

Andres P ä ä b o



## **Shigir**

Top of the world's oldest surviving wooden sculpture, made by peoples of marshlands about 11,000 years ago, located near the low central part of Ural Mountains where dugout boat peoples could most easily portage across the Ural Mountains.

(image source: [dailymail.co.uk/sciencetech/article-3212829/](https://www.dailymail.co.uk/sciencetech/article-3212829/))

# UPDATED INTERPRETATION OF THE OUTDATED 19<sup>th</sup> CENTURY INTERPRETATION OF “URALIC” LINGUISTICS

- DRAFT, March 2018 -

*. Linguistic analyses and interpreting them in terms of actual geographical locations and historical events like migrations, are two separate things. Linguistics analysis is an abstract determination of apparent relationships between similar-looking languages with results indicating descent from parent languages shown with a dendrogram (tree diagram), or with results indicating areal convergence (unrelated languages becoming similar from sustained contact) shown perhaps by double arrows. But how the linguistic results should be interpreted in terms of actual events connected with the linguistic results, is separate; and it is dependent on reconstruction of actual events via archeology and other non-linguistic sciences. Language is not an independent organism – it is carried by humans, and changed by humans; therefore there is a close relationship between the reconstructed real events in the past and how related and unrelated languages diverged or converged and when. Language does not change independent of human behaviour. Bearing this in mind, the original interpretation in the late 1800's, of the linguistic observations of northwest Eurasia indigenous languages – which imagined an original “Uralic” language dividing and separating as a result of migrations, and further divisions and migrations ending with “Finnic” languages at the Baltic, is only an interpretation and other interpretations were possible. But a century ago it was impossible to reconstruct much about the past. All the interpreters had was the geographic locations of the languages, and a little cultural background, nothing else. In the past century an enormous amount of applicable information has been uncovered in archeology, and other sciences that give us a much more vivid picture of the past.. The rise of boat peoples below the glaciers and expanding east to the Urals, and the northward migrations of reindeer people in the Urals, and so on, has NEVER been included in the consideration of the linguistic findings because linguists have been afraid of updating the original interpretation of a century ago. “Uralic” linguists fail to realize that linguistics only finds relationships in an abstract way and cannot in itself place the language change in real geography and history. Only archeology and other sciences that actually pertain to geography can do that. And the interpretation may be debated and changed. The following article attempts to update interpretations according to the large amount of knowledge available today. The results suggest that there were two language families that came together and produced convergence on top of dialectic divergence. A century ago linguists were not looking at convergence, and in that respect the linguistic analysis itself is flawed even before the interpretation.*

## 1.

### THE TRADITIONAL “URALIC LANGUAGE FAMILY” – A CENTURY- OLD LINGUISTIC CONCEPT UNDER REVIEW

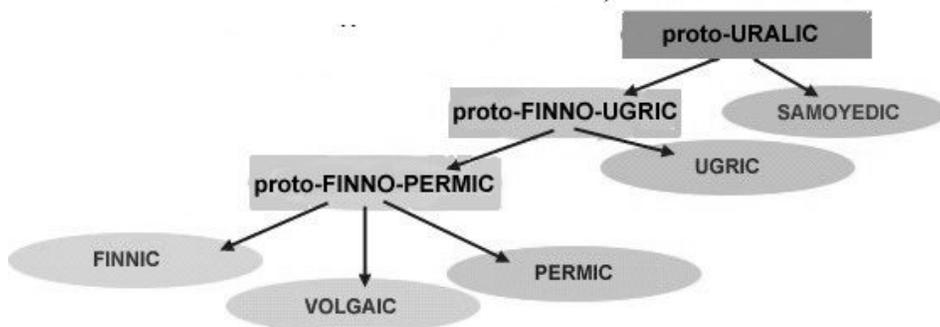
#### THE URALIC LANGUAGE FAMILY TODAY UNDER REVIEW

If you are a scholar making reference to the “Uralic Languages Family”, you will be aware that there exists a long-standing theory that Finnic languages (Finnish, Estonian, and others around the East Baltic, and maybe Saami too) is a branch of the “Uralic Languages”, and that the family originated in a tight origins near the middle Ural Mountains. This language family itself is usually described in a tree diagram developed from analysing degrees of similarities observed by linguists over a century ago. The issue lies in INTERPRETING the findings more than the linguistics itself.

The traditional family tree model of the Uralic languages was first developed over a century ago by E. N. Setälä from an approach introduced by German philologist A. Schleicher. The traditional interpretation has been that there was a parent “Uralic” language at the head of the family tree, and that from this ultimate parent language, there were breakaways leading to new languages. The apparent relationships were represented in a dendrogram (tree diagram). The tree diagram of observed relationships is an abstract one. The next step is to explain it in terms of events in real geographic time and space. The linguists of a century ago devised the interpretation of the breakaways migrating away, diverging, and then producing breakaways as well, and repeat. The assumption of the 19<sup>th</sup> century interpretation was that the original language was found in a tight location near the Ural Mountains, and the sequence of breakaways and migrations moved westward so that it was originally thought the “Finnic” branch arrived at the Baltic at about Roman times.

Figure 1

**TRADITIONAL DENDROGRAM APPROACH OF DESCRIBING SEQUENCE OF DIVERGENCE FOR A "URALIC" LANGUAGE FAMILY**



*The modern version of the century old dendrogram. It exists in the abstract as the result of comparative linguistics. It does not say anything about the actual events associated with it. The 19<sup>th</sup> century interpretation as a series of migrations and proto-languages could be wrong. It is important not to confuse the original linguistics with real world events. The linguistics could be correct, but the interpretation ridiculous compared to real events as revealed in other sciences like archeology.!*

**THE LINGUISTIC DENDROGRAM RESULTS AND INTERPRETING IT IN TERMS OF REAL EVENTS ARE TWO DIFFERENT THINGS**

But do not confuse the linguistics work done by accomplished linguists with the interpreting of the work in terms of actual events. Linguists can consider, as Angela Marcantonio did in her book that questioned the linguistics side of things, errors in the linguistic work (for example, were areal convergence similarities somewhere in the work mistakened for the results of divergence from the common parent?) But let us assume the linguistics work was fine. How to interpret it in terms of real events in the geography and history is a separate problem which requires information from other fields.

The linguistics is one thing, but the interpretation of the abstract linguistic dendrogram is not a linguistic matter, and even a good linguist may devise a poo-poo interpretation from naivete or ignorance about real world events. This is like saying a good DNA analyst at a crime scene, may not have the talent to reconstruct the actual events surrounding the DNA data – to determine what events the DNA evidence fits.

Unfortunately linguists like Jaakko Häkkinen, an advocate for the traditional interpretation, assumes the interpretation as a series of migrations from a 'tight' origin is part of linguistics. It is not. In order to determine if there was a 'tight' origin and a series of migrations, it is necessary to explain in real world events how that came about in terms of what we know, not what a century ago linguists imagined from almost no knowledge of the actual past. Interpreting linguistics is not part of linguistics. It is like in a crime scene investigation a detective interpreting the results of fingerprint analysis which compares fingerprints, as merely a part of an overall reconstruction in which all data must point to one past reality.

Kalevi Wiik's work attempted to be a detective. If one criticises such detective work it is about the skill of the detective in managing to extract the truth from all the applicable data, which of course means to know when the results of one science are applicable. For example if two peoples from different origins come in contact, we can safely infer that there was convergence, and not divergence from a common parent. A detective skill is in considering the way languages change or remain the same, and seeing what can be inferred.

The following is such detective work. The past is reconstructed and then we can infer what happened linguistically. Since around 1980, I investigated, on the side, for personal interest, the story told by all applicable sciences about the events since the Ice Age between Scandinavia and the Ural Mountains. The reason for the pursuit was because my heritage lies there (I was raised Estonian in Canada).. I began documented it all on my website when the world-wide-web appeared around 1996, under the heading of "Uirala" I invented it to define the flooded region that was empty and open to habitation in northern Europe when the glaciers of the Ice Age melted and retreated. I reconstructed the evolution of the boat peoples, including the archeologically defined "Maglemose Culture" in the south Baltic, and "Kunda Culture" in the east Baltic. They must have been related because archeology shows overlap of material cultures at the southeast Baltic. Over the past decades the story of the expansion of boat people has become vivid for me and I made many original discoveries.

The question addressed here is a simple one: what does all the evidence accumulated over the past century say about actual events, and what does it suggest is the correct interpretation of the linguistic dendrogram? What you will see below, is that it suggests a very old areal contact at the Urals between boat-oriented hunter gatherers expanding from the Baltic to the Urals and with reindeer hunters of Asian origins moving north at the Urals, and the consequences of their convergence especially at a location at the middle Urals. This convergence was then spread by a wave of small changes westward through the water system, analogous to placing a drop of red dye at one side of a tank of blue water, and observing the diffusion towards the other side.

I will show too that because the boat peoples were of European origins, and the reindeer people at the Urals of Asian origins, they must have had dramatically different languages, hence that it would be impossible to claim a common parent.

Instead of the 19<sup>th</sup> century naïve theory of an "Uralic" parent producing two children –"Proto-Finno-Ugric" and "Proto-Samoyedic" it is clear from the evidence, there were two families, one with "Proto-Finno-Ugric" (or "Paleo-Finnic") at the head, and the other with "Proto-Samoyedic"(or "Paleo-Samoyedic") at the head. The former, then, headed the Finno-Ugric language family; and the latter headed not just Samoyedic but possibly the original ancestors of the Turkic languages. As will be explained further, below.

The origins of Hungarians is under debate right now. But most of the discussion is in the context of the original "Uralic" model. In the light of the accumulated information in the past hundred years, what is the most probably explanation for Hungarian origins? See the discussion later, below,

## 2.

### PROBLEMS WITH THE TRADITIONAL 19<sup>th</sup> CENTURY “URALIC” FAMILY INTERPRETATION OF THE REAL EVENTS

The traditional interpretation of the “Uralic” linguistics a century ago, using the limited information of the time, could have been found to have mistakes already back then. While Setälä and others were trying to find an original tight homeland in the middle Volga or Kama River region, Heikki Ojansuu in 1907 challenged the view that there was an original narrow homeland by saying “*The F-U peoples once occupied a broad zone extending somewhere from the region of Ilmajärvi, then along the Volga and its tributaries to the region of the Kama and the Urals*”. He thought that the original homeland must be thought of as a broad area not a narrow one, since hunters and fishermen need large areas for their activities.

Paavo Ravila pointed out that the geographical distribution of the Finno-Ugric languages closely reflected their relationship. This portrays the development of dialects according to natural distances from one another – dialects of your neighbours are close to yours, dialects of distant relatives who you rarely meet are distant from yours.

Erkki Itkonen supported Ojansuu’s and Ravila’s view. They say that because the speakers of Finno-Ugric were highly mobile over large hunting and fishing areas, their frequent contacts kept their dialectic divergence to a minimum, and that there was once a larger uniformity of language – varying only in terms of dialects – but then as the nomadic hunting and fishing way of life came to an end in recent millenia, and people became more localized, the long distance interactions became short distance interactions and dialectic divergence increased leading to their becoming in effect distinct languages. (When a dialect can no longer be freely understood by someone of another dialect, the dialects are now languages to each other.) As Itkonen put it: when the once food-gathering peoples, who had originally needed wide areas in which to move about, became agriculturalists, and were more inclined to stay in one area, dialects became more and more separate and over the centuries and millennia developed into separate languages.

What is obvious is that Setälä and his supporters treated the speakers of all languages they looked at as if they were settled peoples like in his day. For example in his day, if one visited the Mari peoples at the lower Volga, one would see settled peoples employing agriculture. But the linguistic tree was drawn up to speak of peoples going back to 6,000 years ago. The problem is academics with not real knowledge of the behaviour of northern hunter-gatherers – but which Finnish linguists understood better – borrowed linguistic models from Germanic Europe where all peoples were settled farmers.

For the early “Finno-Ugrians” the correct model would have been the North American Algonquian canoe peoples of recent history. Here too, the example was available in the 1800’s. It seems Setälä and his supporters were more interested in the prestige of ‘discovering’ a language family, than doing any kind of research in their design of the model. At the very least, the “Finno-Ugric” and “Samoyedic” division should have been based on dialectic subdivision of a broadly distributed reindeer people. If we did not know what archeology reveals, we might indeed imagine – like Kalevi Wiik did – that there was originally a broadly distributed “Uralic” language covering a vast area of nomadic reindeer peoples, that subdivided to give rise to the “Finno-Ugric” forest hunter-gatherers along with the original reindeer people. There is absolutely nothing wrong with a broadly distributed founding language that diverges by subdivision, not migration, if the peoples are nomadic like reindeer hunters, or nomadic forest hunter-gatherers.

Thus there were some Finnish linguists who understood the proper interpretation of the linguistic findings in the early 1900’s.

Today the notion of a broadly distributed “Uralic” base language that subdivided is not supported by archeology, since it has been discovered that the actual events suggest European reindeer culture went extinct because the warming climate and glacial meltwater destroyed all reindeer habitat in Europe other than in the mountains in northern Britain, and southern Norway, and all European reindeer people had to

convert to the archeologically defined “Maglemose” and “Kunda” cultures – adaptations to the warmed, flooded, and forested new environment. There was no subdivisible “Uralic” broad origins. The surviving reindeer peoples came from Asia, and their reindeer did not become extinct because the northward shifts of reindeer herds during climate warming was not blocked by glaciers or glacial meltwater. Reindeer herds managed to survive in northeast Siberia, and it appears some survived long enough in the Ural Mountains.

Setälä and his supporters could see that there was evidence of mongoloid features in Finnic peoples, and perhaps it was the reason for designing a model in which a people migrated to the Baltic from the east based on the fact that mongoloid features originate in Asia, and were observed in Samoyeds. They could have simply assumed that Europoid features in Finnic and Volgic peoples were the result of subsequent entry of Europoid (ie “Caucasian”) peoples.

But the story actually told by archeological data, is that Europeans expanded west-to-east out of continental Europe even before any east-to-west migration of Asian reindeer people, and when it occurred it occurred in the arctic and diffused southward from northern Finland.

It is therefore likely that the European component was established right from the start. I believe the west-to-east expansion of boat people was not mongoloid. Its men had full beards and prominent noses.



For example prehistoric amber objects with faces of men all show beards. Even the head on top of the Shigir statue at the Urals dated to 11,000 years ago, was probably made by boat peoples from the west. (See later for more discussion of the significance of this statue)

Figure 2

*Left, head on top of Shigir statue, appears to show a prominent nose, and a beard (by the chin coming down considerably below the mouth and the chin not being round like the rest of the face. It suggests boat peoples from Europe, not reindeer people from Asia. Amber carvings of heads near the Baltic show more detail, and beards are clearer., It all suggests the original Finnic speakers spread west to east, before the addition of Asian mongoloid features from reindeer people of Asian origins.*

The greatest shortcoming of the original interpretation of the work of linguists was the complete failure of even considering convergence. At that early time, linguists desiring to become famous for discovering a language family also conceived of an “Altaic” language family comprising languages east of the “Uralic”. In recent decades, the “Altaic” family has been discredited, as many languages with similarities to their neighbouring languages have been recognized to be the result of areal convergences – unrelated languages becoming similar from a long history of borrowings. In the long term, borrowings become integrated into a language to the extent the words are in frequent use, even develop cognates. But the linguists a century ago were so fired up about languages families developed purely from divergence from a common parent language, that they completely ignored convergence, dismissing it as irrelevant. But as we see below, it is entirely relevant when the convergence occurs early and contact continues for a long time.

The failure to consider convergence is not a matter of interpretation of the linguistic findings but a flaw in the original linguistic itself.

3.

### THE TWO-LANGUAGE FAMILIES INTERPRETATION

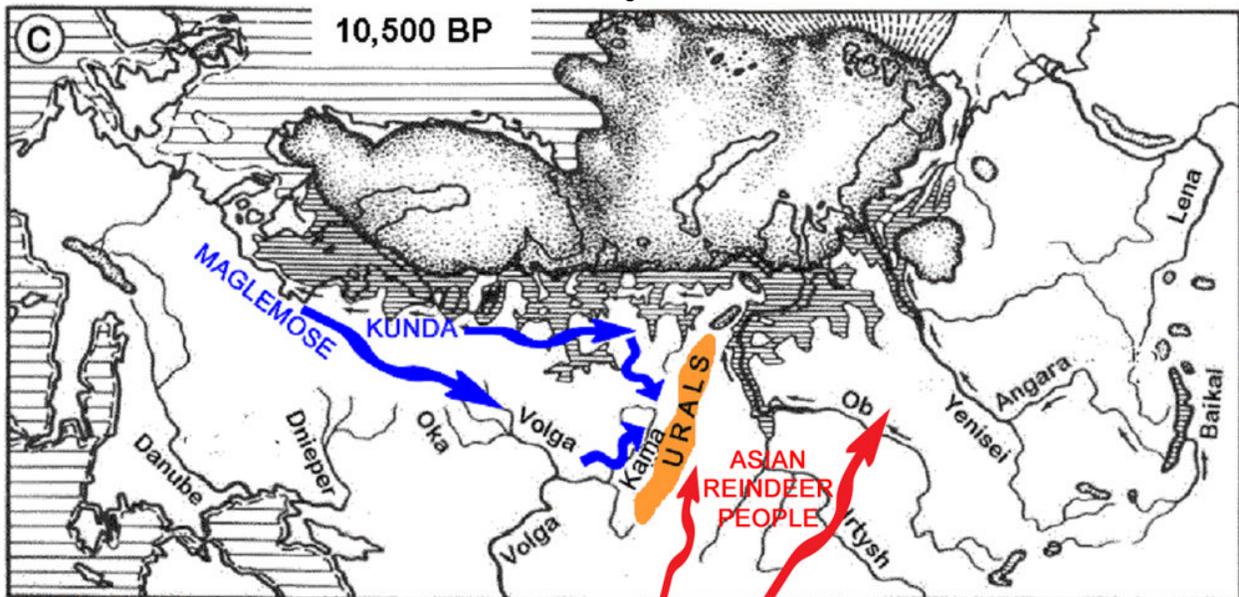
An enormous amount of information has accumulated in the past century since the original linguists had little to guide interpretation. Archeology and other sciences that have uncovered much by now, were only starting back then in the 1800's. As a result the interpretation of the real world events to describe the linguistics was mostly made up. It did not help that the linguists were a little ignorant even for their time.

Since then, archeology and reconstruction of the changes in the late Ice Age, has confirmed there was a general migration of material cultures from continental Europe eastward. The eastward expansion of boat-oriented hunter-gatherers was discovered by remains of campsites beside shores of early lakes and rivers as far east as the Urals. Better evidence than the campsites along shores is the finding of stone adzes. Stone adzes were too dull to chop wood. A demonstration (in a Lennart Meri film) from Ob-Ugrians that still make dugouts, revealed that dugouts were made with fire and the adze was used to chop away coals in the direction the burning should go, since where the coals were not chopped away the burning would receive no oxygen and stop.

This rapid spread is expected, considering the existence of the Volga which must have been large to drain the meltwater of the glaciers at the Baltic. Men in boats could float with the river and reach the lower Volga and its branch, the Kama, in a matter of only weeks. Adventurous groups of men could find their way into the Ob River too. The water systems they finally inhabited was originally a matter of choosing the best locations originally, and then subsequent groups would take the less attractive areas.

Since all humans are adverse to cold – except for reindeer people who needed to stay with reindeer herds – the best locations would then to be the ones furthest south. That meant for example the boat peoples would go down the Volga first (and from the south Baltic, rivers like Elbe, Oder and Vistula but which need archeological evidence of hunter-gatherers in lowlands and rivers as early as 12,000 years ago.)

Figure 3



BASE MAP SOURCE: [www.donsmaps.com](http://www.donsmaps.com) > Väino Poikalainen, "Paleolithic Art From the Danube to Lake Baikal" Folklore Vol. 18&19 ISSN 1406-0957

*This map which adds coloured arrows to a base map, source written along the bottom, shows generally the eastward expansion of boat peoples and the northward shifting of Asian reindeer people on both sides of the Ob River basin. Arriving from two completely different directions this is a case of convergence of two different languages and not divergence from a common ancestral language*

The discoveries in the past century, mainly via archeology, describe the kinds of peoples who would have lived between the Baltic and the Urals as late as 6,000 or 5,000 years ago, before the arrival of influences by farming and trade. We can also understand how European reindeer hunting peoples disappeared because there was no refuge for European reindeer (other than some individual reindeer in the highlands of northern Britain and the mountains of southern Norway)

But the most important discovery was from population genetics, It was clear that there was a movement of the Y-DNA N1c1 haplogroup north through the Urals at the same time as the boat peoples were arriving from the west. (Rootsi et al). It confirmed something that can be guessed from mongoloid facial features in the northeast European arctic and down the east Baltic coast – that the mongoloid features came from reindeer peoples to the east. This mongoloid features are clearly an east-to-west movement. The 19<sup>th</sup> century linguists noted this east-to-west movement of mongoloid characteristics, primarily via the arctic, and reflected it in their early interpretation of linguistics. But they failed to identify the west-to-east expansion of the dugout canoe using hunter-gatherers.

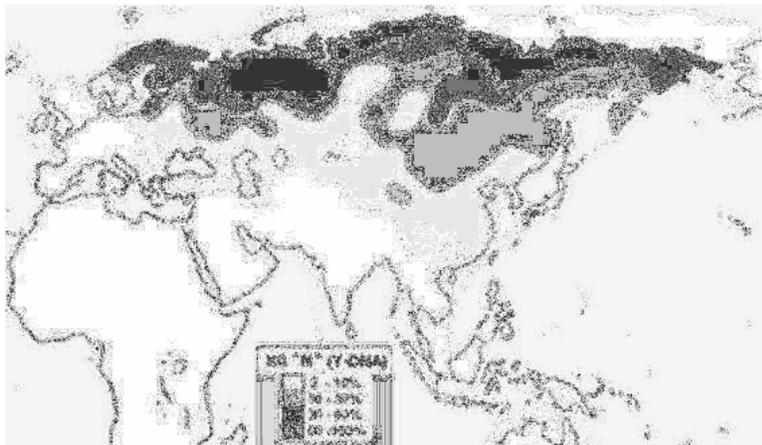
Population genetics has determined that the N-haplogroup originated in southeast Asia around 20,000 years ago and shifted north with the northward shift of reindeer herds during climate warming. That clearly shows the language of the boat people expanding west-to-east from Europe, must have been a completely different language than the one used by reindeer peoples.

Therefore the traditional interpretation of a “Uralic” original language that then divides between boat peoples and reindeer peoples, is impossible. Instead there are two language families which made contact in the central Urals area. It produced similarities between the “Finno-Ugric” and “Samoyedic” languages which was subsequently spread/diffused. The subject for linguists to pursue when considering the Two-origins theory is

a) that the original linguists of the 19<sup>th</sup> century wanted to only interpret similarities as the result of divergence from common parents, that the other possibility – similarities as a result of long term contact, known as “areal convergence”, was ignored in the intense quest for the prestige of ‘discovering’ a language family; and

b) what can be found if the original data that portrayed a divergence between a “Proto-Finno-Ugric” and a “Proto-Samoyedic” was instead analyzed as a convergence that occurred a very long time ago – so long ago that the convergences were extensive and even included grammatical features. (This would be analogous to how an Estonian person converges with English so much they might say for example today “Mina **walksin to** kodule” which mixes up Estonian and **English** including some grammar)

Figure 4



*That the “N”-haplogroup generally was carried north from southeast Asia, by reindeer-dependent people following reindeer herds north during climate warming 20,000-10,000 years ago is obvious from the highest frequencies (dark) of the N-haplogroup being among peoples with a traditional involvement with reindeer. The spread into other hunter-gatherers like Finnic, arose from many of them dropping their original reindeer-dependent way of life*

#### 4.

### *TWO LANGUAGE FAMILIES IN MORE DETAIL* 1 -THE BOAT PEOPLES EXPANDING OUT OF EUROPE

#### WEST TO EAST EXPANSION OF BOAT PEOPLES

In this and the next chapters we consider each of the two language families that came into contact at the Urals. First in this section we look at the expansion of the boat-using hunter-gatherers who emerged in the flooded lands appearing during the melting and retreating of the glaciers.

The story of the emergence and expansion of the boat-oriented hunter gatherers, was quite clear from archeology already by the 1960s. By then archeology had identified two material culture, both using boats and living off aquatic animals and plants. It is easiest for me to quote a description from a well known archeology text by Grahame Clark prepared in the 1960's. It simply tells the story revealed in the archeological findings without any consideration of implications to linguistics. Today there exist more detail, but the general story is clear. It begins with reindeer hunters in northern continental Europe needing to respond to accelerating climate warming:

*"... reindeer hunters of western and northern Europe during the period between ten and fifteen thousand years ago provide a well-documented example. Analysis of the larger game animals represented in the food-refuse of the Late-Magdalenians who sheltered in the south German cave of Petersfels for example, shows that they obtained four-fifth of their meat from reindeer. And even greater concentration can be seen on the summer hunting stations of the Hamburgian and Ahrensburgians sited on the margins of glacial tunnel-valleys in Schleswig-Holstein. In that case over 99 percent of the larger game animals were of a single species. The evidence suggests that other animals were the victims of chance encounters and that the only serious quarry was the reindeer...By attaching themselves to a herd of reindeer a group of hunters would not only possess themselves of a walking larder, comparable up to a point with a domesticated herd, but also a source of many of the most important raw materials they needed, skins for clothing and tents, antler and sinew for hunting gear. ... quite suddenly, in the course of a few generations the ecological setting changed: as Late-glacial gave way to Post-glacial climate and glaciers entered on their final retreat, forests encroached rapidly on the open grazing grounds formerly occupied by reindeer. ... the hunting people of the North European Plain reacted in part by reverting to a mixed hunting economy ... but in part by developing special skills in fishing and winning food from the seashore." (Clark 1967: 73–74.)*

The archeological culture that arose from the Hamburgian and Ahrensburgian cultures was, as we mentioned earlier, called the Maglemose culture . The author continues: (note my underlining)

*"The Neothermal inhabitants of this region [North European Plain most severely affected by environmental change at the close of the Pleistocene] had to adapt to a landscape transformed from park-like tundra into closed forest. ... People could no longer support themselves hunting a single species. ... Information is particularly rich in this respect of the Maglemosians who take their name from the big bog (magle mose) at Mullerup where their culture was first recognized. Their hunting grounds on the North European Plain extended in the west to eastern England and Flanders with outliers as far as Ulster and were centered on the marshy region now covered by the North Sea, and North German Plain, and the west Baltic area including Denmark and south Sweden; in the east they occupied parts of northern Russia as far as the Ural mountains. Over the whole of this territory they were fond of camping along river banks and lake shores on the margin of the encompassing forest, a favoured resort of certain game animals, including notably elk (= moose), as well as of wild-fowl, water-plants and fish." (Clark 1967: 79.)*

Clark nor archeologists seem to have been quite aware of the significance of the development of the boat, without which a successful new way of life would have been impossible as it would have been impossible to either wade through marshes, or make progress through dense coniferous forests. With boats

on water, they could go most anywhere there was a waterway, and do it even faster than walking on open tundra. Therefore the expansion of such people, thanks to the boat (dugout canoe), was a remarkable development. Today if we take a river cruise down the Volga, we can travel its length in only weeks. Around 12,000-10,000 years ago, adventurous men could have travelled the length many times, and then take their families to the best locations. This was not an expansion of short sequential steps.

The following map shows the distribution of the boat-oriented hunter-gatherers by about 8,000 years ago. I have added colour and arrows to suggest paths of expansion.

The earliest routes of expansion from 12000-10,000 years ago would have been “Kunda”, “Upper Volga” and “Kama”. Other hatched areas arose closer to 8,000 years ago. This was the original expansion, and all languages would have been close to each other just like the Algonquian languages of similar boat-oriented northern hunter-gatherers in what is now Canada. Note the “Kunda” hatching indicates “Kunda” artifacts have been found in the region between the Pechora, Northern Dvina, and Kama, proving it was a multitribal gathering area. The Urals are just to the east of the Kama hatching.

Figure 5

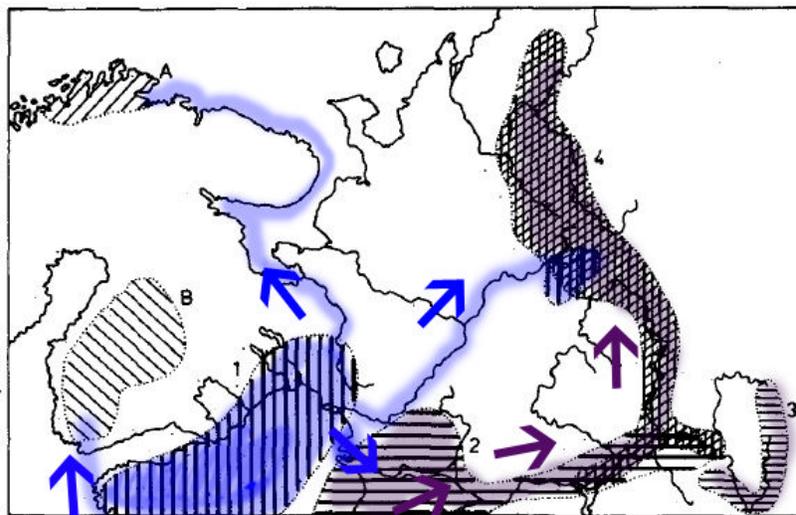


FIG. 14. Early Holocene cultures in northeastern Europe: 1 - Kunda; 2 - Upper Volga; 3 - Yangelka; 4 - Kama; A - Komsa; B - Suomusjärvi (Kozłowski, 1975).

#### EXPANSION OF ORIGINAL BOAT PEOPLE VIA MAJOR RIVERS

The numbering order reflects sequence of expansion  
from about 11,000 bp to A,B around 8,000 bp

from Kozłowski J, and Bandi H-G 1984 with color info added by A.Paabo

*A map of archeological material cultural definitions accumulated by about 6,000 years ago. The “Maglemose” of south Baltic came first, but this map does not show the south Baltic and Vistula areas. The purple color is intended to indicate a possible mix of Kunda and Maglemose tribe expansions*

Knowledge about the expansion of the boat-oriented hunter-gatherers has of course been refined over the past decades, but the story is basically the same – an expansion of nomadic hunter-gatherers in a way of life involving northern forests and dugout canoes.

The boat peoples began with the “Maglemose” boat peoples at what is now Denmark and spread west to Britain and east to the Vistula and perhaps south through Vistula marshes. The “Kunda” culture arose from the “Swiderian” reindeer hunter culture located where Poland is today, probably drawing from both the “Swiderian” and “Maglemose” traditions. Archeology shows from its large harpoons that the “Kunda” culture hunted seals and whales in the sea, which means they constructed large dugout canoes – probably for

three pairs of oarsmen, and a helmsman, totalling seven people. With such large canoes, teams of men, or family units, could make long journeys along seacoasts or large rivers like the Volga.

The expansion of the “Kunda Culture” as far as the Urals is suggested by archeology finding a region with “Kunda Culture” artifacts near the middle Urals, where the Dvina, Pechora, and Kama Rivers have their origins. The large issue to linguists about this expansion of boat peoples is whether the entire region from Scandinavia to the Urals, was a single language zone.

The range of a language depends on the range of communication. Today mass media broadcasts the same language everywhere, Within a century, our whole world will be speaking English! Before mass media long range communication occurred if nomadic people had to travel long distances to survive. It is well known by linguists that the range of a single language increases towards the arctic. In arctic North America in recent history there was one language (Inuit) from Alaska to Greenland, with only dialectic variation. South of them around Hudson Bay, the Cree language spanned some 3000 km around the lower water basin of Hudson Bay, with three dialects. The location of the Cree and the environment in which they lived is at the same latitude as the lower Volga. The entire people identifiable with the “Kunda” boat culture existed in around 10,000 years ago, in an identical environment. It follows that the language of the “Kunda” culture was the same from Baltic to the Urals with only a few dialectic variations. 3000 km in terms of post-glacial Europe, practically covers the entire distance from the Baltic to the Urals and beyond, even including the Ob River Basin.

From such considerations the late Kalevi Wiik was never wrong in considering the “Finno-Ugric” languages to have been spoken by all north European hunter-gatherers.

At the other extreme, relative to the far ranging boat peoples were ancient farmers, They arrived in continental around 5000 years ago. The need to tend to farms, and farm animals, required people settle down, and not be nomadic. Their travel away from the settlement was only to a common market and meeting place in the middle of several settlements/villages. We can view each homestead as an extended family, a village being a gathering place of the homestead families, representing the traditional tribe, and a larger town was a gathering place for neighbouring settlements, hence tribes. It was the same structure, but maybe ten times more contracted than the scale of the nomadic hunter-gatherers.

It follows that the original languages of the nomadic hunter-gatherers were uniform over wide areas, the further north the wider because of the lower density of food animals. More travel was needed to find the animals. The hierarchy of social organization followed the hierarchy of the water geography because boat peoples generally stayed within water systems.

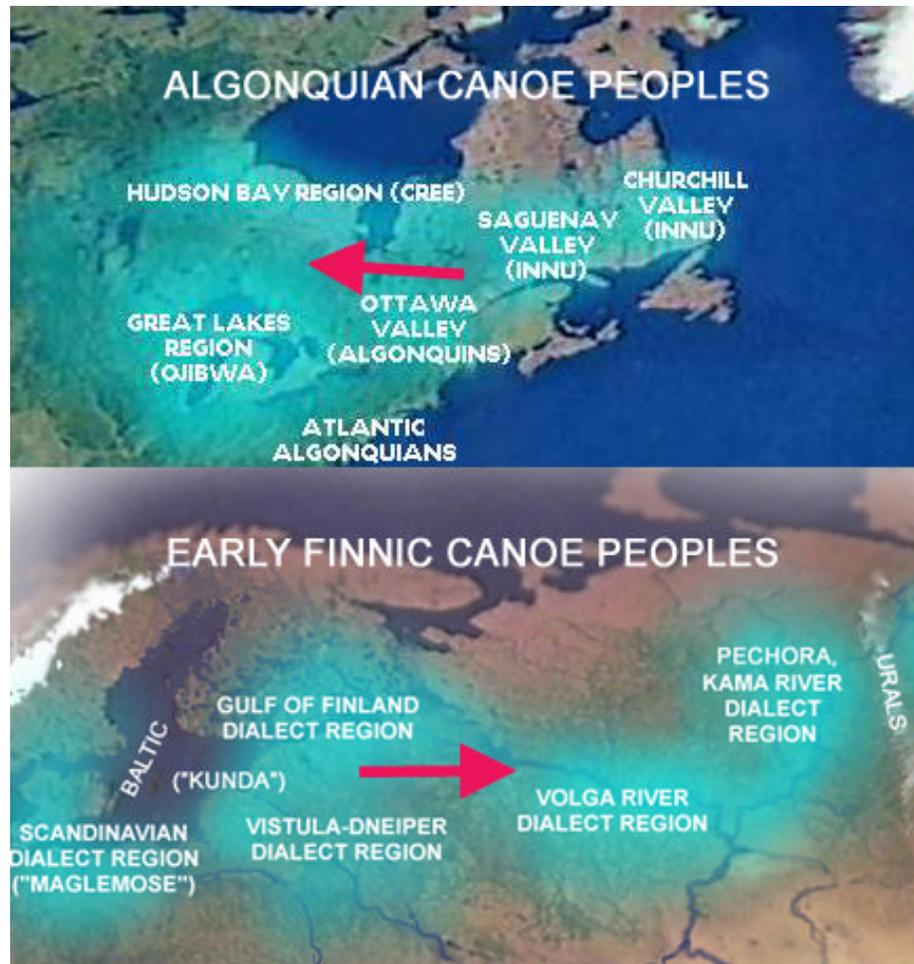
The evidence is all to be found in the Algonquian tribes of the east half of what is now Canada, as mentioned above. What Europeans observed around the 17<sup>th</sup> century was that there was essentially one Algonquian language across 5,000 km, from the Atlantic to mid Canada. Each large river was inhabited by a tribe – The Labrador Innu lived in the Churchill River, the Saguenay Innu in the Saguenay River, the Ottawa Algonquians in the Ottawa Valley – except that the Great Lakes had many tribes all regarded as Ojibwa (or Anishnabe) with different dialects.

Adjacent languages were close enough to each other for communication so it was a continuum of dialectic change,

In this situation, which would have been many thousands of years old when European colonists arrived, languages could naturally change via linguistic drift, but the long distance contacts among boat peoples, ensured that differences that developed between languages were reduced at every contact. Overall, the entire spectrum of Algonquian dialects could drift as a whole since when differences were reduced at contact times, there was never a return to exactly how it had been before. It was a dynamic equilibrium between divergence when apart and convergence when making contact. The same would have been the case with the boat peoples in Europe around 10,000 years ago. The Algonquians situation did not change until the recent arrival of Europeans for the simple reason that their way of life was not disturbed. There was only trade going up and down the Mississippi. Copper from north of Lake Superior was

transported as far south as the Gulf of Mexico. North America was still in what in Europe's past could be regarded as the "Copper Age". Europe proceeded many millenia beyond that stage.

Figure 6

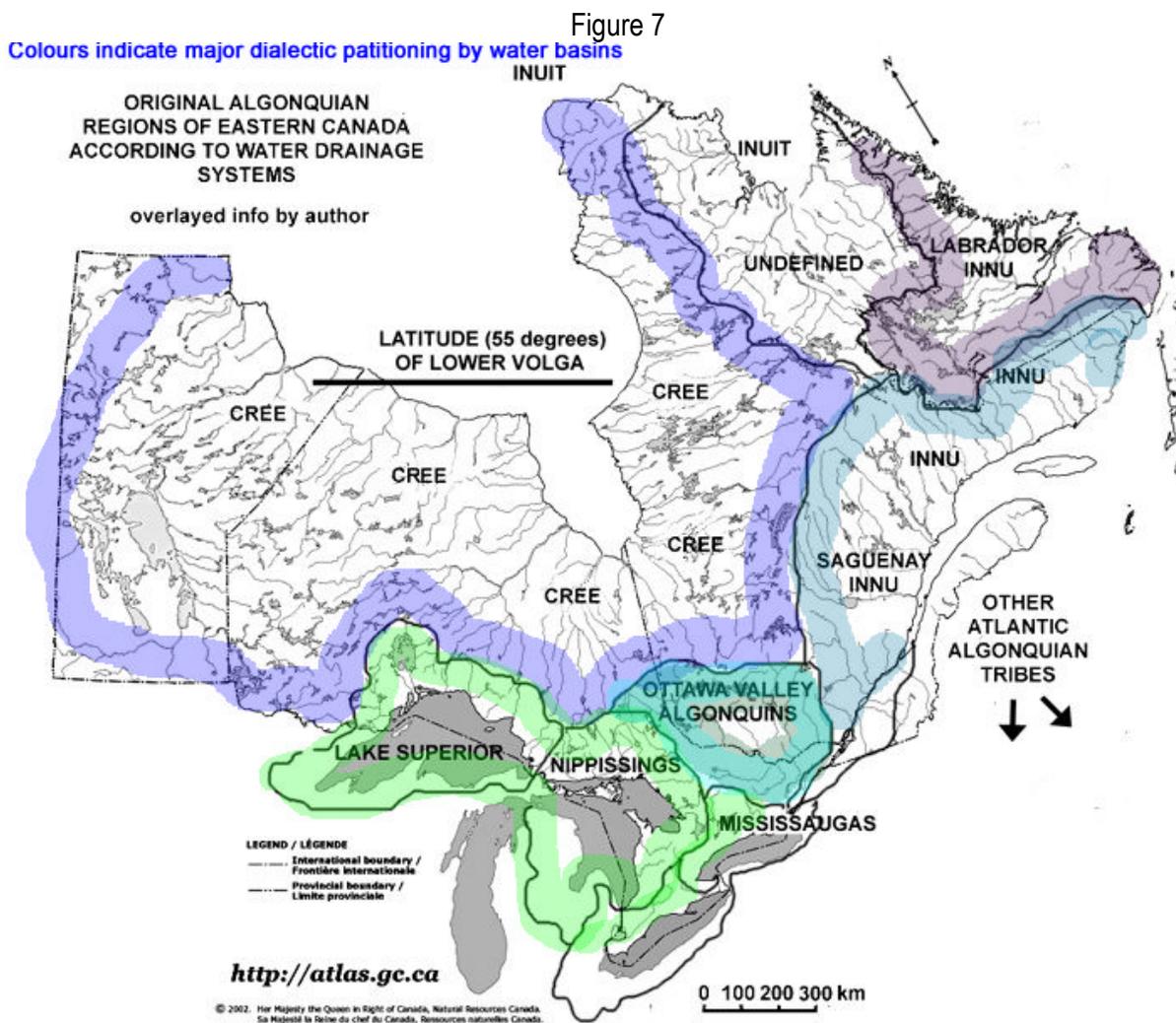


*These maps depict the way water systems create a natural organization from the fact that boat peoples tend to be confined to the water systems they inhabit. The natural heirarchy of water drainage in effect organized the tribes with no intentional design and purpose needed from the people themselves. These people were naturally organized into extended families, tribes, associated tribes, a people. It was all evident in the Algonquian peoples in what became eastern Canada. All the languages shown were so close to their neighbouring languages that they could be considered dialects to one another. It should be possible to reconstruct the circumstances in early Europe too, by studying the water systems and reconstruct how boat-oriented peoples would have existed within them if we apply the practices of the recent Algonquians.*

You may wonder why a situation that existed across northern Europe many thousands of years ago, was still in existence in northern North America in the 17<sup>th</sup> century. I believe the answer is simple – the Algonquians were not influenced to trade. I believe change in Europe was caused by the arrival of professional traders and the development of the fur trade. When French introduced the fur trade in Canada, it greatly shook up the traditional ways of life, There were fleets of canoes taking loads of furs to a fur market the French established at Montreal.

THE RECENT NORTH AMERICAN MODEL FOR ORIGINAL NORTH EUROPEAN DUGOUT CANOE PEOPLES ORIGINAL DISTRIBUTION OF LANGUAGES

The Algonquian cultures of native North America are those made famous with the birchbark canoe. The Algonquian tribes too expanded into the flooded post-glacial lands but may have originated from skin boat arctic skin boat peoples already in the arctic coming down Hudson Bay or Labrador coast. The similarities are remarkable. The only real difference is that the Algonquians developed the birchbark canoe, which was simply a skin boat, except using birch bark. The information I have added to a government drainage map shows how dialect divergence of the original single language went by water system boundaries confining and shaping behaviour and dialects. The black lines show water basin borders and the blue shows the major rivers. A tribe consisted of some 4-6 extended families each inhabiting a branch of the water system, but gathering near the mouth annually for several weeks.



EXAMPLE OF SINGLE LANGUAGE DISTRIBUTION OVER A BROAD GEOGRAPHY SHAPED DIALECTICALLY BY SOFT WATER BASIN BOUNDARIES

The colours indicate regions of similar dialects so they can understand one another fine. The differences between coloured regions were greater, but the Lake Ontario Ojibwa (Anishnabe) could communicate with the Cree at the boundaries, except could laugh at each other's terminology. But the difference between greater distances were more like related languages.

## THE NEED FOR LINGUISTICS TO BE GUIDED BY RECONSTRUCTIONS OF THE PAST

It is my strong intent here to argue that reconstructing the past from archeology and other sciences has to be the first step in developing a reconstruction of the linguistic past. Because comparative linguistics began analysing languages before archeology and other sciences were young, linguistics developed an arrogance, a false sense of its importance.

But the reality is that the results of comparative linguistics reconstructions CANNOT BE PROVEN. The world has to take what linguists say on faith. What if the methodology in general creates distorted and erroneous pictures, much like a drawing of something created from only a verbal description. (It is possible to actually test the methodology where the parent language was recorded in the past. For example, take some linguists who have never learned Latin, to see if they can reconstruct the family tree of modern languages originated from ancient Latin. I expect the results will be embarrassingly bad.

Not only does comparative linguistics have to assume that similarities between languages are the result of divergence from a common parent, but it can only operate on surviving languages. Extinct languages cannot be included even if there is historic evidence of their past existence. Furthermore in order to discover a language family an original language had to produce more than one descendant language that survived to modern times. If only one language survived then linguists cannot detect a family. This means for example, if the linguistic data suggests a language family began 5,000 years ago, that original language could have already had plenty of history, but linguistics cannot detect it because it was the only language of many that survived to be the ancestor of the family tree apparent from a selection of languages surviving today. Thus comparative linguistics can only 'see' the origins of the first division that lead to the modern surviving languages. Until there was the first division, there was a single language and we cannot know if that single language had a long previous life by itself or had many siblings that produced no offspring and did not itself survive. To apply it to the traditional "Uralic" languages interpretation, there is the claim the original "Uralic" language existed 6,000 years ago. That cannot be known. The original language could have originated 12,000 years ago and did not produce a division that produce descendant language into modern times, that could be subjected to analysis.

When you think it all through, comparative linguistics is the clumsy and useless.

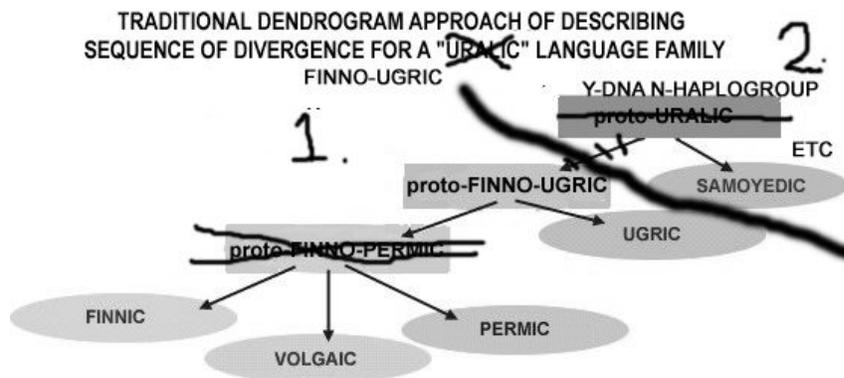
However if we begin with reconstructing actual events with the help of archeology, we will be able to see the events before the beginning of the divisions that lead to the languages studied. In this case, we can see that reindeer hunters abandoned reindeer hunting to adapt to circumstances in which reindeer herds disappeared, and became boat-using hunter-gatherers in flooded lands and dense forests. It was successful and with population growth and easy of travel by rivers, they expanded throughout the region between the Baltic and Urals. This was a simple development and with the example of the Algonquians of the recent North American northeast, we can conclude that there was only dialectic variation of a single language. Originally those "Kunda" peoples at the Kama River would have been able to speak to those "Kunda" people back at the Baltic. It follows that what linguist will see is the first event that began a divergence in this broad area of a single language – regardless of the cause whose descendants survived into some languages today that could be studied. If it seems this divergence began around 6,000 years ago, then we can link this to the archeological finding of a "Comb-Ceramic" culture appearing about that time over top of the original "Kunda" culture. From evidence of the expansion of locations of amber objects, this marks the development of professional trade. So from knowledge of our reconstruction, the languages that survive today, reveal an event of divergence that was caused by the arrival of professional traders – probably seeking furs to take down to southeast European markets via the Volga and Dneiper.

What was the cause of the change? I think the arrival of traders began changes among the boat-oriented hunter gatherers in a way similar to how in the region now the east half of Canada, the arrival of French introduced the fur trade. Recent history demonstrates the impact it had. The fur trade was accompanied by ideas about farming and settlement. The long range nomadic way of life that maintained a

single linguistic continuum from the Baltic to the Urals, was now contracting since men who continued to hunt and gather could now only go as far as possible if they had to return in some days or even weeks. This contraction, began a magnification of dialects into languages and those languages having their own dialectic variation. Even if there was a spread of borrowings from the reindeer-people language from the contact point at the middle Urals, the actual event that lead to the modern languages analyzed may have been simply the consequences of trading and farming being introduced. If it had not been introduced, then “Finno-Ugric” languages may have remained uniform and little diverged just like the Algonquians who escaped influence until the 17<sup>th</sup> century. The language of the reindeer peoples, the “Samoyedic”, could be compared to the Iroquoians farming peoples of a completely different language, introducing linguistic influences into the Great Lakes Ojibwa in southern Ontario. Thus, in the end, the contact between boat peoples and reindeer peoples at the Urals, could be insignificant compared to the magnification of divergence in the original “Finno-Ugric” continuum, that continued until modern times. In other words, divergence from simple contraction, could be much more significant than convergence with reindeer people.

Therefore, aside from eliminating the artificial “Uralic” parent, and placin “Samoyedic” in a separate family, the traditonal “Uralic” languages linguistics is primarily the “Finno-Ugric” linguistics, which begins with the original “Kunda” continuum being disturbed by the professional traders that caused the “Comb-Ceramic” situation.

Figure 8



*The impact of the contact between the boat peoples with the Urals reindeer peoples would have been primarily a layer of influence on top of the major development – the exaggeration of dialectic subdivision as the original nomadic boat peoples communication range contracted after the arrival of professional traders around 5,000-6,000 years ago. Thus it is possible to separate the boat peoples family tree and the reindeer people family tree and deal with the convergence between the two language families as a superimposed influence, as well as considering the N1c1-haplogroup influence as a superimposition.*

Because comparative linguistics cannot detect any past languages that did not produce descendant languages, the story is not complete. Reconstruction of the past could in other situations reveal events that suggest there was once an earlier language family that did not produce offspring that survived to the modern day to be studied. Archeology and other fields like history, can even find evidence of some extinct language. For example I discovered ancient inscriptions made by people called “Veneti” In spite of many years of analysis and discovery it was Finnic, Finno-Ugric linguists have no interest since – perhaps out of their ignorance – they believe that a language that did not produce descendants and was not analyzed never existed. That would be like claiming humans originated from chimpanzees because evidence from fossils of hominids discovered in Africa are in another science, and therefore cannot exist.

#### 4.

### *TWO LANGUAGE FAMILIES IN MORE DETAIL*

## 2. THE REINDEER PEOPLES SHIFTING NORTH AT THE URALS

### MULTIDISCIPLINARY ANALYSIS AND COMPREHENSIVE RECONSTRUCTION

In the two language families approach, we also have to discuss the other side - the reindeer people of Asian origins who population genetics suggests travelled north through the Ural Mountains following northwards-shifting the reindeer herds as the world climate warmed from about 15,000 years ago. Since the warming accelerated, reindeer herds and people could have become compromised quickly towards 10,000 years ago. For example if the reindeer herds were in the Urals Mountains, and were unable to move fast enough to the next mountains. This would have resulted in reindeer survival being threatened, which in turn forced humans who were associated with them to have survival threatened too, unless they departed from a reindeer-dependent way of life. Since the boat-peoples from the west had reached the river valley lowlands on the Kama River side of the Urals and the Ob River side, there would have been many families that copied the successful way of life of these boat people. The boat peoples had already diversified since a couple millenia ago, and climate warming was actually beneficial and increased populations of hunted animals and plants.

By joining the boat-oriented way of life, reindeer people also began introducing their genetics into the boat oriented way of life, including the N1c1-haplogroup marker into male descendants. This is a good example of why we have to reconstruct events from archeological information, etc, before inferring the language in use. Critics like Jaakko Häkkinen are aggressive in condemning scholars for associating genetics or culture (way of life, archeological information) to language. He is correct when it concerns the use of the N1c1-haplogroup in Finnic to suggest Finnic culture (boat oriented way of life suggested by archeology) was originally reindeer hunting. What is observed, when the detective work is done, is really a change in the way of life to the Finnic culture, from reindeer hunters abandoning their original way of life, both at the Urals just to adapt to the warming climate, and later in northern Finland to adapt to the attractive way of life of the boat-using trader way of life. Furthermore, population genetics are now looking at fine mutations of the N1c1-haplogroup to find proof of its migration down the Kama to the Volga and up the Volga to the east Baltic. This can be attributed to those reindeer peoples who have already converted to boat people, and the migration arises from the natural practice of tribes gathering at some significant multi-tribe gathering sites at the lower end of rivers. Thus the N1c1-haplogroup appearing in the Kama quite naturally will appear at the junction of the Kama and Volga where there certainly was a multi-tribe gathering site. But since gathering places tend to be downriver, the chances are that the N1c1-haplogroup did not migrate up the Volga towards the Baltic. Instead, the N1c1-haplogroup diffused south from northern Finland, and the scholars are mistaking that with it coming up the Volga. Population genetics has difficulty determining direction.

As I said earlier, the interpreting of events along the three paths of culture, language and genetics, is a matter of wise detective work involving all applicable sciences, just as in crime scene investigation a detective looks at ALL the information and not just one like fingerprints – ie the person who made the fingerprints may not be the person whose DNA was found, but this will only be apparent with comprehensive reconstruction of events.

### THE PREDICAMENT OF REINDEER PEOPLE AND RESPONSES

The Asian reindeer people required many kinds of adaptation to deal with the rapid climate warming. There were obviously other courses of action too, and also it is clear enough of the original N1c1 reindeer

people survived in order to be able to migrate to northern Finland at a later time, perhaps from those who successfully found a refuge in the polar Urals (where there are wild reindeer still today)

While there was a core of traditional reindeer people who stayed with reindeer until they were at the north end of the Urals, it is common sense that during the northward shift through the Urals that lasted up to 2,000 years, many reindeer people abandoned the reindeer-hunting way of life.

Just by being too slow in moving north, or driving reindeer herds north if they were semi-domesticated, there would have been compromised reindeer hunters who looked to other ways of life. Among the new ways of life for the slowest and latest reindeer people, would have been to hunt horses. Horses have similarities with reindeer – both animals move fast through open environments and have to be corralled or ambushed. Unless humans ride tamed horses to hunt the wild horses, it is impossible for humans to keep up with horses. Same thing with reindeer.

Is it possible reindeer domestication arose as a response to climate warming, as then humans could guide reindeer up mountains in summers, and then some of these people had some skills for corralling horses. The fact that reindeer are completely domesticated in the mountains of northern Mongolia and southern Siberia today, suggest the later northward-shifting reindeer herds must have been at least semi-domesticated in terms of guiding reindeer up mountains to good arctic pastures in summer. This could mean that semi-domestication of horse herds was developed by ex-reindeer people. Since we will offer here the theory that Turkic languages ultimately descended from Asian reindeer peoples, we will probably find plenty of evidence of horse herders with Turkish language. If Indo-Europeans developed horse-herding they may have learned it from reindeer-herding, since the need for it occurred first among reindeer people. Semi-domesticated horse herders south of the Volga would have arisen from ex-reindeer people and have endured in the Turkish language. This is what we can determine from logic. Eventually Indo-Europeans emerged out of the east on horseback.

It follows that the climate warming shifted all the environments and animals, and at 10,000 years ago there could have been descendants of reindeer people, converted to horse-herding at the south end of the Urals, converted to boat peoples in the middle, and continuing their original reindeer-oriented way of life in the northern Urals. The archeologically determined “steppes herders” next to the lower Volga would have been Turkic, and presented N1c1.

But pertinent to the theme of this article, is that the boat peoples offered a new successful way of life in marshy lowlands further north, and, as I mentioned, it seems a good portion of the reindeer hunters joined the boat peoples and that too pushed some elements of their language into the original boat peoples, and also that the Y-DNA N1c1-haplogroup was spread afterward.

If we did not have the strong evidence of the birth and expansion of boat peoples from the west, we would not be able to speak of the Y-DNA N1c1-haplogroup or reindeer-people language diffusing west into the original spread of boat people towards the east. This shows just how important it is to base interpretation of linguistic (abstract) observations from reconstructions from archeology and other applicable sciences. Without the discovery of the archeologically defined “Maglemose” and “Kunda” culture by around the 1960’s the rebellion against the traditional interpretation of the “Uralic” linguistics would never have developed.

The study by Rootsi et al, found that the N1c1-haplogroup appears to have continued westward along the arctic coast at some point, reaching northern Finland (reflected by the Saami reindeer peoples) and then diffuses southward. The southward diffusion probably occurred as a result of the reindeer people deciding to join the boat peoples who by that time were involved with professional trading and taking furs and amber south via the Dneiper, or to the international market at the mouth of the Vistula at the southeast Baltic – which explains the slightly higher N1c1 frequency there!

So we see that while 15,000 years ago all northern tribes were hunting reindeer, after the climate warming reindeer-based way of life was confined to the arctic. (In North America the reindeer are

represented by the “caribou”) Obviously in the late Ice Age the arctic conditions region was very large, and by 6,000 years ago it became a ribbon across the arctic.

Thus the conversion of reindeer people to northern hunter-gatherers has been continuous. Throughout the migrations of reindeer and reindeer peoples to desparately find cool tundras towards the north, when reindeer populations dropped, the reindeer people were in difficulty. Domestication helped, but there would have been constant pressures to change to another way of life. At the mid Urals many would have departed for the boat-people way of life, which was successful in the warming earth, and at the southern Urals departed to horse-herding. Later everyone near trade routes became involved in long distance trade – the boat peoples becoming north south traders on the north south rivers, and the steppes herders becoming east-west traders along the corridor that became the “Silk Road”.

We do not need to consider the other option of boat peoples changing to reindeer people even if the boat peoples went north to hunt in arctic seas. Nobody leaves a successful way of life for a more difficult one!

### THE STORY TOLD BY THE Y-DNA N-HAPLOGROUP MARKER

Population genetics has been looking at sexual DNA which passes unchanged from father to son, and mother to daughter, so that a “marker” in such DNA gets passed down for thousands of years without change. Population genetics thus is used to try to look into the deep past, and population geneticists have traced male or female lineages back to Africa. But population genetics, like linguistics is based on modern data. Just as linguistics analyses modern languages to infer their past, so too, population genetics analyzes the distribution of markers in sexual DNA called “haplogroups” across the surface of the earth. The frequencies of the different “haplogroups” in different locations are plotted on maps, and then the population sits down and tries to figure out why one location has a large frequency of a “haplogroup” and another has a little. It is a challenging problem, because it is difficult to determine if the high frequency was the result of a population explosion, or a migration, recent, or thousands of years ago. For example in the male lineages, the high frequencies of “R” haplogroups in Europe may not be because of expansions of “Magdalenian” hunters 15,000 years ago, but the result of the expansion of the Roman Empire only 2000 years ago, which brought officials and soldiers from elsewhere into eastern Europe who produce successful male offspring. Furthermore if carriers of more recent haplogroups had a population explosion, then the frequency of the original haplogroups is reduced.

These haplogroups, even though they remain unchanged for thousands of years, do eventually mutate and that gives rise to new haplogroups. Population genetics decides on the order the new haplogroups emerged and name them in alphabetical order. Thus it is believed that the Y-DNA “I” and “J” haplogroups are the oldest that had reached continental Europe, and possibly was carried by “Cro-magnon” man in the Ice Age. But the “I” haplogroup is now rare, overshadowed by the entry explosion of the “R” haplogroups. Obviously in early Europe the “I” haplogroup could have dominated. This may be indicated by the fact that the “I” haplogroup is strong in the Scandinavian Peninsula. Since the Scandinavian Peninsula was under glaciers, it probably arrived via the “Maglemose” culture, which came from the “Ahrensburg” reindeer peoples. Working backwards it is likely the Magdalenian reindeer peoples were “I”-haplogroup even though Europe is now covered with “R”. The “I” haplogroup probably survived in the Scandinavian Peninsula while vanishing on the east side of the Baltic (being displaced by “R”) because the Scandinavian Pensinsula was separated from the mainland, and an easy crossing by land was not possible. Since there is a significant amount of “I” haplogroup in a part of Finland, it is likely the expanding boat peoples were of the “I” haplogroup and it was crowded out by mainly the entry of the “R” expecially from the expansion of Slavs. This shows how important it is to reconstruct the past from archeology and history. Population geneticists recognise that the hard data in the earth, which allows also estimations of dates, is important for finding explanations for the modern distributions and concentrations of haplogroups.

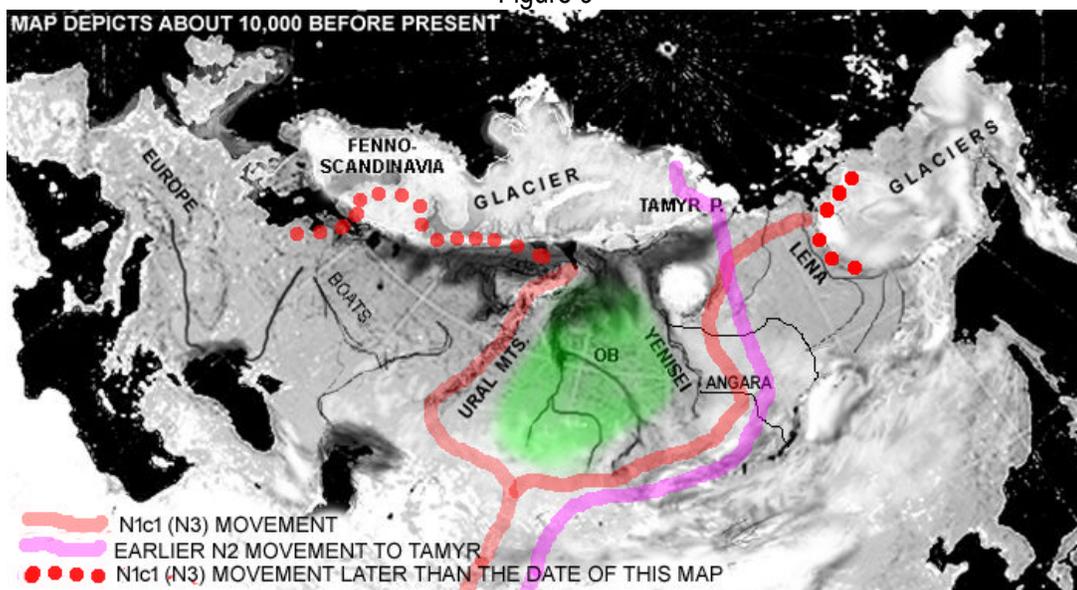
Good background knowledge and analytical ability is needed. Take the fact that the “I” haplogroup concentration is high in the Balkans, and many assume this is indicative of a northward migration from there to Scandinavia. In reality the mountains would be another refuge where the early haplogroups were sheltered from being over-run by the R-haplogroup of recent Indo-European expansions. Reindeer could have survived in the mountains and then the reindeer people switched to taming wild goats when the reindeer died off. (But that needs proof by finding remains of reindeer in those mountains datable to the Ice Age. It makes sense that when the climate was warming some reindeer would have sought refuge in the mountains.) This shows that population genetics is primarily fuel for the imagination. A true imaginative person can come up with a hundred alternative explanations. Population genetics, like historic linguistics, is – like fingerprint analysis in a crime scene investigation – only a small part of the comprehensive analysis needed to discover the actual truth rather than wishful imaginings.

Most often population genetics ends up contributing little because so many questions remain unanswered. But sometimes there are extremely simple circumstances in which the message in the population genetics is clear, when interpreted in context of information from archeology, etc.

The “N”-haplogroup dominates men across arctic Eurasia among mongoloid peoples associated with reindeer. Without much effort anyone can conclude that the N-haplogroup was carried north by people dependent on reindeer following the herds as they shifted north with the tundra. (Note that the climate warming from 15,000 years ago, accelerating from 12,000 years ago, meant that there was only a small northward shift of tundra per year and the reindeer people really did not know they were staying in a cool climate, and that their original locations were warming. Therefore we cannot consider it a migration, but simply a shifting.)

The most significant N-haplogroup for this discussion is the mutation called N1c1 and formerly called N3. An earlier version of the N-haplogroup, today dominating reindeer people of the Tamir Peninsula, must have shifted north earlier, through the Central Siberian Plateau. According to Rootsi et al, N1c1 (or N3) was at the south end of the Ob River Basin (which was much more flooded than today) around 12,000 years ago, and as the climate warmed, they followed reindeer northward from there, turning both west to go north through the Urals, and east to proceed north through the Central Siberian Plateau. The following map portrays the shifts of reindeer peoples as the climate warmed.

Figure 9



*(Note, do not confuse the movement of the N1c1 genes with way of life because it can move from the original reindeer-oriented way of life into other ways of life.)*

The reindeer herds could not go north in the Ob River valley because reindeer need lichens and mosses that they can paw through the snow. So they turned east and west to go north through the mountains of the Urals, or through the Central Siberian Plateau.

Owing to humans being territorial, the eastern branch probably turned east when they reached the north because there were also the Tamir Peninsula reindeer people there. (Territory for reindeer people would be defined over specific herds, even if the herds were wild. I believe that the late northward shifting may have involved semi-tamed reindeer. After the original migration to the Tamir Peninsula, the reindeer people may have been driving reindeer herds up mountains where climate warming was threatening the reindeer populations.)

It seems to me considering the timing and climate warming, that it is highly likely that the N1c1 reindeer peoples were at least driving reindeer up mountains in summer to help their compromised populations. The westward branch of N1c1 eventually reached northern Finland and are probably represented by the Saami. The similarities of Saamic language to Finnic is the result of ongoing areal contact with Finnic speakers, which is explained by all the interactions with the boat peoples to the west of the Urals.

The following Figure shows how population genetics plotted the percentage of N1c1-haplogroups in mean in the geography of northwest Europe, and how high frequency suggests the carriers lingered and grew in population in that location. This figure suggests that reindeer people were especially active in converting to boat peoples, and towards Finland covering to the dynamic fur trade industry that grew since 5,000 years ago according to archeology.

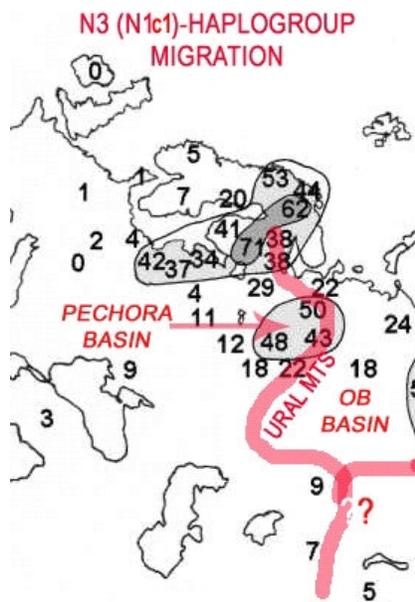


Figure 10

*This is an example of how population genetics determined the path of movement of the Y-DNA N1c1-haplogroup is determined by the concentrations of this haplogroup in different areas. The numbers represent the percentage frequencies in different locations where sexual DNA samples were collected. The lines attempt to generalize from percentage levels. Note the high percentages in the Pechora River basin area, and northern Finland. The decreasing frequencies going south from northern Finland, when compared with archeological information dating back to the “Comb-ceramic Culture” it is clear the southward diffusion was caused by the reindeer people who joined the Finnish boat peoples in the north becoming active in the fur trade that began around 5,000 years ago, and was under the Finnic languages until about the 10<sup>th</sup> century after which there was a replacement with the “Rus” who were carrying wares from Scandinavia to the Black Sea (commonly associated with the term “Norse”)*

The Samoyeds of the Tamir and Yamal Peninsula lack both N1c1, and Finnic influence in the language. However, the eastern branch of the N1c1 reached the vicinity of the mouth of the Lena, and there is a high concentration in Yakut men. The language of the Yakut is considered to be Siberian Turkic. Some remnants of reindeer peoples in the mountains of northern Mongolia and southern Siberia, who still manage to keep tamed reindeer they drive up the mountains in summer are also considered to have a Turkic language. It suggests that perhaps the Turkic languages originated with Asian reindeer people, and those who did not move north with the reindeer herds, perhaps stayed to manage horse herds, and form another branch of the Turkic. Today, with the history of trade and expansions, the Turkic speaking regions have become large; therefore contracting their area would be useful if we project backwards in time.

This information suggests that perhaps the original Saami language, at the end of the west branch, may have been Turkic too. Was the northern Finnish dialect the product of recent areal convergence between the original Saamic, and Finnic? Has there been a diffusion southward into the east Baltic along with the southward diffusion of the N1c1 haplogroup?

Perhaps the more southerly Finnic languages are closer to the original boat-people Finnic. Unfortunately any Finnic boat people languages towards the south Baltic and towards the west have vanished. (As mentioned above, linguistics can only acknowledge surviving languages, and if a Finnic language went extinct, it cannot be considered to exist. For example the lower Volga had a people in the marshes joining the Volga to the Sea of Azov, that according to Herodotus in 420BC were called *Sauromatae* which in Finnic seems to mean '(people of the) marsh-route-lands'. There are many other tribe names that are Finnic, and even towards northwestern Europe. The inscriptions in northern Italy made by ancient "Veneti" who were agents of Baltic amber trade appear, from my own deciphering, to have been Finnic.)

### THE GENETIC STORY IN FACIAL APPEARANCES

Normal DNA is always a combination of a half from the mother and half from the father, and appears as average characteristics from both lineages. It is enough to detect genetic influences from intermarriage between two races. Many if not most Finns show some evidence of mongoloid appearance from Asian reindeer people, exactly as reflected in the N1c1-haplogroup frequency mapping in Figure 10. As the word implies the traits reflect characteristics strongest in Mongolia, and of course the N1c1 haplogroup came generally from southeast Asian around 20,000 years ago. What can be seen in Finns are straight hair, high cheekbones, wide somewhat flat face, and epicanthic folds in the eye. It decreases southward into Estonia and we can presume Estonia and further south retained the original appearance. The blond hair and blue eyes of course come from the west via Scandinavia. Faces, in showing a mixture, of course will vary – some showing more European characteristics and some showing more Mongoloid characteristics.

Therefore, strictly speaking it was never necessary to use population genetics to determine there was a mongoloid component in Finnic faces that obviously indicated genetics migrations from Asia. Population genetics only gives the genetic migrations greater clarity.

Mongoloid traits are adaptations to arctic conditions – permanent squint to deal with glare of snow, broad face to prevent wind flowing past the face and removing heat, etc. Indeed early depictions of early Finnic peoples assumed the faces look mongoloid, and it was assumed back then that Finnic peoples look more Europoid-Caucasian because of recent intermarriages with Europeans.

But the story told by population genetics of the N-haplogroup suggest that the original boat peoples who expanded east around 10,000 years ago were already Europoid at that time and the true story is that the Mongoloid characteristics were superimposed in more recent millennia.

### DOES THE ARCHEOLOGICAL STORY FIT THE POPULATION GENETICS RECONSTRUCTION?

But does archeology support the theory that reindeer people lived in the Ural Mountains at the time "Finno-Ugric" boat peoples were at the Urals. We have extensively discussed the story told via genetics, about reindeer people in the Ural Mountains about the time European boat peoples arrived there from the west. In order to accept it to be true we should also find evidence about reindeer-dependent peoples in the Urals from archeological investigations.

Since such investigations have to be carried out by archeologists in Russia, it is difficult to find information outside Russia and in English. I do not want to make a detailed investigation of archeological work. I only seek a general idea of what archeology has discovered, as my purpose is only to ascertain that

there were reindeer-dependent peoples in the Urals, and where I feel the most likely contact occurred – where four rivers come close to each other and the Ural Mountains.

I consulted the article by Kozłowski J, and Bandi H-G 1984 within *The Paleohistory of Circumpolar Arctic Colonization*.

To put the period of interest in context with the events at the end of the Ice Age in general, I will begin with the period before the rapid climate warming. I note in particular the decline in mammoths and rise in reindeer hunters across Europe.

## BACKGROUND – THE PRECEDING PERIOD

Much is known about how in the west, in continental Europe there were reindeer peoples who expanded from the “Magdalenian Culture”. When climate warming both destroyed the reindeer tundra, and the seas and remaining glaciers preventing their shifting northward, the reindeer populations dropped, and the “Ahrensburg” reindeer culture evolved into the “Maglemose” culture, and the “Swiderian” to the east evolved into the “Kunda” culture. The European reindeer peoples became the boat peoples.

But what is the background to developments further east in the Urals? What was going on before the accelerating climate warming. As already mentioned, Ice Age glaciers did not cover arctic Siberia, and many reindeer herds found refuge and survived in northern Siberia.

According to Kozłowski J, and Bandi H-G, the story of reindeer peoples in the Urals begins with the “Kostienki-Sungir” culture at the beginning of the Upper Paleolithic (40,000 BP to 10,000 BP). By about 25,000 BP (Before Present) this culture occupied “*the most northerly location among lithic industries of the Upper Paleolithic*”. This culture is most famous for a site near Vladimir, Russia. This site revealed these people lived mainly on reindeer, mammoths, and horses. There was tundra there, and dwellings were constructed of mammoth bones. This early culture reached the northern Urals, and artifacts there have been radio-carbon dated to about 18,320 +/- 280 BP.

In the map of Figure 11, the solid arrow running parallel to the eastern edge of the glaciers, were tundra hunters from continental Europe, whose northward travel was directed by the edge of the glaciers. The starred numbers 1,2, and 3, called the “Kostienki-Sungir” culture were probably following migratory tundra animals, and the more northerly archeological finds at 2, may represent a summer location for an annually migrating people. Most other sites shown in Figure 11, are considered expansions of the “Kostienki-Sungir” culture. In archeological jargon, these peoples were in the Urals in the “Interpleniglacial phase” which was followed by the “Tardiglacial phase”.

The Tardiglacial phase cultures appear to represent the full conversion to reindeer hunting. Mammoths were disappearing, and nobody really knows why. It could be that, unlike reindeer, who had an instinct for migrating north south by more or less the same paths for generations, the mammoths may have been slow wanderers who were compromised by rapid climate change. According to Kozłowski and Bandi, the Tardiglacial phase artifacts had a style suggesting it had arisen from the Magdalenian reindeer cultures of Europe. In general, all the cultures across the North European Plain and into Poland and Russian Plains were then primarily reindeer hunting peoples with a reindeer-hunting culture descended from the Magdalenian culture of western Europe.

Kozłowski and Bandi acknowledge the northwards shifting of the reindeer cultures with the climate warming. All these reindeer cultures “*followed the northward movement of the periglacial environment during the retreat of the Ice Age*” This states the obvious – as the climate warmed, the open tundra shifted north, and the tundra reindeer herds shifted with the tundra – until unable to do so any further, of course. Thus the “Tardiglacial” period allowed the reindeer people to continue their way of life, and simply shift north with the reindeer, except where northward shifting of reindeer was blocked by glaciers or glacial lakes.

“There is no proof that Tardiglacial colonization of the northern Russian Plain and the Urals lasted until the beginning of the Holocene.” (Holocene refers to the period when the world climate was as warm or warmer than today, and which is the time of the drama between boat people from Europe and a different reindeer people from Asia)

Figure 11

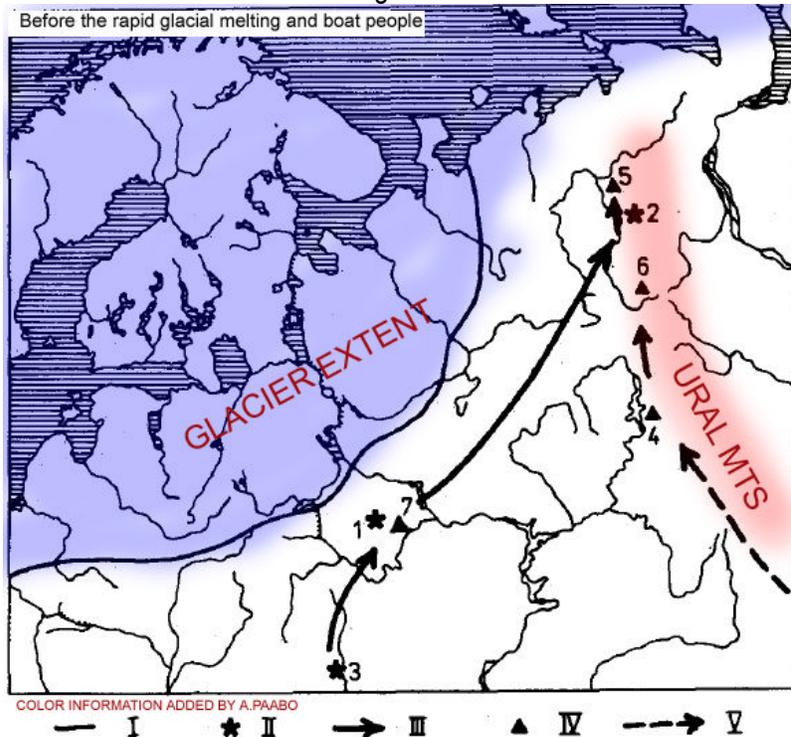


FIG. 8. The Upper Paleolithic in northeastern Europe. I - limit of ice sheet during Würm Pleniglacial phase; II - sites of Kostienki-Sungir culture; III - northern expansion of Kostienki-Sungir culture; IV - sites of Siberian tradition of final Upper Paleolithic; V - Tardiglacial northern expansion of Siberian tradition. Northern sites of the Upper Paleolithic: 1 - Sungir; 2 - Byzovaya; 3 - Kostienki; 4 - Talitskiy; 5 - Krutaya Gora (upper level); 6 - Medveja cave; 7 - Karatcharovo.

from Kozłowski J, and Bandi H-G 1984 with colour added by A. Paabo

#### UPPER PALEOLITHIC (40,000-10,000 BP) ARCHEOLOGICAL SITES

Upper Paleolithing refers to the period from 40,000 years ago to 10,000 years ago. It is interesting to note that there were arctic hunter peoples expanding north from both Europe and Asia already at an earlier time, before the great melting that gave rise to boat peoples (Maglemose and Kunda). This map shows in the solid arrow lines and light blue, the way the glacier's edge directed European Ice Age tundra hunters northeast. Were they related to the Swinderian culture? They were European reindeer hunters, but, as described in the last section, they did not last. But note the dashed arrows coming up the Urals from Asia..

Here the authors confirm that former tundra animals throughout the northern Russian Plain for the most part could no longer survive – animals like the wholly mammoth, the wholly rhinoceros and other animals that had adapted to arctic cold – and that the ‘colonization’ of the north Russia Plain and the Urals did not last. This is obvious from Figure 3. All the European reindeer hunters converted into “Maglemose” and “Kunda” culture which was much better adapted to the lands and waters of northwest Eurasia.

Archeology of the Ural Mountains covers a large period of time, while we are only interested in the last period, close to 10,000 years ago, after the warming had dramatically changed the climate landscape and boat-oriented hunter-gatherers were appearing at the Urals from the west.

## THE ARCHEOLOGICAL STORY AT THE MIDDLE URALS

Who were the people there in the middle Urals time, and what were they hunting? Were they mainly dependent on reindeer?

Archeological sites are investigated according to strata of layers of dirt buildup. The most recent occupation of the site is near the surface, and older occupations are at deeper levels. What we are interested in is animal bones in kitchen pits that reveal what the people hunted. Does it show an increase in reindeer hunting over time, and did archeology find that the latest stratum contained mostly reindeer bones?

The earlier bones found by archeologists are typical of the Ice Age and included mammoths, rhinoceros, reindeer, grouse and bison. The northern sites are those marked 6 known as Medveja Cave, and 5 (Krutaya). Here we see evidence of a decline in mammoths and, over time, a greater dependence on reindeer.

*“The dating of these two sites is problematic: pollen analysis of the sediments of the Medveja Cave (lower level) indicates absence of elements typical of the tundra, and the presence of pollens more characteristic of a steppe environment. **Among the fauna, reindeer predominates (>20%), followed by hare.....”***

The authors give a table for animal bones found at the Medveja cave, where in the lower (older) layer there are 2271 reindeer bones and 2304 hare, and 3102 grouse. Bones of large animals other than reindeer are less than 10% of the reindeer numbers. Or said in another way, in terms of larger animals, reindeer bones are 10 times more abundant than other animal bones. Such large numbers suggest they were reindeer people – killing large numbers at a time by intercepting them in their migrations. Or else they were semi-domesticated already, and under human management.

This is from the earlier period but it proves that there were reindeer peoples in the Urals in earlier times. But were they still there at the time of the arrival of the Post-Swiderian boat peoples coming from the east via the Volga, Kama, Dvina, and Pechora?

But let us inspect the yet next, more recent layer. Reindeer bones appear still very high at 1282. Actual numbers are not relevant, compared to relative numbers compared to other animals, since we may be only speaking of a smaller population of people, who ate less..

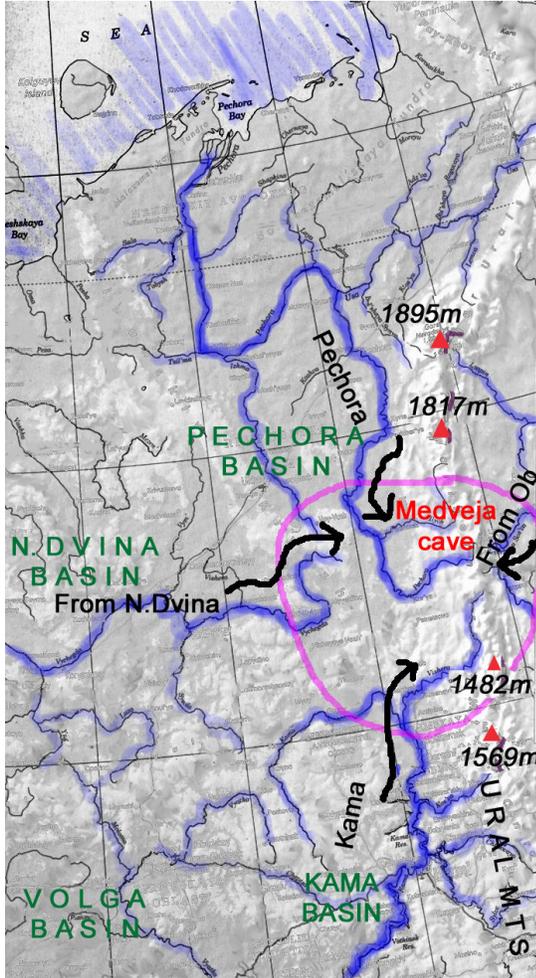
This shows that the reindeer consumption had declined, even though the relative quantity was almost the same. This suggests reindeer populations and/or human populations had declined there. Perhaps conversions to another way of life was in progress. If as Roots et al found, the northward shift of N1c1 began in the south only at 12,000 it is possible a new people were entering the Urals, and that the former peoples of the Medveja Cave had left or perished. Archeology found the bones of a cave bear in the upper layer, so clearly it had been vacant long enough for a cave bear to take up residence, which they had to defeat to take the cave back.

The important conclusion is that indeed there WERE reindeer herds in the central Urals area, and that there were humans there too consuming them in quantities.

Most important, is the location of the Medveja cave, It was located close to the source of the major rivers that would have been used by the boat peoples, and that there must have been a multitribe gathering site in the area, See Figure 5, which shows that “Kunda” culture has been found in that area, overlapping the Kama and Pechora culture regions. In addition there are branches of the Ob on the east side of the Urals. It could have been a major congregating area for many tribes, to socialize, and trade.’

‘ I ask the reader to locate the Medveja cave site on the map of Figure 11. It is located at the triangle with number 6. We can propose this was the major location of contact between the boat people and Ural Mountain reindeer people. Was it a major annual gathering place of boat people tribes in that location that included reindeer people of Asian origin? Is this where reindeer people converted to boat people, and then took up residence in the Pechora, which, in the north, may not have yet been an occupied territory?’

Figure 12



**A NATURAL MEETING PLACE AT MIDDLE URALS  
PROBABLY LOCATION OF CONVERSION WHICH THEN  
SPREAD THE URALS REINDEER PEOPLE LANGUAGE  
WESTWARD**

Closeup of the location where the Dvina, Pechora, Kama water basins came close together and also close to the Ural Mountains in a location with relatively high mountains, and the “Medveja Cave” archeology site that confirms reindeer were the major source of food. Either the visitors visited the cave or somewhere in the pink circle there was a major gathering place. Red triangles with elevations mark locations of higher mountains. These are comparable to some mountains in south-central Norway where reindeer are found. However it is highly probable that reindeer were semi-domesticated and were driven up mountains in summer. This simple guidance for reindeer probably began where reindeer were in trouble during the climate warming of 12,000 -10,000 years ago. The arrows indicate access by boat peoples from the Dvina, Pechora, and Kama water basins, as well as possibly the Ob. The general location of the Medveja Cave archeological site (#6 in Figure 11) is shown. It is likely these reindeer people managed reindeer herds in the high mountains to the north, and some managed to drive reindeer west through the highlands to the west when conditions made it possible.

**LOCATION OF CROSSING OF BOAT PEOPLES INTO THE OB RIVER BASIN?**

The evidence is clear about the expansion of boat peoples from “Maglemose” and “Kunda” material origins. The west-to-east movement is clear. Figure 12 shows a clear location of a gathering location and contact.

It is necessary to consider whether or not the original expansion of boat peoples continued into the Ob River since the Ural Mountains were in the way. Any theory that the Ob River boat people arose from reindeer people becoming boat people requires boat peoples did not occupy it first, because humans are territorial and whichever people are first become the rulers and newcomers have to displace them. (This can be seen in examples. What happens is that strangers are assumed initially to be visiting, and there is friendliness, but if they show intent to stay, then territorial conflicts arise. The visitor has to humble themselves to the ruler of the territory and submit to their rules like immigrants and refugees throughout history.) Furthermore, the reindeer people had to learn the boat-oriented way of life while the existing boat peoples could adapt to the Ob River water basin instantly.)

Therefore can find early evidence of boat peoples crossing the Urals, then it is clear the Ob-Ugrian languages had boat people (Finno-Ugric) beginnings to prove boat peoples entered the Ob very early?

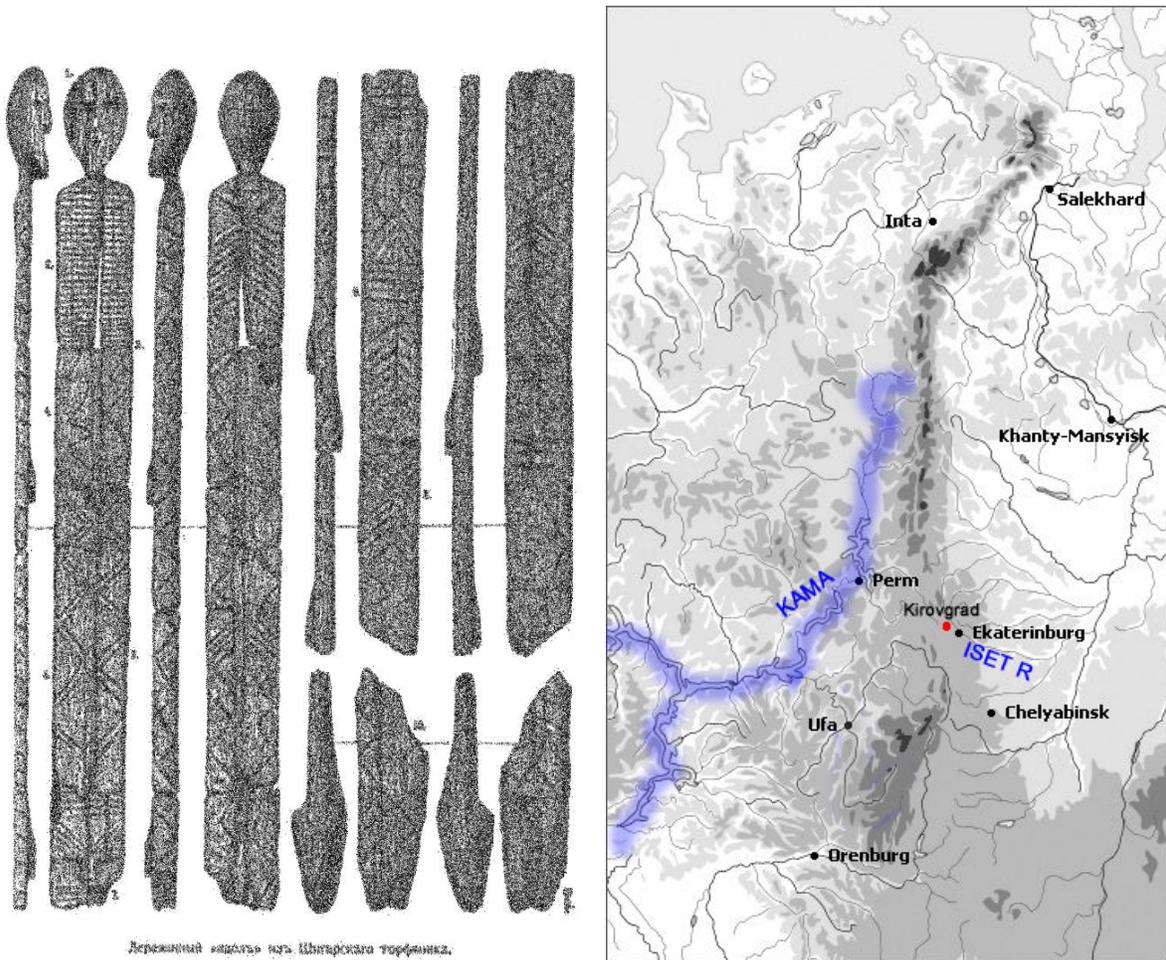
Let us study the Urals and look for possible locations where boat peoples could cross – by dragging a boat between rivers. But where and when did boat peoples cross the Urals from the Kama and into the Ob River Basin? The answer may come from the famous archeological find known as the “Shigir idol”.

The “Shigir idol” is the oldest wooden sculpture in the world, carved from larch tree and is currently displayed in (Y)ekaterinburg, Russia. It was discovered in 1894 , in the peat bog of Shigir, at at Kirovgrad, about 100 km from (Y)ekaterinburg. Original radiocarbon dating estimated the date around 7500 years ago, but the latest most advanced dating methods places it at 11,000 years ago (which to us is about the date of the boat peoples expansion from the west) There is a face at the top and it seems several faces at various points down the sculpture between geometric motives of unknown meaning. Some of the carving was done by a tool made from the lower jaw of a beaver. A beaver’s jaw tool of this period has been found, to confirm this possibility. It means these people lived and moved in marshlands since beavers are not found in mountains.

The city of (Y)ekaterinburg is located on the Islet River on the east side of the Ural Mountains, at the location of the Urals east of Perm on the Kama, where the elevation of the Urals is low, and portaging would not be difficult – with places less than 200m elevation compared to almost up to 2000m for the highest mountains further north. Because this pole-stature was found in a bog, it was not made by reindeer people who inhabited higher elevations, but people accustomed to living in marshlands and using boats. The skills in carving this statue probably came from a tradition of carving the canoes. Will archeology discover the remains of a canoe in a bog there one day?

What was the purpose of this tall carving? Is the head at the top representative of an ancestral deity?

Figure 11



*The Shigir wooden statue as seen from all sides - The red dot on map is where found.*

Therefore it should be obvious that boat peoples crossed the Urals from the Kama, using the branchj rivers on either side, making a portage between them, and – most importantly – would have crossed the other way from time to time too in later history.

(When the fur trade began, I believe a major fur market grew at Perm area, and it brought fur traders both from the north, from Pechora River, and from the Mansi peoples across the Urals at this location. I recall reading an article that noted there were Mansi words in the Mordvinian language, which could be explained by Mansi traders going to a market of the Mordvinians too. This also relates to the Huns who created two colonies of traders at the Black Sea. See later.)

This may be the proof that the Ob Ugrians originated from the original boat peoples who reached the Urals from the west, right in the beginning. But once across they would have followed the Ob tributaries downriver – northward – and split into several tribes owing to their success in this environment., producing the Ob Ugrians of today.

It is significant that the Samoyedic peoples of the north would not have had the same dialect as the N1c1 carriers that went through the Urals, and that means they would have influenced the boat peoples of the Ob River a little differently than how the Urals reindeer people influenced the Kama boat peoples.

## OB-UGRIANS AND THE HUNGARIAN DEBATE

Many Hungarians feel uncomfortable to be associated with primitive northern hunter-gatheres instead of the fierce, romanticized, “Huns” of history. There has been a movement of portraying Hungarian ancestors in images of North American Native peoples. There may be some connection to North America in Hungarian. I recall there is a word for ‘bear’ that is identical to the word in Algonquian languages. The Algonquians of northeast North America. Futhermore, one time when I showed to a member of Ojibwa Algonquians a video of Lennart Meri’s 1980’s film showing the wake for a bear in the Hanti (Khanty, Ostyaks), an Ob-Ugrian people, he thought it was a movie recreation of his culture. The film had making containers out of birchbark, a drum made of a hoop with skin stretched across, it and teepee structures. There was imagery that connected with the Algonquians. That suggests there was a real connection between Ob-Ugrians, and the Algonquians, except that the Algonquians,as I said before, probably originated from the arctic skin boat peoples who crossed the north Atlantic about 8000-6000 years ago, who descended south into the postglacial landscape. Algonquian culture did not come from crossing the land bridge at the Bering Strait. It came via boat peoples, and therefore it makes much sense that if Hungarian should have resonances with Algonquian and some romantic men among them want to dress up like North American Natives, then it is from boat people roots, and not those who crossed the Bering Strait on foot following mammoths.

I believe that the Ob River was immediately adapted in the first expansion of boat peoples. Curious men would have crossed the mountains where there was a passage through them, such as east of today’s town of Perm as discussed above. I think the boat peoples formed the original Ugrians in the Ob River. But once in the Ob basin, the Ob River boat peoples had an ongoing barrier in the Urals. It was not a complete barrier because a boat could be dragged through in some locations, but it would have reduced communication with the Finnic boat peoples to the west, and forced greater involvement with the Samoyedic and Turkish speakers around the perimeter of the Ob River basin. It promoted dialectic divergence between the east and west sides of the Urals.

Therefore let us reconstruct the circumstances in the Ob River water basis through history using all applicable information, and not be limited to language.

The Ob River is very large, and there must have been more tribes in it at an early time. It is probable there was a tribe at the south end of the Ob, where there is no Ob-Ugrian people today.,

The southern tribe would have used the same stem word as seen in the word Hanti or Khanty. The word HAN is in there. Is it a plural? In any case that is the obvious origin of the historic name Huns. In addition note Jordanes mentioned "*Hunugari*". The word HAN thus must have been the way these people called themselves. It could have been a version of the same word that developed into "Finnic", whose earliest form was probably HENE or VENE, interpreted by Roman historian Tacitus as "*Fenni*". This would arise if the word VENE were pronounced with a strong initial syllable, like Finnic does.

The tribe that went to the south end of the Ob River, would have had contact with land-based peoples involved with herding, and then in later history with east-west trade along the "Silk Road". The historic Huns would have become strongly involved in trade along with Turkish speakers, and become part of the expansion of Turkish traders. Accordingly, these descendants of the southern environment would have had more influence from Turkic than the northern Ob-Ugrians who were more influenced by the Samoyedic. In this case the "Huns" rose in a highly trade-oriented environment along with Turkic peoples. The Turkic expansion occurred mostly in historic times and so did the Huns.

Jordanes writing at Constantinople in 551 or 552 A. D. described the Huns located in his time on the north side of the Black Sea. Using many sources he attempted to construct a history of Germanic "Goths" but appears often to include peoples with similar names which were not the Germanic Goths, His work is considered amateurish, but information of his time, learned directly at Constantinople was most reliable. Although the Huns were presented as hideous small men in the mythology of the time, in reality they made their living to a great degree with trade. (my underlining)

*(37) Farther away [from Constantinople where he is] and above the Sea of Pontus [BlackSea] are the abodes of the Bulgares, ..... From this region the Huns, like a fruitful root of bravest races, sprouted into two hordes of people. Some of these are called Altziagiri, others Sabiri; and they have different dwelling places. The Altziagiri are near Cherson, where the avaricious traders bring in the goods of Asia. In summer they range the plains, their broad domains, wherever the pasturage for their cattle invites them, and betake themselves in winter beyond the Sea of Pontus. [This looks like they leave in winter to go north and fetch furs from northern associates] Now the Hunuguri [the second of the 2 groups?] are known to us from the fact that they trade in marten skins. [Jordanes, 6<sup>th</sup> century, ch 37]*

Perhaps one group fetches regular trade goods from the Silk Road, and the second group comes down the Kama and Volga. Somewhere I read that there are a considerable number of Mansi words in Mordvinian. What if the Mansi was involved with the fur trade through a market at the location of Perm? A crossing of the Urals was possible at this central area.

Thus given that Hungary was established later from the location north of the Black Sea, it seems to me both branches of the Huns observed by Jordanes were traders. If one group left the area in winter to fetch food from Asia, that could mean they went east along the Silk Road to their trade goods sources. But the other group, bringing marten furs must have gone north via the Volga and Kama, and crossing the Urals east of Perm to fetch furs from the Mansi.

In conclusion, all evidence considered, and not just linguistic coincidences in which convergence plays a role, it is impossible to separate the Huns from the fur trade and the thick winter furs of the north, regardless of whether there were some who had combined herding with other goods "from Asia"

We have to conclude that the Ugrians at the roots of Hungarian were Ob-Ugrians in a southern extinct Ob-Ugrian tribe that no longer needed to live in the marshes, who became a combination of herders and traders first southeast of the Urals, and then pushed to above the Black Sea and further west when the trading interest moved west – for example Constantinople became all traders' destination for trade since the end of the Roman era, and later trade interest moved north on the Danube.

If a family tree is constructed with the Asian reindeer people at the roots, I see evidence that Turkish languages be included, but, Ob-Ugrians and Hungarian is still rooted in Finno-Ugric boat peoples,

## THE EXPANSION OF BOAT PEOPLES INTO THE ARCTIC OCEAN

Scholars have, over the centuries noted evidence of the spread of culture around the arctic including the use of skin boats, drums made from skin stretched over hoops, teepee dwelling structures, and even in myths and folklore. However most noticable is the mongolid facial features. Linguistically there was a pursuit of what was originally known as the “Eskimo-Uralic Hypothesis” to determine if Inuit language had a connection with “Uralic” languages. Such investigations were inconclusive. The Inuit of the North American arctic were seagoing peoples, but where did they come from if they have pronounced mongoloid faces?

In northeast arctic Europe, there must have been a major genetic mixing with the original European boat peoples (ie “Kunda” culture) when a substantial number of Asian reindeer peoples converted to the boat-oriented way of life. Images of skin boats are found from the White Sea to arctic Norway. An obvious route to the White Sea was from Lake Onega. The obvious route for genetical Asian reindeer people to becoming boat peoples who expand to the arctic would have been the Pechora River or the Dvina. It could also have been the Ob River. The rock carvings of boats in the arctic Norwegian islands show two kinds of boat – skin boat with a moosehead prow, and a single person dugout.



Figure 12

*A rock carving found on an island in arctic Norway, shows both the original dugout, and multi-person skin boat with head of animal from which the skin came on the prow. Both a dugout and skin boat together suggest the arctic skin boat culture came from the dugout culture. The kayak would then replace the single person dugout among arctic seagoing people who could not find trees for even a small dugout*

Trees were too small in the arctic for a large seagoing dugout. The single person dugout was probably the same as still made by the Hanti (Khanty, Ostyaks) of the Ob River. That boat was operated like the kayak. It follows that when boat peoples in the arctic no longer found any more trees, turned their skin boat making techniques to invent the single person skin boat – the kayak.

All evidence taken together suggest the Asian reindeer people borrowed the boat-oriented way of life and found all the northeast Europe waterways still uninhabited (since the original European boat peoples preferred the forested more southern areas). The spread of Asian mongoloid people, into the uninhabited arctic proceeded in a big way, carrying the mongoloid genetics into the arctic ocean around the arctic.

There are some remarkable coincidences between Finnish or Estonian versus languages of northern North American languages in cultures associated with boats. Estonian/Finnish stem **nais-/nais-** meaning 'pertaining to woman, female-' is almost identical to Ojibwa **-nozhae-** 'female'. This resonates too in Inuit **ningjuq** 'old woman' and **najjjuq** 'she is pregnant'. Ojibwa **kayashk** 'seagull' corresponds to Estonian **kajakas** 'seagull'. Ojibwa **pagi, pagid** 'release, let go, free liberate, set free' can be compared to Estonian **põgenik/pakolainen** meaning 'refugee, escaper' from stem meaning 'escape'. Ojibwa **naub** or **naup** meaning 'lace, string together, connect, join, unite', compares with Estonian/Finnish **nööp/nappi** 'button'. The common Estonian word for 'father' is **isa**. This is reflected in Ojibwa **-osse-** 'father'. While the number of parallels is limited, what is remarkable is that the parallels are remarkably close. See my “Uirala” website for my past investigations of remarkable linguistic similarities between North American northern peoples with boat traditions and Finnish and Estonian. I had no intent to come to any conclusion but just to show coincidences between words of northern aboriginal boat-oriented peoples and Finnish/Estonian words that cannot be attributed to random coincidence. (Which can be determined by comparing it to an arbitrary “control” language or two.) These did not come on foot over the Bering Strait but through the arctic ocean some millenia more recently.

5.  
CONCLUSIONS: THE TWO-FAMILIES MODEL FITS ALL OTHER  
DATA.

MODERN REVIEWING OF “URALIC” AND “ALTAIC” LANGUAGE FAMILY THEORIES OF A  
CENTURY AGO AND RESISTANCE TO CHANGE

The obvious instant criticism of traditional “Uralic Linguists” is that the original “Uralic” linguistics interpreted the linguistic data fine, and that we must believe that linguistics a century ago were much better than linguistics today -which implies linguistics has deteriorated not advanced. Or that the linguists are experts in interpreting the abstract results of linguistics analysis in terms of real world events.

Assuming that a linguist a century ago spent years becoming an expert in archeology, etc, to interpret the linguistic results, back then minds of all scientists were swirling with the new discoveries of how the species of the world were part of a family of species. Therefore the discovery of parallels in language evolution made linguists in the 1800s WANT to discover parallels of evolution in languages. An approach introduced by German philologist A. Schleicher, in which similar languages were compared and common ancestors were imagined and reconstructed, allowed such family trees to be constructed. Nobody paid much attention to if it worked. There was no way of proving a reconstruction of a supposed parental language was like the actual one because without a time machine it was impossible to go back in time to see. The reconstruction could be wrong or such a language never existed. Linguistics, unlike archeology could not even show bones or artifacts from the ancient cultures. Furthermore if inscriptions are deciphered and look like Finnic, Finno-Ugric linguists show zero interest because Finno-Ugric linguists has not found any surviving descendant language allowing its discovery via linguistic analysis. If a descendant of the language spoken by Suebi tribes in the Roman era, had survived and been included, then yes, Venetic would have been something real to linguistics. Thus the main flaw of linguistics is that it is not a science for reconstructing the past, but its own construct based on only surviving languages, and hopefully with sibling languages to permit the construction of wonderful family trees.

Let us face it, linguistics is an archaic thing.

To complement the “Uralic” language family invented a century ago, similarly an “Altaic” language family was invented too, the name based on the Altai mountains southeast from the south end of the Urals. Linguists began questioning whether similarities between languages must be interpreted as divergences from a common parent. Similarities can develop between unrelated languages from “areal contact” and “areal convergence” over long periods, as I discussed earlier. It simply means there was so much contact, that common words and expressions, even common grammatical elements, moved between neighbouring languages.

Today it is accepted that many of the originally defined “Altaic” languages similarities were the result of the areal convergences. The “Altaic Language Family” concept has been abandoned. But perhaps there is a real “Turkic Language Family”, which can be explained in terms of the evolution of Asian reindeer peoples with a combination of languages that went north with reindeer herds, and languages that remained in the south where the original reindeer people evolved after changing their way of life towards horses and later to trade.

Like with the “Altaic” problem, linguists have been considering whether the “Uralic Language Family” is similarly incorrect. What if the similarities were the result of convergence? Angela Marcantonio reviewed “Uralic” linguistics and found a lack of the expected evidence to show there is a language family in the languages included, and linguists like Johanna Laakso viciously criticize her and the others who rebel against the dendrogram, the tree diagram.

The hard truth is that linguistic investigation is not independent of the established interpretation of linguistic data. The data consists of much information of all kinds. So what data is selected and how it is processed depends on what the linguist is trying to achieve. If the established theory is that there was an original "Uralic" parent, then the linguists will process the data in order to have it exist, and to try to determine its location. If the interpretation says no such parent existed for a "Finno-Ugric" and "Samoyedic" split, and that there were two families, then the linguists will approach the data from that perspective. If the interpretation is that there was convergence between Finno-Ugric boat peoples and Samoyedic Asian reindeer people, then linguists will investigate evidence that similar words and expressions and grammar was the result of thousands of years of association and not a divergence from common parents.

Linguistics is not a hard science. It is highly subjective and many interpretations are possible from the same data according to how the data is selected and approached.

### THE PAST IS ONLY REVEALED FROM MULTI-DISCIPLINARY ANALYSIS

Traditionalists (ie Häkkinen) will say that linguists should stay within their field, that archeologists should stay in their field, and that geneticists should stay in their field. But if a linguist claims there was an original language in a tight origin at the Urals, and that there were a series of migrations leading to Finnish arriving at the Baltic only around 2000 years ago, that linguist is NOT staying within linguistics. Linguistics only studies the languages and makes proposals about how the modern languages could have developed in an abstract sense. The moment he or she says the language originated in a specific place, at a specific time, and migrated in a specific geography, then that linguist is presuming to also be a specialist outside his or her field. The original "Uralic Language Family" model, as explained earlier involves interpreting the abstract linguistic determinations in terms of real past people in a specific geography. It involves an understanding of the nature of the people (for example that they were nomadic and covered a broad area and not settled people occupying a small area) the manner in which separation occurred that allows linguistic divergence (for example that divergence can occur like dialects do, from subdivision and not by migrations, whether the circumstances were promoting population growth and expansion, and so on. It follows that, if the original model was based on lack of understanding of the real world, then the model is the result of unqualified analysis even if the linguistics. And from that it follows that alternative models, such as those presented by some Finnish linguistics in the early 1900's were possible as well, and that the model that endured was merely a matter of who won the political battle. The Finnish linguists had probably the better model because they recognized that hunter-gathers covered a broad area (Heikki Ojansuu in 1907), and that the division of the broad area into dialects and languages was the result of ceasing to be highly nomadic and settling down in farming. (Erkki Itkonen). The Finno-Ugric side of things was better understood by Finns closer to the wilderness.

If the interpretation of linguistic discoveries is not part of linguistics, and the "Uralic Languages Family Tree" model was largely the opinion of ignorant men in an ignorant time, then it follows that someone specialized in analysing all data including all the knowledge that has accumulated in the last century, can legitimately offer new interpretations and they will probably be better than the amateurish interpretation of linguist today and a century ago using only information from over a century ago.

The interpretation given here is far more comprehensive than anything before. Someone can identify flaws and offer corrections, or come up with a completely new model. Without being able to travel back in time we will never know for certain. We can only select the one that agrees with most of the information available, and makes logical sense.

But the "Uralic" matter is not only about interpretation. The linguistic analysis made a mistake too by assuming all similarities signify divergence from a common parent language, when it is now accepted that similarities can arise from "areal convergence" from "areal contact". This means that unrelated languages in

contract for a long time continually adopt words and phrases from the other and eventually are so similar it is difficult to see that they have unrelated origins.

The failure in the original linguistics a century ago, of even considering convergence, resulted in the boat peoples from the west (the Finno-Ugrians) and the reindeer peoples at the Ural Mountains (the Samoyeds) being assumed to have descended from a hypothetical "Uralic" parent.

The Two-origins theory arises from the discovery that there were two completely different families, one originating in Europe, and the other originating from southeast Asia. If they have a common origin it would have to be in Eurasian reindeer people in the Ice Age before 20,000 years ago – so far back it is impossible to fathom how they may have arisen and where.

Linguistic analysis cannot be pursued in isolation from everything else, just as a crime scene cannot be properly analyzed from data from one field alone, like fingerprints. All applicable information must be drawn into the interpretation. While the fingerprint specialists, DNA analysts, etc will do their work independently, it is the detectives who look at all the data from all the specialists to reconstruct the real past. The detective determines if the fingerprints belong to the person who left behind his DNA or not. It is all part of the overall multidisciplinary analysis using the fine work of specialists within the individual disciplines. The detective is a specialist in analysing data across many disciplines, and not excel within any specific field. The specialist can contribute criticisms within their specialty where it affects the large picture. All scientists making inferences from all applicable information, such as archeology,

#### LINGUISTIC ANALYSIS IS INCLINED , IN UNCERTAIN CIRCUMSTANCES, TO DECIDE IN FAVOUR OF THE PREVAILING THEORY

As the preceding article has shown, a single correction to the traditional "Uralic" model changes everything. Just by saying similarities between "Proto-Finno-Ugric" and "(Proto)-Samoyedic" were the result of convergence, the imagined "Uralic" parent disappears. Then if the "(Proto)-Samoyedic" words then spread through the body of boat people languages to the west, we are speaking of a domino effect of the new words being passed to these languages to the west through normal interactions. Since the new words from the Uralic reindeer peoples are transferred first to those boat peoples on the Volga, and next to those people at the Baltic, it will seem as if there was a migration of peoples, when there is simply a domino effect of contacts.

#### FINNIC LANGUAGES INFLUENCED PERHAPS MOSTLY FROM THE NORTH?

Perhaps the impact of the original contact at the Urals from around 10,000 years ago did not have much impact all the way to the Baltic. But when a portion of the N1c1 reindeer people actually made it to northern Finland (Saami) the diffusion of the N1c1-haplogroup southward may have been the primary impact of reindeer people language at the Baltic.

The question in my mind is how close is modern Finnic to the original boat people, before the expansion eastward to the Urals? How much does Finnic languages resonate with Turkish, Chinese and Korean as a result of the migration of the N1c1-haplogroup reindeer peoples 10,000-6,000 years ago?

Theoretically, if we had descendant languages from northwest Europe, such as the aboriginal peoples of southern Scandinavia before it was conquered by Germanic powers, then we might see a Finnic that does not have the reindeer-people influence.'

But unless the introduced language is very powerful (either with immigration of large populations of a conquering people forcing natives into their government) usually the introduced language only influences the indigenous one. So we can assume that Finnic languages will have words from the Asian reindeer peoples here and there, just like Finns have the N1c1 haplogroup marker, or high cheekbones, and broad faces.. And as we proceed southward into Estonians, there will be fewer such borrowings.

## INHERITED WORDS VERSUS BORROWED WORDS

A critic may claim that the two-origins theory has a flaw in that the contacts at the Urals occurred at around 10,000 years ago or earlier. I pointed out earlier that comparative historic linguistics can only date the occurrence to when an original language first produces the beginnings of a divergence that leads to modern languages that can be analyzed. But there is another truth: Conversion towards two languages looking similar takes longer than two languages of a single original language becoming dissimilar by divergence from an original same language. Therefore if similarities arose from the long journey of different languages becoming similar, then it could take a millenium to reach the same similarity than starting out identical and diverging to similarity. Thus the timing of linguistic change is affected by two languages starting different and proceeding to similar versus starting the same and proceeding to being slightly different. It is therefore that the convergence between the boat peoples and reindeer peoples at the middle Urals could begin 10,000 years ago and reach substantial similarity only around 6,000 years ago. But if there really was only divergence from a common parent, the same similarity could be achieved by divergence to less similarity in only centuries.

It depends on whether you begin with dissimilar or similar and the proceed away from each.

There will be linguists who claim they cannot mistake similarities developed from convergence from similarities developed from divergence from a common parents. But let us be realistic. Consider that when you borrow a word from another language, you will speak it with the character of your own, your accent. A linguist can falsely see that shift in the borrowed word as a general shift between two languages of the same parent. To use a simple example. Chinese will use “L” for “R”, so one could claim that if English has “ring” and Chinese says “ling”, the divergence-ist will say there was a parent language where the shift of “R” to “L” was the consequence of linguistic shifting between the two languages instead of simply the borrowed word being spoken in the already established character of the borrower language., It is beyond the scope of this article to explore with practical examples how borrowed words become shifted immediately by the borrower language, so that discovering it is borrowed is not obvious. If the borrowed word is in common use, after a long period of time, the borrowed word will also develop cognates and further reduce the ability to detect it being borrowed at some distant time in the past.

## WHAT DO THE TWO LANGUAGE FAMILIES LOOK LIKE?

To the west of the Urals, in the region of expansion of boat peoples, it is clear there was a language family – a “Finno-Ugric” language family. The expansion was not sequential (With boat using peoples, a group of families could travel further to find a better uninhabited location before some other group went to a nearer location. This was possible because boats could travel the Volga in a matter of weeks.) It was generally a filling up of uninhabited lands and then when the region between the Baltic and Urals (or more broadly Scandinavia to the Central Siberian Plateau), was inhabited, they all became stablized with boat peoples tending to take up residence within the confines of their chosen water system. It could be one tribe per moderate size river, or two-three tribes in a large water system. (The Volga may have had 4 or even five tribes.) Once the broad region was stable, all the similar boat peoples, carried on meetings between them at locations where neighbouring water systems came close together. These meetings restrained too much dialectic divergence per different water systems, and in the long run after thousands of years the result would have been similar to the situation of the Algonquian language family across the east half of what is now Canada. We noted eariler that the family was more like a continuum of dialectic variation than individual related languages.

But even if it is a single language subdivided into dialects, it can be regarded as a family.

But when we look to the east of the Urals, to the languages there, it is not so simple. I have already explained why I consider the Ob-Ugrians to have originated from the original boat people expansion. They

were simply more isolated by the Urals Mountains barrier, and as a result interacted more with the Samoyeds to the north and Turkish speakers to the south, than to their own original kin to the west of the Urals. Those west of the Urals had a continuous linkage through the waterways, but between the Ob River and the Kama River there was a significant need to portage, that discouraged crossing except if there was an important reason to do so.

That leaves the reindeer people now speaking Samoyedic languages, and Turkish-language speakers at the south end of the Ob-basin. If there is a language family among these speakers, information from outside linguistics seems to suggest a language family with Asian reindeer peoples of southeast Asia around 20,000 years ago at the head, and with a location that moved north with the reindeer herds. The reindeer people of the Samoyeds of the Tamir Peninsula could be the direct descendants of the beginning of the head of the family. The carriers of the Y-DNA N1c1-haplogroup reindeer people obviously represent a later migration. The two surviving descendants of the language used was probably the Saami on the one hand and Yakuts on the other. Since the Yakuts spoke a Turkic language, we should next look to other reindeer people who speak Turkic languages, such as those with tamed reindeer in the mountains of north Mongolia and south Siberia. Next one might look for other Turkic speaking tribes with deep roots in the region where the reindeer people had once been, on the belief that they abandoned reindeer and switched perhaps to horses. The continuity that creates the family structure would be reindeer peoples or ex-reindeer peoples.;

Currently the Turkic family tree is a mystery because of significant expansions during the last couple millennia of growth of east-west trade via the Silk Road. One description said that Turkic languages can be traced back only 2500 years. They must have been originally weak, and then grew rapidly when they became successful in trade. The deeper origins probably lies with reindeer peoples who did not shift northward, but remained in the mountainous areas to drive tamed reindeer up mountains in summer and down for the winter. These peoples consist of the Dukha people and others in the neighbourhood in recent and ancient times, all considered to speak Turkic languages. ("Dukhan belongs to the Taiga subgroup of Sayan Turkic – Tuvan, Tofa") To reconstruct this language family it is probably necessary to reconstruct the entire history of climate warming, environmental change, northward shift of reindeer people, change in the way of life of reindeer people particularly towards herding, etc. It will be very difficult to interpret the evolution of the languages without considerable guidance from archeology, population genetics, etc.

Figure 12  
*Turkic Languages (from Wikipedia)*



*The colours show the distribution of divisions of Turkic languages today. Note how the center of gravity of the Turkic languages appears to be in the center of the paths taken by the early reindeer peoples, which may mean they represent descendants of those reindeer peoples who dropped behind and changed to herders etc.*

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