

Nature interpretation plan for High Coast and Kvarken Archipelago

- to communicate the Ice age
and land uplift

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METSÄHALLITUS
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Lystra - awareness and activities in the World Heritage Site High Coast/Kvarken Archipelago

The EU-funded transboundary Interreg Botnia-Atlantica project Lystra developed the High Coast/Kvarken Archipelago World Heritage Site in the time period of 1.1.2018–31.12.2020.

The project produced a nature interpretation plan, updated the knowledge on the geological values of the Site and classified them, produced digital solutions and renewed the pedagogical material on the World Heritage Site.

Project Lystra's lead beneficiary was Parks & Wildlife Finland, and other beneficiaries were the rest of the project partners: County Administrative Board of Västernorrland (Sweden), Geological Survey of Sweden (SGU), Geological Survey of Finland (GTK), Finnish Geospatial Research Institute (FGI) and City of Vaasa in Finland.

Project's total budget was 1,38 million euros. Besides the EU-funding, the other providers of funds in Finland were the Regional Council of Ostrobothnia, Association of the World Heritage Site of Kvarken Archipelago, and Visit Vaasa/ the City of Vaasa. In Sweden, the Swedish Environmental Protection Agency and the municipalities of Örnsköldvik and Kramfors funded the project.



Contents

Abstract	7
1. Introduction.....	9
What is nature interpretation?	9
1.1 Purpose	10
The most important World Heritage values in the High Coast/Kvarken Archipelago	11
1.2 How the plan is to be used	12
1.3 Hands-on for those in a hurry	14
2. Main theme and subthemes	15
2.1 Main theme	18
2.2 Subthemes	21
Traces of the ice	22
Land uplift and the impact of the sea	25
One World Heritage Site - so different	28
Biodiversity of the World Heritage Site	31
Humans and land uplift	33
Discovery and research	36
The World Heritage idea	38
3. Target groups	41
3.1 Target groups of the nature interpretation plan	41
3.2 Accessibility	44
4. Places for nature interpretation	45
4.1 Nature interpretation today: Starting point for planning	46
High Coast	46
Kvarken Archipelago	47
4.2 Geographical demarcation	48
4.3 General information on the selected sites	49
How place descriptions should be used	51
4.4 High Coast	53
Smaller regional centres	53
Mosjön	54
Skeppsmalen	54
Gullvik Recreation Area	55
Trysunda Nature Reserve	56

Skuleskogen National Park	57
Skuleberget Nature Reserve	58
Ulvön islands	59
Mjältön island	59
Norrfällsviken and Storsand, Villmyran and Ramberget Nature Reserves	60
Höglinten Nature Reserve	61
Stortorget and Mannaminne	61
Bönhamn	62
Högbonden Nature Reserve	63
Barsta	64
Rotsidan Nature Reserve	64
Storön Nature Reserve	65
Valkallen	65
Hornöberget	66
Smitingen Nature Reserve	66
4.5 Kvarken Archipelago	67
Villages and harbours on the mainland	67
Kummelskär, Mickelsörarna islands	68
Västerö Hiking Trail	69
Valsörarna islands	69
Svedjehamn, around Bodvattnet and Saltkaret	70
Klobbskat and Kikanberget	72
Björkö-Panike Hiking Trail, Vargis and Björkören	72
Sommarö	73
Kvarken Visitor Centre World Heritage Gateway and Replot bridge	74
Terranova	75
Fäliskäret (Rönnskär)	76
Molpehällorna	77
5. Implementation of the plan	78
5.1 Administration, finances and priorities	78
Priorities	80
5.2 Objectives	81
5.3 Follow-up, assessment and period of validity	82
5.4 Delegation of responsibilities and the way forward	83
Municipalities and regions	84
Tourism sector	85
Private landowners	86
Associations	86

County Administrative Board of Västernorrland and Parks & Wildlife Finland.....	88
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6. Further reading 89

7. Appendix 1. Method and pilot study..... 90

7.1 Description of the process.....	90
About the nature interpretation plan in the Lystra project plan.....	91
7.2 Collection of background material	93
Workshops	94
7.3 Testing the nature interpretation plan	97
Hornöberget, High Coast	98
Svedjehamn, Kvarken Archipelago	99
7.4 Evaluation and completion of the plan	101
7.5 Selected places in the High Coast	102
7.6 Selected places in Kvarken Archipelago.....	105

Abstract

The need for co-ordinated, strategic and well thought out communications for the High Coast/Kvarken Archipelago World Heritage Site has been pressing for some time. As a result, the County Administrative Board of Västernorrland (Länsstyrelsen Västernorrland), Sweden and Parks & Wildlife Finland, Coastal and Metropolitan Area (Metsähallitus, Rannikon luontopalvelut), Finland have made the decision to draft a joint nature interpretation plan. The aim is to establish coherent communications for the entire World Heritage Site in both countries.

The County Administrative Board and Parks & Wildlife Finland put a major emphasis on the participation and inclusion of local stakeholders. Consequently, a large portion of the materials has been produced and further refined at workshops held in both Finland and Sweden. A key part of this plan is the main theme of the World Heritage Site, which was introduced at these workshops:

The High Coast/Kvarken Archipelago World Heritage Site is the best place in the world to experience and understand land uplift following the last Ice Age.

Work on the plan involved a clarification of the plan's target groups, as identifying target groups is key to ensuring that nature interpretation is done right. Tying the theme, target groups and places in the World Heritage Site together offers a holistic, long-term approach in the planning and development of nature interpretation.

In working on the plan, many visitor places have been mapped and, ultimately, a smaller number of places has been selected. The County Administrative Board will play a leading role in nature interpretation in the High Coast. In the Kvarken Archipelago, Parks & Wildlife Finland does not have the same mandate to develop nature interpretation in all places, but visitor places are a key part of the World Heritage Site area and Parks & Wildlife Finland is prioritising

their development. In both the High Coast and Kvarken Archipelago, nature interpretation depends on funding.

The Swedish Centre for Nature Interpretation (SCNI) has served in a consulting capacity in the work being done on the plan. It has organised workshops and acted as a sounding board during the process. The plan was drafted within the Interreg Botnia-Atlantica project *Lystra – Awareness and activities in the World Heritage Site High Coast/Kvarken Archipelago in 2018-2020*.



Photo: Malin Henriksson

1. Introduction

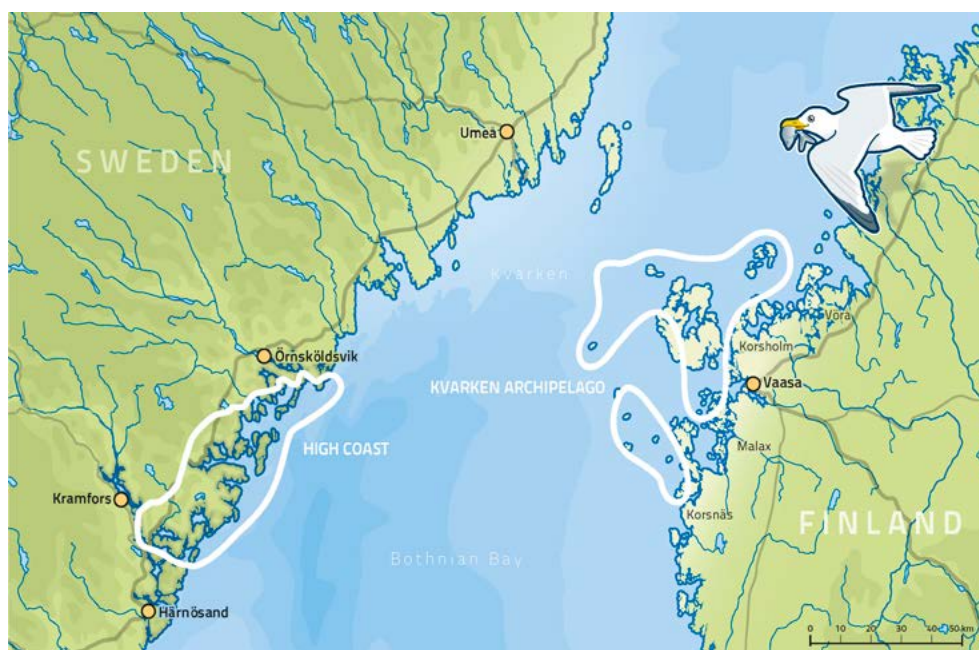
UNESCO has given the County Administrative Board of Västernorrland in Sweden and Parks & Wildlife Finland, Coastal and Metropolitan Area in Finland the mandate to serve as the administrators of the joint World Heritage Site High Coast/Kvarken Archipelago as well as the wish to communicate what World Heritage status means and why the High Coast/Kvarken Archipelago is a World Heritage Site. In order to take a holistic approach in communicating the value of being a World Heritage Site, the County Administrative Board of Västernorrland (hereinafter referred to as CAB) and Parks & Wildlife Finland, Coastal and Metropolitan Area (hereinafter referred to as PWF) drafted this nature interpretation plan within the project *Lystra – Awareness and activities in the World Heritage Site High Coast/Kvarken Archipelago in 2018–2020*. The nature interpretation plan has been developed by project personnel, with the help of external expertise provided by the Swedish Centre for Nature Interpretation (SCNI). The result is this report, which is available in Swedish, Finnish and English. The nature interpretation plan shall facilitate communications on the World Heritage Site and explain how the values of the joint World Heritage Site can be communicated in a way that fosters understanding and engagement among citizens and visitors.

What is nature interpretation?

Nature interpretation involves communications that help participants develop their own relationship with nature and the cultural landscape. The aims of nature interpretation include a combination of learning and positive experiences among participants, as well as stimulating their own reflections. Nature interpretation has a message, which to some extent always aims to influence the attitudes and/or behaviours of the participants. Nature interpretation is more communication than information.

Source: Swedish Centre for Nature Interpretation (SCNI)

Read more at <https://www.slu.se/en/Collaborative-Centres-and-Projects/swedish-centre-for-nature-interpretation/> and the list of references in section 6.



The transboundary World Heritage Site High Coast/Kvarken Archipelago consists of three sub-areas.

Illustration: Gunvor Ekström

1.1 Purpose

The High Coast/Kvarken Archipelago is included on the UNESCO World Heritage List based on selection criterion VIII (to be outstanding examples representing major stages of earth's history). The focus of the nature interpretation plan was accordingly set from the start. The purpose of this is to facilitate communication concerning the value of the World Heritage Site and enhance its image as a joint, transboundary site. The plan explains how information about the joint World Heritage Site should be communicated. The CAB and PWF need to adopt a holistic approach in order to ensure that no part of the World Heritage Site story is left out. As a result, the theme of the nature interpretation is based on the document "Statement of Outstanding Universal Value", which was drafted by UNESCO for the High Coast/Kvarken Archipelago. The most important World Heritage values, or geological features, in the High Coast/Kvarken Archipelago are outlined in the fact box on next page. See *High meets low – High Coast/kvarken Archipelago World Heritage Site facts* at www.highcoastkvarken.org for a deeper exploration and understanding of the processes behind the various geological phenomena.

The most important World Heritage values in the High Coast/Kvarken Archipelago

Each site is listed in parentheses when only dealing with the High Coast or Kvarken Archipelago.

- Highest coastline and till-capped hills (High Coast)
- Beach deposits
- Cobble fields
- Tunnel caves (High Coast)
- Isolated basins (High Coast), flads and gloes (Kvarken Archipelago)
- Bare washed rock surfaces (High Coast)
- Roche moutonnées and striations
- De Geer moraines (Kvarken Archipelago)
- Ribbed moraines (Kvarken Archipelago)
- Ravines in sediment (High Coast)
- Boulder fields and erratics (Kvarken Archipelago)
- Land uplift forests

A key objective of the plan is to ensure that the theme of the World Heritage Site is firmly established among the population and various stakeholders. Everyone who lives and works here should feel like participants and want to be involved in communicating information on the World Heritage Site. This plan will help in making it easier to do this. The plan should serve as a regulatory document for CAB and PWF as well as a motivation and guideline for everyone else wanting to communicate the value of the World Heritage site. The needs of all the selected target groups must also be met, and everyone should have the opportunity to experience every part of the World Heritage Site.

It was also important for the CAB and PWF to have a plan available in order to gradually, when funding is available, strategically develop nature interpretation of the World Heritage Site. Previously, no one oversaw nature interpretation of the World Heritage Site as a whole, and the existing nature interpretation is characterised by ambiguous submissions and selective measures. To a certain extent, the information is outdated and inaccurate. At the same time, one of the aims of planning was to review the sustainability and accessibility of visitor sites within the World Heritage Site. The wear and tear on certain high-traffic visitor sites is already noticeable and the need to control visitor flows is increasing.

Based on these needs, five key points were listed for the nature interpretation plan and planning process:

- When mapping existing visitor sites and identifying new ones, the respective sites must be linked to the subtheme that best represents the site and on which the nature interpretation should focus. The manner in which the subtheme and target groups correspond with each other at the various visitor sites (e.g. information signs, technical aids) must also be reviewed.
- Charting the needs and wishes of various target groups with regard to nature interpretation.
- An overall main theme. The main theme should be concise and comprehensible in order to foster understanding of the World Heritage Site, with its Ice Age history and the impact of land uplift on the landscape. The overall main theme must be well formulated and popularise the reason that the High Coast/Kvarken Archipelago is a World Heritage Site. It must also be possible to use the main theme for communications and marketing purposes.
- The nature interpretation plan is produced in extensive co-ordination with authorities, schools, tourism operators, associations and others who can conduct nature interpretation of the World Heritage Site. This is done in order to gather experiences and needs, thus increasing the possibilities of reaching the visitor.
- The nature interpretation plan has a sustainability and accessibility perspective that ensures a sustainable visitor site with a high degree of accessibility, even with increasing visitor numbers.

1.2 How the plan is to be used

The nature interpretation plan for the High Coast/Kvarken Archipelago is to be used by all those who want to conduct or adopt nature interpretation for the World Heritage Site. This includes employees of the CAB, PWF or World Heritage Site municipalities that work with communications concerning the Site. In addition, parties active in associations, tourism operators and private landowners in the area may also want to communicate what is unique about it. Tourism operators include everything from campground owners and guides to restaurateurs. Anyone interested in learning more about the World Heritage Site can read the publication *High meets low – High Coast/Kvarken Archipelago World Heritage facts*, which can be downloaded from the website www.highcoastkvarken.org. It explains many of the concepts used in the plan and the processes occurring in geological phenomena.

Basic information on all nature interpretation in the World Heritage Site can be found in section 2, which deals with the main theme and subthemes. The aim is to ensure that the nature interpretation focuses on the main theme. This theme and its subthemes have been presented at workshops with a broad participation of various stakeholders in the World Heritage Site, both in Finland and Sweden (Read more on the workshops in Appendix 1). Workshop participants have also identified some target groups which are important to consider in planning (section 3). Sections 2 and 3 can be used in all places and all contexts where the World Heritage Site

High Coast/Kvarken Archipelago is to be emphasised. Based on the workshop results, the CAB and PWF has done additional work with a number of places in order to develop nature interpretation of the World Heritage Site. These places are presented in section 4. The places were selected in order to emphasise all the geographical aspects and values of the World Heritage Site. The subtheme and target groups have been identified for each place. The information on places that would be good to know has been listed and this compilation serves as a basis for starting work with nature interpretation at a certain place. Naturally, there are many more places that should be highlighted, and the CAB and PWF would like to see others wanting to communicate information on the World Heritage Site make use of the plan, with its themes and target groups. Section 5 deals with implementation of the plan and available resources as well as the plan objectives and period of validity.

The nature interpretation plan contains an appendix on the methods used in developing it as well as the pilot studies done on the plan. The appendix also shows the selected sites in a table, along with the relevant target groups and World Heritage values.



The work with the interpretation plan included workshops both at the High Coast and at the Kvarken Archipelago.

Photo: Malin Henriksson

1.3 Hands-on for those in a hurry

Read section 2 on the main theme and subthemes. This section presents the main theme to be communicated to visitors to the World Heritage Site. Because there is so much to tell, seven subthemes have also been given. Combined, these cover all the reasons for High Coast/Kvarken Archipelago to be included in the World Heritage list. You can use these subthemes one at a time or some of them, depending on what works best for the place or context to which you are making nature interpretation about the World Heritage. Each subtheme describes what the visitors should experience and understand in subtheme communications.

Items to be included in each theme (i.e. which fact sections are to be included) are listed for the main theme and the various subthemes. (Read *High meets low – High Coast/Kvarken Archipelago World Heritage facts* - it provides explanations for all the concepts and geological processes.) This is followed by a section that provides tips on how to communicate information on the subthemes. You can use this for inspiration or borrow directly from it.

If you are involved in developing nature interpretation for a specific place in the World Heritage Site, it is a good idea to consider the target groups (section 3) as a second step in the process. Which target group or groups are suitable precisely for that place?

Finally, check the list of places (section 4). If the place with which you are working on nature interpretation is listed in the section, you will find more substantial information there. Do also contact the CAB or PWF, which would like to be involved in the work and can hopefully contribute their own knowledge and conduct fact checks, regardless of whether a given place is included in the nature interpretation plan or not.



Photo: Fabiola de Graaf

2. Main theme and subthemes

A key concept in nature interpretation planning is the theme. In a nature interpretation context, a theme is the message that visitors' thoughts should centre around after taking part of nature interpretation. If one asks a visitor what they recall after a visit, their answer should ideally be close to the formulated theme for the place in question; in this case, the theme is for the High Coast/Kvarken Archipelago World Heritage Site. The theme is the common thread that runs through all nature interpretation in the World Heritage Site. This does not mean that the theme must be written, word for word, in all information, but rather that it be kept in mind when planning and developing nature interpretation. The goal is for the visitor to assimilate the spirit of the theme and make it their own by incorporating it into their conceptual system.

For those who are planning and developing nature interpretation, the theme helps with choosing what should be included in it. Communication is enhanced by including the things that strengthen the theme and leaving out those that distract from it. The purpose of the theme is therefore to clarify what is most important to communicate to the visitors and use this as a starting point when choosing what should be emphasised and included in the nature interpretation. A theme is formulated in one or two sentences, which describe the key points to be communicated.

The main theme and all the subthemes



The theme and the subthemes highlight the most important topics in the communication about the World Heritage Site and its values.

Photo: Malin Henriksson

presented in this section have been developed by employees of the CAB and PWF and further refined by stakeholders from the area in the workshops. (Read more on the workshops and the participating stakeholders in Appendix 1.)

Because the main theme is so extensive, it has been divided into several subthemes. This makes it easier to focus on the things that have a stronger connection to a certain place, thereby resulting in richer descriptions of the World Heritage Site. However, it should be kept in mind that a subtheme cannot exist on its own – it serves as a supplement to the main theme within a certain topic.

The main theme for the nature interpretation in the World Heritage Site is:

The High Coast/Kvarken Archipelago World Heritage Site is the best place in the world to experience and understand land uplift following the last Ice Age.

There are seven subthemes for the main theme. Ideally, no more than four subthemes should be used for a single place to ensure that it does not become too extensive. The topics for these subthemes and theme texts are listed below:

Traces of the ice – The High Coast and Kvarken Archipelago have gone through several ice ages. During the most recent Ice Age, the continental ice sheet was approximately 3 kilometres thick here. Without it, there would be no land uplift, because it was the thick ice sheet that pushed the landmass down. It also left traces on the landscape that we can still see today.

Land uplift and the impact of the sea – The melting of the continental ice sheet brought about land uplift, and the Earth's crust is gradually regaining the form it had prior to the Ice Age. As the seafloor rises, the waves shape the coastline, thus creating unique geological values. Without the interplay between land and sea, land uplift would not be so readily apparent in the landscape.

One World Heritage Site – so different – The fact that the High Coast is high in elevation and the Kvarken Archipelago is low emphasises that we together show the traces of land uplift as a joint World Heritage Site. We were already different before the Ice Age, but both areas were covered by the same ice sheet. The differences in topography have nothing to do with land uplift.

Biodiversity of the World Heritage Site – Everything that lives within the World Heritage Site, both flora and fauna, are deeply influenced by land uplift and continuously adapting. The coastline is constantly changing, affecting everything

that lives on land and in the sea, alike. Land uplift also creates unique ecosystems that would not have otherwise come about.

Humans and land uplift – Throughout the ages, humans in the World Heritage Site have been affected by land uplift and need to adapt themselves to the constantly changing landscape. From the Stone Age to the present day, there are examples of how land uplift and the changing coastline has affected human life and where to settle.

Discovery and research – For a long time, it was believed that the sea was receding. By putting different pieces of the puzzle together, researchers working in the High Coast discovered that it was the land that was rising. Land uplift is still, to this day, fascinating to researchers, with the traces found in the World Heritage Site contributing to the knowledge of the changes we are currently going through.

The World Heritage idea – The idea behind World Heritage is one of peace, that people should protect and preserve the common heritage for posterity. The geology of the High Coast and Kvarken Archipelago is so unique that we are a joint site included on the UNESCO World Heritage List based on the selection criterion “to be an outstanding example representing major stages of earth’s history”. There are over 1,000 other World Heritage Sites all over the world.

The section “Experience and understand”, which identifies the items to be highlighted in the theme or a given subtheme. (Read *High meets low - High Coast/Kvarken Archipelago World Heritage facts*, it provides explanations for all the concepts and geological processes.) What is it that visitors should experience? And what should visitors gain an increased understanding of? The possibility to experience and understand a certain subtheme at a place can determine whether the subtheme is at all suitable for it. It is important that the place has something physical to tie it to the subtheme and that visitors can experience.

The section “How should it be communicated?” for each subtheme and the main theme provides tips and ideas on how the subthemes can be communicated. This can serve as an inspiration - there are many other approaches and no one way to do things. Let your creativity flow - nature interpretation can be so much more than just information boards. (See also the Swedish Centre for Nature Interpretation (SCNI) publication *Naturvägledning i natur- och kulturområden* (in Swedish) for more tips.)

All subthemes are naturally interrelated and fit into the main theme. However, the section “Links between subthemes” describes which of the subthemes are more closely linked to others and how nature interpretation on various subthemes can be combined to form entities.

In addition to the fact that the area is a World Heritage Site, there are several other values in the area that the plan does not focus on due to their definitions. There are a number of nature reserves, a national park and a culture reserve within the High Coast World Heritage Site. Some of these are related to the the story of the World Heritage Site, while others are protected for other reasons. In the Kvarken Archipelago, there are nationally important cultural environments within the World Heritage Site area as well as nature values which are not directly related to the World Heritage Site and land uplift. The nature interpretation of these areas and their values are not included in this plan.

2.1 Main theme

The High Coast/Kvarken Archipelago World Heritage Site is the best place in the world to experience and understand land uplift following the last Ice Age.

The keyword throughout the main theme is land uplift - it is the core of the message. It must be possible to link all the nature interpretation to land uplift. If the theme is laid out as formulated, it can be explained as follows:

World Heritage Site High Coast/Kvarken Archipelago... The nature interpretation plan enhances the joint World Heritage Site in that it has been drafted for both countries, thus presenting its complete history. This makes it possible to use the idea of World Heritage as a subtheme and the term “World Heritage” a central part of the main theme.

...is the best place in the world... Land uplift occurs in large parts of Finland and Sweden as well as in other parts of the world, but thanks to High Coast/Kvarken Archipelago's selection as a World Heritage Site, it can be said that this place is unrivalled. Its World Heritage status expresses the uniqueness of the area, and also that visitors will recognise land uplift and traces left by ice in other places after learning about the phenomenon here.

...to experience and understand... The nature interpretation should also invite people to experience the phenomenon (i.e. establish their own relationship with land uplift) and to share knowledge (i.e. provide an understanding of land uplift). The nature interpretation should provide tools for reading the landscape as well as for observing and interpreting traces left by the Ice Age, both in the World Heritage Site and in other places. It should also spread understanding of the unique land formations resulting from the Ice Age, land uplift and the sea. These

three things have also had an impact on both nature and humans. The nature interpretation should entice visitors to explore the World Heritage Site's geology in various places.

...land uplift... Land uplift is the focus and common thread in the nature interpretation as a whole. Even though there are many narratives to share about the World Heritage Site, the focus is placed on those which are related to land uplift.

...following the last Ice Age. There are several different types of land uplift with a variety of contributing factors. In this area, land uplift is a result of the last ice age (post-glacial isostatic uplift). And, even though the area has been covered by ice several times, the nature interpretation focuses on the most recent ice age, without referring to it as the only ice age.

Experience and understand the main theme

The main theme is the most important message to be conveyed to all visitors and it should be found in every place or in every nature interpretation context together with one or more subthemes. The main theme should express what is extraordinary about the slow, but powerful geological processes that make the land on which we live rise year after year. The entire landscape is rising out of the sea. The reason that the land is rising is that a continental ice sheet had pressed the landmass down with its enormous weight during the last ice age. The land uplift process is still ongoing. Here, in the High Coast/Kvarken Archipelago, there are traces that reveal this process.

One of the key elements of the main theme is to communicate the World Heritage Site as a whole. The World Heritage Site consists of three areas in two countries, and the focus should not be exclusively placed on the area one happens to find themselves. This is done by simply stating the proper name of the site: "World Heritage Site High Coast/Kvarken Archipelago". In and of itself, the fact that the area belongs to the global family of World Heritage Sites is important. Numerous well-known and important places are included on the UNESCO list, and each of these places tells an important



The large, transparent plexiglass has text and pictures on it, which give the viewer more information about the scenery. The example is from Geiranger, Norway.

Photo: Malin Henriksson



The playground in front of the visitor centre naturum Höga Kusten represents some of the World Heritage values, such as the highest coastline, a till-capped hill, a tunnel cave, an isolated basin and a cobble field.

Photo: Anna Carlemalm

story of the history of our planet and humankind. The hope is that World Heritage will increase the understanding of different places and cultures.

How should the main theme be communicated?

The main theme is the most important theme to be addressed in various forms of the nature interpretation before focusing on one or more specific subthemes. This is what forms the basis. Some examples of how the nature interpretation should look are found here. Numerous tips are given under each subtheme.

On a guided tour or in a presentation, the manner in which the ice pressed the landmass down can be demonstrated with a ball, by pressing part of it in and then letting it rebound. The same approach can be used in both indoor and outdoor exhibitions.

A clear panel can be mounted at a specific location to show the landscape at a certain year. Places or other information to be communicated may be printed on the panel.

Making a miniature model of the entire World Heritage Site shows how the site is located in two countries and consists of three areas. It can also illustrate various land formations and traces left by land uplift.

A fictional landscape can also be made in a more playful way by building a playground based on the features of the World Heritage Site. In order to further clarify this, the playground should preferably be furnished with an information board. An example of this sort of playground can be found at the visitor centre of the High Coast naturum Höga Kusten.

Be aware of what the World Heritage Site is called and use its proper name “High Coast/Kvarken Archipelago” whenever running a guided tour and in all written materials.

Bring up UNESCO’s idea for World Heritage Sites by getting people to think about how many World Heritage Sites they know about and why it is important to preserve sites as well as to know about history and other people’s cultures. Don’t be afraid to pose questions that might not have answers. Sometimes, it is more important for visitors to begin reflecting and contemplating.

Links to the subthemes

Even though all subthemes are linked to the main theme, they must be chosen based on context and place. The subtheme or subthemes that are suitable for a given place are linked to the main theme, supplementing it. The specific subthemes can thus enhance the main theme and provide a better overall understanding.

2.2 Subthemes

These seven subthemes are not listed in order of importance. The place and type of nature interpretation determines which subthemes will be used. The main point is that they, together, encompass what the nature interpretation is to communicate. Below, subthemes are listed in an order that can be used as a whole in certain contexts. However, all subthemes can also work on their own or in combination with one or more of the other subthemes. When presented in the following order, these seven subthemes can be used as a brief description of the joint World Heritage Site.

Traces of the ice

The High Coast and Kvarken Archipelago have gone through several ice ages. During the most recent Ice Age, the continental ice sheet was approximately 3 kilometres thick here. Without it, there would be no land uplift, because it was the thick ice sheet that pushed the landmass down. It also left traces on the landscape that we can still see today.

Experience and understand

In this subtheme, it is important to highlight the traces left by the continental ice sheet. The most visible traces can be seen in the forms and contours of the landscape. The visitors should be able to see the features of the landscape and imagine them covered by a cold, kilometres-thick sheet of ice. They should also be given tools for identifying traces of the ice in places other than where the nature interpretation is being conducted. Even smaller traces, such as glacial striations and Roche moutonnées, tell the story of the continental ice sheet and might require a closer look to explore them properly. The scale therefore ranges from landscape formations that extend for hundreds of metres to Roche moutonnées that are several metres in size and glacial striations that are often only a few centimetres wide.

The moraine formations in Kvarken Archipelago comprise the primary focus for this subtheme, because they are such a highly visible remnant of the ice sheet's presence. Here, the point is to make sense of all the rocks strewn about the landscape. The nature interpretation should help visitors discover that there are different formations and a certain order to the rocks. Indeed, there are patterns to be found among them. Glacial striations are also important traces that show how the ice moved. Together with Roche moutonnées and the wearing down of the landscape as a whole, visitors can see the enormous power of the ice. The various periods of an ice age, covering glaciation and warmer periods, can also be discussed. It is even possible to bring up earlier ice ages and mention that the most recent ice age was not the last one.

What is included in Traces of the ice?

- De Geer moraines
- Ribbed moraines
- The worn, abraded landscape as a whole.
- Roche moutonnées and striations
- Boulder fields and erratics

How should Traces of the ice be communicated?

The Ice Age, as with other geological phenomena and time periods, lies more or less in the distant past. In order to provide an understanding of this time perspective, it is a good idea to make timelines. They can be physically installed at a given place, included as an illustration on an information board, performed as an activity during a guided tour, or by putting the participants themselves into the timeline. A classic way of describing this is, if the entire existence of Earth is seen as one day, then humans have existed on Earth for just one second. Highlighting this type of comparison and perspective is a very effective way of making this description.



A timeline can be executed in many ways. Linking the design of the timeline to the topic strengthens the interpretation.

Photo: Anna Carlemalm

To help visitors more easily perceive the formations, their scale and regularity in the landscape, 360-degree images, aerial video material and a variety of miniature landscape models can be used. Observation towers and points offer an aerial view of the landscape, which enhances the experience.



You can help visitors discover the special features in the landscape by framing the view.

Photo: Swedish Centre for Nature Interpretation (SCNI)



An example of how to use frames and thereby get visitors to spread the information about the site. The text tells about frames placed in the landscape to help you to discover the site and to be used when taking photographs. Visitors are also encouraged to use certain hashtags on social media.

Photo: Swedish Centre for Nature Interpretation (SCNI)

The landscape model mentioned in the main theme can be effectively supplemented by clarifying certain geological phenomena that not everyone notices right away. Moraine formations become clear when one sees the entire landscape. Models can also be used to communicate information on traces not found in a given place.

Guides are able to easily and effectively run guided tours along moraine ridges, thus showing their regularity. There are aerial images of moraine ridges available from CAB and PWF that can be used for guided tours.

Observation points are also suitable for pointing out various formations, with the help of photographic images.

There also smaller, less obvious traces of the Ice Age in the landscape that can be highlighted, such as glacial striations. In order for visitors to really see what is being discussed, a frame can be used to help them focus on and see what is essential. Illustrations or photographs highlighting a given phenomenon also help visitors gain an understanding. In cases where there is a risk of confusion, it is a good idea to highlight these and point out the differences so that visitors are ready to make their own observations.

In places where glacial striations overlap each other in different directions, it would be possible to install a clear panel at a higher elevation and distance in order to highlight the striations and their orientation, by drawing them on the panel. Text could also be added to clarify what occurred at that place at various points in time.

Comparisons with other features in the landscape can be used when trying to convey an idea about the ice and just how thick and heavy it was. If the ice was 3 kilometres thick, how many of the towers from the Replot bridge or High Coast bridge would have to be stacked up to reach that height? Another example might be that it would take 10 Skuleberg Mountains to equal the thickness of the continental ice sheet.

Links to other subthemes

The subtheme *Traces of the ice* is linked to the subtheme *One World Heritage Site – so different*, because the appearance of the landscape prior to the Ice Age has had an impact on what kinds of features were left behind. These differences contributed to the differences between the High Coast and Kvarken Archipelago. Although another Ice Age will eventually come, attention can also be drawn to the ways that human activity has affected the climate. Human impact has accelerated climate change. Our societies are not equipped to deal with dramatic changes in the climate without taking some form of action. The link to the future is repeated in several of the subthemes.

Land uplift and the impact of the sea

The melting of the continental ice sheet brought about land uplift, and the Earth's crust is gradually regaining the form it had prior to the Ice Age. As the seafloor rises, the waves shape the coastline, thus creating unique geological value. Without the interplay between land and sea, land uplift would not be so readily apparent in the landscape.

Experience and understand

It is important to understand how the impact of the sea combined with land uplift has made the World Heritage Site special. Land uplift also occurs in other places, but inland areas do not have the geological features that are found here. In the beginning, the rate of land uplift was fast and then it began to slow down. Today, the land in the World Heritage Site rises at a rate of 9 mm a year. Land uplift is expected to continue at the present rate for the next few hundred years and then slow even further until the Earth's crust returns to its pre-Ice Age level. The geological features in the area will also continue forming along the shoreline, where water is shaping the land.

In this subtheme, nature interpretation could also teach visitors how to look for traces in the landscape in order to recognise geological features so that the visitor also can identify them in places other than where the nature interpretation is being conducted. Because some geological features are only found in either the High Coast or Kvarken Archipelago, the subthemes can also be used to attract visitors to the other section of the World Heritage Site.

Although it can be easy to take things for granted, when it comes to nature interpretation one must keep in mind that land uplift is not a given. The fact that the coastline is shifting fast enough that you can see its progress over a few decades is characteristic of the World Heritage Site. The geological features are the evidence for the mystery of the ever-changing coastline. Land uplift causes the seafloor to rise to a level where the waves have an impact on the coastline and then even higher, to an elevation out of their reach. This is an ongoing process. Many of the geological features were formed a long time ago, while in others they are still being formed and will continue to do so in the future. However, the processes depend on the land uplift being faster than rising sea levels, which means that climate change affects both the experience of land uplift and the geological features.

What is included in Land uplift and the impact of the sea?

- Till-capped hills and highest coastline
- Cobble fields
- Tunnel caves
- Isolated basins
- Flads and gloes
- Beach deposits

How should Land uplift and the impact of the sea be communicated?

Here, it might be a good idea to show how the present place looked at different points in time and how much of the land still has not risen from the sea. This can be shown in images of the entire World Heritage Site or of that specific place. Clear panels can be used to show what the landscape looked like at a certain time compared to how it looks today. The entire landscape process can be effectively illustrated with a miniature landscape model in water, in which the landscape elevation level can be increased by visitors in some way, such as by means of a crank. A model of the surrounding landscape that is cranked up and down inside a frame can also be made to show how this area rose from the sea. This can be effectively combined with timelines on the frame. Digitally speaking, there are numerous possibilities for using image pairs in a variety of ways. Even AR (augmented reality) can be used to show how the landscape looked at various points in time.

Till-capped hills are best observed from a distance so that the mountain and its covering of glacial till can be seen next to a slightly lower mountain that is not till-capped but washed bare by the sea. One playful way to show this might be to place seals on the bare mountain tops with a related explanation. At the top of a till-capped hill, the level of the highest coastline can be marked on the ground. This has been done on Skuleberget mountain. The differences in vegetation can be pointed out - spruce grow on till-capped hills and dwarf mountain pine grow on bare rock slabs.

In order to stimulate multiple senses, a type of audio guide with the sound of waves washing against cobble fields or in tunnel caves can be used to enhance the experience of how the sea formed these geological features.

Placing stones and sand of varying grain sizes in a clear jar with water will simply demonstrate the principle of sedimentation. The jar is shaken, and visitors can see how the larger stones sit still, while the finer material takes time to settle.

Isolated basins and flad-gloe lake systems can be effectively illustrated using miniature landscape models. However, strategic points in the landscape can also be found to show a nice series of isolated basins or flads and gloe lakes, such as along a trail or by gaining an overview of the area from a high point in the terrain or a tower. These features are closely linked to the subtheme *Humans and land uplift*, where numerous fishing villages were cut off from the sea and abandoned. In such places, technical aids that retell the histories of different people (U-Turn Rounds or access to audio files via mobile devices) can be used. This can also be closely linked to the subtheme *Biodiversity of the World Heritage Site*. If desired, this can be presented from a fish's point of view, where the fish can tell about its life in lake systems.

If a certain phenomenon is at a distance or is small in size, thus making it difficult for us to provide a clear explanation concerning it, an observation viewer is an effective aid. This helps the visitors see what is being described better.

In order to understand the importance of the impact and power of the sea, both children and adults can be encouraged to play in the water and sand on the beach. It is a good opportunity to show how water works its way through the sand and how quickly it changes its form. Add a thousand years to this and even rock will be worn down. A simple information board posted at the beach can inspire new ideas. Or, why not encourage all visitors to make their own miniature model of the World Heritage Site landscape there on the beach! When camping nearby, it might be a good idea to bring along customised sandbox molds shaped like the geological phenomena of the World Heritage Site or the unique species found here. This relates to the subtheme *Biodiversity of the World Heritage Site*.



The focusing pipe helps the visitor to discover the most important details in the landscape.

Photo: Lo Fischer

If a more commercial approach is desired, 3D postcards can be used. The first image shows what the landscape looked like 10,500 years ago and the second image shows what it looks like today. It is also possible to choose certain years for a specific place, such as the area around a service point or visitor site.



By tilting the Wadden Sea postcard, you can clearly see the effects of the tide.

Photo: Malin Henriksson

Guides should find cluster areas, where there are several traces of land uplift and the impact of the sea within hiking distance. These should be tied together to give participants an understanding of the land uplift process. Discuss the phenomena that can be seen and leave out the rest. It is always a good idea to focus on things that are actually there, not everything the participants missed.

Links between subthemes

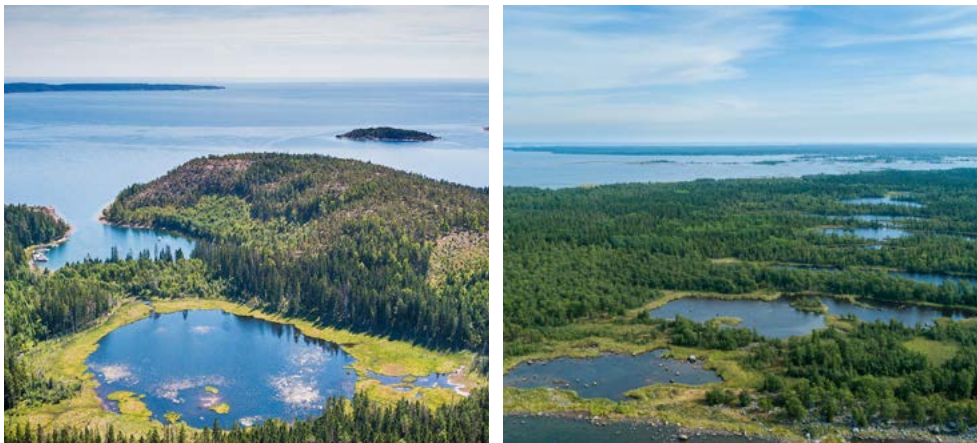
When dealing with isolated basins, flads and gloes, it is not only the exposure to the sea that has an impact - it is also the salinity of the seawater. This is why these two features also belong to the subtheme *Biodiversity of the World Heritage Site*.

One World Heritage Site - so different

The fact that the High Coast is high in elevation and the Kvarken Archipelago is low emphasises that we together show the traces of land uplift as a joint World Heritage Site. We were already different before the Ice Age, but both areas were covered by the same ice sheet. The differences in topography have nothing to do with land uplift.

Experience and understand

World heritage pays no attention to national boundaries, instead focusing on what is most unique in the world. Both the sheer shoreline of the High Coast and the flat expanse of the Kvarken Archipelago are needed to provide a complete picture of land uplift and how it impacts the landscape. The different landscapes complement one another, which is why they comprise a joint, transboundary



When sea bays close off, deep lakes form at the High Coast, whereas shallow flads and gloes form in the Kvarken Archipelago. This is a good example of how the different landscapes complement each other and show the effects of the land uplift.

Photo: Erik Engelro and Christoffer Björklund

World Heritage Site. Because many visitors only visit the World Heritage Site in either Finland or Sweden, the other half of the site must also be discussed in the nature interpretation.

In order to clarify the differences between the High Coast and Kvarken Archipelago, one must return to the time preceding the Ice Age. Because the landscapes were already different before the Ice Age began, those differences can still be seen today. It is vital that time scales be presented here so that the visitors will gain an understanding of what was happening millions of years ago and thousands of years ago. The most important thing here is that changes in the Earth's crust that occurred long before the most recent ice age can still be seen today, i.e. the sheerness of the High Coast and flatness of the Kvarken Archipelago. The High Coast was high and sheer before the Ice Age - the fact that the mountains are so high today has nothing to do with land uplift.

The features presented in this subtheme are those found in both the High Coast and Kvarken Archipelago - how land uplift affects the sheer and flat shorelines as well as features belonging to the geological history before the most recent ice age.

Cobble fields are a more important feature of the High Coast and Kvarken Archipelago, because they are larger, consist of more rounded and evenly sized stones and are even found at high elevations in the High Coast. The fact that there are cobble fields in the other half of the World Heritage Site can be mentioned in both the Finnish and Swedish sections. The same applies for isolated basins and flad-gloe lake systems. Flad-gloe lake systems are also a type of cut-off coastal inlets, and when comparing them with the isolated basins in the High Coast, one

can clearly see how the effects of land uplift take a variety of forms along sheer and flat shorelines. Land area increase in Kvarken Archipelago, which is the combined effect of land uplift, sedimentation, and overgrowth, can also be discussed in this context. In the High Coast, land uplift can be seen in elevation, while in Kvarken Archipelago its impact is manifested in breadth.

The various rock types in the bedrock can also be highlighted in this subtheme because they are related to the differences in landscapes before the Ice Age. The older geological history also explains why, for example, it is possible to find individual sandstone stones in cobblefields or otherwise, even though sandstone is not commonly found in the local bedrock.

What is included in One World Heritage Site - so different?

- Beach deposits
- Cobble fields
- Isolated basins - flads and gloes
- Steep and flat coastlines
- Bedrock and rock

How should One World Heritage Site - so different be communicated?

Time scales can be explained by drawing timelines. It might be fun to make these oversized, several metres in length, if possible. When explaining bedrock and its movement, blocks can be used to show how large landmasses have changed elevation.

Postcards from both countries can also be effectively used here. The same phenomena and differences in the landscapes can be shown.

It is also possible to tie together the two areas, attracting visitors to the High Coast to visit Kvarken Archipelago and vice versa by conducting a quiz: Which has the most islands, cobble fields, bridges? Are there De Geer moraines in the High Coast? Are there onion-shaped tunnel caves in Kvarken? Or, why not make a checklist with places from all three areas?

During a guided tour, participants can be asked to find various stones: spotted, striped and smooth. They do not always need to know what they are called. One of the first steps is to get them to see the differences. Different types of rock can also be set out together along a trail or in one place, along with the names of each type of rock. One such place is the Kvarken Visitor Centre World Heritage Gateway (Världsarvsporten) or naturum Höga Kusten.

And, the name of the World Heritage Site High Coast/Kvarken Archipelago cannot be emphasised enough.

Visitors in one country can be encouraged to visit the other areas of the World Heritage Site in the other country.

Links between subthemes

This theme is linked to the subtheme *The World Heritage idea*, but also borrows a number of the geological features from the subtheme *Land uplift and the impact of the sea*.

Biodiversity of the World Heritage Site

Everything that lives within the World Heritage Site, both flora and fauna, are deeply influenced by land uplift and continuously adapting. The coastline is constantly changing, affecting everything that lives on land and in the sea, alike. Land uplift also creates unique ecosystems that would not have otherwise come about.

Experience and understand

With regard to climate and plant hardiness zones, the High Coast and Kvarken Archipelago are not particularly different. There are, however, certain differences in topography and land uplift impacts. The World Heritage Site was not designated based on its biology, but rather on the aspects of nature that are associated with land uplift and part of the site's narrative.

All the development phases from flads and gloe lakes to mires and forests, recur in this subtheme, but with a focus on flora and fauna which thrive in nutrient-rich and warm habitats. The link the World Heritage Site shares with ecosystem services is clear when flads and gloe lakes are seen as fish nurseries. Thanks to the ample food supply, many birds also thrive here, and the contrast between the calm lagoons and open sea illustrates the diversity of habitats within the World Heritage Site. The boulder-filled terrain, which creates a rocky archipelago with low water areas, is also vital to many archipelago birds.

Land uplift forests are an excellent way of showing the many different ecosystems resulting from land uplift. Forest zones are very evident in the Kvarken Archipelago, as the zones are expansive on the flat landscape. The phenomenon also occurs in the High Coast. The nature interpretation can also highlight various

suitable species in this subtheme. For example, the sea buckthorn is a typical species found in the Kvarken Archipelago, but it is almost non-existent in the High Coast.

Mysid shrimp, which are found in isolated basins, can be highlighted as one of the interesting species in the High Coast. Their presence in lakes tells the story of earlier phases of the Baltic Sea's development, when it was connected to the Arctic Ocean, as well as land uplift in a local context, when what was previously a gulf became a lake. Other remnants of the Ice Age, such as the Ringed Seal, are also included in this subtheme.

Other species indicate soil richer in lime, despite the fact that there is no lime in the High Coast bedrock. The lime found here comes from shellfish, which have been periodically abundant in the Bothnian Bay. When the shellfish died, their shells accumulated on the sea floor, and land uplift lifted beach deposits and shell sediment above sea level. Today, these shell deposits release lime into the soil, thus resulting in the growth of an interesting flora of orchids in the area.

What is included in Biodiversity of the World Heritage Site?

- Flad-gloe lake systems
- Land uplift forests
- Remnants of the Ice Age
- Beach deposits with shell sediment

How should Biodiversity of the World Heritage Site be communicated?

When out in the field, it is easy to point out flora and fauna that are specific to and dependent on land uplift. If possible, models can be set up in suitable locations to emphasise the points being made in the nature interpretation. Text can also be included on the models. There may even be a possibility of adding audio. Certain animal noises can be played on a U-Turn Round. It is a good idea to link a given place to another nearby



With an audio box, visitors can listen to stories and sounds related to the site. Electricity is generated when the handle is rotated, so the box works well also in remote places.

Photo: Tomas Arlemo

place that illustrates a different ecosystem. One playful approach is to build large animal models in a playground which children can climb on.

If there is shell sediment found farther from the shoreline, visitors can be encouraged to look for shells and then asked why they are in a forest. Large models of shells can also be installed to grab the visitors' attention and get them to think about why they are there. Then, an explanation can be given. These unique species can also be presented as plush toys, postcards and souvenirs.

In order to gain an understanding of how all these species came to this area after the continental ice sheet melted, visitors can be encouraged to think about how trees "migrate". Ask the visitors to find a pine cone and then throw it. This is how far a tree migrates in a generation. Is there a plant that migrates even more quickly? How did they manage that? Using an observation viewer, attention can be drawn to pioneering species, mosses and lichens, which grow on rocks and provide a small substrate for grasses. This, in turn, provides the right conditions for forming soil, in which larger plants can grow. This process is still happening today as the land rises from the sea.

Links between subthemes

Land uplift and the impact of the sea encompasses many of the features that lay the foundation for this subtheme. *One World Heritage Site – so different* is also linked to this subtheme, because it offers an excellent opportunity to compare and refer between the two areas in both countries.

Humans and land uplift

Throughout the ages, humans in the World Heritage Site have been affected by land uplift and need to adapt themselves to the constantly changing landscape. From the Stone Age to the present day, there are examples of how land uplift and the changing coastline has affected human life and where to settle.

Experience and understand

There is a fascinating cultural history in the World Heritage Site and many people who can tell about it. It is also often easy to get visitors to relate to stories about people. When it comes to nature interpretation of the World Heritage Site, the aspects of culture that are linked to or depend on land uplift are the ones which must be prioritised and communicated, not those related to archipelago culture

in general. Historically speaking, waterways provided the simplest means of transport. Because they linked the coasts surrounding the Bothnian Bay, the World Heritage Site region has a long, shared history. If possible, the cultural history of women and children should be prioritised, because the focus is usually placed on men's narratives. Within this subtheme, it is also possible to get visitors to reflect on how land uplift affects people today and in the future.

The oldest traces of humans in the World Heritage Site are naturally found in the High Coast, because the higher the ground, the longer it has been above sea level. In the Kvarken Archipelago, the first islands rose out of the water about 2000 years ago, but the first humans are believed to have arrived around a thousand years later. In the High Coast, there are settlements from various periods on the mountain slopes, with the oldest found at the highest elevations. Humans arrived in the High Coast area more than 8,500 years ago. Their ruins can be found high above sea level and far inland. Ruins from the Bronze Age can be found at lower elevations, closer to the present shoreline.

Land uplift, the landscape and sea cause sediments to accumulate in certain places, which affects the ability to cultivate land. In turn, the ability to cultivate land affects where humans choose to settle. In the High Coast, this is manifested in the placement of villages on mountain slopes along valleys with good arable land. In the Kvarken Archipelago, this occurs on a different scale in the De Geer moraine landscape of Björköby. Traditionally, humans cleared low-lying areas between moraine ridges for farming purposes, building stone walls around each field, while living at higher elevations on the De Geer moraines. The moraine ridges are not arable, but they do provide drier land for building houses on than at lower elevations.

Land far from residences has always been used for pasturage and growing grass crops, both in the High Coast and Kvarken Archipelago. In the High Coast, one can now see the ruins of barns that once stood in coastal meadows far inland. The remnants of fishing villages and landings are now found far from the shoreline and can be used as examples of how land uplift affects human activity. Even today, harbours shift position and fairways dry out, which demonstrates the geological processes also affect modern day life. Place names also clearly reveal that the landscape looks very different now than when it was first named.

What is included in Humans and land uplift?

- Traces of prehistoric human settlements high up on mountain slopes at certain elevations
- Impact of the landscape structure on settlement and farming
- Shifting of harbours
- Barns and boathouses previously situated at the water's edge
- Place names

How should Humans and land uplift be communicated?

Explanations can be effectively given from a human and, preferably, personal point of view. Perhaps a real or fictional family that can be followed through several generations. This is done, on one hand, to tell about the changes in their lives and, on the other, about the necessary adaptations they needed to make based on changes to the landscape. An excellent addition to this would be to obtain recordings of personal testimonials from people who lived here, talking about their experiences. These can be played using U-Turn Rounds, by calling a number or some other technical means.

In suitable places, the following question can be asked: Why is this place called “X Island” or “X Pond” when it is neither an island nor a pond? Show historic maps where the name reflects the reality of its place.

Finding old photos of a given place and putting them where they were taken so that they can be compared to how the place looks today would be a very effective way of illustrating the changes that have taken place. In many cases, there is no need for any additional explanation. A picture is worth a thousand words – visitors will leave the place with a sense of real discovery.

As a guide, one idea might be to dress up in a costume and play the role of an historical figure, talking about their



The sign tells about woodpeckers and encourages to call the number if one wants to listen the text. Audio guidance can also be complemented with other sounds.

Photo: Anna Carlemalm

life. If the presenters are part of a theatre society, an entire historical period could be acted out. If the visitors are to be involved, they can be given an opportunity to participate and try their hand at various types of work.

Questions that can be asked regarding the present and future: How do we deal with the fact that we humans are capable of changing nature on a large scale? Is there a balance between influencing nature's processes using technical means or adapting ourselves to simply live with these processes? What are advantages and disadvantages of living in an area affected by land uplift? In the World Heritage Site area, people have always adapted to the ever-changing shoreline. Climate change and rising sea levels mean that people the world over are being forced to adapt to coastal changes. What kind of lessons can we learn from the World Heritage Site?

Links between subthemes

This is linked to the subtheme *Land uplift and the impact of the sea*, for example, because old place names describe places that have undergone change. It is also good to link this subtheme to *One World Heritage Site – so different*, as there are similarities in how people make use of the landscape, on the whole.

Discovery and research

For a long time, it was believed that the sea was receding. By putting different pieces of the puzzle together, researchers working in the High Coast discovered that it was the land that was rising. Land uplift is still, to this day, fascinating to researchers, with the traces found in the World Heritage Site contributing to the knowledge of the changes we are currently going through.

Experience and understand

Discovery is particularly important to the High Coast, because it is given as one of the reasons for its designation as a World Heritage Site. In the High Coast, research has long been conducted on the remarkable phenomenon of the water receding. Various theories have been put forth since time immemorial. Not until the early 1900s it was established that the reason for this phenomenon is the rising of the land. This paves the way for interesting scientific discussions on how we discover new knowledge. One effective approach is to discuss the theories posed on why the water was receding. One might also frame the knowledge concerning land uplift within the context of general knowledge in the world, such as when large

areas of inland ice were discovered it planted the idea that similar areas may have also been found in the Nordic countries. Numerous researchers managed to put the pieces of the puzzle together, eventually arriving at the conclusion: It is not the water that is receding, but the land that is rising. In the Kvarken Archipelago, there is active research being conducted on, for example, the deglaciation based on glacial striations and moraine formations, among others. This is linked to climate change research.



Research is still conducted nowadays and the sub-theme can lead to own discoveries and interest in natural sciences.

Photo: Malin Henriksson

The subthemes can also be used to encourage visitors to make their own discoveries and spark interest in science. Not all of the answers have been found yet. There are still missing pieces to the puzzle. At the same time, the credibility of research and the fact that new insights are often based on old findings should be emphasised. The knowledge which is conveyed in all of the subthemes is based on various types of scientific findings.

What is included in Discovery and research?

- Earlier research on and the discovery of land uplift
- Present-day research linked to the World Heritage Site
- Encourage visitors to make their own discoveries
- Spark interest in science

How should Discovery and research be communicated?

Here, too, it is possible to provide a personal, human point of view by telling the story through a researcher. Disagreements and disputes can be reflected on. One might pose the same questions that researchers posed and encourage visitors to think about solutions themselves. This can be approached like a puzzle, where participants are gradually given certain pieces of information and, based on this information, they think about how they themselves would have explained the phenomenon. This could be set up like a game or treasure hunt.

Provide the visitors with all the puzzle pieces that we currently have on land uplift. Do the visitors still have questions? State that more researchers are needed in order to find more answers in the future.

Have you ever wondered how land uplift is measured? Have the group come up with ideas on how this could be approached. What do I measure against? Water level markings have been carved in certain places since the 1700s. This is one way. But, is it possible to measure from the centre of the Earth? What is my baseline? This can get participants thinking about the manner in which measurements are taken is not always a given. Over time, it is possible to follow the progress of land uplift. Visible changes in water level caused by air pressure is like taking a little trip though time on the land uplift landscape. High sea level takes us back in time, while low sea level brings us back to the future.

There are also other types of land uplift that should be mentioned here. For example, when continental plates collide with each other and mountain ranges are formed, such as what is occurring in the Alps and Himalaya.

Links between subthemes

This subtheme is primarily linked to the subtheme Traces of the ice. In general, this subtheme is also linked to *Land uplift and the impact of the sea* and *Humans and land uplift*.

The World Heritage idea

The idea behind World Heritage is one of peace, that people should protect and preserve the common heritage for posterity. The geology of the High Coast and Kvarken Archipelago is so unique that we are a joint site included on the UNESCO World Heritage List based on the selection criterion “to be an outstanding example representing major stages of earth’s history”. There are over 1,000 other World Heritage Sites all over the world.

Experience and understand

Because the High Coast/Kvarken Archipelago is a World Heritage Site and not just any area, it is important to convey the idea behind World Heritage. As in *Discovery and research*, this subtheme can be used to raise awareness and gain a global perspective in the nature interpretation.

Places are designated World Heritage Sites in order to preserve and protect unique examples of culture and nature all over the world. UNESCO describes the Outstanding Universal Value of each World Heritage Site. The preservation of World Heritage is also a form of peacebuilding. In global terms, war constitutes

a threat to World Heritage because identity and heritage are closely interlinked. The emotional attachment and pride the local population feel for the joint World Heritage Site are enhanced through this subtheme.

The World Heritage Site High Coast/Kvarken Archipelago is part of the greater family of World Heritage Sites all over the world. Natural Heritage Sites, which is the group that High Coast/Kvarken Archipelago belongs to, only account for a small fraction of the World Heritage Sites around the world. There are over 1,000 World Heritage Sites, but only 200 of these are Natural Heritage Sites. A quarter of the Natural Heritage Sites belong to the UNESCO network of Marine World Heritage Sites - High Coast/Kvarken Archipelago is one of them. There are also few transboundary World Heritage Sites: only 43 World Heritage Sites comprise an area in two or more countries. Knowledge of the other Finnish and Swedish World Heritage Sites also belongs here, along with Nordic sites, at least those which have similarities with the High Coast/Kvarken Archipelago (e.g. sharing the same geological features or being a transboundary site). (Figures from 2020)



World Heritage Sites stand for peace, community, and outstanding universal values.

Photo: Raphael Stecksén / The Royal Palaces

What is included in The World Heritage idea?

- The idea of peace and its historical background for World Heritage. World Heritage Sites in different countries are a shared heritage that we must all cherish.
- Understanding one's own culture and visiting others provides an understanding of other people.
- High Coast/Kvarken Archipelago is part of a global community of World Heritage Sites
- Transboundary sites, World Heritage Sites, Natural Heritage Sites, Marine World heritage Sites, Finnish, Swedish and Nordic sites

How should The World Heritage idea be communicated?

One idea might be to have visitors leave various world heritage messages for future visitors. This can be done physically in a guestbook at the site, or digitally online, possibly using social media. Visitors can be encouraged to reflect on what places are being preserved and why. Perhaps they have places they would like to see preserved. This works well in a group, and the guide can facilitate the discussion.

One can talk about our own culture, which is perhaps not so well understood by others, and what we could do to increase others' understanding of us. We could also think about increasing our own understanding of other people.

Here, it is possible to link our own World Heritage Sites with other places in the world that many are familiar with. When referring to various phenomena, links can be made with other World Heritage Sites, such as the Rock carvings in Tanumshede or the Bronze Age Burial site at Sammallähdenmäki when discussing Bronze Age culture. Geologically, our part in the world's history can be included in a broader context, along with other stories about the history of our planet. The interactive map on the website contains links to various World Heritage Sites at different points in time in the High Coast/Kvarken Archipelago.

Links between subthemes

When discussing the World Heritage Site High Coast/Kvarken Archipelago, this is linked to the subtheme *One World Heritage Site – so different*.

Because nature interpretation usually deals with nature and cultural history, it can seem like a challenge to effectively include The World Heritage idea. At the workshops, the subtheme sparked discussion: some felt that it was the most important of the subthemes and should therefore come first, while others felt it should be omitted altogether. It clearly gets people thinking.



Photo: Malin Henriksson

3. Target groups

Identifying various target groups facilitates the introduction of nature interpretation. People who do not identify themselves with a specific target group are naturally also welcome. The target groups in this plan are those which the CAB and PWF will be using as a point of departure when nature interpretation is introduced, and this division into groups can also help others just adopting nature interpretation for the first time. Existing visitors to the World heritage Site can be divided into target groups, which are formed in such a way that it will also be possible to place new visitors in the future into the groups. In the nature interpretation plan, visitors are divided based on their mobility and their level of knowledge and interest. This is why they do not correlate with the target groups of Visit Sweden or Visit Finland, which are based more on the consumption patterns of visitors and what type of experiences they would like to have.

For some visitors, World Heritage status is an important reason for visiting, but many come for other reasons, particularly to the High Coast. The division of visitors into target groups focuses on meeting different levels of accessibility and the various groups are diverse. Other parties wanting to communicate the World Heritage Site may have different target groups. All actors are perfectly able to base their approaches on their own specific target groups.

A common thread among these target groups is that consideration is given to which language is suitable for each place, partly in terms of tone and partly whether Swedish, Finnish or another language is the most relevant. Thought should also be given to determining whether text should be used as a starting point. Read more in section 3.2 (Accessibility) and under the various subthemes for ideas.

3.1 Target groups of the nature interpretation plan

Based on visitor surveys and in working with the nature interpretation plan, the CAB and PWF identified a few different target groups in co-operation with the

workshops. The first group was formed based on the composition and physical needs of visitors. The second group was formed based on how people would like to take part of nature interpretation. An individual person can naturally belong to different groups in different situations, and the combinations can vary. For example, one *Family* can belong to the group *Curious but unknowledgeable*, while another *Family* can also belong to the group *Nature lovers seeking more knowledge*. Likewise, a person can belong to *Outdoor enthusiasts* one day and then *Not so mobile* on another, depending on the clothing, gear and context.



During the workshops it was discussed which target groups can be linked to different places.

Photo: Swedish Centre for Nature Interpretation (SCNI)

The following groups have been identified:

- **Not so mobile** – these are people who want accessible environments. The terrain is not too hilly and the distances one is able to hike are short. In most cases, it is possible to access the area in a wheelchair as the trails are built in accordance with national guidelines on accessibility. The accessibility of this group is important to consider, above all because it can be difficult to access areas where accessibility issues have not been given any attention. The inaccessibility of a given place can also exclude the group Not so mobile. For example, bridges and boats can seriously restrict accessibility.
- **Families** – families constitute a group of people composed of 1-2 adults and one or more children. This group is selected because many of the visitors come in small groups, with adults and children together, consisting of 2-5 persons.

- **Outdoor enthusiasts** – this group is ready to spend longer periods of time out in nature. People in this group are capable of covering more difficult terrain or heading out to sea, and they can handle excursions lasting anywhere from a few hours to a few days. This group is selected because hiking is one of the most popular activities in the World Heritage Site and there are also excellent opportunities for paddling. Many visitors even use their own boat in the area.

One or more of the interest groups below can belong to the above-mentioned target groups:

- **Curious, but unknowledgeable** – these people are interested and curious. They are open to receiving information and nature interpretation. They are open to what the place has to offer. They come to the area with an open mind and unprepared (in terms of background knowledge). These visitors should ideally be given more in-depth information and inspiration for their visit.
- **Specialists** – these people know that they are in an area of geological interest and that this is the reason the area is a World Heritage Site. It may very well be that they expect to see the special phenomena that are specifically linked to the World Heritage Site. Although they probably know how the geological features were formed, they are always interested in learning more details and in-depth information. This group may need place-specific assistance or knowledge. They are prepared to visit places that are far off the beaten path. Because the area is a World Heritage Site, visitors with a great deal of prior knowledge want to come here to study land uplift.
- **Scanners** – these people are, for example, on holiday or a business trip, and thus have a different focus. They are not prepared to read or absorb a lot of information. They want a quick overview of the area, perhaps taking a few nice photos along the way. They might learn a few things at the general level and look at pictures in the nature interpretation. This is why they are such an interesting group - their interest in the World Heritage Site can be piqued and they can be made aware of the fact that this is a unique area.
- **Nature lovers seeking more knowledge** – This is a group of people who love to be out in nature. They are general fans of nature, but do not possess any special prior knowledge. However, they are interested in learning more about the specific area they are visiting, which is why more in-depth information should be made available to them.



Physical mobility and level of interest are taken into account in the target groups.

Photo: Malin Henriksson and Liselott Nyström Forsén

3.2 Accessibility

In many cases, it can be easier to acquire new knowledge in ways other than by using written text. This is why it is so important that text not always be the primary means of communication. So many more people can be reached if another means of communication is used, such as by giving the visitor an opportunity to feel, hear or do things. Functional variation encompasses more than just motor disabilities. Using different means of communication will reach more people, often making the experience more interesting. The fact the information is disseminated in many different ways also benefits visitors who do not have a problem acquiring knowledge from a conventional information board. At the same time, the written word can be crucial to visitors with impaired hearing. Consider varying the means of communication to be used.

With regard to motor accessibility, this applies to the target group “Not so mobile” in varying degrees. The wide variation within this group should be kept in mind. There are visitors who need everything from electric wheelchairs to rollators, those who have difficulty walking or whose vision is impaired, and those whose mobility is restricted due to their gear at a given time. When places are prioritised, it is important to avoid giving priority to only one of the target groups - all of the categories must be served. This is done in view of the fact that the plan will be phased in. It is also important to observe national guidelines on accessibility issues and involve people and organisations with relevant hands-on experience and expertise. When developing new places or improving services at existing visitor sites, accessibility issues must be given much more extensive consideration than before. This applies to both physical accessibility and the various means of communication to be employed, the length of texts, etc.



Photo: Malin Henriksson

4. Places for nature interpretation

This section lists the places which are important to nature interpretation of the World Heritage Site. The places in the High Coast are listed in section 4.4 and places in Kvarken Archipelago in section 4.5. Read the instruction *How place descriptions should be used* in section 4.3 first. The World Heritage Site boundaries constitute the primary definition of the nature interpretation plan. Outside the World Heritage Site, there are also a number of places that are natural landing spots for visitors and local residents. The reasons for including some places outside the boundaries of the World Heritage Site in the nature interpretation plan are presented in section 4.2. The methods used in the work with the nature interpretation plan is presented in Appendix 1, which provides a more detailed description of the work by listing the places for nature interpretation (primarily the mapping of visitor sites and workshops with local actors and stakeholders). The



During the workshops it was discussed which places are most suitable for the visitors. Both pros, cons and possibilities were highlighted.

Photo: Swedish Centre for Nature Interpretation (SCNI)

places to be included in the nature interpretation plan have been discussed at the various workshops held. In addition to these, several places have been included in the mapping of visitor sites.

4.1 Nature interpretation today: Starting point for planning

Because the World Heritage Site is a large area with numerous actors and stakeholders, it is not such an easy task to provide an overview of all the nature interpretation in the area. The fact that so many different stories are being told is a positive thing. They can be about fermented herring, sportsmen or birds. This plan concerns what is related to the World Heritage Site.

High Coast

The County Administrative Board of Västernorrland (CAB) has 21 nature reserves, 12 Natura 2000 areas, one culture reserve and a national park within the World Heritage Site in 2020. All of these have at least one information board describing the reserve. This information is not always linked to the World Heritage Site. This is partly due to the fact that the information board was installed before the World Heritage Site was established and partly because the World Heritage Site is not the reason for the place's designation as a nature reserve. The CAB had also previously specified 12 visitor sites within the World Heritage Site. Although many of these are located within nature reserves, a few of them are outside them. These places are often furnished with a general World Heritage Site sign and a place-specific sign.

The main point for nature interpretation on the World Heritage Site in the High Coast is at the naturum Höga Kusten at Skuleberget. Naturum has permanent exhibitions and organises activities, including guided tours and activity and school programmes.

In addition to these, there are a number of trails. The longest of these are the High Coast Trail and World Heritage Trail. These trails have information posted along them, primarily related to orienteering. Pure nature interpretation is almost non-existent. However, new information boards are currently being installed along the World Heritage Trail. Many village associations have built shorter trails and posted information along them. There are also some small "mini-museums" and other museum facilities in the area. Some of the tourist associations work

with guided tours and post information on the World Heritage Site on their own websites. The High Coast Tourist Service (Höga Kusten Turism) highlights the World Heritage Site in its marketing and on its website. The Swedish Transport Administration (Trafikverket) has also posted signs at its nature rest areas. These often have a connection to the World Heritage Site.

Kvarken Archipelago

Extensive areas of the Natura 2000 network are found within the Kvarken Archipelago. Parks & Wildlife Finland, Coastal and Metropolitan Area (PWF) has approximately 10 prioritised visitor sites, where you'll find information on the World Heritage Site and the visitor sites themselves, a map of each visitor site and, in many cases, nature interpretation on the features of each visitor site. The information comes from earlier projects and is, to a certain extent, outdated. Many of the information boards are also in poor condition as are their mounts. Information boards from earlier projects are also posted at small boat harbours on the mainland, as many of the visitor sites are located on islands and are not easily accessed.

In the spring of 2018, the Kvarken Visitor Centre World Heritage Gateway (Världsarvsporten) opened at Replot Bridge. The Kvarken Visitor Centre World Heritage Gateway is the central point for nature interpretation at Kvarken Archipelago. It has permanent exhibitions and organises activities, such as guided tours, lectures, etc. There are also selected sites in each World Heritage Site municipality, such as in libraries, that the municipalities have jointly designated as InfoPoints together with PWF. A central location is Terranova, which is the main natural science exhibition at the Ostrobothnian Museum in Vaasa. The museum also has information on the World Heritage Site in its permanent exhibition. Terranova is undergoing renovations in 2020-2021.

In addition to this, there are also trails and places maintained by associations and municipalities. Although the information and nature interpretation at these places varies, generally speaking, there is an acute need to update the nature interpretation. This is due to both outdated information and information boards being in poor condition.

The World Heritage Site is also highlighted on the ferry between Umeå, Sweden and Vaasa, Finland, inviting visitors to come. The ferry constitutes a key link between the Swedish and Finnish sections of the World Heritage Site.

4.2 Geographical demarcation

Both within and outside the World Heritage Site, there are places that are natural landing spots for visitors and local residents, such as Docksta, Köpmanholmen, Molpe, Bergö and Replot. Highly visible geological features to focus on in the nature interpretation are often lacking, but nature interpretation should be found in these places partly to inform visitors that there is a World Heritage Site here, and partly to explain how to go deeper into the site and explore more of it. Disseminating information on the World Heritage Site where people live and spend time instead of restricting it to the immediate vicinity of the site improves its connection to the local community. In addition to providing information on the World Heritage Site in smaller towns, thought should also be given to how the profile and communications of the site can be raised in the neighbouring cities of Vaasa, Kramfors, Örnsköldsvik and Härnösand. All of these cities are places where it is possible to attract visitors and spark their interest in the World Heritage Site. In these places there are many different actors which can help press the case for the World Heritage Site, partly by taking targeted measures at a specific time and partly through more permanent efforts. The CAB and PWF are perfectly willing to provide assistance in these larger areas but feel that it is the responsibility of the municipalities to launch nature interpretation in the cities.

Places outside the boundaries of the World Heritage Site that are included in the nature interpretation plan are listed here, along with the rationales for why they have been included. Maps of the selected sites can be found at the beginning of section 4.4 (High Coast) and section 4.5 (Kvarken Archipelago).

Exceptions to the geographical demarcation include:

- **The Smitingen Nature Reserve outside Härnösand in Sweden.** The reason Smitingen was included, despite the fact that it is located outside the actual World Heritage Site area, is that it contains excellent examples of tunnel caves. Although these types of caves are also found within the World Heritage Site, they are very difficult to access. Smitingen is also a well-known destination and is therefore particularly well-suited as a selected site in the nature interpretation plan.
- **Mosjön, north of Örnsköldsvik in Sweden.** This is a rest area on European Route 4 (E4) that serves as the north entrance to the Swedish section of the World Heritage Site. Just south of here are the exits to Skags Udde lighthouse and Skeppsmalen, which comprise the northern outposts of the Swedish section. This is why this particular spot is so important to drawing attention to the World Heritage Site, so that visitors do not drive past half of the entire site before they cross the boundary, where the E4 is at the same elevation as Skuleskogen.

- **Bjästa and Köpmanholmen in Sweden.** These are both small regional centres in Sweden that are not actually within the World Heritage Site, but are located in close proximity to it, it would be a good idea to highlight the World Heritage Site by using nature interpretation in these places.
- **Västerö hiking trail in Vörå, Finland.** The hiking trail is located outside the World Heritage Site area, but is accessible by car, as opposed to the sections of the site located in the municipality of Vöyri. The trail is maintained by an association in a co-operative agreement with PWF. The trail offers panoramic views of the World Heritage Site and shares the same geological features.
- **Klobbskat and Kikanberget in Korsholm in Finland.** The area is located just outside the World Heritage Site boundary, but this is not noticeable by visitors. Klobbskat can be reached by car and has both an observation tower and nature trail to Kikanberget Hill. The municipality also has plans to develop services for visitors to Klobbskat.
- **Terranova in Vaasa, Finland** is the Ostrobothnian Museum's permanent natural science exhibition. This exhibition is particularly important regarding school groups, as schools have limited possibilities to make excursions into the World Heritage Site.

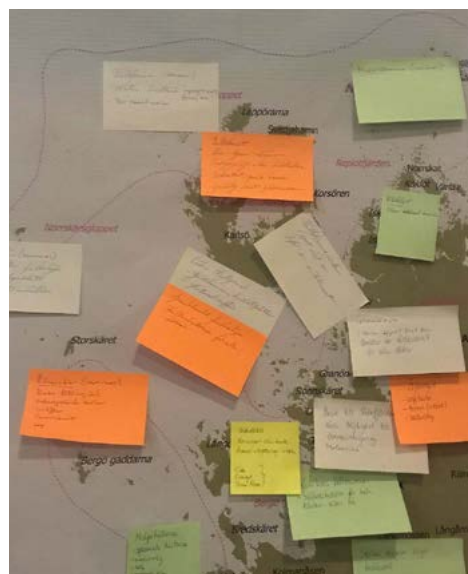
4.3 General information on the selected sites

The sites which have been selected have been ironed out and established in the nature interpretation planning workshops (see the Appendix on methods used). The sites are, as a rule, those which illustrate the value of the World Heritage Site, so that visitors can effectively experience and understand land uplift. The places where visitors tend to go have also been taken into consideration. A site with low World Heritage value can therefore have greater value if large numbers of visitors pass through it and an effort is made to capitalise on this, motivating visitors to learn more about the World Heritage Site.

The sites have been selected based on, for example, geological features, visitor volume, accessibility and how they fit in with the message to be conveyed about the World Heritage. The sites have been discussed together with local stakeholders at workshops, at which the advantages and disadvantages of the sites were addressed. The CAB and PWF then took these into consideration and made their final selection.

In Sweden, the CAB will be working to institute the nature interpretation in these selected sites. In the Kvarken Archipelago, PWF has an opportunity to prioritise the sites whose land is owned by the state or which have a co-operative agreement with local actors. There also may be other interesting places. If an association or other stakeholder wants to develop nature interpretation at their site, the CAB or PWF will gladly provide assistance and welcome the use of the theme and subthemes, preferably together with the target groups.

The sites vary a great deal, also in terms of complexity. In certain sites, the CAB or PWF have a strong mandate, such as in the nature reserves of the High Coast, which has few other involved actors, or in areas with state-owned land, that the PWF administers in the Kvarken Archipelago. Other sites are made up of numerous activities, actors and stakeholders. Here, it is of the utmost importance that everyone is given the opportunity to participate in the ongoing process. Joint consultation and collaboration are encouraged in the development of nature interpretation. Some sites may be subjected to conflicting interests, thus requiring efforts to reach a consensus so that the site can be developed in a harmonious manner.



Sub-themes and target groups linked to different places were chosen in the workshops.

Photo: Swedish Centre for Nature Interpretation (SCNI)

When nature interpretation is introduced at a certain site, it is important to ensure that a responsible party is appointed for the continued maintenance of the site. Thought should also be given to what resources will be needed for annual maintenance. In many cases, fragmented nature interpretation makes a poor impression and the message can be lost in the fray. Co-operation between various actors is vital, and the CAB and PWF are happy to contribute their knowledge on the World Heritage Site if someone wants to institute nature interpretation for a specific site on their own.



Bönhamn village and Fäliskär island are two of the chosen places that differ in character.

Photo: Malin Henriksson

How place descriptions should be used

The lists of places in the High Coast and Kvarken Archipelago are not intended to be read all at once. Instead, the idea is for one to look up the place they are interested in working with. The target groups are based on a given place and the subthemes belong with the features of that place. Read more about target groups in section 3 and subthemes in section 2. Place descriptions are based on the mapping of visitor sites and workshops. The descriptions were made by CAB for the High Coast and by PWF for Kvarken Archipelago.

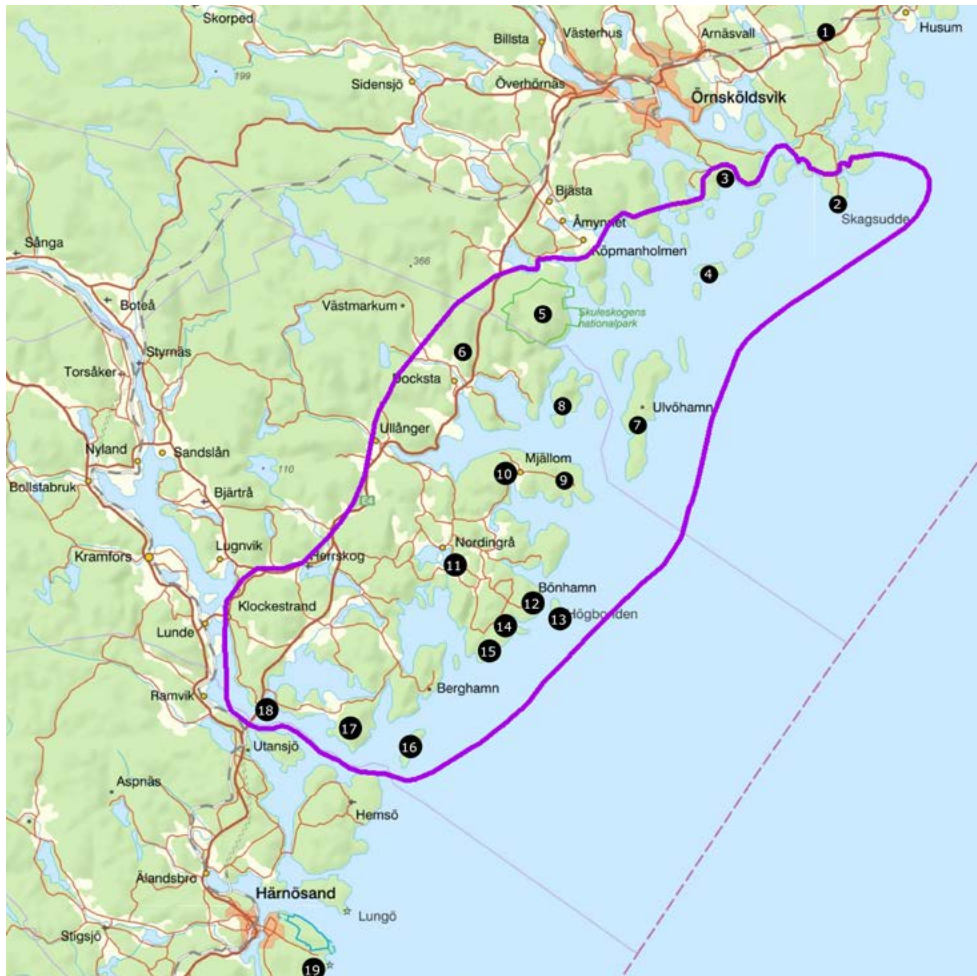
The suitable subthemes are listed for each place. However, it should be kept in mind that everything ultimately refers back to the main theme. The ability to experience and understand a certain subtheme at a given place can determine whether the subtheme is suitable for it. It is important that the place has something physical to tie it to the subtheme and that visitors can experience. The target groups one can initially address in each place are listed. The selected target groups and accessibility of a given place also belong together. The geological features found at a given place and which can be highlighted in the nature interpretation are also listed. The place description is just a brief summary of all relevant information to be communicated concerning the World Heritage Site. Many places have more detailed descriptions in other documents, such as nature reserve decisions, management plans, etc.

The section “Things to consider” addresses some of the things discovered during work on the nature interpretation plan that should not be left out in work to be done later. These are therefore not complete lists or place descriptions. By highlighting different

target groups and subthemes for different places, no target group or subtheme will be overlooked in the World Heritage Site as a whole. It is important to keep in mind that the work to be done later with these places involves their establishment and introducing concrete solutions surrounding nature interpretation. Only then is it possible to move up to a more detailed level.

The nature interpretation plan encompasses the entire World Heritage Site and does not have detailed proposals for individual places. When continuing work on a certain place, establishing local ties and involving stakeholders in the place are important. It is important to wait for the local process to run its course for each, individual place, and the manner in which one might consider communicating a subtheme at a given place comes last in the process. Each place is assigned subthemes to be communicated and selected target groups that are suitable for the place in question. Ideas on nature interpretation are linked to the subthemes. See section 2.2 for proposals on what is suitable for a given place. These proposals are intended for use as a source of inspiration and can be further developed. Read more on nature interpretation media in section 6. The SCNI website www.slu.se/cnv also contains useful information.

4.4 High Coast



1. Mosjön. 2. Skeppsmalen. 3. Gullvik recreation area. 4. Trysunda nature reserve. 5. Skuleskogens national park. 6. Skuleberget nature reserve. 7. Ulvöarna. 8. Mjältön. 9. Norrfällsviken including Storsand, Villmyran and Rammberget nature reserve. 10. Höglintén nature reserve. 11. Stortorget and Mannaminne. 12. Bönhamn. 13. Högbonden nature reserve. 14. Barsta. 15. Rotsidan nature reserve. 16. Storön nature reserve. 17. Valkallen. 18. Hornöberget. 19. Smitingen nature reserve.

Map: © Länsstyrelsen Västernorrland/© Lantmäteriet Geodatasamverkan

Smaller regional centres

Visitors come to a number of smaller communities, such as Köpmanholmen, Bjästa, Docksta, Ullångers, Nordingrå and Nora. Although there are no World Heritage values in these communities, they do present an opportunity to attract visitors and spark their interest for further visits in the area. General information on the World Heritage Site and a means of directing traffic to it are needed in these places.

The other places are presented in Sweden from north to south.

Mosjön

Target groups: Not so mobile. Curious, but unknowledgeable. Scanners.

Subthemes: The World Heritage idea.

World Heritage values: Isolated basins. Bare washed rock surfaces.

Description: Mosjön is the northern gateway to the Swedish section of the World Heritage Site. The Swedish Transport Administration (Trafikverket) has a rest area here and there is a campground nearby. This means that a large number of people will be staying here. There is older signage for the World Heritage Site here.

Things to consider: The following stakeholders are involved with this place: The Swedish Transport Administration (Trafikverket), Municipality of Örnsköldsvik and Mosjö Camping. This place must serve as a draw for the World Heritage Site, raising interest in it and encouraging visitors to return in the future. Visitors should be informed that they are passing by a World Heritage Site - state what it is and why this place is a World Heritage Site. Visitors should be encouraged to explore more of the site. An isolated basin, bare washed rock surfaces on Spirberget and cairns are located in the vicinity. These should be highlighted in the nature interpretation.

Skeppsmalen

Target groups: Not so mobile. Curious, but unknowledgeable. Specialists.

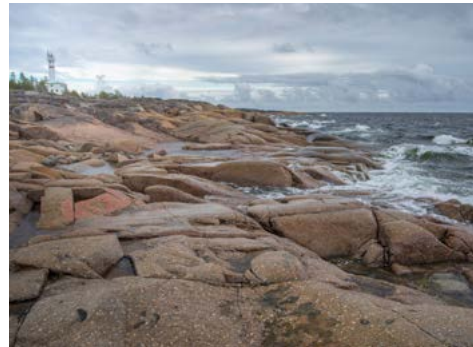
Subthemes: Traces of the ice. Land uplift and the impact of the sea. Humans and land uplift. Discovery and research.

World Heritage values: Cobble fields. Beach deposits. Bare washed rock surfaces. Roche moutonnées and striations.

Description: The northernmost point in the Swedish section of the World Heritage Site. Here, visitors can clearly see the bare washed rock surfaces with glacial striations. The place is conveniently located near a fishing village and restaurant. There are also maintained trails with nature interpretation and parking, which serve as the basis for the visitor site infrastructure. There are different established actors that are willing to discuss various aspects of the place. Ideally, this should function as a whole, where the different actors complement each other.

Things to consider: It is important to involve local residents, the municipality and cultural sector within the CAB. Skeppsmalen and Skags Udde have a variety of private landowners as well as the associations Skeppsmalens hamn och

fiskeförening and Skeppsmalens kapellag. There is a fishing village, lighthouse, restaurant and number of hiking trails in the vicinity. Because there are several different stakeholders and actors in the area, it is important to clearly specify where visitors should park, how they are to find their way to trailheads and what sights there are to see while the privacy of local residents must be respected.



The bare washed rocks and the light house at Skags udde.

Photo: Erik Engelro

Gullvik Recreation Area

Target groups: Families. Not so mobile. Outdoor enthusiasts. Curious, but unknowledgeable. Specialists. Scanners. Nature lovers seeking more knowledge.

Subthemes: Land uplift and the impact of the sea.

World Heritage values: Cobble fields. Beach deposits. Isolated basins.

Description: Gullvik has a popular swimming beach, which is heavily visited in the summer. There is also a campground next to the beach. The municipal nature reserve Ögletjärn, which is a popular destination for outdoor recreation, is located nearby. There is also a hill, Vikbottberget, in the vicinity. On sunny days during the summer, the place can sometimes be overrun by visitors. In such cases, the volume of visitors exceeds parking capacity. In the Ögletjärn Nature Reserve, there are some problems with wear and tear on nature. Because this is a popular area, there are many visitors who can be given an opportunity to learn more about the World Heritage Site and explore it. There are existing maintained trails and certain outdoor recreation facilities in the area.

Things to consider: The area is already overloaded, so careful planning is required to ensure that visitors are more spread out, thus preventing the over-exploitation of certain parts. The area concerns many landowners, and the Municipality of Örnskölvik is a major owner. As a result, it must be included in all planning. Gullviks camping must also be involved in future planning.

Ideas for nature interpretation: A trail like the one on Hornöberget hill would work well here (see Appendix 1 on methods and pilot studies). This could also lead to a situation where visitors are steered more in a certain direction to relieve the pressure caused by wear and tear and high visitor volume.

Trysunda Nature Reserve



Trysunda fishing village.

Photo: Erik Engello

Target groups: Families. Not so mobile. Outdoor enthusiasts. Curious, but unknowledgeable. Specialists. Scanners. Nature lovers seeking more knowledge.
Subthemes: Land uplift and the impact of the sea. One World Heritage Site - so different. Biodiversity of the World Heritage Site. Humans and land uplift.
World Heritage values: Cobble fields. Beach deposits. Bare washed rock surfaces.

Description: Trysunda is a state-owned nature reserve and island. The island is served by regular ferry service from Köpmanholmen. The island has a fishing village, a hostel and a guest harbour. There are several existing maintained trails all over the island. One of these passes by a lovely little sand beach. At the guest harbour, there is a small museum that presents information on land uplift. On Trysunda, there are excellent opportunities to experience numerous geological features and several subthemes are linked with the place.

Things to consider: This place is found within a nature reserve and is therefore subject to special regulations. There are a number of summer residents on the island who must be involved in the work, as they maintain strong ownership of the place along with the state and the leaseholder of the hostel.

Skuleskogen National Park

Target groups: Families. Not so mobile. Outdoor enthusiasts. Curious, but unknowledgeable. Specialists. Scanners. Nature lovers seeking more knowledge.

Subthemes: Traces of the ice Land uplift and the impact of the sea. One World Heritage Site – so different. Biodiversity of the World Heritage Site. Humans and land uplift. Discovery and research. The World Heritage idea.

World Heritage values: Highest coastline and till-capped hills. Cobble fields. Beach deposits. Isolated basins. Bare washed rock surfaces. Roche moutonnées and striations. Ravines in sediment. Land uplift forests.

Description: The national park has a well-developed visitor infrastructure. There are several World Heritage values here and most of the subthemes are linked with the place. All target groups have access to suitable places within the national park. This makes it an integral part of nature interpretation of the World Heritage Site. The national park can be divided into several subareas. The state is the lone landowner.

For a comprehensive description of the Skuleskogen National Park, refer to the management plan, decision and background documents.

Things to consider: In addition to being a key part of the World Heritage Site, the national park is protected for its biological value. This description should also be included at Skuleskogen. It might also be a good idea to consider steering visitor flows. This must be done, to a certain extent, before the visitors decide to come to Skuleskogen. Thought might also be given to first-time visitors to nature, who are not completely familiar with how one should conduct themselves in nature. A mention of Everyman's Rights might also be a good idea.

The Skuleskogen National Park will need its own nature interpretation plan, which is based on this plan, but whose nature values are also taken into consideration. Consequently, such a plan will not be described or addressed in greater detail here.

Another important consideration is to involve the public in work being done with the national park. Many have strong feelings for the place and entrepreneurs want to run their businesses in and around the park. And, at the core of all this are the animals and plants, for which the park was established to protect and serve as a sanctuary and which the visitors have come to see.

Ideas for nature interpretation: At Slåttdalsberget, visitors can see a number of bronze seals placed to visualise how seals might have basked on these rocks some 9,000 years ago.

Skuleberget Nature Reserve



View over the Skuleberget mountain.

Photo: Erik Engestro

Target groups: Families. Not so mobile. Outdoor enthusiasts. Curious, but unknowledgeable. Specialists. Scanners. Nature lovers seeking more knowledge.

Subthemes: Land uplift and the impact of the sea. One World Heritage Site - so different. Discovery and research. The World Heritage idea.

World Heritage values: Highest coastline and till-capped hills. Beach deposits. Bare washed rock surfaces. Ravines in sediment.

Description: Skuleberget is a popular and well-known hill in the High Coast. Naturum Höga Kusten is located here. It serves as a visitor centre for the region's protected nature and World Heritage Site. Naturum is the obvious hub for all nature interpretation in the area as well as the World Heritage Site in particular. Skuleberget is also a state-owned nature reserve, which has climbing routes, a summit hut, chairlift and several hiking trails. Skuleberget mountain is steep and difficult to climb. Here is the world's highest coastline and, as such, it is a very important place in the description of the World Heritage Site. At the same time, it is a nature reserve with great natural value.

Things to consider: There are several actors here which should be involved in the continued work and want to include nature interpretation in their undertakings.

Ideas for nature interpretation: Naturum Höga Kusten will continue to develop its operations with programme activities, exhibitions and school programmes. The same type of trail used at Hornöberget would also be suitable here, perhaps running along the Grottstigen trail up to the summit (see Appendix 1). The summit makes it possible to show visitors how this mountain was an island in a large sea around 10,500 years ago as well as how research discovered the puzzle pieces that revealed the mystery of receding water.

Ulvön islands

Target groups: Families. Not so mobile. Outdoor enthusiasts. Curious, but unknowledgeable. Specialists. Scanners. Nature lovers seeking more knowledge.

Subthemes: Traces of the ice. Land uplift and the impact of the sea. Biodiversity of the World Heritage Site. Humans and land uplift.

World Heritage values: World Heritage values: Cobble fields. Beach deposits. Tunnel caves. Isolated basin.

Description: The Ulvö Islands consist of two islands, which are served by regular ferry service to the north island. There is a nature reserve on the islands as well as a culture reserve (Sandviken). There are several villages and two fishing villages. Many visitors arrive by boat at the harbour.

South Ulvö Island offers excellent hiking. One problem visitors might have is getting from the north to the south island.

Because many visitors stay in the harbour area, it has heavy visitor traffic, even though there is plenty of space to explore the rest of North Ulvö Island.

The harbour also boasts one of the finest fishermen's chapels in the High Coast. It dates back to the 1600s and has beautiful wall and ceiling paintings.

Things to consider: Many different actors have ownership in the place and must therefore be included in the more detailed planning. There is a fishing museum here - it is important to co-operate with the museum to ensure consistency. Markviksgrunnan, on the southwest side of South Ulvö Island, is cramped and there is not much room to handle more visitors. It is a small fishing village with summer residents.

Do not forget to include boating and its possibilities in the nature interpretation.

Mjältön island

Target groups: Families. Outdoor enthusiasts. Curious, but unknowledgeable. Nature lovers seeking more knowledge.

Subthemes: Land uplift and the impact of the sea. One World Heritage Site - so different. Biodiversity of the World Heritage Site. Humans and land uplift. Discovery and research. The World Heritage idea.

World Heritage values: Cobble fields. Beach deposits. Tunnel caves. Isolated basins. Bare washed rock surfaces. Ravines in sediment.

Description: Mjältön is the tallest island in Sweden. There is no regular ferry service here - visitors must make their own way to the island. There are piers and a sauna at Baggviken. Parts of the island are a state-owned nature reserve. There is a marked trail to the top of the island and, via a detour, visitors can see the smooth-walled cave there. Baggviken bay will eventually be closed off. There is an already isolated basin within it.



The Baggviken bay at the island Mjältön.

Photo: Erik Engestro

Things to consider: The island is difficult to reach and exclusive. One particular group which comes here is boaters. Landowners must be involved.

Norrfällsviken and Storsand, Villmyran and Ramberget Nature Reserves

Target groups: Families. Not so mobile. Outdoor enthusiasts. Curious, but unknowledgeable. Specialists. Scanners. Nature lovers seeking more knowledge.

Subthemes: Land uplift and the impact of the sea. One World Heritage Site - so different. Biodiversity of the World Heritage Site. Humans and land uplift. Discovery and research. The World Heritage idea.

World Heritage values: Highest coastline and till-capped hills. Cobble fields. Beach deposits. Tunnel caves. Roche moutonnées and striations. Bare washed rock surfaces. Ravines in sediment.

Description: This area consists of four nature reserves and should be preferably seen as a single entity. These places are partly interrelated by the World Heritage Trail, among other things.

Norrfällsviken is the centre of the area, with a nature reserve, campground, hotel, restaurants, golf course and fishing village. There is an enormous cobble field here, along with the remains of hunting shelters, among other things. Storsand is a popular nature reserve with a beach and Villmyran is a small nature reserve noted for its calciphilous flora. Rammerget is a new nature

reserve addition to the area, and it has one of the tunnel caves found within the World Heritage Site. This section understandably does not see high number of visitors yet. Although there are no trails, these can be built in the future.

Things to consider: Even if each of these nature reserves could be addressed individually on their own merits, presenting them as a single entity would be advantageous for the area. Accordingly, there will be a large number of stakeholders involved that must be included in the detailed planning.

Ideas for nature interpretation: The same trail concept used at Hornöberget would also be suitable here (see Appendix 1).

Höglinten Nature Reserve

Target groups: Families. Outdoor enthusiasts. Curious, but unknowledgeable. Specialists. Nature lovers seeking more knowledge.

Subthemes: Land uplift and the impact of the sea. Discovery and research.

World Heritage values: Cobble fields. Beach deposits. Ravines in sediment.

Description: Höglinten is a state-owned nature reserve, with one of the highest cobble fields. Even though it is located in close proximity to the Norrfällsviken area, it should ideally be treated as its own area.

Things to consider: There are no other facilities or undertakings in this place, with the exception of a mast. However, the World Heritage Trail passes through the Höglinten Nature Reserve, and the organisation Världsarvsledens vänner should be involved.

Stortorget and Mannaminne

Target groups: Families. Not so mobile. Curious, but unknowledgeable. Specialists. Scanners. Nature lovers seeking more knowledge.

Subthemes: Land uplift and the impact of the sea. One World Heritage Site - so different. Biodiversity of the World Heritage Site. Humans and land uplift.

World Heritage values: Isolated basins.

Description: Mannaminne is an artistically and culturally important destination in the region. It was established by Anders Åberg. Above this place is Stortorget, a hill which offers a spectacular view of a isolated basin. Mannaminne is open every day in the summer months and is otherwise an open-air museum open to visitors all

year round. The only limitation then is that visitors may not enter any of the buildings. While on the Mannaminne grounds, it is important that visitors find their way to Stortorget and an explanation should be given as to why they should go there.



View from Stortorget over Häggvik village and the isolated basin.

Photo: Erik Engello

Things to consider: There are other actors here with ownership in the place, and they must be involved in the development of details for nature interpretation. Those running Mannaminne would like to see interpretation about the World Heritage Site in their area and not just the summit of the hill, which is in and of itself a positive thing.

The place should also be tied to the guest harbour at Häggvik.

Bönhamn

Target groups: Families. Not so mobile. Outdoor enthusiasts. Curious, but unknowledgeable. Scanners.

Subthemes: Land uplift and the impact of the sea. Biodiversity of the World Heritage Site. Humans and land uplift. The World Heritage idea.

World Heritage values: Cobble fields. Beach deposits. Bare washed rock surfaces. Isolated basins.

Description: Bönhamn is a charming fishing village, from which certain tours to the Högbonden Nature Reserve start. There is a café here in the summer, a guest harbour, a small beach and an art installation titled “Passage”, which has a connection to the World Heritage Site and land uplift.

Bönhamn is a small community - in July, there can be a very large number of visitors here. Some of the local residents live here year-round, while many are only summer residents.

There are a few hiking trails around Bönhamn. Among others, the World Heritage Trail passes by here, leading to Mjösjön, which is an old isolates basin.

Things to consider: Bönhamn is linked with Högbonden, which is also linked with Barsta, which is, in turn, linked with Rotsidan. These places form a chain.

Many here feel a strong sense of ownership to the place, and they must be involved in the further development of nature interpretation.

Högbonden Nature Reserve

Target groups: Specialists. Nature lovers seeking more knowledge.

Subthemes: Land uplift and the impact of the sea. One World Heritage Site - so different. Biodiversity of the World Heritage Site. Humans and land uplift. Discovery and research. The World Heritage idea.

World Heritage values: Cobble fields. Tunnel caves.

Description: Högbonden is a state-owned nature reserve with a lighthouse, an outdoor café and a hostel. Parts of the southern point are covered by a cobble field, which is home to a colony of terns in the summer. There are also a number of smooth-walled caves on the island. However, these are difficult to reach.

Things to consider: The Högbonden Nature Reserve is linked with Bönhamn and Barsta, which is, in turn, linked with Rotsidan. These places form a chain.



The Högbonden lighthouse.

Photo: Fabiola de Graf

Barsta

Kohderyhmät: Families. Outdoor enthusiasts. Curious, but unknowledgeable. Scanners.

Subthemes: Humans and land uplift.

World Heritage values: Beach deposits. Ravines in sediment.

Description: Barsta is an old fishing village. A boat to Högbonden also departs from here. There is a restaurant and old fishermen's chapel. A trail leading to the Rotsidan Nature Reserve also started from here.

Things to consider: Barsta is linked with Högbonden, which is linked with Bönhamn. Barsta is also linked with Rotsidan. These places form a chain. The World Heritage Site should be presented at the bridge. The chapel plays a key role and, together with the fishing village, can give good insight into how people used to live in the High Coast and how they needed to adapt to the prevailing land uplift.

Rotsidan Nature Reserve

Target groups: Families. Not so mobile. Outdoor enthusiasts. Curious, but unknowledgeable. Specialists. Scanners. Nature lovers seeking more knowledge.

Subthemes: Land uplift and the impact of the sea. Biodiversity of the World Heritage Site. Humans and land uplift. The World Heritage idea.

World Heritage values: Cobble fields. Beach deposits. Bare washed rock surfaces.

Description: Rotsidan is a very popular nature reserve. Many choose to swim and picnic on the smooth, shoreline rock. Rotsidan is easily reached for a destination in the High Coast. It is one of the few places here that is not hilly. The reserve has three entrances. This place can be periodically very crowded and parking areas full. The main entrance is also accessible to visitors in wheelchairs, with a trail leading out to the rocks.

Things to consider: Rotsidan is linked with Barsta, which is also linked with Högbonden, which is, in turn, linked with Bönhamn. These places form a chain.

Storön Nature Reserve

Target groups: Outdoor enthusiasts. Specialists.

Nature lovers seeking more knowledge.

Subthemes: Land uplift and the impact of the sea. Humans and land uplift.

World Heritage values: Cobble fields. Beach deposits. Isolated basins.

Description: Storön is a nature reserve and island, which is not served by regular ferry service. There is a pier. The island also has a cottage and hiking trail. On the south side of the island, there is a lake, which used to be a bay. There was once a fishing village here, which was abandoned when the inlet closed up.

Things to consider: There is a community association (Storöbolaget), which should be included in the process. The economic association Noramacken also has plans for Storön.

Ideas for nature interpretation: A stranded boat on a cobble embankment where the inlet is cut off. An introduction to the place must be made at the pier. The old house foundations can be brought to life with the stories of the people who lived there.

One good idea might be to make information on the island easily available online, such as on a website, when access to the island is restricted.



Sandstone on the Storön island.

Photo: Erik Engello

Valkallen

Target groups: Families. Outdoor enthusiasts.

Nature lovers seeking more knowledge.

Subthemes: One World Heritage Site - so different. The World Heritage idea.

World Heritage values: Cobble fields. Beach deposits. Ravines in sediment.

Description: Valkallen is an alternative route along the High Coast Trail and a popular destination for residents of Lövvik and guests of Hotel Höga Kusten. From Valkallen, there is an excellent view of the southern part of the High Coast. At the summit, there is a rest hut, which was built by a stakeholder association.

Things to consider: The stakeholder association and residents of Lövvik should be involved.

Hornöberget

Target groups: Families. Not so mobile. Curious, but unknowledgeable. Scanners.

Subthemes: One World Heritage Site - so different. The World Heritage idea. Humans and land uplift.

World Heritage values: None.

Description: A pilot study for the Lystra project was conducted here (see a description of the area and pilot study in Appendix 1). Through an assessment of the pilot study and continued responses from visitors, this type of nature interpretation can be developed and also used in other places within the World Heritage Site.

Smitingen Nature Reserve

Target groups: Families. Not so mobile. Outdoor enthusiasts. Curious, but unknowledgeable. Specialists. Scanners. Nature lovers seeking more knowledge.

Subthemes: Land uplift and the impact of the sea. The World Heritage idea.

World Heritage values: Tunnel caves. Isolated basins. Bare washed rock surfaces.

Description: Smitingen is a state-owned nature reserve, with a beach and summer cottages. There is a small restaurant open during the summer. Many enjoy visiting Smitingen outside the summer season. The reserve has several hiking trails, some of which are accessible to visitors with functional variations. Here, there are a number of typical tunnel caves, which are relatively easily accessed and well-known. This is why it is still included as part of the World Heritage Site, despite the fact that the place is located outside of it.

Things to consider: involve the municipality, café owners and cottage owners, all of whom have strong ties to the area.



A tunnel cave in the Smitingen nature reserve.

Photo: Milly Lundstedt

4.5 Kvarken Archipelago



1. Kummelskär, Mickelsörarna. 2. Västerö hiking trail. 3. Valsörarna. 4. Svedjehamn, Bodvattnet runt hiking trail and Saltkaret tower. 5. Klobbskat and Kikanberget. 6. Björkö-Panike hiking trail, Vargis and Björkören. 7. Sommarö. 8. The World Heritage Gateway and the Replot bridge. 9. Terranova. 10. Fäliskäret (Rönnskär). 11. Molpehällorna.

Map: Heikki Järvinen/Metsähallitus

Villages and harbours on the mainland

Many of the villages in the World Heritage Sites municipalities in Finland that are located outside the site itself are important to it, because the World Heritage Site must be closely linked with both local residents and visitors, alike. Although there are no clearly-defined World Heritage values in these communities, they do present an opportunity to attract visitors and spark their interest for future visits to the area. General information on the World Heritage Site and a means of directing traffic to it are needed in these places. In or near these villages, there are often nature trails or similar locations, which can also be used for nature interpretation of the World

Heritage Site. These are often maintained by local associations. The numerous small boat harbours are also important in that a large percentage of the World Heritage Site can only be reached by boat and the availability of organised tours is limited.

Mainland villages that are important to the World Heritage Site include Bergö, Molpe, Sundom, Åminne, Särkimo and the small regional centres of municipalities. There are also villages within the World Heritage Site that are similarly important, such as Replot, Norra and Södra Vallgrund and Björköby. The villages in the south in particular play a key role in making the World Heritage Site more accessible. Bergö and Molpe play a key role in this regard.

The other places are presented in Finland from northeast to southwest.

Kummelskär, Mickelsörarna islands

Target groups: Outdoor enthusiasts.

Curious, but unknowledgeable. Specialists.

Subthemes: Traces of the ice. Land uplift and the impact of the sea. Humans and land uplift.

World Heritage values: Cobble fields. Ribbed moraines.

Description: The island in the northern part of the Mickelsörarna archipelago, where the former Coast Guard station is now a nature station, with overnight accommodations. The co-operative Solrutten runs the facility (at least in the summer of 2020), but part of the island is owned by PWF. There is a nature trail on the island, and the island itself as well as the Mickelsörarna Islands area have a rich cultural history to present. Geologically speaking, the various types of overlapping moraine formations (e.g. the De Geer moraines and ribbed moraines on Boskäret Island) make the Mickelsörarna Islands special.

Things to consider: The island is difficult to reach without one's own boat. The nature trail is short, but difficult due to the rugged terrain. The Mickelsörarna archipelago is ideal for paddling, but it is a challenge to reach the area. The Keep the Archipelago Tidy Association has a rest area at Kisbocken. A stop for boaters between Finland and Sweden.

Västerö Hiking Trail

Target groups: Families.

Outdoor enthusiasts. Curious, but unknowledgeable. Nature lovers seeking more knowledge.

Subthemes: Traces of the ice. Land uplift and the impact of the sea. Humans and land uplift. The World Heritage idea.

World Heritage values: Roche moutonnées and striations. Flads and gloes. Land uplift forests. Cobble fields.

Description: A hiking trail immediately outside the World Heritage Site area. It partly passes PWF land, and is maintained by PWF together with the Maxmo archipelago association.



Västerö hiking trail.

Photo: Malin Henriksson

Things to consider: The trails are difficult to hike in some places (stones and roots), but the trail leading to the wilderness hut at Söderskata can eventually be made accessible. The parking areas are too small to accommodate buses and large numbers of cars, and the roads here are narrow. This means that, for example, schools will not be able to use the area. There are no piers at all, but paddlers can land on the small, natural sand beaches or at Söderskatan. In addition to the geological values, the area has a notable cultural history in war, smuggling and fishing. And, because a boat is not needed, the trail is an important place to talk about the World Heritage Site despite the fact that the area falls outside it.

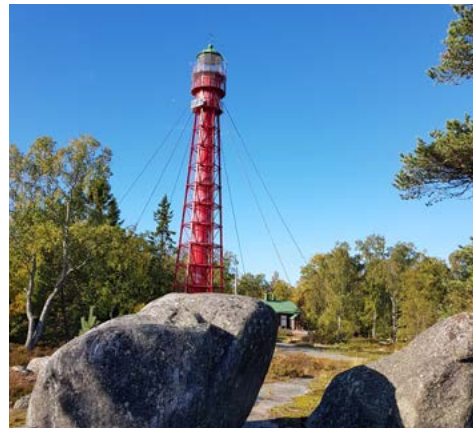
Valsörarna islands

Target groups: Families. Outdoor enthusiasts. Specialists. Nature lovers seeking more knowledge.

Subthemes: Land uplift and the impact of the sea. Biodiversity of the World Heritage Site. Humans and land uplift. Discovery and research.

World Heritage values: Flads and gloes. Ribbed moraines. Land uplift forests. Cobble fields.

Description: The Valsörarna Islands (Äbbskäret and Storskäret) have harbours on the south and north ends, with a nature trail running between them. In the middle of the southern part, there is a lighthouse and the old lighthouse keeper residences. At the north harbour, there is a traditional biological research station. The buildings are not open to the public.



The Valsörarna lighthouse.

Photo: Malin Henriksson

World Heritage cruises to the Valsörarna Islands are offered in the summer, and the island group is a popular visitor destination for boaters and tourism operators, despite the fact that available overnight accommodations are very limited and visitors are only allowed to hike on marked trails in the summer.

Things to consider: The entire island group is difficult to reach, but is well suited for smaller groups. There are several actors that need to be involved in any development of the place. The area has a unique natural history as it was home to a bird protection area established in 1947 and the biological research station (Ostrobothnia Australis natural science association), which had been in operation since that time. The area's cultural history is also rich, and its link with Sweden is clear due to its close proximity to the Holmöarna Islands.

When developing nature interpretation, it is important that the Björkö co-operative, Björkö Historical Association and Ostrobothnia Australis are involved. The geology on the Valsörarna Islands is interesting (ribbed and De Geer moraines, cobble fields), but there is so much more to tell about that. Traces of the ice is not to be used as the first choice for a subtheme.

Svedjehamn, around Bodvattnet and Saltkaret

Target groups: Families. Not so mobile. Outdoor enthusiasts. Curious, but unknowledgeable. Scanners.

Subthemes: Traces of the ice. Land uplift and the impact of the sea. One World Heritage Site - so different. Biodiversity of the World Heritage Site. Humans and land uplift.

World Heritage values: De Geer moraines. Flads and gloes. Land uplift forests.

Description: Svedjehamn is the most visited area in the Kvarken Archipelago and with the most services. The area is partly accessible and also visited by many school groups. The opportunities for hiking are good and the trail around Bodvattnet and out to the Långgrund rest area is popular. The area constitutes one section of the Björkö-Panike hiking trail. A couple kilometres away is the Vikarskat fishing harbour, from which the Vikarskat hiking trail begins.



Saltkaret observation tower.

Photo: Malin Henriksson

Things to consider: There are numerous actors in the area, along with private summer cottages/ houseboats – these must be taken into consideration in all planning. The area has high visitor traffic and a wide range of wishes and needs. There are plans to, for example, extend the hiking trail with a loop. Due to the high number of visitors, it is important to vary the nature interpretation offering and provide more than just conventional information boards. When developing nature interpretation in the area, the Björkö delägarlag co-operative and Municipality of Korsholm are to be involved. When developing nature interpretation with regard to *Humans and land uplift*, the Björkö Historical Association should also be given an opportunity to participate.

Despite the fact that a maximum of four subthemes per place is recommended, more may be added for this area. As a whole, the Svedjehamn area consists of several subareas, which can focus on different subthemes. *Humans and land uplift* is most suitable for Bodback and Svedjehamn, while *Traces of the ice, Uplift and the impact of the sea and Biodiversity of the World Heritage Site* are better suited to Saltkaret and along the trails. *One World Heritage Site – so different* should be used for the area because it is so heavily visited.

Pilot testing of the nature interpretation plan in the Kvarken Archipelago was conducted around Bodvattnet. Read more in Appendix 1.

Klobbskat and Kikanberget

Target groups: Families. Curious, but unknowledgeable. Scanners. Nature lovers seeking more knowledge.

Subthemes: Traces of the ice. One World Heritage Site - so different. Humans and land uplift.

World Heritage values: Roche moutonnées and striations.

Description: Kikanberget hill is located next to the Klobbskat fishing and guest harbour, where several entrepreneurs operate businesses. Klobbskat has an observation tower and caravan parking. The municipality is a key actor in Klobbskat. A small nature trail leads to the following rock hill, Kikanberget.

Things to consider: The Municipality of Korsholm has plans to develop tourist services in the area. When developing nature interpretation, the municipality and boat club must be involved. The latter is responsible for part of the harbour. Because distances are short and the area can be reached by car, an accessible trail would be an excellent addition to the area.

Ideas for nature interpretation: In clear weather, several lighthouses can be seen from the tower at Klobbskat. They could be pointed out up on the tower with maps like the ones used at Saltkaret.

Björkö-Panike Hiking Trail, Vargis and Björkören

Target groups: Families. Outdoor enthusiasts. Curious, but unknowledgeable. Specialists. Nature lovers seeking more knowledge.

Subthemes: Traces of the ice. Land uplift and the impact of the sea. Biodiversity of the World Heritage Site. Humans and land uplift.

World Heritage values: Flads and gloes. Land uplift forests. De Geer moraines. Ribbed moraines.

Description: The Björkö-Panike hiking trail runs from Svedjehamn to Panike, but the lack of ferry service between Långgrund and Stora Segelören in Björkö as well as across Kvicksund at Panike is an obstacle for many visitors. PWF plans to connect the trail to the mainland both at Panike and Stora Segelsören as well as build a new parking area at Panike along the road to Panike harbour. The islands crossed by the hiking trail have long been used as pasturage, among other things. The Björkö rental hut at Kvicksund can be rented. The hut is popular, particularly among recreational anglers and paddlers. The Vargis hut is very basic and open to

all visitors. The huts, which can be reached by car or small boat fairways, are also suitable for use as a base camp for recreational anglers and paddlers. The huts are located near the southern end of the hiking trail.

Things to consider: The area between Panike and Björkö are popular among paddlers, and there are paddlecraft docks at both huts and a rest area along the hiking trail. This area has a colourful history as a base for hunters and smuggler hideout during prohibition. Pastures and fields used for growing grass crops have significantly affected vegetation on the islands.



Björkö-Panike hiking trail.

Photo: Malin Henriksson

Sommarö

Target groups: Families. Not so mobile. Curious, but unknowledgeable. Scanners.

Subthemes: Traces of the ice. Land uplift and the impact of the sea. Biodiversity of the World Heritage Site. The World Heritage idea.

World Heritage values: Roche moutonnées and striations. Flads and gloes. Land uplift forests.

Description: The wide trails, building foundations and cannon platforms reveal the purpose of the former military zone on Sommarö Island. The Sommarö hiking trail leads from the area to Sommarösund. There is also a shorter nature trail in the area. Used a great deal by the Kvarken Nature School and for school camps and field trips. Although a loop along the trail

to Sommarösund is not possible, the parking areas at both ends of the trail make it possible for school groups to hike here.

Things to consider: Only partly accessible on the gravel roads. The pier is in poor condition and difficult for smaller boats to moor on. There is nature interpretation here, but it can be updated and expanded. Military history can be highlighted in order to explain the remains and marks in the ground. Interactive nature interpretation would be suitable for the area, with regard to the visitors.



Sommarö.

Photo: Malin Henriksson

Kvarken Visitor Centre World Heritage Gateway and Replot bridge

Target groups: Families. Not so mobile. Curious, but unknowledgeable. Scanners. Nature lovers seeking more knowledge.

Subthemes: All subthemes are suitable for the Kvarken Visitor Centre World Heritage Gateway.

World Heritage values: Nothing in direct connection with the place, but De Geer moraines can be seen from the bridge.

Description: The Kvarken Visitor Centre World Heritage Gateway (Världsarvsporten) is the official entrance to this part of the World Heritage Site. This is a popular place, but World Heritage Site services are only available during the summer and sporadically/upon request for the rest of the year. The Kvarken Visitor Centre World Heritage Gateway has an informative hall and an exhibition with an admission fee as well as a art gallery run by the municipality. There is also ample parking and a guest pier in the area.

Things to consider: There are plans for a nature trail between the Kvarken Visitor Centre World Heritage Gateway and Replot harbour. The Kvarken Visitor Centre World Heritage Gateway is a natural spot for the subthemes *The World Heritage idea* and *One World Heritage Site – so different*. Located on the opposite end of the Replot

Bridge, Fjärdskär can be linked with the area as a whole. The purpose of the Kvarken Visitor Centre World Heritage Gateway is to direct visitors further out into the World Heritage Site. The Replot Bridge is a sight in and of itself, with many visitors walking on it. As a result, the bridge and the view it affords of the World Heritage Site can be more effectively used in nature interpretation.

Ideas for nature interpretation: The Kvarken Visitor Centre World Heritage Gateway allows for the use of digital nature interpretation and technical solutions that cannot be employed outdoors. It is also possible to experience the more inaccessible places and the High Coast here by means of digital aids.

Terranova

Target groups: Families. Not so mobile. Curious, but unknowledgeable. Specialists. Nature lovers seeking more knowledge.

Subthemes: All subthemes are suitable for Terranova. A new exhibition will open in 2021.

World Heritage values: None.

Description: Terranova, the Ostrobothnian Museum's permanent natural science exhibition, is being renovated in 2020-2021, and will showcase Kvarken Archipelago's nature, along with its geology, cultural history and World Heritage values. The Ostrobothnian Museum has as many as 20,000 visitors a year.

Things to consider: For the time being, Terranova does not have a nature school teacher, but the museum is co-operating with other World Heritage Site actors in planning the exhibition renovation. In comparison with the Kvarken Visitor Centre World Heritage Gateway, Terranova has a more natural science orientation. Co-operation between Terranova and the Kvarken Visitor Centre World Heritage Gateway can be developed and, just like the Kvarken Visitor Centre World Heritage Gateway, Terranova can also direct visitors to venture into the World Heritage Site. Above all, it can provide an overview and understanding of the site. Terranova is important where schools are concerned.

Ideas for nature interpretation: Terranova allows for the use of digital nature interpretation and technical solutions that cannot be employed outdoors. It is also possible to experience the more inaccessible places and the High Coast here by means of digital aids.

Fäliskäret (Rönnskär)

Target groups: Outdoor enthusiasts. Curious, but unknowledgeable.

Specialists. Nature lovers seeking more knowledge.

Subthemes: Traces of the ice. One World Heritage Site - so different. Humans and land uplift. The World Heritage idea.

World Heritage values: Cobble fields. Roche moutonnées and striations.

Description: Fäliskäret is located far out to sea. The island has a beacon, which is the oldest wooden navigational aid in Finland. There are rental huts in the old pilot residences on the island. On Fäliskäret, there are several active associations and organisations to be included in development. Fäliskäret plays a key role as an access harbour and the last outpost for boaters travelling between the High Coast and Ostrobothnian coast.

Things to consider: The nearest harbours are the Bredskär fishing harbour in Molpe, Bredhällan fishing harbour and Ytterbådan fishing harbour in Bergö. The possibility of visiting the island depends on the weather, as the reach across the open sea is long. Nature interpretation on the area can also be conducted in the harbours. During the bird nesting season, visitors may only hike on marked trails. There is a fascinating maritime history and numerous shipwrecks all around Rönnskären. There is also an active diving club which can provide information on these. The flora and fauna of the outer archipelago, migratory birds and shoreline succession are topics which can be highlighted in addition to the general information on the World Heritage Site. The bedrock here also differs from that found throughout the rest of the Kvarken Archipelago, affecting the landscape and biology in the area.



Fäliskäret island.

Photo: Malin Henriksson

Molpehällorna

Target groups: Families. Outdoor enthusiasts. Curious, but unknowledgeable. Nature lovers seeking more knowledge.

Subthemes: Traces of the ice. Land uplift and the impact of the sea. Biodiversity of the World Heritage Site. Humans and land uplift.

World Heritage values: Roche moutonnées and striations. Flads and gloes. Land uplift forests.

Description: On Molpehällorna, there is a paddlecraft dock, a nature trail and a reconstruction of “vippbåk” (a beacon with a rocker arm), but the island group is difficult to reach because the boat trip is exposed to the winds and there are no regular, organised tours here. The house and tower are not in proper condition to receive visitors. The tower no longer offers a view of the sea due to the growth of a birch forest on the island. The place has potential as a camping area, thanks to the large grassy areas near the station and harbour.

Things to consider: Molpe Strömmen and Strand-Mölle restaurant, beach, kayak rentals and Molpe pavilion are a natural starting point for a visit to Molpehällorna. Molpe Strömmen offers visitors a variety of services. There are no World Heritage values in the area, but it can serve as a gateway, sparking interest in the World Heritage Site. The same applies for the harbour at Bredskär. The municipality and various undertakings have plans to develop the place as a gateway to the southern section of the World Heritage Site.

Ideas for nature interpretation: At Molpe Strömmen, various types of nature interpretation can be used, including digital ones, thanks to the World Heritage Site customer service point in the Strand-Mölle restaurant.



Photo: Malin Henriksson

5. Implementation of the plan

The main thrust of the nature interpretation of the World Heritage Site is to link geology with ordinary people today. The geological value of the site is conveyed by people, both researchers revealing the secrets of geology and individual visitors telling the history to their friends and family.

Nature interpretation of the World Heritage Site, i.e. linking geology with the local residents and visitors of today's world, is conducted in a variety of ways. The theme and subthemes specified are applied in the materials on the World Heritage Site (e.g. website, brochures, videos, etc.). The specified target groups are taken into consideration in the process. Nature interpretation also includes encounters between people, when local residents and visitors meet World Heritage Site staff, entrepreneurs and guides. People share knowledge of the World Heritage Site with each other. Nature interpretation in the area naturally also includes the unmanned nature interpretation out in the field, which are found in the places listed in section 4 and other places within and outside the World Heritage Site.

5.1 Administration, finances and priorities

The states which have ratified the World Heritage Convention are responsible for preserving and protecting World Heritage Sites as well as spreading information about them. In Sweden and Finland, administrative responsibility has been delegated. Where the administration of the World Heritage Site High Coast/Kvarken Archipelago is concerned, the County Administrative Board of Västernorrland (CAB) in Sweden is responsible for administration of the High Coast, while Parks & Wildlife Finland, Coastal and Metropolitan Area (PWF) in Finland is responsible for the administration of the Kvarken Archipelago.

There are management plans for both the High Coast and Kvarken Archipelago that require updating in 2020-2021. The idea is to draft a joint administrative plan for the entire World Heritage Site. The administrative plan will be made by the CAB and PWF in co-operation with regional and local actors. Work on the nature interpretation plan has been an effective way to develop working methods for joint planning between the two countries. A more detailed description of how the World Heritage Site will be administered is presented in the administrative plan.

The conducting of nature interpretation in the various visitor sites listed in section 4 is dependent on the funding the CAB and PWF receives. Certain places require less investment, while some require more. For some of the places, the conducting of nature interpretation also relies on the engagement and resources of local actors and stakeholders. When other actors want to develop places in the World Heritage Site as well as its nature interpretation, the CAB and PWF will contribute their knowledge, content, etc. This is also the case when it is not possible to realise initiatives proposed by other actors.



The participants in the workshop marked their own favourite places in the World Heritage Site on a map.

Photo: Swedish Centre for Nature Interpretation (SCNI)

The CAB's administration of the Swedish section of the World Heritage Site receives annual funding from the Swedish Environmental Protection Agency (Naturvårdsverket). In addition to this, it receives funding for the management of nature reserves and the national park in the High Coast. External projects are also an important source of funding and a necessity for the nature interpretation in the World Heritage Site.

In the Kvarken Archipelago, the development of visitor sites is funded partly from the annual PWF budget for the area. The budget depends on state grants through the Ministry of the Environment of Finland. Local associations and municipalities in the area are also responsible for a portion of the visitor sites. As with the High Coast, this determines which areas are prioritised by PWF. Information boards and brochures are funded partly through the Kvarken Archipelago World Heritage Site Association, which is responsible for customer service in the area. In Finland, harbours and other key places in the World Heritage municipalities are also vital to disseminating information and conducting nature interpretation in the site. The


Kvarken Archipelago World Heritage Site Association is responsible for general signage for the site.

The nature interpretation plan is adopted by both the CAB and PWF. The plan is established among partners affected by the plan with the CAB and PWF. Some of the partners have also participated in the process. In the World heritage Site municipalities and with other affected authorities, the plan will be established primarily through the joint co-ordination group, the administrative committee for the High Coast, and the Kvarken World Heritage Delegation as well as the Kvarken Archipelago World Heritage Site Association. In addition to these, municipalities, authorities, destination operators, local associations and tourism entrepreneurs have also participated in planning in the workshops and referral/comment rounds held during the planning process. The nature interpretation plan is also important for when the Lystra project presents its final results for various affected groups.


In order to ensure the further dissemination of the plan, the CAB and PWF will share and refer to it. Organisations will use it as the basis for their own work. Going forward, these organisations will actively provide the plan to tourism organisations, municipalities and regional actors. The plan will also be posted on websites and sent out to all project partners.

Priorities

The CAB wants to prioritise the following order of selected sites in Sweden:

- 
1. Skuleskogen National Park, Skuleberget, Norrfällsviken and Mosjön
 2. Skags Udde, Bönhamn, Barsta, Högbonden, Rotsidan, Mjältön and Smitingen
 3. Valkallen, Storön, Ulvön, Stortorget, Högklinten, Trysunda and Gullvik

PWF wants to prioritise the following order of selected sites in Finland:

- 
1. Svedjehamn area, Björkö-Panike hiking trail, Valsörarna, Sommarö
 2. Kummelskär, Västerö, Klobbskat and Kikanberget
 3. Information at harbours and in villages, Fäliskäret, Molpehällorna

Although this is just a preferred order, it may be changed depending on external factors.



View in Skuleskogen National Park.

Photo: Malin Henriksson



View from the Saltkaret observation tower.

Photo: Malin Henriksson

The Kvarken Visitor Centre World Heritage Gateway (Världsarvporten), Terranova and Naturum Höga Kusten are specially entrusted to communicate information on the World Heritage Site as a whole through exhibitions, activities, school programmes, lectures, etc. as well as contribute to the local establishment of the plan through their efforts.

Regional centres in the High Coast and villages in the Kvarken Archipelago are not listed in the priorities given by the CAB and PWF. Because nature interpretation efforts in these places are dependent on initiatives from local communities, the order has not been finalised in this plan. These places are still extremely important to the establishment of the World Heritage Site at the local level and, as mentioned above, they are natural landing spots for visitors.

5.2 Objectives

The objectives for the plan to be achieved by 2030 are that:

- 90% of the new nature interpretation of the World Heritage Site High Coast/Kvarken Archipelago introduced by the CAB or PWF will follow this plan.
- The CAB and PWF will work to ensure that the plan is realised. However, this is, to a large extent, dependent on external funding.
- 80% of the local residents and visitors will know that the High Coast/Kvarken Archipelago is a joint World Heritage Site based on land uplift.
- 80% of new nature interpretation of the World Heritage Site High Coast/Kvarken Archipelago introduced by municipalities will follow the plan and municipalities will see their role as important communicators on World Heritage knowledge.

- 50% of other actors and stakeholders introducing nature interpretation of the World Heritage Site will also follow the plan. Because this falls largely outside the sphere of influence of the CAB and PWF, achieving this objective will be considered the successful establishment of the plan.

These objectives are in line with some of the project plan objectives for Lystra. The aim of the Lystra project is to increase the percentage of visitors who know that the World Heritage Site High Coast/Kvarken Archipelago is on the UNESCO World Heritage List and that it is a joint, transboundary World Heritage Site, with areas in both Sweden and Finland. Another aim of the Lystra project is to ensure that a majority of the key actors disseminating knowledge on the World Heritage Site are familiar with and understand the nature interpretation plan for the site as well as the overarching message of the plan. Key actors disseminating knowledge on the World Heritage Site include tourism operators in the World Heritage Site High Coast/Kvarken Archipelago, associations, teachers, guides and other actors. The knowledge to be communicated by these actors is the overarching message, land uplift and traces of the Ice Age in the landscape as well as their impact on flora and fauna. In order for this to be realised, the plan must be distributed to and established with these groups.

5.3 Follow-up, assessment and period of validity

The plan will remain valid until 2030. This allows enough time to realise it and provides stability and an opportunity for advance planning. However, ten years is a long time, which is why the CAB and PWF must review the plan in 2025. Then, the plan can be revised to meet new, prevailing circumstances and even be given an extra boost in its implementation. An assessment on the effectiveness of the plan and how it has been used should be included in the review to be made in 2025. During the period that the plan is in effect, this can serve as the basis for project applications and the like, both for administrative authorities and other actors. The section on subthemes is particularly well suited to tourism entrepreneurs, associations, teachers, guides and other actors.



Many different actors within the World Heritage area adds value to the visitors experiences, for example by arranging climbing on the Skuleberget mountain.

In 2020, work on a joint administrative plan for the entire World Heritage Site was launched, and the period of validity for it is also to be extended to 2030. The strategy for the Kvarken Archipelago extends until 2025, which also provides cause to review the nature interpretation plan in 2025.

When nature interpretation is introduced at a certain site, it is important to ensure that a responsible party is appointed for the continued maintenance of the site. Thought should also be given to what resources will be needed for annual maintenance. In many cases, fragmented nature interpretation makes a poor impression and the message can be lost in the fray. Co-operation between various actors is vital, and the CAB and PWF are happy to contribute their knowledge on the World Heritage Site if someone wants to institute nature interpretation for a specific site on their own.

The nature interpretation plan will be completely reviewed in 2025. The project plan for Lystra also mentions follow-up, and two of the points made concern nature interpretation:

- Follow-up visitor surveys will be conducted in the High Coast and Kvarken Archipelago in 2022. These surveys will be formulated in a way that allows the monitoring of the objectives above.
- In 2021, questionnaires will be sent out to tourism entrepreneurs, associations, teachers, guides and other actors, which are identified in the project as key actors disseminating knowledge on the World Heritage Site.

5.4 Delegation of responsibilities and the way forward

The World Heritage Site High Coast/Kvarken Archipelago is administered by the County Administrative Board of Västernorrland in Sweden and Parks & Wildlife Finland, Coastal and Metropolitan Area in Finland. However, large sections of the land are privately or otherwise owned. The World Heritage Site falls within the municipalities of Kramfors and Örnsköldsvik in Sweden, and Vaasa, Korsholm, Malax, Korsnäs and Vörå in Finland. Many villages and associations are active in the area, sometimes with a focus on the World Heritage Site, sometimes with another focus. This chapter describes the various actors' roles in nature interpretation of the World Heritage Site during the validity period of the plan.

Municipalities and regions

Municipalities can be key channels for communicating World Heritage knowledge to children and youths in school and preschool. With regard to tourist services and the development of visitor sites, municipalities play a key role in several places. Co-operation with municipalities is vital to the co-ordination of nature interpretation at all visitor sites.

Its establishment with regional actors, such as Region Västernorrland and the Regional Council of Ostrobothnia, is also important, because they play a central role in multiple aspects of the World Heritage Site, particularly in development work. Region Västernorrland is responsible for development of the region and can therefore assume a leading role.



Discovering the World Heritage Site from a kayak is a great way to experience it.

Photo: Anna Carlemalm

Tourism sector

Because World Heritage status is often advantageous when the tourism sector is concerned, it should therefore be highlighted in marketing. This is also the case in the High Coast and Kvarken Archipelago. This is done primarily together with High Coast Destination Development Inc. (Höga Kusten Destinationsutveckling) and High Coast Tourist Service (Höga Kusten Turism), along with Kvarken Archipelago World Heritage Site Association and Visit Vaasa. As the orientation and roles of these four actors differ slightly from each other, the concept must be broadly established in order for everyone working in tourism and destination development to be in consensus regarding the role of the World Heritage Site. The nature interpretation plan is important to tourism as it provides all involved parties with access to consistent, accurate information on which to base their marketing and sales.

In the High Coast area, the World Heritage Site contains a larger area consisting of municipalities Härnösand, Kramfors, Sollefteå and Örnsköldsvik, which the tourism sector has identified as a destination and which is marketed as the High Coast. Nature and the World Heritage Site are an integral part of marketing where tourism is concerned, while for tourists they are the reason for travel. This is why destination operators and tourism entrepreneurs are key actors in the area. Also in the Kvarken Archipelago, World Heritage status and nature are key reasons for travel. The World Heritage Site is used in marketing for the entire Vaasa region. Visit Vaasa, which is responsible for promoting and developing tourism in the region, is owned by Vaasa, Korsholm, Vörå, Malax, Korsnäs, Närpes, Laihia and Isokyrö. The Kvarken Archipelago World Heritage Site Association is responsible for customer service and co-ordinates marketing efforts with Visit Vaasa. We appreciate that these organisations make more active use of the nature interpretation plan as it enhances the messaging about the World Heritage Site. Continued close co-operation between the CAB, PWF and the tourism sector is therefore important.

Both the High Coast and Kvarken Archipelago have numerous small enterprises working part or full time in tourism. Restaurants (including summer restaurants) and cafés, boat operators, guides and entrepreneurs providing overnight accommodations are key actors in the dissemination of knowledge on the World Heritage Site. The nature interpretation plan helps everyone who wants to present customers and visitors with key information on the World Heritage Site.

The two visitor centres in the World Heritage Site serve as visitor sites as well as to disseminate knowledge on the site. On the Swedish side of the World Heritage Site, naturum Höga Kusten is run by the CAB, while the Kvarken Archipelago

World Heritage Site Association is responsible for the World Heritage Gateway. These visitor centres are excellent places to communicate the main theme and all subthemes in a variety of ways as well as attract visitors to explore the World Heritage Site. They are also natural venues for hosting discussions on future efforts, which can be initiated by the CAB, PWF or other actors in the area. The CAB should treat this as an important part of its annual work by, for example, appointing an advisory committee. In the Kvarken Archipelago, both the Kvarken Archipelago World Heritage Site Association and Kvarken World Heritage Delegation are key forums for discussing future measures.

Private landowners

Land ownership relationships and co-operation between landowners and administrators differ between the Kvarken Archipelago and High Coast. In the Kvarken Archipelago, the small differences in elevation, land uplift, sedimentation and overgrowth combine to significantly increase land area after only a few decades. Consequently, the shorelines are jointly owned by village landowners in partition units, co-operatives or community associations. In the administration and development of the World Heritage Site, these are important partners represented in the Kvarken World Heritage Delegation, where the nature interpretation plan is both established and followed up. In the High Coast, the private landowners are not organised in the same manner. There, land is typically owned by individual landowners, which are mostly smaller tracts. The involvement of the landowner on whose land a measure is to be carried out is required in all cases. Visitors cannot be brought to any place where the landowner is not involved.

Associations

Both the High Coast and Kvarken Archipelago have active associations. In the High Coast, two long hiking trails are administered by associations. The High Coast Trail runs along the entire length of the Swedish section of the World Heritage Site and is a popular hiking trail. An association consisting of, among others, the CAB and municipalities is responsible for management of the trail, while Region Västernorrland administers it. There is also a longer hiking trail, the World Heritage Trail, which is not as well known. It winds through a smaller portion of the World Heritage Site. The World Heritage Trail is administered by the Världsarvsledens Vänner association. There are also nature trails and short hiking trails located in the Kvarken Archipelago that are managed by associations, such as the Bergö hiking trail and Vikarskat hiking trail.

In addition to these, there are a number of engaged people in villages working in a variety of capacities within the World Heritage Site and disseminating information on the site. There are several small museums, among other things, operating in villages in the World Heritage Site. These are run by associations.

For all local associations wanting to highlight the World Heritage Site, the nature interpretation plan can provide assistance and serve as a source of inspiration. The CAB and PWF are happy to contribute knowledge and content upon adopting nature interpretation of the World Heritage Site.

In the Kvarken Archipelago, members of the Kvarken Archipelago World Heritage Site Association consist of municipalities in the World Heritage Site and PWF. The association is responsible for customer service and the dissemination of information, and it plays a key role in carrying out projects in the area. The association is also a natural link to businesses with a connection to the World Heritage Site and other local associations. The Kvarken Archipelago World Heritage Site Association is therefore vital to realisation of the nature interpretation plan for Finland's part. Together with PWF, the association organises annual training events and meetings for entrepreneurs and guides, where ideas for the nature interpretation plan can be further developed.

County Administrative Board of Västernorrland and Parks & Wildlife Finland

As the parties responsible for administration and co-ordination within the World Heritage Site High Coast/Kvarken Archipelago, the CAB and PWF must co-operate with the various stakeholders in the area. Co-ordinating efforts for nature interpretation fosters both the dissemination of knowledge on the World Heritage Site and how people experience it. Establishment of the nature interpretation plan among the World Heritage Site stakeholders and their contribution to adoption of the plan is important for the CAB and PWF. Equally important is ensuring that the plan is realised in the same spirit: in co-operation with people active in the area.



The expertise at CNV was of great importance in the work with the plan. The County Administrative Board and Parks & Wildlife Finland continues to develop the World Heritage Site and the interpretation together.

Lena Malmström CNV, Patrik Bylund CAB, Malin Henriksson PWF, Eva Sandberg CNV, Per Sonnvik CNV, Anna Carledmalm CAB.

Photo: Swedish Centre for Nature Interpretation (SCNI)

6. Further reading

Naturvägledning i natur- och kulturområden Ett komplement till handboken Tillgängliga natur- och kulturområden (*Naturvårdsverket rapport 6562*). ISBN 978-91-620-6846-2. (Only available in Swedish.)

Platsens berättelse (*RAÄ, författad av CNV, utgiven 2017*) (Only available in Swedish.)

Interpretation: Making a Difference on Purpose (Sam H. Ham, 2013)

Metodhandledning Tankelistning i naturum (*CNV 2017*). (Only available in Swedish.)

Hig meets low - High Coast/Kvarken Archipelago World Heritage Site facts (*County Administrative Board of Västernorrland and Parks & Wildlife Finland 2021*).
<https://highcoastkvarken.org/learn-more/data-bank/>

Statement of Outstanding Universal Value High Coast/Kvarken Archipelago.
<https://whc.unesco.org/en/list/898>

Riktlinjer för tillgänglighet Riv hindren. Handisam, Myndighet för handikappolitisk samordning. (Only available in Swedish.)

Tillgängliga natur- och kulturområden (*Naturvårdsverket rapport 6562, 2013*). (Only available in Swedish.)

Luontoliikunta (Invalidiliitto).
<https://www.invalidiliitto.fi/esteettomyysulkoalue/luontoliikunta>
(Only available in Finnish.)

Ulkotilojen esteettömyyden kartoitus- ja arviointiopas.
http://www.sotera.fi/pdf/suraku_opas.pdf (Only available in Finnish.)

Solrutten homepage with information on harbours and routes in Kvarken Archipelago. <http://solrutten.fi/en/>

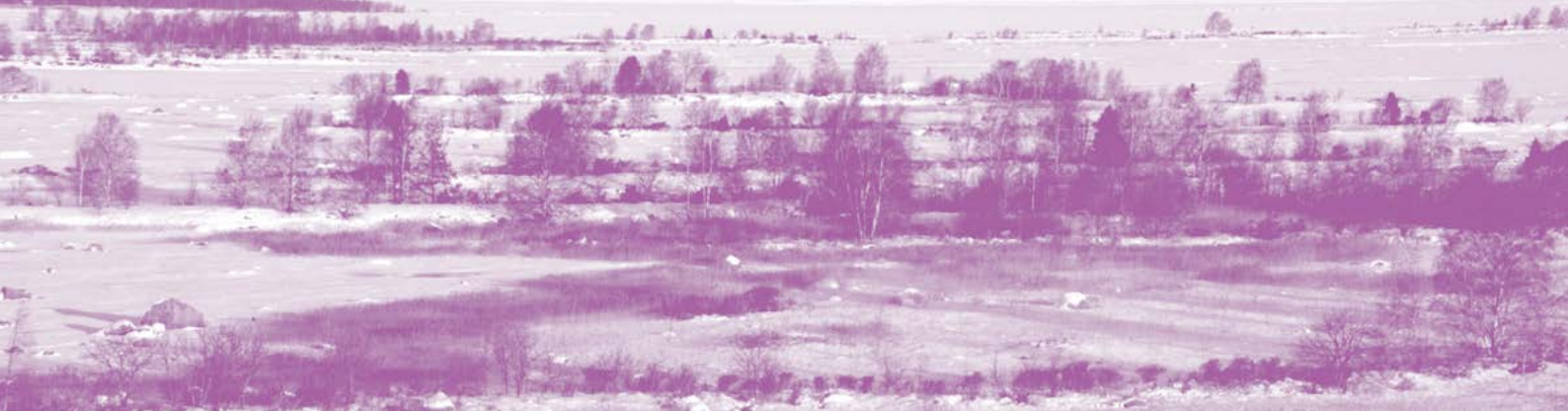


Photo: Malin Henriksson

7. Appendix 1.

Method and pilot study

7.1 Description of the process

The nature interpretation plan was drafted within the Interreg Botnia-Atlantica project Lystra - Awareness and activities in the World Heritage Site High Coast/Kvarken Archipelago in 2018-2020. The project partners for Lystra were Parks & Wildlife Finland (PWF), County Administrative Board of Västernorrland County (CAB), Geological Survey of Sweden (SGU), Geological Survey of Finland (GTK), Finnish Geospatial Research Institute (FGI) and the City of Vaasa. In addition to these, the Swedish Environmental Protection Agency (Naturvårdsverket), the municipalities of Kramfors and Örnsköldsvik, Kvarken Archipelago World Heritage Site Association, Visit Vaasa and Regional Council of Ostrobothnia also funded the project.

A challenge in communicating information on the High Coast/



Staff from SCNI and CAB in the Skuleskogen National Park.

Photo: Malin Henriksson

Kvarken Archipelago is the scope of the World Heritage Site and the fact that the World Heritage values are primarily geological in nature. The High Coast and Kvarken Archipelago also have different starting points as tourist destinations.

The Swedish Centre for Nature Interpretation (SCNI) at the Swedish University of Agricultural Sciences (SLU) has served in a consulting capacity in the planning process. The SCNI has contributed to the formulation of the planning process itself, held workshops and, throughout the planning, served as an adviser and sounding board in the work to establish a nature interpretation plan.

The actual drafting of the nature interpretation plan began at the end of 2018. In 2019, its drafting ran parallel to the analysis of collected material and the further development of items introduced in the workshops. Testing of the nature

About the nature interpretation plan in the Lystra project plan

The project will introduce an interpretation plan, which specifies how the joint World Heritage Site values are to be communicated in a way that fosters understanding and engagement among visitors to the High Coast/Kvarken Archipelago. The functioning of the plan for different target groups will be tested in practice at a couple visitor sites in Finland and Sweden.

The interpretation plan will:

1. Map existing and identify new visitor sites, specify the message each site should focus on, and how the message can most effectively be communicated to different target groups
2. Include a mapping of different target group needs and wishes with regard to interpretation.
3. Introduce an overarching message, which is succinct, comprehensible and fosters an understanding of the World Heritage Site, with its Ice Age history and the impact of land uplift on the landscape.
4. The nature interpretation is produced in extensive co-ordination with authorities, schools, tourism operators, associations and others who can conduct nature interpretation of the World Heritage Site. This is done in order to gather experiences and needs, thus increasing the possibilities of reaching the visitor.
5. The nature interpretation plan has a sustainability and accessibility perspective that ensures that we have sustainable tourist destinations with a high degree of accessibility, even with increasing visitor numbers.

interpretation plan was conducted in the High Coast in 2019 and in Kvarken Archipelago in 2020. The first draft of the nature interpretation plan was subjected to internal review in the CAB, PWF and SCNI in the spring of 2020 and was sent to municipalities, project funders and actors for a statement/consultation round in the summer of 2020. The plan was completed and translated into Finnish and English in the autumn of 2020.

The planning has also attracted interest outside the High Coast and Kvarken Archipelago. Work on the nature interpretation plan was presented at Karlstad University in a lecture series on the possibilities for Finnskogen to be made a World Heritage Site, at the Baltic Sea World Heritage Summit in Karlskrona, and to employees at the Suomenlinna World Heritage Site. Project personnel from Lystra have also visited the Wadden Sea World Heritage Site and discussed, among other things, nature interpretation and transboundary World Heritage Site administration. In 2020, the Association of World Heritage Sites in Finland launched a project on the nature interpretation of Finnish World Heritage Sites, borrowing from the measures taken by the Lystra project in the High Coast/ Kvarken Archipelago.

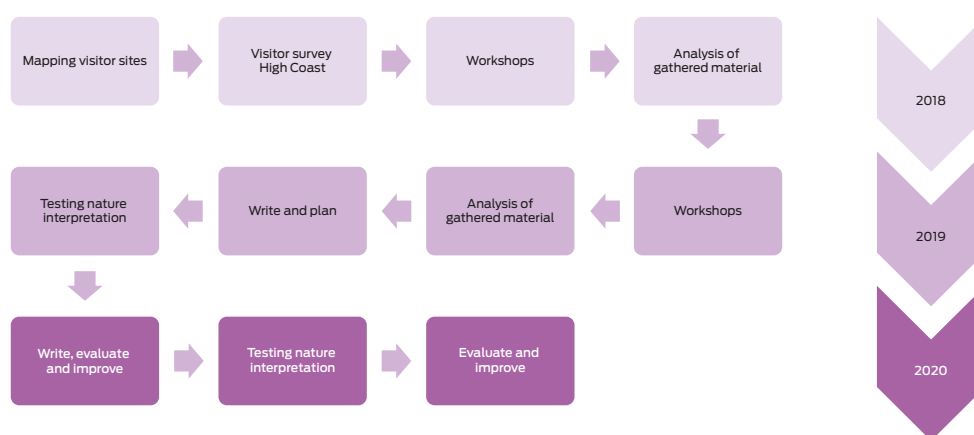


Figure 1: Schematic summary of the process to develop a nature interpretation plan for the High Coast/Kvarken Archipelago.

7.2 Collection of background material

In order to gain a clear overview of the point of departure, visitor sites in the High Coast and Kvarken Archipelago were mapped using a common model. A total of nearly one hundred visitor sites were mapped, mostly by visiting the sites themselves. The variation between visitor sites is, in many cases, enormous, but all sites were evaluated according to their accessibility, sustainability and number of visitors using a three-point scale. A summary of the sites selected for further development during the workshops is presented at the end of this Appendix.

The collection of background material also included a visitor survey conducted in the High Coast. A similar survey was also conducted in the Kvarken Archipelago in 2017, using the same method employed by PWF for national parks. In 2018-2019, all of Finland's World Heritage Sites used the same method for visitor surveys. In the High Coast, the surveys were conducted on a smaller scale and with different requirements concerning statistical significance than those used in the Kvarken Archipelago. In the Kvarken Archipelago, the survey obtained just over 400 responses, while the High Coast had under 200 responses. The results are largely consistent.

In a comparison of the visitor surveys conducted in the High Coast and Kvarken Archipelago, it was found that a majority of the visitors come to enjoy nature and hike. Visitors come in small groups, which shows the need for having one's own car to get around the area. Roughly a third of all visitors to the High Coast come from the nearby area, while just under half of all visitors to the Kvarken Archipelago are local residents. Visitors are generally satisfied, and a majority of them are aware that the area is a World Heritage Site prior to arriving. For roughly half of the visitors to the Kvarken Archipelago, its World Heritage status is an important reason for their visit, while only 25% of the visitors to the High Coast feel that it is important. The surveys are not directly comparable, because they were conducted with varying requirements for statistical significance, but they do still provide a satisfactory understanding of the visitors and their experience as well as assistance in working with target groups. Reports on both visitor surveys can be found at highcoastkvarken.org, and the report on the survey conducted in the High Coast includes a comparison with the results of the Kvarken Archipelago survey.

In Finland, local associations for persons with disabilities (FDUV and SAMS) have participated in discussions on what proper accessibility at various visitor sites can look like as well as what needs and wishes disabled persons have, thus providing valuable input.



Workshops were arranged in both Sweden and Finland.

Photo: Malin Henriksson

Workshops

Because participation and involvement are important to nature interpretation planning, several workshops were held during the winter of 2018-2019. In order to make attendance possible for all those wanting to participate, workshops were held in both Sweden (naturum Höga Kusten) and Finland (Vaasa). In addition, the same workshop was held in both the day and evening, and attendees of the workshops in Finland were offered interpreting between Finnish and Swedish. The workshops were held by SCNI for stakeholders within the World Heritage Site in co-operation with the CAB and PWF. It is important to work on themes, places and target groups in co-operation with actors at an early stage. At the workshops, incomplete proposals were presented to the attendees so that they could contribute their own knowledge and expertise. After the workshops, the CAB and PWF compiled the various perspectives given by all the attendees and mapped out a way forward. This could be established in the next workshop, allowing the attendees to make further progress with the material. In addition to the fact that the CAB and PWF received valuable information from the attendees, it was also important to involve actors that are active in the World Heritage Site area so that they can also benefit from the plan. The most important part of co-ordination work was done in these workshops. In order to come up with a relevant plan that agrees with the prerequisites of the area, involvement is also key to ensuring that everyone feels included in the planning of the area, which comprehends many groups and people.

Lystra project personnel from all project partners and several of the funders participated in the first workshop. At the same time that knowledge on nature

interpretation planning was increased throughout the project organisation, it was an ideal opportunity to develop the workshop concept before inviting the World Heritage Site stakeholders to attend.

At the first events held for actors and stakeholders in the World Heritage area in the autumn of 2018, the workshops focused on the main theme of the nature interpretation and places. In the spring of 2019, workshops with the same content were also held in both the High Coast and Kvarken Archipelago. The subthemes, target groups and key visitor sites were addressed at these workshops. Invitations were extended to both authorities and local associations, entrepreneurs and teachers.

Some of the workshops on places were also held at the CAB Nature Conservation Unit. The internal workshop was held because the nature interpretation plan affects the administration of certain areas and the Unit's personnel possess extensive knowledge on protected areas.

After the workshops, Lystra project personnel kept the workshop attendees up to date through correspondence on the results obtained from the workshops as well as on how the plan will progress. The attendees were also able to give their opinions on the finished plan.

Representatives from the following parties participated in the workshops:

Sweden: Lantmäteriet (Swedish mapping, cadastral and land registration authority), High Coast Tourist Service, Municipality of Örnsköldsvik, Vibyggerå village council, Lappudden, Mannaminne, Municipality of Kramfors, Swedish Society for Nature Conservation (SSNC), AspNet (World Heritage schools), Grämetaskolan school, Geological Survey of Sweden (SGU), Nordingrå stakeholder association and entrepreneur association, a geologist, Nature Conservation Unit, County Administrative Board Västernorrland, Federation of Swedish Farmers (LRF), Höga Kusten Turer boat charters, High Coast Destination Development Inc. (Höga Kusten Destinationsutveckling), Save the High Coast (Rädda Höga Kusten), Kåls roads association, Nätra heritage association, Pelle Åberggården, Grisslans stakeholder association and a number of private persons.

Finland: Lystra project partners (PWF, CAB, Geological Survey of Sweden (SGU), Geological Survey of Finland (GTK), Finnish Geospatial Research Institute (FGI) and the City of Vaasa) and financiers (Visit Vaasa, Kvarken Archipelago World Heritage Site Association, Municipality of Örnsköldsvik, City of Vaasa, Regional Council of Ostrobothnia), Kvarken Visitor Centre World Heritage Gateway (Världsarvsporten), Kvarken World Heritage Delegation,

Destination Kvarken/Vasek, Granösund fishing village, Replot archipelago heritage association, Replot village council, Björkö co-operative, Molpe By community association, Bergö island council, Stakeholder association for a living archipelago (Intresseföreningen för en levande skärgård), Korsnäs Vicarage Museum, Vikinga school, Norra Korsholm school, Tölby-Vikby school, Petalax secondary school, Korsholm secondary school, Kvarken Nature School, Finnish Transport Infrastructure Agency, Finnish Heritage Agency, Korsholm, Malax, Korsnäs, Vaasa (planning, museums), entrepreneurs and private persons.

På vilket sätt kan världsarvet bidra till din verksamhet?

Kom med och påverka hur världsarvet presenteras för besökarna!



Workshop i natur- och kulturvägledning
Tisdag 23 oktober kl 14-20
Kulturhuset Fanny, Kaserng 7, Vasa

Botnia-Atlantica projektet Lystra - upplysning och upplevelser i världsarvet Höga Kusten/Kvarkens skärgård bjuder in till workshop som en viktig del i att ta fram en vägledningsplan för hur vi ska berätta om världsarvet för våra besökare. Planen ska visa hur världsarvets unika särdrag bäst kommuniceras. För att få en så bra och heltäckande plan som möjligt ordnar projektet Lystra två olika workshops, en i oktober och en i januari, för företagare, föreningar, lärare och andra aktiva i världsarvet.

Vi vill få med **alla aktörer inom världsarvet** i vägledningsplaneringen. På den första workshopen arbetar vi kring Höga Kustens och Kvarkens gemensamma kärnbudskap eller tema, alltså vad som gör vårt gemensamma världsarv unikt i ett globalt perspektiv. Hur ska vi alla kommunicera det på bästa sätt? Kan din verksamhet utvecklas genom att du använder världsarvetemat? Hur ska det formuleras för att det ska bli användbart för dig? Målsättningen med workshopen är att vi tillsammans ska se till att världsarvets kärnbudskap/tema fungerar och även ger ett mervärde i din kommunikation.

Workshopen hålls på svenska, med tolkning till finska. Lystra bjuder på kaffe och soppa. Berätta om eventuell specialkost och behov av tolkning när du anmäler dig. Och ta med ett föremål som representerar något som gör världsarvet unikt för dig personligen

Anmäl dig senast 10 oktober till Malin Henriksson, malin.henriksson@metso.fi.





Workshop program
Tisdag 23 oktober kl 14-20 i Kulturhuset Fanny, Vasa

14:00 Välkomna!
Presentationer:
Upplägg för dagen.
Deltagarna berättar kort om sig själva och sin roll i världsarvet
Om projektet och utbildningsdagens roll i det
CNV:s intryck av området hittills

15:00 Fika och mingel

15:50 Presentationer:
Om natur- och kulturvägledning
Förslag på tema för vägledningen i världsarvet
Diskussioner:
Funker det föreslagna temat?
Världsarvets betydelse för mig, utgående från temat

18:00 Lätt middag

18:30 Presentationer
Resultat från besökarundersökningar
Diskussioner:
Stämmer vår bild med er?
Gruppövning:
Platser, värden och besökare.
Avslutande reflektion, utvärdering och nästa steg

20:00 Workshopen slutar

Vill du veta mer?
Läs om vad natur- och kulturvägledning (interpretation) är:
[Centrum för naturvägledning](#)
[Platsens berättelser - metodhandledning för interpretationsplanering](#)
[Interpretation: Kommunikation för utveckling av kulturmiljöer](#)
Läs mer om Lystra: <http://www.kvarken.fi/lystra>



The invitation and program for the Kvarken Archipelago workshop held in October 2018. A workshop with the same agenda was also arranged in the High Coast.



Vilka platser är viktiga i världsarvet?

Välkommen på workshop om världsarvet Höga Kusten/ Kvarkens skärgård!

Workshop i natur- och kulturvägledning
Torsdag 24 januari kl 13-16 eller 18-21
på naturum Höga Kusten

Hur ska världsarvet presenteras på de olika besöksplatserna för att relevanta besöksgrupper ska nås? Vilka platser är viktigast att tillgänglighetsanpassa? Var när vi barnfamiljerna? De äventyrssugna? De kulturintresserade? Vilka är de viktigaste besöksmålen i världsarvet? Är hela världsarvet representerat med alla olika spår av istiden, landhöjningen och havet? Och var berättar vi om världsarvstanken och familjen med över 1000 världsarv?

Detta är frågor vi vill ha hjälp med från företagare, föreningar, skolor, kommunerna och andra organisationer verksamma i världsarvet. I höstas hade vi en workshop som handlade om att ta fram ett tema och budskap för hela världsarvet. Den här gången fokuserar vi istället på platserna och hur dessa ska lyftas. För att så många som möjligt ska kunna delta ordnar vi två workshopar med samma program, välj om det passar bättre att komma 13.00-16.00 eller 18.00-21.00.

Workshopen är en del av Botnia-Atlantica projektet Lystra - upplysning och upplevelser i världsarvet Höga Kusten/Kvarkens skärgård. Vi bjuder på fika, berättar om eventuell specialkost och vilken workshop du deltar i när du anmäler dig.

Anmälan sker senast 16 januari till världsarvssamordnare Patrik Bylund, patrik.bylund@lansstyrelsen.se, tel 073-275 16 35.

Välkommen!





Workshop program
Torsdag 24 januari kl 13-16/18-21
naturum Höga Kusten

Välkomna!
Introduktion till Lystraprojektet och till dagens workshop
Om kultur- och kulturvägledningsplanering

Tema och underteman för vägledningen i världsarvet
Kort presentation
Grupppövning om underteman

Besöksplatser och centralorter
Gruppdiskussioner:
- De utvalda platserna och deras hållbarhet
- Centralorternas roll i världsarvet

Fika

Målgrupper, hur de hänger ihop med platser och underteman
Presentation av målgrupper
Gruppdiskussioner:
- Vilken typ av vägledning passar bäst var och för vem?

Avslutning
Hur vägledningsplaneringen fortsätter
Utvärdering

Vill du veta mer?
Läs om vad natur- och kulturvägledning (interpretation) är:
[Centrum för naturvägledning](#)
[Platsens berättelser - metodhandledning för interpretationsplanering](#)
[Interpretation: Kommunikation för utveckling av kulturmiljöer](#)
Läs mer om Lystra: <http://www.kvarken.fi/lystra>



The invitation and program for the High Coast workshop held in January 2019. A workshop with the same agenda was also arranged in the Kvarken Archipelago.

7.3 Testing the nature interpretation plan

The work to introduce a nature interpretation plan for the World Heritage Site also involved the testing of new methods for nature interpretation in both the High Coast and Kvarken Archipelago. The tests were planned based on the work with places, target groups and subthemes. Hornöberget was chosen as the test site for the High Coast and Svedjehamn was chosen for the Kvarken Archipelago. These places complement each other quite well. Hornöberget serves as a gateway to the World Heritage Site. Many visitors stop here and are perhaps unaware that they have come to a World Heritage Site. This specific place does not have any clearly defined World Heritage values, but visitors can be directed into the World Heritage Site from here. On the other side, Svedjehamn is not a place one visits without planning in advance and it has clearly defined World Heritage values. Different subthemes suit the two places and, by developing different nature interpretation measures for each place, we were able to achieve an ample range for testing the nature interpretation plan. SCNI participated in the planning and conducting of the tests and was responsible for their evaluation. Responses to the tests have been used to improve and install the nature interpretation at Svedjehamn and Hornöberget.

Hornöberget, High Coast

An activity trail was tested at Hornöberget. The target groups for this place are Families, Not so mobile, Curious, but unknowledgeable and Scanners. The trail is relatively short and aimed at Families and Curious, but unknowledgeable. The subthemes for the place are *One World Heritage Site – so different, Humans and land uplift* and *The World Heritage idea*.

Because it was introduced as a prototype, the test subjects were able to have a major impact on the end result. The idea was to loan visitors a backpack loaded with a few items at the hotel and have them solve a number of tasks along the trail using the items. Four stops were made on the trail, with six tasks given at each stop.

In order to attract all passers-by and pique their curiosity for the World Heritage Site, the CAB introduced a model with a landscape frame showing a profile of the hills in the background that could be raised and lowered. The idea here is that visitors could operate the model, thus inspiring them to stay longer in the area and learn more about it.

Nine families tested the nature interpretation at Hornöberget before it was officially installed. Both the the trail with task stations and the landscape frame with the hills in the background to show how much the land has risen were tested.

The tests were conducted on prescribed days, with test subjects from the target groups being invited to participate. In the High Coast, we invited participants by posting an announcement on Facebook. Test subjects were able to submit their feedback after going through the planned nature interpretation at the site. The feedback was collected by means of a survey and interviews conducted by SCNI.

A test on a trail similar to the one at Hornöberget was also conducted at Norrvalla, Vörå on Friluftslördag, which is an outdoor activity event. We also collected feedback from participants here, thus supplementing the results from Hornöberget with a similar test.



Several families participated in the pilot study at Hornöberget.

Photo: Swedish Centre for Nature Interpretation (SCNI)

The feedback received from testing provided invaluable assistance in the additional work being done to improve the nature interpretation.

The activity trail in the High Coast reduced the number of tasks to two at each stop. This was done to allow participants to really focus on the tasks that were fun and not too difficult for the target groups to understand. One stop was added so that the distance between stops would not be too long.

Feedback on general trail information and what is found at the site was also given. This feedback will be invaluable when the final material is presented.

SCNI was responsible for evaluation, partly by means of interviews conducted with all family groups and partly by having each family fill out a form as they hiked the trail. This evaluation served as the basis for making improvements and changes to the trail prior to its actual opening. The activity trail was contracted in the summer of 2020 and completed during the autumn of that year.

The other idea used was a landscape frame showing a profile of the hills in the background. Testing the frame demonstrated the value of making simple prototypes. The landscape is at much too far a distance and, from the visitors' perspective, it only seems to be a few centimetres from the sea to the hilltops. As a result, even a rise in elevation of 286 metres would only be seen as a few centimetres up and down. In order to achieve the right effect showing how much the land has risen, the frame must be placed near a hill profile. The test subjects were understanding regarding the error in placement and stated that they thought it was basically a good idea. The idea will not be shelved, but it will be saved for a better placement. This attraction was replaced at Hornöberget with a fictional model of World Heritage Site's geological values, along with nature interpretation, which explains the site and encourages visitors to explore the area again.

In the autumn of 2020, a consulting firm was contracted to complete the trail. The frame idea was not implemented at Hornöberget. Instead, a model of a fictional landscape with the geological features found in the High Coast and Kvarken Archipelago was introduced and will be placed at the site.

Svedjehamn, Kvarken Archipelago

The pilot study in Svedjehamn was planned for the spring of 2020, but due to the restrictions imposed by the COVID-19 pandemic the testing was postponed until August. In Svedjehamn, nature interpretation was developed along the Bodvattnet runt trail. All the target groups described in the nature interpretation plan are

also included among the target groups for Svedjehamn, which is the most heavily visited place in the Kvarken Archipelago. The target groups Families and Not so mobile were included in the pilot study. The subthemes for this place are Traces of the ice, Land uplift and the impact of the sea, *One World Heritage Site – so different*, *Biodiversity of the World Heritage Site* and *Humans and land uplift*. The pilot studies affect all these subthemes to a certain extent.

New information boards were placed along the Bodvattnet runt trail. The boards are related to the World Heritage Site, Ice Age and Land Uplift and Biodiversity of the World Heritage Site. The boards were supplemented by profiles showing species typical to the area. Two of the profiles are larger in size and show, on one hand, a land uplift forest and, on the other, land uplift. One of the profiles includes a U-Turn Round instead of an information board. Visitors can listen to narrated information and nature sounds on the U-Turn Round.

A cast model of a fictional land uplift landscape was placed at Saltkaret. The model shows three geological features of the High Coast and three of Kvarken Archipelago. A similar miniature landscape model will also be placed in the High Coast at Hornöberget. The purpose of doing this is to allow visitors to see and feel the geological features. It was more important to show the characteristic forms of these features than to make a geographically accurate model of the World Heritage Site. The model is also large enough for groups to gather around it. The model also has an information board, which explains what can be seen and experienced.

Five families and three couples tested the new nature interpretation at Svedjehamn. The tests were conducted on prescribed days, and families were invited through Facebook. Because the invitation posted on Facebook received a minimal response, people who passed the starting point of the pilot study were also involved. As a result, the test did not only include families. Test subjects were able to submit their feedback after going through the planned nature interpretation at the site. Feedback was collected through surveys and interviews. As with the High Coast, the evaluation was planned in co-operation with the SCNI, but due to the COVID-19 situation, the SCNI was unable to participate in the evaluation on-site. However,



Prototypes of silhouettes and information signs were made for the pilot study. The participants got the chance to comment on them.

Photo: Malin Henriksson

the SCNI was able to review the recorded interviews with participants as well as their written responses, thus allowing it to evaluate the pilot study.

Two persons with disabilities invited through direct contact with the local associations for persons with disabilities (FDUV and SAMS) also tested the new nature interpretation at Svedjehamn. One of the participants was in a wheelchair, thus also providing PWF with feedback on the accessibility of the area in addition to the response concerning nature interpretation itself. The Bodvattnet runt trail is not accessible for its entire length, but a majority of the new nature interpretation is placed along the section of trail that is accessible to visitors with wheelchairs or, for example, prams.

The feedback received during testing was helpful to further work on realising the nature interpretation and introducing the final information boards and profiles. As with the High Coast, the pilot study was conducted with prototypes and, in introducing the final information boards, profiles and miniature models, the responses from the study have been taken into account. The placement and size of the profiles and the amount of text and its formulation on information boards have been further developed based on the participants' responses. The length of the recordings in the U-Turn Rounds was also reduced. The new nature interpretation was realised in the autumn of 2020.

7.4 Evaluation and completion of the plan

The nature interpretation plan was sent out internally and to the SCNI for comments and feedback in the winter of 2020. This was the first time that several people read the plan and a great deal of useful feedback was given. The drafting process was based on an outline for the nature interpretation plan presented in *Platsens berättelser* (Malmström, Lena et al. *Platsens berättelser: Metodhandledning för interpretationsplanering*, 2017). After the comments round, the plan was reworked a great deal in the outline and clarified. The method description and point of departure was moved to this Appendix in order to make the plan more substantial.

During the summer of 2020, the plan was sent out to municipalities, destination companies, tourism entrepreneurs, associations and workshop attendees for their opinions. 29 opinions or comments were received. In September and October, the plan was completed based on these responses. After the final comments were reviewed, the plan was translated into Finnish and English, laid out, and published in an accessible PDF format at highcoastkvarken.org.

7.5 Selected places in the High Coast

Place		Target groups							Sub themes							World Heritage values													
		Families	Not so mobile	Outdoor enthusiasts	Curious, but unknowledgeable	Specialists	Scanners	Nature lovers seeking more knowledge	Traces of the ice	Land uplift and the impact of the sea	One WHS - so different	Biodiversity in the WHS	Humans and land uplift	Discovery and research	The World Heritage idea			Highest coastline and till-capped hills	Cobble fields	Beach deposits	Tunnel caves	Isolated basins, fiads and gloses	Roche moutonnées	Bare washed rock surfaces and striations	De Geer moraines	Ribbed moraines	Ravines in sediment	Boulder fields and erratics	Land uplift forests
Where?	To keep in mind															Comments from the workshops	Examples of nature interpretation												
Mosjön	Cooperate with Swedish Transport Administration and the municipality.		1		1		1								1							1	1						
Skeppsmalen	Important to involve the resident population. Cooperation with the municipality.	1	1		1	1			1	1			1	1		Local participation is needed. There has to be things to do when you get there, like hiking etc. The parking becomes chaotic easily. The area is lacking overall information signs with a map. Difficult to access for target groups if it has rained. Tell about the people who have lived there.			1	1			1	1					
Gullvik recreation area	Cooperation with the municipality. The place is linked to Gullvik and Vikberget.	1	1	1	1	1	1	1		1						More focus on Vikberget and the camping. Ogletjärn cannot take in much more visitors. Guides working there, the municipality? Important place for locals. Gather info at the camping.			1	1		1							
Trysunda	Nature reserve management and World Heritage	1	1	1	1	1	1	1		1	1	1	1						1	1			1						
Skuleskogen National Park	Need for more extensive cooperation with the National Park management.	1	1	1	1	1	1	1	1	1	1	1	1	1	1			1	1	1		1	1	1		1			1
Skuleberget	Nature reserve and World Heritage.	1	1	1	1	1	1	1		1	1			1	1		Sound of waves in the cave. Signs with the location of the shoreline x years ago. See Källarbacken story as an example.	1		1			1				1		
Ulvön islands	Both islands shall be seen as a whole. Work to involve residents and entrepreneurs there.	1	1	1	1	1	1	1	1	1		1	1			They think that there is plenty of good nature interpretation in the harbor. Think of the people coming by boat. At Marviksgrunnan there is no room for more people. Hiking on the south but boat transport over is a problem. Room for more visitors outside the harbour. Cultural history should be the main theme here.	Pictures showing sea level over today´s landscape, to get a feeling of where the shoreline was back then.		1	1	1	1							

Appendix: 7.5 Selected places in the High Coast

Place	Target groups	Sub themes														World Heritage values															
Where?	To keep in mind	Families	Not so mobile	Outdoor enthusiasts	Curious, but knowledgeable	Specialists	Scanners	Nature lovers seeking more knowledge	Traces of the ice	Land uplift and the impact of the sea	One WHS - so different	Biodiversity in the WHS	Humans and land uplift	Discovery and research	The World Heritage idea	Comments from the workshops	Examples of nature interpretation	Highest coastline and till-capped hills	Cobble fields	Beach deposits	Tunnel caves	Isolated basins, fiads and gloses	Roche moutonnées	Bare washed rock surfaces and striations	De Geer moraines	Ribbed moraines	Ravines in sediment	Boulder fields and erratics	Land uplift forests		
Mjältön	Nature reserve	1		1	1			1		1	1	1	1	1	1				1	1	1	1	1				1				
Norrfällsviken	The peninsula shall be seen as a whole. Work to involve residents and entrepreneurs.	1	1	1	1	1	1	1		1	1	1	1	1	1	All target groups and school groups. Develop nodes for boat traffic.	Mazes at Norrfällsviken.		1	1			1								
Storsand	See Norrfällsviken.	1			1		1	1		1		1						1	1					1							
Villmyran	See Norrfällsviken.					1		1		1		1		1						1											
Ramberget	See Norrfällsviken.			1		1		1		1									1		1		1				1				
Höggklinten	Considered as a place on its own.	1		1	1	1		1		1				1					1	1							1				
Stortorget	Links to Mannaminne and cooperation with them, they participated in the workshops.	1			1	1	1	1		1	1	1	1			Mannaminne wants to include Not so mobile. Down at Mannaminne you need to know why to go up to Stortorget. Special focus on isolated basins.						1									
Mannaminne	Links to Stortorget.	1	1		1		1									Mannaminne, a place to develop information, World Heritage house. Signs from Häggvik guest harbour, link them together. Could be a cultural centre.						1									
Bönhamn	Partly linked to Högbonden.	1	1	1	1					1		1	1		1	Mjösjön is an isolated basin west of Bönhamn. A little hard to find paths and works of art in i Bönhamn. Cramped. Cannot take in more visitors. Signs leading to Kallviken, or guides. Link to Högbonden.			1	1		1	1								
Högbonden	Partly linked to Bönhamn and Barsta.	1				1		1		1	1	1	1	1	1				1		1										
Barsta	Linked to Högbonden and Rotsidan.	1		1	1		1						1							1							1				

Appendix: 7.5 Selected places in the High Coast

Place	Target groups	Sub themes														World Heritage values															
Where?	To keep in mind	Families	Not so mobile	Outdoor enthusiasts	Curious, but unknowledgeable	Specialists	Scanners	Nature lovers seeking more knowledge	Traces of the ice	Land uplift and the impact of the sea	One WHS - so different	Biodiversity in the WHS	Humans and land uplift	Discovery and research	The World Heritage Idea	Comments from the workshops	Examples of nature interpretation	Highest coastline and till-capped hills	Cobble fields	Beach deposits	Tunnel caves	Isolated basins, flads and gloes	Roche moutonnées	Bare washed rock surfaces and striations	De Geer moraines	Ribbed moraines	Ravines in sediment	Boulder fields and erratics	Land uplift forests		
Rotsidan	Partly linked to Barsta.	1	1	1	1	1	1	1		1		1	1		1				1	1			1								
Storön	Shall be included but to a lesser extent.			1		1		1		1			1						1	1		1									
Valkallen		1		1				1			1				1				1	1							1				
Hornöberget	Pilot.	1	1		1		1				1		1		1	Of great value as a gateway. All target groups. Attract visitors to see more of the World Heritage Site.	World Heritage path for big and for small. Ask questions instead of traditional signs. A booklet for collecting visitor places?														
Smitingen	Nature reserve management and World Heritage	1	1	1	1	1	1	1		1					1						1	1	1								
Smaller regional centres	Which ones? No1 Docksta, Ullånger. No2 Nordingrå, Köpmanholmen, Nora, Mjällom. No3 Örnsköldsvik, Kramfors, Härnösand.	1	1	1	1	1	1	1			1				1	Guidance. Inspire to visits in the WH area. Inform that you are in a WHS.															
Summa		20	14	16	19	16	16	18	3	18	10	11	13	8	12			3	15	15	5	10	11	3	0	0	7	0	1		

7.6 Selected places in Kvarken Archipelago

Paikka		Kohderyhmät							Alateemat							Maailmanperintöarvot paikalla													
		Families	Not so mobile	Outdoor enthusiasts	Curious, but unknowledgeable	Specialists	Scanners	Nature lovers seeking more knowledge	Traces of the ice	Land uplift and the impact of the sea	One WHS – so different	Biodiversity in the WHS	Humans and land uplift	Discovery and research	The World Heritage Idea			Highest coastline and till-capped hills	Cobble fields	Beach deposits	Tunnel caves	Isolated basins, fiads and giles	Roche moutonnées	Bare washed rock surfaces and striations	De Geer moraines	Ribbed moraines	Ravines in sediment	Boulder fields and erratics	Land uplift forests
Where?	To keep in mind															Comments from the workshops	Examples of nature interpretation												
Kummelskär, Mickelsöarna islands	Need for own boat.			1	1	1			1	1			1			The station building needs a new solution for its heating. The area has rich history.			1							1			
Västerö hiking trail	Cooperation with Maxmo skärgårdsförening. Limited parking.	1		1	1			1	1	1			1		1				1			1		1					1
Valsöarna islands	Cooperation with several actors. Rich cultural history.	1		1		1		1		1		1	1	1		The common history between Finland, Sweden and Russia. The conservation regulations make staying overnight difficult.			1			1							
Svedjehamn, around Bodvattnet and Saltkaret	Many stakeholders and a lot of visitors. The nature interpretation should be of varied to meet different needs.	1	1	1	1		1		1	1	1	1	1			Important to follow up on changes in nature due to the amount of visitors.						1			1				1
Klobbskat and Kikanberget	The municipality is in charge of the area.	1			1		1	1	1		1		1				The lighthouses are seen at clear weather and can be pointed out with signs up in the tower (see landscape signs in Saltkaret as an example).							1					
Björkö-Panike hiking trail, Vargis and Björkören	Development plans to improve accessibility. Vegetation is dependent on culture.	1		1	1	1		1	1	1		1	1									1			1	1			1
Sommarö	Can be developed for groups.	1	1		1		1		1	1		1			1	Attracts all kinds of visitors, the unofficial beach is popular. Suitable for groups arriving with busses.	Interactive nature interpretation is suitable for the area.					1		1					1

Appendix: 7.6 Selected places in Kvarken Archipelago

Paikka		Kohderyhmät							Alateemat							Maailmanperintöarvot paikalla														
		Families	Not so mobile	Outdoor enthusiasts	Curious, but knowledgeable	Specialists	Scanners	Nature lovers seeking more knowledge	Traces of the Ice	Land uplift and the impact of the sea	One WHS - so different	Biodiversity in the WHS	Humans and land uplift	Discovery and research	The World Heritage Idea			Highest coastline and till-capped hills	Cobble fields	Beach deposits	Tunnel caves	Isolated basins, flats and gloes	Roche moutonnées	Bare washed rock surfaces and striations	De Geer moraines	Ribbed moraines	Ravines in sediment	Boulder fields and erratics	Land uplift forests	
Where?	To keep in mind															Comments from the workshops	Examples of nature interpretation													
World Heritage Gateway and Replot bridge	The aim of the WH Gateway is to inspire people to visit the World Heritage area and give information.	1	1		1		1	1	1	1	1	1	1	1	1	The art gallery also attracts culturally interested visitors.	The WH Gateway is a good place for digital nature interpretation.													
Terranova	Important for schools. Can give an overview and understanding for the WH.	1	1		1	1		1	1	1	1	1	1	1	1		Terranova is a good place for digital nature interpretation.													
Fäliskär (Rönnskär)	Nature interpretation about the area in relevant harbours.			1	1	1		1	1		1		1		1	Popular place among leisure boats. Overnight stays are possible for small groups. Interesting bird life and cultural history.			1					1						
Molpehällorna	The area around Molpe Strömmen is being developed as a gateway to the southern area.	1		1	1			1	1	1		1	1			The area close to the nature station is suitable for tents/camping.						1		1					1	
Villages and harbours on the mainland	Särkimo, Björköby, Norra and Södra Vallgrund, Replot, Sundom, Äminne, Bergö, Molpe and municipality centres.	1	1	1	1	1	1	1			1				1	Guidance. Inspire to visits in the WH area. Inform that you are in a WHS.														
SUMMA		10	5	8	11	6	5	9	10	9	6	7	10	3	6				0	4	0	0	6	0	5	2	2	0	0	5