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Ancient Skis from Museum of the Lake District of South Ostrobothnia, Finland, or Museum “Finds”: A possibility to Improve Our Knowledge of Ski Development

More than 200 ancient skis have been found in bogs or other waterlogged places in Finland. Janne Vilkkuna proposed in 1984 that ancient skis had not ended up in waterlogged surroundings by accident but deliberately by an unidentified ancient custom. He also rejected the explanation that the foot space had been broken in order to get the toe strap of the binding for reuse. On the contrary, he explained that the purpose was to make the ski useless.⁴ In 1997, Vilkkuna introduced four main explanations why skis existed in waterlogged places. Of these, he considered offering to be the most probable explanation.⁵ Steinar Sørensen stated in 1998 that in some Norwegian and Finnish ancient skis and in every fourth Swedish ski the foot space was broken. He explained this being a pre-Christian custom to make the skis useless.⁶ Next year Leif Torgersen discussed the same problem in Norwegian context and suggested seven different explanations. Last in his list was offering.⁷ Latest

Jussi-Pekka Taavitsainen and his group has complemented and specified the analysis of ancient skis.⁸

The reason behind making the skis useless could be “practical” in that sense that this custom prevented their further use by:

- * putting only one ski of the pair in one location
- * removing the bindings
- * destroying deliberately the foot space.⁹

The main questions are: Who or what was prevented to ski, when did the custom begin and end, why did it cease, how many skis there still are in the bogs?

The first datings of ancient skis were done with the help of pollen analyses of the find layer. These have turned out to be too old because the find layer is older than the ski. The skis have been pushed or sunken down into the bog through younger layers. The old datings have been corrected since the radiocarbon dating was introduced in the late 1960s. E.g., the ski of Lapua Toijanniemi was pollen dated to 800 BC¹⁰ and later the radiocarbon dating gave the result cal AD 1180 (1267) 1290. It is also important to remember that the age of the raw material, the wood with numerous tree rings, and the time of making the ski itself may differ considerably.

The classification of ancient skis

Nordic prehistoric skis were classified in the 1930s into three main types by K. B. Wiklund¹¹ and to four main types by Gösta Berg.¹² The new classification based on radiocarbon dates was developed by Ernst Manker in 1971.¹³

* Type A: Low (not raised) step or foot space (in Finnish: päläs) with vertical pairs of holes for binding; underside flat, without a groove (in Finnish: olas)

* Type B: Low step between carved side lists with binding holes; underside flat, without a groove

* Type C: Raised and inset foot space with horizontal strap hole; underside in four variants:

C1) flat to slightly convex, without a groove;

C2) with single groove, rounded or sharply incised;

- C3) with double grooves (two or three);
- C4) with carved edge lists.

The late Iron Age skis are mainly made with great skill and the tip is often decorated with carved lines and lacings. Especially the lacings testify of the culture that created them. People who are struggling for their living in the winter in the interior/hinterland are not motivated to make such decorated objects.

Only one Finnish ski, found in Mänttä in 1991, had remains of bindings.¹⁴ Later a similar find has been made in Lesja, Norway, in 2014.¹⁵

Most of the finds cover the Finnish Iron Age (500 BC – AD 1200/1300). At the other end of the chronology, we have numerous traditional skis in Finnish museum collections dating to the 19th century. We know well these late skis and their different geographical types, which differ much from the Iron Age and Medieval skis.

Approximately dozen skis are dated to the Middle Ages or to the post-Medieval period. In fact, we know presently the development of prehistoric skis better than that of the Medieval and post-Medieval skis. More dates are needed to demonstrate the development of the ski from the end of Iron Age to the 19th century.

The research area and material

At least 80 ancient skis are known in Ostrobothnia thanks to traditional agriculture and especially the activity of clearing land for cultivation by burn beating, ditch digging and lowering the level of lake surfaces for farming land.

The Lake District of Ostrobothnia covers the municipalities of Soini, Vimpeli, Lappajärvi, Evijärvi and the town Alajärvi. In the region seven ancient skis have been brought to the collections of National Museum of Finland (Evijärvi 3, Alajärvi 1 and Lappajärvi 3), but so far, none of them has been radiocarbon dated.

There are some 300 professionally run museums and then over 800 local history museums run by volunteers in Finland. Especially in the latter one may find skis, which have not been studied and published. We present one recent example.

Janne Vilkuna, the president of the Finnish Local Heritage Federation (in Finnish Suomen Kotiseutuliitto), was invited to give a speech in August 2016 at the Centennial of the late Väinö Tuomaala (1916–1975), the founder and collector of the Museum of the Lake District of South Ostrobothnia, Evijärvi, in Finland.



Fig.1. Main building, Museum of Lake District of South Ostrobothnia. The door to the cellar where the skis were found can be seen on the left corner. Photo Janne Vilkuna 2016.

When reading the Museum's guidebook¹⁶ Vilkuna noticed mentions of ancient skis, which were new to him. The find locations of three of them were superficially mentioned without detailed information.

Vilkuna visited the museum before his speech and “found” four very interesting unpublished bog find skis hanging on the wall in the cellar, which had been turned into a hunting exhibition.

We have named the skis Evijärvi 1-4. There was also an object too heavy to be a ski, Evijärvi 5, which might be a part of a runner. It is not described more closely here. Unfortunately, Väinö Tuomaala did not number his museum objects nor did he keep a main register. Except the information in the guidebook, we did not have exact information concerning the find locations, only that they have been found somewhere in Southern Ostrobothnia. Fortunately, Tuomaala had written with a lead pencil the names of the finders on two skis. But where were the two other found? The guidebook mentions that



Fig. 2a-b. The ancient skis as they were when found in the exhibition, from left: the possible runner, Evijärvi 4, Evijärvi 2, Evijärvi 1 and Evijärvi 3. Photo Janne Vilkuna 2016.

the Cape Viinaniemi ski is a short “kalhu” and the Cape Isoniemi ski is like other skis found in the region with decorations typical of thousand year back in time. It is a common thought learned in the schools of Finland that the oldest skis were unpaired: with a short kicking ski, “kalhu” or “sivakka” and a long gliding ski, “lyly”. This wrong idea is often put forward when single found ancient skis are presented. The Cape Viinaniemi ski is most probably the short, 112 cm long Evijärvi 4, and the typical decorated ski from Cape Isoniemi is the only decorated Evijärvi 1.

With these facts, the guidebook information with descriptions and newspaper clippings in Väinö Tuomaala’s scrapbook¹⁷ the find places of each ski and the possible runner could be solved.

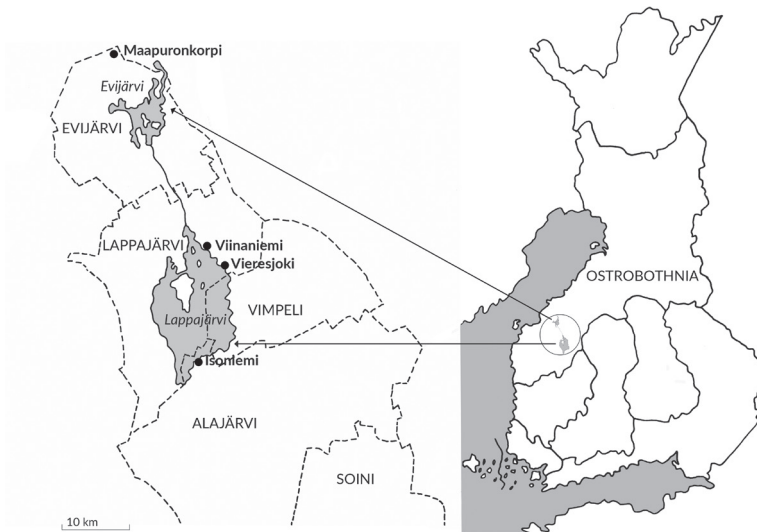


Fig. 3. Ostrobothnia and the Lake District with the lakes, municipalities and find locations of the skis (dots). Drawing Päivi Lamberg 2017.

The description and figures of the skis

Evijärvi 1. Alajärvi, Cape Isoniemi in Lake Lappajärvi.

A fragment without tip, length 180 cm, width 10,2 cm and the largest thickness 3,2 cm. The width of the foot space 7,1 cm. The width of the binding hole, 115 cm from the tail, is 4 cm. The ski has suffered damages: it is bended and the edge has many holes. The bottom groove lacks clear edges.

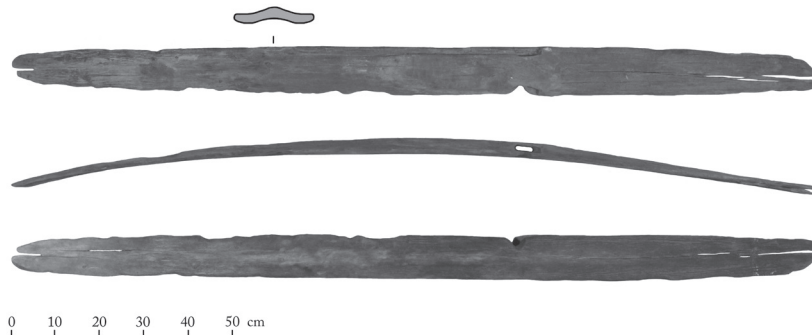


Fig. 4a. Ski Evijärvi 1. Photos and drawing Timo Kuokkanen 2017.



Fig. 4b. The area of the foot space. Photo Timo Kuokkanen 2017.

Evijärvi 2. Lappajärvi, at the mouth of the River Vieresjoki, 1963.

A fragmentary ski, part of the tail and tip have been broken away. The length is 174 cm, width 11,6 cm, thickness 3 cm. The width of the foot space is 7,5 cm. The front part of the foot space has been chopped off with an axe. The width of the binding hole is c. 3,5 cm. The binding hole is 88 cm from the tip. The edges of the bottom groove are clear and their width is 3,7 cm. There are two thin double grooves in the bottom groove, which unite at the tip. Type Manker C2.

At the edge of the destroyed foot space there are two hole pairs. At the bottom, the holes are connected with a shallow groove. It is obvious that when there has been a crack in the foot space, it has been repaired with a binding, which does not wear out when skied. The finder is Erkki Lehto.

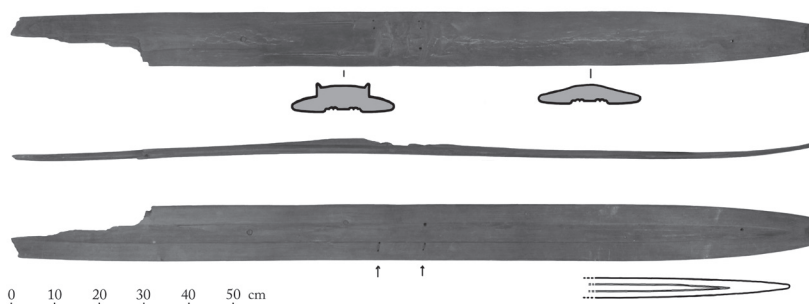


Fig. 5a. Ski Evijärvi 2. Photos and drawing Timo Kuokkanen 2017.



Fig. 5b-c. The area of the foot space from above and under.
Photo Timo Kuokkanen 2017.

Evijärvi 3. Evijärvi, Sydänmaankylä, Maapuronkorpi, 1946.

The front part of a ski, which is broken at the binding hole of the foot space. The length is 117 cm, width 10,3 cm and thickness 2,6 cm. The edges of the bottom groove are not clear but the width is about 4 cm. The tip is shaped. The founder is Einari Sulkakoski. The ski was found in the depth of 30 cm in the bog. The missing back part has been burnt in the burn beating.

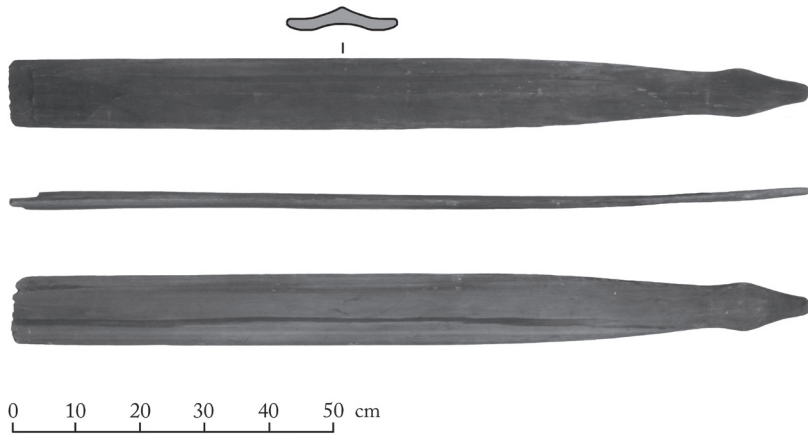


Fig. 6a. Ski Evijärvi 3. Photos and drawing Timo Kuokkanen 2017.



Fig. 6b. The area of the foot space. Photo Timo Kuokkanen 2017.

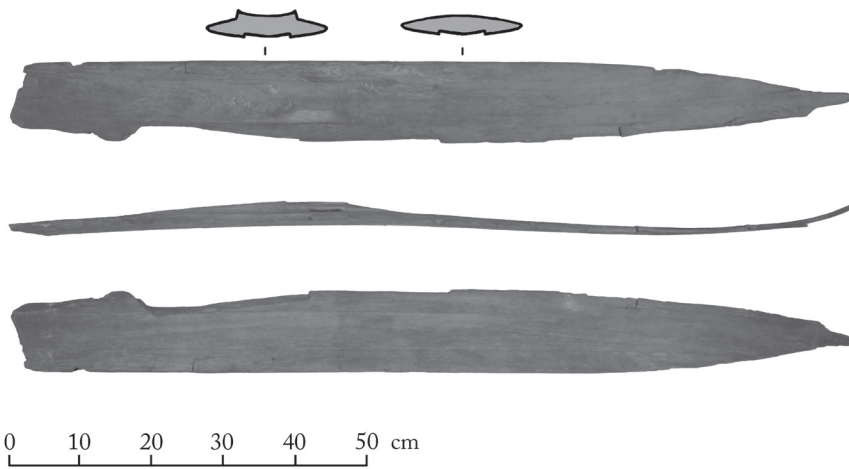


Fig. 7a. Ski Evijärvi 4. Photos and drawing Timo Kuokkanen 2017.



Fig. 7b. The area of the foot space. Photo Timo Kuokkanen 2017.

Evijärvi 4. Lappajärvi, Itäkylä, Cape Viinaniemi, Lake Lappajärvi.

A fragmentary ski with a broken tail. The length is 112 cm, width 10,8 cm and thickness 2,7 cm. The width of the bottom groove is 4,7 cm and that of the binding hole 4 cm. Type Manker C2.

Only Evijärvi 1 has some kind of decoration (simple lines or grooves), but none have carved lacings etc. which are typical for the Finnish late Iron Age skis. Based on decorations we can propose that Evijärvi skis could be either older or younger than late Iron Age. Samples of the skis were sent to the Angstrom Laboratory, Uppsala University, Sweden, for radiocarbon dating.

Table 1. The results and calibrations given as presented by the Laboratory. The most probable calibrated age in bold.

ski	sample	¹⁴ C age BP	calibrated age AD (95,4%)
Evijärvi 1	Ua-56166	138 ± 26	1660AD (41,3%) 1780AD 1790AD (54,1%) 1950AD
Evijärvi 2	Ua-56167	1187 ± 26	770AD (92,5%) 900AD 920AD (2,9%) 950AD
Evijärvi 3	Ua-56168	117 ± 26	1650AD (18,7%) 1700AD 1720AD (55,2%) 1820AD 1830AD (1,4%) 1960AD
Evijärvi 4	Ua-56169	1292 ± 27	660AD (95,4%) 780AD
[Evijärvi 5	Ua-56170	93 ± 26	1680AD (25,9%) 1730AD 1800AD (69,5%) 1930AD]

The oldest dates are in the Finnish prehistoric chronology from the Merovingian period (AD 575–800) and Viking Age (AD 800–1025). Contrary to our expectations, these skis belong to the periods when skis were often decorated.

It has been long known that the archaeological signs of the rich Iron Age culture of Southern Ostrobothnia disappeared during the Viking Age. All our finds are found in the Southern Ostrobothnian Lake District behind the permanently settled areas. The internet register of prehistoric sites and find places held by National Board of Antiquities¹⁸ demonstrates the situation well. The Iron Age sites in the Lake District are very rare: Soini 48 prehistoric sites/no Iron Age, Alajärvi 81/1,

Vimpeli 50/-, Lappajärvi 80/3 and Evijärvi 100/-.¹⁹ The Alajärvi and Lappajärvi finds do not represent proper settlement sites but stray finds. It is interesting to note that when Viking Age finds, in our case Evijärvi 2, are found in Ostrobothnia they are from backwoods and not from settled areas. The Viking Age find testifies that after the disappearance of the Iron Age settlement of Ostrobothnia the interior, however, was utilized, probably by the local hunting and fishing population.

The skis from Lappajärvi and Evijärvi verify that the habit to “deactivate” skis and to conceal them in waterlogged surroundings is a custom dating in the region back to the Iron Age (Evijärvi 2 and 4). Maybe the most interesting observation is, however, that the younger dates verify that the custom was still alive about 200 hundred years ago (Evijärvi 1 and 3) when inhabitants had long been confessing the Christian faith.

It is also interesting to notify that in summer 1963, when the water level of Lake Lappajärvi was exceptionally low, five prehistoric sledge runners of the central-grooved type were found on the shores of the lake.²⁰ This type of runner is usually dated to the end of the Stone Age. What is behind these finds? The same custom as with skis?

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References

- 1 Professor of Museology at Jyväskylä University, Finland.
- 2 Professor emeritus of Archaeology at Turku University, Finland.
- 3 MA of Archaeology from Turku University, Finland.
- 4 Janne Vilkkuna, "Ancient skis from Central Finland." *Fennoscandia Archaeologica I* (1984), 39; cf. Janne Vilkkuna, "Kinnulan pienapohjainen muinaissuksi." Sitä kuusta kuuleminen. *Studia historica Jyväskyläläensia* 41 (1990), 32 and Janne Vilkkuna, Mäntän karvapohjainen muinaissuksi. *Masunni* 1 (1993), 65.
- 5 Janne Vilkkuna, *Mäntän muinaissuksi*. Jyväskylä 1997, 36–37.
- 6 Steinar Sørensen, "Daterte skifunn fra middelaldern - Et omriss av middelalderens skihistorie." *Collegium Mediavale* Vol. 9 1996/1–2 (1998), 24–25.
- 7 Leif Torgersen, "Hva myrene skjulte." *Skiforeningen Årsbok* 1999, 30–32.
- 8 Jussi-Pekka Taavitsainen and Henry Forssell and Janne Vilkkuna, Suojoki at Keuruu - a mid 14th century site of the wilderness culture in the light of settlement historical processes in Central Finland. *Suomalaisen Tiedeakatemia toimituksia - Humaniora - Annales Academiae Scientiarum Fennicae* 346 (2007). Helsinki.
- 9 See Janne Vilkkuna and Jussi-Pekka Taavitsainen (2004), "Why do we find ancient skis? - The testimony of two recent finds from Finland." *3rd FIS Ski History Conference Mürzzuschlag - Graz 2004*. In Finnish: Janne Vilkkuna and J.-P. Taavitsainen, Miksi löydämme muinaissuksia - kahden tuoreen löydön todistus. Suomen urheiluhistoriallisen seuran vuosikirja 2005 - Finlands idrottshistoriska förenings årsbok 2005, 55–63.
- 10 Ski: T. I. Itkonen, "Muinaissuksia ja -jalaksia VIII". *Suomen Museo* 1949. Dating: Esa Hyypä, "Lapuan ja Pattijoen muinaissuksien geologinen ikäys." *Suomen Museo* 1950.

- 11 K. B. Wiklund, "Den nordiska skidan, den södra och den arktiska." *På skidor* (1931), 5–50.
- 12 Gösta Berg, "Förhistoriska skidor i Sverige." *På skidor* (1933), 142–169.
- 13 Ernst Manker, "Fennoskandias fornskidor - Preliminär rapport från en inventering", *Fornvännen* 1971.
- 14 Vilkuna 1993 and 1997 and Janne Vilkuna, "The binding of the prehistoric ski from Mänttä, Finland." *History of Skiing Conference Holmenkollen, Oslo 16. – 18.9.1998*.
- 15 Lars Pilø, Secrets of the ice, Skien fra Reinheimen [From: <http://secretsoftheice.no/blog/2016/06/03/skien-fra-reinheimen/> retrieved August 14, 2017]
- 16 *Evijärven Väinöntalo*. Väinö Tuomaalan museosäätiö s.l. 1966, 15.
- 17 Väinö Tuomaala's archive, kept in the County Museum of Southern Ostrobothnia (Fi. Etelä-Pohjanmaan maakuntamuseo), Seinäjoki, Finland.
- 18 Museovirasto, Kulttuuriympäristön palveluikkuna, Arkeologiset kohteet [From: https://www.kyppi.fi/palveluikkuna/mjreki/read/asp/r_default.aspx retrieved August 14, 2017]
- 19 Two of the Iron Age finds from Lappajärvi and the only one from Alajärvi are oval flint stones made of quartzite. These are mainly found in the shore area or close to water.
- 20 Kopisto, Aarne. "Uusia jalaslöytöjä." *Suomen Museo* 1964. About the runner type see Timo Kuokkanen, 2000. "Stone Age sledges of central-grooved type: Finnish reconstructions." *Fennoscandia archaeologica XVII* (2000), 37–56.