



Federal State Budget Institution „Kizhi State Open Air Museum
of History, Architecture and Ethnography“

Report

on the state of conservation of the
WHS „Kizhi Pogost“ (C 544) in 2014—2015



The object included in the UNESCO
World Cultural and Natural Heritage List

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Report on the state of conservation of the WHS „Kizhi Pogost“ is made on materials prepared by the Kizhi museum staff members (K. Kuznetsova, D. Lugovoy, T. Nezvitskaya, N. Sedneva, O. Titova)

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1. General provisions of the report (executive summary)

The report presents information about activities of the Kizhi Museum aimed at the preservation of the World Heritage Site (WHS) Kizhi Pogost in 2014 and 2015 as well as about the results of implementation of correcting measures defined by the World Heritage Committee (WHC) in 2010.

In November 2015 the Kizhi Museum will submit the Management plan of the WHS Kizhi Pogost for consideration by the Ministry of culture of Russia and its further submission to UNESCO. It was amended and corrected in accordance with the ICOMOS review as of 2014. Being aimed at preservation of the Outstanding Universal Value (OUV) of the WHS Kizhi Pogost the Management plan contains key provisions of the sustainable tourism development strategy, spatial planning and land use regulations within the protective zones of the Kizhi Museum, to the principles of the WHS restoration and historical landscape preservation, and other documents requested by ICOMOS. Detailed information on the Management Plan development is provided in section 2 of the report.

In accordance with the recommendations of the WHC no construction in the buffer zone and adjacent territories was conducted during the past 2 years. In 2014 the project of entrance zone of the Kizhi Museum was elaborated. In 2015 the project of the construction of the Museum entrance area on the Kizhi Island was elaborated. In 2015 the ICOMOS expert prepared the Heritage Impact Assessment (HIA) of the project. It was also discussed on the meeting of the Public Council on the WHS Kizhi Pogost management and then submitted for consideration by the Ministry of culture of Russia and its further submission to the WHC. This sequence of actions is planned to be observed for all future development projects.

The comprehensive restoration of the Transfiguration Church was continued in 2014 and 2015. The following works were implemented during this period: element-by-element restoration of the walls, repair of the damaged logs, walls deformation correction, reinforcement of weak support structures and joints. All works planned for the period were fully implemented. Moreover the project of the restoration final stage will be elaborated by the end of 2015. Detailed information about the restoration progress is included in the section 3 of this report.

The Museum also develops activities aimed at dissemination of experience in restoration and at training of the restoration specialists. In 2014 the Kizhi museum established the educational and training center on wooden architecture conservation. In 2015 the Agreement between the Museum and ICCROM on organization of international courses was signed. In October 2015 the UNESCO Section for Higher Education approved the application for establishment of the UNESCO chair of wooden architecture research and preservation that was developed in close cooperation of the Kizhi Museum with the Petrozavodsk State University.

The consultative missions of ICOMOS to the WHS Kizhi Pogost were held in 2014 and 2015. The experts assessed the WHS conservation status, results of the restoration works, and considered the issues dealing with the WHS management and preservation activities. Recommendations of 2014 Mission were taken into account by the Kizhi Museum. The report of the 2015 Mission is expected to be prepared in December 2015.

These results were achieved thanks to well-coordinated teamwork of the Museum staff supported by the UNESCO specialists, Ministry of culture of Russia, scientists, experts, NGO representatives. The Kizhi Museum affirms willingness to further fulfil the WHC recommendations for the preservation, maintenance of authenticity and integrity of the WHS and the surrounding landscape.

2. Decisions of the 38 session of the World Heritage Committee regarding the WHS Kizhi Pogost (38 COM 7B.30) and the report on fulfillment of decisions.

30. Kizhi Pogost (Russian Federation) (C544)

Decisions: 38 COM 7B.30

The World Heritage Committee,

- 1. Having examined Document WHC-14/38.COM/7B,*
- 2. Recalling Decision 37 COM 7B.80 adopted at its 37th session (Phnom Penh, 2013),*
- 3. Commends the State Party for its sustained actions in the implementation of recommendations made by the World Heritage Committee and the monitoring missions to the property;*
- 4. Takes note of the submission of the request for minor boundary modification for examination by the World Heritage Committee at its 38th session under Item 8 of the Agenda;*
- 5. Reiterates its concern that the introduction of any new developments or tourism infrastructure will alter the historical and visual characteristics of the property and its setting, and highlights that the present balance between the natural and built environment at Kizhi Island should be maintained;*
- 6. Urges the State Party to regulate tourism pressure (including river based tourism) and to prohibit the extension of developments within the protected areas of the Kizhi Museum-Reserve and Kizhi Island;*

Report on fulfillment of items 5 and 6:

As of the acceptance of the decisions of the 38 session of the World Heritage Committee (Doha, Qatar, June 2014) till the present moment no new construction on the Kizhi Island or within the WHS buffer zone was conducted.

Management of tourism development on the Kizhi Island and the Kizhi Museum sites is one of the main tasks for the Museum. The measures aimed at protection of the WHS from possible negative impact of tourism have been elaborated and are being implemented.

In accordance with the ICOMOS recommendations aimed at establishing control over the tourism impact the key principles of the Sustainable tourism strategy and guidelines for the tourism development were elaborated in 2015. The following activities were implemented as well: marketing analysis of the target group of the Kizhi Museum using the statistical data for the past 4 years, calculation of the maximum allowable anthropogenic load on the WHS, the Kizhi Island landscape and the buffer zone. All of the abovementioned documents are included into the WHS Kizhi Pogost Management Plan (2016–2026).

- 7. Also urges the State Party to continue its efforts with particular attention to the finalisation of the review process of the Management Plan considering the recommendations made by the ICOMOS technical review and to further clarify provisions for landscape management;*

Report on fulfillment of item 7:

The WHS Kizhi Pogost Management Plan (2014–2020) was elaborated in cooperation with the Heritage consultant Katri Lisitzin (Sweden) and submitted to the UNESCO World Heritage Center in 2014. The Museum received the ICOMOS

review containing recommendations on additional amendment of the document. The Management Plan was further developed in 2015 in accordance with the given recommendations and submitted to the WHC of UNESCO in November 2015.

The following activities were implemented in the process of update of the WHS Kizhi Pogost Management Plan:

- The following documents requested by ICOMOS were attached to the MP: The Kizhi Museum development concept, the development concept of the “Zaonezhskiy” tourism and recreation cluster and Velikaya Guba rural settlement master plan.
- The MP contains the map of the WHS Kizhi Pogost buffer zone approved in 2013 on the 37 session of the WHC (WHC-13/37.COM. Phnom Penh, Cambodia. 16–27 June 2013). The maps of visual perception of the WHS (view corridors) with the pictures based on GIS were also prepared and included in the MP.
- The guidelines on the landscape management were specified. The landscape management plan for the Kizhi Island was included in the MP.
- The list of laws and acts regulating the WHS issues (on the federal and regional levels) and the legal map of the territory with justification were updated.
- The WHS Kizhi Pogost OUV was analyzed, specific features and components of the OUV were described. The analysis has become basis for the specification of possible threats for each component, and the monitoring program of the OUV preservation was elaborated. These documents were included in the MP.
- In accordance with the ICOMOS recommendations the following documents were also developed and included in the MP: «The Disaster Risk Management plan», «Guidelines for restoration of logs and other wooden elements of the monument», «Program of traditional agriculture restoration», «Calculation of maximum allowable anthropogenic load», «Principles of the exposition and infrastructure facilities development on Kizhi Island and in the protection zone of the Kizhi Museum».
- The key provisions of the Sustainable tourism development strategy based on the marketing researches of the target audience (based on statistical data for 4 years) and calculation of maximum allowable anthropogenic load on the WHS, the Kizhi Island landscape and the buffer zone. The elaboration of the Kizhi Island detailed layout has been started.
- Texts of almost all chapters of the MP were corrected (amended, updated).
- The action plan for 2016–2026 is completed.

The MP update was made in continuous discussion with all parties interested in the WHS conservation, use and development, and in compliance with international and Russian legislation in the sphere of cultural and natural heritage sites preservation. One of the most significant principles was involvement of the local residents in the process. They took part in discussion of issues and challenges regarding identification of threats and possibilities



of their participation in activities related to the WHS. Documents elaborated for the MP and the action plan for 2016–2026 were presented at the meeting of the Public council on the WHS Kizhi Pogost management.

8. Reiterates its request that the State Party implement all correctives measures identified in 2010, and submit the revised and approved Master Plan for Kizhi Island, including strict land-use regulations for all protected areas, an Integrated Management Plan with appropriate tourism strategy and guidelines for the re-use of numerous existing historic buildings and monuments comprising the Open Air Museum for visitor facilities and exhibitions; as well as a Conservation Master Plan for all components of the World Heritage property and its setting;

Report on fulfillment of item 8:

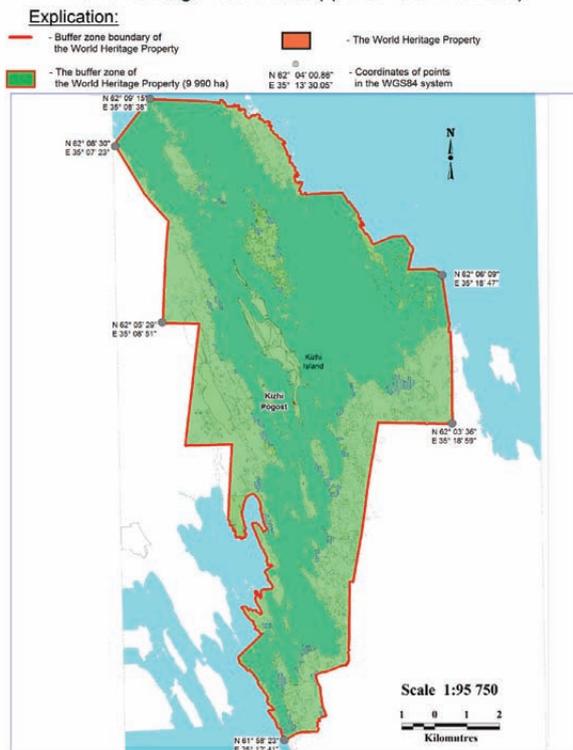
In general, the corrective measures defined for the WHS Kizhi Pogost in 2010 have been implemented:

- The Supervising Committee on restoration of the Transfiguration Church on Kizhi Island under the Ministry of culture of Russia was established in April 2013. It includes the representatives of the Ministries of culture of Russia and Karelia, specialists of the Kizhi Museum and other wooden architecture museums, Russian experts in architecture and restoration.
- The restoration project development as well as the restoration itself are conducted in strict compliance with the elaborated «The WHS restoration guiding principles» and «Guidelines for restoration of logs and other wooden elements of the monument» that include the description of the decision-making process on the restoration of the elements or on creation of their copies, as well as methodology and rules for the restoration of the elements.
- Stage-by-stage restoration of the Transfiguration Church is implemented in accordance with the schedule. The following works have been completed: restoration of foundations, restoration and installation of the 7th, 6th, 5th and 4th technological tiers.
- Throughout the restoration project implementation the specialists of the Museum and the Federal State Unitary Enterprise "Spetsproektrestavratsiya" have been monitoring the configuration of the restored technological tiers and the deformations of the facades of the Transfiguration Church, Intersession Church and the Bell Tower. The conclusion is « ... the changes in height and roll rate of the constructions are within the accuracy of measurements and are seasonal...».
- In 2014–2015 the carpenters – restorers of the Museum Carpentry center were certified by the Ministry of culture of Russia in the sphere of cultural heritage (wooden architecture) preservation and were assigned appropriate categories (highest, 1st, 2nd, 3rd).
- In 2014 the Kizhi Museum established the educational and training center on wooden architecture conservation where the groups of students and specialists in the sphere of restoration are trained. In 2015 the Memorandum of understanding between the Kizhi Museum and ICCROM was also signed, and the organization of courses on the basis of the Kizhi Museum and its experience in the WHS Kizhi Pogost restoration is planned for 2016. In 2015 the positive decision of the UNESCO Section for Higher Education on establishment of the UNESCO chair of wooden architecture research and preservation in the Petrozavodsk State University in close cooperation with the educational and training center of the Kizhi Museum.
- Web-cameras are installed on Kizhi Island (on the WHS and in the restoration facilities) allowing anyone to witness the restoration process. Special sections «Preservation of the

Kizhi Pogost monuments/ In front of the world» and «For experts: discussion of issues related to the Transfiguration Church restoration on Kizhi Island» were created on the official web-site of the Museum where the information about the restoration progress is published.

- Preventive conservation is the main approach to the Kizhi architectural ensemble monuments preservation. The strategy of the monuments preservation is aimed at creation of the best conditions for use of the monuments, timely detection and elimination of reasons for possible damage of integrity of wood and constructions.
- Monitoring the physical condition of the monuments is conducted in the following areas: monitoring of wood biodeterioration allowing to detect locations and causes of biological destruction of monuments; monitoring of deformations of the Kizhi architectural ensemble monuments allowing timely detection of possible deformations of the high-rise structures; monitoring of the technical condition of immovable monuments allowing to identify existing or potential destruction of elements and structures of architectural sites.
- The Museum submitted the WHS Kizhi Pogost state of conservation reports including the reports on restoration of the Transfiguration Church of the Kizhi Pogost to the WHC annually since 2007.
- The Statement of OUV of the WHS Kizhi Pogost was approved in 2014 on the 38 session of the World Heritage Committee (WHC-14/38.COM. Doha, Qatar. 15 – 25 June 2014).
- The Disaster Risk Management plan for the WHS Kizhi Pogost was updated and submitted to the WHC in 2014. The Plan coordinates the activities of the Museum employees, security and regulatory bodies and is aimed at prevention and reduction of negative impact of destructive factors on the Site, preservation of its significance and authenticity, provision of sustainable development of the local community. The Disaster Risk Management plan was developed in accordance with the UNESCO manual on elaboration of disaster risk management plans and includes 4 main sections: analysis of potential disaster risks for the Kizhi Pogost; activities for reduction of disaster risks and their consequences; action scenarios during a disaster and in the following 72 hours; plan of the monuments restoration after a disaster.
- Boundaries of the WHS Kizhi Pogost buffer zone were approved in 2013 on the 37 session of the World Heritage Committee (WHC-13/37.COM. Phnom Penh, Cambodia. 16 – 27 June 2013). A complex archaeological sites, wooden architecture monuments, traditional residential settlements, as well as preserved elements of the traditional system of land and natural resources use are located within the boundaries of the buffer zone. Its area coincides with the WHS Kizhi Pogost protection zones boundaries approved by the Order of the Ministry of Culture of RF in 2011 and with the protection zone of the Kizhi Open Air Museum approved in 1993. The area is 9990 ha.
- The WHS Kizhi Pogost Management Plan was elaborated in 2013 and amended in accordance with the ICOMOS recommendations in 2015. The Management Plan is a comprehensive planning document and is aimed at achievement of the following strategic goals: the WHS OUV preservation, creation of conditions for sustainable development of the territory, achievement of social consensus in relation to preservation, use and sustainable development of the WHS.
- The following documents aimed at preservation of the WHS Kizhi Pogost OUV were developed and included in the Management Plan in 2015: principles of the exposition and infrastructure facilities development on Kizhi Island and in the protection zone of the Kizhi Museum; key provisions of the Sustainable tourism development strategy based on the marketing researches of the target audience and calculation of maximum allowable anthropogenic load on the WHS, the Kizhi Island landscape and the buffer zone.

**The buffer zone
of the World Heritage Property "Kizhi Pogost" (C544),
approved at the 37-th session of the
World Heritage Committee (WHS-13/37.COM/20)**



- The Landscape Management Plan was elaborated in 2013. It includes general principles of the landscape management, a geoinformation system “Landscape management” consisting of 6 work sets (spatial planning, visual perception, geomorphology and landscape, history of development, flora, landscape) as well as a system of visual assessment of the landscape changes and a system of activities aimed at maintenance of the landscape and achievement of its target condition.

- The Kizhi Museum is conducting continuous archeological monitoring of the WHS Kizhi Pogost buffer zone aimed at control over the condition of the archeological heritage sites and their preservation.

- In 2014 the Commission of the Kizhi Museum for monitoring of the WHS Kizhi Pogost protective zones was established for monitoring of the Kizhi Island territory and the WHS buffer zone (Decree №41-d dated

31.01.2014). The Commission includes the Museum specialists in the WHS protection as well as experts in town planning, land, water and nature protection legislation.

- In accordance with the first version of Article 16 of the Federal Law № 125-FZ “On Freedom of Conscience and Religious Associations” dated 26.09.1997 worship and other religious rites and ceremonies could be performed freely in religious buildings and premises provided to religious organizations for these purposes. However, the Federal Law № 316-FZ “On Amendments to Article 16 of the Federal Law “On Freedom of Conscience and Religious Associations” dated 22.10.2014 introduced fundamental changes in the abovementioned provisions. Today the federal legislation of the Russian Federation stipulates that worship and other religious rites and ceremonies can be performed freely in any religious premises and buildings, as well as on the land where these buildings are located. Thus, the current legislation of the Russian Federation establishes the principle of the impossibility of hindering the religious services in religious buildings, including those inscribed in the World Heritage List. In order to protect and preserve the WHS Kizhi Pogost the use of the churches for religious purposes is carried out in accordance with the security, fire protection and access regimes established on the territory of the museum.

- The lands, where WHS are located, are of a particular purpose. Therefore they need a special protection regime and are united in one category: the lands of specially protected territories and sites. One of the sub-categories is the lands of historical and cultural purpose, which is defined in article 99 of the Land Code of the Russian Federation. The same article stipulates that in order to preserve the historic, landscape and town planning environments in accordance with the federal laws, the laws of subjects of the Russian Federation shall establish protection zones of the cultural heritage. The use of land plots located in protection zones and not assigned to the lands of historic and cultural purpose shall be defined by the rules of land use and development in accordance with the requirements of historical and cultural monuments protection.

- A land plot within the boundaries of the WHS enclosure is owned by the Russian Federation and transferred to the Kizhi State Open Air Museum to perform authorized activities for permanent (perpetual) use. The lands, within which the considered land plot is situated, are referred to the lands of specially protected territories. 65 land plots on Kizhi Island including the aforementioned with an area of 147 ha are federally owned and provided to the Kizhi museum for permanent (perpetual) use. 22 land plots with a preliminary area of 52 ha are under preparation to be provided to the Kizhi museum for permanent (perpetual) use. 7 land plots with an area of 4.6 ha on the territory of the “Kizhi Necklace” are in federal ownership and on the right of permanent (perpetual) use by the Kizhi Open Air Museum. The issue of transfer of forest lands with an area of approximately 4500 ha located in the buffer zone territory to the Kizhi museum is being considered (information as of September 2015). Additional information about ownership of the land within the buffer zone is published on the official web-site of the Federal Service for State Registration, Cadastre and Cartography (Rosreestr): <http://maps.rosreestr.ru/PortalOnline/>
- In accordance with Article 34 of Federal Law “On the cultural heritage (historical and cultural monuments) of the peoples of the Russian Federation” № 73-FL dated 25.06.2002 in order to ensure safety of the cultural heritage in its historical environment, the protection zones are established on the adjacent territory: Protection zone, Zone of development and economic activity regulation, Zone of the protected natural landscape.
- The WHS Kizhi Pogost buffer zone boundaries were approved by the Order of the Ministry of Culture of the Russian Federation № 1268 dated 29.12.2011 in accordance with the Regulation on protection zones of the cultural heritage of the peoples of the Russian Federation in order to ensure the safety and the most complete revelation of the WHS OUV in the current historical and cultural environment. The WHS Kizhi Pogost buffer zone includes the entire of Kizhi Island as an integral element of the cultural and natural landscape forming inseparable environmental unity with the architectural ensemble. It also includes the waters of Lake Onega adjacent to the island within 100 m. The best panoramic views are available from there. The most stringent restrictive requirements are established for this territory.

Zones of development and economic activity regulation are established on Kizhi Island and on the territory of historical settlements in “Kizhi Necklace”. Special requirements to land use modes and town planning regulations are approved for individual parts of this territory.

The zone of the protected natural, historical and cultural landscape of the WHS Kizhi Pogost is defined to preserve the immediate environment of the site, which is the landscape. It is involved in formation of the visual image of the monument and is part of the WHS OUV. Strict restrictive requirements are established for this territory as well.

The project of protective zones was implemented in accordance with the Constitution of the Russian Federation, the Civil, Town-Planning and Land Codes of the Russian Federation. Land use modes and town-planning regulations are established within the buffer zone. Regulation of town-planning and economic activity within these boundaries is an essential condition for the WHS Kizhi Pogost OUV protection. Town-planning and economic activity should be carried out considering the fact that this territory is located in the zone of the historical, cultural, visual and emotional impact of the unique architectural complex. A land management file is executed for each buffer zone of the WHS. Information about the buffer zone boundaries (with account of restrictions and encumbrances) is included in the State Real Estate Cadastre.

The Kizhi State Open Air Museum is located within the boundaries of the Velikaya Guba settlement located on the territory of the Medvezhjegorsk municipal region.

The Medvezhjegorsk municipal region and Velikaya Guba settlement have developed (taking into account the Museum requirements) and adopted the basic documents that define directions and parameters of the spatial development of the region and settlements. These documents include: the spatial planning scheme of the Medvezhjegorsk municipal region; Velikaya Guba rural settlement master plan and the Regulation on land use and development of Velikaya Guba rural settlement. These documents were included in the WHS Kizhi Pogost Management Plan.

The master plan of Velikaya Guba rural settlement was approved by the Decision of the Council of the Medvezhjegorsk municipal region (III session, II convocation) № 19 dated 27.12.2013. The master plan of the settlement provides for development of the settlement territory considering the interests of the WHS Kizhi Pogost OUV and conservation and study of the cultural heritage sites of the peoples of the Russian Federation (historical and cultural monuments) including: archeological heritage sites; places of interest; places of historical trades and crafts, cultural heritage sites.

The rules for land use and development of Velikaya Guba settlement have been developed considering the regimes of the WHS buffer zones and activities on conservation of the integrity and authenticity of the WHS and the historical landscape. The rules for land use and development of Velikaya Guba settlement were approved by the Decision of the Council of Velikaya Guba rural settlement (V session, III convocation) № 40 dated 29.05.2014. The rules for land use and development determine the targeted and permitted use of land plots. The rules for land use and development have been elaborated for all settlements included in the Velikaya Guba rural settlement with participation of the Kizhi museum experts and have been strictly based on the established regimes of the WHS buffer zones.

All the specified documents were included in the WHS Kizhi Pogost Management Plan and are the effective tools in conservation of the authenticity and integrity of the WHS in the process of development of the territory and infrastructure in Zaonezhie. The Kizhi Open Air Museum actively and fruitfully cooperates with local administrations of the Medvezhjegorsk municipal region and the Velikaya Guba rural settlement in the framework of maximum preservation of the WHS OUV and the historical landscape. Appropriate cooperation agreements have been concluded to perform this objective.

Detailed information on the abovementioned issues is included in the WHS Kizhi Pogost Management Plan. The Management Plan was amended in accordance with the ICOMOS recommendations and submitted to the UNESCO WHC in November 2015. For more information about the Management Plan – see item 7 of the present report.

9. Also reiterates its request that the State Party halts all proposed new developments in the buffer zone and the settings of the property, including visitor and administration facilities until these are reviewed, and requests the State Party, in accordance to Paragraph 172 of the Operational Guidelines, to submit, upon completion, the project proposal, technical specifications and heritage and environmental impact assessments, for the Office and Visitor Centre of the Kizhi Museum and for any other planned development projects based on the re-use of existing historic buildings and monuments, for review by the World Heritage Centre and the Advisory Bodies prior to committing to their implementation.

Report on fulfillment of item 9:

No new development on Kizhi Island and within the buffer zone boundaries was conducted in the period from the 38th session of the World Heritage Committee (Doha, Qatar, June 2014) till the present moment.

In accordance with the approved development concept, the Kizhi Museum started the elaboration of the project of entrance zone of Kizhi Island.

Understanding and accepting the importance of implementing the established procedures of coordination of any new development projects with UNESCO, and in connection with the need to work on details of the concept and spatial planning (including the entrance area of Kizhi Island), in 2014 the Kizhi Museum invited two eminent ICOMOS experts to consult on the development project ideas.

The invited experts were:

1. **Gisle Jakhelln** (Norway) – senior architect, Norway ICOMOS member, President of Norway ICOMOS in 2008-2010, President of the International Committee on Vernacular Architecture (CIAV), vice-president of the ICOMOS Consultative Committee.
2. **Olga Sevan** (Russia) – architect, ICOMOS member (member of ICOMOS International Council commissions), President of Russian Committee for villages and small towns, senior researcher of the Institute for Cultural and Natural Heritage.

The invited experts visited Kizhi Island, inspected the WHS buffer zone and studied the Museum development project ideas. One of the most important topics for discussion was the entrance area of Kizhi Island. The experts considered different options for the entrance area organization, studied the current condition of the territory.

The following action plan in relation to the entrance area development was elaborated in cooperation with the experts:

- 1) To analyze the WHS Kizhi Pogost OUV through describing specific features, components and attributes (for the WHS condition monitoring and preparation of the heritage impact assessment).
- 2) To add the results of the analysis to the WHS Management Plan to have the opportunity to control the preservation of different aspects of integrity and authenticity of the Site.
- 3) To make necessary calculations for the design of the entrance area (the necessary functions and the capacity of the premises for the design in the entrance area).
- 4) To develop the draft project and submit it for approval to the WHS in accordance with the established procedure.

This action plan was fully implemented by the Museum for the past period. The ICOMOS expert Gisle Jakhelln provided advisory support at all stages of the project implementation.

All stages of the project development were discussed at the meetings of the Work group of the Public Council on the WHS management. The final draft project was also presented at the meeting of the Public Council.

The draft project of the entrance area and the Heritage Impact Assessment were submitted to the Ministry of culture of Russia for transfer to the WHC in July 2015 in accordance with the article 172 of the UNESCO Guidelines on implementation of the World Heritage Convention.

10. Also requests the State Party to submit to the World Heritage Centre, by 1 December 2015, an updated report, including a 1-page executive summary, on the state of conservation of the property and the implementation of the above, for examination by the World Heritage Committee at its 40th session in 2016.

The present report on the state of conservation of the WHS Kizhi Pogost and the fulfillment of decisions of the 38th session of the World Heritage Committee is prepared and submitted in accordance with the abovementioned recommendation.

3. Restoration measures on the WHS Kizhi Pogost in 2014–2015

3.1. General information.

The works on the comprehensive restoration of the Church of the Transfiguration have been continued in 2014–2015. The works of the current restoration stage include large-scale element-by-element reassembly of the walls with repair of damaged logs, elimination of walls deformation, and reinforcement of weakened load-bearing structures and joints. The works on the comprehensive restoration of the walls of the Transfiguration Church have not been suspended since 2012 and are carried out at present without discontinuity.

At the final stage they will dismantle the metal frame, restore the interiors of the monument, mount necessary engineering networks and elements of the walls reinforcement system, improve the territory around the monument, and restore a part of the pogost fence. They plan to finish the works in 2018–2019.

In 2014–2015 the same contracting organizations that participated in the restoration earlier have been involved: “Alekon” LLC, “Zaonezhie” LLC, “Georekonstruktsiya” LLC. The Kizhi Open Air Museum continues to be the general customer. The restoration works on the Church of the Transfiguration has also been carried out by the efforts of the Carpenter Center. There are 7 carpenter-restorers certified by the Ministry of Culture of the Russian Federation and 3 workers experienced in restoration.

In accordance with the recommendations of UNESCO mission 2014 the museum has kept the former team of restorers.

In accordance with the decision of the Ministry of Culture of the Russian Federation the working documentation for the completion of the restoration of the Transfiguration Church should be prepared by the end of 2015. Previously they prepared documentation annually for a certain restoration tier of the church (stage of works). In connection with this decision it is necessary to take into consideration the need to adjust the project in the process of restoration works. It will be possible to implement through permanent supervision of the works by the project’s author.

The process and result of the restoration and related works carried out in 2014–2015 are presented below in chronological order. The works took place on two restoration sites. They are the Pogost site and the Restoration complex.

Project works. 2015.

Because of the reorganization of the design institute “Spetsproyektrestavratsiya” JSC, the contract for completion of the project documentation development was signed in 2015 with “Georekonstruktsiya” LLC (Saint-Petersburg). In accordance with the recommendations of the 2014 ICOMOS Mission the project group headed by chief architect of the project V. Rakhmanov remains unchanged. “Georekonstruktsiya” LLC provides the development of the project documentation. The works quality is monitored by the customer, by Russian and international experts at annual ICOMOS Missions to Kizhi Island, as well as on the basis of the reports regularly submitted by the Kizhi Museum to the Ministry of Culture and UNESCO.

In accordance with the UNESCO recommendation the issue of the quadrangle reinforcement was examined and discussed during UNESCO mission in September 2015 with Russian experts and a UNESCO expert to coordinate restoration works in 2016

3.2. Works on the Pogost site

3.2.1. Assembly of the 5th restoration tier. Summer – autumn 2014

In the summer and autumn period 2014 the 5th restoration tier, restored in the workshop in winter 2013–2014, was assembled.

As a result of the walls assembly an increased deformability and spreading of the walls (shift from the original strict geometry) have been identified in the joints of annexes and diagonal walls. The geometry was restored with the help of two tackles with weights of up to 3 tons each. Steel cord strainers were mounted in the annexes and the right geometry of the walls was fixed. The process of walls spreading is natural because there are no elastic connections between the logs and in case of humidity and temperature deformations of separate logs there is no force between them that would return deformed elements to the original position. It results in accumulation of wooden walls deformations.

Temporary vertical binding posts are also mounted on the newly restored walls. Their static work provides neither reliability nor the general stability of load-bearing structures. Their purpose is to ensure local stability of separate members.

We should note the positive effect of the temporary steel strainers, which have provided verticality and the right geometry to the walls. It allowed installing beams of the annexes and continuing assembly of the 4th restoration tier in 2015. As it was expected, material of logs “got used” to strainers loads. As a result, strainers forces decreased as compared to the summer figures. At the current stage of the restoration it has been decided not to dismantle strainers and binding posts before the upper walls of the church will be completely assembled.

The 5th restoration tier has been completely assembled in the given amount, design levels and with good quality of works.

The works have been carried out by contracting organization “Zaonezhie” LLC.



Measurements of the walls state in the process of assembly on the Pogost site



Tightening of annexes walls with cord strainers and wooden binding posts



Assembly of the 5th restoration tier on the Pogost site

3.2.2. Works on the Pogost site. Dismantling of the metal frame and lifting system. Autumn 2014 – May 2015

The works on dismantling of the metal frame and lifting system were carried out from October 2014 to May 2015.

When examining the walls before the assembly of the 4th restoration tier they have found that wall logs and beams “encounter” with the metal horizontal and vertical members of the metal frame of 1982 and lifting structures. To continue the work it was necessary to change the position of the metal members without loss of strength and stability of the metal frame and lifting structures.

In accordance with the project documentation, compensatory horizontal and vertical bridging was installed in the lower and upper part of the “wooden beam area” and necessary adjustments of the position of separate lifting racks were made. After that they dismantled the members hindering the assembly of the 4th restoration tier.

They also removed the “needless” metal structures of the lifting system and metal frame (which already fulfilled their function) from the church. They dismantled lifting racks in the interior of the church at the diagonal walls and the racks of the metal frame in the church annexes.

This situation of “encounter” of wood and metal has occurred more than once on the site, which means that it can be repeated again in the process of restoration.

The works have been carried out by contracting organization “Alekon” LLC.



Installation of compensatory bridging



The lifting structures supporting the upper suspended part of the church were re-mounted



North-eastern wall of the church. Lifting racks at the diagonal walls are dismantled



Dismantling of the metal frame racks in the church annexes

3.2.3. Dismantling of the 3rd restoration tier. Sealing of the church. Autumn 2014 – Spring 2015.

The works on dismantling of the 3rd restoration tier were started in autumn 2014. According to the proven technology they dismantled log walls, 4 domes with “barrel” roofs, 4 false “barrel” roofs and other members of the walls. All elements are marked, washed and brought to the cold storage of the Restoration complex. A distinctive feature of the restoration held in 2014 was an increase of height of the works.

The dismantled part will be restored during winter 2015–2016 and in spring it will be prepared for the assembly on the Pogost site.

Traditionally the Church of the Transfiguration is sealed for the winter period 2015–2016. The walls are closed with reinforced polyfilm on a wooden frame.

The process of walls dismantling has been fully perfected in previous years. Dismantling of four domes and “barrel” roofs was made with involvement of specialists in industrial mountaineering.

The works have been carried out by contracting organization “Alekon” LLC and the Carpenter Center of the museum.



Dismantling of the 3rd restoration tier



The church after dismantling of the 3rd restoration tier



Sealing of the church for the winter period 2014–2015

3.2.4. Assembly of the 4th restoration tier. Summer – autumn 2015.

In summer 2015 they completed the assembly of the 4th restoration tier (restored in the period of 2013–2014) on the Pogost site.

They have mounted framework structures consisting of vertical walls, horizontal beams and poles of 4 “barrel” roofs of the first level of domes. Before the beginning of the 4th tier assembly they have carried out compensatory measures on additional temporary strengthening of the lower walls with the help of wooden binding posts on diagonal walls. There have occurred no deformations after the walls assembly. The walls are assembled in the given amount, design levels and with good quality of works.

In autumn 2015 the Carpenter Center of the museum has been carrying out works on covering “barrel” roofs of the 4th restoration tier.

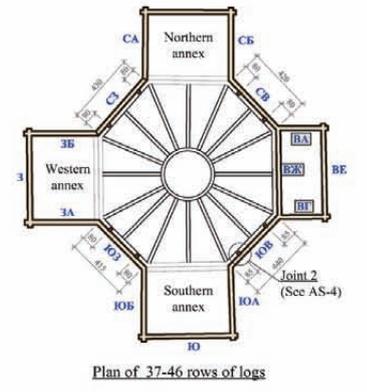
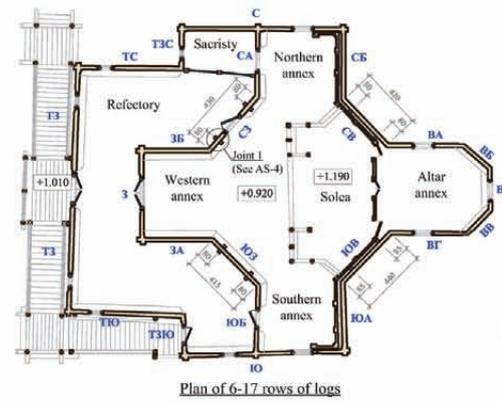
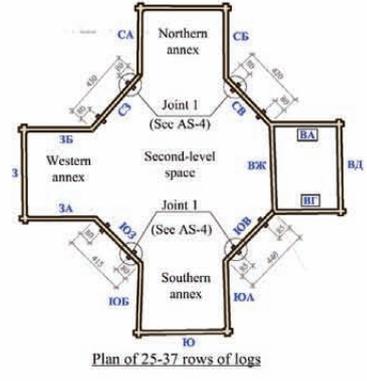
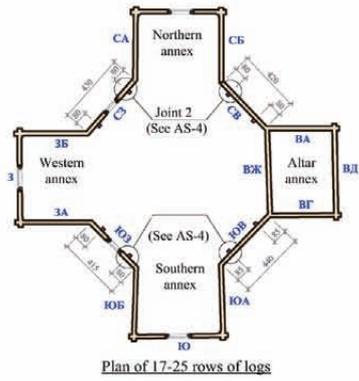
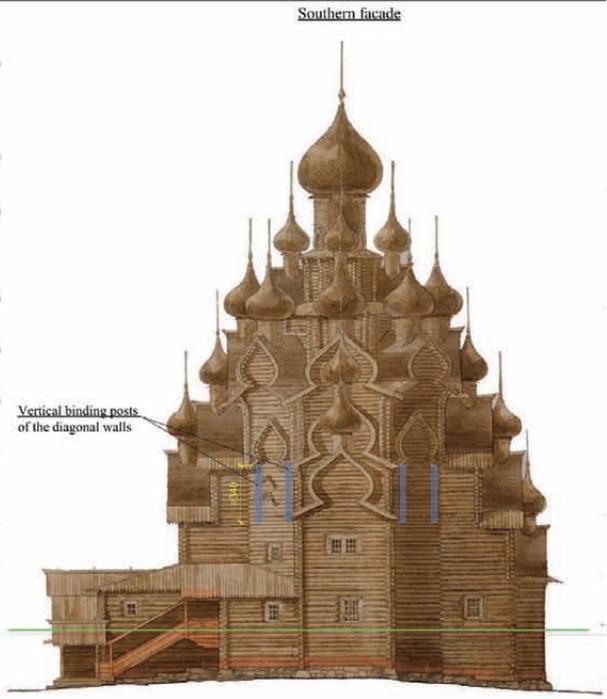
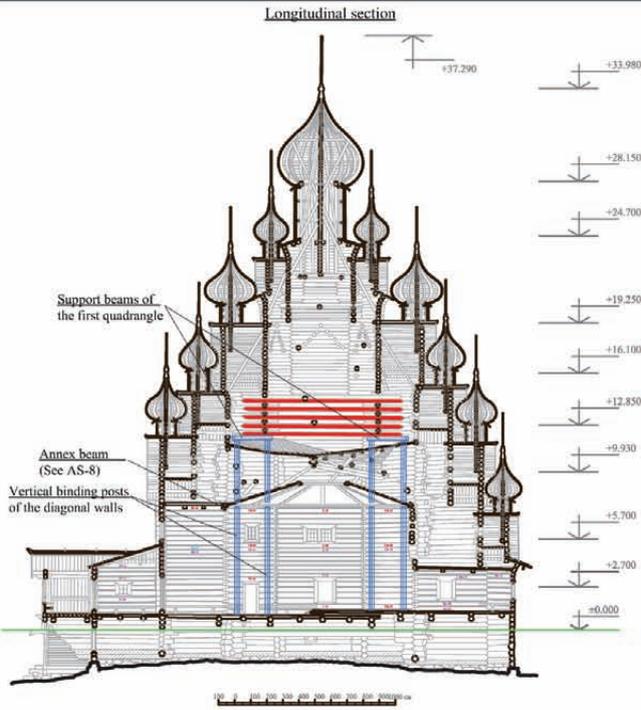
The works have been carried out by contracting organization “Zaonezhie” LLC and the Carpenter Center of the museum.

3.2.5. Restoration of the altar dome and “barrel” roofs of the 4th restoration tier. Binding posts. Spring 2015 till present.

Assembly of the 5th restoration tier on the Pogost site in the end of 2014 allowed continuing restoration works on dismantling of the roof above the altar annex of the church in spring 2015. Restoration started with making roof eaves and covering a “barrel” roof with shingles. To perform these works they prepared birch bark for waterproofing and aspen for shingle covering in spring.



Making roof eaves and covering for the “barrel” roof of the altar dome



NOTES:
 1. See this sheet together with sheet 8. All dimensions are in centimeters (cm)

Customer: Kizhi Open Air Museum			
48/13-01 P			
The Church of the Transfiguration, Kizhi Island, Medvezhjegorsk region, Republic of Karelia			
Project author V.Rahmanov 11.2013 Scientific supervisor V.Rahmanov 11.2013 Department head D.Nikitin 11.2013 Supervisor A.Mambrov 11.2013 Checked O.Timov 11.2013 Made O.Berjzov 11.2013	Complex engineering reinforcement of historic structures with modern strengthening systems	Stage P	Sheet 7
Reinforcement of the diagonal walls of the 1st octagon with log binding posts	General design organization Gevrekonstruktivnaya LLC Scientific guidance Spectrosvetrestroitel'stva JSC		

A fragment from the project on binding posts

The direct assembly of the altar dome on the Pogost site became possible only after the assembly of the 4th restoration tier as the dome closely adjoins the walls of the 4th tier. In September 2015 the assembly of the altar dome was completed, the works were presented at UNESCO mission 2015.

After the assembly of the 4th restoration tier of the church on the Pogost site the works on making covering for 4 “barrel” roofs were started. They plan to finish them by May 2016. The start of the assembly of 4 domes of the 4th restoration tier will be possible only after the assembly of the restored 3rd restoration tier on the Pogost site.

In accordance with UNESCO mission 2014 recommendations binding posts were mounted on the diagonal walls from the floor of the church to the level of the “heaven” ceiling ring (27 row of logs). The project documentation on the church reinforcement, developed in 2014, included binding posts installation. That is why in accordance with the project author’s recommendations and recommendations of ICOMOS mission in summer 2015 the Carpenter Center mounted binding posts on diagonal walls. Previously these walls were most strongly subject to deformations because of great height and four annexes from the cardinal points.



Binding posts on diagonal walls



The 4th restoration tier assembled on the Pogost site

3.2.6. Deformation monitoring 2014–2015.

In accordance with UNESCO mission 2014 recommendations the museum has conducted constant monitoring of the church deformations.

Traditionally in summer 2015 Research Institute “Spetsproyectrestavratsiya” (Moscow) carried out annual (seven points) deformation monitoring. They have detected no deformations.

In addition, the museum independently monitors deformations of the assembled walls with the help of officially tested tachymeter «Nikon NPL 632». They monitor eight

points at 4 levels of benchmarks set in the corners of the octagon. These points allow monitoring deformations of the walls by making comparative analysis of 16 diagonal sizes between benchmarks at every level of the walls. It allows making sure that there have been no deformations detected for the previous period. They make measurements in winter, spring, summer and autumn. They also monitored in the period of straining (cord strainers) fluctuations in July and September 2014.

Monitoring of the benchmarks set after the assembly has not reflected any significant deformations of the walls.



Monitoring by Research Institute “Spetsproyektrestavratsiya” (Moscow)

3.3. Works in the Restoration Complex. Restoration of the 3rd restoration tier. Summer 2015

In May 2015 they completed the works on dismantling of the 3rd restoration tier and stored members of the tier in the cold storage of the Restoration Complex. In August 2015 the preliminary assembly of the 3rd restoration tier was made in the workshop for detailed examination and decision-making on restoration and reinforcement of this part of the church. The height sizes of the workshop allowed mounting a part of the tier. It made possible to examine and analyze the state of the walls and make the decision on quadrangle beams reinforcement.

The direct restoration of the 3rd restoration tier members will start in 2016 after development of the project documentation on completion of the restoration and getting approval by the Ministry of Culture of the Russian Federation. After that it will be possible to proceed the restoration according to the perfected and previously approved technique.



Walls of the 3rd restoration tier. Preliminary assembly in the workshop

Conclusion

The works continue in accordance with the restoration project and its main concepts: for the duration of the work the site can be always seen by tourists except for the part being restored in the workshop.

During the reporting period a large set of restoration measures has been carried out. The works continued throughout the year without interruption. Keeping the pace of work and system organization of all processes from financing and author's supervision on the site to the final acceptance of the logically completed part of the restoration it is possible to achieve positive results and meet the scheduled time of the restoration. The main restoration challenges have been solved, i.e. the work technique has been completely perfected, methods of log treatment are known. Engineering solutions on strengthening and reinforcement of the church structures have been presented to UNESCO mission 2015 and will be implemented after approval.

In addition to the main restoration, conservation, and related works they carried out measures on preventive maintenance of the wooden flooring around the church, tested the work of the lifting system and fire and security perimeter alarm systems.

The 2014 ICOMOS consultative mission's recommendation on measures needed to reduce delays in the project realization and consistency of the restoration works was implemented. In 2015 the greatest part of works has been carried out by the museum (Carpenter Center). The former team of restorers and designers has been kept. The decision upon walls planking as a reinforcement method will be made after examination of this issue at the scientific and methodological council of the museum and the Ministry of Culture of the Russian Federation.

Thus, the museum has implemented all UNESCO recommendations given to the state-party in regards to restoration works.

**State of conservation report
of the WHS Kizhi Pogost
for 2014–2015**

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