

The challenges in successfully conserving and managing our World Heritage Property

Michael Pearson



You have achieved the listing of ONE World
Heritage Property:

Sites of Japan's Meiji Industrial Revolution:
Iron and Steel, Shipbuilding and Coal Mining

The World Heritage Property has 23 component parts on 8 areas



Components of the Property	Function in series	Key dates
Hagi <ul style="list-style-type: none"> <input type="checkbox"/> Ebisugahana shipyard <input type="checkbox"/> Hagi reverberatory furnace <input type="checkbox"/> Hagi castle and castle town <input type="checkbox"/> Ohitayama tatara iron smelting site <input type="checkbox"/> Shokasonjuku Academy 	Proto-industrial sites and historical socio-cultural setting for Japanese industrialisation	1856
Kagoshima: Shuseikan factory complex <ul style="list-style-type: none"> <input type="checkbox"/> Shuseikan complex <input type="checkbox"/> Machine factory <input type="checkbox"/> Terayama charcoal kiln <input type="checkbox"/> Sekiyoshi leat <input type="checkbox"/> Foreign Engineers house 	Pioneer smelting and factory complex	1851-67
Saga <ul style="list-style-type: none"> <input type="checkbox"/> Mietsu ship repair yard 	Pioneering ship repair and construction yards	1858
Kamaishi: Hashino iron mining and smelting site <ul style="list-style-type: none"> <input type="checkbox"/> Blast furnaces and related infrastructure <input type="checkbox"/> Iron ore mine <input type="checkbox"/> Pack trail linking mine and smelters 	First successful adaptation of western blast furnace technology in Asia	1858-94
Nirayama <ul style="list-style-type: none"> <input type="checkbox"/> Reverberatory furnace 	Oldest surviving intact pioneering iron working site	1853-56

Components of the Property	Function in series	Key dates
Nagasaki <ul style="list-style-type: none"> <input type="checkbox"/> Kosuge slipdock <input type="checkbox"/> No. 3 drydock, MHI <input type="checkbox"/> Hammerhead crane MHI <input type="checkbox"/> Pattern shop MHI <input type="checkbox"/> Senshokaku guesthouse, MHI <input type="checkbox"/> Glover residence <input type="checkbox"/> Takashima and Hashima island coal mines 	Key early shipbuilding and related coal mining and support sites.	1868-1909
Omuta: Miike coal mines and port <ul style="list-style-type: none"> <input type="checkbox"/> Manda and Miyanohara pits <input type="checkbox"/> Coal railway <input type="checkbox"/> Mike Port <input type="checkbox"/> Misumi West Port 	Coal mining and transportation complex reflecting major changes needed to support industrial development	1887-1909
Yawata Steel Works <ul style="list-style-type: none"> <input type="checkbox"/> Yawata Repair Workshop <input type="checkbox"/> Yawata Smithy <input type="checkbox"/> Yawata Head Office <input type="checkbox"/> Onga River Pumping Station 	First successful integrated steel works in Asia—maturity of Japan's industrial revolution	1899-1910

Summary of OUV

A series of industrial heritage sites, focused mainly on the Kyushu-Yamaguchi region of south-west of Japan, represent the first successful transfer of industrialization from the West to a non-Western nation. The sites in the series reflect the three phases of this rapid industrialisation achieved over a short space of just over fifty years between 1850s and 1910.

The first phase in the pre-Meiji Bakumatsu isolation period, at the end of Shogun era in the 1850s and early 1860s, was a period of experimentation in iron making and shipbuilding. The second phase from the 1860s accelerated by the new Meiji Era, involved the importation of Western technology and the expertise to operate it; while the third and final phase in the late Meiji period (between 1890 to 1910), was full-blown local industrialization, achieved with newly-acquired Japanese expertise and through the active adaptation of Western technology to best suit Japanese needs and social traditions, on Japan's own terms.

These and the other values of each component site are detailed in the Conservation Management Plan (CMP) for each site.

The World Heritage *Operational Guidelines* promote VALUES BASED MANAGEMENT:

The planning, development and management of a heritage site which achieves the conservation of all the heritage values of the site for the long term.

This principle is the basis for each of the CMPs.

VALUES BASED MANAGEMENT PROCESS:

Accurately assess and recognise all the cultural values of the site

Research and assess conservation and management issues and opportunities with potential to affect these values

Exercise problem solving skills and initiative to solve issues

Develop policies and strategies which result in the conservation of the place's cultural values

Base all management decisions on the aim of conservation of the values



Some of the Property components

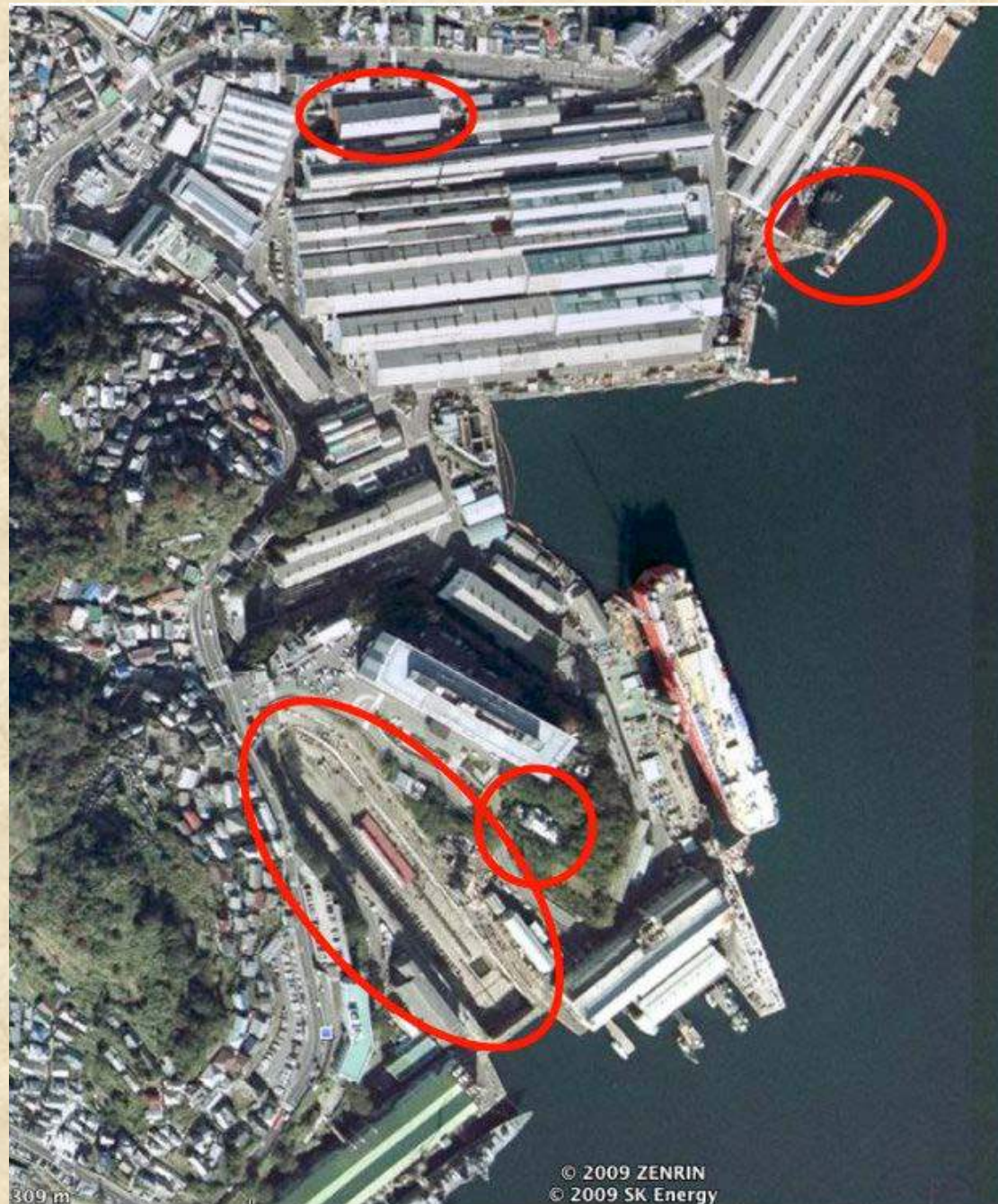
Some management issues:

Respecting evidence of all values and periods

The principle of *Fukugen* ('Put into the original form') is not necessarily a primary objective in industrial sites, where value can build over time with changes in use and technology, and where loss of earlier fabric can be significant.

The **ICOMOS *Venice Charter*** (Article 11) says:

'The valid contributions of all periods to the building of a monument [or site] must be respected, since unity of style is not the aim of a restoration. When a building [or site] includes the superimposed work of different periods, the revealing of the underlying state can only be justified in exceptional circumstances and when what is removed is of little interest and the material brought to light is of great historical, archaeological or aesthetic values, and its state of preservation good enough to justify the action. Evaluation of the importance of the elements involved and the decision as to what may be destroyed cannot rest solely on the individual in charge of the work.'



Mitsubishi
Shipyard key
elements

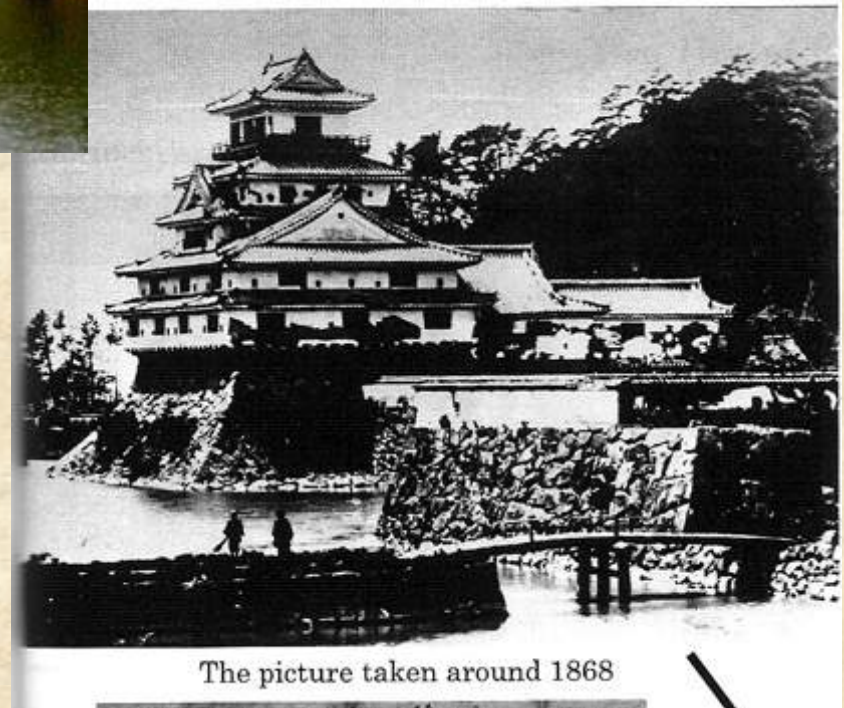
Returning to
an earlier
form is not
possible



Mitsubishi Shipyards Nagasaki — Crane and Guesthouse in near original form, Pattern shop and dry dock in much altered form.



Hagi Castle. Its demolition in 1874 is important evidence of the impact of the Meiji Restoration historically and symbolically. Returning to its original form would distort that evidence.



Reconstructing ruins

Ruins and incomplete structures can tell their own history.

Venice Charter (Article 9) says that:

restoration ‘must stop at the point where conjecture begins, and in this case moreover any extra work which is indispensable must be distinct from the architectural composition and must bear a contemporary stamp.’

Article 15 says that in the case of excavated ruins;

‘Ruins must be maintained and measures necessary for the permanent conservation and protection of architectural features and of objects discovered must be taken. Furthermore, every means must be taken to facilitate the understanding of the monument (site) and to reveal it without ever distorting its meaning. **All reconstruction should however be ruled out a priori. ...’**

Creation of replicas for interpretative purposes, away from the original ruins or archaeological remains, may be a valid approach to telling the story of a site, but it must not put at risk the original remains and their understanding.



Mietsu



Boat harbour, 1850s



Boat harbour, 2010



Model of dry dock archaeological remains



Palisade wall of drydock

Mietsu Shipyards, Saga.
 Archaeological site. Return to original
 form would be conjectural and
 would destroy much evidence



Hashima, 'Gunkanjima'



Hashima mine
remains 1890s



Post-Meiji mine housing



mine buildings

Hashima Coalmines, 'Gunkanjima'. How would *Fukugen* be possible?



Hashima during a typhoon



Typhoon damage



Hashima theatre



1990s
Memory, history and place:
Should *Fukugen* be achieved through
interpretation rather than physical
reconstruction?

Continued Industrial use

Some sites with industrial heritage significance are still in industrial use.

The Dublin Principles, the Joint ICOMOS-TICCIH Principles for the conservation of industrial heritage, sites, structures, areas and landscapes states (8):

In the case of active industrial structures or sites of heritage significance, it must be recognized that their continued use and function might carry some of their heritage significance and provide adequate conditions for their physical and economic sustainability as a living production or extraction facilities. Their specific technical characteristics and features need to be respected while implementing contemporary regulations such as building codes, environmental requirements or risk reduction strategies to address hazards of natural or human origin.

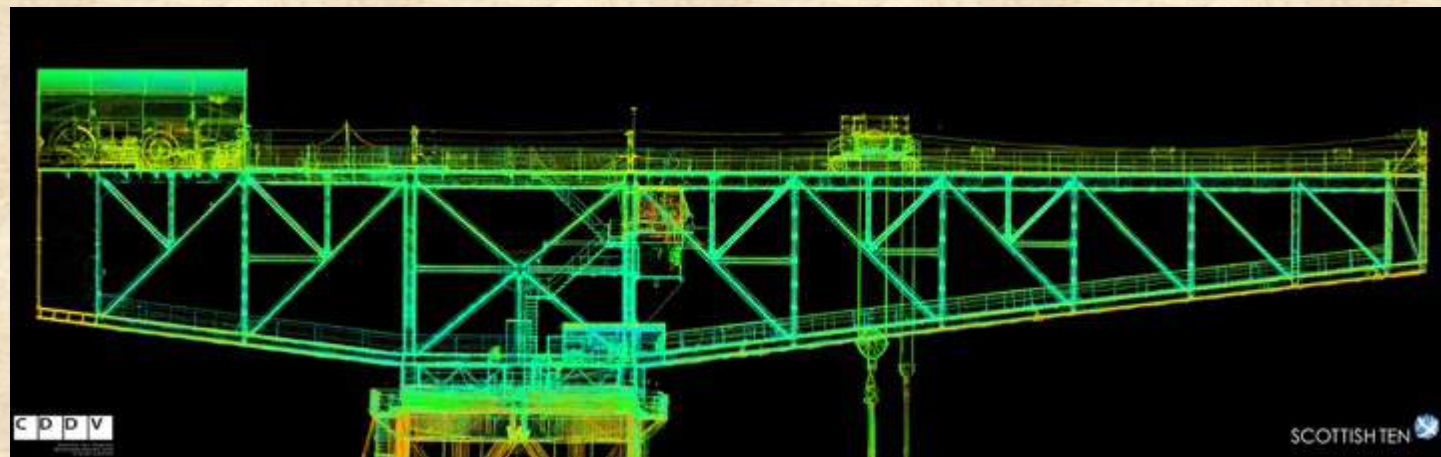
(10) Appropriate original or alternative and adaptive use is the most frequent way and often the most sustainable way of ensuring the conservation of industrial heritage sites or structures. ...



Continuing industrial use: Miike Coal Port, 1908



Continuing
industrial use:
Mitsubishi Nagasaki
Shipyards





Continuing industrial use: Traditional use, Senshokaku Guest House



Continuing industrial use: Yawata Steel Works
Repair Shop and Onga River Pumping Station



Before construction




New Weir Control House



New Weir board storage, below ground

Continuing industrial operation:
Changes for ongoing use. Onga
River Pumping Station, new
Weir control house and weir
board storage facility, 2014




Wall at high tide, 2014, nearly over-topping



Completed reinforcement and wall heightening, 2016

Continuing industrial operation:
Changes for ongoing use.

Miike Port. Reinforcement and
heightening of breakwaters



Reinforcing stones placed, 2014