




Nationally Significant Archaeological Sites (VARK) in Finland: Project description of the inventory

Museovirasto
Finnish Heritage Agency

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Cover photographs

Top row: Utsjoki Vetsijärvi 7 (Eija Ojanlatva 2020, SAAMVARK1:74, Saamelaismuseo Siida), Oulu Rajakangas (Teemu Mökkönen 2020, AKDG6477:1, Museovirasto).
Middle row: Eura Kuninkaanhauta (Teija Tiitinen 2021, AKDG7242:3, Museovirasto), Laitila Untamalan Myllymäki (Teija Tiitinen 2010, AKDG7237:1, Museovirasto).
Bottom row: Janakkala Hakoistenlinna (Helena Ranta 2017, AKDG6849:1, Museovirasto), Hanko Gustavsvärn (Teija Tiitinen 2020, AKDG6565:3, Museovirasto).

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Foreword

Nationally significant archaeological sites (VARK) complement the inventories of Finland's nationally significant cultural environments. The family of cultural environments included in the national land use objectives therefore comprises Nationally significant built cultural environments (RKY), Nationally significant landscape areas (VAMA 2021) and the recently completed VARK inventory.[1] The VARK inventory provides a representative illustration of Finland's past, both chronologically and regionally.

National land use objectives are an important instrument in expressing the government's land use interests, in giving them a concrete shape, and in incorporating them in the spatial planning system. The purpose of the inventories included in the national land use objectives is to identify the areas and sites whose values must be guaranteed to be preserved by means of spatial planning. The VARK inventory will facilitate the identification and protection of nationally significant archaeological sites in this respect.

The VARK inventory has required a great deal of work from the Finnish Heritage Agency, regional museums with regional responsibility, and other partners. In addition to its impact on the framework of national land use objectives, it is also important in many other respects. The assessment of the significance of archaeological heritage has been developed in the inventory in a systematic and ground-breaking manner.

As a result of the inventory, we now also know more about archaeological heritage in Finland: three out of four of the 1,391 VARK sites were visited during the project. The number of sites where field inspections were carried out was higher than the number of sites included in the final list. The quality of the information in the Register of Ancient Sites maintained by the Finnish Heritage Agency has improved: in addition to the sites included in the final VARK inventory, data on about 3,400 other sites involved in the process was updated.

The inventory carried out between 2018 and 2024 was impacted by unforeseen factors, such as the coronavirus pandemic. However, operating practices were successfully adapted to different situations, and a strong network of partnerships was built. The VARK inventory led to closer cooperation between archaeologists working at different administrative levels and universities, and the close cooperation will continue.

The Antiquities Act (295/1963), the key instrument in protecting archaeological cultural heritage in Finland, is in the process of being updated. The new act on archaeological cultural heritage will significantly change procedures and practices and make them more specific. Together with the land use legislation, the new act will serve as the fundamental tool

[1] The abbreviations of the inventories are formed based on the Finnish names.

in the protection of archaeological heritage. The work carried out in the VARK inventory will also support the implementation of the new legislation on ancient remains and sites, and especially the assessment of their significance.

The Finnish Heritage Agency also hopes that more and more people will be encouraged to learn about our nationally significant archaeological sites and to consider the importance of this common heritage now and in the future.

I would like to thank all the experts at the Finnish Heritage Agency, regional museums with regional responsibility, and Metsähallitus who took part in the project, and all other parties involved for their joint effort, which will take the cultural heritage sector and the preservation of archaeological heritage forward.

Helsinki, 16 December 2023

Ulla Salmela

Director of Department
Cultural Environment Services, the Finnish Heritage Agency

Nationally Significant Archaeological Sites (VARK) in Finland: Project description of the inventory

1. Starting point for the inventory

An inventory of nationally significant archaeological sites was carried out by the Finnish Heritage Agency. The Finnish abbreviation for the inventory is VARK (fi *Valtakunnallisesti merkittävät ARkeologiset Kohteet*). The inventory was conducted in cooperation with regional museums with regional responsibility and Metsähallitus[2] between 2018 and 2024. The project covered the whole of Finland, except for the autonomous region of Åland.[3]

The steering group for the inventory consisted of experts from the Finnish Heritage Agency, regional museums with regional responsibility, Metsähallitus, the Association of Finnish Local and Regional Authorities (fi *Kuntaliitto*), the Ministry of the Environment and the Ministry of Education and Culture. The steering group played a major role in the formulation of the policies and priorities determined in the inventory.

The aim of the inventory was to prepare a list of nationally significant archaeological sites that the Finnish government can approve as the national inventory referred to in the national land use objectives, which are part of the spatial planning system based on the Land Use and Building Act (132/1999). The main purpose of the national land use objectives is to ensure that matters of national significance are taken into account in spatial planning and in the actions taken by the public authorities. The values specified in the selection criteria for nationally significant archaeological sites must be considered so that the characteristics and features of the sites and the areas they comprise can be highlighted and preserved as required at different levels of land use planning.

Ancient sites protected under the Antiquities Act (295/1963) and other archaeological heritage sites[4] were assessed in the inventory. These sites cover a period of about 11,000 years, starting from the first Stone Age settlements after the Ice Age to the fortifications built during the First World War (1914–1918). The Register of Ancient Sites, reports and research literature have been used as the main sources of information in the inventory. On-site inspections were carried out to gather required up-to-date information and fresh photographs of the sites.

The VARK inventory, which includes the VARK areas comprising the VARK sites, facilitates and speeds up the work of land use planners and the authorities steering the protection of ancient sites. The purpose of the VARK inventory is to steer land use so that the preservation of the characteristics detailed in the descriptions of the nationally significant sites and the values associated with them can be ensured.

2. Legal effects

Under the Land Use and Building Act (132/1999)[5], national land use objectives must be taken into account and promoted by central government authorities in their work and in land use planning. The national land use objectives are primarily concretized in different levels of land

[2] Metsähallitus is a state business institution managing national forest and water properties.
[3] Act on the Autonomy of Åland, 1144/1991.
[4] Other archaeological heritage sites are not protected by the Antiquities Act due to their young age.
[5] Named the Land Use Act (132/1999) since 1 January 2025.

use planning, from regional plans to local detailed plans. National land use objectives do not have direct legal effects on the prerequisites for granting a building permit or special planning permission or a planning need decision. Other site-specific legal effects on land use or a building project in the VARK areas arise from the land use planning process taking place in accordance with the Land Use and Building Act, and they are based on the requirements specified in different levels of planning.

The legal effects of the national land use objectives are based on section 24 of the Land Use and Building Act[6]. Under this section, "Government authorities must take national land use objectives into account, promote their implementation, and assess the impact of their actions on local structure and land use. In regional and other land use planning, national land use objectives must be taken into account in a way that promotes their implementation". Most of the legal impacts only become clear during the land use planning process, and they are indirect in nature. Ancient sites must always be treated in accordance with the provisions of the Antiquities Act (295/1963).

Nationally significant archaeological sites must be identified and taken into account in land use so that their values can be safeguarded. Taking the VARK areas into account will be a major consideration at different levels of land use planning, as specified in the provisions on them. In regional planning, the boundaries of VARK areas should be left unchanged, and this matter should also be discussed in the negotiations on regional plans between different authorities. Regional councils are required to discuss any changes to the boundaries of VARK areas with the Finnish Heritage Agency.

3. Relation to the other inventories referred to in national land use objectives

The inventories of nationally significant built cultural environments and landscapes produced in accordance with the national land use objectives have already been in use for many years. In 1993, the Ministry of the Environment and the Finnish Heritage Agency jointly published a list of nationally significant built cultural heritage sites (fi *Rakennettu kulttuuriympäristö: valtakunnallisesti merkittävät kulttuurihistorialliset ympäristöt*). The inventory was updated in the early 2000s for the Land Use and Building Act with a slightly altered name ("nationally significant built cultural environments", fi *Valtakunnallisesti merkittävät rakennetut kulttuuriympäristöt,* referred to with the abbreviation *RKY*). It was approved by the government in 2009, and it came into effect at the beginning of 2010.

The first list of nationally significant landscape areas was approved in 1995, and the updating of the list was completed in 2021 (fi *Valtakunnallisesti Arvokkaat Maisema-alueet*, referred to with the abbreviation *VAMA 2021*). The value of these rural landscapes, considered as culturally the most representative in Finland, is based on their diverse nature shaped by cultural influences, managed agricultural landscape, and traditional building stock.

While the two other inventories of nationally significant cultural heritage have been around for decades, the current inventory of nationally significant archaeological sites completes the family of cultural heritage inventories included in the national land use objectives with ancient heritage.

[6] Named the Land Use Act since 1 January 2025.

4. Archaeological heritage, legislation, and international agreements

Archaeological heritage is an important part of Finnish culture and identity. It represents the oldest layer of our cultural heritage, describing how the country became settled, how people have lived here, and how different influences have shaped the inhabitants and their culture, laying the foundation for the distinctive features characterising different regions of Finland.

Archaeological sites contain information about the past that would otherwise be inaccessible. They are the chronological layer that makes the past part of our own world of experience. It is our common duty to protect our archaeological cultural heritage and preserve it for future generations.

The Antiquities Act automatically protects all ancient remains coming under the scope of the act and prohibits activities that may endanger their preservation. Ancient sites meant by the law are defined in section 2 of the Antiquities Act. They are remains of human activity, structures, layers or finds that have been preserved on land or in water and are dated to prehistoric and historic periods. They can also be referred to simply as archaeological sites.

The protection of ancient sites does not prevent the continuation of the dominant type of land use in the area, such as agriculture. There is no statutory age limit for ancient sites. Currently, the fortifications built during the First World War are the most recent sites protected under the act.

Under the Antiquities Act, excavating, covering, altering, damaging, or removing ancient sites, or other actions disturbing them, require a permit issued under the act. If, for some reason, there is a need to disturb an ancient site, a permit must be obtained for the purpose. Before granting the permit, the Finnish Heritage Agency will consider the need for the disturbing act in relation to the significance of the ancient site in question.

The parties to the European Convention on the Protection of the Archaeological Heritage (Valletta 1992; Finnish Treaty Series 26/1995) have pledged to protect archaeological heritage as a source of the European collective memory and as an instrument for historic and scientific study. Under the Convention, all immovable ancient sites, movable ancient objects, and other traces of ancient human activity are considered archaeological cultural heritage. Under the Convention, the parties to it must take legislative and other measures to preserve this heritage. The countries that have joined the Convention have also pledged to establish permit and supervisory systems and to reconcile the requirements of archaeology with the needs of land use planning.

5. Previous inventories of nationally significant archaeological sites

The first national inventory of ancient sites in Finland was completed in 1983.[7] It described extensive geographic areas that had concentrations of prehistoric human settlements, such as river valleys. Because of its general nature, the publication never became a tool for steering protection. Typically for the time, the report only covered prehistoric archaeological heritage.

In the publication *Maiseman Muisti - valtakunnallisesti merkittävät muinaisjäännökset* (en *Memory of the landscape - nationally significant ancient sites*), published in 2001, the perspective was broadened to cover, in addition to prehistoric sites, the sites dating to the

[7] Siiriäinen, Ari 1983. *Valtakunnallisesti merkittävät esihistorialliset suojelualuekokonaisuudet.* Sisäasiainministeriö, kaavoitus- ja rakennusosasto, tiedotuksia 3/1983.

Historic Period.[8] However, only about 351 sites were listed in the publication. The selection of the sites was not based on any official inventory that could have been approved for use as part of the national land use guidelines. The publication has not played any important role in the steering of land use planning.

The need for an inventory assessing the significance of archaeological sites in accordance with the national land use objectives has been recognised, and producing such an inventory has been an objective of the Finnish Heritage Agency for many years. The inventory is also referred to in the implementation plan of the Finnish National Cultural Environment Strategy[9] 2014–2020 as a measure facilitating the realisation of the plan.

6. VARK sites and VARK areas

The aim of the VARK inventory has been to produce a representative selection of archaeological sites so that the information contained in them could be used as a basis for a regionally, chronologically, and thematically comprehensive overview of past human activity in Finland. The inventory covers a period of about 11,000 years. As is always the case in archaeology, the sites and types of sites that we know today give us only some idea of what happened in the past. Thereby, the results of the inventory reflect current archaeological knowledge and the values and meanings of our time.

Archaeological sites identified as significant in the inventory are termed VARK sites. With a few exceptions, they are ancient sites protected under the Antiquities Act. Other archaeological cultural heritage sites were also included in the inventory process. They are not protected under the Antiquities Act, mostly because they are too recent in origin.

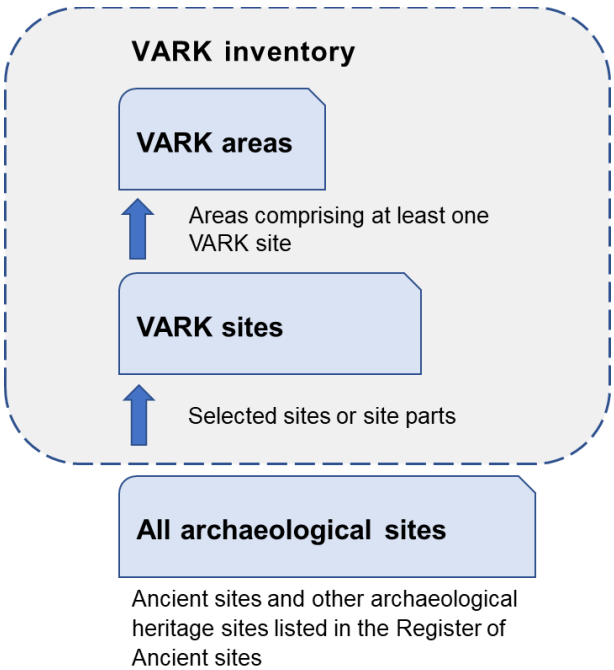


Chart 1. The nationally significant archaeological sites (VARK sites) listed in the VARK inventory constitute the VARK areas. Each VARK area includes one or several VARK sites.

[8] Hamari, Pirjo, Paula Purhonen & Helena Ranta 2001. *Maiseman muisti – valtakunnallisesti merkittävät muinaisjäännökset*. Helsinki: Museovirasto.
[9] *Cultural Environment Strategy 2014–2020: Government Resolution 20 March 2014*. http://urn.fi/URN:ISBN:978-952-11-4323-6.

The VARK sites are located in VARK areas, each of which comprises one or several VARK sites. The VARK areas that consist of more than one VARK site have been determined using chronological or thematic criteria. The borders of the VARK areas are, for the most part, identical to those defined in the national Register of Ancient Sites.

7. Base data and inventory process

The focus of the VARK inventory was on previously discovered and registered archaeological sites. The Register of Ancient Sites maintained by the Finnish Heritage Agency worked as the project platform. A separate section for the project was added to the register, and the necessary site-specific information, an assessment of the significance of each site, and the reasons why a site was considered or not considered significant were recorded in this section.

In the Finnish Heritage Agency, the project team conducted the inventory in cooperation with other archaeologists working at the Finnish Heritage Agency and in museums with regional responsibility. The inventory work and the site selection process were carried out in accordance with the territories of the regional museums, which are based on regional division, except for Uusimaa and Lapland, in which the administrative responsibilities have been divided between several museums.

In principle, all archaeological sites were included in the VARK inventory, but in practice, it was not possible to assess all Finnish archaeological sites. At the start of the inventory, the following base data was extracted from the Register of Ancient Sites:

- The approximately 3,700 sites in the highest protection category (protection category 1). The use of protection categories ended in 2014.
- The 351 sites listed in the publication *Maiseman muisti – valtakunnallisesti merkittävät muinaisjäännökset* published by the Finnish Heritage Agency in 2001.
- The 134 sites included in the list of nationally significant cultural property specified in accordance with the Hague Convention (HAAG–2013). At that point of time, the list was still under preparation.
- Four of the Unesco World Heritage Sites located in Finland (Sammallahdenmäki, Struve Geodetic Arc, Suomenlinna Fortress and Old Rauma).
- The approximately 600 sites marked as regionally significant in regional land use plans.

Many of the sites are included in more than one set of base data. The base data filtered for the inventory contained 4,024 ancient sites, which corresponds to 11% of all registered ancient sites (data from 13 October 2022). In addition to the base data, a great number of other sites (n = 760) entered the evaluation process through discussions with experts and an examination of the background materials. In total, 13% (n = 4,784) of all registered ancient sites were included in the evaluation process.

8. Selection criteria

The significance of the VARK sites was assessed for the requirements of the inventories referred to in the national land use objectives, in order to identify the archaeological sites that reflect Finland’s past and its regional characteristics. The selection process was carried out using uniform criteria.

The criteria used in the assessment of the sites were created in a workshop attended by archaeologists and land use experts from a number of different organisations. The criteria were

created so that they would reflect the different characteristics of the sites and would be suited for evaluating different types of sites.[10] The assessment of each site was entered in the section created for the project in the Register of Ancient Sites maintained by the Finnish Heritage Agency.

The assessment of the significance of each site was carried out by selecting a constant value for each criterion, which was then supplemented with a free-form description. The criteria used were as follows:

Cultural historic significance
The assessment is based on how well the site reflects the phenomena, developments, and events of the period. The assessment was based on the research data on the site or the phenomenon that it represents.

0 = not significant, 1 = modestly significant, 2 = fairly significant, 3 = highly significant

Research value
The research value of the site is based on its research potential based on the information already obtained and the information that is still available.

0 = no potential, 1 = modest potential, 2 = fair amount of potential, 3 = significant potential

Prevalence or rarity
The assessment of the regional prevalence or rarity of the site type is based on existing archive material and literature.

1 = prevalence or rarity is not a significant feature, 2 = fairly common or rare, 3 = very rare or common

Archaeological diversity
The assessment is based on the number of observable phenomena at the site or long historic continuity.

0 = no diversity, 1 = low degree of diversity, 2 = diverse, 3 = high degree of diversity

Environment and landscape
The assessment is based on the effect that the landscape around the site has on the perception of the site's environmental position in the past. The significance may increase if the site is located at a nationally significant built cultural heritage site or in a nationally significant landscape area or in a heritage biotope.

0 = the environment and the landscape have changed completely, 1 = there are unfamiliar features or damage in the environment or the landscape, 2 = the environment and the landscape around the site have some features supporting the comprehension of the site, 3 = the environment and the landscape around the site have plenty of features supporting the comprehension of the site, and the site is the central landscape feature in the area

Degree of preservation
The assessment is based on the degree to which the observable distinctive characteristics of the site have been preserved. The site may also be regarded as well preserved if it has been restored to a high standard.

0 = destroyed, 1 = destroyed to a large extent, 2 = fairly well preserved, 3 = well preserved

[10] See also Tiitinen, Teija & Petri Halinen 2022. "The values of archaeological heritage sites – how to define significance." In P. Halinen, V. Heyd & K. Mannermaa (Eds.), *Oodeja Mikalle: Juhlakirja Professori Mika Lavennolle Hänen Täyttäessään 60 Vuotta = Odes to Mika : Festschrift for Professor Mika Lavento on the Occasion of His 60th Birthday =Ody Mike : ûbilejnyj Sbornik Posvâŝennyj 60-letiû Professora Miki Lavento.* Monographs of the Archaeological Society of Finland, 10. Helsinki: Archaeological Society of Finland. pp. 338–345.

9. Assessment process

Only the archaeological sites that had been filtered from previous evaluation data or otherwise considered to be potentially of national significance were included in the assessment process. Archaeologists from the Finnish Heritage Agency and museums with regional responsibility (about 50 persons) were involved in the assessment of the sites' significance. Assistance was also provided by experts from Metsähallitus (a state business institution managing national forest and water properties), universities, and some specialists from different organisations.

The assessment was carried out as a three-stage process. In the first stage, all evaluated sites were named as *candidates*. After a preliminary assessment, they were rejected or moved to the *proposed* sites category. More detailed descriptions of the proposed sites were prepared, and their significance was assessed numerically and verbally. If the national significance of a site was considered sufficient, the site status was changed to *selected* in the final stage of the assessment process.

A total of 77% of the sites included in the assessment were rejected during the process (Chart 2). A large proportion of the sites included in the assessment on the basis of the earlier valuation data were already rejected at the candidate stage. The most thorough elimination process took place between *candidates* and *proposed* sites. In this stage, 50% of the sites were rejected in the discussions following the on-site inspections (Table 1). In the final stage of the assessment process, between *proposed* and *selected* sites, 13% of the proposed sites were rejected.

Stages according to VARK status	Rejection rate
candidate	33%
candidate > proposed	50%
proposed > selected	13%

Table 1. Percentages of sites rejected at different stages of the assessment process.

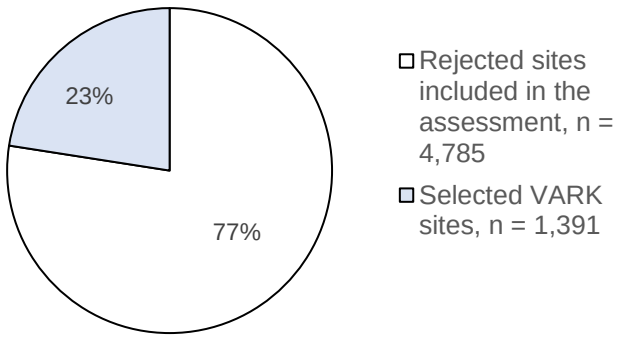


Chart 2. Rejected to selected ratio.

Most of the sites rejected at the start of the process were sites from the southwestern coast of Finland that have been interpreted as cairns dating to the Bronze Age or Early Metal Period. This is due to a previous course of action, in which all the sites with visible and identifiable structures were classified in protection category 1. Most of these sites, however, do not meet the current criteria for a nationally significant archaeological site.

A total of 118 of the 351 sites listed in the *Maiseman Muisti* publication were rejected in the assessment (Table 2). These sites did not meet the criteria for a nationally significant site or, if the criteria were met, the site was rejected in the internal assessment of the site type. Moreover, some of the sites listed in the *Maiseman muisti* publication have since been recorded in the Register of Ancient Sites as part of a larger site, which means that they no longer exist as separate archaeological sites. In addition, some of these sites were assessed in the VARK inventory to be of such poor quality that it was no longer justified to include them.

Reason for rejecting the *Maiseman muisti* sites	Number of sites
No national significance	53
Could not be located	7
Partially or completely destroyed	22
Information available on the site is insufficient for an assessment	19
Combined with another site	7
Another reason	10

Table 2. Reasons for rejecting the sites included in the Maiseman muisti publication (2001) from the VARK inventory.

Seven of the sites previously classified as nationally significant could not be found in the on-site inspections conducted as part of the VARK inventory. Their spatial data was incorrect, or the sites had been destroyed since the previous inspection.

Five of the sites included in the unfinished list of HAAG sites (2013, under preparation)[11] were rejected in the VARK assessment. Two sites have been replaced with other sites that were now considered to be more significant, two sites have been destroyed, and the information available on one site is not sufficient to assess its significance.

Discussions were an important part of the assessment process. In the discussions, the number of sites was cut down on the basis of criteria such as over-representation of the site type or the quality of the site observed in the on-site inspection. At the same time, recently discovered sites were brought up in discussions and, if necessary, were added to the assessment process for the VARK sites.

Evaluation is always a partially subjective process. Even though the criteria and their definitions are jointly drafted and approved, each evaluator acts on the basis of their own experience. Therefore, other evaluators, using the same criteria, would probably end up with a set of sites that is slightly different from the one now produced in the VARK inventory.

10. Further discussions on certain types of sites

Some of the site types required additional discussions in the VARK selection process. The need arose from the special expertise required for certain site types (manors and ecclesiastical buildings), distinctive characteristics of the site location (urban archaeological sites), the selection criteria used (bridges and roads), or the reduction in the number of proposed sites (First World War fortifications).

[11] 1954 Convention for the Protection of Cultural Property in the Event of Armed Conflict.

In addition to the experts involved in the assessment from the Finnish Heritage Agency and museums with regional responsibility, other experts outside the selection process (from universities, ministries and consulting firms) also participated in the discussions. The supplementary criteria for the selection were formulated in the discussions.

Urban archaeological sites

The Antiquities Act primarily applies to towns founded before the 18th century AD and their cultural layers from the time before 1721. Many of the urban archaeological sites are located in areas of intensive land use, and they are rare in Finland compared to the rest of Europe. Although rare in number, they are extremely important for understanding cultural evolution.

Because of the distinctive characteristics of urban archaeological sites, they were discussed in a workshop and in small groups, as well as by the VARK project steering group during 2019. A proposal for the urban archaeological sites for the VARK list was also drawn up in these discussions.

Degree of preservation and research potential were the key criteria for selecting the sites. There are regional differences in Finland concerning the period-specific context of urban archaeological sites and the significance of the sites as part of the archaeological data. There are only five medieval towns in Finland, and they were all listed as VARK sites. Two of the towns founded in the 16th century (two thirds of the urban archaeological sites of the period) were selected as VARK sites.

In the 17th century, towns were also established outside the coastal areas of southern Finland. Thus, the selection of urban archaeological sites for this period was also influenced by the regional representation of the sites and their significance concerning the archaeological data on the Historic Period in the region. Five of the towns founded in the 17th century (31% of the towns established during the period) are VARK sites.

Modern building activities, as they arise in Finland in the 20th century, have destroyed underground cultural layers. Well-preserved urban archaeological sites and the old (usually wooden) buildings in cities are usually located in the same areas. All urban VARK sites overlap the built cultural heritage sites of national significance.

In addition to the degree of preservation of the underground cultural layers, attention in site selection was also paid to the age of the existing urban structure. In the assessment, priority was given to sites where the urban structure and space still prevailed as they existed already at the time the archaeologically interesting cultural layers were formed.

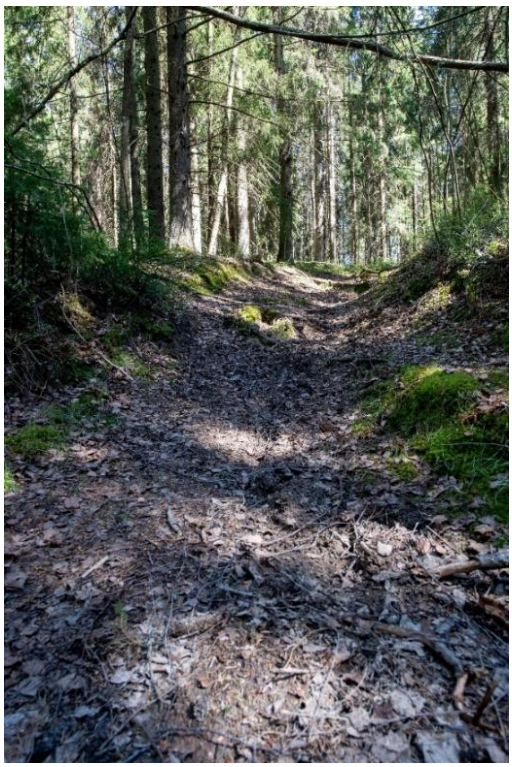
The VARK area in the centre of Turku covers the pre-17th century town area, which is smaller than the area recorded in the Register of Ancient Sites. It differs from the other urban archaeological VARK areas by being an area of intensive construction and by having an exceptionally high archaeological value. Turku is Finland’s oldest city, and organic materials are well-preserved in its humid cultural layers.

Picture 1. The site of the vanished medieval town of Ulvila, in the Satakunta region, is now mostly agricultural land. The town of Ulvila was located in the field at the top of the photo. The medieval Ulvila church is seen in the left half of the photo. Photo: Aerial photograph Hannu Vallas, Architectural History Picture Collection, RHO125790:18 Finnish Heritage Agency.

Picture 2. Most of Finland's urban archaeological sites are now located under the urban structure, such as the remains of 17th and 18th century Turku underneath the current Market Square, as seen in the photo. The VARK area of Turku, in southwestern Finland, covers only the parts of the town that were inhabited before the 17th century. Photo: Teija Tiitinen, AKDG7223:1, Finnish Heritage Agency.

Roads and other traffic routes

The guidelines for historic roads referred to in the Antiquities Act have been revised twice over the past 20 years. The criteria for classifying sites as ancient sites, as drawn up in 2009 and 2017, differ from each other, which has resulted in a wide range of different practices. Moreover, the criteria are somewhat ambiguous. In particular, the requirement that a road or a bridge classified as an ancient site may no longer be in use has been interpreted in varying ways in different parts of Finland.



The roads and bridges proposed as VARK sites were examined twice in a small working group in the Finnish Heritage Agency in early 2022. At the meetings, sites with unclear status as ancient or archaeological sites were removed from the list of proposed sites.

Roads selected as VARK sites were largely abandoned before the extensive road reconstruction activities characterising the 19th century, or they contain evidence of archaeologically interesting layers. One gravel road, still in use and depicted for the first time in 18th century maps, was subject to case-by-case consideration. Even if the road was still in use, it was selected as a VARK site as it formed a VARK area together with 18th century defence fortifications built to protect the road.

Picture 3. A well-preserved and abandoned medieval road in Vantaa, southern Finland. The road appears as a hollow in the terrain. Photo: Stella Karlsson, 1489:81, Vantaa City Museum.

Defence fortifications built during the First World War

The defence fortifications built during the First World War (1914–1918) represent the youngest VARK sites. The fortifications were built by the Russians to defend St. Petersburg, and they can be found in southern and central parts of Finland, and especially in the Helsinki region.

The focus in the additional discussions on the First World War sites was on the fortifications located in the Helsinki region (cities of Espoo, Helsinki and Vantaa), which form a ring around Helsinki. For historical research reasons, these sites have been recorded in the Register of Ancient Sites in a way that deviates from standard practice by forming each historically known and named part of the fortifications as a separate site. As a result, the number of fortification sites is exceptionally high.

The historically well-known sites contain a wide variety of different fortification solutions that had been proposed as VARK sites. The share of fortifications listed in the first proposal was exceptionally high in relation to all representatives of the site type. As a matter of fact, the share was much higher than for any other site type, and therefore, the number of VARK sites was reduced in the additional discussions between the Finnish Heritage Agency and the relevant museums, but the final selections were made by the Finnish Heritage Agency.

Most of the fortifications in the Helsinki region are located in yards and between buildings in the built urban area. Priority in the selection of site types was given to extensive and well-preserved fortification complexes located in unbuilt areas. In accordance with these principles, the number of First World War fortifications in the Helsinki region selected as VARK sites decreased by almost half, which eliminated the problem of over-representation of the site type.

Picture 4. Part of a First World War fortification with trench, excavated in the rock in the Leppävaara area of Espoo, southern Finland. Photo: Eetu Sorvali, TR, 3338:12, KAMU Espoo City Museum.

Ecclesiastical structures

Ecclesiastical structures comprise churches, chapels and belfries, their ruins and locations, and churchyards. There are 235 such sites in the Register of Ancient Sites, and 57 of them were included in the VARK sites. The emphasis in the assessment of the sites was on ecclesiastical values. Ecclesiastical sites are important religious monuments reflecting changes in religious life, and they are also part of Finland's cultural history as early centres of administration and organisation of social structures in our country. Even after a careful selection process, they are still over-represented in relation to the total number of sites of this type.

Ecclesiastical sites are associated with strong emotional values, and the role played by these values was acknowledged in the assessment. In order to reduce the role of emotions, supplementary criteria were applied in the assessment process. One workshop and several discussions with experts on the topic were organised to evaluate and to select ecclesiastical sites. Even though the focus in the assessment was on the archaeological values of the building structures or their remains and their surroundings, other cultural historic values of the sites were also considered.

Archaeological layers of ecclesiastical sites are usually invisible, whether inside the structures or underground located inside and outside the buildings. It was determined that the selected sites should contain preserved structures and layers with archaeological research potential. In the assessment and the selection process, consideration was given to chronological and regional coverage, as well as to sites with different structures and functions. The ecclesiastical sites included in the VARK sites date from the 12th to the early 19th century AD. The emphasis is on medieval sites, and thus, most of the selected sites are located in southwest Finland, where the majority of the oldest ecclesiastical sites exist.

Picture 5. The ruins of the medieval Pälkäne church, located in the Pirkanmaa region, have been selected as a VARK site. The site includes archaeological finds dated to the Iron Age (pre-Christian period). Photo: Helena Ranta, AKDG5489:1, Finnish Heritage Agency.

Manors

Manors are a subtype of settlement that, as impressive and significant places of cultural history, were initially over-represented in the list of proposed sites. In order to ensure a comprehensive selection in the VARK inventory in additional discussions, consideration was also given to different types of building structures, as well as to the history of origin and usage of the manors.

A total of 19 of the 183 manors listed in the Register of Ancient Sites were deemed as nationally significant. In addition to the manor buildings and ruins, this total includes yard areas where structures have been discovered or where structures are assumed to have existed on the basis of old archives and maps. At least some parts of the selected sites have gone through the archaeologization process, and they are well-preserved in archaeological terms.

Picture 6. The ruins of a 16th century stone manor are located near the current manor and the sea. The picture shows the remains of barrel-vaulted cellars. Site: Järppilä Manor in Taivassalo, southwestern Finland. Photo: Sanna Saunaluoma, Turku Museum Centre.

The VARK sites include manors that were built in the area of Finnish-speaking settlements, as well as those established in the area settled by Swedish immigrants. Some royal and bishop's manors are also listed as VARK sites. The manors included among the VARK sites represent a variety of different construction methods, too. They include manors wholly or partially made of masonry, as well as sites with wooden manors.

Picture 7. The ruins of a late 15th century stone manor are located near the current manor, which was constructed in the 18th century. Site: Haapaniemi Manor in Salo, southwestern Finland. Photo: Sanna Saunaluoma, Turku Museum Centre.

11. On-site inspections

On-site inspections were only carried out at the sites included in the evaluation process if the information on them was insufficient for the inventory. On-site inspection was carried out in the following cases:

- The most recent on-site inspection had been conducted before the year 2011.
- More detailed spatial data was needed.
- Recent land use was estimated to have an impact on the condition or representativeness of the site.
- No suitable photographs were available.

During the inventory, on-site inspections were carried out at 75% of the VARK sites (Table 3). Due to their difficult location, ten sites could only be inspected using the latest remote sensing data (orthophotos and laser scanning data), and two underwater sites could not be inspected at all.

The sites with no immediate need for on-site inspection were also inspected remotely with the help of the most recent orthophotos and laser scanning data. This was done to ensure that the condition and the values of the sites were not impaired since the last on-site inspection. The sites with altered conditions were targeted with a new on-site inspection.

Inspections at VARK sites	Number of sites	%
in the period 2008–2010, underwater	2	0%
before the project (2011–2018)	351	25%
during the project (2019–2022)	1,039	75%
only remote inspection	*10*	*1%*
Total	1,392	

Table 3. On-site inspections at VARK sites (data from 28 November 2022)

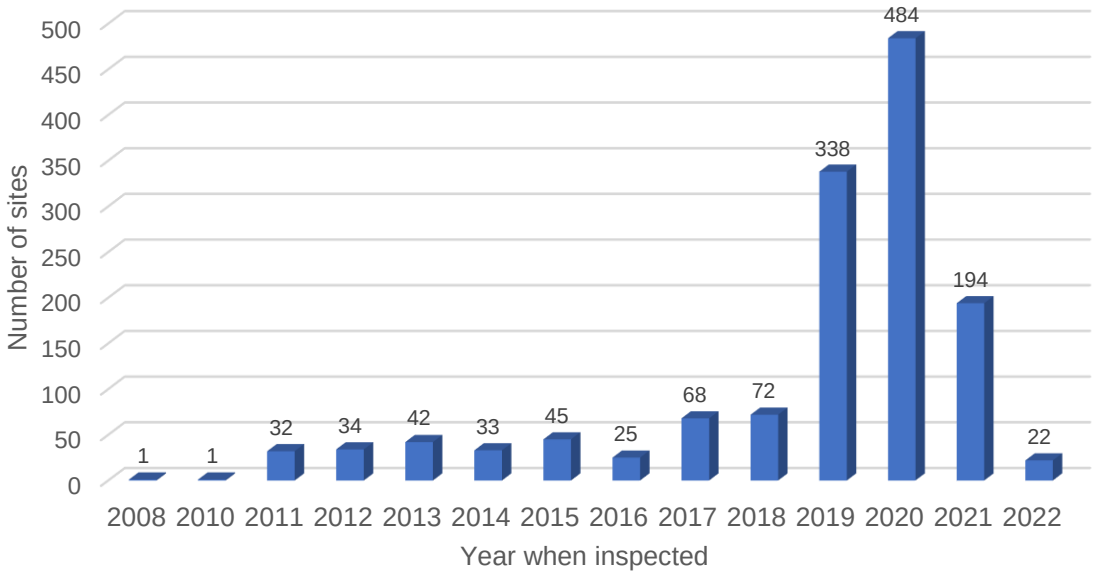


Chart 3. Most recent on-site inspections at VARK sites (data from 28 November 2022).

12. Determination of the VARK areas

The archaeological sites included in the VARK inventory made up the VARK areas, which each comprise at least of one site or its parts. The VARK inventory consists of 1,391 VARK sites located in 1,010 VARK areas. The VARK sites represents 3.8% of all ancient remains and sites recorded in and protected by the Register of Ancient Sites, and 2.3% of all sites entered in the register (data from 13 October 2022).

Most of the VARK sites are archaeological sites classified as *ancient sites* and protected under the Antiquities Act. The inventory also includes four *other cultural heritage sites* that are archaeological sites of too recent age to be classified as ancient sites. These sites are as follows: shipwrecks aged under 100 years (2 sites), a coal kiln site (1 site), and a grazing-related stone structure (1 site). The other cultural heritage sites are outside the scope of the Antiquities Act, but they can be protected under the Land Use and Building Act (132/1999)[12].

Term	Explanation
VARK site	A site listed in the Register of Ancient Sites that is located in a VARK area.
VARK area	An area comprising at least one VARK site and identified with a VARK code and a VARK name. The boundaries of a VARK area may differ from those recorded in the Register of Ancient sites.
VARK code	The unique identifier of a VARK area. One code may refer to one or more sites listed in the Register of Ancient Sites.
VARK name	The name of the VARK area is usually the same as the name of the site given in the Register of Ancient Sites. VARK areas that comprise more than one site listed in the register, or the boundaries of which differ from those specified in the register, are an exception to this rule.

Table 4. Explanations of the terms used in the VARK inventory.

[12] Named the Land Use Act since 1 January 2025.

Each VARK area has a unique VARK code, consisting of a numerical part and a name. All attributes and most of the spatial data for the VARK areas are identical with the data of the same sites recorded in the Register of Ancient Sites. The spatial and attribute data for the VARK areas will not be updated after the inventory has been completed, even if the information in the Register of Ancient Sites is changed in the future.

The VARK areas were determined and named in three different ways:

1. The VARK area comprises one site recorded in the Register of Ancient Sites.
   - 843 VARK areas (83% of the total)
   - The spatial data corresponds to the data contained in the Register of Ancient Sites.
   - The name of the VARK area is the same as the name of the site recorded in the Register of Ancient Sites.

2. The VARK area comprises more than one site recorded in the Register of Ancient Sites.
   - 115 VARK areas (11% of the total)
   - The spatial data corresponds to the data contained in the Register of Ancient Sites.
   - Adjacent sites constitute a thematic entity.
   - The VARK area has a descriptive name (such as *the Stone Age settlement sites of Jokiniemi* or *the Ancient sites of Retulansaari*).

3. The VARK area comprises at least one site recorded in the Register of Ancient Sites, and its spatial data is different from the one specified in the register.
   - 53 VARK areas (5% of the total)
   - The spatial differences from the one recorded in the Register of Ancient Sites and the differences are stated and explained in the VARK area data.
   - The VARK area may consist of a single site or a thematic entity.
   - The VARK area may be smaller (24 VARK areas) or larger (29 VARK areas) than the corresponding area specified in the Register of Ancient Sites.

   Example 1 – smaller VARK area

   Only a part of a large site meets the criteria for a VARK site. In such cases, the VARK area is smaller than the corresponding spatial data specified in the Register of Ancient Sites.

   Example 2 – larger VARK area

   a) To preserve the values of the VARK area, an area larger than that protected under the Antiquities Act must be considered in land use planning. This usually involves an area constituting a topographic entity essential for understanding the character of the site, such as a cape, a small island of non-agricultural land in the middle of a field, or an esker adjacent to the site specified in the Register of Ancient Sites.

   b) The VARK area comprises adjacent sites that are part of the same phenomenon. In such cases, the area between the sites is considered essential for preserving national values so that the character of the area as a whole can be understood. The name of the VARK area contains the term “VARK area” (for example, *the Hakoinen VARK area*).

VARK areas, delineation	Number of sites	%	Number of archaeological sites
Identical with the Register of Ancient Sites	958	95%	1,236
One archaeological site	843	-	-
More than one archaeological site	115	-	-
Differs from the Register of Ancient Sites	53	5%	156
One archaeological site	28	-	-
More than one archaeological site	25	-	-
Total	1,010	100%	1,391

Table 5. Delineation of VARK areas and the number of sites in each area.

13. Weightings of the selection criteria

The scoring system created to assess the sites in the VARK inventory supported the verbal site valuation and served as a numerical descriptor of the assessments. In the assessment, each site could receive between 1 and 18 points for significance. The average score received by the sites was 12.8 (median 13).

The scoring system shows the impact of different values on the selection of the sites. The cultural historic significance of the site was the criterion with the greatest weighting in the assessment (the average score is 2.5; see Chart 4). This was followed by the degree of preservation, prevalence or rarity (both with an average score of 2.4). The average score for the site's research value was 2.3. The lowest scores were given in the assessments of the site's environment and landscape aspects (average 1.7) and archaeological diversity (average 1.5).

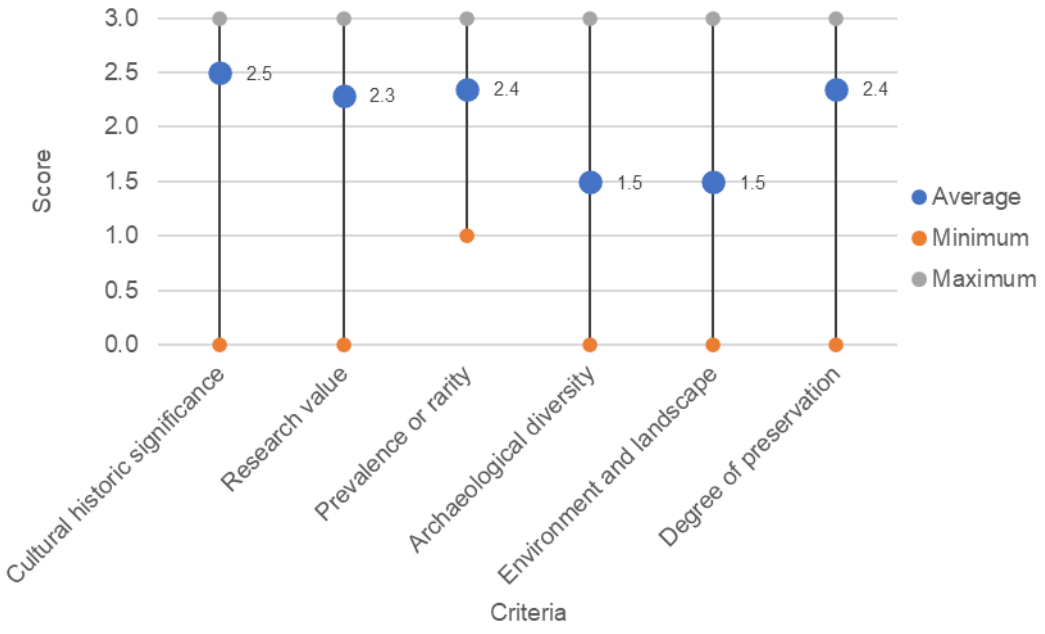


Chart 4. Average scores for VARK site assessments.

Cultural historic significance, degree of preservation, and significance on the basis of existing information or research potential were the criteria with the greatest weightings in the assessment. These values comprise the core of the VARK sites. The criterion for the prevalence or rarity of the site, which scored as high as the above criteria, is less significant because its scale is higher than that used for the other criteria (1–3 points), which automatically produces higher scores than the other criteria (Chart 4).

The assessment criteria receiving the lowest scores are of such a nature that their significance is emphasised in the comparison between near-equal sites of the same type. The assessment criterion for environmental and landscape aspects does not concern the characteristics of the archaeological site itself, but the relationship between the site and its current environment. Archaeological diversity is an assessment criterion for which sites typical of more than one period and representing one site type and one time level cannot receive high scores.

14. Degree of preservation

Degree of preservation emerged as one of the most significant characteristics in the selection. A high degree of preservation and research potential are mutually supportive characteristics. The highest degree of preservation is not, however, a prerequisite for inclusion in the VARK inventory.

Some VARK sites are thoroughly excavated and have been reconstructed after the dig (especially cairns). Although marked as sites with a low degree of preservation, they are recommended as VARK sites on the basis of other assessments (especially those with a focus on cultural historic significance and site surroundings). In fact, four such sites received zero points for the degree of preservation. A total of 111 VARK sites (8% of all sites) scored only one point in the score measuring preservation. These also include rarities that are considered an essential part of Finland’s archaeological heritage even though they are now in poor condition.

The question of whether an archaeological site can be fully preserved is of an academic nature. In any case, 620 VARK sites (45% of the total) received the full score for the degree of preservation. In practice, this means that there are no visible signs of damage at the sites.

Based on the assessment, most of the best-preserved sites are the ones dated to the prehistoric era (average score for the degree of preservation 2.7). Most of these are located in northern Finland in areas with low land use intensity that are difficult to reach. The degree of preservation of the sites dated to the Iron Age was rated lower than average (average score 2.2). Most of these sites are located close to present-day settlements, and the damage to them is probably the result of long-term land use and the fact that many of the sites have been at least partially excavated.

Based on the assessments, the best-preserved VARK sites can be found in the Sámi Homeland (average score 2.7, Table 6). In addition, a surprisingly high proportion of the well-preserved sites are located in areas of active land use in southern Finland. In Uusimaa, a total of 55% of all sites are rated as well-preserved. Based on the scoring used in the assessment, the VARK sites with the lowest degree of preservation are located in the regions of Häme (average 2.1) and Kymenlaakso (average 2.0).

Based on the assessments, the best-preserved site types (average score over 2.5) are raw material extraction sites (mines and quarries), work and manufacturing sites (such as coal kilns, hunting pits, tar kilns and mill sites), and sites connected to cult and traditional knowledge (such as sacrificial stones and stone labyrinths). Sites of events have the lowest

degree of preservation (average score 2.0). Most of these are battlegrounds from different periods.

Region	Degree of preservation of VARK sites, average score
Uusimaa	2.5
Southwest Finland	2.3
Satakunta	2.2
Häme	2.1
Pirkanmaa	2.4
Päijät-Häme	2.4
Kymenlaakso	2.0
South Karelia	2.3
South Savo	2.4
North Savo	2.2
North Karelia	2.4
Central Finland	2.5
South Ostrobothnia	2.2
Ostrobothnia	2.3
Central Ostrobothnia	2.2
North Ostrobothnia	2.6
Kainuu	2.4
Lapland	2.3
Sámi Homeland	2.7

Table 6. Average degree of preservation of VARK sites, by region.

15. VARK sites in different environments

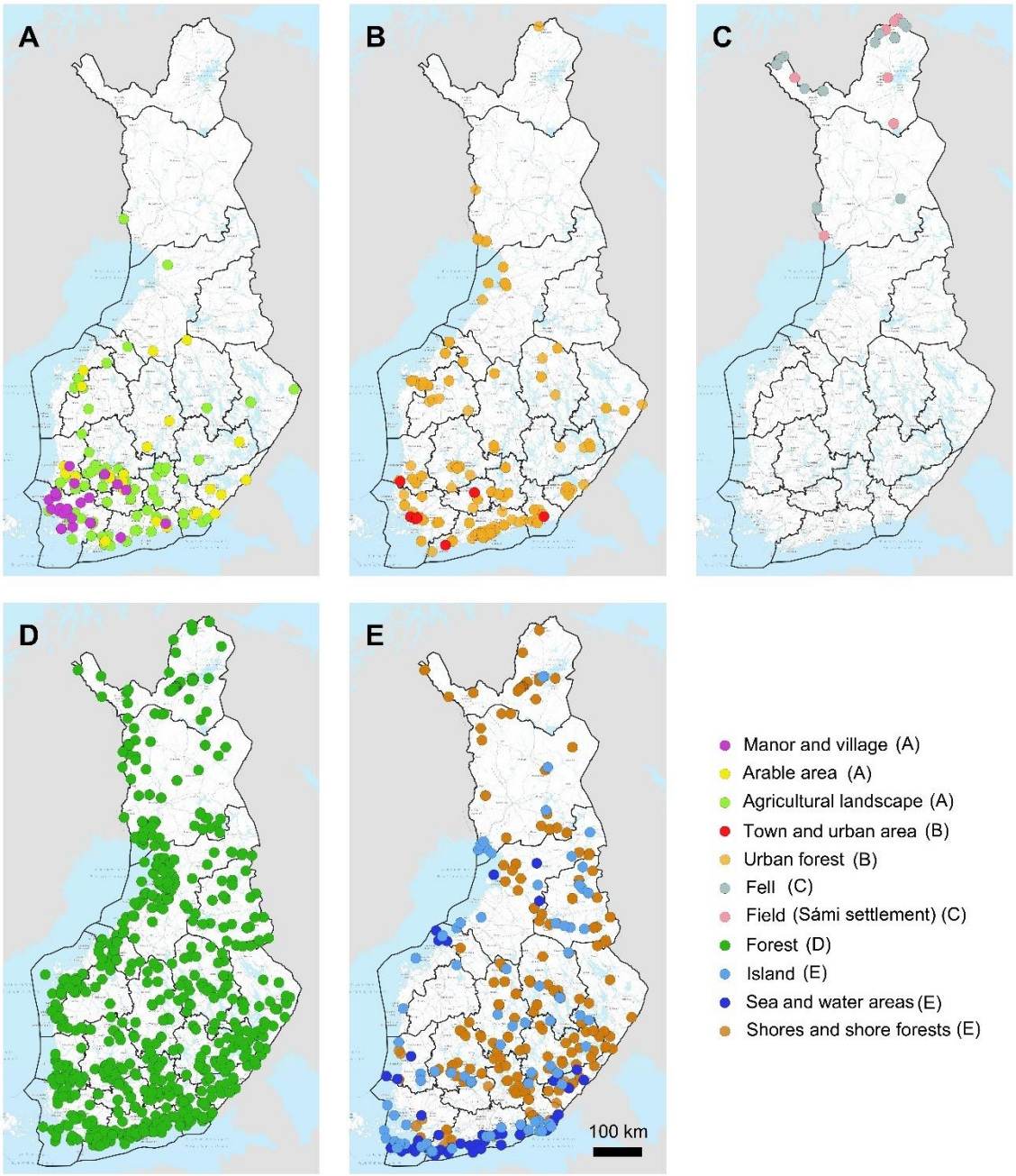
In Finland, most archaeological sites are located in forests or in other natural environments. However, only a small proportion of sites are located in wilderness areas. Many sites lie in areas that have been shaped by human activity for centuries and where nature has adapted to a human presence. Only a small proportion of sites are located in areas extensively altered by human activities, such as population centres and industrial environments.

The surroundings of the VARK sites were examined with the help of topographic maps, orthophotos and archaeological reports. The same features are highlighted in the surroundings of VARK sites as in archaeological cultural heritage in general. More than half of all sites are located in natural environments outside urban areas (Chart 5). The rest of the sites are located in rural areas or aquatic environments. Especially at sites located on the shores of water bodies, the present environment often corresponds to the situation at the time when the site was used.

About 15% of all VARK sites are located in urban areas. These include most of the historic towns and village sites in the VARK inventory, where archaeological sites are located under or adjacent to the current built environment. Many of these sites have been continuously inhabited since the earliest settlement phases.

Archaeological sites located far from population centres are found in all parts of Finland, but most of them are situated in sparsely populated areas such as the Sámi Homeland and other

parts of Lapland. Most of the VARK sites located in agricultural surroundings can be found in arable farming areas in the southern parts of the country.



Map 1. Distribution of VARK sites by surroundings. Background map © National Land Survey of Finland 2022.

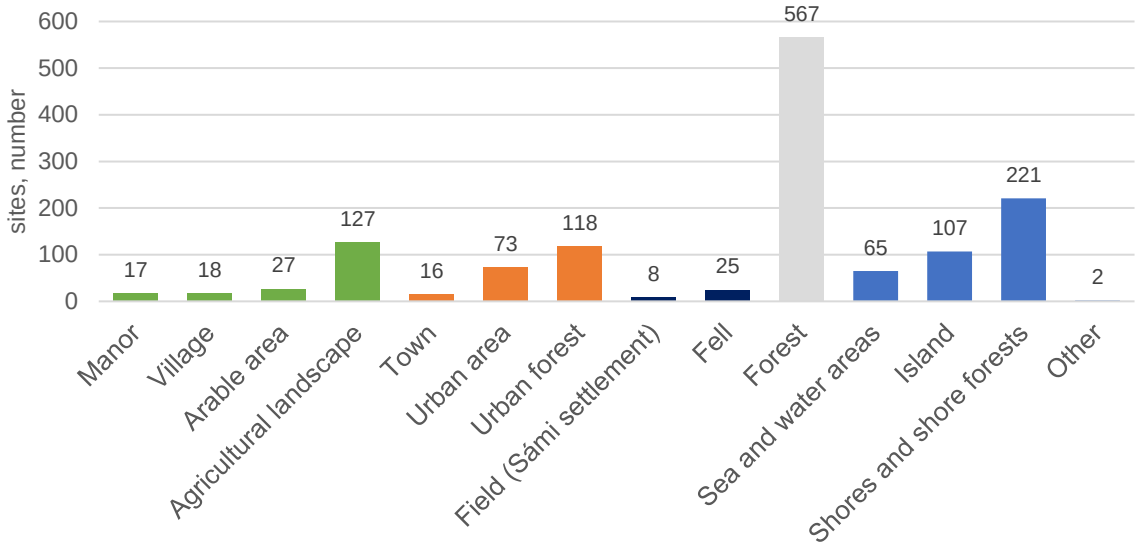


Chart 5. Surroundings of VARK sites (n = 1,391).

16. VARK sites and current planning

The inventories of nationally significant cultural heritage are based on national land use objectives, which are part of the land use planning system specified in the act. As the national land use objectives must be taken into account and their implementation must be promoted in the spatial planning system and land use, it was appropriate to examine how the VARK sites have been taken into account in current planning. The examination was carried out at master plan level using the master plan service produced by the Finnish Environment Institute. At the level of local detailed plans, the examination was limited to information on whether or not the site is located in an area covered by a local detailed plan.

VARK sites in land use plans (n = 1,391)	Number of sites	% of all VARK sites
Area covered by a master plan	869	62%
entered in the master plan	549	39%
not entered in the master plan	320	23%
Area not covered by a master plan	524	38%
Area covered by a detailed plan	206	15%

Table 7. VARK sites in master plans and in areas covered by local detailed plans.

A total of 38% of the sites are located outside areas covered by master plans (Table 7). From the perspective of land use planning, it is particularly important that these sites are entered in regional plans so that they can be taken into account in the planning process.

A total of 869 VARK sites are located in areas covered by local master plans, and 320 of them have not been entered in the master plans. Most of these are settlement sites, but they also include a relatively large number of burial sites. If a site has not been entered in a local detailed plan or the area is not covered by a detailed plan, the site is at potential risk of being damaged or destroyed. The risk is high in areas where a VARK site has been designated as an area where changes in land use can be approved. The situation is particularly worrying in the Uusimaa region, which is the most active area in Finland in terms of land use and construction

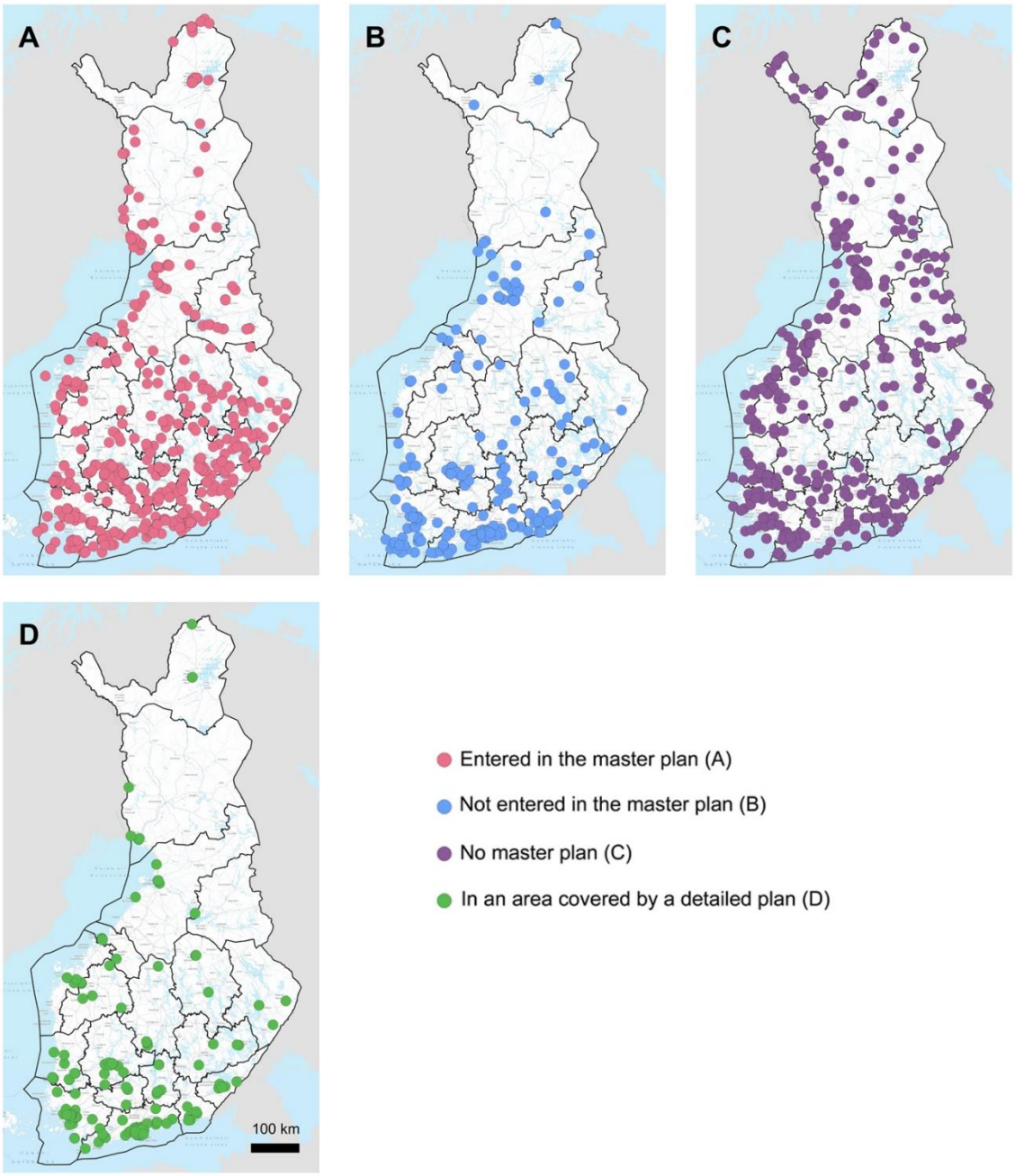
work, and where 121 VARK sites are located in areas covered by local master plans without being entered in them.

In general, 26% to 84% of the VARK sites located in different regions have been entered in master plans (Tables 7 and 8). Most of them (187 sites) are located in areas that are designated as agricultural and forestry areas in master plans. The areas designated as ancient sites come second (SM entry, an area of protected ancient site, *fi muinaismuistoalue*, 183 sites). A total of 45 sites are located in the same area as other kinds of protected areas designated in master plans (such as nature reserves or areas with protected buildings). The remaining 143 VARK sites have been designated as areas for other activities. However, it should be noted that in areas designated as residential areas (21 sites), for example, the building stock already exists.

After an archaeological site has been entered in the local master plan, its preservation in the spatial planning process is secured, at least in principle. In the planning process, however, consideration should also be given to the areas surrounding the VARK sites, which should not be designated as areas for activities that will weaken the sites of national significance.

Region	VARK sites total number	in areas covered by master plans	in areas covered by master plans, % of all VARK sites	entered in master plans	entered in master plans, % of all VARK sites
Uusimaa	241	183	77%	62	26%
Southwest Finland	136	98	72%	54	40%
Satakunta	69	31	45%	19	28%
Häme	44	17	39%	16	36%
Pirkanmaa	95	83	87%	58	61%
Päijät-Häme	50	40	77%	29	56%
Kymenlaakso	80	60	75%	34	43%
South Karelia	36	23	64%	19	53%
South Savo	57	53	93%	48	84%
North Savo	48	32	67%	20	42%
North Karelia	40	28	70%	24	60%
Central Finland	38	28	74%	24	63%
South Ostrobothnia	23	12	52%	9	39%
Ostrobothnia	55	20	36%	16	29%
Central Ostrobothnia	37	14	38%	10	27%
North Ostrobothnia	116	56	48%	32	28%
Kainuu	39	20	51%	15	38%
Lapland	89	39	44%	35	39%
Sámi Homeland	98	31	32%	25	26%

Table 8. VARK sites in master plans, by region.



Map 2. VARK sites and land use planning. Background map © National Land Survey of Finland 2022.

17. Basic information on VARK areas

The VARK areas and the archaeological sites contained in them constitute a sample of all archaeological sites in Finland, which have been selected on the basis of common criteria. In accordance with the objectives set for the VARK inventory, the VARK areas must give a representative picture of Finland's ancient history, both chronologically and on a regional basis. The oldest sites on the list are early settlements dated to right after the Ice Age, and the most recent ones are from the beginning of the 20th century.

This section revises the Finnish past and its regional differences as relayed by the VARK areas. Regional comparisons on the distribution of VARK areas in relation to all registered

ancient sites are analysed. The examination concludes with a chronological analysis focusing on site type.

VARK areas in relation to all ancient sites in Finland

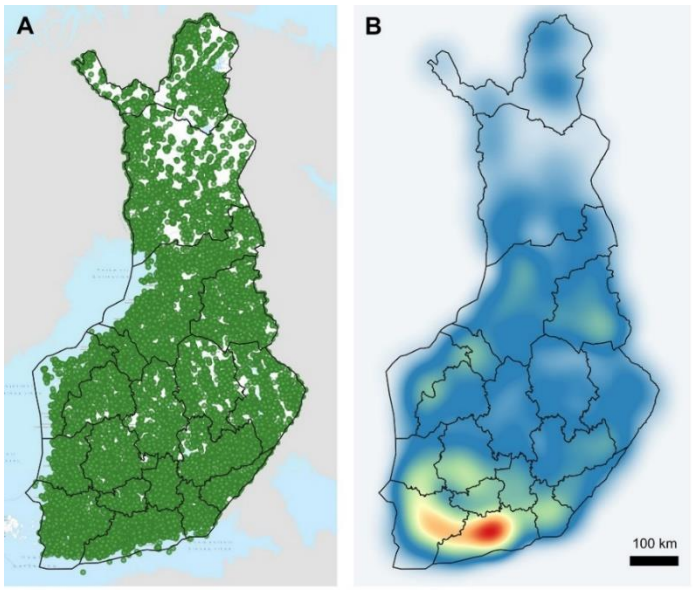
The percentage of VARK sites in relation to all archaeological sites is relatively constant in different regions. Revised by region, VARK sites represent 1.0–4.6% (median 2.4%) of all archaeological sites, and 1.4–6.1% (median 3.5%) of ancient sites protected by the Antiquity Act (Table 9). These differences are at least partially explained by regional variation in research activities, as well as by the numbers and types of the ancient sites.

Region	VARK sites, pcs	VARK areas, pcs.	VARK sites to VARK areas, ratio	% of VARK sites of A*	% of VARK sites of B*	Size of the region, km^2	VARK sites per 100 km^2
Uusimaa	239	150	1.6	2.5%	5.9%	16.058	1.5
Southwest Finland	136	119	1.1	2.2%	4.0%	20.537	0.7
Satakunta	69	58	1.2	3.0%	4.6%	11.493	0.6
Häme	44	19	2.3	2.5%	4.7%	5.709	0.8
Pirkanmaa	95	69	1.4	2.6%	4.7%	15.550	0.6
Päijät-Häme	52	37	1.4	2.7%	4.7%	6.944	0.7
Kymenlaakso	80	56	1.4	3.6%	6.1%	6.767	1.2
South Karelia	36	35	1.0	2.3%	3.9%	6.874	0.5
South Savo	57	48	1.2	2.4%	3.5%	17.100	0.3
North Savo	48	39	1.2	1.9%	3.4%	21.078	0.2
North Karelia	40	37	1.1	1.4%	2.3%	22.901	0.2
Central Finland	38	30	1.3	1.9%	3.1%	19.009	0.2
South Ostrobothnia	23	22	1.0	1.1%	1.8%	14.354	0.2
Ostrobothnia	55	43	1.3	2.6%	3.6%	17.834	0.3
Central Ostrobothnia	37	24	1.5	2.9%	4.2%	6.464	0.6
North Ostrobothnia	116	85	1.4	2.0%	3.1%	45.850	0.3
Kainuu	39	34	1.1	1.1%	1.4%	22,687	0.2
Lapland	89	69	1.3	2.0%	2.9%	64.796	0.1
Sámi Homeland	98	38	2.6	4.6%	5.7%	35.569	0.3

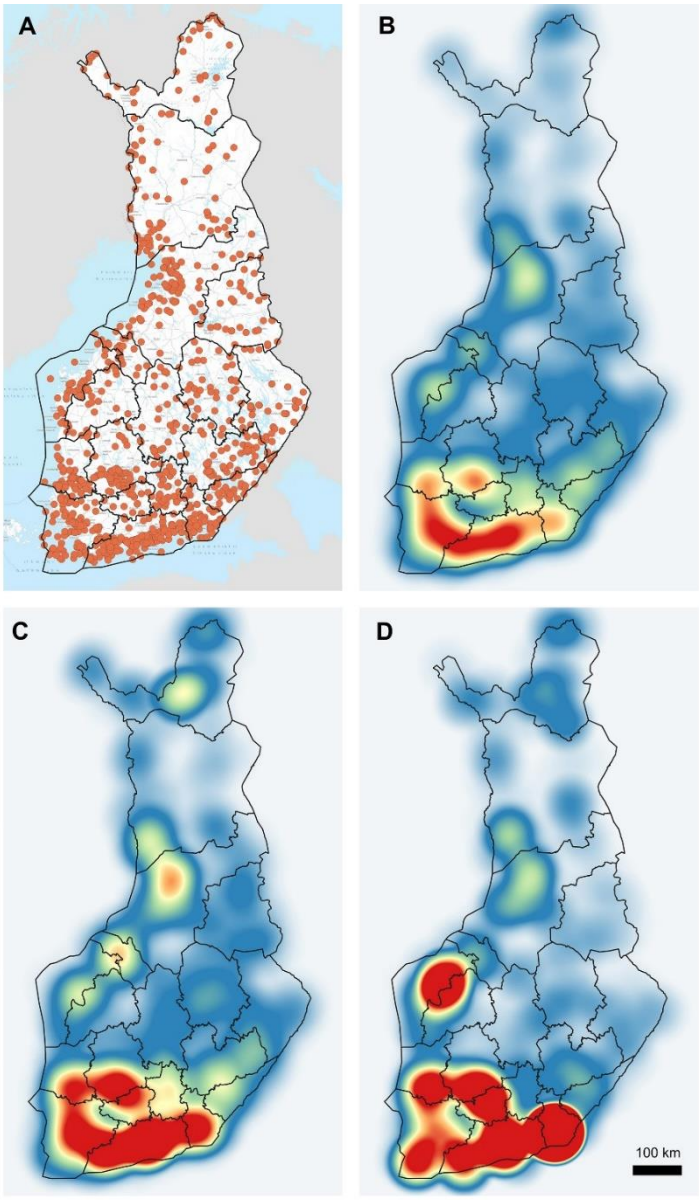
Table 9. The VARK inventory in relation to other archaeological sites by region. A = all archaeological sites. B* = all ancient sites protected by the Antiquity Act.*

For example, the high proportion of VARK sites in the Kymenlaakso region in relation to all ancient sites is probably explained by the sites that are located by the 18th century border between Sweden and Russia, which are rare and few in number, but are well represented in the VARK areas.

When comparing the number of VARK sites to the total area by region, one can say that the occurrence of VARK sites is infrequent. Only the Uusimaa and Kymenlaakso regions have more than one VARK site per 100 square kilometres.



Map 3. Distribution of all ancient sites as points (A) and on a heat map (B). Total number of ancient sites, 21 September 2022 (n = 36,175). Background map © National Land Survey of Finland 2022.



Map 4. Distribution of VARK areas as points (A), distribution of VARK areas on a heat map (B), number of VARK sites on a heat map (C), and surface area of VARK areas on a heat map (D). Background map © National Land Survey of Finland 2022.

As a whole, all VARK areas and ancient sites protected by the Antiquity Act have parallel distributions (Map 3). The area with the largest concentration of both extends from the Uusimaa region through southwestern Finland to the Satakunta region, and further to the Pirkanmaa region inland. This pattern is highlighted especially in the VARK areas, which is explained by the certain types of sites dating to the Iron Age. This will be discussed further below.

The maps below show the geographic distribution of VARK areas (n = 1,010) and VARK sites (n = 1,391) (Map 4). The heat map based on the total number of VARK sites clearly shows the area with the highest concentrations in southern and southwestern Finland. In addition, higher-than-average concentrations of VARK sites can also be found on the Kvarken coast, on the shores of the Bothnian Bay, in the southern parts of the Finnish lake district, and in the Sámi Homeland (Lemmenjoki area).

The heat map showing the distribution of VARK areas gives a slightly different picture from the ones based on the number of VARK sites or the surface area. The main reason for this is that the sites from the Historic Period are often significantly larger in size than the sites from earlier periods, and they have a southward-oriented distribution (Chart 6).

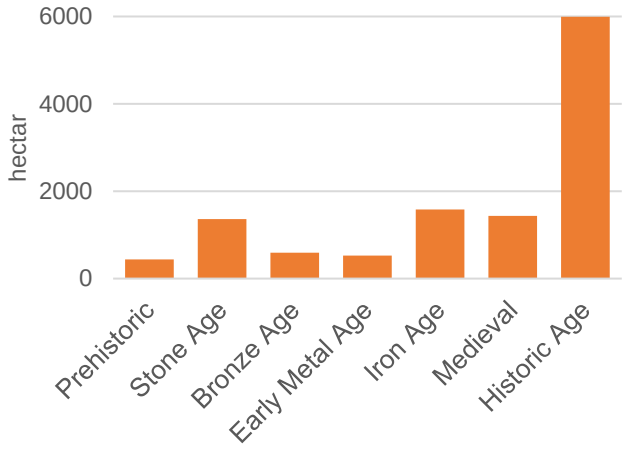


Chart 6. Sizes and chronological components of the VARK areas. Human activities in different periods result in sites of different sizes.

Sizes of VARK areas

There is substantial variation in the sizes of the ancient sites, and thereby, the VARK areas are also of different sizes. Extensive settlements and fortifications contrast with very small sites such as boundary markers, rock paintings or sacrificial stones. The smallest VARK area is 20 m^2 in size, while the largest has a size of 23 km^2 (Table 10).

Most of the VARK areas are of modest size, with a median size of 1.144 hectares. Because many of the VARK areas contain several sites, and the large and significant sites have a higher likelihood to be selected for the VARK inventory, the median size of the VARK areas is prominently larger than among archaeological sites in general (median 0.267 ha).

The data contains one considerably larger VARK area. That is the Ruotsinsalmi VARK area located in the Kymenlaakso region. This includes the site of the largest naval battle (shipwrecks) fought in the Baltic Sea and a number of fortifications. The Ruotsinsalmi VARK area (2,334 ha) accounts for 28% of the total size of all VARK areas. It is considerably larger than the second and third largest VARK areas (the site of the Oravais battle with 313 ha, and the Hakoinen VARK area with 221 ha).

With the exceptionally large Ruotsinsalmi VARK area, the Kymenlaakso region accounts for about one third of the total size of VARK areas (Table 11). After removing this one site, which distorts the whole, only the VARK areas located in Uusimaa, southwest Finland, and North Ostrobothnia account for more than 10% of the total size of VARK areas (Chart 7).

	Hectares
Average	8.125
Median	1.144
Range	0.002–2334
Sum	8,214.475

Table 10. Size indicators for VARK areas.

Region	Size of VARK areas, ha	% of total size of all VARK areas
Uusimaa	1,168	14%
Southwest Finland	677	8%
Satakunta	383	5%
Häme	369	4%
Pirkanmaa	466	6%
Päijät-Häme	72	1%
Kymenlaakso	2,598	32%
South Karelia	98	1%
South Savo	140	2%
North Savo	98	1%
North Karelia	93	1%
Central Finland	100	1%
South Ostrobothnia	239	3%
Ostrobothnia	592	7%
Central Ostrobothnia	74	1%
North Ostrobothnia	347	4%
Kainuu	71	1%
Lapland	298	4%
Sámi Homeland	331	4%

Table 11. Size of VARK areas, by region. The exceptionally large Ruotsinsalmi VARK area located in the Kymenlaakso region has distorted the percentages.

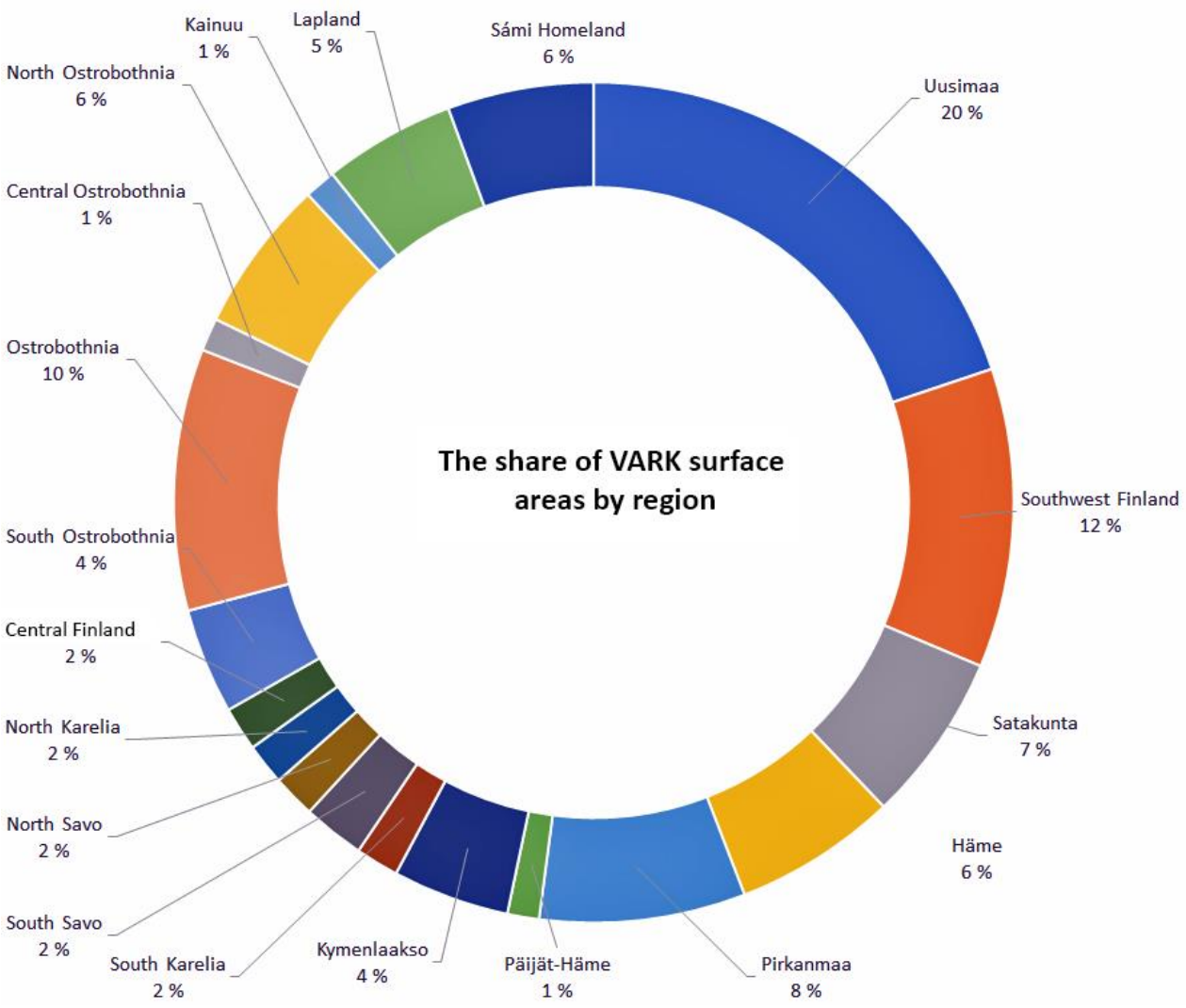


Chart 7. The share of VARK surface areas by region. The exceptionally large Ruotsinsalmi VARK area located in the Kymenlaakso region has been removed from the data.

18. Distribution of VARK areas

The distributions of VARK areas by period[13], by site location[14], and by site type were examined using the data stored in the Register of Ancient Sites. The analysis applies the main periods describing the dating of the sites, which are Stone Age, Bronze Age, Early Metal Period, Iron Age, Medieval Period and the Historic Period. Stone Age is further divided into Mesolithic and Neolithic Stone Age.[15] Each site can be dated to one or several periods, and can contain one or several site types.

By period

The share of VARK sites from the Stone Age and Bronze Age corresponds rather well to their proportion of all ancient sites (Chart 8). The younger VARK sites dating to the Early Metal

[13] See Appendix 1: Table of prehistoric and historical periods in Finland.
[14] See Appendix 2: Map of regions and their capitals in Finland.
[15] According to Finnish chronology, the beginning of the Neolithic Stone Age is marked by the occurrence of pottery production.

Period, Iron Age, Medieval Period and Historic Period, on the other hand, are over-represented in the VARK sites compared to their frequency in the register.

The over-representation of the younger VARK sites is explained by several factors. Firstly, there are relatively few sites dating to these periods, which applies with regional variations particularly to the Early Metal Period, Iron Age and Medieval Period. Secondly, since the beginning of the Iron Age, the rapid cultural transformation creating both new kinds of objects and new types of sites resulted in much greater variation than before. Consequently, the younger sites contain several rare and distinctive sites that are significant in terms of research history. In the Historic Period, the diversification of human activities became even greater, resulting in new site types (mines, manors, churches, castles, and industrial sites, etc.). Due to these characteristics, the younger sites are more likely to be included in the VARK inventory.

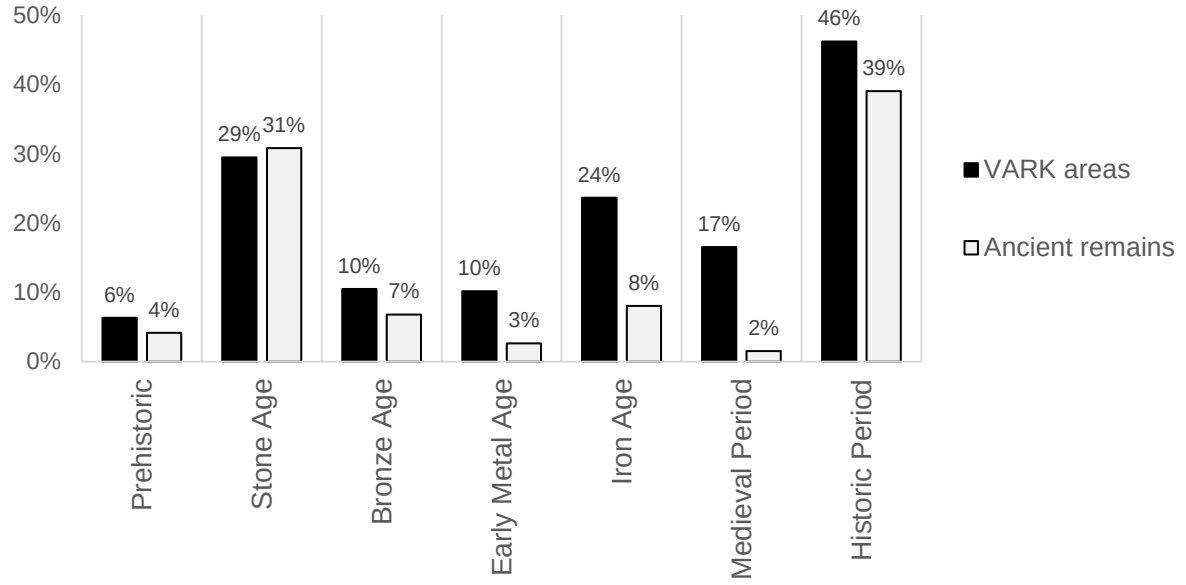
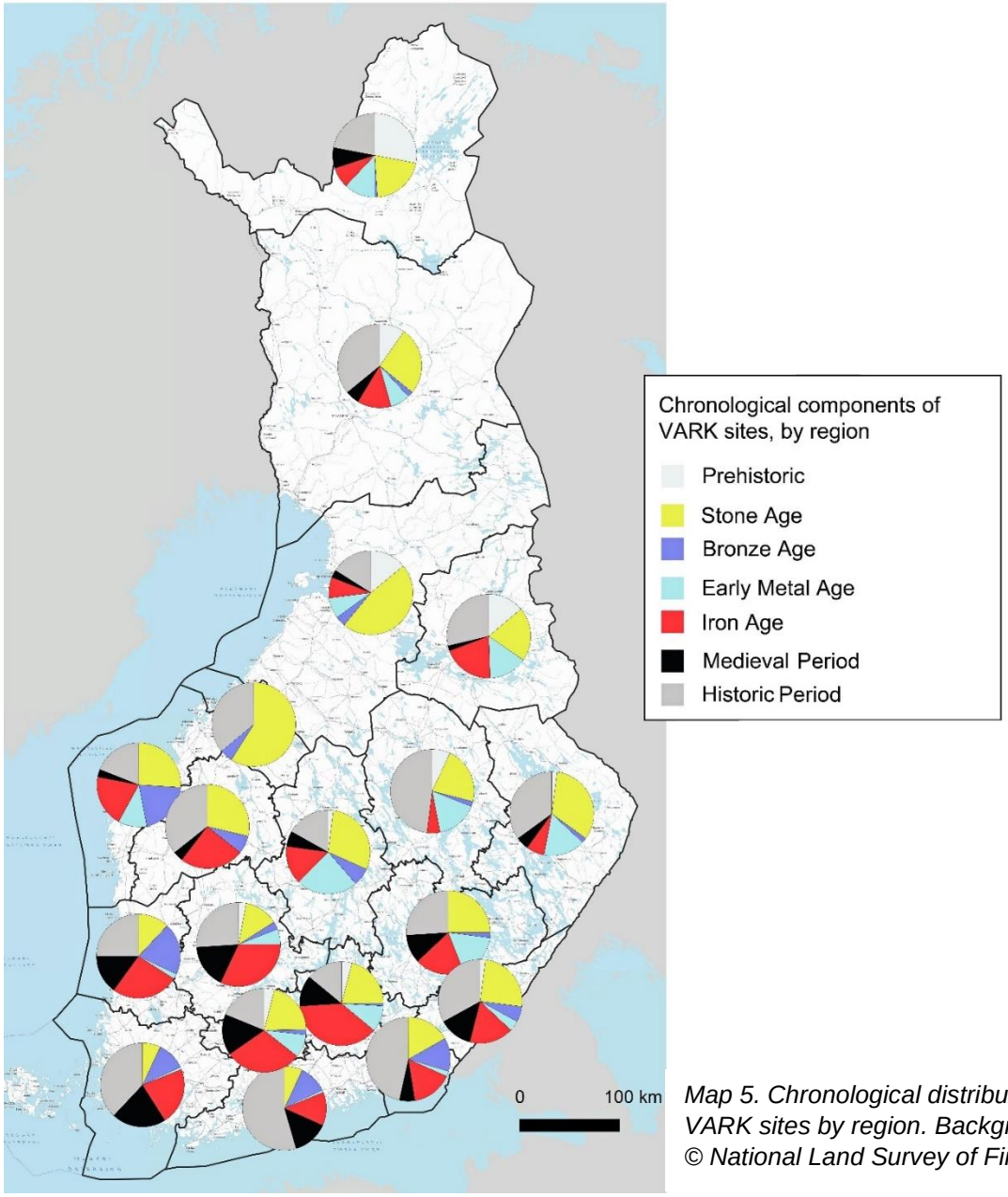


Chart 8. Distribution of VARK sites and all ancient sites from different periods (Register of Ancient Sites, 21 September 2022).

The distribution of VARK sites by period gives a fairly correctly emphasised picture of the ancient sites located in the regions of Finland (Map 5). The most evident dividing line can be seen close to the border agreed in the Treaty of Nöteborg (1323), which runs roughly from southeastern Finland to the Bothnia Bay on the west coast. The proportion of Iron Age and Medieval sites is at its highest to the south-southwest of this line.

Stone Age sites are common especially in the Central and North Ostrobothnia regions, the northernmost Baltic Sea. There are plenty of Neolithic housepits in that area, and the evolution in shape and size of the housepits is very observable there. The coastal area from Kvarken on the west coast to the eastern Gulf of Finland is particularly rich in Bronze Age sites due to the frequent occurrence of cairns. In inland and northern Finland, the sites dating to the Bronze Age and to the beginning of the Iron Age are commonly labelled as Early Metal Period.

The number of undated prehistoric sites, including those that have the term ‘prehistoric’ as one of their dating attributes, is greatest in the northern parts of Finland. This is explained by the common lack of structures and objects that enable precise dating. The natural environment in that area has also remained unchangeable, which has resulted in conditions in which the same locations have been used for human activities through the era.



Map 5. Chronological distribution of VARK sites by region. Background map © National Land Survey of Finland 2022.

In North Ostrobothnia, the northernmost Baltic Sea, the constant environmental change caused by a rapid rate of land uplift[16] has resulted in a large number of prehistoric sites that were once located close to the seashore but that are currently placed at different elevations over vast areas inland. In addition to shore-bound sites that can be dated with the help of land uplift chronology, in this part of Finland, there are also many inland sites (such as storage pits made in boulder fields and diverse types of stone cairns) that cannot be dated more precisely than loosely prehistoric.

[16] Land uplift that started after the Ice Age is particularly rapid in the area around the Gulf of Bothnia. During the Ice Age, ice masses pressed the Earth's crust downwards. After the ice had melted, the pressure eased, and the Earth's crust slowly started to rebound. The land uplift is still continuing. This phenomenon has had a major impact on the natural environment, especially in the coastal areas.

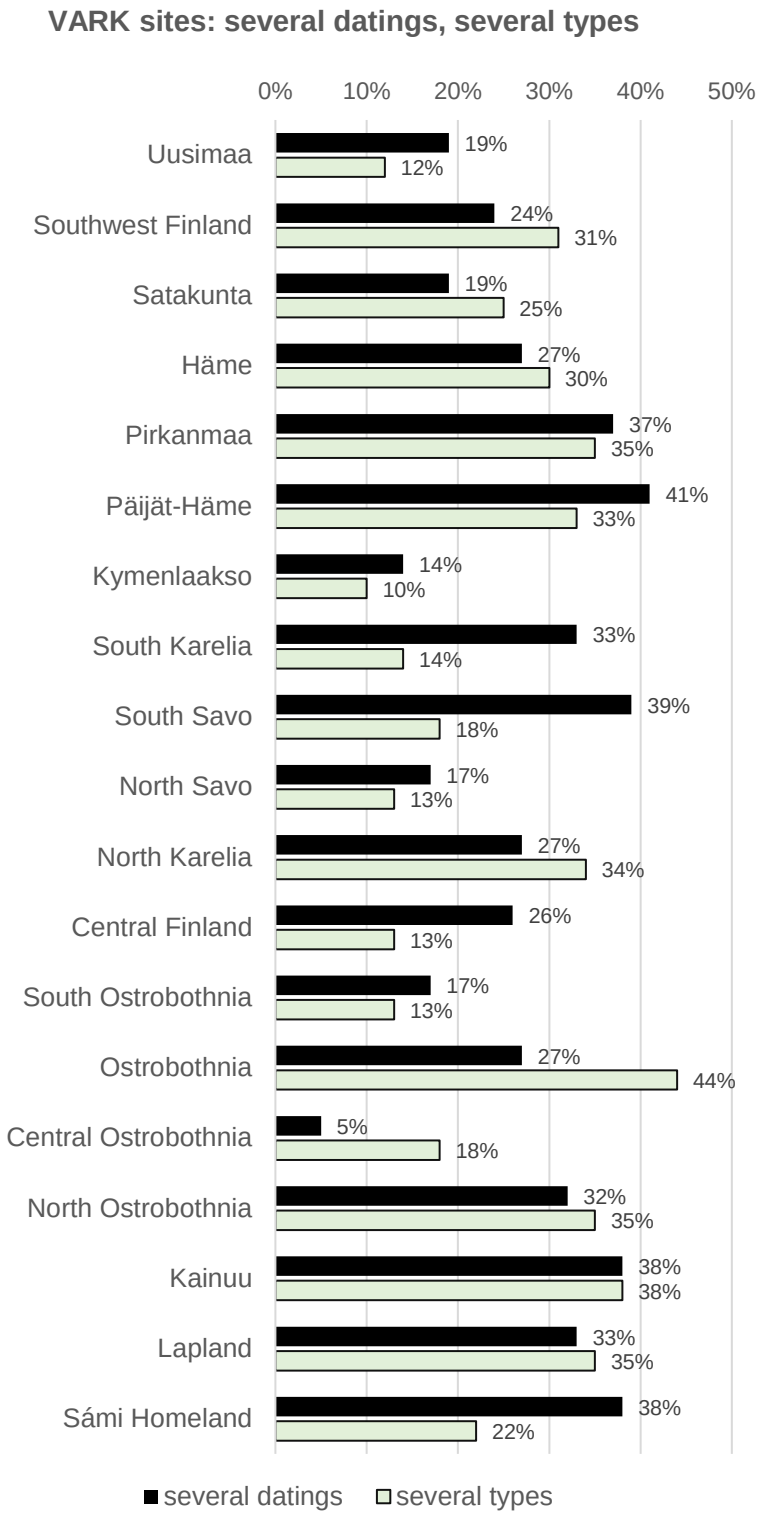
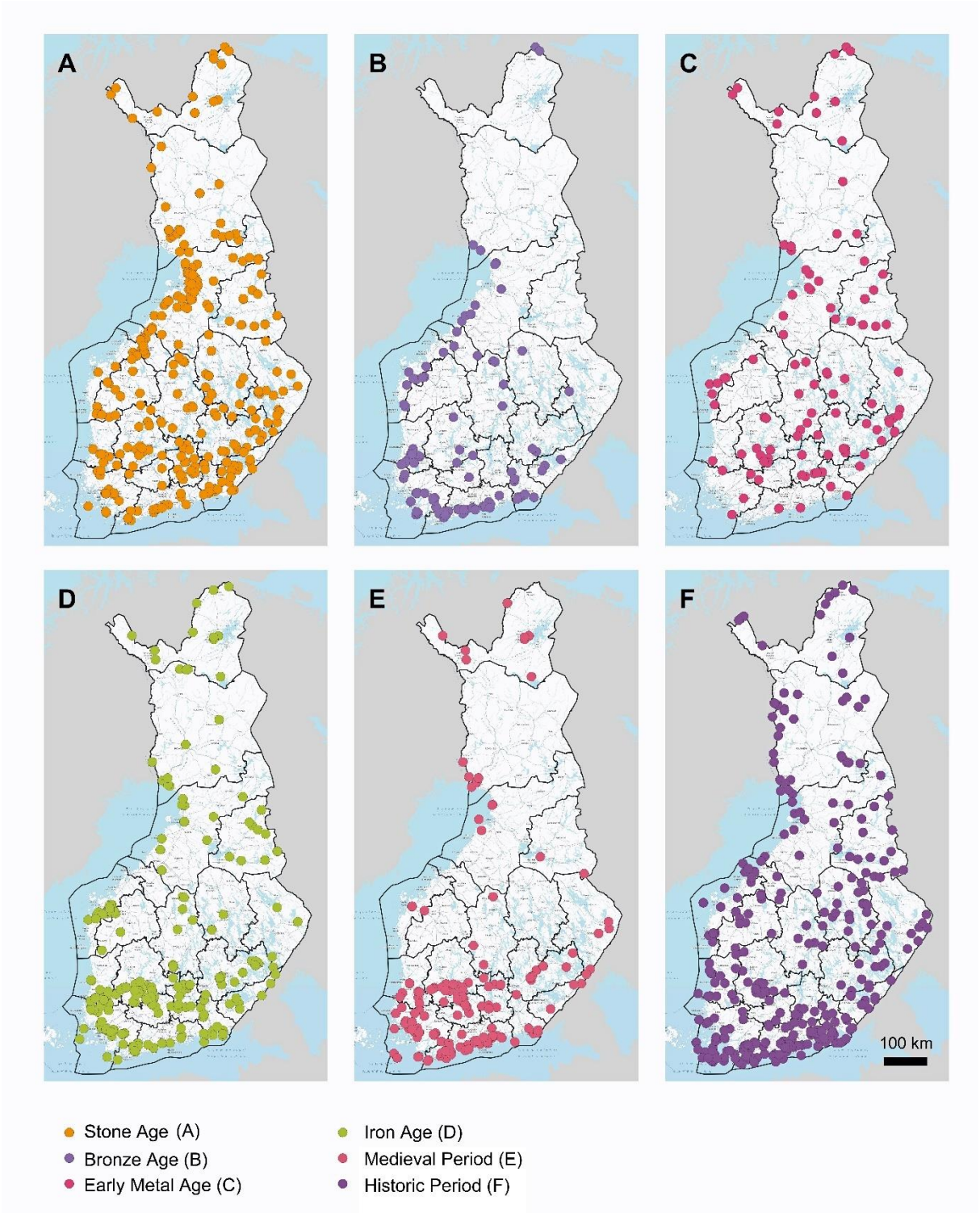


Chart 9. Percentage of VARK sites dating to several periods and containing several site types, by region. The Mesolithic and Neolithic Stone Age are considered as two separate periods. The Iron Age and the Historic Period are not divided into sub-periods.



Map 6. Distribution of VARK areas by period. Background map © National Land Survey of Finland 2022.

Constant human activity in the same places can be examined on the basis of the VARK sites (Chart 9). In coastal areas, rapid land uplift and subsequent changes in the environment have affected sites in such a way that the sites dating to different periods are typically located in different places. In the coastal regions, on average fewer than 20% of the VARK sites are dated to several periods. In inland regions, the corresponding figure is over 30%. Obviously, the relatively stable environment inland has promoted human settlement in the same areas at

different times. Even if there are regional variations in the settlement continuum, in some areas, it is clearly based on the continuum between younger (Iron Age – Medieval Period – Historic Period) or older periods (Stone Age – Bronze Age/Early Metal Period).

Spatial point data shows clear regional differences in the geographical distribution of the VARK sites dating to different periods (Map 6). The *Stone Age sites* are relatively evenly distributed throughout the country. Most of the concentrations are in areas that were on the coast during the Stone Age.

For cultural historic reasons, the *Bronze Age* and the *Early Metal Period* constitute partially overlapping periods. Accordingly, the coastal zone is emphasised by plenty of Bronze Age cairns that are VARK sites, while the Bronze Age and the Early Iron Age sites inland and in northern Finland are often labelled as Early Metal Period sites.

Later, during the Iron Age and the Historic Period, there are no major distinctions in the distribution of VARK sites. During these periods, the densest clusters of sites are located in southern Finland, and the rest of the country is more or less sparsely populated.

By site type

A total of 17 different types of ancient sites are listed in the Register of Ancient Sites (such as settlement sites, burial sites, and industrial sites), and they are further divided into more than 200 sub-types (such as housepits, cremation cemeteries and blast furnaces). As expected, settlements and burial sites are the most common VARK site types (Chart 10), and they are present in abundance in the VARK areas of each period.

In every region, the share of multi-type sites is rather high, varying between 10% and 44% of VARK sites (Chart 9). There is no kind of correlation between the occurrence of multi-type sites and the occurrence of sites dated to several periods.

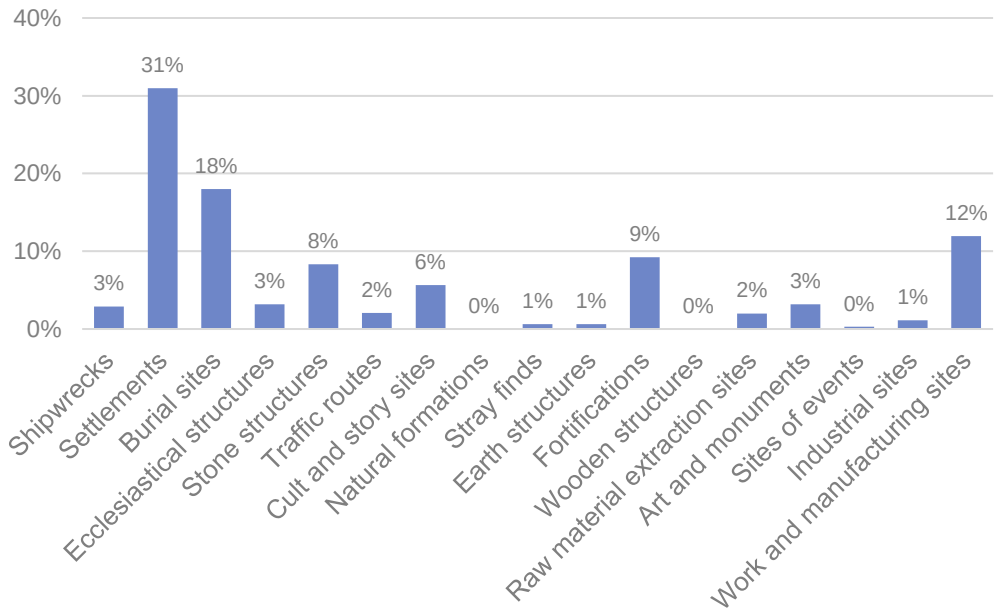


Chart 10. Share of site types included in the VARK inventory. Classification according to the Register of Ancient Sites.

19. Regional characteristics by period

This section examines the regional differences and characteristics of archaeological heritage based on the VARK inventory. The division into main periods is used: Stone Age, Bronze Age, Early Metal Period, Iron Age, Medieval Period, and Historic Period. The more detailed chronological processes are highlighted in the text using the site types used in the map presentations.

Stone Age

Most of the sites dating to the Mesolithic Stone Age (8850–5200 BC) are settlements without any visible structures on the ground. Mesolithic VARK sites are found in different parts of Finland (Map 7A). During the Mesolithic Stone Age, the sea level was significantly higher than during later periods, and therefore, the Mesolithic sites are located further away from the present coast than the sites dated to the Neolithic Stone Age.

The range of site types dating to the Neolithic Stone Age (5200–1700 BC) is slightly more diverse compared to the preceding Mesolithic period. Some of the Neolithic settlement sites have structures visible on the ground. Certain site types included in the VARK inventory are highlighted (Maps 7B–7C) to give a better picture of the regional differences during the Neolithic Stone Age.

Housepits (foundations of dwellings made partly below ground level), which are dated for the most part to the Neolithic period, constitute a widespread phenomenon visible on the ground. They are mainly located in areas south of the Arctic Circle (Map 7C). However, housepits are rare in the arable areas of southern Finland, which is at least partly explained by the fact that agricultural activities have potentially destroyed the remains of the housepits.

The largest number of housepits are found in the coastal areas of the Bothnian Bay, where rapid land uplift has divided housepit sites from different periods across different elevations. In this region, housepits have also evolved over time from smaller round depressions to larger elongated ones with corridors between the multiple rooms. In addition to extensive settlements featuring housepits, the area is known for “giant’s churches” (large enclosures with stone walls, *fi jätinkirkko*), which often feature together with housepits, cairns with central pits, and heaps of burnt stone.

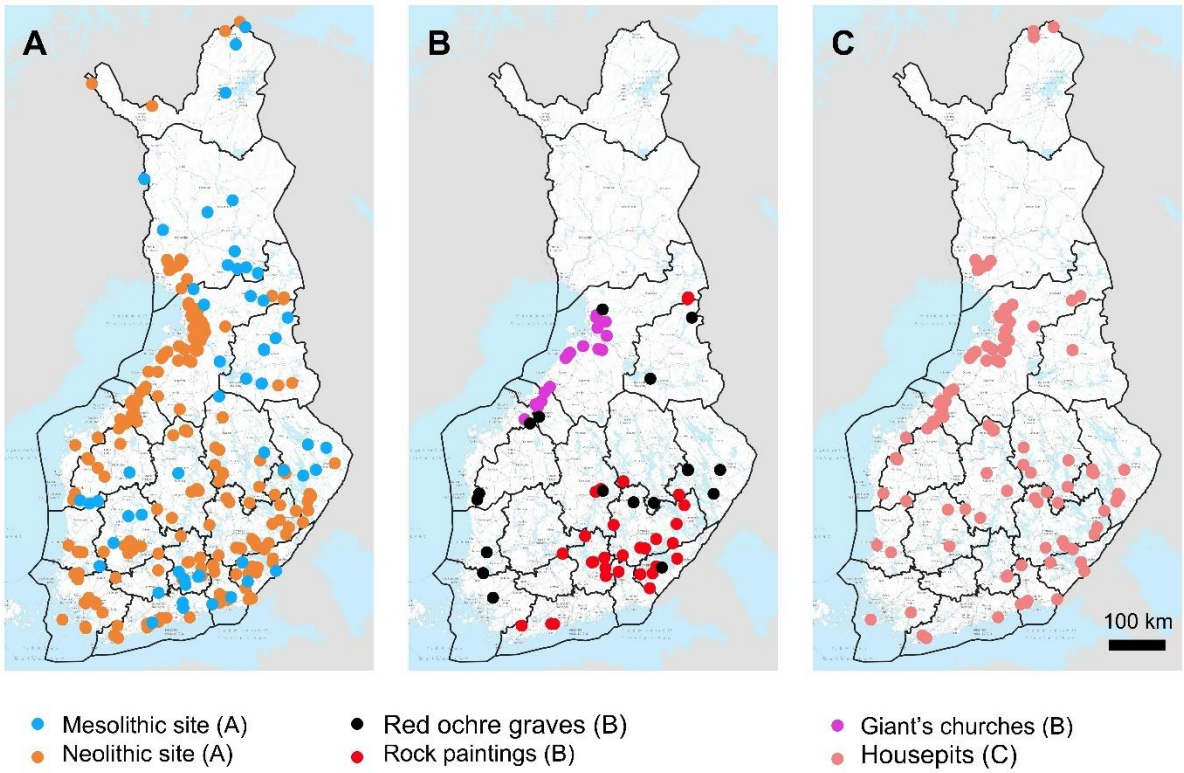
Picture 8. A Neolithic housepit with a diameter of 11 metres is seen in the terrain as a depression surrounded by a wall. Site: Pyhäkoski 1 in Muhos, North Ostrobothnia. Photo: Teemu Mökkönen 2020, AKDG6386:1, Finnish Heritage Agency.

Picture 9. Most rock paintings are dated to the Neolithic Stone Age and are found in the Finnish lake district. They were painted on vertical rock walls, and many of them are located by waterways. The painting shown in the picture is characterised by bright colours and easily identifiable human figures. Site: Kolmiköytisienvuori in Ruokolahti, Lake Saimaa area. Photo: Teemu Mökkönen 2021, AKDG6894:2, Finnish Heritage Agency.

Picture 10. Giant's churches are large enclosures with stone walls. They date to the Neolithic Stone Age. The giant's church shown in the picture is the largest in Finland (36 by 64 metres), and its stone wall is up to two metres in height. Site: Kastelli Linnakangas in Raahe, North Ostrobothnia. Photo: Vesa Laulumaa 2015, AKDG6942:4, Finnish Heritage Agency.

Rock paintings painted with red ochre are found in the southern parts of the Finnish lake district (Map 7B). They date mainly to the Neolithic Stone Age. Most of the large burial sites with inhumation graves covered in red ochre have been found in southern Finland, as well. Individual graves, however, have been found at Neolithic settlement sites in a wider area south of the Arctic Circle.

During the Neolithic period, pottery became widespread mainly in the areas south of the Arctic Circle. In the north, a small number of pottery pieces have been found, but the use of pottery did not become a permanent feature in Lapland during the Neolithic period. This cultural boundary, located a little south of the Arctic Circle, can also be seen in the distribution of Neolithic settlement sites with housepits.



Map 7. Distribution of VARK areas dated to the Stone Age. Background map © National Land Survey of Finland 2022.

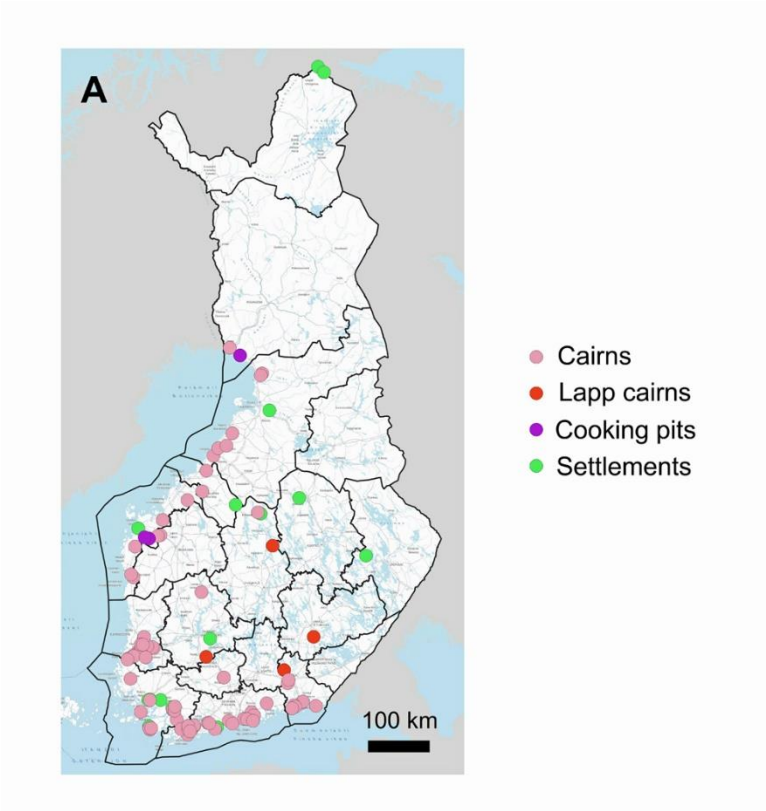
Bronze Age and Early Metal Period

The Bronze Age (1900/1700–500 BC) and the Early Metal Period (1900 BC–AD 300) are partially overlapping periods. The Early Metal Period comprises the Bronze Age and almost the entire Early Iron Age. It is in use as one prehistoric period especially inland and in northern Finland, where several phenomena that occurred during the Bronze Age continued rather unchanged until the Early Iron Age.

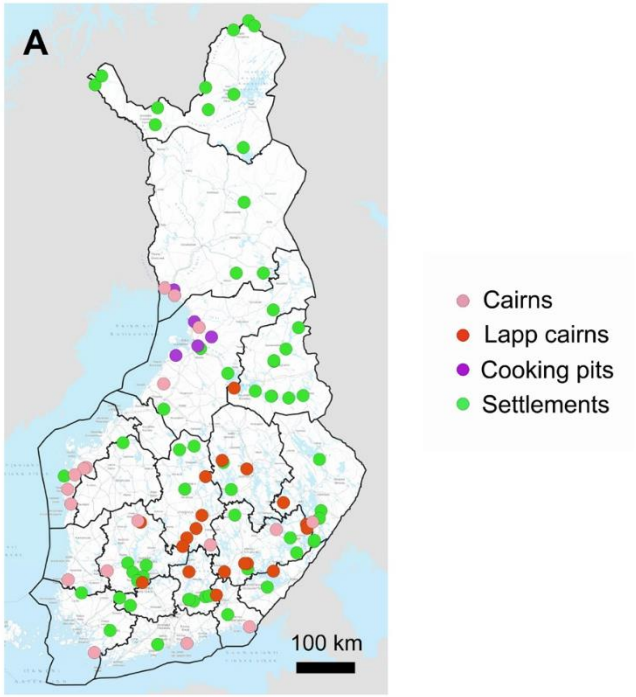
A large proportion of the sites dated to the Bronze Age are located in the coastal areas (Map 8). There, most of the sites are burial cairns known as "giant's stoves" (*fi hiidenkiuas*). Many of these are quite large, and they may contain a cist made of flat stones. The coastal area was connected to the Scandinavian Bronze Age culture via the Baltic Sea. At the same time, inland and northern regions of Finland were part of the Eastern cultural sphere, where cultures producing regional variants of textile pottery spread from the upstream of the Volga River to Estonia and Finland.

The inland cairns built during the same period as the coastal cairns are known as "Lapp cairns" (*fi lapinraunio*) (Map 9). These are often fairly low and located on cliffs by lakes. Research has dated some of these cairns more specifically to the Bronze Age. The two largest concentrations of Lapp cairns are located in the Kuopio area and in the Ristiina district in the town of Mikkeli, both located in the River Vuoksi catchment area of Eastern Finland.

Bronze Age and Early Metal Period settlement sites are found in greater numbers inland than in the coastal areas. Cooking pits, which were probably used to produce oil from seal fat, are also typical of the Early Metal Period sites on the Bothnian Bay coast.



Map 8. Distribution of VARK areas dated to the Bronze Age. Background map © National Land Survey of Finland 2022.



Map 9. Distribution of VARK areas dated to the Early Metal Period. Background map © National Land Survey of Finland 2022.

Picture 11. Many of the Bronze Age cairns located in the coastal areas are quite large. They are also called "giant's stoves" (fi hiidenkiuas). Site: Viitamäki in Salo, southwestern Finland. Photo: Vesa Laulumaa 2014, AKDG5438:3, Finnish Heritage Agency.

Picture 12. Many of the Early Metal Period cairns in the Finnish lake district are modest in size and often covered by vegetation. They are often called "Lapp cairns" (fi lapinrauniot). Site: Kemilä in Pielavesi, North Savo. Photo: Teemu Mökkönen 2019, AKDG5789:1, Finnish Heritage Agency.

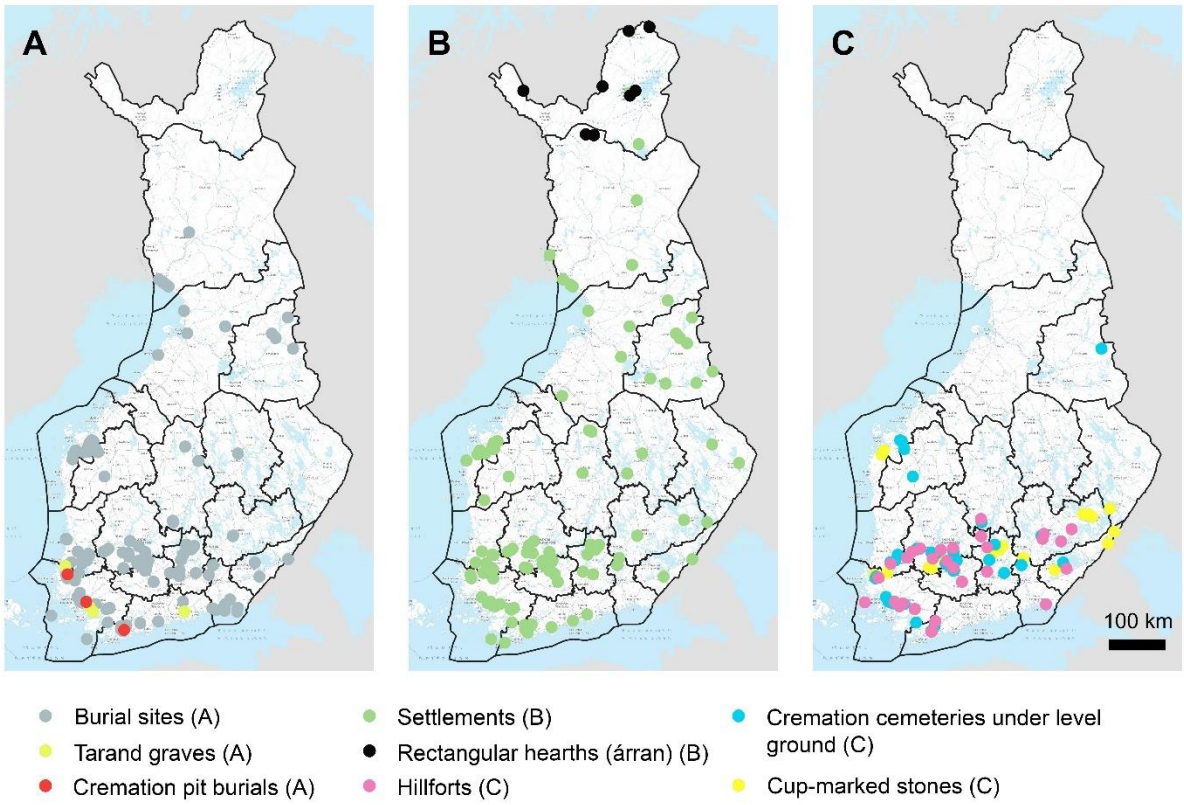
Iron Age

In the course of the Iron Age, the cemetery zone first established in the coastal area between the Satakunta and Uusimaa regions expanded towards the interior of the country from southwestern Finland. By the end of the Iron Age, several settled areas occurred in the southern parts of Finland.

In the Early Iron Age (500 BC– AD 400, including the Pre-Roman and Roman Iron Ages), new burial practices (such as burial mounds, tarand graves and cremation pit burials) came into existence alongside cairns in the coastal area, stretching from Satakunta to Uusimaa (Map 10A). The easternmost known tarand grave is located in Porvoo in the Uusimaa region. The parallels for these new kinds of burials are found in Sweden and the Baltic countries. Towards the end of the Early Iron Age, cemeteries spread inland from the Satakunta region via the Kokemäenjoki river. A discrete cemetery area developed in Ostrobothnia. At the same time, cairns were still built in inland and in other parts of Finland.

During the Middle Iron Age (AD 400–800), inland settlements spread to wider areas in the Pirkanmaa and Häme regions. At first, settlements in Ostrobothnia expanded, but at the end of this period, the population first declined and then disappeared completely during the Viking Period. In the latter half of the Middle Iron Age (the Merovingian Period), a new type of cremation cemetery, known as a cremation cemetery under level ground, developed and remained in further use until the early Crusade Period (Map 10C).

At the end of the Middle Iron Age, and especially during the Late Iron Age (AD 800–1200/1300), the cemetery area spread further to the east (to the Päijät-Häme, South Savo and South Karelia regions). Iron Age hillforts are also located in the cemetery area of southern Finland (Map 10C). By the end of the Iron Age, permanent settlements and cemeteries had also appeared along the Tornionjoki River and at the mouth of the Iijoki River, both located in the northernmost part of the Bothnian Bay.



Map 10. Distribution of VARK areas dated to the Iron Age. Background map © National Land Survey of Finland 2022.

In the Middle Iron Age, inhumation burials gradually gained ground alongside cremation. During the Crusade Period, inhumation burial without grave goods slowly became more common in western parts of southern Finland, while in the eastern parts of the country, Karelian cultural influences became stronger, and bodies were still buried with grave goods.

There are a few Iron Age sites to the north of the cemetery area. This area is considered to have been inhabited by the Sámi people. Burial sites and cemeteries are also known in the Finnish lake district and the coastal areas of the Bothnian Bay. Late Iron Age sites with limited structures, some metal objects and burnt bones, especially those discovered in the Kainuu region in recent years, have been linked to the Sámi people. In the northernmost parts of Finland, Sámi settlements dating to the Late Iron Age and the Middle Ages are signified by rectangular hearths used in tents (Map 10B).

Picture 13. An Early Iron Age (Early Roman Period) tarand grave and low cairns located in a forest. Site: Salisuonmäki in Rauma, Satakunta. Photo: Teija Tiitinen 2020, AKDG6550:2, Finnish Heritage Agency.

Picture 14. A cemetery dated to the Late Roman Period or the Migration Period. The picture shows a round cairn and a four-sided cairn with a large standing stone in the middle. Site: Furunabb in Parainen, southwestern Finland. Photo: Helena Ranta 2017, AKDG5472:1, Finnish Heritage Agency.

Picture 15. A cairn dated to the Migration and Merovingian Periods, Middle Iron Age. The low and flat-topped cairn has been assembled around a large central stone. The cairn is ten metres in diameter. Site: Kalliolaakso/Kiimakangas in Laihia, Ostrobothnia. Photo: Teija Tiitinen 2021, AKDG6818:3, Finnish Heritage Agency.

Picture 16. In a cremation cemetery under level ground, the bones of cremated bodies were laid between stones underneath the current peat layer. Only a few of the individual burials have been identified at this site dated to the Viking Period, Late Iron Age. Site: Vainionmäki in Laitila, Southwestern Finland. Photo: Teija Tiitinen 2020, AKDG5668:4, Finnish Heritage Agency.

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Picture 17. The Vanhalinna hillfort stands on top of a rock in between the Aurajoki River and the Häme Ox Road (fi Hämeen Härkätie). It was in use from the Bronze Age to the Medieval Period. It probably served as the key fortification in the Aurajoki valley throughout the Iron Age. Site: Vanhalinna in Lieto, southwestern Finland. Photo: Teija Tiitinen 2005, AKDG5674:3, Finnish Heritage Agency.

Picture 18. Inhumation burials at the Luistari cemetery date from the 6th century AD to the 12th century AD. The cemetery area is currently located in a meadow. Site: Luistari in Eura, southwestern Finland. Photo: Leena Koivisto 2005, AKDG758:2, Finnish Heritage Agency.

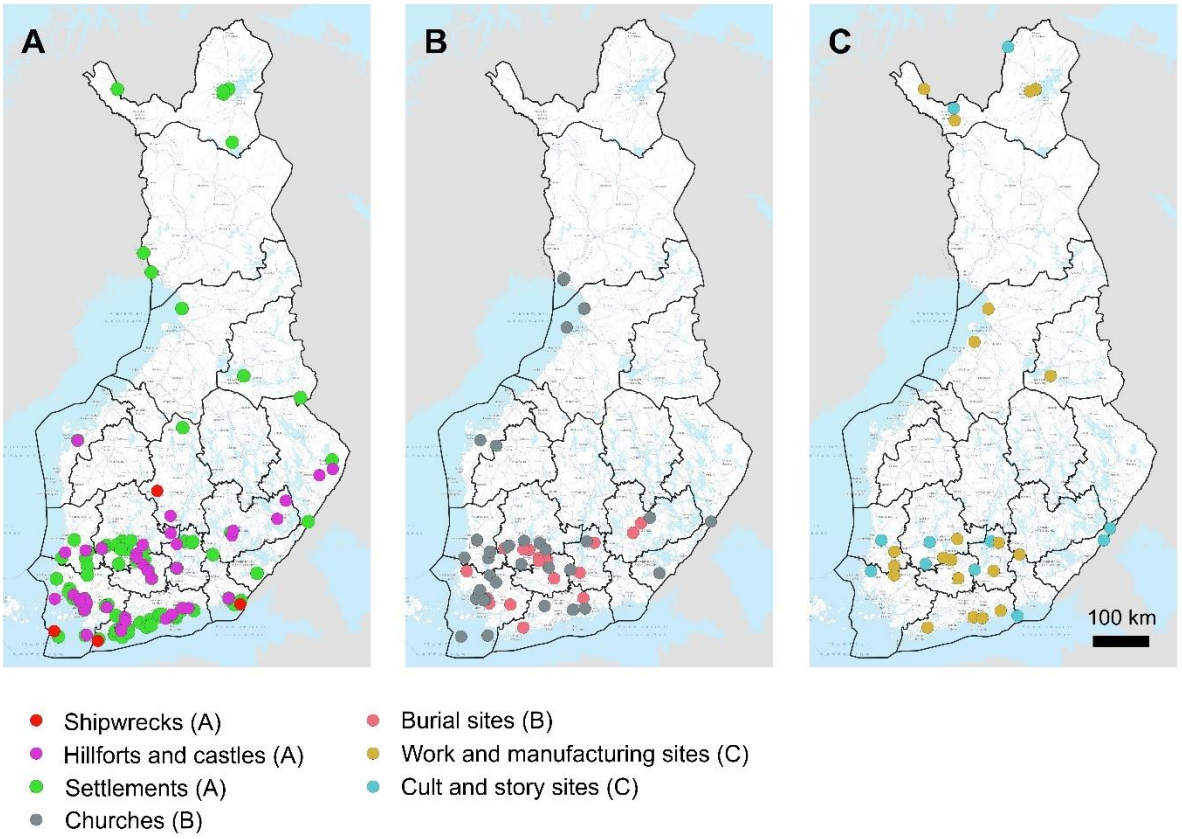
Picture 19. The worship stone at Taatsi Sieidi, where the first sacrifices were made at the end of the Iron Age during the Crusade Period. The site is located on the shore of a narrow gorge lake. Site: Taatsi and Taatsinkirkko in Kittilä, Lapland. Photo: Jouni Taivainen 2019, AKDG5975:2, Finnish Heritage Agency.

Medieval Period

The Medieval Period began approximately between 1150 and 1300 AD, first in the southern part of the country and then slightly later in the north. Most of the medieval sites in Finland are located in the southern parts of the country, in the same area as the Late Iron Age cemetery zone. Most of the medieval settlement sites, castles, burial sites and ecclesiastical sites are located in this area (Map 11A–11C).

Medieval hillforts are known in more eastern locations than previously (in the South Savo and North Karelia regions). Churches were located throughout the coastal area. Towns now appear as a new type of settlement. They are (in chronological order): Turku, Ulvila, Porvoo, Rauma and Naantali, which are all VARK sites. The oldest shipwrecks in the Finnish sea areas are dated to the Medieval Period, too. These are found along the coast of southern Finland.

The medieval work and manufacturing sites also include new types of sites, such as tar kilns, iron manufacturing sites and limestone quarries. Cult and story sites include sieidis, which are secret natural places that are often marked by anomalous stones, located in the Sámi Homeland. The sites in southern Finland also include cup-marked stones (sacrificial stones), which are difficult to date, and some of them may date to the Iron Age.



Map 11. Distribution of VARK areas dated to the Medieval Period. Background map © National Land Survey of Finland 2022.

Picture 20. The oldest known hillforts in North Karelia are dated to the Medieval Period. The Linnakukkula hillfort is located on a distinctive hill in the middle of a mire. Site: Linnakukkula in Joensuu, North Karelia. Photo: Teemu Mökkönen 2019, AKDG5933:1, Finnish Heritage Agency.

Picture 21. A large number of ecclesiastical sites are known from the Medieval Period. A bishop's castle protected by walls and a moat stood at Koroistenniemi in the 13th century. The walls are visible in an aerial photograph. Site: Koroistenniemi in Turku, southwestern Finland. Photo: C.J. Gardberg 1972, 2807 kinodia, Turku Museum Centre.

Picture 22. The medieval town of Naantali, which was founded in the 15th century, used to cover the area visible in the middle of the aerial photograph behind the rock, where the current buildings are older and smaller than in the area around it. Site: The oldest detailed plan area of the town of Naantali, southwestern Finland. Photo: Aerial photograph Hannu Vallas 2006, RHO125790:4, Finnish Heritage Agency.

Picture 23. The first stone castles in Finland were built in the Medieval Period. Raseborg castle, which is now in ruins, was in use from the 14th to the 16th century. Site: Raseborg castle in Raseborg, Uusimaa. Photo: Teija Tiitinen 2014, AKDG5814:3, Finnish Heritage Agency.

Picture 24. The site of the medieval village of Idlaxby, which was deserted in the 17th century. Remains of stone stoves and building foundations are found in a current rocky pasture. Site: Idlaxby in Loviisa, Uusimaa. Photo: Veli-Pekka Suhonen 2018, AKDG5836:1, Finnish Heritage Agency.

Historic Period

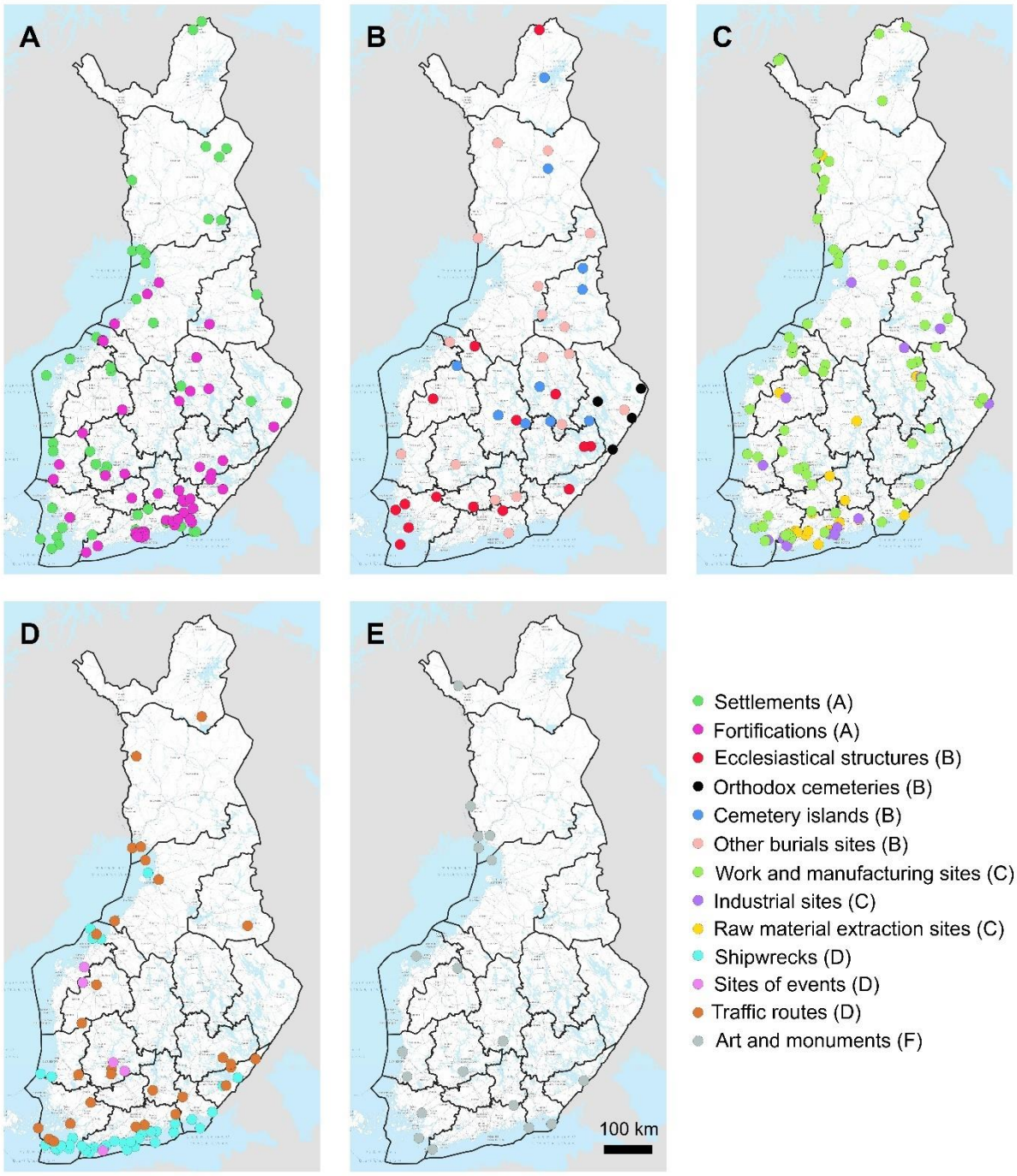
Many different types of sites are known from the Historic Period, which followed the Medieval Period in the 16th century. The historic VARK sites are relatively evenly distributed in the area south of Lapland, where post-medieval sites and site types are considerably fewer compared to the southern regions.

Most of the fortifications and settlements are located in the areas south of Lapland. The settlement sites include several seasonal settlement sites located in the outer archipelago. The 18th century fortifications on the border between Sweden and Russia in southeast Finland account for a large proportion of the defence structures designated as VARK sites. At the same time, fortifications were also built on the coast of the Gulf of Finland (Map 12A). However, the VARK areas with the largest number of defence structures are part of the land and sea fortress built in the Helsinki region during the First World War.

Ecclesiastical sites are distributed over a wider area than in the earlier periods. Other site types connected to burials, such as cemetery islands and death marks on living trees (*fi karsikko*), are located in remote areas in the Finnish lake district.

Most raw material extraction sites (quarries) and industrial sites are located in southern Finland (Map 12C). An iron ore quarry from the 18th century located in the Tornionjoki river valley in Lapland is the northernmost historic quarry in the VARK inventory. A great number of historic work and manufacturing sites of various types are included in the VARK inventory. These include reindeer fences, hunting pits, and remains of gold panning sites (gold mines) in Lapland, and fishing dams (“Lapp dam”, *fi lapinpato*) in North Ostrobothnia, and other widely distributed site types, such as piles of cleared stones associated with slash-and-burn and other cultivation, mill sites, coal kilns, tar kilns, iron manufacturing sites, taverns and hospitals.

The VARK sites related to traffic and mobility are, for the most part, located in southern Finland and in the areas close to the seashore. These include abandoned roads, forest paths marked with stones and cuts on trees, roads and tracks across mires (log roads, duckboards), and several sites related to water transport, such as canals, harbours and old piers, and tracks made for dragging boats over rapids or isthmuses.



Map 12. Distribution of the VARK areas dating to the Historic Period. Background map © National Land Survey of Finland 2022.

The historic VARK sites include battlefields (from the 18th century to the early 20th century) and the ship trap in Jussarö Gaddarna, which contains a large number of shipwrecks. Most shipwrecks are found on the coast of southern Finland, where the busiest fairways and trade routes were located (Map 12D). The Ruotsinsalmi VARK area, comprising the sites of the largest naval battle in the history of the Baltic Sea, is also located along the southern coast of Finland.

Picture 25. Most shipwrecks are located along the coast of southern Finland, and the majority of them date from the 18th century and onwards. The picture shows the wreck of a Swedish wooden warship dated to the 16th century. Site: Jussarö 1 in Raseborg, Uusimaa. Photo: Päivi Pihlanjärvi and Niko Anttiroiko, AKMA201701:19, Finnish Heritage Agency.

Picture 26. The border mark of the Kingdom of Sweden carved into stone after the Treaty of Teusina in 1595. The border determined in Teusina was the first Finnish border comprehensively marked in the terrain. Site: Ohtaansalmi in Tuusniemi, North Savo. Photo: Teemu Mökkönen 2019, AKDG5799:1, Finnish Heritage Agency.

Picture 27. The 18th century was a hectic period in the construction of fortifications in southeastern Finland. The Kyminlinna fortification was first built in the 18th century and then re-built in the 19th century. It formed a defence front together with the Ruotsinsalmi sea fortress. Site: Kyminlinna in Kotka, Kymenlaakso. Photo: Aerial photograph Hannu Vallas 2003, Architectural History Picture Collection RHO125406:1, Finnish Heritage Agency.

Picture 28. The Välimaa site (fi kenttä) is a historic Sámi settlement site located on the Tana River terrace. The foundations of a peat hut are in the middle of the picture. Buildings of the museum farm are seen in the background. Site: Välimaa in Utsjoki, Sámi Homeland, Lapland. Photo: Teija Tiitinen 2003, AKDG6858:1, Finnish Heritage Agency.

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Picture 29. Remains of the dry stone walls of a tomtning structure (a seasonal dwelling in the outer archipelago used by fishermen). Site: Selkä-Sarvi in Kemi, Lapland. Photo: Terhi Tanska 2020, Museum of Torne Valley.

Picture 30. Dugouts used by Russian soldiers during the Battle of Koljonvirta in 1808. The remains of the dugouts are visible in the terrain as depressions approximately one metre in depth. Site: Koljonvirta dugout area in Iisalmi, North Savo. Photo: Teemu Mökkönen 2019, AKDG5778:1, Finnish Heritage Agency.

20. Finnish past illustrated by the VARK inventory

The purpose of the VARK inventory is to determine archaeological sites of national significance so that the selected sites give a both chronologically and regionally representative picture of the ancient history of Finland. About fifty archaeologists were involved in the site assessment.

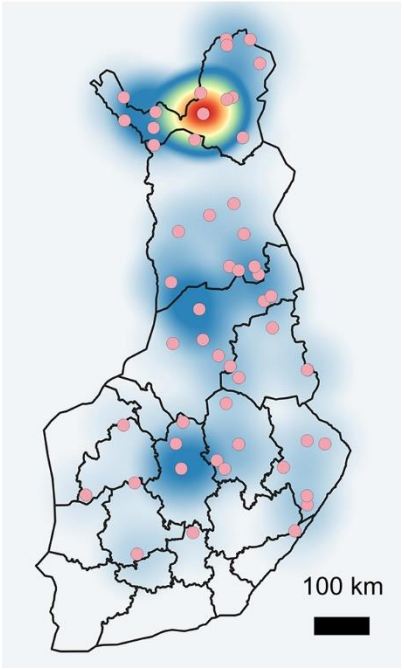
Archaeological knowledge is strongly influenced by human factors. An archaeological site must first be discovered and interpreted, after which it must be reported and registered in a manner that gives an accurate picture of the site. As archaeological sites in Finland cover a period of almost 11,000 years, no individual archaeologist alone is able to thoroughly master the wide range of cultural material and phenomena represented in the heritage.

Archaeological knowledge is always incomplete, and new information on sites accumulates over time. The situation of archaeological research, as well as the traces left by humans, vary greatly by region and by period. There are still undiscovered areas and periods in the Finnish past.

When working on the terrain, archaeologists tend to find the types of sites they are familiar with in advance. Identification of a new site type is a prerequisite for observing similar archaeological sites more extensively. Some distortions in archaeological knowledge may also be caused by the classifications used in the Register of Ancient Sites, which are not suitable for every site type, as well as by some regional differences in the registration practices.

The analysis of the VARK sites shows that they illustrate the past in accordance with the current archaeological knowledge. Some defects in detecting cultural change based on register data have been acknowledged and considered in the selection of the VARK sites. With regard to the Neolithic Stone Age, for example, different types of housepits dated to different periods or connected to different pottery-making traditions are well represented in the VARK sites, even though this information has not been routinely available in the register.

The presentation of chronological trends by region is implemented with the help of site types that expose the regional features of archaeological data. This is an effective method to illustrate archaeological data, except in the case of site types that have been in use throughout the prehistoric periods. For this reason, hunting pits, a typical feature of the Sámi Homeland (they account for nearly 2/5 of the VARK sites in the area), are highlighted on a map of their own (Map 13). Although hunting pit systems were in extensive use in the late Stone Age, the site type is generally prehistoric, even if some examples could have been in use during the Historic Period.



Map 13. Hunting pits dated to various prehistoric periods have been ignored in the examination by period. VARK areas with hunting pits are shown on the map as dots. The heat map is based on the number of hunting pit sites in VARK areas.

Picture 31. Prehistoric hunting pits along the Lemmenjoki River. The hunting pits are clearly visible in the pine forest. Site: Äivihjärvi in Inari, Sámi Homeland, Lapland. Photo: Petri Halinen 2022, AKDG7185:2, Finnish Heritage Agency.

Therefore, the periods and cultures that have produced small and poorly preserved sites are likely under-represented in the inventory. The settlements and burial sites of the Late Neolithic Corded Ware culture are good examples of such sites. These are invisible on the ground, and they are often discovered in tandem with land use activities and largely destroyed. If excavated by archaeologists, hardly any parts of the sites have been left preserved.[17]

Despite the reservations listed above, the VARK inventory provides a good coverage of Finland's current archaeological heritage. It reflects the archaeological knowledge at the time the inventory was conducted.

21. Consultation materials

In addition to the project description, the consultation material for the VARK inventory consists of an online consultation application presenting the VARK areas, spatial data sets for the VARK areas, and descriptions by region, presenting the VARK areas and the distinctive archaeological features of each region and the lists of the VARK areas attached to them. The consultation material also includes an environmental impact assessment, in accordance with section 3 of the Act on the Assessment of the Effects of Certain Plans and Programmes on the Environment (200/2005; SEA Act).

Website presenting the VARK sites

The website VARK consultation (*fi VARK kuuleminen*)[18] presenting the VARK inventory was created for the consultation phase. The website presents the basics of the VARK sites, photographs, and the spatial data on the areas. The website contains the structured assessments of the VARK sites produced in the inventory process. In the map section, the VARK data can be viewed together with different map templates and other data, including cadastral divisions, all archaeological sites listed in the Register of Ancient Sites, and the other inventories of nationally significant cultural environments (RKY, VAMA).

[17] This highlights a characteristic of archaeological knowledge: excavations produce information on the very sites that will be destroyed in the process.
[18] The application was launched in the Cultural environment service portal (*fi Kulttuuriympäristön palveluikkuna*) www.kyppi.fi. In Finnish.

For the VARK inventory, a site-specific tab was created in the Register of Ancient Sites, and the processing of each site was saved on this tab. The website presenting the VARK inventory was prepared for the presentation of this data.

The website presents the VARK areas and the VARK sites located in them in the official languages of Finland. All information on the website is in Finnish, and the data on sites located in bilingual municipalities are also given in Swedish. In the case of the Sámi Homeland, information in the official Sámi languages is given in the PDF file accessible through the link.

On the website, VARK areas can be searched by multiple criteria (municipality, region, type, period, underwater site, name, identifier). All VARK areas and sites can also be grouped on the basis of regions, museums with regional responsibility, ELY Centres (Centre for Economic Development, Transport and the Environment), or coast guard districts.

In the consultation, the website was used to present the data and to give site-specific feedback. Site-specific feedback was provided in text format or by drawing the location or alternative boundaries of a site, if they were considered to be incorrect.

Spatial data sets

A spatial data set has been produced for the VARK areas. The geographic information on the VARK areas is attached together with a compilation of the attributes of the sites included in each area. The same attribute data was presented on the VARK consultation website. ETRS-TM35FIN is used as the coordinate system. For more detailed information on the attributes of the spatial data set, see Appendix 3.

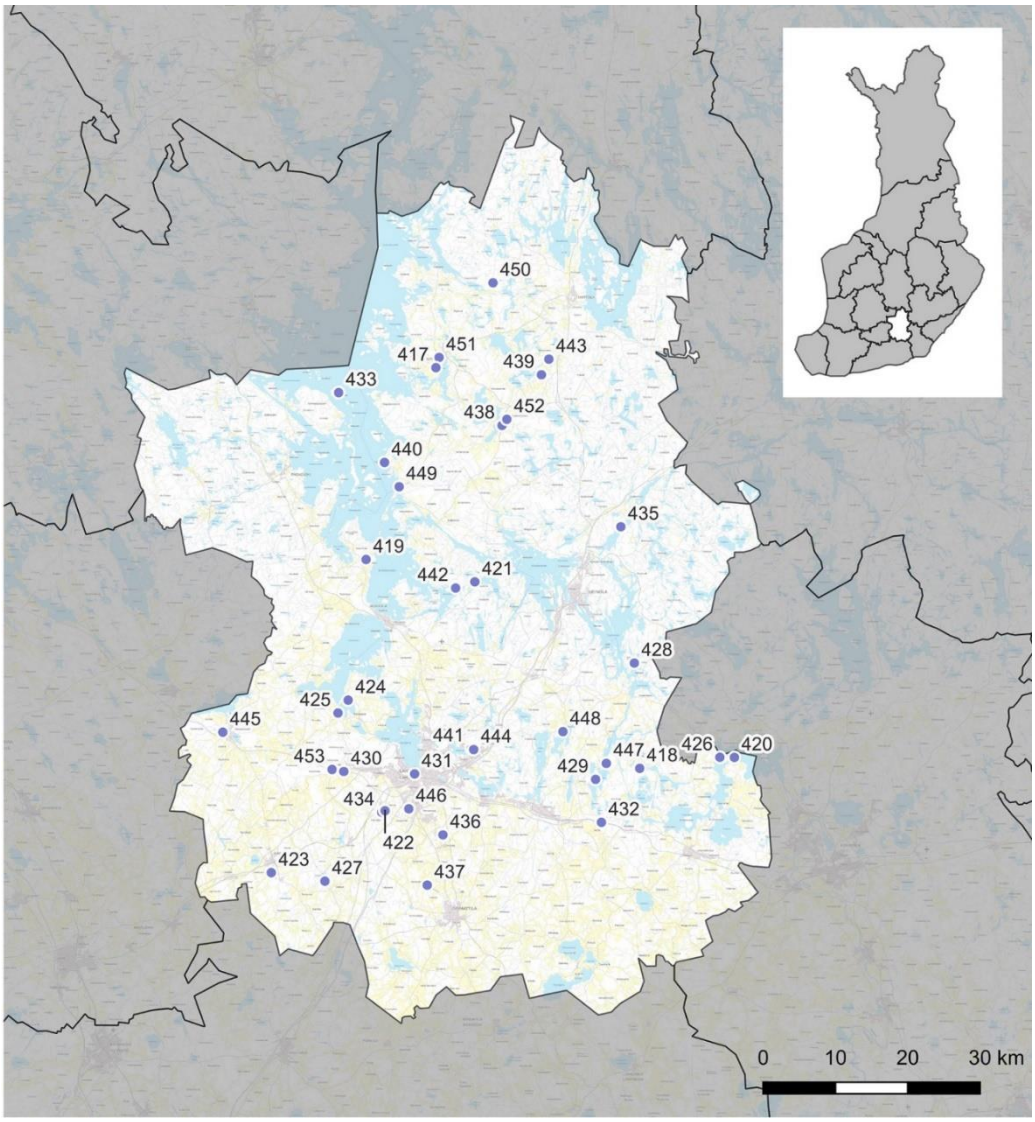
Most of the VARK areas have identical boundaries to the spatial data of the included sites as they were presented in the Register of Ancient Sites during the preparation of the inventory. The resolution of the spatial data is either 1:10,000 or 1: 20,000.

Descriptions by region

In practice, the VARK inventory was carried on a regional basis, with the exception of the northernmost part of Finland, which was divided into the Sámi Homeland and the rest of the Lapland region. The region of Åland was not included in the inventory. In accordance with this division, 19 regional descriptions of the VARK areas and the included sites were prepared. The data content and structure of the descriptions are identical.

The regional descriptions are separate text documents that give an overview of each region’s past and the special characteristics of its archaeological heritage. They also include brief outlines of the changes in the natural environment and the impact these changes have had on the formation of archaeological data.

The numerical part of each description gives tabulated information on the datings, types and sizes of sites included in the VARK inventory from the region. The descriptions include photographs of the sites and a regional map of the VARK areas as point data.



Map 14. Location of the VARK areas in the Päijät-Häme region. An example of the maps used in regional descriptions. The numbers are VARK area map numbers given in numerical order by region. Background map © National Land Survey of Finland 2022.

Environmental report required under section 3 of the SEA Act[19]

An environmental impact assessment was carried out on the VARK inventory, to review the environmental impacts of the inventory and the significance of these impacts. The results of the assessment have been reported in the SEA report in tabular form, grouped by sector. The assessment was conducted under section 3 of the SEA Act because the inventory and its results do not have any independent legal effects.

[19] "Strategic Environmental Assessment Act", officially the Act on the Assessment of the Effects of Certain Plans and Programmes on the Environment (200/2005). In Finnish "SOVA-laki", Laki viranomaisten suunnitelmien ja ohjelmien ympäristövaikutusten arvioinnista (200/2005).

22. Consultation phases and completion of the inventory

Procedure

The consultation on the VARK inventory was conducted in two rounds during the year 2023: the first round between 1 March and 14 April, and the second restricted round between 19 October and 3 November. Because the inventory does not have any direct legal effects, the consultation was implemented as a general announcement.

The consultation materials were accessible on the websites and in the registration office of the Finnish Heritage Agency. The request for opinions and statements and the receipt of them was conducted with the help of a web service developed for the consultation processes by the Ministry of Justice. The registry office of the Finnish Heritage Agency also received statements on paper and via email.

The requests for statements were delivered via email directly from the web service to focal actors such as state agencies and research institutes, all cities and municipalities, and the Association of Finnish Cities and Municipalities, regional councils, the Sámi Parliament, museums with national and regional responsibilities, and essential organisations and societies.

In addition to direct requests, announcements about the communication of the VARK inventory were published in the most widespread newspapers in every region, and in the official state gazette (*fi Virallinen lehti, sv Officiella tidningen*), and the announcement was circulated on social media and with the help of specialised email lists. As the inventory does not have any direct legal effects, the landowners were not contacted personally.

During the first round, three web-meetings were arranged: Southern Finland, Central Finland, and Northern Finland. The open meetings were to introduce and demonstrate the inventory and to enable direct questions on the inventory in public. The meetings were recorded and provided later in a video service with subtitles.

The second round was delimited to cover only the eleven sites whose boundaries had become larger after the first round. Unlike the first round, the second consultation round was directed at landowners only.

Statements on the inventory and feedback on sites

The first consultation round produced nearly a hundred statements and thirty items of direct feedback on certain sites. The statements were received from the consultation web service (64 pcs) and via the registry office of the Finnish Heritage Agency (29 pcs). The direct site-specific feedback was given on the website produced for the consultation.

The statements and feedback were processed and published in the response report of the first consultation round. As a result of the first round, the boundaries of eleven VARK sites became enlarged and one site was removed from the inventory.

In the first round, there were three mandatory questions for those who gave their statement on the inventory on the consultation web service. According to the answers, 75 to 84% of those who gave a statement were of the opinion that (1) The consideration of archaeological heritage has been sufficiently extensive in the inventory, (2) The materials produced for the consultation provided sufficiently good information regarding the implementation of the inventory, and (3) The impact assessment of the inventory was sufficient in scope and correctly estimated.

The second round did not cause any changes to the inventory.

The VARK inventory after the consultation phases

After the consultation phase, the number of VARK sites was reduced by one site, and the boundaries of eleven VARK sites were inspected and enlarged due to direct site-specific feedback.

As the second round of consultations did not cause any changes, the data on the VARK inventory was completed and frozen on 13 June 2023.

The process of the VARK inventory came to an end over a year later. The VARK inventory was approved by the Government on 7 November 2024 as an inventory for the purposes of the national land use objectives based on the Land Use and Building Act, and it came into effect on 1 March 2025.

23. In conclusion

The VARK inventory completes the family of Finland's nationally significant and valuable cultural environments by stretching the scope of inventories from the existing built environments and landscape areas way back to prehistoric times. Together, the inventories ensure more comprehensive consideration of national land use objectives regarding cultural values at various levels of spatial planning.

In Finland, ancient sites are protected by the Antiquities Act, and occasionally by separate decisions taken under the Land Use and Building Act. Even if the VARK inventory does not cause any direct legal effects, as a component in national land use objectives, it requires that, in addition to the physical sites themselves, the values of the sites determined in the VARK inventory must be regarded in spatial planning.

The implementation of the VARK inventory was a meaningful process in itself. The inventory required the development of better site evaluation methods to harmonise, complement and update the site-specific information in the Register of Ancient Sites. The inventory produced a great number of photographs taken in numerous on-site inspections.

In the course of the inventory, a reorganisation of museums with regional responsibility was launched. Several museums hired new archaeologists to execute the regional administration on archaeological heritage. In the new situation, the participation of archaeologists from different organisations in the implementation of the VARK inventory contributed to new networks.

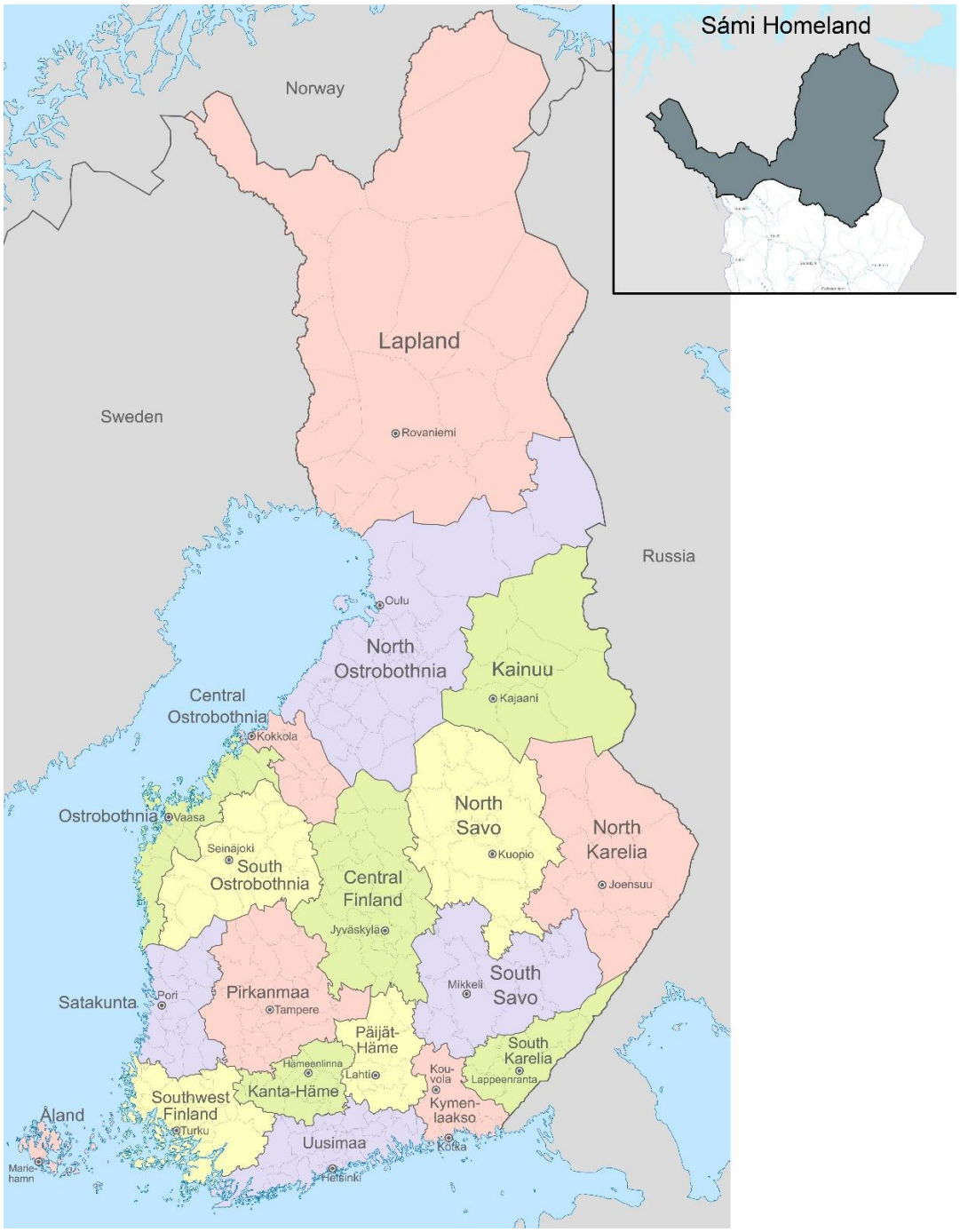
The VARK inventory, including nationally significant archaeological sites, accepted in 2024 by the Government, is the first archaeological inventory implemented to meet the requirements of the national land use objectives. The inventory has been prepared based on current up-to-date knowledge, which, however, is constantly changing, even in the case of archaeological heritage. Therefore, re-evaluation and updating of the VARK inventory is likely to take place within some ten to twenty years following the acceptance of this first inventory.

Appendix 1:
Table of prehistoric and historical periods in Finland

Period	Dating	Era
Stone Age	8850–1900/1700 BC	Prehistory
Bronze Age (western)	1700–500 BC	Prehistory
Early Metal Period (eastern)	1900 BC – AD 400	Prehistory
Iron Age	500 BC – AD 1150/1300	Prehistory
Medieval Period	AD1150/1300–1523	Historical era
Post-Medieval Periods	AD1523–	Historical era

Appendix 2:
Map of regions and their capitals in Finland

Map of regions: Fenn-O-maniC 2020, Wikipedia, CC BY-SA 4.0.
Data on Sámi Homeland: Regional Council of Lapland.



Museovirasto
Finnish Heritage Agency