When Textiles Become Architecture: Studio Akane Moriyama

Moriyama Akane (principal, Studio Akane Moriyama), who majored in architecture and textiles, has tried to make interventions into the architecture and space through textiles, noting that textiles can be another way of constructing architecture, not just an interior element. *SPACE asked Moriyama – who realises spaces on various scales often using a single layer of fabric and sometimes a volume through layers of fabric – about the potential of textiles as a building material and the use in developing a new construction method.*

The way Moriyama Akane uses fibres, textiles, colours and craftsmanship is inspiring. Some of her ideas are quoted below.

... Humankind has long developed a vast storehouse of knowledge about textiles. However, the use of textiles in architecture has been limited to traditional methods for a long time. *My belief is that more considered use as a design intervention can shift the boundaries that presently exist between architecture, landscaping, and art.*

For me, applying curtains to architecture offer a simple and fun gesture that becomes an integral part of the space. Compared to floor rugs and furniture covers, curtains have room to intervene more actively in space based on their flexible characteristics. A piece of fabric can change a space dramatically. Since every location has different context, every project is an adventure through which one reveals the hidden qualities of the space.

Figure 1. Installation view of Curtain for O House (2009). The large curtain for the façade covers a window of W2 × H7.1m, this to ensure the privacy of the residents and also insulate the window further against cold air. ©Takumi Ota

With textiles we can create a 'wall' that is at once soft and transparent but also thick, though I don't know if it can be called a 'wall' since it might not be load-bearing. I don't expect textiles to replace those existing 'hard' architectural elements since they also have their own material characteristics which textiles cannot replace. *However, textiles can propose new perspectives towards our existing conception of architectural elements. They are easy to transport, versatile in terms of play with colour and pattern, and can also be used on small to large scales.*

... Textiles can help to reduce the environmental burden of buildings. However, we need to consider the life of textiles in the long term. What will happen to millions of metres of fire-retardant polyester curtains in hotels after 30 years? It's a challenging question since we live and work in the realities of capitalistic world. But even though I am one tiny part of the wider industry, I am looking for the answer and trying to find a way of circulating our approach and system with greater wisdom.

When I work with architects, I always try to avoid joining the post-construction phase. I try to avoid last-minute projects. This is because, if I can participate in a project from the early stage, I can propose bold design ideas that accommodate the intervention of textiles. For example, instead of building a heavy wall we could consider the option of textile walls. If I'm joining the project in the final hour of the construction period, quite often it's more difficult to integrate this work - less flexibility, less time, and limited budget.

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At present, my studio consists of myself, but sometimes there are assistants and collaborators here too. Since I am mainly active in Japan and Sweden, I have a longstanding relationship with textile workers in Japan and Sweden, and I really appreciate their level of professionalism. My collaborators always offer great advice about how to make, install, and transport the works. Without their help and regular conversations with them, I cannot go forward with the project.

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Moriyama Akane reinterprets the **textile roof**.

***Textile Roof**, part of the Japanese Pavilion at the 2023 Venice Biennale, is based on the awning and ceiling louver that Yosizaka Takamasa – being inspired by the Venetian light and shadow – had designed for the Japanese Pavilion. The light and flexible structure is made of recyclable polyester cloth. Instead of being pointed upward like a typical roof or canopy, the roof has been stretched out alongside the trees at a relatively low height.*

Through the fabrics, we wanted to highlight a path towards the entrance of the pavilion. When you go up the stairs towards the garden, you gradually approach a lower ceiling and cosier atmosphere beneath the roof. And then you ascend a few steps to reach the building's entrance. Like the approach to a tea house in a Japanese garden, visitors can sit beneath the roof before the exhibition and then step into the small entrance to the room. We designed it to be a part of the experience of walking through the pavilion.

The *Textile Roof* is made of a layer of three-dimensionally woven fabric. The layer consists of 100m^2 of cells with 100mm-wide recycled polyester sewn by hand. We needed to create a flexible roof which would be able to withstand heavy rain and gusty winds like the sirocco. The grid structure allows wind and rain to permeate through while. The structure is hanged with 76 fluorocarbon fishing lines woven into the fabric. There are no metal wires nor hard structures within the fabric. Since it was flexible and light, we brought it via our hand luggage allowance from Japan.

Figure 2. Installation view of Textile Roof (2023). The roof installed at the Japanese Pavilion at the 2023 Venice Biennale is based on the awning and ceiling louver that the architect Yosizaka Takamasa – being inspired by the Venetian light and shadow – had designed for the Japanese Pavilion © Studio Akane Moriyama

It was a result of a fruitful collaboration with structural engineer, textile workers, architects, weavers, and a craftsman. What we really cared for on site was its relation to the existing trees at the garden. We did not want to risk any damage to the trees since the trees are so precious in Venice. The exhibition at the Biennale changes every year, but the trees are always there. See https://vimeo.com/866320304

Figure 3. Textile Roof is made of a layer of three-dimensionally woven fabric. The layer consists of 100m^2 of cells with 100mm-wide recycled polyester sewn by hand. ⓒSandro Sulaberidze

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https://vmspace.com/eng/report/report_view.html?base_seq=MjY3NA==

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