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Living together, building better: The spirit of Expo 2025

FROM THE EDITOR

By YOSHIKUNI SHIRAI / EDITOR-IN-CHIEF

Following on from last December, this is our second special feature on Osaka's Expo 2025. Prior to the event's opening, a chorus of critics pointed to delays and soaring construction costs for venues, and some even asked whether such events had become anachronisms. Although technological developments have certainly accelerated the pace of interaction in virtual spaces, the expo's very palpable festival atmosphere and the opportunity it offers to glimpse cultures from around the world firsthand seem to have captured the imagination of the younger generations, especially those in their teens and 20s.

I have visited the expo several times, and several pavilions left a deep impression on me. I was particularly impressed by the Women's Pavilion, the result of a partnership among the Cabinet Office, the economy ministry, the Japan Association for the 2025 World Exposition and the luxury goods maker Cartier. On June 12, the World Economic Forum released the Global Gender Gap Index for 2025. Japan ranked 118th out of 148 countries, the same as last year. The facts on the ground have clearly not caught up with aspirations for the empowerment of women, but perhaps events like the expo might nudge Japan toward this goal.

今回は「大阪・関西万博」の特集です。開幕前は会場建設費の高騰やパビリオン建設の遅れ、また21世紀に万博は不要だなど様々な批判もありましたが、開幕してみると入場者数は2か月間で累計約640万人を超え、会場内のパビリオンには多くの人が詰めかけています。IT技術の発展でバーチャル空間での交流が加速していますが、リアルな「お祭り」感や世界中の文化を体感できる万博は、特に若者にとっては新鮮に映っているようです。

私も何度か会場に脚を運び展示を見て回りましたが、女性のエンパワーメントを訴える「ウーマンズ パビリオン in collaboration with Cartier」は印象に残ったパビリオンのひとつです。そんな折り、6月12日に世界経済フォーラムが2025年度のジェンダーギャップ指数を発表しました。日本は昨年同様の148カ国中118位。現実は理想に追いついていませんが、その追求のためにも万国博覧会のようなイベントは必要なのかもしれません。

Feature | EXPO 2025

INTERVIEW

Expo inspired by 'Imagine,' wish for world peace

By TAEKO TERAO

Osaka's Expo 2025 is being held under the theme of "Designing Future Society for Our Lives." Prior to opening, it faced some criticism over ballooning construction costs, but it has answered critics by attracting more than 5.8 million visitors from its opening on April 13 through May 31 and still has months to go until it ends on Oct. 13. Booking sites for many of the pavilions are flooded with applications, and there are long lines to enter venues.

The most talked-about attraction is perhaps the Grand Ring, the expo's centerpiece. The ring is one of the world's largest wooden structures, measuring around 2 kilometers in circumference and 12 meters in height. It was created by combining traditional Japanese shrine- and temple-building techniques with modern construction methods. Architect Sou Fujimoto, the expo's site design producer, said that people of any culture or generation viewing the expo site from the top of the ring will immediately feel the expo's key messages: "the whole world is gathering here now" and "a diverse world can be brought together."

The pavilions and displays from 158 countries are all housed within the Grand Ring, as though it enclosed a miniature Earth. Around the top of the ring is a skywalk and grass where visitors can lie down and gaze out over the site. Looking toward the south, visitors can see that the ring is also connected to the sea and the world beyond, via Osaka Bay. The view is breathtaking. The design really lets visitors see and feel the world as one.

In creating the expo site and designing the Grand Ring, Fujimoto had in mind the song "Imagine," explained Hiroaki Miyata, a professor of medicine at Keio University who worked with Fujimoto on the site plan and is also a producer of Better Co-Being, one of the signature pavilions of the Japanese government. "'Imagine' was not the only inspiration, but Fujimoto said he had been influenced by the John Lennon and Yoko Ono song even before he became involved with the expo," he said. "In the lyrics of 'Imagine,' there is a part that says, 'above us only sky,' and Fujimoto and I had been thinking about the concept of the 'one sky' under which we all walk as we create the future. We all look up at the sky in the course of our daily lives, but at the expo, 10,000 people will be able to look up at the sky from the top of the Grand Ring at the same time. This will really symbolize the act of 'gathering here and now,' and it is made possible by the Grand Ring."

Located at the center of the Grand Ring is the Forest of Tranquility, beside the Better Co-Being pavilion. The forest is a primal landscape for Fujimoto, who grew up in the rich natural environment of Hokkaido, and it forms the nucleus of his creative work, manifested in different forms across his various buildings. This small forest was created by transplanting around 1,500 trees that had been earmarked for thinning out in parks and other land across Osaka Prefecture,

BETTER CO-BEING

This pavilion without a roof or walls is located in a corner of the Forest of Tranquility at the center of the expo site. The producer was Hiroaki Miyata and the architect was SANAA (Kazuyo Sejima and Ryue Nishizawa). Based on the expo's theme, the pavilion provides a feeling of creating a new world together at this important historical moment. How can we share resources for the future, rather than compete for them? How do we respect individuals, rather than let artificial boundaries divide us? The exhibition encourages visitors to feel and think about the connections and resonance between people and people, people and nature, and people and the world. Artworks based on the theme of "resonance" will be placed outdoors, allowing visitors to explore installations by Chiharu Shiota, Tatsuo Miyajima and EiM, a creative team led by Miyata and the photographer and film director Mika Ninagawa.

Artist Chiharu Shiota's "Hill of Language" creates a poetic space using multiple layers of red thread and alphabet letters. PHOTOS: KOUTARO WASHIZAKI

In "Counter Voice Network - Expo 2025," by artist Tatsuo Miyajima, a countdown is repeated in Japanese, French, Malay, and other languages, but instead of displaying a "0" at the end of the countdown there is only silence, evoking the concepts of death, nothingness, and the Zen concept of emptiness. The canopy designed by SANAA (Kazuyo Sejima + Ryue Nishizawa) also showcases the ever-changing visage of the sky.

● **Summary**

名曲『イマジン』の
思いが込められた博覧会。

現在開催中の「大阪・関西万博」の目玉、世界最大級の木造建築「大屋根リング」を作った意味について、会場デザインプロデューサーで建築家の藤本壮介はひと目で「多様な世界は繋がることができる」ということを会場を訪れた人が感じるためと語っている。

藤本には大屋根リングの計画段階から名曲『イマジン』のイメージがあったと語るのは、藤本と会場のプランを共に練り、シグネチャーパビリオン「Better Co - Being」プロデューサーで慶應義塾大学教授の宮田裕章だ。

「大屋根リング」は来場者が同じ空を見上げるための場でもあり、その中心にある「静けさの森」には円形の池があり、池の南北にオノ・ヨーコのアート作品がある。この作品「Cloud Piece」は、地面に掘った穴の底に仕込んだ鏡に映る空を眺めるというもの。そのルーツは『イマジン』誕生のきっかけとなった彼女の自作の詩に遡る。

同様に、宮田が手がけるパビリオンも空を共有する空間。そこにもまた「多様なものを受け入れて、新しい価値観を生み出す」という思いが込められている。

日本語全文はこちらから

HIROAKI MIYATA

Born in 1978, Miyata is a professor at the Keio University School of Medicine. His specialty is data science. His research activities are centered on using science to change society for the better. He has collaborated with governments, economic organizations, nonprofits and businesses to create a new social vision and is in charge of the Resonance of Lives theme at Osaka's Expo 2025. He co-created the art installation of the signature pavilion Better Co-Being with seven artists.

including the Expo '70 Commemorative Park in Osaka's Senri Hills, on the old site of the Osaka Expo in 1970.

"In discussions with Fujimoto, we came up with the idea of having a forest at the center of the expo. In the past, circular architecture would tend to be for things like a fortified castle town, with the inside and outside separated to create a safe zone inside. But the Grand Ring allows access to the interior from anywhere, and by bringing in trees and soil we have created a Forest of Tranquility that supports a new ecosystem. Within the forest is a circular pond, and near the north and south sides of that pond there is an artwork by Yoko Ono consisting of a round hole dug in the ground. In other words, there are nested circles within the ring, structured in a way that the circles resonate with each other," Miyata said.

The Forest of Tranquility is an open space where anyone can experience art while taking a stroll. It includes artworks aligned to the expo theme of "Designing Future Society for Our Lives" and will also host related performances.

In Ono's artwork, called "Cloud Piece," visitors peering into the hole see the sky reflected in a mirror at the bottom. Its origins can be traced back to one of her poems, "Cloud Piece," from her 1964 collection "Grapefruit." It reads: "Imagine the clouds dripping. Dig a hole in your garden to put them in." The poem inspired the song "Imagine," released in 1971. While the song was originally credited only to Lennon, in 2017 Ono was officially given a co-writer credit.

In other words, at the expo's center is a forest flanked by the embodiment of an Ono poem that was the genesis of "Imagine." And the Grand Ring, the embodiment of looking at the "one sky," towers over the expo site.

Better Co-Being is unique among the expo venues in that it is the only one with no roof.

"The sky is a metaphor for the future, a common ground without borders that is occupied by no one," Miyata said. "The pavilion I worked on, Better Co-Being, is a space for sharing that same sky while acknowledging our differences. Although it has a lattice-like canopy designed by the architecture office SANAA (Kazuyo Sejima and Ryue Nishizawa), there are no walls, and it is a place where light, wind and even rain are welcomed. It carries the message that there are all kinds of life and we should be accepting of diversity as we seek to create new value," Miyata said.

Top left: Yoko Ono's "Cloud Piece," which is installed at two locations in the Forest of Tranquility. Visitors contemplate peace as they enjoy the "shared landscape" that is the sky. Lower left: The circular pond at the center of the Forest of Tranquility also reflects the sky. Right: The striking view from the Grand Ring of the sky and the expo site will no doubt stick in visitors' memories.

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COVER PHOTO

The Forest of Tranquility is located at the center of the Osaka Expo site. Beside it are two "Cloud Piece" artworks by Yoko Ono. Small in size, the works are easy to miss, but their meaning is profound.

PHOTO : KOUTARO WASHIZAKI

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Women's Pavilion in collaboration with Cartier

The objective of the Women's Pavilion at Expo 2025 is to leverage the experiences and perspectives of real women to explore the ideal of a truly just and sustainable future. Covered by the "Kumiko facade," the long, narrow building is two stories in height. The first floor houses an immersive exhibition in which visitors experience a variety of content, while the airy second floor consists mainly of a garden and event hall.

PHOTO: TOSHICHIKA IZUMI

Feature | EXPO 2025

PAVILION

Recycling architecture for women's empowerment

By FUMIKO SUZUKI

YUKO NAGAYAMA

Nagayama was born in Tokyo in 1975. After working at Jun Aoki & Associates, she established Yuko Nagayama Associates in 2002 and was a visiting professor at Musashino Art University from 2020 to 2024. She served as the vice chair of the judging committee for the Good Design Award in 2023. Her major buildings include Tokyu Kabukicho Tower, Teshima Yokoo House, Jins Park Maebashi, the Japan Pavilion at Expo 2020 Dubai and the Panasonic Group's pavilion, the Land of NOMO, at the Osaka expo. Ongoing projects include Torch Tower near Tokyo Station.

Yuko Nagayama at her office overlooking Shinjuku Gyoen. In addition to her work as an architect, she has recently tried her hand at designing products including women's accessories.

PHOTO: YOSHIAKI TSUTSUI

● **Summary**

素材のリユースと女性の活躍、ふたつのテーマをつなぐ建築。

「ウーマンズ パビリオン in collaboration with Cartier」。このパビリオンは内閣府、経済産業省、2025年日本国際博覧会協会と〈カルティエ〉が共同で、ジェンダー平等についてすべての人々が考えるきっかけをつくることを目的としている。設計者は建築家の永山祐子。このパビリオンで特徴的なのはファサードだ。

ボールジョイントというシステムを用い、球状部材のノードと棒状部材のチューブ、白い三角形の膜材の組み合わせでできた立体格子。それが建物の側面と屋上の一部を包み込むように覆っている。「KUMIKOファサード」と呼ばれるこの立体格子は、永山が設計した2020年のドバイ万博日本館で使われたものをリユース。サスティナビリティとデザインを両立させている。しかしドバイ万博日本館とは敷地形状が異なるため、ドバイで使ったすべての部材をパーツごとに分類し、それらを用いてどのようなフォルムが可能かを細かくスタディしたという。さらにこの「KUMIKOファサード」は2027年に横浜で開催される国際園芸博覧会での再リユースが決定している。

日本語全文はこちらから

The Women's Pavilion at Osaka's Expo 2025 aims to create an opportunity for people to think about issues surrounding gender equality. A collaboration between the Cabinet Office, the economy ministry, the Japan Association for the 2025 World Exposition and the jeweler Cartier, it was designed by the architect Yuko Nagayama, who felt the expo theme of "Designing Future Society for Our Lives" aligned closely with current trends in architecture.

"The theme suggested to me a human-scale perspective on the world, as opposed to a distant bird's-eye view. In architecture, too, people are beginning to take a more serious look at buildings as vessels for human activity, rather than as objects in their own right. So I thought the theme was closely aligned with this current way of thinking," said Nagayama.

The concept of the Women's Pavilion is "Towards a future where we live and shine together." The main objective is to use the experiences and perspectives of women to achieve an equitable and sustainable future. The curator is the British artist Es Devlin. The pavilion features a highly immersive exhibition consisting of five parts. As visitors move through them, they experience the lives of three women through sound and images, and then enter a place where they can overlay their own experiences. Other interactive exhibits provide information on women, the global environment and poverty. At the end are messages for the future from 14 role models.

The most distinctive feature of the pavilion's design is its facade. It features a three-dimensional lattice made using a system called ball joints, with spherical nodes, tubes and triangular sheets of white membrane. The lattice envelops the sides of the building and part of its roof. Known as the "Kumiko facade," it has been recycled from the Japan Pavilion at Expo 2020 Dubai, which Nagayama also designed. In this way, the Women's Pavilion achieves a result that is both sustainable and sophisticated in design. However, the shape of the site in Dubai was completely different from that in Osaka, so a lot of work went into categorizing all the components used in Dubai and studying how they could be reassembled into a different shape.

"When I first saw the Dubai expo pavilion before its opening, I imagined that it could be dismantled afterward. I remember thinking, 'I want to bring this back to Japan!' That was the starting point," Nagayama explained. At that point, there were no concrete plans to reuse the pavilion in Japan, and there were a number of hurdles that had to be overcome before this new project could be realized.

After the pavilion was dismantled, the components of the Kumiko facade were stored in one and a half 40-foot containers and transported to a warehouse in Osaka. Once they arrived, the approximately 2,000 spherical nodes and 6,000 tubes were examined before they could be reused.
PHOTOS: TAKAMITSU MIYAGAWA

"After returning to Japan, I met with Cartier Japan CEO June Miyachi at a Cartier exhibition and learned that she was keen to repeat a Women's Pavilion project that had been delivered at the Dubai expo. Those two ideas were the beginning. And then, with the help of a lot of people, we managed to solve the various challenges of dismantling the old pavilion and transporting the materials," Nagayama said.

The site for the Women's Pavilion this time is long and narrow, measuring 18 by 110 meters. Nagayama envisioned a traditional Kyoto *machiya* town house-style design, and so created a two-story narrow-fronted building. "Immersive exhibits generally consist of sound and video, so they tend to be housed in enclosed buildings, disconnected from the outside world. This time, we took advantage of the long and narrow site to create a building in the style of a traditional Kyoto machiya, which lets in outside light," she said. Courtyards were created in the front and center, and a garden was placed along the side. The gardens were planted with trees collected from the mountains in Osaka's outskirts, and it is planned that they will be returned to the mountains once the expo is finished.

Furthermore, it has been decided that the facade will be reused a third time at the International Horticultural Expo (Green × Expo 2027), which will be held in Yokohama in 2027. It is hoped that the buildings for Green × Expo 2027 will be environmentally friendly "green circular architecture" and will actively leverage recycling processes, from the procurement of materials to construction, removal and reuse.

"Basically, we will reuse the materials once again next time, but we also enjoy new challenges," Nagayama said. "For the Osaka expo, we had the challenge of creating a completely new form using only the materials from Dubai. For Green × Expo 2027, the size of the building we are designing will be about twice the size of the Women's Pavilion, so the reused materials alone will not be enough. We will lease additional ball joint materials from a Japanese company, and the challenge will be combining those materials with the existing ones."

The second floor of the Women's Pavilion houses the WA Space, a venue for conversations, panel discussions and lectures. Here, events are held on six key themes: mother nature, business and technology, education and policy, arts and culture, philanthropy, and roles and identities. For Nagayama, the theme of promoting women's advancement has been on her mind since her work on the Japan Pavilion for Dubai. In 2018, when the competition was held for the Japan Pavilion, Saudi Arabia had just lifted its ban on women driving cars the previous year, and she felt that social attitudes were changing even in the conservative Middle East.

"I looked up the Gender Gap Index for the UAE and Japan and found that the UAE was ranked 121st, while Japan was 110th, so they were much of a muchness," she said with a laugh. "Then I went to the UAE and discovered that the secretary-general of the Dubai expo was a woman, and there were many female ministers. After the expo, in 2024, the UAE jumped up the rankings to 74th, while Japan was 118th. Our proposal for the Japan Pavilion included plans to create a place where people of all genders, ages, nationalities and regions can interact. The WA space in the Women's Pavilion allows us to continue that same endeavor here."

The lattice structure of the Kumiko facade for the Women's Pavilion in collaboration with Cartier was reused from the Japan Pavilion at Expo 2020 Dubai.
© CARTIER

The Japan Pavilion at Expo 2020 Dubai. The facade was based on traditional Japanese hemp-leaf patterns and Middle Eastern arabesques. It served to protect the building from the strong Dubai sun.
© EXPO 2020 DUBAI JAPAN PAVILION

The facade will be expanded and reused again at the International Horticultural Expo (Green × Expo 2027) in Yokohama in 2027.
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TOWER OF THE SUN

A pavilion at Osaka '70. Designed by artist Taro Okamoto, it served as a central feature at the expo, and together with the festival plaza's Big Roof, designed by architect Kenzo Tange, served to express the theme of "Progress and Harmony for Mankind." The tower is approximately 70 meters high. It has recently undergone seismic reinforcement, and its interior spaces have been open to the public since 2018. Okamoto also served as the producer of the thematic exhibition. To build the tower in line with Okamoto's vision, leading scholars, designers and builders brought together the most advanced technologies of the time. The curved surfaces were realized using advanced mathematical formulas.

Located inside the Tower of the Sun, the Tree of Life exhibit presents the evolution of life.

The Tower of the Sun as it looks today, surrounded by the Expo '70 Commemorative Park. PHOTOS: TOSHICHIKA IZUMI

Feature | EXPO 2025

HERITAGE

Tower of the Sun, symbol of Osaka '70, shines anew

By **MINAMI NAKAWADA**

Expo 2025 is being held on the Osaka island of Yumeshima until Oct. 13. For many Japanese, the word "expo" brings to mind Osaka's Expo '70, which drew 64 million visitors — equivalent to roughly half of the entire Japanese population at the time. This year's expo is being held on reclaimed land in Osaka Bay, but Expo '70 was held inland at Senri Hills. The old venue still exists, now called the Expo '70 Commemorative Park, apparently resulting in some people looking for this year's expo to head there instead.

The Tower of the Sun was the most conspicuous structure at Expo '70 and still stands to this day. It was built by artist Taro Okamoto to express the expo's theme of "Progress and Harmony for Mankind." It was integrated with the Big Roof of the Festival Plaza at the center of the expo, designed by architect and expo general producer Kenzo Tange. As visitors proceeded through the tower's interior, they were led out via its arms onto the main roof and beheld the futuristic exhibits there.

Originally it was planned that the tower would be demolished after the expo, but a movement to save it arose, and it was preserved on the assumption that people would no longer go inside. After more than 40 years without being maintained for public viewing, the building gradually deteriorated. Eventually, the Osaka Prefectural Government decided it was time to reopen it, and so carried out necessary seismic retrofitting and expanded the exhibition space underground. Visitors were welcomed again from March 2018.

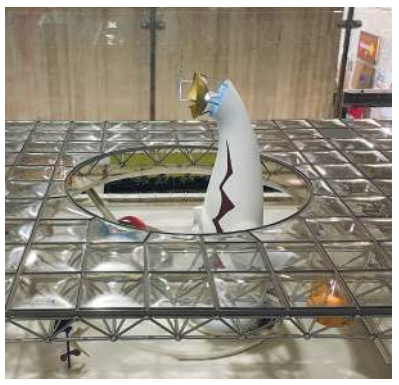
Utterly unique, the Tower of the Sun was also controversial from the start. Despite being appointed producer of the exhibition, Okamoto scoffed at its theme of progress and harmony, saying: "Mankind has not progressed at all. What is progress? Look at the amazing Jomon earthenware. Harmony in which everyone compromises is awful." Instead, he created the mesmerizing Tower of the Sun and its accompanying exhibition, inviting people to think about the origins of humanity. When visitors entered the tower through the basement, the first thing they saw was the "World of the Past and Origins," a space where masks and statues of deities from around the world evoked the primordial energy of life. After that, the 41-meter-high "Tree of Life" appeared. Models of amoebas, reptiles, dinosaurs and humans were attached to its steel trunk and branches, and as visitors went up the escalator, they witnessed the process of evolution.

What is most interesting is the fact that this mysterious tower was saved by the will of the people — despite the fact that most of the expo's structures, designed by Tange and other renowned architects with visions of a bright future, were almost entirely demolished. Last month, the Council for Cultural Affairs recommended that the culture minister designate eight buildings as National Important Cultural Properties, including the Tower of the Sun. The designation process is expected to take six months. A press release from the Agency for Cultural Affairs describes the tower as "a monumental legacy of Expo '70 that is a manifestation of Taro Okamoto's art using cutting-edge technology."

At the center of this year's expo is the Forest of Tranquility. And at the center of the forest, made with trees gathered from all over Osaka, is a round pond with Yoko Ono's artwork "Cloud Piece" on two sides. Consisting of a round hole in the ground with a mirror at the bottom, the artwork was inspired by her 1963 poem "Cloud Piece," which also formed the core of the John Lennon song "Imagine."

Back in 1970, the Tower of the Sun poked up through a circular hole in Tange's Big Roof, a representation of the confrontation between art (the wild) and architecture (reason). The configuration of Expo 2025 has no such confrontation — but it still has circles, a shape that expresses harmony, from the central pond out to the Grand Ring, a giant wooden structure that surrounds the site, embracing diversity and expressing how we can all create a new world together.

It is no coincidence that the Tower of the Sun was chosen to become an Important Cultural Property in the same year that the second Osaka expo was held. That round hole made by the Tower of the Sun in 1970 has echoes in the current expo, 55 years later.



A model at the Expo '70 Pavilion, an exhibition facility in the Expo '70 Commemorative Park, shows how Tange's Big Roof and Okamoto's Tower of the Sun played off each other at the time of the expo.

Summary

1970年大阪万博の遺産が重要文化財に。

多くの日本人が万博といって想像するは1970年に行われた「大阪万博」だろう。入場者数は延べ6,421万人。当時日本の人口の2人に一人以上が訪れたことになる。55 年前の大阪万博は千里丘陵で行われ、その会場跡地に万博記念公園という名の駅があるため、現在開催中の万博会場と間違って跡地を訪れる人もいるという。

その会場跡地に今もそびえ立つのが、「太陽の塔」だ。芸術家・岡本太郎により万博のテーマ「人類の進歩と調和」を表現するテーマ・パビリオンとしてつくられた。当初は万博終了後に撤去する予定だったが保存運動の末、残されたという経緯がある。その後、大阪府は一般公開を決め、耐震補強とともに地下に展示空間を増築、2018年3月から塔内を見学できるようになった。

そして今年5月、文化審議会が「太陽の塔」を含む8件の建造物を国の重要文化財に指定することを文部科学大臣に答申。半年ほどで正式指定される見込みだ。文化庁の報道発表では、「岡本太郎の造形を先端技術で具現化した大阪万博の記念碑的レガシー」と評されている。

日本語全文はこちらから

PICK-UP ARTICLE

U.S. foundation supports Noto preservation projects

By TAEKO TERAO

COURTESY: WORLD MONUMENTS FUND

In April this year, WMF conducted site inspections on Ipponsugi Street, in Nanao, and in the Kuroshima Important Preservation District for Groups of Traditional Buildings, in Wajima. The purpose of the visits was to consider ways to support the areas going forward.

On May 21, representatives of the World Monuments Fund, a New York-based nonprofit for safeguarding cultural heritage, held a news conference in the Ishikawa Prefecture city of Nanao to announce WMF's contribution of $400,000 (about ¥58 million) in support of two organizations promoting the repair and restoration of cultural assets damaged in the Noto earthquake of Jan. 1, 2024.

The recipients are the Specified Nonprofit Corporation Ipponsugi Street Cultural Heritage Preservation Association, which is operated in part by store owners on Nanao's Ipponsugi Street, a commercial street that retains the atmosphere of an old castle town, and the Kuroshima Wakamiya Hachimangu Rebuilding Committee in Wajima's Kuroshima district, which once flourished as a hub for the *kitamaebune* ships that sailed the Sea of Japan and is the only Noto Peninsula area designated an Important Preservation District for Groups of Traditional Buildings. WMF has allocated $400,000 to the restoration of historic townscapes and the maintenance of a sustainable environment for their preservation, which is currently being implemented by WMF and its Japanese partners.

On Ipponsugi Street, repairs will focus mainly on four Nationally Registered Tangible Cultural Properties: the stores Takazawa Candle, Torii Soy Sauce and Oyamaya Soy Sauce, as well as Tadake Jutaku, the structure housing the (currently closed) Japanese restaurant Ipponsugi Kawashima — which in 2024 was honored by Destination Restaurants, the list of outstanding regional restaurants presented by The Japan Times. It is expected that the project will be completed in 2026. The target for the completion of the Kuroshima project, with a focus on the reconstruction of the shrine Wakamiya Hachimangu, is 2028-29.

At the news conference, the executive representative of WMF in Japan, Miyoko Demay, talked about precedents across the world of cultural heritage assets serving as catalysts for regional revival and prosperity. She also spoke about WMF's unique ability to tell the world about cultural heritage assets needing conservation efforts through the WMF network, which has carried out support programs in 112 countries and over 700 locations. Yoshitaka Chatani, the mayor of Nanao, conveyed his gratitude and also stressed that there are cultural heritage assets not only in Nanao but also throughout the Noto Peninsula region. Yoshio Hayashi, the chairman of the Kuroshima Wakamiya Hachimangu Rebuilding Committee, expressed his hope for the continuation of the shrine's summer festival and said of the grant, "I want to share my feeling of deep appreciation along with the residents." Hisashi Takazawa, the chairman of the Ipponsugi Street Cultural Heritage Preservation Association, said, "Repairing buildings that retain the memories of the town and families is very important." In this way, each attendee expressed their own thoughts and feelings on this occasion.

World Monuments Fund

Founded in New York City in 1965, WMF is committed to safeguarding and preserving historical structures and other cultural heritage assets. In cooperation with governments and public institutions as well as private-sector partners worldwide, WMF carries out economic and technological support activities and also education and awareness programs. Since 1966, when buildings in Venice were damaged in heavy floods, WMF has been engaged in restoration and preservation projects around the world. In Japan, its activities to date include support programs for the restoration of the former residence of Uoya Manzo in Tomonoura, Hiroshima Prefecture, restoration of traditional Kyoto townhouses (*Kyo machiya*), and repair and restoration of culturally important structures damaged in the Great East Japan Earthquake.

The store Takazawa Candle, a Nationally Registered Tangible Cultural Property, is a wooden structure built around 1910.

Nanao prospered as a port of call for the *kitamaebune* ships of the Edo and Meiji eras. Ipponsugi Street in Nanao is a place rich in history, and a source of emotional strength for the city's residents. The area's reconstruction will also be essential in working towards the goal of economic revival through tourism.

● **Summary**

米財団が被災した能登の文化遺産復旧を支援。

世界各地で文化遺産の保護・保存活動を続ける非営利民間組織「ワールド・モニュメント財団（WMF）」（本部・米国ニューヨーク）が、2025年5月21日に石川県七尾市を訪れ、記者会見を開いた。内容は2024年の元日に起きた令和6年能登半島地震で被害を受けた文化財の修復や復旧を推進する2団体への計40万ドル（約5,750万円）の支援。その対象となったのは城下町の風情が残る七尾市の商店街、一本杉通りの商店主などで運営する「一本杉通りの文化遺産を守る会」と、能登半島唯一の重要伝統的建造物群保存地区に指定されている輪島市黒島町の「黒島若宮八幡宮再建委員会」だ。

WMF日本代表部ディメイ美代子理事長は、文化遺産が地域の復興や繁栄のきっかけになることは世界的にも前例があること、また、世界で支援を行ってきたWMFのネットワークを通じて保護活動が必要な文化遺産の存在を世界に発信できる強みについて語り、支援を受ける2団体の代表者も感謝を述べた。

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the japan times

Destination Restaurants 2025

AUTHENTIC JAPAN SELECTION

Restaurant list spotlighting regions marks fifth year

By TAEKO TERAO

The 10 selected Destination Restaurants 2025 chefs, judges Yoshiki Tsuji, Naoyuki Honda and Takefumi Hamada, and Japan Times Chairperson and President Minako Suematsu

PHOTOS: TAKAO OHTA

Patricia Barbosa Lima Cortes, deputy chief of mission and minister-counselor of the Embassy of Brazil in Japan

Futoshi Nasuno, secretary-general of the Cabinet Office's Secretariat of Intellectual Property Strategy Headquarters

Tsutomu Wakamatsu, director of the Japan National Tourist Organization

The Destination Restaurants 2025 award ceremony, hosted by The Japan Times, was held on May 28 at Hills House Sky Room Cafe & Bar in Tokyo's Azabudai Hills. The criteria for selection are that the restaurants must lie outside major cities and be catalysts for local revitalization. Another 10 restaurants were selected this year, the fifth year of Destination Restaurants, with each chef attending the ceremony. This year's Destination Restaurant of the Year was the Italian restaurant Himawari Shokudo 2 in Toyama Prefecture, where a fine-dining scene born of cooperation among chefs is drawing attention.

The ceremony began with an opening speech by Minako Suematsu, chairperson and president of The Japan Times. The next speaker was guest Futoshi Nasuno, secretary-general of the Cabinet Office's Secretariat of Intellectual Property Strategy Headquarters, which oversees the government's Cool Japan Strategy. He said the biggest factor currently motivating people overseas to travel to Japan is a desire for a variety of culinary experiences, including visits to sake breweries. He also commented that the Destination Restaurants initiative connects with the Cool Japan Strategy, which contributes to regional revitalization. Tsutomu Wakamatsu, director of the Japan National Tourist Organization, remarked that encounters with culture, including cuisine, play an important part in increased consumption by overseas travelers.

Next came the awards ceremony and remarks from the 10 award-winning chefs. They each conveyed gratitude to their region and producers, as well as their thoughts on contributing to society through cuisine. Among them, Koji Takahira of Kurumasushi in Ehime Prefecture, who worries about the decreasing quantity of fish being caught in Japan, said, "With a feeling of gratitude to the fish in Ehime Prefecture, I'll go forward while thinking about the situation 100 years from now." Hozumi Tanaka of Himawari Shokudo 2 said with emotion that, even for chefs in easily overlooked regional cities, "with Destination Restaurants there is a hope of being recognized if you do your best."

Following a toast by Patricia Barbosa Lima Cortes, deputy chief of mission and minister-counselor of the Embassy of Brazil in Japan, a six-course meal made up of dishes by six of the award-winning chefs was served. Attendees savored each dish with delight.

Farm Restaurant Cuore: Pate de campagne, made with tongue, cheek, esophagus, blood vessels, lungs, diaphragm, heart, stomach, kidneys and large intestine

Senti.U: Peanut tofu layered with lard

Himawari Shokudo 2: White shrimp and steamed tofu

Nihon Ryori Beppu Hirokado: Dumplings of moss from the Yakkan River, Oita Prefecture

Osteria Sincerità: Grilled green asparagus with Hollandaise sauce made with persimmon vinegar from Yamagata Prefecture

Auberge Eaufeu: Button shrimp marinated in malt and beets, served with red *shiso* sauce

● **Summary**

5年目を迎え益々、注目される地方の"美食"。

ジャパンタイムズが主催する「Destination Restaurants 2025」の授賞式が5月28日、東京で行われた。選出基準は、東京23区と政令指定都市を除く場所にあり、食を通じて地域活性化の起爆剤となる店であること。5回目を迎える今年も新たに10店が選ばれ、各店のシェフが授賞式に参加した。その年を代表する1店「The Destination Restaurant of the year 2025」として、昨今、県内のシェフたちの連携によるガストロノミー・シーンが注目される富山県のイタリアン・レストラン『ひまわり食堂2』が選ばれた。

式典はジャパンタイムズ代表取締役会長兼社長・末松弥奈子の挨拶で開会。来賓からはこのレストラン・リストの取り組みが地方創生に資することなど、同賞の意義などが語られた。その後、表彰式が行われ、10人の受賞シェフがコメントを披露。地域や生産者への感謝と食を通じた社会貢献への思いを述べた。

また、今回の受賞者のうち6人のシェフによるコース料理も振る舞われ、参加者たちは舌鼓を打った。

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YOKOGAWA

VOL. 17:
Yokogawa Electric Corp.

Mission: Sustainability

By OSAMU INOUE / Renews

Yokogawa Electric's strong points

1. Uses "distributed control systems" for plants to assist customer companies' decarbonization efforts
2. Aims for reducing customers' CO2 emissions by 1 billion tons
3. Involved in a project to reduce CO2 emissions at the Dutch port of Rotterdam, which seeks to become Europe's largest hydrogen hub
4. Has active roles in renewable power generation projects in Australia and Ishikari Bay

ILLUSTRATION: AYUMI TAKAHASHI

Yokogawa Electric's control systems cut emissions

Yokogawa Electric Corp. has introduced control systems for large plants and factories in a broad range of industries, including petroleum refining and chemicals, steel, textiles, pharmaceuticals, food, water, power generation and gas.

It is a company that places sustainability measures and initiatives at the core of its management policy. The international nonprofit group CDP put Yokogawa Electric on its 2024 A Lists, published this April, in the categories of climate change and water security for a second consecutive year.

Yokogawa Electric is also a manufacturer, producing measuring instruments and control systems. It has pledged to reduce its Scope 1 and 2 (direct and indirect) greenhouse gas emissions to zero by 2030. For Scope 3 (supply chain) emissions, which in fiscal 2023 totaled 640,000 tons, or over 90% of the company's total emissions of greenhouse gases, it has set a target of reducing them 30% by fiscal 2030, compared to the level in 2019, and 100% by 2050.

But these figures alone may be relatively insignificant for Yokogawa Electric, because its control systems have contributed significantly to reducing carbon dioxide emissions and improving the efficiency of renewable power generation for companies around the world. The reductions from these contributions reach into the hundreds of millions of tons, far exceeding the amount the company itself emits.

Billion-ton CO2 cuts

In 2017, Yokogawa Electric announced its Three Goals setting out its vision for society in 2050, summarized as "Achieve net-zero emissions; stopping climate change," "Ensure well-being; quality life for all" and "Make the transition to a circular economy; circulation of resources and efficiency," and expressed its resolve to transform itself toward them (see the article in the box).

At the same time, it set medium-term targets for 2030 in which it aimed to achieve a "CO2 emissions control amount through customers" of 1 billion tons over a period from fiscal 2018 to 2030 — a total comparable to the amount that Japan as a whole emits in one year.

How is it possible for Yokogawa Electric to set such ambitious targets? The answer lies in its core "distributed control systems" (DCS) for plants and factories.

It introduced the Centum DCS in 1975, and since then has installed more than 30,000 units in plants and factories in more than 100 countries.

Centum, celebrating its 50th anniversary this year, has evolved into Centum VP, an advanced version that can manage various phases of facilities' life cycles: design and engineering, equipment installation, production, updating and, finally, decommissioning.

The company's control-related business accounted for 94% of fiscal 2024's total sales of ¥562.4 billion ($3.9 billion) and is still growing. The leading source of earnings is its energy and sustainability business, which includes renewable energy.

"I think a large-scale project at the Port of Rotterdam is the example that shows how our control systems and solutions contribute to the global environment in the most understandable way," said Akira Fukuda, a Yokogawa Electric senior vice president, executive officer and head of the corporate administration headquarters, who is responsible for the company's sustainability measures.

The Dutch port, the largest in Europe, is also an energy base with more than 40 petrochemical plants and related facilities, and is now undergoing a transformation centered on hydrogen.

Rotterdam hydrogen hub

The U.K. oil major Shell PLC is constructing a plant that will daily produce up to 80 tons of "green hydrogen" using electricity from offshore wind power and other sources, aiming to bring it online this year. The U.K. oil company BP PLC and the French gas company Air Liquide SA also plan to build hydrogen plants of similar scale at the port.

Hydrogen produced at the Port of Rotterdam will be delivered to European Union countries and elsewhere through pipelines and liquefied-hydrogen carriers, contributing to decarbonization. As the port undergoes a transformation into one of the world's largest hydrogen hubs, Yokogawa Electric is supporting this extraordinary project as a partner.

In September 2023, the Port of Rotterdam Authority and Yokogawa Electric announced they had begun a study on interindustry collaboration aimed at finding ways to use energy and resources efficiently at industrial complexes. They said a preliminary study indicated that optimization of the supply and demand for electricity among operators could cut costs by 5% as well as reduce emissions of carbon dioxide.

"So, we have diverse companies operating diverse businesses in the limited area like an industrial park," Fukuda said. "And we had to find a way to optimize energy and resource use for the area as a whole. The goal was clear, but how could it be done? It was an elusive puzzle."

He went on: "We have a concept of 'system of systems,' which means a group of independently operated and managed systems work together to form a larger system that creates new value. By further integrating the control systems of each company for heat, electricity, hydrogen, etc., you can expect to reduce energy consumption and CO2 emissions." In short, the plan is to take advantage of strengths in consulting and data analysis to optimize energy usage.

Yokogawa Electric has also developed relationships with individual companies involved in the development of the Port of Rotterdam. For example, it was selected as the main automation contractor for the hydrogen plant being built by Shell.

The manufacturing of hydrogen requires a wide range of functions, including offshore wind power generation and access to water. If Yokogawa Electric's know-how on control is imparted to companies operating across the port, everyone will stand to benefit from the carbon reduc-

Akira Fukuda, a Yokogawa Electric vice president, executive officer, and head of its corporate administration headquarters, and Chika Furukawa, a fellow and general manager of the Sustainability Promotion Department

PHOTO: OSAMU INOUE

● Summary

低炭素化・脱炭素に貢献する「制御」。

石油精製・化学、鉄鋼、繊維、医薬、食品、水、発電、ガス……。横河電機は、あらゆる産業の大規模プラントや工場などに向け「制御システム」を導入してきた。

横河電機の制御システムは今、世界中の企業のCO2削減に、あるいは、再生可能エネルギーの効率的な発電に多大なる貢献をしている。その数字は「億トン単位」。同社が排出する温室効果ガス（GHG）とは桁が違う。

2017年、横河電機は2050年に目指す社会の姿を定めた「Three Goals」を公表。同時に、2030年に向けた中期目標を掲げ、気候変動対応では「2030年までにGHGのScope1と2をゼロに、Scope3を30%削減する」という自社グループ内の目標を掲げた。さらには「お客様事業のCO2排出抑制量」を、2018年度から30年度までの累計で「10億トン」とした。その量は、日本全体が1年間で排出する量に匹敵する。

なぜそんな大それた目標を掲げることができるのか。答えは、横河電機が主力とするプラント・工場向け「統合生産制御システム」関連のソリューションにある。

日本語全文はこちらから

The Ishikari Bay New Port Offshore Wind Farm

COURTESY OF GREEN POWER INVESTMENT CO. LTD.

tions and energy savings achieved through optimization. The Port of Rotterdam Authority appears to be looking ahead to that future.

Wind power in Japan

In addition to distributed control systems, Yokogawa Electric has another control-related "weapon," called the collaborative information server.

Whereas a DCS focuses on controlling facilities and equipment, CI servers focus on collecting and analyzing information from facilities and equipment. When combined with a DCS, they help achieve even more efficient operations and also enable the remote monitoring of facilities and equipment via the internet.

CI servers have also begun to play an active role in the field of renewable energy.

Australia's largest commercial green hydrogen project currently underway, called Yuri, uses a control system centered on a Yokogawa Electric CI server. The system aggregates a large amount of data collected from the related facilities. Centralized management then supports swift operational decision-making.

In Japan, a control system centered on a CI server is playing a key role at the Ishikari Bay New Port Offshore Wind Farm, one of the largest facilities of its kind, which started commercial operation in 2024.

Yokogawa Electric provides a remote operation and monitoring system and a video monitoring solution for the entire power generation facility, which includes both offshore and onshore parts, as well as maintenance service for them. Yokogawa Electric's system provides the information required to control the amount of electricity stored in the facility according to current conditions. In addition, tests have begun on a system to detect signs of damage on submarine cables by using fiber-optic temperature sensors.

"It's difficult to go to the site of an offshore wind power facility," Fukuda said. "So, I think the Ishikari project fully utilizes the advantages of the CI server, including remote operation and monitoring and analysis of data from various sensors, and demonstrates what it can do."

However, new fields like renewable energy are not the only ones in which Yokogawa Electric's control systems can be effective. They contribute to protecting the global environment by improving the efficiency of industrial plants — and they do so with the help of artificial intelligence.

Autonomous control AI

In March 2023, Eneos Materials Corp., a subsidiary of the Japanese oil major Eneos Holdings Inc., announced that it had succeeded in achieving the stable operation of a chemical plant using an autonomous control AI and had become the first company anywhere to officially adopt AI for plant control.

For this project, Eneos Materials introduced an autonomous control AI system that incorporates "factorial kernel dynamic policy programming," an AI algorithm based on reinforcement learning that was jointly developed by Yokogawa Electric and the Nara Institute of Science and Technology. When used at an Eneos Materials plant, the technology reduced both steam consumption and carbon dioxide emissions by about 40% compared to conventional manually controlled systems. This was the first time ever for an autonomous AI to control an actual chemical plant.

Patterned "automatic" control systems are vulnerable to uncertain events, such as sudden changes in weather conditions. At the Eneos Materials plant, for example, skilled human workers were required to intervene in many cases.

Still, the company was able to "prove that AI works," said Chika Furukawa, Yokogawa Electric's chief sustainability officer and head of the Sustainability Promotion Department.

"In the first place they had a labor shortage and an issue with their ability to pass on the skills and sensibilities of veteran workers," she continued. "In the process of automating various controls, there were still areas that could not be solved without veteran workers. So, the fact that AI was able to solve such issues while reducing energy use and CO2 emissions is a major step forward for both Yokogawa Electric and industries using conventional plants."

Yokogawa Electric's DCS and CI servers have already been installed in many plants of key heavy and large-scale industries, including oil and steel. Fukuda said the autonomous control AI can be applied to these production sites.

"The autonomous control AI is a technology that can be used for anything that is controlled," he said. "Decarbonization efforts, such as efforts to increase the use of renewable energy, are important, but ... emissions cannot be completely eliminated in production and manufacturing processes that use fossil fuels anytime soon. I think Yokogawa's control systems, including those that use AI, can contribute more to reducing CO2 emissions in such industries."

An indispensable role

Yokogawa Electric's control systems, which have evolved with AI, appear set to further accelerate efficiency improvements in conventional industries, including the heavy industries of oil and steel, and contribute to energy conservation and decarbonization. This is symbolized by the target of a billion-ton reduction in greenhouse gas emissions mentioned earlier. It reflects the positive impacts of renewable and green energy projects in which Yokogawa Electric has a role, not just the impacts achieved through using its systems themselves.

How much more carbon would be emitted if Yokogawa Electric's control systems did not exist? The company is trying to estimate this, but the calculations involved are complicated, making it difficult for the company to release numbers publicly. If all of its positive impacts are included, the amount of its emissions reductions may exceed 1 billion tons.

Furthermore, the billion-ton target was set in 2017, preceding recent leaps in AI technology. Yokogawa Electric's AI, used in combination with DCS and CI servers, appears set to contribute significantly to reducing the carbon footprint of existing plants and achieving more efficient generation of renewable energy.

Yokogawa Electric is playing a remarkable role in everything from the decarbonization of key industries to managing green energy. The scope of its activities is expanding to include everything from a "confocal scanner" unit that enables the observation of living cell activity, used in drug discovery and medical practice, to the support of the reuse of lithium-ion batteries from electric vehicles.

As these technologies are used in innovative fields, client companies are reluctant to disclose information about their achievements, but there is no doubt that they support leading companies in research and development.

Yokogawa Electric continues to urge many companies in many countries to do important things for humanity and the Earth. As a company indispensable to industrial activities for sustainability, its contributions to society are only increasing.

This Eneos Materials chemical plant uses autonomous control AI.

COURTESY OF ENEOS MATERIALS CORP.

The Three Goals and corporate culture

Akira Fukuda
Vice president, executive officer and head of the corporate administration headquarters

Looking back on the various sustainability initiatives we have undertaken so far, I feel that the Three Goals we announced in 2017 have been very important in that they made us realize afresh that we are on the side that supports society.

All of the medium-term management plans that we have set from 2017 onward were formulated as a pathway to achieving these goals. We clearly state that our business activities themselves contribute to achieving sustainability. We are not trying to conform to current trends, nor are we just trying to make ourselves look good. We have had that kind of corporate culture from the beginning.

Yokogawa Electric, at its base, has values that make us feel happy to be what you might call unsung heroes, being useful for people behind the scenes while taking pride in supporting the foundations of society.

The reason for this is that our mainstay products, distributed control systems, reflect this culture. They support operations at large power plants and all kinds of factories, and as such play an indispensible role.

DCS enable the efficient use of limited resources and time, ensure security and safety, and enhance reliability. Customers can rely on us to take control of large, complex and critical processes. Through such services, each and every employee becomes involved in building a relationship of trust with customers.

Recent initiatives, such as the Three Goals, are the result of sorting out these values, and sustainability was built into the basis of our business in the first place.

So, if I were to answer the question of why we are serious about sustainability being the foundation of our management, I would have to say that it is because we have been a company like this from the beginning. I feel that this kind of culture has naturally been nurtured through our work, and that the company has attracted employees who naturally value the Three Goals not only in Japan but also internationally.

We are not a company that is doing eye-catching things. We may appear to be a simple company, but as our purpose states, we take pride in the phrase "Utilizing our ability to measure and connect, we fulfill our responsibilities for the future of our planet." Going forward, my hope for the company is to step out from behind the scenes to fully embody our values and fulfill our responsibilities.