

SCA Wood Magazine

2/2023

A DIGITAL APPROACH TO
TIMBER CONSTRUCTION

THE ECOLOGICAL
PERSPECTIVE

FORESTRY AT A
EUROPEAN LEVEL

Spotlight on Timber

Heartfelt design and the finest craftsmanship live side by side with giant structures and industrial construction. Timber in all its forms has been around us throughout history, and is continuing to pave the way into the future.

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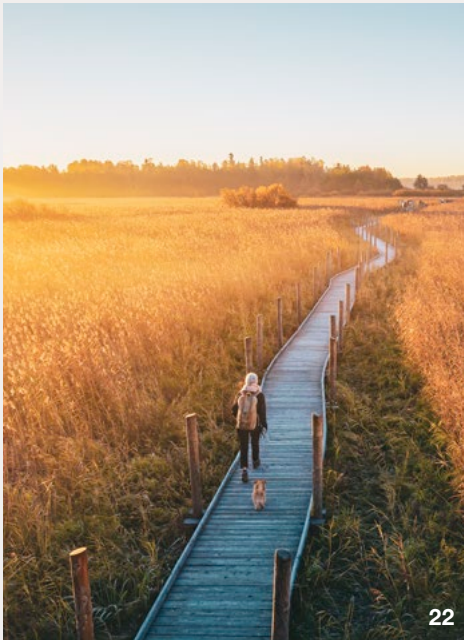
EACH TREE'S LIFE IS REFLECTED IN ALL OUR WOODEN PANELS AND FLOORS. Every board carries a unique story and look. By bringing our products into your home, you're inviting nature in as well – with the organic, personal touch it carries. Nature, refined into long lasting and luxurious looking panels.

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Never far away

NO MATTER HOW CLOSE YOU LIVE to a city centre in northern Sweden, the countryside is never far away. It takes me just ten minutes to walk to either the city centre or the forest, depending on which way I choose to go. This is a luxury that I think we don't really pay enough attention to up here, that we're actually not far from more or less everything.

I'm responsible for marketing communication and digitalisation at SCA Wood. My job involves getting closer to the market and our customers, and helping people to understand our business and our sustainable wood products.

Digital tools are really helpful when it comes to building relationships over long distances, conveying information on timber and insights into its benefits to people who aren't necessarily as close to the raw material as we are here in northern Sweden. Lundqvist Trävaru in Piteå allows its customers to design their own timber buildings on the company's website and get a price for the kit and assembly straight away. This makes timber construction accessible to everyone, and indicates that digitalisation is extremely relevant even in our industry, which is otherwise pretty traditional. You can find out more about this company – which was inspired by video games – on page 10.

On the subject of accessibility, we also highlight the Nattours project, which makes urban nature more accessible on the outskirts of Helsinki in Finland and Tallinn in Estonia. Ingenious wooden walkways that are designed to be sustainable for both humans and nature allow everyone to enjoy the great outdoors. Find out more about Nattours on page 22.

This issue of SCA Wood Magazine also presents forest ecologist Anna Cabrajic, building conservationist TullaMaja Fogelberg and designer Shalony van Stralendorff. We also look to Brussels for a few thoughts on the EU's relationship with Swedish forests, and just how important it is for decision-makers to be close to the things that their decisions affect.

Enjoy your reading!



VANESSA PIHLSTRÖM
HEAD OF MARKETING
COMMUNICATION, SCA WOOD



PHOTO KRISTOFER LÖNNÄ

TESTING THE LIMITS OF TIMBER CONSTRUCTION

A WHOLE NEW WORLD is emerging inside an eye-catching timber building that tests the boundaries of what can technically be achieved in construction. Wisdome Stockholm is the name of the spherical timber dome in the courtyard of the Museum of Technology, where visitors will be surrounded by 3D projections taking them on breathtaking flights into space and voyages of discovery into the latest research. This technology is known as scientific visualisation and aims to explain complex research in simpler terms so that everyone can understand it.

Architects from Elding Oscarson designed the building, where the roof consists of an undulating, five-layer grid system. Some 20 kilometres of LVL have been precisely aligned, and the span extends over 48 metres, with no columns.

Scheduled to open in December 2023, the building has already been recognised by the Swedish Design Awards with the statement: "A timber structure created with craftsmanship with clockwork precision settles gently over a new city venue, demonstrating that the Museum of Technology is home to not only the history of technology, but also the innovative future".

See tekniskamuseet.se for more information.



Love for the material

TEXT HÅKAN NORBERG PHOTO RANIA RÖNNTOFT

Designer Shalony van Stralendorff loves spending time in the countryside, harvesting ingredients for use in her kitchen and drawing inspiration for her work with the Bonni Bonne design studio.

"I love spending time in the forest. It's like an extension of my garden, nature's pantry. And there's so much you can do with wood," she says.

THE NEWLY TURNED wooden bowl made of fresh birch is so delicate that the sunlight shines through it. The wood is still damp, and the bowl will take on a unique, slightly wavy shape as it dries.

The scent of the forest fills the workshop in Alnö, not far from Sundsvall, where works of art made of timber are made by the Bonni Bonne studio. Bowls, cheese slicers, chopsticks and other items – all with an austere, almost challenging design idiom. It's almost as if the objects are aware of just how beautiful they are.

Shalony van Stralendorff, designer and one-third of Bonni Bonne, puts a few bags of curly wood shavings in the doorway of the workshop to keep her dog inside. She sits outside with a cup of coffee, sunning herself on the steps. Shalony studied at the Swedish School of Textiles in Borås, but she reckons it comes as no surprise that she now works with wood.

"Wood is reminiscent of textiles in that different types of wood all have unique properties, surfaces and textures, just like textile fibres do. I love shape and natural materials, and I'm sure I'll end up working with glass and clay in future."

Moving effortlessly between materials, Shalony van Stralendorff seems to find business opportunities in much the same way. Just a few years ago, she had a couple of jobs working as a textile crafts teacher and a cashier; but now she

specialises in designing interiors for exclusive restaurants such as Äng and does styling work for H&M Home.

"I reach out to the people I'm interested in working with, and a few of them take me up on what I'm offering," she says.

BREAD, JEANS AND WEAVING

When she was at school, Shalony knocked on doors with her friend, Emelie Ivarsson, and sold homemade bread in the local area in Sundsvall. Later, the two friends went on to co-found Bonni Bonne. In her late teens, Shalony designed jeans and won the Swedish championship for young entrepreneurs. While studying at the Swedish School of Textiles, she headed to India for six months where she worked with IM, Swedish Development Partner, in a women's collective for leprosy sufferers, which used weaving as part of the rehabilitation process.

She certainly has plenty of drive. All this is founded on her passion for nature and natural materials as reflected in her book entitled *Kontur* [Contour], which was published in 2020 and heralded the launch of Bonni Bonne. This book can be viewed as a kind of manifesto for the business, and is a portrait of Shalony to a degree.

"For me, it's all about my love of materials. About getting away from our throw-away society and trend sensitivity, and moving towards more sustainable products."



Shalony van Stralendorff with a >
wooden vase – or, if you prefer,
a bowl – made of oak.



Cheese graters made of pine, masur birch, birch and elm, with blades made by Bjørklund of Norway.

Thin wooden bowls turned from fresh birch.



In the book, Shalony's home models her aesthetic. There's a bouquet of flowers that many would call weeds, mushrooms that can be used in various ways, and recipes for classic northern Swedish flatbread. And everything is photographed in a minimalistic and consistent way, right down to the tiniest detail – and often in abstract ways, as if she's trying to capture nature and the natural world in something she's designed herself.

Maybe that's the very essence of Bonni Bonne – a desire to embody nature in everyday items.

"My primary inspiration comes from my materials and what works for them. And the ideas I get often come about when I meet other people," says Shalony.

That's exactly what happened when Bonni Bonne's first turned wood product was created, for instance. Shalony was enjoying a coffee with a friend, and they started talking about the cheese slicer sitting on the table in front of them.

"Every household in Sweden has about five cheese slicers. Of these, one will be good and one might look fab, but they never do everything you want them to do. And so I thought – let's create a

cheese slicer! And that's how we ended up getting in touch with Björn."

PRECISION COOPERATION TO THE MILLIMETRE

Björn Enqvist is the man who turns Shalony's designs into reality on the lathe in his workshop. He was independent woodworker for six years but is now a Bonni Bonne partner.

"I listen to Shalony and suggest different ways of doing things. She's really fussy, everything has to be precise to the millimetre! And we bounce ideas back and forth and give one another honest feedback. The product has to be good, after all," he says.

Björn sharpens the turning tool again before making the final cut in the thin birch bowl so that he can create the finest finish possible. When the bowl is finished, he places it on a rough plank in his workshop.

"You might look at a board and think you might as well throw it on the fire, but when you work it, the material pops. That's how I ended up developing an interest in wood," says Shalony.



◀ Björn Enqvist handles Bonni Bonne's own production of turned wood products.

FACTS

The Bonni Bonne design studio is run by Shalony van Stralendorff, Emelie Ivarsson and Björn Enqvist. The company works in partnership with a number of artisans and producers, manufacturing products for its own online shop as well as custom products to order. Bonni Bonne also conducts styling assignments and organises events connected with the forest and the materials it offers, as well as nature's pantry.



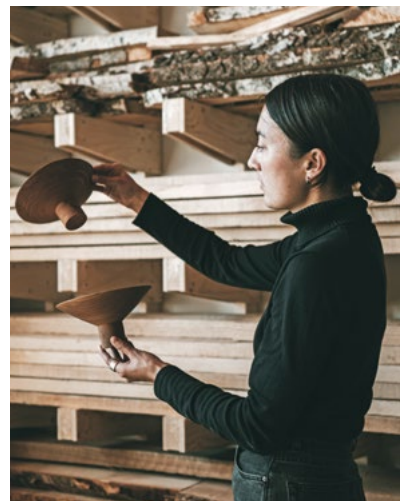
A LIFE OF THEIR OWN

The online shop on the [bonnibonne.com](https://www.bonnibonne.com) website offers not only turned wood products, but also ceramics, furnishings and textiles produced in partnership with artisans all over Sweden – and at the women's collective in India. Holding the business together as Chief Operating Officer is Emelie Ivarsson, Shalony's childhood friend and co-founder of the company.

"We've focused a lot on kitchen products, because both Emelie and I absolutely love cooking. And wood products are so beautiful when they're used. They develop a kind of life, you could say. They might end up a bit worn, a bit stained," says Shalony.

And what about the company name Bonni Bonne? Where does that come from?

"I can't really explain it. We wanted the company to have a good, international name. We speculated for a long time, said things out loud, and in the end we came up with Bonni Bonne. Sometimes I wonder whether we should come up with a good story as to how it all came about. Everything about the company is so well thought out, except for the name!" 🍷





Playful construction

TAKEN VERY SERIOUSLY

TEXT JENNIE ZETTERQVIST ILLUSTRATION MIKAEL EJEMAR VIKSTRÖM



Lundqvist Trävaru in Piteå, Sweden, is making it easier for ordinary people to build things made from wood by using system that's reminiscent of Lego and digital design solutions inspired by computer games. That may sound playful, but the owners' objective is to revolutionise the construction industry – and they take it very seriously.





"One unexpected effect of our focus on digital development is that as our digital systems have improved, the threshold for working with us has lowered. You don't have to be a construction engineer."



MODERN PRODUCTION PLANT near the harbour in Piteå, a long way north on the east coast of Sweden, is home to a construction company that's almost 90 years old. Lundqvist

Trävaru AB was established in 1936, manufacturing furniture for the Swedish Armed Forces.

Customers nowadays can directly design their own building in 3D on the Lundqvist website and get a price for the kit and assembly straight away. The system automatically creates shopping lists, transport bookings and drawings for applications for planning permission, too.

The company has a turnover of SEK 240 million, employs 60 people and is anything but traditional in its approach these days. Owners Jens Lundqvist, Deputy CEO, and Samuel Holmström, CEO, have been working since 2014 on realising their shared vision of smarter, more flexible, more fun ways of building using wood – by taking the world of computer games they grew up with and incorporating it into the business.

"As far as I'm concerned, it all began because the slowness of many of the processes in the industry and the fact I couldn't spend as long as I wanted on the right things when I started working in construction really wound me up. I was cutting and pasting numbers from one program to another, and customer had to wait an age for a price. That was when I started to form an idea of how an ideal system could work," says Samuel.

CONSTRUCTION KIT SIMILAR TO LEGO

Lundqvist is now at the digital cutting edge of development thanks to the construction system developed by Jan Lundqvist, Jens' father. He got his idea from Lego bricks, which can be combined in almost endless configurations. Following a devastating fire that destroyed all of the company's assets in 2004, he made the crucial decision to invest fully in the kits on a profit and loss basis. The Internet achieved a major breakthrough soon after, and the timing of that meant the kits could soon be delivered all over Sweden.

This new focus sparked his son's interest in taking over the family business one day. At around the same time, Samuel Holmström – who's about the same age as Jens – was looking for a new career path when his plans to study computer engineering at university were dashed when he failed to gain the grade he needed in maths.

"There was a misunderstanding that I'm sure we could have resolved, but that said I was keen on a job ad from this small, exciting company by the name of Lundqvist that said its construction system was similar to Lego," says Samuel.

GAME DEVELOPERS – THE KEY TO SUCCESS

He then became the first person to be taken on by the company in 2010, and he soon realised how much fun could be had testing ideas and seeing their impact quickly – a major positive of smaller companies. He and Jens were quick to contact Luleå University of Technology when they took over as majority owners. As part of a degree project, they worked together with computer game designers, computer game developers and systems scientists to create a prototype of the system that's now used on the website to design holiday homes, garages, machine shops, stables and other structures.

"One of the first people we took on together was a game developer who'd been involved in the project," says Samuel.

More digital developers have been recruited since then and, of the 60-strong workforce, only four currently have a background in traditional construction.

"One unexpected effect of our focus on digital development is that as our digital systems have improved, the threshold for working with us has lowered. You don't have to be a construction engineer to do everything, which has given us the advantage of being able to focus more on people than on their actual skills when we're recruiting," says Samuel.

That's why the company isn't at all worried out labour shortages. The recruitment base is broad,



Timber for Lundqvist construction kits comes from companies such as SCA. “We buy most of our panels from SCA, and we’re really pleased they’re so proactive and good at letting us know about price developments, for instance, now that the timber market has been so turbulent. That’s helped us a lot,” says CEO Samuel Holmström.

which also provides plenty of scope in-house.

“Diversity is incredibly powerful as long as our values and our vision of where we’re heading can act as a unifying force. We have such a clear focus on innovation, and so the diversity of perspectives and approaches is extremely rewarding,” he says.

MINIMISING WASTE

Social sustainability is important to the company, which also has a tried and tested economically sustainable business offering good growth and profitability over time. Interestingly, Lundqvist’s digital system for drawings and standardised construction systems account for the greatest impact in terms of environmental sustainability.

“The second our customers buy something, we know exactly what materials we need. We don’t need to manufacture anything against inventory. So our digital information flows have enabled us to reduce our waste by up to 20–40 per cent compared to traditional manufacturing, depending on what material we’re working with,” says Samuel.

While Lundqvists’ is happy to offer inspiration to colleagues in the industry, he’s also keen to maintain his digital edge by always continuing his journey, which to date has involved thousands of tiny development steps. Everything that happens behind the interface – i.e. what customers see on the screen – has to be streamlined. And they’re continuing



PHOTO LUNDQVIST TRÄVARU



PHOTO LUNDQVIST TRÄVARU

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"The company is nearly 90 now, so you could definitely say we maintain a long-term approach. As far as I'm concerned, that's really just another way of saying 'sustainability'. We're a secure and stable supplier to our customers," says Samuel Holmström, CEO, to the right.

to network with talented partners so that future opportunities can be captured all over the country.

"I reckon we have a new generation of consumers here in Sweden where the vast majority of people have grown up playing the same games as us. They know what Sims are, and using the systems we offer comes naturally to them," says Samuel Holmström.

FOREIGN MARKETS ENTICING

Different business models are also being trialled in foreign markets such as Norway, New Zealand and the US.

"The US is the most exciting market in the long term. Not only is it enormous, but we can't see anyone else doing exactly what we do over there. "Companies focusing on similar areas are offering very simple buildings, so it's a real thrill to take a leading position there," says Samuel.

And when Lundqvist stick their necks out and say they want to revolutionise the construction market, it's not just talk. They do have a specific aim in mind.

"We can safely say we've actually revolutionised the industry when we've made it possible for private individuals to click on a website and get a turnkey house delivered to them that they've designed for themselves online. And that day really isn't far off," says Samuel. ✍





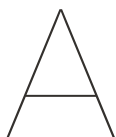
The ecological perspective

TEXT HÅKAN NORBERG PHOTO MICHAEL ENGMAN

The aim of ecological landscape management is to preserve and develop biodiversity in forests. This is a long-term endeavour that's evolved considerably over the years. "We know a lot more about ecology and nature conservation now than in the early days of the forest industry," says Anna Cabrajic, forest ecologist at SCA.



"My job involves developing instructions and procedures so that we choose the right areas to fell, ecologically speaking."



ANNA CABRAJIC, forest ecologist at SCA, is enjoying a cup of coffee with a few of her colleagues. They're chatting about the Violet Copper butterfly, which is found in hayfields,

forest glades and areas in the mountains that are underpinned by calcareous soil. They discuss how a forest site in eastern Jämtland should be managed in order to enhance living conditions for this red-listed butterfly as much as possible. This involves measures such as promoting vegetation favoured by the butterfly and ensuring that it's provided with ways to move between the wetland areas that allow it to thrive. A kind of green road network for butterflies, you might say.

"Yes, something along those lines. Species need to be able to move around, and there are things we can do to link areas with high conservation values, or areas that are vital for this butterfly, for instance," says Anna Cabrajic.

CONSIDERATION FOR CONSERVATION VALUES

She works on ecological landscape management, a tool for combining forestry with nature conservation and protecting biodiversity. This job includes making an inventory of the forest and mapping the conservation values – the number of old trees, dead wood or untouched forest, for example – and then deciding what needs to be taken into consideration and whether the area should be managed, and if so how.

The right method in the right place, according to Anna's summary, describing a greyscale of measures.

"The forests with the highest conservation values are what we refer to as voluntary allocations. These are allowed to develop freely or are managed solely to promote their conservation values," she says.

VARIATION IMPORTANT FOR FORESTS

High conservation values often go hand in hand with the variation occurring naturally in an untouched forest. A varied forest provides good living conditions for many species of fungi,

lichens, plants and animals, all of which have different requirements and adjustments to their surroundings.

In forests with moderate conservation values, forestry is combined with continuity forestry, measures that preserve or develop these values. Adapted consideration is applied in forests with certain, more limited conservation values, which may mean that felling is adjusted to the needs of particular species by saving and promoting deciduous trees.

Other forest areas are managed by means of an approach known as general consideration, where forest is saved adjacent to watercourses and marshes, and older trees and dead wood are allowed to remain in place. This is also known as traditional forestry and is the most common method applied in Sweden.

"As a company, our primary task is to supply timber to industry. The right range of timber, of the right quality, at the right time, and so forth. I'm working on developing instructions and procedures so that we select the right areas to fell, ecologically speaking," says Anna Cabrajic.

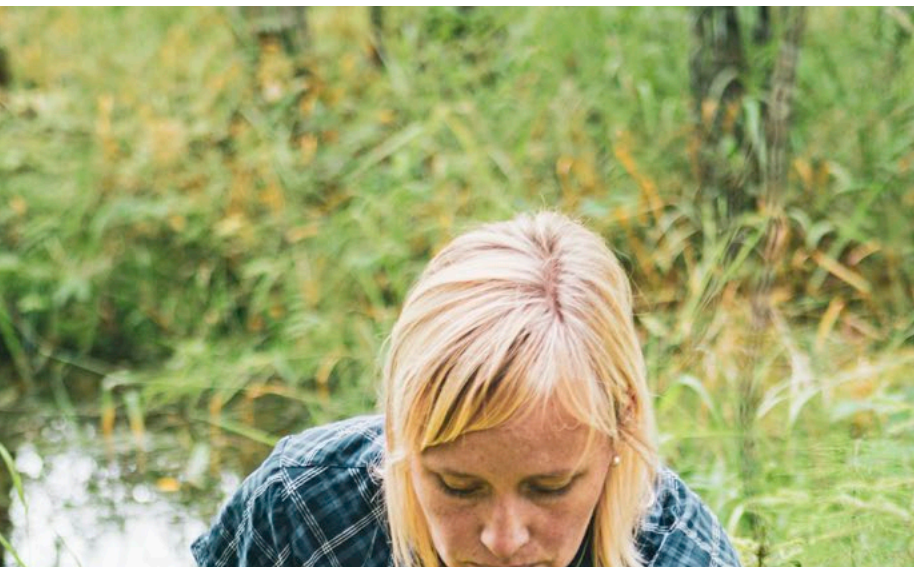
LARGE LANDOWNER DECISIONS CLOSE

She grew up in the country, has always been convinced of the importance of environmental issues and has spent a great deal of time in the forest. She also showed an interest in other ecosystems, such as the sea, during her university days, but she headed back to the forest when doing her PhD.

Since then, Anna Cabrajic has been working on forestry issues at public authorities such as the Swedish Forest Agency and the County Administrative Board, and now works for SCA, Europe's largest private forest owner.

"I have the opportunity to be directly involved in managing conservation values. That's my primary motivation for working for a large landowner. I have more control here," she says. ☞

Anna Cabrajic, >
forest ecologist at SCA.



FACTS

SCA is the biggest private owner of forests in Europe with 2.7 million hectares of forest land, of which 2.1 million hectares are productive. The company's long-term strategy states that 7 per cent of its productive forest land area should comprise voluntary allocations, 3 per cent should be managed by means of continuity forestry, and a further 3 per cent should be managed using adapted consideration measures. Traditional forestry using general consideration measures is applied for the remaining 87 per cent.



Waste wood turned into a timeless stool

THE LILLA SNÅLAND STOOL stands firmly on three legs and looks pretty similar to an old-fashioned milking stool. But if we take a closer look at the round seat, we can see a beautiful spiral shape made up of fourteen pieces of the finest heartwood. Artist Marie-Louise Hellgren, who works with upcycling as a design methodology, is responsible for the design. She collected the pieces for her Lilla Snåland stool from furniture factory Stolab's production line for Carl Malmsten's Lilla Åland chair, a design classic dating back to 1942. Two wedge-shaped pieces are sawn off the cross-laminated seat of each chair, so Stolab can now make a popular new stool for every seven chairs it produces. The artist herself said that her idea for the design was obvious, and that the offcuts were what suggested the design to her.



PHOTO STOLAB

PHOTO AUGUST WIKLUND • SWECO



Wood inside and out

TIMBER FROM THE INSIDE OUT awaits at biotech company Ecohelix's new factory in Örnsköldsvik, Sweden. This company manufactures renewable, wood-based products used as sustainable adhesives and binding agents in products such as packaging and home care products. Sweco designed the plant and suggested timber for all kinds of reasons. This solution offers significant differences in terms of carbon dioxide emissions and costs compared to a concrete frame, construction takes less time, the need for complementary steel solutions is reduced, and the design of the wooden façade blends in well with the surrounding residential areas, too. The factory is scheduled to be up and running by 2026.

Waste from wall elements turned into beautiful flooring

HOUDINI SPORTSWEAR invites you to its very consciously designed flagship store on Kungsgatan in Stockholm. White Arkitekter has created the environment, taking inspiration from the forest where people will be wearing the store's leisurewear.

The emphasis on reuse and low-carbon solutions is pervasive, and the beautifully patterned wooden floor is made up of recesses from the manufacture of wall elements in solid timber building production.

Designer duo Sara Szyber and Marc Hoogendijk have made the most of the pieces removed from CLT building walls to create windows and doors. This material is usually sent for energy recovery, but it's being used for a new purpose now in partnership with flooring manufacturer Almedalsgolv. This flooring goes by the name of KL+ and isn't available to order at the moment, but Almedalsgolv is planning for future production with varied visual expression.





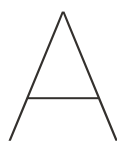
NATTOURS BRINGS NATURE TO EVERYONE

TEXT JENNIE ZETTERQVIST PHOTO STUDIO PUISTO



Breathtaking wilderness and all kinds of fascinating species await on the outskirts of Helsinki and Tallinn, the capitals of Finland and Estonia respectively. Nattours' ingenious wooden walkways pave the way for everyone to enjoy activities and quality of life in the great outdoors.

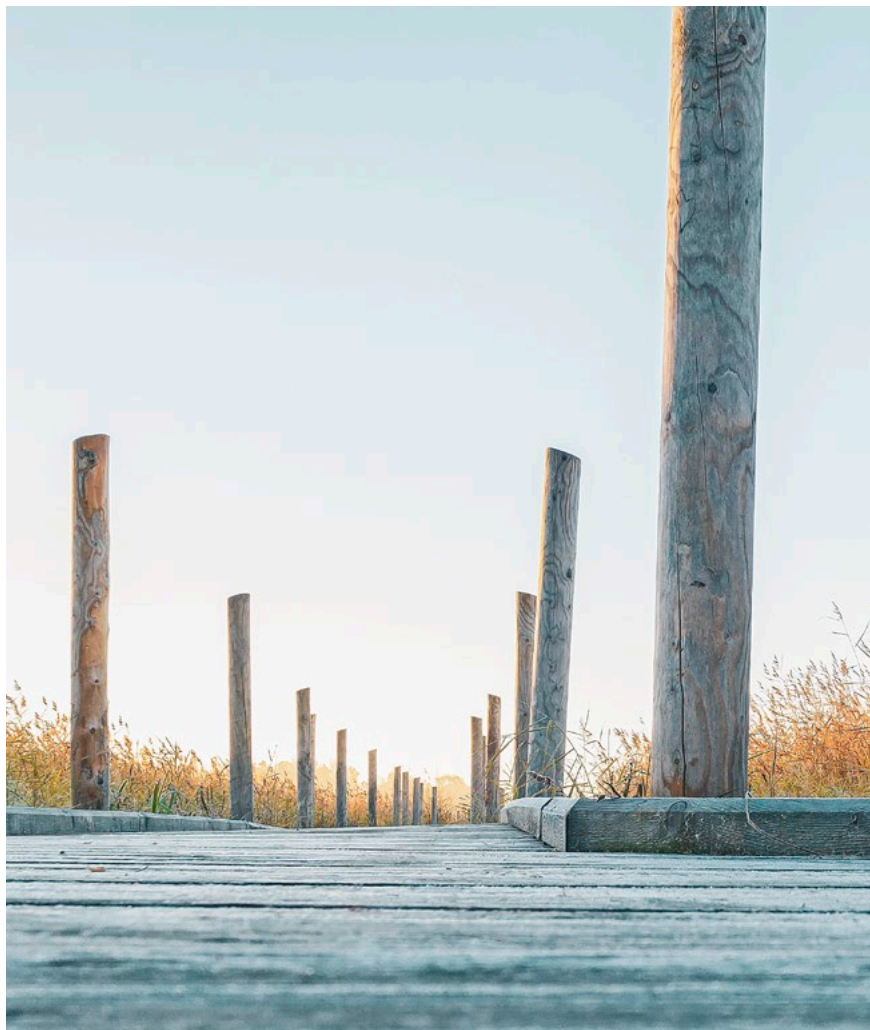




DESIRE TO MAKE urban nature more accessible to both mind and body provided the starting point for the Nattours project. Studio Puisto, a company specialising in sustainable

design for both humans and nature, was hired to design the walkways. Working with landscape architects at Nomaji Oy, Studio Puisto has devised carefully planned wooden solutions that embrace the natural environment and lead residents and visitors alike to new places.

The first promenade was installed on the island of Lammassaari in Helsinki, and extends through the landscape for about a kilometre. This reused and supplemented existing boarding with new modules in order to keep waste and impact on nature to a minimum, while also creating new birdwatching platforms. The walkways were also secured to prevent the flooding that may occur locally at times. Vertical wooden piles along the sides allow exposed sections of the walkway to float on the water as it rises, while still remaining in place.



The walkway to the island of Harakka, where the emphasis was on following the nature trails and creating a consistent system of handrails along the walkway, came later.

The concept of accessibility has been a crucial factor in endeavours by the walkways to open the gateways to nature for both mind and body while also offering particularly good accessibility. Regardless of how people get around – on foot, in a pushchair or in a wheelchair – everyone should be able to enjoy and learn equally. This concept is also reflected in the design of the viewpoints, where the view across the landscape remains unobstructed regardless of how tall visitors are, and a particularly large space is provided as a way of inviting and facilitating education for groups of visitors.

The original project came to an end in 2018 and is now being continued. This initiative includes a floating hut where people can enjoy birdwatching. The objective is to forge good relations between humans and nature for many generations to come. 𐌸



Studio Puisto's designers are keen to come up with sustainable solutions. When constructing Nattours' wooden walkways, for instance, they've repaired and enhanced existing buildings and anticipated future changes, such as higher water levels.

Customer and supplier

DEPENDING ON ONE ANOTHER

TEXT VICTOR IHRE PERSSON

As companies' ambitions in terms of sustainability become more far-reaching and comprehensive, it is also becoming clear that no one organisation is capable of doing everything. Having the courage to make more demands on others is an important part of the solution.

WE'VE BEEN FACING a climate crisis for a long time, and alarming reports appear to be on the increase year on year. The need for action is becoming more and more urgent, according to communications, and the fact that everybody needs to get involved in helping to reverse the negative trend is becoming ever clearer. There's no other context where the old adage "one for all, all for one" comes across as more striking than when it comes to climate action.

This becomes quite clear when you chat to Erik Meijerink, Head of operational excellence and ESG at Deli Home, a Dutch timber products company and one of the leading suppliers of custom timber products to the DIY trade and home improvement market in Europe.

As the company's own sustainability work has intensified over the last few years and the target areas for development have grown in number and scope, it's also become increasingly clear to him and his colleagues just how dependent we all are on one another for our success.

By way of example, about half of the six sustainability goals launched by Deli Home just over two years ago as part of a new climate initiative require some form of external support for their full implementation. In other words, just reviewing your own processes and their impact on humans and the environment simply isn't enough these days, according to Erik. It also requires every bit as much commitment from the company's partners and suppliers if success is

to be achieved. This is a reality that Petra Geeve, Purchasing manager at Deli Home, is also quick to confirm.

"For instance, we've said we'll be working solely with FSC- and PEFC-certified wood by 2025. This will provide us with a major challenge, because we won't be in charge of doing that ourselves but instead rely heavily on our suppliers," says Petra.

However, as far as Markus Henningsson, Vice President Marketing & Sales at SCA Wood, is concerned, the fact that customers demand change from their suppliers is simply a natural part of the business. In his view, the ability to focus on what customers need is what drives development.

FASTEST DEVELOPMENT FROM MOST STRINGENT DEMANDS

Markus explains that SCA's strategy in the long term has been to actively seek out opportunities to work with the most discerning customers in various product segments and geographic markets in which the company operates in order to successfully establish and maintain its role as a leading supplier of custom timber products to the wood processing industry, like Deli Home.

"Doing our best to successfully meet the demands of our industry-leading customers while also attempting to identify the needs of tomorrow is helping us to go on advancing our own development," says Markus.

One clear example, in his view, involves the product-specific environmental product declarations now produced by the company for its timber products. These are known as EPDs.



PHOTO MARCEL DEN OUDSTEN



PHOTO KRISTOFER LÖNNÄ

Markus Henningsson,
Vice President Marketing &
Sales at SCA Wood

Erik Meijerink, Head of
operational excellence and
ESG at Deli Home and
Petra Geeve, Head of
Purchasing at Deli Home.

Given the fact that legislation in Europe is currently undergoing major changes and that the requirements for companies to be able to disclose their climate footprint in various contexts are rapidly becoming more stringent, Markus reckons that the demand for product-specific sustainability data will soon skyrocket. Particularly now that the disclosure requirements are also starting to be complemented by a cap on the carbon footprint. The importance of being able to clearly demonstrate the unique position of timber products is absolutely crucial in that regard.

Erik Meijerink also confirms that SCA is at the cutting edge when it comes to product-specific sustainability data. He notes that not many of the company's other suppliers are currently offering the same kind of information, making it almost impossible for Deli Home – with its thousands of unique items – to map the actual carbon footprint of its own products in similar ways. Even so, he perceives a clear need to be able to do this in the long term.

"It's very clear to us that the demand for information about the carbon footprint of various products is on the increase, and we're absolutely certain that this will become increasingly important. But we need help from more of our suppliers to make it cost-effective for us to offer the corresponding environmental product declarations for more of our own products," says Erik.

MORE EFFICIENT TRANSPORT AND A BETTER UNDERSTANDING OF WOOD

Erik perceives potential for development in the cooperation between all industry players in

logistics, too. Although Erik and his colleagues at Deli Home are always on the lookout for opportunities to use local producers and suppliers, the issue of how goods are transported needs to become bigger and more important for the industry as a whole. Markus Henningsson shares this view.

"We know that the greatest carbon footprint from timber products at the moment is produced by transporting them; and looking to the future, we can see it's obviously extremely important for us to come up with more efficient transport solutions as well," he says.

SCA is currently developing and testing electrically powered logging trucks and forklifts, together with stakeholders such as Scania, as part of that effort, he explains. These are innovations that once again emphasise mutual dependence, albeit still at an early stage of development.

When asked what more the industry can do going forward, he highlights the tale of timber as one of the most important areas for mutual development. The fact that timber is a carbon-sequestering material makes it unique in relation to other building materials, and that's something that we can do a much better job of communicating, he reckons.

"People nowadays have a lot of misconceptions about forests and forestry, and together we can do a better job of explaining the unique properties of our products and their crucial importance to the success of the climate transition," says Markus Henningsson. ☞



WOOD CAN DO MORE THAN PEOPLE THINK

TEXT HÅKAN NORBERG PHOTO ADOBE STOCK

Timber has been used in construction for thousands of years, and we're still exploring its potential – not least when it comes to moisture.

"Timber is a brilliant material, as long as it stays very wet or very dry. And of course, it needs to be dry when it's used in buildings," says Göran Berggren, researcher in timber construction and housing at RISE.



RISE, **RESEARCH INSTITUTES** of Sweden, is a research institute that works in partnership with companies, the academic community and the public sector to contribute to both the business community and society. One of its tasks is to identify basic research that can be implemented in industry.

“Basic research is able to measure any number of decimal points, but in the real world, what’s sufficient, necessary and useful? We’re looking at this with a view to finding useful applications for the market,” says Göran Berggren, researcher in timber construction and housing at RISE.

He explains that sustainability is the major issue in construction nowadays, which includes replacing

concrete and steel with more eco-friendly materials, and timber is frequently used.

“That said, we mustn’t become timber purists. Steel and concrete should be used where we need to, but no more than that. But if we can replace materials that are inferior on an environmental level with timber and still maintain functionality, then of course we should do that!”

PLANNING IS ESSENTIAL

He perceives timber as a growing element in the future of construction, but he also feels there’s an old fear lingering in parts of the construction industry when it comes to timber in relation to moisture, for instance.



PHOTO RISE

Göran Berggren, researcher in timber construction and housing at RISE.



What's the best way to dry, store and transport timber? What happens if timber gets wet during construction? And which parts of building construction can timber be used for?

"There aren't many limitations, really – it's just a matter of thinking things through and doing the right thing. Bringing in the right people early on in the project, and remembering that all elements are dependent on one another – but of course, this is true of the building materials and technology used," says Göran Berggren.

He emphasises that it's important to have a plan when it comes to moisture.

"Of course, you want to keep everything dry first and foremost, but it's not disastrous if you find moisture in certain areas. You just have to have a plan for where that moisture will go so that the timber can dry."

NEW APPLICATIONS

Some companies are looking at the option of replacing the entire concrete foundations of buildings with wooden slabs on the ground. If so, how should such slabs be made and protected against moisture? And how will these slabs dry out if there's a flood, for instance?

"These are actually the same issues as with concrete slabs on the ground, because these also need to be left to dry out in such situations. It's all a

matter of perceiving timber as an opportunity and applying what we know," says Göran Berggren.

He describes the Swedish timber building industry as being increasingly transparent and willing to share its experiences. By way of example, he cites Derome Hus and Lindbäcks Bygg, competing companies that nevertheless share intelligence to improve skills when it comes to constructing timber buildings. This benefits everyone, including end customers.

"It's great to see companies that have made so much progress, that they have a higher goal. People come up with better solutions when they share their experiences and talk to one another."

A great deal of research is being conducted in both the academic community and industry in the field of timber and moisture, and the applications for the material are on the increase. However, Göran also reminds us of something else which simply can't be quantified. It's a quotation that he's heard somewhere, but he can't remember where.

"Concrete and steel are materials, wood is a feeling." 🌲



Simulating how wood is affected by moisture

How does wood behave under load at differing moisture and temperature levels? Winston Mmari, PhD in structural engineering at Linnaeus University, who's published a thesis on this subject, is researching this field at the moment.

"My aim is to develop a model that's capable of predicting how wood will behave," he says.



WOOD IS MOIST BY NATURE. It can also absorb water vapour from the air and give off water vapour. Hence its moisture content is constantly adapting to the

surroundings. And it's important to be able to control the moisture content of wood, because moisture affects its properties such as its dimensions, strength and finish.

"Wood has a complex structure, and predicting how it will behave under different conditions can be tricky," says Winston Mmari.

Calculating this mathematically is nothing new, he explains, but earlier research has been restricted by assumptions, and also by a lack of sufficient computing power for performing calculations.

"I have access to more advanced mathematical methods and greater computing power. I try to get as close to real-life conditions as possible by entering the characteristics of a particular wood variety: I looked at spruce in my thesis.

"The moisture absorption and movement processes in wood go hand in hand with thermal changes in the material. My thesis shows that these complex moisture transport mechanisms can be described using mathematical models and predicted by means of computer simulations."

He perceives a number of applications for his work, such as working out how wood behaves when it's joined together, where precision is particularly crucial because of the tendency of the wood to swell and shrink under various conditions. To date, though, his work is to be regarded as basic research.


"I'm interested in the needs inherent in the wood industry, but it'll be some time before this model is easy enough to use outside the research domain." 

PHOTO LINNAEUSUNIVERSITET



FIND OUT MORE

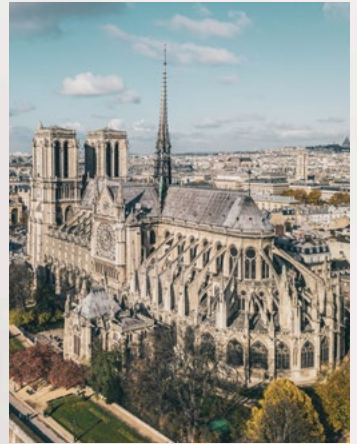
You can follow Winston Mamari's PhD project, *Numerical modelling of the coupled transfer of heat and mass in wood and engineering wood products*, on the Linnaeus University website, lnu.se. His thesis entitled *Multiphase continuum modelling of wood: A hybrid mixture theory approach* can also be found [here](#).

A full-page photograph showing a construction worker in a blue shirt, black pants, and a white hard hat climbing a large, newly installed wooden timber frame. The frame is made of thick, light-colored oak beams. In the background, the ornate Gothic architecture of Notre-Dame Cathedral is visible, including its flying buttresses and a large rose window. The sky is overcast.

NOTRE-DAME RISES FROM THE ASHES

TEXT HÅKAN NORBERG PHOTO FRANÇOIS MORI/AP

Notre-Dame Cathedral in Paris will soon be restored to its original condition after the great fire of 2019. Around 1,000 oak trees from forests all over France have provided the building materials, including the 96-metre-high spire.



FAKTA

Notre-Dame, one of the earliest Gothic cathedrals, is famous for its many paintings, sculptures and rose windows that create beautiful lighting effects inside the building. The cathedral is 128 metres long and 48 metres wide. The main vault is 34 metres above the ground, the towers measure 69 metres and the spire 96 metres.

NOTRE-DAME CATHEDRAL – or Cathédrale Notre-Dame de Paris, as this magnificent building is called – is considered a masterpiece of Gothic architecture. Located on the Île de la Cité island in the River Seine in the heart of Paris, this cathedral is one of the most iconic symbols of the city.

Construction of Notre-Dame began in 1163, and the cathedral was fully completed in around 1345. Notre-Dame has been the site of many historic events since then, such as the coronation of Napoleon Bonaparte as emperor and the beatification of Joan of Arc, and the cathedral's bells have rung to mark every major historical event in French history.

In April 2019, Notre-Dame suffered a major fire that destroyed the magnificent spire and much of the roof. Work to restore the 860-year-old cathedral began that same year, with the aim of reopening it to the public in 2024.

When French President Emmanuel Macron announced that Notre-Dame would be restored to its original condition using the same materials and methods as in its original construction, a national search was launched for suitable oak trees to make the spire and roof. In the end, around a thousand trees from over 200 French forests have been used to restore the cathedral to its original state using age-old craftsmanship methods. 🌳



An uncertain path

TOWARDS A CLEAR GOAL

TEXT VICTOR IHRE PERSSON PHOTO MICHAEL ENGMAN

December 2019 saw the EU's launch of an ambitious new sustainability strategy in order to attain its goal of becoming the world's first climate-neutral continent by 2050. A clear goal; but since then, the path towards it has proven to be anything but straightforward. Particularly when it comes to how forests can make the best contributions.

THE EUROPEAN COMMISSION LAUNCHED the EU Green Deal in December 2019 as a response to the ongoing climate crisis. This is an ambitious political initiative heralding the start of a new era in the Union under the slogan "the world's first climate-neutral continent by 2050". The time had come for all sectors of the European economy to roll up their sleeves and get cracking. It was time for Europe to lead the way for the rest of the world, and there were many things that needed to be done in a short time in order to turn this vision into reality.

The first step was to make the goal legally binding, and specific climate legislation was adopted in June 2021. This was a law under which Member States committed to reducing their net emissions by at least 55 per cent by 2030 compared to 1990 levels, in addition to the goal of climate neutrality. This supplement made the need for action even more urgent, if such were possible.

The solution was the 55 per cent package; or "Fit for 55", as it came to be known. This was comprehensive package of legislative proposals that collectively aim to update and tighten up legislation in the climate, energy and transport sectors in line with the new goals.

This made it very clear to Member States not only what they had to achieve, but also how they should go about achieving it. In theory, at least. Encouraging 27 countries, with very different circumstances, to take the same path towards that goal has proven to be anything but simple. The debate on the role of forests in the transition has made this particularly evident. Swedish attitudes on this issue have diverged clearly from the attitudes in many other EU countries.

"Things haven't always been easy when it comes to forestry," says Jessica Polfjård, an MEP from the Moderate Party who's been involved in negotiating many of the laws introduced as part of the 55 per cent package.

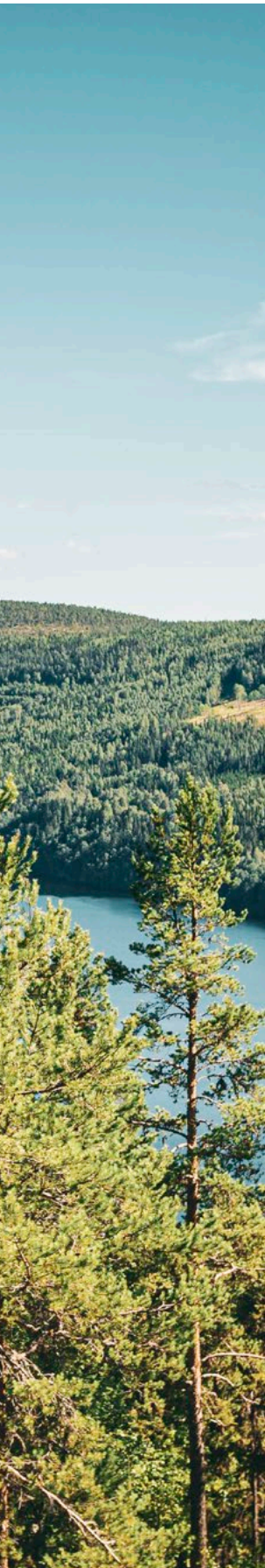
A UNIQUE SWEDISH POSITION

According to Jessica, Sweden is unique in many ways when it comes to forests and forestry, compared with much of the rest of Europe.

PHOTO M. LAHOUSSE



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Jessica Polfjård, MEP from the Moderate Party.





Anna Holmberg, Head of the Swedish Forest Industries Federation's office in Brussels and Anders Edholm, Senior Vice President Communications at SCA.



That's not just because of the relatively large area of Sweden that's covered by forest, but also because a lot of Swedish forest is privately owned. There's a long tradition of active forest management in Swedish society, but this isn't the case in many other parts of the Union. Some countries have no relationship with forestry at all. This in turn appears to have resulted in greater scepticism.

"A number of the legislative proposals on the table demonstrated a genuine lack of understanding of how Swedish forestry actually works," explains Jessica.

This is a view shared by Anna Holmberg, head of the Swedish Forest Industries Federation's office in Brussels. In her opinion, this is based in many respects on the misconception that Swedish landowners don't take responsibility. That in Sweden, people chop down one tree to build houses, another to make paper, and a third to generate energy. She believes people simply don't understand that industry is interlinked to form huge clusters, and that all parts of the tree are used in different processes. That absolutely none of the raw material is simply "incinerated". This is confirmed by Anders Edholm, Senior Vice President Communications at SCA, who's often had to try to explain how our own industrial ecosystem actually works to various EU officials as part of his work.

"We often encounter that kind of 'aha' moment when we explain how the lower part of the tree is used for sawn timber products and the upper part for pulp and paper products, and that it's simply not possible to make one without the other," he says.

NOT JUST A CARBON SINK

According to Anders, one specific example where misconceptions about Swedish forestry have been clearly demonstrated involves the regulation on Land Use, Land-Use Change and Forestry (LULUCF). This is a law requiring Sweden – which already provides one of the Eu's biggest carbon sinks – to increase its absorption capacity by four million tonnes by 2030. Exactly how this will be achieved isn't clear as yet, but reducing felling levels is one of a number of potential solutions that have been discussed.

"This means that Sweden will be compensating indirectly for fossil fuel emissions in other countries, reducing incentives for countries with high emissions to reduce them," says Anders.

He says that there's a need to broaden the view of the function of forests and place more emphasis on tackling fossil fuel emissions, instead of restricting how forests can be used. As well as viewing forests solely as a carbon sink, this also requires us to appreciate the products that can



PHOTO: MATTHIAS ANDERSSON

be created from it and the climate benefits that will arise when bio-based products displace fossil products from the market.

While the fact that there seems to be consensus now on the need to increase the use of wood in renovation and new construction projects is a positive aspect, Anders considers it problematic that recyclable paper products haven't been assigned the same status. That it seems to be preferable for these to be replaced by products with a higher fossil footprint, simply because they can be used a number of times.

"New carbon dioxide will go on being added to the atmosphere and climate change will get worse as long as these are allowed to be placed on the market in such huge volumes," says Anders.

EUROPEAN GREEN DEAL 2.0

The legislative proposal on nature restoration has also been the topic of much discussion over the last year. The proposal is still being negotiated, but in its original form it would require all EU Member States to restore 20 per cent of the areas of land and sea altered by humans by 2030. For Sweden, this could mean that as much as 1.6 million hectares of forest would have to be excluded entirely from forestry.

What will happen with the proposal remains to be seen, but there are already clear indications

that neither the European Parliament nor the Member States are going to accept the European Commission's proposal. Regardless, Anna reckons that the reactions to the far-reaching proposal clearly highlight a growing criticism of the development of the Green Deal within the Union. Europe taking the lead, at almost any cost, simply isn't sustainable.

"The Commission's original proposal was heavily criticised, and with some justification – but the scale of the protests tells me that's not the only issue. There's more to it," explains Anna.

Anna is hoping to see the launch of a new version of the Green Deal for next year, when MEPs are elected and a new Commission is appointed for the 2024–2029 term; a version 2.0 where the policy demonstrates more of an understanding of the big picture when it comes to forestry and balances proposed amendments with their economic implications in a more capable way. Jessica Polfjård shares her hope and ambition.

"In particular, we need a climate policy that protects European growth and doesn't undermine it," she says. ☞

PRESERVING

THE BEAUTY OF THE PAST

TEXT JENNIE ZETTERQVIST PHOTO RANIA RÖNNTOFT

After 20 years in journalism, TullaMaja Fogelberg decided to try a new career and became a building conservationist. Casual radio broadcasts have been replaced by cautious work on structures that may have existed for a century and that will be able to survive another, given proper care.

“Old buildings are like people: the more you learn about what they’ve gone through in their lifetime, the more you respect them,” says TullaMaja.

THE WATER TOWER, which is well on its way to becoming Sollefteå’s welcoming new landmark, extends 15 metres into the sky like a church spire at the eastern approach to the town. It

was originally built in 1901 on a military site, here in the province of Ångermanland in northern Sweden.

“Do you know why it resembles a church? Well, because that allowed the water tank to be protected during the war, because people thought there’s be less risk of sabotage if it was hidden in a church tower or something,” says TullaMaja.

She’s recently embarked upon one of her first assignments as a newly self-employed building conservationist. The wooden tower has to be scraped clean and painted with linseed oil paint in the tower’s original red and yellow. A colleague in the industry will then be installing a new shingled roof before the refurbishment of the exterior is finished. There are also plans afoot to open the lower level to visitors.

Just three years ago, TullaMaja could only dream of starting her working day here, dressed in dungarees and clenching her handmade toolbox in her fist. After spending two decades as a radio journalist, she was grappling with the notion that she was treading water, along with a growing realisation that she had come up with something

more that she could do with her life. Her thoughts turned to what kind of craft she could possibly do; and light dawned when her sister mentioned the possibility of them both studying at Träakademien (the Wood Academy) in Kramfors.

“It came like a bolt from the blue when I realised that yes, she was right! There was something totally different that I could do,” she says.

She was really keen on the building conservation programme when she looked into it, and in two years of training she’s gone from not even knowing what a router is to being able to operate all the machines she needs. The programme also covers everything from the history of art and style to materials science and construction. She’s now standing on her own two feet in her new profession with an entirely new knowledge base, support from her sister – who completed the programme as well and now runs her own business – and lots of experienced mentors to ask for advice.

“Building conservation is beautiful to me, and the sustainability aspect is all part of that beauty. Take a genuine wooden floor, for instance. It’s a beautiful thing in itself, and you can tell it’s a quality item. And you can repair it too, and sand it down so that it can still be used for a very long time to come – so you get twice the beauty,” says TullaMaja.





As a radio presenter, TullaMaja Fogelberg battled with seconds every day. Now she's building close relationships with buildings that were constructed long before she was born – and that will go on standing for years to come.



What she considers a good day at work now compared to the old days is very different to before.

“Just being outside in the fresh air and moving around all the time – physically, I mean – is absolutely fantastic. And what’s more, seeing the actual results of all my hard work and actually getting the job done is an incredible difference compared with starting from scratch every day. The work matters to me on a personal level, but it also matters to society: we’re making the most of something that already exists.”

Every project begins with a preliminary antiquarian survey that sets out what methods and materials should be selected. The very fact that building conservation should and can be allowed to take all the time it needs comes as a relief to someone who’s lived for so long with the stress of countdowns: “get moving, the song only has three seconds left to run!”

“I might possibly end up a bit stressed if I’m painting with egg oil tempera. You have to be quick when you’re doing that, but that said, the general long-term approach is completely different,” says TullaMaja.

What’s more, she’s developed a whole new relationship with wood as a material, realising that it can be shaped however she likes while taking on a life of its own, and that the variation in shades, hardness and resilience is a science in itself.

“There’s something massively satisfying about putting a rough board in the planer and seeing it come out completely smooth. Just thinking about it gives me a shiver up my spine! Or when I’ve joined two pieces of wood together perfectly so that the tenon just slips into the mortise. Brilliant! I had no idea you could build things without using nails and screws,” she says.

TullaMaja has always felt she’s practical, but construction isn’t something she’s ever done before. She grew up on a Hälsingegård, a kind of timber farmhouse with ornate carpentry and transom windows, common around Hälsingland around 200 km to the south. But her fascination with construction probably didn’t start there.

“Our neighbours struggled to replace their roofs and do other work on their houses in the summer, but for the most part we sat around drinking coffee or cleared off to the beach!” she smiles.

Building conservation is a broad field and TullaMaja is ready to take on all kinds of projects in



the future, but she's particularly interested in colour and shape – and windows. As part of her degree, she created the wooden frame for a reversible greenhouse, devising an ingenious kit where the parts fit together perfectly and no screws are needed.

"I'm obsessed with windows, I can't keep my eyes off them. So that's why I decided to create a greenhouse. Windows can really give a building character. They can look so beautiful and so different depending on the glazing bars, the proportions and how each pane of glass is positioned," she says.

TullaMaja will be following up the tower with a timber-framed 18th-century building being restored by a private individual in the spirit of the original era – they plan to live in it. She'll be working on cardboard lining, wallpapering and painting the interior. Her eyes sparkle just a little more brightly when she relates how she's already started looking at which wallpapers to order.

"My work is exciting, but just the right kind of exciting. I'm expectant rather than concerned. Anything could happen," she says. ☞

How I landed on both feet in my new vocation

AM I AN IDIOT? After 20 years on Swedish Radio, I resigned from my job to go and study building conservation. I have to admit, I had a bit of a panic. Although leaving my job gave me an exhilarating 'time to change my life' feeling that made me happy, I struggled with one thing: what is building conservation, exactly?

It's easy to see the beauty with the naked eye, because things look good when you're conserving buildings. But what's the difference between a building that's been conserved and a building that's been renovated? And anyway, beauty is in the eye of the beholder. So in some ways, maybe building conservation is just another style? Well, then I'm mad, a complete idiot. What did I think I was doing?

I stood in front of a planing bench at college and realised how much I was enjoying learning about tree rings, how to make egg oil tempera and how tiled stoves revolutionised Swedish homes. But does "because I really enjoy it" answer the question? Not really.

I did a lot of thinking about the climate while I was studying. About flying and electronics, about fast fashion and mines, and how we should go about turning all this around. And that was more or less my lightbulb moment. Building conservation is beautiful because it's slow and cautious and so much more than just hand-printed wallpaper!

Building conservation preserves things that already exist, but when new things need to be made, the aim is for them to last a long time and be repairable. Compare a laminated worktop with a worktop made from a natural material, for instance: you just know which one will just be fit for the tip when it's got the tiniest scratch on it – and which one won't.

Building conservation involves preserving culture, but it also involves preserving resources, and it's so much more than just a style or something I enjoy personally. The construction industry is causing massive carbon emissions – just think of what happens with ordinary homes. We want to save energy, but we get rid of windows in people's houses just so that we can put in new ones, instead of renovating the ones that are already there. Hashtag life cycle assessment. Looking after buildings costs time, but it does pay off in the long run. Log houses, for instance, are designed to be taken down and put back up, generation after generation. You can buy click flooring nowadays that comes with a ten-year warranty. Your average 19th century person would have said that's the worst thing they've ever heard.

But now I'm heading for the sunrise because I've found my purpose! I'm going to save the world, one tin of linseed oil paint at a time. The banner held fluttering in my hand bears the legend: Building conservation is best, I'm not an idiot.



TULLAMAJA FOGELBERG

Next-generation sawmill

TEXT VICTOR IHRE PERSSON PHOTO FREDRIK MODIN

A full digital representation of the sawmill flow, lots of data and new robotic processes. The sawmill in Bollsta is armed and ready for the future – on the same site where its story once began, over two centuries ago.

THE WORD DIGITALISATION may make you think of server rooms with lots of flashing lights, e-invoices and advanced meeting formats. And likewise, heavy machinery, conveyor belts and manual labour are associated with industry. But this is something of an outmoded image that no longer chimes with reality. At least, not in Bollsta, a place situated between Härnösand and Örnsköldsvik. All the pieces of the puzzle are in place now, ready to develop the sawmill of tomorrow with the help of a unique trimmer and some of the most advanced technical solutions on the market.

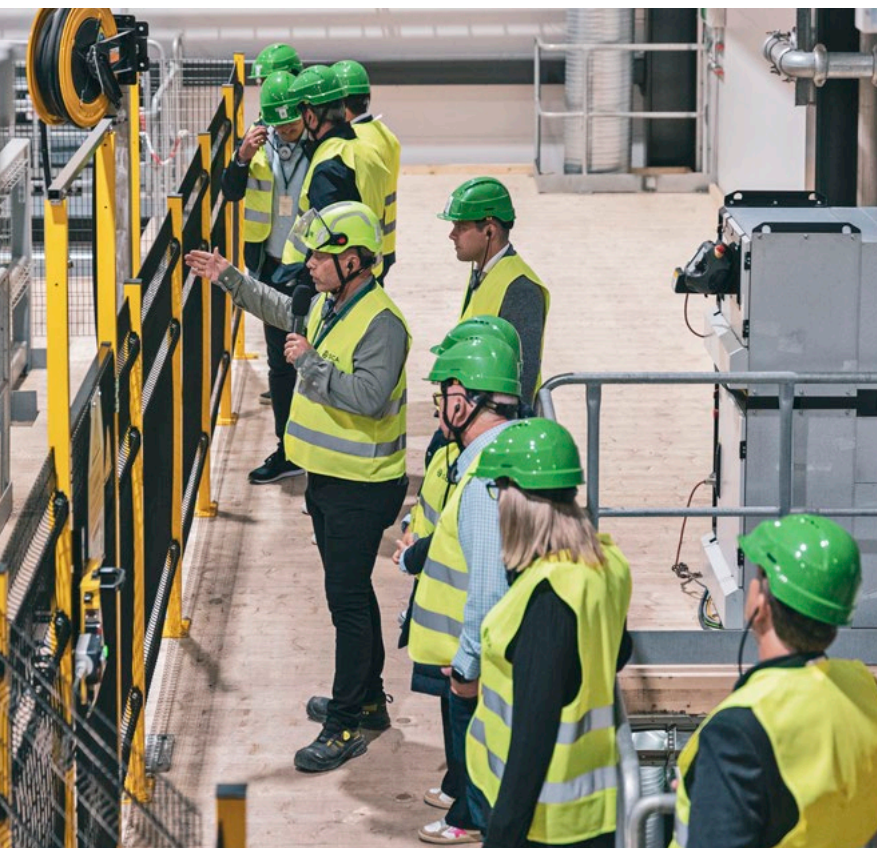
“Given the technical investments involved in this project, I can say, hand on heart, that we’ve laid the foundation for the next generation of sawmills. This is a significantly more ‘digital’ sawmill providing great conditions for production of a greater proportion of sawn and long-life products offering benefits for both business and our climate,” says Johan Olofsson, Project Director and Technology & Operation Excellence Manager at SCA Wood.

3D MODELS PROVIDE BETTER SORTING OPTIONS AND HIGHER YIELDS

This has been made particularly clear by the CT scanner installed at the timber sorting facility as part of the project. Up to now, sawmills have only been able to decide how all logs should be sawn on the basis of their external properties and shape. But Bollsta is now one of the few sawmills in the world that can create even greater value by looking inside the logs as well.







A tour taking place at the inauguration of the new sawmill at the timber sorting facility in Bollsta.



“The logs we saw have often been growing in the forest for between 70 and 100 years, and the fact that we can now see right through them using advanced X-ray technology is a real game changer. This allows us to determine which product the log would be best used for even before we cut it, which means we can be more precise and more efficient in every aspect of our manufacturing process. Combined with the increased production capacity offered by the trimmer, this gives us a competitive edge,” says Johan.

FULL TRACEABILITY THROUGHOUT THE CHAIN

The CT scanner's fingerprint technology – as it's known – also makes it possible to follow the journey of the log throughout the sawmill, from sorting to the finished goods warehouse.

“Giving each log a unique ID allows all pieces of timber to be tracked and traced back to the exact log that they were sawn from. This technological development is helping to provide a whole new level of control and monitoring that allows us to ensure that our end products are actually what we were aiming for.

“With the new trimmer in place in Bollsta and all the new technology up and running in other parts

of the sawmill, we now have a unique opportunity to create a full digital representation of our entire flow. So now we can run a virtual copy of the production in parallel with actual production, and apply a completely new approach to optimisation,” says Johan.

Having lots of new data provides new opportunities for development

An enormous amount of new data is being generated due to the fact that all parts of the plant are now interconnected and capable of communicating with one another through fingerprint technology. Going forward, staff will be able to use this data – both independently and with the help of computers – to develop operations and make processes faster and more efficient.

The data recorded and stored will make it possible to go back in time and check out any problems in peace and quiet, but also to analyse patterns in the way people work and use machine learning to identify potential problems before they happen. At least, this is the plan for a later on.

“In the long run, a computer that's seen an operator fix a certain kind of problem in the same way enough times will be able to issue alerts before something happens, or suggest solutions



much more quickly and, ultimately, sort out the problems when they occur,” says Johan.

“As in all other parts of society, we perceive enormous potential in digitalising our processes still further. We’re now using all the technical instruments available today at Bollsta sawmill, while also getting ready for what we think will be possible tomorrow. All our efforts are focused on creating even more value from the trees we fell.” 𐄂



FOTO SCA

Johan Olofsson, Project Director and Technology & Operation Excellence Manager at SCA Wood. >

Award-winning climbing park with breathtaking views

TEXT JENNIE ZETTERQVIST PHOTO ANNA SIMONSSON

Thrilling high altitude climbing, in the middle of a treeless slalom slope, in an urban environment. You'll find it in Hammarbybacken in Stockholm. Enjoy lots of adventures in the park, winner of the 2023 Träskyddspriset, Wood Protection Award, with easy-climb pine poles with eco-friendly surface protection.

C LIMBING PARKS with challenging courses in the treetops have proliferated in Sweden and are popular with children and adults alike. The idea of a climbing park turned into reality in Hammarbybacken when the facility wanted to complement its groomed winter ski slope and become a place for people to meet that encourages exercise all year round. The solution for the treeless area some 65 metres up the hill was to construct pine poles that are normally used as telegraph poles. The seven courses have a total of 60 obstacles between the poles, from ground level to 15 metres up, so both breathtaking views of the city and butterflies in the tummy are all included for anybody who's brave enough to take them on.

The poles from Rundvirke Poles in Ludvika come with a high-tech wood protection treatment consisting of water-based metal salt followed by a combination of oils that encapsulate the protective metal in the wood fibre. The protection is designed to be eco-friendly and create an easy-climb surface, mainly for lineworkers – but now for families with a passion for climbing as well.

The appealing design of the park and the careful product selection also resulted in the park winning the 2023 Träskyddspriset, Wood Protection Award. This is presented by Svenska Träskyddsföreningen, the Swedish Wood Protection Association, to recognise and reward sustainable, stylish urban development using timber in outdoor environments. 🌲

FACTS

Developer: SkiStar

Design: Haug og Blom-Bakke AS

Design and construction contractor: Högt & Lågt Sverige AB and Högt og Lavt Aktivitetspark AS

Materials supplier: Rundvirke Poles



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