
imagine
BY SAPA

DESIGN IS INTELLIGENCE MADE VISIBLE.

IMAGINE WHAT'S NEXT

At SAPA, we believe that the choices we make each day are the most essential for building a brighter tomorrow for generations to come. One part of that quest is to envision our homes beyond mere physical structures, expanding our horizons to encompass a world where harmony and sustainability intertwine.

In this edition of our magazine, we had the privilege of engaging in insightful conversations with renowned architects who shared their experiences, dreams and views of the future. We are also thrilled to showcase some of the projects to which we contributed and hope these will offer inspiration and ignite your imagination. As we navigate the path toward a better world, it's important to remember that design and creativity serve as powerful tools in shaping the future we aspire to inhabit.

Thank you for being part of our shared commitment.

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CONTENT

A Choreography Of Experience

Distant bypassers would be excused to mistake the so-called “Meteorite” for just that — some celestial object dragged out of its orbit and crash-landing on Earth, ages ago. After all, the illusion of a natural object was the central idea when architect Kivi Sotamaa started to design one of his most spectacular projects. >>

PHOTOS BY TUUKA KOSKI

Completed in 2020, right before the pandemic struck, the mystical, polyhedron-shaped home was inspired by the glacial boulders that riddle Finland's rugged landscape. Originally designed as a guesthouse in the municipality of Kontiolahti in the country's North Karelia region, the Meteorite by Ateljé Sotamaa is an unparagoned answer to some of the most pressing needs of our time: adaptation, sustainability and spirituality.

"Digital" and "wood" are two keywords on your resume...what's the story?

I'll give you a very condensed version. Back in the nineties, I was part of the first generation that started to explore computer use for architecture. So that was essentially pioneering work, exploring the possibilities of new technologies and tools. That journey mostly took place in the United States where I taught at Ohio State University and later UCLA where a lot of frontier software was developed — from the film industry to automobile and even the military. Strangely enough, Los Angeles has always had a strong relationship with Vienna and Viennese architects, so I ended up teaching there for a year at the University of Applied Arts that has a famous institute for architecture where Zaha Hadid, Greg Lynn and Wolf

Prix were teaching at the time. Fast-forward to around 2010 or 2011, when I returned to Finland, I wanted to put all of these ideas, techniques and skills we developed into practice, in particular in the context of wood and mass timber buildings that have been digitally fabricated.

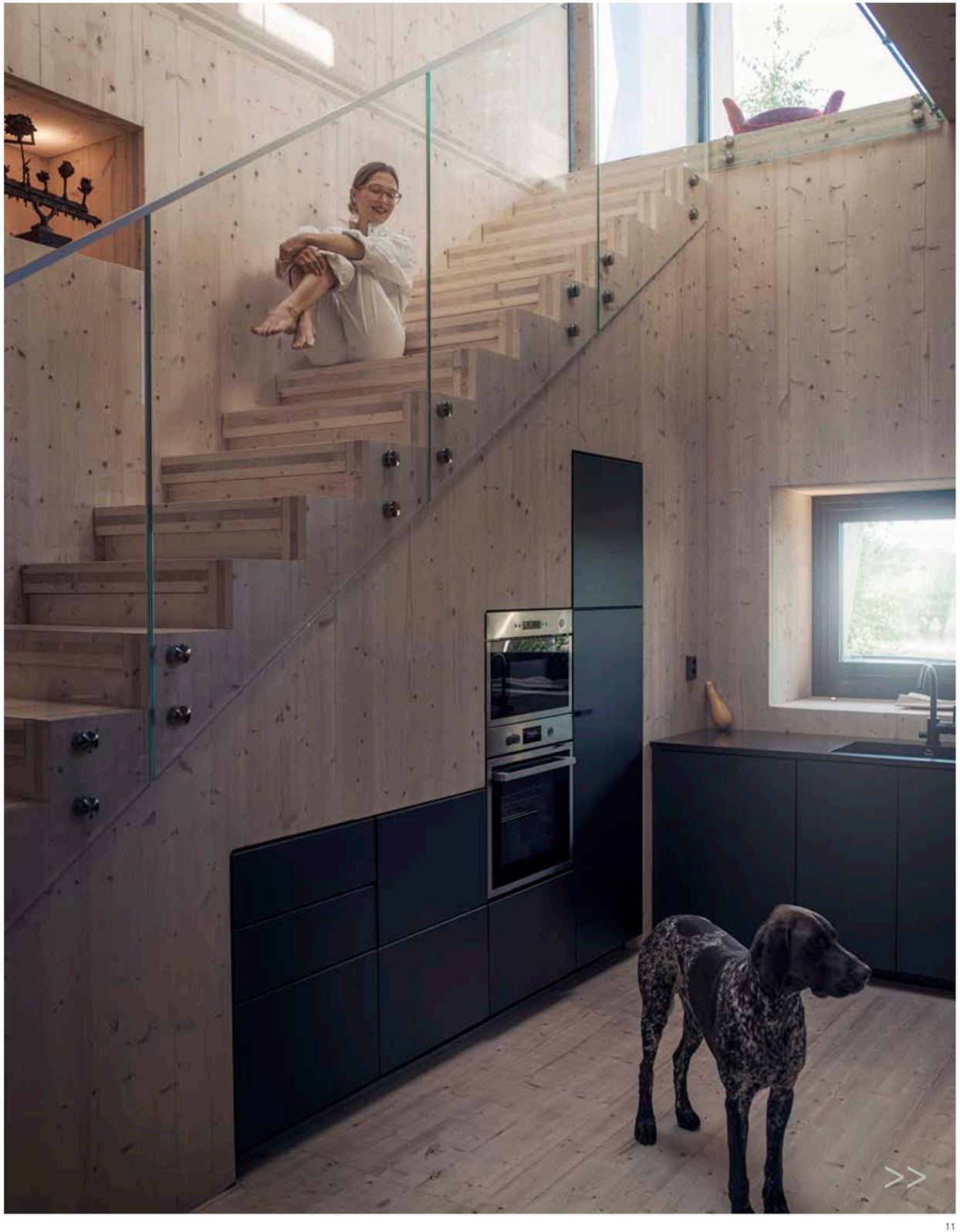
And one of the, very unique, projects that really encapsulate that experience is the Meteorite. Can you give us a tour of the house?

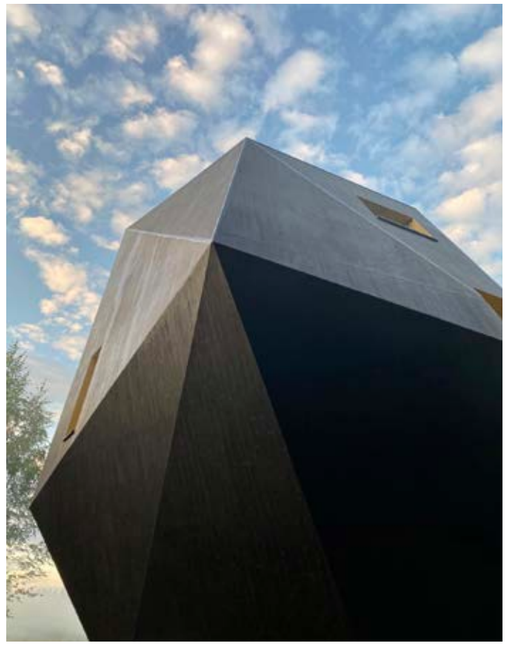
Unlike most buildings, especially in Scandinavia, where the exterior readily reflects the interior, the outer crust of the Meteorite is quite loosely related to the interior walls. That allowed us to do two things. First, we were able to form an outer shell that truly reflects the expansive landscape outside; the walls are intentionally left asymmetrical, just like an object found in nature would be. The only hint of this actually being a building are the rectangular windows. To further add to the illusion of this being a natural object, we chose what is called tunnel windows – essentially leaving a lot of space between the inner and outer walls: from the outside, you get the sense that this isn't a structure made of thin walls but that the outer crust is several meters deep. The second thing, and something I always like to do, is design in a way so that one experience sets you up for the next — offering an element of surprise. In this case, the black, asymmetrical exterior is contrasted with the lighter inside, where all the interior spaces are more or less connected and wrapped around an atrium that rises to the top of the building and culminates in a ten-square-meter skylight. Surrounding the atrium, there is a multitude of diverse spaces, nooks and crannies that are there for you to explore. These varying scales of geometry, all made from cross-laminated timber, are at once fragmented and connected to the center.

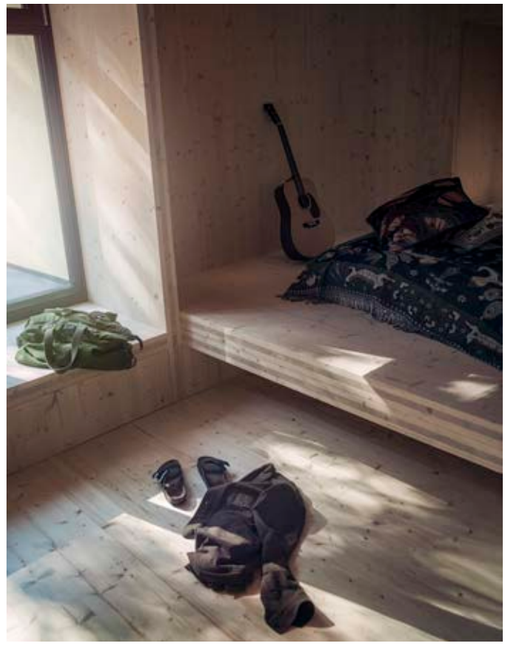
The three-story building is organized so that when you move up, you rise toward the skylight. At the same time, you're moving upward from things that are quotidian to something that is more spiritual: at the entry level you have a little kitchen; on the second floor you'll find a working space, bathroom and bedroom; and when you climb the ladder to the third floor, there's nothing but an empty space with a large catamaran net suspended over the atrium. There, lying on the net, far above the ground, there are no distractions, just a picture of the sky. In short, it's a choreography of experience.

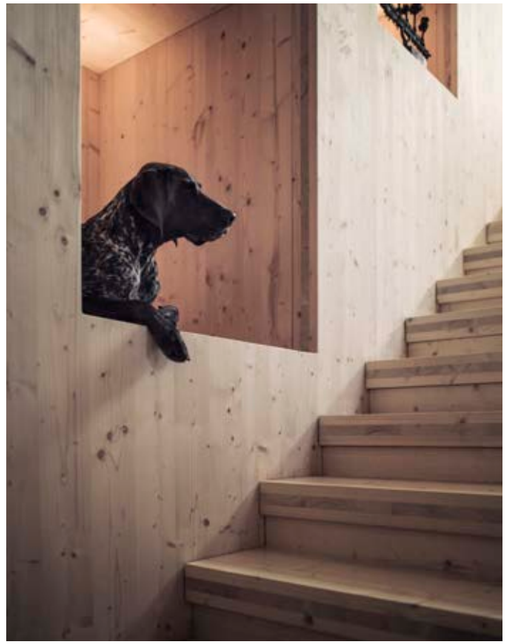
I'm pretty sure I've never seen a catamaran net in a house before. Where did you get that idea?

Well, part of it is practical. When you have a tall building centered around an atrium you also need to mind safety. And I knew from before that these nets are very sturdy









and can hold quite a large number of people. But the other part of it is that it allows you to make use of the void. You can sleep up there or you can gaze at the sky while having a conversation with someone in the kitchen two floors below.

There's also a lot of climate thinking baked into this structure and one aspect of that is the vertical build. Was it environmental considerations that drew you in that direction?

Yes it was. We've done a smaller project, called the UFO or "Unidentified Functional Object" that uses the same materials and techniques. With both these structures we tried to minimize the environmental footprint by providing a smaller foundation where you don't have to level the whole area with gravel and then plant trees. Being respectful of the surroundings makes special sense when you're building something in nature. It demands a lighter touch.

When I first saw the house I thought that this house was a product of the pandemic as it meets all these needs that become more prominent during that period... closeness to nature, multifunctionality and so on. But it was actually constructed before Covid struck. So I guess you were ahead of the curve?

We were in fact already thinking about many of those things. But what happened during Covid put the building to the test: suddenly it became a school, a home and an office where the husband of the family was working remotely in a different time zone. What I'm the most proud of is that the house could respond to all those simultaneous demands. And interestingly enough, that ability to conform to different needs had nothing to do with being able to move around more or refurnish. Rather, it was due to the fact that the house was intentionally planned as open-ended.

As architects, we had some ideas of essentials: of course, we wanted a kitchen, a shower and somewhere to sleep. But beyond those essentials, we wanted to leave all these spaces largely undefined and let the lives of the clients define them instead. So that approach — providing no instructions for use but just a lot of potential for various uses — turned out to be pretty great. And as you say, the connection to the outside plays a great part too, with one window that frames the sky and another that frames the forest. It gave space for the peace and meditation that was helpful during Covid.

Looking at your design, I realized that skylights are strangely under-used, despite the fact that it's such a good way to make a space feel larger and more airy. Why do you think that is?

I'm actually not sure about the answer. But I remember when we put the UFO project on display — which is sort of the baby of the meteorite and centered around this open space with a skylight — that people seemed hesitant to use these types of windows. So perhaps it might be that

"You're moving upward from things that are quotidian to something that is more spiritual."

skylights have a bad reputation where people worry about leakage and other issues. But when working with modern glass technology and materials like cross-laminated timber that doesn't change dimensions the way that for example logs do — transforming when it's humid or warm — it's not really a problem.

To someone who was at the frontier of the technological development that has shaped architecture, what's your view of the current digital shift? For example, I've heard builders suggest that augmented and virtual reality will open the door to much more efficient construction.

These days, digital technology already permeates every aspect of building. In the nineties, it was mostly about using the software originally intended for movies or building airplanes — it gave us a new ability to imagine and visualize form, but there weren't particularly easy ways to construct those forms. And then followed a transitional period in which engineering technology started to empower architects. For example, larger buildings appeared where glass and steel companies used digital fabrication. Today, this has bled into other areas, like the fabrication of wood, which is increasingly automated. The cross-laminated timber we work with is robotically cut, which means that a project like the Meteorite, with all its varying shapes and forms, becomes both feasible and economical to manufacture.

But while projects like these are pretty easy to pull off if you know how to work a computer to design the joinery, one remaining bottleneck is the assembly, because you still have a puzzle where each piece is different and requires three-dimensional assembly. I know Boeing, already decades ago, worked with augmented reality, where they could see the drawing in front of them when installing cables and such. So visualization can make the construction process faster and easier, and it also helps when trying to convey an idea to a client or trying to imagine the impact of a building on a site. On our end, we often use Epic Games and Twinmotion to visualize projects – real-time 3D game technology where clients can view a building through VR glasses. It opens the door to a whole other level of participation. So to summarize, yes, both virtual and augmented reality are really helpful tools, both with regard to construction and project collaboration.

Your portfolio is, to say the least, eclectic, with all these shapes and forms set in different environments. Is there a common denominator?

It's experience. And I'm aware that sounds like something anyone would say. But the reason our projects all have these various scales and media is that I intentionally try to never make a distinction between design, architecture and art. I relish the opportunity to design experiences at all scales and, more and more, I've managed to find clients who share that mindset. So that approach is essentially what allows you to control different scales and media while coordinating their effect on experience. To me, the greatest appeal, and the best possible use of experience, is to challenge conventions. The Meteorite, for example, is a project that aims to take all these established ideas of what a home should be like and suggest something else, something new. That could be technical things, like using double layers of wood as insulation, or it can be some of the more conceptual aspects we've discussed earlier. But to answer your question more concretely, the throughline theme of some of our buildings, like the meteorite, is my interest in how architecture affects the atmosphere of the building and how that, in turn, shapes how life unfolds inside the building. In a way, it's an upside-down model: rather than blueprinting a building in accordance with how a home is supposed to look, I like to look at a building from the vantage point of how it will relate to life.

There seems to be a shift towards environmental restoration, where urban greenery and vertical gardens are becoming more common. But this is essentially adding climate benefits after hand. Do you think that your mindset, minimizing natural impact from the get-go, is also an emerging trend?

Yes, or at least I'd very much like it to develop in that direction. Finland is of course different from other, more densely populated urban places, but at least it offers this opportunity to rethink the way we build. We are currently working on this project on the Swedish mountainside where we have gone to great lengths trying to figure out how to essentially make the building float so that all the surrounding nature — trees and moss and so on — can remain untouched. Another of our current projects is situated on the edge of a forest where we've cut down some of the trees. Those trees were planted by the client's father some fifty years ago, and we only chopped down what we needed to fit the building and then used the timber as paneling. So that too created some connection to the site: we liked knowing where the trees came from, and rather to ship them off somewhere else, we used all of it for the building right there on site. These are just a few examples but I do believe there's a new sensibility emerging toward context, and that's part of a broader trend. I used to work a lot with restaurants where, for a longer period, clients have cared where the food is sourced from. Working with restaurants and chefs — where the story and the experience are paramount — has also made me think differently about architecture, about materials, the story they tell and their impact on the environment.

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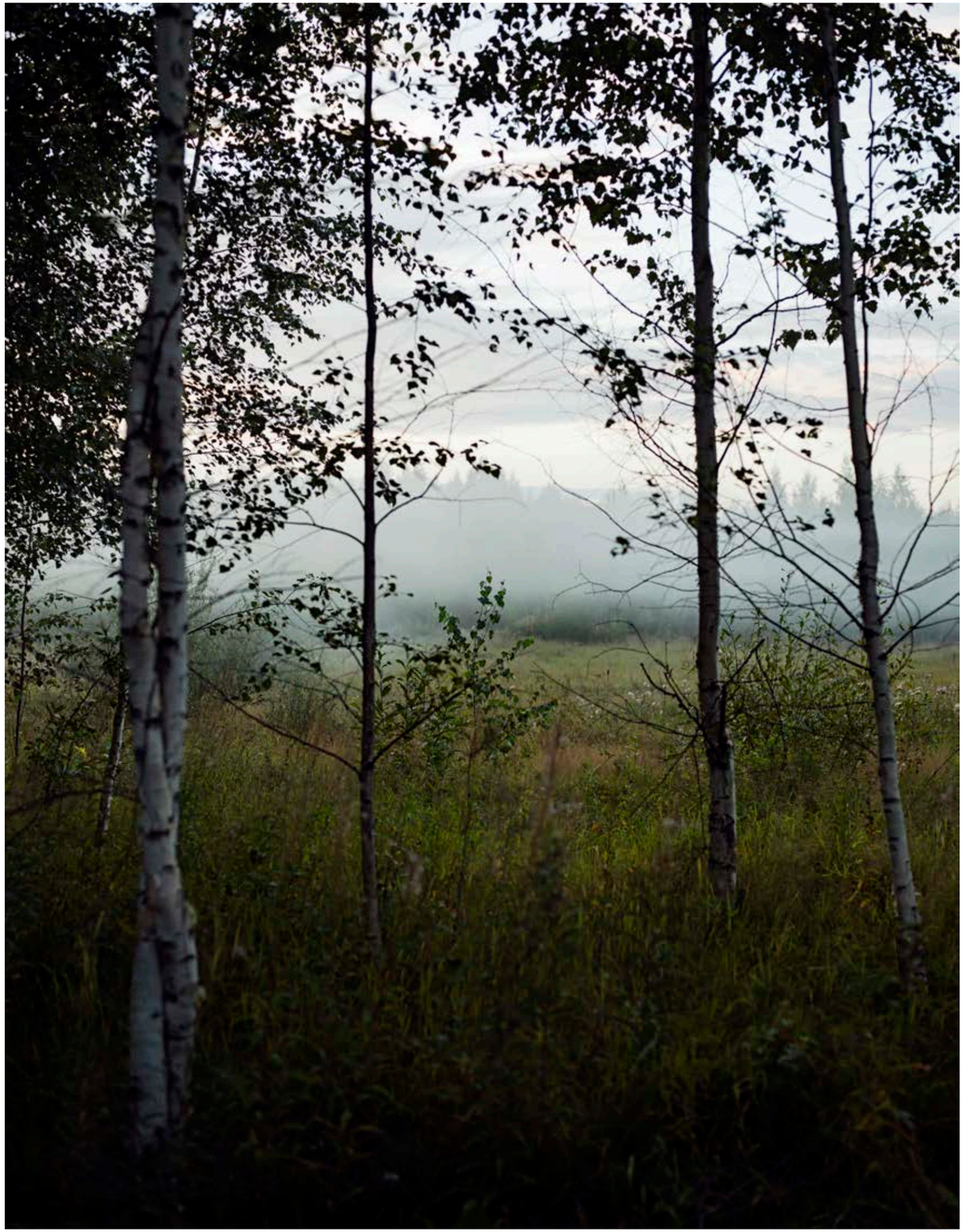

EKBACKEN STUDIOS: Turning The Tide On Ocean Pollution

At a time when plastic pollution has reached alarming levels, particularly in our oceans, a Stockholm-based design studio decided to flip the script on waste. Since its inception in 2021, Ekbacken Studios has pushed the boundaries of sustaintech by giving ocean plastic a second life… in the form of design furniture. We spoke to co-founder Kristina Tjäder about redefining the concept of waste, and luxury.

PHOTOS BY EKBACKEN STUDIOS

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Tell us a bit about the background of Ekbacken Studios.

I wanted to do something new, I was looking for something that would give me more of a personal development. During the pandemic, I met my co-founders and got so fascinated by their passion that I was drawn into the world of recycling fish nets. We get the material from Portugal, and there we gather and separate the fishnets in different colors. These nets are then crushed into a fine material that later goes into 3D printing and out comes our designer furniture. We've climate measured our products, and we've lowered our impact by 93% compared to a product made from new production.

You've spoken about redefining luxury and the way we consume. What does that mean to you?

I'm coming from the fashion world, so I've seen the environmental challenges we've been facing in that industry. And, I realize furniture production has the same issues. We've been climate measuring since 2005, and if we're to look at numbers, we know that producing a couch generates 530kg of CO2 emissions… that's costly for our environment. We want to influence people to think about waste differently — that waste could be a new raw material. Reused materials can still have that exclusive look and feel to them, and our mission is to define circularity as a luxury.

What are some challenges in creating sustainable furniture?

The greatest challenge is to change people's minds. We as consumers have to reset our references. We're used to wooden furniture in traditional forms. And we've been told that plastic is a bad material; however, we're saving it in this case. But yeah, the biggest challenge in our case is definitely to redefine plastic as highly qualitative and exclusive.

It's often my impression that the interior design space is quite homogenous — so much in fact that it's hard to tell whether a picture of the perfect kitchen or bathroom comes from IKEA or any other mainstream brand. If you agree, why do you think there's been so little innovation in this space?

I believe not enough room has been granted to new, innovative brands. But, there are quite a few new brands hitting the market right now. To me, it seems we're finally entering a new era in which people are driven by finding new sustainable solutions.

What does the future hold for what furniture will be made from?

Circularity! We truly believe in the "value of waste." In short, another man's waste could be another man's treasure.

When designing or decorating a home, what comes first, sustainability or design?

Design has to come first, but today I don't think you have to compromise.

Your background is in fashion, where do you feel most at home?

I've been in fashion since the 90s, so I've spent most of my time in that field. However, fashion and design go hand in hand. They have many synergies: it's the same type of values, and also the same types of problems.

What does the future look like for Ekbacken Studios?

We're working to be more visible and present in the market. The bigger we are, the better we do!

Building For People

For architect Eva Koch, it was the inspiration brought by a close relationship with clients that steered her toward designing living spaces. Weaving dreams into reality, she describes a delicate dance of listening, understanding aspirations, and translating visions into tangible spaces. >>

PHOTO: NICK CANNAERTS

Ever since humans made their way out of their caves, a home has been an ever-evolving concept. As we've kept scaling the hierarchy of essential needs, what was once a mere shelter has become an ideal, a cultural reflector and an expression of individuality. Still, and as the Covid pandemic demonstrated, the imperative of function and comfort is as integral as ever, forming the foundation for every other consideration.

For two decades, that place where form and function meet expression has been the operating space and great passion of architect Eva Koch. We asked her to share her story, from starting her own business in a male-dominated industry and building her own home, to how the changing landscape of living spaces is reshaping her work.

Let's start with your background. What pulled you toward architecture and the, rather early, decision to start your own company?

It's actually a childhood story that started with crafts, building a treehouse, playing with Lego, etcetera. From there, it seemed natural to pursue building as a profession. So I was only twelve or thirteen when I told my parents I wanted to become an architect, and today it's been twenty years since I finished my master's degree. During my internship period, I ended up in the same office as my friend from school; we clicked and decided that, as soon as we were done interning, we'd launch our own business. That was of course a bit of a gamble, two girls with limited experience starting their own office from scratch. But we worked really well together and it might also have helped that we both come from families where our parents were self-employed.

As you say, it sounds like quite the gamble kicking off right after grad school, perhaps especially twenty years ago when startups were somewhat less common...

Yes, and it was quite the adventure, falling down and getting back up and sometimes feeling you're banging your head against the wall. It was also a challenge for us to show up at a construction site, inexperienced and with our plans in a backpack, and tell these older guys what we want to do. It's still a male-dominated profession so that took some grit, but in the end we've learned a great deal being on-site with the construction workers — it just took some courage to get used to it. Eventually, my partner decided to leave the firm as the long hours and starting a family at the same time were a bit much. She opted for furthering her career in interior design. So at that time I was in a state of doubt, asking myself if I was prepared to give up what we've been building for the last decade. But in the end, I decided to continue on my own and after ten years I'm still here, doing what I love.

Your niche is living spaces. What's the appeal?

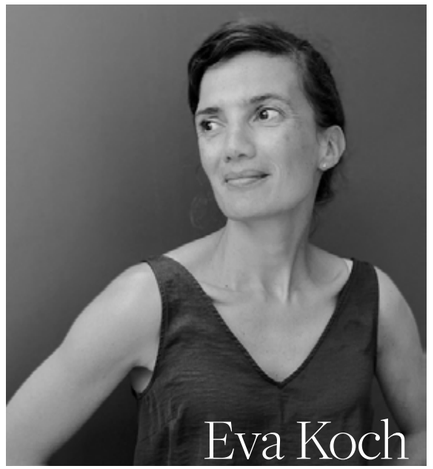
One essential part of it is the close connection to the client. Some of my internship experiences were these big projects where you're essentially removed from the end-client as you work for the developer. So that personal aspect is important to me: having a small, dedicated team and creating something directly for the people who will live there.

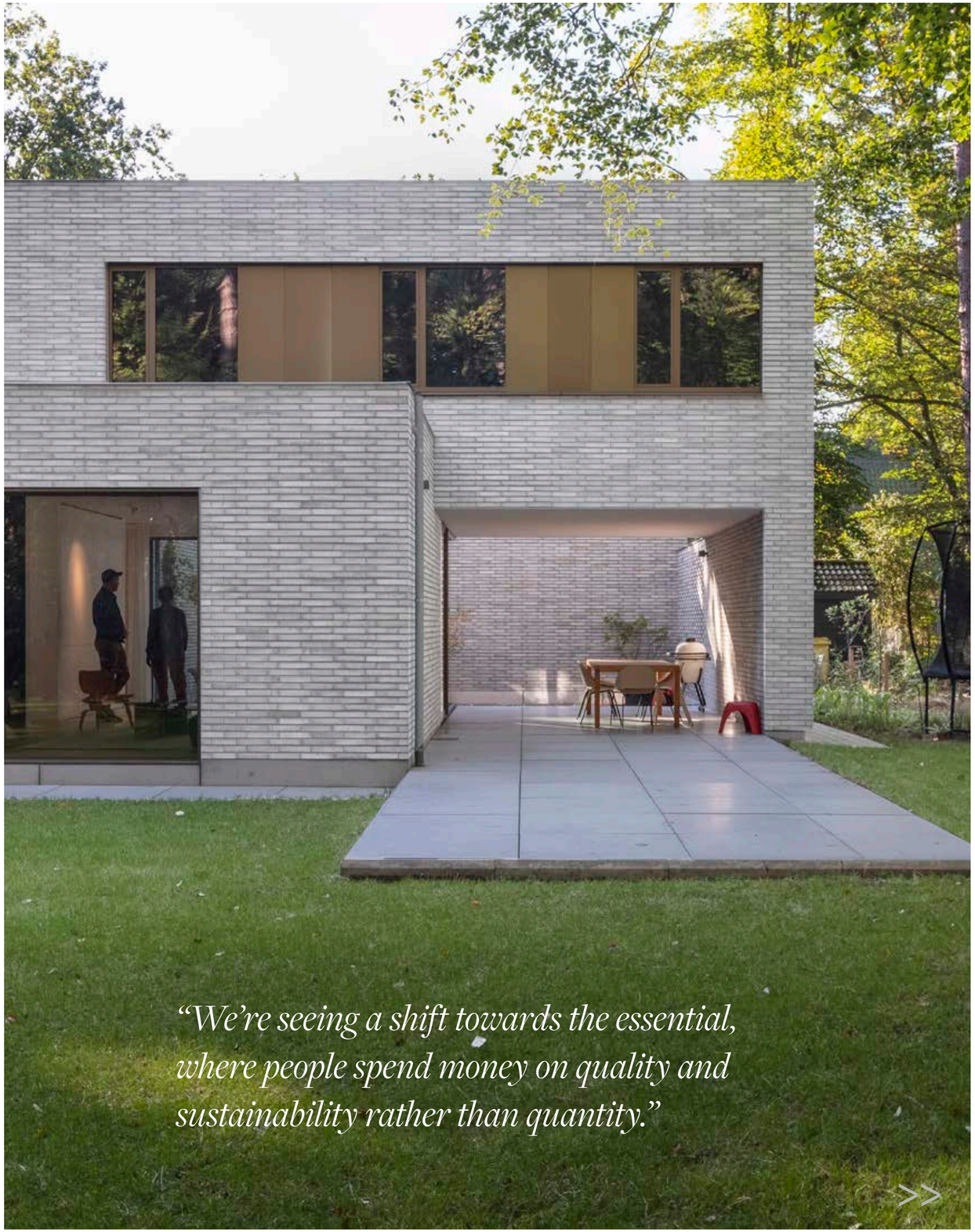
And I saw you actually designed your own home as well, right?

Of course!

So what is that like as an architect? I mean, this is what you do for other people all the time, but now the client is you...

Yeah in a way it should be easy as this is what I do all day long, but it's certainly trickier to do it for yourself. But because I work from morning to night on different plans and designs, it was important to me to keep it simple. I didn't want to have too much stuff going on, but rather I wanted restful spaces. It's a family home, as we have three kids, with enough space for everybody. I like spaces that flow from one to another but with a good division between the different functions in the house. It was also a bit of a puzzle getting the light right as the house is surrounded by trees that we didn't want to cut down, and the street side of the house is south-facing. So to get some light during the day we built a patio and also a small fishing pond that reflects some of the light into the house. I also needed an office that is now located on the house's front side, so the patio also provides a good separation between private and working space. The result is a fairly fuzz-free house without any fancy details. Just functional, affordable and sustainable.





Do you think there is an overall move in the direction toward function? I heard someway propose that, historically, architecture used to be mostly about function, then aesthetics became more prominent and now we've come full circle.

Yes and no. I'd say function has always been the leading motive; after all, a house will always be a place to live inside and therefore it needs to be functional to some extent. But I also agree that, perhaps especially in the wake of the pandemic when so many people were confined to their homes, people want less stuff going on… less mixed materials and things everywhere. So we're seeing a shift towards the essential, where people spend money on quality and sustainability rather than quantity.

Covid certainly accelerated the shift towards both function and sustainability. Do you think those two elements have undermined aesthetics? That there's a necessary trade-off between climate and practicality on the one hand and beauty on the other?

I'm not sure it can be framed that way. A trade-off might be something like sacrificing trendiness for durability. But what we're seeing is rather a conscious move away from trends themselves and towards long-term thinking. What I see when working with clients is an awareness that "this place will be here for a long time, so it's better to get it right from the start." Of course, the "trade-off" here is present in a different sense, namely that high-quality, durable materials will increase your upfront costs. Personally, I think that the shift towards quality consciousness it's a great thing, but as architects we also have to work with the client to make sure their expectations are realistic. For example, if you're going to go for a more sustainable home, fitted with solar panels or other lower-carbon alternatives, you need to be aware that there might not be that much money left for a fancier interior. Longterm, you'll save on your electricity bill, but you have to spend more on the construction. That's especially true today as construction costs are up roughly thirty percent compared to five years ago.

Have you noticed a generational difference when it comes to sustainable thinking?

In general, younger people are more climate-aware. But then older generations tend to have more money to make their homes more sustainable. So in the end it pretty much evens out. I do think it's rather hard for young people to build homes today. The will to build something durable and sustainable is there but with construction costs being what they are, coupled with the broader economic situation, it's not always possible to make all these aware choices at once. It's even harder to do good-quality renovations these days.

And I guess that's a big part of your job, to walk the client through the whole process and figure out where they should focus?

Sometimes I even feel like I'm a bit of a social worker. It's not always easy for couples to agree on these big decisions so you end up in the middle as a mediator or something like that. But being part of the process is also what I like the most and it's a great thing to be there from the start and see the whole project through. To guide the client to a good final result and make their dream project come true is very satisfying.

So what are some common mistakes that clients make?

The biggest issue is what I mentioned before, namely the expectations and costs. If it were up to me then Pinterest pictures should come with a price tag to give people an idea of what things actually cost. That's actually an issue that social media has aggravated: people come to me with these great ideas and beautiful pictures but aren't aware of what kind of budget that would require. So sometimes I do feel like the bad guy who brings the bad budget news. But then it's all about sitting down and start prioritizing: Can we make it more compact to keep the fancy finish? Is it more important to keep that big kitchen and open surfaces in place?

What architectural changes do you think will stand out in, say, the coming decades with regard to how we design our homes?

One main change is that people will think more about not wasting space. I'm aware that my house isn't the best example as it's fairly wide and placed in a green space, but it is still thought out. I think space consciousness is definitely a growing factor, also in function of budget and energy use. If we look at sustainability more broadly, there are so many things packed into that concept. On the top of the list are things like recycling and reusing, and both of them are pretty complex. For example, reusing isn't always possible as features like windows might be custom-made to fit a specific design. But then maybe we need to aim at having a complementary relationship between reusing and recycling. But even on those fronts I think we're already making progress. More people are thinking about what their house will be used for fifty or a hundred years from now, and don't want it to end up at a dump site. I think it's great that, here in Belgium, our traditional brick buildings can stand for hundreds of years, rather than the cheap construction typical in America, where houses are demolished and rebuilt over one generation. In my own home, none of the separating walls are supporting, so they can be moved or removed to create new spaces or one, open space. That type of flexibility also has a role to play and starts with a good, thought-out plan. The way we architects put our design together is the first step towards sustainable living. I feel it's my duty to keep thinking and searching for possibilities during the design process, in order to make the best choices afterward.

On a last note, what country has the best-looking homes?

Oh, good question. Well, I see some really talented young Brazilian architects doing good stuff with really low budgets. Australia too has a really cool architectural movement going on. That's usually where I like to look for inspiration: places outside my own wheelhouse that show that architecture is still moving forward and that this industry is still an adventure.

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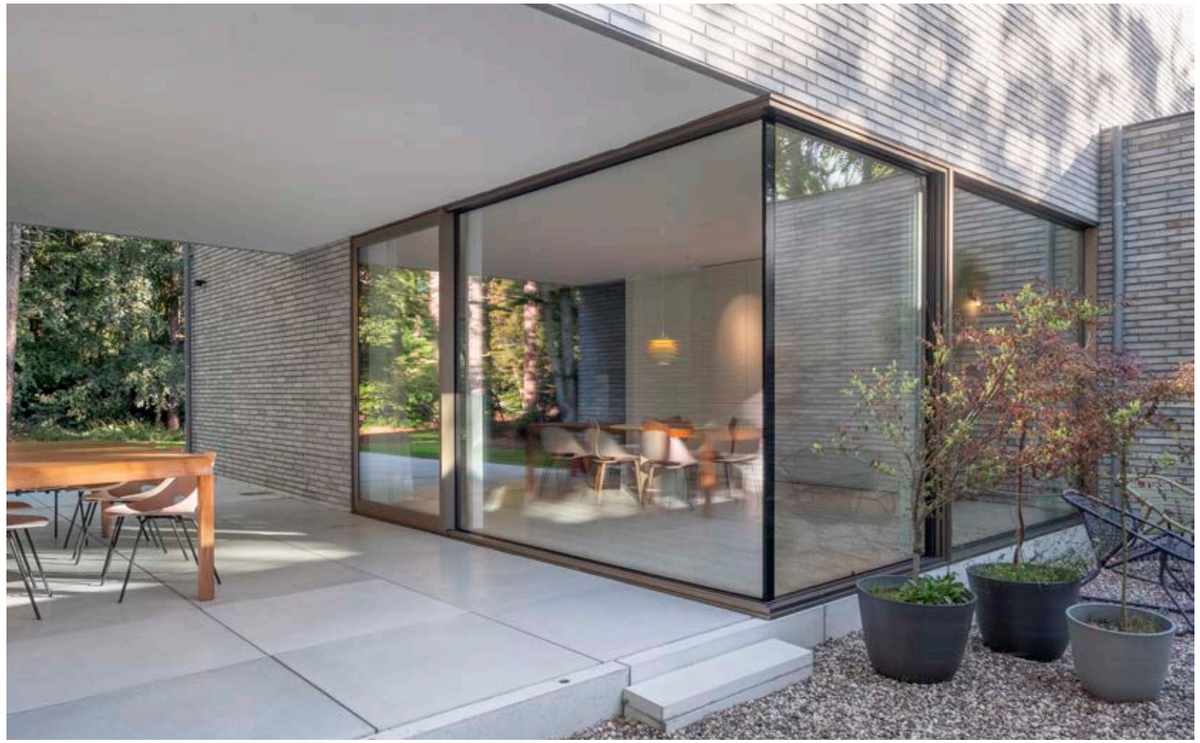

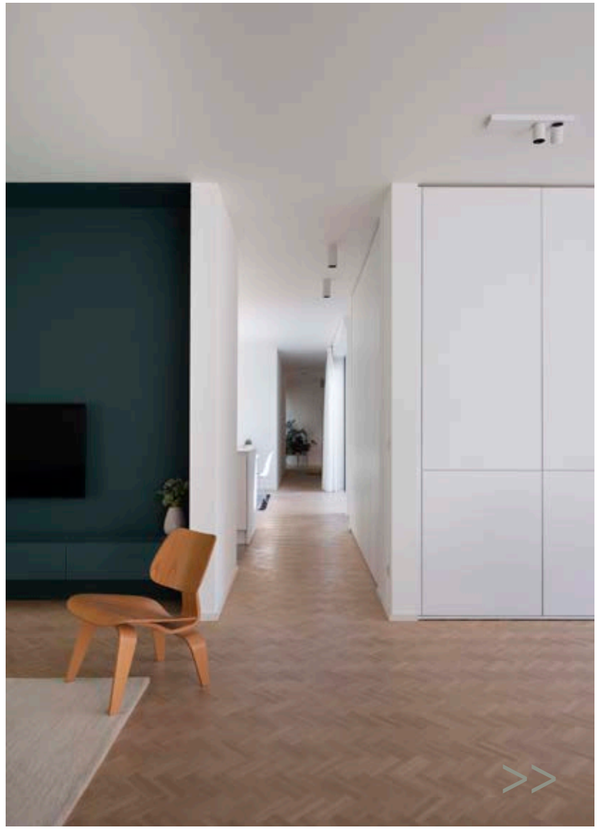

LIVING LARGE *WITH LESS*

A confluence of factors, including skyrocketing rents, environmental awareness and a pandemic-induced appreciation for nature, have accelerated the trend toward downscaling. Rather than clutter and excess, more people are opting for a curated environment that fosters tranquility and makes space for experiences. But is the tiny-living trend just that, a trend bound to reach its end, or the beginning of a new paradigm of material minimalism?

PHOTO: ANNIE SPRATT UNSPLASH

For most of us living in the year 2023, there's something about down-sizing that feels counterintuitive. After all, human history could be summed up as a determined quest for perpetual scaling: larger cities, larger factories, larger TVs …. even humans have grown larger. And if you weren't already aware, the universe is expanding, too. So why is it that here on planet Earth, a growing number of people are swapping the dream of living large for living small? In the last decade alone, compact living has gone from a niche phenomenon to a global movement. Scroll through any streaming site and you'll find a slew of documentaries chronicling the lives of compact dwellers, from the quirky, Do-It-Yourself-themed TINY: A Story About Living Small, released in 2014, to Netflix's more recent Tiny House Nation. The internet is littered with pictures of homeowners posing outside their micro quarters while the expected global market increase in the next five years is in the multi-billions. In the United States, where the movement took off earlier than in Europe, an estimated ten thousand micro homes sprinkle the country. In Europe's burgeoning market, manufacturers scramble to keep up with demand.

Part of the answer to why micro-thinking is having a moment is – you've probably guessed it – financial. While some have attributed the modern origins of the tiny-house movement to US naturalist and writer Henry David Thoreau, whose 1854 classic Walden details the author's two-year stay in a self-built cabin in the woods, it was not until half a century later that the Great Depression transformed Thoreau's meditations into a necessary reality for many Americans.

Today, our economy is luckily in better shape than in the 1930s, but home ownership is nonetheless becoming an increasingly distant dream for both Europeans and Americans. To give an idea, back in 2017 – roughly when the noise around tiny-thinking reached full volume – a survey by Dutch bank ING found that nearly half of the people in thirteen European countries who don't yet own their own home reckoned they probably never will. We can assume that, had the study mentioned the prospects of buying a tiny home the answers would have been very different. As construction methods improve and competition between manufacturers increases, the typical cost of today's tiny house is between a very reasonable thirty and sixty thousand euros. To consider: If you put the same money toward an apartment in say, Stockholm, you'd get between three and six square meters of living space… which incidentally is the typical size of a bathroom.

So is our proliferating micro-dreaming a mere historical repeat: a calculated response to a harsher economic climate? Not quite, because there's also the actual climate.

As the green transformation forges ahead, downsized living has tapped into the zeitgeist of reconsidering alternative ways of living – ways that don't put the equilibrium of our planet at risk. Tiny homes naturally have smaller carbon footprints, requiring fewer building materials and occupying less space in nature. And that's just at the top of a long list of many climate perks, including reduced energy needs and carbon saving on transport and fabrication.

But climate-forward thinking has also matured into something broader and more fundamental than the self-serving imperative to save our shared home. Roughly two decades after the energy transition started to gain real momentum, more people are now questioning whether ever-growing, ever-enlarging superabundance was a purposeful goal to begin with. Many are wondering: Could it be that we don't actually need that much stuff – but could feel better without it? Could owning fewer things create space for having more life?

Of course, the global health crisis played its part too. Repeated lockdowns compounded by digital isolation supercharged trends that were already simmering below the surface: a desire to escape the confines of major cities, to focus on creativity and wellbeing and, perhaps above all, to reconnect with nature.

So there's reason to believe that compact living now has the staying power it has lacked in the past. While downsizing is still in its infancy, there's no doubt the strive for self-sufficiency and enriching experiences are successively replacing that for material riches. To many, a mortgage-free life, in the placidity of a forest or in the soothing presence of an ocean, will seem like a good start. So while the universe will keep expanding, our future might be tiny.

"Could owning fewer things create space for having more life?

From Containers To Cabins

Ole Henrik Eftedal On Mainstreaming Tiny-Home Luxury

PHOTOS BY MORTEN RAKKE

Luxurious affordability might sound like an oxymoron. But to Ole Henrik Eftedal, serial entrepreneur and founder of Nature Compact Living, adding glamour to tiny living is the very leitmotif of his project. Following a career building kitchens for peacekeeping forces around the world, Eftedal teamed up with architectural firm Snøhetta in 2018 to leverage his expertise in the tiny-home sector. The result? The sleekest and most stylish compact homes on the market.

We sat down with Eftedal to learn more about the secrets behind his success, the driving forces behind the micro-living trend, and what we should expect from the future.

Let's kick off with your background and the founding of Nature Compact Living.

I guess the best word to sum up my background would be 'entrepreneurship.' I actually started off as an electrician but soon moved into building professional kitchens, restaurants, hotels and canteens. But the real seeds of Nature Compact Living were planted when my company was asked by the Norwegian Armed Forces to come up with mobile solutions for container kitchens. What followed was a pretty dramatic pivot from building restaurants and canteens to constructing smart kitchens to be used by peacekeeping forces in places like the Balkans, Afghanistan, Africa and the Middle East.

Long story short, that eventually led us to do a slew of container-based designs for other armed forces, including solutions for burning waste, sanitation and even office spaces. And so four or five years ago, I started to read up on compact living and tiny houses. By then, it was already very popular in America and South Africa and, well, pretty much everywhere but Europe. What was missing though, I noticed, was the glamour. These tiny dwellings had a trailer feel to them – no luxury – where the designers had simply jammed in a maximum of storage space and utilities. In other words, it was all about functionality, which might work well for hipsters but to few others. So I thought: We've been doing creative stuff with containers for twenty years, and we can do this better.

So what were the main features you added that make your product unique?

First of all glass – a lot of glass. The main idea was to create the feeling of a luxury hotel room in the middle of nature. Fortunately we already have a factory in China, where we produce the military containers, that could also deliver the first prototype. It took me about a year, but the response we got when starting to promote it back home was astounding. Of course, our China factory wasn't really built for these types of designs, so we eventually moved the production to Norway. In addition to being able to follow the manufacturing process on the ground, we could also up the quality of all the essential components, like high-quality windows and sliding doors.

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In the last few years alone, what used to be a niche is now starting to look like a movement. Why is this happening right now?

I'd say it's a confluence of factors. First of all, the concept has matured to a place where it can reach the broader mainstream. As you say, only seven or eight years ago, compact living was a very alternative lifestyle as the living spaces were so rudimentary. But with the entry of higher-quality houses, and that essential feeling of luxury, it's all changing. Our cabins have a much broader appeal and our customer base span generations – from fourteen-year-olds to ninety-four-year-olds. A second factor, and perhaps the most crucial one, is sustainability. Big houses require a lot of energy, both in terms of heating and electricity but also in terms of time. After all, you have to clean the house and keep it in good shape. So what we're seeing now is a shift in mentality, with more people thinking that downsizing might be a more sustainable way of life. In addition, there are also people who choose to live in, for example, big apartments in major cities, but when they go countryside they're actually looking for something smaller… something that brings a totally different feeling.

So what are the challenges when trying to be practical and luxurious all at once?

Primary needs are paramount. Yes, you need smart storage space – but you don't want it to be too smart! That means that the kitchen obviously needs to be functional, but it also needs enough elegance for people to want to use it. In other words, it must send the signal that this is good shit. The same thing goes for the bathroom: big windows are essential to give that spacious sensation; you want to visit the toilet and feel like you're outside in nature. And you want a roof-mounted shower to get away from that campsite feel of not actually getting clean. Other essentials include good lighting and flooring.

Indeed, I've done quite a bit of trailer living myself, and as you say, it works for a few weeks but becomes quite cumbersome...

Yeah and one thing all these affordable housing options have in common, whether a trailer or cheap hotel, is that the beds are reliably crappy. So we did the opposite: we bought Anders Hilding beds from Sweden – the same beds used in Oslo's foremost luxury hotel, The Thief. So you can buy an IKEA bed, and I mean no offense, but spending that extra money on a Hilding bed makes lightyears in difference.

Micro living also taps into the ongoing shift to more environmental awareness. So what are the green credentials of tiny homes? I'm guessing one perk is the ability to prefabricate?

The ability to produce the whole cabin in one factory is indeed an advantage. First of all, a more controlled environment increases the safety of the work environment. Then of course there's the efficiency: building a house in a factory means that you don't have to deal with rain, storms or snow but can work in the same climate all year around. We've gotten so good at it that the full construction of a house only takes four to six weeks. The controlled factory environment also means reduced waste and left-over building materials – we have managed to slash both to almost zero. At the last stage, instead of shipping multiple rounds of building materials, the whole house can be trucked to its final destination and connected to the water and electricity grid. The turnaround time is very quick: even if it takes five hours to ship the house, you can still move in the same day. To sum it up, what you gain in efficiency you also gain in safety and cost.

This movement is still in its infancy. Where do you see it going from here on?

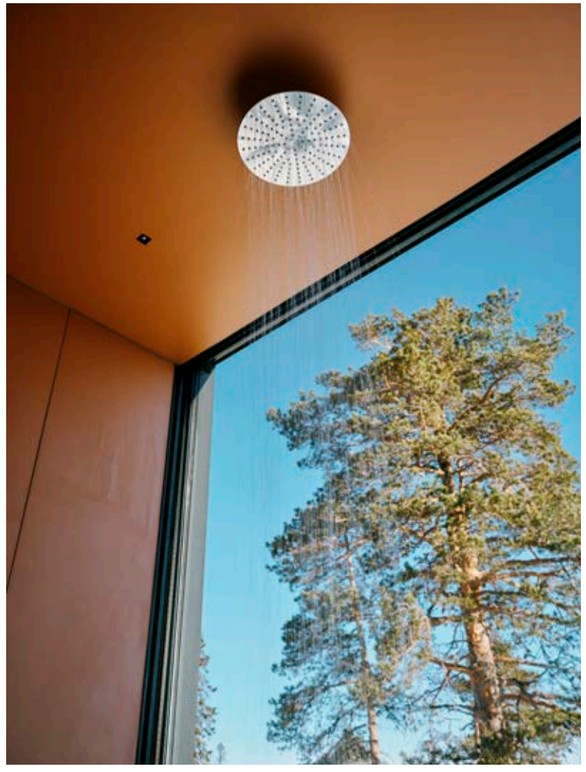
While I think there's no question that more people will start moving in the direction of smarter living, what is needed is a complete flipping of the script with regard to how we think about construction. Because the regulatory pressures will continue to increase around energy efficiency and waste management and it will become harder and harder to run a traditional operation. We already have plenty of developers and companies visiting our factory to see how we do things, and while we've only figured out what works for us, I hope it offers some inspiration.

By the way, do you have your own cabin?

I do, and our offices are also built in our factory.

On a last note, can you tell us a little about your plans for the future?

We have a very exciting concept underway. Currently, our modules need to be connected to amenities like water and electricity, which brings a cost to the customer. So where now in the final stages of developing an off-grid system that will be completely self-sustainable. Residents will be able to harness either rainwater or water from a river, while the house will be powered by the sun. It will be a closed-loop system with zero waste and we've chosen to design it as a rack that can also be retrofitted onto our older models. We're also designing smaller units that can be transported by helicopter. Essentially, the kitchen, bathroom and bedroom can be delivered separately and put together as a cluster on-site. We've teamed up with a tech company to make this happen, and it will open the door to sites to which it would previously have been unthinkable to deliver – not only in Norway but all over the world. And that's also the next natural step for us, to launch our products internationally.



The Perks Of Compact Living

1. Financial
2. Environmental
3. Freedom

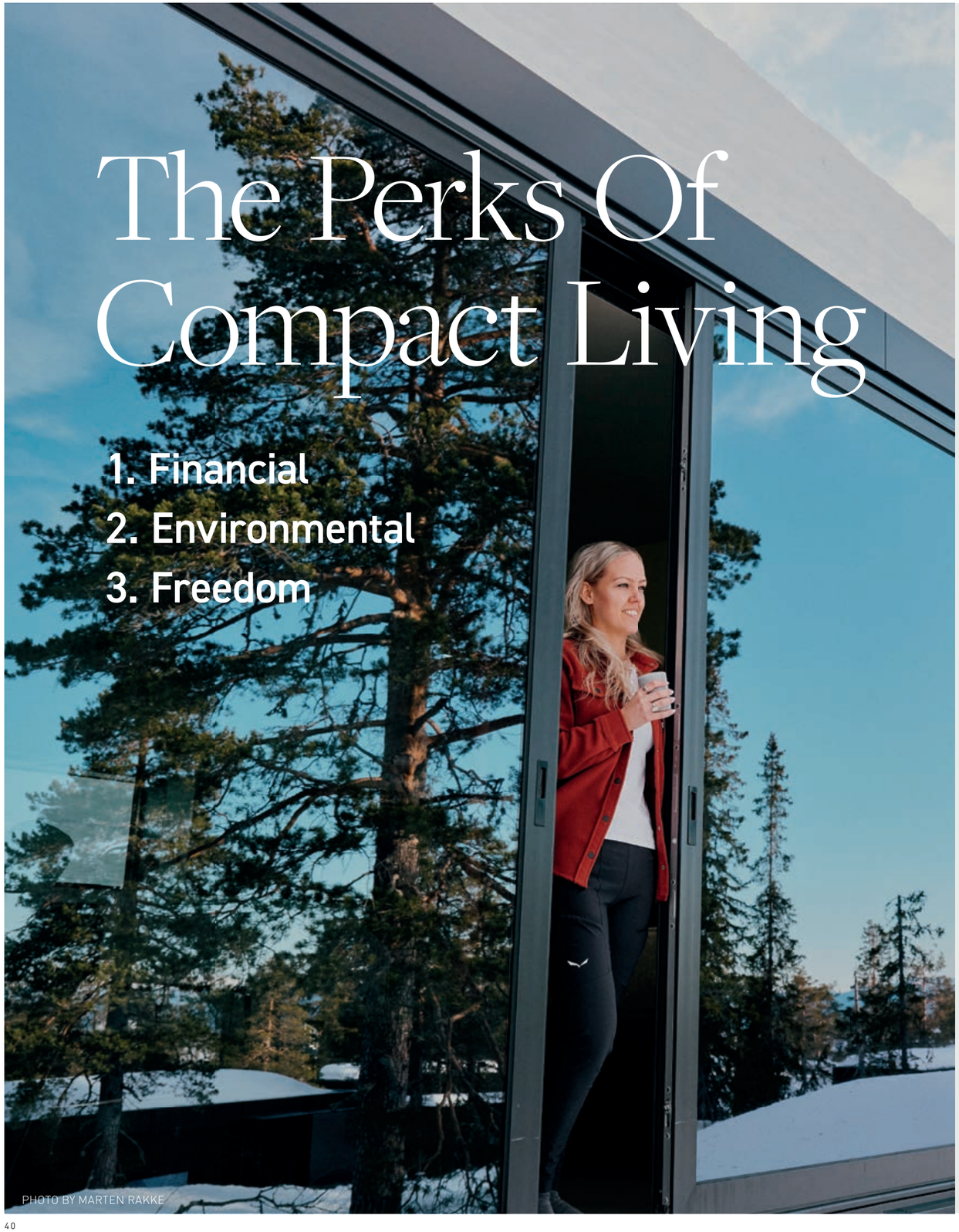


PHOTO BY MARTEN RAKKE

1

Financial

While no one factor is responsible for the meteoric rise of tiny homes, financial considerations are nonetheless topping the list of many downsizers around the world. And it makes sense: housing prices in the EU have nearly doubled in the last decade, making homeownership an increasingly strenuous economic proposition. That's especially true for the ballooning urban population in the countries' capitals. But affordable as they may be, compact homes are still homes, and with that comes a plethora of factors that should be part of your calculations before going tiny.

PRICE TAG

Let's start with the fundamentals. Your average tiny home will set you back $45,000 with a typical range between $30,000 to $60,000. However, those figures will vary between countries and models, which broadens the range to as low as $20,000 and as high as $180,000. Beyond the purchasing power of individual countries, factors impacting the price include the size of the house, the quality of the building materials as well as the service offering of the seller. For example, some dealers will offer shorter turnaround time for construction and assembly, as well as a border range of after-purchase offerings like basic maintenance and discounted add-ons like green-electricity features.

LAND

While some buy new land for their tiny home, others place them in the vicinity of their existing house. However, rules for if and where you can set up shop will depend on the zoning laws of your country or region. Some camping sites also allow for tiny houses, while renting space from a private landowner is an option for those looking to stay more flexible. Depending on location, some private landowners will let land for only a few hundred euros per month, while campsite prices span the gamut of usual rental prices for the region.

MAINTENANCE

A tiny home still requires love, if not as much as a Victorian villa. Your heating and cooling systems need annual servicing, as will your other standard appliances like plumbing and water heater. These costs will vary across houses, but typical estimates range between $25 and $125 per month. However, those figures are likely lower the first years of ownership as minimal maintenance will be required. In addition, repairs and refurbishing for such a small surface will be a fraction of the cost of a larger home.

RUNNING COSTS

The chief costs remaining are electricity, water and insurance. These are hard to estimate as they vary depending on the current price of gas and electricity as well as living habits. However, recent monthly estimates for hot water, electricity and insurance typically range from $120 to $300.

AFTERMARKET

While tiny living will save you money over time, it's unlikely to make you any when you sell. Compact houses rarely appreciate in value like a normal house; more often than not, they depreciate. One factor that can affect the depreciation is how customized your house is as it may not fit the next owner.

TIPS:

- If you're shopping on the lower end, take extra care to check that the building standards of the home are in accordance with your country's building codes.
- Tiny homes on wheels come with their own regulatory jungle, including size limits, car-model requirements and registration needs. So if you're thinking about going mobile, it might be a good idea to talk to a tiny-home owner who's already done that dreamy cross-country trip.

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2

Environmental

Just like minimalism, the compact living movement has been furthered by climate thinking. Naturally, a smaller life means a smaller carbon footprint, and many tiny livers also make life adjustments that go beyond the green credentials of a small living surface.

ENERGY

The average surface of a European house is 130m2; a tiny home is typically between 25 and 45m2. While it will depend on the size of the houses in question, most estimates set the energy reduction of a tiny home at 90%. In fact, some compact homes can run on as little as 60 watts (though average range is 100-300) which is a fraction of the 10,000 watts of electricity typically needed for basic lighting, air-conditioning, heating, and appliances in a three-bedroom house.

PREFABRICATION

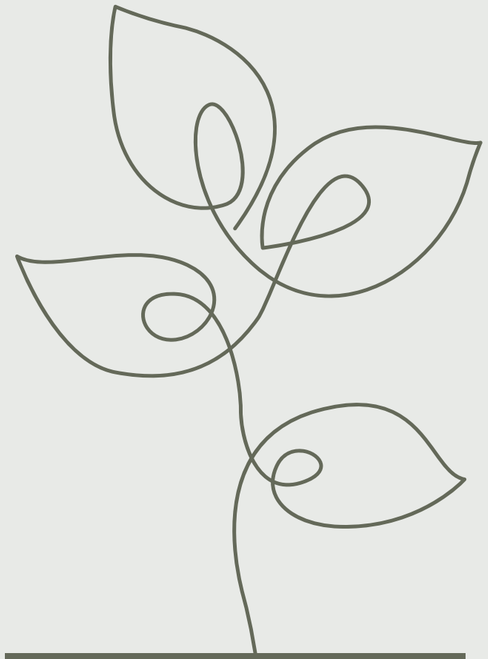
Beyond requiring fewer materials for construction, tiny homes can be put together in a single location which saps emissions from logistics while reducing waste from spill and leftover materials.

CLEAN ENERGY

Switching to renewable energy for a standard home is a costly affair but a tiny house is a different thing. While you can power your compact dwelling with sun, water and wind depending on your location, solar panels are the preferred option. Considering the minimal energy needs, a few square meters of panels can be enough to power a smartly built tiny house.

HOLISTIC

Many manufacturers are already thinking holistically about their designs, offering buyers a greywater recycling system where water is circulated in a closed loop. Water can also be harnessed from rain or rivers, while the homes can also be fitted with biodegradable toilets to minimize your waste output. A growing number of manufacturers are also opting for recyclable materials in their construction.



TIPS:

- Tiny houses already require about one-quarter of the land that a traditional house occupies — reducing the impact on wildlife and trees. As a bonus, you can make sure your house is mounted on stilts to further reduce environmental damage.
- Consider opting for a house that is already fitted with renewable energy systems. If you already own a tiny home, there are companies that specialize in retrofitting tiny homes with solar panels and greywater systems.
- Typically, some 80% of your power will be used for heating and cooling. So make sure to buy a tiny home with good insulation and large, high-performance windows to facilitate passive heating and cooling.

3

Freedom

Now that we've covered the hard numbers and climate perks, let's talk about the less quantifiable benefits. As the Covid-19 pandemic accelerated trends that were already underway, more people have started to reconsider their relationship to work and leisure. Rather than working as much as possible to buy as much as possible, leisure time, flexibility and passion projects are being prioritized. And of course, when looking to unclutter your life, what better place to start than your own home?

TIME

Anyone no longer living in their parents' basement knows just how time-consuming a home can be. Sweeping, dusting, polishing, doing dishes… those things alone tend to swallow the better part of the Saturday. Then of course there's more long-term maintenance like renovations, painting and plumbing. While tiny dwellers have to deal with all that too, it's just a lot faster to clean when the house is essentially one room, and repainting the facade can be done in an afternoon.

MINIMALISM

Tiny livers are minimalists by necessity: if you have nowhere to put your stuff, you're unlikely to buy it. While keeping material belongings to a minimum can be a challenge, many downsizers have testified to the sense of freedom that comes with accepting that buying that three-seat sofa on sale just isn't an option. So while your existence might feel a bit empty at first, you might notice how life might feel fuller eventually… and your bank account inevitably will be.

NATURE

While you will not be able to fit too many house plants or a jacuzzi, you'll have the compensatory presence of a forest or ocean. Most tiny livers opt for a rural location, which is also why many micro-home designers install large windows to give allow the feeling of sleeping or showering in nature.

FLEXIBILITY

In addition to the freedom of movement granted by a fatter bank account and less stuff, tiny houses are flexible in themselves. Of course, a home on wheels will quite literally make the world your backyard, but even a stationary tiny house can be moved and installed in a new location each year. While you might not want to sell and buy new land continuously, the number of private landowners letting their land is proliferating in tandem with the tiny-house movement. Well-situated tiny homes are also easy to rent out, while some people even do home swaps with fellow downsizers.

TIPS:

- Stay organized! Yes, downsizing can mean a breezier life, but only if you optimize your space. After all, even just a minimal amount of clutter can make a small surface look like a Victorian living room. So be smart about storage and compact solutions.
- Winter is coming… and if you plan on staying in your micro home all year round, then some mental preparation is a good idea. While in summer, your tiny house will be the perfect place for dinners and drinks, that's not the case when the cold comes and your guest list must be drastically reduced to fit your space. So make sure you have enough books and streaming subscriptions prepped, or let your friends know you'll be visiting a lot from fall onwards.

A Beautiful Ode To Authenticity

PHOTOS BY HANNA BOUVENG, SAPA

It can be hard to find opportunities for uniqueness in a world where uniformity so often reigns. But for architects, singularity is sometimes hidden behind imperfection. That was the case for the designers of Knisa Lada, a former derelict compound off the rocky coast of öland in Sweden. In their search for the perfect holiday home, the couple Ida and Jacob decided to give the abandoned barn a facelift while embracing all the idiosyncrasies and quirks of the old strucure. The result is a beautiful ode to authenticity, where the custom-made windows and doors of recycled aluminum give a modern feel to the back-country dwelling.

Beyond environmental perks and the cost-savings on foundations and framing, there are other important factors that make a strong case for renovation. The limitations of an existing structure can be a catalyst for inspiration, where the need for smart solutions and tailored design ignites creativity. And, perhaps most importantly, there's something deeply satisfying in paying tribute to the history and cultural identity of a place – cherishing its roots while transforming it with a personal touch.

Timeless Design

Celebrate the Classics, with this curated collection of our favorite gems from different eras. With their rich heritage and enduring allure, these classic pieces stand as testaments to the impeccable taste of generations past, reminding us that true style is eternal.

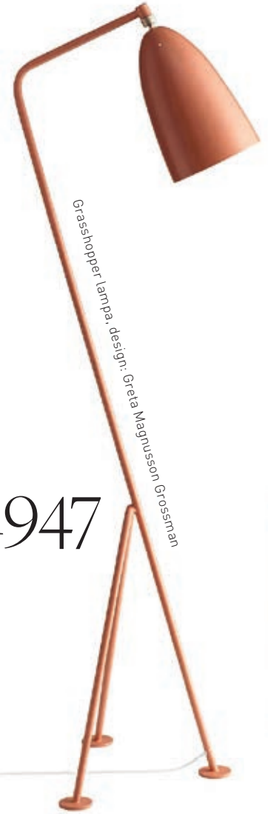
PHOTO BY HANNA BOUVENG, SAPA

1958

PH 5 Pendel
Design: Poul Henningsen

1949

CH24 Y-Stol
Design: Hans J Wegner



Grasshopper lampa, design: Greta Magnusson Grossman

1947

1936

Glasvas
Design Alvar Aalto

2014 Tiki soffa
Design: Andreas Engesvik

Where Art Meets Architecture

A Conversation With Pontus Möller >>

For more than three decades, world-renowned sculptors Ulla and Gustav Kraitz had the vision to build a convergence point for art and creativity in their long-time home in southern Sweden. Today, on the northern shores of the Bjäre Peninsula, sits one of Skåne's greatest cultural projects.

Named after the babbling brook ravines that run like arteries through its lush surroundings, Ravinen cultural center finally opened its doors in 2021 and has become the beating heart of the area's art scene. Its timeless design – a compact, two-story building perched by the Laholm Bay – is a product of architect (and art lover) Pontus Möller. After forty years of running the full gamut of architectural projects, Möller considers Ravinen his dream project. We spoke to Möller about the importance of beauty, the broader meaning of sustainability, the intersection between art and architecture and, finally, the ideas that gave birth to Ravinen.

The starting point for Möller Arkitekter is to create "sustainable rooms" but what does that mean in practice?

What we're talking about is sustainability at the broadest level, and that starts with city planning. Well-planned urban infrastructure is the foundation for everything else you build: if it's smartly laid out, people can live rather simply in a city and still feel good; if it's poorly planned, even a luxurious house won't make much difference to your sense of well-being. Let's also consider that, while a house might stand for one hundred years, the infrastructure of a city will remain for half a millennium. With that foundation in place, we start thinking about sustainability in individual homes and the rooms inside. So what's important on that level? First of all, beauty matters – I see that as fundamental to people's well-being. Then there are the technical aspects: function, durability, good proportions, sense of space, and climate friendliness. The real architectural challenge here is achieving all that on a budget. Of course, sometimes we build more lavish structures, but mostly, the job is to build something sustainable for people who aren't rich.

You mention beauty as paramount, and I believe you grew up in an atelier?

My father was an artist. He was a painter and a sculptor, and also did a lot of ornamentation like church windows and such.

So who is your favorite painter?

Oh, it's tricky to pick just one – my house is full of art. But I like the imaginists who introduced modernism to Sweden. It was a quartet of artists between the forties and fifties.

How did growing up around art influence you?

My father was a great artistic talent, parts of which I've inherited. But I also have an interest in technology as well as the social aspects of creation. So I could never have been an artist like my father. I didn't have the same talents, but rather my own set of more eclectic interests led me to architecture. Growing up around creativity, however, and watching my father work, certainly rubbed off on me.

Architecture straddles the spheres of both art and craft. It shares many intangibles with the former: shape, illumination and texture – but it also comes with a set of requirements, such as function and location. So is architecture an art form?

Yeah, that's a tricky one. An artist who is allowed to work freely starts with a completely blank slate, which is a very positive thing. But I can also see the positivity in having a pre-set framework for your creativity. The developer sets that framework, and a project can never be better and greater than the ambition of the developer. So it's paradoxical: in a way you have the same blank canvas as the painter, but there are also a number of parameters that you have to take into account as you start creating. It's a paradox I enjoy very much.

You have a very eclectic portfolio, from having built thousands of homes to a culture center, golf club, and even a church. How does the creative process differ?

I'd say the process is typically the same regardless of the project. The starting point is often given as you work with whoever commissioned the project. To me, the best projects are the ones where you get to work with the commissioner at an early stage, mapping out the program of the building. Rather, the big differences come with the environment in which you build.

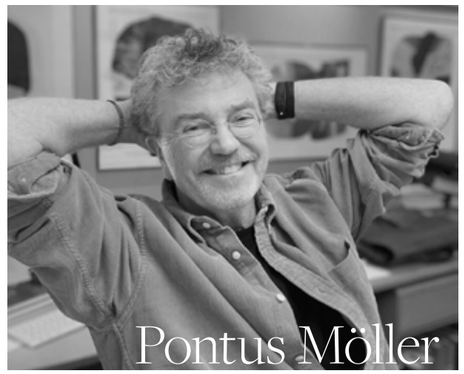
In the forty-something years we've been doing this, no project has been the same as the next. So as the environment changes, so must your thinking around the project: Where do we put the terrace to allow sun at the right hours? How do we optimize the relationship between the inside and outside? In what direction do we turn the house considering the location of the kitchen and living room? So, reading the environment – whether you're building a golf club or a church – that's the most important, and fun, part of the job.

One of your greatest projects is Ravinen. Can you tell us a bit about the background?

In the case of Ravinen, the process was actually unique. Already thirty years ago, the artist Gustav Kraitz had the idea to build a culture center in Båstad. My colleague and I came up with a proposal for the project – a circular building perched on the seaside – but the project never took off. Nonetheless, we kept in touch and I kept following Kraitz's work as an artist as he did ours as architects. Then, in 2020, the project finally gained legs with Backahill as developer. The first challenge was to take the initial sketch of a hundred-million-kronor building and slash it by roughly half to make the project bankable. My idea became a square design – a two-story building with four components: three art halls, one auditorium, one restaurant-bistro area in addition to personnel spaces like entre and reception. The gallery part of the building ended up facing north, with a fully glassed wall overlooking the beautiful Laholmsbukten. It's a spectacular view, and the setting is perfect for art expos where you want a lot of daylight but no direct sunlight.

What was it like creating something that's there to display other creations?

The rooms are there for the art, but we also wanted the spaces to be beautiful and constitute an experience of their own – creating a synergy between the art and its surroundings. For example, the second hall is without windows save for a



small strip of glass in one of the corners. While it may seem insignificant, it was crucial to me to keep the relationship with the outdoor surroundings. Similarly, in the south-facing Kraitz Hall, named after Ulla and Gustav who are both sculptors, the sun is allowed to enter to create shades, while the windows offer a closeness to the lush outside.

You mentioned earlier the framework that comes with an architect's blank slate. What were some imperatives you had to include in your planning when building Ravinen?

There are so many invisible features that still required a lot of thought and work. For example, this is an art gallery, which

means that the Mona Lisa should be able to hang there. So design must be combined with security thinking. If you look at the main window on the second floor, we choose a sort-of grid design for the window in order to ensure its robustness. Another example is the auditorium for which I had a bunch of aesthetic ideas. However, my plans were dispelled about thirty seconds after we had one of Scandinavia's foremost experts in acoustics weigh in. But it turned into a great collaboration: the result was different than what I had in mind – but no less good.

Looking back on your career, is there a dream project that's yet to materialize?

Well, Ravinen was actually a dream project, and I'm unlikely to do anything like it again. So I don't have a specific dream creation right now. But it would be something public – something many people would be able to enjoy. And I would like it to be in relationship to water. I'm a coastal guy, after all.

PHOTOS BY HANNA BOUVENG, SAPA AND LASSE OLSSON

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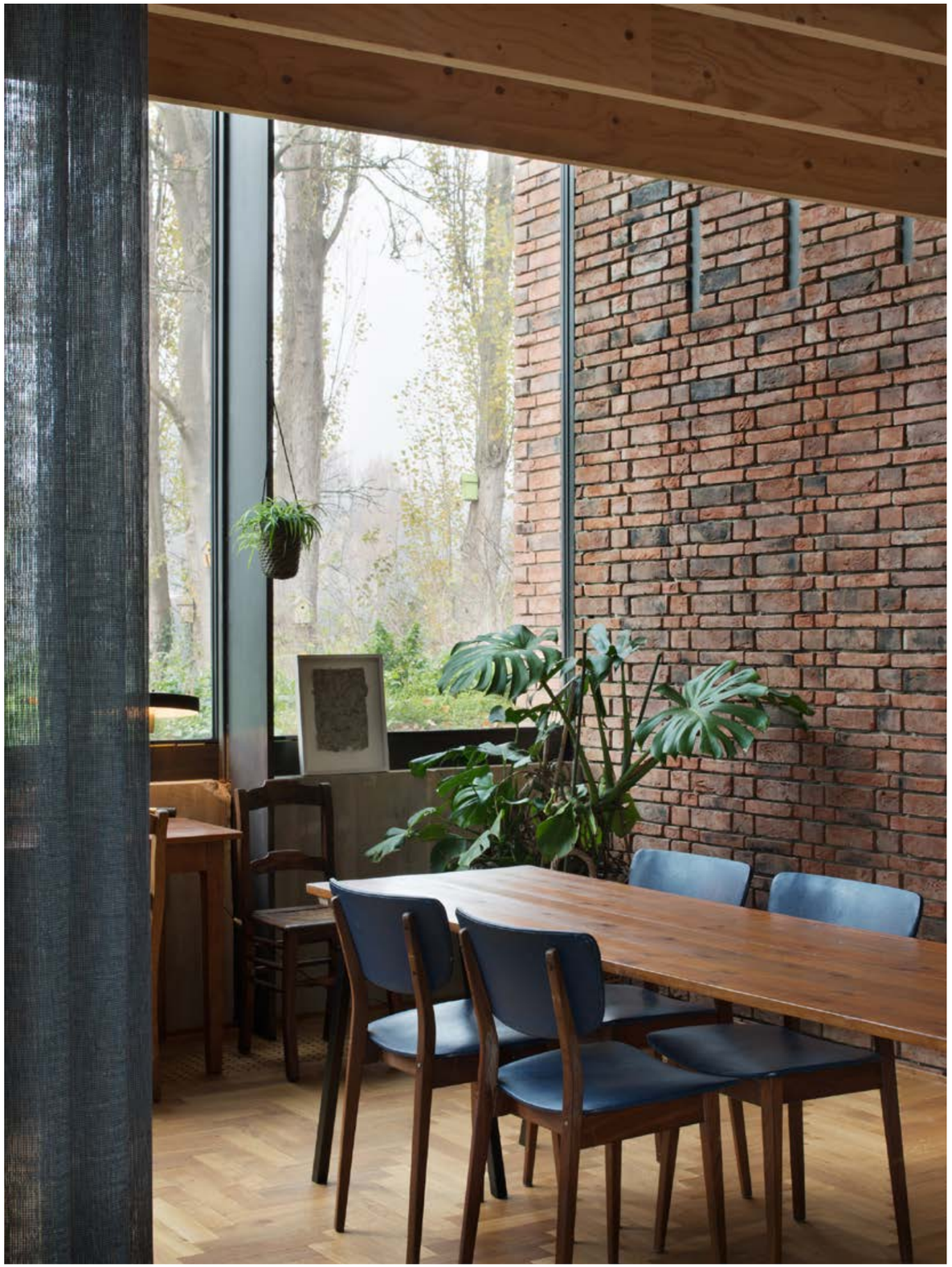

Past, Present, Future

What if a newly purchased house could easily be taken apart and reassembled to the liking of the new owner? Or, even better: what if the parts that weren't needed for the new layout could be recycled or reused in other buildings? If you're curious about what that might look like, you only need to buy a ticket to Belgium.

In an 11-hectare public park on the edge of the historic city center of Tienen sits the private home of architect Peter Van Impe. Christened "Brick giant on loam feet," the building embodies the Belgian architect's vision of circularity and flexibility taken to their extreme. That vision — a combination of robustness, craft-from-the-past construction techniques and easy-to-unravel materials — is all present in the building's most conspicuous feature: a 15-meter rammed earth wall, made from on-site soil without artificial binders and completely dissolvable in water.

On call from his home, Van Impe gave us his take on the meaning of sustainability, the need for generational thinking in building, and how paying homage to the past could shape the future.

Let's start with the essentials: Why the name "Bakstenen Reus op Lemen Voeten?"

The expression "Brick Giant on Loam Feet" came about when reading the caption of The Entry of Christ into Brussels by painter James Ensor. It refers to the Babylonian king Nebuchadnezzar who had a dream about a giant being brought down by a rolling stone. The phrase "A Giant on Loam Feet" indicates a robust and sturdy-looking entity with a fragile, vulnerable base. In the case of "Bakstenen Reus op Lemen Voeten," it's a strong, brick building, but its central rammed earth wall creates a juxtaposition with fragility. The wall isn't mixed with chalk or cement, with means that water can dissolve it.

An unusual feature of this house is that it was built by an architect for an architect. I imagine that for someone who is truly emerged in design and construction, your preferences must change as you develop as a professional. Is that what drove the idea of flexibility that is at the heart of the project?

First I should say that the problem with being an architect and "client" at the same time is knowing too much, which is why I initially considered going to another architect and taking a more collaborative approach. But with that comes the risk of going too far in terms of design and losing some of the complexity in the process. But a more important point, and one that really shapes the project, is that I didn't need a

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house at the time. But the plot of 200 square meters, with its beautiful surroundings, was just too interesting not to buy. So not having an immediate need for the place really gave me the freedom to consider what is really interesting to me from a design standpoint. Of course, it's true as you say that what we do as a firm changes quite frequently, but the main idea is constant: namely to build flexibly. In other words, we always try to keep the concept of subsequent owners in mind, and that requires a flexible suit. So that was the most interesting part, asking how far we can take the concept of adaptability. In the end, this house can be used as a single-family home. But it can also be a generational home, with several families, or it could be siloed and used as an open space for meetings and such. We left the shell flexible enough that a lift could easily be installed, the area can be expanded or reduced and the layout is entirely adaptable.

So let's dive into the specifics. What are the main three features that make the house a flexible, bespoke unit?

First, pretty much the whole interior is flexible. All the floors can be removed, except the earth wall, the staircase and the steel floor that connects the three brick walls. The same goes for mechanics, electricity and plumbing, none of which is fixed but easily accessible and removable. Second, there is no separation between the spaces; no doors between the bedroom, living room or corridor. That open space essentially creates a natural climate between the five levels, where the spaces we prefer more heated are upstairs and the places we want cooler, like the bedroom, are on the lower levels. All the ventilation, cooling and heating are done by the external walls where we created shafts between the bricks to optimize airflow: the outside air is heated by the inside air going out — so we constantly inject air and climatize it. The third point is in the construction mindset: roughly 90% of the building can be reused. Every brick can be reused, so can the steel floor, which we left without a finish, as well as the rammed earth wall that can be dissolved only using water.

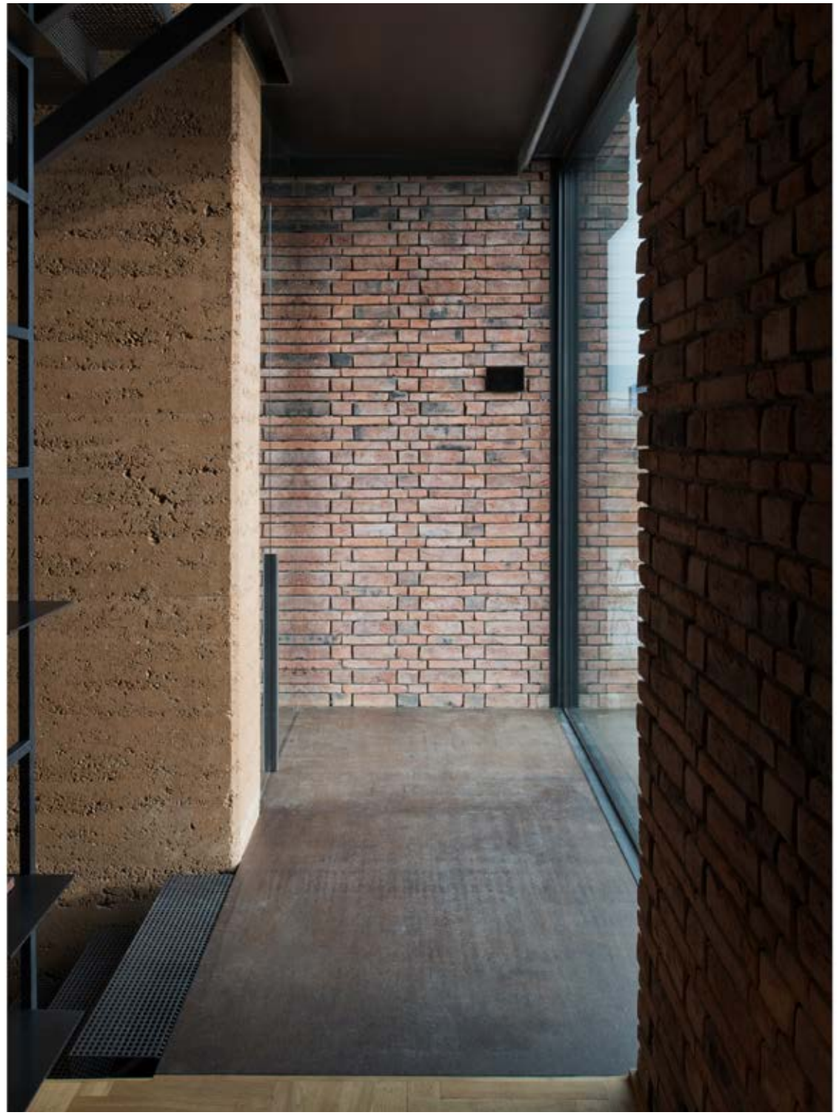
We hear a lot about sustainable building materials, like bamboo for example. But it's an interesting point that materials that aren't necessarily touted as "sustainable" can embody a very low amount of carbon depending on how you use them, an example being the use of a thin, steel floor rather than a thicker wood option...

The discussion around sustainability and circularity is certainly complex and it's not always obvious what "green" elements should be considered most essential. For example, we did one of the first bamboo-clad facades in Central Europe and we're aware of both the positives and negatives. But for Bakstenen Reus op Lemen Voeten, the focus wasn't a more narrow focus on certain sustainable corners of architecture, but rather to achieve some purity by using locally sourced materials and maximizing the potential for longterm adaptation and disassembly. Essentially, you can't really blanket that "pure" materials are always the most sustainable. We still use a lot of steel in our construction, but for this building, we've used a one-centimeter steel plate that is very easy to reuse and has a lower carbon footprint than a traditional flooring package — which typically includes a tile, subfloor, insulation, the structural concrete floor and plastering — while the rammed earth wall is made from soil that was excavated on-site. I think it's great that architects and designers are looking for new, purer materials to reduce the carbon footprint of buildings but we're still in the nascent stages of this, and so I also think we need to start thinking in broader terms about "sustainability," by taking all the long-term social, economic and environmental aspects into account. And the potential for flexibility disassembly is a major part of that.

You've previously mentioned that you'd like to see an IKEA-type system for the built environment. What is your vision more specifically?

We're a generation brought up in a culture of consumption. As architects, it would be naive to expect that we can change everything about construction, which is a very important part of greening our society. But what we can do is guide our clients, our suppliers and fabricators of materials in thinking more about the longterm costs of dismantling and demolition — which is essentially a cost deferred onto future generations. What I've mentioned in the past, the IKEA metaphor, is the possibility of having technical sheets for how a product is best dismantled and reused, rather than just instructions for recycling. So it's like the IKEA instructions for assembly but in reverse; in the future, all products should include a similar sheet sketching out how each component can be taken apart so we don't have to toss the whole thing in a dumpster. I think that will be the main challenge for architects in the coming years.

PHOTOS BY MICHIEL VERGRAUWE



A 10-millimeter gauge steel plate connects the three brick walls. The plate has been left without a finish to allow for easy reuse, while all other floors remain separated from the primary structure and can be removed to create one, open space. Where finishing is applied, the choice was herringbone parquet due to the reduced waste of using small planks. The planks were laid orthogonally because of the increased spill of diagonal fitting.

The 40-centimeters thick and 15 meters high wall is one of the highest unbound rammed earth walls in Europe. Using age-old techniques, the building's central wall is built from excavated soil on-site, and without artificial binders or stiffeners. Clay was added to the site's soil as a binder, coarse sand to prevent shrinkage, and gravel for structural reasons. All added raw materials were regionally supplied. In its compressed form, the wall has the same bearing strength as concrete but can be easily dissolved in water.

The wall package is made from 20 centimeters of inner brick, 20 centimeters of insulation, and 9 centimeters of outer brick. The walls have been left in their unplastered, raw form and without any other hidden bearing structure. The building's thermal balance is achieved by an air-to-air heat pump where ventilation channels have been integrated between the inner and outer walls and treated air is blown into the rooms via open butt joints. In addition, the massive construction creates high thermal inertia as the building will slowly release stored heat during winter and coolness during summer.

"We always try to keep the concept of subsequent owners in mind, and that requires a flexible suit."

WHEN *LOCATION* SETS THE TONE

Embark on a journey through a tapestry of living spaces, where the distinct character of each home unfolds. The tranquil allure of a mountain cabin nestled amidst majestic peaks invites serenity, while a forest house enveloped in nature's embrace offers a serene retreat. A coastal home by the sea promises a refreshing escape, and a stylish city place resonates with vibrant urban energy. These homes weave their unique stories, inviting you to discover solace and inspiration in their welcoming embrace. >>

THE *FOREST* HOUSE

Embrace the serenity of the forest house, a haven of tranquility nestled amidst verdant foliage. Its architectural design blends seamlessly with nature, boasting expansive windows that bathe the interiors in soft, natural light. Discover a sanctuary adorned with earthy tones, complemented by the gentle rustle of leaves and the scent of pine. The forest house offers a harmonious retreat, where outdoor decks invite relaxation, and secret paths beckon you to explore the enchanting wilderness just beyond your doorstep.

PHOTOS BY HANNA BOUVENG, SAPA

PHOTO BY STEFAN KARLSSON SAPA

THE *COASTAL* HOME

Indulge in the refreshing coastal home, a haven where the sea breeze intertwines with modern comfort. Its bright and airy design welcomes the sunlight, reflecting off pristine surfaces and accentuating the coastal colors that grace the walls. Open the doors to embrace the symphony of crashing waves, and step onto the expansive balcony to savor breathtaking ocean views. The coastal home provides a tranquil escape, where sandy shores and endless recreational opportunities become an extension of your everyday bliss.

PHOTO BY HANNA BOUVENG, SAPA

Nestled amidst majestic peaks, the mountain cabin beckons with its rustic charm. Built with sturdy timber and adorned with stone accents, it exudes warmth and coziness. Step inside to discover a refuge adorned with a crackling fireplace and plush furnishings, inviting you to unwind. Large windows frame breathtaking vistas, connecting you with nature's grandeur. The mountain cabin offers a sanctuary of solitude, where hiking trails await and the tranquil melody of the mountains lingers, creating an idyllic escape for all seasons.

THE *MOUNTAIN* CABIN

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PHOTOS BY MICHIEL VERGAUWE

THE *CITY* PLACE

Experience the vibrant pulse of urban living in a city place that harmonizes elegance and convenience. This contemporary abode showcases sleek architectural lines, creating a sophisticated haven amidst the bustling cityscape. Floor-to-ceiling windows allow natural light to dance across stylish interiors, revealing captivating views of the city's skyline. Revel in the luxuries of modern living, with state-of-the-art amenities and an ideal location that places you at the heart of cultural experiences, culinary delights, and the pulsating rhythm of the metropolis.

How To Build A Log Cabin *From The Future*

What do fast cars, airplanes and log cabins have in common? Well, not much, and yet it was those very elements that inspired the design of Finland's perhaps most unique single-family home. >>

PHOTOS PROVIDED BY SEPPO MÄNTYLÄ

The brainchild of architect Seppo Mäntylä and manufacturer Polar Life Haus, the Wave House in the Finnish lakeland area of Mikkeli looks like a log cabin sent back from the future. The undulating design of spruce and glass rises to a dazzling location on the shores of lake Saimaa – a view enjoyed from the light-soaked interior or the sprawling, cantilevered patio outside. The Wave House is at once a tribute to the traditional log home of Mäntylä's native Finland and an audacious testament to its versatility. We asked the renowned wooden-home architect to give us a tour of his career and creations.

I've read that part of your inspiration comes from motors and vehicles. How did they lead you into architecture?

It started rather early on. As a kid, I was always drawing pictures of cars, airplanes and boats. I was interested in the way things looked: their forms and shapes. So all my school books and papers were filled with drawings. When it was time to start thinking about studies, I was lucky enough to meet a... well, let's call him a wise man, who explained the ins and outs of engineering and architecture. After our discussion, I knew architecture was the right path for me. Because I could have been an engineer, but what happens to engineers in Finland, if they're good at their jobs, is a promotion to a manager position and then you're further removed from the real work – the creative work. Architects, on the other hand, tend to stay in the field no matter their status or title.

Those shapes, cars, boats and airplanes, are particularly distinguishable in one of your best-known designs – the Wave House. How did that project come about? I believe it was originally planned for a spot in Moscow?

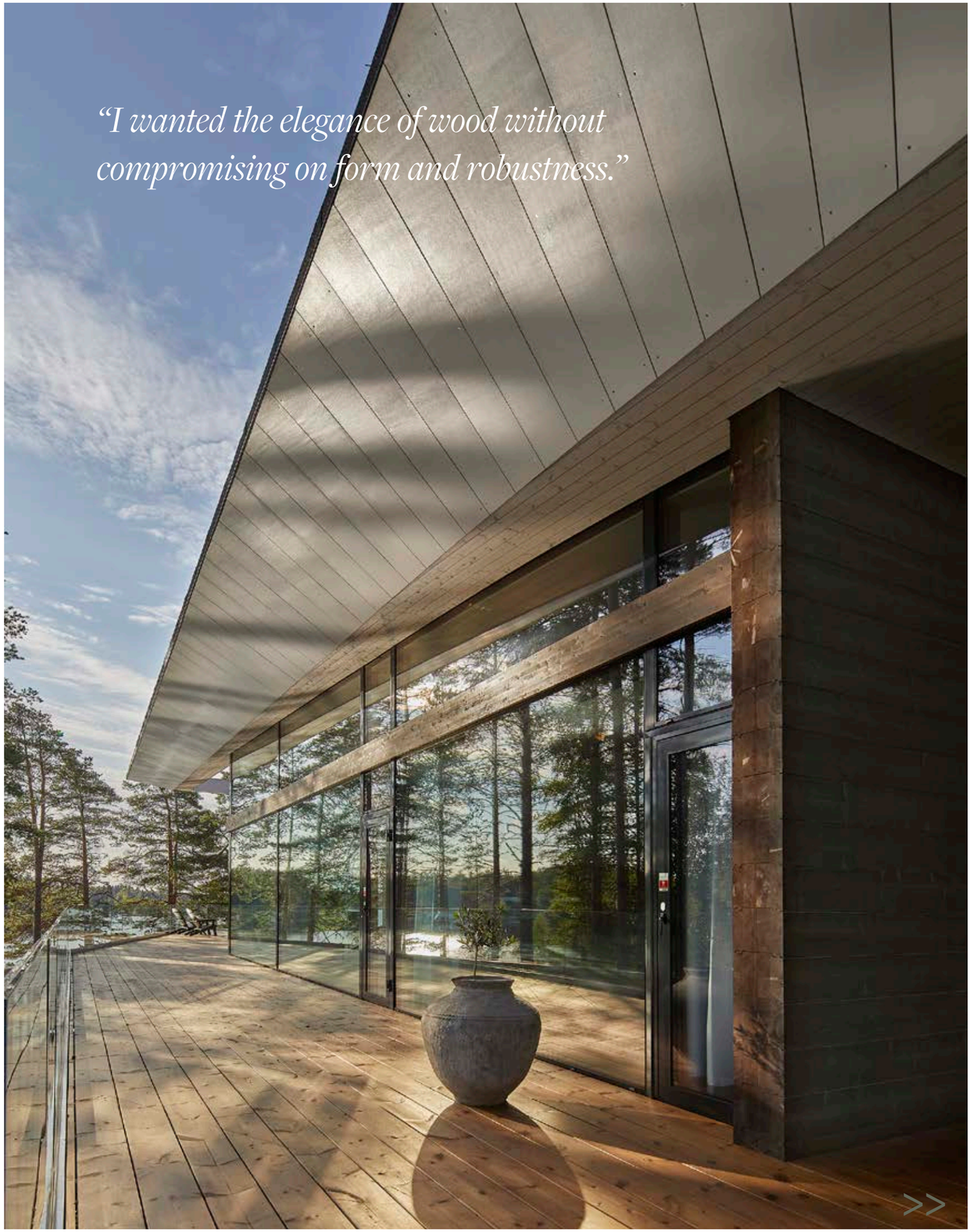
As you say, the original project was meant for Moscow but the money wasn't there. Nonetheless, many people were really excited about this project, and one of them was the co-owner of the log house manufacturer studio Polar Life Hause – a Finnish family business run by two brothers. So we decided to make a miniature scale model of the house, a beautiful piece of woodwork small enough to carry around. And one of the brothers did carry it around – everywhere – showing it to everyone he met until, eventually, he ran into someone crazy enough to take on such an ambitious and expensive project.

And you became the lead architect?

Yes, but this was a very complex project and we worked with a fantastic team of structural engineers to pull it off.

The most eye-catching part of the house is the roof. Can you tell us a little bit about the engineering process?

From an aesthetic perspective, what we were after was a sleek, almost thin, design with overextended rafters, creating a serpentine overhang. But as the house is situated in Mikkeli, inland Finland, it meant the roof must be able to support a lot of weight from snow. The solution became a combination of steel and spruce. It's a truly challenging design, getting the curved shape right and all, but the engineers did



a fantastic job – in fact, I'd say there aren't that many structural engineers around that could have made it work.

Indeed, the house has a wonderful log cabin feel. Did you know from the start that you wanted a wooden design?

I did. I wanted the elegance of wood without compromising on form and robustness. Log and steel is a fantastic combination, and you don't have to make this complicated multi-layer structure for insulation and air circulation. It's different when building in countries like Spain or Morocco – you don't have to think about all of that – but in the North, protection from the cold is always a key part of the design equation. The roof is made from curved steel beams and wooden beams between them, and thermal insulation, as well as ventilation, are combined within the structure. I think the end result is pretty unique. You might see similar types of curved roofs on large-scale public buildings, like concert halls and stadiums, but I don't know any other company than Polar Life Hause that has delivered this as a one-family home.

Looking at your portfolio, a lot of your houses are reminiscent of public structures. So has public buildings been an inspiration for you when designing family homes?

Not really. Or maybe I should say that inspiration can come from anywhere – an idea just pops into your head and more often than not you're not sure of its origins. But with regard to public structures in particular, it's a different world. The size, purpose and must-have features are so different that they don't translate. In short, designing a home for one or two families is something else than designing for hundreds of people where the purpose is often more functional.

I read another article pointing out that the Wave House is partly prefabricated. We hear a lot about prefabrication, with some architects suggesting it'll come to dominate the building landscape...

The construction of log houses always works that way – the logs arrive prefabricated at the site. The woodcarving – the curving and shaping – all happens at the factory, and in the case of the Wave House, the same can be said about the steel. With these very complicated engineering projects, building the whole house on-site wouldn't have been possible as you need special tools and a controlled environment to do it. But in terms of prefab becoming ubiquitous, I'm not so sure. Here in Finland, prefabricated houses are common and have been around for a long time. And yes, there are benefits – mainly cost savings. But the price you pay is less room for creativity and improvisation. Sure, you can build a hundred identical houses in a factory – and you can do that fast, cheaply and with high quality – but what happens when you want to change something? Typically, architects want the freedom to form a house around not only their own ideas and preferences but also those of the family that will live there. So as long as there are these inherent limits to creativity, I doubt that prefabrication will become the norm.

You've mentioned the "racy" influences in shape and form, but you also seem to build almost exclusively in rural areas. Did that happen simply because you started your career in a forested land?

When I started, it was mostly smaller one-family homes and vacation houses, so essentially pretty normal stuff in suburban and remote areas. But I always had this urge to take these rural settings and build something really nice. Fortunately, I had some clients who were interested in building something a bit more unique and on the more expensive side. And when you get the chance to do something like that there are always people who see it and are interested in doing something similar. So both the homes themselves as well as the sites became more exclusive. As you mentioned, a lot of my designs have sea or lake views and are often surrounded by vast, forested lands. And eventually, the houses also became more elaborate – a step closer to a primary home than the typical vacation house which is so common in Finland. I feel very fortunate to have gotten the opportunity to build beautiful structures in beautiful landscapes, where so much of the work is figuring out how to best take advantage of the surroundings... views, sun angles and all the rest – it's about ensuring that the people living there really feel the nature.

As a Swede living abroad, it took me a long time to understand how particular we northerners are about our homes. Today, of course, we're famous for well-designed homes and interior design. It might be a more anthropological question, but do you have a theory about why we love our homes so much?

I think the answer is quite simple. If you live in Spain, you don't have to worry about dying if spending a few nights outside. But in the Swedish or Finnish winter, you simply cannot survive in negative twenty degrees. So that's it... shelters became important because they were needed, and for all the complex things you can say about architecture, homes are still just that – shelters. We were simply required to build really good ones...

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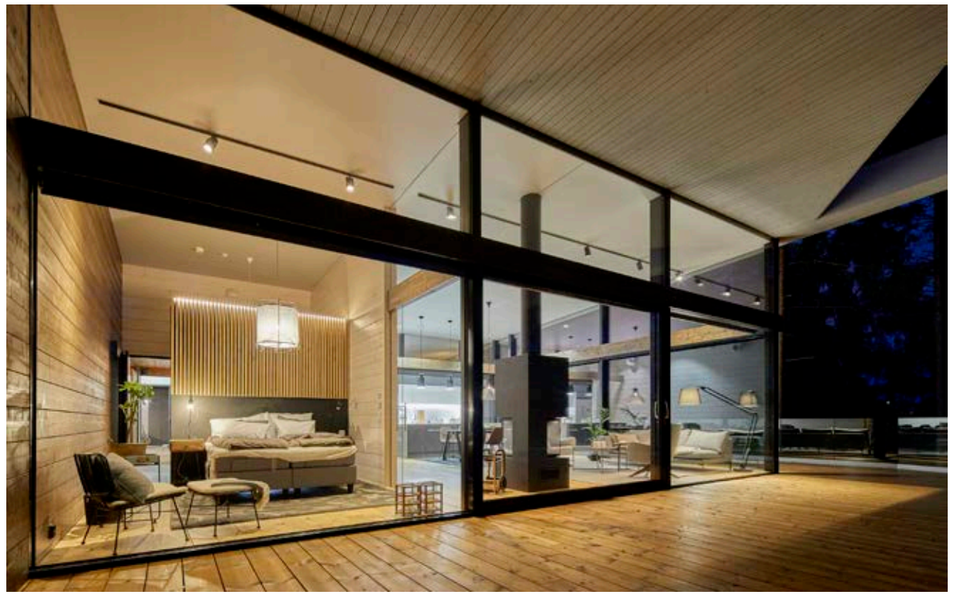

PHOTO: VANESSA SERPAS UNSPLASH

HOW TO BUILD YOUR OWN *Sustainable Home*

Well into its second decade, the environmental movement keeps gaining steam. The last ten years in particular have ushered in a new era of green thinking: governments around the world have rolled out evermore ambitious climate strategies, while companies across the board have made sustainable thinking an integral part of their business. But amid a storm of corporate CSR initiatives and international climate conferences, it's easy to forget who actually took the first steps toward a cleaner future... namely us, the people. After all, it wasn't companies that decided to green their supply chains, but the people working there; and it wasn't politicians who decided to slow down planetary warming, but the voters who elected them. Indeed, to this day, the small (and not so small) decisions we make every day are what truly hold out hope for restoring the equilibrium of our shared home – and what better way to start than with your own home? By using environmentally friendly materials and energy-efficient designs, you can help reduce your carbon footprint while creating a unique and beautiful space.

1

PLANNING IS KEY
Building a sustainable home starts with careful planning. Here are four things to consider when sketching out your eco-friendly oasis:

1. Assess your needs and budget: How many bedrooms and bathrooms do you need? Do you want a home office, or perhaps a gym? Think about the long-term costs and benefits of each design decision. This will help you decide how much money you can spend on making your home as environmentally friendly as possible.

2. Mind the law: When planning your sustainable home, make sure to research local building codes and regulations. These can vary depending on your location, and failing to comply can lead to delays or costly fines.

3. Optimize location: Orient your home in relation to the sun, prevailing winds, and other environmental factors to maximize energy efficiency. For example, south-facing windows can provide natural heat and light, while north-facing windows can reduce heat gain.

4. Eco layout: Consider sustainable design elements to minimize your home's impact on the environment. Open-plan living areas can improve natural ventilation and reduce the need for air conditioning, while large windows can provide plenty of natural light and reduce the need for artificial lighting. Incorporating outdoor living spaces, such as decks and patios, can also help to reduce the overall size of your home and minimize its impact on the environment.

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2 PICKING THE RIGHT MATERIALS

Building a sustainable home is not just about reducing energy consumption and incorporating renewable energy sources. It's also about using sustainable materials that minimize the environmental impact of the construction process and promote the long-term health of the occupants. Here are some examples of sustainable materials you can use to build a greener space.

1. Recycled Materials: Using recycled aluminum, reclaimed wood, and recycled plastic not only reduces waste but also creates a unique, industrial look for your home.

2. Bamboo: This rapidly renewable resource is strong, lightweight, and perfect for flooring, cabinetry, and furniture. Plus, it's more sustainable than traditional hardwoods.

3. Hempcrete: If you're looking for a greener alternative to traditional concrete, hempcrete is a great option. It's lightweight, breathable, and provides excellent insulation.

4. Cork: This naturally moisture-resistant and biodegradable material is perfect for flooring, walls, and insulation. Plus, it's harvested from the bark of cork oak trees, making it a renewable resource.

5. Rammed Earth: A sustainable material that's made by compressing layers of earth and gravel, rammed earth provides excellent thermal performance and requires minimal maintenance.

6. Green Roofs: A green roof is a layer of vegetation that's planted on top of a roof, providing insulation and reducing the urban heat island effect. Plus, it creates a beautiful and natural look for your home.

To consider: While using sustainable materials for your home has many benefits, there are also some potential issues to consider. Sustainable materials may not always be readily available and can be more expensive than traditional ones. Additionally, some materials may be less durable or require more maintenance. Safety and regulation can also be a concern, as some materials may not meet local building codes or require additional safety precautions. Finally, finding contractors with experience in using sustainable materials may be more challenging and require more research and planning.

3 RENEWABLE ENERGY

Renewable energy is an essential component of any sustainable home. Solar power, wind power, and geothermal energy are all great options for generating clean energy to your home. Solar panels can be installed on the roof of your home to capture the energy of the sun, while wind turbines can be used to generate electricity in areas with consistent winds. Geothermal energy involves using the natural heat of the earth to heat and cool your home, making it a particularly effective option for homes in colder climates.

1. Solar Power: One of the most popular forms of renewable energy for homes, solar panels can be used to power anything from lights to appliances. While the cost of solar panels can vary widely depending on the size and type of system you choose, a typical residential solar panel system cost between $15,000 and $20,000.

2. Wind Power: While not as common as solar panels, wind turbines can be an excellent choice if you live in an area with consistent, strong winds. However, keep in mind that wind turbines typically come with a higher price tag than solar panels, with typical costs ranging from $15,000 to $50,000.

3. Geothermal Power: Geothermal heat pumps use the heat from the earth to warm and cool your home. This renewable energy source is highly efficient and can help you save money on your energy bills year-round. Expect this type of system to set you back between $10,000 and $30,000.

4. Hydropower: Hydro turbines generate electricity by harnessing the power of moving water, and can be an excellent choice for homeowners living near bodies of water. The cost of installing a hydropower system can vary widely depending on the location and complexity of the installation: small-scale hydro systems can be relatively inexpensive, with costs starting at only a few thousand dollars.

To consider: The cost of renewable energy installations can sting, but keep in mind that many countries and regions offer tax credits and incentives that significantly reduce the overall cost. In addition to high upfront costs, other downsides include ongoing maintenance, weather dependency, and sometimes cumbersome regulatory requirements. Despite these risks, many homeowners find that the benefits of renewable energy outweigh the potential downsides.

4 INSULATION

Proper insulation helps reduce the amount of energy required to heat and cool your home, leading to significant savings on energy bills. As such, when selecting insulation materials, it's important to consider their effectiveness at resisting heat flow. In addition to traditional insulation materials, there are also a variety of innovative insulation solutions available for sustainable homes.

1. Sheep's Wool Insulation: Sheep's wool insulation is a natural, renewable material that is highly effective at reducing air infiltration and has a high "R-value," meaning the ability to reduce the rate of heat flow. It's also naturally fire-resistant and can help regulate moisture levels in your home.

2. Recycled Denim Insulation: Made from recycled denim, this insulation is an environmentally friendly option that is effective at reducing air infiltration and has a high R-value. It's also a great option for those with allergies or sensitivities to traditional insulation materials.

3. Hemp Insulation: Hemp insulation is made from the stalks of hemp plants and is a natural, renewable material that has a low environmental impact.

4. Cork Insulation: Cork insulation is made from the bark of cork trees and is a natural, renewable material that has a low environmental impact. It's highly effective at reducing air infiltration – it's also naturally fire-resistant and can help regulate moisture levels in your home.

To consider: Choosing a material that is considered sustainable isn't always the obvious choice. For example, fiberglass (the most common material used for insulation) actually ranks pretty high in sustainability due to its durability, low-energy manufacturing process and the fact that its main ingredient is silica sand – an abundant resource. Also mind the surrounding environment of your home, as some sustainable insulation materials, such as wool, can attract pests like rodents and insects.

5 MINIMIZING THE IMPACT ON NATURE

Finally, it's important to consider the local impact of your home on the natural environment. This can involve measures such as using water-saving fixtures, incorporating green roofs and living walls, and minimizing your use of harmful chemicals and materials.

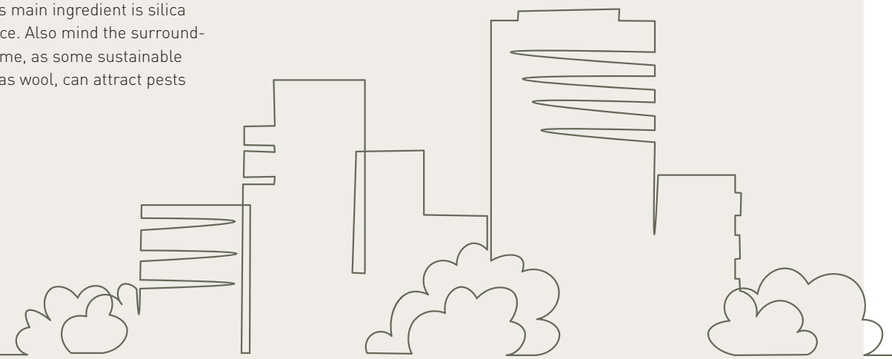
1. Gray Water Systems: Reuse wastewater from household activities like showering and laundry to water your garden and flush your toilet.

2. Low-Flow Fixtures: Use low-flow showerheads, faucets, and toilets to reduce water usage and save money on your water bill.

3. Natural Ventilation: Use natural ventilation by opening windows and doors to improve air quality and reduce your reliance on heating and cooling systems.

4. Permeable Surfaces: Choose permeable materials for driveways and walkways, allowing water to soak into the ground and reducing runoff.

To consider: One issue with gray water systems is the risk of bacteria growth and odor, which can occur if the system is not designed and maintained correctly. Low-flow fixtures may not be suitable for households with high water usage needs or older plumbing systems, which may not work efficiently with the reduced water flow. Additionally, choosing permeable surfaces for driveways and walkways may not be suitable in areas with heavy foot or vehicle traffic, as they can be less durable than traditional materials.



SECOND LIFE:

The Burgeoning Revolution Of Adaptive Reuse >>

On the highest point of the farmland region of Pajottenland, a 20-minute drive from Brussels, you'll find one of Belgium's most unique residential buildings. The design is exclusive in its own right: a spheroid, glassed building encircling a pond, with a panoramic view of the scrolling landscape beneath. But what truly brings the sui generis isn't the gorgeous structure alone, but the fact that it's living its second life.

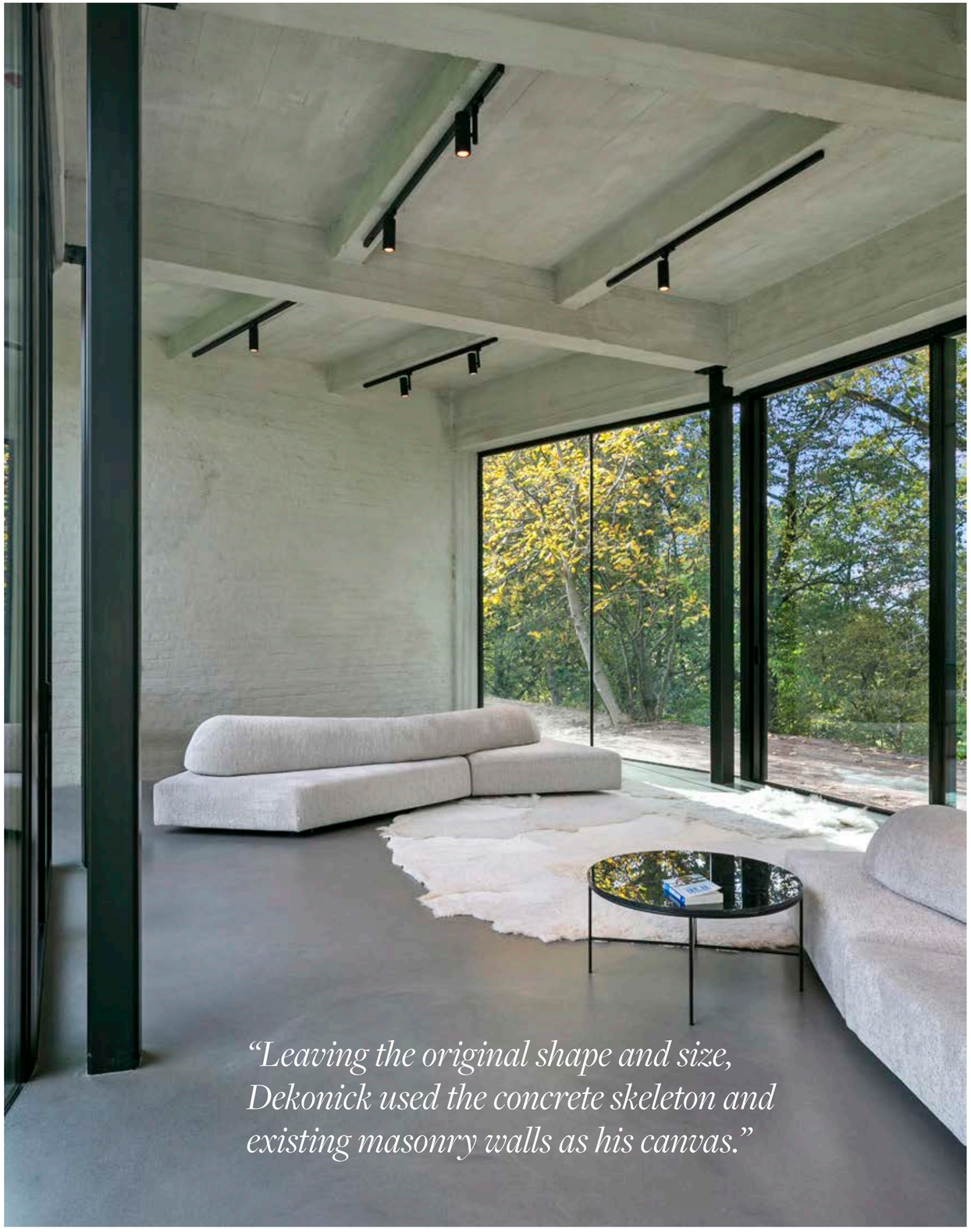
Roll back the tape a few years, and the scene on Pajottenlands's peak looks quite different. Instead of a glass crown mingling with the lush surroundings, we see a gray fortress. The circular shape is identical, but massive walls and boarded-up windows replace the glimmering exterior of today. From afar, it looks like a concrete screw-nut dropped into the landscape.

This dilapidated military outpost was the starting point of Belgian architect Maarten Dekoninck's great revitalization project. At the time of its public auctioning, the abandoned building was half-devoured by nature. The courtyard where soldiers used to stand guard was overgrown and the 300-m2 building had all the derelict features of abandonment.

Repurposing buildings or more formally, "adaptive reuse," isn't news per se. Most likely, you've unwittingly visited many such buildings: London's Tate Modern was once an oil-fired powerplant; the Detlev Rohwedder House, the seat of the German finance ministry, originally housed the Nazi regime's Ministry of Aviation in the mid-1930s and later became the House of the Ministries during the communist era, while Paris' famous Musée d'Orsay initially served as a train station. Still, the above – more striking – examples aside, adaptive reuse has mostly been the province of niche art and architecture collaborations: swimming pools turned into skateboard parks, churches to yoga studios, and jails to bookstores.

Today however, climate awareness has catapulted a mostly fringe architectural phenomenon closer to the mainstream. With the construction industry responsible for nearly 40% of global greenhouse gas emissions, progressive architects and builders have in the last decade been thinking hard behind the scenes about how to curb the environmental footprint of their creations. And indeed, when up to 80 metric tons of carbon dioxide is generally released during the construction of a two-bedroom home, what better way to reduce environmental pressures than to prolong the life of what's already in place? That's especially true for materials that embody both high energy and durability, such as concrete and steel.

When the Belgian Armed Forces put up the former military outpost for bidding, the buyer was mostly interested in the location and had already reached out to Dekoninck and his firm, Castor Fiber, to discuss the possibilities of such a unique space. The result was a minimalist approach: to cut the fat rather than adding more.



"Leaving the original shape and size, Dekonick used the concrete skeleton and existing masonry walls as his canvas."

Leaving the original shape and size, Dekoninck used the concrete skeleton and existing masonry walls as his canvas. The shape itself is a nod to preservation, with the glass walls hugging the pond at the center of the courtyard. If the original building felt like an intrusion on its beautiful surroundings, the final product is at once a seamless integration and a bold statement about the organic possibilities of architecture. To further mark the relationship with nature, the flat ceiling was preserved with a roof garden in mind. But to say that climate thinking (and possibly cost-savings) are the sole drivers of adaptive reuse would be selling it short. Here, we might supplement "repurpose" or "reuse" with the word reincarnation, as it's essentially about transferring the soul into a new body, with the preceding life at once concluded and present. While some reincarnated buildings serve tangential purposes, like the swimming pool turned skate park, more often than not, the new spaces offer an enriching paradox: prisons become hotels, and factories become leisure places like bars and restaurants.

Maarten Dekoninck

On the hill in Pajottenland, once a strategic vantage point for scouting soldiers, the view of Brussels and the Kesterheide nature reserve is today an inspiration for residents. Inside the glazed walls, Dekoninck's design is elegant and contemporary: custom-made furniture follows the curved walls; the light-gray polyurethane floor breaks softly against the cloudy, white-washed walls; and sleek, sliding doors divide the open surface. And yet the ghost – or soul – of the past is still very much present in the exterior. The elegant windows have a steel look to them, and utilities have intentionally been left exposed, with electrical cords trailing the walls, while an insulated outer plaster enhances the raw concrete. It's this paradox that forms the essence of Dekonick's creation: there's the presence, with its homely, soft interior; and then there's the past, with its brutalist, rhythmic and stripped-back character.

As the double forces of climate awareness and cultural preservationism continue to grow, adaptive reuse is likely to become a more prominent feature of the built landscape. Just like sustainable building has created new frontiers where purpose and aesthetics meet, architects are finding inspiration in the imperative to reanimate creations of the past and, with that, the communities they serve.

PHOTOS PROVIDED BY MAARTEN DEKONINCK

IMAGINE WHAT'S NEXT

Sapa was established in Småland in Sweden in 1967. The Norwegian corporation Orkla Group acquired Sapa in 2005. Today Sapa is a part of Norsk Hydro, a Norwegian aluminium and renewable energy company and one of the largest aluminium companies in the world.

SAPA
Sapa has a range of specially selected products for home and residential use, designed for minimal maintenance and reliable operation. Now you can let in more daylight and give your home a contemporary style with glazed units and sliding doors that are easy to use and maintain and specially designed for the Nordic climate.

> Windows – Our windows combine all the benefi ts of aluminum with excellent thermal insulation. The combination of stability, precision, reliable operation and minimal maintenance gives you products that last for many, many years.

> Glass facades – A glazed facade creates a contemporary look and lets the light fl ood in. Transparency makes the landscape part of your home. The result is stylish design combined with a high level of comfort and minimal maintenance.

> Sliding doors – If you set up sliding doors between indoor and outdoor areas, you can use large glass surfaces. With this solution, you let plenty of benefi cial daylight into the indoor space all year round, while letting the outdoor surroundings become part of the room.

> Folding doors – Do you dream of opening the whole wall and making your inside the outside? Folding doors allow you to do this. With a few easy steps, you can push the glass aside and let nature in. The folding door can be fully opened outwards off ering you a panoramic view, flooding rooms with natural light and blurring the boundaries between indoors and outdoors

> Doors – Our aluminum doors are high-insulated with a low U-value and good weather tightness, and are designed with a clear focus on energy and performance. The system is ideal for exterior doors in modern homes with high demands.

BUY LOCAL
You can find our products with our authorized fabricators. They can assist you with your project and have long experience of building with glass and aluminum. You can find your local representative at our web. They will help you make the right choice and then build the entire system to your specifications.

We hope you've enjoyed our magazine!
If you can't get enough, please visit our web
or our other social media channels.

Best wishes
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