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Onomasticon of Levänluhta and Kälдамäki region

The water burials in the Levänluhta (the Isokyrö parish) and Kälдамäki (the former Vöyri parish) sites in Ostrobothnia have been a great mystery for the scholars because of their unique character. The dating of the burials is 5th–8th centuries AD. Similar burials are not known elsewhere in Finland or in its neighbouring areas. The results of an onomastic study show that the earliest Finnish maritime toponyms appeared in the 9th century and the earliest Swedish toponyms in the late 13th century. This means that the burials most probably were not conducted by Finnish or Swedish speaking populations. In Vöyri, no obvious Saami toponyms are found, but in Isokyrö, a few Saami names can be recognized. Baltic toponyms are completely unknown. The words behind the names of the largest local rivers could possibly be derived from Proto-Finno-Permian, but alternatively it is possible that they represent obscure names of Paleo-European origin. Thus, the most probable linguistic groups behind the water burials might be speakers of the West Uralic x-language or Paleo-European.

1. Introduction

The ethno-linguistic background of the population who practised water burials in Levänluhta in the Isokyrö parish and in Kälдамäki in the former Vöyri parish during the 5th–8th centuries AD (Wessman 2009: 81; Formisto 1993: 42) has been a mystery for researchers for several decades. This type of burial is unknown elsewhere in Finland and the surrounding countries. The most similar burial type, so called bog-burials, is found in Denmark, but even these are not comparable with the burials in Levänluhta and Kälдамäki (Wessman 2009: 91 and attached literature). In the present study I have endeavoured to determine whether the onomasticon of Isokyrö and Vöyri might reveal something of the ethno-linguistic background of the population who practised water burials.¹

The present article is constructed in the following way: In section 1, I present the ancient topography and the problems of toponyms originating from different periods, and briefly illustrate the former onomastic research. In section 2, I present the research question, the preliminary hypothesis and methods. In section 3, I discuss the earliest Finnish onomasticon in Southern Ostrobothnia, in section 4, the Saami onomasticon and in section 5, the non-transparent names of the large rivers of the region. Conclusions follow in section 6.

1. The term “water burial” is used instead of “bog-burial” or “lake-burial”, because the geological models do not prove that a lake or a bay of the sea in Levänluhta or Kälдамäki existed during the period of the burials. It is more probable that the deceased were buried in ponds which had their origin in natural springs. The botanic analyses show that Levänluhta was not a marsh during the period of the burials (Wessman 2009: 95).

1.1. Ancient landscape

Because of the land upheaval process in Ostrobothnia, it is most important to know what the topography was during the period of the burials. The seashore has retreated and many lakes are now marshes. Some lakes, marshes and brooks have dried up because of human activities. The topographic models of this study are drafted by Santeri Vanhanen (Maps 4–6). Although he insists that a cautious approach be taken when considering these models, the basic outlines are without doubt presented correctly.

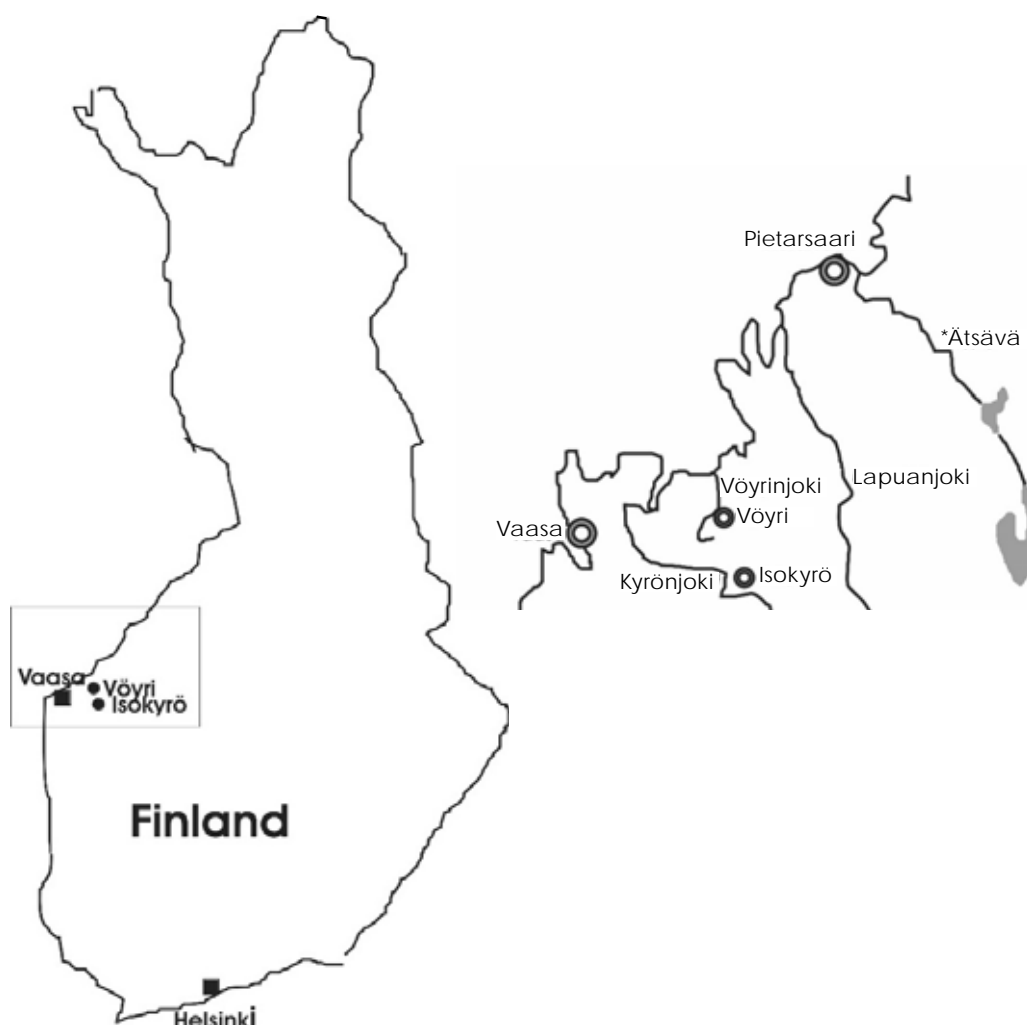
The seashore reached the Isokyrö region in the Early Iron Age more than 2500 years ago. Thus, Levänluhta could not have been a bay of the sea during the burials in the 5th–8th centuries AD. In Isokyrö, no maritime toponyms are found. In the valley of the river Vöyri, the situation is different. On dry land, far away from the present seashore, there exist names of ancient bays, islands, rocky islands and river estuaries; e.g. *Lotlax*, *Lotsor*, *Leplot*, *Syssu(backen)*.

1.2. Archaeological background of Levänluhta

Archaeological excavations have been conducted in Levänluhta since 1886. The first investigator was Oskar Rancken (see Wessman 2009: 82). Afterwards, famous Finnish archaeologists such as Tallgren (in 1912) and Hackman (in the years 1894, 1906, 1913) visited the site, as did several others later on (*ibid.* 82–84). Among the latest researchers, Tarja Formisto (1993) must be mentioned. She was the first to study all the bone material. She distinguished the bones of 98 individuals among the material. The ancient population of Levänluhta seems to have been on average somewhat shorter than other populations during this period (Wessman 2009: 85 referring to Niskanen 2006).

Twenty-two metal artefacts are found alongside the human bones. They are published by e.g. Anna Wessman (2009: 86–89).

- (1) A bronze cauldron of the so-called Vestland-type. These cauldrons were typical during the Roman and Migration period and are imports from the Roman Empire. Two similar types of cauldron are found in Vöyri as well.
- (2) Arm rings made of bronze. Seven of the ten examples are typical for the Merovingian period in Finland. Two of them are possibly of Baltic type and one of them is possibly from Gotland. This latter type of arm ring is known from Finnish and Baltic Tarand graves dating back to the Roman Iron Age.
- (3) A neck ring made of silver. This type is common in the Finnish cemetery context, mostly dating to the Merovingian period. Another neck ring made of bronze belongs to a type that is quite rare in Finland.
- (4) A total of five found brooches. Mostly they are of Scandinavian type, roughly from the Merovingian period.



Map I. Isokyrö–Vöyri region and the largest rivers.

Wessman (2009: 89–90) has cautiously dated the burials in Levänluhta to between the 5th century and the end of the 8th century and in Kälämäki to the end of the Migration period or to the beginning of the Merovingian period. Wessman (2009: 94 referring to Meinander 1946: 99 and Edgren 1993: 229–232) suggests that Southern Ostrobothnia was perhaps depopulated after the Merovingian period.

1.3. Toponyms as evidence

The onomasticon of each region reveals at least something of the linguistic (although not necessarily ethnic) background of former populations. In many cases, toponyms can also reflect their dating. The most reliable results can be achieved if there are literary documents in which toponyms or anthroponyms are mentioned. One must

remember that documents can only tell of datings *terminus ante quem*; i.e. the date when a name was used at the latest. But they can have emerged much earlier. In a wider sense, the regular documentation of names did not begin until the 16th century AD. There exists some sporadic information from the 14th–15th centuries. In order to define the linguistic background of the bearers of the water burial culture (5th–8th century), the literary documentation is almost 1000 years too late.

In some cases, the structure of toponyms may reveal at least some approximation of their dating. Oikonyms based on pre-Christian anthroponyms might, although do not necessarily, originate from the period before the Christianization in Finland ca 1100–1200 AD (Saarikivi 2009: 115); cf. *Hima, Ika, Kyllä, Toiva*. Some participle-constructions, which are based on anthroponyms, are usually early (Nissilä 1075: 123); cf. *Lemmetty, Vihattu, Isottu, Anettu, Kovettu* etc. German anthroponyms were adopted already in the pre-Christian period, but especially in the later Middle Ages, by the influence of the Catholic Church and the Hanseatic League (Mikkonen & Paikkala 2000; Vahtola 2003: 25; Nissilä 1975: 249–259). Later, Swedish names were particularly popular, even though in common speech they appeared in vernacular hypocoristic forms. Unfortunately, we do not have any clear understanding of medieval Saami anthroponyms. Possibly the name of a farm *Turja* in Isokyrö, given by the Finns, is based on an ethnonym that means ‘Saami people’.

In principle, the names of large rivers or lakes represent the earliest stratum of toponyms (Ainiala 1997: 163; Rahkonen 2013: 5). Examples include Finland’s three largest lakes, Inari, Saimaa and Päijänne, whose names are etymologically obscure (see SPK s. v. *Inari, Saimaa, Päijänne*). Usually, non-transparent names are early (Rahkonen 2013: 5). Even hydronyms of medium-sized rivers and lakes are often earlier than those of oikonyms. The names of brooks, ditches, fields, meadows are usually late (Ainiala 1997: 207–225). More than ten oikonyms of old villages in Isokyrö (based on the names of farms), which were documented in the 16th century, most probably originate from the Middle Ages.

The basic limitations of onomastics are dating and especially connecting names with the available archaeological data. Therefore we must, in most cases, be content with presenting more or less relative datings and more or less high probabilities when we connect names with archaeological materials.

1.4. Earlier onomastic studies

Armas Luukko (1950) thoroughly studied the names of Southern Ostrobothnia, including Isokyrö and Vöyri. He concentrated especially in early oikonyms and anthroponyms. According to him, most of them have parallels in Upper Satakunta and Tavastia (Fi. Häme) territories. Archaeologist Carl F. Meinander (1950: 151–162) claimed that there was a settlement break in Southern Ostrobothnia during the Viking Age. Torsten Karsten (1921), who was a Germanist and a researcher of onomastics, was interested in the toponyms of Vöyri. Later, Matti Rajamaa (1964, manuscript in NA) studied the Finnish substrate names in mostly Swedish-speaking Vöyri extensively.

Among the above mentioned scholars, the investigation of Luukko is valid even today and his conclusions do not need to be updated. We must also mention Lars Huldén (1997), who has written of the toponyms in Vöyri. In *Suomalainen paikannimikirja* (SPK 2007) [in English: The Book on Toponyms in Finland], the following researchers have written articles on the present subject: Sirkka Paikkala s. v. *Isokyrö* and s. v. *Kyrönjoki*, Janne Saarikivi s. v. *Kyrönmaa* and Marianne Blomqvist s. v. *Vöyri*.

1.5. Do archaeology and onomastics correlate with one another?

Even though the present study is based on onomastics, it is placed within archaeological frameworks. It is therefore desirable to take a quick look at the problems associated with combining the results of these two disciplines. Several scholars have written on the subject. Researchers such as Mallory & Adams (1997), Ross (1997) and Tvauri (2007) should be mentioned. Recently, Saarikivi & Lavento (2012: 177–216) have emphasized the following problems: 1) ethnicity and linguistic identity do not always correlate, 2) different linguistic groups may have a rather similar material culture and 3) languages do not spread only by migrations, but also by language shift. Language shift easily spreads over culturally significant boundaries.

In the present study, the critical question is whether the cremation burials and water burials of the Merovingian period, which are archaeologically visible originating from the same period in Isokyrö and Vöyri, are conducted by one and the same linguistic group or by two different linguistic populations. Usually, the cremation burials are linked with Finnic groups, but the water burials are an isolated phenomenon found only in Isokyrö and Vöyri (Huurre 1995; Wessman 2009; see the map drawn by W. Perttola in Wessman 2010: 30). The only possible way to resolve the problem is to utilize the results of onomastics, i.e. do we find toponyms from the same relevant period being named by one language or several languages? The period (5th–8th centuries AD) is so early that the microtoponyms are most probably not preserved until the modern times. I studied all the toponyms of Isokyrö from the collections of NA [Names Archive] and did not find any candidates among the microtoponyms which could have originated from such ancient times.

1.6. The early ethnic and linguistic definition of the Finnic and Saami population

The Finnish language is thought to be a northern offspring of Late Proto-Finnic. Terho Itkonen has cautiously suggested that the northern Proto-Finnic was spoken in western Finland approximately on the eve of the beginning of the Common Era (Itkonen 1993: 156, 172). Upon this linguistic layer, SW Proto-Finnic impacts from Estonia did not occur until later (ibid. 158–159). Itkonen (1993: 159) has reasoned that the Ostrobothnian Finnish dialect can be explained as a result of the mutual influence of the Tavastian and southwestern Finnish dialects. On this basis, it is justifiable to

assume that early Ostrobothnian Finns spoke a language that was closely related to the western Finnish dialect of the first millennium AD.

It is difficult to define what exactly the southern Saami language in Finland was during the Migration and Merovingian period. Ante Aikio (2006: 43) speaks of the disintegration of the Proto-Saami language during 0–500 AD. The place names show clearly that a kind of Saami was spoken in southern Finland, especially in the lakeland of Finland (Aikio 2007; Salo 2000: 27–38). Salo (2000: 52) presents a map drawn by Karl Nickul showing that the Saami population had disappeared from the Isokyrö–Vöyri district by 1200 AD. However, Olaus Magnus (1539) has drawn a picture on his map *Carta Marina* illustrating Saami-looking people travelling by sleighs and reindeers in Ostrobothnia. It is probable that early southern Saami people spoke a language that was still close to Late Proto-Saami. Such southern toponyms as *Änkää* [Nummi] and *Jänky* [Savitaipale] hint that they were adapted by Finns during the period when in Saami language the denasalisation of *-ŋk-* or *-ŋg-* had not yet occurred (see modern SaaN *ákkis* ‘hunting fence’ and *jeaggi* ‘bog’), representing the forms of Proto-Saami (see Aikio 2006: 168).

It is totally another question whether so called Lappish groups (Fi. *lappalainen*) mentioned in old documents were Saami people in each instance. They could have been nomadic fishing and hunting Finns. It is possible that, during the first millennium ad, there were people who spoke a language that was an offspring from the *West Uralic x-language* assumed by Rahkonen (2013) or that remnants of Paleo-European populations still existed.

2. Preliminary hypothesis and methods

2.1. Preliminary hypothesis

Eero Kiviniemi (1980: 320–321) suggests that the languages behind toponyms in Finland could be Finnic, Saami or Scandinavian-Germanic. In addition, he mentions possible unknown pre-historical extinct languages. The latter ones in the Arctic area of the Nordic Countries have been studied by Ante Aikio (2004). The ancient substrate language in Lapland did not belong to the Uralic languages. He refers to those unknown languages as *Paleo-Laplandic* and in the inner parts of Finland *Paleo-Lakelandic* (Aikio 2004: 64, Fig. 1). Janne Saarikivi (2004) studied obscure substrate words in the Finnish language and called the source language(s) *Paleo-European*. Pauli Rahkonen (2013) treated such hydronyms in the inner parts of Finland that originate from a Uralic language as not being derived from Proto-Finnic or Proto-Saami. He, following Jalo Kalima (1942), calls the language in question *West Uralic x-language*. The onomasticon belonging to this group is located almost exactly in the area of the archaeologically defined Culture of Textile Ceramics (ca 1900–800 BC). These hydronyms are found between the Upper Volga area and Ostrobothnia of Finland (Rahkonen 2013: 181–183, Fig. 24; Häkkinen 2014).

In studying the onomasticon around Levänluhta and Kälämäki – in practice Isokyrö and Vöyri – we ought to classify the toponyms according to some preliminary hypotheses: 1) early Finnish stratum of toponyms, 2) Scandinavian-Germanic stratum, 3) early Saami stratum and 4) the stratum of possible unknown linguistic sources.

2.2. Methods

- (1) I have used an “exclusive method”. This means that those of the above mentioned linguistic groups whose dating, based on toponyms, cannot fit to the water burials (5th–8th centuries AD), are excluded.
- (2) In order to date names, I have utilized both Finnish and Swedish maritime toponyms of bays, islands, rocky islands and river estuaries that are found on dry land in Vöyri. Using the computer-generated modelling of the rising of surface of the earth and retreating of the seashore, it is possible to date toponyms quite reliably (see below).
- (3) Because of the similarity of early Finnish oikonyms and anthroponyms in Vöyri and the Kyrönjoki catchment area, I have assumed that the Finnish speaking population spread to both areas at approximately the same time. Their distribution sheds light on the directions and original homelands of these toponymic types. The onomastic information has been compared to the knowledge on common settlement history in Finland and to the results of archaeology.
- (4) Some etymologies of Ostrobothnian dialectal Finnish words are utilized in order to determine possible directions of migrations.
- (5) The names of largest rivers, which are assumed to be the earliest ones, are studied as well.

3. Toponyms of Finnish origin

I have studied all the toponyms of Isokyrö which are found in the Names Archive of Kotus (NA). I then selected from among them early specifics of toponyms which differ from the later common Finnish language or later anthroponyms.² My aim is to find out early directions utilizing distribution maps. These specifics were “out of fashion” already in the later period after 16th century. In Vöyri I have utilized the dating based on the retreat of the seashore. The names and their locations are found from the maps of Kansalaisen Karttapaikka.

2. For example, in the hydronym *Swan|river* the element *swan* is called specific and the element *river* generic.

3.1. Early Finnish onomasticon in Southern Ostrobothnia

3.1.1. Toponyms originating from Tavastia

Most of the early names I have studied have parallels in Tavastia (Häme) and Upper Satakunta. As an example we can mention toponyms such as *Kelhänoja*, *Oitinjoki*, *Palhojainen*, *Pouttu-* : *Poutun*-toponyms, *Renkola*-toponyms, *Talsola*, *Välkki-* : *Välkin*- toponyms which originate, according to my distribution maps, from western Tavastia or Upper Satakunta. In order to get better acquainted with the early oikonyms in Ostrobothnia, one can read Luukko's presentation (1950). His conclusions concur with mine. According to our knowledge of common settlement history and the typology of the toponyms, one can assume that these names originate from the (?late) Middle Ages. This idea is also supported by the fact that Hämeenkyrö in Upper Satakunta and Ostrobothnian Kyrö belonged to the same administrative district during the late Middle Ages (Alhonen 1983). The Swedish administration of Southern Ostrobothnia was ruled from Satakunta district until 1374–75. At that time, Bo Jonsson Grip received Korsholm County (i.e. Ostrobothnia) as his administrative province (Vahtola 2003: 43).

3.1.2. Early Finnish toponymic type

In Isokyrö, a toponym *Kiikanmäki* is found. The stem *kiikka* represents a very early Finnic toponymic type. Such names are found in all the earliest Finnish areas in Finland Proper, Satakunta, Tavastia and Karelia. Corresponding toponyms are also found in Estonia, such as *Kiikla* in Ida-Viru County [the first documented occurrence in 1241] and *Kiigevere* in Järva County [the earliest documented occurrence in 1583] (EKR s. v. *Kiikla* and *Kiigevere*). The etymology and exact meaning of the stem is unclear. Some suggest associating it with the swinging movement of rapids; cf. the verb Fi. *kiikkua* 'swing' (SPK s. v. *Kiikka*, *Kiikoinen*). It is possible that the naming motif of *kiikka*-oikonyms is based on swings of villages. The youth of Finnish villages used to gather together in such sites. It is very probable that the toponym *Kiikanmäki* belongs to this category. But it is not impossible that the toponymic type is based on an anthroponym. This has been suggested by Sirkka Paikkala (SPK s. v. *Kiikala*) and Marja Kallasmaa (EKR s. v. *Kiigevere*). The first element of the Vepsian toponym *Кико|элмерьярве* < ? **Kiikko|ilmer'järvi* (MAG 34) might belong to the same toponymic type.

3.1.3. Toponyms from Finland Proper and Satakunta

Some Ostrobothnian dialectal words might prove that, seemingly, the earliest Finnish wave of population came from northern Finland Proper. One of them is *luoma* meaning 'brook'. It is very productive in the Ostrobothnian onomasticon as a generic of toponyms. In Isokyrö such toponyms as *Jaurin|luoma*, *Kattila|luoma*, *Kortes|luoma*,

Koto|luoma (2), *Paha|luoma*, *Risti|luoma*, *Uvilan|luoma* and as a specific *Luoman|oja* are found (NA).

As mentioned above, the word *luoma* has the meaning ‘brook’ in Southern Ostrobothnia. In Kainuu and Kuusamo it is a generic connected with ponds and small lakes. In the Finnish dialect in northern Finland Proper it has the meaning of a fishing term ‘draught of seine’ and it usually appears as a generic in the names of bays (MA; NA). In southern Finland Proper *luoma* has the meaning ‘bend, curve’ (MA). SSA₂ presents two different sources for the word ‘luoma’: 1) *luoma*₁ ‘brook, natural ditch’ and 2) *luoma*₂ ‘draught’. It is interesting that in Lule Saami, unlike in any other Saami language, a parallel word *luopma* ‘hollow bank’ (SSA₂) is found.

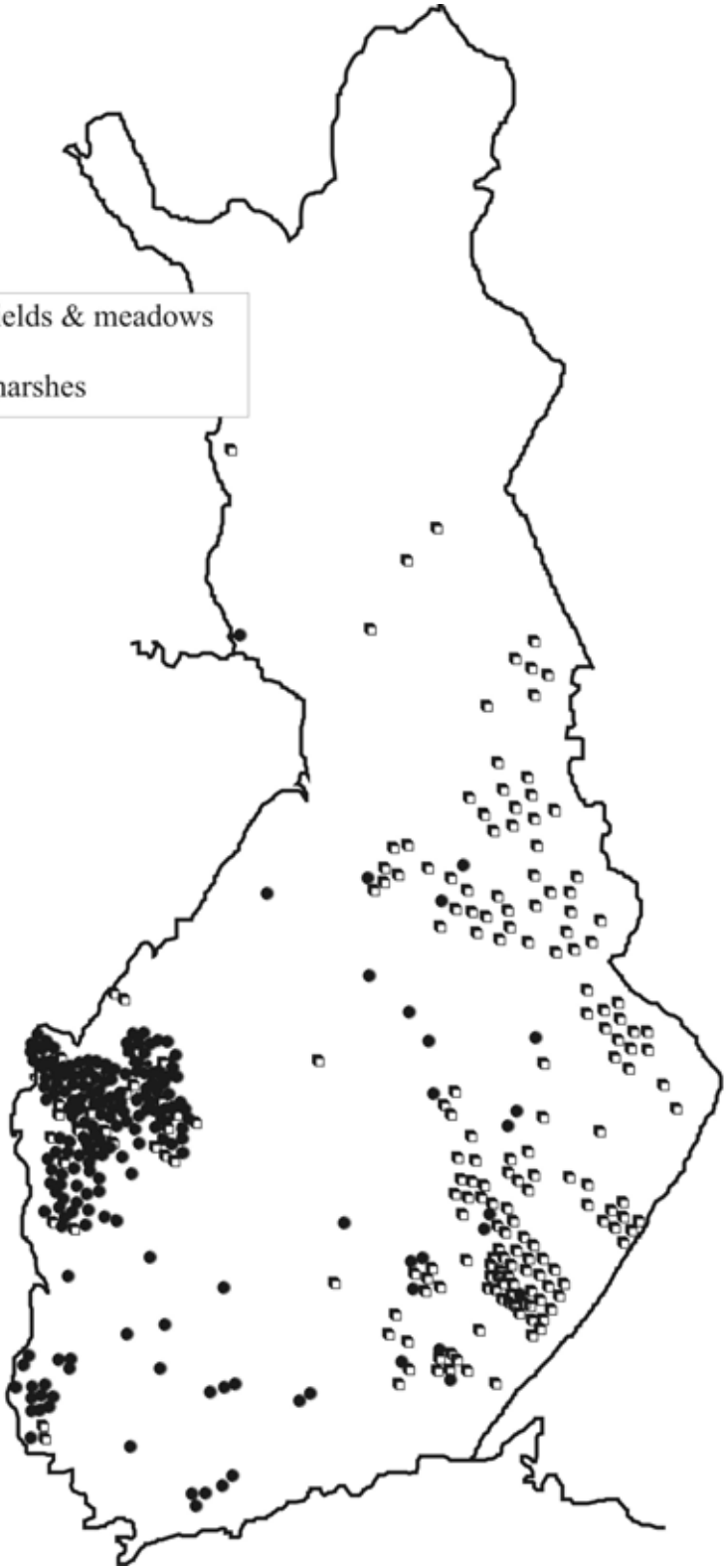
I believe it is reasonable to assume that the words mentioned in SSA₂ (*luoma*₁ and *luoma*₂) share a common source. The word has been imported most probably from the southern group of Finnic languages. In Estonian there is a dialectal word *loom* ‘bend of river’ and in Votic *lōmuz* ‘draught’. Both of these might originate from Baltic **lomá* ‘lowland, depression [landscape]’ (SSA₂ s. v. *luoma*₁ and *luoma*₂). Thus, there is one origin for words which have different meanings, but which can semantically be connected with one another.

On these grounds, it is reasonable to think that the word *luoma* was adopted from the Estonian language into the dialects of Finland Proper with the meaning ‘bend, draught’ (see also Itkonen 1993: 168). From there, it spread to Southern Ostrobothnia and was adopted by the local Saami people as well. Some of the Saami people seem to have migrated over the sea to the Luleå region. In the map *Carta Marina* (Olaus Magnus 1539) is a picture illustrating their movement over the Quarken in the Gulf of Bothnia from Ostrobothnia to Sweden, travelling in sleighs drawn by reindeers. Because the Saami word has preserved the original meaning more accurately, it is probable that in the Ostrobothnian Finnish dialect the shift of meaning occurred later. Since the word *luoma* is not found in other Finnish dialects (such as Tavastian or Savo-Karelian), but only in the dialects of Finland Proper and Ostrobothnia, it was most probably adopted from Finland Proper into the Ostrobothnian dialect.

Another dialectal word that I have investigated is *luhta*. The word itself is found in practically every Finnish dialect, but with slightly different meanings. We can divide these roughly in two. In the western dialects spoken in Southern Ostrobothnia (everywhere) and sporadically in northern Finland Proper (e. g. Laitila, Honkilahti, Pyhämaa), in Tavastia (e.g. Tammela, Keuruu) and Upper Satakunta (e.g. Hämeenkyrö, Karvia, Honkajoki), the word has the meaning ‘meadow’ (MA).

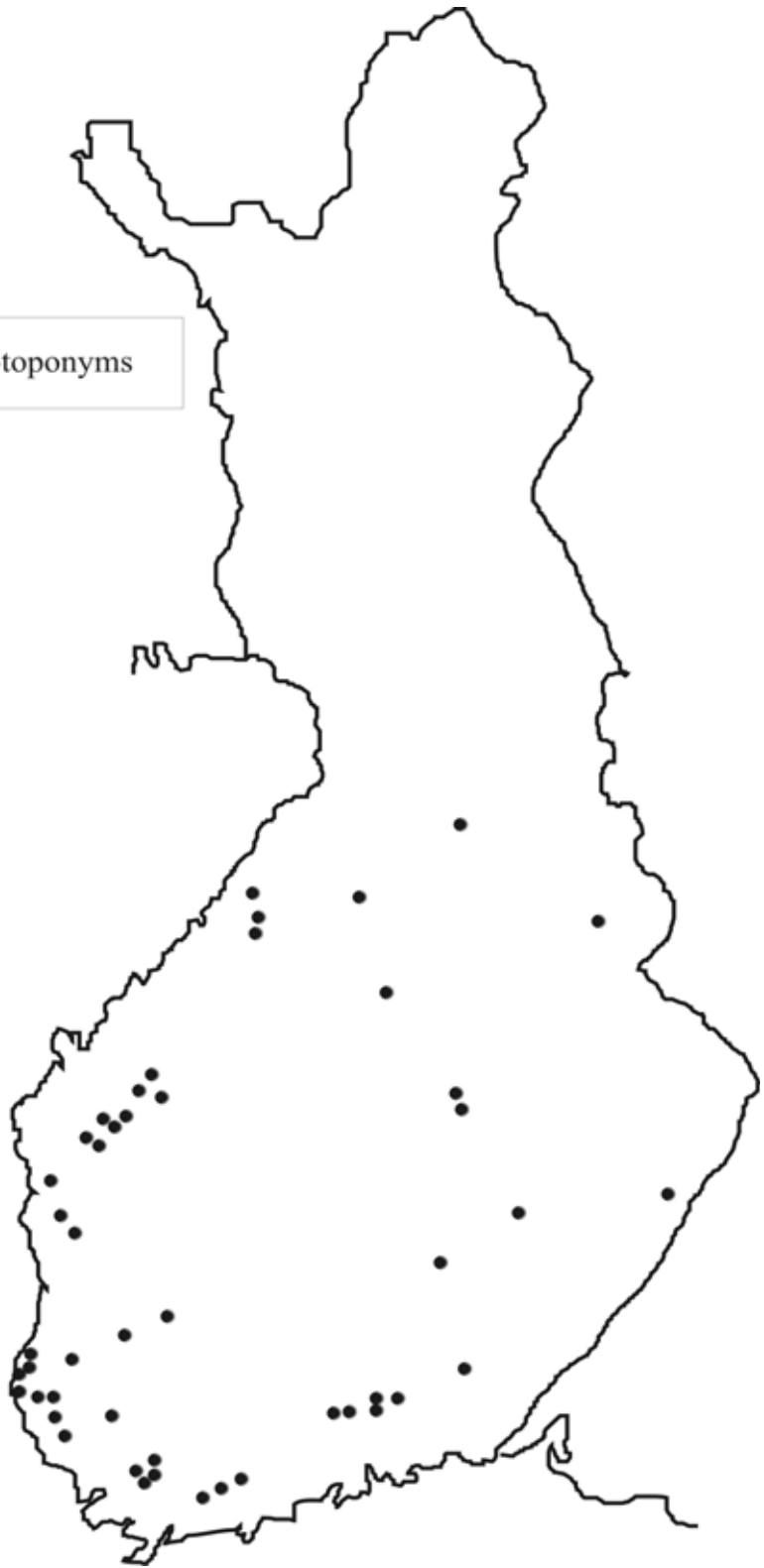
Mostly in Tavastia and in the eastern dialects, *luhta* means something clearly wet: e.g. ‘wet meadow, meadow that is sometimes covered by flood, muddy meadow, swamp’ (MA). In Vepsian *luht* means ‘muddy place, wet place where hay is growing, draught, meadow by bay’ and in North-Russian dialects *лухта* [*luhta*] means e.g. ‘bay, boggy shore’ (SRNG s. v. *лухта*). The distribution of *Luhta*- and *-luhta* toponyms suggests that the Ostrobothnian meaning of the word originates from northern Finland Proper (Maps 2 and 3).

- *-luhta*; fields & meadows
- ◻ *-luhta*; marshes



Map 2. *-luhta* toponyms (NA)

● *Luhta*-toponyms



Map 3. Luhta specifics (NA)

3.2. Dating of Finnish and Swedish maritime toponyms in Vöyri

Because the seashore has retreated, the onomasticon in Ostrobothnia can be dated utilizing maritime toponyms on dry land (Map 4). The seashore reached Isokyrö in approximately 800–700 BC. Thereafter, a number of lakes appeared. Later they disappeared, but are still visible in toponyms *Jauri* (< Proto-Saami **jāvrē* ‘lake’) and a hill called *Järvimäki* (< Fi. *järvi* ‘lake’) (Map 5).

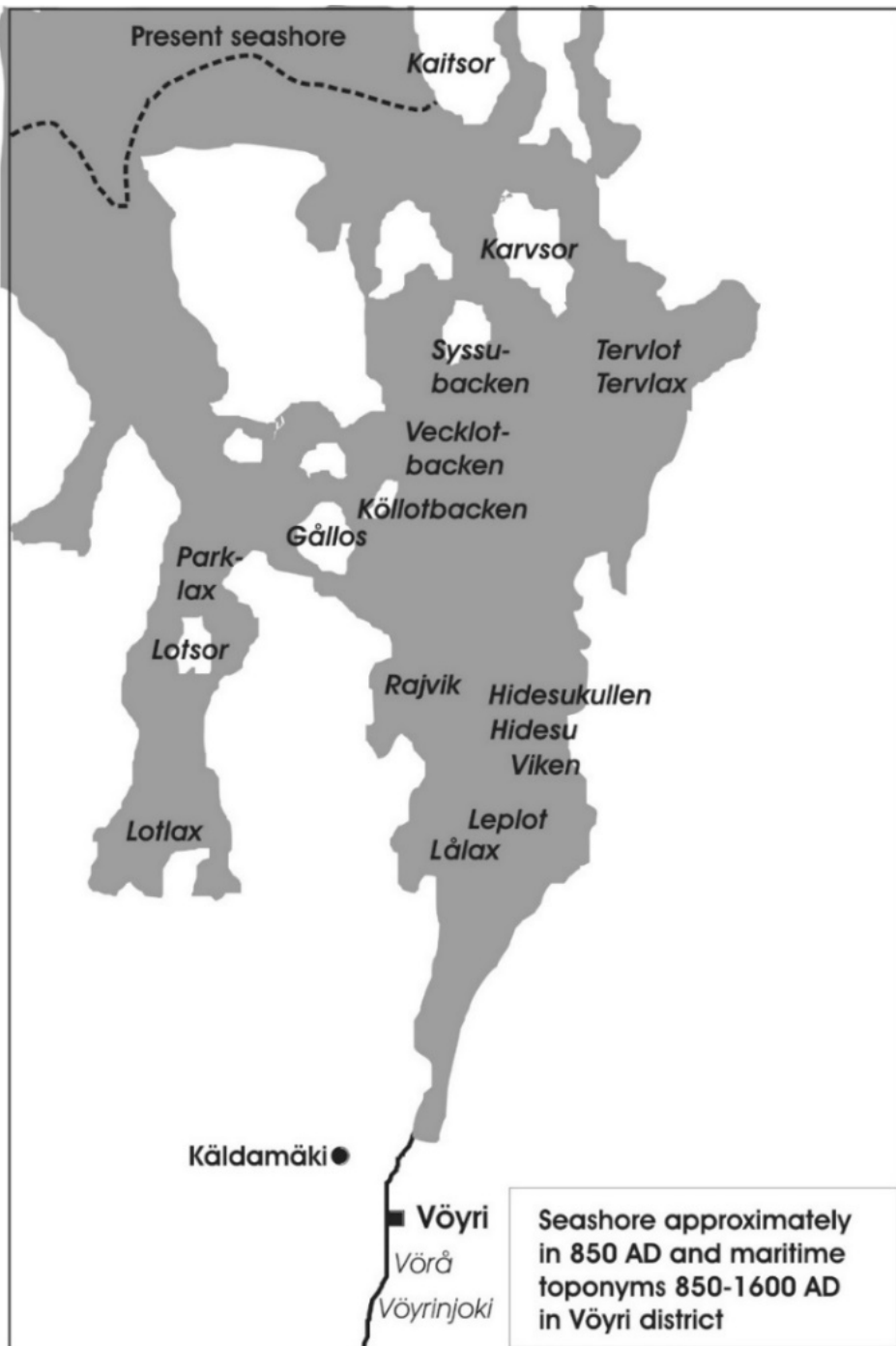
Isokyrö was located by the sea so early that no maritime Finnish or Scandinavian-Germanic toponyms remained in modern times. Instead, the onomasticon of the river valley Vöyri is very informative. As mentioned above, the water burials were practised both in Levänluhta in Isokyrö and in Kälđamäki in Vöyri. Therefore, the onomasticon of Vöyri is relevant from the point of view of the present study. The burial site of Kälđamäki was still under the sea in the beginning of the Common Era. During the burials between 5th and 7th century AD (in Kälđamäki), the seashore was rather close to the site (Map 6). Nowadays, Finnish maritime toponyms, such as the names of islands, bays, rocky islets, are found no further away than approximately ten kilometres from the present seashore. In ca 850 AD, the estuary of the river Vöyri was located approximately twelve kilometres from the present shoreline slightly north of modern Vöyri village.

According to the modelling of Santeri Vanhanen (Map 4), there were two large bays in the 9th century AD. Nowadays in their location there are dry land sites called *Lälax* < **Laalaksi* and *Lotlax* < **Luotolaksi* or **Lötlaksi*. The motif of the name **Luotolaksi* was an island called **Luotosaari* ~ **Lötsaari*, which was located in the bay. Now there is a site called *Lotsor*.³ The name *Lotlax* in modern maps is located at the bottom of the ancient bay (850 AD). Therefore, it is reasonable to assume that the name was given during the 9th century AD. At the same time, according to the modelling, there were islands called *Kaitsor* < **Kaitasaari*, *Köllot(backen)* < **Kaulaluoto* and close to it *Gållos* ? < **Kallonen*. In approximately 1000 AD, two new islands were formed. They were called *Leplot* < **Leppäluoto* and *Vecklot* < **Vehkaluoto*. According to Wessman (2009: 94), archaeological evidence is not found in Vöyri from the Crusade Period (ca 1050–1200 AD). Apparently, some migration by Finnish-speaking people began during the Viking Period (800–1050 AD) or the naming of sites was due to the hunting and fishing journeys of Finnish-speaking people from somewhere else. It seems that the population that practiced water burials had disappeared or was assimilated by the Finns.

Afterwards, when the shore continued to retreat, two new bays were formed. Nowadays there are toponyms (Swedish) *Viken* and a bi-lingual site called *Rajvik* < Fi. *raja* ‘boundary’ and Swe. *vik(en)* ‘bay’.⁴ These names appeared ca 1200 AD. Accordingly, the general understanding has been that the Swedish-speaking population migrated to Ostrobothnia at the end of the 13th century (Salo 2000: 111). At

3. In Old Finnish *laksi* ‘bay’, Finnish **lōto* > *luoto* ‘rocky islet’, *laa-* < **laaja* ‘wide’.

4. This kind of bi-lingual naming is often created in a situation when a new language becomes prestigious. This is visible in Russian Karelia where the old Karelian specifics remain and generics are replaced by Russian translations; e.g. **Säämä|järvi* > *Sjam|ozero*.



Map 4. Toponyms in Vöyri originating from 850–1600 AD and seashore in 850 AD. ● Kälämäki = Burial site of Kälämäki || - - - present shoreline (Map drawn by P.Rahkonen featuring Santeri Vanhanen. Names from Kansalaisen Karttapaikka.)

the same time, the estuary of the river Vöyri, or one of its tributaries, was called **Hiidensuu* > modern *Hidesu*; cf. also *Hidesukullen* ‘Hiidensuu hill’.⁵ The shore was dislocated five kilometres from its situation in 850 AD. In *Carta Marina* (Olaus Magnus 1539), a river called *Iomola vesi* < **Jumalavesi* ‘divine watercourse’ is illustrated close to the names *Kyro* < **Kyrö* and *Vfro* < **Vörå* (Swedish variant). The Finnish word *hiisi* : (Gen.) *hiiden* in pagan times referred to something divine, a deity or more usually sacrificial site. Those names connected with the Kälđamäki burial site hint at the importance of the river valley as a cultic site (see discussion below).

During those days, the bay *Luotolaksi* disappeared and became dry land. The island *Luotosaari* became a hill. A new bay was formed which was called **Parkkilaksi* > modern toponym *Parklax*. The motif of the names *Parkkilaksi* and possibly of a new island **Karvasaari* > modern toponym *Karvsor* reflects the fur-trading period that spanned over 1200–1400 AD (Vahtola 2003: 63; Wuorisalo 2005: 114).⁶ Most of the *Karvasaari* names in Finland are located in the county of Central Finland or close to it (Hankasalmi, Viitasaari, Joutsa, Laukaa, Vesanto, Äänekoski, Kinnula). Those regions were the ancient hunting and fishing areas (Fi. *erämaa*) of the Tavastians and for this reason the names might possibly reflect their hunting-fishing activities. The islands do not have such regular locations in lakes that could give any hint at the motif of naming. They can be located in the midst of a lake, in bays or in straits. The last Finnish name of the estuary of the river Vöyri was **Sysisuu* > modern *Syssu(backen)*. The names of a bay **Tervalaksi* > *Tervlax* and of an island **Tervaluoto* > *Tervlot* originate from the same time. Both of them reflect the prospering tar-trade in the 16th and 17th centuries.⁷ The distance to the present shoreline was approximately three kilometres. The latest name of the estuary is Swedish *Åminne* ‘estuary’.

Some almost identical Finnish names of old villages/farms are found both in Isokyrö and in the inland of Vöyri, which might be transferred from one to another. *Kylkkälä* ~ *Kylkis* is a very rare type of oikonyms found only in Isokyrö, Vöyri and Vaasa. The unique oikonyms *Yryselä* ~ (*Jyriselä*) ~ *Jörala* are found in Finland only in Isokyrö and Vöyri. The name probably originates from Ancient Swedish *Iöran/Yrian* < *Georg(ius)* (Hellquist 1922 s. v. *Göran*). *Antilankylä* ~ *Andiala*, *Antill* names are found frequently almost everywhere in western Finland and do not have any particular evidentiary force. (See the lists in Suvanto 1987).

Isokyrö

Kylkkälä

Yryselä (1550) ~ Jyriselä (1613)

Antilankylä (1551)

Vöyri

Kylkis (15th century)

Jörala (1546)

Andiala (15th century), Antill

5. In Finnish *hiisi* : *hiiden* ‘divine holy site or deity’ and *suu* ‘mouth’.

6. The word *karva/karvo* has several meanings in Finnish dialects: ‘hair (of an animal)’, *karva(heinä)* ‘(certain) hay’, *karvo* ‘small rocky islet’ (SMS VI: 423,426,443)

7. Fi. *parkki* ‘tanning’, *sysi* ‘charcoal’, *terva* ‘tar’.

The name of the medieval locality *Miemoisby* < **Miemoinen* in Vöyri village has parallels in Tavastia; e.g. *Miémola* in Lempäälä, Tammela and Lohja (NA). According to Luukko (1950: 51), a man called *Martti Miemoi* [memoj 1546] lived in Huittinen (see also Suvanto 1987: 107). A hill in Vöyri called *Kondivor* < **Kondi(e)vuor(i)* may originate from Karelian language as a result of Karelian fishing activities in Ostrobothnia; cf. Karelian *kontie*, *kondie*, *kondii* ‘bear’ (KKS s. v. *kontie*). It seems that earlier Karelian privileges to fish salmon in Ostrobothnia reached remarkably further south; then, later, according to the Treaty of Nöteborg [1323], between Sweden and Novgorod; cf. also *Pedersöre* ? < Karelian **Pedrasoari*. One possibility is that this name derives from a form close to Proto-Saami **kontē* ‘deer’ ? > **konde* > *Saal kodde*; cf. Kildin Saami *kãñd* or Turja Saami *koñde* ‘id’.

It is possible to draw the following conclusions from the abovementioned observations:

- (1) The earliest Finnish onomasticon appeared in Vöyri during the Viking Period, apparently in the 9th century AD. Earlier Finnish toponyms – that is to say, deeper inland – are not found. One of the earliest individual toponyms is *Lålax* < **Laalaksi* < **Laajalaksi*.⁸ The following parallel names are found: *Laa|joki* [Mynämäki], *Laa|lahti* [Turku], *Laalahti* [Mouhijärvi], *Laa|lahti* (2) [Tampere] (Kansalaisen Karttapaikka). All of them are located in the area of the western Finnish dialects. Therefore we can draw a conclusion that the earliest Finnish population came to Vöyri from Finland Proper and/or from Upper Satakunta, but not from the principal Tavastia.
- (2) Swedish toponyms appeared in the end of the 12th century or slightly later in the beginning of the 13th century.
- (3) In the 13th–14th century new Finnish toponyms also appeared reflecting the flourishing fur-trade of that period; cf. *Parkki|laksi* < *parki|ta* ‘tan hide’ and possibly **Karva|saari* < *karva* ‘hair (of animal)’.
- (4) From the end of the 16th century and the beginning of the 17th century originate some Finnish toponyms reflecting international tar-trade; cf. **Sysi|suu* < *sysi* ‘charcoal’ and **Terva|luoto* < *terva* ‘tar’.
- (5) Apparently, the Vöyri district remained bilingual (Finno-Swedish) for a long time.

The stem of the name of the burial site Käldamäki can be derived from Old Swedish **kælda* ‘spring’ (Hellquist 1922 s. v. *källä*) + Fi. *mäki* ‘hill’. Rajamaa (1964: 59) suggests that the stem should be derived from Fi. *kelta* ‘yellow’. The site is located on a field where springs are found. Furthermore, in the onomasticon of Vöyri there are

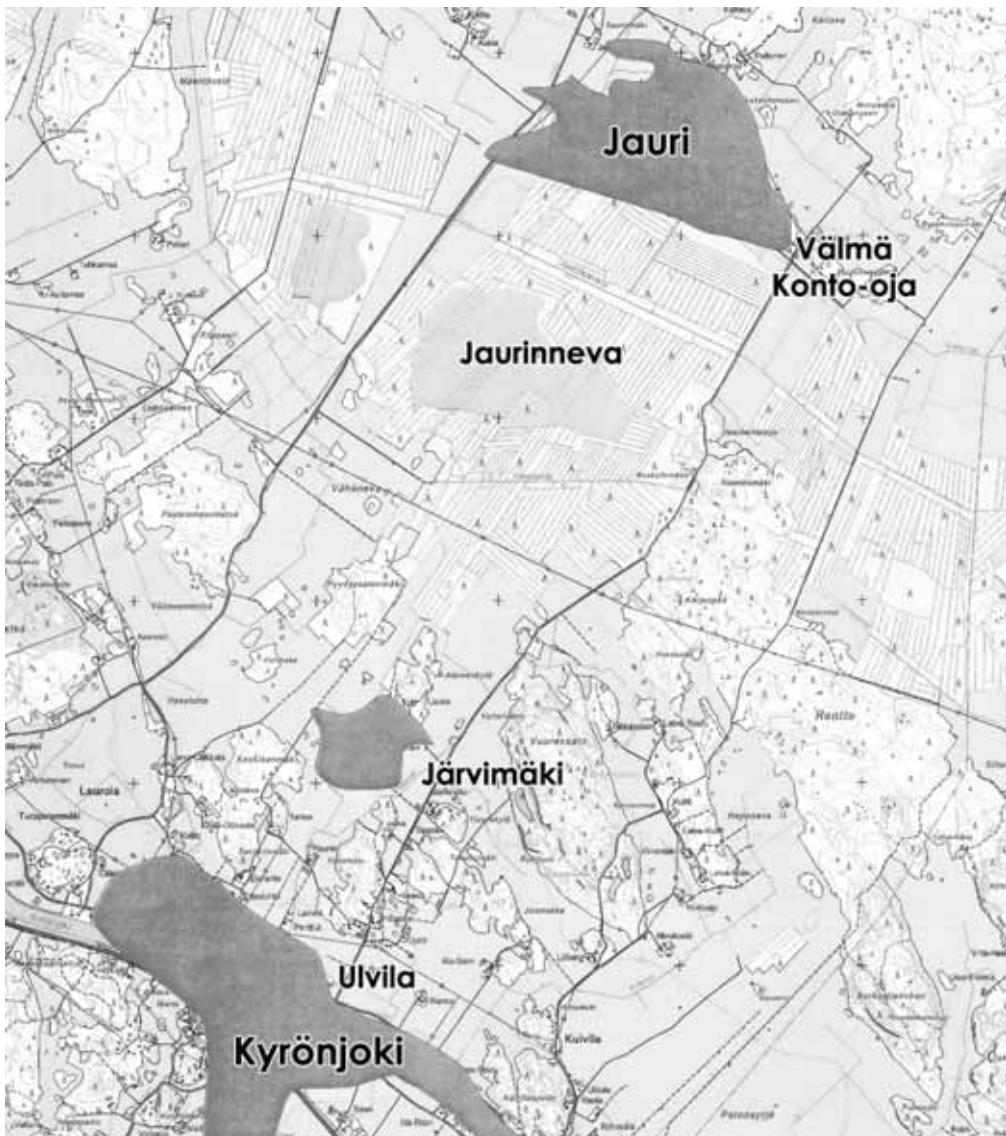
8. In Swedish earlier *-aa- > *å*. Therefore the substitution of Finnish -aa- often is -å-; cf. *Håp|örarna* < *Haapa|saaret* (see SPK s. v. *lax* and s. v. *Lapua*; Rajamaa 1964: 50).

other cases where the specific is Swedish and the generic is Finnish, such as *Låg|pelt* ‘lower field’ and probably *Hallon|paik* ‘raspberry place’. This phenomenon might hint at a temporary strengthening of the Finnish-speaking population at the expense of the Swedish-speaking one in the bilingual society. Sometimes the order is vice versa, like *Pära|hagen* ‘back pasture’ < Fi. *perä* ‘back’ and Swe. *hagen* ‘pasture’. The modelling of the landscape combined with the onomasticon shows that the first Finnish toponyms appeared in the 9th century and the first Swedish ones in the end the 12th century at the earliest. Therefore neither Finnish nor Swedish speaking populations could be the representatives of the water burial culture in the 5th–8th century AD.

4. Saami toponyms

A group of *jauri*-toponyms is found in Isokyrö. They originate from Saami language; cf. Proto-Saami **jävrē* > later Ostrobothnian Saami **jauri* ‘lake’. Indeed, there was a medium-sized lake where today is an area called Jauri and a marsh called *Jaurinneva* (Map 5). A brook emptied into this lake. In that very place there is even today a ditch called *Konto-oja*. The informant of Kotus Name Archives (NA) explains that the naming is based on a dialectal word *konto* ‘turf’. However, this can be folk-etymology and the original word behind the name might be derived from Proto-Saami **kontē* ‘deer’. The name of a nearby site *Välmä* (1699) and *Välmä Luchta* (1735) may originate from a word that can be derived from Proto-Saami **vēlmē* ‘calm spot in a river’. A surname *Välmä* is found in the past in Kokemäki *Antti Välmä* [1545] and in Eura *Lasse Välmä* [1546] (Luukko 1950: 49; Suvanto 1987: 65,192). It is possible that the name was transferred from Upper Satakunta to Isokyrö. However, this anthroponym may be originally derived from the Saami language, because some Saami toponyms such as *Köyliö* < Proto-Saami **kēvlē* ‘handle, ?bend’ are found in Satakunta (Aikio 2003: 102; Salo 2000; Lehtiranta 2001: 48). In Isokyrö there is a farm called *Turja* [earliest mention 1619]. The name once meant e.g. ‘witch’, but most probably also refers to the Saami people as an ethnonym (see SPK s. v. *Turjanselkä*; SSA₃ s. v. *turja*; KKS s. v. *turjalaine*, *turjalappalaine*). If the name can be linked with the word *turri*, it may have the meaning ‘furry, bearded, uncommunicative’ (SSA₃ s. v. *turri*). In Vöyri a toponym *Lappkullen* (Eng. *Lappish hill*) is found that may possibly, but not necessarily, hint at an early Saami population in Vöyri.

There is a word *mukka* ‘bend (of river)’ in the Finnish dialect of Southern Ostrobothnia. It is probably adopted from Saami language; cf. Proto-Saami **mokkē* > northFi. *mukka* (Lehtiranta 2001: 76; T. I. Itkonen 1948: 158). However, SSA₂ (s. v. *mukka*) presents the opposite loaning direction from Finnish on Saami. Because the Saami word occurred already in Proto-Saami and was inherited by all known Saami languages, it is difficult to believe that the term was adopted into Saami from a rare western Finnish dialectal word. This leads us to assume that the word in the Isokyrö dialect is based on a Saami substrate. The conclusion is that the word was borrowed from Saami into local Finnish in the period when the Saami and Finnish speaking populations co-existed in Southern Ostrobothnia.



Map 5. The ancient lakes Jauri and the lake by Järvimäki in Isokyrö according to the modeling of Santeri Vanhanen.

5. Possible unknown ancient languages

I want to emphasize that the following suggestions below in this section cannot be verified for sure. However, I decided to publish these assumptions for the origin of the opaque names of three remarkable rivers in Ostrobothnia. In any case, they most probably represent the earliest preserved toponyms in the area in question and were in use during the period of the water burials. Those names are *Vöyrinjoki*,

Kyrönjoki ja *Ähtävänjoki*. They are evidently not of Finnish, Scandinavian or Saami origin. Therefore, my conclusion is that they must originate from some unknown source, from a Uralic or non-Uralic extinct language. For this reason I endeavoured to find out whether they can be derived from an earlier stratum of a Uralic protolanguage.

Among the names of the 85 largest lakes in Finland at least 25 % are etymologically obscure. They cannot acceptably be derived from Finnish, Swedish or the Saami languages (Rahkonen 2013: 5). Therefore it is necessary to pay serious attention to the non-transparent names of large water objects (Kiviniemi 1980: 320–321). In speaking of disappeared unknown languages in Finland, excluding Lapland, Saarikivi (2004) calls them *Paleo-European language(s)* and Aikio calls them *Paleo-Lakelandic* (2004) or simply *unknown languages* (2006: 45, map 1). Rahkonen (2013), following Kalima (1942), writes of *West Uralic x-languages*. A population who spoke some unknown language during the period of the water burials in Levänluhta [Isokyrö] and Källemäki [Vöyri] is a potential alternative because it seems (see above) that Finnish and Swedish speaking people migrated only later at least to Vöyri, but most probably to Isokyrö as well. We do not know with certainty from which language the names of three large rivers of the territory can be derived. These rivers are **Ätsävänjoki* > *Ähtävänjoki*, *Vöyrinjoki* and *Kyrönjoki* (see Map 1). Therefore I have studied the etymological backgrounds and possible North-European (Finno-Russian) parallels of these three hydronyms.

5.1. Vöyri

Bror Åkerblom (1937: 34), following Karsten (1921: 119–121), has derived the toponym Vöyri from Ancient Swedish **vør* ‘fishing harbour in estuary’. In older Norwegian there has been a word **ver* ‘temporary fishing camp by sea’ (Fritzner 1886 s. v. *ver*). If the suggestion of Åkerblom and Karsten is correct, the toponym would be of relatively late origin. Ancient Swedish was spoken in the 13th–14th centuries AD, the period when the Swedish population had only recently arrived in Vöyri according to the present study (see section 3). However, in that time the settlement of Vöyri ~ Vörå was remarkably too remote from the estuary of the Vöyrinjoki and therefore could not be a harbour of the estuary or a camp by the sea.

Marianne Blomqvist (SPK s. v. *Vöyri* and attached literature), in accordance with Lars Huldén (1997), has suggested that the word behind the name should be derived from Finnish (old) **veeru* > (modern) *vieru* ‘slope’. She points out that in some old documents from the 16th century the name is written *Veru*, *Weru*, *Werå*. However, this explanation faces three difficult questions which should be answered:

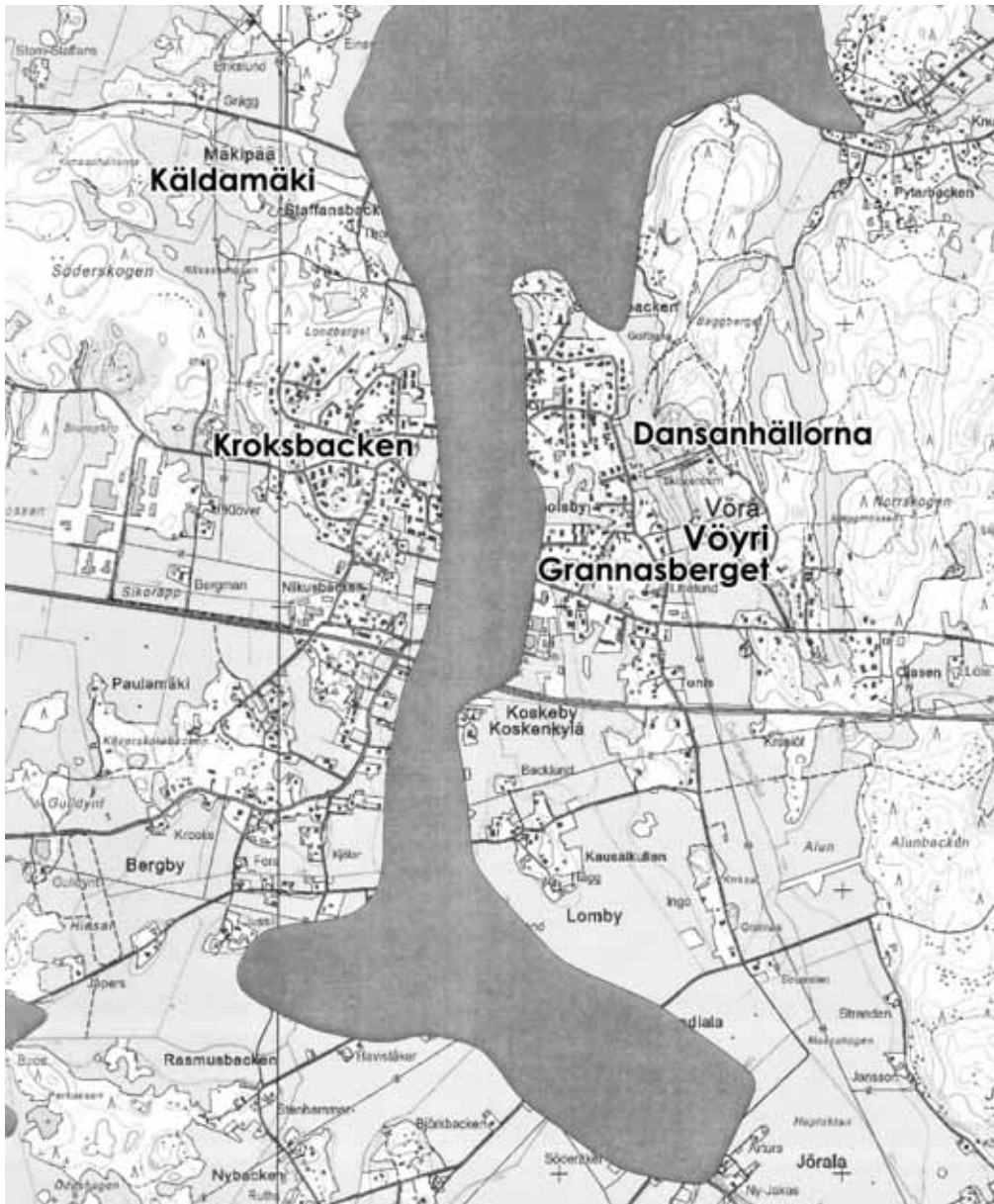
- (1) Did the long *-ee-* become a diphthong *-ie-* so late in Finnish that the word still had the form **veeru* when the Swedish-speaking population adopted it (after the 13th–14th centuries)? In the form *vieru* the word could absolutely not become Vörå.

- (2) Why would the suggested original Finnish *-ee-* have become *-ö-* in Swedish, and later in the Finnish variant *-öy-* even though some Finnish speaking population lived in Vöyri continuously since the Viking Period? Would it be not more probable that the Finnish-speaking population later used the name *Vieru* < **veeru*, or at least *Vyöri*? In addition, one should remember that there exist very early documentations of the forms *Vöra* [1367] and *Vöro* [1478] as well (Karsten 1921: 119).
- (3) Was the toponym Vöyri originally an oikonym or hydronym? If it was a hydronym, it most probably cannot be derived from **veeru* because the specific *vieru-* is unknown in hydronyms in Finland. For example, Kansalaisen Karttapaikka recognises neither lakes nor rivers with the specific *Vieru-*.

The most decisive question, however, is how to explain the Finnish variant *Vöyri* and especially its diphthong *-öy-*. Why would the assumed original Finnish **Veeru* have become *Vöyri* in spite of the continuous local Finnish speaking settlement history? The explanation to derive the name from **veeru* or Swedish *Vörå* is phonetically impossible or at least highly improbable. Blomqvist (SPK s. v. *Vöyri*) reports that the earlier Finnish form of the name according to the oral tradition was *vööri*. The linguistic rules suggest the opposite development **vöyri* > *vööri* as more probable. Räisänen (SPK s. v. *Söyrinki*) and Nissilä (1975: 255) point out that there have been such phonetic changes and adaptations as Latin *Severinus* (anthroponym) > Swedish *Söffring* > Finnish *Söyrinki* (oikonym) > dialectal *Söörinki*. According to the regular phonetic rules the diphthong *-öy-* cannot be derived from long Swedish *ō*, because it should result in *-yō-*, which happened much later [1821] **Vörå* > *Vyöri* (SPK s. v. *Vöyri*). It is visible in Finnish adaptations from Swedish toponyms such as *-böle* ‘village’ > Finnish *-pyöli* (NA).

Thus, we face a serious problem in deriving *Vöyri* from earlier Finnish **Veeru*. It is true that the word **veeru* has dialectal variants *vyöri*, *vyöry*. But even in this case the diphthong is incorrect. According to the phonetic rules Finnish *-öy-* should be inherited from **-ök-/ög-* or **-öt-/öd-* or **-öw-* (the vowel can also be **e*); see e.g. Fi. dial. *köyri/ylä*, *keuri*, *keyri* < **kekri* (SMS s. v. *kekri*). In the map *Carta Marina* (Olaus Magnus 1539) the name is spelled *Vfro*. In this variant, *f* could represent *y* or *v*; i.e. *Vöyr-*, *Vövr-*.

In the form *Vöyri*, the name is unique in Finland. However, such variants as *Veurun|pohja* and *Veurun|mäki* [in Joutsa] are possible parallels. Even such toponyms as *Voura|vuori* [in Lappeenranta] and *Vouri|oja* [in Sodankylä] could have common roots with Vöyri. If the word behind the toponym can be derived from the assumed West Uralic *x*-language (Rahkonen 2013), it might have a historical phonetic connection with a theoretic Meryan word **voγra* (or **veyra*, **vəγra*) behind two different Meryan hydronyms called *Vogra* in the Yaroslavl oblast in Russia (AJO23B2; 99A2). The latter, however, has a variant *Vorga* (the unpublished collection of Arja Ahlqvist; personal information 24 January 2017). But if Vöyri really is connected with these toponyms, it is very old and could have been named by the population who practised water burials in the Levänluhta–Kälämäki district. However, we are obliged to state that the question of the etymological background of the name *Vöyri* has not been resolved.



Map 6. The Vöyri district approximately in 450 AD. (Modelling by Santeri Vanhanen.)

It is very possible that the motif of the naming of Vöyri was an unusually high hill Dansanhällorna (51 meters above the present sea level).⁹ At the beginning of the period of the water burials in Käldamäki, this hill and the slightly lower hills Grannasberget and Kroksbacken were located by a long bay (Map 6).

9. The landscape in Ostrobothnia is usually very low and even.

5.2. Kyrö

Kyrö-toponyms originate from three different linguistic origins. In western Finland they are often names of fields and meadows. Names in this category can be derived from the word *kytö* ‘burned soil of turf for agriculture’. The declined stem (weak grade) in official Finnish is *kydö-*, but the phonetic rule **d (ð) > r* in western dialects results in *kyrö-*. The distribution map (Map 7) shows clearly that the toponymic boundary of *Kyrö*- fields and meadows runs almost exactly along the dialectal **ð > r* boundary (Kettunen 1940, map 66). Old medieval oikonyms in western Finland most probably do not originate from this word, because the habit to burn turf marshes in order to make them cultivated fields did not begin in Ostrobothnia until the 17th century (Historiallinen maatalous).

The *Kyrö*-names of natural sites have two concentrations. The smaller one is located in south-western and southern Finland and the wider one in Ostrobothnia and in northern Savo–Kainuu district (Map 8). Many of the sites are rocky hills, and other places which are difficult to reach (NA). In some dialects the word *kyrö* means ‘rocky cross-country’ (Vahtola 1980; SPK s. v. *Kyrö*, *Kyrönmaa*) and, in the Ylitornio dialect, ‘hiding place’ (Mikkonen & Paikkala s. v. *Kyrö*). One of my own informants from Alajärvi gave the local meaning *kyrö* ‘hinterland’. There exist four *Kyrövaara* (high tree covered ridges) names in Finland. Two of them might receive their names from a nearby farm (in Hyrynsalmi and Kittilä). Two others are clearly names from nature (a very steep hill in Kemijärvi and a hill in the hinterlands of Kuhmo).

In western Finland, the earliest *Kyrö*-oikonyms may originate from natural sites and later ones from burned fields (see the distribution Maps 7–8). The *Kyrö*-names of settlements and farms in eastern Finland might in several cases originate from an orthodox personal name *< ?Kyyros, ?Kyrillos*, because a personal name *Kyrö* and a surname *Kyröläinen* (Mikkonen & Paikkala 2000 s. v. *Kyrö*; SPK s. v. *Kyrönmaa*) are found there. Eleven *Кырас* and one *Кырос* hydronyms are found in the catchment area of the River Pinega in the Arkhangelsk oblast (TKSTE 104–105). It is difficult to know whether they are linked with the Finnic word *kyrö* or the Permian word *kjir >* a Komi toponym *Kjirs* (see Saarikivi 2007: 63; Afanas’ev 1996 s. v. *Кырс*).

Interestingly, as far as I know, no linguist has yet tried to trace down whether the dialectal word *kyrö* could be derived from any level of Uralic proto-languages or whether it has any cognates in other Uralic languages. If the word *kyrö* is an original Finnish word or a loanword from some unknown Uralic language, it could be derived from Proto-Finno-Permian **kür(V)*, probably **kürä*. In that case, even the Finnish verb *kyräillä* ‘cast (secretly) sullen glances’ could be a metaphor for a hidden rough cross-country; cf. dialectal *kyrö* ‘hidden place’.

If there were a word **kürä* in Proto-Finno-Permian, it would have been in Proto-Permian **kjir* and in Komi and Udmurt *kjir*. Indeed, in Komi there is a suitable word *kjir* ‘steep slope, high bank’ (Afanas’ev 1996 s. v. *Кырс*) which is semantically close to the meaning of the Finnish dialectal *kyrö* ‘rocky hill, hinterland difficult of access’. In Mordvin, Mari and Saami, parallel words do not exist. Even in the Finnic linguistic

family, it is not found in the southern and eastern groups. In the northern (Finnish) group it is only a rare dialectal word. Instead, in the Meryan onomasticon hydronyms such as *Kera* (AKO182A2) in the Kostroma oblast, *Kera* (GBO234) in the Oka catchment area and *Keroma* (AJO17A4) in the Yaroslavl oblast, are found. The words behind these hydronyms could be derived from theoretical Proto-Finno-Permic **kürä*. In which case, a similar phonetic rule as found in Mordvin also worked in Meryan, so that the vowel **ü* after the first consonant became *> e* (Bartens 1999: 57). I have no reliable cartographic evidence of the topography of those Meryan hydronyms. The river Keroma has its upper sources in a large marsh called *Kurganovo* ‘hill marsh’. The area is no doubt a hinterland, but this fact does not give any strong proof. According to Arja Ahlqvist (personal information 24 January 2017), however, the landscape supports, or at least does not resist, this idea.

If the Komi word *kjr* and Meryan **kera* really are correspondences of Finnish *kyrö*, we should answer the question: why is the word found only in the northern Finnic group and even there only as a rare dialectal word? Furthermore, no parallels are found in the Estonian onomasticon, hinting at the probability that the word ever existed in the Estonian language (EKR). Therefore it is reasonable to take into consideration the possibility that the word *kyrö* is a substrate word in Finnish. In this case, the word may be borrowed from the West Uralic *x*-language (see Rahkonen 2013: 33–36).

It is possible, even probable, that the name of the river *Kyrönjoki* is linked with the name of the lake *Kyrösjärvi* which is located in Upper Satakunta. In the past, there most probably was a bifurcation period so that the modern lakes *Sulkuejärvi* and *Korhosjärvi* in the Kihniö parish emptied their waters both into the Kokemäenjoki water system via Kyrösjärvi and into the river Kyrönjoki via Seinäjoki. This means that there existed a passable water route from Kyrösjärvi to Kyrönjoki (see also Luukko 1950: 5–8). Even today in Kihniö there is only a very short and low neck of land between those two lakes and some ditches connecting the two water systems. Furthermore, one should remember that the medieval parish of Kyrö consisted of the entire area between Ostrobothnian Kyrönmaa and Hämeenkyrö in Upper Satakunta (Alhonen 1983). Both of these areas were earlier called simply *Kyrö*. The earlier bifurcation period and the naming of *Kyrö* might fit the period of the water burials of Levänluhta–Käldämäki. Kyrösjärvi was a hinterland of Tavastia and Satakunta in the Middle Ages.

5.3. **Ätsä-*

The toponymic stem **ätsä- > Fi.Savo ähtä-* is to be dated from the time when the lake *Ähtärinjärvi < *Ätsäri* and the river *Ähtävänjoki < *Ätsävä* still had connection with one another. This connection was cut off approximately 500 AD (Seppä & Tikkanen 2006: 89–92). In this respect, the date of the naming fits the dating of water burials in Levänluhta–Käldämäki.

Until now, no-one has been able to present a proper etymological solution for the word *ätsä*. There are no possible phonetic grounds to derive the word from Proto-Finnic or Proto-Saami. There has been a suggestion to link the name to SaaN *ahcit* ‘to rise (of water)’ (see SPK s. v. *Ähtäri*). As a motif of naming this might be suitable, but there is a phonetic difficulty. The name must be very old (see above). The Saami word in question would have been either Proto-Saami **ecē* (Lehtiranta 2001: 10) or even earlier **icä* ~ Fi. *itää*. The phonetic development **i* or **e* > *ä* would be difficult to explain. Some hydronyms resembling the stem *ätsä-* are found in the onomasticon of the Russian North. In the Kostroma oblast the name of the river *Ača* (AKO130A2) and in the Komi Republic the name *Adž|va* (Afanas'ev 1996 s. v. *Адзъва*) are found. Both of these might be based on a Permian word Komi *adž* ‘meadow’ > Proto-Permian **až* (Lytkin & Guljaev 1970 s. v. *адзъ*). In theory, the word could have been **änč(V)* in Proto-Finno-Permian.¹⁰ In principle, the stem *ätsä* could be derived from an Uralic language in which **änč(V)* > **äčä* > *ätsä*. It might have been the above assumed x-language. The motif would be suitable if we think of the coastal meadows in the estuary of the river Ähtävänjoki. Of course, the stem may have its roots in some unknown Paleo-European language instead.

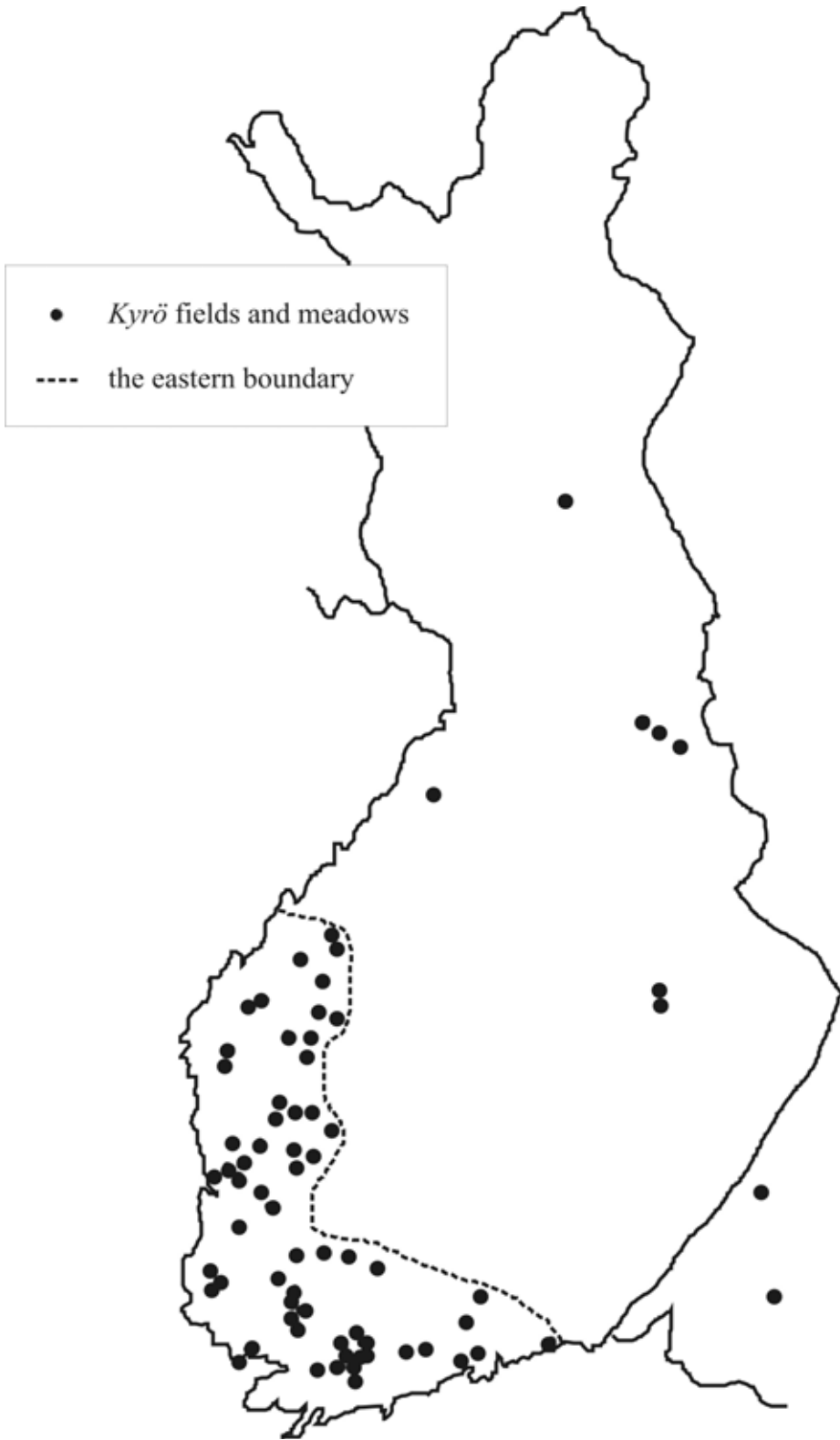
6. Conclusions

The evidence presented by Wessman (2009) is convincing in proving that the Levänluhta and Källemäki burial sites really were cemeteries. In particular, the fact that valuable items were buried with the deceased points to cemeteries on those sites.¹¹ Therefore it is justifiable to speak of water burial culture, even though the geographic area of findings is rather limited. As written above, no confirmed Finnish, Scandinavian or Baltic onomastic traces are found originating from the Migration or Merovingian Period. On this basis, we can say that the population of the water burial culture most probably was not Finnish, Scandinavian or Baltic. Possible linguistic groups could be Saami people or people who spoke some unknown pre-historic language.

Saami people, or at least the Saami language, began to spread towards Lapland since the Early Iron Age, but supposedly mainly soon after the beginning of the Common Era (Aikio 2006: 44; Saarikivi 2011). However, the names of the large rivers *Kyrönjoki*, *Vöyrinjoki* and **Ätsävänjoki* in the studied district do not originate from Proto-Saami. In addition, the Saami people never and nowhere else had the habit of water burials. If the word *kyrö* < **kür(V)* is a substrate word from some ancient Uralic language and if *vöyri* is related to a possible Meryan word **voŷra* and

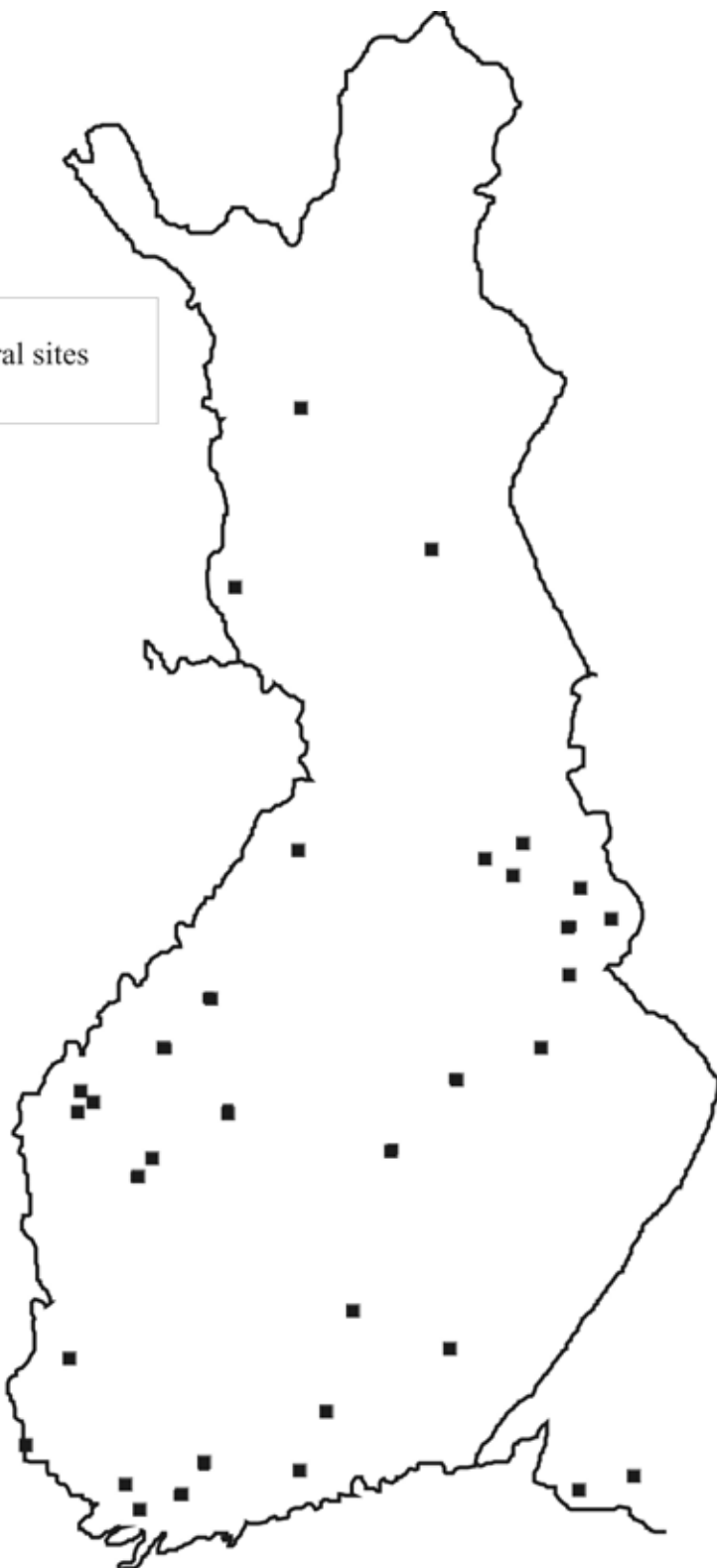
10. In Proto-Finno-Permian **nč* > Proto-Permian **ž* and **ä* > **a* (Sammallahti 1988: 524–532; Lytkin & Guljaev 1970: 12, 22).

11. In one case a bone was still inside the arm ring, proving that the deceased was buried with the ring around her arm. This means that the items made of metals were not separate offerings but belonged to the deceased.



Map 7. Kyrö- fields and meadows. (NA.)

■ *Kyrö* natural sites



Map 8. Kyrö- natural sites. (NA.)

**ätsä* to Komi *adž* < **änč(V)*, a very possible language behind these hydronyms is the above mentioned x-language. Such stems of toponyms as *vuoh-*, *voht-* < Proto-Uralic **uktj* ‘track over neck of land’ and *vieksi-*, *vääksy-*, *viiks-* ‘short river or sound between two larger waters’ are inherited from the language in question (Rahkonen 2013: 33–36, maps 24 and 25). The x-language arrived in Finland with the culture of Textile Ceramics (ibid.) and it is probable that its dialects were spoken for a long time alongside with Proto-Saami in the inlands of Finland. Levänluhta and Kälдамäki are located on the approximate borderline of the culture of eastern Textile Ceramics.

However, it is also possible that the population who practiced water burials spoke some non-Uralic Paleo-European language. The uniting factor between the stems of the toponyms **ätsä-* and *vöyri-* is that both of them are almost unique, especially if the stems *veur-* and/or *vour-* are not connected with *vöyri*. The rareness of these toponyms, together with the unique custom to practice water burials, hints at a linguistic and ethnic isolate. Even though it is possible to find a Uralic etymology for the main rivers of the district, we cannot prove the linguistic background of these hydronyms for sure.

It is most interesting that the onomasticon of the Vöyri district contains several linguistic traces hinting at its importance as a cultic centre. The names of the river Vöyri in *Carta Marina*, *Jumalavesi* ‘water of god’ (1539), the estuary called *Hiidensuu* ‘mouth of divine Hiisi’ (13th century), and possibly the name *Dansanhällorna* ‘the dance rocks’ together with the cemetery of Kälдамäki all strongly point at cultic activities. However, no archaeological finds connected with sacred activities have been found until now in Dansanhällorna or in the spot of Hidesu < Hiidensuu. However, in the Arkhangelsk oblast, the Kenozero district in an ancient Finnic sacrificial grove there is a big stone which is even today called ‘dance stone’ or ‘joy stone’ (Rahkonen 2015: 335–336). Wessman (2010: 20) mentions a pagan cemetery from the Late Iron Age in Kokemäki in modern times still called *Leikkimäki* ‘play hill’. In this case, playing meant dancing. During ancient Finnic cultic rituals, the local youth used to dance in sacred sites (Rahkonen 2015: 335–336). One should also remember that both of the burial sites are located where springs existed. In the Kenozero district, 29 sacred groves and several sacred springs are found, a reminder of the Finnic past of the area (ibid.). Therefore one can assume that the springs were essential factors for the holiness of the burials. It is possible that the word behind *vöyri*? < **vökri*, **vekri* had a sacred meaning connected with the cultic activities. One weak possibility is to derive *vöyri* from **vekri* that might have common roots with a known pagan deity *Äkräs* ~ *Ekres*. In this case, one must assume an initial (?prosthetic) *v* + *ekre(s)*. This kind of omission of an initial *v-* is found in the name of *Väinämöinen* ~ *Äinämöinen* (Agricola, Psalmtarin esipuhe 1551). This alternative is, of course, speculative.

It is strange that approximately at the same time as the water burials, cremation cemeteries were also located in the same vicinities; cf. Pukkila, Isokyrö [6th–9th century AD], Gullydynt, Vöyri [450–700 AD] (Wessman 2010: 96, Paper V). This fact seems to describe either a situation of two different cultures side by side or two different ways to bury within the same cultural group, possibly because of two different criteria.

It is possible that other water burial sites will be found. Because of the retreat of the seashore, those sites are likely to be located further inland. A potential region would be the lower Ähtävänjoki area. It is evident that the toponymic material of the three main rivers of this area is not sufficient to define the language of the population who practiced water burials. However, the three names *Kyrönjoki*, *Vöyrinjoki* and **Ätsävänjoki* form a limited entity of opaque hydronyms. Many of the names of the rivers north of Ähtävänjoki are no doubt of relatively late Finnish origin such as *Vetelinjoki*, *Pyhäjoki*, *Kalajoki*, *Siikajoki*. Some, such as *Lestijoki* and *Lohtajanjoki* which both empty into a bay of the sea called *Lohtajanselkä* (cf. Proto-Saami **lōkte* ‘bay’), reflect some Ostrobothnian Saami dialect (SPK s. v. *Lestijoki*). The names of larger rivers south of Kyrönjoki can be explained as originally Finnish names (see SPK s. v. *Närpiö*, *Lapväarti*, *Tiukka*).

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References

- Afanas'ev, A. P. 1996: *Toponimiya Respubliki Komi: Slovar' spravočnik*. Syktyvkar: Komi knižnoe izdatel'stvo.
- Aikio, Ante 2003: Suomen saamelaisperäisistä paikannimistä. – *Virittäjä* 117: 99–16.
- Aikio, Ante 2004: An essay on substrate studies and the origin of Saami. – Irma Hyvärinen, Petri Kallio & Jarmo Korhonen (eds.), *Etymologie, Entlehnungen und Entwicklungen. Festschrift für Jorma Koivulehto zum 70. Geburtstag*. Mémoires de la Société Neophilologique de Helsinki 63. Helsinki: Société Neophilologique. 5–34.
- Aikio, Ante 2006: On Germanic-Saami contacts and Saami prehistory. – *Suomalais-Ugrilaisen Seuran Aikakauskirja* 91: 9–55.
- Aikio, Ante 2007: The study of Saami substrate toponyms in Finland. – *Onomastica Uralica* 4: 157–197.
- Ainiala, Terhi 1997: *Muuttuva paikannimistö*. Suomalaisen Kirjallisuuden Seuran Toimituksia 667. Helsinki: Suomalaisen Kirjallisuuden Seura.
- AJO = *Atlas Jaroslavskoj oblasti* 2002. Moskva: Roskartografija.
- AKO = *Atlas Kostromskoj oblasti* 2009. Moskva: Roskartografija.
- Alhonen, Pentti 1983: *Hämeenkyrön historia I. Esihistorialliselta ajalta vuoteen 1721*. Hämeenkyrö: Hämeenkyrön kunta ja seurakunta.
- Bartens, Raija 1999: *Mordvalaiskielten rakenne ja kehitys*. Suomalais-Ugrilaisen Seuran Toimituksia 232. Helsinki: Suomalais-Ugrilainen Seura.
- Carpelan, Christian & Asko Parpola 2001: *Early contacts between Uralic and Indo-European: Linguistic and archaeological considerations*. Suomalais-Ugrilaisen Seuran Toimituksia 242. Helsinki: Suomalais-Ugrilainen Seura.

- Edgren, Torsten 1993: Den förhistoriska tiden. – M. Norrback (ed.), *Finlands historia I*: 11–270.
- EKR = *Eesti kohanimeraamat* 2016. Ed. Peeter Päll & Marja Kallasmaa. Eesti Keele Instituut, Võru Instituut, Eesti Kirjandusmuuseum. Tallinn: Eesti Keele Sihtasutus.
- Formisto, Tarja 1993: *An osteological analysis of human and animal bones from Levänluhta*. Stockholm: University of Stockholm.
- Fritzner, Johan 1886: *Ordbog over det gamle norsk sprog*. Kristiania: Den norske forlagsforening.
- Ganander = Christfrid Ganander 1997 [1787]: *Nytt finskt lexicon*. Ed. Liisa Nuutinen. Kotimaisten kielten tutkimuskeskuksen julkaisuja 95. Helsinki: Kotimaisten kielten tutkimuskeskus.
- GBO = Г. П. Смолицкая 1976: *Гидронимия бассейна Оки*. Москва: Издательство Наука.
- Hellquist, Elof 1922: *Svensk etymologisk ordbok*. Lund: C.W.K. Gleerup förlag.
- Huldén, Lars 1997: Sockennamnet Vörrå i saklig belysning. – Marianne Blomqvist (ed.), *Ord och några visor. Tillägnade Kurt Zilliacus 21.7.1997*. Meddelanden från Institutionen för nordiska språk och nordisk litteratur vid Helsingfors universitet. B, 18. Helsingfors.
- Huurte, Matti 1990: *9000 vuotta Suomen esihistoriaa*. Helsinki: Otava.
- Historiallinen maatalous = Kytö- ja suoviljely. – Historiallinen maatalous. [Verkko-opetuspaketti.] Käsikirjoitus Teppo Korhonen. Helsingin yliopisto, 2004. <<http://www.helsinki.fi/kansatiede/histmaatalous/peltoviljely/kytojasuo.htm>>. 26.3.2016
- Häkkinen, Jaakko 2014: *Kielet Suomessa kautta aikain*. [Julkaisematon käsikirjoitus 8.8.2014.] <http://www.elisanet.fi/alkupera/Kielet_Suomessa_kautta_aikain.pdf> 26.3.2016.
- Itkonen, T. I. 1948: *Suomen lappalaiset vuoteen 1945* 1–2. Porvoo: WSOY.
- Itkonen, Terho 1993 [1972]: Historiantakaiset Häme ja Suomi kielentutkijan näkökulmasta. – *Aloja ja aiheita*. Suomalais-Ugrilaisen Seuran toimituksia 216. Helsinki: Suomalais-Ugrilainen Seura.
- Kalima, Jalo 1942: Karjalaiset ja merjalaiset. – *Uusi Suomi* 19.7.1942. Helsinki.
- Kansalaisen Karttapaikka = MML Karttapaikka. Helsinki: Maanmittauslaitos. <<https://asiointi.maanmittauslaitos.fi/karttapaikka>> 26.3.2016
- Karsten, Torsten 1921: *Svensk bygd i Österbotten. Nu och fordom: En namnundersökning 1*. Naturnamn. Skrifter utgivna av Svenska Literatursällskapet i Finland 155. Helsingfors: Svenska Literatursällskapet.
- Kettunen, Lauri 1940: *Suomen murteet III*. A. Kartasto. Suomalaisen Kirjallisuuden Seuran toimituksia 188. Helsinki: Suomalaisen Kirjallisuuden Seura.
- Kiviniemi, Eero 1980: Nimistö Suomen esihistorian tutkimuksen aineistona. – *Virittäjä* 84: 319–338.
- KKS = *Karjalan kielen verkkosanakirja*. Ed. Marja Torikka. Helsinki: Suomalais-Ugrilainen Seura – Kotimaisten kielten tutkimuskeskus. <<http://kaino.kotus.fi/kks/>> 26.3.2016.
- Lehtiranta, Juhani 2001: *Yhteissaamelainen sanasto*. Suomalais-Ugrilaisen Seuran Toimituksia 200. Helsinki: Suomalais-Ugrilainen Seura.
- Luukko, Armas 1950: *Etelä-Pohjanmaan historia II. Keskiäika ja 1500-luku*. Vaasa: Etelä-Pohjanmaan historiatoimikunta.
- Lytkin & Guljaev = Лыткин, В. И. & Е. С. Гуляев 1970: *Краткий этимологический словарь коми языка. Переиздание с дополнением*. Сыктывкар: Коми книжное издательство.
- MA = Kotimaisten kielten keskuksen murrearkisto. Helsinki.

- MAG = И. И. Муллонен, И. В. Азарова & А. С. Герд 1997: *Словарь гидронимов юго-восточного Приладолжья бассейн реки Свирь*. Ст. Петербург: Издательство Ст. Петербургского университета.
- Magnus, Olaus 1539: *Carta Marina*. Venetsia.
- Mallory, James & Douglas Adams (ed.) 1997: *Encyclopedia of Indo-European culture*. London: Fitzroy Publishers.
- Meinander, Carl F. 1946: Förutsättningar för den förhistoriska bebyggelsen i södra Österbotten. – *Nordenskiöld-samfundets tidskrift* 1946: 70–101.
- Meinander, Carl F. 1950: *Etelä-Pohjanmaan historia I. Esihistoria*. Vaasa: Etelä-Pohjanmaan historiatoimikunta.
- Mikkonen, Pirjo & Sirkka Paikkala 2000: *Sukunimet*. Helsinki: Otava.
- MJ = Georg Haggrén, Petri Halinen, Mika Lavento, Sami Raninen & Anna Wessman 2015: *Muinaisuutemme jäljet. Suomen esi- ja varhaishistoria kivikaudelta keskiajalle*. Helsinki: Gaudeamus.
- MWB = Paasonen, Heikki 1990–1999: *Mordwinisches Wörterbuch* 1–6. Lexica Societatis Fenno-Ugricae XXIII. Zusammengestellt von Kaino Heikkilä. Helsinki: Suomalais-Ugrilainen Seura.
- NA = Kotimaisten kielten keskuksen nimiarkisto [Names Archive]. Helsinki.
- Niskanen, Markku 2006: Stature of the Merovingian-period inhabitants from Levänluhta, Finland. – *Fennoscandia archaeologica* 23: 24–36.
- Nissilä, Viljo 1975: *Suomen Karjalan nimistö*. Joensuu: Karjalaisen kulttuurin edistämissektori.
- Rahkonen, Pauli 2013: Suomen etymologisesti hämärä vesistönimistö. – *Virittäjä* 117: 5–43.
- Rahkonen, Pauli 2015: Kargopolin ja Kenozeron alueiden etnohistoria. – *Suomalais-Ugrilaisen Seuran Aikakauskirja* 95: 307–347.
- Rajamaa, Matti 1964: *Suomalaisia paikannimiä ”ruattalaases maas”*. Käsikirjoitus. Kotuksen nimiarkisto.
- Ross, Malcolm 1998: Sequencing and dating linguistic events in Oceania: the linguistics/archaeology interface. – Roger Blench & Matthew Spriggs (eds.), *Archaeology and Language* 2. London: Routledge. 141–173.
- Saarikivi, Janne 2004: Is there Paleo-European substratum interference in western branches of Uralic? – *Suomalais-Ugrilaisen Seuran Aikakauskirja* 90. Helsinki. 187–214.
- Saarikivi, Janne 2007: On the Uralic substrate toponymy of Arkhangelsk region: Problems of research methodology and ethnohistorical interpretation. *Onomastica Uralica* 4: 45–110.
- Saarikivi, Janne 2009: Itämerensuomalais-slaavilaisten kontaktien tutkimuksen nykytilasta. – Jussi Ylikoski (ed.), *The Quasquicentennial of the Finno-Ugrian Society*. Suomalais-Ugrilaisen Seuran Toimituksia 258. Helsinki: Suomalais-Ugrilainen Seura. 109–160.
- Saarikivi, Janne 2011: Saamen kielet – nykypäivää ja historiaa. – Irja Seurujärvi-Kari, Petri Halinen & Risto Pulkkinen (eds.), *Saamentutkimus tänään*. Tietolipas 234. Helsinki: Suomalaisen Kirjallisuuden Seura. 77–119.
- Saarikivi, Janne & Mika Lavento 2012: Linguistics and archaeology: a critical view of an interdisciplinary approach with reference to the prehistory of Northern Fennoscandia. – Charlotte Damm & Janne Saarikivi (eds.), *Networks, interaction and emerging identities in Fennoscandia and beyond*. Mémoires de la Société Finno-Ougrienne 265. Helsinki: Société Finno-Ougrienne.

- Salo, Unto 2000: Suomi ja Häme, Häme ja Satakunta. – Jukka Peltovirta (ed.), *Hämeen käräjät*. Hämeenlinna – Harjavalta: Emil Cedercreutzin säätiö – Hämeen heimoliitto. 18–231.
- Sammallahti, Pekka 1988: Historical phonology of Uralic languages. With specific reference to Samoyed, Ugric and Permian. – Denis Sinor (ed.), *Uralic languages: description, history and foreign influences*. Leiden: E. J. Brill. 478–554.
- Sammallahti, Pekka 1989: *Sámi-suoma sátnegirji. Saamelais-suomalainen sanakirja*. Ohcejohka: Jorgaleaddji.
- Sammallahti, Pekka & Matti Morottaja 1993: *Säämi-suomâ sänikirje. Inarinsaamelais-suomalainen sanakirja*. Ohcejohka: Girjegiisá.
- Seppä, Heikki & Matti Tikkanen 2006: Ähtärinjärven vanha lasku-uoma. – *Geologi* 3/2006: 89–94.
- SMS VI = *Suomen murteiden sanakirja VI* 1999. Kotimaisten kielten tutkimuskeskuksen julkaisuja 36. Helsinki: Kotimaisten kielten tutkimuskeskus.
- SPK = *Suomalainen paikannimikirja* 2007. Ed. Sirkka Paikkala. Jyväskylä – Helsinki: Karttakeskus – Kotimaisten kielten tutkimuskeskus.
- SRNG 1965–2016 = *Словарь русских народных говоров* 1–49. Москва: Институт лингвистических исследований РАН.
- SSA₁₋₃ = *Suomen sanojen alkuperä I–III* 1992–2000. Ed. Erkki Itkonen & Ulla-Maija Kulonen. Suomalaisen Kirjallisuuden Seuran Toimituksia 556. Kotimaisten kielten tutkimuskeskuksen julkaisuja 62. Helsinki: Kotimaisten kielten tutkimuskeskus – Suomalaisen Kirjallisuuden Seura.
- Suvanto, Seppo 1973: *Satakunnan historia III*. [Pori:] Satakunnan Maakuntaliitto.
- Suvanto, Seppo 1987: *Knaapista populiin*. Tutkimuksia erilaistumisesta Satakunnan talonpojistossa vuosina 1390–1571. Historiallisia Tutkimuksia 142. Helsinki: Societas Historica Finlandiae.
- TKSTE = *Топонимическая картотека Северорусской топонимической Экспедиции УрГУ*. [Archive.]
- Tvauri, Andres 2007: Migrants or natives? The research history of Long Barrows in Russia and Estonia in the 5th–10th Centuries. – Juhani Nuorluoto (ed.), *Topics on the ethnic, linguistic and cultural making of the Russian North*. Slavica Helsingensia 32. Helsinki: Department of Slavonic and Baltic Languages and Literatures at Helsinki University. 247–285.
- Vahtola, Jouko 1980: *Tornionjoki- ja Kemijokilaakson asutuksen synty. Nimistötieteellinen ja historiallinen tutkimus*. Studia Historica Septentrionalia 3. Rovaniemi: Pohjois-Suomen Historiallinen Yhdistys.
- Vahtola, Jouko 2003: *Suomen historia. Jääkaudesta Euroopan unioniin*. Helsinki: Otava.
- Wessman, Anna 2009: Levänluhta – A place of punishment, sacrifice or just a common cemetery? – Vesa-Pekka Herva & Janne Ikäheimo (ed.), *Fennoscandia archaeologica XXVI*. Helsinki: Archaeological Society of Finland. 81–105.
- Wessman, Anna 2010: *Death, destruction and commemoration: tracing ritual activities in Finnish late Iron Age cemeteries (AD 550–1150)*. Iskos 18. Helsinki: Finnish Antiquarian Society.
- Wuorisalo, Jukka 2005: Keskiajan turkiskauppa. Suomen turkispöytä ja -kauppa osana Itämeren kauppaa 1200–1400-luvulla. Pro gradu -tutkielma. Turku: Turun yliopisto.
- Åkerblom, Bror K. 1937: *Vörå sockens historia* 1. Åbo.