

---

# Petroglyphs of Lake Onega and the White Sea (Russian Federation) No 1654

---

**Official name as proposed by the State Party**  
Petroglyphs of Lake Onega and the White Sea

## Location

Pudozhsky District  
Belomorsky District  
Republic of Karelia  
Russian Federation

## Brief description

The Petroglyphs of Lake Onega and the White Sea nomination refers to 4,500 petroglyphs carved in the rocks during the Neolithic period dated 6-7 thousand years ago, located in the Republic of Karelia in the Russian Federation. The petroglyphs produced by the Pit-Comb Ware culture and Rhomb-Pit Ware culture provide material evidence documenting Neolithic culture in Fennoscandia. The nominated serial nomination includes the petroglyphs of Lake Onega extending over a territory of 6944.14 hectares in the District of Pudozhsky and those of White Sea, extending over an area of 105.4 hectares in the District of Belomorsky located at a distance of 300 kilometres from one another. The nomination comprises 33 sites within the two component parts, including a total of 22 archaeological sites at Lake Onega and 11 located at the White Sea.

## Category of property

In terms of the categories of cultural property set out in Article I of the 1972 World Heritage Convention, this is a serial nomination of two *sites*.

## 1 Basic data

**Included in the Tentative List**  
17 September 2018

## Background

This is a new nomination.

## Consultations

Desk reviews have been provided by ICOMOS International Scientific Committees, members and independent experts.

## Technical Evaluation Mission

An ICOMOS technical evaluation mission took place from 17 to 25 October 2020.

## Additional information received by ICOMOS

On 6 October 2020, ICOMOS sent a letter to the State Party requesting additional information on: the historic context of the petroglyphs; the legal status and the rationale for the delineation of the nominated area and buffer zones; on the selection of the components; and the management mechanisms in place.

An Interim Report was provided to the State Party on 17 December 2020 summarising the issues identified by the ICOMOS World Heritage Panel and requesting further information on the scope and rationale for the series, the state of the documentation and of research, the legal protection, management arrangements, and development pressures.

Additional information was received from the State Party on 16 November 2020 and on 25 February 2021 and it has been incorporated into the relevant sections of this evaluation report.

## Date of ICOMOS approval of this report

18 March 2021

## 2 Description of the property

Note: The nomination dossier and additional information contain detailed descriptions of this property, its history and its state of conservation. Due to limitations on the length of evaluation reports, this report only provides a short summary of the most relevant aspects.

### Description and history

The nominated property is located in the Republic of Karelia in the north-west of the Russian Federation. It includes two component parts which are located 300 km from each other: the petroglyphs of Lake Onega in the south-east part of the Republic of Karelia and those of the White Sea in the north-east part.

The petroglyphs of Lake Onega and the White Sea represent one of the largest independent centres of Neolithic rock art in Europe, dating to between circa 5,500 BC to 2,000 BC. They show significant artistic qualities and creativity of the Stone Age.

The rock art figures at Lake Onega mostly represents birds, animals, half human and half animal figures as well as geometric shapes while the petroglyphs of the White Sea are mostly composed of carvings depicting hunting and sailing scenes including their related equipment as well as animal and human footprints.

The petroglyphs of Lake Onega encompass a total of over 1,200 figures concentrated in 25 groups and spread over 22 sites located on 17 capes and 6 islands. The rock art figures of Lake Onega include geometric representations that may be symbols of the moon and the sun, as well as figures interpreted as demon, burbot and otter located at Besov Nos identified as the central part of a sanctuary. The petroglyphs are associated with

a total of 45 archaeological sites including settlements and burial grounds.

The petroglyphs of the White Sea include 3,411 figures divided into 11 groups extending over 11 sites spread over 7 islands on the Vyg River's delta in the following areas:

- Zalavruga (about 2000 figures);
- Besovy Sledki;
- Erpin Pudas (I to IV) (some 200 figures);
- No-name islands (I to III) (some 300 figures);
- Island Bol'shoj;
- Zolotec.

Zalavruga is considered to be the main sacred centre of the area. The petroglyphs are associated with 80 archaeological sites including 42 camp sites dated as contemporary with the rock art.

Information on the archaeological sites located near the rock art sites has also been provided at ICOMOS's request: archaeological evidence dates these sites to between the Late Mesolithic up until the Middle Ages. Late Mesolithic settlements have been excavated at Besov Nos and Kladvets Nos.

ICOMOS requested also additional information on the history and development of the human groups that populated the area. The State Party provided concise additional information in November 2020 and explained that, according to scientific evidence, the first signs of human activity in south and central Karelia date back to the Late Mesolithic Age (around 10,000 BP), thanks to more favourable climatic conditions in the northern territories.

Lake Onega is presented in the nomination dossier as an 'unchanged landscape' where petroglyphs have been preserved in their original environment. Research undertaken since the 1970s has led to indications that the petroglyphs of Lake Onega appeared earlier than those of the White Sea and influenced the emergence and development of a carving tradition at the White Sea.

Their initial phase dates back to the Neolithic, witnessing the transition from hunter-gathering to food producing by sedentary societies. The petroglyphs attest to the beliefs and lifestyle of the hunter-fisher-gatherers over a period of 3,000 years and speak of the high point of these semi-nomadic cultures that used these rock art centres as meeting places. The petroglyphs are associated with the Neolithic Pit-Comb Ware culture and Rhomb-Pit Ware culture (broadly speaking 4200 – 2000 BCE; more recent dating hypothesis 4200 – 3000 BCE for the nominated rock carvings).

The nominated serial property includes representations of waterfowl including swans that the State Party considers to be unique in the rock art of Northern Fennoscandia and in Europe, and were identified as the earliest manifestation of the rock carvings in the region.

Research has revealed that the earlier petroglyphs can be found at Capes Koryushkin Nos, Kladvets Nos and Gazhy Nos and on Capes Peri Nos and Karetsky Nos. These early petroglyphs mainly represent sketchy waterfowl where swans appear, linear boats with rowers and geometric symbols (circles, half-moon).

A second phase of evolution is characterized by the diversification of themes, representations and techniques using the natural shape of the rocks to serve the representation of the carvings. Representations of birds are predominant as well as their related contexts including waterfowl represented through a much wider range of forms. This period also attests to an imagery composed of conceptual forms including geometrical representations associated with solar and lunar symbols as mentioned in the nomination dossier, together with half-animal half-human figures such as moose-man, bird-man or boat-man. The later period is associated with the large-scale petroglyphs located at Kochkovnavolok peninsula where carvings up to 4 meters in length preserved.

The petroglyphs of the White Sea focus mainly on hunting scenes, which depict sea hunting, including of whales or other sea animals in larger numbers, as well as hunting inland with representations of the hunter in action, or isolated depictions of hunters' equipment (bows, arrows, spears, skis) and animal footprints. These carvings are said to be particularly informative about life in the Neolithic for the level and quality of details provided, especially for whale hunting.

The petroglyphs of the White Sea are dated after the petroglyphs of Lake Onega with a first stage located at Besovy Sledki, Erpin Pudas I, II and IV. Research has noted similarities with the petroglyphs of Lake Onega for the petroglyphs dated from the second period considering the presence of similar images of humans and boats.

The third stage of evolution is represented by the carvings located at Zolotec I, Erpin Pudas III, a group of small islands in the channel of the river Vyg. The fourth period is represented by the narrative compositions located at Zalavruga where scenes of hunting depict whale or ringed seal hunting in great details as well as reindeers, moose and bears, geese and woodcocks. Similar to Lake Onega, the last phase of development is characterized by gigantism, with figures extending over 3 meters long at Staraya Zalavruga.

In response to ICOMOS's interim Report, in February 2021 the State Party explained that scientific research has concluded that there are similarities between the rock art production of Lake Onega and the White Sea especially in the rock carving technique, rock art compositions, in the scenes depicted and their style, as well as in the locations chosen for carving horizontal motifs on the rock surface. The detailed analysis of the rock carvings revealed that they were produced by a population of the same Neolithic culture; excavated archaeological material attests that part of the Pit-Comb

Ware population of Lake Onega gradually migrated to the White Sea by way of navigation. Their settlement led to the initial development of rock art at the River Vyg and in the south-western region of the White Sea.

#### **Boundaries**

The nominated property has an area of 7,049.54 ha; 6,944.14 ha at Lake Onega and 105.4 ha at the White Sea.

The buffer zone at Lake Onega extends over an area of 15,100 hectares and extends over 18.5 kilometres from north to south and up to 7.6 kilometres from west to east. It includes the 22 rock art sites. At the White Sea, the buffer zone surrounds 11 groups of rock carvings, representing a total surface of 15,557 hectares.

Additional Information provided by the State Party in November 2020 indicates that the buffer zone of the petroglyphs of Lake Onega are part of the Natural Reserve "Muromsky" and includes a total of 47 archaeological sites dating from the Mesolithic and Neolithic periods. The petroglyphs included in the buffer zone of component 2 of the White Sea are together with a total of 36 archaeological sites dating from the Neolithic to Bronze Age periods.

ICOMOS noted that the rationale followed to delineate the nominated components sites and the buffer zones was unclear: some archaeological elements have been included in the nominated areas, whereas some in the buffer zones and others have not been considered for inclusion in either of them.

Therefore, in its Interim Report, ICOMOS requested further clarification on the boundary delineation. The State Party responded that the buffer zones were delimited based on the research commissioned by the Administration for the Protection of Cultural Heritage of the Republic of Karelia in 2019 that examined the location of the rock art and archaeological heritage the within landscape and provided a visual impact analysis. Beyond the results of this research, the delimitations were also conditioned to the existing protection zones.

Based on the further explanations provided by the State Party, ICOMOS recommends that the delineation of the nominated areas and buffer zones be reconsidered in order to include the existing archaeological heritage, much of it currently located outside the nominated property, in light of its contribution to the proposed Outstanding Universal Value.

#### **State of conservation**

Based on the information provided by the State Party and the observations of the ICOMOS technical evaluation mission, ICOMOS considers that the state of conservation is overall good at Lake Onega but is concerned about the conservation of the petroglyphs at the White Sea due to regular flooding.

One of the main conservation concerns is the presence of lichen covering most of the rocks surfaces at both Lake Onega and the White Sea, that affects the visibility of the petroglyphs. Since 2000, studies have focused on the presence of lichen and, since 2008, this has led to the adoption of the use of an alcohol solution on the rocks where petroglyphs are carved to remove lichens. ICOMOS suggests a cautious approach to the use of this solution in the long-term and recommends that tests are made to verify whether this substance might reveal negative impacts in the medium- and long-term.

The abrasive effects of lichen, water, snow, ice and weather conditions in general, have led to the partial or complete disappearance of the petroglyphs on the peninsula of Kochkovnavolok and those on the island of Bol'shoj Gurij at Lake Onega, and the petroglyphs at Erpin Pudas II and III, on the no-name islands II and III, and at Zolotec I at the White Sea. Evidence of human degradation in the form of graffiti is only noted in a very few instances at Besov Nos and Besovy Sledki.

#### **Factors affecting the property**

Based on the information provided by the State Party and the observations of the ICOMOS technical evaluation mission, ICOMOS considers that the main factors affecting the property include the high-voltage Vygostrovskaya hydroelectric power station and its facilities at the White Sea.

The hydroelectric power station at Vygostrovskaya is located next to the pavilion of Besovy Sledki where petroglyphs are exhibited. In the past, water has overflowed over the petroglyphs as far as Zalavruga located some 2 kilometers away. The canyon called Kamennyy Kan'on located next to the exhibition pavilion is regularly covered with water causing cracks in the carved rock at the Besovy Sledki Pavilion. To address this issue, the State Party seems to have planned the installation of a water filtration system.

Further affecting factors are represented by development pressures, including forestry harvesting operations, the installation and operation of maritime and inland water transportation facilities and sea hunting.

At Lake Onega, the ICOMOS Technical Evaluation Mission indicated that a quarry is under exploitation on the borders of the Vodla River in the area of Shalskiye, on the outskirts of the buffer zone. The Technical Evaluation Mission observed that the quarry does not seem to have a direct effect on the conservation of the nearest petroglyphs located at Kochkovnavolok peninsula.

The Republic of Karelia had a global tourism strategy and programme approved in 2016 to attract a higher number of visitors to the federal province. The Petroglyphs of Lake Onega and the White Sea stand as one of the major tourism attractions.

At the White Sea, the federal government has approved the creation of a tourist recreation and caravanning tourism centre, focussing on Besovy Sledki, where the Pavilion has been rehabilitated, and Zalavruga, outside the buffer zone, for tourism infrastructure development, including road upgrading and the construction of a hotel, a camp site and a conference centre. At Zalavruga, wooden pathways as well as wooden buildings that will not exceed the height of the surrounding trees are planned to be completed in 2023 but works have not started yet.

At Lake Onega, which has been spared from development to date, plans exist to develop an “eco-archaeological park”, including visitor infrastructure, i.e., a boat-landing facility, one restaurant, hotels and guest houses, an exhibition space and a research centre, in the area surrounding the villages of Karshevo and Shalskiye.

The Republic of Karelia has also planned to set up the “Historical and Archaeological Natural Museum of Karelian Petroglyphs” at Petrozavodsk where the visitors’ centre would introduce the rock art of Lake Onega and the White Sea.

The Department for the Protection of Cultural Heritage Properties of the Republic of Karelia is entrusted with the role of evaluating the design proposals and projects. It has also worked on architectural concepts that would respect the petroglyphs and their surrounding heritage.

ICOMOS expresses its concerns with regard to the potential cumulative impacts of these projects on the nominated series and of the increase of tourism, as they could change profoundly the state of conservation, the integrity of the nominated series and its setting and their possibility to convey the significance of the petroglyphs in their physical context, particularly where this is almost untouched.

In its Interim Report, ICOMOS asked whether an overall Heritage Impact Assessment has been carried out for all these projects. The State Party explained that studies looked into the carrying capacity of the nominated property and its buffer zones, and into the visual impact of infrastructure development on the outskirts of the buffer zones but failed to confirm if an overall Heritage Impact Assessment was completed.

In its Interim Report, ICOMOS asked whether a specific tourism strategy for the nominated property, with the purpose of sustaining its proposed Outstanding Universal Value has been developed. In its response, the State Party did not indicate if the development projects planned at the nominated property are part of such a strategy.

The State Party has indicated the need to prepare a Risk Preparedness Plan in order to address the environmental pressures and develop measures responding to potential natural disasters. ICOMOS

considers that risk preparedness is critical for all the nominated serial property but particularly urgent at the pavilion of Besovy Sledki and at Zalavruga to ensure their long-term conservation.

### 3 Proposed justification for inscription

#### Proposed justification

The nominated property is considered by the State Party to be of Outstanding Universal Value as a cultural property for the following reasons:

- The petroglyphs are one of the rare examples of rock art from the Neolithic period that was preserved without alterations or additions.
- They represent a unique testimony of extinct and distinctive cultures as they provide information on the northern Europe Neolithic lifestyle and beliefs of the Pit-Comb Ware and Rhomb-Pit Ware cultures.
- The petroglyphs are unique forms of art emanating from high quality carving techniques and artistic expression while the natural shape, cracks, colours of the rocks are also used to form the artistic expressions.
- The petroglyphs attest to the change in society in the Neolithic period, providing a window on the hunter-fisher-gatherers at the high point of their development, with the representation of unique themes including daily hunting scenes, specific animal representations, sailing techniques and technologies used in Neolithic times.

#### Comparative analysis

The comparative analysis is presented in two parts: comparison with sites within the Russian Federation; and comparison including two World Heritage properties and rock art sites in northern Fennoscandia with a comparable combination of values and attributes.

The comparative analysis establishes a comparison at national level with archaeological sites on the Tentative List and others listed under the national legislation. In October 2020, ICOMOS requested additional clarifications about the reasons for not also including in the serial nomination the rock art of Kanozero, in the Kola Peninsula. The State Party replied that the petroglyphs at Kanozero were discovered rather recently. Whilst documentation has been carried out, the state of the research on these rock art sites is still in its infancy and, so far, they appear to share greater similarity with the World Heritage property “Rock Art of Alta” (Norway, 1985, (iii)).

Regarding the wider European region, the nomination dossier draws a comparison with the World Heritage properties “Rock Art of Alta” (Norway) and “Rock carvings in Tanum” (Sweden, 1994, (i), (iii), (iv)). Major differences between the nominated serial site and Alta include the timespan - more than 5,000 years for Alta,

whereas it is confined to the Neolithic period at Lake Onega and the White Sea sites; the techniques – there are both rock carvings and rock paintings at Alta, but only rock carvings at the nominated series; the modified natural environment at Alta, whereas the geographic setting is preserved at the nominated property; the purported superiority of the carvings at the nominated property for their highly realistic scenes, their masterful execution and expressive details compared to the rock art carvings at Alta; and the better preservation of the carvings in the nominated series.

In its response to ICOMOS in February 2021, the State Party provided with detailed illustrations, further documentation and explanations as well as an illustrative comparative table demonstrating that the rock art sites at Lake Onega and the White Sea can be considered for the World Heritage List. The additional information has confirmed the crucial importance, for the understanding of the outstanding specific significance of the nominated rock art, of the related archaeological sites and settlements, most of which are not included in the nominated property but are in the buffer zone. ICOMOS therefore considers that the nominated property should be extended to include the archaeological sites, currently outside the nominated property.

The nomination dossier holds that a comparison with the rock art sites at Tanum would not be relevant due to the different periods of their respective creation: Neolithic for the nominated series and Bronze Age and Early Iron Age for the carvings in Tanum; and the cultural contexts: hunting for the nominated series and agriculture for Tanum.

ICOMOS notes that later research has clarified that the rock art at Tanum relates to maritime cultures rather than to agriculture-based ones and therefore a comparison between the nominated series and the Tanum rock carvings would have highlighted interesting diachronic considerations.

Among sites not inscribed on the World Heritage List or included in the Tentative Lists, the comparative analysis examines Nämforsen in Northern Sweden, and the petroglyphic complexes of Vingen, Ekeberg and Skogerveien (Norway), described as largely similar but inferior for the lower quality of the scenes, the largely modified settings or the limited number of carvings.

The comparative analysis establishes that the nominated property deserves recognition for the uniqueness of its themes including: the presence of the images of waterfowl, with swans in particular, at Lake Onega, that are not represented elsewhere in the rock art sites of North Fennoscandia; the presence of abstract geometrical symbols (solar and lunar signs) as well as animals (otter, burbot, beaver, snake, plus trees) and various anthropomorphic images that are usually not found in Northern Europe; and the more limited timespan of the production of the rock art carvings.

---

ICOMOS considers that the comparative analysis justifies consideration of this property for the World Heritage List but only if the archaeological sites and settlements, contemporary with the rock arts and currently in the buffer zone, are included in the nominated property, given their close interconnections.

---

#### **Criteria under which inscription is proposed**

The property is nominated on the basis of cultural criteria (i), (iii) and (iv).

*Criterion (i): represent a masterpiece of human creative genius;*

This criterion is justified by the State Party on the grounds that the Petroglyphs of Lake Onega and the White Sea served as an important place for the performance of Prehistoric cults and rituals. The petroglyphs attest to outstanding artistic techniques of rock carving whilst making use of the rock surface features and colours. The unique imagery of the petroglyphs represents symbols and fantastic figures as well as reflects lifestyle and beliefs from the Neolithic period. These qualities are the result of a collective creative genius of the Neolithic people.

In ICOMOS's view, neither the comparative analysis, nor the additional information has demonstrated how the rock art and its related techniques can be considered to stand out in its nature as opposed to similar rock art sites produced in the same period in other parts of the world. Therefore, ICOMOS considers that criterion (i) has not been demonstrated.

*Criterion (iii): bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared;*

This criterion is justified by the State Party on the grounds that the Petroglyphs of Lake Onega and the White Sea are unique testimonies of rock art providing information on a variety of the daily activities of an extinct society. The components of the property testify to the emergence and the evolution of Neolithic rock art from its early development to the most elaborate compositions showing detailed hybrid and fantastic figures as well as conceptual geometric images. As such, the nominated property bears unique information about the material and spiritual culture of the extinct hunter-gatherer societies of Northern Europe, as well as providing elements allowing a better appreciation of economies, lifestyles and worldview in the Neolithic period.

ICOMOS considers that the rock art and the related archaeological heritage, including settlements and burial grounds are an exceptional testimony of the lifestyle and beliefs of the Pit-Comb culture population in the Neolithic.

ICOMOS considers that criterion (iii) would be demonstrated when the archaeological heritage located in the buffer zones, that directly supports the significance of the petroglyphs and provides contextualisation as sites representative of the Pit-Comb culture population who generated them, will be included in the nominated areas.

*Criterion (iv): be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history;*

This criterion is justified by the State Party on the grounds that these rock art sites are the most well-preserved Northern European rock art sites associated with the Neolithic age, testifying to this significant prehistoric period which was seeing major changes in the traditional nomadic lifestyle. The petroglyphs have been preserved in their original forms with no later additions or alterations, and are outstanding examples of Neolithic rock art preserved in their original landscape.

Using criterion (iv) is not usual for rock-art sites unless these are set within a wider landscape which as a whole can illustrate a particular phase in human history – for instance, a relict landscape in which rock art is just one of the pieces of evidence. Extensive documentation and clear evidence would be needed to demonstrate how the Petroglyphs of Lake Onega and the White Sea form part of an outstanding cultural landscape that testifies to the Neolithic age.

ICOMOS considers that criterion (iv) has not been demonstrated.

---

ICOMOS considers that the nominated property has the potential to meet criterion (iii), but that criteria (i) and (iv) have not been demonstrated.

---

## **Integrity and authenticity**

### **Integrity**

The nominated property rests on the exceptional character of the petroglyphs testifying to the lifestyle and beliefs of the Neolithic cultures present in Northern Europe. According to the nomination dossier, the nominated component parts and their buffer zones are of an adequate size to guarantee a comprehensive illustration of the proposed Outstanding Universal Value. Common or close themes in both components would demonstrate mutual influence as well as chronological closeness and complementarity in illustrating the northern Neolithic period in an exceptional manner. Cultural layers from the Mesolithic period up to Middle Ages are preserved in the vicinity of the petroglyphs.

The boundaries have been established according to the legal framework in place in the Russian Federation and on the basis of interdisciplinary research.

The rock art carvings are well preserved and, at Lake Onega, their setting has survived almost untouched. At the White Sea, the construction of the White Sea-Baltic Canal in the 1930s and of two hydroelectric power stations in the 1960s have altered the setting of this component, with the exception of the site in Zalavruga, which has remained unchanged.

ICOMOS requested additional information both in October 2020 and in its Interim Report on the rationale for the inclusion of archaeological settlements, and other elements, such as, for instance, burial grounds, into the component parts, and in the nominated areas, while some remain in or outside the buffer zones.

The State Party replied that the archaeological sites included in the buffer zone at Lake Onega and at the White Sea (Vyg River) are directly supporting the significance of the petroglyphs when they provide, for example, archaeological evidence of the earliest settlements.

Based on the additional information provided by the State Party, ICOMOS considers that the archaeological sites located in the buffer zones contribute to the Outstanding Universal Value of the nominated property and should be included in the nominated areas in order to meet the conditions of integrity of the serial property.

ICOMOS considers that the integrity of the component at the White Sea has been undermined by the construction of the above- mentioned infrastructure and that preserving the intactness of the component at Lake Onega is crucial for the understanding and appreciation of the proposed justification for inscription.

### **Authenticity**

The Petroglyphs of Lake Onega and the White Sea include preserved representations of Neolithic rock art in their natural landscape. At Lake Onega, the landscape has not been affected by major changes nor by human activities since the Neolithic period. The same case cannot be made for the White Sea where the hydroelectric power station at Vygostrovskaya has largely affected the petroglyphs of Besovy Sledki and Zalavruga.

ICOMOS observes that the unspoiled conditions of the setting of the rock art sites at Lake Onega facilitate an understanding of the prehistoric setting and context of the rock art, particularly its location at the lake shoreline, and the connection it makes with different elements of the landscape. On the other hand, the landscape of the rock carvings at the White Sea has been altered due to land uplift, the White Sea Canal, two hydroelectric stations, and connected dams.

ICOMOS considers that for the nominated property to convey truthfully and credibly the proposed justification for inscription, the archaeological sites, which are crucial attributes of the value of the nominated property, will

also have to be included in the boundaries of the components and not only in the buffer zones.

---

ICOMOS considers that the conditions of integrity and authenticity would be met when the archaeological heritage contributing to the significance of the rock art sites will be included in the nominated areas. ICOMOS also considers that both integrity and authenticity are highly vulnerable due to the new tourism development projects. An overall Heritage Impact Assessment for the plans and projects for tourism development needs to be carried out that takes into consideration the potential impacts of the projects and of the increase of visitors on the conditions of integrity and authenticity of the nominated property.

---

#### **Evaluation of the proposed justification for inscription**

The nominated serial property is presented as *'one of the largest rock art sites of the world as regards the number of images and the spread of the concentration of rock art'*.

The cultural context of the rock art is Neolithic and specifically the Pit-Comb Ware Culture. In this area of Northern Europe 'Neolithic' denotes significant changes in material culture, such as the adoption of pottery but also continuity in subsistence and lifestyles of hunting, fishing and gathering.

The two components are deemed to provide a unique source of data and to represent a coherent image of the Neolithic culture and period in North Fennoscandia.

In response to the request of ICOMOS in its Interim Report, the State Party provided information on the relationship between the different types of archaeological sites and the petroglyphs generated by the Neolithic Pit-Comb Ceramic culture population, that supported the appreciation of their lifestyle and the capacity to situate the production of rock art as an outstanding practice of this specific culture at Lake Onega and at the White Sea.

On the basis of the documentation provided by the State Party in February 2021, ICOMOS considers that the nominated property would have the potential to demonstrate criterion (iii) if the significant archaeological heritage, including the settlements, currently outside the nominated property are included therein.

On the other hand, neither criterion (i) nor criterion (iv) have been demonstrated.

ICOMOS is concerned about the planned developments of tourism infrastructure in relation to their potential cumulative impacts on the nominated serial property, including the planned increase of tourism, as these factors could have a negative impact on the significance of the property, its integrity and authenticity. A heritage-value-based visitor strategy needs to be developed with the utmost urgency and an overall Heritage Impact

Assessment of the planned projects carried out so as to ensure that tourism development does not jeopardise the heritage significance and conservation of the rock art sites.

#### **Attributes**

The attributes that convey the Outstanding Universal Value of the nominated serial property are related to the production of the Neolithic engravings of the Pit-Comb Ware and Rhomb-Pit Ware cultures, as well as to the natural and archaeological setting of their execution. They combine the rock art and the natural environment that inspired these engravings and which contributed to maintaining their very good state of preservation. The archaeological sites, those related to the settlements and the burial grounds, are also important attributes of the property, and the relationship between the rock art sites and the associated archaeological sites represent one of the most important attribute of the proposed Outstanding Universal Value. Therefore ICOMOS considers that the archaeological sites located outside the limits of the component parts, should be included in their limits, as being important attributes of the proposed Outstanding Universal Value.

---

ICOMOS considers that the identified attributes contribute to the justification of the inscription, and strongly recommends that the archaeological heritage located outside the delineations of the property be included in the component parts' delineations.

---

## **4 Conservation measures and monitoring**

### **Conservation measures**

The conservation and monitoring of the Petroglyphs are under the responsibility of the local institutions. At Lake Onega, the Directorate of Specially Protected Natural Territories of Regional Importance of the Republic of Karelia and the Republican Centre for State Protection of Cultural Heritage Sites subordinated to the Cultural Heritage Protection Department of the Republic of Karelia are entrusted with the mandate to monitor the conservation of the petroglyphs and their natural landscape.

At the White Sea, the Municipality of Belomorsk through the White Sea Petroglyphs Belomorsky District Local Lore Museum is in charge of the conservation of the petroglyphs and their monitoring. The state of conservation of the petroglyphs is assessed by the relevant staff of the authorities in charge of their conservation with the support of the various experts involved in the archaeological campaigns and in the scientific documentation of the petroglyphs. However, the documentation provided does not indicate how the conservation of the petroglyphs is currently monitored.

In the future, the Museum of the Petroglyphs of Karelia and the Coordination Council will take over the coordination of the conservation and the monitoring of the petroglyphs.

In response to the ICOMOS Interim Report, in February 2021, the State Party replied that the state of conservation of 200 petroglyphs was assessed as part of the Database “Petroglyphs of Karelia” developed in 2002, while the database “Archaeological Sites of Karelia” contains a total of 2,500 entries for the archaeological sites of Karelia. The State Party also reported that the assessment of the conservation of the petroglyphs was the subject of international scientific seminars in 2017 and 2018. However, the State Party did not provide further information regarding the conservation strategy for the nominated property.

ICOMOS recommends a conservation plan including preventive conservation measures be developed.

### **Monitoring**

The nomination dossier indicates that the Cultural Heritage Protection Department of the Republic of Karelia will report on the state of conservation of the sites and their surroundings.

A database was developed to catalogue all the petroglyphs of Karelia; however, the nomination dossier admits that currently no systematic and periodic monitoring activities are in place due to shortage of staff.

Indicators for monitoring the state of conservation have been set out and are planned to be used in the period 2020 – 2027.

ICOMOS considers that it would be advisable that the monitoring system is further developed on the basis of the affecting factors of the Periodic Reporting questionnaire and of the attributes supporting the proposed justification for inscription.

---

ICOMOS considers that there is a need to develop a conservation plan and a monitoring programme dedicated to the systematic monitoring of the conservation of the nominated property.

---

## **5 Protection and management**

### **Documentation**

Abundant research is available on the Petroglyphs of Lake Onega and of the White Sea that was initiated in the 1920s. Regular and in-depth research has been conducted to document the nature and the significance of the petroglyphs. The research and in-depth surveys have led to the establishment of inventories and databases developed through collective initiatives such as the database on the “Petroglyphic Database of North Fennoscandia” led by the Russian State Research Foundation. The most recent documentation dates back to 2013 and 2015 when a monograph entitled “Petroglyphs of the Lake Onega” was published and the database on the “Petroglyphs of Karelia” was completed.

At the White Sea, the project “Conservation of Petroglyphs of Karelia” was initiated in 2001 with the objective of creating a database collecting all detailed field documentation on the petroglyphs. The Karelian Research Centre of the Russian Academy of Sciences, Petrozavodsk State University in collaboration with Norwegian professionals from the University of Tromsø and the Research Centre Riksantikvaren (Oslo, Norway) and the University of Cambridge (UK), have conducted comprehensive archaeological field surveys. This collaborative research also led to the compilation of detailed data on the petroglyphs of the White Sea integrated in the database “Petroglyphs of Karelia”.

In response to the requests of the Interim Report, the State Party explained that the databases have technical limitations and access issues due to their development using a software that is now out of date. Additional information provided by the State Party indicated how the research process has systematically documented the petroglyphs and their related archaeological sites. However, the information received did not allow an appreciation of the current recording system in place. ICOMOS recommends that an adequate documentation system be set up and an operational and up-to-date database for the nominated property to ensure monitoring of its conservation, be developed.

### **Legal protection**

The first level of protection is the territory of the monument (Federal Law No. 73-FZ and Regional Law No. ZRK-883): in the Russian legislation each monument has its territory on which the physical protection of the monument is ensured. Two types of actions are allowed: physical protection of the monument, and scientific research. Federal Law No. 73-FZ represents the main legal instrument governing the process of preservation of historical and cultural heritage in the Russian Federation. At the regional level, the Law of the Republic of Karelia 06.06.2005 regulates the conservation, development, promotion, and state protection of the cultural heritage sites of the peoples of the Russian Federation in the Republic of Karelia.

The second level of protection is the monument protection zone (orders issued by Chairman of the Government of the Republic of Karelia No. 518-r of 05.09.1996 and 163.03-r of 25.03.1998). They are usually the basis for defining buffer zones when nominating properties for inclusion in the World Heritage List. These zones protect both rock art sites and any other associated archaeological sites as well as the surrounding landscape.

A third level of protection is the specially protected natural area, i.e., the “Muromsky Landscape Reserve of Regional Significance”.

A final level of protection is applied to lands of historical and cultural significance: all economic activity may be prohibited therein as well as on lands with monuments and archaeological sites that are the subject of research



and conservation, in accordance with the Land Code of the Russian Federation.

ICOMOS notes that only some of the nominated rock art sites enjoy protection under the State Code of Especially Valuable Properties of Cultural Heritage of the Peoples of the Russian Federation. The remaining ones are currently being considered for this designation that would offer an optimal level of protection at national level and secure funding. The State Party also indicated that the listing process of the nominated property under the State Code will be initiated after the effective listing of 6 components of Lake Onega as cultural heritage sites of federal significance, projected to happen in February 2021 but delayed in the context of the Covid-19 prevention measures. ICOMOS observes that most of the petroglyphs are protected at federal level and encourages their listing under State Code of Especially Valuable Properties of Cultural Heritage of the Peoples of the Russian Federation.

Regarding the buffer zones, ICOMOS understands that there are various levels of protection for the buffer zones, since this concept is not reflected in the national legislation. Additional information provided by the State Party in November 2020 indicates that the boundaries of the protection zones for the buffer zones include the heritage related to the petroglyphs located at Lake Onega and the White Sea and were delimited and approved in the 1990s.

The archaeological sites located in the buffer zone of Lake Onega component are included in the protected zone of the Cultural Heritage Sites, in the "Muromsky Natural Reserve" or in both. Any activity is prohibited therein under the Federal Law on "Objects of the Cultural Heritage of the Russian Federation" and also under the protected area of the Natural Reserve "Muromsky".

At the White Sea, the delimitations of the buffer zone follow that of the protected zone of the Cultural Heritage Sites (or Objects).

The archaeological sites and material in the buffer zone of Lake Onega and the White Sea are also protected by the regulations of the Water and the Forest Codes stipulating restrictions on the use of natural resources and economic activities located in protected forests, water protection zones and green zones.

Regarding the archaeological sites located along the river at Chjornaja included in the Natural Reserve, they do not benefit from protection under the protection zone of Cultural Heritage Sites. In this respect, the status of the archaeological sites beyond these boundaries but located in the buffer zone would deserve further clarification so as to know if they are protected under the law. Therefore, in its Interim Report ICOMOS has requested clarifications on the above matter. The State Party responded that the cultural heritage is protected as part of "Muromsky" Landscape Reserve, whose boundaries were expanded in 2019 to provide for the

protection of all the petroglyphs, under the Decree of the Government of the Republic of Karelia No. 304-p of 28.12.2009. The State Party also informed that the Administration for the Protection of Cultural Heritage of the Republic of Karelia completed the required documentation and initiated the process to list the buffer zones as remarkable places of federal significance. This designation process should be completed in 2021 according to the State Party.

#### **Management system**

Several public bodies are involved in the management of the nominated property including the Department for the protection of cultural heritage sites of the Republic of Karelia under the authority of the Ministry of Culture of the Republic of Karelia, the Belomorsk Regional Museum of Local Lore, the Directorate of Specially Protected Natural Areas of Regional Significance of the Republic of Karelia and the Belomorsky and the Pudozhsky Municipal districts. The Environmental Recreational Institution of the Republic of Karelia called the "Directorate of Specially Protected Natural Areas of Regional Significance of the Republic of Karelia", is also involved as far as tourism development is concerned.

In 2018, the Scientific Expert Council on historical and cultural heritage of the Republic of Karelia was established. The Council is an advisory body given the functions for the conservation, use, promotion and state protection of the cultural heritage sites from the Ministry of Culture of the Republic of Karelia.

At Lake Onega, the Directorate of Specially Protected Natural Territories of Regional Importance of the Republic of Karelia (hereinafter Directorate) and the Republican Centre for State Protection of Cultural Heritage Sites are currently managing the proposed sites while the sites of the White Sea are managed by the Municipality of Belomorsk and the Petroglyphs Belomorsky District Local Lore Museum.

Currently, there is no overarching body for the management of the Petroglyphs of Lake Onega and the White Sea, which are located 300 kms apart. The Management Plan makes provision for the establishment of a Coordination Council comprising a number of private and public stakeholders that will meet at least once every 6 months.

ICOMOS requested clarifications on the overarching management system and the State Party explained in the November 2020 supplementary information that, in the future, the forthcoming Regional Museum of the Petroglyphs of the Lake Onega and the White Sea to be established at Petrozavodsk will formally be in charge of the management of the nominated property and will coordinate the work of its branches at Lake Onega and the White Sea. The Reserve Museum will also interact with a yet-to-be-established Coordination Council, which shall involve state authorities, local governments, and representatives of the scientific and the local communities. At the moment, all issues pertaining to the nominated property are considered within the framework

of the Scientific Expert Council on the Historic and Cultural Heritage of Karelia

The Regional Museum will be in charge of the Besovy Sledki Pavilion, of the visitor infrastructures at Zalavruga at the White Sea and of those at the villages of Shalskiye and Karshevo including the landing stage, the fishermen's housing and the reconstructed village (16<sup>th</sup>-18<sup>th</sup> century CE) near Besov Nos at Lake Onega. The nomination dossier informs that a phased implementation is planned to ensure a gradual transition from the current management bodies to the centralized coordination operated by the Regional Museum (or the Historical and Archaeological Natural Museum of Karelian Petroglyphs).

However, there is no indication of the timeframe for the establishment of this overarching management structure and all its elements. ICOMOS requested further clarification on this aspect in its Interim Report.

The State Party replied that coordination will be entrusted to the Coordination Council after its creation under the Petroglyphs of Karelia Museum which was the object of a formal decision for its establishment by the Head of the Republic of Karelia in 2020 (under the protocol of 27.01.2020). Information also indicated that the draft concept of the museum was developed and that feasibility studies will be conducted in 2021 while the establishment of centralised management of the nominated property is an objective identified in the short term. In the meantime, the administration for Cultural Heritage Protection of the Republic of Karelia is in charge of the coordination with communities, private sector, experts and scholars and the federal, regional and local authorities.

The Management Plan sets out a vision for the nominated property that advocates the involvement of the community in the property's management, the reliance on the best standards of conservation, as well as sustainable tourism development.

ICOMOS considers that the management plan would need to identify focused and achievable measures and coordinated actions directly addressing identified issues, especially because a large number of stakeholders are involved. ICOMOS considers also that the management plan would benefit from the inclusion of consolidated policies for the conservation and monitoring of the nominated property.

The Management Plan announces the scope of a long-term cycle divided into short-term (2020), medium-term (2021-2023) and long-term activities (2024-2027) but provides a work plan divided into immediate (2020) and mid-term (2021-2023) phases. However, there is no indication as regards its formal adoption.

### **Visitor management**

Currently, the White Sea Petroglyphs Belomorsky District Local Lore Museum monitors the visitors at Zalavruga where basic infrastructure is set up. The number of visitors annually is 13-15,000 visitors at the White Sea.

Basic interpretation and documentation are available at the Lake Onega and at the White Sea where the site of Zalavruga and the Pavilion of Besovy Sledki are open to visitors. Lake Onega has very few interpretative tools at the Natural Reserve "Muromsky", which receives 3-4,000 annual visitors.

The nominated property is integrated in the global strategy of the Republic of Karelia whose aim is to develop tourism and plans for increasing tourism. However, the State Party did not confirm if a specific Tourism strategy for the nominated property has been developed and is being implemented.

### **Community involvement**

The Republic of Karelia is sparsely populated, with an average of some 3.5 inhabitants per square kilometre.

Socio-economic analyses on, and awareness-raising work with, local communities has been carried out: for instance, at Zalavruga, a prehistoric festival is organised every year, where information is disseminated on the rock art sites. Pupils are introduced to rock art at the Besovy Sledki Pavilion.

As a result, an increase in volunteer guides, locally-produced souvenirs, and transport services have been noted.

The federal legislation supports small businesses, with preferential conditions for carrying out their activities and plans exist to involve the local community through economic and tourism development and promotional activities.

Members of the local communities concerned will also be included in the Coordinating Council. However, it appears that there is no statutory mechanism in place to ensure public consultation.

### **Evaluation of the effectiveness of the protection and management of the nominated property**

While most petroglyphs are protected as Cultural Heritage Objects, ICOMOS notes that the legal protection is still in progress for a few sites of the nominated property and that optimal protection would be ensured by their designation under the State Code of Especially Valuable Properties of Cultural Heritage of the Peoples of the Russian Federation. In addition, ICOMOS notes that the designation process to list the buffer zones as remarkable places of federal significance is in progress and should be completed in 2021.

Several public bodies are involved in the management of the nominated property. ICOMOS's concerns are focused on the management system, yet to be implemented to manage the nominated property effectively when the two components are located 300 kilometres from one another and when the extent of these components mobilises a large amount of stakeholders with different mandates. The Coordination Council that will be responsible for the integrated management of the nominated property as a whole is not yet formally established.

The approval of the Management Plan with a set timeframe for policies and measures to be implemented should be completed and a conservation plan and a monitoring programme for the petroglyphs dedicated to the systematic monitoring of the conservation of the nominated property should be developed.

---

ICOMOS considers that the legal protection and the proposed management mechanism are not fully in place at this stage to ensure integrated management and protection at the two nominated property's components, therefore the effectiveness of the protection and management of the nominated property is partially met.

---

## 6 Conclusion

The nominated serial property is presented as *'one of the largest rock art sites of the world as regards the number of images and the spread of the concentration of rock art'*. The rock art is described as the outstanding example of Neolithic rock art with unique themes, distinguished quality of carvings and special artistic expressiveness. The cultural context of the rock art is specifically the Pit-Comb Ware Culture. In this area of Northern Europe 'Neolithic' denotes significant changes in material culture, such as the adoption of pottery but continuity in subsistence and lifestyles of hunting, fishing and gathering.

The additional information received in February 2021 provided a useful overview of the complementarity and relationship between the two components and confirmed the serial nomination as a coherent approach. On this basis, ICOMOS considers that the Petroglyphs of Lake Onega and the White Sea have the potential to meet the requirements of the Outstanding Universal Value under criterion (iii).

The additional information provided by the State Party has clarified the extreme importance for the proposed justification for inscription under criterion (iii) to be reflected in the archaeological sites and heritage, including settlements. In fact, the relationship between the rock art sites and the associated archaeological sites represent one of the most important attributes of the proposed Outstanding Universal Value and one of the aspects that make the rock art and archaeological areas at Lake Onega and the White Sea stand out amongst their comparatives. Therefore, ICOMOS considers that

the boundaries of the nominated areas should be amended to include this archaeological heritage, including settlements, in order to ensure that all necessary attributes of the proposed Outstanding Universal Value are included within the nominated components.

ICOMOS also noted that the petroglyphs are protected at federal level under various planning and legal regulations falling under several authorities. While most petroglyphs are protected as Cultural Heritage Objects, it was noted that the legal protection is still in progress for a few sites of the nominated property and that optimal protection would be ensured once their designation under the State Code of Especially Valuable Properties of Cultural Heritage of the Peoples of the Russian Federation is achieved for all sites.

Consideration was also given to the development projects planned in the province of Karelia in relation to their direct impact on the nominated property. Given the scope of the intended development, ICOMOS considers that an overall Heritage Impact Assessment should be carried out for all these projects. The development of a specific value-based Tourism strategy to mitigate the impact of tourism on the proposed Outstanding Universal Value of the nominated property would be needed as well.

ICOMOS considers that the establishment of the Coordination Council to manage the two components should be finalised as a matter of urgency in order to ensure integrated management of the two components. The approval of the Management Plan with a set timeframe for policies and measures to be implemented should be completed and a conservation plan and a monitoring programme for the petroglyphs dedicated to the systematic monitoring of the conservation of the nominated property should be developed.

## 7 Recommendations

### Recommendation with respect to inscription

ICOMOS recommends that the nomination of the Petroglyphs of Lake Onega and the White Sea, Russian Federation, be **referred back** to the State Party to allow it to:

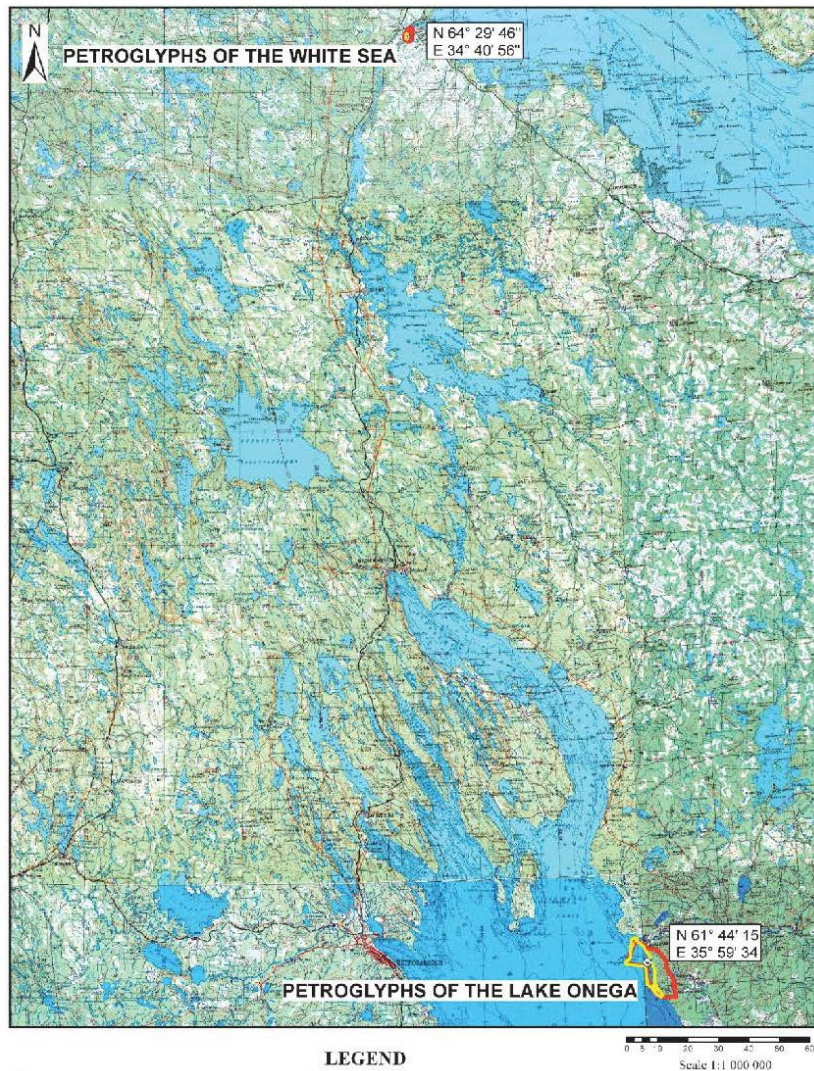
- Adjust the boundaries of the nominated areas of both components, and consequently their buffer zones, to include archaeological heritage, including settlements, to ensure that all necessary attributes of the proposed justification for inscription of the petroglyphs at Lake Onega and the White Sea are included in the nominated areas;
- Complete the process of legal designation of the components in the State Code of Especially Valuable Properties of Cultural Heritage of the Peoples of the Russian Federation;

- Complete the process of establishing two Remarkable Places of Federal Significance cultural heritage sites, whose boundaries coincide with the buffer zones of both components;
- Complete the process of establishing a centralised management system to ensure coordinated and integrated management of the two components;
- Finalise the approval of the Management Plan with a set timeframe for policies and measures to be implemented;
- Establish a conservation plan and a monitoring programme for the petroglyphs, dedicated to the systematic monitoring of the conservation of the nominated property.

#### **Additional recommendations**

ICOMOS further recommends that the State Party give consideration to the following:

- a) Setting up an adequate documentation system and developing an operational and up-to-date database for the nominated property to ensure monitoring of its conservation,
- b) Conducting a study on the impact of the alcohol solution used to remove lichen on the rock art,
- c) Developing a specific Tourism Strategy for the nominated property,
- d) Developing a Risk Preparedness Plan for the nominated property in order to address the environmental pressures, and developing measures responding to potential natural disasters. This is particularly urgent at the Pavilion of Besovy Sledki and at Zalavruga to ensure their long-term conservation,
- e) Submitting all projects planned at the nominated property and its buffer zones to an overall Heritage Impact Assessment, to ascertain whether they and the expected increase of tourism could have adverse impacts on the nominated component parts and on their setting, particularly where it is intact, as at Lake Onega,
- f) Developing an ongoing programme of research within a research framework and linked with conservation strategies;



- Boundary of the buffer zone
- Boundary of the component part
- ⊕ Coordinates in WGS 84

Map showing the location of the nominated components