



A conceptual image of the pavilion, incorporating a Mobius-strip motif covered with Nishijin textiles. The playful design features an entrance with a canopy shaped like a folding fan. The interior will exhibit the cities of the future and smart houses, with an overarching theme of wellness. IIDA GROUP HOLDINGS

WEAVING A NEW LEGACY: JAPAN'S HERITAGE TEXTILES ILLUMINATE THE EXPO 2025 BLENDING TRADITION AND INNOVATION



One of the most striking and gorgeous pavilions at Expo 2025 Osaka, Kansai, Japan is the pavilion jointly created by Iida Group Holdings and Osaka Metropolitan University, which features an exterior adorned in Nishijin textiles, a traditional Kyoto fabric. We spoke to architect TAKAMATSU Shin, whose concept for the pavilion is a fusion of tradition and evolution, about his thoughts on the unprecedented architectural structure and prominent use of Nishijin textiles.

Traditional Japanese Nishijin textiles, intricately woven with gorgeous patterns of cherry blossoms and autumn leaves, drape the exterior of a pavilion set to debut at the Expo 2025 Osaka, Kansai, Japan, next April. The pavilion, created jointly by the major Japanese homebuilder Iida Group Holdings Co., Ltd., and Osaka Metropolitan University, is sure to be an unforgettable sight.

Inspired and united by Expo 2025 Osaka's theme of "Designing Future Society for Our Lives,"

the two organizations have been collaboratively researching the creation of sustainable housing for the future and town planning. The pavilion is a testament to their hopes for all living things to coexist in happiness and harmony.

The pavilion was designed by TAKAMATSU Shin, an

Besides Japan, the architect TAKAMATSU Shin has worked on projects in such countries as Taiwan and Vietnam. Although he sometimes takes initial inspiration from past work, only after completely erasing that inspiration can he create a unique building, as was the case with this pavilion.



international architect based in Kyoto. The concept he came up with for the structure was that of a "Sustainable Mobius." The Mobius strip, a long, narrow band twisted and connected at both ends, forms a continuous surface without distinguishing between front and back, representing an infinite loop that hints at the idea of eternity.

"When considering what would represent a sustainable society oriented toward recycling, I contemplated ideas of revival, reincarnation, rebirth, and harmony," explains Takamatsu. "As I kept on thinking, then, an image of a Mobius strip popped into my mind. I wanted to create a pavilion whose appearance embodies the unity of past and future, which led me to this shape."

Takamatsu has his own special reasons for being so particular about fusing the past and future. When the first Osaka Expo was held more than half a century ago, in 1970, he was an undergraduate student at Kyoto University's School of Architecture, and was working part-time at the preparation site for the Expo in Osaka. He recalls feeling a sense of discomfort back then, seeing the futuristic pavilions develop—seemingly oblivious of the past—ever as they were being built alongside foundations that had been laid with traditional techniques. Takamatsu said, "At that time, I felt that the future doesn't emerge simply through the search for an entirely new image, but rather through the continuous connection between old wisdom and technology."

What has drawn the most attention to that concept this time is his bold idea of using Nishijin textiles, a 1,200-year-old traditional Kyoto craft, for the pavilion's exterior walls. Even Takamatsu, however, was at first uncertain whether it would even be feasible to do so. The exterior of the pavilion covers a total surface area of 3,500 m², and stitching together standard kimono fabrics measuring a mere 32 cm in width to cover that immense area would certainly be an extraordinary challenge.

The solution came from Hosoo Co., Ltd., a venerable Kyoto-based Nishijin textile company founded almost three and a half centuries ago, in 1688. The innovative company, which overcame the sharp decline in kimono demand over the past few decades by developing a loom to weave fabrics 150 cm wide, has cultivated new markets for furniture and interior design by creating textiles with raised surfaces using three-dimensional mapping technology.

To enhance fire and weather resistance, they collaborated with Taiyo Kogyo Corporation, experts in technology for membrane materials, to reinforce the textile used in the pavilion by applying a coating to both sides of the fabric and adding a flame-retardant membrane. The combination of those technologies enabled the use of Nishijin textiles as a suitable exterior membrane.

The biggest challenge, however, was affixing the Nishijin textiles to the curved surface of the structure. According to Takamatsu, while

minor discrepancies are usually acceptable in typical construction, even the slightest error would cause the patterns on the pavilion structure to misalign when Nishijin textiles were applied. "That's why we took meticulous care with every step, focusing on making sure that the Nishijin textiles looked beautiful no matter what."

The building, with its vivid red background and beautiful floral motifs, is a sight to behold. "We have finally reached a point where we can see the possibility of using Nishijin textiles in architecture, and I'd like to further explore the potential for its use in buildings," Takamatsu said. "For example, I would like to experiment with covering the entire exterior of a skyscraper abroad with the fabric."



Hosoo Co., Ltd., a longstanding Kyoto company, possesses a loom with a width of 150 cm, enough to weave the pavilion's Nishijin fabrics. For improved durability, polyester yarn is being used instead of the traditional silk.

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