



Adam Lowe and Charlotte Skene at the Catling Toppila silo in August 2021. Photo: Otto Lowe / Factum Foundation.

TEXT: MARLENE HYYPPÄ

THE SIILO RESURRECTED

A new creative centre celebrating cultural heritage is planned for Meri-Toppila

In August 2020, the City of Oulu auctioned off a long-unused wood chip silo designed by Alvar Aalto to an international buyer. Adam Lowe, founder of the Factum Foundation in Madrid, who purchased the Siilo, and Charlotte Skene Catling, an award-winning London architect, gave an interview to Kaltio magazine during their visit to Oulu back in August. We also visited the Siilo to inspect the current condition of the building.

“It was a sum of several coincidences that we ended up as the new owners of the Siilo,” says Charlotte Skene Catling at the coffee table. “At the time of the coronavirus lockdown, we were working on another project in Seville and escaped the roasting 50-degree temperatures into the depths of the internet. We ended up on the Brutalism Appreciation Society site, where we heard about the sale of an industrial building designed by Alvar Aalto happening on a Finnish auctions website. We put in a bid and actually forgot the whole thing – soon afterwards we were surprised to learn that we were the new owners of the Siilo” laughs Skene Catling.

The price for the historic building came to a mere 6,251 euros in the end. Repair costs, on the other hand, are estimated to reach well over a million euros.

Once the deal was secured, Skene Catling and Lowe began to delve deeper into the building’s history and consider its significance for the modern era. Serendipitously useful contacts and opportunities for cooperation began to emerge. “It felt like everything was suddenly leading us North,” Charlotte says.

The team travelled to Oulu for the first time after the sale in November 2020. Now, less than a year later, they have returned to hone their plans on the spot, make contacts with locals and dive deeper into the city’s culture.

A piece of northern industrial history

“Previously, I didn’t realise how much industry there exists near the Arctic Circle. My perceptions of the Arctic were a more romanticised image of northern nature,” says Adam Lowe, founder of the Factum Foundation, who has also worked as an artist. The Siilo was built in an era when the impact of industry on nature was not understood and there was blind optimism after the economic crisis of the 1920s. It is illustrative that Toppila Oy, which manufactured sulphite cellulose and wood chips, did not build a mechanical wastewater treatment plant until the 1970s, to begin to reduce the pollution being leached into the waters off Oulu.

Reading the contemporary accounts has deeply interested Lowe. In particular, the tales from locals about the factory’s pollution and the smell of rotten eggs in the air evoked strong impressions in him. The Toppila industrial area was once lively and full of life: ships sailed from the port to the world’s seas and back, grain was milled in the steam mills of the Vaasa and SOK companies, and beer was hissing in the vats of the Toppila Malt Beverage Factory. Timber and other raw materials travelled along the railway to Toppila’s own railway station.

The devastating effects of industry on the environment are being realised today, especially when it comes to climate change. Focus is increasingly turning to the North, where the melting of the permafrost and polar glaciers threatens the entire planet’s ecosystems. “We no longer live in separate pockets, climate change in the Arctic is having a global impact. The North has become very topical because changes in the environment are happening faster here than elsewhere,” Lowe ponders.

During the restoration and rehabilitation of the Siilo, the team intends to highlight the multidimensional dialogue between industry, environment, and architecture, and to involve local art and technology professionals. One of the aims of the project is to draw attention to the environmental impact of architecture and industry and to explore new types of sustainable development models for the building industry.

The project can be divided into three different phases: the restoration of the historic Siilo, the construction of a new research centre, and the design and implementation of activities for both buildings. An Association has just been set up for the project, which will facilitate fundraising and practical matters. Cooperation is carried out closely with the City of Oulu, Oulu University of Applied Sciences, the University of Oulu and the Alvar Aalto Foundation. In addition, the aim is to form a Nordic co-operation network, which will attract experts from Sweden and Norway.



Toppila factory in the winter of 1938. Photo: National Board of Antiquities / JOKA Journalistic Photo Archive, Kaleva.

A Functionalist concrete sculpture

The Toppila pulp mill, opened in 1931, is Alvar Aalto's first industrial site. The building once received international attention thanks to photographs taken by **László Moholy-Nagy**, a teacher at the Bauhaus School of Art, and photographs published in the architecture magazine *Arkkitehti* (12/1931). Consequently, Aalto was commissioned to design more industrial sites, the most famous of which is perhaps the Sunila factory site, which has been shortlisted to become a UNESCO World Heritage Site.

The Toppila mill was originally owned by the British family company Peter Dixon and Son Ltd, which transported sulphite cellulose from Oulu as a raw material to its paper mill in England. After the Dixons, Toppila Oy merged with Kajaani Oy in 1973. As the pulp market waned, the factory was closed down in 1985, and some of the buildings were demolished.

The street names in Meri-Toppila still reflect the area's past: Sellukatu 'Cellulose street', Paalikatku 'Pylon street'; Hakekatu 'Wood chip street'; Dixoninraitti 'Dixon's high street'; and Sulfiittikatu

(‘sulfite street’). The local pub, Dixon, located in the former laboratory of the factory; is now serving a slightly different kind of potent brew, whilst the former power plant has been turned into a climbing centre; the wood drying building is home to an obstacle course and trampoline gym, as well as second-hand furniture and clothing centre on the former wood grinding site. The former factory buildings also house a kindergarten and rental apartments.

Strict heritage regulations and the cost of repairs, which have snowballed during the years of neglect, have hampered the rehabilitation of Siilo, and it has remained disused for most of the time since the factory closed. There have been plans for a chapel and a community cultural centre, among other things, but previous projects have collapsed due to a lack of funding. Kulttuurivoimala ry, which for a long time was active in the nearby former train depot building, Veturitalli, organised several events both inside the building and on the site, and architect **Heikki Riitahuhta** prepared a repair and renovation plan for Siilo as his diploma work.

Due to indoor air quality problems detected during a condition survey, the organisation of events in Siilo was suspended in 2017. In 2019, the City’s Building Inspector imposed a ban on the use of the building. Without a thorough restoration, the building would inevitably edge towards the end of its natural life.

Geoarchitecture and storytelling

“We want to maintain the Siilo and its existing state largely unchanged,” Skene Catling explains as the interview progresses. “The feeling of entering into an airy, cathedral-like space and looking up towards the light penetrating from the skylights is very moving.” The aim is to respect Alvar Aalto’s original vision and emphasise the innovative nature of the concrete building. “Our goal is for people to be able to see the building from a different perspective after the renovation: as a stunning concrete sculpture, which is what it basically is,” Adam Lowe elaborates. The history of the building and its former uses go hand in hand with the renovation plans of Skene Catling, the project’s lead architect. Her architectural firm Skene Catling de la Peña specialises in an approach called “geoarchitecture”, which takes into account the characteristics of the building site, such as the soil, rock types and archaeology – in short, the “things that happened there”. In addition to respecting the site’s history and ecology; principles of sustainable development play an important role in the work of the renowned architect, and these themes are highlighted in the Siilo project.

“The current construction industry is incredibly destructive. I think architects should think more about renovating and reusing existing buildings rather than demolishing them,” says Skene Catling. Historic buildings are an important part of local culture and people’s memories. “If the old buildings are just destroyed, in a way this also means that people’s memories and cultural identity will also be lost.” A respectful approach will also be reflected in the choice of materials. The idea is to use raw materials relevant to the history of the factory and wider area, such as granite, wood, and cellulose. In addition, the team is currently researching various eco-materials such as experimental ecological concrete and other “revolutionary” compounds in collaboration with the University of Oulu.

The former use of the building has also been taken into account in its storytelling. Skene Catling is fascinated by the way the wood chips moved through the building: the wood chip was transported in a bucket conveyor lift up to the top of the building, from where it sifted down through metal funnels. After passing through the silo, it continued its journey along another conveyor belt to the next building, where it was converted into cellulose. “This choreography of movement could also serve as a basic idea for the flow of people in the space,” Charlotte

suggests. "It would be great to be able to take people up to the top of the building, for example with a lift"

After the renovations and refurbishment, the Siilo will be turned into a public multipurpose space, where cultural and art events can be organised, among other things. The team believes that the space would be well-suited for sound and music performances or art installations due to its unique acoustics. The Northern location as well as the character of the local area could be highlighted, for example, with art works on the northern lights. One of the dreams of the couple is to come up with an artistic way to visualise the electromagnetic energy of the northern lights.



The AALTOSIILLO team being lifted to the top of the silo on a 35-metre crane lent by Hongisto Oy. Photo: Otto Lowe / Factum Foundation.

Digital conservation and creative experimentation

On the now flattened plot of land adjacent to the silo, there used to exist the wood chipping facility of the factory. In its former place, the new owners are planning to reinstate a new building that will serve as an experimental research centre, combining science and art in a creative way. Architecturally, the new building hopes to evoke a dialogue between Alvar Aalto's Siilo and his Muuratsalo Experimental House (1954).

The team considers it important to create a consistent narrative for the former factory area, so that the neighbourhood can be flooded with memories and seen as a unified whole again. Currently, the heart of the former factory complex is a car park, which does not do justice to the area's cultural heritage or entice residents to enjoy the town square.

Adam Lowe compares the Siilo project to their restoration of a mud-brick building by Egyptian architect **Hassan Fathy** at the entrance to the Valley of the Kings, where special attention was paid to the building's history and past uses. Originally built in the 1950s, the now refurbished

facility houses a training centre and archive specialising in 3D scanning technology, which employs and trains locals to preserve their rich cultural heritage using new technology. Factum Arte and the Factum Foundation have also produced a facsimile and 3D scan of **Tutankhamun's** tomb in the Valley of the Kings, among others. Work in Egypt continues on the tomb of Pharaoh **Seti I**.

The research centre planned for Toppila would focus on preserving cultural heritage through digital technology with Northern and local emphasis. For example, Adam and Charlotte are interested in finding out how digital recording methods perform in the cold conditions of the North and finding ways to document marine pollution and permafrost melting. The aim would also be to record the history of industrial architecture and the local flora and fauna threatened by climate change.



Alvar and Aino Aalto. Photo: Finnish War Museum

Techné: making combines art and technology

“We want to encourage open research and bold creative thinking,” Lowe emphasises. Curiosity and creativity will be the foundation for the community-based research and education centre.

“I find it fascinating that the ancient Greeks didn’t have a separate word for art. The word *techné* referred more to ‘making and creating’”, says Adam. In its projects, Factum Foundation aims to break down barriers between art, science, and technology; and to boldly build bridges between traditional craftsmanship and new digital technologies.

Sharing and transferring skills and knowledge is also important to the Foundation. The skills required for digital storage of World Heritage sites will be taught to locals in the project cities and villages, and open access to the digital archive, including virtual tours of historic sites and high-quality modelling of works of art, will be guaranteed.

Rethinking Meri-Toppila

Meri-Toppila suffers from a bad reputation in Oulu. As a result of thoughtless urban planning, the area has been prone to social problems, which easily leads to prejudice by better-faring parts of the city.

“It’s been strange to note that almost everyone I meet describes the area in negative terms. I haven’t met anyone yet who would describe the current Meri-Toppila as wonderful”, Lowe wonders.

However, from the point of view of the team, there is a lot of potential in the area. The long-term rehabilitation project in the Siilo area is planned; renovation work will begin in earnest next spring. The path ahead has several highlights to look forward to, including Oulu hosting the EU Capital of Culture in 2026, as well as the centenary of the Siilo in 2031.

Adam says that in the near future, the team wants to involve Oulu’s communities in the activities and bring about a change in attitudes towards the infamous area. “I think our most important task in the short term is to make it visible that things are happening and there is a positive change going on in the area. I hope it will trigger a snowball effect, which will attract both local and international artists.”

An adventure in the dark Siilo

Factum Foundation’s local team member in Oulu, architecture student Valentino Tignanelli, leads me on a visit to Siilo some months after the interview. Although the building has been connected to the electricity grid just last week, lights have not yet been installed and our exciting adventure in a dark factory building progresses silently in the dim glow of the flashlight.

We need to watch our step for puddles and occasional openings in the floor. We are reminded of the recently evicted winged inhabitants by the few feathers stuck on the floor.

“Before the removal and cleaning, I could barely talk in here, the sound of the pigeons cooing was so overbearing,” Tignanelli tells me. Now the building has been cleaned of debris, dirt, and litter that had covered the floors throughout, and the plot has also been cleaned and levelled. The holes in the sides of the building have been covered with mesh and the most urgent emergency repairs have been made.

Tignanelli estimates that the renovation will be a lengthy project due to strict building heritage regulations. Before the cleaning, Oulu University of Applied Sciences’ Arctic Drone Labs scanned the building and created a 3D model, which will serve as both a design tool and a historical documentation of Siilo prior to the renovation work beginning.

After getting used to the dark space, one’s gaze is instinctively drawn upwards to the faint light emanating from above. Daylight penetrates from the top of the building, through a massive metal funnel that widens toward the roof, through which the wood chips were once shifted. Glowing beams of light filter through the small pinprick holes in the ceiling, creating a delicately beautiful atmosphere in the otherwise gloomy space.

The metal funnels are one of the most characteristic features of the Siilo, and will be highlighted in Charlotte Skene Catling’s design, as well as the starry sky created by pinprick holes, which are a result from wooden support pegs rotting away. The elongated building is also unique due to its acoustics, and the metal funnels act as instruments, which Valentino demonstrates by lightly kicking the side of one. A loud reverberating hum bounces off the concrete walls and surfaces of the space, creating a ghostly atmosphere in a building that is still dark and empty, awaiting its future destiny.

More about the project: aaltosiilo.com

Factum Arte and Factum Foundation

Factum Arte (2001) and Factum Foundation (2009) work in both historical and modern art and architecture, specialising in the preservation of cultural heritage sites around the world. For example, the Foundation has worked on 3D-scanning the tombs of pharaohs in the Valley of the Kings and made facsimiles of paintings such as Paolo Veronese's "Nozze di Cana" (1563) and Francisco de Goya's "La Reina María Luisa a caballo" (1799).

In addition to historical works, Factum helps contemporary artists realise works that utilise the latest technology. Collaborations have been made with sculptor Anish Kapoor, photographer Boris Savelev, and performance artist Marina Abramovic, among others.

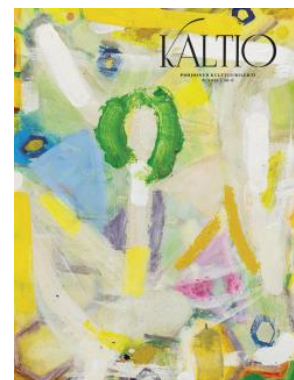
In Finland, Factum Arte's work was seen at Kiasma in 2018, where the British artist Grayson Perry's exhibition included wall hangings made with new technology based on traditional tapestries.

Factum specialises in various 3D scanning and printing technologies, as well as high-quality storage and printing systems, whose technological applications they are constantly developing. Their repertoire includes LiDAR scanning, photogrammetry, photography, printing and 3D printing. The Foundation has become known especially for its contact-free 3D-scanning methods, which protect especially historical and fragile objects. The Foundation seeks to redefine the relationship between originality and authenticity by creating facsimiles, that is, true reproductions of famous and historical works of art.

Charlotte Skene Catling

Charlotte Skene Catling is the director of Skene Catling de la Peña Architects, founded in 2003. Her approach to architecture is based on in-depth background research and an approach called Geoarchitecture. She is fascinated by overlapping themes between architecture and other arts, such as film and music.

SCDLP has won the prestigious House of the Year Award from the Royal Institute of British Architects (RIBA) in 2015 for a flintstone building designed by Charlotte. Skene Catling is also one of the founders of the Archfilmfest film festival and writes extensively on architecture in various publications. She has taught architecture at the Royal College of Art in London and the Karlsruhe Institute of Technology, among others.



Originally published on KALTIO 6/2021