

The AALTOSIILO, Oulu

"Form must have a content, and that content must be linked with nature."

Alvar Aalto

"The Alvar Aalto Foundation looks forward to the rise of the Phoenix!"

Jonas Malmberg, The Alvar Aalto Foundation, Helsinki

AALTOSIILO, Oulu

In August 2020, Factum Foundation and award-winning architectural practice, Skene Catling de la Peña purchased Alvar Aalto's iconic wood chip Silo. This innovative cathedral-like concrete structure is being transformed into a research centre promoting architectural preservation and re-use. The **A**ALTO**S**IILO will become a point of focus for digitising and communicating the importance of the industrial architecture of the north and – in turn - the impact industry has had on the environment.

The Toppila Silo was designed by Alvar and Aino Aalto in 1931. It was part of the cellulose production plant located just outside the city of Oulu. From its position at the top of the Gulf of Bothnia, on the edge of the arctic circle, Oulu was the greatest centre of tar production in the world from the late 17th Century on, aiding British colonial expansion. It is now at the heart of Finland's technological revolution, home to gaming companies and material experimentation.

Because of the explosion of printing, cellulose was a valuable commodity in the 20th century. In recent years attention has been focusing on other derivatives made from sustainably farmed wood, including lignum and nanocellulose. Nanocellulose is one of the potential wonder-materials of the 21st century, helping to drive 5G and 6G communication systems, make clothes and for its use as a building material.

Melting permafrost and collapsing industrial architecture are both the evidence of climate change in the North that will affect everyone. Can Aalto's Silo have a new life as a creative research centre promoting recording technologies and re-thinking materiality in one of the fastest-changing parts of the world?

Q - What's lightweight, stronger than steel, flexible, stiffer than Kevlar, conducts electricity and can have both a crystalline and a spaghetti-like structure?

A - Nanocellulose

The centre will promote curiosity and research. The way we digitise and record both man-made and natural environments will be the focus. Multi-sensory recording, training and sharing will demonstrate the ways in which technology is helping us to see the world afresh. The **A**ALTO**S**IILO will contain initiatives aimed at recording the 'critical zone', reformatting our relationship with the world around us, accessing previously unseen data and stimulating wonder and optimism. Visualising the electromagnetic energy of the aurora borealis, rethinking the role and use of cellulose and lignum and monitoring marine pollution will go hand-in-hand with the recording of climate change and its impact on the natural environment.

The process of establishing a European/Nordic network of collaborators across Finland, Sweden and Norway has already started. An MoU has been signed with the **Oulu University of Applied Sciences (OAMK)** and another is being finalised with **Oulu University**. Affiliations have been established with the **Aalto Foundation**, the **Aalto University**, the **Oslo Centre for Critical Architectural Studies** and with local and international artists.



The creation of a centre of technology applied to preservation in Oulu is a thoughtful and provocative call to action. Aalto's Silo, once a space used for storing wood chips, will become a store for knowledge – a place focused on sharing human skills, transferring technologies, and gathering diverse types of information for condition monitoring and to assist in-depth study.

Quotes

"It is a huge honour to be involved in the **A**ALTO**S**IILO project. My family had a profound relationship with Aalto working in everything from private homes (Villa Mairea) to factories such as Sunila. The Oulu silo is not only an architectural and industrial landmark, but it also reflects the industrial and economic past of the region and how it has impacted the community and the nature surrounding it."

Niclas Ahlström, Founding Partner of Made by Choice Ltd.

"The Toppila cellulose factory is a key project in Aalto's career. As his first factory complex, it was a predecessor to later industrial sites like Sunila, Inkeroinen and Summa. Completed in 1931, the building is an example of early functionalist architecture in Finland. Especially the Silo, with its particular character, is a local landmark. Also, other Aalto projects from that period, the Office Building for Turun, the Sanomat Newspaper and Paimio Sanatorium, became famous for their innovative concrete structures.

Being unused for decades, the Silo provides possibilities, unique challenges and great potentials in reuse as well as in architectural and structural innovations. Rehabilitation of the landmark building will hail a new period, not only in the neighbouring Toppila area but also in the City of Oulu. The Alvar Aalto Foundation looks forward to the rise of the Phoenix!"

> The Alvar Aalto Foundation, Helsinki, March 2nd 2021 Jonas Malmberg M.Sc. (arch.), M.A. (art history)

"God created paper for the purpose of drawing architecture on it. Everything else is, at least for me, an abuse of paper."

Alvar Aalto

The Building

This great example of Aalto's industrial architecture is one of the remaining buildings of the Toppila Pulp Mill, built to produce cellulose for the manufacture of paper. The other buildings have been repurposed and significantly changed. One is a kindergarten, others are centres for climbing, trampolining and the sale of recycled goods. But the Silo remains untouched: coherent but in a vulnerable condition. It urgently needs re-thinking and rejuvenation. We intend to do just this!

The Silo became internationally known in 1931 after being photographed by the celebrated Bauhaus teacher Laszlo Moholy-Nagy. Its thin concrete structure was ground-breaking at the time it was built and was the precursor to the recently demolished Silo at the Sunila Pulp Mill constructed a few years later. The Sunila Mill produces softwood pulp, lignin, tar, oil and turpentine to this day. The factory and related worker housing is currently being considered as a UNESCO World Heritage Site. The Toppila Silo is an example of the innovative approach to architecture and experimental engineering that characterises the work of Alvar and Aino Aalto from this period.

The AALTOSIILO is listed under 'Nationally Important Architectural Areas' and the Silo itself is further protected under the 'SR-1 Nationally Important Protected Building' classification. The recently restored



Viipuri Library and Paimio Sanatorium are other examples of the subtlety and sensitivity which first brought Aalto global attention and have recently been brought back to life.

The **A**ALTO**S**IILO is located on the edge of Alvar Aalto Park (*Alvar Aallon Puisto*), about 15 minutes from the centre of Oulu. The building has a footprint of 258 m₂ on a site of 1,494 m₂. Inside is a 28-metre-high single space with three suspended hoppers that occupy a volume of 5,630 m₃. This is to be a multi-purpose public space that can function as a 'Cabinet of Curiosity'. There is permission to re-build on the site of the former 400 m₂ 'wood-chipping' workshop that was demolished soon after the cellulose plant closed. Charlotte Skene Catling will design a new structure on this site to act as the Research Centre, a building that creates a dialogue with the Silo and the Aalto's 'Experimental House'. Skene Catling de la Peña and Factum Foundation work regularly with a team of structural engineers, services engineers, quantity surveyors and conservation architects who specialise in historic structures. The first steps have included assembling a team of experts that will bridge the UK, Spain and Finland. The intention is to use research and technology to restore and reveal the Aalto's building, thinking and voice as a multi-purpose public building. Positive discussions have begun with the City of Oulu around the Aalto Square in front of the Silo. Ideally, this will lead to an international competition addressing urban structure, landscaping and individual buildings.

The fundraising to support the restoration of this great building is ongoing. Efforts to empower the local community and open up the **A**ALTO**S**IILO to an international audience dedicated to recording and revealing industrial architecture and the changing environment of the region have started. The restoration work on the Silo is scheduled to start in May 2021.

The plans for **A**ALTO**S**IILO have already been met with enormous enthusiasm which attests to Aalto's enduring appeal and legacy. Notable cultural figures, such as art historian Sir Norman Rosenthal (former head of The Royal Academy, London), Jasper Parrott (founder of Harrison Parrott who represent Sakari Oramo and Taavi Oramo among other Finnish composers, conductors and performers), and photographer Armin Linke (who photographed Aalto's work for a book by Vitra, now the owners of the Artek Archive), have already offered their support.

We are working closely with Oulu City to make the regeneration of the building, and the area around it, part of the rejuvenation of this industrial/residential/natural area to the northeast of Oulu city centre.

Notes to the editors:

Factum Foundation was established in 2009 by Adam Lowe to demonstrate the importance of documenting, monitoring, studying, re-creating and disseminating the world's cultural heritage through the rigorous development of high-resolution recording and re-materialisation techniques. Factum Foundation has a proven track record in the recording of heritage – both cultural and climate-related – and in the preservation of architectural masterpieces through putting them to new uses (such as Factum's ARCHiVe project – the Analysis and Recording of Cultural Heritage in Venice, the Theban Necropolis Preservation Initiative in the Valley of the Kings in Luxor and the work with the Kuikuro and Wauja communities in the Upper Xingu). Over the past four years the Foundation has been working with Re-Form Heritage to prevent the permanent loss of the Whitechapel Bell Foundry in London.

Adam Lowe is an adjunct professor at Columbia University teaching a masters level course on architectural preservation. The course focuses on practical training in diverse forms of heritage recording



supported by in-depth theoretic studies. The courses involve students in practical examples and is based on a 'learning but doing' approach.

Skene Catling de la Peña, founded by Charlotte Skene Catling 2003, take a unique approach they call 'Geoarchaeology', where they excavate meaning from context as a means of developing architecture. This involves transforming observations about the composition of the earth, historical artefacts and the cultural landscapes of their commissions. They are experienced in the design and integration of contemporary projects into Grade I and II listed buildings, and in creating interventions within sensitive historic contexts that include the Perm World Heritage Site, Russia. Recent work includes the Flint House for Jacob Rothschild, which was 'extruded' from the Buckinghamshire landscape of the Grade I listed Waddesdon Manor estate, Buckinghamshire. This building won the RIBA 'House of the Year' for 2015. Skene Catling de la Peña's work has won many awards and been extensively published internationally.

Charlotte Skene Catling has written about architecture and urbanism in The Burlington Magazine, DOMUS, The Architectural Review and ARCH+. As part of her ongoing interest in architectural narrative, she co-launched the Architectural Film Festival, *ArchFilmFest*, in London in 2017. She ran a post-graduate architecture unit at the Royal College of Art for five years and taught at the Karlsruhe Institute of Technology (KIT), Germany and has an ongoing involvement with the London School of Architecture. Part of the Swedish (mother's) side of Charlotte Skene Catling's family lived for several generations in Turku, Finland.

A core team has now been assembled to help turn this project into a reality:

Cathy Giangrande is an art historian, archaeological conservator and Aalto specialist who has arranged many tours to Finland to visit Aalto's buildings. She worked with World Monuments Fund and Stowe House and is an underwater archaeologist.

Bruno Boesch is a fine art law practitioner and founder of Collections Legal advising collections, institutions artists and their estates and other cultural property matters. He has been ranked steadily as a leader in the above fields. He is the editor of *The Art Collecting Legal Handbook*. Bruno's mother was born in Oulu.

Mauricio Torres Leclerc has been assisting Factum Foundation for many years and has an extensive network of friends in Finland. Prior to his involvement with Factum, he served as SVP for a global leader in Data, Research and Insights Analytics where he oversaw global strategic partnerships.

Laura Heinonen is a part of Factum Foundation based in Helsinki. She is the foundation's representative in Finland.

Niclas Ahlström is the director of the Finnish design brand *Made by Choice*. His family were responsible for commissioning some of Aalto's masterpieces. Aalto's Varkaus and Kauttua communities were built around Ahlström plants. Niclas' grandmother, Maire Gullichsen (née Ahlström), commissioned the Villa Mairea in Noormarkku and was one of the co-founders of Artek. Harry Gullichsen led to Aalto's Sunila Pulp Mill commission. Niclas is carrying on the creative and artistic tradition of the family in Finland.

Communication and press: For all communications related to Press and requests for more information contact Nicolas Béliard <u>nicolas.beliard@factum-arte.com</u>



Some Points of interest:

The project falls into three inter-related parts, RESTORATION, CONSTRUCTION and CONTENT:

- A model **RESTORATION** of Aalto's 1931 concrete Silo To become a reference for the preservation of other concrete, industrial heritage
- The **CONSTRUCTION** of a new research centre As a radically ecological structure. With reference to Aalto's Muuratsalo Experimental House, the façade can become a material test-bed using 'green' and 'self-healing' concretes. Research will also look into nanocellulose, tar, paper, cellulose and cellulose-reinforced laminates as construction materials
- **CONTENT** of a functioning and experimental research centre

OULU - previously home of the 'TAR BOURGEOIS' and famous for its SALMON is now 'TECH-CENTRAL' with a focus on the ARCTIC CIRCLE and CLIMATE CHANGE

This project arose during lockdown when Skene Catling spotted, on the 'Brutalism Appreciation Society' Instagram account, that the Silo was for sale by auction. She and Lowe placed the winning bid and the Silo was acquired by Factum Foundation & Skene Catling de la Peña from Oulu City council after discussions about future plans. Factum Foundation's restoration of Hassan Fathy's mudbrick masterpiece in Luxor and its reuse as a 3D Scanning, Training and Archiving Centre was used as an example of our commitment to preservation and re-use.

Additional information

- Architectural critic Sigfried Giedion called Aalto the 'Magus of the North': Alvar Aalto (1898–1976) is the best-known Finnish architect of his generation and a chief proponent of a human-centred modernism.
- Alvar and his wife Aino worked closely together on architecture, interior design and the creation of innovative furniture and production technologies, often signing their work together. Their collaboration can be seen as the human face of modernism.
- Aino's role has historically been overlooked. Also, a trained architect, her importance is only now beginning to be properly acknowledged. She was the Design Director and Managing Director of Artek from its conception in 1935 to her untimely death in 1949. https://www.artek.fi/en/company/designers/aino-aalto
- For the Finnish Pavilion at the New York World's Fair of 1939-40 Alvar and Aino Aalto submitted three different entries one joint and two solo submissions. They were jointly awarded the commission resulting in the Finnish pavilion that defined their style internationally. They were second and third with their individual entries. The winning design of sloped, slatted wood was based on the Aurora Borealis.
- The AaltoSiilo was part of the Toppila Pulp Mill, Alvar and Aino Aalto's first industrial building completed in 1931.
- The architectural significance of Aalto's Toppila Silo was immediately recognised. The entire issue of the leading Finnish architectural journal, *Arkkitehti*, was devoted to the factory in 1931 the year of its completion. The cathedral-like Silo, with its innovative poured concrete structure of 28-metre-tall fins, each only 10 cm thick, held rigid by ring beams, was the focus of the article. The photographs in the article were taken by Aino Aalto.
- The Aaltos were part of Europe's art and design avant-garde; Lazlo Moholy Nagy was a close friend and photographed the Silo in the year of its completion on the way up north to visit the Sami people. The photographs are in the personal archives of the Aalto family.
- The AaltoSiilo is located 15 minutes from the centre of Oulu, in the far north of Finland, about 250 km south of the Arctic Circle.
- Oulu was founded in 1605 by Charles IX of Sweden and became famous for its salmon and pine tar. The tar was used to waterproof the British ships that colonised the world from the 17th to the 19th C.



- Timber is still a prominent industry but now, partly because of the presence of Nokia, Oulu is a major 'high tech' centre. It is home to several pioneering games companies and has become one of Europe's foremost 'living labs'.
- The Gulf of Bothnia is one of the most polluted seas in the Baltic. Almost completely landlocked, it suffers from industrial and agricultural pollution. High levels of heavy metals are contained within the sediment and have contaminated marine life. It has desalinated to the point that freshwater fish like perch and pike can survive.
- Hartaanselänranta, the 2025 Finnish Housing Fair, will be constructed between the AALTOSIILO Toppila site and the centre of Oulu. https://www.ouka.fi/oulu/hartaanselanranta/english
- Oulu is one of three Finnish cities shortlisted to become the European City of Culture 2026, which has led to several initiatives such as the DigiCult and Techart joint venture
- Oulu is also contending to be the site for the new Wildlife Museum: https://www.eraluontomuseo.fi/

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March 2021



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