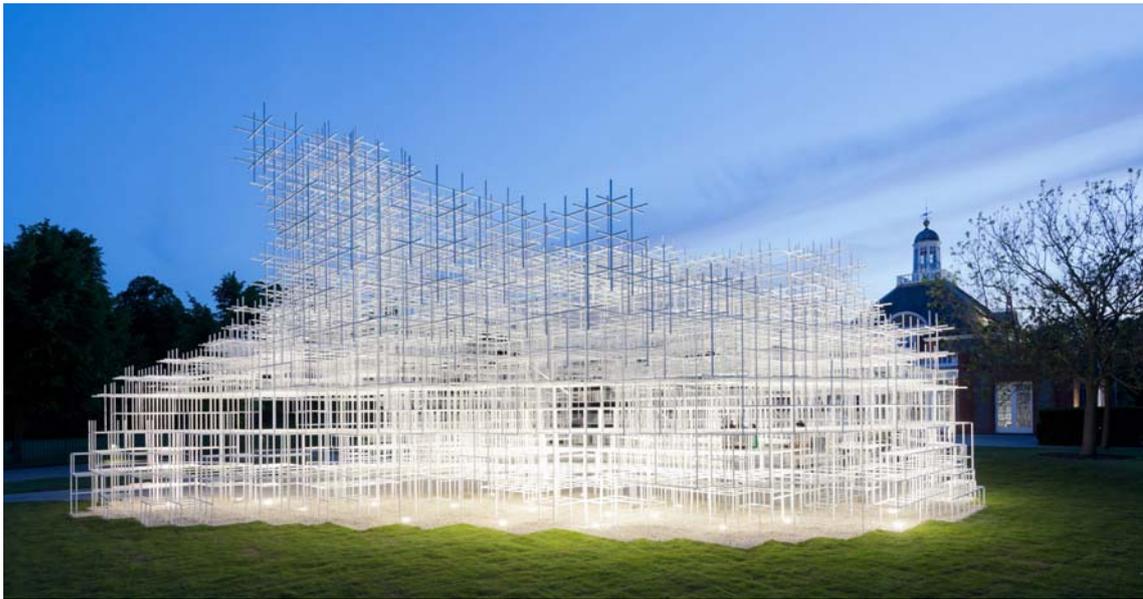




# Serpentine Gallery Pavilion 2013



Inspired by nature: the 2013 pavilion forms a seemingly weightless cloud.

Image © 2013 Iwan Baan.



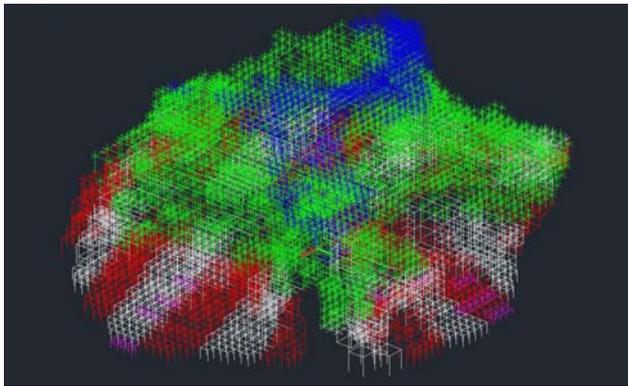
Sou Fujimoto. © David Vintiner.

The 2013 structure was designed by Sou Fujimoto, who at 41 years old was the youngest architect to date to be invited to design the pavilion. Constructed from a modular mesh of 400mm and 800mm steel frames, the 2013 pavilion had the appearance of a seemingly weightless cloud, varying in density according to viewpoint and with an open structure that allowed visitors to climb inside on varying levels of acrylic steps and platforms.

The pavilion won the Best Temporary Building in London at the New London Awards 2013, an award which recognises the very best in architecture, planning and development in the capital. This award is judged by an international jury who look for schemes of the highest design quality that demonstrate a positive impact on their surroundings. From an original idea of Serpentine Gallery Director, Julia Peyton-Jones, the Serpentine Gallery pavilion has become a highlight of both the London art scene and the global architectural calendar, providing a unique showcase for contemporary architectural practice.



The open structure allowed visitors to climb inside.



### SERPENTINE EXPERIENCE

This was the fifth year that we had constructed the pavilion, Sou Fujimoto's cloud-like structure of 2013 being in stark contrast with Herzog & de Meuron and Ai Weiwei's 2012 pavilion which took visitors underneath the Serpentine's lawn and into a subterranean space lined with cork. Indeed, each commission has required a hugely varied palette of materials and manufacturing techniques, giving us the opportunity to use our comprehensive in-house facilities and diverse skills in new and exciting ways.

### COMPLEX CLOUD CONSTRUCTION

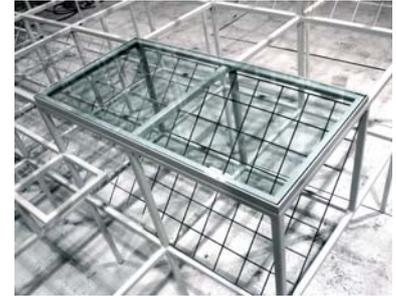
With a maximum of six months from invitation to completion of the pavilion, the project team of consulting engineers AECOM, RISE Management and Stage One worked closely together to ensure that this high profile project was delivered on time.

Although a relatively small structure, the 2013 pavilion actually comprised more structural members than the Eiffel Tower, meaning that the timescale of the commission was potentially problematic with thousands of joints to be welded within a six week manufacturing window. We worked collaboratively with David Glover and Tom Webster from AECOM on developing a joint system that would provide the required solutions: meeting the tight timeframe, maintaining the aesthetic, yet adhering to the specification that the pavilion be fully demountable.

A total of 27,000 individual lengths of 20mm sided steel square tubing were required with a total of 3,500 individual 'nodes'. These nodes were welded half joints with an additional 15mm diameter rod running through the core of the steel, the ends of which slotted into adjoining tubes. Each node had to be ground off to create a flush edge before being painted over, while fitting the 10,000 bolts alone took a workshop team of six, two full weeks.



A back catalogue of contrasts: Serpentine Pavilions 2009 – 2012 built by Stage One



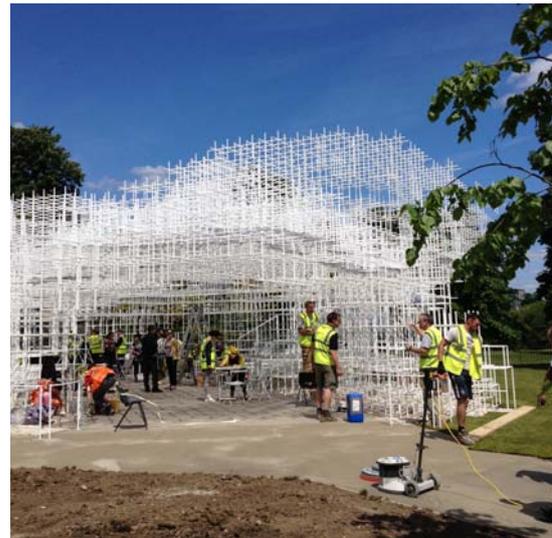
Precision: the modules fitted together accurately on site.

### A MODULAR STRUCTURE

The Serpentine Gallery are only able to offer a relatively confined construction footprint of 25m by 25m within Kensington Gardens, which limits the type and quantity of work that can be carried out on-site, even when building a relatively small 18m by 18m pavilion. The solution to this was to manufacture the pavilion in a series of 56 prefabricated modules which could then be transported to site before being fitted together.

These modules varied in size, the defining factor for the largest being the size of truck available to transport each one to site in London. We took great care to ensure that each segment was split in the correct place so as not to compromise the structural integrity of the building and the accuracy of our work stood to be tested once the segments were craned into position and fixed. The whole structure fitted together so neatly, however, that there was no need for any adjustments to be made on site – a fine testament to the skill of our welders and the accuracy of our state-of-the-art laser cutters.

Despite the quantity of components, Fujimoto's design was in fact one of the more straight-forward pavilions that we have constructed. Being able to undertake the manufacturing, most of the assembly and the spray painting in our large premises, left the minimum of work to be done within the tight confines of the public park.



### FENCE UP TO FENCE DOWN

Our yearly remit also includes all site preparations and groundworks: from the moment the fence around the site is erected, to the moment the fence is removed and the pavilion is opened, our crew are responsible for everything that happens on the site. All aspects of the pavilion build must be fitted around the opening hours of the park, with deliveries aligning with the 2 hour windows permitted each morning and afternoon. Once autumn arrives and the pavilion is de-mounted, we then ensure that the site is returned to its original state, in line with The Royal Park's specifications.



#### AN ELEVATED CONCEPT

Occupying a footprint of just 350m<sup>2</sup>, the 2013 pavilion was open at both ends, with a central void housing a café and venue space surrounded by the semi-transparent cubes of tubular mesh. A series of overlapping transparent polycarbonate discs clamped to the steel tubes provided protection from the elements with minimal visual interruption, allowing for maximum design integrity and an intriguing pavilion that appeared to float just above the surface of the lawn.

After its 5 month residency outside the Serpentine Gallery, the pavilion was demounted and moved to a new home.



“ Thank you for the invaluable contribution that you and your team have made in bringing Sou Fujimoto’s architectural pavilion to life. We know from experience that this year’s pavilion in particular has required far more intensive off site manufacturing of the sections and recognise that you and the team have dedicated many hours to ensure the project’s successful delivery at all stages of the project. It has been an absolute pleasure to work with your team in delivering this unique and challenging project.”

Gareth Stapleton, Director and Nazma Uddin, Consultant,  
RISE Management Consulting