

PART OF THE UIRALA SERIES OF ARTICLES
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INTRODUCTION: UI-RA-LA, the World of the Way of

the Waters

Addressing the Post-Glacial Development and Expansion of Boat-peoples

By A. Paabo

Synopsis: In school, prehistory is mostly about the hunter who roamed the land on foot following herds of reindeer or mammoths, and how doing so, he spread through all the continents by about 10,000 years ago. Indeed, if we only think of humans as pedestrians, that would be the whole story. But from about 10,000 years ago onward, humans also learned how to travel by water not just in some one-time raft to deal with a body of water, but as a replacement for walking where needed. Since humans are inherently landbased creatures, it took great environmental pressures to force them into a way of life that involved constant boat use. Such environmental pressures existed at the end of the Ice Age south of the melting glaciers, at a time when seas were rising and the land was flooded from the glacial meltwater. If you were in a land that was nothing but marshes and bogs, you had no choice but to devise those water crafts and then design them and how they were used to become more efficient. This occured in the regions around what is now the Jutland Peninsula where archeology has found evidence that they call "Maglemose culture". They were a successful culture that expanded eastward, giving birth to variations of the culture, with the use of dugout canoes as a constant feature. Spreading northward this culture went above the treeline, and finding small trees or no trees needed to devise dugouts from something else, soon gave birth to skin boats. It was the skin boat that took to the open seas about 6000 years ago, which then enabled their users to migrate along the coasts and edges of ice to everywhere in the northern hemisphere. Boat use being absent everywhere the initial migrations went, they found the coasts and nearby fishing grounds vacant and waiting to be seized. The land based peoples, descendants of the land-migrations of millenia earlier, were preoccupied with their interior territories and animals, and put up no resistance. UIRALA is about that second original migration of humanity, with boats, lasting from 10,000 years ago to about 4000 years ago. This article is a general overview of the subject, with some examples taken from the articles.

Introduction: An Overlooked Subject

Humanity has mostly been interested in scholarly explorations of the wanderings of pedestrial humans during and just after the last Ice Age, before about 10,000 years ago. From archeology comes the story of early hunters following the mammoths, crossing a land bridge from Asia into North America and down an ice-free corridor around 10,000 years ago. From archeology too are theories about an even earlier mysterious coastal migration from Asia and down the Pacific coast of North America. From population genetics comes the story of migrations out of Africa, from an original "mitochrondrial Eve" and y-chromosome Adam, based on comparing similar DNA features in different parts of the world that indicate the descent of mtDNA along female lineage and y-chromosome DNA along male lineage. With paleoanthropological work, it is now believed that before the expansion of humanity, we lived along the coast of southern Africa, an ideal refuge from dramatic climatic changes elsewhere in the world.

It is therefore the general belief today that humans expanded from Africa throughout the world, reaching North America around 10,000 years ago, and that no further migrations of relevance occurred since then. But this is to be questioned. There is also the migrations by water that went where humans on food could not go.

The world in the Ice Age.

It was in this world that humans spread on foot, until they had reached all continents by 10,000 years ago This is what we tend



to study exclusively in school.

Meanwhile archeologists have studied the period after the Ice Age, and

prehistoric peoples presence after 10,000 years ago, such as the reindeer hunters in the North European Plain, who when finding themselves in rapidly warming climate, had to change their way of life or follow reindeer herds heading north where the land and climate was still cold and barren. But there has been accumulating evidence of long distance migrations by sea, Arctic seas of North America recieved people who almost certainly arrived by sea before 3000BC (before 5000 years from present.) On the Pacific coasts archeologists find coasts that are originally uninhabited and then a coastal culture arrives about this time as well. On the European side of the Atlantic rock carvings on the arctic coast of Norway showing images of skin boats date to about the same time.

It all adds up to a picture of the development of a skin-boat-using seagoing culture that, owing to its success, expanded around the arctic coasts and south along the Atlantic and Pacific coasts.

ATLANTIC CROSSINGS

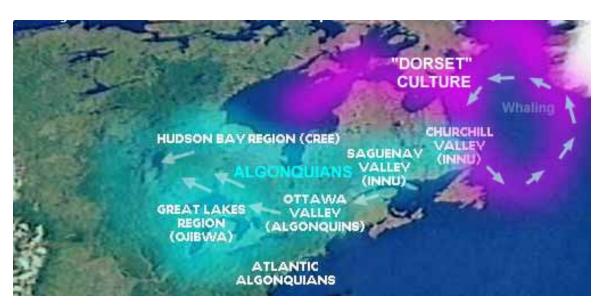
One of the myths about ocean crossings has been that North America was not visited from Europe until the Norse visited Newfoundland, or Columbus crossed the Atlantic further south. This is one of the consequences of past thinking that was focused only on civilization and treated aboriginal peoples as background like the wild animals. In other words any theory that aboriginal seafarers crossed the Atlantic for thousands of years before Columbus or Norse is dismissed as irrelevant. But if we think in terms of all humanity, the story is different.

Archeology has been finding evidence that oceanic crossings began over 5000 years ago, and have been going on ever since that time. Archeology has, for example, been discovering similarities in artifacts found in northwestern Europe and northeastern North America. If humans have had the capability, with mainly large skin boats, to cross seas already about 5000 years ago, then not only can we imagine major initial migrations, but regular migrations, either accidental, or purposeful, ever since that time. Considering the presence of seagoing aboriginals of the coast of Norway, probably visiting the Faeros, northern Isles of Britain and even Iceland, in their cycles of seahunting/fishing, it is certain that the Norse were preceded by permanent migrations and then ocassional visitors from Europe a few times every century. Most smaller groups, if they remained, would have quickly assimilated into indigenous peoples already established.

The fact that archeology or population genetics does not reveal stark evidence of crossings in the last millenia, is simply because they were few and far between. Very few visitors and even settlers, grew in populations and left any significant mark. But some may have introduced a new technology

and way of life, even if they dissolved and disappeared into the indigenous fabric. For example, archeology shows that in the northeast quadrant of North America there existed hunter-gatherers, but they lived inland and not on the coast. A pededstrian people.

But then it seems a new people visited the coast, people who probably came with skin boats and introduced both the dugout and skin boat and harvesting the waters for fish. How else would we account for the Algonquian culture which was oriented to canoe use and fishing. By the 17th century, Algonquian-type cultures and languages were found in all locations of the northeast quadrant reachable by rivers into the interior from the vicinity of the Gulf of Saint Lawrence and Newfoundland. Inland Algonquian oral traditions too speak of coming from the east.



MAP SUGGESTING REGIONS OF EXPANSION OF ATLANTIC BOAT CULTURE IN THE NORTHEAST QUADRANT OF NORTH AMERICA

This map depicts two significant developments that speak of the arrival of boat culture in the north quadrant of North America. That the "Dorset" culture came from the seagoing hunters of arctic Norway is easy to understand. The expansion of boat use in the blue region is more difficult to understand - was it an indirect effect from "Dorset" culture travelling south to Newfoundland, or was there a direct arrival of visitors from arctic Norway - or both?? The expansion of Algonquin cultures (indicated by arrows) are consistent with boat peoples travelling up all the rivers emptying into the upper coast of North America.

It suggested that there had been salmon fishers on the Atlantic coast, that then with a successful culture, grew in population and migrated inward in boats. The birch-bark canoe common to the Algonquian cultures is obviously modelled after the traditional Atlantic skin boat, except using birch bark as a skin. European evidence in rock carvings shows that the makers of skin boats

were still able to make dugouts as well. Algonquian tribes towards the south, where birches were rare, had dugouts, This suggests that even though the visitors to the coast may not have had much genetic impact, their mature seagoing skin boat culture, introduced to the natives in the vicinity of the Gulf of Saint Lawrence the use of boats, and the harvesting of seafood, notably salmon. Then with success and population growth breakaway groups followed the salmon inland and additionally went after freshwater fish.

Such thinking presumes boat-using ways of life did not exist in North America prior to it being introduced over the Atlantic. One immediately wonders why boat use could not independently develop in North America? It could, but perhaps earlier water craft were created only as needed and did not become part of a way of life. History records for example that the farmer-Natives south of the Great Lakes, the Iroquoian tribes, did not keep canoes permanently. They quickly created canoes as needed, from elm bark. (Elm bark would provide more stiffness and not required as much framework. But elm bark dries and becomes brittle and becomes useless.) The Iroquoians, thus, never developed the canoe into a permanent part of their life. The Algonquians, on the other hand, were as dependent on canoes as modern civilization is now on the automobile.

But the strongest evidence that the boat-oriented, water-harvesting, way of life developed first in Europe comes from lack of evidence in North America dating to before about 5000 years ago. In northern Europe there are images of boats in rock carvings and archeology has found remains of dugouts in bogs. The evidence shows the use of boats dating back to as much as 10.000 years ago in the archeological "Maglemose" culture.

In North America archeology has yet to find any dugouts in marshes, or even any evidence of boats dating to before around 5,000 years ago when it seemed the European seagoing cultures landed on North American shores. Boat-using culture in my view began in northern Europe and did so out of sheer necessity when the melting of the glaciers centered on the mountains of Norway turned northern Europe into seas and marshes. Something similar failed to occur in North America. Ilt was perhaps simply a geographical situation. My argument is that humans are naturally land-based creatures and that if the climatic and environmental circumstances forcing humans to live off the water do not develop, humans will prefer to remain pedestrian huntersgatherers in the forests. It is similar to horseback riding. While humans can jump on the backs of horses for sport, it is still an unnatural activity, and it would take a long period of environmental pressure to promote the activity to a role central in their way of life. (For example, horse hunters had to deal with the ability for horse herds to escape quickly. What better way to catch up to the horse herds to hunt them, than to actually domesticate some horses for the purpose?)

The sustained conditions promoting a boat-oriented way of life developed in northern Europe at the end of the Ice Age - the melting glaciers turned a formerly open, solid, land into bogs, marshes, rivers, and lakes where hunting on foot became very difficult.

European Beginnings

Since today everyone can get into a boat and go fishing, it is a popular notion that humans could make and use boats instantly whenever they wished. This is naive. Today the culture of boats is already established. We no longer have to develop that culture.

In the beginning, who even knew how to make a boat? If one needed to cross water, one rode a log or made a raft. I offer the theory that originally, like apes, we simply straddled logs to cross rivers, and the more we did it, the more we thought of ways to keep our legs dry, and the logs acquired cavities. The next step was to make the dugout log lighter and more streamlined for easier handling.

Yes, it is clear that humans were always able to make bridges and rafts to cross rivers and bodies of water when needed. They could always straggle a log or bind logs together to form a raft, or even ride a natural raft of debris. This is something even apes are capable of doing. We should not be surprised for example that humans had to cross a body of water to reach Australia. The real question was whether the raft or log used was a one-time contraption, or if there was a seagoing way of life. Likely it was a one-time crossing on some contrived raft since there is no evidence of a boat-using culture having been sustained.'

Who can blame humans for remaining land-based hunters if they did not have to go out on the water? We are not dolphins. Humans evolved on land, and are most comfortable on solid ground in dry air, instead of bouncing around in waves, getting wet, and hunting water creatures. If it is possible to remain on the land, humans will do so.

Thus the debate is not about ocassionally going out onto the water when necessary, but about developing an entire way of life in which travelling in boats was a necessary everyday activity, was only way hunters could make journeys longer than short walks around their campsites on dry islands. Such a development required environmental pressures that simply made it impossible to travel by land.

Once a new way of life that includes a practice unnatural to humans, it is easily adopted by others. In the beginning, we do not even know what a boat looks like or how it is beneficial, and other peoples will have no interest in it; but once the culture has matured, once the design of the boats and their use are clear, once the benefits of their use are obvious, then any other people

can adopt it by simply copying. Today if we want a boat to go fishing, everything is done - we simply follow the instructions.

DUGOUTS AND SKIN BOATS PREHISTORIC AND STILL IN USE



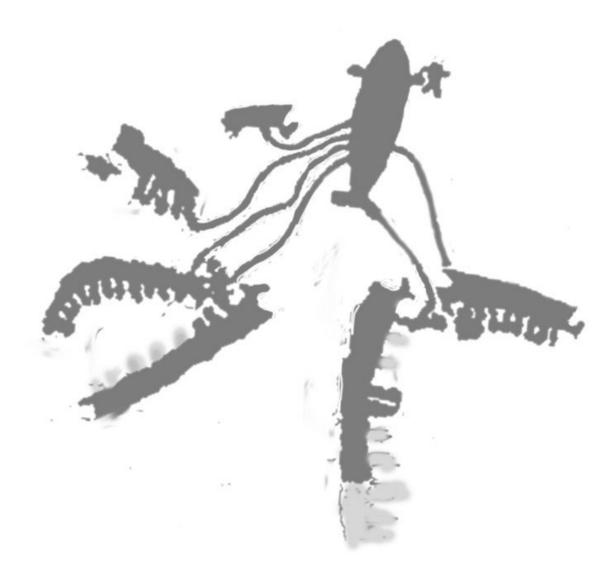
Dugout canoes still used by the Khanty (Ostyaks) of the Ob River today. These dugouts are limited in size to the largest trees that can be found in the north



A rock carving from the arctic coast of Norway depicting both a one-man dugout, and a skin boat with a moosehead prow capable of holding several men and dealing with the high waves of the sea

Nonetheless, it is certainly that boat use could have developed elsewhere that it was necessary, such as the annual flooding of the Nile - did reed boats develop independently there? It is also possible to develop a seagoing boat based on the concept of the raft. It could have developed on the Atlantic coast where there was a lack of really large trees for making a seagoing dugout, but enough smaller trees for raft construction. European rock carvings depict a kind of boat that appears to be based on using large streamlined logs to give buoyancy, and then building a platform above it so that these logs actually remained underwater and stable, instead of bounding with the surface, while lifting the crew well above the splashing waves. Such a streamlined raft concept boat would have been very heavy, and usable only for long distance journeys with a large crew of oarsmen to get up the momentum and to steer. Such a boat could have travelled the Atlantic coast of Europe during the era of dugouts, and before the introduction of the light seagoing skin boat from arctic Norway. The 'streamlined raft' approach was good only for large crews in long distance ocean journeys, but unmanagable for short uses needing maneuvering. Because of this limitation, they did not develop as universally as the boat made of ribs and skin - the skin later becoming wooden planks and most recently steel.

Thus, it is quite clear that nearly all the boats in the modern world have the same origins - the skin-on-ribs boat. Neither the original dugout or raft concept has endured - they were just too heavy. Whether we are speaking of the Algonquian canoe, or the large oceanliner, they both originate I believe from the concept of a skin on ribs, that was inspired by the "dugout moose" some 8,000 years ago, and depicted in rock carvings from Lake Onega to arctic Norway,



A TRACING OF A WHITE SEA ROCK CARVING SHOWING PREHISTORIC WHALE HUNTING FROM SKIN BOATS WITH MOOSEHEAD PROWS

This remarkable image which belongs to the same carvings as those everywhere in northern Scandinavia and Russia with the moosehead prows, shows just how long ago seagoing hunters began. This image depicts the very same whale hunting practice used by Greenland Inuit only a century or two ago - except that once the whale hunters remained permanently in the arctic and did not return south to the lands where moose were found, they no longer used moose skins, and hence no longer added moosehead ornaments to the prows. The carvings are estimated to have been made some 6000 years ago. This may depict the ancestors of all whale-hunting aboriginal peoples around the world.

The Track of Language

Intersecting with the archeological story is the story told by linguistics. Linguistics developed even before archeology had discovered some truths about early peoples. Already by the late 1800's linguists cherished a theory that languages from the same parent, drifted in their own fashion, becoming disimilar in systematic ways., and that one could compare languages to determine how parent languages split off from each other, and to ultimately create a linguistic family tree. (Today, linguistics realizes this is simplistic and accuracy decreases as contact between peoples increased from migrations and contacts in trade - which produces much contamination of the simplistic model). The original theory is also flawed in addressing linguistic divergence cause without migration - the development of dialects, after an initial far ranging people settle down within the original large region, and develop dialects from reduced interraction with neighbours - in other words a wide origin that breaks up internally. But it is difficult to abandon the childish simplicity of the original concept of a static narrow origin, plus migrations away. The original narrow - origin - plus - migrations of the late 1800s has dominated the linguistics of Finno-Ugric languages, even though it is clear the original Finno-Ugrians were far ranging boat peoples and that the correct model is a wide - origin - plus - internal breakup.

The locations of the Finno-Ugric languages across northern Europe, as far as the Ural Mountains and the Ob River, and boat oriented mythology, seems to prove that the boat peoples that originally developed out of the "Maglemose" culture south of Norway, and spread eastward, cannot be associated with any other language. Let us therefore ignore all patronizing linguistic and archeological theories for a moment and consider how the word "Finn" historically referred to the aboriginal peoples of Scandinavia.

Although historical texts do not go back very far, they do seem to show that the aboriginal peoples of northern Europe were called "Finns". It first appears around Tacitus' time when he described in his **Germania**, living in the wilderness behind the more civilized Aestii, a primitive people living off the land, called Fenni. Since original Latin tended to us the character V to represent the "W" sound, and the sound "V" did not exist in original Latin, it is likely that Tacitus' use of the F character most likely represented the "V" sound, and the word actually sounded like VENNI. This word does exist in Finnic vocabulary. In Estonian, the word vene describes the river boat and probably originates from a word meaning 'instrument of the water'.

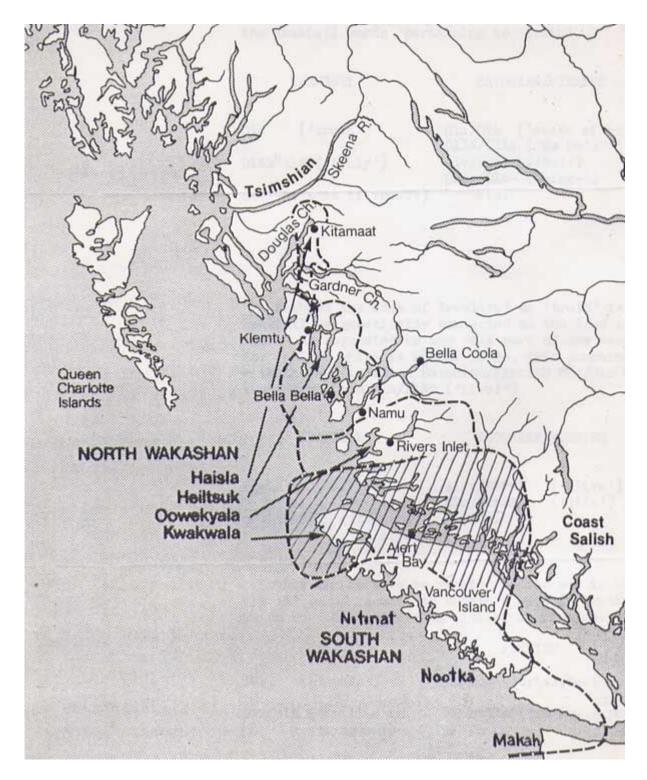
History shows that Germanic Scandinavian languages tended to raise vowels and lose higher vowels. A well documented example is how in historic times the people known as "Wends", appearing in Latin as *Venta*, was expressed in Danish-Norse as *Vindo*, plural *Vindr*, This is quite revealing. It

suggests that the Scandinavian word "Finns" (*Finnyr*) is related to *Vindr*. The explanation is simple. Those "Finns" who became involved with civilization, such as as traders, assumed a new dialect influenced by Latin - in which originally the "V" sound was missing. By switching their dialect of the "W" sound, the word was now "WINN" not "VINN".

But the original "VINN" continued among original peoples in the wilderness, or more likely the initial sound was ambiguous. Finnic has always put stress on the first syllable. (HELsinki, not HelSINKi) and therefore a word with an initial vowel tended to acquire an unintentional launch consonant. This is the true origin of the "W" or "F" or "V" sound before the vowel. To the speaker, the sound is not there. It is a phonetic requirement. In middle Scandinavia, around a millenium ago, Anglo-Saxon texts speak of a skin-boat people called *Cwens*. The same people on the Swedish side were called *Quans*. But in Finnish, the Finnish community to which this word applies is the *Kainu*.. Looking to the east, to the furthest location of Finno-Ugric boat cultures, are the "*Khanty*" It suggests that the initial "CW" or "Q" in the early texts actually represents a launch word, in this case based on "K". In other words "CW"="KH". Clearly there is an initial phonetic feature to launch "AINU".

In other words, Finnic languages promoted many different ways of launching the strong initial vowels, and were reproduced by foreign languages in different ways. We see this also in the name "Veneti" (which from a Finnic perspective seems like the plural of vene (venet='the boats')) which was expressed in ancient Greek as Henetoi (often written as Eneti) while it was expressed in Latin as Veneti ("Weneti"). This then suggests that the original word was more like AINA, AINU with a strong launch consonant. The "AI" form does not exist in modern Finnic. (It also exists, though, in the original Livonian name for the Daugava River, which was Vaina). But both Estonian and Finnish preserves the word "UI" . It is the stem meaning "swim, float". And indeed, a foreigner hearing a Finn say it, may imagine a faint "H" in front as uida sounding like "HUIDA": I believe that the "U" sound with a launch sound, developed in some places into the "V" sound, giving "VUI-" which now leads to the stem for 'water' which today is vee. The verbal form would be veeda, and mean 'to water, go by water'. The instrument of water, the boat, thus would be veene, but which could earlier have been vaina, and earlier "(H)UINA". Thus we see in this all the relationships in the names of boats and boat peoples developed through 8,000 years of divergence in boat peoples.

And it extends to North America - the arctic seagoing peoples of the North American arctic are known as *Inuit*. This is what they call themselves, and is the word for 'people' ('persons' in plural). This can be interpreted as a development from something originally like "(H)UINI" or "(H)AINI". Originally the plural "(H)UINIT" may have meant, 'people of the water', when there were no other people to compare with, it became simply the word for 'people'.



MAP SHOWING WAKASHAN LANGUAGES

of the Vancouver Island area that have whale hunting in their origins, and where we can find some interesting word remnants that connect with both Inuit and Finnic languages, both coming from prehistoric whale hunters. Such connections are strong indicators of the distant spread of the interpid whale hunting peoples, even if it occurred over many generations in stages

Another distant people with seagoing origins are the *Ainu*, the original aboriginals of Japan. Here too is a name that obviously has the same origins. The *Inuit* of Alaska, originating as whale hunters, descended the coasts of the Pacific and that would be the simplest explanation for the origins of the name *Ainu*.

On the North American side of the Pacific Ocean, I discovered a number of tribes with words with resonances with Finnic words. Back in the late 1970's after I had begun my investigations of the spread of boat peoples, and when I was a student of the University of Toronto, I visited the university library, went up to the stacks with books on North American native languages, and began pulling books off the shelf and scanning the lexicons for words that resonated with my Estonian mother language,. While it may be absolutely true that owing to the similarity of human speech aparatus, it will not be difficult to find words with similar sounds. The key was to find both similar sounding words and similar meanings - the more similar the better. There are far greater variety in possible meanings of words, and therefore to find BOTH similarity in word form AND in meaning, simply cannot occur by random chance like merely similarity in sound.

Therefore finding a similarity in BOTH form and meaning is enormously significant. Most older linguists, never having been trained in the laws of probability, do not understand the significance of this. Thus back in 1970s when I pointed such coincidences to established linguists, they could not see past the easily achieved similarity in only the word form.

The laws of probability dictate that the probability of a coincidence occurring by random chance depends on the number of possibilities. If we compare word lists of two UNRELATED languages, we may find similarities in word form (depending on what closeness we are seeking) in maybe one in 25 words (This can be determined by empirical tests). That means the probability is one in 25 that we will find similarity by random chance. That ensures that if a language has 2500 words, we will find some 100 word forms that are similar in sound purely by random chance. But what happens when we add the requirement of also finding similarity in meaning similarly by random chance? If a language has 2500 meanings (common everyday words,) that means the chances of any one of those 1 in 25 similar sounding words, can have 1 in 2500 possible meanings. For both events to occur we multiply the probabilities together - 1/25 x 1/2500 = 1/62500.

Thus while finding mere similarities in form by sheer chance can be roughly one in 25, the probability of also finding by random chance also a similarity in meaning is one in 62500. My numbers are rough, but this example clearly shows that by finding similarities in BOTH form and meaning has a very very low probability of occurring by random chance. Therefore when it does occur, we can conclude that the two words are connected somehow, either from borrowing, or genetic descent from a common parent.

Thus with this knowledge, and from scanning lexicons, I came across several languages on the Pacific coast that showed absolutely remarkable coincidences in both form and meaning with Estonian or Finnish words. My study was limited because this was purely driven by my own curiosity, done on my own time. None of this investigation was funded or in the context of education. But I present some of the remarkable results in the UIRALA articles (see the menu)

While scanning languages, I was not thinking of the expansion of whale hunters, but was mainly attentive to find that Pacific coast people had a connection to the Inuit, and like the Ainu, probably originated from southward migrations from the Aleutians and Alaska.

I discovered that archeology has found the arrival of coastal cultures only about 5000 years ago. Before that North American coasts have no cultures - everyone is living in the interior. After the coastal cultures were established and the wealth from harvesting the sea was established, new peoples arrived, mostly coming out from the interior. For example the Haida, scholars have determined, came from the interior. On the other hand the Wakashan cultures around Vancouver Island were whale hunters, and were among the first to arrive. The Haida language has no words resonating with either Inuit or Finnic, while the Wakashan language of Kwakiutl does have some remarkable resemblances with Finnic and even a few three way resemblances that include Inuit words.

The words that are expected to last the longest are words connected to family. Here are some examples. Bear in mind our argument above that we are not only looking for similarities in sound, but also meaning. Such coincidences by random chance are so unlikely that when we do find them they mean there is some distant connection, and if the words pertain to family, the connection is genetic (very ancient common parent language) and not from any borrowing. I present these words as strong evidence that these languages are connected by having whale hunting people in common. (Estonia is located where an original "Kunda" culture with very large harpoons were hunting large sea animals in the ancient Baltic - certainly seals, but possibly beluga whales too.)

(Note that bolded parts vs unbolded for Kwakwala and Estonian-Finnish indicate stress. I do not show the stress for the Inuit because I don't know it, but perhaps it is also the first syllable.)

THE FOLLOWING IS ONLY A FEW EXAMPLES

(See another article in the UIRALA menu for more)

KWAKWALA	ESTONIAN/FINNISH	INUIT
SUYÄ' IMÄ 'heritage, family'	SUGU / SUKU 'family'	SAKI 'father, mother, uncle or aunt-in-law
U' MÄ 'noblewoman, queen'		AMAURAQ 'great grandmother'
QÄ QÄS 'your grandfather'	UKKO 'myth: sky-father'	AKKA 'paternal uncle'
A NIS 'aunt'	ONU / ENO 'uncle'	ANI 'brother of woman'
OS 'father'	ISA / ISÄ 'father'	-?(might exist but I have not found it)

This is only an example, but very significant because they deal with family relations. See other articles for more comparisons.

Besides words pertaining to family relations we can seek similarities in other words that are likely to have been preserved for hundreds of generations. For example, we also expect that words pertaining to whaling can be expected to have survived with little change, For example harpoons are used. What can we find? Kwakwala NOLHÄ 'to cover with harpoon' compares with Est/Finn NOOL / NUOLI 'arrow' and Inuit NAULIKTUQ 'he harpoons'.

To determine that there is a genetic origin, a distant parent language in whaling peoples (the same ones in the rock carving image above??) we bear in mind that languages tend to preserve words that are in constant use, such as words pertaining to family and major occupations. Less used words can change easily and indeed when we compare words arbitrarily - without deliberately looking at words that are most probable to survive for several millenia - then our comparative study will fail. If we merely added up similarities in the entire body of words, then practically all words that may have been used less than once a day, will differ. The reason words that are used every day for 5000 years will survive, is obvious. Otherwise, things get named by describing them. The less a word is used, the more likely it is that someone will use substitute words for the same object even to the extent of inventing their own descriptive phrases.

Language is a good way of tracking cultural movement. If we find the expected parallels in words that are likely to have been in constant use, then we can conclude there is a common parent. If similarities do not have any

pattern, then those similarities are probably the consequence of borrowings. Where there is a common parent there will also be cultural similarities. For boat peoples we also expect to find a representation of the head of the animal whose skin was used on the prow of the boat. The Pacific coast peoples did not have to continue with skin boats because they had giant cedar trees from which they could make the large seagoing duogouts. But interestingly those dugouts were made to resemble the whale, including painting whale eyes on the front.

Such cultural analysis will help confirm apparent similarities in languages.

The original theory of Finno-Ugric origins presented in the late 1800's was a product of its time. Finnish and Estonian scholars were proud of their civilized nature and did not like to connect themselves to primitive hunter-gatherers, and therefore pictured Finno-Ugric origins as if they were an already civilized people, living in tight settlements with houses and farming, who then grew in population and migrated until it accounted for all the determined Finno-Ugric and Samoyed languages.

The racist nature of the early theory is clear in the fact that the theory ignored the tradition of calling the aboriginal people of Scandinavia as "Finns". That also meant that the language of the "Finns" known by then also as "Lapps" and today as "Saami" was periferalized. The Saami, noted for reindeer herding, are really only one division of all the original "Finns" /"Lapps". There were also "Finns/Lapps" on the coasts fishing the seas, and in the interior thriving on trapping. Only the reindeer division has survived as a distinct culture. The reindeer division, the "Saami", I believe are the result of merging of the Finnic boat people and a westerly branch of reindeer peoples related to the Samoyeds.'

Eventually the racist linguists had to address the aboriginals, the "Finns/Lapps/Saami", and because the language was so much like Finnic, had to include them in the Finno-Uric language family. You could see that they wanted desparately to periferalize them so refused to include them in the Finnic family alongside Finnish and Estonian. They were until not long ago considered almost like an intrusive anomality to a lovely theory.

Without knowing anything about linguistics, historical evidence would tend to make us believe that the Finns originated out of all those peoples Scandinavian historical texts call "Finns", especially considering that when the region now Finland was a territory of the Kingdom of Sweden, that called the region "Finlanda" which essentially implied "land of the aboriginal peoples". Similarly Norwegians called their northern regions "Finnmark" which meant "forests of the aboriginal peoples.

Thus if the late 1800's Finno-Ugric linguists had not popularized a racist and childish theory of Finnic origins, it would have been very obvious that Finns and Estonians to their south were simply the same "Finns" except

having had the fortune of becoming engaged with civilization and becoming more civilized.

It would however take archeology to attack this absurd and racist Finno-Ugric theory.

Archeology discovered the truth already by the 1950's. Archeologist Richard Indreko wrote at that time how the archeology showed that artifact types moved out of Europe from west to east, and that once this original expansion was established, there were no additional migrations. He wrote that changes in culture do not necessarily mean migrations of people. This is especially true after the development of long distance trade activity - where cultural goods from pottery to amber ornaments to attractive carved stone axes moved via professional traders from one region to another without there needing to be any direct contact.

In other words archeology supported what was already obvious - the Finno-Ugric peoples developed out of the original peoples descended from the "Maglemose" culture, boat people who expanded rapidly and filled the entire region between Britain and the Urals, and that the differentiation culturally and linguistically occurred via the internal breakup model suitable for far ranging hunter-gatherers. By this time archeologists were viewing humanity without discrimination. Unlike linguists, who sought to periferalize primitive or aboriginal peoples, or even ignore them, archeology was concerned with all humanity without discrimination. Richard Indreko (famous for discovering and identifying the "Kunda" culture) obviously saw the truth. People who dig in the dirt are more likely to be realistic than the linguists who are steps removed from reality.

It is for this reason I give greater credence to the hard data of archeology and less to the often subjective findings of linguistics, and even populations genetics. The problem is always in interpreting data. If the data is already derived indirectly, then it adds an additional layer of doubt, compared to archeological data which is undeniably the reality that actually existed at an earlier time.

UIRALA: the Way of the Boat Peoples

The development and spread of boat-using cultures is an area of study that has been largely overlooked. The articles I offer here explore a subject that is not found anywhere else. It is true that there are many scholars interested in the subject as part of a broader pursuit in archeology or linguistics, but nowhere is anyone specializing in just this group of peoples, even though modern civilization owes much of its existence to the development of boats and how it facilitated harvesting the seas, rivers, marshes and lakes, as well

as producing the ability to use rivers and coasts as transportation highways for goods and people.

The use of boats in everyday life can be compared to the use of horses for travelling over land. Just as it isn't natural for humans to sit on the backs of animals and be transported by them, so too it isn't natural for humans to sit in a dugout canoe and travel over the surface of water. Both unnatural activities needed discovery and development in locations where it was a necessity. Once discovered and developed, it was an institution. Neither concept developed in North America. Both horse-riding and boat-riding I believe were imported from Europe. Boat use, manifesting in canoes, came to North America very early, while horseback riding came only a few centuries ago, introduced by Spaniards. The fact that the Plains Indians adopted horseback riding very quickly illustrates how quickly a custom can be picked up and how quickly it can spread. This is amazing considering that North America has always been capable of having wild animals be domesticated for special uses. For example bison cold have been developed for uses similar to used of the European ox,. and the North American moose, which is as large as a horse, and quite similar, could have been developed for uses similar to uses of the horse. But it never happened.

Similarly, we can expect that once the technology and uses of the boat was established, it would similarly have spread throughout the world and been adopted by all peoples who saw an opportunity to use it for transportation or harvesting the waters. We cannot claim that all peoples who adopted boats came from the same genetic origins. For example, even though the Algonquian peoples adopted canoe use, when we scan Algonquin languages, we find those languages are generally different from Finnic in grammatical form, but there are assorted words that resonate with Finnic, and which suggest contact. On the other hand the grammar of the Inuit language in the arctic has enough similarity to Finnic that we can say there is a true genetic connection corresponding with technological and cultural similarities.

Similarity in common words connected to the family - such as described above for Kwakwala vs Finnic vs Inuit - is another indication of true genetic descent from a common parent.

This article is just an introduction to the subject. The articles in the UIRALA series will look at various aspects of the subject in more detail. Most of the theory is based on wholistic analysis of many aspects affecting the subject from climatology, archeology, geography, human social behaviour, cultural details, language, and so on. Unlike the work of a specialist that focuses on only one field, this subject draws information from all the knowledge taken together, in much the same way a detective reconstructs events at the scene of a crime by studying all the details he can find.

In PART ONE of the UIRALA articles, I use the archeological information to propose that Finno-Ugric cultures originated in the "Maglemose" culture

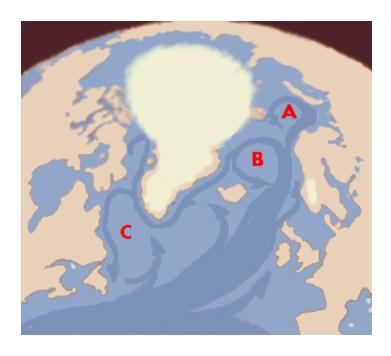
around Denmark, and then from success expanded eastward following the seacoasts and rivers, until the entire watery regions from Britain to the Urals were filled up with boat-using nomadic hunter-gatherers. The theory continues by picturing there people forming stable dynamic relationships with their environments and neighbours, and there were no further migrations. There were contacts however through trade and also the ease of travelling up and down the Volga.

In general the language families in the Finno-Ugric large-family agree with water systems. It suggests that languages of the Finno-Ugric family are purely the result of the original boat-peoples settling each into their own water systems, and that their languages simply diverged according to distances. In a sentence, the expansion of boat peoples occurred very fast since the lands south of the reindeer tundra were originally empty of humans, but then when humans had taken their territories, migrations stopped and people in all the different areas had to be satisfied with the territories they had claimed. Newcomers were driven away to marginal lands, or accomodated through humbly joining an existing tribe.

The notion that humans can migrate wherever they wanted after humans had already become established is a common fallacy in today's thinking. The truth is that once humans had established themselves, claimed their territories, then newcomers had to endear themselves to the indigenous peoples and join them, or they were driven out, or the newcomers had to conquer the indigenous peoples militarily. PART ONE introduces the general theory, covering the story in greater detail than in this introduction

This truth also applies to sea-peoples. Once sea-peoples had become established in the North Atlantic, it was difficult for new migrations to become established. New migrations across the Atlantic would have been met by the tribe already claiming it their territory, and they would be asked to move on.

Similarly, after the Pacific coastal whaling peoples became established, newcomers from the interior could not settle anywhere, but had to find and develop unused coast, or merge with people already there, or take the territory via war. It is because of these territorial considerations that I regard the original migrations of the whaling peoples to have occurred before about 5000 years ago when coastal territories were empty everywhere since traditional humans had nothing to do with the sea, hence did not find it useful to be close to the coast.



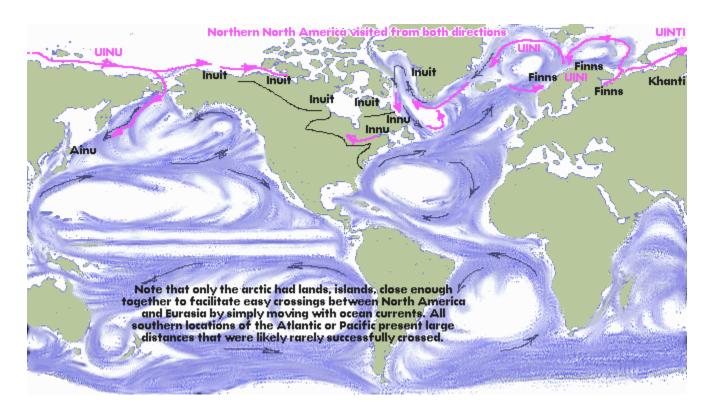
The North Atlantic Currents and Circuits of Activity

Showing three locations A, B, and C where seagoing peoples could have established circuits of moving from location to location thus defining their territories. Circuit C would be 'owned' by the Labrador-Greenland seagoing aboriginals, who would not allow intruders to remain, other than at Newfoundland and the mouth of the St. Lawrence.

After the migrations, when the suitable coastal areas were now occupied, the boat travels continued, but had great difficulty finding a permanent place to live and hunt free from constantly being challenged by the people already there. Even the Norse had difficulty when they settled in "Vinland" about 1000AD. The Vinland Sagas recount how a Norse settlement was attacked by the natives after the natives had determined that the strangers were not temporary inhabitants such as traders. All humans have a sense of territory and will chase away strangers who seem to be stealing resources.

The study of the development and expansion of boats is something that remains relevant today. We are now looking into space. Space is now our new ocean. The vehicles we are creating to voyage through space are called "ships" after the original meaning of "ships".

The voyages into our surrounding universe continue.



THE WORLD CURRENTS DETERMINING OCEANIC MIGRATIONS

The above is merely an introduction with some of the more significant ideas being presented in the articles. The following lists the articles available to be read. Other articles will be added from time to time. Note that the MENU given below

APPENDIX:

MENU AND SYNOPSES of Current Web Articles

The topics introduced above were expanded in a series of articles originally written in html (web pages) to http://www.paabo.ca/uirala/index.html. Beginning around 2002 when there were no other ways of presenting articles on the internet, I could only write webpages myself and put them on my own website. Since then the doc. format developed, as well as the pdf format. Websites too developed that permit researchers to show their articles on the internet. Currently some of these web page articles have been converted to pdf. The following links however are to the html web pages:

INTRODUCTION >> html: <u>UIRALA - The World of the Way of the Waters</u>

>>pdf: pdf document version

Synopsis: Uirala is a word invented by Andres Pääbo to reference the prehistoric world of water-oriented hunting aboriginals that originated in northern Europe, from out of the original reindeer hunters, in the flooded lands underneath the melting glaciers of the Ice Age. Archeologically speaking they are represented by the "Maglemose" culture and by the numerous remains of dugouts found preserved in bogs and adze heads used for hollowing logs for making dugouts. All evidence considered, these aboriginal peoples lie at the roots of Flnnic language, which include the Sami today and the "Finns" of the Scandinavian Peninsula and Finland in Scandinavian historical texts, not to mention the names Finnmark and Finlanda describing the remote wilderness originally inhabited by mostly the aboriginal "Finns". Pääbo believes that the word "Finn" (in Roman times "Fenni") is a corruption of the word for 'boat' which in Finnic (Estonian) is vene, which probably originates from the word *vee+ne* 'a thing of the water', but which in an earlier dialect was probably "VAINA" which was earlier "UINA" which via FInnic, means 'something that floats, swims' based on Finnic UI meaning 'swim, float'. This suggests the inspiration for the word UIRALA. UI+RA+LA would mean 'the universe of the way of the floating'. Some people who know next to nothing of the archeology of northern Greater Europe - such as the spread of the aboriginal cultures, or the ongoing debates about Finnic languages and culture, will immediately question the idea that modern Finnic - most strongly represented by Finnish and Estonian - is descended from the aboriginal world ultimately going back to the "Maglemose" culture. Nobody is teaching this information, and that was one of the purposes of creating this series of "Uirala" articles: to highlight an area of archeology - development and expansion of boat peoples - that has recieved relatively little scholarly attention, compared to attention to

the original migrations around the world of humanity through a bleaker, drier, landscape on foot.

PART ONE >> html: <u>THE ORIGINS AND EXPANSIONS OF BOAT-ORIENTED</u> WAYS OF LIFE: Basic Introduction to the Theory

>>pdf document version coming

Synopsis: Although humans were smart enough to devise rafts to cross bodies of water we are not by nature water-creatures; thus the evolution of a part of humanity into a life using boats and getting around on water could not have occurred spontaneously just anywhere. It had to have occurred in a place where there was no other alternative where survival depended on it. The popular idea that humans could have spontaneously become boat users is false. Humans evolved for life on land and we prefer the solid earth to the insecurity of being on water. Yes, even apes know how to devise rafts or bridges to cross some water, and that is a million years old, to actually use boats as a central part of a way of life - to travel from place to place by water instead of on foor needed environmental pressures. The only place these pressures developed were in the lands where the melting glaciers of the Ice Age left behind raised seas and flooded landscapes where hunting for land animals on foot was very difficult. By developing a plain log into a dugout, humans under the melting glaciers suddenly were not just able to travel around in a flooded landscape, but were also able to access animals of the water. What's more, travelling on water was some five times faster than even walking on clear solid land. The development of boat-using cultures thus was such a major evolutionary development that it created a second expansion of humanity via boats. This article presents the basic theory by Andres Pääbo about the appearance and expansions of a boat-oriented way of life that marks an early stage in the evolution of Europe after the Ice Age. This side of the European past has never before been told, because traditionally scholars have focussed on the evolution of farming and sedentary civilizations particularly in the Indo-European tradition. This article presents the overall scenario of development and expansion of boat-using hunters at the end of the Ice age from about 10.000 to 5,000 years before present.

PART TWO >> html: <u>SEA-GOING SKIN BOATS AND OCEANIC EXPANSION:</u> The Voyages of Whale Hunters.

>>pdf document version coming

Synopsis: The expansion of boat peoples occurred in two stages. The first stage was the expansion of the peoples of the dugout boats from Britain to the Urals around 10,000-6,000 BC. discussed in PART ONE. Most of this expansion was on rivers, lakes, and marshes since the original dugouts needed calm waters. These originally land-based hunters had no reason to venture into the open seas,. The first dugout peoples to venture into the seas were those who sought seals in the Baltic, and to handle the high waves they made large dugouts from large trees available at the latitude of the Baltic. This was probably the "Kunda" culture that branched off the original small-boat "Maglemose" culture. The "Kunda" and similar Baltic Sea cultures were successful and expanded into new seas, eventually ending up at the White Sea where they found not just seals but whales. But at that latitude there were only small

trees and the seas required large trees for large dugouts. The Pääbo theory is that the skin boat concept began from the arctic hunters looking for something else from which to make a large dugout than large trees, and it was discovered one could make one. from a moose carcass. From there the idea of ribs to hold a flimsy skin was born. These sea-harvesters then developed their skin boats, hunted large sea mammals like whales, and spread around the arctic in their quest for seals, whales, and walrus, establishing cultures in the North American arctic, as suggested by circumpolar similarlities, including many basic words of Inuit language when compared to Finnic (origins of the whalers) The greatest migrations of the seagoing skin boat peoples were made by the whalers, and we can find evidence of the migrations of whalers as far away as the Pacific coast of North America among whale hunting cultures there.

o Related Supplementary Articles

>>html: <u>o EXPLAINING "LONGHOUSE FOUNDATIONS" ON LABRADOR</u> COAST

>>pdf: pdf document version

Synopsis: The spread of skin boat peoples reached the coast of Norway, the northern British Isles and generally circled that arctic ocean. This article looks at the events in the North Atlantic before the well known excursions by the Norse. Of particular interest to archeologists have been the boat-shapes piles of stones that seem like longhouse foundations, found in various places along the Labrador coast across from Greenland. Archeologists have wondered what kind of longhouse was built and who built them. This article explores answers, as well as disagreeing with the theory in the 1998 book "Farfarers: Beofre the Norse" by Canadian author Farley Mowat . He wrote that they had been walrus hunters originating in the northern British Isles, derived from the original native British he called "Albans". They had come in skin boats, he wrote and camped underneath their skin boats after turning them over onto rocks serving as foundations and low walls. Seasoned archeologists and historians instantly dismissed the theory as without any merit. Those foundations had been made by the native peoples, they said. In this article I look at the problem in the light of the Uirala perspective in regards to the the seagoing aboriginal peoples of the North Atlantic. (It is useful if you read the main article of PART TWO first for background)

PART THREE >> html: <u>SOUTHWARD MIGRATIONS OF CIRCUMPOLAR SKIN-BOAT PEOPLES: Looking at Picts, Algonquians, and Pacific Coast Tribe</u> >>pdf document version coming

Synopsis: Continuing further afield from PART TWO, this article explores migrations to more distant locations and the evidence. Besides the circumpolar migrations, there would have also been skin boat sea peoples who migrated south to the British Isles, down the Atlantic coast, and similarly on the North American side, Furthermore, perhaps following whale migrations, there appears to have been migrations down the Pacific coasts as well. This article looks at some interesting coincidences that the author

came across over the years in his exploration of aboriginal coastal cultures, especially those with a whaling heritage.

PART FOUR>> html: <u>ESTONIAN: A REMNANT OF THE EUROPEAN TRADE</u> <u>LANGUAGE NORTH OF THE PHOENICIANS AND GREEKS - THE VENETIC</u> <u>EVIDENCE</u>

>>pdf document version coming

Synopsis: By about 5000 years ago, long distance trade spanned the northern seas, and with the great interest in Baltic amber in the southern civilizations, the northern traders also developed north-south trade routes as well as colonies and markets to serve their needs at the southern terminals, in the same manner as Phoenicians and Greek traders did in the Mediterranean.. One of the southern colonial and market areas were located at the archeologically Adriatic terminals of two amber trade routesone originating from the Jutland Peninsula and the other from the southeast Baltic - and was identified by Greeks with the name Eneti, and later by the Romans as Veneti. These wealthy colonies adopted the popular practice of writing, and to do so borrowed and modified the Etruscan alphabet. Although examples on soft materials have disappeared, archeology has over the years discovered many examples of Venetic writing on hard materials - bronze, stone, and ceramics. Past deciphering that has simply assumed without proof that Venetic was ancestral to Latin, and forced Latin patterns onto it, has proven to have had so little success; The author has investigated Venetic by basic methodology that avoids presuming the language family in advances, and that analysis has tended to demonstrate an abundance of words and grammar that resonate with mainly Estonian.

THE UIRALA THEME IS AN ONGOING PROJECT OF A.PAABO AND THE CURRENT ARTICLES WILL BE EDITED AND IMPROVED AND NEW ARTICLES ADDED. (THE ABOVE MENU REFLECTS WORK UP TO NOV 2014) - A.P.

author: A.Paabo, Box 478, Apsley, Ont., Canada

This introduction added to website in 2013 (c) A. Pääbo.