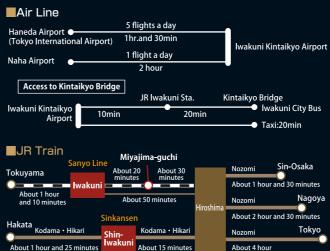




KINTAIKYO-BRIDGE

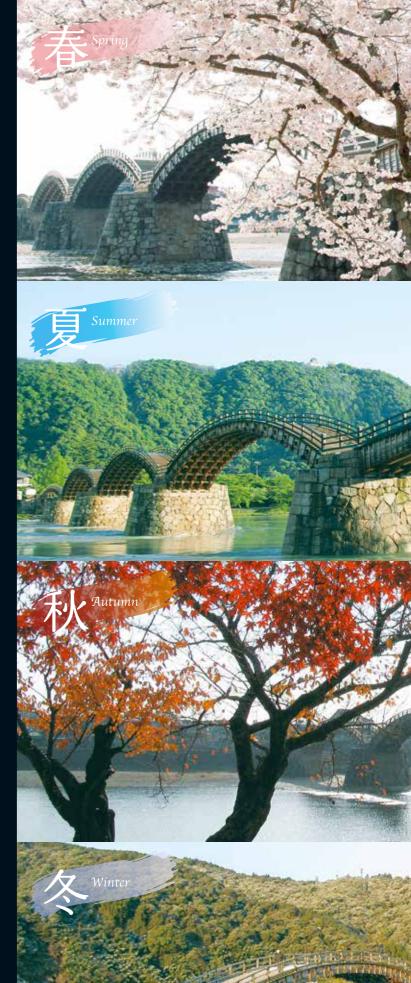




[If you take JR local train] Get off at lwakuni Station. Take the Kintaikyo Bridge bus from the bus stop in front of the station. The journey takes 20 minutes. 15 minutes by taxi. [If you take the Shinkansen (bullet train)] Get off at Shin- Iwakuni Station. Take the Kintaikyo Bridge bus from the bus stop in front of the station. The journey takes 15 minutes. 10 minutes by taxi



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Path to the Birth of this Renowned Bridge

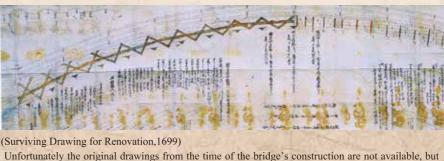
A series of seemingly unrelated events led to the building of the Kintaikyo Bridge. The feudal family Kikkawa, was ordered to govern the domain of Iwakuni, the castle town of which had been established on both sides of the River Nishiki. As Iwakuni Castle, built for advantage on the top of Mt. Yokoyama, utilized the river as a natural outer moat, Kikkawa needed a bridge to cross the river. Hiroyoshi Kikkawa, the third feudal lord who had been studying a way to build a bridge that would never be washed away, met the naturalized Chinese monk, Dokuryo, and happened to see the Saikovuranshi (a journal about sight-seeing around the West Lake of China) in which the monk's hometown, Hangzhou, and the West Lake were depicted. In the journal he found a picture which inspired him to build the Kintaikyo Bridge. The five-arch bridge was finally completed on October 1st, 1673. Unfortunately, due to river bed subsidence, the bridge was washed away the following year, but immediately reconstructed after the river bed had been reinforced.

The fourth span The third span The second span The first span 39, 700 35, 100 35, 100 35, 100 34, 800 4,600 [Yokovama] 4 Materials ① Length 193.3m (Formerly 195.7m) Japanese cypress (151.8m3) Plan (Walkway 4.2m) Zelkova 66.0m3 ② Width 5m Nishiki River 156 4m3) 3 Spans First 34.80m (Formerly 37.10m) White - cedar 29.8m3 Second 35.10m (Formerly 34.96m) Chestnut 5.9m³ Third 35.10m (Formerly 35.10m) Oak 0.8m³ Fourth 35.10m (Formerly 35.61m) Total (410.8m³) ⑤ Bridge Piers Foundation-Reinforced concrete Fifth 34.80m (Formerly 34.79m) Body-Reinforced concrete Outer Appearance-Finished with granite Elevation

The Saikoyuranshi Picture

After Kikkawa saw a picture of several stone bridges spanning the islets of the West Lake, he came upon the idea of building piers like islets and connecting them with bridges.





Unfortunately the original drawings from the time of the bridge's construction are not available, but welve drawings used when it was renovated during the Edo era still survive.

cultural property".

Iwakuni Castle Castle, Offices and Residential area of Higher-ranking samurai Nishimi Residential area of Lower and Middle-ranking samurai and towns to Kuga

Taken from a map of the entire Iwakuni Domain (1668 - before the Kintaikyo Bridge was built)

A Bridge That Will Never Be Washed Away

Hiroyoshi Kikkawa worked enthusiastically to obtain the technology he needed. He ordered retainers to research bridges and make prototypes. Even after the 1674 reconstruction he had them learn the high level *Ano*-style stone stacking technique which was subsequently used in the building of the stonewall of Azuchi Castle.

The Kintaikyo Bridge which was the fruits of the cutting-edge technology, with its continuously developing advanced devices, remained invincible against the elements for 276 years until it was washed away by floods caused by the violent typhoon, Kijiya, in 1950.

However in 1953, thanks to the enthusiasm of the townspeople of Iwakuni, the bridge was rebuilt. And in 2004 a renovation project was completed. The bridge we see now has a very long history.

Hashidemai

Everybody who lived in the domain had to pay a special tax, depending on their income, called *hashidemai* which was used to keep the bridge in good repair. It proved a good way of maintaining The Kintaikyo Bridge, which was reputed to be indestructible.

The Fruits of Advanced Technology

We can see the highly advanced technology used in the construction of the Kintaikyo Bridge in other places, too.

For example, one of the bridge carpenters who was involved in reconstruction project designed the Kangiin Kisomon Gate in Kumagaya City, Saitama Prefecture. It is a state-designated "important"

Engineers in charge of a survey concluded, "The design and building techniques of the Kintaikyo Bridge are in perfect accordance with modern principles of dynamics. Present day bridge engineering could not improve it". The soundness proved since the Edo era is almost the same as that of

There are legends, such as "Not one single nail was used" or "If one nail is pulled out, the entire bridge will collapse", which underline how unique and full of wonder the bridge appears because of its high level of technology.

The Fame of the Bridge

The beauty of the Kintaikyo Bridge has been famous since the middle of the Edo era. Although it is located far from the Sanyo Route (see the map of the Iwakuni Domain), other feudal lords who sometimes had to travel from their domains to Edo (the present day Tokyo) made detours to see the bridge.

Due to its elegant appearance not only painters employed by the feudal lord, but other famous talented painters such as Hiroshige Utagawa and Hokusai Katsushika, used the bridge as a motif.

★by Hiroshige Utagawa





★by Yoin Mito(1761)

The bridge which is

thought to have been

painted according to

someone's description can be seen behind the actors.

Soundness Surveys

The Kintaikyo Bridge is one of the most famous arched bridges in the world even though it is made of wood. The biggest concern is decay, which can quickly affect even the core of the bridge. To maintain its sound condition, it is essential to discover any decay in its early stages and take adequate measures. Therefore various periodical surveys are conducted to check the soundness of the bridge.



[The Strength Test (August 12, 2009)]
This is to check the safety of the bridge by measuring "how the bridge transforms when there are people on it".