



State of Conservation Report

Sites of Japan's Meiji Industrial Revolution:

Iron and Steel, Shipbuilding, and Coal Mining (Japan) (ID: 1484)

**CABINET SECRETARIAT
JAPAN**

State of Conservation Report

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1. Executive Summary

The Government of Japan created this State of Conservation Report ("the Report") to provide responses to those recommendations and requests noted in Decision 42 COM 7B.10 adopted by the World Heritage Committee at its 42nd session. Prepared jointly by the Cabinet Secretariat, local governments, component part owners, and other parties, the Report is based on the "*Sites of Japan's Meiji Industrial Revolution: Kyushu-Yamaguchi and Related Areas, General Principles and Strategic Framework for the Conservation and Management*" (hereinafter referred to as "Strategic Framework"). It also contains reports on progress with those recommendations and requests noted in Decision 39 COM 8B.14 at the 39th session of the World Heritage Committee.

The response to the 42nd World Heritage Committee Session Decision (42 COM 7B 10) is described below.

➤ **Paragraphs 4, 5**

Regarding conservation of the Hashima Coal Mine, the results of surveys undertaken to date have been compiled and an Action Plan for the next 10 years provided.

➤ **Paragraph 6**

Regarding items concerning visitor management, a visitor management strategy has been created based on the results of quantitative and qualitative surveys undertaken over the last three years.

➤ **Paragraphs 7, 8, 9**

Regarding items concerning interpretation, interpretation has been implemented properly based on the Interpretation Strategy.

➤ **Paragraph 10**

Regarding dialogue with concerned parties, discussions have been carried on regularly with those involved in the Sites of Japan's Meiji Industrial Revolution, as efforts have been made to engage in a wide range of dialogue.

➤ **Paragraph 11**

Regarding items concerning full implementation of Decision 39 COM 8B.14 and submission of a State of Conservation Report, a report has been included on subsequent progress with the capacity building projects noted in Recommendation f) and the development projects noted in Recommendation h) in Decision 39 COM 8B.14.

In addition, the Cabinet Secretariat also held a meeting of the Industrial Heritage Expert Committee (including Working Properties) (hereinafter "the Expert Committee"), made up of specialists from Japan and abroad, established in line with the Strategic Framework, on September 6, 2019 to hear the opinions from experts and appropriately reflected the feedback in the Report. The National Committee of Conservation and Management for the "Sites of Japan's Meiji Industrial Revolution", established as a venue for mutual exchanges of views and discussions with relevant government ministries and local governments, approved the Report on October 28, 2019. In these ways, it was endeavoured to ensure all due communication and solid consensus-building among the various parties involved with working and non-working component parts.

2. Outline of responses to the Decision of the World Heritage Committee

This report consists of 1. Main Document and 2. Appendices.

(1) Main Document

The main text of replies to each matter requested in the Decision

(2) Appendices

Additional materials relating to each of the replies in (1) Main Document.

Outline of Responses to the Decision at the 42nd Session of the World Heritage Committee the replies to each matter requested in the Decision are summarized below. For details, see 1. Main Document and 2. Appendices.

➤ **Paragraphs 4, 5: Matters concerning conservation management of Hashima Coal Mine**

Regarding various surveys of the Hashima Coal Mine (Area 6 Nagasaki, component part 6-7), in addition to building surveys, Nagasaki City undertook also archaeological surveys, record surveys, and other surveys to date, and these works will be continued. Scientific exploratory committees and other bodies have been set up, drawing on expert knowledge in considering research methods and discussing conservation methods based on research results. Nagasaki City intends to undertake further research and conservation work on a systematic basis.

➤ **Paragraph 6: Matters concerning the establishment of acceptable visitor threshold levels for each component part**

Regarding the visitor management strategy, acceptable visitor threshold levels was examined on the basis of quantitative and qualitative surveys of visitors undertaken to date. According to the results of a three-year multi-faceted survey to assess the current state, it was determined that preventing the constant fluctuation in visitor numbers from adversely impacting on the component part will require not static control (setting thresholds for annual or daily visitor numbers) but rather using multiple indicators to confirm the fluctuations in visitor numbers and developing appropriate responses. A visitor management strategy that effectively combines multiple indicators based on a visitor management vision was therefore created for the purpose of substantive control of acceptable visitor threshold levels.

➤ **Paragraphs 7, 8, 9: Matters concerning interpretation**

Interpretation Audit was conducted again at all areas by overseas specialists in March and August 2019.

Also, the suitable interpretation for each area was studied based on the Interpretation Strategy attached to the State of Conservation Report submitted to UNESCO on November 30, 2017. In the future, interpretation at each Visitor Centre will be developed with a focus on Outstanding Universal Value, for example, introducing the common exhibits for overall property indicated by the Cabinet

Secretariat. Tourist maps were also developed for visitors to the Nagasaki and Kamaishi Areas.

In addition, preparations are going ahead on an Industrial Heritage Information Centre under the policy of being established during this fiscal year in Tokyo, while taking into account the views of experts in and outside Japan.

As for the overall interpretation, this will be reported anew upon completion of the Industrial Heritage Information Centre.

➤ **Paragraph 10: Matters concerning dialogue with concerned parties**

Dialogue has been carried on proactively with parties concerned with the Sites of Japan's Meiji Industrial Revolution, namely, the relevant ministries, local government, component part owners, and managers, as well as with experts in and outside Japan, local communities, and tourism operators, and in councils comprising local government, chambers of commerce and Industry, and tourism associations.

➤ **Paragraph 11: Matters concerning full implementation of the 39th World Heritage Committee Session Decision (39 COM 8B.14) and submission of a State of Conservation Report**

To fully implement the 39th World Heritage Committee Session Decision (39 COM 8B.14), responses to Recommendation f) and Recommendation h) are reported as below.

➤ **Decision 39 COM 8B.14 Recommendation f): Matters concerning establishment and implementation an ongoing training programme**

To date, training guidelines has been set for each personnel type for each area and component part and capacity building projects has been implemented accordingly. Among specific initiatives, the books "Understanding Steel" and "Understanding Coal" were created for materials for gaining an understanding of the history of each industry, as human resource capacity building projects for those personnel engaged in permanent interpretation work on-site. Next, material for learning about the shipbuilding industry will be created, and it is planned to continue implementing guide training and various human resource development training.

➤ **Decision 39 COM 8B.14 Recommendation h): Matters concerning reporting on development projects in accordance with Paragraph 172 of the Operational Guidelines for the Implementation of the World Heritage Convention**

As indicated in Decision 39 COM 8B.14 Recommendation h), reports were compiled on the details and progress of multiple development projects and new building or expansion of public facilities.

A heritage impact assessment will be undertaken for the new road construction at Shuseikan. The Mietsu Naval Dock road bridge is currently under construction, and reports will be issued as soon as the project is completed. As constructing a new anchorage facility at Miike Port is still in the planning stage at this time, reports will be made in line with the status of the plan going ahead.

In addition to the three projects above, a number of previously reported are also included again here, namely, *Partial Revision of the Hagi City Landscape Plan* *Partial Revision of the Hagi City Landscape Plan*, *A control method for the buffer zone of Area 1 Hagi* (Hagi Area), the *Status of Damages Caused by Heavy Rain at the Terayama Charcoal Kiln*(Component Part 2-2) and *Future Measures* (Kagoshima Area), *Heritage Impact Assessment Regarding Construction of a Concrete Manufacturing Plant in the Buffer Zone of the Mietsu Naval Dock in Area 5 Saga* and *Assessment of Impact on World Heritage from Construction Work Near the Mietsu Naval Dock* (Saga Area).

An additional report on *Progress Status of Project Proposals Concerning the Imperial Steel Works and Onga River Pumping Station* (Yawata Area) is attached to this State of Conservation Report.

3. Other current conservation issues identified by the State Party which may have an impact on the property's Outstanding Universal Value

Same as the answer for WHC/16/39COM/8B.14 Recommendation h) in paragraph 11 of the main document.

4. In conformity with paragraph 172 of the Operational Guidelines, describe any major restorations and/or new construction(s) intended within the property, the buffer zone(s) and/or corridors or other areas, where such developments may affect the Outstanding Universal Value of the property, including authenticity and integrity

Same as the answer for WHC/16/39COM/8B.14 Recommendation h) in paragraph 11 of the main document.

5. Public access to the State of Conservation Report

It is available to the public.

6. Signature of the Authority

海堀 安喜

KAIBORI Yasuki

Director-General, Department of Industrial Heritage,
Cabinet Secretariat, Government of Japan

I. Main Document

Responses to World Heritage Committee Decision

The following Decision was adopted at the 42nd session of the World Heritage Committee. Also given here for reference are excerpts of the eight recommendations adopted at the 39th session of the World Heritage Committee.

Contents of the 42nd World Heritage Committee Session Decision

The World Heritage Committee,

1. Having examined Document WHC/18/42.COM/7B.Add2,
2. Recalling Decision 39 COM 8B.14[1], adopted at its 39th session (Bonn, 2015),
3. Takes note of the illustrated reports provided on conservation work carried out at various component sites, along with future priorities;
4. Commending the State Party on the details provided so far concerning Hashima Island, notes the substantial progress achieved in the development of a detailed 30-year conservation work programme for the island and the commitment of resources for the length of the plan and also notes that the programme will stabilise the island's retaining walls, conserve decaying remains and preserve the battleship form of its silhouette, and that priority will be given in the first phase to the retaining walls and researching conservation techniques;
5. Requests the State Party to submit the following information to the World Heritage Centre, for review by the Advisory Bodies, as it becomes available:
 - a) One or more study(ies) on those buildings made of wood, steel, and reinforced concrete which have collapsed or irreversibly decayed since 1974, and whether they can be conserved,
 - b) Further archaeological studies,
 - c) More research on historical documents, structural materials and visitor movements,
 - d) An Action Plan, developed by Nagasaki City, covering project deadlines, implementation techniques for phased work, and setting annual goals;
6. Further notes that monitoring of the number of visitors is being undertaken systematically for all component sites, and that a visitor management strategy, including carrying capacities, will be formulated in 2018 on the basis of these results; and also requests the State Party to submit this strategy to the World Heritage Centre, once it is completed, for review by the Advisory Bodies;
7. Notes furthermore that interpretation is available for all component sites, and that digital communications have been developed, but that further improvements are planned, including Information Centre to be opened;
8. Further requests the State Party to provide an update on overall interpretation upon completion of Information Centre;
9. Strongly encourages the State Party to take into account best international practices for interpretation strategies when continuing its work on the interpretation of the full history of the property, both during and outside of the period covered by its OUV, and in the digital interpretation materials;

10. Encourages continuing dialogue between the concerned parties;
11. Requests furthermore the State Party to fully implement Decision 39 COM 8B.14¹ and to submit to the World Heritage Centre, by 1 December 2019, an updated report on the state of conservation of the property and the implementation of the above, for examination by the World Heritage Committee at its 44th session in 2020.

¹ The World Heritage Committee takes note of the statement made by Japan, as regards the interpretive strategy that allows an understanding of the full history of each site as referred to in paragraph 4.g) of the Decision 39 COM 8B.14, which is contained in the Summary Record of the session (document WHC-15/39.COM/INF.19).

For reference: excerpts from eight recommendations in 39 COM 8B.14

4. Recommends that the State Party give consideration to the following:
- a) Developing as a priority a detailed conservation work programme for Hashima Island;
 - b) Developing a prioritised conservation work programme for the property and its component sites and an implementation programme;
 - c) Defining acceptable visitor threshold levels at each component part to mitigate any potential adverse impacts, commencing with those most likely to be at risk;
 - d) Monitoring the effectiveness of the new partnership-based framework for the conservation and management of the property and its components on an annual basis;
 - e) Monitoring the implementation of the conservation management plans, the issues discussed and the decisions made by the Local Conservation Councils on an annual basis;
 - f) Establishing and implementing an on ongoing training programme for all staff and stakeholders responsible for the day-to-day management of each component to build capacity and ensure a consistent approach to the property's ongoing conservation, management and presentation;
 - g) Preparing an interpretive strategy for the presentation of the property, which gives particular emphasis to the way each of the sites contributes to Outstanding Universal Value and reflects one or more of the phases of industrialisation, and also allows an understanding of the full history of each site²;
 - h) Submitting all development projects for road construction projects at Shuseikan and Mietsu Naval Dock and for new anchorage facility at Miike Port and proposals for the upgrade or development of visitor facilities to the World Heritage Committee for examination, in accordance with paragraph 172 of the Operational Guidelines;

² The World Heritage Committee takes note of the statement made by Japan, as regards the interpretive strategy that allows an understanding of the full history of each site as referred to in paragraph 4.g), which is contained in the Summary Record of the session.

Response to the Decision of the 42nd World Heritage Committee Session

Details of the responses to Paragraphs 4 to 11 of the 42nd World Heritage Committee Session Decision (42 COM 7B.10) are reported here.

Decision 42 COM 7B.10 Paragraphs 4, 5

4. Commending the State Party on the details provided so far concerning Hashima Island, notes the substantial progress achieved in the development of a detailed 30-year conservation work programme for the island and the commitment of resources for the length of the plan and also notes that the programme will stabilise the island's retaining walls, conserve decaying remains and preserve the battleship form of its silhouette, and that priority will be given in the first phase to the retaining walls and researching conservation techniques;
5. Requests the State Party to submit the following information to the World Heritage Centre, for review by the Advisory Bodies, as it becomes available:
- a) One or more study(ies) on those buildings made of wood, steel, and reinforced concrete which have collapsed or irreversibly decayed since 1974, and whether they can be conserved,
 - b) Further archaeological studies,
 - c) More research on historical documents, structural materials and visitor movements,
 - d) An Action Plan, developed by Nagasaki City, covering project deadlines, implementation techniques for phased work, and setting of annual goals;

1. Background

- The "ICOMOS Evaluations of Nominations of Cultural and Mixed Properties" (WHC-15/39.COM/INF.8B) noted the following points:
 - ICOMOS considers that the plan for the Hashima Coal Mine needs to be more detailed. The state of conservation of this site is poor and requires urgent conservation work on a large scale.
 - The Conservation Management Plan provides general policies to prevent further deterioration of the attributes related to the Meiji era.
 - There is currently not a prioritised program of works based on its overall state of conservation, nor a time frame for works to commence.
 - Immediate action is required particularly for the revetment contributing to the Outstanding Universal Value to retain not only the wall but also the whole island. It was confirmed to ICOMOS that ¥200M/year was made available over five years from last fiscal year to undertake works.
- In consideration of the above points in the ICOMOS report, Recommendation a) at the 39th Session of the World Heritage Committee (39COM 8B.14) called for "Developing as a priority a detailed conservation work programme for Hashima Island."

- With the cooperation of Nagasaki City, the Cabinet Secretariat created a Conservation Work Programme and submitted this to the UNESCO World Heritage Centre as part of the State of Conservation Report on November 30, 2017.
- As noted above, the Decision (42 COM 7B.10) at the 42nd World Heritage Committee Session indicated additional matters to note and requests.

2. Surveys implemented to date and outlines

(1) Surveys regarding Requests a), b), and c) in Paragraph 5 of the Decision

After inscription of “Sites of Japan Meiji Industrial Revolution (Kyusyu, Yamaguchi, and related area)” on a tentative list of World Heritage in 2009, in response to Hashima Coal Mine became a candidate for a future component part, an exploration of the cultural value of the Hashima Coal Mine and related facilities was launched in 2013, with intensive surveys and studies undertaken toward having Hashima Island designated as a cultural asset and creating a Conservation Management Programme. Surveys addressed not just remains above ground but the island as a whole, including ruins from the various time periods that were thought to remain underground.

1) List of surveys carried out to date by Nagasaki City

The following table lists the surveys and studies undertaken to date on the Hashima Coal Mine inclusive of constituent elements contributing to Outstanding Universal Value and other remains. The results of these surveys have already been summarized in reporting. These include excavation surveys and associated development projects, as well as building surveys and record surveys, etc., which are sorted out based on Requests a), b) and c) of Paragraph 5 of the Decision as follows.

Table 1. Outline of Surveys on Hashima Coal Mine

Survey	Content	Fiscal Year conducted	Survey outline
a) Building surveys	(i) 3D laser measurement, creation of 3D model	2013 2014	3D laser measurements and UAV photography used to create a 3D model to ascertain the current status of the whole island
	(ii) Creation of a production facility diagram	2014 2015	Results of the 3D model used to create ground plans, cross-sections, elevations and structural drawings to ascertain the current status of production facility remains
	(iii) Structural survey of mine entry landing	2016	Measurement, creation of a survey map, creation of a damage map, materials experiments, and creation of a structural drawing to ascertain the current status of the mine entry landing as part of production facility

Survey	Content	Fiscal Year conducted	Survey outline
	(iv) Survey of current status of Building No. 70	2014	Calculation of the extent of foundational degradation through a degradation survey and 3D elastic FEM analysis to ascertain the current status of Building No. 70, the foundations of which were severely scoured
b) Archaeological surveys	(i) Environmental restoration	2014	Environmental restoration to enable surveys of remains
	(ii) The mouth of the Pit record survey	2015	Record survey of the mouth of the Pit No. 1 and 2 and Pit No.3 remains
	(iii) Surveys confirming scope of underground remains	2014	Excavation survey of Pit No.1 winding machine room and survey confirming whether revetment remains within the elementary and junior high school grounds
		2015	
	(iv) Survey on current status of masonry work remains	2014	Record survey on stone masonry bank protection remains in scoured areas (next to Buildings No. 31 and 51)
		2014	Record survey on stone masonry retaining wall and stone masonry bank protection remains
2015 2016			
(v) Survey on state of deterioration of revetment remains, etc.	2014	Underwater survey of revetment foundations to ascertain the current status of scoured areas (next to Buildings No. 31 and 51); confirmation of state of damage underwater	
	2015 2016	Degradation status checked underwater and by eye to ascertain the current status of revetment remains; creation of damage maps and a cross-section; assessment of revetment stability	
c) (1) Survey of historical documents	(i) Collection of old photos	2014 2015 2016 2017 2018	Collection of old photos related to the Hashima Coal Mine (ongoing)
c) (2) Survey of	(i) Degradation survey	2015	Survey on degree of degradation of reinforced concrete housing facilities, forecast of how long

Survey	Content	Fiscal Year conducted	Survey outline
structural materials			materials are expected to last, assessment of structural safety
	(ii) Materials strength testing	2016	Detailed survey of reinforced concrete housing facilities Blocks 3, 16, and 65, assessing whole building stability
	(iii) Structural survey of Pit No. 3 winding machine room	2017	Survey of current status of Pit No. 3 winding machine room (production facility remains) through measurement of the General Office adjoining the room, creation of a diagram and damage map, materials experiments, and creation of a structural drawing.
c) (3) Visitor movement survey	(i) Visitor numbers survey	2016 2017	Survey undertaken to ascertain visitor numbers
	(ii) Behaviour observation survey	2018	Visitor behaviour within the component part at busy times and usual times was compared, surveying the adverse impact at busy times.
	(iii) Survey amount of time spent at the component part		Number of people at the component part at the same time and the amount of time spent there ascertained to conduct behaviour observation and a cross-analysis in relation to the adverse impact by crowding.
	(iv) Visitor satisfaction survey		Questionnaire survey on the degree of customer satisfaction to ascertain visitor understanding of the component part's value and the psychological impact of the component part.

Table 2. Outline of surveys related to Hashima Coal Mine

Survey	Content	Fiscal year conducted	Survey outline
(1) Route restoration work for excavation surveys, etc.	(i) Gate installation	2014	Installation of a gate on the viewing route guard pipe to secure the excavation survey route
	(ii) Installation of a temporary route	2014	Installation of temporary routes in collapsed areas to secure the excavation survey route
(2) Monitoring surveys	(i) Camera installation	2014	Installation of monitoring cameras to monitor illicit visitors and record the current status of Hashima Island buildings which continue to age and

Survey	Content	Fiscal year conducted	Survey outline
(stationary cameras)			deteriorate
	(ii) Camera repair	2015	Monitoring camera peripheral facilities replaced and data backup devices, etc., installed

2) Survey accomplishments and issues

As indicated below, results were obtained to a certain extent from the various surveys conducted by Nagasaki City described above.

Decision Paragraph 5 a) Building surveys

In the building surveys, 3D data was obtained by 3D laser scanning and UAV measurements. Having obtained 3D data, further excavation surveys should be more efficient, since when the surveys are conducted it will be possible to know in advance the basic data (dimensions, shape, etc.) of adjoining structures. In addition, detailed structural surveys of the production facilities, mine entry landing and other elements contributing to Outstanding Universal Value, and building surveys conducted along with the urgent repairs of Building No. 70 with its severely scoured-out foundations, were able to provide basic data on the current state.

In future, specific considerations will be needed such as studies on effective construction methods for the building shape and materials and determination of the relationship between building structure and the ground for carrying out conservation and repair work,.

Decision Paragraph 5 b) Archaeological studies

The excavation surveys were able to confirm remains relating to the Pit No. 1 winding machine room, and current state surveys of the masonry revetment remains found revetment stones from 1899 and confirmed the foundation portion of the former elementary school building. Unearthed articles (roof tiles) believed to have been used in the former elementary school building were also unearthed. The results of these surveys made it possible to verify the land uses around the surveyed area from an archaeological standpoint.

It was also learned from the excavation surveys that under the ground of the Hashima Coal Mine, remains from earlier than the historical buildings in the historic site are preserved in good condition. In carrying out further conservation work on the historic site, care must be taken not to damage these underground archaeological remains.

Decision Paragraph 5 c) Surveys of historical documents, structural materials, and visitor movements

As surveys of historical documents, collection of old photographs continues. While results have been obtained to a certain extent, it will be necessary to continue gathering such materials to obtain a further grasp of the situation.

As surveys of structural materials, deterioration level surveys of the accommodation facilities showed that Building No. 16 and Building No. 65 have deficient structural performance, raising fears of enormous damage even in a moderate earthquake. The deterioration and damage have progressed irreversibly at these concrete structures surveyed, due to their constant exposure to salt damage in the harsh environment; yet methods for permanent preservation have not yet been technologically established. Material analysis and strength testing will be performed on structures made of steel-reinforced concrete, stone, and brick, for a scientific appraisal of structural deterioration, leading to research on methods for preserving these structures and specific restoration methods.

Results of surveys on visitor movement are discussed on the next section.

See appendices to this report regarding following representative survey results.

- Decision Paragraph 5 a) Results of building surveys: Table 1 a)-(v) Survey of current status of Building No. 70 (Appendix 1)
- Decision Paragraph 5 b) Results of archaeological surveys: Table 1 b)-(ii) Pithead record survey (Appendix 2-1), (iii) Survey confirming scope of underground remains (Appendix 2-2)
- Decision Paragraph 5 c) Results of surveys of structural materials: Table 1 c)-(2)-(iii) Structural survey of Pit No. 3 winding machine room (Appendix 3)

(2) Surveys of visitor movements as per Decision Paragraph 5 c)

As viewing routes and viewing squares have already been set up, visitor movement in the Hashima Coal Mine is maintained in a proper state with no adverse impacts on visitor safety. In relation to Paragraph 5 c) of the Decision, quantitative and qualitative surveys were undertaken from FY2016 to FY2018 to ascertain the impact of visitor numbers and tourism pressure on conservation. The viewing routes and results of three years of surveys are as follows.

1) Visitor movements

Viewing routes and viewing squares have been developed to illustrate and explain the mining system at Hashima Coal Mine, making it possible for visitors to view the component part safely in a guided tour format. Fences have been installed on both sides of the viewing routes so that visitors cannot freely enter areas outside the viewing routes. The viewing routes are shown in the figure below.

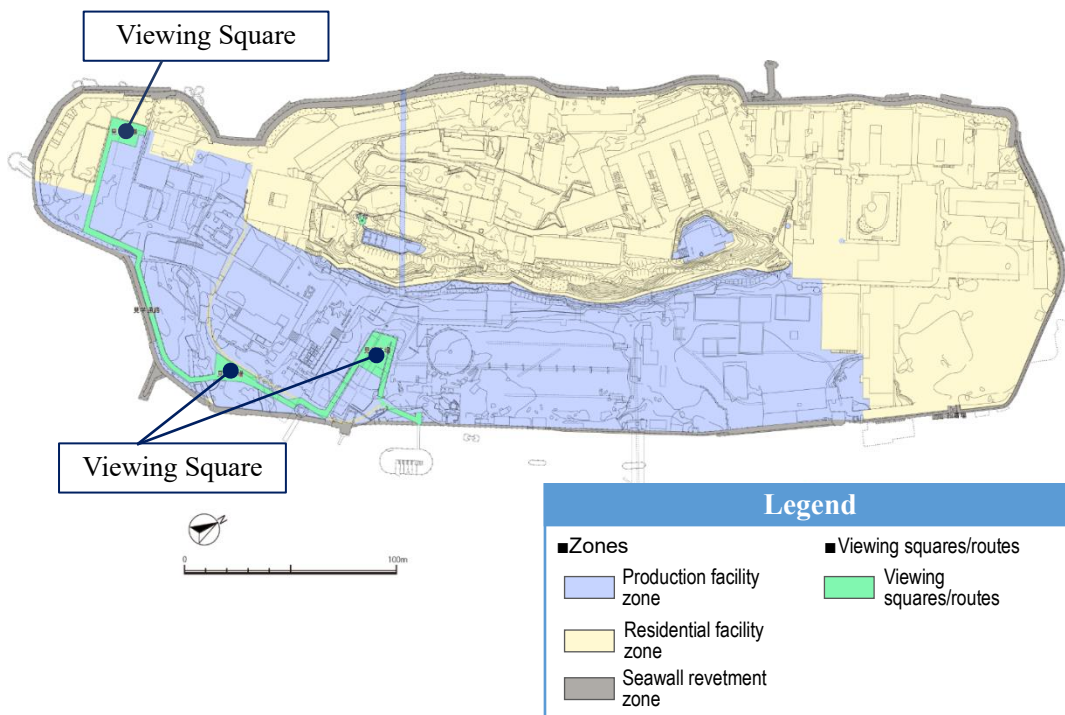


Figure 1. Map of Hashima Coal Mine viewing squares and viewing routes

2) Quantitative surveys

Survey method

Visitor numbers were collated daily to ascertain fluctuation. Where a noteworthy impact on the component part was discovered, this was recorded.

Survey results

Visitor number trends and the maximum number of visitors in a year are as follows.

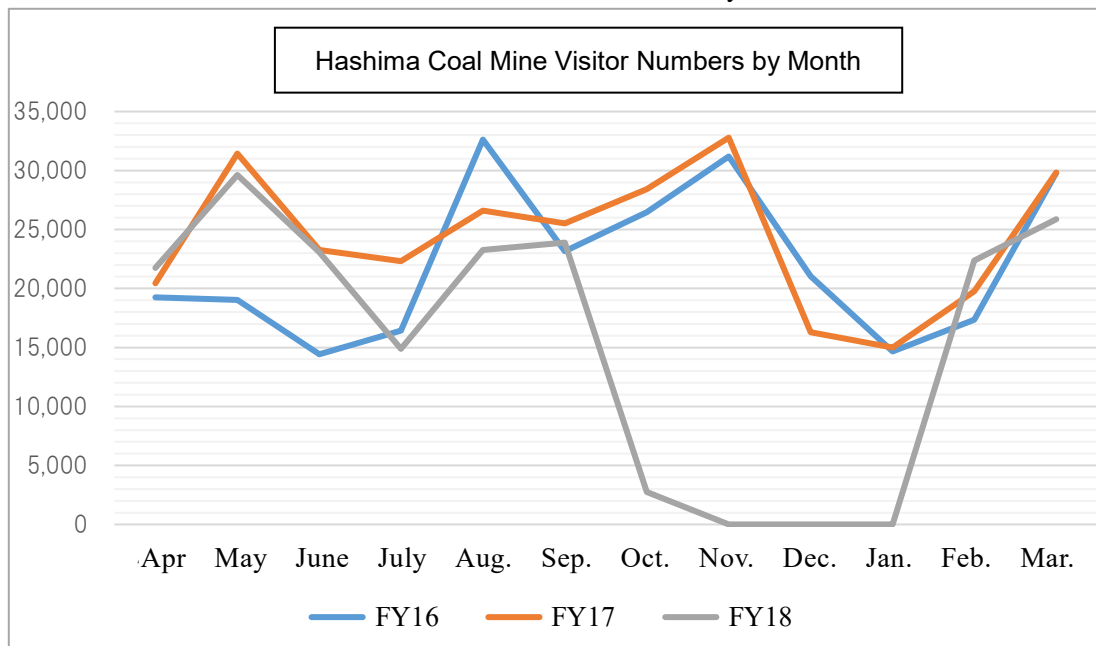


Figure 2. Trends in visitor numbers over three years

Table 3. Maximum number of visitors in a year (1Q to 4Q)

Day of maximum visitors	Number of visitors on that day	Number of visitors per hour on that day (approx.)
November 4, 2016	1,282	237
May 5, 2017	1,403	259
April 29, 2018	1,408	260

3) Qualitative surveys (behaviour observations)

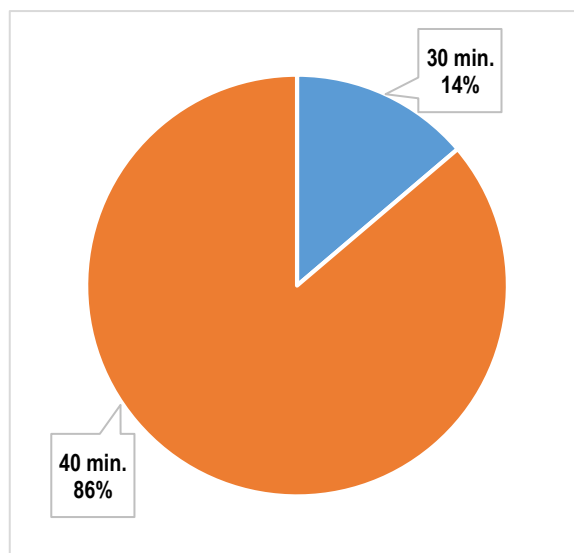
Survey method

The impact of fluctuations in visitor numbers over the course of one day on the component part and on visitor safety, peace of mind, and comfort was observed and recorded. The amount of time that visitors spend at the component part was also ascertained.

Survey results

Items impacted by visitors: None
 (Component part wear and tear, etc., erosion, etc., destruction, pollution, waste, obstruction of safety, obstruction of communication, etc.)

Figure 3. Results of survey on amount of time spent at the component part
 (Sampled day) November 3, 2017 Avg. 38.6 min.



4) Survey results

The three-year quantitative survey revealed that 265,475 people visited the Hashima Coal Mine in FY 2016, 291,665 in FY 2017, and 187,455 in FY 2018. At busy times, there were 30,000 monthly visitors to the Hashima Coal Mine, while the monthly average was 23,000 visitors. The steep drop in visitor numbers in FY 2018 was due to typhoon damage to the pier in October 2018, which meant that no one could land on the island until January 2019. Because Hashima Island lies a long way out, there is often a drop in visitor numbers because bad weather, etc., has prevented boats from berthing.

On busy days, daily visitor numbers top 1,400, with around 260 visitors going through per hour at such times.

The results of the qualitative survey revealed no adverse visitor impact on the Hashima Coal Mine. This is strongly related to the fact that even after people land on Hashima Island, they are taken around the island by guides. Once on shore, visitors follow the viewing routes shown in Figure 1 to view the island, but route crowding during busy times can be eased through direction by guides. In addition, visitors are not permitted to stray from the viewing routes in the component part, and the fact that visitors are always part of tour parties keeps the amount of time spent on the island to a nearly uniform time of around 30-40 minutes.

Regarding Hashima Coal Mine visitor movement, it can be therefore said that no adverse impacts by visitors are seen, and that both visitor safety and protection of the component part are achieved. The monitoring will be appropriately carried out through regular qualitative and quantitative surveys based on the visitor management strategy.

3. Future directionality and specific methods for surveys

(1) Directionality in relation to surveys noted in Decision Paragraph 5 a), b), and c)

The State of Conservation Report submitted by the Japanese government on November 30, 2017 also reported on policies and methods in relation to surveys in the Conservation Work Program, which are reproduced below. Surveys will continue to be undertaken appropriately based on these policies and methods.

Research and study policies

● Promoting research and study

Nagasaki city plans to launch the following projects in order to reaffirm and enhance the Outstanding Universal Value of the Hashima Coal Mine as a component part of the World Heritage Property: studies of the remains; studies of historical documents that show how the industrial (mining) system worked; studies of landscape of the component part and its surrounding; and studies of visitor number and their impact on the component part. Furthermore, the city will conduct annual monitoring by using monitoring charts in order to assess the condition of the component part of the World Heritage property and its buffer zone. Then the city will provide the assessment and an annual report to the Nagasaki Conservation Council, and reflect the Council's feedback in the process of conservation, restoration, presentation and public utilization.

Research and study methods

(a) Archaeological excavation and field study

Aboveground structures of the coal production facilities were demolished to be replaced by new facilities. This means that the coal production facilities continued to be upgraded. The housing facilities were also rebuilt anew after suffering a disaster or when their features needed upgrading. The masonry revetment remains were also rebuilt when a typhoon devastated them. Given these historical facts, it is unlikely that any of the original aboveground structures still remain, while it is likely that underground structures from that time still do.

For part that are likely to be the remains of production facilities from Meiji era, such as mine pits and winding machine rooms areas, survey of underground remnants as much as possible during structural repair, etc.

(b) Study of historical documents

With the aim to clarify the production system at each period and grasp detailed information about production facilities, the way of operation and technology, the city will study documents archived at research institutes, labor unions' publications, newspaper articles at the time, and old videos and photographs to ensure that the city have accurate knowledge of the history of Hashima as a thriving island of a coal mine. The city will also work with citizen groups to interview former miners and their families to learn about the realities of their labor and day-to-day lives in Hashima at the time.

(c) Research on structural materials

The city will analyse the materials of the reinforced concrete, masonry, and brick structures and test their strength to scientifically assess the structures' degradation levels. The city also plan to research how to conserve regular and reinforced concrete structures as well as specific ways of conservation in the current environment where no essential utilities are available. Before any conservation work on structures, the city will survey the facilities and research their structures, and the ground upon which they are built in order to ensure the safety of on-site research and conservation work and to assess the safety performance of the structures. Comparative study with similar cluster housing facilities will also be undertaken.

(d) Research on the number and movement of visitors

The city will research the number and movement of visitors to assess the impact of intense tourism on the remains and reflect the results in better utilization of Hashima.

(e) Monitoring

The city will prepare monitoring charts that systematically collect complete information about the constituent elements of Hashima in order to regularly assess the current condition of the component part and buffer zone. The city will also compile the results of monitoring into an annual report to provide it to the Nagasaki Conservation Council for feedback in accordance with the operation system for the "Sites of Japan's Meiji Industrial Revolution". If any negative impact on Hashima and/or its

buffer zone is found, the city will take action to eliminate the cause or to reduce the impact, conduct a follow-up inspection, and examine the effects of the measures the city have taken.

The city have surveyed the whole of the island with a 3-D laser (Figure 4), and will install four stationary cameras to record and monitor the current state. The city plans to identify individual spots on the remains of seawall revetments, coal production and housing facilities that are likely to need monitoring in order to measure any slant and widths of cracks every six months.



Figure 4. 3D model of Hashima Coal Mine made from 3-D laser survey

(2) Decision Paragraph 5 d) Project deadlines, implementation method for phased work, and Action Plan

1) Establishment of the Working Group on Conservation, etc., of the Hashima Island Revetments

Because conservation of the Hashima Coal Mine requires phased and ongoing work, expert considerations have been undertaken at the Nagasaki City Takashima Coal Mine Conservation and Utilization Committee and the Conference for the Consideration of Construction Methods attached to that committee. The Working Group on Conservation, etc., of the Hashima Island Revetments (“Hashima Island Revetment Working Group”) has also been established under the Nagasaki Conservation Council (non-working properties) in order to engage in comprehensive coordination on restoration methods, etc., for the revetments, which are elements contributing to the Outstanding Universal Value (inside the National Historic Sites designated under the Law for the Protection of Cultural Properties), as well as on purpose of moving ahead with conservation and restoration and studying utilization as a tourism resource. The WG members, meetings held to date, and agenda are as given below.

Members

The Hashima Island Revetment WG is made up of the following members.

Study members:

Cabinet Secretariat, Members of Industrial Heritage Expert Committee (including Working Properties)

Counsellor, Department of Industrial Heritage

Cabinet Office, Counsellor, Office for Promotion of Regional Revitalization

Agency for Cultural Affairs, Director, Cultural Resources Utilization Division

Japan Tourism Agency, Director, Tourism Resources Division, Regional Development Department

Ministry of Land, Infrastructure, Transport and Tourism (MLIT) Director, Sea Coast Division, Water and Disaster Management Bureau

Director, Coastal Administration and Disaster Management Division, Ports and Harbours Bureau

Nagasaki Prefecture, Director, Harbor Division, Public Works Department

Director, Fine Arts and Culture Division, Education Agency

Director of World Heritage Division, Culture, Tourism and International Department

Secretariat:

Cabinet Secretariat Department of Industrial Heritage

Nagasaki City, World Heritage Division, Culture and Tourism Department

Nagasaki City, Public Works and Construction Division, Public Works Department



Figure 5. Members of the Hashima Island Revetment WG (4th meeting in progress)

Meetings held to date and agenda

- 1st meeting

Date: April 23, 2018

Agenda: 1. Establishment of Hashima Island Revetment WG
2. Considerations and coordination to date in relation to the Hashima Island revetments
3. Plan for of Hashima Island Revetment WG

- 2nd meeting

Date: July 24, 2018

Agenda: 1. Draft minutes of the 1st Hashima Island Revetment WG meeting
2. Report on the Decision of the 42nd World Heritage Committee Session
3. Plan for Hashima Island Revetment WG

- 3rd meeting

Date: January 30, 2019

Agenda: 1. Amendment of the agreement
2. Draft minutes of the 2nd Hashima Island Revetment WG meeting
3. Status of Hashima Island typhoon damage and response policy going ahead
4. Hashima Island revetment surveys, etc.

- 4th meeting

Date: October 15, 2019

Agenda: 1. Amendment of the agreement
2. Draft minutes of the 3rd Hashima Island Revetment WG meeting
3. Status of studies on additional study items concerning the Hashima Island revetment
4. Status of Hashima Island typhoon damage and response

Looking ahead

The Hashima Island Revetment Working Group will continue to consider the conservation and restoration of the Hashima Island revetments, including crosscutting coordination of restoration methods among component part owner Nagasaki City, Nagasaki Prefecture, and related government ministries.

2) Hashima Island restoration schedule

The State of Conservation Report submitted on November 30, 2017 also reported a 30-year restoration schedule for the conservation of Hashima Island, comprising three 10-year phases: Phase I, Part 1 (1-5 years) and Part 2 (6-10 years); Phase II (11-20 years); and Phase III (21-30 years). Considerations continued subsequently, and Nagasaki City also created a detailed schedule in line with restoration content (Table 4).

Nagasaki City created a 10-year plan for Phase I as an annual plan that includes the establishment of goals for restoration and other work for each fiscal year, and also took budget measures. The city's approach to conservation measures is as below, with a 10-year schedule for Phase I (Table 4) created accordingly.

Restoration approach for the purpose of conservation based on the nature and present status of the remains

In implementing the conservation work for the Hashima Coal Mine, the following three points are important:

- 1) Ensuring the sustainment and preservation of the Hashima Island with its revetments and retaining walls in order to protect the landscape of the island, which provides the foundation for preserving the remains and remnants on the island.
- 2) Maintaining in a stable condition the remains that represent the intrinsic value of the National Historic Site and contribute to the Outstanding Universal Value as a World Heritage component part.
- 3) Maintaining the relict landscape of the Hashima Island, including its unique silhouette resembling a battleship when looked from afar as well as the closeup view of decayed abandoned buildings and structures

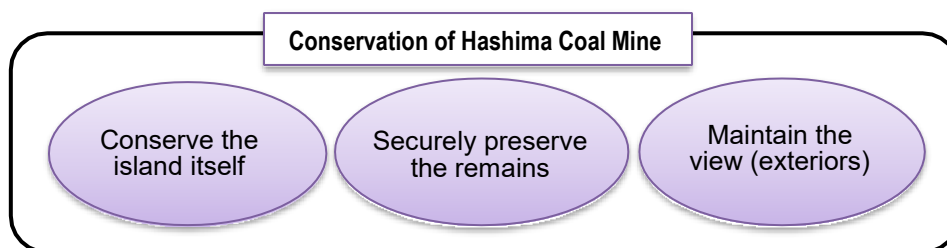


Figure 6. Conservation of the Hashima Coal Mine

The city will holistically look at each of the elements in terms of these three principles and prioritize them to plan and carry out physical improvement measures. It is technically impossible at this moment to keep intact the remains of reinforced concrete production and housing facilities that are increasingly deteriorating and damaged. However, the city plan to carry out conservation in stages, taking account

of technical and financial issues.

The above three points can be rearranged as follows from the perspective of Outstanding Universal Value.

- 1) Conserve and restore elements that contribute to the Outstanding Universal Value (including the Meiji era seawall revetment, and production facility remains) to keep them stable.
- 2) Apart from elements that contribute to the Outstanding Universal Value, repair those elements that represent the intrinsic value of the National Historical Site (including concrete production and residential facility remains) to maintain the unique battleship-like silhouette, showcase the development and decline of the coal industry and preserve evidence of the realities of the community.
- 3) Make comprehensive and diverse evaluations and prioritize from a range of perspectives, including the state of deterioration of elements, the availability or absence of applicable conservation techniques, the degree of contributions to the Outstanding Universal Value, the impact of other constituent elements and visitor safety, and budget requirements, and commence restoration and conservation in phases.
- 4) Some steel reinforced concrete remains at the Hashima Coal Mine could be hard to conserve owing to advanced deterioration and damage. Although structural density will gradually decline of the long term, accord maximum care to maintaining the battleship-like silhouette when viewed from the surrounding sea.

Table 4. Hashima Coal Mine restoration schedule

Name	Preparatory period				Phase I 1H (1st to 5th years)					Phase I 2H (6th to 10th years)				
	2014	2015	2016	2017	1	2	3	4	5	6	7	8	9	10
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027				
Masonry retaining wall remains														
Measurement of masonry retaining wall displacement					↔								↔	
Production facility remains														
Repair and reinforcement of Pit No. 3 winding machine room	↔				↔									
Repair and reinforcement of mine entry landing (physical inspection screening)		↔					↔			↔				
Repair and reinforcement of coal storage yard belt conveyor								↔		↔				
Repair and reinforcement of Dorr thickener									↔	↔				
Repair and reinforcement of Pit No. 4 winding machine room										↔				
Repair and reinforcement of Pit No. 4											↔			
Repair and reinforcement of Pit No. 4 tower foundation											↔			
Repair and reinforcement of Building No. 1												↔		
Repair and reinforcement of loading belt conveyor (sea side)												↔		
Repair and reinforcement of substation													↔	
Repair and reinforcement of compressor room (large)														↔
Repair and reinforcement of compressor room (near freshwater tank)														↔
Repair and reinforcement of main fan room														↔
Repair and reinforcement of Pit No. 4 wind tunnel														↔
Residential facility remains														
Repair of Building No. 3												↔		
Reinforcement of Building No. 3														
Reburial of Building No. 70 lower part (urgent work)		↔												
Other														
Provision of passageway for construction work (L=530m)												↔		
Trimming of trees					↔									
Installation of new tour passageway														
Installation of shelter facilities for survey personnel														
Monitoring (camera observation) (single)					↔									
3D measurement 1 time/6 years						↔						↔		
Updating of Basic Plan for Development													↔	
Investigative studies of remains							↔				↔			

3) Project deadlines

To maintain the component part into the future, repairs need to be undertaken in order of priority. Nagasaki City has laid out the above long-term 30-year plan and also 10-year plans so that conservation measures can be tackled in phases. The first deadline of the annual plans for ten years is assumed in 2027, when Phase I is completed. The thirty-year long-term plan will be reviewed every 10 years. Overall project deadlines may change in response to plan reviews and future consideration of construction methods, as aspects for which construction methods have not yet been established are included in some of the Hashima Coal Mine restoration.

4. Reference materials

Appendix 1	Results of the survey of Hashima Coal Mine buildings etc.
Appendix 2-1	Archaeological excavation report (A survey of mine entries at the Hashima Coal Mine remains)
Appendix 2-2	Archaeological excavation report (Survey of underground remains boundaries at the Hashima Coal Mine remains)
Appendix 3	Survey of the structure of Pit No. 3 winding machine room (Survey of Hashima Coal Mine buildings, etc.)

Decision 42 COM 7B.10 Paragraph 6

6. Further notes that monitoring of the number of visitors is being undertaken systematically for all component sites, and that a visitor management strategy, including carrying capacities, will be formulated in 2018 on the basis of these results; and also requests the State Party to submit this strategy to the World Heritage Centre, once it is completed, for review by the Advisory Bodies;

1. Background

- The “ICOMOS Evaluations of Nominations of Cultural and Mixed Properties” (WHC-15/39.COM/INF.8B) noted the following points:
 - The number of visitors at component sites is likely to increase based on the trend for previously inscribed properties in Japan. The level of increase will vary at each component due to their geographical location, ease of access, and the number of hours they are open for public access. Monitoring measures will be put in place to record the level of visitation if the nominated property is inscribed.
 - ICOMOS considers that a strategy needs to be developed to assess and determine the acceptable carrying capacity at each component site to ensure that there are no adverse impacts on the fabric particularly at such sites as the Shokasonjuku Academy (Area 1, component part 1-1) and Glover House and Office (Area 6, component part 6-8).”
- Recommendation c) in the Decision of the 39th Session of the World Heritage Committee (39 COM 8B.14) calls for “Defining acceptable visitor threshold levels at each component part to mitigate any potential adverse impacts, commencing with those most likely to be at risk;”
- Surveys were conducted for three years from FY2016 to 2018 to ascertain the current status of visitor numbers.
- On November 30, 2017, a report was made to the UNESCO World Heritage Centre on progress with the creation of a visitor management strategy.
- Carrying capacity and other elements were considered on the basis of survey results, resulting in the creation of a visitor management strategy in November 2019.

2. Outline of visitor management strategy

(1) Procedure for visitor management strategy consideration

The specific visitor management strategy consideration procedure was as follows, as noted in the State of Conservation Report submitted on November 30, 2017.

- 1) Surveys of the current status will be conducted over FY2016-2018 to ascertain the current state of and trends in visitor numbers at each of the component parts.
- 2) In parallel with these surveys, a common visitor management vision for all component parts (“common visitor management vision”) will be identified as a future target.
- 3) The current state of visitor management and issues faced at each of the component parts will be ascertained and policies and methods for improving that situation indicated, ensuring consistency with the common visitor management vision.
- 4) The results of the survey of current visitor numbers will be analysed in FY 2019, and a visitor

management strategy based on the common visitor management vision drawn up in parallel to the survey will be created as the process for realizing that vision.

(2) Outline of current status survey results

Quantitative surveys: These surveys ascertained the daily number of visitors to each of the component parts and fluctuations in that numbers. Where any impact meriting special note was observed at a component part, this was recorded.

Assessment of visitor numbers at each component part was made using the appropriate method for that part given its particular scale, nature, and location, as well as visitor management staffing arrangements.

It was discovered that daily visitor numbers at the various component parts fluctuated greatly according to whether it was a weekday, weekend, or vacation period, and whether or not an event was being held, for example. No impact meriting special note was reported at any component part.

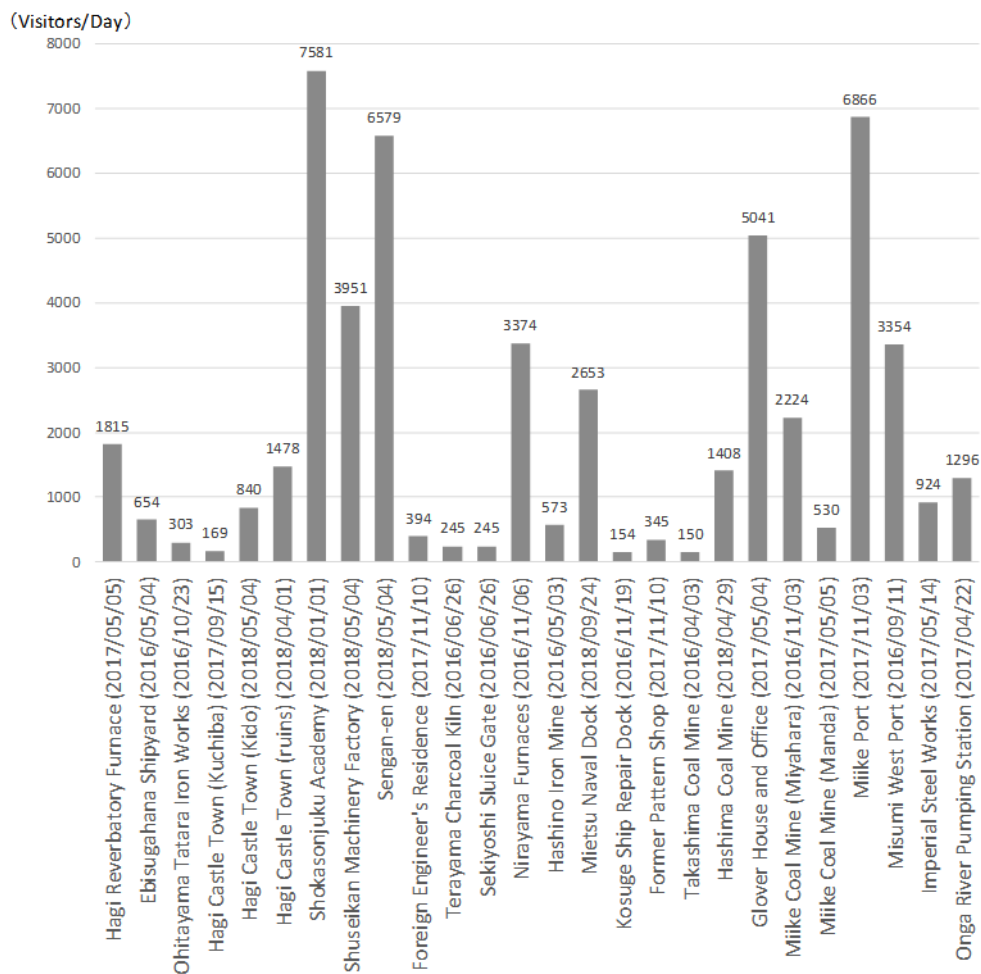


Figure 7. Maximum scale of daily visitor numbers outside event days (Manda Pit, Miike Coal Mine) (April 2016 to March 2018)

Qualitative surveys: The impact of daily fluctuations in visitor numbers on the component part, as well as on the safety, security, and comfort of visitors, was observed and recorded. The amount of time which visitors spent at the component parts was also ascertained.

In FY 2017, qualitative surveys were undertaken of all component parts and the results analysed in order to identify indicators for management of component part impact and of promoting visitors' understanding of the component part and boosting visitor satisfaction.

These surveys confirmed cases of visitors stumbling and being unable to find an exhibit they were interested in, and, at component parts where visitors enter buildings, cases of crowding where travel groups, etc., large enough to impede smooth visitor movement are concentrated in entrance areas, etc. These situations are seen as likely to impact visitor enjoyment and satisfaction. (This could be prevented by changing visitor flows and managing the number of travel groups/visitors visiting a component part at the same time.)

To increase understanding of a component part, the longer visitors spend there, the better. However, in cases where there are many daily visitors, people may not have sufficient time to experience the component part and the interpretation thereof.

Table 5. Number cases in which fluctuations in visitor numbers impacted on the component part and/or on visitor safety, security, and comfort (April 2017 to March 2018)

Area	Component Part	Current Value (based on qualitative survey results)
Hagi	Hagi Castle Town (Kuchiba Family Residence)	1 incident/year
Nagasaki	Takashima Coal Mine	9 incidents/year
	Glover House and Office	46 incidents/year
Other		0 incidents/year

Visitor satisfaction surveys: The degree of visitor satisfaction, issues, and prospects were ascertained by collecting questionnaires from component part visitors, primarily during Golden Week (holiday season) in May and the summer vacation in August when visitor numbers are greatest.

From the results, it was showed that visitors spending two hours or more at a component part tend to understand the value of the component part and be satisfied by their experience, though this may vary with the scale of the component part. The lessons are therefore that factors such as time spent and the service of guides have a major impact in terms of achieving high levels of visitor satisfaction, and that these could serve as indicators for managing target levels.

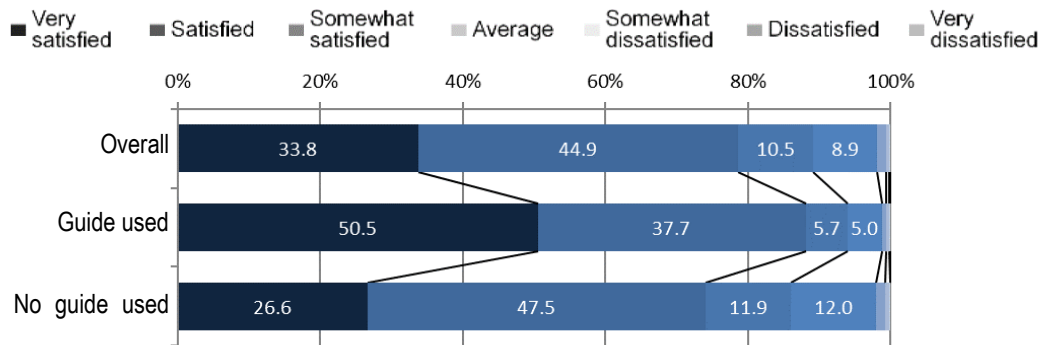


Figure 8. Relationship between guide availability and satisfaction with the component parts

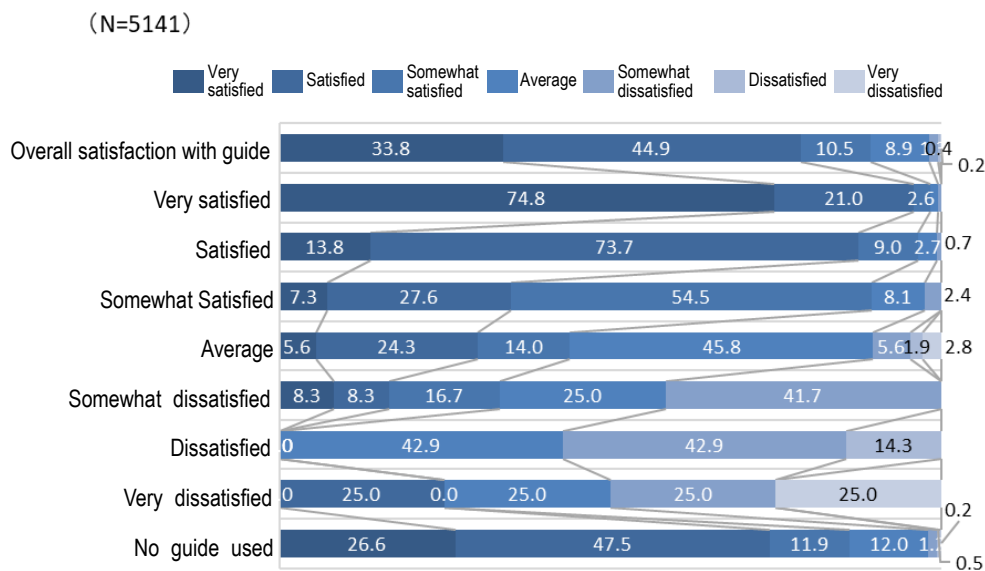


Figure 9. Relationship between satisfaction with guide and satisfaction with the component parts

(3) Contents of visitor management strategy

- Basic approach to Visitor Management Strategy

In drawing up the visitor management strategy, it was decided that the scope of management would be the component part (A), the surrounding environment (B), and visitors (C). Component part (A) will be monitored to check whether visitors (C) are having a physical impact on (A), with any risk of this to be forestalled. The surrounding environment (B) of the component part (A) will be checked for the appropriate provision of information and services to encourage the understanding and boost the satisfaction of visitors (C) (Figure 10).

Based on the results of the three-year surveys noted above, a visitor management vision was developed and the visitor management strategy created accordingly. The structure of the strategy is shown in Figures Figure 10 and Figure 11.

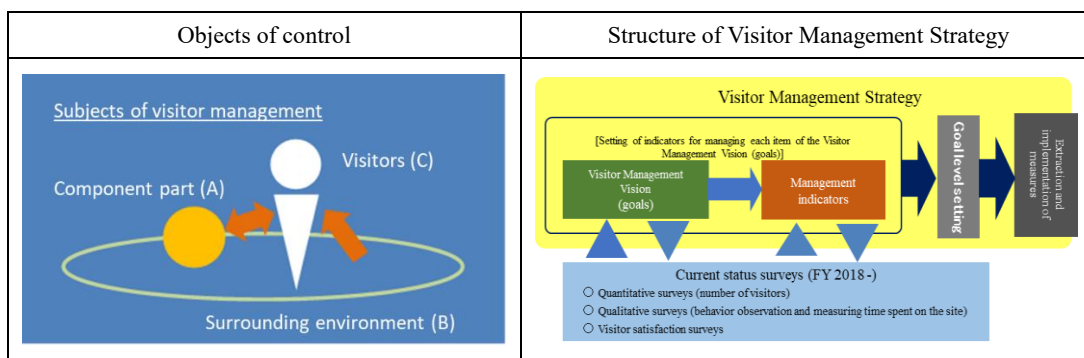


Figure 10. Management scope and structure of visitor management strategy

Management scope	Visitor Management Vision (targets)	
① Component part (A)	<p>Physical damage</p> <p>No physical harm to land and materials of component part</p>	<p>1. The facilities and equipment are in place for physically protecting the component part</p> <p>2. The operational arrangement for this purpose is in place</p>
② Component part (A) / Surrounding environment (B)	<p>-1 Safety and security</p> <p>Visitors' feeling of safety and security is sufficient</p>	<p>1. The facilities and equipment are in place for ensuring the safety and security of visitors</p> <p>2. The operational arrangement for this purpose is in place</p>
	<p>-2 Promotion of understanding</p> <p>Visitors' feeling of satisfaction is sufficient</p>	<p>1. The facilities and equipment are in place to contribute to promoting and deepening understanding by visitors</p> <p>2. The operational arrangement for this purpose is in place</p>
	<p>-3 Hospitality</p> <p>The comfort of visitors is sufficient</p>	<p>1. The facilities and equipment are in place for promoting enjoyment by visitors</p> <p>2. The operational arrangement for this purpose is in place</p>
③ Visitors (C)	<p>A state in which visitors feel safety, security, comfort, and a sense of satisfaction, spend a sufficient amount of time at the component part to understand its contribution to the Outstanding Universal Value, and are motivated to visit again</p>	

Figure 11. Visitor Management Vision

While Recommendation c) of the Decision by the 39th Session of the World Heritage Committee (39 COM 8B.14) (hereinafter, “39 COM 8B.14 Recommendation c)”) calls for setting the carrying capacity for component parts, the results of multifaceted surveys conducted over a three-year period found no adverse impact caused solely by fluctuations in visitor numbers, or any serious cases which could potentially have an adverse impact.

Neither did the results of the qualitative, quantitative and other multifaceted surveys suggest that it

would be possible to prevent an adverse impact by setting visitor thresholds. Visitor density and mode also differed even across the course of the day according to whether it was a peak or off-peak time and whether or not groups were visiting, etc. It would therefore not necessarily be effective to set a single figure as the acceptable visitor threshold based on cause and effect.

In fact, to prevent constantly fluctuating visitor numbers from having an adverse impact on component parts, rather than static management (setting annual or daily thresholds for visitor numbers), using multiple indicators to ascertain the impact of fluctuation and developing appropriate responses will be essential in terms of achieving a substantive response to 39 COM 8B.14 Recommendation c).

It was consequently decided that in order to mitigate any potential adverse impacts most likely to bring a risk to component parts, which is the purpose of 39 COM 8B.14 Recommendation c), a visitor management strategy would be created that effectively combines multiple indicators designed around a visitor management vision to enable dynamic impact monitoring and situational management.

Visitor surveys to date revealed that the possible situations to have an adverse impact arise intensively when groups of visitors arrive, or when all visitors are temporarily concentrated inside because of sudden weather changes, etc. This is partly because the buildings comprising the Sites of Japan's Meiji Industrial Revolution include private facilities like Glover House and Office and Shokasonjuku Academy, which, unlike large-scale temples and public facilities, were not originally designed with simultaneous use by unspecified large numbers of people in mind.

It was therefore analysed that the conservation of such buildings hinges not on absolute visitor numbers but rather on directing visitors through smoothly.

At Glover House and Office, for example, the impacts observed from large numbers of visitors were not so much on the component part itself as on the safety, security, and comfort of visitors. Effective ways of enabling visitors to tour safely and smoothly include installing guidance signs with the common logo design, revising tour routes, and instituting "tour rules" defining visitor courses that restrict the exits and entrances that can be used. It is important to take such measures in consideration of safety, within the scope that free movement of visitors is not hindered.

Further, interpreting 39 COM 8B.14 Recommendation c) as requiring both reduction of adverse visitor impact and promoting understanding of Outstanding Universal Value, we decided that visitor management vision must envisage a state whereby adverse visitor impact is managed while visitors understand more about Outstanding Universal Value, and this state was made the target of the visitor management strategy.

- Visitor management strategy framework

① Definition of a state of no adverse visitor impact

- ✓ Definition of ideal situation in terms of the component part, surrounding environment, and visitors

(“Visitor Management Vision”: State of Conservation Report (November 2017))

② Design of indicators for confirmation of a state of no adverse visitor impact

- ✓ Common indicators, individual indicators (established based on results of three years of current status surveys)

③ Actions to maintain a state of no adverse visitor impact

- ✓ Establish indicators and target values based on the features of individual component parts
- ✓ Initiatives/projects to maintain and improve indicators
- ✓ Design monitoring methods and steps to be taken where indicators deteriorate

- Strategy duration

Eight years, with FY2019 as the initial fiscal year.

- Implementation structure of the strategy

Component part managers will each execute the visitor management strategy for their particular component part, with the Cabinet Secretariat providing support.

- The ideal visitor state: “Visitor Management Vision”

The visitor management vision in visitor management strategy envisages a state that provides visitors with safety, security, comfort, and a sense of satisfaction; ensures that they spend sufficient time at the component part to understand its value; and motivates them to visit again.

To manage and confirm the “visitor management vision”, the vision has been structuralized along with each management scope and presented as the target of management, with this framework then used to create strategies for individual component parts.

- Establishment of indicators and target values

Indicators to manage and confirm the “visitor management vision” is being achieved comprise common indicators used commonly by all component parts to confirm whole management levels for component parts and individual indicators to confirm management levels for individual component parts based on their particular issues.

Common indicators have been set from key indicators based on the results of visitor surveys to date. Individual indicators have been set by managers of individual component parts based on the current state of the particular component part, management directionality in future, and planned initiatives, noting these in their visitor management strategies.

Common indicators

- ✓ Incidents impacting the component part and visitor safety, security, and comfort
Impacts by visitors as determined from qualitative surveys (observation surveys)
 - Wear and tear on the resources, corrosion, damage, contamination, trash, safety hazards, obstacles to communication, etc.
- ✓ Existence of facilities/equipment for separation between visitors and the component part
The existence or not of separation facilities means whether there are facilities or equipment for preventing physical damage to places in the component part that are prone to such damage. These include facilities and equipment such as fences, rails, or other barriers to ensure prevention of entry into such places.
- ✓ Degree of satisfaction
- ✓ Time spent
- ✓ Understanding
- ✓ Sparking of interest
- ✓ Intention to visit again
- ✓ Percentage of problems indicated
Percentage of problems indicated is set from a choice of five indicators, namely, crowding, damage, lack of entertainment value, food facilities, and toilet provision, etc. Of these, crowding and damage are mandatory.

Individual indicators (examples)

- Indicators relating to physical damage
 - ✓ Whether fire-prevention facilities are being provided and improved
 - ✓ Number of inspection patrols
 - ✓ Number of security cameras installed
- Indicators relating to visitor safety and security
 - ✓ Whether flow lines are set
 - ✓ Patrols by staff, etc.
 - ✓ Installation of fences and handrails to prevent falls
- Indicators relating to promotion of understanding
 - ✓ Whether guidance and explanatory signs are provided and kept up to date
 - ✓ Multi-language pamphlet availability
 - ✓ Provision of guidance facility
 - ✓ Guide training
- Indicators relating to hospitality
 - ✓ Renewal of administrative and convenience facilities
 - ✓ Going around to visitors to find out their needs
 - ✓ Holding of various events, opening at night

- Monitoring

While quantitative surveys do not map exactly to the management indicators used in visitor management strategies, we do need to remain constantly aware of annual and daily changes in visitor numbers, so we will continue to implement these. Where marked fluctuations (increases) occur, the managers of individual component parts will implement qualitative surveys to ascertain the impact on management indicators as well as analysing fluctuation causes and considering countermeasures, where necessary revising their visitor management strategies even during the eight-year duration set for the overall strategy.

Where qualitative surveys cannot be implemented with the same frequency as to date, in the course of inspection patrol of the component part, etc., cases where the component part or the safety, security, and comfort of visitors is being impacted shall be identified.

It is expected that visitor satisfaction surveys, widely used in common indicators, will be large-scale surveys. Since the applicable period is eight years, they will be conducted five years into the period, with the support of the Cabinet Secretariat, in time for the revision work for the next strategy.

Where monitoring reveals a marked rise in annual or daily levels of visitor numbers as a factor causing indicators to deteriorate, the approach is to study time periods and visitor patterns prone to the occurrence of adverse impacts, and devise measures for levelling visitor numbers to more closely approach “the visitor management vision.” More specifically, we will consider measures such as introducing entry limits for individual time periods, permitting entry only when with a guide, and controlling visitor number through fee-setting.

Designing and introducing these new systems will fall primarily to the managers of individual component parts, with the Cabinet Secretariat and other government agencies providing the necessary information and advice.

- Visitor management strategies for individual component parts

Visitor management strategies for individual component parts have been designed around a framework that enables to check that the specific visitor management vision is being realized based on actual data, connecting data with those visitor management measures implemented for management purposes so that a PDCA cycle can be operated. Because many specific visitor management measures are noted in Conservation, Restoration, Presentation and Public Utilization Plans, the particular measures and periods of validity, etc., have been made consistent with these plans.

In addition, to raise the level of whole management across the component parts while reflecting the situation at individual component parts, management indicators have been divided into common indicators and indicators for individual component parts (individual indicators) and utilized as such.

As working properties in the Nagasaki Area such as No. 3 Dry Dock and the Giant Cantilever Crane at the Mitsubishi Heavy Industries Nagasaki Shipyard, the Former Pattern Shop, and Senshokaku Guest House are not currently open to the public, they are not included in the current visitor

management strategy. A strategy may need to be considered in future that balances component part operation and conservation.

3. Reference materials

Appendix 4 Visitor Management Strategy (including for individual component parts)

Decision 42 COM 7B.10 Paragraphs 7, 8, 9

7. Notes furthermore that interpretation is available for all component sites, and that digital tools have been developed, but that further improvements are planned, including Information Centre to be opened;
8. Further requests the State Party to provide an update on overall interpretation upon completion of Information Centre;
9. Strongly encourages the State Party to take into account best international practices for interpretation strategies when continuing its work on the interpretation of the full history of the property, both during and outside of the period covered by its OUV, and in the digital interpretation materials;

1. Background

- The report “ICOMOS Evaluations of Nominations of Cultural and Mixed Properties” (WHC-15/39.COM/INF.8B) noted the following points regarding interpretation:
 - “The presentation of the components is mainly site specific and does not necessarily present the OUV or indicate how each component relates to each other or to the whole property.”
 - “What is urgently needed is clear interpretation to show how each site or component part relates to the whole property, particularly in terms of the way they reflect one or more phases of Japan’s industrialization and convey their contribution to OUV.”
- In the Decision adopted by the World Heritage Committee at its 39th session (39 COM 8B.14), Recommendation g) calls for Preparing an interpretive strategy for the presentation of the property, which gives particular emphasis to the way each of the component sites contributes to Outstanding Universal Value and reflects one or more of the phases of industrialization.
- In a footnote to the decision on inclusion on the UNESCO World Heritage List, the statement made by Japan regarding interpretative strategy is noted, and the following points are made.
 - The interpretive strategy should also allow an understanding of the full history of each site.
- In drawing up the Interpretation Strategy, interpretation audits were conducted by independent international experts regarding the two main levels: World Heritage as a whole, and the component part/site-specific level. The Chair of the ICOMOS International Scientific Committee on Interpretation and Presentation of Cultural Heritage Sites was invited to visit component parts and advice was received regarding the approach to interpretation of the full history of each site.
- On this basis, an Interpretation Strategy was drawn up and submitted November 30, 2017 as an attachment to the State of Conservation Report.
- As for the overall interpretation, this will be reported anew upon completion of the Industrial Heritage Information Centre.

2. Methods of response and accomplishments

(1) Methods of response

The Japanese Government adopted the following methods for responding to the requests in paragraphs 7, 8, and 9 of the Decision by the World Heritage Committee 42nd session (42 COM 7B 10).

- Conducting interpretation audits
Detailed interpretation audits were conducted by international experts who are very familiar with industrial heritage sites, worldwide, and their interpretation and presentation.
- Studying interpretation in each Area
Interpretation in each Area were studied, taking into account the results of the interpretation audits and the need for consistency with the Interpretation Strategy.
- Properly revising explanations in the interpretation facilities in each Area
Reviews were begun of the explanations at each of the exhibits in visitor centres and elsewhere at each site, starting with confirmations being carried out over time by international experts, to ensure their consistency with the story of the Sites of Japan's Meiji Industrial Revolution.
- Conducting studies and making preparations for the establishment of the Industrial Heritage Information Centre
Studies were conducted on interpretation to be made at the Industrial Heritage Information Centre, which is being planned for establishment during this fiscal year, toward further improvement of interpretation by following the Interpretation Strategy and taking into account the views of experts in and outside Japan.

(2) Accomplishments

1) Report on interpretation audits of the property as a whole (February to August 2019, prepared by the Cabinet Secretariat and overseas experts)

In line with the Interpretation Strategy, audits were conducted by overseas experts of the current state of interpretation at the sites of the component parts in each area and visitor centres, in collaboration with the Cabinet Secretariat, World Heritage Council for the Sites of Japan's Meiji Industrial Revolution (former Consortium for the World Heritage Inscription of Modern Industrial Heritage (Kyushu-Yamaguchi)), and the National Congress of Industrial Heritage (here after NCIH).

➤ 1st interpretation audit

When implemented: Tuesday, February 26 to Friday, March 1, 2019

Areas covered: Nagasaki Area (February 26-28), Saga Area (March 1)

Auditors: Sarah Jane Brazil and Barry Gamble

➤ 2nd interpretation audit

When implemented: Tuesday, August 20 to Thursday, August 29, 2019

Areas covered: Kagoshima Area (August 20), Miike Area (August 21-22), Yawata Area (August 23), Hagi Area (August 24), Nirayama Area (August 26), Kamaishi Area (August 27-28), consultation meeting (August 29)

Auditors: Sarah Jane Brazil and Barry Gamble

2) Studies of interpretation in each Area

From the standpoint of taking a comprehensive approach to raising the quality of interpretation in each Area, in line with the Interpretation Strategy, assessments of interpretation were made in all eight Areas.

As part of these studies, the hierarchy and correlation of interpretation facilities in each Area were examined, and a list of facilities enabling understanding of the full history of each site was considered. Making use of the study results, Area guide maps were created for visitors to the Nagasaki Area and Kamaishi Area by NCIH, with assistance from the Agency for Cultural Affairs.

In the ICOMOS Charter for the Interpretation and Presentation of Cultural Heritage Sites (2008), interpretation is regarded as “part of the overall process of cultural heritage conservation and management.” For interpretation of World Heritage values, pamphlets and other interpretation tools that accurately reflect these values need to be provided in the World Heritage visitor centres and the interpretation facilities of each component part.

There is one unified World Heritage value – the acknowledged “Outstanding Universal Value” - for the whole property. While this may exist alongside the interpretation of local value, or of the value as cultural property assessed by the national government, at World Heritage visitor centres World Heritage value must be given absolute priority. The display of World Heritage value (Outstanding Universal Value) must be presented in a way that stands out above all others, and greets the visitor on arrival in a way that helps them to understand that they are in a World Heritage Site and why it is significant. In visitor centres, moreover, Outstanding Universal Value and how the component parts contribute to it must be properly and accurately reflected in exhibit descriptions, publications, digital materials, public lectures, direct and indirect educational programs, supplementary texts, community activities. This is also crucially important in research, training, and assessment of interpretation.

As for interpretation tools, the basic tools are the Nomination document (contributed to and endorsed by a number of national and international experts), Summary of Nomination, and Mini Pamphlet, along with area guide maps and smartphone applications. The pamphlets created independently by each local government for distribution at each visitor centre are to be seen as no more than supplements to the pamphlets explaining World Heritage value. Each visitor centre must prepare the Summary of Nomination and Mini Pamphlet so they can always be viewed or distributed. The Cabinet Secretariat will take measures to ensure these materials are always available at each visitor centre for viewing or distribution.

In the pamphlets and websites created independently by each local government, even when an original story is told in which the property in that location takes centre stage, insistence is made that they mention the Mini Pamphlet about the Sites of Japan’s Meiji Industrial Revolution or refer to the official website of the Sites of Japan’s Meiji Industrial Revolution.

As shown in the figure below, the Cabinet Secretariat and NCIH cooperate closely to ensure interpretation is implemented properly in each Area; and at the World Heritage visitor centres, suitable guidance and consultation is undertaken so that the interpretation of the World Heritage

value of the Sites of Japan’s Meiji Industrial Revolution is in harmony with the historical and cultural values of each region.

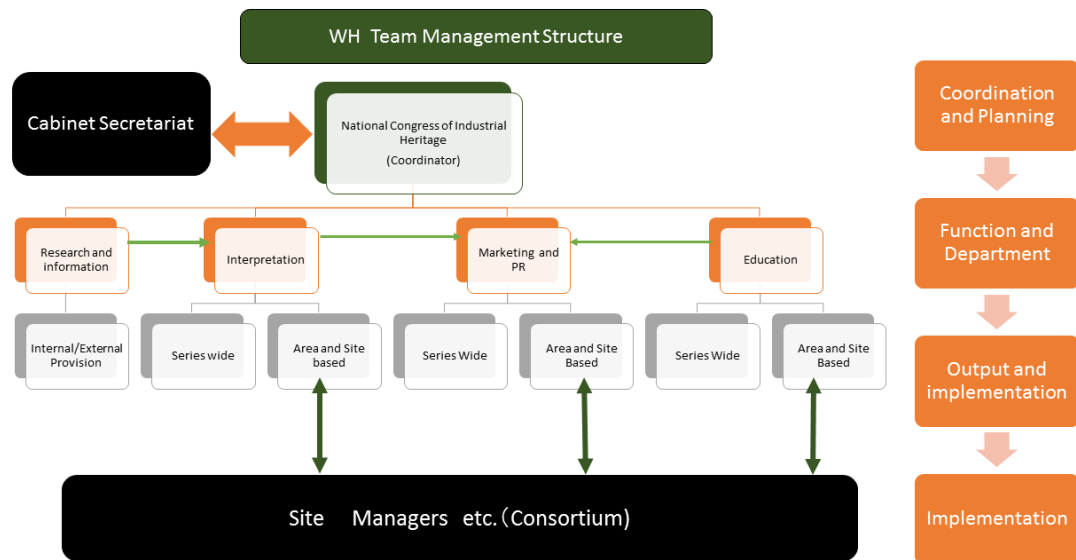


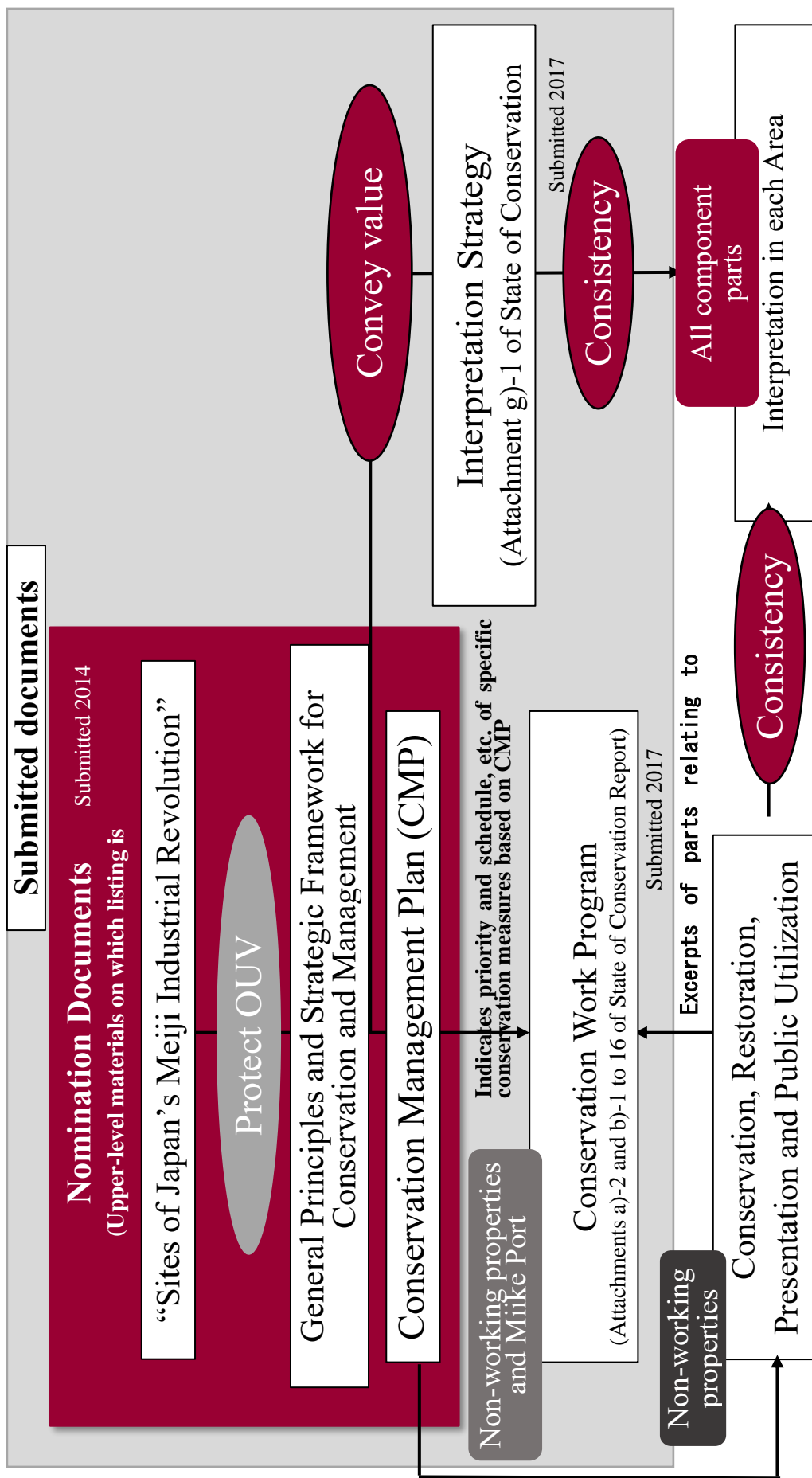
Figure 12. Organizational framework for management of interpretation

- Studies for interpretation in each Area
The main points of discussion are as follows.

- (1) Approach to interpretation strategy
- (2) Hierarchy and correlation of physical interpretation and presentation
- (3) Interpretation facilities and exhibit contents
- (4) Visitor centres in the Area
- (5) Facilities providing explanations of the history of heavy industry
- (6) Facilities providing explanations of the full history of each site
- (7) Exhibits a, etc. at each component part
- (8) Installation of road signs using the common logo
- (9) Enhancement of digital content

Figure 13. Relationship among programs, etc. relating to the Sites of Japan’s Meiji Industrial Revolution

Relationship among programs, etc. relating to the Sites of Japan’s Meiji Industrial Revolution



Regarding the four properties of the Mitsubishi Nagasaki Shipyard (No. 3 Dry Dock, Giant Cantilever Crane, Former Pattern Shop, and Senshokaku Guest House), since the OUV is being properly retained through everyday ongoing maintenance efforts based on the Conservation Management Plan (CMP), a Conservation, Restoration, Presentation and Public Utilization Plan and a Conservation Work Program have not been drawn up.

In the case of Miike Port, a Conservation Work Program has been prepared, and its abstract was submitted in December 2017 as Attachment b)-15-2 to the State of Conservation Report. A separate Conservation, Restoration, Presentation and Public Utilization Plan has not been drawn up.

For the Yawata Imperial Steel Works, a restoration plan was submitted in September 2017 based on the Operational Guidelines for the Implementation of the

3) World Heritage Visitor Centre provision

- Provision of World Heritage Visitor Centres in each Area is being carried out in accordance with the Interpretation Strategy. Some of such centres developed or upgraded since the inscription in 2015 are the Nirayama Reverberatory Furnaces Guidance Centre (Nirayama Area) and Hashino Iron Mine and Smelting Site Information Centre (Kamaishi Area) in 2016, and the Meiringakusha Visitor Centre (Hagi Area) in 2017.

4) Area guide maps

- In the process of studying approaches to Area-specific interpretation, provision of Area guide maps was promoted by NCIH with assistance from the Agency for Cultural Affairs. A Nagasaki Area map was made in FY2018, and a Kamaishi Area map in FY2019. Area guide maps of other areas are also planned to be promoted sequentially from this year, aiming to complete all eight areas.
- These guide maps show not only the component parts of the Sites of Japan’s Meiji Industrial Revolution, but also the local World Heritage Visitor Centre, other interpretation facilities in the area --facilities that support understanding of the full history of each site, and other World Heritage sites or cultural heritage sites than the Sites of Japan’s Meiji Industrial Revolution--contributing to comprehensive information dissemination to Area visitors.
- In conjunction with smartphone applications, the guide maps can also be used for communication about inaccessible assets, such as by using augmented reality functions to show 3D images of closed heritage assets. The application is available in several languages: Japanese, English, Korean, Simplified Chinese, and Traditional Chinese.



Figure 14. Display of 3D images making use of Nagasaki Area guide map and AR functions



Figure 15. Display of 3D images making use of Kamaishi Area guide map and AR functions

5) Interpretation assistance tools

- In 2017, the Human Resource Development Committee for the Sites of Japan’s Meiji Industrial Revolution issued two textbooks sponsored by Agency of Cultural Affairs. These served as educational materials for helping staff to perform guidance duties at interpretation facilities in each area, to assist in the correct understanding of Outstanding Universal Value, and being able to accurately convey World Heritage values. These are “Interpretation Guide manual: Sites of Japan’s Meiji Industrial Revolution” and “Communicating World Heritage”.
- Moreover, the Human Resource Development Committee for the Sites of Japan’s Meiji Industrial Revolution chaired by NCIH issued two books, again sponsored by the Agency of Cultural Affairs. In 2017 “Understanding Steel: History of Steel” was issued. Then in 2019, “Understanding Coal: History of Coal Industry” was issued. In the same year “Understanding Shipbuilding: History of Shipbuilding” is planned to be issued. Further details of those auxiliary education and learning materials are described in 2) Developments and accomplishments since FY2017.

6) Properly revising explanations in the interpretation facilities in each Area

- The work began in rewording, as necessary, the explanations at each World Heritage Visitor Centre and elsewhere in each Area, following the start of confirmations by overseas experts, to ensure their consistency with the story of the Sites of Japan’s Meiji Industrial Revolution.

7) World Heritage Route promotion

- In accordance with the Interpretation Strategy, also presented in pages 395-396 of the nomination document, the World Heritage Route Promotion Council was founded to understand World Heritage as a whole, and for promoting the World Heritage Route. World Heritage Value of the Sites of Japan's Meiji Industrial Revolution cannot be understood by just visiting one site, it requires one to study all. Included in these promotion efforts are the creation of guide maps and applications, provision of GPS navigation, and installation of road signs with the standard logo, to guide visitors to all component parts and related sites. There was an increase in the installation of places with road signs using common logo: from 291 in 2017 to 301 places in 2019. The World Heritage Route Promotion Council is made up of World Heritage Site stakeholders, tourism and travel agents, and transportation providers including railway companies, airlines, and bus companies and taxi companies.

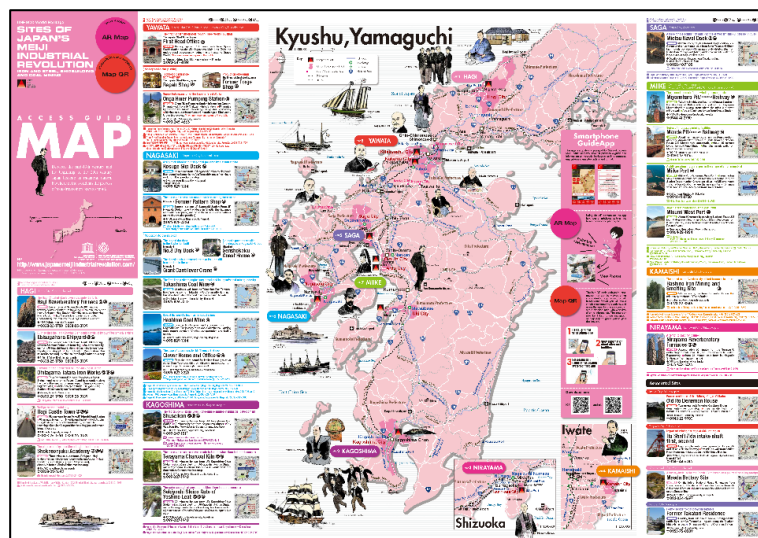


Figure 16. World Heritage Route



Figure 17. General meeting of the World Heritage Route Promotion Council (November, 2019)

Table 6. Installation of road signs using the common logo

(As of November 2019)

Prefecture	City	Number installed	Prefecture	City	Number installed
Fukuoka Prefecture	Kitakyushu City	53	Kagoshima Prefecture	Kagoshima City	37
	Omuta City	20	Yamaguchi Prefecture	Hagi City	47
	Nakama City	15	Iwate Prefecture	Kamaishi City	20
Saga Prefecture	Saga City	25		Otsuchi Town	1
Nagasaki Prefecture	Nagasaki City	20	Shizuoka Prefecture	Izunokuni City	3
Kumamoto Prefecture	Arao City	41		Kannami Town	1
		Uki City	18		
Total					301



Figure 18. Examples of road signs with common logo

●Examples of promotion activities



Figure 19. Promotion activities being conducted

- NCIH, with the support of Japan Tourism Agency, organised a World Heritage tourism familiarisation trip to Hagi, Kitakyushu, Nagasaki, Miike, and Kagoshima. Travel agents and influencers, mostly from the US and Europe, were specially invited to see the Sites of Japan's Meiji Industrial Revolution (2019)
- As a promotion project supported by Japan National Tourism Organization (JNTO), a travel magazine introduced the destinations of Sites of Japan's Meiji Industrial Revolution in their special featured articles in 2018 and followed by SNS to foreign travellers (2018-19).



Figure 20. Promotion using a classic car (2017/Area 1 Hagi, component part 1-4 Hagi Castle Town)



Figure 21. Promotion at a travel fair (2016)



Figure 22. Special promotion by JR Kyushu (Area 7 Miike, 2015)

“Special limited 80-person-per-day tour: Romantic Cruise and A train, visiting Manda Pit and Misumi West Port”

8) Conducting studies and making preparations for the establishment of the Industrial Heritage Information Centre establishment

- As for the Industrial Heritage Information Centre, preparations such as renovation of the existing facility in Wakamatsu-cho, Shinjuku Ward, Tokyo are going ahead steadily toward establishing the Centre, by following the Interpretation Strategy, and taking into account the advice of experts in and outside Japan. The Centre is being planned for establishment during this fiscal year.

3. Reference materials

Appendix 5 Report on interpretation audits of the “Sites of Japan’s Meiji Industrial Revolution”

Decision 42 COM 7B.10 Paragraph 10

10 Encourages continuing dialogue between the concerned parties

1. Background and directionality

- The “Sites of Japan’s Meiji Industrial Revolution” consist of 23 component parts in 11 cities of 8 prefectures. These component parts are diverse in many ways, including their geographical situation, working state, and owners and managers.
- This situation demands that close partnerships be formed among a wide range of concerned parties, from relevant ministries of the Japanese government to local government organizations, owners, managers, and the local communities, and that an effective and efficient environment be established for carrying on conservation and management of the component parts.
- Given this background, active efforts have been made to provide opportunities for dialog among concerned parties in these relevant ministries, local government organizations, owners, managers, and local communities. Dialog with a wide range of concerned parties will be continued hereafter as well, to enable sharing of awareness.

2. Examples of dialog initiatives

The Japanese government, in response to Paragraph 10 of the World Heritage Committee Decision (42 COM 7B.10), is actively conducting dialog with a wide range of concerned parties, such as by convening various meetings as in the examples below.

(1) Industrial Heritage Expert Committee (including Working Properties)

Along with assessment of the suitability of conservation measures and of heritage value, this Committee selects candidates for World Heritage listing.

Members: 22 experts from in and outside Japan

Experts in industrial archaeology, modern economic history, heritage conservation, and others from mass media and overseas specialists

Meetings: Once or twice per year

(2) National Committee of Conservation and Management for the “Sites of Japan’s Meiji Industrial Revolution”

The Committee exchanges information and views and decides general matters for conservation and management, and matters covering the sites as a whole such as the overall results of monitoring, taking into consideration the wishes of stakeholders of all kinds.

Members: 29 representatives of relevant government ministries and municipalities

Cabinet Secretariat, Agency for Cultural Affairs, Ministry of Land, Infrastructure, Transport and Tourism (MLIT), Ministry of Economy, Trade and Industry (METI), Forestry Agency,

municipalities (prefectures, cities) related to the component parts

Meetings: Once or twice per year

(3) Local Conservation Councils

These councils, formed in each of the eight Areas of the Sites of Japan's Meiji Industrial Revolution as World Heritage partners for promoting effective implementation of the conservation management plans, play the role of supporting managers and owners of each of the component parts to make proper decisions on conservation of the component parts. Local Conservation Council members exchange information and views, discuss issues, and propose improvements to the Conservation Management Plan.

Members: Representatives of relevant ministries, local governments, business owners, tourism associations, volunteer groups, fishing industry groups, neighbourhood associations, etc.

Meetings: Multiple times a year in each of the eight Areas

(4) World Heritage Route Promotion Council

Considering that there is one World Heritage value linking all 23 sites, the Council conducts PR activities in and outside Japan, making use of maps, smartphone applications and other tools, aimed at promoting initiatives relating to Sites of Japan's Meiji Industrial Revolution World Heritage Route (hereinafter, "World Heritage Route") for sharing and spreading the World Heritage value of the property as a whole. Among these initiatives are creation of World Heritage route that incorporate multiple component parts.

Members: Approximately 130 organizations including relevant municipalities, business owners, Chambers of Commerce and Industry, tourism associations, railway operators, highway operators, airlines, cruise operators, and travel agencies

Meetings: Once a year (four meetings have been held since 2016)

(5) Meetings for local residents and other events in each Area

Lectures, historic site tours, panel displays and various other events are held in each Area to make local residents and visitors feel greater familiarity with the sites, such as by explaining how the site came to add to the world heritage list and conveying their appeal.

Event details: Visiting lectures, historic site tours, panel displays, bus tours, factory tours, etc.

(6) Interpretation training

Based on the Interpretation Strategy, workshops are held for staff performing guide services at component parts or related facilities in each of the eight Areas, aimed at promoting understanding of the Outstanding Universal Value and of the connections among industries and the 23 component parts in the eight Areas. See Decision 39 COM 8B.10 Recommendation f) for details.

Dates of workshops: October 2017 to February 2018 (nine sessions in eight Areas)

Participants: Approx. 340

Workshops are held for staff of local government organizations who are engaged in the conservation

and management of each of the component parts and various measures for their restoration, presentation and public utilization, as opportunities to learn about the World Heritage Convention, the Outstanding Universal Value of the Sites of Japan's Meiji Industrial Revolution, and methods for their conservation and management.

Dates of workshops: May 2017 to October 2019 (total of six sessions)

Participants: Approx. 230

Decision 42 COM 7B.10 Paragraph 11

Requests furthermore the State Party to fully implement Decision 39 COM 8B.14¹ and to submit to the World Heritage Centre, by 1 December 2019, an updated report on the state of conservation of the property and the implementation of the above, for examination by the World Heritage Committee at its 44th session in 2020.

1. Background

- A State of Conservation Report was submitted November 30, 2017 covering the following matters, in response to each of the recommendations in the Decision of the World Heritage Committee at its 39th session.

Recommendation a)

The Cabinet Secretariat prepared Conservation Work Programme for Hashima Coal Mine under the cooperation with Nagasaki City.

Recommendation b)

The Cabinet Secretariat prepared Conservation Work Programmes and Implementation Programmes for each component part under the cooperation with the owners and local governments.

Recommendation c)

The number of visitors at each component part is under investigation for three years. Based on the results, a visitor management strategy is planned to be formulated and the possibility or need for determining visitor threshold levels is also planned to be examined in FY 2019.

Recommendation d)

A checklist was produced and monitored to determine whether the governance framework properly functions. Meetings are regular and working well and the mutual communication and cooperation setup is functioning thoroughly through monitoring annual reports and other means, so the governance framework is operating appropriately.

Recommendation e)

Monitoring charts have been produced to systematically monitor the elements of component part and the landscape of buffer zone. Annual observations in monitoring charts will be incorporated into annual reports for confirmation by the Local Conservation Councils.

Recommendation f)

Based on the assessment of current state on capacity building of human resources in each Area and component part, policies and techniques that are common to the overall property have been created, including items for training and project to be implemented.

Recommendation g)

The Cabinet Secretariat developed the Interpretation Strategy, based on a full Interpretation Audit by independent international experts, as well as specific advice by the President of the ICOMOS International Scientific Committee on Interpretation and Presentation on the

interpretation of the “full history” of each site.

Recommendation h)

Based on paragraph 172 of the Operational Guidelines, information was compiled regarding the contents and progress of a number of development plans and new development plans for public facilities listed in this Recommendation.

- In addition to the matters indicated in the Decision of the 42nd session of the World Heritage Committee, the matters reported in the State of Conservation Report submitted this time are indicated below, including items regarding Recommendations f) and h) of the above-noted Decision of the 39th session of the World Heritage Committee, as well as the background and progress status of each item. Note that regarding Recommendation f), in addition to the policies and methods for staff training programmes indicated in the State of Conservation Report submitted in FY2017, each of the programmes and initiatives conducted to date are reported; and regarding Recommendation h), currently recognized matters concerning conservation are reported along with the matters indicated in the 39th Meeting Decision.

Recommendation f) of Decision 39 COM 8B.14

Establishing and implementing an on ongoing training programme for all staff and stakeholders responsible for the day-to-day management of each component to build capacity and ensure a consistent approach to the property's ongoing conservation, management and presentation;

1. Background

- The report of “ICOMOS Evaluations of Nominations of Cultural and Mixed Properties” (WHC-15/39.COM/INF.8B) noted the need for regular ongoing training and human resource capacity building on appropriate conservation and management methods. Emphasized in particular is the need to better articulate capacity building through training, and to provide training to management and staff concerning the component parts, in order to ensure a consistent conservation and management approach across all components of the property.
 - In the State of Conservation Report submitted November 30, 2017, human resources were classified into four types, the capacities considered necessary for each type were defined, and a human resource development policy common to all sites was formulated, including education topics for each personnel type and the human resource development programme items to be implemented. The state of and issues for human resource development in each Area and at each component part were determined, policies were articulated, and current status, issues, and directionality in each Area were also indicated.
- (For Reference) Four types of human resources
- (1) Owners and managers of component parts
 - (2) Personnel engaged in actual conservation and management work at the site (designated administrators, etc.)
 - (3) Personnel engaged in routine maintenance and management work (including cleaning and repairs) at the site
 - (4) Personnel engaged in permanent interpretation work at the site, including volunteer guides

2. Developments and accomplishments since FY2017, and direction hereafter

Human resource development programmes that have shown notable progress since FY2017 are as follows.

- (1) Establishing and implementing an on ongoing training programme for all interpreters responsible for the day-to-day management of each component to build capacity and ensure a consistent approach to the property's ongoing conservation, management and presentation;

While various training programmes are conducted in most Areas for interpreters, the training topics were not always adequate. Accordingly, in the Executive Committee for Capacity Building Projects of Human Resources for the Sites of Japan's Meiji Industrial Revolution, a human resource

development programme was started in FY2017 as a nationally funded project of the Agency for Cultural Affairs. Specifically, the programme consists of producing auxiliary teaching and learning materials for interpretation guides and municipalities, and for capacity building and providing workshops for local interpreters at each of the component parts.

Those auxiliary educational materials for human resource development are distributed to interpreters and site managers through relevant agencies, and are already openly accessible to the public as digital books on the web page of Sites of Japan's Meiji Industrial Revolution (www.japansmeijiindustrialrevolution.com). The following materials are currently available or will be available in 2019.

1) Interpretation Guide Manual: Sites of Japan's Meiji Industrial Revolution

Auxiliary interpretation guide manual for Sites of Japan's Meiji Industrial Revolution, Iron and Steel, Shipbuilding and Coal mining.

Issued by Human Resource Development Committee for the Sites of Japan's Meiji Industrial Revolution Produced by NCIH

Sponsored by Agency of Cultural Affairs.

Published in October 2017

Publisher: Seikosha



Figure 23. Interpretation Manual

2) "Communicating World Heritage"

Auxiliary Educational Material for Interpreter to improve communication skills and interpretation technique related to the Sites of Japan's Meiji Industrial Revolution: Iron and Steel, Shipbuilding and Coal Mining"

Divided into two sections: Fundamentals and Practice

Issued by Human Resource Development Committee for the Sites of Japan's

Meiji Industrial Revolution

Produced by NPO Satoyama wo Kangaerukai

Sponsored by Agency of Cultural Affairs Published in 2017



Figure 24. Interpretation Textbook

3) “Understanding Steel: History of Steel

Auxiliary Educational material with special focus on Iron and Steel Industry, for the Sites of Japan’s Meiji Industrial Revolution, Iron and Steel, Shipbuilding and Coal Mining

Issued by: Human Resource Development Committee for the Sites of Japan’s Meiji Industrial Revolution

Produced and authored by NCIH with Tadahiro Inazumi, Kazuhiko Suga,

Sponsored by Agency of Cultural Affairs

Printed by Nikkatsu Ad Agency

Published in Nov.2017



Figure 25. Understanding Steel

4) “Understanding Coal : History of Coal Industry

Auxiliary Educational Material with the focus on the history of Coal mining industry for the Sites of Japan’s Meiji Industrial Revolution, Iron and Steel, Shipbuilding and Coal Mining:

Issued by Human Resource Development Committee for the Sites of Japan’s Meiji Industrial Revolution

Produced by NCIH with JCOAL

Sponsored by Agency of Cultural Affairs

Printed by Nikkatsu Ad Agency,

Published in Nov. 2019



Figure 26. Understanding Coal

5) “Understanding Shipbuilding: History of Shipbuilding

Auxiliary Educational Materials with the focus on history of Shipbuilding for the Sites of Japan’s Meiji Industrial Revolution, Iron and Steel, Shipbuilding and Coal Mining

Issued by Human Resource Development Committee for the Sites of Japan’s Meiji Industrial Revolution

Produced by NCIH

Sponsored by Agency of Cultural Affairs

Published by Nikkatsu Ad Agency, 2019

Coming Soon in FY 2019

The Executive Committee for Capacity Building Projects of Human Resources has also produced learning materials from parts of the above guidebooks for use in training for capacity building. In 2017, workshops were held for staff performing guide activities at component parts or related facilities in all

eight Areas.

Table 7. Implementation of Human Resources Development Training (for Guides)

	Date	Area	Venue		Participants
1	17/10/31	Kamaishi	Kamaishi City	Kamaishi Information & Community Centre	30
2	17/11/29	Yawata	Kitakyushu City	(3) Com City (Yahatanishi Ward Office) Lifelong Learning Centre	54
3	17/12/04	Nirayama	Izunokuni City	Izunokuni City Nirayama Theater	28
4	17/12/05	Nirayama	Izunokuni City	Izunokuni City Nirayama Theater	22
5	18/01/18	Kagoshima	Kagoshima City	Soho Kagoshima	46
6	18/01/23	Hagi	Hagi City	Hagi Meiringakusha Visitor Centre (Main Building)	23
7	18/01/29	Miike	Uki City	Uki City Office (new wing of main building)	52
8	18/02/06	Saga	Saga City	Tsunetami Sano Memorial Museum	29
9	18/02/08	Nagasaki	Nagasaki City	Nagasaki Prefecture Agricultural Cooperative Hall	54

These workshops, based on the Interpretation Strategy, have two main objectives (1) promoting understanding of the Outstanding Universal Value of the Sites of Japan's Meiji Industrial Revolution, and (2) promoting understanding of the connections between industries (iron and steel, shipbuilding, and coalmining) and the 23 component parts in the eight Areas of the Sites of Japan's Meiji Industrial Revolution. At the same time, the workshops have the purpose of sharing an awareness of "communicating" the value of the sites, and promoting a smartphone application, as a tool for this communication. Note that workshops have a consistent content each time they are held.

The Executive Committee plans to continue holding similar workshops; and as the textbooks for each industry are completed, capacity building training will be implemented in each Area.

The schedule will be as follows:

2019;

December Area1 Hagi

2020;

January Area2 Kagoshima, Area5 Saga, Area6 Nagasaki,
Area7 Miike, Area8 Yawata

February Area3 Nirayama, Area4 Kamaishi

In addition to the above workshops, guide workshops are held by the World Heritage Council for the Sites of Japan's Meiji Industrial Revolution. These differ from the previously described workshops in emphasizing greater understanding of the value of the Sites of Japan's Meiji Industrial Revolution as World Cultural Heritage—and its proper conservation and management —, and in aiming for information exchange and collaboration with other areas regarding guide activities. Moreover, by holding workshops where persons serving as guides at each of the component parts get together in one venue, it is hoped that guide quality and activities will be improved in each area. Since these are held annually in various areas, they serve also as local training, and will continue to be held in the future.

(2) Establishing and implementing an on ongoing training programme for all stakeholders responsible for the day-to-day management of each component to build capacity and ensure a consistent approach to the property's ongoing conservation, management and presentation;

The World Heritage Council for the Sites of Japan's Meiji Industrial Revolution—the consortium of local municipalities of the sites of Japan's Meiji Industrial Revolution (Former Consortium for the World Heritage Inscription of Modern Industrial Heritage (Kyushu-Yamaguchi)) organize the workshop twice a year to date, in cooperation with the Cabinet Secretariat. These workshops are intended for staff of local government organizations to provide training on conservation and management of each of the component parts and various measures for their restoration, presentation and public utilization. These are used as opportunities to learn about the programmes of the World Heritage Convention, the Outstanding Universal Value of the Sites of Japan's Meiji Industrial Revolution, and methods for their conservation and management. The training sessions held up to now are summarized in the table below. Due to personnel transfer in local government organizations, the staff responsible for conservation and management may change over time. It is therefore necessary to continue this programme in the future to make sure new staff receive an appropriate standard of training.

Table 8. Implementation of Human Resources Development Training (for site owners)

Date	Venue	Participants	Details
17/5/22	Fukuoka Prefecture West Government Complex	38	<ul style="list-style-type: none"> ○ Training for new appointees • Background of the listing of Sites of Japan's Meiji Industrial Revolution, their value, and conservation and management • • Overview of World Heritage Committee Decisions and response status
17/12/21	Conference ASC (Fukuoka City, Fukuoka Prefecture)	48	<ul style="list-style-type: none"> • Response after submission of report to UNESCO • Report to the 41st session of the World Heritage Committee Session • • Lecture on using World Heritage sites as a hook

			for successfully attracting overseas visitors to a region (Tourism Promotion Committee member)
18/5/9	Fukuoka Prefecture Kasuya Government Complex	48	<ul style="list-style-type: none"> ○ Training for new appointees • Background of the listing of Sites of Japan's Meiji Industrial Revolution, their value, and conservation and management • Overview of World Heritage Committee Decisions and response status
18/9/5	Fukuoka Prefecture East Government Complex	46	<ul style="list-style-type: none"> • Lecture: Results and trends in deliberation of heritage conservation status by the World Heritage Committee (Section Head, Tokyo National Research Institute for Cultural Properties) • Devising visitor management strategy • Status of Industrial Heritage Information Centre provision
19/5/14	Fukuoka Prefecture East Government Complex	46	<ul style="list-style-type: none"> ○ Training for new appointees • Background of the listing of Sites of Japan's Meiji Industrial Revolution, their value, and conservation and management • Overview of World Heritage Committee Decisions and response status

(3) Capacity building of human resources in each municipality and Area

In addition to the foregoing programmes, workshops continue to be held in each municipality and each Area. Among these are workshops for volunteer staff regarding the Sites of Japan's Meiji Industrial Revolution, and new guide training courses. Contents on the Sites of Japan's Meiji Industrial Revolution are also woven into various workshops for tourism business operators, newly hired staff in municipalities, and local teachers. Such training is not limited to indoor sessions but includes visits to actual sites as necessary.

As an example of a human resource development programme for those carrying out management duties, training is provided each year for designated administrators at the Manda Pit of Area 7 Miike.

Such training specific to individual municipalities and Areas, which has taken place around 15 times so far in various locales, is included in the annual report of the Local Conservation Councils.

Recommendation h) of Decision 39 COM 8B.14

h) Submitting all development projects for road construction projects at Shuseikan and Mietsu Naval Dock and for new anchorage facility at Miike Port and proposals for the upgrade or development of visitor facilities to the World Heritage Committee for examination, in accordance with paragraph 172 of the Operational Guidelines

1. Background

- The ICOMOS Evaluations of Nominations of Cultural and Mixed Properties (WHC-15/39.COM/INF.8B, page 96) notes the proposals for a road at Shuseikan, a road at Mietsu Naval Dock, development of Miike Port, and visitor centres and facilities at Miike Port.
- The ICOMOS Technical Evaluation Report of June 2017 recommended for heritage impact assessments (HIA) to be conducted for all projects that have the potential for adverse impacts on the Outstanding Universal Value, to identify impacts on the attributes of component parts contributing to overall Outstanding Universal Value.
- The State of Conservation Report submitted November 30, 2017 included reports on the Proposed road at Shuseikan, the Proposed road at Mietsu Naval Dock, Proposed construction of a visitor facility (guidance facility) at the Nirayama Reverberatory Furnaces, Opening of a new visitor centre in the Hagi buffer zone, and Repair of the Onga River Pumping Station at the Imperial Steel Works. (Some of the contents already reported, in accordance with paragraph 172 of the Operational Guidelines for the Implementation of the World Heritage Convention, are repeated here.)

2. Progress status

- Proposed road at Shuseikan

The State of Conservation Report submitted November 30, 2015 reported on the state of progress at that time. (Repeated in the November 30, 2017 State of Conservation Report)

Regarding this project, the ICOMOS Technical Evaluation Report issued by UNESCO June 1, 2017 recommended that a heritage impact assessment be conducted and reported to the World Heritage Centre.

Currently, deliberations about this project are being carried out among concerned parties. When the budget for the construction is secured by the national government and work is started on the final design, its impact on the site will be assessed and a report will be submitted anew to the World Heritage Centre.

- Proposed road at Mietsu Naval Dock

A World Heritage Impact Assessment Report was submitted November 30, 2015 along with the State of Conservation Report. (Repeated in the November 30, 2017 State of Conservation Report)

Regarding this project, the ICOMOS Technical Evaluation Report issued by UNESCO June 1, 2017

recommended that upon completion of this project, a report be submitted to the World Heritage Centre. Since this project has not yet been completed, a report will be submitted upon its completion.

- Proposed development at Miike Port

The plans for development of a new anchorage facility for small boats at Miike Port are currently under review, including the timing. When the details of the plans and timing have been generally decided, a progress report will be submitted.

3. Other conservation issues identified by the State Party

(1) Matters for which State of Conservation Reports have already been issued from 2018 to 2019

1) Partial Revision of the Hagi City Landscape Plan, The Control Method for Buffer Zone (Area 1, Hagi)

This was reported in January 2019 in accordance with paragraph 172 of the Operational Guidelines for the Implementation of the World Heritage Convention. (Repeated)

The Hagi Landscape Plan, applicable as a conservation method to the buffer zones in this Area, is being partially revised inside the buffer zone of Hagi Castle Town and outside the buffer zone of Shokasonjuku Academy. Accordingly, in the process of defining in more detail the character and use categories of each subdistrict in the buffer zones, a clear delineation is made of part of these buffer zones as dedicated commercial districts, and height regulations are partially revised, limited to these commercial districts and the area along the bypass roads. Note that the elements (attributes) representing the Outstanding Universal Value of the component part are the portion of the Hagi Castle Town including the castle ruins, and the small wooden building of the Shokasonjuku Academy.

Nonetheless, the landscape will continue to be controlled in a way that prevents any direct impact on these elements. Moreover, there are no specific development plans at present.

2) Status Report of Heavy Rain Damage to the Terayama Charcoal Kiln and Measures to Be Taken (Area 2, Kagoshima)

This was reported in November 2019. (Repeated)

The status of damage and restoration measures for the Terayama Charcoal Kiln, which was affected by landslips caused by heavy rains in the area from late June to early July of 2019, was reported in November 2019.

3) Heritage Impact Assessment on World Heritage from Building a Concrete Manufacturing Plant in the buffer zone of the Mietsu Naval Dock (Area 5, Saga)

This was reported in January 2019 in accordance with paragraph 172 of the Operational Guidelines for the Implementation of the World Heritage Convention. (Repeated)

In the buffer zone of the Mietsu Naval Dock, a concrete manufacturing plant is being moved to a new location and a partial change is made to the protection status. The elements (attributes)

representing the Outstanding Universal Value of the Mietsu Naval Dock are the underground archaeological remains and the natural terrain in which they are buried. The construction work has no direct impact on these elements as it will take place outside the scope of the component part. In carrying out the heritage impact assessment, multiple discussions were made involving Saga City, Okawa City, and the private business owner of the concrete manufacturing plant to ensure the work would be conducted so as to minimize any impact on the views from inside the component part. Through these discussions, Saga City confirmed that there are no future plans such as for expanding the plant site.

4) Progress Status of Construction Work near the Mietsu Naval Dock

This was reported in November 2019, in accordance with paragraph 172 of the Operational Guidelines for the Implementation of the World Heritage Convention. (Repeated)

The parking area currently located inside the component part will be replaced by one outside the property, to enhance protection of the component part. The relocation will be carried out in conjunction with the construction of a new local community centre (Nakakawasoe Community Centre) which will be built in the buffer zone, taking into consideration visitor access to the component part.

Saga City plans to implement maintenance of the historical remains and renovation of a visitor centre under a unified development plan to clearly highlight the shipbuilding and repair systems. This plan involves renovating and expanding the Tsunetami Sano Memorial Museum adjoining the remains as an enhanced visitor centre.

(2) Matters appended this time as part of the State of Conservation Report

● Progress Status of Project Proposals Concerning the Imperial Steel Works and Onga River Pumping Station in Area 8 Yawata

This is a progress report on project proposals for which a report was submitted September 30, 2017. In the First Head Office, following on the large-scale seismic reinforcement completed in March 2014, restoration of the interior and conservation of the inside shape and decorations will be implemented.

In the Former Forge Shop and Repair Shop, aseismic design was carried out based on the results of the aseismic survey.

In the Onga River Pumping Station, an additional aseismic survey was conducted, taking into consideration that it is a brick and steel-frame structure, and the aseismic design is currently under study.

All the projects are for preservation of properties for which entry by the general public is currently restricted. The two component parts are the Imperial Steel Works and the Onga River Pumping Station.

First Head Office: Interior restoration and conservation was begun in May 2018, and by the end of July 2019, the work was completed on the east portion of the ground floor.

Former Forge Shop: Aseismic design was conducted based on the results of the aseismic survey implemented in 2018. Construction methods are being studied that will enable the seismic reinforcement work to be performed in parallel with the building exterior conservation work.

Repair Shop: Exterior conservation work will be performed, and seismic retrofitting will be started. Aseismic design was conducted based on the results of the aseismic survey implemented in 2018. Construction methods are being studied that will enable the seismic reinforcement work to be performed in parallel with the building exterior conservation work.

Onga River Pumping Station: An additional aseismic survey was conducted, taking into consideration that it is a brick and steel-frame structure, and the aseismic design is currently under study.

(3) Further response measures

As experience with handling of individual development projects continues to be accumulated, it will also be important to clarify the standard response and handling procedures for relevant agencies, local municipalities and other concerned parties when such projects arise in the future. To this end, systematic compilation and sharing of information among concerned parties regarding development projects and their handling will continue to be carried out.

4. Reference materials

- Appendix 6 Partial Revision of the Hagi City Landscape Plan A Control Method in Buffer Zone of Area 1 Hagi
- Appendix 7 Heritage Impact Assessment Regarding Construction of a Concrete Manufacturing Plant in the buffer zone of the Mietsu Naval Dock
- Appendix 8 Assessment of Impact on World Heritage from Construction Work near the Mietsu Naval Dock
- Appendix 9 Status Report of Heavy Rain Damage to the Terayama Charcoal Kiln and Measures to Be Taken
- Appendix 10 Progress Status of Project Proposals Concerning the Imperial Steel Works and Onga River Pumping Station