was not a single language but rather a **language union** (Sprachbund). The end of the Proto-Uralic period also denoted the dispersal of

the Sprachbund. Accordingly, there was no Uralic ancient home (Proto-Uralic home). Puzstay defends the view that there was a chain of proto-languages and -homes in Eurasia. In the Uralic language area there were an eastward centre where the Mordvin, Ugric and Samoyed languages originated from, and a westward centre where all the other Uralic languages came from. The eastward Uralic centre was a connecting link between the westward Uralic centre and the Siberian non-Uralic, Paleo-Siberian centre(s), first and foremost. With the dispersal of Proto-Uralic (essentially that of the Sprachbund) the languages were, since their entering the Sprachbund and at the moment of their dispersal, still sufficiently different which is also reflected in the differences between the modern Uralic language groups and single languages.

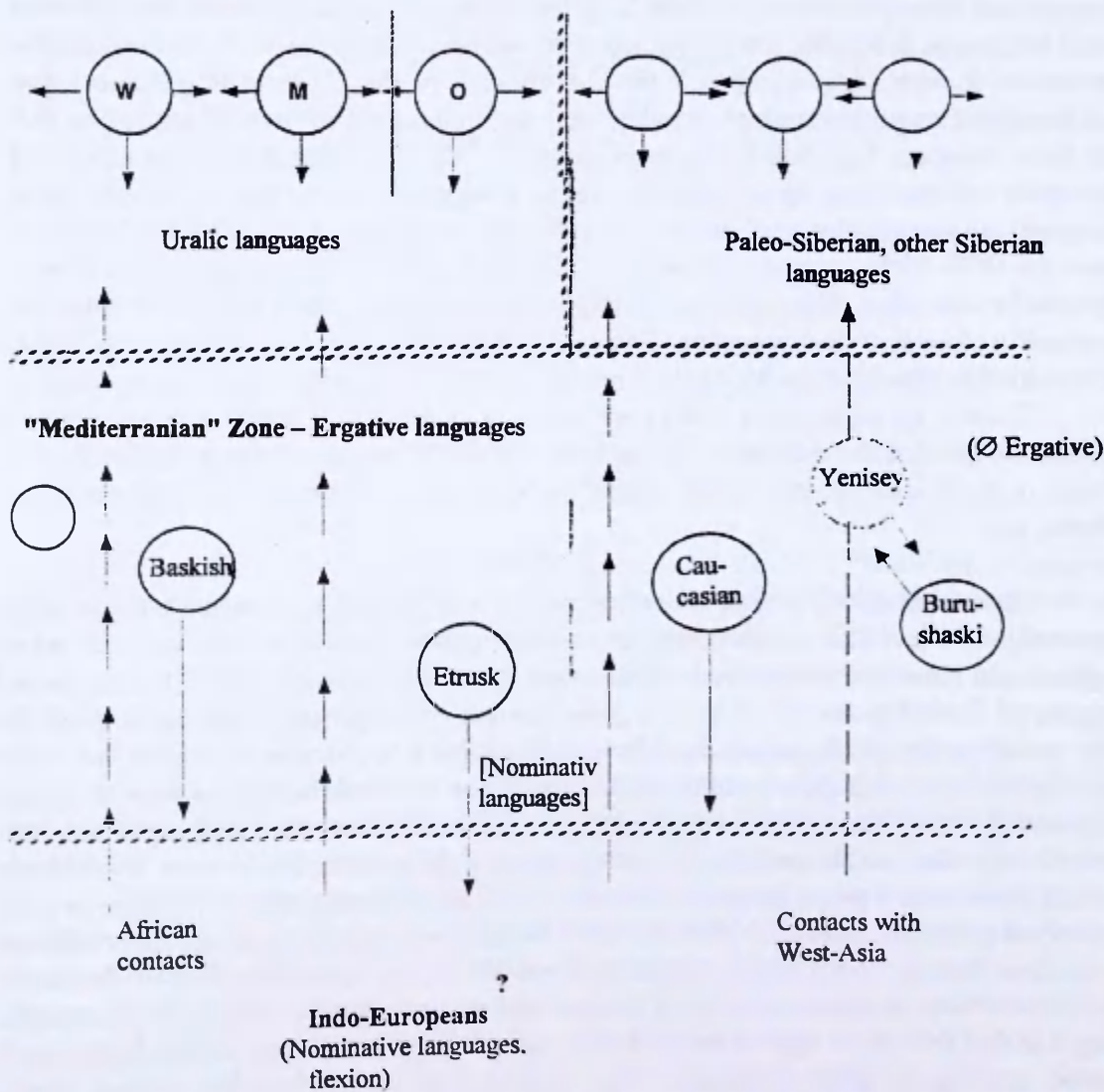
It is plain as day that the question about Proto-Uralic is inseparable from that of the Uralic ancient home (Proto-Uralic home). Thus the following correlation is quite obvious: if the existence of a unitary proto-language can be assumed, likewise the existence of a proto-home locating in a small compact area has to be assumed. Since Puzstay can only see a Sprachbund-like unification as Proto-Uralic, the proto-home, postulated by him, extends over the whole area where Uralic languages are spoken now (and in addition to the proto-home there are also two centres – eastward and westward) (p. 125):



In his newest paper (Pusztay 1998) he gives two interesting schemes:



**Periglacial/Circumpolar Zone – Nominative languages**



The linguist **Kalevi Wiik** in his hypothesis (Wiik 1995; 1996a; 1996b; 1997a; 1997b; 1997d; 1998) goes **40,000 years back** when the population of Europe consisted of two genetically and linguistically different groups of inhabitants. Wiik calls the peoples inhabiting the north-western area (at the location of the present British Isles) "pre-Lapps" and the peoples in the north-eastern region "pre-Samoyeds". These inhabitants formed genetically separate groups. There are no data about the peoples inhabiting the vast central area of Europe. Wiik calls these people "pre-Central-Europeans".

Concerning **the linguistic and genetic integration in North Europe**, as Wiik claims, there are no definite data about the language or languages spoken in the Paleolithic and Mesolithic periods. Nevertheless, two entirely opposite suppositions can be made, giving one and the same result. On the one hand, one common language could have been spoken, or the number of various small languages spoken could have been several tens, even hundreds, on the another. The difference between the two suppositions disappears owing to the linguistic integration and so numerous different small languages gradually integrated into Proto-Uralic which, in its turn, contained a number of dialects. According to Wiik, the division of Proto-Uralic into Finno-Ugric and Samoyed languages took place when part of Uralics moved to new areas. The fact that Indo-European loan-words occur only in Finno-Ugric languages but not in those of Samoyed, indicates that these languages had got separated by the time when the Indo-European languages advance from the south began. There are no definite data, however, about the force of the genetic influence Indo-Europeans could have exerted upon Finno-Ugrians by that time. The majority of Finno-Ugrians (exc. Lapps and Samoyeds) are genetically close to Indo-Europeans. The eastern Finno-Ugrians can, to a certain extent, be specified by the Siberian-Mongoloid genetic features lacking in Indo-Europeans.

There is **no significant difference** between Wiik's and Puszta's hypotheses as to the principles of the formation of the Proto-Uralic language. Geographically, Proto-Uralic, or more exactly, its eastern centre, as postulated by Puszta, extends as far as Siberia, too.

Experts' opinions tend to more and more consider **human language** much older. Personally I believe that the language is so old a phenomenon that Modern Man when beginning to move out of Africa 120,000 years ago could already speak. One or several languages? Probably several or even a great number of languages. Keeping in mind the very unitary point of departure for Modern Man (back to African Eve with her male partners!) one could suppose a unitary beginning for human language as well. A single language of departure in Africa had already branched off into several languages and Man spread out in the world, speaking various languages. Man turns out to have had both an ancient home and a proto-language. But that was 120,000 years ago in Africa – we are concerned with the genesis of Man and the emergence of human language. It is difficult to imagine that the humankind, migrating from Africa and spreading all over the world would later have formed a number of ancient homes and proto-languages, most recently only 4,000–8,000 years ago. And then they would have left those ancient homes and started creating daughter languages. The existence of the ancient homes and proto-languages mentioned has been motivated by the possibility that although there were

numerous groups of people and their languages, just one language spread on the area of other language(s) and drove the latter out. Consequently, these languages which drove out the earlier ones, formed on their own areas of departure ancient homes and proto-languages. The process under consideration occurred, certainly, and it is still going on, however, we are not concerned with the traditional conception about ancient homes and proto-languages but rather with the groups of people and their languages in contact. The results of the latter have been most varied, though.

It is an observation of long standing already that Uralic languages have quite a considerable structural similarity with the so-called Paleo-Siberian languages (Yukaghir, Yenisei, Chukchi-Kamtchatkan et al) as well as with the so-called Altaic (Turkic, Mongol and Tungus-Manchu) languages mainly or only spoken in Asia at present. The fact is one of the main motives for a supposition that Uralic languages themselves come from that area. But in addition to the present-day geographical location **another essentially principle possibility** should be considered. When people wandered out of Africa speaking various languages, the speakers of the Paleo-Siberian and Altaic types of languages could have moved, in addition to Asia, also to Europe and likewise, the Uralic-speakers could move to Asia, alongside of Europe. In the course of internal assimilation in Europe, on the one hand, and in Asia, on the other, Paleo-Siberian and Altaic type of languages gave their colouring to the languages of the Uralic type and *vice versa*. The contacts between two continents were not really necessary, language contacts could operate separately in Europe and Asia. When the races, too, developed finally due to various conditions of the environment, the consequence was that different races, Europoid (Caucasoid) and Mongoloid in the given case, eventually spoke languages which structurally resembled one another to a considerable extent. Hereby it is relevant to emphasize that this consideration has one the precondition: languages are older than races.

Certainly, the picture drawn by me is both simplified and hypothetical. The enormous task to prove or refute it is still ahead of us.

But for the sake of variety I would like to view the VIII Finno-Ugric Congress 1995, in Jyväskylä, long disturbing me: a presumed peculiar **Finno-Ugric attitude of mind**, typical of all Finno-Ugrians, both ancient and present. If this eastern frame of mind cannot first and foremost be expressed in Finno-Ugric oral poetry and ancient belief systems, then where else?

An undoubtedly most interesting outline presentation on the above problems was made about the research into oral poetry and belief systems of Finno-Ugric peoples by the folklorist **Lauri Honko** at the Jyväskylä Congress (Honko 1995). He raises this question: For whom are Finno-Ugric oral poetry and belief systems investigated? Are they meant for the international scientific community or certain smaller or wider cultural groups? Ideally, the message delivered should be the same for both categories. Honko indicates that the early explorers of Finno-Ugristics were inspired to expand the Finno-Ugric affinity in the encyclopaedic spirit of the time from language to culture. But methodologically, the Finno-Ugric affinity proved problematic in the course of time. Even linguists admit that the relationship between Finnish and Khanty was no closer than, for instance, that between Swedish and Sanscrit. The finding of cognate languages

became but a dramatic discovery of roots for the Finno-Ugric scholars and their peoples in a way not possible in the Indo-European scholarship.

This difference is even today still a basic divide between Finno-Ugrians and Indo-Europeans. Honko gives an example about the negative stand of a professor of history from England according to whom we cannot call brothers the inhabitants of all places where words similar to our language are being used. A leading folklorist professor from Germany finds the Finno-Ugric comparisons artificial. Their view on linguistic affinity in relation to cultural identity comes from their culture and is totally different from ours. They cannot understand that our historyless past under foreign hegemony and often a minority situation make us reach for linguistic affinity as an anchor available. How proud we can be of it in the historical perspective, is a matter open for discussion. Honko claims that it is certainly better than nothing at all. Without falling into misplaced imperialism, Honko supposes, we may believe that **our linguistic ancestors constituted the original population in most parts of North and North-East Europe.**

Honko refers to his article published in the Encyclopaedia Britannica more than twenty years ago when he denied the possibility of a hypothetical reconstruction of the Finno-Ugric **"original religion"** by means of comparative methods. Even today he still doubts the reconstruction of a single form of religion which could be the original point of departure for all later development of religion among the Finno-Ugric peoples. Yet the negative answer is not all that can be said about the religious traditions in question. The backbone of the Finno-Ugric cultural comparisons may be the fact that there is always a vertical cultural heritage to be recognized with the help of linguistic and cultural forms common among the speakers of Finno-Ugric languages. Whether these forms are really old, really common or really Finno-Ugric is a matter to be studied with all scholarly means available. Honko underlines that the task of Finno-Ugric cultural studies is to analyse vertical heritage in horizontal adaptation. In this research neighbouring cultures, **unkindred languages** [my bold type – A. K.] and alien sources of cultural expression are equal partners to those of Finno-Ugric. The scholarly value of these studies will be judged by international standards of folkloristics, comparative religion, ethnology and anthropology, not by the local or national usefulness of results.

Honko exemplifies his conceptions about phenomenological types of religion. There are four ideal types on the Finno-Ugric settled area: 1. Religion of Arctic and sub-Arctic hunters. 2. Religion of reindeer nomads and combined economy. 3. Religion of burn-beat agriculturalists and cattle breeders. 4. Religion of southern large-scale corn-cultivators. The first type of religion can be found among Lapps, eastern Finns, northern Karelians, northern Komis, the Ob-Ugrians mixed with elements from other types of religion. Occasionally, elements of this type are featured among more southern peoples – western Finns, Estonians, Vepses, Mordvins, for example. The second type occurs largely with the core peoples of the first type, representing further development of the first type. The second type normally lives in contact with types 1 and 3, with the Hungarian "nomadism" constituting a special development between types 2, 3 and 4. The third type represents stable agriculture but still in combinations with other types. Ancestor worship, which existed in earlier forms, comes now to the focus. The fourth type is located in the north-east. Udmurts, Maris and Mordvins share many of the

characteristics, sometimes more related to the neighbouring Turkic than western Finno-Ugric linguistic relatives. Elements of this type occur among agriculturalists of the Baltic Sea region, too. None of these ideal types can be regarded as "proto-religions" in the direct historical sense. Honko emphasizes that these are only phenomenological tools for the first orientation to the available material.

As Honko sees it, comparative presentations of oral poetry and religion will still remain a methodological challenge for Finno-Ugric scholars. For Finno-Ugric peoples it is an asset in the struggle for cultural identity and ethnic survival. Scholars may be part of both processes, but what ultimately secures the international interest and support for Finno-Ugric studies is, according to Honko, basic research and the presentation of results of the best possible quality not only inside Finno-Ugrians themselves but also outside these peoples. I am of the opinion that in Honko's presentation there are several warnings to us which are to be taken extremely seriously. And the mind is always dependent on where one lives and what one is doing.

## 5. GENETIC AND ARCHAEOLOGICAL BACKGROUND OF URALIANS

### 5.1. Genetic Background

In Africa, our efficient ancestor began to more and more stand and walk erect about seven million years ago. It took longer, however, before he spread outside Africa. *Homo erectus* (an erect man) developed here 1,8 million years ago and at about that time began to spread to Europe and Asia. By about that time several parallel lines of humanoids terminated their existence. About a million years ago the existence of the last parallel lines of the kind was ceased, probably due to a general tendency of the climate getting more severe. Only *Homo erectus* continued existing in Africa, Europe and Asia.

According to **an earlier theory**, partly supported even today, the different races of Modern Man in different parts of the world developed from *Homo erectus*. Thus the variety of races and languages could be explained: on three continents *Homo erectus* developed into different races and those races created their own languages in their places of settlement. I find it hard to generalize to which extent and how consciously the old theory about the genesis of Modern Man has influenced linguists, however, I don't think it unnecessary to indicate that it reminds one of the theory of ancient homes of peoples, of a proto-language spoken at each ancient home and of the following dispersal from ancient homes which brought about the development of daughter languages. The time of dispersal from ancient homes is fairly recent in linguists' opinion – about 4,000–8,000 years ago.

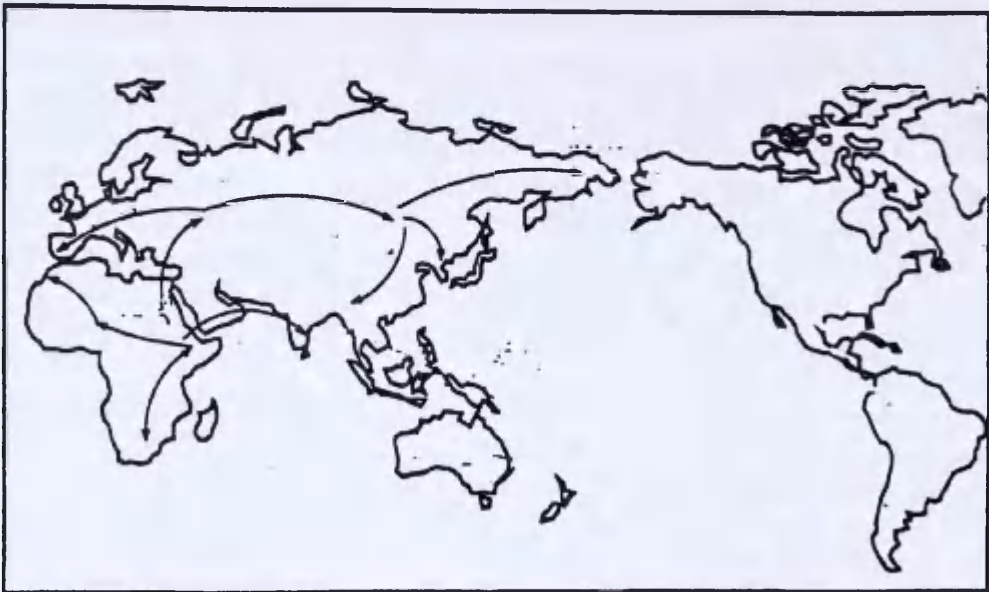
**The modern human genetics** denies the above reviewed earlier theory about the genesis of Modern Man since the present humankind is genetically far too unitary for that. The affinity is so remarkable that an extreme but earnest opinion expressed by geneticists claims that the whole humankind descended from a single ancient mother (African or Black Eve) and a few forefathers. *Homo erectus* was still about on the Earth a couple of hundred thousand years ago and then became extinct. But as to the three continents it was only in Africa where about half a million years ago the so-called more archaic *Homo sapiens* separated from the former; the latter, in his turn, was left by *Homo sapiens neanderthalensis* (the Neanderthal man) about a couple of hundred thousand years ago and by Modern Man *Homo sapiens sapiens* about 150,000 years ago.

The existence of the more archaic *Homo sapiens* was terminated about 100,000 years ago. The Neanderthal men, branching off from the former could wander from Africa to Europe about 35,000 years ago and become extinct there. About 120,000 years ago **Modern Man** began to spread from Africa all over the world. He invaded Europe about 40,000 years ago. Consequently we were living together with the Neanderthal Men in Europe for about 5,000 years but as geneticists assure us, there occurred no assimilation with them although they were smart and skilful enough.

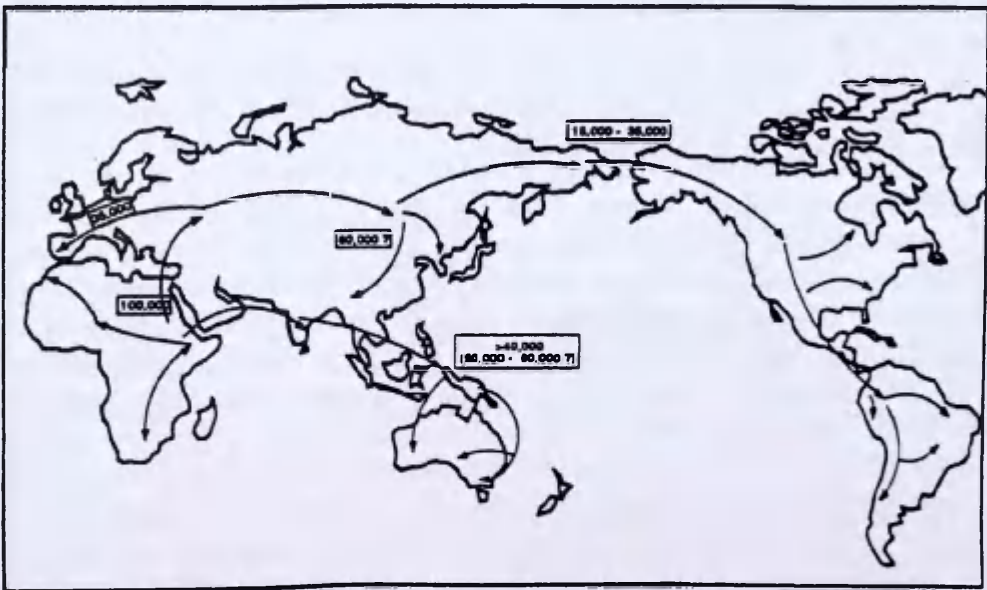
It is hard to tell how unitary or different racially were Modern Men who began to migrate from Africa 120,000 years ago. What is clear is that human races developed

completely under the influence of different conditions of the environment in different parts of the world much later.

*Homo erectus* 1,800,000 BP



*Homo sapiens sapiens* 150,000 BP



We must remember that now the human genetics recognizes **three main methods** for the researching of human genes:

1. nucleus DNA (DNA) – from all parents to all children,
2. mitochondrial DNA (mtDNA) – only from mothers to all children
3. Y-chromosome (Y) – only from fathers only to sons.

A very substantial article (Richards et al. 1996) on genetics has recently been published, the excerpts of which will be quoted in the following: "Genetic interpretations of European prehistory have hitherto been based largely on the analysis of classical, nuclear-encoded protein polymorphisms. In this model, there is a slow expansion of people from the Neolithic source population into Europe that is driven by population growth resulting from agricultural surpluses and either displacing or absorbing the less numerous Mesolithic hunter-gatherer populations as it proceeds. The demic diffusion model predicts a dramatic effect on the European gene pool, and though never precisely quantified, an implied consequence is that the major component of the modern European gene pool is derived from Near-Eastern farmers rather than the indigenous Mesolithic population ...

Its opposing model, cultural diffusion, proposes that, on the contrary, there was minimal intrusion of peoples from the Near East but that some of the local hunter-gatherer groups in Europe entered the Neolithic either independently or as a result of the diffusion of ideas and the trade of crops ... An intermediate model, pioneer colonization, assumes some role for migrations from Western Asia to Europe but sees this in terms of selective colonization by fairly small groups ...

Here we examine which, if any, of these models best explains the observed distribution of m[i]t[ochondrial]mtDNA lineages in Europe. Mitochondria are maternally inherited and nonrecombining.

Relatively few interpopulation diversities were statistically significant ... [ ... ] There were differences between the Middle East sample and all others in Europe. The only consistently significantly different European population by this test were the Basques, who also had the lowest intrapopulation pairwise diversity." (Pp. 001–003.)

In Table 2 of the article (p. 005) we can find indices of genetic distances between a single Finno-Ugric-speaking population referred to in this article – Finland – and other populations (in an increasing order):

Basque	3.06	Northern Germany	3.59
Switzerland	3.23	Portugal	3.67
Wales	3.33	Turkey	3.70
Denmark	3.41	Sardinia	3.73
Cornwall	3.52	Spain	3.76
Bavaria	3.55	Middle East	5.31 (!)
Iceland	3.58		

The authors of the article continue their discussion: "The beginning of the Upper Palaeolithic 40,000–50,000 years ago marks the first appearance of anatomically and behaviorally modern humans in Europe, prior to which it had been occupied by the Neanderthals for > 250,000 years ... [ ... ] no individual lineages in our extensive data

set are sufficiently diverged to be realistically attributed to Neanderthal ancestors. We conclude ... that there are no surviving Neanderthal lineages among the sample, supporting the view that Neanderthals became extinct ... and, though coexisting in Europe with anatomically modern humans, did not interbreed to any significant extent. [ ... ]

The most important influence of the Middle East on Europe since the Upper Palaeolithic was the spread of agriculture 10,000–6,000 years ago. It has been suggested on the basis of archaeological evidence that there were two Neolithic colonization routes from the Middle East through Europe, one through central to northern Europe and another around the west Mediterranean littoral and possibly up the Atlantic coast of France to Britain ... [ ... ]

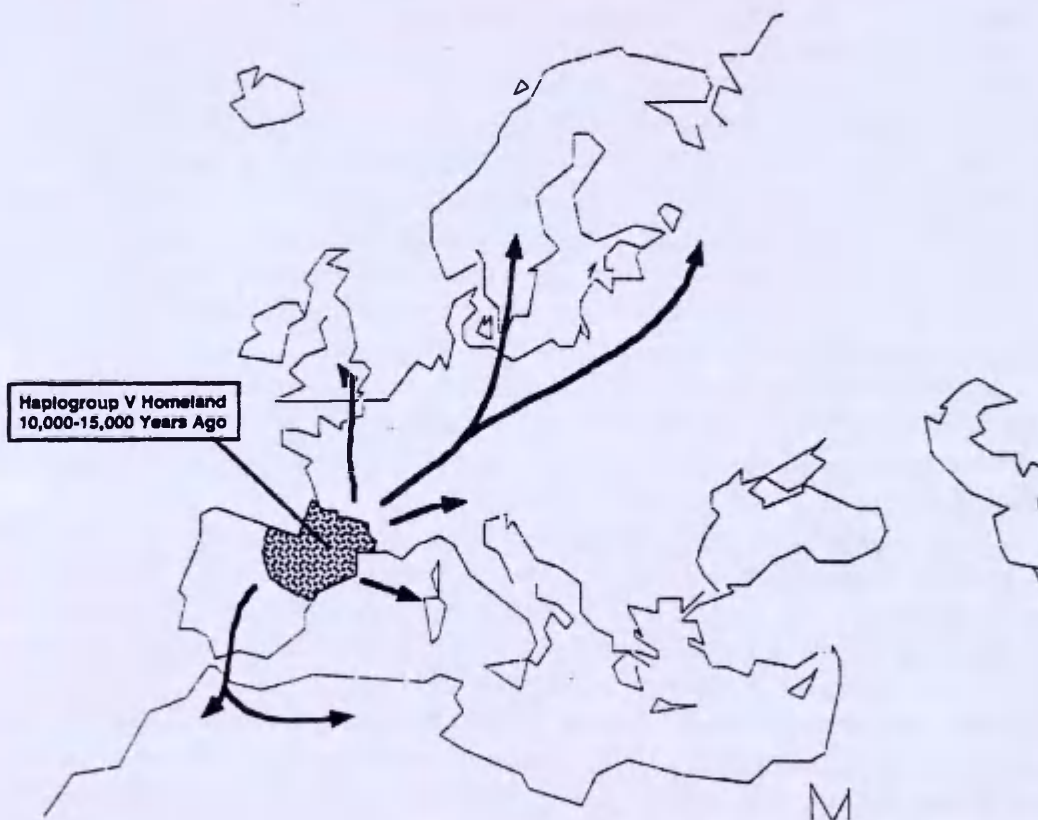
Our interpretation of the mtDNA data is that the majority of modern Europeans are descended from the settlement of Europe by anatomically modern humans during the Upper Palaeolithic with expansion of selected groups at around the end of the last Ice Age. We see evidence of later colonization from the Middle East, which appears to coincide with the spread of agriculture. Its distribution is well defined, but the overall demographic influence on modern Europeans is relatively small. Of the three models for the spread of agriculture outlined earlier, our interpretation favors the pioneer colonization model, whereby there was selective penetration by fairly small groups of Middle Eastern agriculturalists of a Europe numerically dominated by the descendants of the original Palaeolithic settlements. The ensuing conversion of this population from a hunter-gatherer-fishing economy to one based on agriculture would then have been achieved by technology transfer rather than large-scale population replacement. [ ... ]

Although arguing for a demic component in the transfer of the Neolithic to Europe, our interpretation differs from the conclusions of previous investigators ..., which have emphasized, though not precisely quantified, the genetic contribution of the Neolithic immigrants. [ ... ]" (Pp. 0012–0013.)

In an unpublished article **Richard Villems** and other geneticists from Tartu, write (1997), "Irrespective whether we analyse maternal or paternal lineages of the Finno-Ugric people, we end up with a finding that the northeastern European Finno-Ugric speaking people, including Saami, are similar indeed. While in case of maternal lineages this similarity is shared, in surprisingly detailed way, by other European Caucasoids, the aforementioned distinct Y-chromosomal mutation, present at a high frequency in northeastern Finno-Ugric languages speaking males, seems to be totally absent in the western part of Europe. Its moderate frequency among eastern Slavic populations and high incidence in some Siberian populations are the facts deserving detailed attention from the point of view of demographic history of populations, speaking Finno-Ugric, Uralic in general, as well as Altaic languages. It is clear that the Finno-Ugrians share their maternal lineages with other Caucasoids and not with Mongoloids, at least in any larger extent. Can we find, inside this Pan-European homogeneity of mtDNA haplogroups certain Finno-Ugric variants? We think that it is possible. Not necessarily Finno-Ugric, but certainly regional. [...] Since the similarities both in maternal and paternal lineages are shared between Finns, Estonians and the Volga basin Finno-Ugric speakers on the one hand, and Saami on the other, we wish to question traditional stressing of the genetic "outliners" of the Saami population. So far

as we speak about the Y chromosome and mtDNA of the Saami population, the differences are more easily explained by drift than by any extensive Mongoloid influence. Our results allow also to question the origin of the C allele of the Y chromosome and to suggest that it has first occurred in Finno-Ugric population and only considerably later found its way to (some) Siberian populations."

**Antonio Torroni** and his international work-group recently offered an interesting idea, that "a major Paleolithic population expansion from the "Atlantic zone" (southwestern Europe) occurred 10,000–15,000 years ago, after the Last Glacial Maximum. As an mtDNA marker for this expansion we identified haplogroup V, an autochthonous European haplogroup, which most likely originated in the northern Iberian peninsula or southwestern France at about the time of the Younger Dryas." (Torroni et al 1998 : 1137). This proposed spread can be seen in their map (p. 1148):



Map of Europe depicting the most likely homeland of haplogroup V and its pattern of diffusion.

**Valdar Parve**, a scholar from Tartu, discussed the Estonians' anthropological feature of light skin in one of his articles (Parve 1995). The author presents a hypothesis on how the Estonian-speaking population has changed or been replaced, so that the present-day Estonians are only distantly related to their Finno-Ugric kindred peoples and their ancestors. Instead, the Estonians are closely related to the mostly Germanic peoples of the Baltic Sea region. Parve writes: "There are two main arguments for this.

(1) The original inhabitants of Estonia – hunters and fishers – were meat-eaters rather than vegetarians. They supposedly had Finno-Ugric linguistic roots, and the social consciousness of Estonians regards them as the ancestors of Estonians, although, by their physical anthropological parameters they differed considerably from present-day Estonians. This can be proved by reconstructing the exterior of the representatives of the sc. Kunda culture from their skeletons. Analogy with the human races living today suggests that they should have been heavily pigmented. Modern Estonians, however, are depigmented people.

(2) Nutrition habits on the territory of Estonia changed considerably when, about 3,000 years ago, a transition to agriculture and to a more and more vegetarian way of nutrition took place. The resulting deficiency in fat-soluble vitamins proved to be a Darwinist factor of selection. Deficiency in vitamin D and rachitis, deficiency in vitamin K and disturbances in blood clotting, deficiency in vitamin E and weakness of uterus contractions – all this caused the death of young pigmented women at childbirth. This kind of situation was favourable to individuals with large area of light skin. Their body mass was small in relation to the body area, allowing the access of ultraviolet radiation, which is scarce in northern countries but forms an essential factor for synthesizing fat-soluble vitamins from the provitamins of vegetable origin. The author supposes that the key to the origination of depigmented race lies in the change of nutrition habits, and this happened first in Western Europe, on the territories of present-day Germany, the Netherlands and Denmark, and modern Estonians are a race of the same genetic origin."

## 5.2. Archaeological Background

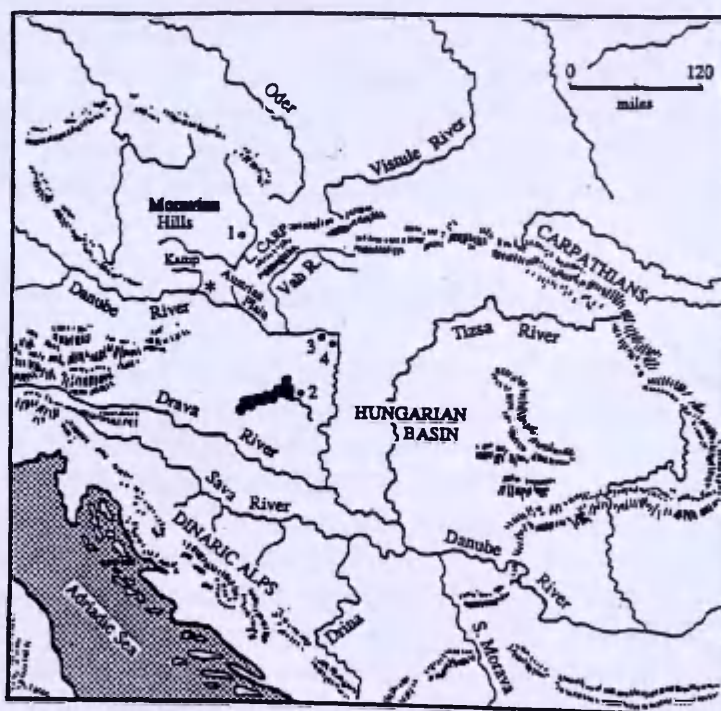
The archaeologist **Dixie West** has published an exceptionally interesting book "Hunting Strategies in Central Europe During the Last Glacial Maximum" (West 1997). In his book he proves that there has been the third human refugium in Europe – in Central Europe. West writes, "Following the Denekamp Interstadial, (29,000 BP) the climate in Europe deteriorated to the dry, cold episode referred to as the GM. Ice sheets advanced south across the Northern European Plain and down the slopes from the Alps. Effects of this glacial period varied across Europe with the greatest impact on Central Europe, Germany, and Austria. This geographic area existed as a narrow, east-west, ice-free corridor between the Scandinavian and Alpine ice sheets ... Extreme conditions associated with the Last Glacial Maximum predicated significant shifts in settlements throughout Europe with the most notable changes occurring in Central Europe. [...]"

Characterized by relatively large settlements, site furniture, distinctive art and ornament, and an abundance of discarded refuse, they have emerged to symbolize the Upper Paleolithic of Central Europe. The economic base of these sites included a rich and varied faunal biomass including: mammoth, red deer, reindeer, horse, ibex, auroch, bison, and furbearers including bear, arctic fox, wolf and hare ... [...]"

Recent research is changing classic views of the environment and prehistory of Central Europe during the Last Glacial Maximum (p. 2–3). "Until recently, it has commonly been accepted that the area was virtually abandoned by both prey species and humans as glacial ice sheets encroached upon the area. An interpretation of the

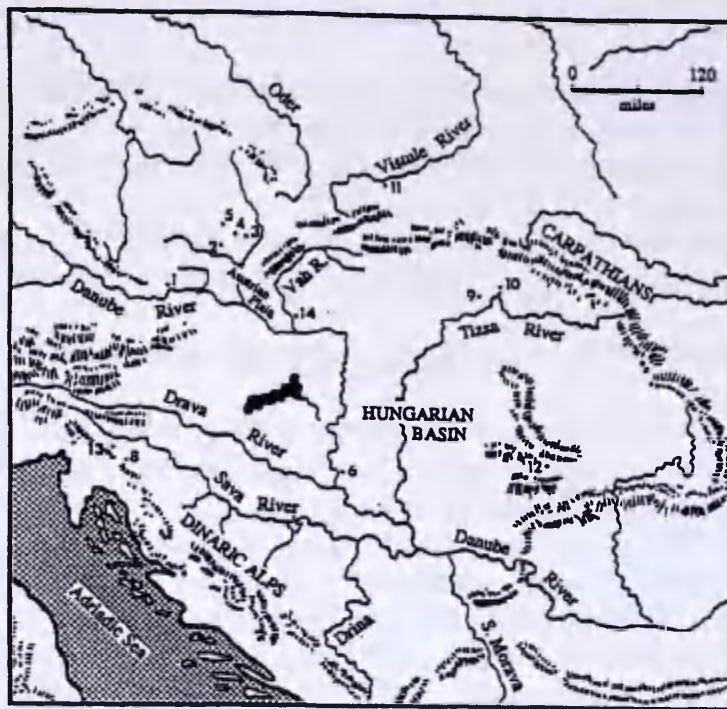
archaeological record for the Upper Paleolithic of Central Europe has been skewed by a dominance of a few extensively studied Gravettian sites in the literature, sampling bias in regional studies, and erosion leading to stratigraphic hiatuses in key areas ... Recent archaeological and environmental studies suggest the "glacial" environment of Central Europe was not a monolithic cold spell, but a complex of varied climatic phases ... The environment of Central Europe was composed of "localized and shifting, relatively humid niches within a generally drier region" ... Discoveries and excavations of Epigravettian aged sites confirm that at least some hunters opted to remain in Central Europe during the harshest phases of this glacial period" (p. 128).

I present two maps from West's book:



Geographic distribution of the Central European sites in the study sample:

\* = Grubragen; 1 = Stranska Skala IV; 2 = Sagvar; 3 = Pilisszanto Rockshelter; 4 = Pilismarot.



Map of Central Europe showing the location of major sites discussed in the text:

1 = Willendorf; 2 = Dolni Vestonic; 3 = Predmost; 4 = Pavlov; 5 = Kulna; 6 = Madaras; 7 = Kadar; 8 = Zupanov Spodmaol; 9 = Arka; 10 = Bodrogkerestur; 11 = Spadzista; 12 = Temnata; 13 = Ovca Jama; 14 = Milovice.

The historian Kyösti Julku has created a new map about the population moving from south to north (Julku 1998 : 196) taking into consideration Dolukhanov's and West's viewpoints and maps:



It is important to indicate that here Julku counts **three** past glacial refugiums instead of traditional two (southwestern and northeastern) ones.

The archaeologist **Dolukhanov** summarized his views at the symposium "Roots of Northern Europeans" 1997 in Turku (see 7.1.):

**"60,000–40,000 years BP:** initial peopling of Europe by the groups of *Homo sapiens sapiens* originated in Eastern/Southern Africa and penetrating Europe via Middle East.

**25,000 years BP** (the Last Glacial maximum): additional influx of population from the Near East.

Groups of anatomically modern humans included a race similar to the present-day Saami type speaking related languages remotely similar to the present-day **proto-Uralic, Basque and Caucasian** languages.

**10,000–7,000 years BP** – initial spread of proto Indo-European speech in Europe resulting from a limited penetration of agricultural groups from the Near East and the inclusion of the local groups into the early agricultural network.

**7,000–6,000 years BP** – intensive contacts of North-European hunter-gatherers with early agricultural communities resulting in the penetration of **IE** speech (**proto-Baltic** languages).

**5,000–4,000 years BP** – intensive penetration of IE communities and cultural networks ('Corded Ware') to the east; IE/FU contacts, **Proto-Germanic/Baltic/Slavic** linguistic unity.

**1st millenium BC** – Iron Age communities in the East European Plain – **Baltic/Slavic** linguistic unity, and its subsequent disintegration.

**500–700 AD** – emergence of the '**Slavic network**' in Eastern and Central Europe and its gradual spread in the boreal north-eastern Europe." (Dolukhanov 1997).

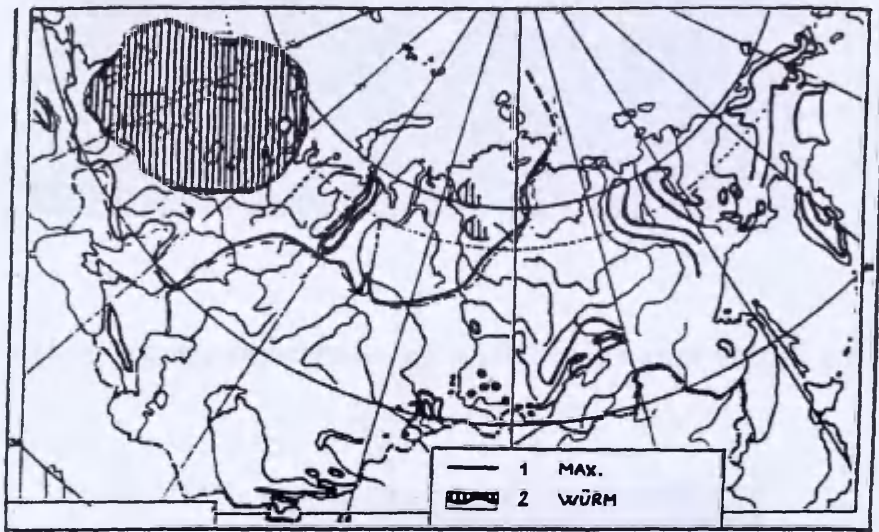
We must also remember that there were only few paleolithic, mesolithic and neolithic archaeological sites in West Siberia from where the population could move to west in these times, such sites located mainly in South Siberia then:



## 6. CONTINENTAL ICE AND VOLCANIC ACTIVITY

### 6.1. Continental Ice

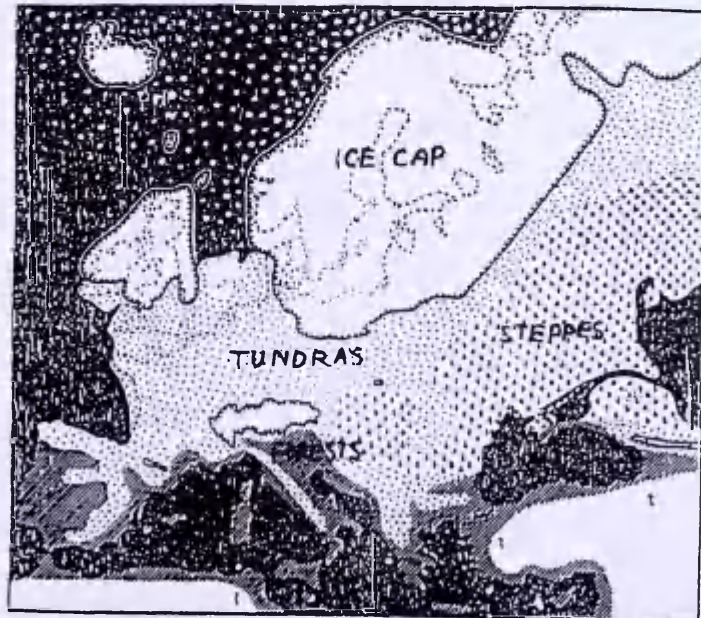
There were several cold periods after the coming of Modern Man – *Homo sapiens sapiens* – to Europe about 40,000 years ago. **Continental ice layer maximum** covered the territories nearly up to the Black Sea at times then:



And the population could have moved away from Central Europe to the so-called refugiums in South-Western and North-Eastern Europe. But at the warmer periods the population probably moved back to Central Europe. The very last cold period had its peak about 20,000–18,000 years ago. The so-called Würm ice cap reached in south only Northern Germany, Poland and Lithuania:



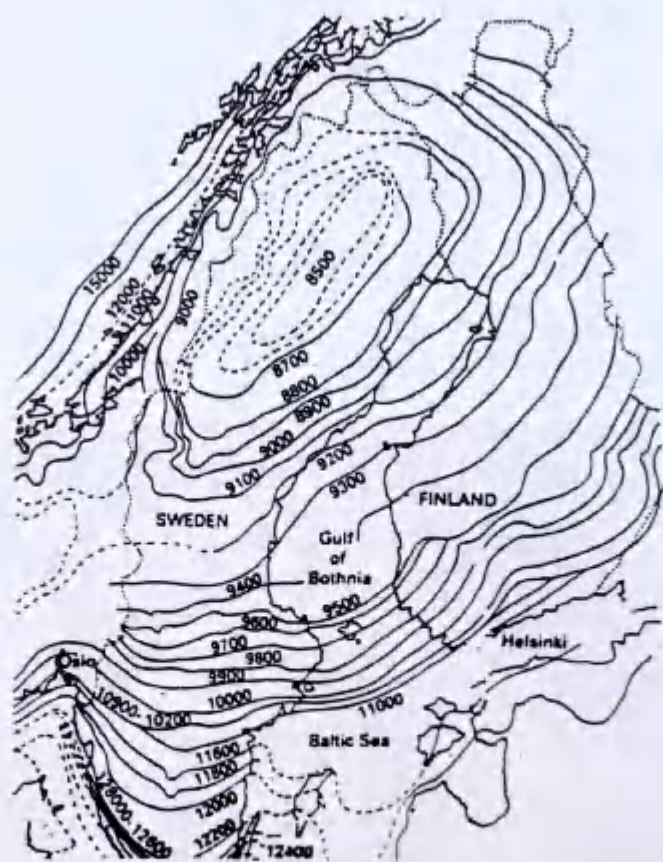
20,000–18,000 years ago in Europe there were tundras, steppes and forests:



And a lot of very big lakes:



After that the ice cap began to melt and to retreat to north about 100 metres every year; at least 8,000–9,000 years ago the ice cap melted finally:

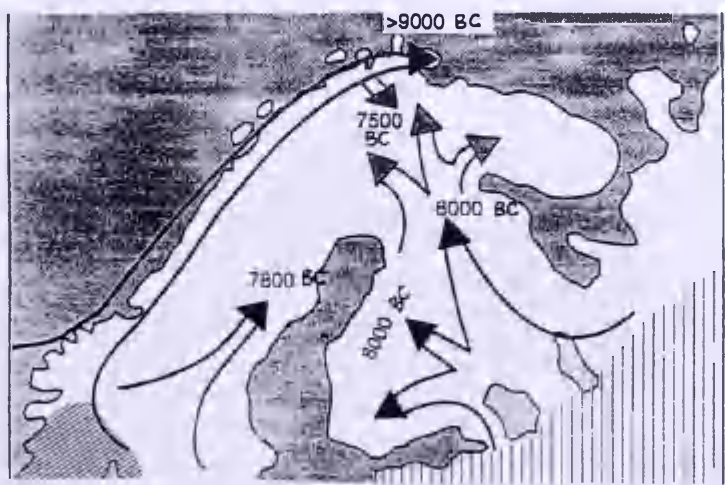


When the ice cap was melting forests were moving north. About 12,000 years ago. for example, in South Sweden the birch had grown. More to south there were birch, walnut-tree and pine forests:



In these forests lived animals. And the Man came to kill animals and to catch fish.

Estonia was free from ice about 13,000 years ago, Scandinavia and Finland about 10,000 years ago. The Man could come (Nuñez 1997 : 55):

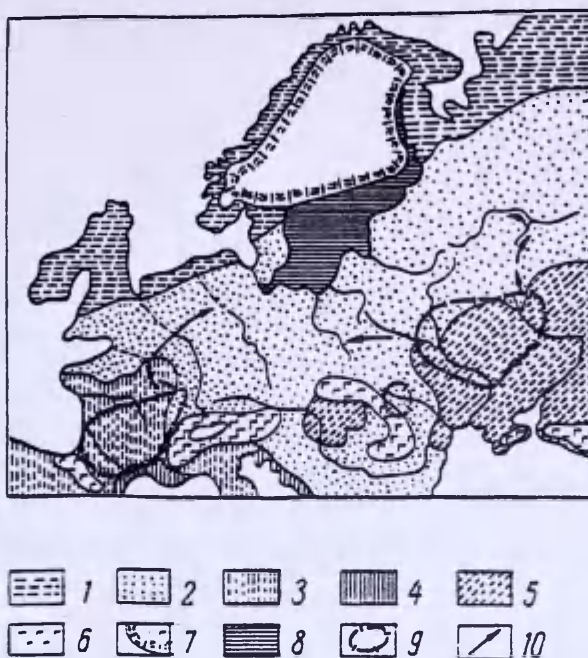


## 6.2. Volcanic Activity

The archaeologist **Hans-Peter Schulz** indicates the possibility that the Upper Paleolithic migration from Northcentral to East Europe may be due to **volcanic activity** in the Eifel mountains in West Germany (Schulz 1996 : 27). I add the possibility of remigration to this hypothesis. The linguist and biologist Urmas Sutrop has investigated this hypothesis (Sutrop 1997). He writes, "The volcanic region in the East Eifel mountains is situated at lake Laach (*Laacher See*) near Koblenz and Köln; it covers 35 km from East to West and 25 km from North to South. In this area, circa 50 volcanoes are located. There are three different volcanic periods in the history of the lake Laach region. The first volcanic period is dated between 570,000 and 300,000 YBP, the second period between 300,000 and 100,000 YBP and the third period between 100,000 (Riß-glacial period) and 11,000 (after the third phase of the Würm-glacial period) YBP ... [...] For the third volcanic period, it is characteristic that pumice stone explosions alternate with explosions of other stones. These explosions and the basaltic eruptions are separated from each other. The third period begins with the basaltic eruptions. In the first phase of the Würm-glacial period 60,000 YBP first pumice stone explosion takes place. After that the pumice stone and basaltic eruptions alternate. For example, after the explosion from 20,000 YBP the basaltic tuff flies till Worms, Frankfurt and Gießen. In the third phase of the Würm-glacial period 12,000 YBP the basin of lake Laach breaks open and becomes filled with water. Thousand years later, after the third phase of the Würm-glacial period 11,000 YBP, there are five explosions. These explosions cover the region with five layers of pumice and ashes. The pumice stone layer of lake Laach is the last, i.e., the youngest one ... The absolute age of this last eruption of lake Laach is somewhat problematic [...] The ordinary radiocarbon data must be calibrated with the help of dendrochronological data, which are available for the last 13,000 YBP. Ago Künnap and Aivar Kriiska calibrated the age of the eruption of lake Laach to circa 13,000 YBP.

... this region was settled by the Lower Paleolithic people. During the last glacial period the Northwest and Northcentral regions were deserted from 20,000 to 17,000 YBP, and in many areas until well after 16,000 YBP in Europe. When deglaciation began to take place after 16,000 YBP the Northwest and Northcentral regions were recolonized. From 20,000 to 16,000 YBP there were two major population refuges in this period. One dense settlement region was in the Southwest and another region in the Northeast. The Southwest settlement region was located in the present Southern part of France, and the Northeast region was located at the Desna, Don and Dniestr river's area. The North regions were recolonized from these two regional centres (Fig. 1). This was caused by the expansion of these two populations. The members of the Southwest population were successful reindeer hunters, and the members of the Northeast population were mammoth hunters [...]

**Fig. 1. The recolonization of Central Europe after deglaciation 16,000 YBP.** The reconstructed vegetation is for the Allerød (after Dolukhanov 1979). 1. Preglacial tundra, 2. coniferous forest, 3. mixed coniferous and deciduous forest, 4. deciduous forest, 5. steppe, 6. alpine vegetation, 7. ice-cap, 8. ice dammed Baltic lake, 9. major population refuges in the maximum period of the last glaciation (18,000 YBP), 10. pattern of recolonization during the late glacial.



Although there are no material links between the Eifel and Baltic regions, there is some evidence that such migration from the Eifel region into the East and Baltic is possible. On the one side, there are typologically similar artworks from Ukraine to France – for Gönnersdorf typical woman, mammoth and horse representations. On the other side, there is a so-called *Forschungslücke* – research gap in the archaeology of the Eifel region. There are no findings after the last pumice eruption in Upper Paleolithic and also in Mesolithic periods: "Nach dem Bimsausbruch, aus der zweiten Hälfte des Allerød und aus der Jüngeren Dryaszeit, sind aus dem Neuwieder Becken bisher keine Funde bekannt. Es wird sich hier um eine Forschungslücke handeln, denn der Bimsauswurf war nur von kurzer Dauer und der Bims begrünt schnell ... Diese Forschungslücke gilt auch für das Mesolithikum" ... A possible interpretation of this *Forschungslücke* is that the inhabitants of this region really moved into other regions. In this case all directions of migrations are possible – West, South, East, and North. It may well be that these people left their "homeland" and colonized the North and Northeast after the earth became free from ice that drew back into the North at the end of the last glacial period. [...]

It is possible to reconstruct the colonization of the Baltic region. At the end of the last glacial period, 16,000 YBP, the population of successful reindeer hunters migrated from the Southwest refuge into Northcentral Europe. We may call them Proto-Lappoid

people. After the least volcanic activity period in Eifel mountains – after the Laach eruptions – the Proto-Lapps migrated into the direction of the Baltic (13,000 YBP). First they moved through Poland into Lithuania and Byelorussia, and after the ice shield had moved further into North, they colonized Latvia and Estonia (Fig. 4). [...]

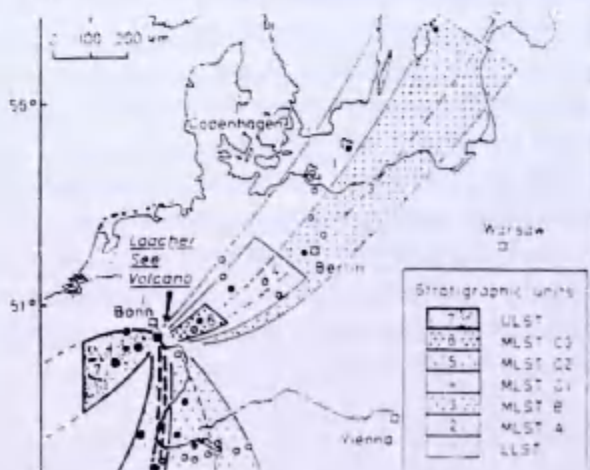
**Fig. 4. The migration into the Baltic.** 1. The migration from Southwest into Northcentral Europe at the end of the last glacial period 16,000 YBP, 2. the migration from the Northeast refuge into Central and East Europe 16,000 YBP, 3. the migration from the Eifel mountains into the Baltic 13,000 YBP, 4. "Magdalénien baltique".



After the pumice and ashes' eruptions in region Laach in Eifel mountains, it was possible that the neighbouring ecosystems were destroyed for a long time. Although the surface of the pumice stone was soon covered with some green plants, possibly there was still not enough food for reindeer. The herds of reindeer could have moved East where in the direction of the Baltic new territories were deglaciated and covered with plantation suitable for the survival of these herds. This interpretation works both with the short and long distance movement models. [...]

It has come out that the Upper Paleolithic migration from the Eifel mountains into Baltic after the Laach eruption is possible. But the Volcanic Migration Hypothesis of Schulz and Künnap still needs further careful anthropological (with modern molecular methods), archaeological, and linguistic investigation."

I add the map of transport directions of Tephra of volcano Laach (demonstrating also the paleowind directions) (Bogaard, Schminke 1985 : 1596):



## 7. THREE LAST IMPORTANT URALISTIC EVENTS

### 7.1. "Roots of Northern Europeans"

There was an international symposium "Roots of Northern Europeans" in Turku 29 May to 1 June 1997, dedicated to the ethnogenesis of Northern European peoples (so-called "Roots I"). A participant Valter Lang, archaeologist, retells about the symposium (Lang 1997): "The Turku symposium was closed, i.e. only 23 guests who were invited from seven countries participated. There were 21 presentations and they were roughly divided into three groups: archaeology (incl. paleobotany), anthropology together with genetics, and linguistics; a few presentations treated of various disciplines. [...]"

In his opening presentation Professor Emeritus Kyösti Julku of Oulu University briefly introduced the history of treating ethnic relationships in Finland. Getting through to the present period, he called these researchers traditionalists who shared the opinion that the Baltic-Finnic ancestors arrived in Finland and Baltics only together with the appearance of the typical Comb-Marked Pottery Culture and those who believed that Finno-Ugric (or Proto-Uralic)-speaking people were the first to arrive from the south in the wake of the receding ice sheet in these areas were called young rebels (following Künnap's example). Julku considered as the main task of the symposium getting a clear idea about which of the two theories is nearer to the truth. No particular polemics arose since the traditionalists were in clear minority. [...]

The main foundation pillar for the new theory of ethnogenesis which either directly or indirectly gives rise to all other conclusions, is an assertion that already these people who first arrived in northern Europe after the thawing of the ice sheet spoke Finno-Ugric (Proto-Uralic) languages. At the symposium this standpoint of Wiik's was supported by Pavel Dolukhanov (Newcastle), Milton Nuñez (Oulu) and Norbert Strade (Århus) in the presentations, many others took the floor to speak for it. By itself, the hypothesis is not new, at any rate, not in Estonian archaeology. Already in 1948 Richard Indreko claimed that neither archaeological nor linguistic materials make it possible to indicate a more expansive migration from the eastward forest belt to the shores of the Baltic Sea as was supposed by E. N. Setälä's theory about the language tree (Indreko 1948 : 406–409). Based on his opinion, the first post-Ice Age inhabitants in the area between the Baltic Sea and the Urals were Finno-Ugrians of the Europoid anthropological type, having moved there in the wake of the receding ice sheet from southern and western Europe. In connection with the transition to farming subsistence Finno-Ugric cultural groups developed; yet those were separated from one another by sparsely inhabited zones. Each group of that kind had separate and differing-in-directions cultural contacts with their (Indo-European) neighbours which in the long run brought about the development of differences both in the material culture as well as in the language. (It sounds a very

modern contact theory, doesn't it?) Indreko's standpoint did not find any expression in the research of ethnogenesis in Estonia, though.

Hence, the "new" theory of ethnogenesis seems to contain more by-gone old than really quite new aspects. Nevertheless, Wiik passes Indreko considerably, supposing that Finno-Ugric languages were once spoken also in Scandinavia and Germany. Unlike Indreko, the conclusion now is first of all based on linguistics, on the substratum found in northward Indo-European languages and which can possibly be explained by the Finno-Ugric influence. This is a hypothesis, still expecting to be proved in detail. At any rate, Jean-Luc Moreau (Paris) indicated that some of the substratal evidence offered by Wiik (e.g. the transfer of the word stress to the first syllable) can principally be explained, also, by some other ancient European language. This being a linguistic hypothesis, it needs to be proved by linguistic methods only – no use looking for help from archaeology or genetics – since objects and bones don't talk. As a bystander, I find the linguistic argumentation by Wiik and Künnap refreshingly promising (see Künnap 1997[c – A. K.]).

The postulate, next in significance to the new theory claims that with the transition to farming subsistence part of Finno-Ugrian peoples had exchanged their language up till then for a new and more prestigious one, i.e. for an Indo-European language. Since the new language was acquired incorrectly (with the s.-c. Finno-Ugric accent), it was obvious that its development contained peculiarities to a definite extent, at the same time preserving the old substratum. It is both a linguistically and archaeologically combined hypothesis which may involve a certain amount of "mythicness", namely, it is not possible to prove that the transition to farming necessarily brought about the change of the language. At the same time this conclusion is quite logical if this is true that 1) the primary inhabitants of the areas spoke Finno-Ugric languages and 2) within the transition to farming subsistence the local population survived and there were no major immigrations (recently quite generally accepted opinion, supported by Dolukhanov, Alexander Häusler from Halle and Hansjörg Küster from München at the symposium). On the other hand, it is not known which language was spoken in these areas immediately after the adoption of farming, i.e. if the transition to a new language could not take place considerably later. The association of the language exchange with farming seems to be (at least, to me) more reliable than with some other possible process (excl. massive immigration) whose ideological, social and economic reformativeness could not reach the level of a Neolithic revolution. [...]

... if the elements of one culture began to dominate over the other then it expressed the survival of the respective ethnos and consequently, the melting of the other ethnos into the former. Such an approach could be noticed in Turku, too, particularly in the presentation by the Hungarian Dr. István Fodor. The main reasons for changes in material culture (besides the replacement of the population which is an extreme case) could be considered changes in ideology (religion), "fashion", social strategy and economic life – the exchange of the language could hardly be of cardinal importance. Certainly, if the replacement of the language was accompanied by a new religion, social need or type of economy, the problem disappears and the replacement of both the language and culture may more or less coincide in time. [...] In case Finno-Ugric languages were spoken on the shores of the Baltic Sea in the Mesolithic Period already,

there is no need to explain the appearance of the vernacular here by some later extensive immigration from the east as it was done to date by means of the typical Comb-Marked Pottery Culture. It certainly does not exclude population movements, e.g. Professor Emeritus Unto Salo from Turku University is of an opinion that the tribes of the typical Comb-Marked Pottery, being Finno-Ugric, appeared to the areas which were formerly inhabited by Finno-Ugrians already. It looked like stirring porridge in the Finno-Ugrian pot. [...] ... But these opinions have not found any support by the authorities of the field. In the Turku presentations only two were directly dealing with the Boat-Axe Culture but several short talks touched upon the same subject. One of the two presentations was read by Professor Alexander Häusler who had indicated already earlier in several of his papers (e.g. Häusler 1995, 1996) that in archaeological and anthropological materials it was not possible to follow any major migrations in the middle and northern Europe in connection with the formation of the Battle-Axe/Corded Ware cultures. These processes originated everywhere from the local basis, thus, among others, also in the Baltics and Finland where cultures, not populations changed. In Häusler's opinion Indo-European languages developed not in a tight ancient home from where they could have spread later (see e.g. Renfrew 1987), but on vast areas from the North Sea to the Don and the Caspian Sea beginning from the Late Paleolithic Period already. One could continue from here so that Finno-Ugrians in the north and Indo-Europeans to the south from the former could inhabit Eurasia already from "time immemorial" whereas in their contact zone (which could have been quite extensive) there could have been found mixed settlements, active interaction, the borrowing of words and cultural elements etc. In the course of time part of Finno-Ugric tribes could also change their language (cf. the expansion of Indo-Europeans further north and the Russification of the eastward Finno-Ugrians only in the current millenium, see Ligi 1993), but no significant migrations obviously occurred at these distant times.

The other presentation on subject of the Boat-Axe Culture was read by the author of the present paper, drawing attention to some aspects which contradict the connection between this culture and massive migration to the Baltics and Finland. Despite a long history of research up to now no-one has been able to show (without being severely criticized) 1) an area of departure of the possible migration, 2) reasons for overpopulation in that unknown area of departure, 3) in what way the alleged migration spread over vast areas in such a short time. It is curious that the possible tribes of the Boat-Axe Culture (who according to common understanding were cattle-rearers and primitive land-tillers differently from hunters and gatherers of the Comb-Marked Pottery Culture) have not left any noticeable traces in the development of local economies. In Lithuania, Latvia and Estonia the embryos of farming subsistence were known several hundred years before boat-shaped axes and no leap of development did take place when the latter arrived here. In Finland, on the contrary, the foraging economy was prevailing both before and after the formation of the Boat-Axe Culture; farming began to spread there only in the II millenium B.C. It is not probable that the tribes, subsisting on farming to a certain extent already, could have migrated to far-away areas with a severe climate only for changing their type of economy there – they would rather have wandered to maintain their way of subsistence. At the same time, the anthropological type found in the graves of the Baltic Boat-Axe Culture (which can directly be associated with the local anthropological type,

known from the Late Mesolithic and Early Neolithic periods already ... differs from what is known further towards the south, in Central Europe, which simply forces to look for the roots of the bearers of this culture in the Baltics and nowhere outside."

The second symposium "Roots of Northern Indo-Europeans" will be organized in Hungary in Szombathely 1–4 October, 1998. In this will participate Kalevi Wiik, Richard Villems, Markku Niskanen, Lars-Gunnar Larsson, Tiit-Rein Viitso, Vyacheslav Moiseyev, Norbert Strade, Ago Künnap, János Pusztay, Milton Nuñez, István Fodor, Valeri Khartanovich, Olga Konkova et al.

## 7.2. "Roots of Finnish Population"

On 8–11 October 1997 an interdisciplinary symposium "The Roots of Finnish Population" (the so-called Tvärminne-2, since the first symposium of this kind took also place in Tvärminne in 1980) with about a hundred participants was held at the Lammi Biological Station of the University of Helsinki. Linguists, folklorists, archaeologists, general historians, geneticists, gynaecologists and geologists all over Finland had been convened.

Presentations and comments were listened to during three intense days of work from morning till evening, a short time was given to those taking the floor and at the very end of the symposium half an hour was left for summarising discussions. At these discussions we could hear, expressed by a linguist **Johanna Laakso**, on behalf of the "brain power", that generally the roots of the Finnish population were accepted quite unanimously (traditionally, substantially speaking), if excluding the so-called Wiik's theory (the main points of which I also firmly support). **Kalevi Wiik** himself commented on this statement that at a similar *i n t e r n a t i o n a l* interdisciplinary symposium "The Roots of Northern Europeans" which was held in Turku that the end of May that year quite a diametrical unanimity dominated. And so it really was. At the end of the final discussion I recommended to those particular about linguistic material for verification of Wiik's theory to start with reading my paper in "Virittäjä" No 1 1997 (Künnap 1997c) where I have gathered 22 phonetical and 26 morphological and syntactical possibly Uralic traces which occur in more than one Germanic, Baltic and Slavic languages. Some people who have read it already admit that those figures are impressive. But a systematic research to find more such traces is still ahead.

Actually, such a unanimity did not and even could not take place at this symposium since for that the paradigms of various sciences are too different and often even not understandable for outsiders. The scientific harvest, however, yielded a good crop. The first issue to be mentioned is a fast and intense familiarisation with the achievements of other disciplines. The second point is that the ice is breaking: quite fossil viewpoints could not be defended by linguists, even. The third aspect revealed a sincere wish to consider the achievements of other disciplines in one's own field. We could refer to the journalist **Rauno Velling** who said in a private conversation, "Now we know better what we really could not guess about our descent."

The presentations at the symposium were divided into four groups: on the first half-day "The Uralic Ancient Home and Pre-Finnish Ancient Time", on the second half-

day "The Past of the Lapps", on the second day "Pre-Finns and Indo-Europeans" and on the third day "Finns as the Settlers of Finland". As may easily be understood, there is no space for commenting on everything spoken about, therefore my choices are unintentionally subjective. The symposium was started by reading out the paper "Eurasian Ancient Homes" by **Juha Janhunen**, a well-known Samoyedologist and researcher of eastern Asia. I would mention that, in general, Janhunen sees, rather untraditionally, an ancient home as a place from where a language has expanded, when doing so, it has ousted the usage of other language(s) from its neighbourhood and gained ground for itself.

The Samoyedologist **Tapani Salminen** gave a talk on the theme "European Languages in Ancient Times and at Present: Abstracts", emphasising that a proto-language, the language affinity, the family and the genealogical language tree are continuously suitable notions for the description of genealogical relationships of languages, however, according to Salminen, the onetime proto-languages were natural, variable languages which cannot be confused with the reconstruction levels based on the present-day languages (which, in my view, often happens among Uralists), that only inadequately reflect the vocabulary and structure of a proto-language. (I, personally, suppose that we may be reconstructing the inadequate intermediate language of the *lingua franca* type which helped to create a significant similarity of Uralic languages and with a great probability, is the object of our reconstructions.) He also criticised the traditional binary structure of the Uralic language tree where both the proto-language and intermediate proto-languages are always divided into two.

Salminen categorically denied the possibility of mixed languages and considered it obligatory that a language could belong to one language family at a time. In my subsequent talk I drew the listeners' attention to the opposite, to a certain extent. Namely a language is a very old phenomenon, at least as old as the Modern Man *Homo sapiens sapiens*, so at least 150,000 years. Likewise, the differences among languages are older than those of races, neither can languages originally be associated with races. The speakers of the same type of languages could spread from Africa to Europe and Asia, for instance, one of the consequences may be a remarkable similarity between Uralic and Altaic language families, thus between the inhabitants of Europe and Asia – Europoids and Mongoloids. The linguist **Ulla-Maija Kulonen** supported my idea about the age of the language(s), since the predecessor of the Modern Man *Homo erectus* had had a language (I know that Janhunen, too, has considered it in his writings). So much the better.

**Wiik** introduced his theory, he gave examples about Uralic phonetical features which remained in northern Indo-European – Germanic, Baltic and Slavic – languages when Uralians acquired these languages, mispronouncing them. The archaeologist **Christian Carpelan** was not satisfied with the way Wiik interpreted the data of archaeology, **Laakso** criticised the whole linguistic argumentation offered by Wiik, considering the introducing of the *lingua franca* impossible altogether. Wiik said in his response that the *lingua franca* was only one of several variable explanatory details of his theory and was undeservedly amplified in discussions. (From my part, I fail to see that considering the role of the *lingua franca* is principally impossible.)

The archaeologist Nuñez's "Food Production as Innovation in Stone Age Finland" has the following summary: "The earliest known evidence of food production in the Old World comes from the Near East, where wild cereals were being cultivated by the 9th millennium cal BC. Whether due to influences from Near Eastern farming or to local invention, emmer, wheat, barley, cattle, sheep and pigs were grown in Greece by the 7th millennium cal BC. From here, possibly aided by the onset of Hypsithermal climates, food-production spread into much of Europe, reaching southern Scandinavia by the 5th millennium cal BC.

Although the mechanism of expansion itself is the subject of heated controversy (migration/demic vs. diffusion/cultural), most scholars see this phenomenon in terms of a shifting frontier zone marking the boundary between the territories occupied by farmers from those of foragers: the forager/farmer frontier (FFF). This useful concept can be seen as an equilibrium between the environment and food-producing technology (the ever-improving of implements and domesticates). In point of fact the northwards spread of food-production is still active today.

Even if the FFF zone may have remained fairly static for extended periods of time, a series of dynamic cultural processes were continuously taking place in its vicinity. In addition to farmer-forager contacts and their related exchange of genetic and cultural information, the FFF zone is also associatable with a continuous process of acculturation that working in both directions: Foragers continuously becoming farmers and farmers continuously becoming foragers. Thus food-producing experiments may take place beyond the FFF zone; but unless there is a lasting climatic shift or improvements in food production technology such events lack viability and, consequently, are bound to fail even after a phase of moderate success. These processes may well apply to the Finnish stone age.

Indications of food production in stone age Finland are few and often ambiguous. In addition to several cereal pollen levels datable to 2300–1500 cal BC, some dated even earlier, there are a few archaeological finds that may be interpreted as evidence for cultivation or husbandry within 3000–2000 cal BC: remains of domestic animal, cereal grains, and marks. Unfortunately, not all these finds are univocal.

But regardless of whether or not we accept these somewhat ambiguous indications as evidence of food production, there are no suggestions of these hypothetical innovative practices having had much effect on Finnish Stone Age lifeways. Food production, if and when practiced, was likely to be in a minor scale and secondary to foraging subsistence strategies (hunting, fishing, gathering).

In terms of Marek Zvelebil's 3-phase neolithization model – the sequence of availability, substitution and consolidation phases – Stone age Finland falls within the availability phase, which is characterized by less than 5% of domesticates of all remains. The other two phases, substitution and consolidation, would not have been completed until later. In some areas this took place during the Metal Ages, in others well into the historical period, while in others the event is still to come. Let us bear in mind that the FFF zone still lies across Finland today." (Nuñez 1997).

### 7.3. "Itämerensuomi – eurooppalainen maa"

This collection of papers in Finnish ("Baltic-Fennia – an European Land") (Julku 1997b) is written by János Puszta, Ago Künnap, Kalevi Wiik, Milton Nuñez, Markku Niskanen, Kyösti Julku et al. The book will be published in 1998 in English, too.

The linguist Puszta's article "A chain model for the origins of the Uralic peoples" repeats mainly his former standpoints, but there are some new views, too. Puszta writes (p. 17–19),

"The proto-language reconstructible by the methods of comparative historical linguistics represents a relatively late stage in general linguistic development. These proto-languages naturally have a prehistory of their own, mostly greatly exceeding in length the period that has elapsed from the time of their existence up to the present day. Thus many of the grammatical and lexical elements characteristic of languages that have developed out of the same ancestor will in fact be older in origin than the proto-language itself. The reconstructed place of origin is an outcome of deductions by which progressively closer links can be postulated between languages that are nowadays either similar or different in type, i.e. it represents the location of the *lingua franca*. [...] New findings can be achieved by the use of language typologies and the methods of linguistics and paleolinguistics, setting out from the most archaic linguistic level, that of *morphology*. Attention must be focused on all the languages spoken in the area where the Uralic family developed, i.e. the Northern Eurasian linguistic zone.

Two groups of grammatical similarities that can be attributed to the proto-Uralic language can be recognized, of which the first consists of morphological features that occur in almost all of the Uralic languages, second of features that are commonly regarded as proto-Uralic, or at least proto-Finno-Ugric, in origin but do not cross the borders of a certain, clearly definable group (e.g. dual number and the distinction between transitive and intransitive inflexional forms, forms with or without an object).

There are not many elements in the Uralic languages that carry sufficient weight to allow a genetic relation to be proposed between languages that contain them, as the same features tend to occur in other languages of the Northern Eurasian zone (e.g. the suffixes denoting local cases or the markers of number).

Also, contrary to common practice, one should be careful to avoid building up a single, common ancestral language out of ancient elements appearing in only a few of the Uralic languages of today, as such elements are frequently also to be found in the Palaeo-Siberian languages spoken in the same area as the Uralic ones. This approach could lead to quite exceptional conclusions in matters related to the proto-language.

When one examines (above all) the morphology and syntax of the Uralic languages and analyses the linguistic pattern in the area that represents their geographical distribution, it becomes increasingly obvious that one cannot speak of a proto-language in the conventional sense at all.

The Uralic languages are spoken in the western and central parts of the Northern Eurasian linguistic zone and form together with the Palaeo-Siberian languages (and those belonging to the Altaic group) an extensive, typologically highly uniform area in which the majority of the linguistic categories are formed in both structurally and materially highly similar ways. Various linguistic groups can be distinguished in this area, and

smaller groups within them. The Palaeo-Siberian languages possess large numbers of lexical and structural features typical of certain linguistic categories that are also assignable to the reconstructed proto-Uralic language and which from a broader viewpoint should be regarded as Uralic in origin (the formal distinction between transitive and intransitive paradigms, dual number, declension of nouns by person etc.), but these occur only in a certain group of Uralic languages, i.e. the Ugric and Samoyed languages, and most of all in Mordvin. It follows from this that there were probably many languages among those located across the Northern Eurasian zone the links in a chain that could be interpreted in retrospect as having served as the proto-language, but only two or perhaps three of these (one in the Baltic region, one in Western Siberia and possibly one lying between these) can be related to the present-day Uralic languages. In addition, the form identified in Western Siberia serves as a transitional one between the western and eastern groups. (It also has to be remembered, of course, that there may have been languages that have in themselves died out or have been assimilated into other local languages but which may have left their mark on these.)

The western Uralic group is composed of the Finno-Baltic languages, the central group of the Permian languages and Mari, and the eastern group of the Ugric and Samoyed languages together with Mordvin. There is a typological boundary running between the central and eastern groups and a genetic boundary to the east of the eastern group. The following are among the features characteristic of the eastern group:

- morphologically distinguished transitive and intransitive forms
- dual number (in the Ob-Ugric and Samoyed languages)
- reflection of a plural object in the verb structure (Mordvin and the Ob-Ugric and Samoyed languages)
- expression of the object of the clause by a locative (Hungarian, Mordvin and the Samoyed languages)
- predicative declension of substantives (Mordvin and the Samoyed languages)
- addition of a redundant element in the expression of tempus (the Ob-Ugric and Samoyed languages) [...]

In the course of time the ancestors of the Mordvins and Hungarians broke away from this community and set out westwards, but archaeological evidence suggests that no corresponding migration took place in the case of the Baltic Finns."

The archaeologist Nuñez in his article "Finland's settling model revisited" writes (p. 60):

"The 1980 model for the settling of Finland at the end of the last Ice Age is reassessed in the light of new and old evidence. It is observed that the old general model is not significantly affected by the new data and these clear up previously ambiguous points and lie down a basis for an updated version. It is maintained that Fennoscandia was populated by the mesolithic descendants of Final Paleolithic groups that lived in the periphery of the Scandinavian ice and spread over a period of 4000–6000 years into the territories that were being gradually exposed by the slowly retreating ice border. The main points of the updated model are the following:

1. During the glacial maximum the human groups living in the marginal zone of the West European Plain and the Russian Plain were isolated from each other.

2. As climates improved and glaciers eased their grip on Europe, the east-west barrier gradually disappeared, making it possible for genes and culture to flow east-west from Russia to England by 13 500 ca. BC (c. 13 000 bp).
3. Around the same time the east-west barrier was fading, possibly in Bölling-Allerød times 13 500–11 000 cal BC; c. 13 000–11 000 bp), some group(s) separated from the other ones in the West European Plain by moving via either the dry North Sea bottom or along the West Scandinavian coast, and managed to get a foothold in the West Norwegian coast. From here they continued north along the icefree coastal corridor, reaching northernmost Norway by 9000 cal BC (c. 10 000 bp).
4. The groups occupying the marginal zone of the Russian Plain, expanded metachronously into the territories freed by the slowly retreating ice. Members of this eastern complex had spread into the southern half of Finland by 8000 cal BC (9000 bp), and this forceful colonization front continued to advance, reaching northernmost Finland by 7500 cal BC (c. 8500 bp).
5. The group(s) that had first separated from the western complex and reached the North Norwegian coast around 9000 cal BC (c. 9800 bp) remained in isolation until Finland became and contacts with group(s) spreading northward were possible. It is not clear if the maritime-oriented early dwellers of the Norwegian coast spread much inland, but they would have anyway ended up interacting with the newcomers from the south.

The simplest and therefore most likely scenario is that at least some of the mesolithic groups that moved into Finland at the end of the Ice Age about 10 000 years ago were the ancestors of the Finns and Saami and spoke languages/dialects ancestral to those spoken by them in historical times."

The anthropologist Niskanen's article "The origin of Baltic-Finns from the physical anthropological viewpoint" deals with the origin of the Baltic-Finns in the light of craniometric measurements and gene frequencies. According to the traditional linguists' tree model, the Baltic-Finns have a recent eastern origin and eastern racial traits. According to the more recent view known as the continuity theory, ancestors of the Baltic-Finns descend mainly from ancestors who came from the south, and have lived near the Baltic Sea for even more than 10,000 years.

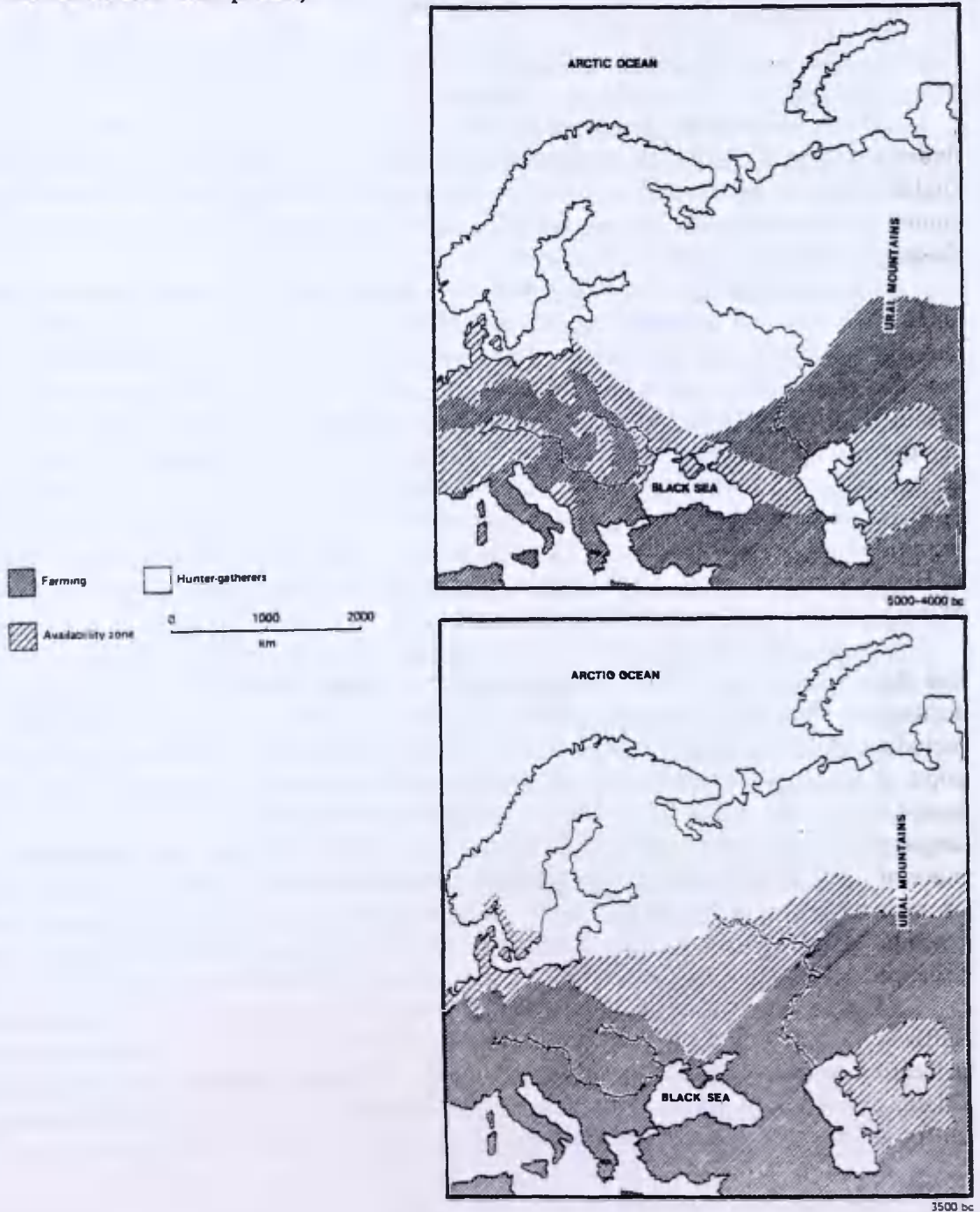
Niskanen writes (p. 118), "Physical anthropological evidence supports the continuity theory more than the traditional view. Based on their facial features and genetic markers, the Baltic-Finns (represented by the Finns) are no more eastern than other Eurasian people who live along the same longitude. Craniometric distances between the Finns and the Buriats of the Baikal region are as large as those of other Europeans and the Buriats. The Finns are craniometrically closest to the Swedes and the Russians, and are the least differentiated European population from the Cro-Magnons of the Paleolithic period. The Saami are craniometrically Europeans. They form their own separate cluster that is, however, the least distant from the Finns.

Genetic distances show that the Baltic-Finns (the Finns and the Estonians) are closer to the Swedes than to their Volga-Finnic- (the Mari) and the Permian (the Komi) linguistic relatives. This discovery supports the idea that the Baltic-Finns have lived near the Baltic Sea for a very long time. Genetic distances between the Uralic-speaking people are very large, which supports the idea of very ancient geographic dispersal of these people. Based on genetic distances between the Swedes, Finns and Estonians, it is

probable that the ancestors of the Finns have lived north of the Gulf of Finland longer than the traditional migration theory would allow. [...]

Based on physical anthropological evidence and the population history of Europe, the European origin of the Baltic-Finns (and other Finno-Ugric people of Europe) is undeniable. These people are descendants of the hunter-gatherer populations who inhabited the periglacial zone located between the Carpathian Mountains and the Volga-River during the last glacial maximum."

I refer to only two maps by Marek Zvelebil (1986) based on the article by the historian Julku (p. 264–265) (because in his newest article (Julku 1998) Julku puts forward rather new viewpoints):



## 8. SOME MORPHOSYNTACTIC PROBLEMS OF URALIC LANGUAGES

In the following I will present some of my research results in this field.

### 8.1. \**m*-Accusative

**Tauli** wrote many years ago already, "Vom *m*-akkusativ sind keinen Spuren zu finden weder im Ungarischen, noch im Ostjakischen, noch in dem nördlichen und Pelimi-Dialekt des Wogulischen. Es gibt kaum Grund zur Annahme, daß der *m*-Akkusativ einmal in allen uralischen Sprachen oder in dem vermuteten Ururalischen als wirklicher Kasus existiert hat." (Tauli 1952 : 28).

Tauli emphasized, "In investigating the development of the case systems of the U languages we cannot proceed from the basis of the case system of some hypothetic proto-language consisting of five, six or seven cases. We have to proceed from positively documented cases in existing languages" [my spacing – A. K.]. (Tauli 1966 : 12–13). But the tradition is powerful and Tauli did not persevere with the requirement he himself had set when he wrote "In F[innic] the a[ccusative]sg morpheme *-m* changed into *-n* and converged with the g[enitive]sg." (17). For where has the *m*-accusative been documented in Finnic languages? In case of Finnic the evidence of the *m*-accusative in Lapp is as worthless as its evidence in Mansi in case of Hungarian. And, as we could observe in case of Hungarian, Tauli did not consider the Mansi *m*-accusative a document as such.

In the following I would like to put Tauli's principle to use **completely**, claiming that there is no reason for supposing as if Finnic languages had to once have the *m*-accusative. Naturally, I also deny the existence of whatever unified proto-languages, including an intermediary Finnic-Lapp proto-language (Finnish *varhaiskantasuomi*). My point of view is unconventional but I deliberately go against the parlour game with agreed-upon rules which is used to be called the investigation of the history of Uralic languages. I rather believe Pusztaý's statement that there existed a loose Sprachbund of more or less different languages whose members became more or less similar by means of an intermediary language of the *lingua franca* type, as a result of it emerged, well resembling one another, Uralic languages (Pusztaý 1995 : 11–37, 103–122; 1996; principally the same also Wiik 1996a; 1996b; 1997a; 1997b; 1998).

But let us return to the accusative of Uralic languages. The Hungarian accusative suffix *-t* is offered three different explanations. According to the first it is associated with a locative suffix, according to the second – with a determining suffix of a pronominal origin, according to the third – with Px2Sg. Thereby a respective Khanty accusative suffix is indicated, e.g. *man-t* 'me', *nan-ət* 'you', *tew-ət* 'him/her'. The *t*-locative itself is

usually reconstructed into Proto-Finno-Ugric, the *m*-accusative into Proto-Uralic. (See e.g. Vértés 1960 : 181–185; Osnovy 1974 : 241–246, 250–253; Hajdu 1985 : 294–296; Salminen 1996 : 26–27.) Pustay supports the idea about the origination of the Hungarian *t*-accusative from the *t*-locative because he also associates the *m*-accusative with local suffixes (just as the *n*-genitive); cf. e.g. the Nenets *tā-ññē-jō-m* 'nach jener Richtung'. Doing so, he rests upon the parallels in Paleo-Siberian languages. (Pustay 1983; 1995 : 20–23, 29, 103–107.) Edit Vértés has regarded it possible that the *t*-accusative of Finnic pronouns, e.g. Finnish *minu-t* 'me', *kene-t* 'whom' has been formed by means of the old deictic pronominal matter (Vértés 1960 : 193). According to a common explanation the *t*-accusative in Finnic pronouns has developed from a plural suffix (see, e.g. Laanest 1975 : 123–125).

By no means can I exclude Pustay's suppositions about the local origin of the Uralic *n*-genitive, *m*-accusative or of the Hungarian *t*-accusative. But at least in case of the *m*-accusative cannot I say if there is **sufficient evidence** for such a supposition. Independent of this I emphasize that in Finnic languages there is no evidence of the *m*-accusative; on the other hand, there is an evidence of the *n*-genitive-accusative, also of the *tA*-partitive and the *t*-accusative of pronouns in them. Continuing Pustay's train of thought the Finnic *n*-accusative could also be of a local origin. The supposition of a local (separative, ablative) origin is quite common in case of the *tA*-partitive (see e.g. Osnovy 1974 : 253–255; Laanest 1975 : 100–101; Hajdu 1985 : 297–298).

**Karl Kont** has noticed something especially interesting. He has indicated that both in Baltic and Slavic languages the partiality can be expressed by **the genitive**, e.g. Latvian *bij man dziesmu* 'I had songs', *vesels ducis zīmuļu* 'a whole dozen of pencils'. Kont evidently supposes a Latvian and Slavic influence on Finnic languages in the course of the development of the partitive. (Kont 1967 : 5; see also Osnovy 1974 : 254–255.) Nowadays researchers are inclined to suppose that the semantically motivated alternation in the case forms of the Baltic and East-Slavic subject and object is associated with Finno-Ugric languages or is even a result of the latter's influence: in the subject the nominative and in the object the accusative alternate with the partitive/genitive (Thomason, Kaufman 1988 : 245; Tkačenko 1989 : 81–82; Dahl, Koptjevskaja-Tamm 1992 : 29–36; Raukko, Östman 1994 : 23; Klaas 1996 : 38–44). I, too, have pointed out the phenomenon among a score of other Finno-Ugric–German–Baltic–Slavic morphosyntactic affinities, considering them all as a possible Finno-Ugric substratum in Indo-European languages (Künnap 1997c, especially 81; 1997d; see also Wiik 1996b; 1997a).

Thereby it is possible to observe in Russian the use of a secondary so-called 2. genitive which is regarded as a certain Uralic influence by **Sarah Grey Thomason** and **Terrence Kaufman** (Thomason, Kaufman 1988 : 245). In connection with the 2. genitive **Östen Dahl** and **Maria Koptjevskaja-Tamm** write the following, "In Russian, the genitive [ ... ] is also used somewhat marginally with quantitatively underlimited objects, but only if the verb is in the perfective aspect. In these contexts, a special 'partitive' form [= the 2. genitive – A. K.] in *-u* may be used with some masculine nouns instead of the usual genitive in *-a*. (Under very special conditions, this is also possible with existential subjects.)" (Dahl, Koptjevskaja-Tamm 1992 : 30). **Orest Tkačenko** explains it, saying that if in Russian the suffix *-a* is associated with a purely genitive meaning, e.g. *cena čaj-*

a 'the price of tea' then the suffix *-u* in real objective nouns is associated with the semantic nuance of partiality, a functional transmission of a part of something, e.g. *prinesti čaj-u* 'to bring tea', *stakan čaj-u* 'a glass of tea' (Tkačenko 1989 : 81).

As we could observe, there is no one-to-one correspondence of case functions to a totality/partiality transmission in Finnic languages, on the one hand, or in Baltic and Slavic languages, on the other. But in Baltic and Slavic languages everything goes round around the genitive. If we proceed from a widely spread supposition that the older Uralic sentence was nominal and of the type SOV then it is quite easy to imagine that earlier Finnish nominal sentences, containing the genitive *\*hän lehmä-n tappa-va* 'he, slaughtering the cow' (the present tense) and *\*hän lehmä-n tappa-ja* 'he, the slaughterer of the cow' (the preterite) when this sentence type was transmitted into SVO-type, became *hän tappa-a lehmä-n* 'he slaughters the cow' and *hän tappo-i lehmä-n* 'he slaughtered the cow'. So the *n-genitive* was changed into the case of the total object without supposing that the *m-accusative* without any Finnic evidence would have assimilated with the *n-genitive* due to the word final change *-m > -n*. I realise, certainly, that my explanation sounds unoriginal, unconventional and completely hypothetical but in the light of the respective data of Baltic and Slavic languages I cannot see anything impossible in it. I also consider the possibility that by the time of the Finnic–Baltic–Slavic contacts the earlier Finnic *m-accusative* would have assimilated with the *n-genitive* or that the use of the genitive case as an objective case in Baltic and Slavic languages contributed to the assimilation. But at least I do not proceed from the rules agreed upon in the Uralistics' game, but only from a genuine evidence of languages.

Concerning **the earlier structure** of a Uralic sentence I have not been so very consistent above as I have really claimed my consent (Künnap 1997e : 54) with Tauli's standpoint as follows, "We do not know anything of the assumed FU proto-language and its W[ord]O[rder]. It is conceivable, that the WO was in principle free in those languages from which later on originated the U languages. [...] Regarding the fixity of the WO in the U languages we may assert only that in the eastern languages, namely Samoyedic, Ostyak and Vogul the tendency towards fixed WO has come to prevail ... whereas a relatively freer word order occurs to a smaller or larger extent in the western languages. [...] It is conspicuous that the eastern languages, also with regard to the WO, are nearer the Altaic languages, whereas the western languages are nearer to the I[ndo-]E[uropean] languages." (Tauli 1966 : 98). If the WO was free in Finnic languages, this freedom is not obstacle to my explanation.

But even if my explanation proves correct, we get the following picture about the correspondences among Finnic–Baltic–Slavic:

	Finnic	Baltic and Slavic
Total object	genitive	accusative
Partial object	partitive	genitive

The opposite function of the genitive in Finnic, on the one hand, and in Baltic and Slavic languages, on the other, is hard to associate with anything at this point. If we proceed from the supposition that the use of the genitive as a case form of the subject and the

object in Baltic and Slavic is a result of **the influence of Finnic languages**, we could comprehend it so, perhaps, that there was a pattern how to use the genitive in a new function – in that of partiality. I realise that this version of mine is not much of an explanation and I do not benefit by it. I can only hope that when weighing my explanation, some evidence may appear (also in Germanic languages, among others) which has been neglected so far.

Vértes' supposition that originally the *m*-accusative was typical only of Samoyed languages from which it was taken over by Lapp and some Mansi dialects seems quite credible. According to Vértes the *m*-accusative passed over from Lapp into Finnic and Volgaic languages (Vértes 1957 : 116–117). In Finnic and Mordvin languages there is no *m*-accusative evidence (neither in Permic languages), the evidence occurs in Samoyed, Lapp and Mari languages and in some of the Mansi dialects. The sporadic nature of the evidence supports Vértes' supposition concerning the Samoyed source of the *m*-accusative. Lapp could long before have been a geographical neighbour to Samoyed languages (see Künnap 1996c : 65–66; Wiik 1996b), as Mansi still is. The onetime zone of occurrence of Mari in relation to that of Samoyed languages is out of my reach. **Klara Majtinskaja** has indicated the connection of the spread of the *m*-accusative with that of the *n*-genitive: the *m*-accusative is lacking or is questionable in Permic and Ugric languages in which there is no *n*-genitive, either (Osnoy 1974 : 242). I have referred to it above that the *m*-accusative actual evidence is lacking also in Finnic and Mordvin languages which, in turn, reduces the credibility of the connection offered by Majtinskaja.

It could be said in conclusion that the *m*-accusative has **no evidence** in Finnic or Ugric languages (some Mansi dialects occur as an exception). In Finnic the task to denote the total object was given to the *n*-genitive. The *m*-accusative of some Mansi dialects could be a result of the influence of Samoyed languages. The *t*-accusative suffix of Khanty and particularly of Hungarian may originate either from the locative or determining pronoun stem, the *t*-accusative suffix of Finnic pronouns comes probably from the plural suffix *-t*.

There is, however, a fact that indirectly supports the onetime occurrence of the *m*-accusative in Finnic. Salminen states, "The current view is that there were three grammatical cases in the Proto-Uralic nominal declension. However, it's not universally held that the morphologically marked cases, accusative and genitive, were only used to denote a definite object and possessor, respectively. A striking parallelism between Finnic and Samoyed, in particular Nenets object rules [my spacing – A. K.] lends support to a view that the case of object was accusative..." (Salminen 1996 : 27). This "striking parallelism" could be a contact common feature between Finnic and Samoyed (I have found 12, to my mind contact common features more, in addition to those indicated by Salminen, see Künnap 1996c). So the problem of the Finnic *m*-accusative needs further concentration and research also from the aspect of Finnic–Lapp–Samoyed affinities.

## 8.2. Order Cx + Px

The original mutual order of case and possessive suffixes in Uralic languages was recently dealt with by **Jorma Luutonen** in his book "The Variation of Morpheme Order in Mari Declension" (Luutonen 1997). He writes, "Comparing different languages, we may note the following facts. In Uralic languages the basic order of the case ending and the possessive suffix varies: in the Baltic-Finnic languages, Mordvin, and the Northern Samoyedic languages the order is CxPx, whereas in the Ugric languages it is PxCx (Honti 1995 : 70). In the various subgroups of the Altaic languages, the sequence of the two suffixes, again, is not the same: the Turkic languages have PxCx, but Mongolian and Tungusic CxPx ... The conclusion is obviously that the combination Cx+Px is liable to morphotactic variation.

In the Uralic languages, the historically original suffix order in grammatical cases (the accusative and the genitive) is PxCx, whereas in other cases CxPx is the old variant. The PxCx order in the Uralic languages has also been explained as a result of Turkic influence ... The ongoing grammaticalization process whereby new cases are being produced from postpositions, however, has disrupted the original system. When new secondary case suffixes, usually with adverbial meanings, are agglutinated to the word they naturally occupy the position at the end of the form, which results in the order PxCx, originally typical of the grammatical cases. In certain languages, one of the two possible morphotactic variants in the combination Cx+Px has later been generalized to cover the whole case paradigm. The apparently minimal semantic reason for the suffix order in this combination has been a condition of this kind of historical change." (p. 21–22). "The old Uralic suffix order in the combination of the case suffix and the possessive suffix Cx+Px was PxCx in the grammatical cases (genitive, accusative), but CxPx in the other (local, adverbial) cases." (p. 154).

In a personal communication Luutonen explained to me that he had proceeded from **Honti** and that **Raija Bartens** had lately tended to consider the supposition about the Turkic origin of the PxCx order occurring in Uralic languages as possible. The talk is about Honti's presentation "Zur Morphotaktik und Morphosyntax der uralischen/finnisch-ugrischen Grundsprache" (Honti 1995), read at the plenary session of the VIII International Finno-Ugric Congress in Jyväskylä in 1995. It is a masterpiece of comparative-historical Uralistics whose author is seeking answers to a number of hitherto unsolved questions in the field of historical morphotactics and morphosyntax of Uralic languages and proposes new hypotheses for their solutions. However, this presentation is also a model example about enormous and eventually unsolved problems which researchers confront when trying to take an occurrence of a variegated phenomenon in Uralic languages back to a single integral origin – Proto-Uralic. In his presentation Honti thoroughly analyses the mutual order of case and possessive suffixes in Uralic languages and he briefly concludes, "Die relative Abfolge der Kasus- und der Possessivsuffixe war höchstwahrscheinlich von der Natur der Kasusuffixe abhängig: die grammatischen Kasus traten hinter den Possessivsuffixen auf (PxCx), die nicht-grammatischen standen vor den Possessivsuffixen (CxPx)." (Honti 1995 : 78). To my judgement Honti considers this order typical of U/FU proto-language.

I myself have dealt with the mutual case and possessive suffixes in Uralic languages in my article "On Some Similarities between Finnic–Lapp and Samoyed Languages", regarding CxPx as one of the twelve similarities between the languages mentioned in the title (Künnap 1996c; see also 9.1.).

I would consider Honti's conclusion about the U/FU proto-language observed above extremely logical if I believed that such a unitary proto-language as would give rise to all modern Uralic languages did really ever exist. Unfortunately, I greatly doubt its existence. Actually, **all the possibilities** remain open: a partial continuation of the original PxCx order, characteristic of the Turkic-type of languages in a number of Uralic languages or a more recent influence of the former on these Uralic languages; a separately developed different order in grammatical cases, on the one hand and in all other cases, on the other etc., etc. On my part I would again underline the similar sequence of CxPx in Finnic–Lapp and Samoyed languages. I would explain it by more or less direct interlingual contacts among them.

Finally, I would emphasize that I do not mean in the least that the work done, e.g. by Honti, in elucidating the primary state of affairs is final. His conclusion can by no means be automatically acceptable, but it remains one of **the possible hypotheses** from explanations whereby, proceeding from Honti's basis (a unitary Proto-Uralic etc.) it substantially remains a very consistent and logical one. The question is rather one of principle (the reason for postulating a unitary Proto-Uralic and the like).

I hope that further research enables us once again to treat of the main issue of this paper – the origin of the mutual order of Uralic case suffixes and possessive suffixes – much more concretely and in greater detail.

The sequence PxCx has no proper evidence in Finnic. A few exceptional dialectal cases of the sequence PxCx in Finnish, e.g. *isä-sti-lle* 'to your father' are classified as secondary also by Honti (Honti 1995 : 77). If we abandon our speculations about the imaginary Proto-Uralic, I fail to see any reason for the supposition that any other sequence than CxPx should ever have occurred in the Finnic (and Lapp) declination paradigm. Concerning Samoyed, we can observe the sequence PxCx as consistent only in South-Samoyed secondary, postposition-derived cases, primarily, where such a sequence can be expected in fact (see also Honti 1995 : 74–75). Consequently, the original order in the Samoyed declination paradigm is also CxPx. Bearing these facts in mind, I have indicated the co-occurrence of Finnic–Lapp–Samoyed in case of the sequence CxPx. The mutual sequence of case suffixes and possessive suffixes of other Uralic languages is a different problem and requires separate observation. I would only mention in advance that contacts with **Turkic languages** can by no means be excluded there.

### 8.3. Similarities between East-Uralic and Siberian Non-Uralic Languages

#### 8.3.1. Ob-Ugric–Samoyed \*s'-Preterite

The use of the supposed \*s'-preterite in Uralic is **very sporadic**. If we leave aside its use in the negative auxiliary verb we could conclude that it is used only in Mordvin, Mari, Mansi, Khanty, Nenets, Enets, Nganasan and Selkup. At that in Mordvin preterite

suffix \**ś* is used only in the 3rd person singular and plural. In Mari it is still not quite clear whether it is \**ś*-preterite suffix or the 3rd person's generalized personal suffix (see, e.g. Osnowy 1974 : 306–307; Hajdu 1985 : 141, 245–246). In Nenets and Enets its use is limited to interrogative sentences, in addition to which in Nenets \**ś*-forms have modal shades of meaning.

In the **negative auxiliary verb** the supposed \**ś*-preterite is used only in Estonian, Livonian, Lapp, Mordvin, Mari, Nenets, Enets and Nganasan. In Estonian the \**ś*-preterite suffix is used for all three persons only in Kodavere subdialect of the eastern dialect but in widespread southern dialects only the particle *es* is used to form the negative preterite for all three persons (e.g. Laanest 1975 : 158). In Lapp *čč* < \**ńž* is used instead of the preterite suffix \**ś* in the negative auxiliary verb, the former being used only in Swedish-Lapp dialects. \**ńž* would require proceeding from the archetype \**ńś* (Korhonen 1981 : 266–267). In case of the negative auxiliary verb in Mari we encounter the same uncertainty as in case of the main verb. In Selkup the negative particle *aś(ś)a*, *aś(ś)a*, *as(s)a*, *a(ha)* (there are also varieties beginning with the vowel *ā*) is generally used and attempts have been made to trace it to the \**ś*-preterite suffix. But sooner is right **Hartmut Katz**, indicating the Evenkish negative verb \**aťťś(a)* 'nicht vorkommen, nicht vorhanden sein' as the source of Selkup back vowel negative particle rather than Samoyed front vowel negative auxiliary verb (Katz 1970 : 149–150; cf. also Janhunen 1977 : 26).

We face the problem whether in Uralic the recession of the generally used \**ś*-preterite has taken place or whether we are concerned with its different scope of development in different languages.

We could suppose that in Mordvin in **the main verbs** the \**ś*-morphemic verbal noun took hold of the 3rd person only and did not spread any further, i.e. it did not manifest itself for the 1st and 2nd persons. It is possible that the respective spread was restricted to the 3rd person also in Mari where the verbal noun suffix \**ś* could coincide with the personal suffix \**s* of the 3rd person. With the exception of the cases mentioned the spread of the \**ś* verbal noun into the conjugation of the Finno-Permic main verb did not take place. It seems to be in accordance also with the occurrence of preterital \**ś* verbal nouns in Mordvin and Mari concerning modern Finno-Permic languages (see Lehtisalo 1936 : 198). However, more extensively taken, preterital \**ś*-preterite of the main verb seems to be present in these modern Uralic languages where the \**ś* verbal nouns are used (see Lehtisalo 1936 : 198–202). Only in case of Khanty and Selkup it is hard to indicate such a correspondence.

Let us proceed to **the negative auxiliary verb**. The situation is most predictable in the Volgan languages where \**ś*-preterite is formed as with the main verb as well as with the negative auxiliary verb, or in North Finnic, Permic and Hungarian where it does not occur in either case. On the other hand, the situation is most surprising in Ob-Ugric and Selkup conjugation. Here the use of the \**ś*-preterite with the main verb is quite general. At the same time the \**ś* of the negative auxiliary verb is lacking altogether. It should certainly be kept in mind that in Ugric and Selkup there is no conjugation of the negative auxiliary verb whatsoever and the negation is formed by means of negative particles (partially, at least, it is not likely to find any trace of the \**e*-stem of the Uralic negative auxiliary verb).

Generally speaking, we must admit that if, in case of any Uralic language, we do not proceed from a traditional hypothesis of Proto-Uralic and/or the Uralic language tree model but from **what actually can be found** in the respective language, we can draw quite different conclusions about the past of that language from what have been drawn so far. It also holds concerning the \**s*-preterite of Uralic languages.

However, there is no reason to believe that all the Uralic languages could have used the \**s*-preterite sometime as a regular paradigmatic component in their verb conjugation. We can quite clearly observe such a correlation: the \**s*-preterite of the main verb is basically known in these languages which have the preterite \**s* verbal nouns (with the exception of Khanty and Selkup where there are no such verbal nouns). At present I am of the opinion that the \**s*-preterite is a phenomenon, limited to **Ob-Ugric and Samoyed languages**, which can also extend to Mordvin. Finnic and Lapp (just as Mari, Udmurt, Komi and Hungarian) have never known any Proto-Uralic \**s*-preterite, not even in case of the negative auxiliary verb. On what grounds can I opine that?

As a rule, such a genealogical affinity can be observed by researchers among Finnic, Lapp and Mordvin languages: the conjugation of the negative auxiliary verb occurs in these languages by means of an assumed Proto-Uralic \**s*-preterite marker. Is that really so?

**Estonian** does not observe any traces of the conjugation of the negative auxiliary verb in the preterite if not to consider the following Kodavere vernacular of the eastern dialect: *esin, esid, es, esima, esita, esid*. The Southern Estonian preterite negative particle *es* – earlier also *es~is* particles of other dialects – is considered as a rudiment of its conjugation. On the other hand, **József Szinnyei** was of the opinion that in the Kodavere vernacular the negative particle began to be conjugated in the preterite under the influence of the Estonian general *si*-preterite of later development (Szinnyei 1910 : 144).

In **Livonian** the conjugation of the negative auxiliary verb in the preterite *iz, ist, iz, iz, ist, ist* is more general. A general *si*-preterite of later development occurs in this language, too.

In **Lapp** the negative auxiliary verb is conjugated only in the Swedish-Lapp dialect by means of the *čč*-marker, which can be referred to the original form \**s* but in a highly speculative way, inspired by the wish in any circumstances to trace the Proto-Uralic preterite \**s*-suffix in it (see Korhonen 1981 : 266–267). Again Szinnyei's view about it indicates the result of analogy with other verbs (Szinnyei 1910 : 144).

Since there are no \**s* verbal nouns in Finnic or Lapp, either, it seems most logical to assume, based on Szinnyei's example, that the conjugation of the negative auxiliary verb in the preterite both in Eastern Estonian, Livonian and Swedish-Lapp is simply due to the **analogy** of the preterite of main verbs. (I cannot follow the origin of the Swedish-Lapp *čč*-suffix, I suppose it is not obligatory at this point, either.)

It becomes more complicated when we observe the **Mordvin** \**s*-preterite. Differently from Finnic and Lapp, Mordvin has the preterite \**s* verbal noun, e.g. *sokaž moda* 'ploughed soil', cf. *sokaš* 'he ploughed' (Osnovy 1974 : 304). The preterite *s*-marker is used in case of main verbs only in the 3rd person, in case of the negative auxiliary verb in all the persons. There is still a good reason to believe that even in case of the preterite negative verb the earlier use of the *s*-marker could have been limited only to the 3rd

person since Szinnyei presented the dialectal conjugation of the Erza negative auxiliary verb which has the preterite *i*-suffix in the 1st and 2nd persons (Szinnyei 1910 : 143).

At all events, in case of Mordvin we can suppose that in the 3rd person both in main verbs and in the negative auxiliary verb use had been made of the preterite \**ś* verbal noun. The explanation of the occurrence of the full paradigm of the Mordvin preterite \**ś*-suffix of the negative auxiliary verb is problematic, however, and as such, the full paradigm is the strongest argument for assuming a onetime occurrence of a similar full paradigm in Finnic and Lapp. At the same time, we cannot forget **the particular position of Mordvin**: lexically it stands close to Finnic languages, grammatically to Samoyed languages (see Puszta 1995 : 83–95, first of all), excluding, however, the use of the \**ś*-preterite in the negative auxiliary verb paradigm.

Taking into account the fact that the \**ś*-preterite, typical of Samoyed, Ob-Ugric and Mordvin, may have equivalents in Paleo-Siberian languages (see Audova 1996), then, based on the above considerations, there is every reason to regard the \**ś*-preterite as a **phenomenon, related to the Siberian language area**, first and foremost, which has never been known in Finnic, Lapp, Mari, Permic and Hungarian. However, I would underline one more time that the straightforward general picture I have sketched here is marred by the \**ś*-suffixal full paradigm of the preterite of the Mordvin negative auxiliary verb.

Eugen Helimski writes, "If assumption concerning P[roto-]Ur[alic]" \**ś* : \**j* is true ..., then its S[trong]G[rade] \**ś* was to occur after monosyllabic stem (that is, with the negative verb \**i*-: it was the only verbal stem of this type, or one of very few such stems), and its W[eak]G[rade] \**j*- – after bisyllabic vocalic stems ... [...] The original distinction of allomorphs was later neutralized in favour of either \*-*ś*- (Vogul, Ostiak, Selkup, ?Hungarian, ?Nenets, ?Enets, ??Estonian, ??Livonian) or \*-*j*- (Lapp, Finnish, Karelian, Veps, Votic, Mordvin, Votjak, Zyrien). It seems, however, to be preserved in Nganasan, cf. *ñi-s-šəm* 'I did not' : *ñil-š-d'iam* 'I lived' : *ñim-ñhi-a-s-šəm* 'I usually did not'." (Helimski 1995 : 41). Here Helimski obviously considers the development in Nganasan *-d'iam* < \**-jiam*, cf. an earlier Nganasan preterite form *ñile-jeam* ('leben') (Castrén 1855 : 559b). The weakest point in Helimski's thesis concerns the aspect that the \**j*-preterite is lacking altogether in Samoyed languages. [...] In an attempt to find original \**j*-suffixes in Samoyed, related to temporal markers, I would first address Kamass and Mator. On the whole, there appears a lot of ambiguity in Samoyed in connection with the verbal \**j*-suffixes, concerning both their functions and their origin (see more closely Klesment 1995 : 96–97). So that Helimski's explanation is not a good one, since the evidence of the alternation *ś* ~ *j* in the preterite suffix is confined to Nganasan in the family of Uralic languages.

### 8.3.2. Ob-Ugric–Samoyed \**k*-Presens

Klara Majtinskaja writes that the PU **present tense marker** \**k* has most consistently remained in the full forms of the present tense in the Mari negative auxiliary verb, in short ones it occurs only in the 3PSg. In Permic languages it occurs both in the

present tense and in the preterite of the negative auxiliary, e.g. in the present tense of the Udmurt *yr* 'I not; s/he not; they not'; in Komi *or* 'I not'; *orö* 'we not', in the preterite tense of the Komi *ər* 'I not' (Osnoy 1974 : 299). So, once again there is an assumption that it is the negative auxiliary where the marker of the present tense *\*k* has peculiarly been preserved just as it was stated in case of the preterite marker *\*š* (see Honti 1997, esp. 87–88, 242–247). In addition to this, an Erza unchangeable negative word *at* is supposed to have come from the form *\*ak* (see Honti 1997 : 90–91; UEW : 69 offers the form *\*avt*, though). Thus, Raija Bartens writes that "für das Negationsverb scheint oft die Verwendung von anderen Zeichen als den bei den Vollverben gebräuchlich charakteristisch zu sein." (Bartens 1996 : 71). What a magnetic miraculous thing is the negative auxiliary to attract all the PU temporal markers?!

What catches the attention is that present tense forms of the Volgaic and Permic negative auxiliary are velar-vocalic while their preterite forms and both present and preterite forms of negative auxiliary of other Uralic languages are predominantly palatal-vocalic (see Honti 1997 : 87–88; UEW : 66–69). The unchangeable negation words of Ob-Ugric languages are also prevailingly velar-vocalic (see Osnoy 1974 : 328). A well-founded question arises: Are the Volgaic and Permic velar-vocalic negation verbs with a *\*k*-element from quite a different origin than palatal-vocalic negation verbs without *\*k*? If we discard the predomineering *idée fixe* that the former come also from a PU present tense marker *\*k*, there are certainly other explanations for their origin to be found.

Besides, what has been supposed about the velar-vocalic Uralic negation verbs is as follows, "Es ist auch mit dem Einfluß der iran. (arischen) Verneinungspartikel *a-*, *an-* (< ieur. *\*n*) bei der Entstehung des velaren Vokals zu rechnen. Diese Annahme wird vor allem durch die Formen mit Verneinungspartikel vom Typ mord. E *a-paro* 'schlecht, böse' unterstützt." (UEW : 69). At least it sounds hopeful: the "phonetically regular back-reconstruction" of the PU palatal stem into respective Uralic languages as velar has been weighed to be given up.

Honti writes about Mari, "Die zur Satznegation dienenden Verbformen sind aus der Verbform *ok* 'es ist nicht' mit hinzugefügten Personalendungen gebildet: 1.P.Sg. *o-γām*, 2.P.Sg. *o-γāt*, 3.P.Sg. *oye-š* ... Aus demselben Element *ok* stammt *uke* 'ist nicht'. Laut Kangasmaa-Minn ... ist *uke* ('it is not' = 'non-existence') ein "negative noun". Es ist eigentlich eine existenzielle Negationspartikel, die mit der Negationsverbform der 3. P. Sg. zusammenhäng, vgl. z. B. ostscher. *oksam uke* 'nincs pénzem; ich habe kein Geld' ... Das *u* in *uke* ist wohl dem Kasan-tatarischen *juk* 'nincs; nem; es gibt nicht' ... zu verdanken; *juk* ist eine allgemeine Verneinungspartikel der Turksprachen ..." (Honti 1997 : 162) [From Turkic it was borrowed into the Kamass language: (Künnap) *džōk*, *ōōk*, *tōg* etc.; it is mostly used as a negative interjection, e.g. *ōōk*, *ēi o* 'I'm 'no, I won't let', infrequently it may have some other functions, e.g. *šōda koptō kulāmbi, a oB' dōk* 'Two girls died but one didn't'.] Honti's text adds to the hope: the Turkic velar *u* and *k*-consonant make an occasional appearance.

There are other interesting Turkic parallels, e.g. in case of the Mokshan unchangeable negation word *af* (Honti 1997 : 90–91) it is "mitteltürkisch *ab*: *ab* – *ab* 'weder – noch', *aw* 'nein'" (Räsänen 1969 : 1a). Be it as it may, it is not that simple, though.

The following train of thought by Bartens attracts attention, "Im Mokschanischen hat die negative Existentiale ihr Gebiet erheblich erweitert und hat auch die Stelle des Negationsverbs eingenommen [emphatic spacing by me]. Das alte vordervokalische Negationsverb, das im Erzanischen im Indikativ Präteritum verwendet wird, wird auch in vielen mokschanischen Dialekten gebraucht, in den meisten mokschanischen Dialekten aber ist *aš* an dessen Stelle getreten. [...] Die mokschanische negative Existentiale dürfte als Grundform *aš* haben. In einem Teil des Gebietes, in dem *ajaš* verwendet wird, ist neben der allgemeinen Negationspartikel *af* auch die Negationspartikel *ajaf* in Gebrauch ..., so daß *aj* eine Art verstärkende Partikel sein dürfte. *aš* muß Nomen sei: Oben wurde festgestellt, daß daraus eine Deminutivableitung gebildet wird und daß es die Formen der Nominalkonjugation annimmt. Seine Nominalität zeigt auch die von EVSEV'EV mitgeteilte Ableitung, das lativförmige Adjektiv *ašu* 'mittellos, arm, armer Mensch' ... Den Gebietswinn der negativen Existentiale des Mokschanischen, seinen Übergang zum Negationsverb [emphatic spacing by me] dürfte außer seiner an das Negationsverb erinnernden Kürze auch der Umstand erleichtert haben, daß die mordwinische (aus dem früheren Negationsverb entwickelnde) Negationspartikel ein *a* enthält (E *a*, at, M *af*)." (Bartens 1996 : 78–79). Based on Bartens' results of research, a part of the Permic and Volgaic negation words with a velar stem vowel (first of all, those with *a*) **drops out** as original nouns from the present observation and another part **becomes questionable** as it could be made up of generalizations of these nouns (at least in case of a velar stem vowel and *a*, in particular).

Despite that a supposition that in the **Permic** and **Volgaic** negative auxiliary occurs, the PU present tense marker *\*k* has firmly been rooted. The picture is marred from the start by the fact that the *\*k* in Permic languages occurs only in the 1P and 3P, and, at that, in Komi only in the preterite. If the place of occurrence were only in the 3P, it would be easy to suppose the use of the marker *\*k* of a verbal noun first in the form without any verb inflection. It is a kind of dead heat: on the one hand the absence of *\*k* in the 2P mars the picture about the commonly used *\*k*-present while the occurrence of *\*k* in the 1P does wrong to my supposition. One may certainly ask if *\*k* in the 1P and 3P was originally one and the same suffix, especially if we keep in mind that *\*k* may occur at the end of the 1P in Hungarian (as probably also in Selkup, see more closely Künnap 1994b : 88–102). We have to admit, too, that changes 1P *\*-k-m* > *\*-k* and 2P *\*-k-t* > *\*-t* in Permic go as a very good explanation.

Here I would briefly consider the occurrence of the *\*k*-present tense in Uralic languages in general. I would say it is **most sporadic**. First of all we have to discriminate really existing evidence from an imagined one. The imagined evidence, I'd say, the dreamt-of material is abundant. All the "back-reconstructions" of the present-tense forms *à la* *\*tule-k-mek* (Finnish *tulemma*) 'we come' is only a fantasy without the least evidence. What I bear in mind is more narrowly the present-tense conjugation paradigm of the indicative mood, not of the imperative or a negation form or something of the kind. In this sense a genuine evidence can be found in Ob-Ugric languages, e.g. in Mansi *totā-γā-m* 'I carry', *totā-γī-n* 'you carry' etc. (Osnoy 1974 : 300). The evidence of the *\*k* of the present tense is completely lacking in Samoyed languages, there is *\*η* instead (see

Künnap 1994b : 88–102). If the Samoyed general *\*η* of the aorist can be observed as a definite equivalent to Finno-Ugric *\*k* of the present tense, we could speak only about an Ob-Ugric–Samoyed evidence, to which the Permic-Volgaic evidence in the negative auxiliary is added. Such a distribution makes the occurrence of the PU *\*k* of the present tense as evidence in the indicative conjugation paradigm of the negative auxiliary of Permic-Volgaic languages very debatable, as I see it. (I would indicate that Eeva Kangasmaa-Minn has not presented the *\*k* in case of Permic and Volgaic languages in her survey table about Finno-Ugric temporal suffixes, see Kangasmaa-Minn 1988 : 20).

### 8.3.3. Ob-Ugric–Samoyed *\*k*-Dual

I have restricted the clearly obvious sphere of occurrence of the old *\*k*-dual in Uralic languages to the Ob-Ugric and Samoyed languages. In addition to this, I find it possible to support Paul Ariste's former hypothesis that the dual form of Ob-Ugric has been obtained from Samoyed (see Künnap 1985).

The possibility of non-existence of the *\*k*-dual traces in Hungarian has been taken into account many a time, though at least the traces are not entirely clear or definite. There is no PU *\*k*-dual in the Hungarian. *kettő*, *monnó* from *\*-k*? Where are the traces of *\*-k*? Neither is there any unanimity in the question whether Proto-Uralic had any *\*k*-dual forms. As Janhunen writes: "The dual also existed as a separate category in PU, marked by the suffix *\*-kə(-)*. However, the dual nowadays only exists on the peripheries of the language family (Lapp, Ob-Ugric, Samoyed), and the PU dual suffix has been materially preserved only in the eastern groups (Ugric, Samoyed). These facts suggest that the use of the dual in PU was dialectally restricted." (Janhunen 1982 : 29). There is **no reliable basis** to assume that *\*k*-dual was used in all Proto-Uralic and that later it disappeared from the majority of Uralic languages. Neither would I like to query Mikko Korhonen's assertion that the dual is one of the grammatical categories, having a tendency to disappear completely. But quite a different theoretical and methodological problem is whether and what should be projected into Proto-Uralic, particularly if the occurrence of the respective phenomenon in more recent separate Uralic languages is very sporadic or concentrates on the peripheries of the language family as we can observe in the *\*k*-dual.

So, I have restricted the clearly obvious sphere of occurrence of the old *\*k*-dual in Uralic languages sphere to the merely easternmost Uralic languages in the neighbourhood of Paleo-Siberian although not immediately in the neighbourhood of those using *k* as those are farther away – Eskimo, Aleut and Gilyak (Pusztay 1980 : 51). But still, there they are.

### 8.3.4. Samoyed *\*η*-Aorist/Imperative

There is nothing left to suppose that in Samoyed languages the aorist/imperative marker *\*-ηa-* has proceeded from a Proto-Samoyed *\*η*-type marker of the verbal noun. Strictly speaking, in the given case it can be regarded as the

transition of the verbal noun marker into the marker of aorist/imperative since the actual verbal noun use is not observable any more. (See closer Künnap 1994b.)

In Finno-Ugric languages the etymological equivalent of the imperative marker *\*-kV-* would rather go with the adhortative marker *\*-kV-* of North Samoyed. In this case they would both proceed from the Uralic verbal noun suffix *\*-kV*. Here, in some sense, the situation is analogous to that of the local endings in Uralic languages: the coaffix *\*-kV-* of local cases in Samoyed languages could be a possible etymological equivalent to the Finno-Ugric lative ending *\*-k(V)*.

Naturally, a question arises if there are any equivalents to the verbal suffix *\*η* of Samoyed languages in their neighbouring non-Uralic language families. Turkic languages know the second person imperative marker *-η*, e.g. Old-Turkic *boluη* 'sei!' (Ramstedt 1952 : 83). Here we may simply come across a more general marker of the second person, cf. e.g. possessive suffix sg2 in an Old-Turkic word *iliη* (Gabain 1950 : 97–98), verbal suffix sg2 Chulum, Tatar, Turkmen etc. *paradiη* ('you go') (Levitskaja 1976 : 57–61).

It should also be mentioned that *-a-* seems to be an old present/future and optative marker of Turkic languages, regarded as having proceeded from Proto-Turkic, e.g. Baraba Tatar *al-a-san* ('you take') (Serebrennikov, Gadžieva 1986 : 155–156), in Azerbaijan *al-a-n* 'taking' (at the end there is the suffix *-n* of deverbal adjectives; p. 225) and the gerund marker *-a-*, e.g. in Tatar *bār-a* 'going' (p. 228).

In Yenisey languages *η* occurs in a number of verb forms, among others, in the present tense and the imperative mood without obviously being a specific marker of the latter, e.g. Kot present sg1 *itōjaη* : 2 *iton* : 3 *dāta* : pl1 *oηaitoη* : 2 *oηajoη* : 3 *dāηai* ('to come') (Verner 1990 : 157). It is interesting, however, to compare, e.g. such forms in Kot as *ajaηākη* 'I play': *ajaηolōkη* 'I played' : *ajaηālček* 'play!' where *η* in Heinrich Werner's treatment is an aspect-tense suffix and *a* the vowel concurring with the latter just in the present tense and in the imperative mood (p. 192).

Thus the use of *a* in Kot reminds one, to some extent, of the use of *a* in Turkic languages, whereby Kot (compound?) *ηa* in addition reminds one of a Samoyed verbal suffix *-ηa-* both as to its consonant and vowel. Certainly, with a great probability there remains a possibility that accidental similarities among Samoyed, Turkic, and Yenisey languages have simply been come across. Such an incidence may be a common denominator for the following scattered observations about a number of languages spoken in Siberia and in the Far-East.

In the Tungus-Manchu family of languages the Evenk *-ηa-* expresses a further future, cf. *bakadān* 'he will find (soon)' : *bakadāllan* 'he will find (at once)' : *bakadāηān* 'he will find (sometime)', the suffix *-ηāt-* expresses the optative, e.g. *ana-ηāt-i-v* 'would push', the suffix *-ηnā-* indicates some further adhortative, e.g. *ana-ηnā-m* 'I will push (later)' (Jazyki 1968 : 79–80). The Even language has an optative with the suffix *-ηa-*, e.g. *duκηawr-i* 'please, write' (96); *-ηa-*, *-ηe-* is a final component of a potential participle suffix, e.g. *em-žine* 'the one who may come' (p. 101).

In Koryak of the Chukchi-Kamchatkan family of languages *-η-* is one of the suffixes for the present/future and for expressing recommendatory action, e.g. *tiku-le-η* ('I go'), *t-i-je-čejmew-η-ik* 'wanted to approach' (p. 281–286). A similar *-η-* can also be found

in the future tense of Alyutor and Kerek, in the latter in the present tense, too (p. 322–326).

### 8.3.5. South-Samoyed \*/-lative

Further, the comparison of the South Samoyed *l*-lative with the locative-lative (more exactly with adessive-allative) (suffix *-IV*) of a neighbouring language (see about neighbourhood also in Joki 1952 : 43), viz. of Evenk (Tungus) belonging to the Tungus-Manchu language family, is of a particular interest. Examples: *samandula* 'beim Schamanen, zum Schamanen', *ilā* 'wo, wohin', *talā* 'dort, dorthin' (Ramstedt 1952 : 40). The similar phenomenon can also be met in the Even language belonging to the language family mentioned above, e.g. *нилэ* 'by whom?, to whom?' (Robbek 1989 : 37).

### 8.3.6. South-Samoyed \*/-gerund

Taking a look around among non-Uralic Siberian languages it is intriguing to compare the South Samoyed *l*-gerunds with the *l*-gerund expressing the purpose of an action in the languages of the **Mongol language family**, such as Mongor (the suffix *-la*), Baoan (the suffix *-le*) and Dongxiang (the suffix *-le*), e.g. Baoan *чэ нджаннэ гагэнэ ур элэ шджэ* 'you go to - invite his older brother' (Todaeva 1964 : 96), Dongxiang *би чынэ уджэлэ ирэвэ* 'I came to - see you' (Todaeva 1961 : 50–51).

The usages of *l*-suffixes in Uralic and the so-called Altaic languages have generally much in common, first of all in forming as denominal nouns, denominal verbs as well as deverbal verbs. In this connection Irén Hegedűs has recently indicated the noun *l*-derivation (Hegedűs 1988 : 75–76).

Continuing observations of the gerund in Mongol languages we can find a number of compound suffixes with the final *l*-component, with the **terminal gerund** with the suffix *-tala* among them, e.g. Dongxiang *аба ирэтала чы энэндэ нэ ча са и* 'till father comes, you wait here a little while' (Todaeva 1961 : 51), Dahuri *минн куртэ лминн`ши ос ачирджи уку* 'till I arrive, you fetch water' (Todaeva 1986 : 74). The *l*-component also completes the suffix of the terminal gerund in Mongol languages: *\*-tel(e)/\*-tal(a)*, the suffix of the conditional gerund *\*-bel(e)/\*-bal(a)* (see e.g. Janhunen 1990 : 79); and the suffix of the conditional gerund *-(h(V))lā* (see Sanžeev 1964 : 150–151, 156–157, 160–161). The final component of these compound suffixes is supposed to be an old case suffix as in Tungus-Manchu as well as in Mongol languages, viz. the locative *\*-la* (see e.g. Sunik 1962 : 262; Konstantinova 1964 : 214; Sanžeev 1964 : 160), which is added to the suffixes of verbal nouns.

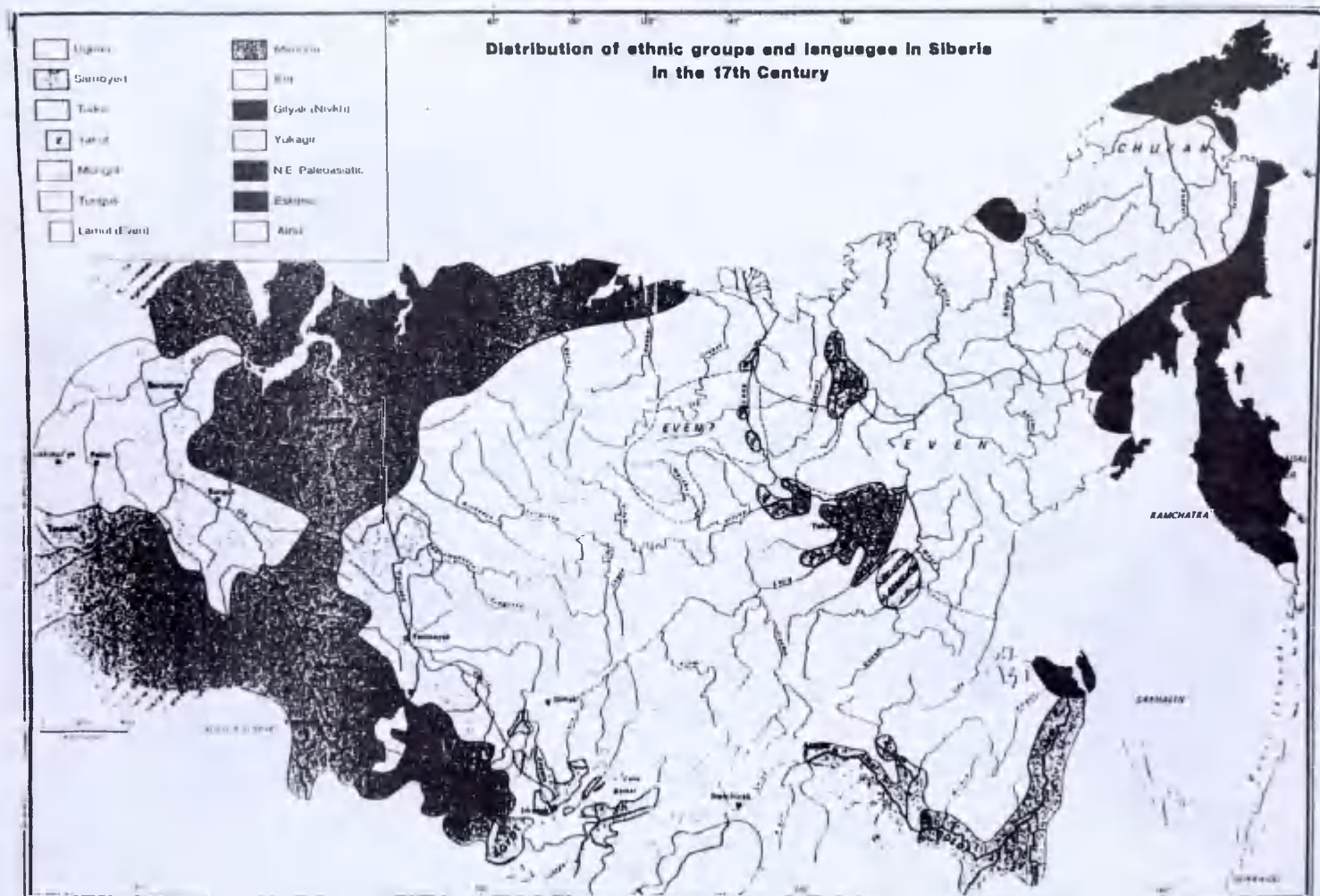
**Turkic languages** have similar gerunds of compound suffixes whereby the final *l*-component, coalescing with the suffixes of verbal nouns, is supposed to be the suffix of the comitative case (see Badmaev 1966 : 96; Kondrat'ev 1970 : 43–44; Baskakov 1972 : 72; Serebrennikov, Gadžieva 1986 : 230–231; Sravnitel'no-istoričeskaja 1988 : 83–87; 105–106; cf. also Ramstedt 1952 : 40–43). E.g. Karakalpak *мен келгели бирај*

бодь 'since the time I arrived, a month has passed' (the suffix *-гели*) (Serebrennikov, Gadžieva 1986 : 231).

It is worth mentioning that also the gerundial suffix *-lu-*, *-l̥i-* in Eskimo and *-l* in Aleut are used (Jazyki 1979 : 283, 398). E.g., in Eskimo *атака мылуглуни кыпхагакук* 'having begun smoking, my father is working', in Aleut *каднал адан ашакух* id. (Jazyki 1979 : 283).

### 8.3.7. Appendix: Siberian Maps

Hereby I will present some maps of Siberia from different centuries. From these we can see the former places of spread of the Siberian languages and partly the contacts among these languages. The source is "Atlas of Languages of Intercultural Communication in the Pacific, Asia, and the Americas. Volume I. Maps" (Wurm et al 1996).



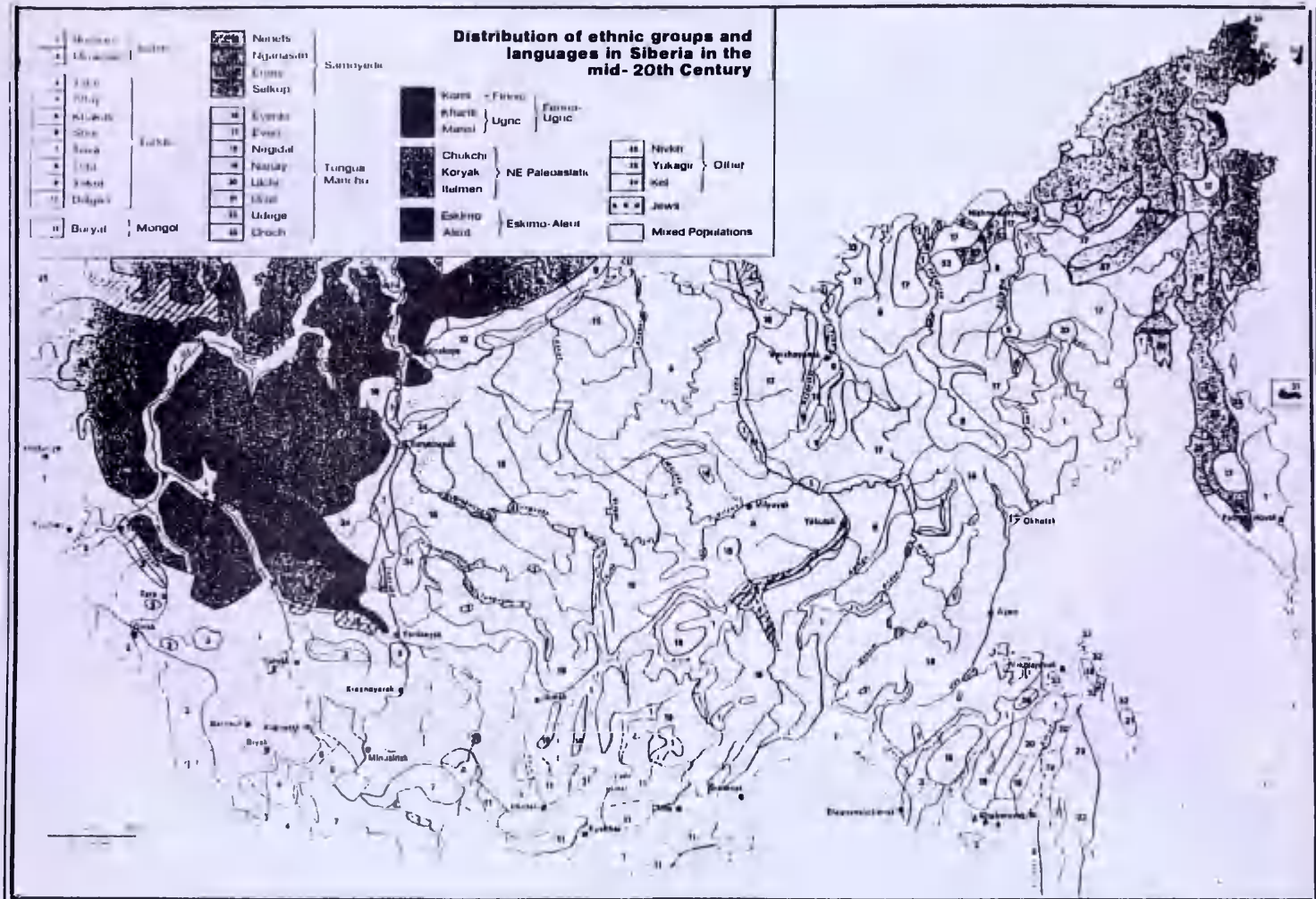
Distribution of ethnic groups and languages in Siberia in the 17th Century

Compiled by V. I. Belikov

#### Distribution of ethnic groups and languages in Siberia at the beginning of the 20th Century

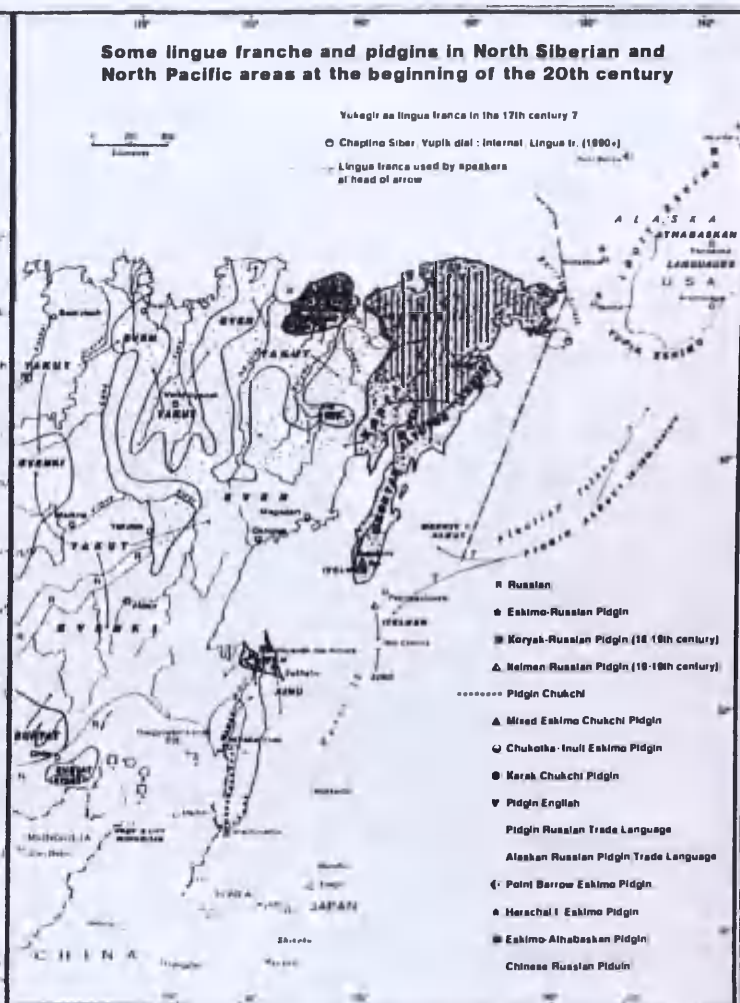
Compiled by S. A. Wurm





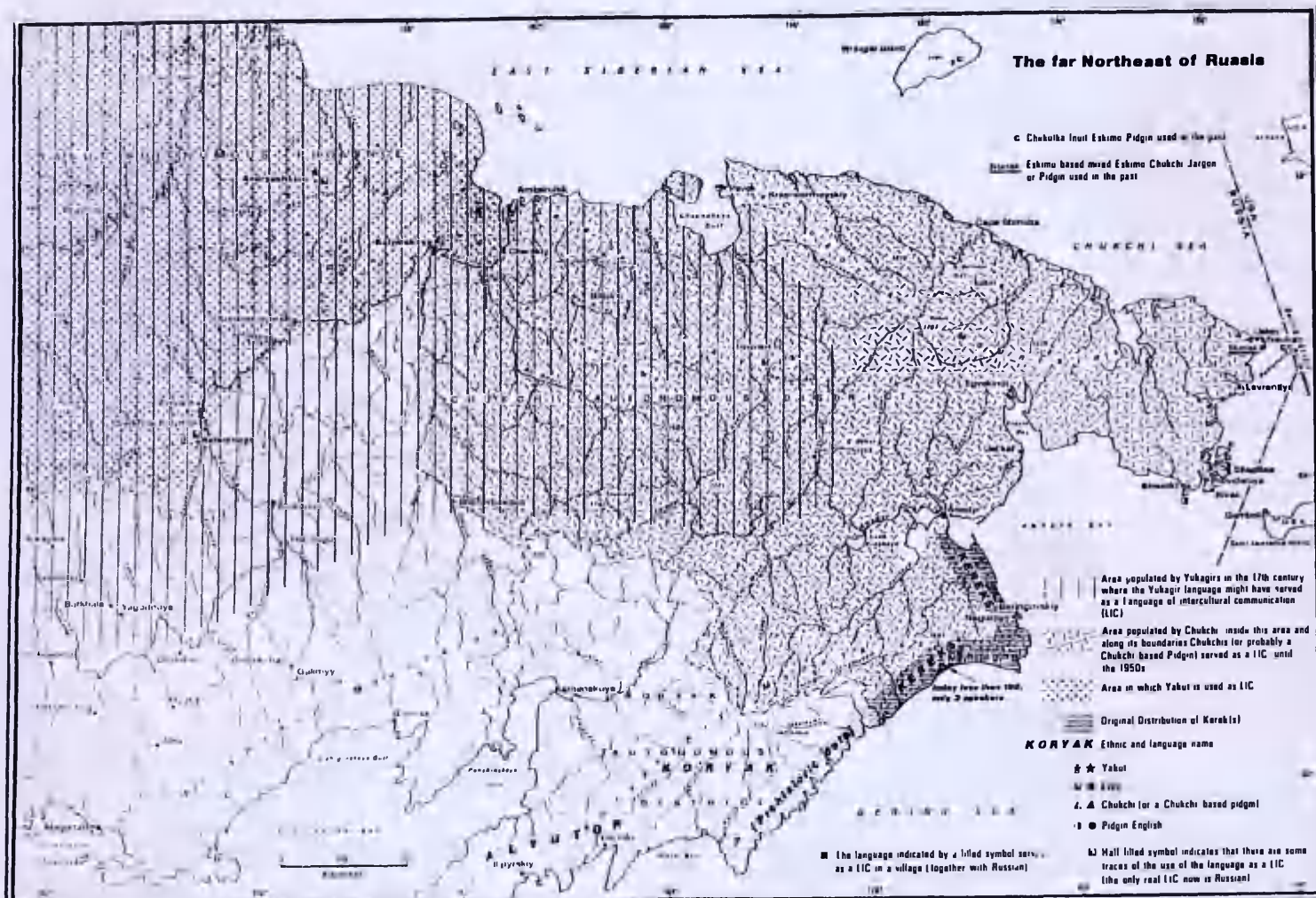
Distribution of ethnic groups and languages in Siberia in the mid-20th Century

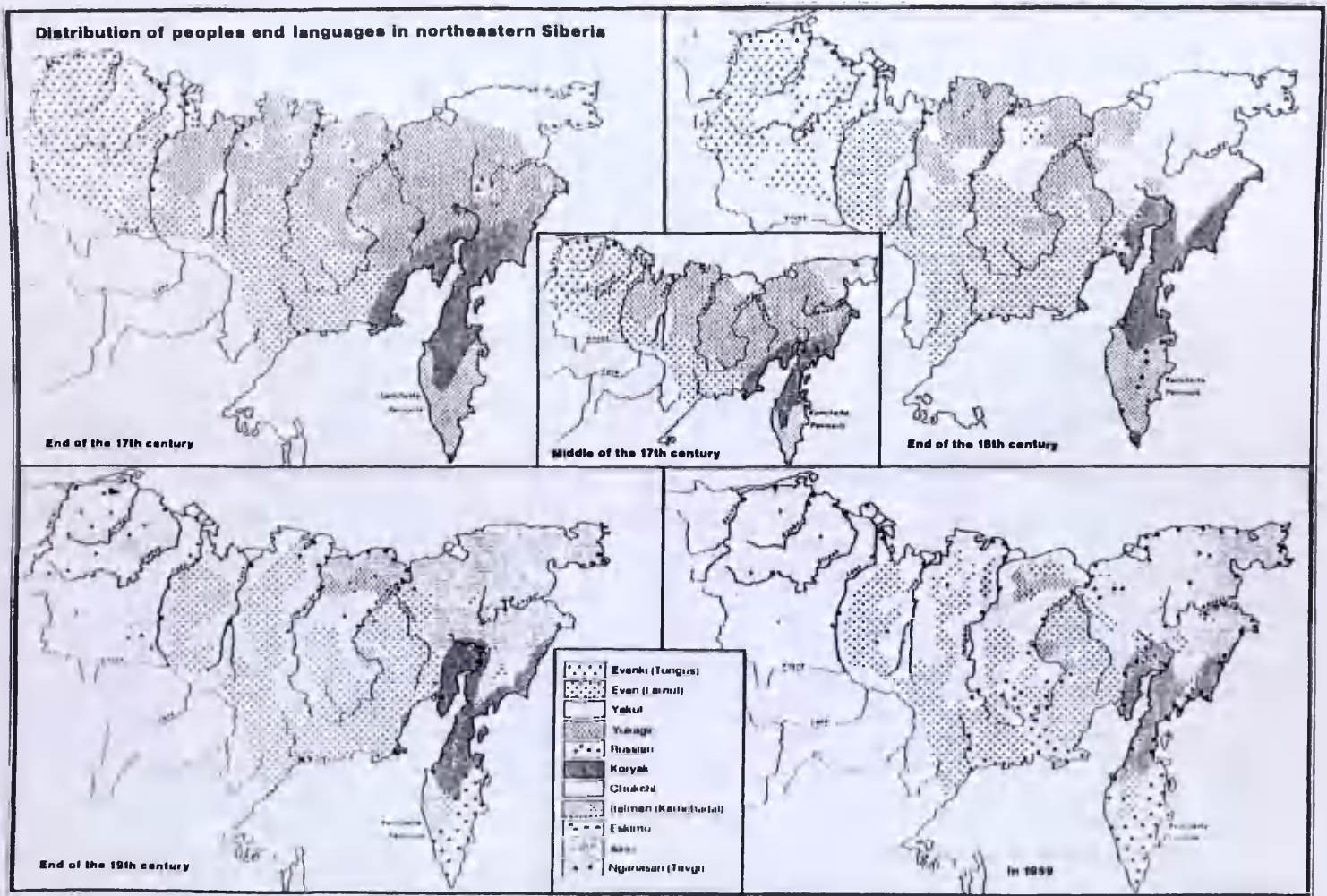
Compiled by S. A. Wurm



Some lingua franca and pidgins in North Siberian and North Pacific areas at the beginning of the 20th century

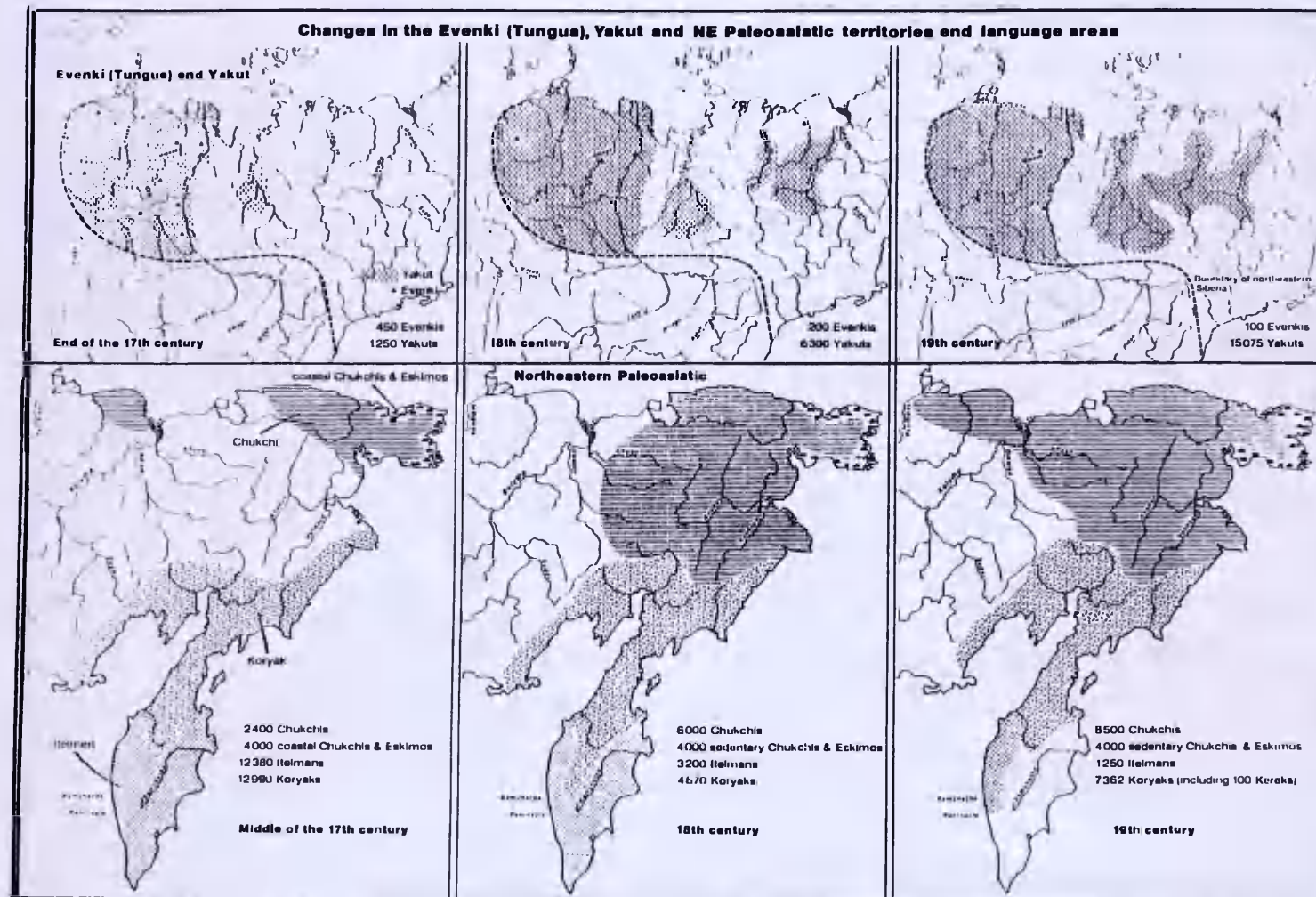
Compiled by S. A. Wurm and Eugene Khechumsky





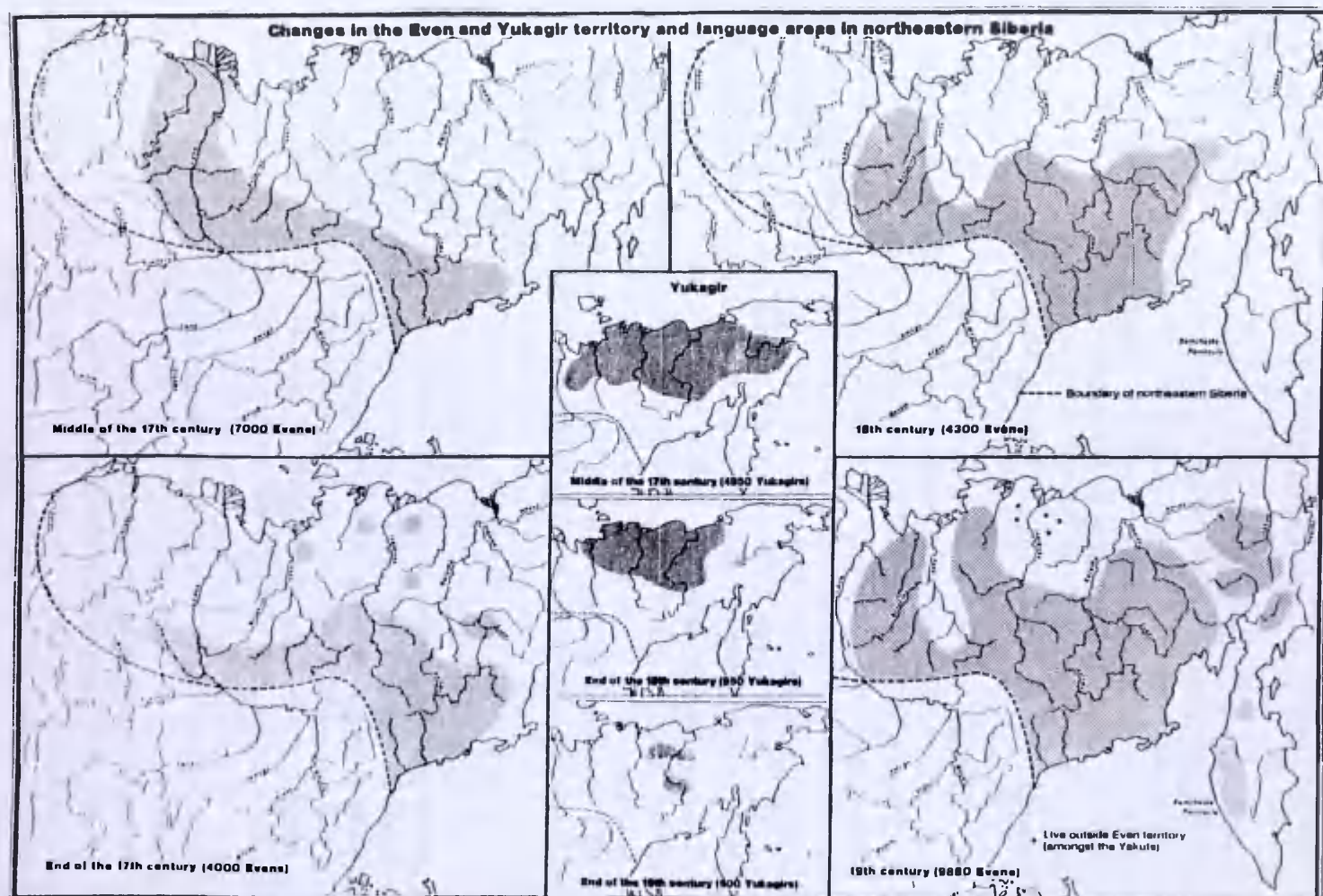
Distribution of peoples and languages in northeastern Siberia

Compiled by V. I. Belikov



Changes in the Evenki (Tungus), Yakut and NE Paleoasiatic territories and language areas

Compiled by V. I. Belikov



Changes in the Even and Yukagir territory and language areas in northeastern Siberia

Compiled by V. I. Belikov

## 9. SIMILARITIES BETWEEN FINNIC-LAPP AND SAMOYED LANGUAGES

We have to ask ourselves once again what the so-called Proto-Uralic is. Was it a sometime living language which all the other Uralic languages originated from? Or was it just a conceptual point to which we take back everything that is or that we consider as common for Uralic languages? But even regardless of our choice between the two possibilities we face a third question: what should we consider as **common for Uralic languages**?

On the other hand, what does an assertion that an earlier common feature has disappeared from some present-day Uralic language mean? Where, how and when did it disappear? After all, every Uralic language like any other language is a **mixture of languages**. In the case of the mixed origin of languages we need not necessarily speak about the loss of earlier common features of the so-called related languages.

For a long time researchers have noticed that in the structure of Samoyed languages there are striking similarities with Finnic and Lapp languages. **Janhunen**, in particular, explained the occurrence of such similarities by a better preserverence of primary affinities of Uralic languages in the geographical periphery of the Uralic linguistic area, while more essential changes occurred in the central part (Janhunen 1981 : 220). Certainly, all depends on whether and what there was to preserve in the periphery, or, in other words – whether we should proceed from the language tree model and proto-language as Janhunen did, or from the **contact theory** which has most remarkably been relied upon by **Wiik** (1995 and 1996b) and **Pusztay** (1995).

According to **Wiik** the **Samoyeds' ancient home** could have been in North-Eastern Europe 40,000 years ago already, consequently in the area where part of the Samoyed people – Nenetses reside even now. At present the zones of occurrence of Nenets and Lapp are quite near to each other. Why should it have been different thousands of years ago? Why could there not have been, for instance, in the parts of the White Sea, a contact zone of Lapp, Finnic and Samoyed language forms? **Why cannot the striking common features of these languages originate from such a contact?** Certainly, a source for the common features could have been a Uralic language form, extinct by now.

### 9.1. List of Similarities

In the following I will list 12 such similarities.

1. The local cases of both Finnic and Samoyed are quite consistently formed by means of **co-affixes**, in Finnic *\*s* and *\*l*, in Samoyed *\*k*, respectively. I would not regard this affinity accidental, either, but I see it rather as a onetime areal background.

2. The generally common *t-* and *i-plurals* of the nouns in Finnic and Lapp are also typical of nouns in Samoyed languages. Samoyed languages:

	Nominative	Genitive	Accusative
Nenets	* <i>t</i>	* <i>i + t</i>	* <i>i</i>
Enets	* <i>t</i>	* <i>i + t</i>	* <i>i + t</i>
Nganasan	* <i>t</i>	* <i>i + t</i>	* <i>i</i>
Selkup	* <i>t</i>	* <i>t</i> + gen. ending <i>n</i>	* <i>t</i> + acc. ending <i>m</i>
Kamass	* <i>i + t</i>	* <i>i</i> + gen. ending <i>n</i>	* <i>i</i> + acc. ending <i>m</i>

In addition to the plural genitive *\*i*-proto-type *\*kalai* which has no case ending, there are in Finnic also both the *\*t*-type *\*kalaten* and the *\*i+\*t*-type *\*kalaiten*. Also, in all the case forms of the Selkup noun declination paradigm, there is the *t*-plural as it occurs in the Estonian linguistic area (besides the partitive), too. These similarities in Finnic–Lapp and Samoyed languages should be observed as a result of their areal contact. Also, the principle that in the absolute declination of nouns the *t*-plural is used in the nominative case but often the *i*-plural in all the other cases is valid namely in Finnic–Lapp and Samoyed and can well be a mutual common feature between these language groups.

3. I have attempted to indicate earlier that in Samoyed languages a general principle consisted in the use of postpositions not with the nominative but with the ***\*n*-genitive antecedent** (Künnap 1982). If my attempt could be considered successful, we have again an additional common feature with Finnic–Lapp languages in which the postpositional antecedent is not nominative but *\*n*-genitive or *\*t*-partitive. Mordvin languages with their antecedent in the nominative, genitive or ablative cases occur as a transitional area to the more eastern languages: in Mari the nominative antecedent prevails, although often we come across a genitive one; in Permic languages the nominative antecedent is already clearly overwhelming, whereas in Ugric languages *\*n*-genitive is lacking altogether.

4. The definite occurrence of the ***k*-imperative** is restricted to Finnic–Lapp–Mordvin, on the one hand, and to Samoyed languages, on the other. The attempt of explaining the Hungarian *-j* and Khanty vowel-matter in their imperatives by means of the Proto-Uralic *\*k*-imperative is very arbitrary, speculative and wilful.

5. Tibor Mikola regarded as relevant the comparing Finnic and Samoyed **reflexive conjugation**. He writes, "Die nordsam. Sprachen haben auch eine refl. Konjugation entwickelt. [ ... ] Die Herausbildung dieser Konjugation is bisher kaum untersucht worden. [ ... ] Die Herausbildung der ostseefinnischen refl. Konjugation wurde unlängst von Posti behandelt (CQIFU. I. 111–144). Nach Posti trat die neue, refl. Konjugation zuerst in der 3. P. auf, indem im Sing., als auch im Plural neue Vx-e erschienen, die die medialen Verben von den anderen zu unterscheiden geeignet waren, nämlich *\*-ksen* für den Singular, *\*-kset* für den Plural. [ ... ] Die Vx-e selbst setzen sich aus zwei Elementen zusammen: *\*-k* (Präsenszeichen) + *\*sen* bzw. *\*-set* (Personalpronomina). [ ... ]

Die Herausbildung der nordsam. refl. Konjugation nahm ihren Anfang in der 3. P. Sing. und Plur., wo an den mit *-j-* (refl. Derivationssuffix) erweiterten Stamm die Pronomina der 3. P. Sing. (*\*-tVn*) bzw. der 3. P. Plur. (*\*-tVt*) traten. *\*-tVn* und *\*-tVt* setzen lautgesetzlich PU *\*sVn* 'er, sie, es' bzw. *\*sVt* 'sie (Pl)' fort, die als selbständige Pronomina ansonsten im Sam. verlorengegangen sind." (Mikola 1988 : 255; see also Mikola 1984).

There is nothing much to add to Mikola's considerations, however, in the light of these the contact between Finnic and North Samoyed is conceivable in every aspect, it can really be expected that the reflexive conjugation occurs only in northern Samoyed languages which are located **geographically closer** to the area of Finnic than southern Samoyed languages.

6. It would be unfair not to mention Irene N.-Sebestyén's supposition that the **conditional marker** *pč̣* which occurred in Tornio and Inari Lapp, is connected with the Nenets suffix *bs*, *bṣ*, *bt* of conditional connotation. Korhonen, though, regarded the Lapp *pč̣*-suffix rather as a later hypercorrect consonant cluster replacing the original *kč̣*. But he admitted that in this case the occurrence of such a hypercorrect suffix *pč̣* in Lapp was restricted to the conditional paradigm. (See Korhonen 1981 : 254–255.) So N.-Sebestyén need not have been mistaken, after all.

7. In the Nenets language beside the common so-called first infinitive with the markers *-ś*, *-č* there is the so-called **second infinitive** (supine) with the markers *-βā*, *-mā* e.g., *ńermānc̣ χāntāṃ* 'ich gehe um Wasser zu holen' (cf. Estonian *lähēn vett tooma* 'I go to fetch water') (see, e.g. Hajdú 1988 : 15–16). At that the underlying form for the majority of Samoyed languages is typically a verbal noun (participle) with the marker *\*-mV*, cf. the Tundra Nenets *χāēβāṇ* (the Forest Nenets *kāēmāṇ*) 'weggehen (finaler Infinitiv)' – the Tundra Nenets *χāēβa* (the Forest Nenets *kāēmā*) 'das Weggehen', cf. further also the Kamass *kaiōma* 'geschlossen' (Mikola 1988 : 259) – Finnish (*isān*) *sulkema* (*ovi*) '(the door) shut (by father)'. The marker of the second infinitive in Nenets is formed by means of several case endings just like Finnic *m*-infinitive. So it is not unexpected that the infinitive under observation occurs possibly only in the westernmost of Samoyed languages – in Nenets.

8. Hajdú indicates a **varied order** of certain suffixes in Uralic languages in which case Samoyed languages fall into one group together with Finnic, Lapp and Mordvin languages, "Cx's and Px's can also be combined with each other although their order (relative to each other) varies from language to language: in Samoyed, Mordvin as well as in Finnish and Lapp the Cx precedes the Px, whereas in the Ugric languages the reverse order is used. The behaviour of the Permian languages and Cheremis is peculiar in this regard: certain specified suffixes occur before the Px, others follow it." (Hajdú 1983 : 105). Based on the present geographical position, the distribution where Samoyed languages would belong to one type of the order together with Ugric languages, would be more expedient (Permian and Mari would form a mixed area between the two, mentioned above). Yet here, too, Samoyed languages reveal their closeness to the western end of the Uralic family – to Finnic, Lapp and Mordvin.

9. The **derivational suffix** *\*k* which Toivo Lehtisalo ascribed to Proto-Uralic pronouns (Lehtisalo 1936 : 392–393) is also restricted to the Finnic–Lapp–Mordvin language group as well as to Nenets while I seriously question its occurrence in

Mordvin. According to Lehtisalo the traces of the assumed Proto-Uralic derivational suffix *\*kk* can be found only in Finnic–Lapp–Mordvin languages and in all northern Samoyed languages (p. 393).

10. Toivo Lehtisalo assumed the existence of the Proto-Uralic derivational suffix *\*β* with its **labiovoical** traces. Both in case of denominal and deverbal nouns its traces are observable only in Finnic–Lapp and Samoyed. (Lehtisalo 1936 : 25–43, see also Osnovy 1974 : 357, 378.)

11. It may not be a mere chance that word-final plosive stops could have changed into **laryngeal** stops namely in Finnic (Finnish, southern Estonian) and Samoyed languages. (In North Samoyed languages several other consonants have also developed into a laryngeal stop, inside a word as well.)

12. A question in itself is **gradation**. Based on the results of a scrupulous comparison of Finnic–Lapp and Nganasan gradation Helimski writes: "It will not be sufficient to say that the similarity between the gradation mechanism in Finnic–Lapp ... and those in Nganasan ... is strong – this similarity is striking." (Helimski 1995 : 27–28).

Looking for the traces of a onetime Proto-Uralic gradation in other Uralic languages, Helimski finds very few of them. But it is the Samoyed incidence that attracts attention. Helimski admits, "Several sporadic but exact analogies between Nganasan and two other Northern Samoyedic languages suggest that Rh[ytmic]Grad[ation] in its "Nganasan" outlook could exist in Nenets and Enets until relatively recent time. [ ... ]

The paradigmatic alternations in Ket' Selkup are fairly similar to Syll[abic]Grad[ation] in Finnic, Nganasan, and – especially – in Lapp. But there are no indications that this dialect shares or ever shared with these languages mechanism of RhGrad." (p. 41–43). Due to my contact-based theoretical approach I am not surprised at the stronger concentration of gradation phenomena namely in **North Samoyed** languages.

I suppose that I managed to present only a **part** of the Samoyed features, peculiar to Finnic–Lapp languages. I am positive, though, that there are many more and I hope to be able to expand on the subject. But even what has been presented here gives a good reason to speak about former contacts of Samoyed languages with those of Finnic–Lapp, or then about a certain third Uralic language, extinct by now, which could influence both language groups mentioned above. The supposition of the contacts relies on their earlier location in one another's immediate neighbourhood, assumingly in North Europe.

## 9.2. Appendix: Finnic–Lapp–Samoyed Supposed Common Vocabulary

In the following I am going to present all traditional comparable data about the languages pairwise in a table. The table shows both the definite and less definite etymologies, added up. I have calculated the average figures (A) for all the four central Uralic etymological dictionaries, as case in point.

	SKES	MSzFE	FUV	UEW	A
<b>Finnish–Samoyed</b>	219	104	246	238	<b>202</b>
<b>Lapp–Samoyed</b>	143	90	244	250	<b>182</b>
Mordvin–Samoyed	111	84	157	146	125
Mari–Samoyed	101	81	161	132	119
Komi–Samoyed	117	100	183	210	153
Udmurt–Samoyed	101	85	139	152	119
<b>Mansi–Samoyed</b>	115	114	201	227	<b>164</b>
<b>Khanty–Samoyed</b>	110	108	235	250	<b>176</b>
Hungarian–Samoyed	83	182	150	180	149

The table shows that the number of common words traditionally supposed to be traced back to Proto-Uralic does not support the Uralic language tree model, either: Samoyed languages have the highest number of common words both with Ob-Ugric languages and **Finnic** and **Lapp** languages (the same can be seen also from the average numbers A, based on all the four dictionaries).

## 10. PROBLEM OF URALIC SUBSTRATUM IN NORTH-INDO-EUROPEAN LANGUAGES

### 10.1. Thoughts about Substratum

At the VIII International Finno-Ugric Congress in Jyväskylä 1995 the linguist **Norbert Strade** read his paper "Uralic, Germanic, Palaeo-European – about the earliest interactions of different language families in Northwestern Eurasia" (Strade 1995). He said, "The Germanic sub-branch of the Indo-European language family is like the other subgroups defined by features which differ from those found in the rest of the IE languages. Differences between daughter languages of a reconstructed mother language can have different origins. The "normal" case is constant language change occurring in all languages with different speed, which will, once two forms of the same languages are separated from each other geographically or socially, eventually lead to a splitup into dialects and finally into separate languages.

Another mechanism that can lead to a splitup is language change due to **external** influence (substratum or adstratum). In Uralic we have a well-known adstratum situation in the Baltic and Germanic influence on Proto-Finnic, which was the decisive agent that lead to the splitup of Early Proto-Finnic into Baltic Finnic and Proto-Saami. (Nuñez 1987; Sammallahti 1995; Strade 1993).

In the development of the Indo-European languages there are many cases of both adstratum and substratum. As Indo-European languages spread over a wide area of Eurasia, a large number of other languages, both IE and non-IE, received Indo-European adstrata (like Finnic did), or became substrata in the developing local IE languages. Substrata are often difficult to state, because developments almost always can find an internal explanation, too, even if this might be a complicated one. [...]

If the Germanic vocabulary clearly documents the presence of an external factor, it can be expected that we should be able to detect traits of a substratum language (of course the substratum might very well consist of the reflexes of several different sources) in other linguistic features, too.

Before we analyse these features we have to define what exactly we are looking for. As it can be seen from vocabulary alone it is most probable that the substratum in Germanic is **non-IE**. The alternative possibility – that Germanic is the "most original", i.e. least changed Indo-European language – would require very complicated developments in all sister languages and even a couple of remarkably parallel ones in geographically separated groups. I believe that this is a good reason to disregard it.

In the following I try to find some clues as to which type of language might have been the source of the substratum. The easiest way is to ascribe it to some **unknown language** that vanished in the process of indo-europeanization. Most scholars leave the problem like this, as unsolvable. Others have proposed languages or language families as

sources. One line sees the substratum agent as belonging to a **Pre-IE language family** that was totally replaced by Indo-European and thus only left traces as substratum or in place-names. Sometimes this language is simply called "**Paleo-European**". Others again try to find cognates of the substratum in still existing language families. Especially place-names all over Europe have been connected with the non-IE **Basque** and **Caucasian** languages, thus assuming that languages belonging to these groups once were spoken in a much wider area.

For the question of Germanic this isn't very helpful. None of the above mentioned substratum-indicating features can find easily explainable parallels in Basque or the Caucasian families. Even the explanation using an unknown and vanished non-IE language (family) isn't as simple as it seems. It introduces a big language-area (the one underlying at least early Germanic in Northern Germany and Southern Scandinavia), whose source and possible movements are unaccounted for. As I try to show this is unnecessary, since a better explanation is close at hand.

If we look at the modern language map of Europe we find only one non-IE language family that has an old common border with Germanic: the Uralic family, represented by the Saami-Finnic sub-branch of Finno-Ugrian. How old is this language border? Over the past 10–20 years a new view on this question has been slowly emerging: Earlier theories took their starting point in an assumed Finno-Ugrian immigration to Finland and the Saami areas at a relatively late time (this side of 0 CE). Today several scholars hold theories which see Uralic speaking groups as autochthonous in north-eastern Eurasia, representing the first immigrants after the end of the ice-age (Nuñez 1987; Sammallahti 1995; Strade 1993). Evidence for this theory is constantly mounting up, e.g. in the form of a more and more southern extension of pre- and early historical Saami culture in Central Scandinavia as the available material gets analysed.

With this foundation we have to assume that a border between Uralic and non-Uralic existed in the mentioned area since the time when Fennoscandia was populated. Where did it go? Here we must have help from archaeology and anthropology. The Uralic speaking groups are seen as the protagonists of hunter and gatherer culture, as many of them still were in historical times and some continue to be today. Some became agriculturalists, like the Baltic Finns did a result of narrow contacts with Baltic and Germanic (i.e. Indo-European speaking) groups.

The earliest language border between Uralic and non-Uralic to which we have some clues is therefore the border between Proto-Finnic and Germanic/Baltic, going through Southern Central Scandinavia and somewhere through the Baltic area (Sammallahti 1995; Strade 1993). The non-Uralic languages spread with agriculture, by the immigration of populations, by diffusion, or most likely by a **combination** of all those factors. It is a reasonable hypothesis that the border between language families changed according to the areal change of subsistence economy. In some places the process stopped half-way, as was the case in Baltic Finnic, where indo-europeanization only went to a certain level, leaving the most central Uralic features and vocabulary intact, but making Baltic Finnic the "most Indo-European" group of Uralic languages.

During the period of the commonly assumed earliest phase of the IE splitup and an independent Proto-Germanic language (about 3000–2000 BCE), the IE are must thus have bordered on the Uralic area in the north and possibly east. Taking into account the

indications that Uralic dates back to the first immigration to Fennoscandia we have to assume that this border also represents the first border between Uralic and Indo-European in the area. The only question is: Where was this border when Germanic started its separate development? This question is naturally connected to another one: When did the inhabitants of the earliest known Germanic area (Southern Scandinavia and Northern Germany) begin to speak Indo-European/Germanic?

While very few have advocated Indo-European as the autochthonous language of the Germanic area, most scholars have tried to find a cultural connection to the assumed Indo-European migration through large parts of Europe. The standard candidate for an "Indo-European" culture has been the Battle-Axe/Single-Grave culture, since it is the best fit for the assumed characteristics of Proto-IE culture that were reconstructed on the base of IE vocabulary and common beliefs among researchers. Newer theories like Colin Renfrew's place more emphasis on socioeconomical features, like the spread of agriculture (Renfrew 1987). In the Germanic area the agricultural revolution happened around 4000 BCE (datings are still under change), when the Erteboelle culture with hunter and gatherer subsistence was replaced by the agricultural **Eunel Beaker** culture. There are btw. some indications that this didn't happen as a result of a large-scale immigration but as a kind of cultural **diffusion**. [...]

With this time frame there is only one reasonable candidate for a substratum language in Germanic, that is Uralic, and the **change from Uralic to Germanic coincides with the change of subsistence.**"

The linguist **Wiik** writes (Wiik 1997a): "The southern limit of the Finnic peoples speaking western Finno-Ugric languages in the east-Baltic region is currently the border between eastern/south-eastern Estonia and Russia and that between southern/south-western Estonia and Latvia. In considering in this article the question of where the Finnic languages (e.g. Finnish, Estonian, and Livonian/Livic) and their predecessors (Proto-Uralic, Proto-Finno-Ugric, and Proto-Finnic) were spoken in the past, I rely mostly on recent archaeological and linguistic research. I refer to those archaeologists and linguists who suggest that Indo-European (IE) languages (e.g. first Proto-Indo-European, then perhaps Proto-Balto-Slavic, later Proto-Baltic and Proto-Slavic, and later still Latvian, Lithuanian, Prussian, and the eastern Slavic languages of Russian, Belorussian, and Ukrainian) at one time spread to Finno-Ugric (FU) linguistic areas alongside agriculture, cattle-raising, and stock-breeding. The shift of the subsistence systems (hunting > farming) was often followed by the shift of languages (FU > IE). [...]"

I assume the movement of the linguistic boundary was not so much a question of a demic migration from south to north; it was, rather, a result of a gradual extension of a subsistence and cultural system. The model of explanation I have adopted comprises two parts: (1) At different periods some degree of migration from south to north by the "pioneers" of a new cultural and subsistence system occurred. They merged with the original inhabitants but their language nevertheless became the dominant one in the region – this, for example, is what happened during the Slavic Expansion as interpreted by Priit Ligi, according to whom the Slav language spread to the Finno-Ugric area through the towns, trade and church, and only later to the surrounding rural areas. (2) Another possibility is that the linguistic boundary moved gradually through the slow assimilation of neighbouring populations in such a way that in intermarriage the southern

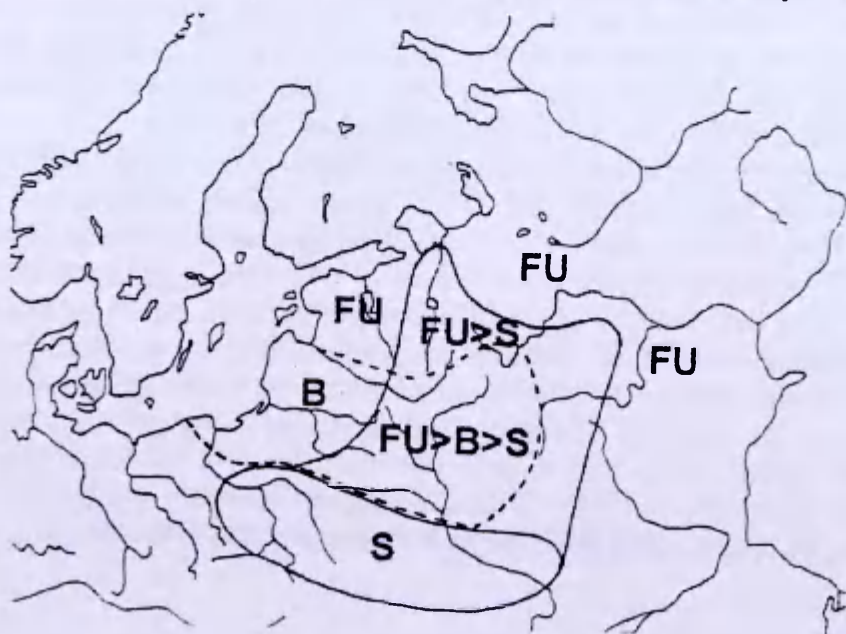
people assumed a dominant linguistic position more often than the northern ones. The difference in language status was a reflection of the higher social and economic status of the southern people.

Language shift is essential to the model I have employed: the Finno-Ugric peoples of Eastern Europe (e.g. the Dnieper and Niemen areas) changed their Finno-Ugric language to Indo-European. As always in the events of this type, they did not learn their new IE language correctly but made several phonetic and syntactic errors in the new language. As a result of their incomplete learning, a new dialect, Proto-Balto-Slav of Proto-Indo-European emerged. Later this proto-language was split into two daughter-languages, Proto-Baltic and Proto-Slav. Typical of substratal features is that they are more evident the later the language shift has occurred – in this case the further north it has occurred. (Thomason-Kaufman 1988 : 240). Exactly this appears to be the case concerning the Baltic and Slavic languages in the northern regions: the Finnic substratum is clearly stronger in Latvian than in Lithuanian, and stronger in the north Russian dialects than in the southern ones.

If the above statements are true, the next question is: Did an equivalent development also take place in western Europe, and is the emergence of Proto-Germanic, too, due to a substratal influence of the Finno-Ugric populations? This FU>IE language shift would have taken place in the traditional area of the emergence of Proto-Germanic in northern Germany, Denmark, and south-western Sweden. I maintain that this really is the case (cf. e.g. Wiik 1996[b – A. K.]). Accordingly, all the north Indo-European languages (Baltic, Slavic, and Germanic) are based on the Proto-Indo-European spoken with a Finno-Ugric substratum, which, again, implies (supposing that no great migrations took place) that the populations of the three proto-languages in question originally (before the FU>IE language shift) spoke a Finno-Ugric (more precisely Uralic) language.

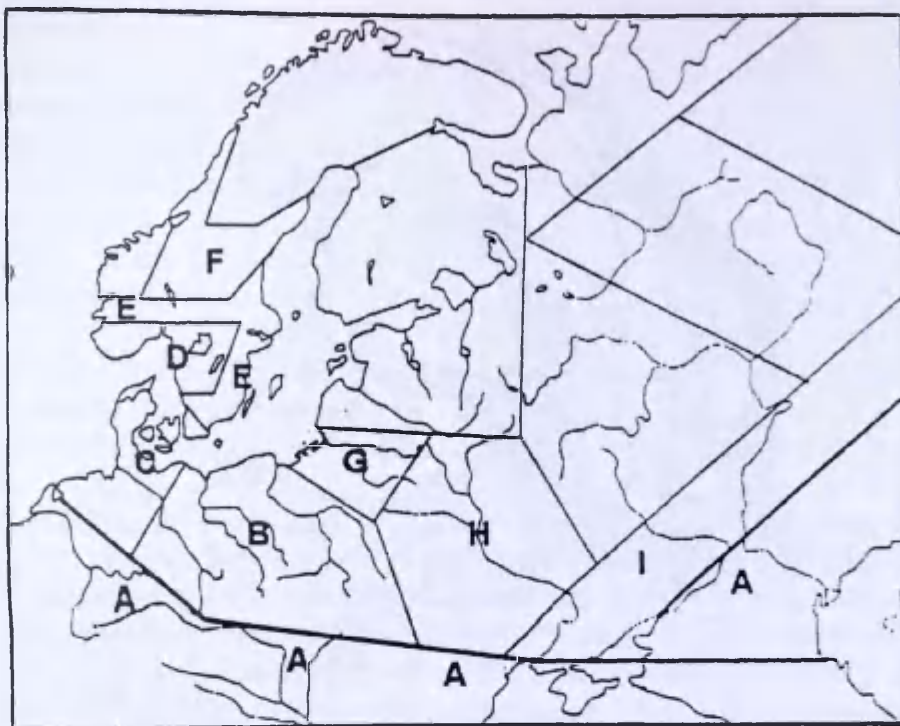
It seems to be a commonly accepted opinion among historical linguists today that the north IE languages in question originally emerged in the following way: The aboriginal populations learned to speak the IE protolanguage (or one of its dialects) and left a substratum of their own language to the new IE dialect."

There is a interesting map about 1000 AD too in the same article by Wiik (p. 28):



I add a map from the newest article by Wiik (1997d : 260) here:

The cultural and linguistic areas of northern and eastern Europe



A = The northernmost zone of the food producers and the IE language about 5500 BC. The area of LBK culture in western and central Europe.

B = The northernmost area of agriculture in western Europe about 4200 BC and the northernmost area of the IE language about 3500 BC (the "Odra-Vistula area"); the area of the oldest north IE dialect with a U/FU substratum; perhaps the area of the northern IE protolanguage or the Germano-Balto-Slavic protolanguage.

C = The northernmost area of agriculture about 3500 BC (the area of Ertebølle- Ellerbeck) and the area of the first phase of Proto-Germanic about 2800 BC.

D = The northernmost area of agriculture about 2800 BC (belonging to the area of TRB culture) and the area of the second phase of Proto-Germanic about 2300 BC.

E = The northernmost and easternmost areas of agriculture in Scandinavia about 2300 BC and the area of the first phase of Proto-Scandinavian (or the third phase of Proto-Germanic) about 1800 BC.

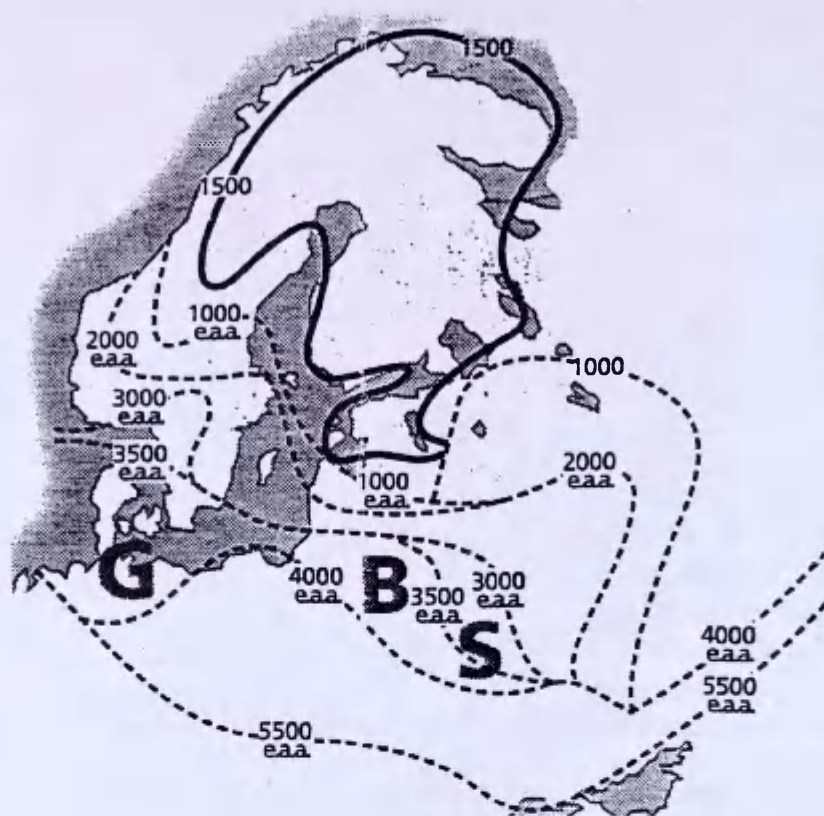
F = The northernmost area of agriculture about 1800 BC and the northern area of Proto-Scandinavian about 800 BC.

G = The assumed area of Proto-Baltic.

H = The assumed area of Proto-Slavic.

I = The area of the IE language based on the IE dialect of the steppe (Kurgan) area with a substratum of the U/FU dialect of the Lower Dnepr, Donets, and Lower Volga areas.

We can find a very clear and interesting map in a newspaper article by Wiik (1997c):



Boundaries 5500, 4000, 3000, 2000, 1000 and 1500 indicate the approximate position of the southern boundary of the FU languages at different times. Letters "e.a.a." after the year = BC. Broken lines designate boundaries within a language group (e.g. Baltic vs. Slavic). G = proto-Germanic, B = proto-Baltic, S = proto-Slavic.

In his newest publication Wiik writes, "The following is a general scheme specifying the subsistence and language for three areas that are in different phases of development: the southern area has already changed its subsistence and language, the central area is on its way in the same direction, and the northern area has not yet been influenced by the new subsistence and language.

---

Hunting-fishing-gathering  
U/FU language

---

Arrival of agriculture  
Borrowing phase: the U/FU language with IE loanwords

---

Established agriculture  
Shifting phase: the IE language with a U/FU substratum

---

[...]

Subsistence and languages in the western parts of northern Europe. The Y-axis (geographic areas) represents roughly the south vs. north dimension of the map of western Europe. The X-axis (periods 0 through 6) represents the temporal periods from about 5500 BC to the present time.

Specifications in the boxes:

(a) subsistence:

hunt = hunting-fishing-gathering

seal = seal hunting-fishing-pig raising

agr = agriculture-stock raising

(b) language:

U = Uralic

IE = Indo-European

The "pioneering" areas and periods:

Single underlining = arrival of agriculture.

Double underlining = language shift.

For example, symbols agr-U in the box on line D in column 3 show that the population living in area D (the inland of southern Sweden) during phase 3 (3500–2800 BC) were farmers who spoke a Uralic language with borrowed elements from Indo-European; their southern neighbours (agr-IE) were farmers who spoke an Indo-European language with Uralic substratum and their northern and eastern neighbours (hunt-U and seal-U) hunters and sealhunters who spoke a more or less "pure" Uralic language.

Phase⇒	0	1	2	3	4	5	6
	BC ⇒ 5500	4200	3500	2800	2300	1800	800
	hunt-U	hunt-U	hunt-U	hunt-U	hunt-U	hunt-U	hunt-U
	hunt-U	hunt-U	hunt-U	hunt-U	hunt-U	hunt-U	<u>agr-U</u>
F	hunt-U	hunt-U	hunt-U	hunt-U	hunt-U	<u>agr-U</u>	<u>agr-IE</u>
E	hunt-U	hunt-U	hunt-U	hunt-U seal-U	<u>agr-U</u>	<u>agr-IE</u>	agr-IE
D	hunt-U	hunt-U	hunt-U	<u>agr-U</u>	<u>agr-IE</u>	agr-IE	agr-IE
C	hunt-U	hunt-U	<u>agr-U</u>	<u>agr-IE</u>	agr-IE	agr-IE	agr-IE
B	hunt-U	<u>agr-U</u>	<u>agr-IE</u>	agr-IE	agr-IE	agr-IE	agr-IE
A	agr-IE	agr-IE	agr-IE	agr-IE	agr-IE	agr-IE	agr-IE

" (Wiik 1997d).

I myself have recently written about the problem of Uralic substratum in North-Indo-European languages as follows: "So sehe ich die zur Rede stehende Substratquelle möglichst recht vielschichtig. Und sicher hat auch K. Wiik nichts dagegen.

denn er selbst spricht ja auch über eine Möglichkeit, wonach sich die uralischen Sprachen (zumindest teilweise) aus ganz verschiedenen, ursprünglich überhaupt nicht dem Uralischen ähnlichen Sprachen infolge einer gegenseitigen Angleichung herausgebildet haben konnten (und dies durch Vermittlung irgendeiner *Lingua franca*) (s. z.B. Wiik 1996[b – A. K.]). Ich würde mich bei der Substratquelle nicht auf eine uralische "Grundsprache" (die wiederum nur dieselbe *Lingua franca* sein könnte ..., sondern auf eine Ansammlung von vermutlich verschiedenen Sprachen, woraus sich (auch) die uralischen Sprachen entwickelten, festlegen. Leider haben in dem uns interessierenden geographischen Bereich des nördlichen Europas keine Vertreter dieser einstigen unterschiedlichen Sprachen, außer den Sprechern der uralischen Sprachen, die Zeiten überlebt. Deshalb ist das einzige, was wir tun können, die uralischen Sprachen als einzigen überlebten Vertreter der Substratrete zu betrachten. Ohne dabei groß zu erwähnen, daß sich natürlich nicht alle ehemaligen uralischen Sprachen bewahrt haben. Anders ausgedrückt: Wir vergleichen in den germanischen, baltischen und slawischen Sprachen die identifizierte Substratevidenz mit der Evidenz der heutigen uralischen Sprachen. Irgendein anderes Vorgehen würde uns in die Welt der freien Phantasie führen. Ein Vergleich der beiden genannten Evidenzen darf aber nicht in ein gewaltsames Zusammenpassen ausarten. Gewisse historische Zwischenglieder bleiben unserem Zugriff unvermeidlich verborgen." (Künnap 1998c : 3).

The linguist Uesson emphasizes in his most recent paper (Uesson 1998), "It seems to me that Kalevi Wiik's hypothesis ... regarding the wide extension of the Finno-Ugric population (hunters and gatherers) in Europe before the arrival of the Indo-Europeans (agriculture and animal husbandry) has been widely accepted by a number of Finnish and Estonian researchers (look also Indreko 1948). It has also been proposed that Finno-Ugric as a substratum has contributed to the origin of the Indo-European proto-language. Further there are views that Proto-Germanic, Proto-Baltoslavic, Proto-Baltic and Proto-Slavic have come about under the influence of Finno-Ugric, since these proto-languages were spoken in originally Finno-Ugric areas (substratum). (Cp. also present Latvia and the Russian areas between St. Peterburg and Moscow conquered after the 8th century, which demonstrably have been habited by Finno-Ugric speaking peoples until recent times.) At the same time it is maintained that there seems not to be any mentionable immigration into these districts and that the change of language took place in connection with the introduction of agriculture and stock-breeding. [...]

Finally I want to point out the following. The IE *Landnahme* of Europe from the East is considered to have taken place about 4000–3500 B.C. and the European groups of the IE languages (Germanic, Italic, Celtic etc.) would have crystallized as late as 2000–1500 B.C., whilst the Anatolian and the Indo-Iranian languages ought to have reached their historical habitats around or before 2000 B.C. ... The Finno-Ugric contacts with the Indo-Iranians must have taken place in the Volga district about 2500–2000 B.C. (?), whilst the Baltic and the Germanic loan-words in the Baltic-Fennic languages would have emanated from about 2000–1500 B.C. (Baltic) or 1500–1000 B.C. or later (Germanic).

Even if Proto-Germanic, Proto-Baltic and Proto-Slavic would have crystallized within the Finno-Ugric linguistic area, where Finno-Ugric had participated (as a substratum) in this process, this must have occurred relatively late, i.e. about 2000–1500

B.C., but not much earlier than 2000 B.C. Kalevi Wiik's theories are principally based on the arrival of agriculture in Northern Europe (the Oder district 4200 B.C., the Danish islands 3500 B.C., Southern Sweden up to the Stockholm district 2300 B.C.), which does not seem to coincide with the arrival of the Indo-Europeans, the Balts or the Germans (Teutons) in these areas, which took place somewhat later. Or we have to change the chronology: perhaps the Indo-Europeans and the Germans (Teutons) arrived earlier in Northern Europe and Scandinavia? According to Wiik first agriculture spread to these districts and then, about 1000 years later, the IE language.

Basically, it is a question of two different opinions, one advocated by certain Indo-European researchers that maintains that the Indo-Europeans were autochthonous in (Western) Europe and that the Finno-Ugrians came from Asia, more or less precisely from the Upper Volga district, and another advocated by i.a. certain Finno-Ugric researchers and others which proposes that the Fenno-Ugrians were autochthonous in (Western) Europe and that the Indo-Europeans came from Asia, more or less precisely the Lower Volga district at the Caspian Sea. [...]

Then we have again only two possibilities:

*Hypothesis:* Either were the Indo-Europeans autochthonous in Europe and were transformed into agriculturalists in connection with the migration of agriculture into Europe, and then the representatives of the so-called Kurgan culture, or at least the Northern Battle-Axe culture with their cattle and horse raising, who invaded Europe were Finno-Ugrians! A comparison can be taken with the Avars, the Huns and the Hungarians who invaded Europe in historical times from the east.

*Antithesis:* Or the Finno-Ugrian researchers are right in presuming that the original European hunting and fishing populations consisted of Finno-Ugrians, who i.a. through the immigration of the Kurgan culture (Indo-European?) from the Cuban district to Europe, who had taken over the non-Indo-European agriculture and completed it with their pastoral way of life, were transformed into Indo-Europeans, as far as they did not retain their Finno-Ugric language in the present day Balto-Finnic area. [...]

Perhaps the right thing is to leave the question open, or to partly accept both alternatives."

## 10.2. Social Background of Substratum

Concerning the language shift I think Wiik may be right in main aspects. We have to recall the papers read at an international seminar held in 1992 at the School of American Research and published in the book "Last Hunters – First Farmers" 1995. The editors of the book T. Douglas Price and Anne Birgitte Gebauer write, "The school of American Research (SAR) advanced seminar was exciting and productive. New ideas and information – theory and data – were used as blocks to assemble our understandings of the transition to agriculture. These blocks were examined in detail, often rejected, and sometimes added to our construction. There was disagreement but also a surprising amount of consensus among the participants. [...] The conclusions reached by the seminar participants implicate these conditions and causes in agricultural transitions in prehistory and provide a new perspective on this fundamental transformation of human society.

These conclusions represent some consensus, but not complete agreement, among the participants. [...] Our most widely agreed-upon conclusions were these: [...] Domesticated plants and animals appear to spread through diffusion rather than through colonization by new peoples. With only a few exceptions, the general pattern for the transition to agriculture is one in which local peoples adopt the ideas and products of cultivation and herding. The last hunters *were* the first farmers. Exceptions to this rule occur primarily in areas with small indigenous populations." (Price, Gebauer 1995 : 5–8).

Together with Lawrence H. Keeley they continue, "These two mechanisms, colonization and indigenous adoption, are the primary means for the spread of agriculture, as well as other kinds of innovation. For a number of reasons, explanations of prehistoric change involving migrations or colonization have become decidedly unpopular in archaeology ... Despite the prevalence of migration and colonization in the historic and ethnohistoric records, there is almost no body of modern archaeological theory that deals with such phenomena. In European prehistory, the spread of agricultural economies to most regions now provokes only controversies about the specific processes by which farming was adopted by indigenous foragers – colonization is seldom, if ever, considered." (p. 125).

Dolukhanov writes, too, "It may be suggested that the spread of a farming economy was carried out predominantly by means of acculturation, i.e. the adoption of farming and stock-breeding practices by the local groups of foragers. This process (with rare exceptions) never implied large-scale migrations. It has been suggested (Renfrew 1987) that the spread of the farming economy went together with the proliferation of the Indo-European language. I believe that this language (or its various dialects) in the capacity of a *lingua franca* performed the function of a medium of inter-group communication in the newly evolved world of early agriculturalists." (Dolukhanov 1994 : 392–393).

### 10.3. List of Possible Uralic Substratum in North-Indo-European Languages

In the following I list the hitherto existing references to Uralic/North-Indo-European linguistic affinities. These Uralic features which occur only in one North-Indo-European language have been discarded. (Abbreviations of languages: B = Baltic languages, ES = eastern Slavic languages, G = Germanic languages, NR = northern dialects of Russian, S = Slavic languages, PB = Proto-Baltic language, PFU = Proto-Finno-Ugric language, PG = Proto-Germanic language, PS = Proto-Slavic language, PU = Proto-Uralic language, R = Russian language, WR = western dialects of Russian.)

#### Phonetics

1. The change of the vowel system in PG, PB and PS so that it becomes comparable to that in PU/PFU (Wiik 1996a; see also Tkačenko 1989 : 89–90; Raukko, Östman 1994 : 24).
2. The shifting or fixing of the word stress on the first syllable in PG, B and NR (Raukko, Östman 1994 : 23; Wiik 1996a; 1996b; see also Wiik 1995; Strade 1995; Viitso 1996a).

3. The changes  $c\check{c} > qx$ ,  $c > q$ ,  $g > G$  and  $gj > G\tau$  in PG, PB and PS (Wiik 1996a; see also Strade 1995; Wiik 1996b).
4. The change of PIE  $c > h$  in PG and  $c > s$  in PB and PS (Wiik 1996a).
5. Centralization and exspiratization of the stress in PG (Wiik 1996a; 1996b).
6. Palatalization of consonants in the vicinity of  $i/j$  in PG (Wiik 1996a; 1996b).
7. Dissolution of the syllabic resonants into an  $u$  followed by the respective resonant in PG (Wiik 1996a; 1996b; see also Strade 1995).
8. The Verner's Law in PG and its derivative language (Wiik 1996a; 1996b; see also Strade 1995).
9. The Grimm's Law in PG (Wiik 1996a; 1996b).
10. The changes  $\bar{a} > a$ ,  $\bar{o} > o$ ,  $\bar{a} > \bar{o}$  and  $ei > \bar{i}$ ,  $e > i$  in PG (Wiik 1996a; 1996b).
11. The umlaut in G (Wiik 1995 : 88–89; 1996a).
12. The change  $*kt > *ht$  or  $*\chi t$  in G (Viitso 1996a).
13. The apocope in G and Latvian (Wiik 1996a).
14. The vocalization of  $*n$  before  $*s$  and  $*h$  in the northern G and before  $*s$  in Latvian (Stolz 1991 : 34–35).
15. Opposition of short/long vowels in PB and PS (Viitso 1996a).
16. Loss of the aspiration of plosive stops in PB and PS (Wiik 1996a).
17. Correlation of front/back vowels as well as palatal/nonpalatal consonants in B and S which led to the symmetry of the phonemic system (Bednarczuk 1997).
18. The simplicity of vocalism (quality) and prosody in B and S (Bednarczuk 1997; see also Wiik 1995 : 78–82, 89; 1996a).
19. Certain vowel harmony in PS (Raukko, Östman 1994 : 24; see also Dahl, Koptjevskaja-Tamm 1992 : 12).
20. The change of  $*tl$ ,  $*dl > *kl$ ,  $*gl$  in B and WR (Viitso 1996a).

## Morphosyntax

1. The lacking of conventional perfect/imperfect opposition in the languages in the area of the Baltic Sea (Dahl, Koptjevskaja-Tamm 1992 : 14).
2. Inflectional preterite (independent of the opposition perfect/imperfect) in the languages in the area of the Baltic Sea (Dahl, Koptjevskaja-Tamm 1992 : 15).
3. The use of the present tense instead of inflectional future in the languages in the area of the Baltic Sea (Dahl, Koptjevskaja-Tamm 1992 : 15–16; see also Metslang 1996).
4. The development of analytical features in G (Strade 1995).
5. The preterite marker in G (Strade 1995).
6. The tendency to agglutination in G, B and S (Bednarczuk 1997; see also Dahl, Koptjevskaja-Tamm 1992 : 18–24).
7. A complicated declension as opposed to the simplicity of conjugation in B and S (Bednarczuk 1997).
8. The nominal conception of a sentence in B and S (Bednarczuk 1997).
9. The dominance of coordination over subordination in B and S (Bednarczuk 1997).
10. Semantically motivated alternation in the subject and object declension forms in B and ES (Raukko, Östman 1994 : 23; see also Tkačenko 1989 : 81–82; Dahl, Koptjevskaja-Tamm 1992 : 29–30; Klaas 1996 : 38–44).

11. The object is in a different case in the negative sentence as compared to that in the affirmative sentence in B, Polish and R (Raukko, Östman 1994 : 23; see also Dahl, Koptjevskaja-Tamm 1992 : 29–30).
12. A mixed system of prepositions and postpositions in G (Stolz 1991 : 81–88), B and R (Ehala 1996 : 457).
13. An abundance of participles and participial constructions as well as impersonal expressions in B (Bednarczuk 1997).
14. An interrogative particle in B (Stolz 1991 : 65–68).
15. An imperative object occurs in the nominative in B (Stolz 1991 : 43–44).
16. Quotative in B (Stolz 1991 : 45–50; Raukko, Östman 1994 : 24; see also Campbell 1991).
17. A particular final infinitive form in B and possibly also in NR (Ritter 1996).
18. The use of the verb 'to be' instead of 'to have' in Latvian, partly in Lithuanian (Stolz 1991 : 73–76) and ES.
19. The predicative occurs in the instrumental predominantly in Lithuanian, Polish and R (Bednarczuk 1997).
20. The dative and the verb 'to come' in the debitive occurs in Latvian (Stolz 1991 : 77–81), G and R (Klaas 1996 : 57–58).
21. The distinction of alive/lifeless in PS (Raukko, Östman 1994 : 24).
22. The imperative *ka*-marker in R (Raukko, Östman 1994 : 24).

It is reasonable to suppose that a further scrupulous research of Germanic, Baltic and Slavic languages coupled with a more ardent collaboration by Finno-Ugrists will contribute to the lengthening of this list **considerably**.

#### **10.4. List of Possible Uralic Substratum in Slavic Languages**

I'll try to list a few more common features concerning particularly the **Uralic/Slavic** evidence. **Thomason** and **Kaufman** write, "As Baltic and, centuries later, Slavic speakers expanded northward and eastward from their original homeland, they encountered speakers of non-IE languages, including (but probably not confined to) Uralic. At least two kinds of historical evidence indicate that speakers of various Uralic languages shifted to Baltic and Slavic languages as the Indo-European groups took over new regions. [...] Early chronicles show Slavic and Uralic peoples in contact by 862; Slavic expansion probably established such contacts at least by the sixth century A.D., and Baltic speakers came into contact with Uralic speakers even earlier ... Finnic speakers along the southern coast of the Finnish Gulf (between Narova and Leningrad) and near the White Sea coast began shifting to Russian in the thirteenth century. [...] Uralic influence on northern Russian dialects and on Latvian is, as far as we know, generally accepted. The most controversial claims are those made for Uralic influence on Slavic as a whole, since such interference would have to have occurred at a period before the final breakup of Common Slavic and thus before we have direct evidence of intensive Slavic-Uralic contacts. One common objection to any such hypothesis is that Slavic has no old Uralic loanwords, so that there cannot have been any other early interference from Uralic

in Slavic either. We would of course argue that the absence of old loanwords means only that if there was early interference, it must have come about through shift, not borrowing. Since the historical evidence points to a shift situation in any case, the lack of loanwords is, in our opinion, not valid as an objection to claims of interference. [...]

Timing is a more serious problem. But if ... the ancestors of the Russians first came into contact with Uralic speakers about the end of the sixth century A.D. ..., then there could have been time for some contact-induced changes to spread from northern to southern Slavic dialects, because communication between northern and southern Slavs was not finally cut off until several centuries later, in the tenth century in the west, later in the east ... The initiation of the last Common Slavic change – that is, the last single change to affect all the Slavic languages/dialects, namely, the fall of the jers (*i̯*, *u̯*) – is generally dated from the tenth century. It spread from south to north, and it was not completed in northern Russian dialects until the thirteenth century. It should therefore have been possible for changes to have spread from north to south before the tenth century. (It must be kept in mind, however, that the jer developments could possibly have arisen independently in the various languages, through drift.)

Even if some Uralic-induced changes affected late Proto-Slavic, the continuing contact between Uralic and Baltic and between Uralic and Slavic in the north would make us expect to find more evidence of Uralic influence in the northern languages and dialects than in Slavic as a whole. One reason is that a longer period of intimate contact is likely to result in more overall interference, especially if borrowing occurs as well as shift-induced change; another reason is that at least some of the northern changes will have been more recent and thus easier to detect. This expectation is in fact borne out by what we do find: a few features that suggest Uralic interference in late Proto-Slavic, a number of additional features in Russian and its nearest Baltic and Slavic neighbours, and still other Uralic interference features confined to northern Russian dialects and/or one or both extent Baltic languages, Lithuanian and Latvian." (Thomason, Kaufman 1988 : 238–240).

And they summarize, "The ... analysis of possible Uralic interference features in Baltic and Slavic suggest the following historical picture. In the northernmost languages and dialects – Lithuanian, Latvian, and northern Russian – the process of shift from Uralic left indisputable linguistic traces in the target languages. The influence is so clear here partly, perhaps, because the Uralic presence was numerically stronger in the north. More importantly, the shifts were more recent in this area, so that interference features are still structurally transparent and thus easy to identify – that is, the shift-induced changes have not been obscured by subsequent changes. Russian as a whole, and its neighbours, also show a number of definite Uralic substratum features. All the evidence for Uralic interference in Slavic as a whole is problematic, but it seems likely to us that the difficulty arises primarily from the fact that the structural links are harder to verify at the relatively great time depth – a thousand years or more. In any case, Uralic substratum interference throughout Balto-Slavic territory is moderate rather than heavy: structural interference features can be found in several grammatical subsystems, but most of the inherited Indo-European grammatical patterns remain intact." (p. 251).

As a single comment to the Thomason's and Kaufman's views I accentuate that a linguistic majority may transfer to a more prestigious language of a linguistic minority,

too. We must remember the possibility of the spread of objects and patterns of activity rather than a considerable population migration should be considered.

In the following the hitherto existing references to Uralic/Slavic linguistic affinities known to me will be listed. (Abbreviations of languages: CR = central dialects of Russian, ES = eastern Slavic languages, NR = northern dialects of Russian, PIE = Proto-Indo-European language, PFU = Proto-Finno-Ugric language, PS = Proto-Slavic language, R = Russian language, S = Slavic languages, SR = southern dialects of Russian, WR = western dialects of Russian.)

## Phonetics

1. The change of the vowel system in PS so that it becomes comparable to that in PFU (Wiik 1996a; see also Tkačenko 1989 : 89–90; Raukko, Östman 1994 : 24).
2. Opposition of short/long vowels in PS (Viitso 1996a).
3. Replacement of vowel length distinctions by quality distinctions in PS. The lack of the distinctive vowel length in R, Belorussian, Ukrainian and the eastern dialects of Slovak (Thomason, Kaufman 1988 : 248–249).
4. The change PIE *c* > PS *s* (Wiik 1996a).
5. The changes *cç* > *qx*, *c* > *q*, *q* > *G* and *gj* > *Gτ* in PS (Wiik 1996a; see also Strade 1995).
6. Loss of the aspiration of plosive stops in PS (Wiik 1996a).
7. A vowel harmony rule that affects its weakest vowels (jers) in Old Church Slavic (Thomason, Kaufman 1988 : 248; Raukko, Östman 1994 : 24; see also Dahl, Koptjevskaja-Tamm 1992 : 12).
8. Tendency to the phonetic accommodations within syllable and word in S (Bednarczuk 1997).
9. The simplicity of vocalism (the quality of vowels) and not complicated prosody as opposed to developed consonantism in S (Bednarczuk 1997; see also Wiik 1996a).
10. Correlation of front/back vowels as well as palatal/nonpalatal consonants in S which led to the symmetry of the phonemic system. Almost every nonpalatalized consonant in the phonemic inventory has a palatalized counterpart in R. (Thomason, Kaufman 1988 : 247; Raukko, Östman 1994 : 24; Bednarczuk 1997; see also Dahl, Koptjevskaja-Tamm 1992 : 12.)
11. Development of prothetic *v* before back rounded vowels in R and of prothetic *j* before front unrounded vowels in S (Thomason, Kaufman 1988 : 244).
12. The change *o* > *a* or *ə* in SR and CR (including standard language) (akan'e), Belorussian, Slovenian, western and eastern dialects of Bulgarian (Thomason, Kaufman 1988 : 244).
13. *c* and *č* > *c* in R (cokan'e) (Thomason, Kaufman 1988 : 241).
14. Fixed word-initial stress in some NR (Thomason, Kaufman 1988 : 241; Raukko, Östman 1994 : 28; Wiik 1996a; see also Strade 1995; Viitso 1996a).
15. *\*tl*, *\*dl* > *\*kl*, *\*gl* in Pskov and Novgorod dialects of R (Viitso 1996a).

## Morphosyntax

1. An animate/inanimate gender distinction in PS (Thomason, Kaufman 1988 : 249; see also Raukko, Östman 1994 : 24).
2. The lacking of conventional perfect/imperfect opposition in the languages in the area of the Baltic Sea (Dahl, Koptjevskaja-Tamm 1992 : 14).
3. The use of the present tense instead of inflectional future in the languages in the area of the Baltic Sea (Dahl, Koptjevskaja-Tamm 1992 : 15–16; see also Metslang 1996).
4. Inflectional preterite (independent of the opposition perfect/imperfect) in the languages in the area of the Baltic Sea (Dahl, Koptjevskaja-Tamm 1992 : 15).
5. Tendency to agglutination resulting in abundance of formants and relational morphemes which caused the lengthening of the word in S (Bednarczuk 1997).
6. The nominal conception of a sentence (verbal and nominal predicate being little differentiated) in S (Bednarczuk 1997).
7. The dominance of co-ordination over subordination in S (Bednarczuk 1997).
8. The development of declension as opposed to the simplicity of conjugations (aspects and manners of action in the function of tenses; small distinctions of moods, voices and persons in verb) in S (Bednarczuk 1997).
9. A considerable number of the participial formations and respective constructions, as well as impersonal expressions in S (Bednarczuk 1997).
10. The high level of maintenance of the inherited IE case system by all but the most balkanized (Thomason, Kaufman 1988 : 250).
11. The emergence of the predicative instrumental construction in Slavic. It is best developed in R and Polish, e.g. R *on byl soldatom* 'he was a soldier' (Thomason, Kaufman 1988 : 250; Dahl, Koptjevskaja-Tamm 1992 : 31; see also Raukko, Östman 1994 : 24), cf. Estonian *ta oli sõduriks* (translative) id.
12. Semantically motivated alternation in the subject and object declension forms in ES (Dahl, Koptjevskaja-Tamm 1992 : 29–36; see also Raukko, Östman 1994 : 23; Ritter 1996 : 185–186; Tkačenko 1989 : 81–82; Klaas 1996 : 38–44).
13. The object is in a different case in the negative sentence as compared to that in the affirmative sentence in R and Polish (Thomason, Kaufman 1988 : 245; Dahl, Koptjevskaja-Tamm 1992 : 29–30; Raukko, Östman 1994 : 23), e.g. R *ne p'ju čaj* 'I am not drinking tea' – *p'ju čaj* 'I am drinking tea'.
14. Use of the possessive pronoun instead of the personal pronoun in R, e.g. *ja čitaju svoju knigu, ty čitaeš' svoju knigu* etc. 'I am reading my book, you are reading your book' etc. (literally *svoju* 'own') (see also Stolz 1991 : 55–58), cf. Estonian *ma loen oma raamatut, sa loed oma raamatut* id.
15. The so-called second locative in R, e.g. *v lesu* 'in forest' – *v lése* 'there is in forest, forest has' (Thomason, Kaufman 1988 : 245; Raukko, Östman 1994 : 24; Tkačenko 1989 : 82–83).
16. The so-called second genitive, a partitive construction that arose through reinterpretation of a vanishing noun-class distinction in R, e.g. *stakan čaju* 'a cup of tea' – *cena čaja* 'the price of tea' (Thomason, Kaufman 1988 : 245; Dahl, Koptjevskaja-Tamm 1992 : 81–83), cf. Estonian *klaas teed – tee hind* id.

17. The lack of a verb 'have' partly in ES, especially in R, e.g. *u menja paket* 'I have package' (literally 'at me [is] package') (Thomason, Kaufman 1988 : 246; Stolz 1991 : 73–76), cf. Estonian *mul on pakk* id.
18. The imperative suffix *-ka*, which is added to the simple imperative to soften the force of an order in R (Thomason, Kaufman 1988 : 245; Raukko, Östman 1994 : 24), e.g. *idi-ka* 'well, go now!'.
19. The dative and the verb 'to come' in the debitive in R, e.g. *mne prišlos' dolgo ždat'* 'I was to wait long', cf. Estonian *mul* (addressive) *tuli kaua oodata* id. (Klaas 1996 : 57–58; see also Stolz 1991 : 77–81).
20. A mixed system of pre- and postpositions in R (Stolz 1991 : 81–88).
21. A particular possessive construction in NR, e.g. *u volkov tut korovu jideno* 'here the wolves have eaten a cow' (literally: 'at' + gen.pl. + 'here' + acc.sg. + part.perf.pass.) (Meerwein 1994; Leinonen 1996), cf. Estonian *huntidel on siin lehm söödud* id.
22. Replacement of the feminine accusative singular form of nouns by the nominative singular form in NR (Thomason, Kaufman 1988 : 242).
23. Nominative object in (old) NR, e.g. *a veleno im služit' gorodavaja osadnaja služba* 'and ordered them serve city rampart service' (Thomason, Kaufman 1988 : 242; Dahl, Koptjevskaja-Tamm 1992 : 33–36), cf. Finnish *ja heidän on käsketty suorittaa kaupungin puolustuspalvelu* (nom.) id.
24. Derivational causative suffix in NR, e.g. *sosat'* 'suck' – *sositat'* 'to suckle' (Thomason, Kaufman 1988 : 244), cf. Estonian *imeda – imetada* id.
25. A particular final infinite form possibly in NR (Strade 1995).  
(See in the most points also Veenker 1967.)

It is reasonable to suppose that a further scrupulous research into Slavic languages coupled with a more ardent collaboration by Uralists will contribute to the lengthening of this list **considerably**.

## **11. CONCLUSIONS**

### **11.1. General**

1. Every nation has its own identity.
2. Old national myths play a great role in national identity.
3. Every nation loves its old traditional myths.
4. People do not worry if those myths are scientifically right or wrong.
5. Every scientific society loves its old traditional theories.
6. Scientific paradigm changes itself from time to time.
7. The change of scientific paradigms turns old traditional scientific theories to myths.
8. The majority of scientists cannot believe that an old scientific paradigm turns to myths.
9. There are always some rebels – in society and, particularly, in science.
10. The paradigm of Uralistics is changing just now under the leadership of some Uralistic rebels.
11. Their war against tradition is not Uralic-nationalistic: the paradigm of humanities is being changed by the Indo-European scientists, not by the Uralic ones. The Indo-Europists started it in the first place.
12. Quite a different thing is that this paradigm changes and the changes in scientific views of the rebels concerning the Uralistics are suitable for the new scientific identity of Hungarians, Estonians and Finns. It just so happened, it was not for nationalistic purposes.

### **11.2. Uralistics**

1. Indo-European scientists are interested in the Uralistics, too.
2. Uralists must help them in their work as they know more about Uralic languages, archaeology, history, physical anthropology, genetics etc.
3. Geneticists are strictly asking for our help. They say: we have a lot genetic data but no idea how to work with these data. Give us such ideas, theories, hypotheses and we will check them. Geneticists cannot work with their databanks without concrete aims – databanks are so large that they overload the computers: the capacity of computers ends.  
Geneticists mainly ask from linguists' help because they are afraid that the archaeologists with their ready theories coupled with their large databanks. Geneticists look at Finno-Ugrians as pure Europoids (Caucasoids) and Samoyeds as pure Mongoloids.
4. Uralists must help them.

5. The very first ideas concerning the Uralians as the first wave of migration that reached Northern Europe are proposed by the Indo-European archaeologists (Russian Pavel Dolukhanov in England, Czech Miloslav Zvelebil in Czechia and Cuban Milton Nuñez in Finland).

6. The Estonian archaeologists deny their role in the upbuilding of the theory about the coming of Uralians from east. They say they have never seen any routes of migration of population to the Baltic Sea area from east. They say: the Uralic linguists are guilty – they proposed such a way of migration for the Uralic-speaking populations. The Estonian archaeologists say: we have always seen the south-eastern or southern or south-western sources of today's Estonian population. And we have never said anything about languages: our archaeological findings do not speak, you know.

7. The Estonian traditional physical anthropologists have observed in Finns, Estonians and other Finnic populations a minute component of Mongoloism growing among the other Finno-Ugric populations in the east and among Samoyeds. Geneticists mainly deny such a possibility among the European Finno-Ugrians.

### 11.3. My Main Reflections

1. There was no narrow Uralic proto-home with a unitary Uralic proto-language, proto-race, proto-culture, proto-religion etc. in the east in the Volga or southern Ural area.

2. There was a vast area of preglacial population in northern Europe from the Atlantic to the Ural Mountains.

3. This population was the very first wave of spread of *homo sapiens sapiens* to Europe.

4. This population could speak either relatively unitary Uralic languages or quite different languages.

5. Groups of this population had linguistic and other contacts with each other in all respects.

6. If there were quite different languages these entered into a language union (Sprachbund) and by means of the intermediate *lingua franca* these different languages unified until a definite level but each one of them has preserved some features of the initial language.

7. If there were only relatively unitary Uralic languages initially, they, too, have preserved some old features of their own.

8. When traditional Uralic linguists reconstruct their traditional Proto-Uralic language they may reconstruct in the first case only an incomplete, not a normally functioning, or a living, but only quite a poor intermediate *lingua franca*.

9. The reconstruction of Proto-Uralic looks in the second case a reasonable idea. Why not? And not dangerous for anybody. This reconstruction tries to base on the evidence of the contemporary Uralic languages.

10. But now a terrible mistake occurs. The traditional Uralists forget that the reconstructed Proto-Uralic is in both cases only a methodological tool and not a real language. They fetishize the Proto-Uralic and believe it has linguistic evidence. From this

pseudo-evidence they begin to back-reconstruct the features and details of the real living contemporary Uralic languages.

11. The so-called back-reconstruction is the worst they can do. They say: in Proto-Uralic is the evidence of such and such a feature or detail. They say: if so then all the contemporary Uralic languages must have the traces of these Proto-Uralic features or details or they have been deleted later. Why must have, why deleted?!

Here is really the place of a very serious and dangerous mistake! This is where science ends and a party game with conventional rules begins. And they call this game scientific investigation of the history of Uralic languages!

12. I always try to start from the real evidence of the contemporary Uralic languages. Naturally, I only try because there are so many so sophistic traditional traps of Uralistics – complicated theories and subtheories, ready solutions, misinformation etc., etc. But I try.

#### **11.4. Uralic–Indo-European**

1. There was no massive migration of Indo-European-languages-speaking population to north.

2. There was only the so-called pioneer colonization of the Uralic-language-speaking area by Indo-European-language-speaking people.

3. Northern Indo-European languages – Germanic, Baltic and Slavic – may be the result of a transition of Uralic or any other old Northern European-language-speaking population to an Indo-European language form.

4. New speakers of the Indo-European language form spoke their new language poorly, with many phonetic and morphosyntactic mistakes.

5. We can see these mistakes even today in the contemporary Germanic, Baltic and Slavic languages.

6. These mistakes or more exactly – phonetic and morphosyntactic substratum – remind us of Uralic phonetics and morphosyntax.

7. Since today we have only the evidence of Germanic, Baltic and Slavic languages, on the one hand, and Uralic languages, on the other, we must compare this evidence with each other. We can not do any more!

#### **11.5. Uralic – Siberian Non-Uralic**

1. There are very many common features between Uralic languages and non-Uralic Siberian languages.

2. They occur especially between Siberian Uralic languages – Ob-Ugric and Samoyed – and the so-called Paleosiberian and Altaic languages.

3. Part of these common features may be brought from Africa tens of thousands of years ago in parallel to Europe and to Asia, but the other part of these common features is the result of language contacts between Uralic and non-Uralic languages in Siberia.

4. But there is no reason to believe that all features of – for example – Samoyed languages existed once in the western Finno-Ugric languages, too. Or in the alleged Proto-Uralic.

5. We must compare the evidence of Siberian Uralic and non-Uralic languages with each other very carefully, in every detail.

6. I am trying to carry this work out together with my disciples. This is a very hard task but I am committed to it.

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### Abbreviations

- ALH = Acta Linguistica Academiae Scientiarum Hungaricae, Budapest.
- CIFU VIII = Congressus Octavus Internationalis Fenno-Ugristarum I–II, Jyväskylä 1995; III–VIII, Jyväskylä 1996.
- FUF = Finnisch-Ugrische Forschungen, Helsinki.
- FUV = B. C o l l i n d e r, Fenno-Ugric Vocabulary. An Etymological Dictionary of the Uralic Languages, Hamburg 1977.
- JSFOu = Journal de la Société Finno-Ougrienne, Helsinki.
- LU = Linguistica Uralica XXVI–, Tallinn 1990– (continuation of SFU).
- MSFOu = Mémoires de la Société Finno-Ougrienne, Helsinki.
- MSzFE = A magyar szókészlet finnugor elemei I–III, Budapest 1967–1978.
- NyK = Nyelvtudományi Közlemények, Budapest.
- SFU = Sovetskoe finno-ugrovedenie, Tallinn 1965–1989.
- SKES = Suomen kielen etymologinen sanakirja I–VII, Helsinki 1955–1981.
- UAJb. = Ural-Altaische Jahrbücher, Wiesbaden.
- UEW = K. R é d e i, Uralisches etymologisches Wörterbuch I–III, Budapest (1986–)1988–1991.
- Vir. = Virittäjä, Helsinki.