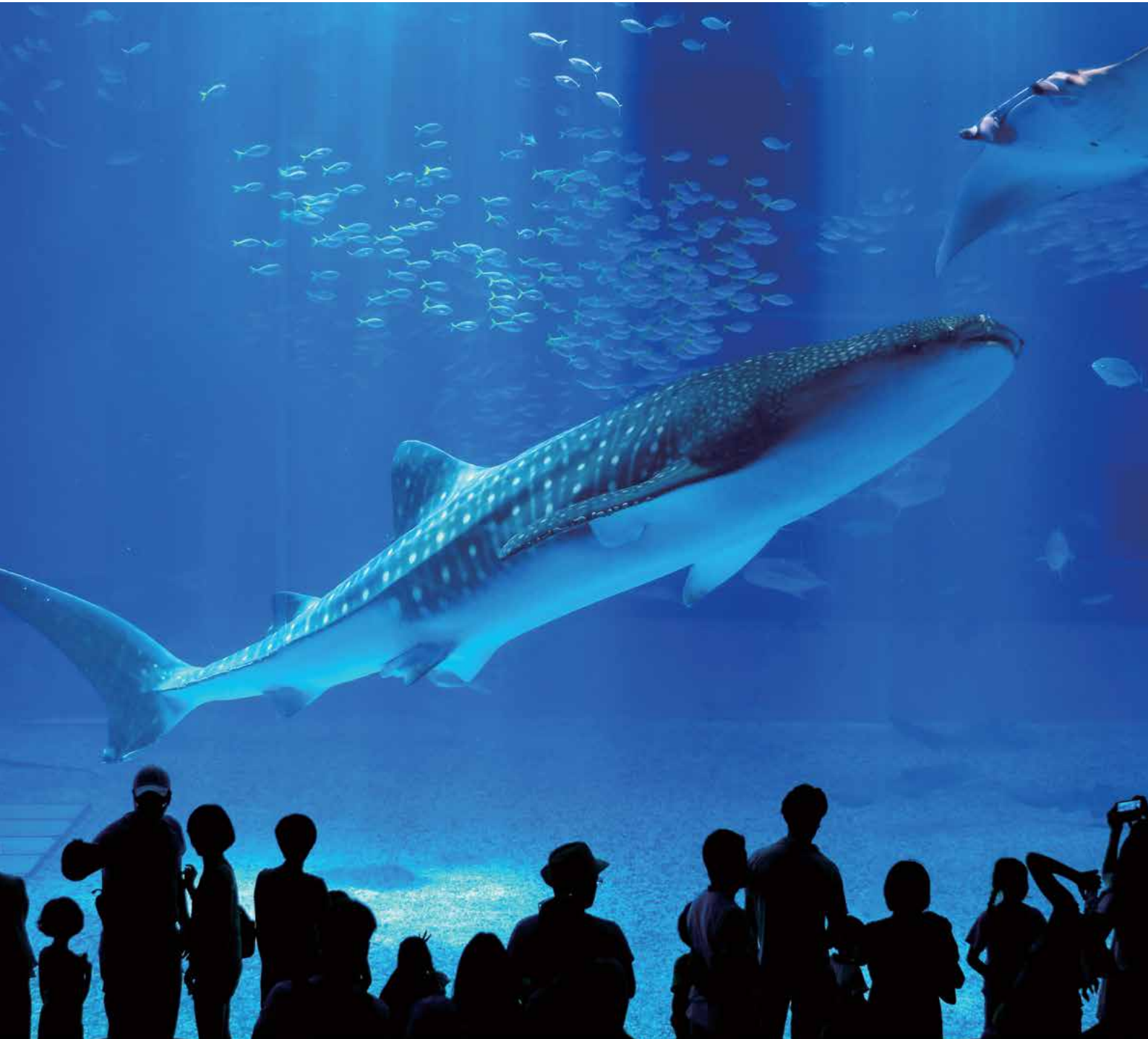


HIGHLIGHTING
Japan

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JAPAN'S ENJOYABLE PUBLIC
AQUARIUMS

CONTENTS

VOL. 196, SEPTEMBER 2024

18



8

10



14

FEATURES

- 6 The Magical Charms of Japan's Public Aquariums**
Interview with MIZOI Yuichi, a professor in the Faculty of Letters at Kansai University
- 10 Enjoy Dynamic Ecological exhibits at the Northern Daichi Aquarium**
Introducing a public aquarium in Kitami City, Hokkaido, known for breeding Sakhalin taimen or *ito* in Japanese, which grow to over one meter in length.
- 12 Aquamarine Fukushima, an Interactive Aquarium where Visitors Can Enjoy Learning about Fukushima's Natural Environment**
Introducing a public aquarium in Iwaki City, Fukushima Prefecture, where visitors can enjoy a variety of interactive programs in addition to exhibits of about 800 species and 50,000 marine creatures.
- 14 Enjoy Interacting with Dolphins at Shimoda Aquarium**
Introducing a public aquarium in Shimoda City, Shizuoka Prefecture, where visitors can experience close encounters with sea creatures, including the opportunity to play with dolphins.
- 16 World Freshwater Aquarium Aquatotto Gifu, One of the Largest of Its Kind in the World**
Introducing one of the world's largest public aquariums specializing in freshwater fish, located in Kakamigahara City, Gifu Prefecture. Visitors can enjoy learning about the local natural environment as well as river environments around the world.
- 18 Osaka Aquarium Kaiyukan: Grand Exhibitions Showcasing Marine Life from the Pacific Rim**
Introducing a public aquarium in Osaka City, which boasts one of the largest exhibits of marine life in the world and recreates the natural environment of various regions of the Pacific Rim.
- 20 Aquarium Combining Art and Living Creatures**
Introducing a new type of public aquarium that combines exhibits of marine life and art in Kobe City, Hyogo Prefecture. Visitors can appreciate marine creatures in a spatial presentation created using digital art and the latest stage design techniques.



22 Okinawa Churaumi Aquarium: highlighting the fascination of Okinawa's Oceans

Introducing a public aquarium in Motobu Town, Okinawa Prefecture, that showcases the attractions of Okinawa's oceans. The aquarium is home to whale sharks that are currently breaking the world's longest breeding record.

ALSO

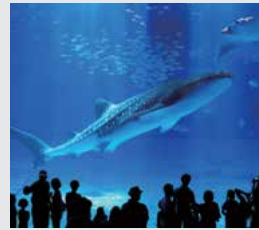
- 24 POLICY-RELATED NEWS I**
Holding of the 2nd AZEC Ministerial Meeting
- 26 POLICY-RELATED NEWS II**
Holding of the Judicial Symposium on Intellectual Property / TOKYO 2024 (JSIP2024)
- 28 DISCOVERING JAPAN THROUGH THE EYES OF JAPANESE INFLUENCERS**
Enjoy Old Japanese Streetscapes in Imai-cho and Chiran Fumoto
- 30 TREASURES OF JAPANESE CULTURE**
The charm of Japan's roads: historical roads, modern Michi-no-Eki, etc.

BACK COVER

THE BEAUTY OF JAPANESE SWORDS
Long Sword ("Tachi"), Known as "Daihannya Nagamitsu"

THEME FOR SEPTEMBER: Japan's Enjoyable Public Aquariums

In Japan, a country surrounded by the sea and full of rivers and lakes, aquatic life is a very familiar presence. Even so, aquariums are popular here. Known for allowing visitors to experience — so to speak — into the underwater world, aquariums are seen by the people of Japan as uniquely unusual and enjoyable spaces. This issue of *Highlighting Japan* features a variety of public aquariums in contemporary Japan. Some specialize in freshwater fish, while others offer not only viewing but also extensive interactive programs. Still others show the world's largest fish species in giant tanks, and some even combine aquatic life exhibits with art.



The Kuroshio Sea tank, home to a whale shark named Jinta that is currently setting the world record for the longest period in captivity. (Okinawa Churaumi Aquarium)

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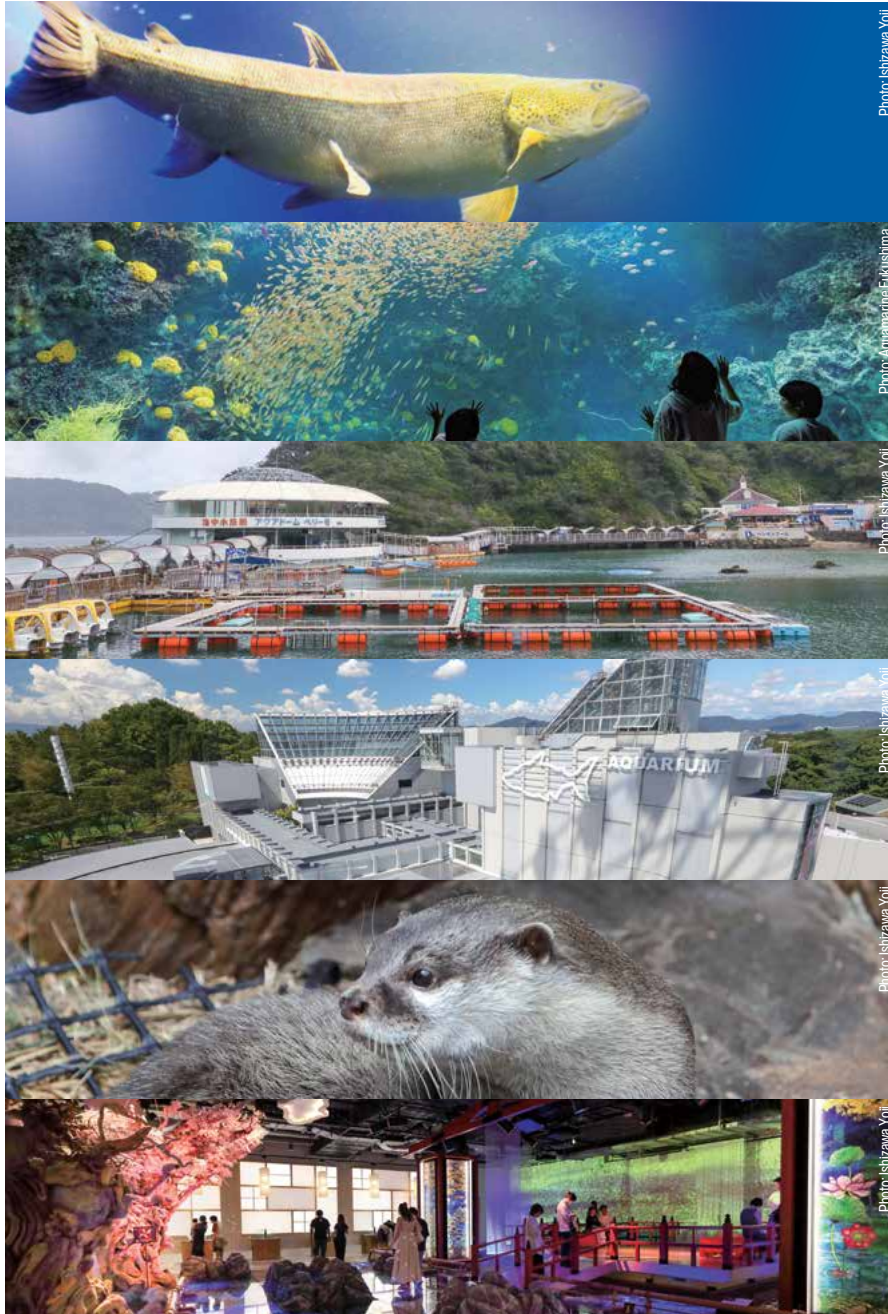
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EDITORS' NOTE

Japanese names in this publication are written in Japanese order: family name first, personal name last.

FEATURES

Japan's Enjoyable Public Aquariums



From top:

A Sakhalin taimen (*ito*), over 1 meter long (Northern Daichi Aquarium)

The Coral Reef Sea. The orange fish in the center of the photo are pigmy sweepers (*kinmemodoki*). (Aquamarine Fukushima)

Shimoda aquarium opened in 1967. Here you can see the circular ship Aqua Dome "PERRY".

The exterior of World Freshwater Aquarium Aquatotto Gifu

The Asian small-clawed otter in the Japanese Forest area. (Osaka Aquarium Kaiyukan)

MIYABI: Between Peace and Light zone features traditional Japanese design elements and a glass-floored aquarium. (átoa)

In Japan, a country surrounded by the sea and full of rivers and lakes, aquatic life is a very familiar presence. Even so, aquariums are popular here. Known for allowing visitors to experience — so to speak — into the underwater world, aquariums are seen by the people of Japan as uniquely unusual and enjoyable spaces. This issue of *Highlighting Japan* features a variety of public aquariums in contemporary Japan. Some specialize in freshwater fish, while others offer not only viewing but also extensive interactive programs. Still others show the world's largest fish species in giant tanks, and some even combine aquatic life exhibits with art.



The Magical Charms of Japan's Public Aquariums

Aquatic life is a very familiar part of life in Japan, a country surrounded by seas on all sides and home to many rivers and lakes as well. Even so, aquariums are popular here. Known for allowing visitors to experience — so to speak — into the underwater world, aquariums are seen by the people of Japan as uniquely unusual and enjoyable spaces. We interviewed MIZOI Yuichi, a professor in the Faculty of Letters at Kansai University, who studies public aquariums, about the charms of Japan's aquariums.

Japan is surrounded on all sides by seas and also has many rivers, lakes, and other water features, making aquatic life a very familiar part of life here. This is part of the reason why so many public aquariums are found throughout the country and enjoy such great popularity. Please tell us about the origins of aquariums, along with their beginnings and history in Japan.

More than one theory exists regarding the origins of public aquariums as they are now called. For example, in ancient Egypt and the ancient Roman Empire, there were ponds where fish were raised for religious reasons or for food, and also for the pleasure of viewing. When people first started to keep fish for ornamental purposes like this, the journey to today's aquariums began.

Meanwhile, the origins of the kind of modern public aquarium everyone is familiar with today can be traced to the United Kingdom in the 19th century. An aquarium of this type built at the London Zoo in 1853 was the world's first. It actually served as the model for the first aquarium built in Japan, as well. This was the *Uo-Nozoki* (Fish-Watching Room) built in 1882 at the Ueno Zoological Gardens in Tokyo. It featured a

very simple structure characterized by a cave-like entrance, as was popular in Europe at the time.

Several years later, in 1897, the full-scale Wadamisaki Aquarium opened in Wadamisaki, Kobe City, Hyogo Prefecture. This one featured fish tanks fully equipped with European-style circulation filtering equipment and was a really fine-looking aquarium, as well.

A number of other aquariums were built in this era, including the Asakusa Park Aquarium in Tokyo and the Sakai Aquarium in Osaka Prefecture, gradually establishing aquariums in different parts of Japan. One that particularly influenced Japanese aquariums as they exist today, though, would have to be the Enoshima Aquarium in Kanagawa Prefecture, which opened in 1954. Its design took full advantage of the latest postwar technologies, including hard vinyl chloride pipes resistant to corrosion, and equipment for controlling the water temperature of the tanks. This formed the basis for expertise used in present-day aquarium construction.



MIZOI Yuichi

Professor in the Faculty of Letters, Kansai University

His 2018 work *Suizokukan no Bunkashi* ("The Cultural History of Public Aquariums") was awarded the Suntory Prize for Social Sciences and Humanities in the Life and Society category. He specializes in two particular fields of study: the history of human-animal relationships and Western cultural history. In the first, he addresses issues concerning how people and animals have coexisted throughout history, based on considerations of zoos, aquariums, and folklore.



Illustration of the time depicting the entrance of the first public aquarium in Japan, the *Uo-Nozoki* (Fish-Watching Room)

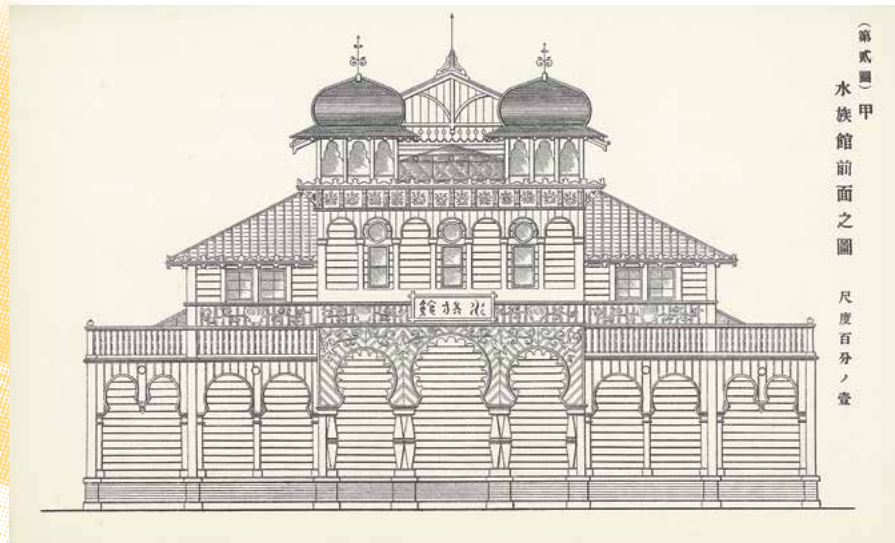


Photo: Japan Fisheries Research and Education Agency

A diagram showing the front of the Wadamisaki Aquarium. Considered the first full-scale public aquarium in Japan.



Photo: Enoshima Aquarium

The Enoshima Aquarium, one of the leading examples of a modern public aquarium in Japan, at the time of its opening

Could you discuss any other significant technological innovations that might have influenced the development of public aquariums as we know them today?

First of all, some considerably ambitious experiments were being made in the 19th century concerning display methods. One example is the saltwater aquarium at the 1867 Paris Expo, where a design surrounding visitors on all four sides, as well as the ceiling, with fish tanks created a more realistic viewing experience. One problem, though, was that glass at that time tended to break easily, which made it danger-

ous. The technologies of the time could not produce glass strong enough to safely withstand the weight of the water. In the 1930s, however, acrylic glass was developed. Due to its extreme strength and ability to withstand great weight, it was adopted in aquariums around the world. It also offered the benefit of being easier to process than ordinary glass. The appearance of this acrylic glass made it possible to create displays with large fish tanks, as seen in modern aquariums. It also enabled designs like circular tanks that surround viewers, and themed exhibits then became popular.

Also, in Japan, after World War II ended, donut-



The New England Aquarium in the city of Boston in the USA. A large, cylinder-shaped fish tank is featured in the center of the aquarium facilities.



An exhibit at Tokyo Sea Life Park features a type of donut-shaped circular fish tank developed in Japan

shaped circular tanks were developed, allowing the exhibits with sense of presence to be designed, where fish would swim all around the viewers.

Are there factors other than technological progress that have influenced aspects like display methods?

Since the 1960s, particularly in Japan and the West, it has become more common to design aquariums with a unified concept or a sense of story. The Kaiyukan aquarium in Osaka Prefecture, which opened in 1990, is a good example of this. It is a large, eight-story aquarium featuring a vertical gallery-style lay-

out. Visitors start at the top and make their way downward, viewing a variety of exhibits along the way. The main Pacific Ocean tank, extending from the 6th floor down to the 4th, offers a realistic experience, as if descending into the sea. After watching massive whale sharks swimming in the huge tank, visitors can view sea creatures that inhabit the seas of the Ring of Fire, a volcanic zone surrounding the Pacific Ocean, separated into different habitats by area. Currently, this type of exhibit style, featuring a clear sense of story, is becoming mainstream in aquarium design in Japan.

Could you discuss the Japanese historical or social background of any factors that might have made aquariums so popular in Japan?

The Wadamisaki Aquarium I described earlier has a form that calls to mind a European church. Interestingly, though, some design features like its arches also feature Indian-style motifs. I think we can assume that features like this express the image Japanese people have of the imaginary Ryugu-jo Castle,¹ also known as the Palace of the Princess Otohime or the Dragon King. This is because images of Ryugu-jo Castle are considered to have been established in India and China. Also, Ryugu-jo appears in the story of Urashima Taro,² a fairy tale very familiar to people in Japan, involving a fisherman who visits the underwater castle. Other than this case, there are songs that compare the experience of visiting the Asakusa Park Aquarium

that opened in Tokyo in 1899 with making a trip to Ryugu-jo Castle. There were ideas that visiting an aquarium could be like taking a trip to a place removed from the experience of everyday life, like Ryugu-jo Castle, offering the experience of another world different than the traditional Japan people knew. I think we can definitely say that such ideas helped establish the popularity of aquariums in Japan.

Beyond this, Japanese people tend to like facilities with names that end in “-rium,” like aquariums and planetariums. They have a great preference for experiences in which other worlds are represented



Satsuma haorimushi tube worms can be viewed at the Kagoshima Aquarium



A tank with no fish exhibited at the Kagoshima Aquarium warns of the danger of overfishing



Take note of the souvenirs and gifts at aquariums, featuring detailed designs.


in limited spaces. Although the reason for this is not clear, I have proposed a hypothesis that it is related to Japanese landscape gardening traditions. In the long history of Japanese garden design, arrangements of elements including water, stones, and plants in limited spaces have been used to reconstruct famous landmarks and places of scenic beauty considered ideal from all over the country. There is an existing culture of reconstructing favorite parts of natural landscapes and enjoying them in that form. In a way, the originally Western conception of the public aquarium may have been combined with that element of Japanese culture as aquariums developed here.

Do you have any special recommendations for sightseers from overseas from among the many public aquariums found in Japan?

Although the exact number is not clear, there are said to be as many as 150 aquariums in Japan, and they are extremely diverse. In considering which ones I should point out from among those, I look at the four main functions that aquariums are expected to fulfill: research, education, conservation, and entertainment. I would like to recommend aquariums that show a commitment to at two of those in particular, those which have a focus on educational and conservation efforts and solidly reflect that in their displays. One that I personally feel shows an ideal balance in that regard is the Tokyo Sea Life Park, which opened in Tokyo in 1989. It offers displays in circular fish tanks that surround visitors, offering the enjoyment of an experience with sense of presence that feel almost like being underwater. It also has outdoor facilities allowing visitors to view thoroughly detailed, realistic re-creations of natural environments from around the

Tokyo area.³ At the same time, the aquarium works to promote conservation and research concerning living creatures found in Tokyo and Hokkaido. It is also the successor of the *Uo-Nozoki* (Fish-Watching Room), Japan's first aquarium. From this historical standpoint as well, I consider it a representative example of Japanese aquarium facilities.

Another I would definitely recommend travelers to visit is the Kagoshima Aquarium, which opened in Kagoshima Prefecture in 1997. I personally consider this one of the most outstanding public aquariums in Japan. One reason, first of all, is how amazing its location is, directly across from the volcano of Sakurajima, making it seem so integrated with the majestic natural setting. Another is the way the aquarium has focused on showing visitors local Kagoshima marine life since it first opened, such as placing a local invertebrate (a life form without a backbone) from Kagoshima Bay called *Satsuma haorimushi* (*Lamellibrachia satsuma*), a kind of tube worm, in the main exhibit. Beyond this, there is even a Silent Sea exhibit consisting of a tank in which no fish can be seen, showing only empty blue space, intended as a warning about the danger of ongoing overfishing. I feel the value they are placing on clear messaging like this is excellent.

One more thing I hope visitors to public aquariums in Japan will take note of is that the souvenirs and gifts are available for purchase. Very high-quality figurines and paper crafts can be found at Japanese aquariums. I imagine that people from outside Japan would enjoy items like these as well. 

1. A castle or palace appearing in legends regarding sea deities in India, China, and areas throughout Japan.
2. The tale of Urashima Taro: Please refer to the following: "HIGHLIGHTING Japan July 2014" (https://www.gov-online.go.jp/eng/publicity/book/hj/html/201407/201407_09_en.html)
3. Currently closed (as of late September 2024) due to the renovations being made to the aquarium.

FEATURES

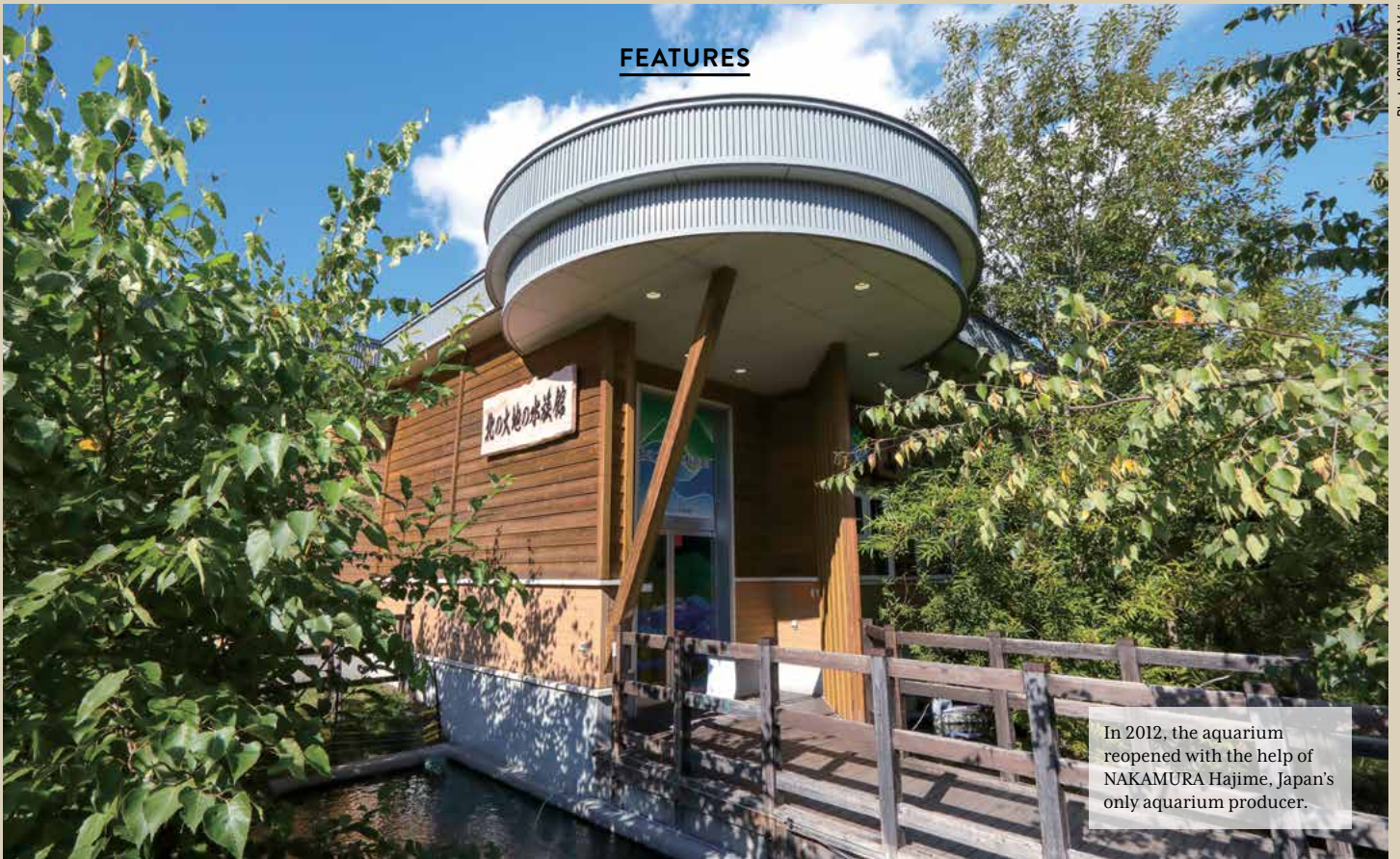


Photo: ISHIZAWA Yoji

In 2012, the aquarium reopened with the help of NAKAMURA Hajime, Japan's only aquarium producer.

Enjoy Dynamic Ecological exhibits at the Northern Daichi Aquarium



Photo: ISHIZAWA Yoji

Redtail catfish (center), tambaqui (*korosoma*, top left and right), and other large freshwater fish are displayed in the Amazon Corner.

The Northern Daichi Aquarium (Mountain Aquarium)¹ is located at the Road Station Onneyu Onsen Michi-no-Eki² in Kitami City, Hokkaido. This popular aquarium is known for breeding the rare freshwater Sakhalin taimen, or *ito* in Japanese, which grow to over one meter in length.

(Text: MOROHASHI Kumiko)



Photo: ISHIZAWA Yoji

A Sakhalin taimen (*ito*), over 1 meter long



Photo: Northern Daichi Aquarium

The Four Seasons of Northern Daichi, a water tank reproducing the frozen surface of a river in winter.

Kitami City is located in the eastern part of Hokkaido, where the temperature varies so widely, from a high of 35°C in summer to a low of -20°C in winter. Onneyu Onsen is a hot spring resort located in Kitami City, an area blessed with nature and surrounded by three national parks: Akanmashu, Daisetsuzan, and Shiretoko. The resort has a history of over 120 years since its opening. The Northern Daichi Aquarium was built as a part of the Road Station Onneyu Onsen Michino-Eki as a symbol of the hot spring resort. Aquarium director YAMAUCHI So told us about its special features.

“The aquarium specializes in exhibiting freshwater fish from Hokkaido and tropical freshwater fish from around the world, as well as other freshwater creatures. The Hokkaido freshwater fish exhibit area features an aquarium that reproduces the seasonal changes in rivers, as well as over 20 Sakhalin taimen (*ito*), Japan's largest freshwater fish, which grow to more than 1 meter in length. A member of the salmon family, this fish is an endangered species currently found only in some rivers and lakes in Hokkaido. Visitors can see these endangered fish swimming around in the large tank. In the tropical freshwater fish of the world area, visitors can see beautifully grown fish in a tank that uses hot spring water from the nearby hot springs.”

At this aquarium, visitors can watch rare Sakhalin taimen (*ito*) prey on their food.

“Sakhalin taimen (*ito*) prey on rainbow trout on Tuesdays, Thursdays, and Saturdays at 2:30 p.m. from late May through January. This is a time for visitors to learn about the value of life through the fact that living things must eat something to survive.”

In this aquarium, ecological environments have also been recreated, and visitors can enjoy seeing fish as they are in the rivers where they live and swim. According to NAKAMURA Hajime³, Japan's only aquarium producer who plans aquarium exhibits, the aquarium worked especially hard on the Four Seasons

of Northern Daichi exhibit. It is an ingenious exhibition method developed from the novel idea of making the most of the natural features of Kitami City, one of the coldest cities in Hokkaido.

“During the winter here, the temperature often drops below -20 degrees Celsius, with lakes and rivers freezing over. The aquarium recreated this environment with a tank located outside. The surface of the water usually freezes in this tank for about a month

during the frigid season, from January to February, with fish visibly lingering beneath the ice, awaiting spring.”

Another highlight is a tank that recreates a waterfall basin where visitors can see the rare Dolly Varden trout (*oshorokoma*).

“The beautiful Dolly Varden trout (*oshorokoma*) is a member of the char family⁴ and lives in the cold waters of Hokkaido. A waterfall tank was created to reproduce the rapids produced by waterfalls. In this way, visitors can watch this trout swimming vigorously as it would in the majestic rivers of Hokkaido. You will truly feel as if they have stepped into a waterfall basin.”

All of the exhibits are realistic and dynamic. They capture the scenery and dynamism of Hokkaido's magnificent nature and the ecology of the fish that live there.

“Visitors from overseas can scan the QR codes next to the exhibits to read explanations in English, Chinese (traditional/simplified), and Korean. I hope that visitors will visit the aquarium when they come to Hokkaido sometime.”

“Visitors from overseas can scan the QR codes next to the exhibits to read explanations in English, Chinese (traditional/simplified), and Korean. I hope that visitors will visit the aquarium when they come to Hokkaido sometime.”



Photo: SHIZAWA Yoji

The waterfall tank, where you can watch fish (Dolly Varden trout, *oshorokoma*) swimming powerfully to avoid being swept away by the torrent created by the waterfall.

1. The official legal name is the Mountain Aquarium. The nickname Northern Daichi Aquarium was chosen by local residents a year after opening and is used exclusively except in official municipal documents. Moreover, the Japanese word *daichi* means “earth” or “vast land” in English.
2. Rest facilities built on public roads in Japan with certain requirements and which must be registered with the government through an application by the municipality. Currently, there are more than 1,200 registered (as of August 2024). In addition to offering a chance to refresh, these facilities must also have tourist information and provide local development facilities for the community.
3. NAKAMURA Hajime: After he began working at Toba Aquarium, he was involved in PR and marketing and helped to successfully renovate the aquarium. After he left Toba, he became Japan's first aquarium producer and has been involved in the renovations of numerous aquariums, including Enoshima Aquarium (Kanagawa prefecture) and Sunshine Aquarium (Tokyo), as well as this aquarium.
4. A freshwater fish in the family Salmonidae. An example of Japan's mountain stream fish.

Aquamarine Fukushima, an Interactive Aquarium where Visitors Can Enjoy Learning about Fukushima's Natural Environment

Aquamarine Fukushima is an interactive aquarium located in Iwaki City, Fukushima Prefecture. The beautiful aquarium building, covered by a glass dome, is home to approximately 800 species and 50,000 creatures. In addition to the exhibition facilities, there are fishing spots and a vast beach where visitors can enjoy not only viewing but also various hands-on programs. It is a popular aquarium that about 610,000 people visited in the last fiscal year (2023).

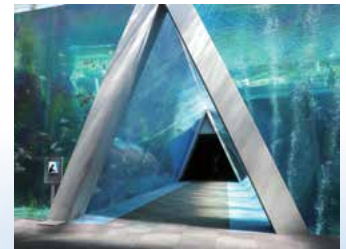
(Text: MOROHASHI Kumiko)

Aquamarine Fukushima (official name: Fukushima Marine Science Museum), located in Iwaki City, Fukushima Prefecture, faces the Pacific Ocean. The aquarium opened in 2000 as a lifelong educational facility with the basic philosophy of thinking about the future of people and the earth through the ocean.

According to NISHIYAMA Ayano, who works in the Educational Planning and Sales Department, the aquarium is unique in that it has a clear theme for its exhibits. It is also unique in that in addition to exhibiting living creatures in the water, they have reproduced

the creature's natural habitats.

“The offshore area of Fukushima Prefecture is at the intersection of ocean tides, where the warm Kuroshio Current¹ from the southern seas of the Japanese archipelago meets the cold Oyashio Current² from the north, and this area is the main theme of our exhibits. The Large



The Large “Shiome” Tank, depicting the meeting of the Kuroshio and Oyashio currents.

Photo: ISHIZAWA Yoji

Photo: ISHIZAWA Yoji

Aquamarine Fukushima is located at Iwaki City, Fukushima Prefecture.



“Shiome” Tank has a display capacity of 2,050 tons of water. This exhibit is divided into the Kuroshio Aquarium and the Oyashio Aquarium by a triangular tunnel. In the Kuroshio Aquarium, visitors can see powerful schools of migratory fish, such as sardines and bonito, swimming in the open sea, while in the Oyashio Aquarium, herring (*nishin*), starry flounder (*numagarei*), Japanese smelt (*chica*), and other fish of the northern seas are on display along with an abundance of seaweed.”

NISHIYAMA also recommends the Coral Reef Sea



Photo: Aquamarine Fukushima



Photo: SHIZAMA Yoji



Photo: SHIZAMA Yoji

Above: The Coral Reef Sea. The orange fish in the center of the photo are pigmy sweepers (*kinmemodoki*).

Middle: The spotted garden eels (*chin-anago*) are also popular in the Coral Reef Sea exhibit.

Below: The Waters of Tropical Asia. It faithfully reproduces natural habitat environments.

exhibit.

“In addition to real coral, the exhibit features a unique long, slender, sand-hugging spotted garden eels (*chin-anago*) and a school of golden-lipped pigmy sweepers³ (*kinmemodoki*) that shine in the sunlight.”

In addition, the aquarium offers a full range of educational programs as a fun aquarium of learning.

“With the Fishing Experience⁴, you can eat the fish you catch fried on the spot. This is a hands-on program that allows visitors to think about the fact that they are ‘eating’ life. The aquarium also features Janome Beach, a 4,500-square-meter artificial reproduction of a seashore, beach, and tidal flat environment on the aquarium grounds, where visitors can actually enter the water and observe marine life up close. In addition, although not aquatic animals, there are a variety of hands-on facilities, such as Egg Forest Animal Play, an outdoor area with playground equipment that challenges the abilities of animals, as well as exhibits of animals that live in Japanese forests, such as Japanese squirrels. You can have fun while learning about living creatures.”

Aquamarine Fukushima’s unique way of running an aquarium, which allows visitors to learn about the protection of the natural environment and the importance of life through these exhibits and experiences, has been highly acclaimed both in Japan and abroad.

NISHIYAMA explains, “The official website is available in English, Korean, and Chinese (traditional/simplified) as well as Japanese, so I hope you can learn more about the aquarium there.”


Please visit Aquamarine Fukushima’s website, and for those who have a chance to visit, see the exhibits and try the various hands-on activities. 



Photo: Aquamarine Fukushima



Photo: SHIZAMA Yoji

Above: A photo from the fishing spot. You can eat the fish you catch on the spot.

Below: One part of Janome Beach. Here, visitors can enjoy playing on the shore and seeing sea creatures, such as starfish and sea cucumbers, up close.

1. A warm current that is also called the Japan Current. This ocean current flows northward from the East China Sea into the Pacific Ocean on the east side of the Japanese archipelago and then flows northward along the southern coast of Japan.
2. A cold current, also known as the Chishima Current. This ocean current flows southward along the Chishima Islands, located northeast of the eastern tip of Hokkaido in the northern part of the Japanese archipelago, to the Pacific Ocean side of the northeastern region of Honshu in Japan.
3. About 6 cm long, this fish lives in rocky reefs and coral reefs in shallow waters. The school of fish changes into a variety of shapes as they swim.
4. The fishing experience is currently suspended (as of the end of September 2024).

Shimoda aquarium opened in 1967. Here you can see the circular ship Aqua Dome "PERRY".



Enjoy Interacting with Dolphins at Shimoda Aquarium

Mt. Fuji rises almost in the center of the Japanese archipelago, and to the south, jutting out into the Pacific Ocean, is the Izu Peninsula. The Shimoda aquarium, located in Shimoda City at the tip of the peninsula, offers a variety of ways to interact with dolphins, as well as many fun and educational facilities. At this aquarium, visitors can experience sea creatures up close.

(Text: MOROHASHI Kumiko)

Shimoda City is in Shizuoka Prefecture and is where Shimoda aquarium is located. This city is at the tip of the Izu Peninsula, a warm region surrounded by sea and mountains. Within 140 km of central Tokyo, it is possible to make a one-day trip by Shinkansen or limited express train.

Shimoda is a historic port town, having been the first port in Japan to open¹ in 1854. It is a popular tourist destination with a nostalgic atmosphere and rich natural surroundings.

YASUDA Kenta works at Shimoda aquarium in port town of Shimoda. He told us about the special features of the facility.

"The Aquarium is one of the few aquariums in Japan to utilize a natural cove (Waka-no-Ura) as part of its facilities. This cove has a surface area of 18,000 square meters, where dolphins and other creatures can be seen living freely. The main exhibition space is a circular ship tied up in the cove called Aqua Dome "PERRY". There are 10,000 organisms of 50 species, including



Photo: ISHIZAWA Yoji

The world's only underwater sea lion show

fish, invertebrates, and seaweed, on display in this reproduction of the undersea environment of the Izu Peninsula and its surroundings. At Umimeguri, a marine creature museum of Izu's marine life, creatures that live in the waters around Izu are also on display. Visitors can see the features of the shimmering water, fish, and coral up close here, made easier to see by the



Photo: SHIZAWA Yoji

You can feed and interact with the dolphins in the cove.



Photo: SHIZAWA Yoji

Visitors can interact with dolphins when they come to the shallows at Dolphin Beach

use of lighting.”

Major features of Shimoda aquarium include its extensive shows and programs for interacting with animals. In particular, the aquarium offers the world’s only underwater sea lion show, as well as a variety of programs that allow visitors to enjoy direct contact with dolphins.

“This is the first aquarium in Japan to offer direct contact with dolphins. In addition to the Dolphin Feeding program, where visitors can feed and interact with dolphins, and the Dolphin School program, where visitors can learn about dolphin ecology, the dolphins’ big jumps are also very popular.”

Aquarium staff pay special attention to the breeding of popular dolphins and other animals.

“We thoroughly manage the

health of the living creatures we keep, including regularly taking their temperatures and conducting blood tests. We also conduct daily inspections of the facilities where the animals are kept. We pay the utmost attention to the physical condition of the animals, as the purpose of our hands-on programs is to exhibit to the public the various outstanding abilities that the animals possess.”

There is an English website for visitors from overseas, and as more and more overseas visitors are participating in the dolphin hands-on program, aquarium staff use a small interpreting device to communicate with visitors in English.

“In our hands-on programs, you are very close to the creatures so that you can see their minute expressions and movements up close. This aquarium is interactive. If you visit, I hope you can interact with creatures that you aren’t normally able to come into contact with,” Yasuda emphasized. **7**

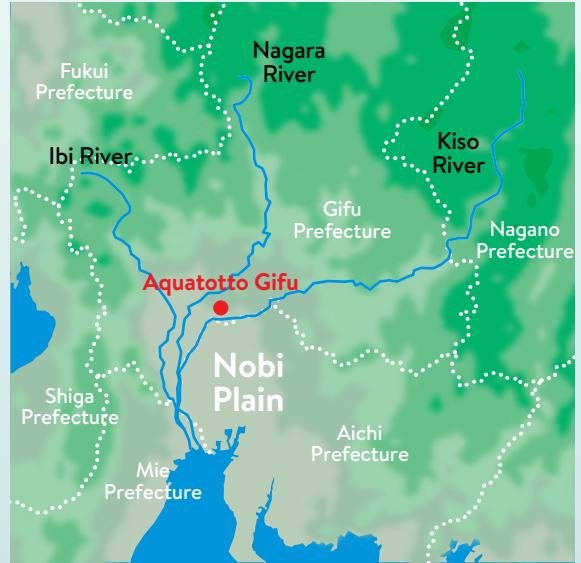
1. In 1853, a fleet of American ships led by Commodore Matthew Perry arrived in Shimoda, and with the signing of the Japan-US Treaty of Peace and Amity (in 1854), the port became the first in Japan to be opened to the world.



Photo: SHIZAWA Yoji

The ocean stage makes use of a cove, and here, visitors can see jumping dolphins.

World Freshwater Aquarium Aquatotto Gifu, One of the Largest of Its Kind in the World



World Freshwater Aquarium Aquatotto Gifu specializes in freshwater fish. Visitors can enjoy learning about the local natural environment as well as river environments around the world while thoroughly appreciating the freshwater fish here. (Text: MOROHASHI Kumiko)

Gifu Prefecture is located roughly in the center of the Japanese archipelago. About 80% of the area is mountainous, with mountains in the northern part rising over 3,000 meters above sea level. The southern part of the region features a plain (Nobi Plain), as well as the Kiso River, the Nagara River, and

the Ibi River¹, which together are called the Kiso Sanzen, or the Three Rivers of Kiso. They flow from the mountains and have fostered a rich ecosystem. This year marks the 20th anniversary of Aquatotto Gifu's opening in 2004, one of the world's largest freshwater fish aquariums. Located in Kakamigahara City,

Photo: ISHIZAWA Yoji



The waterfall tank that recreates a waterfall in the upper reaches of the Nagara River

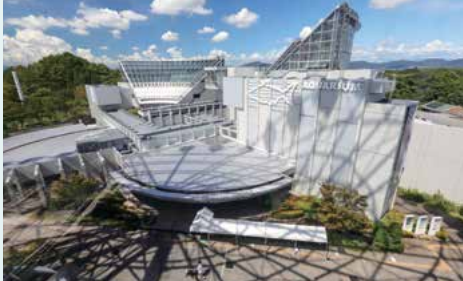


Photo: SHIZAWA Yoji

The exterior of World Freshwater Aquarium Aquatotto Gifu

it mainly features freshwater fish that live in nearby rivers. It is now a popular tourist attraction, visited by about 490,000 people annually. We spoke with TSUTSUKI Takumi, the public relations manager, about the aquarium's unique features.

“This aquarium specializes in freshwater fish based on the concept of showcasing fish from the headwaters to the mouth of the Nagara River, and freshwater fish from around the world. The aquarium has around 220 species and around 20,000 fish and amphibians on display. The aquarium building is four stories tall. Each floor has a specific location theme and creatures on display. The theme of the fourth floor is the headwaters of the Nagara River, where the natural environment, including forests and waterfalls, has been meticulously recreated, allowing visitors to get

up close and personal with small salamanders and other animals. The third floor is designed to look like a river going down from the upper stream of the Nagara River to the middle stream and the mouth of the river, where visitors can view rare species such as dwarf topmouth minnow² (*ushimotsugo*).

On the second and first floors, freshwater fish from rivers around the world are displayed, and in the Mekong River area on the second floor, visitors can see the Mekong giant catfish (*mekon oonumazu*), one of the largest freshwater fish in the world. In the Amazon River area on the first floor, visitors can see the Arapaima (*piraruku*), a giant fish that can grow up to 4 meters in length. The Arapaima (*piraruku*) is believed to have remained unchanged for 100 million years and is considered a living fossil. On the first floor, there are areas where visitors can observe waterfront creatures, including the Giant Tortoise Plaza and Capybara Terrace. There is also the clear-flowing interaction pool where visitors can feed sturgeon (*chozame*) directly, which is popular with children.”

In addition, the aquarium is dedicated to the conservation of endangered species.

“Since its opening, the aquarium has steadily promoted conservation activities for endangered species in the region, such as the dwarf topmouth minnow (*ushimotsugo*) and the deepbody bitterling³ (*itasenpara*). In recognition of these efforts, the aquarium was certified by the Minister of the Environment in 2018 as the first Aquarium for the Conservation of Rare Species in Japan.”

TSUTSUKI hopes that visitors from overseas will have the opportunity to experience the aquarium's exhibition space in its entirety.

“Along with looking at the fish, we hope visitors will feel the richness of Gifu's natural environment as well as river environments from around the world through the aquarium's exhibits, which partially recreate each area's natural beauty.” If given the opportunity, he hopes tourists will have a chance to visit this freshwater aquarium. **■**



Photo: SHIZAWA Yoji

Above left: The 4th floor exhibit, a detailed reproduction of the nature of the Nagara River basin



Photo: SHIZAWA Yoji

Below left: The exhibit changes as the river changes from the upper reaches of the Nagara River to its mouth.

Below right: A dwarf topmouth minnow (*ushimotsugo*) that was successfully bred here



Photo: SHIZAWA Yoji



Photo: SHIZAWA Yoji

Above left: The Mekong giant catfish (*mekon oonumazu*, about 2 meters long), one of the world's largest freshwater fish living in the Mekong River, are quite a sight to behold



Photo: World Freshwater Aquarium Aquatotto Gifu

Above right: The deepbody bitterling (*itasenpara*), designated as a national natural treasure

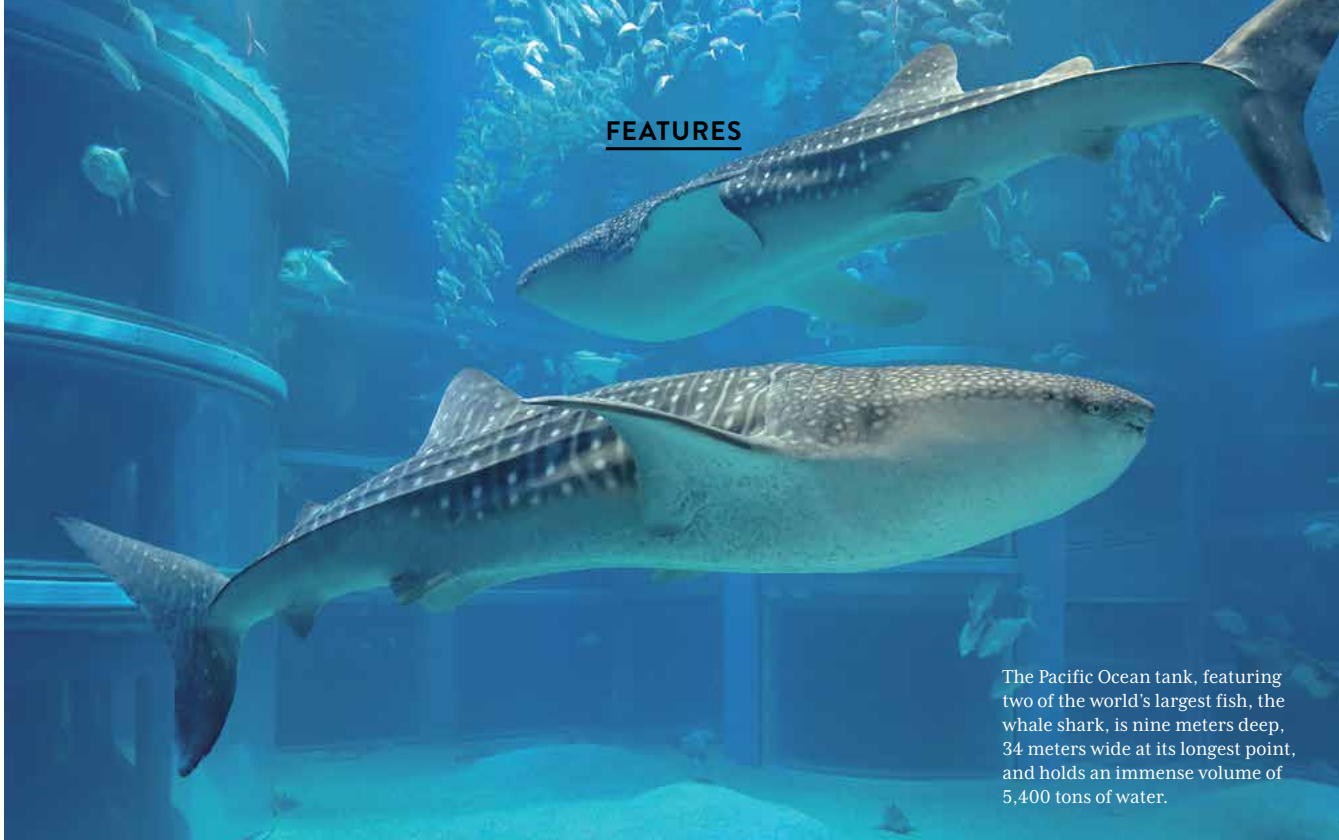


Photo: SHIZAWA Yoji

Below left: The outdoor area, which opened in 2024, allows visitors to observe aquatic organisms such as the *Acheilognathus tabira tabira*, or shirohire tabira in Japanese, a member of the Bitterling family of fish.

1 The Kiso River system, known as the Kiso Sansen and which consists of the three main rivers - the Kiso River, the Nagara River, and the Ibi River - has a drainage area of 9,100 km², making it one of the largest in Japan. The Kiso River is approximately 229 km long, while the Nagara River is approximately 166 km long, and the Ibi River is approximately 121 km long.
 2 A freshwater fish of the carp family, *Carpidae*. It is thought to have been widely distributed in the Nobi Plain, but today it is found only in a few reservoirs and waterways and is feared to be extinct.
 3 A freshwater fish of the carp family, *Carpidae*. It is designated as a national natural monument. It was thought to be extinct in Gifu Prefecture, but by chance, aquarium staff confirmed the species in the Kiso River in 2005 and approached the Ministry of the Environment, which led to conservation efforts.

FEATURES



The Pacific Ocean tank, featuring two of the world's largest fish, the whale shark, is nine meters deep, 34 meters wide at its longest point, and holds an immense volume of 5,400 tons of water.

Osaka Aquarium Kaiyukan: Grand Exhibitions Showcasing Marine Life from the Pacific Rim

In Osaka City, Osaka Prefecture, there is an aquarium with one of the largest collections of marine life exhibits in the world. Since opening in July 1990, the aquarium has attracted approximately 85 million visitors. We spoke with a staff member to learn more about the features of this remarkable facility.

(Text: Tanaka Nozomi)

With its distinctive appearance, Kaiyukan stands out and is a landmark of the Osaka Bay Area.



Located about 30 minutes by train from Shin-Osaka Station, a major transportation hub where the Shinkansen stops, and approximately an hour by bus from Kansai International Airport, the Osaka Bay Area attracts many visitors as a popular recreational destination. Within this area, in a complex featuring a Ferris wheel and other attractions, is the Osaka Aquarium Kaiyukan, commonly referred to as Kaiyukan. The public relations officer describes its features as follows: “The aquarium houses and exhibits approximately 620 species and 30,000 individual marine creatures. A major feature is the concept that our planet and all living things on it are closely integrated with each other, forming a single organism. We achieve this by recreating the natural environments of the Pacific Rim regions surrounding the Pacific Ocean in our exhibits.”

Among the tanks named after various regions of the Pacific Ring of Fire¹, the massive Pacific Ocean tank, which stretches from the 6th to the 4th floor at the center of the building, features the leisurely swimming of the large whale sharks².

“The whale sharks at Kaiyukan have nicknames: the male is named Kai, and the female is named Yu. These nicknames are retained even when the individual sharks are replaced, creating a lasting bond with our visitors. The whale shark, the largest shark species in the world, can grow to over 12 meters, but many aspects of its biology remain a mystery. At Kaiyukan, we compile records from daily observations of behavior and measurements of length. Actually, after a certain period of care, we release them back into the ocean with tracking devices attached to study their natural migration routes and other movements.”

“Moreover, in the area known as Japan Forest, visitors can see small-clawed otters in a landscape featuring a flowing waterfall and lush vegetation resembling a Japanese forest. Other highlights include the Tasman Sea tank, which represents the waters between southeastern Australia and New Zealand in the southwestern Pacific, where you can find Pacific white-sided dolphins³, and the Arctic Circle tank, home to popular seals. Each of these exhibits features beloved animals that capture the hearts of our visitors.”


Another feature of Kaiyukan is its focus on foreign tourists. “We currently offer brochures in 6 languages and our staff are attentive, providing greetings and assistance to enhance the guest experience. With a nearby amusement park, visitors can have a great time, so we encourage everyone to come and visit us.” 



Photo: ISHIZAWA Yoji

The Asian small-clawed otter in the Japanese Forest area.



Photo: ISHIZAWA Yoji

The Pacific white-sided dolphins in the Tasman Sea tank are named for their dorsal fins, which resemble a scythe.



Photo: ISHIZAWA Yoji

California sea lions swimming in the Monterey Bay tank, which represents the Pacific Ocean off the coast of California, USA.

1. The Pacific Ring of Fire is a region of concentrated volcanic activity surrounding the Pacific Ocean, including the west coasts of the Americas, the Aleutian Islands, the Kamchatka Peninsula, the Japanese Archipelago, the Philippines, New Guinea, and extending to New Zealand.
2. The whale shark is the largest fish species in the world, found in temperate and tropical coastal and open ocean waters around the globe. In Japanese waters, they migrate from early summer to autumn.
3. The Pacific white-sided dolphin, which is commonly found in the temperate regions of the North Pacific, grows to about two meters in size as an adult and lives in groups.

Aquarium Combining Art and Living Creatures

Kobe City in Hyogo Prefecture is home to a cutting-edge aquarium called AQUARIUM × ART átoa that combines aquarium¹ and art. This aquarium allows visitors to view marine life amid digital art² and the latest stage designs³. We spoke with the PR representative from the operating company to learn more about the concept and features of átoa, which combines elements of an aquarium and an art museum into one integrated experience. (Text: TANAKA Nozomi)

AQUA TERRA, located in the PLANETS: Miracle Planet zone, measures three meters in diameter and is one of Japan's largest spherical aquariums.



CAVE: Cave of the Beginning: This zone features lighting that reflects off the floor, simulating schools of fish swimming underwater, creating a magical effect.

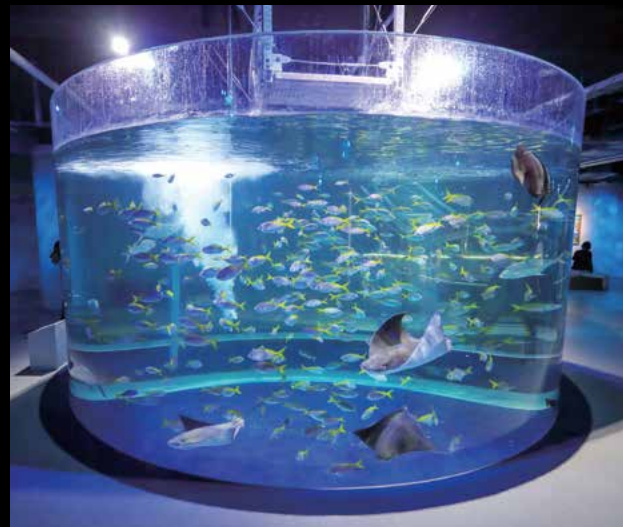


ELEMENTS: Spirit Forest zone, the background greenery is arranged like avant-garde ikebana, making the entire space a work of art.

Below left: FOYER: The Chamber of Quest zone: Visitors can also see the rare freshwater fish *Sciaenochromis fryeri* ("Electric Blue Hap"), native to Lake Malawi in Africa.

Below right: MARINE NOTE: Fluctuation of Life zone features the Mega Cylinder, a large cylindrical aquarium five meters in diameter and approximately 2.4 meters deep, where flapnose rays swim.

MIYABI: Between Peace and Light zone features traditional Japanese design elements and a glass-floored aquarium.



Photos: ISHIZAWA Yoji



Photos: ISHIZAWA Yoji

SKYSHORE: Skyside Garden: The open zone on the rooftop is popular for housing animals like the endangered small-clawed otters and capybaras, which have been decreasing in number in recent years.

Kobe City, Hyogo Prefecture, has long flourished as a port town and is a central city in the Kansai region⁴, alongside Osaka and Kyoto. In the Sannomiya area of Kobe, known for its large commercial facilities, redevelopment projects are underway along the waterfront. One such project is the opening of the aquarium, *átoa*, in 2021. Since its opening, the aquarium has already attracted two million visitors.

FUKUZAKI Fumi, the aquarium's PR representative, describes the facility's features: "The aquarium can be enjoyed within a space enhanced by digital art and the latest stage design. The name '*átoa*' is a combination of the words 'aquarium,' 'to' (meaning 'and' in Japanese), and 'art,' symbolizing the fusion of aquarium and art. The eight zones each have their own themes, with symbolic tanks representing these themes and creating artistic spatial effects. Visitors can enjoy unique tanks, such as MINAMO, a glass-floored tank that gives the feeling of walking on water, and AQUA TERRA, one of Japan's largest spherical tanks with a diameter of three meters. These tanks are enhanced with sensory experiences including sound, light, and scent, making the viewing experience more fantastical."

The aquarium houses approximately 100 species and 3,000 creatures, including marine and freshwater fish, as well as life from coastal and riverside habitats. In addition to fish, there are also exhibition areas featuring capybaras⁵ and Asian small-clawed otters⁶.

"In the PLANETS: Miracle Planet zone, there is a spherical aquarium, AQUA TERRA, with a diameter of three meters, one of the largest in Japan. This space represents planet that support life, imagined within a universe surrounded by countless stars. Visitors can feel the vitality of these planets floating in space through a laser performance shown every 10 minutes and mist falling from the ceiling, which creates a deeply engaging experience," explains FUKUZAKI.

She also mentions that the MIYABI: Between Peace and Light zone known for its traditional Japanese-style ambiance, is particularly popular not only among Japanese tourists but also among foreign visitors. "In this zone, visitors can observe varicolored carp swimming under their feet through the glass floor, as well as Japanese goldfish varieties such as Izumo Nankin and Tosakin⁷. The design not only incorporates traditional Japanese crafts and stage art techniques but also adds elements of traditional scents, creating an ambiance that reflects Japan's cultural beauty. We often hear people say it feels like walking through a Japanese garden and that every spot is picture-perfect. The space, with its light displays changing throughout the day to vividly reflect Japan's seasonal landscapes, creates a fantastical atmosphere that has been very well received."

The facility provides guidance in both Japanese and English for foreign tourists, and pamphlets are available in English, Simplified Chinese, Traditional Chinese, and Korean to accommodate international visitors.

In addition to exhibiting living creatures, the aquarium actively hosts programs focused on research related to various species. "The Asian small-clawed otters we keep are an endangered species, and we have organized programs to raise awareness about otter conservation. We will continue to hold events that deepen understanding of both living creatures and the environmental issues in the places they live," says FUKUZAKI.

Although international visitors make up only about 1.4% of the total, they have responded positively. Some post their photos on social media, noting that each exhibition looks very photogenic, and share them with each other.

"The aquarium is located about a 20-minute walk from Sannomiya Station or Motomachi Station, which are key transportation hubs in Kobe. We hope visitors will come by while exploring the city." ■

1. Refers to the equipment used for the care of aquatic organisms. It encompasses a range of concepts from large facilities like aquariums to smaller setups for personal homes.
 2. Artworks created using digital devices such as computers and tablets.
 3. A collective term for various elements that enhance stage expression through the audience's visual perception and imagination in performing arts. This often includes areas such as costumes, set design, and lighting effects.
 4. A collective term for the area centered around Kyoto, Osaka, and Kobe.

5. The largest rodent species, native to the riverine grasslands and wetlands of northeastern Argentina in South America.
 6. A small species among the 13 types of otters, found in small rivers and irrigation channels in Southeast Asia. Recently, their population has declined, and they are classified as a vulnerable species by the International Union for Conservation of Nature and Natural Resources (IUCN).
 7. A variety of goldfish bred for display purposes. The Izumo Nankin from Shimane Prefecture and the Tosakin from Kochi Prefecture are designated as natural monuments.

The Kuroshio Sea tank, home to a whale shark named Jinta that is currently setting the world record for the longest period in captivity.

Okinawa Churaumi Aquarium: Highlighting the fascination of Okinawa's Oceans

In Okinawa Prefecture, the Okinawa Churaumi Aquarium is dedicated to the theme of ‘Encounters with Okinawa’s Sea.’ This aquarium highlights the fascination of Okinawa’s oceans, including an exhibit where you can see a whale shark that holds the world record for the longest period in captivity. We spoke with a spokesperson to learn more. (Text: TANAKA Nozomi)

Located at the southwestern tip of the Japanese archipelago, Okinawa Prefecture is home to the Okinawa Churaumi Aquarium. About a two-hour drive north from Naha Airport, the gateway to Okinawa, the aquarium is situated on the west side of the island and overlooks the beautiful coastline of Motobu Town. Opened in November 2002, it evolved from the Okinawa Commemorative National Government Park Aquarium, which originally opened in 1976.

A staff member from the Okinawa Churaumi Aquarium describes its features and attractions: “Visitors enter from the top floor, the fourth floor, and then proceed downward through the exhibits. Our theme, ‘Encounters with Okinawa’s Sea,’ allows guests to experience Okinawa’s waters in a journey from shallow coral reefs to the open Kuroshio Sea, and then to the deep sea. It’s like diving deeper into the ocean

to explore the rich marine environment of Okinawa.”

The aquarium reproduces the marine environments of Okinawa, from the shallow waters full of some of the world’s most diverse species to depths of around 700 meters. It incorporates a generous amount of seawater drawn directly from the surrounding ocean into the tanks, ensuring that the habitat closely mirrors natural conditions in terms of light, water quality, and clarity.

“One of the most impressive features you’ll see immediately upon entering the aquarium is the Coral Sea tank, which showcases approximately 80 species and 460 individual coral colonies. This display is based on the real coral reef scenes observed by our staff during their dives in the waters of Motobu Town.

Next to the coral reef observation area is the Kuroshio Sea tank, which attracts many tourists want-



Photo: Okinawa Commemorative National Government Park (Ocean Expo Park) / Okinawa Churaumi Aquarium

The Coral Sea tank, maintained with fresh seawater supplied from the ocean in front of the aquarium and featuring a near-natural environment with sunlight.

ing to take photographs. Behind the massive acrylic panel, measuring 22.5 meters in length, 8.2 meters in height, and 60 centimeters in thickness, you can see the majestic sight of a whale shark, measuring 8.8 meters in length, swimming leisurely.

“The whale shark currently in our care has been here for 29 years, since March 1995, when it was still part of the Okinawa Commemorative National Government Park Aquarium, and continues to set the world record for the longest captivity of its kind. This is the only aquarium in the world to exhibit a giant manta ray (*Mobula birostris*), one of the largest in the world, measuring up to nine meters in length. Reef manta rays (*Mobula alfredi*), which measure around five meters in length, were successfully bred for the first time ever here in 2007, and there was another birth in August 2024.”

Another feature of the Okinawa Churaumi Aquarium is its deep-sea section, which showcases creatures never before displayed elsewhere in the world, as well as newly discovered species. The aquarium is dedicated to unraveling the mysteries of deep-sea life and is actively involved in deep-sea research in the waters around Okinawa.

In addition, the aquarium has achieved the world's first successful breeding of sharks by artificial device, contributing to the research and conservation of rare shark species.

Inside the facility, there is a special exhibit known as the Shark Research Lab, where the results of this research are displayed.

“The ‘Chura’ in Okinawa Churaumi Aquarium means ‘beautiful’ in the Okinawan dialect. The name reflects the aquarium’s aim to recreate the beautiful seas of Okinawa and to be approachable and memorable to many people.

Recently, visitors from nearby Asian countries and other international locations have been coming in increasing numbers, showing growing interest in the aquarium. The pamphlets, official website, and app currently support English, Korean, and Chinese (both Simplified and Traditional), while in-house signage is provided in both Japanese and English. We hope that people from around the world will gain a deeper understanding of the beautiful seas of Okinawa. If you visit Okinawa, we would be delighted if you could come and see us.” 📖



The Shark Research Lab displaying shark specimens and related materials.

Photo: Okinawa Commemorative National Government Park (Ocean Expo Park) / Okinawa Churaumi Aquarium

Left: The reef manta ray (two seen here just to the right of center) primarily inhabits the warm and tropical waters of the Indo-Pacific region, south of Okinawa.

Right: A dark tank featuring mysterious deep-sea creatures.



Photos: Okinawa Commemorative National Government Park (Ocean Expo Park) / Okinawa Churaumi Aquarium



Commemorative photo with participants of the 2nd AZEC Ministerial Meeting.

Holding of the 2nd AZEC Ministerial Meeting

The simultaneous realization of decarbonization, economic growth, and energy security is a global challenge these days. Based on this, the 2nd Asia Zero Emission Community (hereinafter, "AZEC") Ministerial Meeting, consisting of 11 partner countries¹ including Japan, was held in Jakarta, Indonesia on August 21, 2024. An overview of the meeting and its results is presented below.

About AZEC

Asian countries with remarkable economic growth are expected to keep seeing growing energy demand, but they currently depend on fossil fuels for much of their energy needs. At the same time, since it is a global challenge to promote efforts toward decarbonization with the goal of achieving carbon neutrality/net-zero², it is becoming extremely important, especially in Asian countries, to find a balance between economic growth and stable energy supply. Therefore, AZEC was proposed by Japan to support and cooperate with the decarbonization efforts of Asian countries in 2022. Last year in 2023, the 1st AZEC Ministerial Meeting and the 1st AZEC Leaders Meeting were held in March and December, respectively, to formulate basic principles for decarbonization, as well as to promote the implementation of concrete cooperation projects and a transition to energy supply not dependent on fossil fuels.

Key Points of the 2nd AZEC Ministerial Meeting

The meeting was co-chaired by participating ministers from Japan and the host country, Indonesia, and attended by ministers and representatives from 11 countries and relevant organizations, who reported on the status of their respective decarbonization efforts. The AZEC Advocacy Group Roundtable also presented the Joint Recommendation compiled by the AZEC Advocacy Group Roundtable to the ministers. A ceremony was held to commemorate the launch of the Asia Zero Emission Center, established within the Economic Research Institute for ASEAN and East Asia (ERIA), with a tree-planting ceremony held by participating ministers. The Asia Zero Emission Center plans to conduct research and analysis for policy coordination, including the development of a decarbonization roadmap for the power sector. In addition, an MOU³ Ceremony was held to confirm about 70 MOUs for



The presentation of the policy proposal compiled by the conference of the AZEC Advocacy Group to the ministers at the 2nd AZEC Ministerial Meeting.

international cooperation projects to achieve carbon neutrality/net-zero emissions. Other events included a meeting of the AZEC Advocacy Group and a business forum attended by companies from partner countries.

In closing

A Joint Statement was adopted as a result of this meeting. It reaffirms AZEC principles of aiming to address climate change, realize economic growth, and achieve energy security simultaneously, and of promoting carbon neutrality/net zero through various and practical pathways that take into account each country's unique circumstances. It also includes an agreement on initiatives in the power, transport, and industry sectors with a view to the next decade. The next AZEC Ministerial Meeting will be co-chaired by Japan and Malaysia and is scheduled for 2025.

Details of the meeting and the Joint Statement are available on METI's website at https://www.meti.go.jp/english/press/2024/0821_001.html.



A tree-planting ceremony by AZEC participating ministers at the Asia Zero Emission Center launch ceremony.



MOU Ceremony.



AZEC Business forum.

Dates and times of the 2nd AZEC Ministerial Meeting and related events

August 20	August 21
10:00 - 16:30 AZEC Advocacy Group Roundtable	9:10 - 11:55 AZEC Business forum
	9:30 - 11:35 2nd AZEC Ministerial Meeting
	12:00 - 12:30 Ceremony to commemorate the launch of the Asia Zero Emission Center
	12:35 - 13:20 MOU Ceremony
	14:00 - 14:30 Press Conference (Ministers of JPN/IDN/MYS)

1. The 11 partner countries: Australia, Brunei Darussalam, Cambodia, Indonesia, Japan, Lao PDR, Malaysia, the Philippines, Singapore, Thailand, and Viet Nam. (Country names are abbreviated)
2. Since it is impossible to completely eliminate greenhouse gas emissions, emissions are offset through absorption by forests and removal by CO₂ capture technologies, meaning that emissions are virtually eliminated.
3. Abbreviation of "Memorandum of Understanding." An agreement or memorandum of understanding in the preliminary stage before a contract, treaty, or agreement is formally concluded.



The venue of last year's symposium (JSIP2023)

Holding of the Judicial Symposium on Intellectual Property / TOKYO 2024 (JSIP2024)

The Judicial Symposium on Intellectual Property / TOKYO 2024 (JSIP2024) will be held in Chiyoda-ku, Tokyo, on October 24 and 25, 2024, focusing on judicial decisions related to intellectual property (IP) disputes and recent IP topics. Pre-registration is required for the participation in the symposium which is also available to online viewers via the simultaneous Internet streaming. The following is an overview of the symposium and information on how to participate.

The Judicial Symposium on Intellectual Property (JSIP), which started in 2017, is now in its eighth year, under the joint sponsorship of the Supreme Court of Japan, the Intellectual Property High Court, the Ministry of Justice, the Japan Patent Office, the Japan Federation of Bar Associations, and the Intellectual Property Lawyers Network Japan. The symposium, which brings together trial examiners and other legal professionals from Europe, the United States, and Asian countries, serves to provide an update on the IP judicial system in Japan as well as the systems and procedures in other countries / regions around the world, which attracts many participants each year. The theme of this year's symposium is "IP Dispute Resolution in Japan, the United States and Europe," where judges and trial examiners from the US and Europe will be invited to participate in mock trials, mock oral proceedings and panel discussions based

on the latest information in this field. (For more details, see the program attached afterwards.)

On the first day, October 24, where the courts will be in charge of the program, the judges and lawyers from Japan, Europe, the US, and the UK will conduct mock trials for their respective countries/regions based on identical patent validity cases argued in patent infringement litigation, presenting their courts' decisions on patent infringement. In the second half of the program, the judges and lawyers from each country / region will hold a panel discussion by reviewing the mock trials, in order to deepen mutual understanding by comparing frameworks for deciding patent validity and how the trial proceedings should be, in addition to exchanging opinions on the latest IP dispute procedures in each country / region.

On the second day, October 25, where the patent offices will be in charge of the program, there will be presenta-



Panel discussion at the Patent Office Part of last year's symposium (JSIP2023). Trial examiners and other legal professionals from various Asian countries participated as panelists.

tions on the recent trends in the IP judicial fields in various countries / regions by the Director-General of the Trial and Appeal Department of the Japan Patent Office, the Chief Administrative Patent Judge of the United States Patent and Trademark Office, and the Chair of the Legal Board of Appeal of the European Patent Office. Next, mock oral proceedings by the Japan Patent Office will be conducted in a realistic manner including the examination of a witness. Then, a panel discussion will be held to exchange opinions on the topics of oral proceedings and determining novelty and inventive step, based on the hypothetical cases addressed in the mock oral proceedings.

Through the two-day program, the symposium should provide a valuable opportunity not only for lawyers and patent attorneys involved in IP litigation but also for industry representatives and researchers to deepen mutual understanding of IP legal and judicial systems.



Commemorative photo of the speakers at last year's symposium (JSIP2023)

Judicial Symposium on Intellectual Property / TOKYO 2024 (JSIP2024)
— IP Dispute Resolution in Japan, the United States and Europe —
Program (Tentative)

● **Thursday, October 24 13:30 – 18:00 / Court Part**

- (1) Mock Trials by Japan, the Unified Patent Court, the United States and England & Wales (Cases Where Patent Validity is Disputed in Patent Infringement Litigation)
- (2) Panel Discussion (Examination of Patent Validity in Court)
Panelists: Judges and lawyers from Japan, Europe, the US, and the UK

● **Friday, October 25 13:30 – 18:00 / Patent Office Part**

- (1) Presentations (The Current State of Trials/Appeals, Relationship between the Patent Office and Courts)
- (2) Mock Oral Proceedings by the Japan Patent Office
- (3) Panel Discussion (Oral proceedings, Determination of novelty and inventive step)
Panelists: Administrative Judges from Japan, the US and Europe

All programs with simultaneous interpretation in English and Japanese

◆ **How to participate (on-site participation, viewing of the simultaneous Internet stream)**

English site
<https://jsip-tokyo.go.jp/2024/en>



Pre-registration is required for either on-site attendance or viewing the simultaneous Internet stream.

Venue: Auditorium "CREO," Bar Associations Building, 1-1-3 Kasumigaseki, Chiyoda-ku, Tokyo

Venue capacity: 250 people (tentative)

Simultaneous interpretation will be provided in English and Japanese for all events in the program.

Enjoy Old Japanese Streetscapes in Imai-cho and Chiran Fumoto

Traditional buildings create the Imai-cho townscape (Kashihara City, Nara Prefecture)

Photo: ONO Kenkichi

ONO Kenkichi is a professor at Osaka University of Tourism specializing in garden history and cultural heritage preservation. In this month's issue, he explains us about two of Japan's attractive townscapes, Imai-cho and Chiran Fumoto.

ONO Kenkichi

Many old townscapes remain in various parts of Japan. The look of each town varies greatly depending on its character and origins. For example, there are *monzen-machi*,¹ *shukuba-machi*, (post towns), and *shoka-machi* (merchant towns). This article introduces Imai-cho, both a *jinaimachi* (a town of the Age of Civil Wars built within temple grounds) and a *zaigo-machi* (a town with a thriving business located at a countryside), and Chiran Fumoto, a *buke-machi* (samurai residential area).

The area of Imai-cho, located in Kashihara City, Nara Prefecture, runs about 600 meters east to west and 310 meters north to south. Nine of its buildings, including the main hall of Shonenji Temple and the Imanishi Family Residence, have been designated as important cultural properties. In addition, about two thirds of the roughly 760 buildings in the town

are traditional structures that contribute greatly to the town's historic scenic beauty.² The history of Imai-cho begins in the first half of the 16th century during the Age of Civil Wars, when it was an armed temple town (*jinaimachi*) surrounded by a moat and earthen mounds.

From the 17th century onward, during the Edo period, the town flour-

ished as a *zaigo-machi*, a center of commerce and industry in a rural area. In the late 17th century, with its flourishing financial industry, the town had a population of 4,000, in 1,000 households, reaching such a peak that it was said, "*Yamato³ no kin wa imai ni shichibu*" (Imai has most of Yamato's gold). Later, the town showed signs of decline, but residents have organized



The Kawai Family Residence, which has operated the Jobonjiya sake brewery since olden times (Kashihara City, Nara Prefecture)

Photo: ONO Kenkichi



ONO Kenkichi

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to strive for the disasters such as fire protection and otherwise carefully maintain it for hundreds of years.

Today, the town has been eliminating utility poles⁴ and earth-coloring its roads, letting visitors feel as if they were taking a step back in time to enjoy a stroll through an old Japanese town. In addition to the 17th century buildings like Shonenji Temple main hall and the Imanishi Family Residence (reservation required to visit), I recommend stopping by the former Kometani Family Residence, as well as the Kawai Family Residence, which still operates a sake brewing business. These residences are open to the public free of charge.

Chiran Fumoto, located in Minami-Kyushu City, Kagoshima Prefecture, was one of 113 samurai towns with the name *fumoto* (“foothill” in the general meaning of Japanese) in the area that was once home to the Satsuma clan, which ruled present Kagoshima Prefecture from the 17th to 19th centuries, and where samurai warriors were concentrated. The town layout of Chiran Fumoto is well preserved, and it clusters around an *okariya* clan office. It also has a *sansaro* three-forked road to prepare against enemy attacks, a feature unique to samurai towns. The samurai residences and their external elements and gardens are extremely well preserved, and seven of the gardens have been designated as national places of scenic beauty. Among the seven gardens, just one features a pond prominently, whereas the rest are designed as dry landscape gar-



Well-ordered stone walls topped with beautiful hedges in the samurai town of Chiran Fumoto (Minami-Kyushu City, Kagoshima Prefecture)

Photo: ONO Kenkichi



Sata Naotada's garden in Chiran Fumoto is a dry landscape garden with a unique design (Minami-Kyushu City, Kagoshima Prefecture)

Photo: ONO Kenkichi

dens⁵. They have unique designs that include a large assembly stone with a small stone pagoda placed on it. Some see the influence of Ryukyu and Chinese gardens in this unique design. With utility poles being removed and

earth-coloring added to the pavement, you can enjoy strolling around Chiran Fumoto as if you were a Satsuma samurai. Of course, the seven gardens designated as places of scenic beauty are also must-see.

1. A town formed around a large temple or shrine that attracts many pilgrims, where people associated with temples and shrines, craftsmen, and merchants who deal with visitors live.
2. An environment where a city area of high historical value becomes one with the activities of its inhabitants
3. Former country name of present Nara Prefecture
4. Removing utility poles and wires from roads by installing power lines underground and other means
5. A style of Japanese garden that symbolically expresses a natural landscape without using water



The charm of Japan’s roads: historical roads, modern Michi-no-Eki, etc.

Ruth Marie Jarman, born in North Carolina but raised in the US State of Hawaii, has lived in Japan for over 35 years. She has worked on projects supporting the inbound strategies of Japanese companies and local governments, and is also a member of the Edo Kaido Project Symposium, which conveys the charm of the historic kaido roads¹ in the Tokyo area. This month, we requested her to discuss kaido roads and "Japan's roads."

Ruth Marie Jarman

One of the most popular tourist destinations for Internationals visiting Japan is Nikko Toshogu Shrine in Nikko City, Tochigi Prefecture. The shrine is dedicated to Tokugawa Ieyasu, who founded the Edo shogunate in 1603, and is also known as a World Heritage Site. However, while many people visit Nikko as a destination, few know that there is a historical kaido road connecting Tokyo and Nikko.

From the 17th century onward, the five kaido roads were built to transport people to and from the provinces, centering on Nihon-bashi Bridge² in Edo, which is now Tokyo. Shukuba-

machi, or lodging towns, were scattered along the kaido roads and developed as places for the exchange of people and goods. The Nikko Kaido, one of the five kaido roads, connecting Nihon-bashi and Nikko, has 21 lodging towns, including Koshigaya and Utsunomiya, where visitors can enjoy local specialties and sweets.

If you take the limited express train or highway bus, you can reach Nikko in a few hours from Tokyo, but if you have time, it might be fun to take a local train or rent a car and tour the towns along the kaido road, experiencing the history. By viewing your destination not as a “point” but as a “line” leading to it, you will be able to enjoy your trip much more.

With the same approach, I would

like to recommend a trip to “Michi-no-Eki”³ (roadside stations), which



Nikko Kaido is the road connecting Nihon-bashi Bridge and Nikko (the last stop at the time was “Hatsuishi” post town). Ruth Marie Jarman says, “The charm of the kaido road is that you can stroll along it while experiencing its history and local character.”



Ruth Marie Jarman

An American-born entrepreneur raised in Hawaii, Jarman joined Recruit Co., Ltd. in 1988 and has lived in Japan for over 35 years. She began her career in translation and interpretation as a small business owner in 1992. She is currently the CEO of Jarman International KK and has published six books on Japan. She serves as an Independent Director on boards at three publicly listed Japanese corporations, is one of the rare non-Japanese holders of the Japanese Takken Real Estate license and appears in various media including NHK World Radio's "Living in Japan". In 2024, she was appointed a member of the NHK International Broadcast Programs Council and continues to support Japan's internationalization in a variety of capacities.



Ruth Marie Jarman says she often visits Michi-no-Eki Utsunomiya Romantic Village (Utsunomiya City, Tochigi Prefecture), which is close to Nikko. "When I go out into the wilderness outside the cities, I am struck by the beauty of Japan," she says.

Photo: Ruth Marie Jarman

are scattered throughout Japan. "Michi-no-Eki" is a combination of parking lots and commercial facilities along national highways in various regions. In addition to being used for rest stops on road trips, more and more people are going out of their way to visit "Michi-no-Eki" as destinations in themselves.

The charm of "Michi-no-Eki" is that you can encounter genuine, non-touristy Japanese localness. Like a farmer's market, it has a unique local atmosphere, and many locals also use it as an alternative to a supermarket, as they can purchase specialty products and freshly picked vegetables.

I also find "service areas," which are rest areas on Japanese highways, interesting. They are similar to "Michi-no-Eki" where you can buy local specialties, but there are also service areas with a little playground and unique restrooms, making them a fun stopover during your drive. Since many people dress relaxedly while driving, I often tell foreign visitors to

Japan, "If you want to see Japanese people in their everyday clothes, go to a service area."

I think many Internationals who have lived in Japan for a long time rarely drive a car in Japan. It used to be like that for me as well. But during the COVID-19 pandemic, I wanted

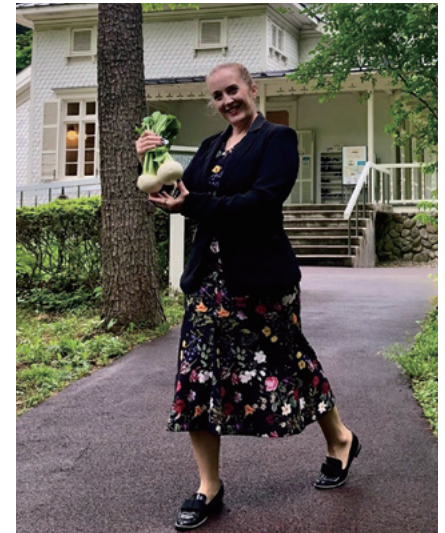


An example of the Michi-no-Eki that can be found along national highways throughout Japan. Specialty products and freshly picked vegetables are lined up. "It's a place where you can encounter real Japanese localness," says Ruth Marie Jarman.

Photo: PIXTA

to drive in Japan, so I went to driving school as a way to learn Japanese as well. After getting my license, I took the Shinkansen bullet train to Morioka in Iwate Prefecture, and from there I rented a car and drove around the coastal towns of the neighboring prefectures, Miyagi and Fukushima prefectures. Japanese highways are easy to drive, and I enjoyed beautiful scenery and tasted gourmet seafood. I wish I had gotten a Japanese driver's license earlier.

Places that are difficult to visit by public transportation can be visited freely with a car. Please try to visit places in Japan that you have not yet seen through trips that are a "line" rather than a "point."



Ruth Marie Jarman with a locally grown turnip she purchased at a Michi-no-Eki.

Photo: Ruth Marie Jarman

1. Major administrative and transportation roads connecting central and rural areas and towns to each other. Japan is famous for the Gokaido, the five kaido roads built during the Edo period (from the early 16th century to the mid-late 19th century), which are the Tokaido, Nakasendo, Koshu Kaido, Oshu Kaido, and Nikko Kaido.
2. Constructed in 1603, Nihon-bashi Bridge stands in Chuo City, Tokyo and has marked the starting point of Japan's major highways for some 420 years. See "Renowned Nihon-bashi Bridge, Traffic Origin on Japan's Major Roadways" HIGHLIGHTING Japan, September 2023. (URL: https://www.gov-online.go.jp/eng/publicity/book/hlj/html/202309/202309_02_en.html)
3. See "JAPAN'S ROADSIDE STATION: MICHI-NO-EKI," HIGHLIGHTING Japan, August 2023. (URL: <https://www.gov-online.go.jp/eng/publicity/book/hlj/20230801.html>)

Long Sword (“Tachi”), Known as “Daihannya Nagamitsu”



Daihannya Nagamitsu (blade length: 74cm), made by Nagamitsu, a master swordsmith who laid the foundation of the Osafune school, a school of swordsmiths that flourished in Bizen Province

Photo: ColBase (<https://colbase.nich.go.jp/>)

The National Treasure Long Sword (“Tachi”), Known as “Daihannya Nagamitsu,” was made by Nagamitsu, a master swordsmith from Bizen Province (now an area in the southeast of present-day Okayama Prefecture) during the 13th century (Kamakura period¹). Nagamitsu was the son of Mitsutada, who is said to have founded the Osafune school, a branch of Japanese swordsmithing. Nagamitsu is also known for taking over and making the school flourish.

This outstanding work is known as “Daihannya Nagamitsu.” A “kan” was a monetary unit during the Muromachi period. The sword was worth 600 kan, a vast sum likened to the 600 volumes of a sacred text, the Great Perfection of Wisdom Sutra. The Japanese name for this sutra is “Daihannya-kyo,” hence the word “Daihannya” in the sword’s name.² It features a complex combination of clove-like shapes and semicircles.³ This sword was initially passed down to the Ashikaga shoguns⁴, later owned by Oda Nobunaga⁵, and given to Tokugawa Ieyasu⁶. The owner has since changed, and it is now in the collection of the Tokyo National Museum.



The clove-like blade pattern (image of right: cloves) and semicircle pattern are intermingled.

Photo: ColBase (<https://colbase.nich.go.jp/>), PIXTA

1. The period from the end of the 12th century (variously attested to have started in 1185 or 1192) to 1333.

2 and 3. Integrated Collections Database of the National Institutes for Cultural Heritage, Japan
(Taken from https://colbase.nich.go.jp/collection_items/tnm/F-19789?locale=ja)

<<About terminology used in the quoted passages>>

- “kan”: A unit of money used during the Muromachi period. One kan was counted as 1,000 coins being passed through the center hole of the coin. Although various theories exist and it is impossible to determine the exact value, one theory states estimates that one kan (during the late Muromachi period) would be worth approximately 50,000 to 100,000 yen in today’s money. If we assume the median value of 80,000 yen, then 600 kan would be equivalent to 48 million yen, making the sword’s value around 50 million yen.
 - “Daihannya-kyo” is Buddhist scripture that is an abbreviation of Great Perfection of Wisdom Sutra.
 - Clove-like shapes: Used as a spice in the West and as a medicinal agent in the East. The pattern resembles a series of cloves.
 - Semicircles (pattern): A semicircle-shaped pattern.
 - Blade pattern: A white wave-like pattern added during hardening, one of the processes of making Japanese swords, in which the steel is hardened by cooling it rapidly from a high-temperature state.
4. the Ashikaga shoguns: A family lineage that was appointed as Seii Taishogun (abbreviated *shogun*), the highest power in the samurai government, the commander in chief, for about 240 years from the first half of the 14th century to the late 16th century.
5. Oda Nobunaga: Born in 1534 and died in 1582, he was a military commander who opened the door to the unification of Japan during the Sengoku period (a period of war between states within the country).
6. Tokugawa Ieyasu: born 1543, died 1616. The first shogun and who established the Edo shogunate, which lasted from the early 17th century to the mid-late 19th century.

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