**Sekiyoshi Sluice Gate of Yoshino Leat**

Until steam engines were fully introduced, Sekiyosai factories relied on waterwheels to drive large machines. As there was no large river nearby in the Iso area, it was decided to make a chute and let water fall with great force from Yoshino Plateau. Yoshino Leat—built to supply water to Sengan-en via the Shimagadzu family—was renovated and a new leat was added in 1852 in order to supply water constantly to Shuseikan factories. The upstream of Inari River is called Abeki River, and the river narrows near Sekiyoshi. The water was blocked and then directed into the Leat through the sluice gate.

### ACCESS

**Route via farm road from Gandobashi bridge entrance (point 1)**
- No entry for buses
- Parking space for 5 cars is available next to Nissel Gallery Tohonkan

**Walking route from Tenohribashi bridge (point 2) along the leat**
- Along the reat is a walking trail. It is not accessible by car.
- [Points of Attention]
  - Be aware of open -fall accidents near the sluice gate.
  - Keep your hands and animals from falling into sluice.

**Information**

Shuseikai factories produced cast-iron cannons, artillery shells and glass products. Extremely high temperatures of about 1500°C were necessary to melt iron and glass, but Satsuma Clan did not produce coals and relied on charcoal for high heat. Terayama is blessed with an abundant supply of trees of hard wood such as Casparis and oak that produce high quality charcoal. Satsuma Clan built three large-scale charcoal kilns and used charcoal as fuel for the Shuseikan factories in the Iso area. The kilns produced white charcoal known for its strong heating power.

### Kiln wall built of tuff blocks

The arch-shaped opening and the inner surface of a huge charcoal kiln dome were built tightly with thick blocks of tuff. The structure was sturdy enough to withstand extremely high heat and the weight of a domed ceiling made of city.

**Monument of Honor with a dedication by Hata Tomonori**

The Satsuma-clan Beverage, Hata Tomonori, served as the official Satsuma residence in Kyushu. He learned tanka poetry and later became the officer of tanka poetry at the Imperial Household Department. The stone inscription tells us that Shunbun Ohara achieved the view of the kiln was constructed and how intensely the poet wished for eternal prosperity.

- **Test of the inscription**
  - Shunbun Ohara is a poet who has developed a wide knowledge and experience from both domestic and overseas sources. His gaze is also evident in the construction of charcoal kilns. The first and second lines are completed and the measures are built on the basis of experience. The third and fourth lines are collected in a hoko and a newspaper, and they will become meaningful materials for charcoal in one hundred years. Thus, the poet's intentions and his work done in the stone must be preserved and passed on to future generations.

---

**Sites of Japan’s Meiji Industrial Revolution**

Iron and Steel, Shipbuilding and Coal Mining

**[By Public Transportation]**

- **YAWATA**
  - Regular train or bus
- **HAGI**
  - Regular train or bus
- **NAGASAKI**
  - Regular train or bus
- **NARAYAMA**
  - Regular train or bus
- **KARAISHI**
  - Regular train or bus
- **MIKE**
  - Regular train or bus
- **KAGOSHIMA**
  - Regular train or bus

**[By Car]**

- **Walking map around Sekiyoshi Sluice Gate of Yoshino Leat**
- **Walking map around Terayama Charcoal Kiln**

---

**Shiroyama Grassland**

- Regular train or bus
- **HAGI**
  - Regular train or bus
- **NAGASAKI**
  - Regular train or bus
- **NARAYAMA**
  - Regular train or bus
- **KARAISHI**
  - Regular train or bus
- **MIKE**
  - Regular train or bus
- **KAGOSHIMA**
  - Regular train or bus
Walking map around the Shuseikan area

Yoshino Lea (Shuseikan side)
The water taken in from the Sekiyoshi Stske Gata ran the tank tank on the plateau and fell right down to the waterwheel with great force, supplying water and power to the Shuseikan factories.

Site of the reverberatory furnace
There was once a furnace here that was used to melt iron with extremely high heat to produce cast iron cannons. Recognizable here are the lower section of the furnace and the base of the stone works of the reverberatory furnace.

Site of the blast furnace
Built here was a western-style blast furnace to produce iron from which cast iron cannons were made.

Iso Area

Shuseikan Project

As the Edo period (1603-1868) was drawing to an end, Satsuma Clan felt threatened by the expansion of Western countries into Asia and decided to take immediate action. Shimadu Narikao placed great emphasis on industrialization and modern military forces. The Shuseikan Project was a driving force toward modernization. The comprehensive industrialization plan covered manufacturing of iron, steel, machinery, medicine and textiles; construction of warships; production of cannons and other weaponry; and research and manufacturing of technologies such as steam engine, telegraphy, photography and others. The facilities were built over a very short period of time from early 1860s to 1860s. The Shuseikan Project is one of the earliest examples of the Industrial Revolution as it was in Japan. The heritage components remaining in the area will demonstrate to coming generations the magnitude of the project that ushered in a modern age in Japan.

Site of Kagoshima Spinning Mill
In 1865, a group of Satsuma students left Satsuma illegally for England to study there. Accompanying them was a mission whose responsibility was to buy spinning machines and steam engines to be installed at Shuseikan. The imported spinning machinery were installed at the spinning mill. One hundred weaving machines produced textiles that were known for high quality.

Model walking route around the Shuseikan area
Walking route visiting major remains and buildings around Shuseikan area. Walking routes within the paid facility.

Construction of reverberatory furnace
Satsuuma Clan felt the need to build a battery of cannons to protect itself from Western warships and began construction of a reverberatory furnace where radiant heat was reflected and magnified by the dome structure. The radiant heat melted the iron, and the molten iron was poured into the cannon cast. The skills of stonemasons and potteries passed down by traditional craftsmen were very useful. Although the first attempt failed, the second furnace was successfully completed and used to produce cannons.

Whole structure of Kagoshima Spinning Mill
The remains of Kagoshima Spinning Mill are buried underground. The mill played an important role as the first machine-driven spinning mill in Japan. The existing drawing shows an orderly layout of spinning and weaving machines imported from England.

Steam engine and cast iron pillars
Former Shusseikan Machinery Factory (Current Shokoshusseikan)
Satsuuma Machinery Factory (Current Shokoshusseikan) maintains to this day the flywheels and cast iron pillars that used to be part of the Kagoshima Spinning Mill. The existence of the huge flywheels indicates that the spinning mill was driven by beam engines that were widely used in the UK at the time. The cast iron pillars held hangers to support the shaft that transmitted the steam power to individual spinning machines.

Satsuuma Glassworks: Chausu Cut-glass
The State Memorial collection depicts the Glass Workshop and other Shusseikan factories in great detail. At first, the workshop produced small items such as medicine bottles, but began producing large items such as deck planks. Satsuma Cut-Glass was developed in order to upgrade product value. Satsuma Cut-Glass and Satsuma pottery were popular souvenirs for foreign visitors and important export items.