Stout stonework piers and stone-paved riverbed protection solidly support the bridge with its series of wooden arches reminiscent of outstretched wings. The top of Iwakuni Castle's keep is visible just beyond the top of the mountain in the background. FEATURES

The Kintaikyo Bridge and Its Wooden Arch Structure, a Rare Example in the World

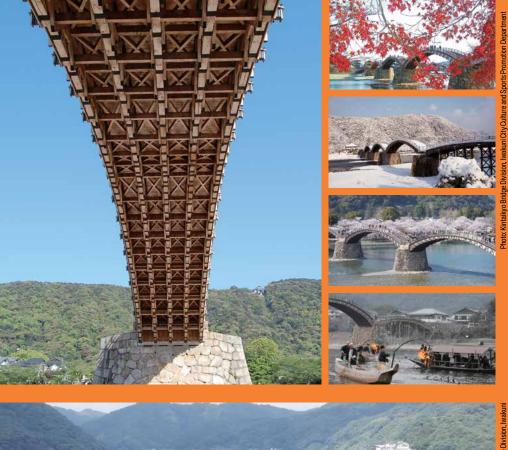
In 2023, Kintaikyo, one prime example of a traditional Japanese bridge, marked the 350th anniversary of its construction. Construction techniques used when the bridge was originally built continue to be maintained, and the bridge still stands today in the same location and has virtually the same form as it always has. We visited to see the beauty of the Kintaikyo Bridge for ourselves. (Text: Kurosawa Akane)

Wakuni City is located at the western edge of Japan's main island of Honshu in eastern Yamaguchi Prefecture. The Kintaikyo Bridge is a fivearched wooden bridge spanning the lower reaches of the pristine, clear-flowing Nishiki River. The bridge is 193.3 m in length and 5 m wide. Designated a National Place of Scenic Beauty,¹ Kintaikyo invariably receives mention as a representative example of traditional Japanese bridge. We interviewed Matsuoka Tomonori, curator of the local Iwakuni Chokokan Museum, about the bridge's historical background and fascinating features.

"Iwakuni was originally a castle town, with a history of development starting at the beginning of the 17th century. Due to the defensive advantages of the

mountainous area on one side of the Nishiki River, a castle was built up on the mountain, with the center of administrative affairs situated at the mountain's base. Since there was only a narrow strip of land on that side, though, the town ended up extending to the opposite shore of the river, where samurai residences and merchant houses were located. This called for a bridge to connect the two parts of the castle town. However, while this river, the Nishiki, has a shallow, peaceful flow ordinarily, when the water depth swells, it transforms into a rapid-flowing torrent. After a repeated process of trial and error seeking to find a way to design a bridge that would not be swept away even by swift currents, the local feudal lord had the Kintaikyo Bridge built in 1673. The bridge has a wooden arch construction (see photo) employing an elaborate kigumi wood joinery technique, supported by stonework piers, that is unparalleled anywhere in the world – a sophisticated, original one-of-a-kind structure."

There have been two instances when the bridge washed away: first in flooding in 1674, right after the bridge was built, and a second time when a typhoon struck the area in 1950. Nevertheless, it was rebuilt each time by replacing damaged sections without altering the original structure and has been maintained in this way. A "Heisei Reconstruction" project led to the com-



Above

Left: A view from below allows closer inspection of the intricate kigumi wood joinery. The unique arch structure³ employs a sophisticated combination of components, including keta (beams), kusabi (wedges), hari (crossbeams), and munagi (ridge beams).

Right: The bridge blends into scenes depicting the features and traditions of all four seasons: the turning leaves of autumn, blanketed with snow in winter, set against rows of blossoming cherry trees in spring, and appearing as a backdrop to a scene of cormorant fishing² in summer.

Below

Left: Panoramic view of the Kintaikyo Bridge Right: Vestiges of the old castle town still remain in the area south of the Kintaikyo Bridge, Visitors will enjoy strolling along streets lined with traditional machiya townhouses.



pletion of the current form of the bridge in 2004. The Kintaikyo Bridge still stands today in the same location and has virtually the same form as it always has.

In 2021, the cultural landscape of the Kintaikyo Bridge and castle town below Iwakuni Castle in the lower reaches of the Nishiki River was designated an Important Cultural Landscape by the Japanese Government.

"By the 19th century, well-known ukiyo-e artists, including Utagawa Hiroshige and Katsushika Hokusai were already depicting the Kintaikyo Bridge as a famous landmark. The beauty of the Kintaikyo Bridge has captivated many people across the ages."

Another charming aspect of the Kintaikyo Bridge is the way it reveals beautiful forms amid the assortment of richly colorful natural scenes that appear around it over the course of the changing seasons: blossoming cherry trees, vibrant autumn foliage, blankets of snow. With each season showing the bridge in such completely different appearances, visitors will not likely tire of visiting the bridge any number of times. Cormorant fishing near the bridge is a local tradition of summer as well. Visitors will also enjoy crossing to the south side of the bridge to stroll through the remaining vestiges of the traditional castle town.

"Iwakuni City is currently working to achieve World Heritage site designation for the Kintaikyo Bridge. We hope this beautiful bridge, which has been maintained over the ages thanks to the passion and effort our predecessors put into it, will be preserved for future generations."

Visitors can take a ropeway to the top of Mount Shiroyama to enjoy stunning views of the bridge from Iwakuni Castle's keep. Views from beneath the bridge also offer closer looks of the



Rokujuyo-shu Meisho Zue: Suo Iwakuni Kintaikyo ("Famous Views of the Sixty-odd Provinces: The Kintaikyo Bridge of Iwakuni, Suo Province") by Utagawa Hiroshige

structure's intricate kigumi wood joinery. Also consider traversing the bridge's rhythmical series of five arches on foot. When you have a chance to visit to Japan, be sure to look into making the trip to Iwakuni to experience the charm of this beautiful bridge, which has remained unchanged since so many ages ago.

^{1.} A form of Cultural Property corresponding to places of high artistic or scenic value as designated by the Japanese national government or local public bodies.

Ukar. A traditional fishing method using trained cormorant birds to catch ayu (sweetfish) and other fish. Keta beams are stacked on top of each other, stretching at angles from the bridge piers toward centers of arches, with kusabi wedges used to fill gaps created by variations in beams' angles. Five parallel keta beams are secured transversely with hari (crossbeams). Keta beams protruding from bridge piers in this fashion are then connected at centers of arches with *munagi* crossbeams.