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PREFARENZEN

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Highlights:

Edition

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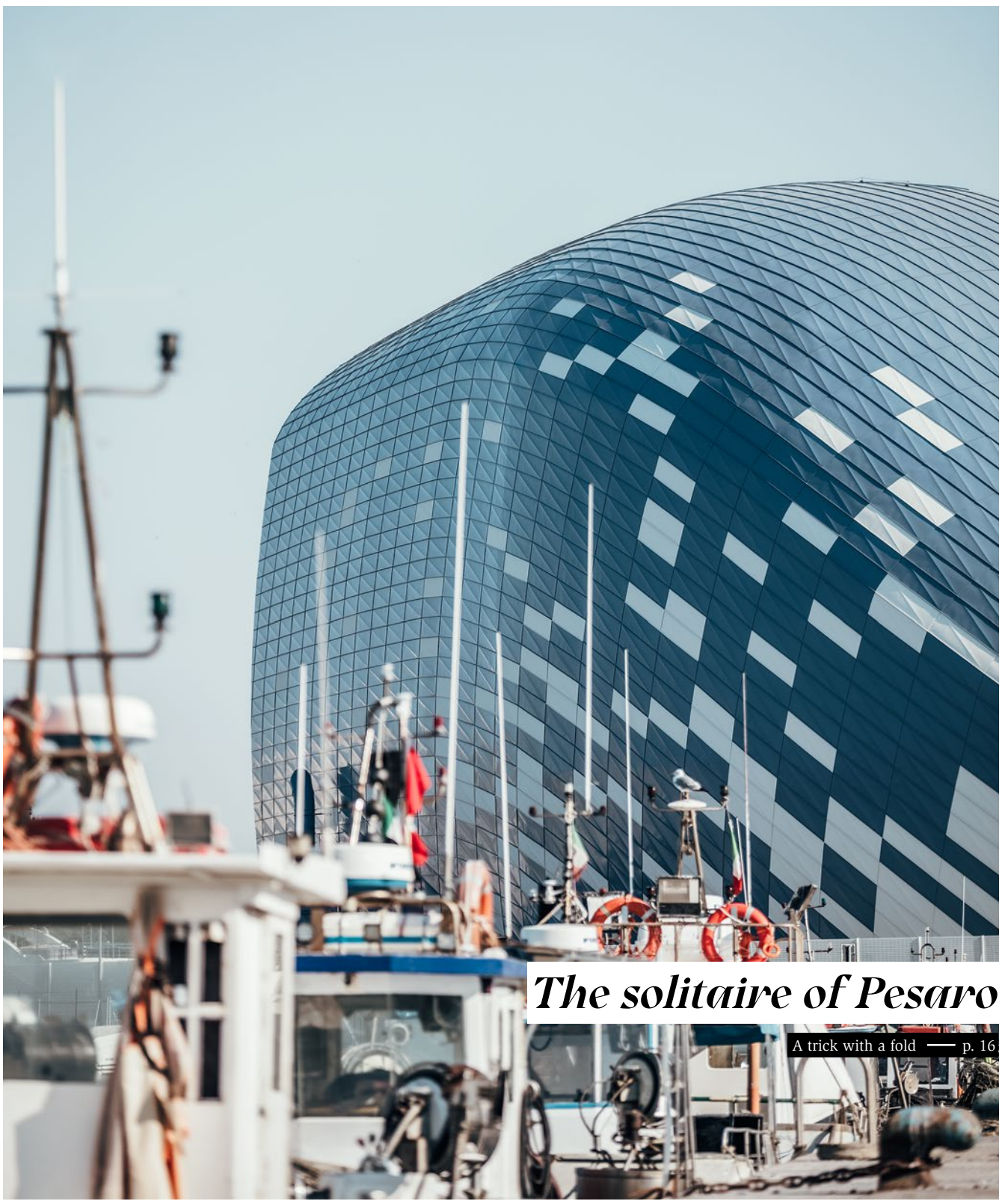
English



The solitaire of Pesaro

A trick with a fold — p. 16

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For reasons of legibility, no gender-specific terms are used.
Any personal references that are only in the masculine form refer to men and women equally.

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And how far do you dare to go?

Away from your local comfort zone, right into the international scene. Foreign cultures, other languages, legal regulations – internationalisation requires courage and know-how. But it pays off: The additional knowledge and the advance in knowledge you gain are virtually priceless.

And whoever dares to take big steps in the wide world is all the more pleased if they are firmly supported by their small circle of close family members. This comes close to what it is like here at PREFA. Despite international growth and expansion, we continue to be proud that we are a family company which is steeped in tradition and acknowledges its Austrian roots.

Here at our company headquarters in the idyllic Marktl by the Traisen river, we work meticulously and test, develop and manage. And we do so until the quality and design meet our high expectations down to the smallest detail and we can offer our products in more than 20 countries across Europe with the support of professional installers.

This is also made possible by an international network, which PREFA attaches top priority to. Not only our field staff with its tireless efforts on site, but also all our dialogue partners provide us with valuable input: We continuously receive highly appreciated feedback from architects and planners, from tinsmiths and installers, and naturally also from the clients themselves. This way, we profit more than ever from the exchange and dialogue with each other, can learn and profit from one another.

For we are reverently aware of one thing: A successful development in this form is only possible together. And just like the river flows tirelessly through our valley, curiosity, determination and a true sense of family flow through our veins.

But now, it is time for your journey through the new PREFARENZEN world. I hope you will enjoy your discoveries!

Your PREFARENZEN ambassador

Jürgen Jungmair
Head of International Marketing PREFA

Hei PREFA!

In 2013, Scandinavia was still a blank spot on the PREFA map. In Germany, business had been going well for years, the production in Wasungen was at full capacity and was constantly being expanded and modernised. The Managing Director Karsten Köhler followed his mission and began the exploration of the markets in the Nordic countries with a trip to Sweden.

Photos: portraits Croce & Wir, PREFA Croce & Wir (5)
Text: Anneliese Heinisch

Karsten Köhler PREFA Managing Director, Germany

Ina Giessler PREFA Marketing Benelux countries, Scandinavia

„I really had to start from scratch. After researching the sales and craftsman structure, I started knocking on doors, contacted craftsman businesses and got a full picture of the market and of Sweden," **Karsten Köhler** remembers. The Swedish craftsmen were already familiar with installing galvanised sheet steel on façades and roofs. "Then, I focused on convincing the tinsmiths, who are also called *'plåtslagare'* in vernacular Swedish, of the advantages of aluminium and our shingles and roof tiles." The success was not long in coming, the number of material orders increased and the first employees working in distribution and training successfully continued the mission "PREFA".

With the company IB Metall Industri & Byggmetall, which is located in Arlöv north of Malmö, an ideal wholesale partner for the expansion with existing warehouse and logistics competencies was found. "IB Metall was an established company with valuable experience on the Scandinavian market that excellently complements our activities in Northern Europe", as Karsten Köhler explains the decision to integrate the partner into the PREFA Group when the company was put up for sale after three years due to family reasons.

Ina Giessler also indicates that a lot has happened since then. Since 2014, she has been responsible for Scandinavia and the Benelux countries as Marketing Coordinator: "We continue to put an emphasis on establishing and expanding the sales organisation and education. We even introduced a mobile academy in Sweden for this purpose that makes it possible to train craftsmen in application technology all across the country. We also see great potential in our wide range of colours, which is well received by architects."

In the meantime, PREFA is also operating successfully in Norway and Denmark. The warehouses in Arlöv are reaching their limits due to the great demand for various products and colours. In 2019, Karsten Köhler decided to coordinate all deliveries to Scandinavia directly from the warehouse in Germany in the future. Therefore, the permanent establishment was dissolved and a new, modern sales office with an integrated PREFA academy was opened in Malmö. It is led by Cecilia Moreno, who is responsible for administrative tasks as Chief Financial Officer.

Today, the country managers Morten Scharf in Denmark, Thomas Nilsen in Norway and Michael Modica together with three colleagues in Sweden consult architects and tinsmiths in the planning, execution and realisation of various building tasks. These also include projects by big names like Dorte Mandrup A/S, White Arkitekter AB or Link Arkitekter as well as the residential building by Arkitekterna Krook & Tjäder we visited for a report on Europe's largest urban development project at the moment in Brunnshög for the PREFARENZEN journal.

Find out more on the following pages!

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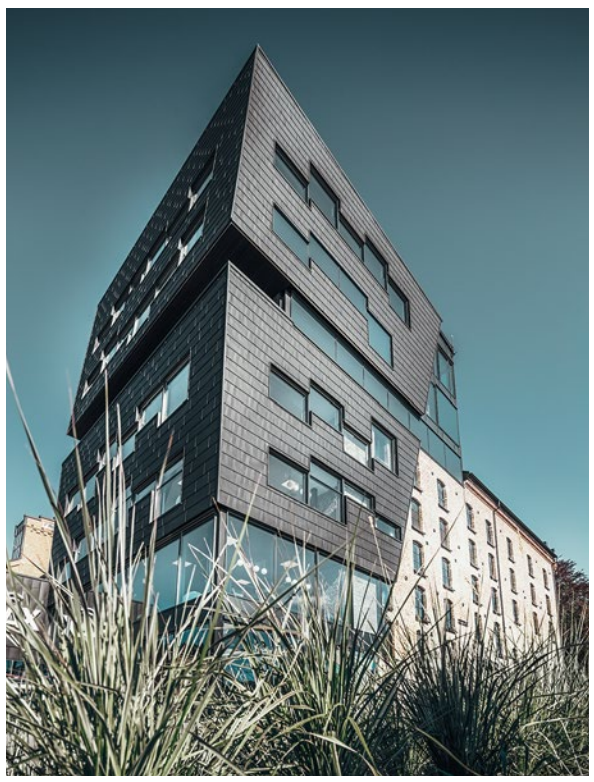
2 —



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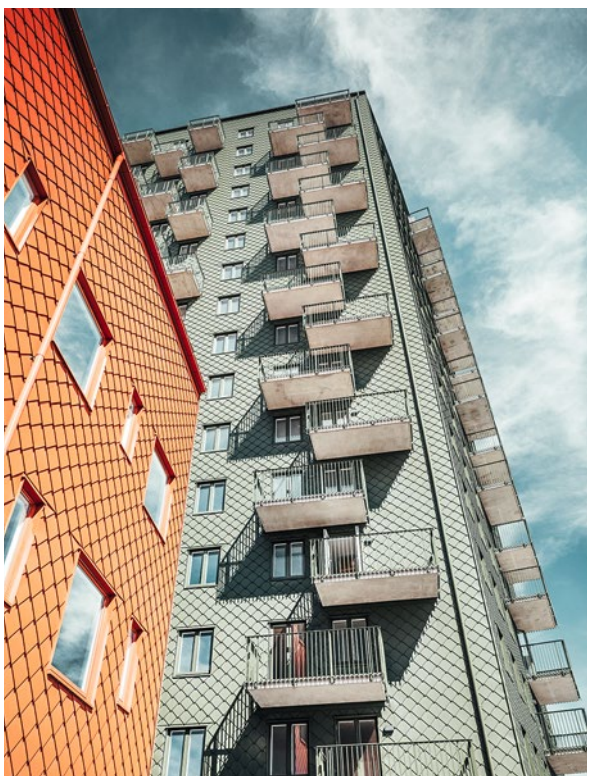


4 —

5 —

Object: office and commercial building AURA, Malmö, SE
Product: Prefalz
Bespoke colour: Jaisalmer gold
Architecture: Dorte Mandrup A/S
Object-related individual solution

2 —
Object: preschool Sörgården, Stockholm, SE
Product: rhomboid façade tile 20 × 20
Colours: P.10 brown and Maya gold
Architecture: Total Arkitektur och Urbanism TAU AB

3 —
Object: Fritzøe Møller, Larvik, NO
Product: FX.12 façade panel, Prefalz
Colour: P.10 black
Architecture: PV arkitekter

4 —
Object: Lindholmshamnen, Gothenburg, SE
Product: rhomboid façade tile 29 × 29
Colours: bespoke colour olive green, P.10 brick red, P.10 light grey
Architecture: White Arkitekter AB

5 —
Object: Bør Hill, Trondheim, NO
Product: Falzonal
Colours: 5 bespoke colours
Architecture: Agraff Arkitektur AS

New neighbourhoods in the Swedish city of Lund

Text: Claudia Gerhäusser
Photos: Croce & Wir

Cities compete against each other. It is all about national and Europe-wide grants, attention and the economic future. This is no different in Sweden than in the rest of the world. In order to differentiate itself from its neighbouring cities, Lund in Skåne traditionally relies on its competence as a city of science. Sweden's largest university, development departments of global IT and tech companies, research work at the ESS European Spallation Source and the unique set-up of the world's strongest X-ray beam MAX.IV form a cluster which attracts researchers and labour. That is why Lund already decided back in 1990 to initiate one of the largest urban development projects in Europe in terms of area and population size. In 2019, ***Arkitekterna Krook & Tjäder*** *from Malmö finally built 41 flats and three building structures with aluminium cladding on the first construction field in Brunnshög.*

A strong city

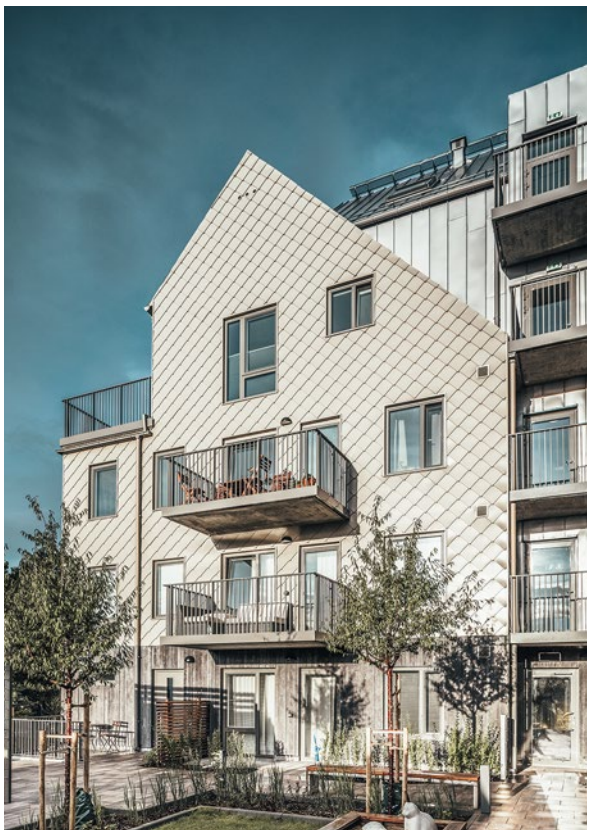
On its homepage, the City of Lund uses the advertising slogan that more than 2,500,000 m² of building land are being developed for a vibrant and sustainable district in Brunnshög. That is more than 350 football fields. Within a time frame of 15 years, living and working spaces for up to 40,000 people should be created. The first plots of land of the building phase south Brunnshög have already been built on, a hotel opened in August 2021 and many other construction sites are starting operation. The connection with the specially built tram line is excellent: You can reach the city centre in a little less than ten minutes.

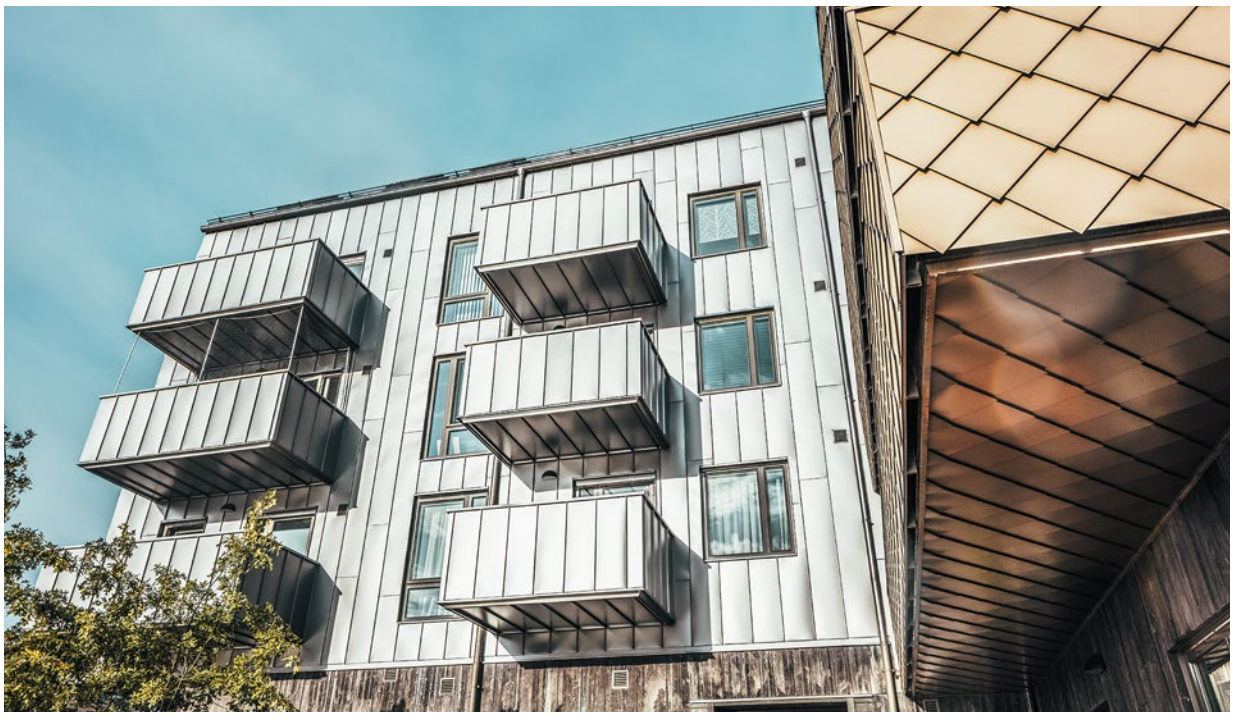
In order to target researchers and their families as potential residents, a "sustainable lifestyle" is promised in the new neighbourhoods. But how is this vision realised in Lund? Lund is a municipality which explicitly interferes in the construction process. As the planner, the city has intervened in aesthetic aspects of the new district with a detailed master plan that even goes into the architectural scale. In addition, not only established property developers were included, which is normally the case in Sweden, but the properties were also assigned to smaller and more innovative developers. This way, Lund demonstrates that not only investors, but also urban planning departments have a say.

Compact housing construction

Arkitekterna Krook & Tjäder built on one of the first construction fields for the developer Resona Utveckling AB with a design that plays by the urban rules, but also follows its own. “Some provisions,” as project leader Magnus Tellhed mentions, “went very far in architectural terms. Frequent changes of the façade material were necessary to preserve a small-scale, but nevertheless urban impression.” The architects support a strong city in the planning process, but they also imply that Lund has very clear ideas about the new district. Arkitekterna Krook & Tjäder make the best out of the strict requirements. They designed a base level made of anthracite-dyed prefabricated concrete elements and parceled the upper floors into three structures with classical pitched roofs. With compact floor plans, they managed to accommodate 41 flats between 30 and 100 m² in the relatively small building volume. They organised the access to the upper floors via a central staircase that makes several wide arcades accessible on the garden side – a spatial added value for the tenants and more cost-efficient, as balconies and additional stairways could be saved.

On the outside, the materials of the three building structures can be easily differentiated. The architects speak of a “unified diversity”. The warm tones of the façade that differ only slightly approximate one another depending on the weather situation and the lighting mood, which makes the building visually remain a unit. The aluminium façades in champagne and metallic silver by PREFA contrast the rough formed concrete base. For the roof, dormers and façade, the rhomboid façade tile 29 × 29 or Prefalz were used, which creates the effect of a uniform skin. The soffits of the balconies facing the street were also carefully clad with the façade material. Additional costs were saved by hiring the same façade builder for the different surfaces. This speaks for the precision and expertise of the architects and developers at the level of detail.





Per, the house and the world

“The house is an entire world,” Per, a quantum physicist in his mid 60s who is open to discourse, explains. Together with his wife Lena, he bought the flat in the cooperative BRF Verde for family reasons. Of course, the two of them are very committed to the house community: They both have duties in the resident committee, where all matters concerning the house are discussed and decided. Lena is in charge of the jointly used greenhouse in the courtyard and Per represents the residents whenever there are problems. He tells us that many young people between 25 and 30 who have bought their first single flat live in the building. “The proportions and positions of the windows are the best part,” he raves, but he cannot hide the fact that he finds several innovations in the house such as the heating system to “not yet be fully developed”. Whether he has noticed the façade? He only nods. It does not seem to be that easy to please critical scientists like Per.


LindaExpressen

Object: residential and office building BRF Verde, Lund, SE
Product: Prefalz, rhomboid façade tile 29 × 29
Colour: metallic silver
Bespoke colour: champagne
Architecture: Arkitekterna Krook & Tjäder
Object-related individual solution

Stina Froste, Arkitekterna Krook & Tjäder

Magnus Tellhed, Arkitekterna Krook & Tjäder

“We want to be visible as architects and urban planners in our city.”

Architects in exchange with real estate developers

Magnus Tellhed and **Stina Froste**, who were both responsible for leading the project BRF Verde, explain that a constructive and equal working culture is important at Arkitekterna Krook & Tjäder. To them, it is all about the collective workflow, which means shared responsibility, working together on everyone’s ideas and an instructive work process. The office is largely organised without hierarchies. “The collective approach also reminds us that our designs for our clients have to reflect their buildability from the very beginning,” they both make clear. Every project participant needs to have great diplomatic skills and capacities for collaboration.

In order to visualise this work atmosphere for outsiders, the architects even rebuilt their office. On the ground floor of an elegant office building in the centre of Malmö, they set up a magnificent cantine, which functions both as a kind of open office and a showroom. “We want to be visible as architects and urban planners in our city,” as Froste puts it. A follow-up order from the developer in Brunnshög confirms the architects’ success.
Together, they will experiment among other things with the in-house production of recycled concrete, with reusing building materials, renewable energies and the possibilities of the sharing economy and of urban gardening.

Tellhed and Froste are enthusiastic that both the developers as well as the City of Lund stand behind this idea. It looks like things will stay exciting in Brunnshög.

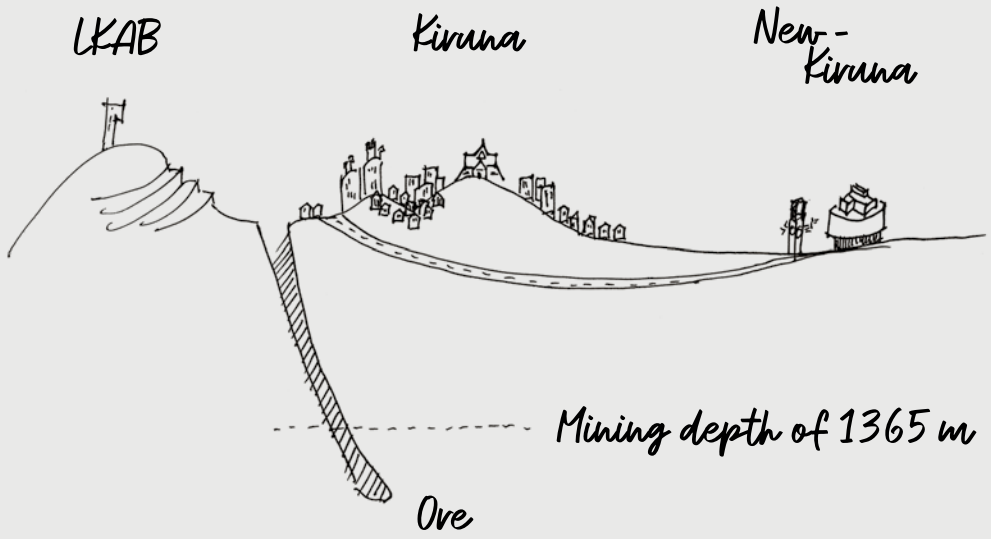
Expeditions to New Kiruna

Text & illustration: Claudia Gerhäusser
Photos: Croce & Wir

New Kiruna will be colourful, urban, vibrant and loud in the best sense. An entire city is already dreaming of changing and, at the same time, still keeping a little bit of itself. Whether critics or not, the relocation of Kiruna touches and involves everyone in the city. There is a solid plan for the transformation, which is realised in several phases under the guidance of and in dialogue with architects, urban planners, sociologists, artists and locals.

The planning started in 2004, when the state ore mining company Luossavaara-Kiirunavaara Aktiebolag (LKAB) informed the city administration that deeper ore deposits should be extracted in the future and that this will lead to tectonic shifts, which will make the western part of the city uninhabitable. In 2013, an urban master plan was drafted by the Swedish group of architects White Arkitekter and Ghilardi + Hellsten Arkitekter. Step by step, it shows the changes for the upcoming 100 years. By 2033, the first three phases and thus the relocation of the old urban centre should be completed. A built-up band should be created that will hold the widely scattered city structure together in the future. In reality, of course, that is more elaborate than it seems. But according to the tenor, the unimaginable is possible when you work together. Residential houses, streets and tracks are being moved and built for this purpose. A new town hall, designed by the Danish office Henning Larsen Architects, was opened as the first building of the future city centre in 2018. In 2025, the old church should be transported to a new location.

The move can not only be an opportunity to make the city more ecological, but also more sustainable from a social, an economic and an architectural perspective. At present, the indications that this will be successful are still vague. A pragmatism that deviates from the sophisticated ideas and plans of the city administration and the architects can be observed on site. For instance, you find less high-quality building materials at the construction sites than promised. At present, however, it is too early to take stock. Kiruna is in the midst of change. Its cultural and ecological fabric is complex, not only because it is located in Sápmi, in the territory of the nomadic Sami.



More than 2000 of the 23,000 inhabitants of Kiruna work in the mine. Thousands of further jobs indirectly depend on LKAB. Until 2045, the world's first completely CO_2-free ore mining should be established, the city is the starting point of important climate research north of the Arctic Circle and a European satellite and space launch base.

Despite the challenges the mine creates, it is incredible what LKAB gets out of the earth and how it thereby shapes the character of Kiruna. The colours of the ore, rocks and stockpiles in contrast to the intense green of the wide tundra that shine so intensively regardless of the weather and the time of day make you rub your eyes in fascination.

Ore and city

Every morning at 1:30, a blast shakes Kiruna. For eight years, the state-owned Luossavaara-Kiirunavaara Aktiebolag, in short LKAB, has been extracting high-quality ore at minus 1365 metres under the earth. It is the world's best ore and also the largest ore mine. A connected ore body was the occasion of the founding of the city 120 years ago. Today, the valuable resource is the reason why the city is moving. With a growing extraction depth, the frequency at which the earth on the western outskirts of the city sinks increases as well. At present, it is expected that it will take around 10 years until large parts of Kiruna within the deformation zone will be inaccessible to people.

Jessica and Ralph

"Snusdosan and Spottkoppen" are the names of the high-rise buildings in the current centre of Kiruna that **Ralph Erskine** realised as a prototype of his utopian Arctic City in 1961. **Jessica** loves the windless place between the two towers. She does not intend to leave Kiruna. "I would miss the two-metre-high snow and the cold," she says. Nevertheless, Jessica no longer sets her heart on places or things since she knows that she will also have to move. She lives in a zone that needs to be vacated until 2025. It is as if everyone here has been living "on packed bags for years". As a tour guide in the mine, she does not want to move to the new part of the city. Whether she is angry or sad that the old Kiruna will disappear? She laughs: "Kiruna is made for the mine, not the other way around."

Ulrika and Karin

Aside from the well-paid work in the mine and the space centre, many particularly value the sense of community in Kiruna. Despite the move, the existing neighbourhoods remain intact. **Ulrika** and **Karin** moved into the first residential building three months ago – built by Norway's largest developer Norconsult – right at the future main square. They were allowed to pick out flats that are as big as their former ones. For the time being, they pay the same rent there. That was part of the deal between the city and LKAB. "Stores and sport facilities will open at the latest by next summer," Ulrika says optimistically. The others in her neighbourhood also moved and they all share a sauna and washing machine just like before. Here, they no longer hear blasts in the night.

Nina and the city administration

Urban Development Director **Nina Eliasson** has been leading the planning process of the new centre for years. The difficult thing is that everything must go very quickly. In addition, hardly anyone knows for certain how Kiruna will develop after 2035. The city cannot persuade the investors and LKAB to accept all wishes, as she admits. But they managed to achieve a lot in dialogue and an exchange with the inhabitants. "For me, it is all about the quality of the public space," she explains by using the example of the city square, which was not much more than a parking lot in the old Kiruna and is planned to pulsate due to the commotion around the Stadshuset in the new one. "Together, we have to develop a new and unique urban culture in Kiruna that mediates between the interest in ore and the cultural heritage."

The new city

The positioning of the new city connects the existing districts Luossavaara, Tuollavaara and Lombolo with each other. The new centre, which lies a little lower than the old one, is colder in winter, but there is hope that an urban and dense development will get the wind and temperatures under control. In Kiruna, it can get up to 30 °C and as low as -35 °C. With the urban centre, the housing market will develop differently than in the past. It is an ambitious goal to offer the 6000 people affected by the relocation at least an equivalent living space. However, the daily routines and quality of life of the people in Kiruna are still turned upside down.

The old Kiruna

The church and a few historically valuable buildings are moved to the development areas in sensational transports. All other buildings, streets and squares within the deformation zone are being torn down. The small-town fabric of the old Kiruna will eventually disappear. Instead, there will be a green buffer zone: What was once the centre will become a suburb. The ground movements due to the ore extraction are constantly monitored with numerous measuring points in the affected areas.

Photo: Jessica Nildén

Call me flavour

Southern Swedish lunch experience with a feeling for the right variations

Text: Claudia Gerhäusser
Photos: Croce & Wir

If you want to know what cooking is, you should stop by at Plant Magic's Kitchen by **Andrew Eves** and Johanna Haak in Malmö. The food is a visual and culinary experience. Every day, Andrew prepares new variations with the ingredients in his kitchen – just the way he likes it and whatever comes to his mind. „Pretty much like an architect, I envision, plan and accomplish it," he laughs. He used to work for the TV chef Tareq Taylor, who is very popular in Sweden. Today, Andrew has been cooking his own culinary variations for two years. That is absolutely creative, sophisticated and likeable. He gets the most out of the ingredients and cooks (almost) everything he can get his hands on. But Plant Magic's Kitchen should also awaken your desire to discover your own cooking skills. The meals are uncomplicated, yet unusual. Andrew says that "guests can learn the following from me: Something magical happens in the kitchen if you try out what is not in the cookbooks." Another one of his philosophies: Make portions a little smaller, but if guests ask for a second helping, be generous. Two of his tricks: using ashes of wild leek as a catchy topping or sweet and sour fruit to give a savoury meal the finishing touch. Three things you have to keep in mind: They are only open from 12:00 to 14:30, there are very few places in the cozy restaurant in Storgatan 41 and it could be that Andrew and Johanna will not only be in the kitchen in Malmö but will also be touring around in a food truck.

Plant Magic's Kitchen

www.plantmagicskitchen.se

Architecture on the go

18 Norwegian Scenic Routes with new highlights

It is no secret that architects enjoy being on the road. For more than 30 years, it has been possible to experience inspiring and award-winning architecture on marked routes in Norway: staircases above abysses, kiosks made of green concrete and staged views of breathtaking forces of nature. The small infrastructures, picknick areas and installations at the roadside commissioned by the Public Roads Administration serve the landscape view or a widely travelled adventure. Countless stations have been created that not only form an experienceable network of architectural oohs and aahs, but also acknowledge the stunning landscapes of Norway. This way, more than 50 Norwegian architectural offices and designers show that you can do attractive tourism with functional, but unique buildings. Six new spots will be added this year and in 2022, there will be another four. So there is always something new to discover. We expressly recommend this aesthetic pilgrimage.

Norwegian Scenic Routes

www.nasjonaleturistveger.no

The *solitaire* of Pesaro

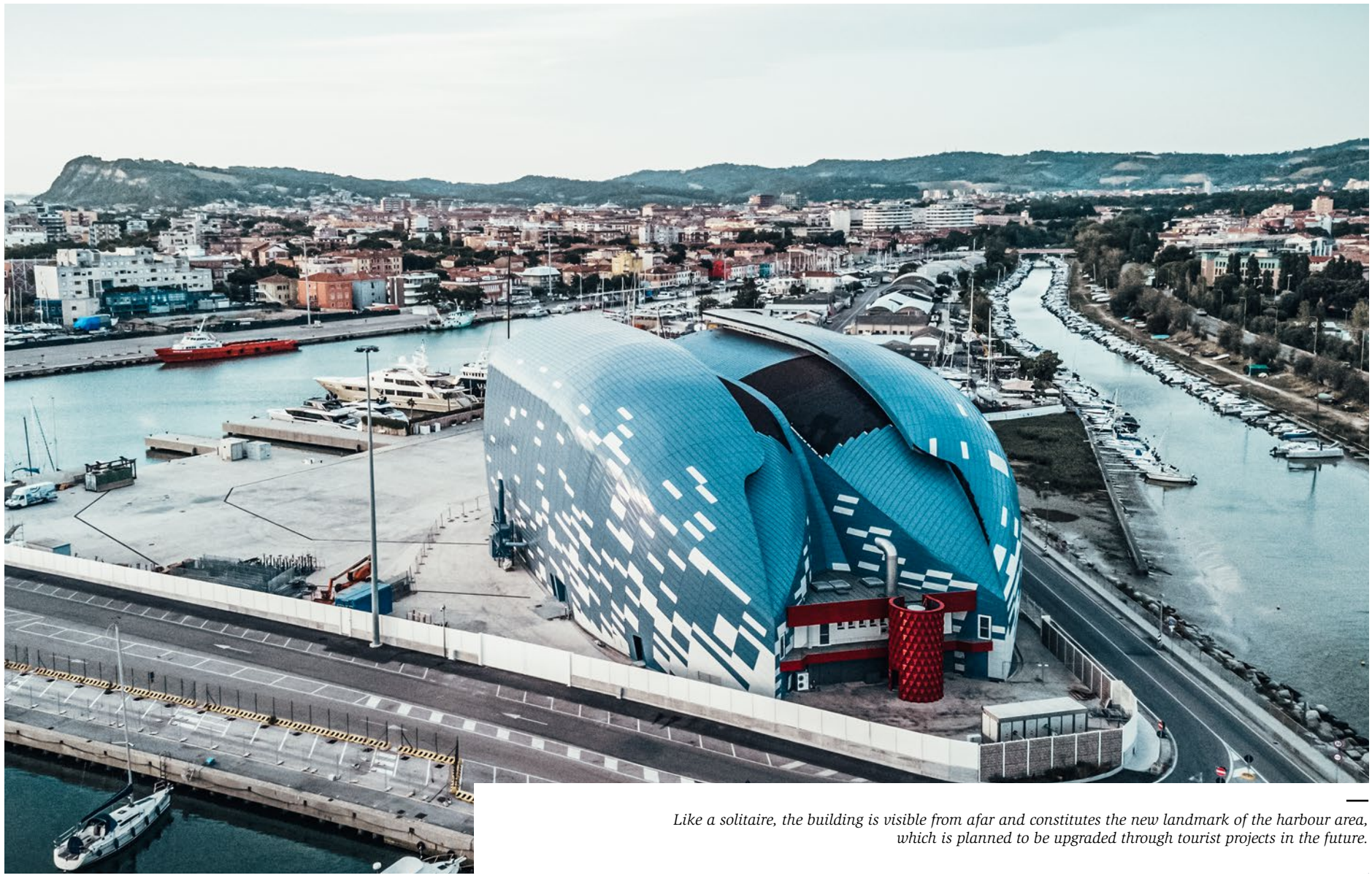
Text: Carl Bender
Photos: Croce & Wir

A custom-made landmark

The tinsmith and metal designer **Jürgen Niederfriniger** convinced both investors and architects and designed the façade of the paint shed located in a newly designed harbour area in Pesaro. In order to give aesthetic value to such a voluminous building, it was necessary to design an organic form distinguished by an outstanding skin. Through file to factory manufacturing, Niederfriniger's team managed to produce in a tailor-made manner and install more than 5700 individual panels made of Prefalz for the façade.

In the right place at the right time

Cantiere Rossini is situated on the premises of the former Cantiere Navale di Pesaro. The shipyard was well known for the construction of merchant ships beyond the Marche region and ranked among the biggest employers in the area. After operations had to be discontinued in 2008, the vast premises right by the mouth of the Foglia River lay empty for several years.
After a complete restoration and restructuring, the investors and management, under the leadership of Captain Stewart Parvin, regard the new Rossini repair yard as an innovative and avant-garde project. A great deal of money is involved here as well. The target group includes owners of expensive yachts from the Mediterranean area (Turkey, Croatia and the Balkans), the Côte d'Azur and the Tyrrhenian Sea who bring their ships to Pesaro during the winter season to give them a "treatment". Seven luxury yachts with a length of up to 55 metres and a weight of up to 560 tonnes can be renovated, converted, extended and coated here at the same time. Dozens of highly qualified specialists and craftsmen who are able to fulfil all the clients' desires are available for this purpose. These desires include technical and electronic services as well as the creation of a landing platform for helicopters or the conversion and new construction of interiors.



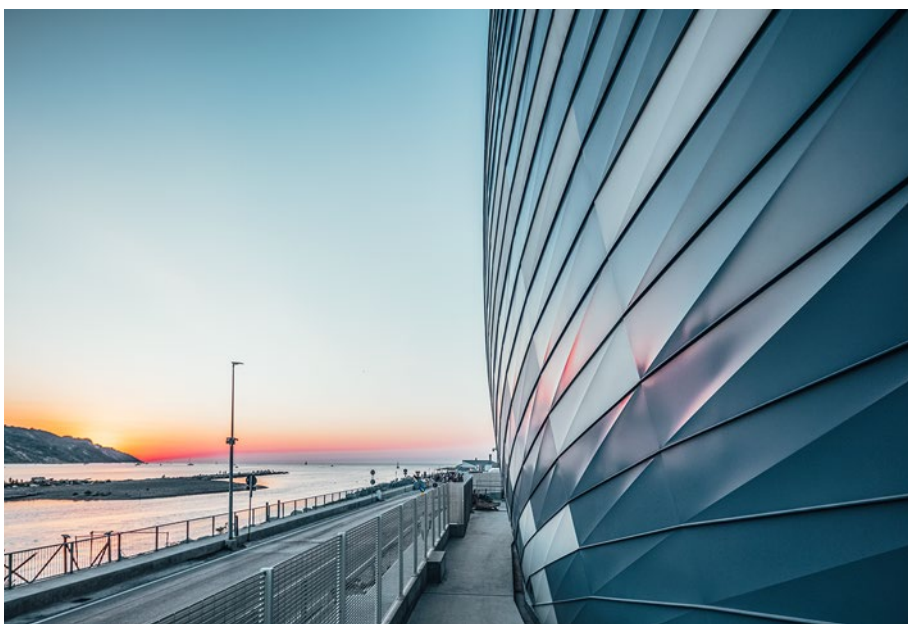
Like a solitaire, the building is visible from afar and constitutes the new landmark of the harbour area, which is planned to be upgraded through tourist projects in the future.

A gigantic volume – well packed

The planners and project managers of 24U S.r.l. from Padua clearly excell at dealing with such challenges. With its dynamic form, they succeeded in optimally integrating the building with a base area of 3500 square metres and a height of 30 metres into its surroundings. The complex supporting structure made of laminated timber was planned and manufactured by Xlam from Trentino.

When searching for an ideal partner for the design and execution of the façade, the name Jürgen Niederfriniger came up very soon. Architects value his company Nieder S.r.l. for its outstanding creative and technical performances in the design of metal façades. Jürgen took on the challenge, visited Pesaro and the building site, studied the plans and used every free minute he had to do research and work on his first sketches.

It quickly became clear that only Prefalz could be considered for this task, as it has all the necessary qualities for the project: in particular the corrosion protection from salt water, the UV-resistant coating, the large colour palette as well as the stability against the wind loads that prevail on the coast.



Object: Cantiere Rossini, Pesaro, IT
Product: Prefalz
Bespoke colours: dusty blue, PREFA white
Architecture: 24U S.r.l. and Nieder S.r.l.
Installer: Nieder S.r.l.
ⓘ Object-related individual solution

A trick with a fold

The building features an innovative shape in double curvature, which could only be discretized through triangles or ruled surfaces. The complex challenge was accomplished with rigorous engineering work carried out thanks to the partnership with INDEXLAB, the research laboratory at the Politecnico di Milano which specialises in algorithmic design and digital fabrication. Pierpaolo Ruttico, the head of the laboratory, and Nieder S.r.l. have been collaborating for several years to develop innovative building systems and strive to create new paradigms in architecture together.

After several weeks of meticulously working together, Jürgen could successfully present his sample façade of 20 m² to the client and planners of 24U in his studio. He equipped the panels with a diagonal fold, which optically separates the surface into two triangles and enables the cladding of the doubly curved surfaces with a seamless pattern. Derived from the triangular dorsal fins as well as the unique grooved structure of the skin scales of sharks, he gave the design the name “Squalo”, which translates to “shark” in English.

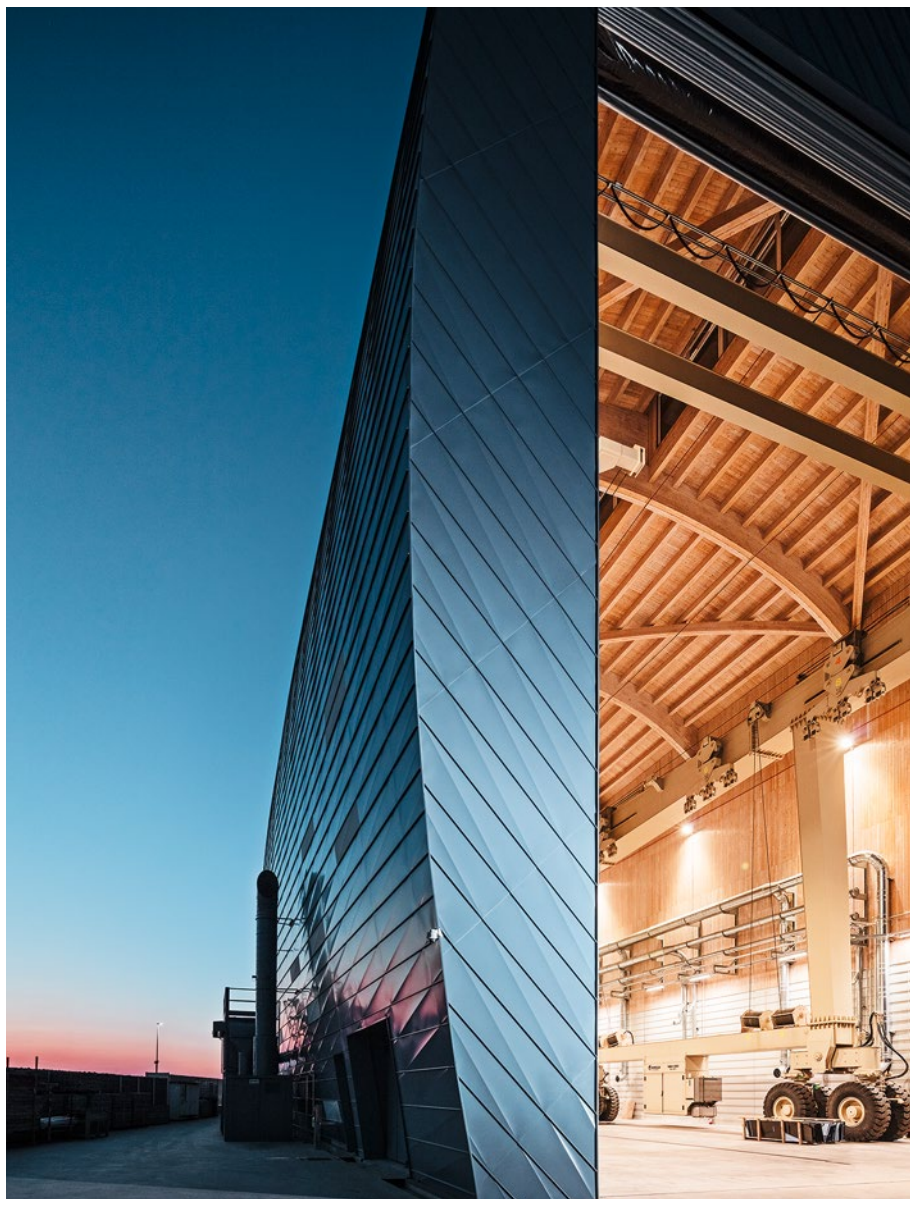
5700 individual panels on 8200 m²

With the assignment in his pocket, he was focused on getting a mobile, half-industrial production on its feet, including the partner companies, planning the logistics and acquiring local and qualified skilled workers. The building’s initial geometry was equipped with algorithms, i.e. mathematical instructions that made it possible to exactly calculate and issue the basic form of each of the roughly 5700 different panels as a dataset for the laser cutting.

Prefalz in the colours dusty blue and PREFA white was cut in a machine-processable manner and delivered on palettes. In the course of the cutting, the panels received corresponding numbers, so they could be mounted in the right order. The transport to Pesaro was carried out in several tranches in chronological order.

In Pesaro, Jürgen and his team set up the machine park and began with the finishing as well as the mounting of the first panels. With great craftsmanship, two of the six tinsmiths processed the prefabricated sheets with canting and folding machines and prepared them for mounting. As it is not possible to mark mounting auxiliary lines on a building of this size and form solely with lacing, a laser was used to project the fixed points onto the roof level on the basis of the digital model, whereby these points were also marked with labels.

Two teams consisting of two tinsmiths each worked on the assembly for several months. The tolerances on account of the wooden construction could be largely compensated with special clips and smaller adjustments of the panels. In addition, verified industrial climbers performed the assembly at exposed places.

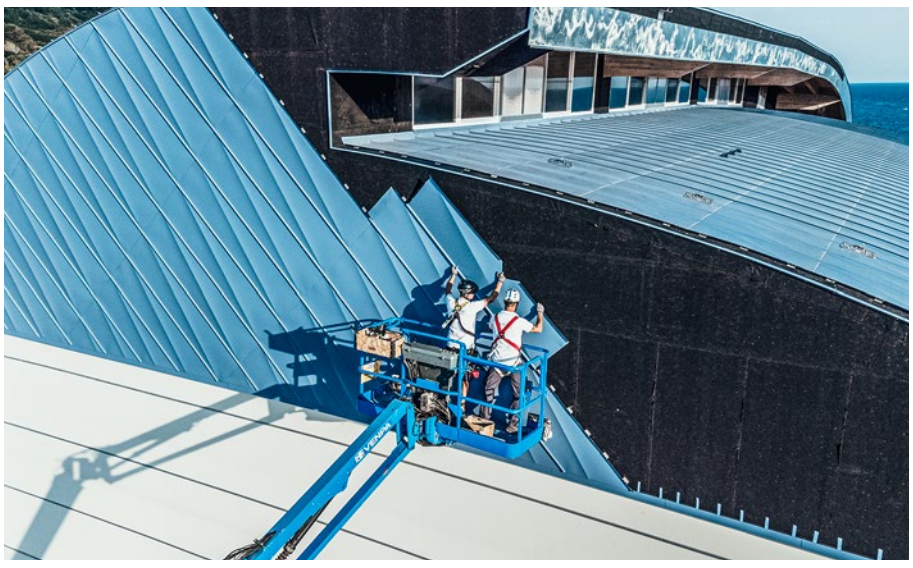


Design upon request

We met Jürgen Niederfriniger in Pesaro right before the completion of the façade and could therefore experience how the panels are manufactured and the assembly is realised. It was impressive to see how the mathematically calculated panels fit the building's actual form and could be combined to form a homogenous surface with a folding technique.
"We don't always have projects of this kind and size. But we see them as a reward for our untiring efforts to always be one step ahead of the state of the art," as Jürgen explains his motto. "We seek to enter a dialogue with architects and designers, invest in the development of new methods and machines as well as in our employees' training. There isn't a project that's too small for us. We carefully think about, optimise and perfectly execute every detail. No matter whether in a detached house or an architectural icon like this one."
10 years ago, he founded the company Nieder S.r.l. together with his wife Elisabetta Spinelli. He is originally from South Tyrol and describes himself as the "grandchild of art". His grandfather was a master tinsmith and founded a smaller family business in Bozen in 1948 that specialised in manufacturing sheet metal work. Therefore, one could say that architectural metal construction is in Jügen Niederfriniger's DNA, who inherited his grandfather's wish to try out something new at construction sites, to touch metal, process it, lay it and see the final result.

Jürgen Niederfriniger
Nieder S.r.l.

"We seek to enter a dialogue with architects and designers."



Hungary's PREFARENZEN ambassador *Judit Nemere*

Text: Carl Bender
Photo: Croce & Wir

We meet Judit Nemere in a lecture hall of the Faculty of Civil Engineering at the Miklós Ybl University of Applied Sciences in Budapest. The windows are wide open, the students are already on their way home and Judit is stowing away her illustrative material in a black suitcase. It was a long day, but she loves courses like these with all her heart. She takes time out for our conversation and sits down with us on one of the benches in the historic lecture hall.

"Judit, how is it that as a representative of the industry, you received the opportunity to talk about the construction of back-ventilated metal façades before future construction technicians and architects?"
"That is the result of years of effort. Before I started to work at PREFA, our sales team was only in contact with tinsmiths and wholesalers. It took advantage of every possibility throughout the country to give product and information lectures at tinsmith events and thus continuously increased the interest and the sales revenues."

— How it all began
"In spring 2009, my former employer's subsidiary was dissolved. Fortunately, PREFA Hungary was looking for a project manager shortly afterwards. The men certainly did not expect a woman to apply for the job. But our first conversation revealed that with my academic training as a civil engineer, my experience in technical sales and my language skills – I am a certified translator and interpreter for Hungarian and German – I would meet all expectations.

My boss at the time recognised my potential and changed the original job description within a day from project manager to architect consultant. I was on my own. Until then, I had not had much contact with architects, but I knew I was entering a world dominated by men and would have to assert myself. My colleagues supported me from the very beginning and I naturally also took part in all the specific PREFA courses and training. Today, I manage the company, am accepted in my role by all parties, climb onto roofs and can also lend a hand, if necessary.

During my third week of work, I already gave a lecture at an information event for architects. I had no difficulties with being on the podium right from the start. As a long-time ballroom dancer, I was used to being in front of an audience. And I was not afraid of small slips. On the contrary, it was fun to answer the interested participants' questions."

— The vision of a network
"Since then, the idea of building a PREFA architect network stuck with me. What helps is that Hungarian architects are required to regularly take part in advanced training courses, as is similarly the case in some other countries. Depending on the quality and intensity of the lectures, workshops or seminars, credit points are awarded. Their planning license is only renewed if a certain number of points can be reached within 3 or 5 years.

My colleagues and I take advantage of this circumstance and have been participating in these events throughout the country ever since. We continuously offer new lectures on the planning and execution of roofs and façades with PREFA systems and maintain direct contact with architects. That is one of the reasons why PREFA is known and welcome at nearly all architectural offices today. This helps us with new projects. And on top of that, it is reflected in increasing sales in the object area."

— Monument protection – a major hurdle
"It was far more difficult to convince leading architects in the offices for monument protection of the advantages of aluminium on roofs. I knocked on countless doors but was usually rejected, although PREFA material was already being preferred by conservationists in countries such as Slovakia, Austria and Italy. Several small tricks were necessary before we could finally hold a presentation in front of a circle of sceptical experts years later.

In 2011, we achieved a breakthrough after we launched an endowed architectural competition organised by PREFA. The prestigious judging panel chose an architectural office as the winner in the category "monument protection" that planned to realise a PREFA roof in the revitalisation and expansion of a historic villa into an elegant city hotel.
The use of Prefalz and rhomboid roof tiles in the colour light grey was approved by and realised under the care of the responsible conservationist. Today, using PREFA has also become standard in Hungary. Tinsmiths artfully lay it in large quantities on historic buildings instead of copper or zinc."

— High-end marketing
"I achieved one of my most important personal successes when expanding our network after many years of talking with professors and assistants at the Budapest University of Technology. My lectures on the planning and construction of metal roofs and façades were included as fixed points in the curriculum. The students take compulsory exams, need to submit term papers and learn first-hand which materials are most suitable in practice.

The Faculty of Civil Engineering at the Miklós Ybl University and the University of Pécs also followed this decision. Here, we additionally teach students how to technically handle PREFA material and even assess their achievements in a practical term paper.

Together with the University of Rosenheim, the University of Pécs is currently planning to introduce façade construction engineer studies as a secondary degree for architects and structural engineers. PREFA will most likely be represented in it with an own subject. It is a unique opportunity and a real joy when you meet professors who are interested in additional training for their students.

I regard everything we achieve here in Hungary in addition to our primary work with architects as a contribution to the international communication platform PREFARENZEN. I am convinced that we are being perceived as a role model in this respect and that colleagues in other countries may perhaps take a similar path."

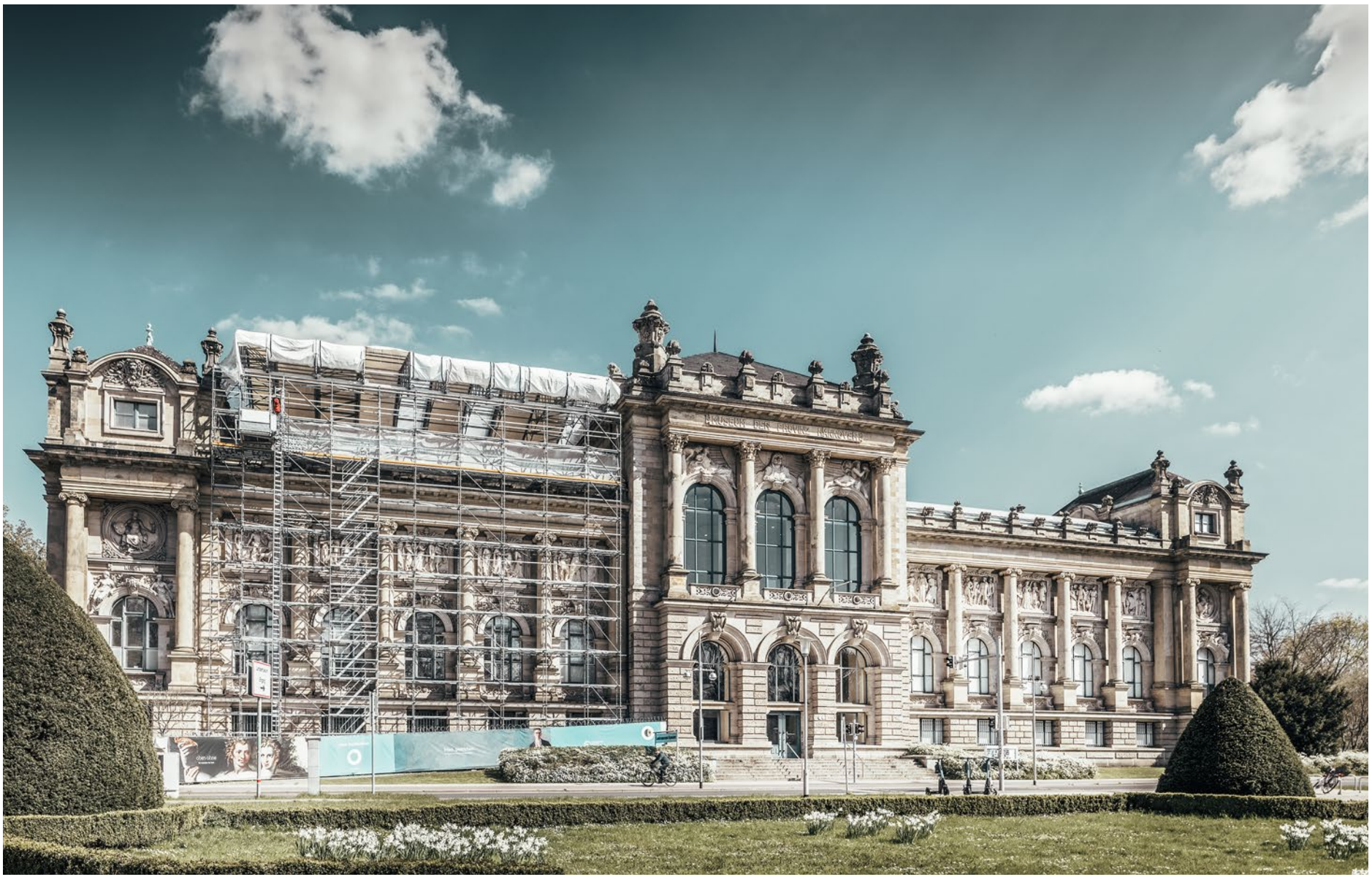
— I can also unwind
"I still have many ideas and plans. Some of them are already being realised, but it would be too early to talk about them at this point. And apart from that, it is getting rather late. My family is already waiting for me. I am married, have a daughter who is about to start her studies and a 15-year-old son who still goes to school. They both bring me great joy, are determined and reasonable and are almost always understanding when it comes to my passion for my job.
We live around 30 kilometres away from here in Gödöllő, a historic small town. Aside from housework and gardening, I am very passionate about cooking and baking. I also like to take time out for abstract painting. It is a good way to act out my creativity outside of everyday life, allow your mind some meditative quiet time and relax your body at the same time. In my daily business as an engineer, I am mostly confronted with numbers, right angles and technical conversations. To me, two hours of painting is like taking two days off from work.

My second major hobby revolves around my horse Trampli. I like to go on leisurely rides with my Hungarian Coldblood mare, sometimes with my carriage. I regularly practice the art of riding with my wagonette so I can successfully take part in horse driving tournaments in the near future. It is also fun to drive through the expanses of the Hungarian Plain with family or friends and take a break to enjoy a picnic."

PJ Word Rap

with JUDIT NEMERE

Car or carriage? — **Carriage**
German or English? — **German**
Freshwater or seawater? — **Seawater**
Kitchen or garden? — **Kitchen**
Sprint or endurance? — **Endurance**
Stallion or mare? — **Mare**
Planning or realising? — **Realising**
Paprika or salami? — **Paprika**
Trend or tradition? — **Tradition**
Puszta or Balaton? — **Balaton**
Long-distance travel or short holiday? — **Both**
Teaching or learning? — **Teaching**



Monument protection of superlatives –

new PREFA roofs for the State Museum in Hanover

Hanover is the capital of the state of Lower Saxony, Germany's second largest federal state in size. Over the centuries, the city became an important centre for science, music, theatre, museums and galleries due to a society that is interested in art and culture. In the midst of this scene, the local state museum stands out in particular. After a number of private collections of associations were brought together with the released royal collection, the exhibits in the former Provincial Museum could no longer be presented safely and in a way that reflects their significance despite several conversions and extensions: A new construction became necessary.

Text: Carl Bender
Photos: Croce & Wir

120 years of history

The magnificent museum building was erected according to the plans of Hubert Stier in Neo-Renaissance style at the Maschpark and finished in 1902. In order for the light in the halls located on the upper floor to be as natural as possible, he equipped them with glass pitched roofs. As the valuable exhibits had to be protected from direct sunlight, the glass roofs were coated with white lime paint for decades.

After 120 years and management by ten different people, the house presents itself today as a modern museum with three core themes such as the worlds of nature, humans and art. In elaborately designed special exhibitions, the own collections are made visible for visitors.

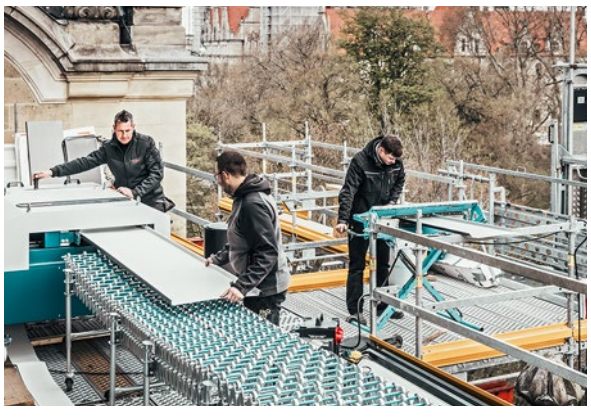
Up-to-date

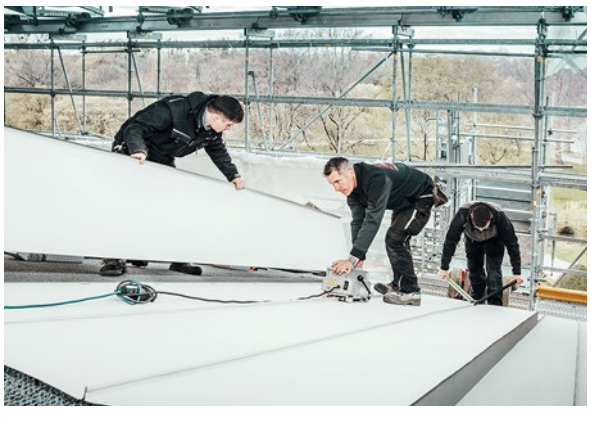
Despite a careful handling of the building and a general renovation of the glass roofs in the 1980s, the high maintenance effort for the annual renewal of the lime surfaces posed a challenge. In order to get these circumstances under control in the long term, the State Construction Management and the State Office for the Preservation of Historical Monuments decided to replace the glass roofs with new, state-of-the-art isolated roofs. But the strict rules of monument protection specified that neither the visual impression of the white roofs nor the building's silhouette could be changed in the process.

A clear decision

"As there was basically no difference between the historical roof and the fine seam structure in PREFA white, we unequivocally decided to use Prefalz," says object consultant Carsten Cech. "The fact that also the numerous details and wall connections could be accomplished by hand with the PREFA material was an additional argument for the preservationists. Moreover, the aluminium's durability and low weight were also decisive." Right after the second conversation with the architect Oliver Arndt of PK + Pape Kost Arndt Architektur GbR, two sample surfaces in two different shades of white made of Prefalz in double lock standing seam technology were installed on a glass roof that was perfectly visible from the ground, along with one sample surface with an industrially manufactured roof system.

Afterwards, it was clear which roof loads are to be expected and the complex planning of the roof constructions began. "We did have partial access to the original plans and the drawings from the renovation work from the 1980s, but we still had the roofs opened in several places. This way, we had a clear view of the historical steel constructions, which we had to preserve on behalf of the monument conservators," the architect tells us.





In experienced hands

The companies Hermann Dachbau GmbH and HW Hannover Dachbau GmbH were awarded the contract for the disassembly and new construction of the entire roofscape. Sven Speder, the foreman responsible for the State Museum project, could already obtain a lot of information and several tips from PREFA technical consultant Gino Hährer before construction work began. The experienced craftsmen have spent a large part of their lives on roofs, but they rarely had to accomplish such a complex task. Before the team could begin with the construction of the roof, the up to two metre long and around 60 kg heavy glass panes had to be disassembled and stacked on pallets so they could be transported away. The Prefalz band material was delivered in rolls right to the construction site. The craftsmen used a folding machine to produce and lay the trays on site as needed. More than six tons of the 0,7 mm strong and predominantly white-coated aluminium were used for the roof areas, which spread over a total of 2700 m².

Challenging detail work

The assembly and dismantling of the scaffolding as well as the waterproof scaffold roofs proved to be a challenge for the commissioned specialist company. Floor-to-ceiling platforms were erected in the exhibition spaces to pass on the necessary steel girders through small roof openings and be able to install them under the historical roof construction. In order to prevent any kind of water ingress in the insulating material and the museum rooms, tent constructions that withstand wind and weather had to be erected.
A load-bearing layer consisting of trapezoidal profiles as well as a vapour barrier made of bitumen with an aluminium insert were chosen for the now freestanding historical steel construction as an object-related special construction. Non-combustible rock wool insulating boards with compressed surfaces ensure an insulating effect within the Prodach system. With a cutting machine, horizontal, approximately 30 mm deep grooves were cut into the insulating boards according to the laying plan. They serve to hold the fastening rails, which are anchored in the trapezoidal sheet through the insulating layer and constitute the mounting points for the preformed fixed clips.

Object: State Museum in Hanover, DE
Product: Prefalz
Colours: P.10 PREFA white, P.10 patina grey
Architecture: PK+ Pape Kost Arndt Architektur GbR
Installer: Hermann Dachbau GmbH / HW Hannover Dachbau
Object-related individual solution

The architect

Oliver Arndt is one of the partners of PK+ Pape Kost Arndt Architektur GbR, who are independently active in various constellations in Hanover and Hamburg as Team Leine and Team Elbe. Together with his team of eleven, he is responsible for planning this monument protection task. With his sustainable concept of how the seven roofs can be rebuilt in combination with innovative luminous ceilings, he could convince both the museum management and the monument conservators.

“Extensive research preceded the planning stage. The front part of the building was severely damaged by fires during the war, was rebuilt and differs from the undamaged parts in terms of design. In our planning, we considered the museum management’s request by bringing all illuminated ceilings to the original heights and therefore largely restoring both the symmetry and the proportions of the rooms in the upper storey. This circumstance also needed to be considered in the static planning and led to massive interventions on site,” as Oliver Arndt explains. He adds that, in the process, all the structures of the historical roof windows were maintained and supplemented by additional steel components. “The construction takes place in two phases so the museum operations in the glass-roofed rooms can partially take place despite the conversion work.”

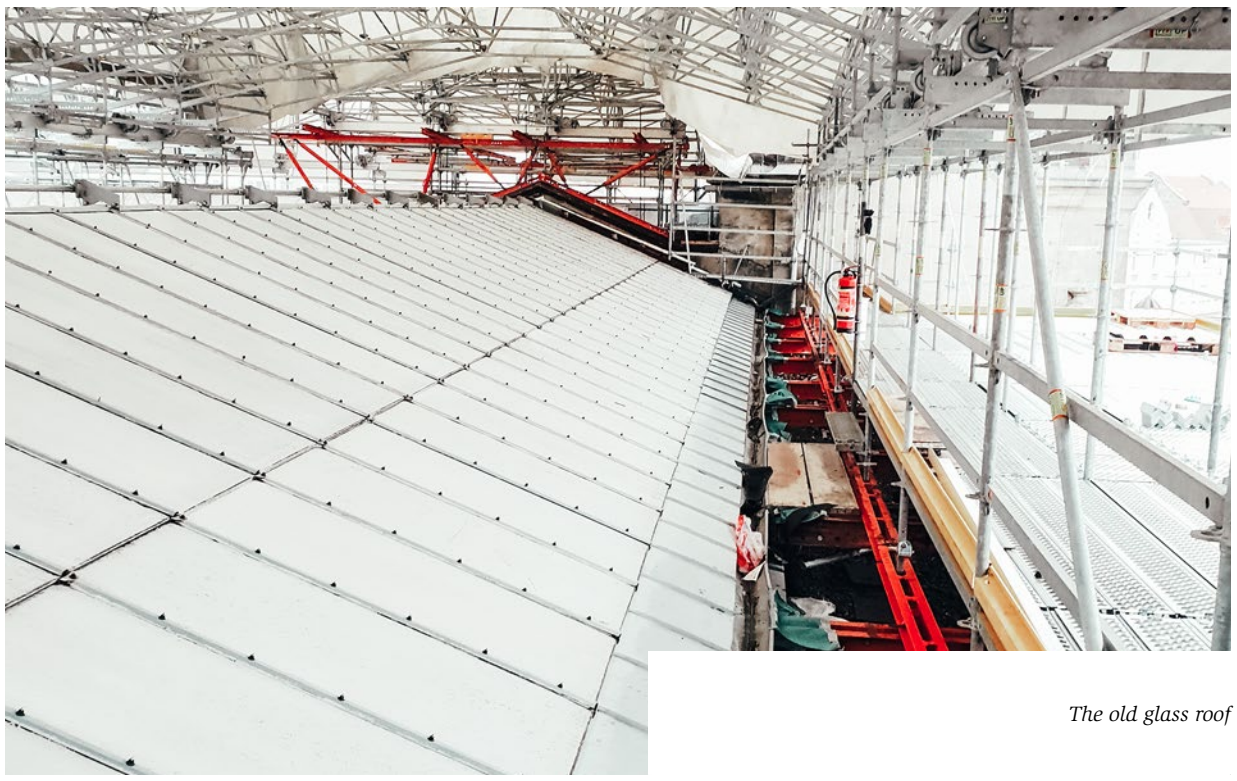
“Due to the single-disc glazing of the roofs and the glass ceilings, not only the exhibits, but also the museum visitors and employees partly suffered from room temperatures of more than 30° C. The newly insulated aluminium roofs help ensure that the museum’s conservation tasks can be fulfilled safely in the future again. After all, the exhibits and permanent loans are invaluable. We can create the former light character of the whitewashed roofs with a system of LED luminous ceilings with diffuse raster layers, which ensure that visitors perceive the light source to be natural without electronic control. I think that this concept will have a role model effect on similar projects.”

The PREFA object consultant

Carsten Cech is a trained master tinsmith out of passion. With his experience and vision, he has been consulting architects and planners for many years in the realisation of complex roof constructions. He has been working for PREFA since 2017 and is also responsible for all architecture offices in the Hanover area. This eventually led to his first conversation with the architect Oliver Arndt about this project in 2018. “At the time, it was already clear that the seven glass roofs should be replaced by white roofs made of aluminium without significantly altering the previous overall height. Therefore, by using the Prodach insulation system by Rockwool, I proposed a non-standard roof structure with a 120 mm thick insulation as an object-related individual solution instead of a back-ventilated roof structure. It fulfills both the requirements regarding the overall height and the specifications concerning the thermal refurbishments of historic buildings,” Carsten told us when we interviewed him on site at dizzying heights. He also shared some of his arguments that influenced the decision to use the PREFA product: “Prefalz was particularly favoured over industrially produced standing seam solutions because our standard colour PREFA white seemed practically identical to the colour of the whitewashed glass during a sampling on the roof. In addition, historical details and connections can be perfectly reproduced with traditional handicraft techniques.

What is more, aluminium represents an economical alternative to other metals due to its light weight of 2,5 kg per square metre on average.”

Carsten Cech and Oliver Arndt



The old glass roof

Photo: Carsten Cech

The craftsman

Sven Speder has been working at his master's company for 20 years and, as a foreman, is responsible for construction sites of all sizes today. On average, five trained craftsmen work on the museum's roof under his leadership. Aside from building the Prefalz roofs, the well-coordinated team also laid the gable surfaces and the base of the pyramid roof with slate slabs, newly laid the PREFA roof drainage, installed gutter heating and has performed timely and targeted work for more than one and a half years. "I always prepare for every new job very carefully, study all the details in advance and practically learn them by heart. I also like to seek advice from the PREFA technical consultant if there are tricky questions. That is the only way I can work constructively with architects, building owners or colleagues from other trades. Although this is an architectural monument, a category where we always have to expect surprises, the plans were so well-elaborated that we could rely on them. My colleagues are also aware of the responsibility we have towards the building owner regarding the proper completion of our work. We even look forward to building inspections, since there are rarely any complaints," says Sven Speder with a smile before turning back to his work.

Sven Speder and Gino Hährer

The PREFA technical consultant

"I completed an apprenticeship as a roofer and worked on roofs for eight years. After a commercial apprenticeship, I spent another eight years in sales before I was 'discovered' by PREFA. For me, it was the opportunity to successfully apply my experience," Gino Hährer tells us self-confidently. "I have been in constant exchange with the project manager and the foreman ever since they were awarded the contract for this building project and advised them on using Prefalz in listed buildings. Here on the museum roof, we focus on designing the many wall connections and roof valleys individually. The best part is that all employees pull together and work conscientiously. They also value the smoothness of Prefalz and the fact that the material can be processed at low temperatures."

Text: Carl Bender
Photos: Lehel Lukács

Shelter with a view

Is it not an exhilarating feeling when you reach the summit after an exhausting climb and can enjoy a breathtaking view? **Lehel Lukács** of **Lukács Manufacture** fulfilled his dream by placing two chic bivouacs[1] on a scarp ridge in the Carpathians.

We are in Romania, in the eastern part of Transylvania. The national affiliation of this area has changed several times throughout history, which is still reflected in several trilingual placename signs today. We are about to meet Lehel Lukács in the small town of Gheorgheni at the foot of the Harghita Mountains, where prefabricated buildings of socialism collide with medieval market halls as well as Catholic and Orthodox churches. His family belongs to the Magyars, who represent the largest ethnic minority in Romania with around 8%. In this region, they even make up 85% of the population.

Photo: Attila Rokai

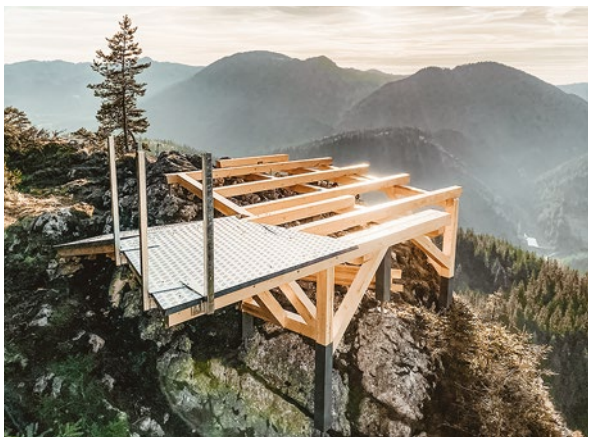
Lehel Lukács

Lehel is a tall, sturdy man in his mid-thirties. The trained joiner, carpenter and tinsmith likes to see himself in the role of a designer. He expanded his ancestors' joinery to a modern timber construction company and is known for his creative solutions far beyond the region. His eyes exude great alertness, energy and ingenuity. He is happy about our visit and takes us with him on a hike to Killer Mountain above the Bicaz Gorge, where he erected the two mini shelters with envelopes made of DS.19 shingles in an exposed location.

[1] Bivouacs are emergency accommodations in nature where you can recover and strengthen yourself or simply spend some time.

The Carpathians are a unique natural treasure with a great variety of plants and animals just waiting to be discovered. Tourism is still in its infancy here, which is why particularly local adventurers and nature lovers follow the call of the wild and like to use the approximately 30 existing huts as a refuge when they are surprised by bad weather or want to spend the night.
During our hike, the avid mountaineer tells us about the challenges he encountered before he could erect the two extravagant shelters on rock spurs at a height of 1800 m: “In order to avoid unpleasant surprises in later work phases, it was essential to correctly register the coordinates of possible fixing points on site with a 3D laser distance meter to derive the most suitable positions and the huts' floor plans. We submitted the first designs to the responsible authorities, like the nature protection and building authority, for submission. They were thrilled by our idea and approved of our concept several months later.”

Only then could he begin with the detail planning and dedicate himself to the realisation. The cabins not only had to be relatively lightweight, stable and resistant to wind and weather – their clear design should optimally integrate itself into the mountain landscape. When he was searching for a suitable building envelope, he came across the website of PREFA Hungary and their boss Judit Nemere. Inspired by the project, she supported it by sending a laying instructor, who trained the team according to the mounting guidelines.



“We built the building structures and platforms in the workshop in a manner that made it possible for them to be transported both with a truck and via helicopter despite the prefabricated aluminium façade,” Lehel explains and adds: “Many people helped in the building process because they were so enthusiastic about the project. One of my friends transported the material and the tools with his horse and cart over forest paths, and many volunteers from the mountain rescue service, speleologists as well as mountaineers participated in the dangerous assembly on the bare rock. A reliable pilot finally flew the building components with a helicopter from an interim storage facility to the location with pinpoint accuracy, despite the upwinds that blew over the rock wall.”

Objects: bivouacs, Bicaz Gorge, RO
Product: DS.19 shingle
Colour: P.10 stone grey
Idea and realisation: Lukács Manufacture

Just before we reach the ridge, Lehel positions himself before us, opens a virtual curtain with a quick hand movement and presents one of the bivouacs to us. He is bursting with pride. We are stunned by the sight before us and the view as we reverently stand before the small, stone-grey hut. Lehel opens the door. We cautiously step into the room, feel protected and enjoy the view.

The second bivouac is a little smaller and built slightly wider from a compositional perspective. It has three large windows, offers room for four people and was also clad with stone-grey DS.19 shingles. You should be free from giddiness, for here on the Maria Stone, you look down from a height of 186 m.

“Up to six people can stay here and even spend the night if they want to. The second cabin is a little smaller, has room for four people and is about half an hour away from here,” Lehel describes “his” two bivouacs and surprises us with a small snack he brought along – polenta slices and coffee.


PREFA
Lifeline
or square downpipe?
The roof drainage system by PREFA.
WWW.PREFA.COM