

# Emergence Of Industrial Japan

The Modern Industrial Heritage Sites in Kyūshū and Yamaguchi  
1850s to 1910s

Criteria ii, iii, iv World Heritage(Cultural)



**In late 19 century, Japan has made an successful transition into an industrial nation in half a century. The small island nation in far east which closed the door to the West for two century made the first successful industrial revolution in Asia in the beginning of 20th century which made the change of nature of state in its geo-political region and its position in the world 's stage. Group of heritage sites which represent Emergence of Industrial Japan meet the UNESCO World Heritage Criteria which testifies the unique character of rapid achievement which built the foundation of Industrial Japan now.**

Produced by Koko Kato,

# Testimony of Japanese Industrial Revolution

Heritage sites are conserved and managed by private sector over the century, these are also workplace for people who are living and working in industry

Nagasaki Shipyard



Miike Port



Yawata Steelworks



### Spirit of Manufacturing , Will of learning Technology



Surprised with the defeat of Big China and Steam Gun boat, Samurai started to build reverberatory furnaces using their traditional Japanese crafts technology and wisdom but applied European scientific theory and technology by copying Dutch Book.

In the middle of domestic turmoil prior to opening the nation to outside world, Japanese Samurais left for UK in their clandestine mission to learn western science and technology to build new nation of industry.



Shuseikan (1872)



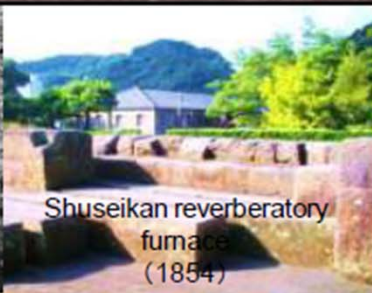
Hagi Castle Town (Edo period)



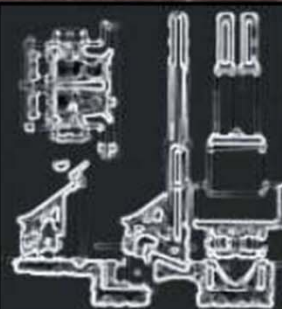
Hagi Castle Town (Edo period)



Nirayama reverberatory furnace (1857)



Shuseikan reverberatory furnace (1854)



Hagi reverberatory furnace (1858)



**Transfer of western technology  
Transition from Japanese sail boat  
to western steam boat**

craftsmen to engineers  
industrial system with western technology



**Kosuge Slip Dock(1868)**

**Mukojima No.3 Dry Dock(1905)**



**Ebisugabana Shipyard  
(1856)**



**Mitsui Ship Repair and  
Shipbuilding Yard  
(1858)**



**150t Hammerhead Crane  
(1909)**





**Japanese modernization, building railroad, ship and textile machinery and factory always increase the demand of import of iron and steel**

Production of Steel was national interest to build stable economy.

Iron and steel is the bread of industrial nation.

**Japan late started material industry was finally able to catch up with the west and cater the domestic demand which laid the seed to build the foundation of emergence of industrial Japan by manufacture steel and iron in one plant in YAWATA IRON WORK.**



Mitsui developed mass production system of the coal industry by introducing state-of art machinery to pits in order to catch up with the west. At the same time they build coal distribution infrastructure to cater the mass production of coal in tidal land, most severe natural environment to build the modern port for big sea commerce with the latest civil engineering technology from the west by Mitsui. – Mitsui Miike Port –

Coal mine will not last for ever. With the development of new industrial port, we can develop new industry in the future when coal mine life is over. Miike port will bring the future of industrial economy in 100 years from now. Dan Takuma



The shape of humming bird

Scale of Industrial port in the Meiji Era.

Inner Basin, Sluth Gate, Lock gate

Coal Mines



Groin (breakwater)

Fighting against the sand



Miike Coal Rail . Coal logistics from pit to port

Modernized pit by introducing machinery in 1908 which was the latest style in the world at that time. Though coal mine was closed, embarkation port is still on operation.

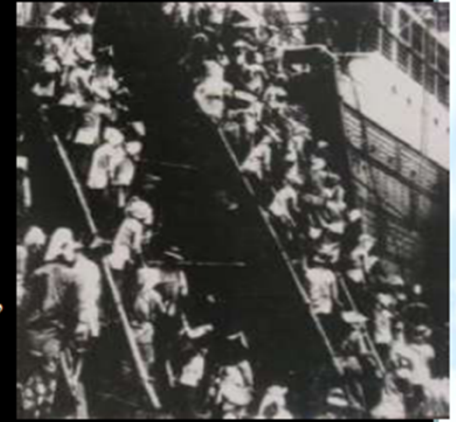
Misumi West Port 1887 (coal mining port built by Meiji government)



## Takashima →Gunkanjima

### Offshore coal mines

The first western steam machinery and new modern coal mining system was introduced in Takashima by Thomas B. Glover and Saga clan, which was carried over to Mitsubishi and build the industrial landscape in offshore coal island.





Lives of those who support the industry.  
 Lives of those who never appear in the history textbook at school.  
 The culture and wisdoms developed from their lives is the real  
 "industrial heritage". We would not like to lose fading memories of  
 their lives, laugh, tear, and anger.

Produced by koko