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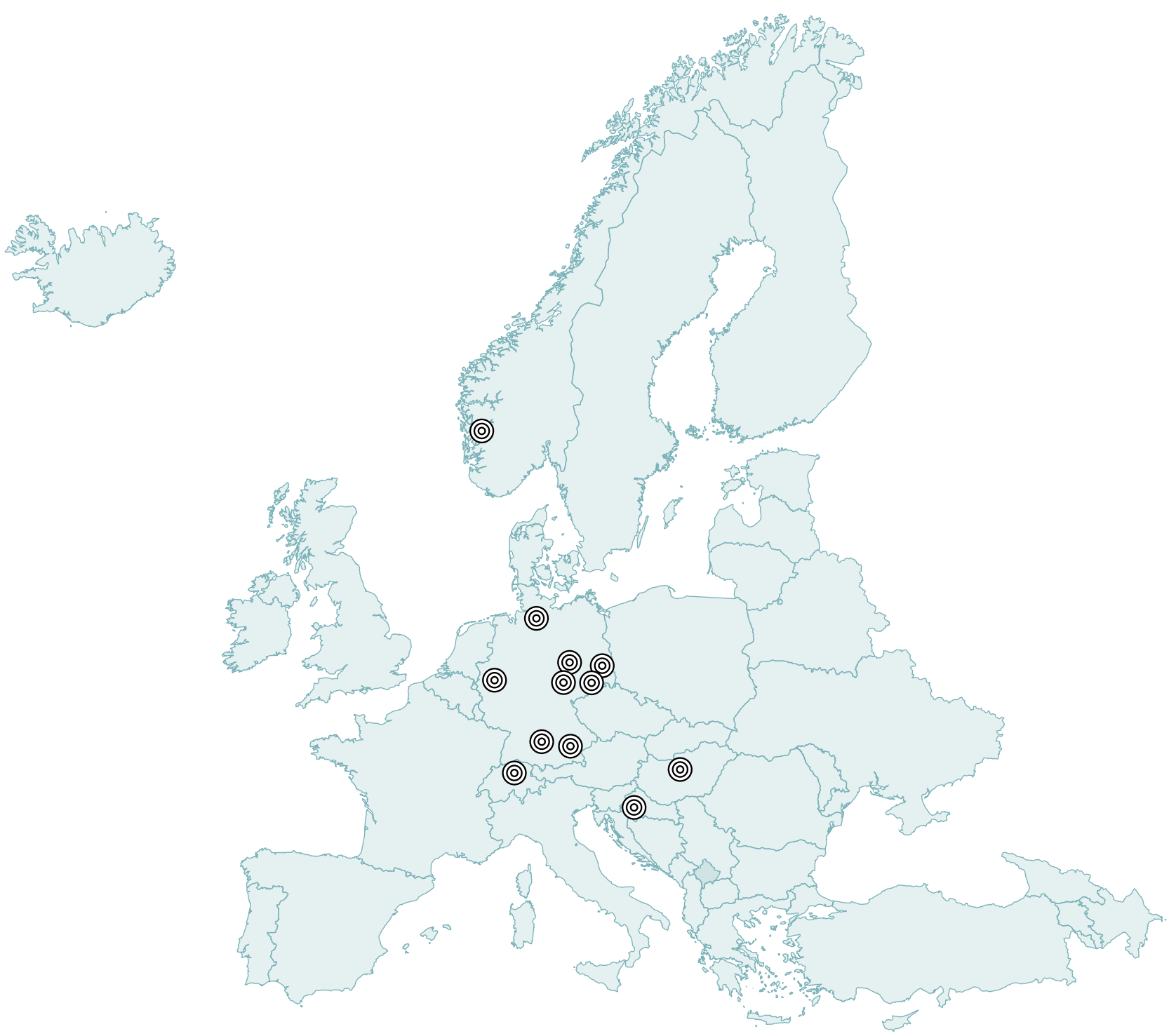

Roadmap 7.0

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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Times and places of change

We are moving forward – both in terms of time and place –, and many things are constantly changing. This is a good thing, for although many modern technologies and achievements are propelling us towards the future, it is also worth taking a look at the past. What I am referring to here is the rich history and cultural diversity of our many export countries, especially their outstanding architecture.

Equally outstanding are the PREFARENZEN projects. We are proud of the dedication with which our products are planned and processed. I would also like to say a few words about the impressive numbers of our PREFA Academy: Every year, around 5,000 installation partners are trained at 21 training centres in Europe, making an important contribution to the further development of the export markets.

What else is changing? Our environmental consciousness, thank goodness! For it is time that we all do our part and contribute to a more sustainable future. What has enormous potential in this context is solar energy. We at PREFA have also recognised that this potential needs to be utilised, which is why we are constantly expanding our photovoltaics range, for instance with our most recent innovation, the PREFALZ solar module. Find all the details under www.prefa.solar.

Now, it is time to transform your next few minutes while you browse through this journal.

We hope you enjoy yourself!

Jürgen Jungmair
Head of International Marketing PREFA

Gudden Daach PREFA!

Gudden Daach – an expression that is far more than just a simple greeting. It encapsulates Central Germany in two small words that embody a world full of tradition, diligence and warmth.

Photos: Croce & Wir

The diversity of the language and its dialects is a fascinating aspect of this region. From the hearty sounds of Thuringian to the soft melodies of Saxon, here you encounter a rich linguistic landscape shaped by centuries of history and culture.
Attentive travellers will discover some of the most vibrant art and creative scenes in Germany. In the urban centres, which sometimes feel like a blend of big city and province, one can find East German modernist architecture or a culinary identity that is rarely offered anymore.

Where PREFA is at home

When PREFA ventured into Thuringia in 1991, the people in Wasungen were marked by scepticism and the economic decline after the fall of the Berlin Wall. Our article from page 10 onwards explores how, through mutual trust, the location developed into a successful company that created many new jobs.

Here and in the neighbouring Thuringian Forest, one can find the highest density of houses with a PREFA roof in Germany. Due to the great demand for roof renovations, the snowy winters in the mountains and the proximity to Wasungen, people were quickly convinced by the product. The region thus became PREFA's test market for all of Germany. From here, the "aluminium roof tile from Austria" spread like wildfire and greatly contributed to the company's success today.

30 years later, PREFA roof, façade and solar systems have become recognized materials in architecture, used in both family homes and commercial buildings. Central Germany is home to several prime examples, showcased in the PREFARENZEN books, that aim to inspire builders and architects. The architects Falk Leinert and Dirk Lorenz from the office LLA based in Dresden also felt inspired, designing a unique apartment building clad all around with PREFA rhomboid façade tiles.

So, "Gudden Daach," and may every day be a good one!

1 —

2 —

3 —

1 —
Object: residential building M08, Berlin
Product: FX.12 roof and façade panel
Colour: P.10 light grey
Architecture: Lusin Architektur, Berlin

2 —
Object: terraced houses Teltown, Teltow
Product: roof tile, rhomboid façade tile 56 × 56 (special format)
Colour: P.10 light grey
Architecture: GRAFT Gesellschaft von Architekten, Berlin

3 —
Object: art museum Göttingen, Göttingen
Product: Prefalz, PREFABOND aluminium composite panel, box gutter
Colour: bronze
Architecture: Atelier ST, Leipzig
ⓘ *Object-related individual solution*

Really *out of line*!

Leinert Lorenz Architekten show how they created a residential building with six comfortable apartments for an open-minded client in a villa quarter of Dresden, Germany, with quite a bit of courage and using every trick in the book.

They are becoming increasingly rare, the building gaps or garage courtyards in the suburbs. The coveted properties are barely affordable and almost impossible to get hold of. Those who have inherited or received such an unadorned site by luck have long ‘gilded’ it through their own projects or by selling it to property developers.

Private investor Rico Martin seized the opportunity to acquire a roughly 1,500 m² site on the edge of a villa district in the Dresden district of Plauen. Since the 1960s, there had only been garages on it and nothing else.
With the brief of planning two houses with six apartments on this plot, the office of LLA of the architects Falk Leinert and Dirk Lorenz was approached. They had already successfully collaborated on a larger project in this constellation. It was a sign of mutual trust that they also wanted to realise this new project together.

Text: Carl Bender
Photos: Croce & Wir

"Although the property was quite narrow, we wanted to have a green area here – not just two houses, two staircases, two lifts and no garden like on the neighbouring property. It just wouldn't have felt right," Dirk Lorenz remembers. "Our goal was to accommodate the six apartments in one building. We oriented ourselves on a reference building on a nearby property and pushed the volume away from the street towards the back. Surprisingly, we fell on sympathetic ears at the urban planning office because our suggestions made it possible to preserve a beautiful front garden as well. We also managed to convince the client of this idea and, in doing so, really stepped out of line, which we love to do. It was clear to us then and there that we were going to pursue a sharp architectural design that can be ideally realised with PREFA. The beautiful thing about it is that our solution made the client very happy and all the neighbours as well."

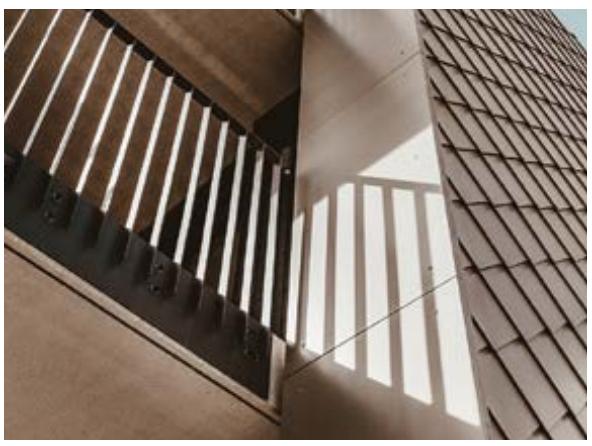
What's behind the bronze PREFA façade?

"The client's wish on the one hand, and on the other, PREFA object consultant Kai Matuschek. He provided extensive advice to our project team during the roof and façade planning right from the outset. The decision was made to use bronze-coloured 29 × 29 rhomboid tiles because they are an ideal fit for the proportions and give the structure the desired elegance. The building as such is a reinforced concrete construction with an ordinary rafter roof. So it's quite classic. What is special here is that no supports were necessary in the underground garage. We designed the cross walls as beams so that they span everything. That was the basic idea, to keep everything simple."

—
Dirk Lorenz, LLA Architekten

—
Object: multi-family home on Chemnitzer Straße, Dresden, DE
Product: rhomboid roof and façade tile 29 × 29
Colour: bronze
Architecture: Leinert Lorenz Architekten, Dresden
PREFA object consultant: Kai Matuschek
Installer: Dachbaukunst Quedlinburg GmbH
Client: JACOB Grundbesitz GmbH

“A lot of love went into it.”



How did you maximise the usable surface?

“We were restricted by the width of the plot, the distance spaces and the ramp of the underground garage. This led to the idea of pulling the staircase out of the main structure and thermally isolating it. As a result, we were able to accommodate two units on every level, each with a size of 110 m², four rooms and 18 m² for the balcony and terrace, which is quite typical for the Dresden market,” explains the architect before pointing out the double quarter-spiral concrete staircase with a prismatic soffit. “A lot of love went into it, which also spilled over to Rico Martin. When you look at it from the outside, there is a nice contrast between the rough exposed concrete element of the staircase and the soft, elegant, almost noble structure of the PREFA aluminium shell.”

What was the atmosphere like at the construction site?

“Falk Leinert and I have many years of practical experience. Before our studies, we worked as plumbers and window fitters. We developed a certain general attitude during that time that we don’t want to give up. It’s something we benefit from when dealing with craftsmen like Norbert Augner from Dachbaukunst Quedlinburg. He and his team were responsible for realising the entire building envelope. We stood on the scaffolding together and went through the details, marking them directly on the roof. It was all about connections and transitions to the PREFA rhomboid tiles, the integrated gutters and downpipes and aesthetic issues. It really was a lot of fun.”

How did the crises affect the construction progress and the costs?

“As for the framework conditions, the project was realised during a considerably turbulent phase. It was a different world at the time of the original calculation compared to when construction began. The construction costs were characterised by high price dynamics. But the client was so committed that he went through with the original plan instead of replacing the PREFA façade with cheap, outdated thermal insulation. With the sale, it became clear that the client’s attitude paid off and he still managed to reap his rewards due to its unique feature.”

How do you see the future of residential construction?

“The times have changed since 2023, we’re in a serious crisis. Residential construction has come to a standstill, and nothing’s going to change about that anytime soon. Nevertheless, we still consider ourselves optimists. Dresden has its own dynamic, the chip industry is just booming here right now. This means that residential construction has to get rolling again. We are well connected and broadly positioned in other areas as well, or you wouldn’t see seven people sitting here working in the office. A major project we are working on right now is the renovation and expansion of the Parkhotel in Dresden. It’s a huge event location where our team is currently overseeing the construction of an underground parking garage.”

Mr Keller, you and your wife live upstairs under the roof of this house. How did that come about?

“We bought a home in a beautiful location in Dresden-Strehlen right before the Wende (reunification). It was in a really desolate state. We put a lot of work into renovating it over the years so that, later on, it was basically as good as new. Our children eventually moved out and went to the West. After our tenant in the apartment on the top floor left, we decided to sell the house and find an apartment that is just right for us.

We took our time, combed through the offers on the market, asked around in our circle of friends and decided on three key criteria our new residence had to meet: it had to be completely accessible, connected to the public transport network and there needed to be shops close by for your daily needs.

A friend of ours connected us with the investor, Rico Martin. When he introduced this building in Dresden-Plauen to us, we liked it right away. Another decisive factor was that my wife is from the area and we got married here 54 years ago, so we already knew our way around. The proceeds from the old house were just enough to finance the new apartment.

We purposely chose the apartment facing away from the street. That way, we get some sun in the afternoon and it’s also a little quieter. Since we decided to purchase it so early on, we were able to change the floor plan and create a kitchen where the children’s room would have been. This made the space a little more generous. The sliding doors built into the fully glazed gable make the spacious balcony become a small front garden. We couldn’t imagine living without it.

To us, it is obvious that the right people were at work on this house. And we are very happy that we chose this apartment. I’ve worked in construction my entire professional life, by the way. After graduating from high school and an apprenticeship as a skilled labourer in concrete construction, I ended up studying. Afterwards, I worked at the Institute for Reinforced Concrete for several years, where I mostly dealt with building damage. And now, I live here with my wife, just as we had imagined it.”

"When we found out an Austrian was taking over"

A good decision in the right moment

The story of PREFA Germany began more than thirty years ago, when entrepreneur Dr Cornelius Grupp took over a tube factory in Wasungen and set up a warehouse in a modest storage hall for the aluminium roof panels supplied by PREFA Austria. Today, PREFA has made a name as an established and successful brand in architecture. Its success is also the product of a dedicated team, whose ambition and expertise continue to greatly contribute to it.

Text: Carl Bender | Photos: Croce & Wir

Just 14 kilometres from the border triangle of Hesse, Bavaria and Thuringia and 90 kilometres south of the geographical centre of Germany lies the historically significant town of Wasungen. To this day, the half-timbered architecture from the 16th century characterises the listed town centre on the right bank of the Werra river, which forms a border between the Thuringian Forest and the Rhön.

The Werra Valley Railway brought economic prosperity around 1860. While there were mainly agricultural products like cigars and wickerwork at first, a sawmill, a paper factory and later on a tube manufacturing plant were established and eventually nationalised after 1945. After the political turn, Dr Cornelius Grupp acquired the properties and facility of the largest tube manufacturer in the GDR, the *VEB Metallwarenwerk Wasungen*, and incorporated it into his group of companies.

In 1991, the restructuring in the tube production led to a surplus of labour. Cornelius Grupp was faced with the decision of either laying off long-serving employees or offering them an alternative. He came up with the idea of setting up a PREFA warehouse for Germany on the TUBEX site. At the time, the production and sales of his PREFA aluminium roof and façade solutions were running at full speed in Austria. So why shouldn't that work here as well?

33 years later, PREFA has also become one of the leading brands in the construction industry in Germany. A nationwide sales network of dedicated specialist consultants, object consultants and a creative marketing team ensure that there is a continuous increase in demand from architects, installers, conservationists and house builders. Under the leadership of Karsten Köhler and Tobias Götz, the original warehouse was transformed into a state-of-the-art, independent industrial company with more than 200 employees.

Wasungen

The capacities of the warehouse and logistics centre, which went into operation in 2024, enable short delivery times and open up new perspectives.

Jens Oppitz, 62
– the man with a “40-year guarantee”

“I was born just 100 metres away from here in 1962. My parents were German Bohemians. After the expulsion in 1945, when they were just teenagers, they earned their living grinding glass in the workshops of a glassmaker they knew from back home. That’s how they met. I already played on this site when I was a child. For me as a child, it was a beautiful time. After finishing school, I completed an apprenticeship as a fitter at the neighbouring tube factory and worked in the so-called *Ratiomittelbau* in the special machine construction department right from the start. Most of the time, we had to ‘cobble together’ new facilities from discarded machines, for example an annealing furnace for aluminium tube production. We had to be very creative because we didn’t have anything back then.

I was 28 years old when the *Wende* (turnaround) took place. When we found out an Austrian was taking over, there was a huge uproar at first. Mr Grupp introduced himself to us and ensured us he would not only maintain production but all our jobs as well. It was like a dream come true. After the currency changeover, nobody in the East bought anything from us anymore and sales dropped rapidly. And I realised that my department would be the first to be cut.

One day, Mr Schroll showed up, who was the Managing Director of PREFA Austria at the time. He just stood there and showed us a roof tile, brochures and some photos. We became more famliar with PREFA during a personal preliminary talk. Our former boss told us: ‘You have five minutes to think about this and your answer is going to be yes or yes. On Monday, you’ll head to Marktl for training!’ So there were two of us at first, and later eight of us who underwent training in Lower Austria from summer to late autumn.

In the meantime, the former combat group building and the fire station at the tube factory were cleared and repurposed into the PREFA Germany warehouse. In winter, we welded the storage racks, then the goods arrived, and on 1 April 1991, the official opening took place. The team consisted of a plant manager, a warehouse clerk, a secretary, six fitters and a representative for Thuringia.

Five years later, the production was set up, wholesalers and installers took over distribution and the installation work was discontinued. I was already a master tinsmith by then, travelling throughout Germany and some parts of Europe as a trainer, installer and problem solver for the next 30 years. Now, I practically run the ‘hotline’ for installers at construction sites and can thus pass on my experience of over 40 years to the next generations.”

Philipp Klee, 31
– lets the machines dance

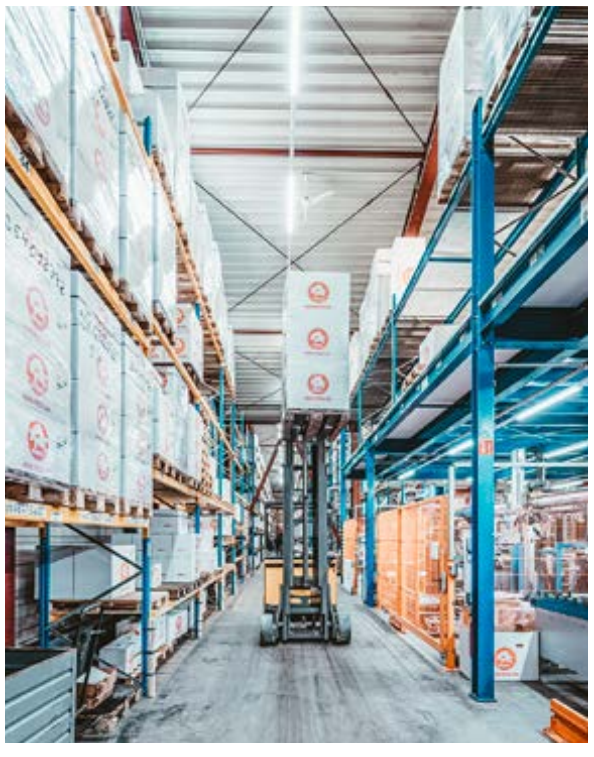
“I was born in Wasungen. It really is a beautiful place, the landscape is untouched. I usually spend my free time doing sports with my girlfriend or taking my dog out for a walk in nature. There’s always something that needs to be repaired on my Simson moped. And sometimes, I meet up with friends to go for a ride and talk shop.

As a trained automotive mechatronics technician, I delved into the field here nine years ago and work as a machine setter today. I control two different production lines at the same time, with two fully automatic punching, pressing and folding machines each. I load them with raw materials, ensure the dimensional accuracy of the shingles, check the quality and am also the contact person for the packers. At the moment, I’m producing the R.16 roof tile and the DS.19 shingle.

I retrieve the planning lists from the system when each shift begins. It also shows me the stock data based on which I determine which products and colours are to be produced. I receive orders for special items directly from my foreman. When I insert a new coil, I always perform an incoming measurement of the first part and then authorise the process. Depending on the settings, the machines automatically take random samples, for example after every 120 parts. It is my responsibility to check them and react immediately, if necessary. The precision of the machines never ceases to fascinate me. A lot of PREFA expertise is packed into them.

You have a huge responsibility as a machine operator. You always have to be wide awake. Every minute of downtime means a loss. On the plus side, the physical work is not particularly demanding.”


PREFA
STARK WIE EIN STIER
DACH • FASSADE • SOLAR
DAS DACH, STARK
WIE EIN STIER!
PREFA



Daniel Spiegel, 48
– What are you doing here?

“I’m a trained roofer, also completed training as a technical draughtsman and have been working here in the technical office since 2016. My area of specialisation is digital planning of rear-ventilated façades.

Projects from all over Germany land on my desk whenever it comes to individual solutions or complex building projects. The more complicated the task, the more I look forward to discussing possible solutions with our object consultants or sometimes directly with planning architects. We mostly talk about difficult details for transitions and connections or solutions that comply with fire protection regulations as well as suitable substructures.

In Germany, building regulations and fire protection regulations vary from state to state. For me and my colleagues, this means that we have to stay up to date. There often isn’t much time to draw up the production plans between plan approval and start of production. I usually work on several projects at the same time. I have to, since I deliver finished 3D plans that serve the installer as a binding basis for ordering materials and installation.
I find it remarkable that PREFA offers these services free of charge. After all, we have ten specialists in our team.

In my free time, I do a lot of sports and like to ride my bike from Meiningen to work on the Werra Valley cycle path. If I have the opportunity to do so, I visit some of our construction sites. It makes me proud to see how my ideas are realised in practice.”

Mario Leifer, 54
– What’s up in the warehouse?

After a ‘training period’ of 27 years, my colleague and I are in charge of organising and controlling the entire flow of goods in the warehouse. Despite state-of-the-art IT systems, we haven’t forgotten how to think. We usually know very early on when a process is not running according to plan and are quick to react.

I do most of my work at my desk. Since the two-storey extension was built, the storage area has increased by more than 4,400 square metres. Now, we are able to store large quantities of all of our products in all standard colours. This ensures that we can deliver, for example, the rhomboid roof tile, the rhomboid façade tile and the drainage system in the same colour at the same time for a project order.

The seven hall-high lift shelves allow for an efficient storage and picking of small parts with minimal space requirements, thus saving us a significant amount of time and storage space. The goods are stored fully automatically and densely packed in the high-bay shelving system and can be conveniently removed by warehouse staff on demand via the operating opening.
We currently employ 20 people per shift for order picking, storage and retrieval as well as lorry handling. As a result, we process an average of 200 orders of various sizes every day.

From this location, we supply Germany, the Benelux countries and Scandinavia in cooperation with several forwarding and transport companies. The sixteen other PREFA countries are serviced from Austria.”

Dorit Leifer, 42
– I live my talents

“When I finished school, I received the opportunity to complete an apprenticeship as a transport services clerk at *Deutsche Bahn* (German railway company), which included a stint in the train attendant service. Afterwards, I decided to catch up on my school-leaving exams. At the time, I was happy to be able to earn a bit on the side at PREFA with small jobs involving the gutter machine or in the marketing warehouse. I always stayed in contact with PREFA, throughout my business law studies at the University of Applied Sciences, my maternity leave and even up until I graduated in business administration. I knew I would always be able to top up my finances with various office jobs here.

I had already worked as a business economist in various sectors for several years when our Managing Director Karsten Köhler personally asked me for a meeting around Christmas 2011. The highlight of our conversation was a permanent employment contract. After a three-month training, I took over as Head of Marketing during my colleague’s maternity leave. Today, I’m responsible for the East and West and closely cooperate with ten specialist consultants and five object consultants.

In the architecture industry, PREFA is known to put their money where their mouth is when it comes to marketing. So architects naturally have high expectations. The quality of our publications and technical information material lies far above the industry standard.
In addition to my daily tasks, I also plan and organise several events, such as the annual sailing regatta as part of the Kiel Week (sailing event), road shows or ‘snack and learn’, a format that we hold directly at interested architectural offices. Both architects and installers are eager to attend these events, since they lead to new contacts and increase demand.
In this job, you always have to keep your eyes and ears open if you want to make things happen.”

From the ice age *to the industry:*

The development of glass production in Lusatia

Text: Carl Bender | Photos: Croce & Wir

The Lusatian glass and coal region lies in the Muskau Bend, an impressive geological formation that was created during the ice age and pushed up layers of earth. All minerals that are essential for glass production, such as clay, quartz sand, wood and coal, surface in this region.

The importance of this rich mineral resource was recognised as early as the Middle Ages, when numerous craft guilds used the raw materials that can be found here to produce glass objects. An increasing demand and the development of new technologies in the 19th century paved the way for glass production to become an industry. In the year 1920, the company Vereinigte Lausitzer Glaswerke AG had more than 6,000 employees and was producing a variety of glass objects, including flat glass, dishes, glass art and even optical instruments. The region was known as the world centre of glass production.

Most glassworks did not make it through the Great Depression, but production in Weißwasser survived these difficult years. There was an upswing in 1933 with the creation of a modern factory for the production of goblets and a glass research centre. To keep experienced glassmakers in the company, the respected designer and Bauhaus student Wilhelm Wagenfeld was hired as head of the new art department. This proved to be a win-win situation for everyone involved, for under his leadership, a breakthrough was achieved within just a few years.

In the GDR era, glass was an important foreign currency earner. Everything that could be made from glass was produced. The development of the mechanised production of goblets led to the creation of the largest glassworks in East Germany around 1960. It was privatised after the turnaround in the 1990s and is now represented worldwide as Stölzle Lausitz GmbH. With experienced employees, the mechanised production of goblets was developed to perfection.

The secret lies in the mix

The high quality and flawlessness of the glass are based on the composition of the mixture. This mix of predominantly quartz sand and specific mineral additives, which determine the properties of the melt, is stored in silos of various sizes in the batch house. The raw materials are mixed exclusively by the production manager according to secret recipes in batches of 30 tons each. Due to the high purity of the mineral resources from the region, there is hardly any need for chemical additives.

“Up to 10 to 15 years without interruption, an incredible challenge!”

Thin-walled and light – as if hand blown

Two production lines with two real “wonder machines” each run around the clock in four shifts, creating around 160,000 glasses every day. They are moulded in a single pass under the supervision of experienced machine opertors. In the process, the viscous melt, which has cooled to a certain temperature, is transferred to the machine in the form of large drops and passes through the individual positions in a cycle. The finest goblets are created under the influence of gravity, air currents, lubricants, water and hollow metal moulds. One of the most impressive moments is when one machine pulls up the glass stem from the mass of the round glass base and connects it to the goblet produced by the other machine.

Eventful past, stable future

The region will definitely remain attractive for the glass industry in the long term. The switch to sustainable production is well advanced, and the capacities are gradually being increased through the acquisition of another glassworks. Around 430 employees are currently working in Weißwasser and aim to make it become the world’s largest and most successful producer. Wholesalers, breweries, wineries and the catering trade in many countries are supplied from warehouses containing more than 10 million glasses at short notice. “The melting tanks must never cool down, or the glass will solidify, which would destroy the tanks beyond repair. This means that production has to run in four shifts for an average of 10 to 15 years without interruption. It’s an incredible challenge for man and machine,” says Marc Paprott. In addition to his marketing activities, he is also involved in the design process for the glass series that appear once or twice a year together with glass technicians, glassmakers and experienced sales staff. They are increasingly using digital tools such as 3D scanning, modelling and printing. “A series consists of up to eleven different types for long drinks, whiskeys, various wines, sparkling wines or liqueurs. This requires a high level of investment in mould and plant construction, packaging design, marketing and sales.”

In today’s Stölzle Lausitz GmbH, tradition and innovation come together. The secret of its success continues to reside in the heart of glassmaking: a melting house full of knowledge and experience.

—
Marc Paprott

Glass museum Weißwasser

Visiting the glass museum in Weißwasser is a rewarding experience for those interested in technology and history a well as lovers of beautiful glass. The families of the workers employed in the glassworks took the initiative to found the museum, which is now run by an association together with the town of Weißwasser. The exhibits include historical glassworks, tools and numerous rarities made from glass dating from different eras.

Architecture and glass art

In Art Nouveau, famous architects became familiar with glass as a material and designed glass objects and goblets. Although wine glasses and buildings differ from each other in terms of their size and function, there are many architectural principles that apply to both. Just as the structure of a building influences the indoor climate, the form, material thickness and temperature resistance of glass have a decisive influence on the flavour of the wine. These very experiences, combined with aesthetic demands, are what distinguish the designers who help make Stölzle Lausitz's glassware successful all around the world.
Interestingly, many wine experts prefer these machine-made glasses over handblown ones at tastings. The significantly lower price, thinner glass walls, slender stems and lighter overall weight are decisive factors for this preference.

Photos (2x): © René E. Pech

"Rich people should want it and poor people should be able to afford it."

(Weißwasser, 1936)

Under this guiding principle, Wilhelm Wagenfeld helped the Lusatian glassworks and the remaining glass artists find a successful new beginning in 1935, after the collapse of the glass industry that had flourished for several decades. The designer not only pursued aesthetic ideals but high social standards as well. He felt an obligation to his employees and aimed to avoid layoffs due to a lack of work.
Wagenfeld reorganised the entire product range, motivated the glassblowers and glassmakers to top performances and thus helped the glassworks experience a new heyday. He argued for dispensing with the usual decorative paintings, engravings, or cuts and instead designed formally refined vases with thought-out, subtle decorations that complement the form.

Another approach of his "employment policy" was to design objects that could be produced in large quantities and with low material and production costs. He therefore also worked with moulded glass, which was rather unusual for a renowned designer. It was important to him that his designs were affordable for everyone.
What is still very popular today and a prime example of how design should follow function is his Kubus crockery for the fridge. Such sets are rare today and highly prized. Originals can be identified by the VLG diamond mark.

Hugo Junkers' all-metal house a vision?

Text: Claudia Gerhäusser
Photos: Croce & Wir

Today, we talk about life on Mars, jump from a space capsule into the stratosphere and use complex CAD programmes to draw 170 km long, habitable lines across a dusty desert. It is hard not to imagine that Hugo Junkers' projects in the early 20th century left people just as captivated as we are right now by missions to Mars or the ambitious architectural endeavours of *The Line*. On the one hand, Junkers aimed to make it possible for everyone to fly, protected by a metal skin. On the other, he wanted to reform existing building traditions and the way we live with an industrially manufactured house made of steel.

Light, fast and exportable

Junkers apparently saw a direct path from the 20 m² cabin of a Ju 52 to a living room made of metal. In 1925, he set up an interdisciplinary research group to focus on developing a thin-walled metal house, the Juhaus ("Juhouse"), at his workshops in Dessau until 1935, with the aim of bringing it to serial production. His metal house was meant to be primarily one thing: transportable by plane and industrially producible. With a modular building method using standardised parts, Junkers and his engineers minimised the amount of work and material and shortened the construction time to save costs. Junkers envisioned that with the design, he would not only be able to address the housing shortage of his own workers but also alleviate potential housing crises in many parts of the world.

Avant-garde collaboration

The composition of the team assigned to develop the house was remarkable, encompassing artists, structural engineers, metalworkers, aeronautical engineers and architects. Hugo Junkers sought renowned architects such as Marcel Breuer and Walter Gropius to create "a constructively and spatially functional house organism." Breuer was already experimenting with tubular steel furniture in the aircraft workshops in Dessau. Ultimately, however, it was the decision to involve the aeronautical engineer Franz Griebsch that advanced the construction of the first prototypes.

We need physicists rather than architects

The innovations of the new house were of a technical nature. Following the avant-garde philosophy of a unity of art, technology and economy – as pursued by the Bauhaus at the same time in Dessau –, Junkers focused on the engineering challenges of the project. In an interim conclusion of the research group, which repeatedly dealt with climatic and building physics aspects, one reads that they needed "more physicists and chemists rather than architects." A structurally induced high air exchange rate in the interior had been causing problems, just like the heating and sufficient lighting of the metal house. Moreover, the expansion properties of the metal during external temperature changes were a particular problem. Well aware of the peculiarities of the building material, they were looking for suitable forms such as oval windows, which were ideal in metal but hardly feasible in traditional building materials. That not every experiment was implemented – ultimately, the prototype ended up receiving rectangular windows – can mainly be attributed to the demands of the rational construction pursued by Junkers.

The house with waves

In 1928, patent 525015 showed a first technical and constructive solution for the wall elements of the metal house. A realisable prototype was finally built in 1931. It was 10,30 metres long, 8,30 metres wide and just over 3 metres high, resulting in a floor area of around 80 square metres. Four rooms, a kitchen, hallway, bathroom and interior as well as exterior walls featured futuristically curved surfaces that had a certain softness in their form, offering modern, albeit unusual comfort. The steel construction consisted of prefabricated, double-riveted and concavely curved metal panels that could be assembled right on site. Each individual panel was 50 centimetres wide. The double-layered wall structure with the cavity could be used for glass wool insulation, for mechanical ventilation and for the components of a district heating system.

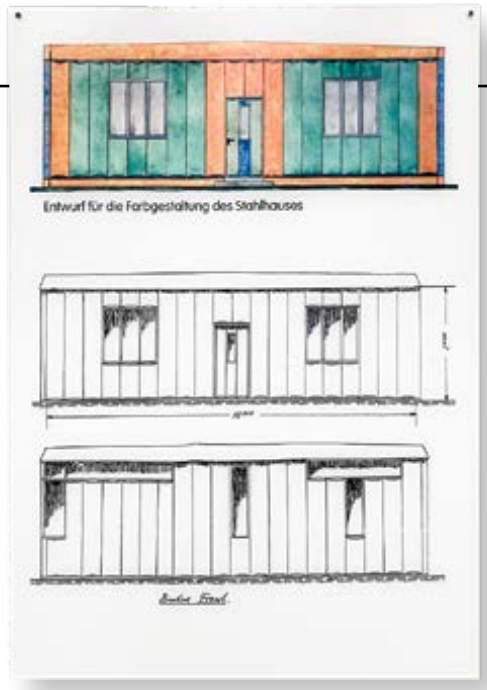
Blue instead of grey

In sketches and drawings, the first prototype of the metal house – now in collaboration with Berlin architects Wassili Luckhardt and Alfons Anker –, received different-coloured coatings. In 1933, a second prototype featuring several rooms was constructed in under two months, serving as a model house and facilitating further experiments with light redirection controlled by prisms. Its interiors were exemplarily furnished with tubular steel furniture and household appliances from the Junkers company. All in all, a total of five metal houses were realised over a period of 10 years.

What spoke against the house

The reasons why the house did not succeed in the way and for the purposes Junkers envisioned were largely related to its timing. Hugo Junkers, the driving force behind the idea, passed away in 1935, at a time when the workshops in Dessau were producing airplanes for the German *Luftwaffe* and an imminent war. A genuine market for the metal house had not developed by then, as people were skeptical about living in the highly unusual house. Additionally, steel was still too expensive to use as a building material to the extent required for serial production.

As a result, the metal house disappeared from the Junkers engineers' to-do lists after 1935 and, like the patents of the research group, faded into obscurity for the time being, at least in Europe. The fact that stars of a forward-thinking architectural generation like Richard Buckminster Fuller in the USA still used almost identical principles with buildings such as the Wichita House as late as 1948 indicates that Junkers and his developers were on the trail of the futuristic essence of a technically exciting modernity with the Juhaus.



Until 1999, one of the prototypes functioned as the gatehouse of the Villa Hugo Junkers in Munich-Gauting. This last remaining prototype can be found at the Hugo Junkers Technical Museum in Dessau.

Rough climate – *hidden beauty*

Object: Beckerwye House, Bekkjarvik, NO
Product: rhomboid façade tile 44 × 44
Colour: P.10 brown
Architecture: Forum Arkitekter, Bergen
PREFA object consultant: Thomas Nilsen
Installer: Ove Isene

Rough climate – *hidden beauty*

Text: Barbara Edlinger
Photos: Croce & Wir

A bold project can be found in Bekkjarvik, a small village on the island of Selbjørn in Norway. White wooden houses line the harbour, with the prominent Bekkjarvik Guesthouse at the centre and a dark, futuristic-looking building resting on a hill in the background. It is the Beckerwyc House Boutique Hotel, which is known for its high-quality ambiance and the top-class restaurant Mirabelle.

Like a world of its own

Thousands of islands and islets characterise the stunning coast near Bergen. The deep, cold blue of the North Sea and partly rounded off geological formations of granite and gneiss form the region's distinctive landscape. Many of the islands are now inhabited and easily accessible from the mainland via regular ferry and bus connections as well as good roads and bridges. The residents mainly live off fishing, dairy farming, agriculture or tourism. The island of Selbjørn is a great hiking area, offering a variety of activities, good food and fishing opportunities. A trip to Kongskleivo, the highest point on the island, is definitely worth it. The path winds up to the summit along a stone trail, and in early summer, you can spot wild sheep with their newborn lambs peeking out like tiny balls of wool from the steppe-like grass.
With only 800 inhabitants, the community of Bekkjarvik greets visitors with a small harbour and a shopping centre. Inhabitants of other islands come by boat for their basic supplies, and yacht owners or sailors from afar enjoy a break on land, indulging in the excellent cuisine of the guesthouse Bekkjarvik Gjestgiveri run by the Johannessen family.

Exciting times

"We quickly let go of our initial doubts whether it was the right decision to give up our well-paid jobs in Bergen and move here," says Asta Johannessen today. "The people here supported us from the beginning, which allowed us to buy the guesthouse after just two years. It took years to expand the original house of the Danish king and modernise the guestrooms." By this time, Asta and Øystein had already started a family. The twin brothers Arnt and Ørjan enjoyed practicing in the kitchen, later completing their chef training and impressing guests with their culinary skills. Regine, their younger sister, helped wherever needed and is now co-responsible for reception and management.

Asta Johannessen

A completely new project

The ideal building site for another guest accommodation was found on the grounds of a dilapidated former retirement home, where the family was determined to build a classic apartment house for seminar or wedding guests.
Encouraged by the spirit of optimism, Ørjan discussed his desire for something more with his family. Why just guestrooms? Why not a small, independent hotel? And why not a restaurant of his own design? “I want to be inspired by the diversity around us and create unique dishes that reflect the culinary heritage of the islands. Our guests should have the opportunity to watch my team of chefs and waiters at work in the open kitchen.” The family and private investors embraced this wonderful idea and changed the previous plans accordingly. “New build” was previously a foreign word for the family. They found the ideal partner for the architectural design in the Oslo-based architect Ajas Mellbye. The large volume and exposed location demanded a great deal of skill from him. The project was to include 24 guestrooms and suites, a spacious restaurant with a show and production kitchen and a professional cooking school. In addition to meeting regulatory requirements, the design had to respect the local landscape and sustainability standards.

The Beckerwyc House Hotel

As if a rock had risen from the earth, the hotel dominates the horizon as a counterpoint to the simple white houses surrounded by bright red rhododendron bushes. The slanted, dark brown façade elements, resembling tectonic plates leaning against each other, create a contemporary architectural statement. The building is clad with 44 × 44 PREFA rhomboid façade tiles in brown which wrap around it like a protective skin.

What is remarkable is the high quality of workmanship and sustainable construction, with in-situ concrete and the careful use of aluminium, wood and glass creating an exciting ensemble.
With a usable area of around 1,800 square metres, this hotel is a smaller boutique hotel, characterised by its individual and familial charm. The entrance on the ground floor leads to the rooms, with a curved staircase leading to the first floor, where more rooms and suites are located. The Sol Design team is responsible for the carefully designed spaces. By effectively utilising the spaces with smart details, they created an elegant and cosy atmosphere with warm colours inspired by nature.

Each room offers a generous view of the sea and the spacious terrace, which will gradually transform into a vegetable garden. “Between the Jacuzzi and fragrant herb beds, guests should be able to relax and experience top culinary delights in my kitchen,” says Ørjan.

Mirabelle – a stage for top culinary art

You can indeed experience top culinary delights at the Mirabelle restaurant, located on the top floor of the building. A spacious room with big windows facing the sea allows the view to wander from the settlement over the harbour to distant islands. Small hatches at the top of the outer wall allow delicate light to enter during the day and frame the twinkle of individual stars at night. The seating is limited, with six round, cream-coloured stone tables and comfortable chairs in the centre, a virtual fireboard separating the area from the lounge and a dark-coloured, aesthetically designed cork wall housing a large wine cellar with rare treasures from around the world. All eyes are eagerly fixed on the open kitchen, where the team of five chefs and two waiters are arranging the first main courses and decanting wines. They are making sure that the prepared ingredients are ready at the right moment in the correct consistency and temperature. One wrong move could result in the guest not receiving the dishes as Ørjan Johannessen intended.
Besides the visual experience, you focus on your sense of taste and smell for an evening and are amazed at how many facets you can perceive. The evening ends after about five hours and remains unforgettable.

"I mainly work with natural products from the region. I draw inspiration from the treasures of the sea and the flavours of berries, cheese and wild herbs. I also incorporate culinary experiences from afar, such as various citrus fruits or exotic spices that I bring home from my annual stay in Mauritius.
Together with shellfish, fish forms the basis of our culinary experiences. We source fish from fishermen who cast their nets themselves from their own boats und thus preserve the environment, preventing unnecessary bycatch and returning undersized specimens to the sea. I grow algae on my own farm and mainly use them as spices due to their fantastic flavours. We only process meat when we are offered wild sheep or deer, which roam freely here on the island."

Ørjan worked in renowned restaurants and hotels in Oslo for many years. In 2015, he won the international cooking competition Bocuse d'Or in gold. To date, only 19 top chefs worldwide have been awarded this prize established by Paul Bocuse. After this success, he no longer wanted to endure the constant pressure you are exposed to at this level. He decided to return to the family business, to focus once more on the products that are delivered fresh each day from the natural surroundings of the Austevoll archipelago with its 667 islands.

Forum Arkitekter:

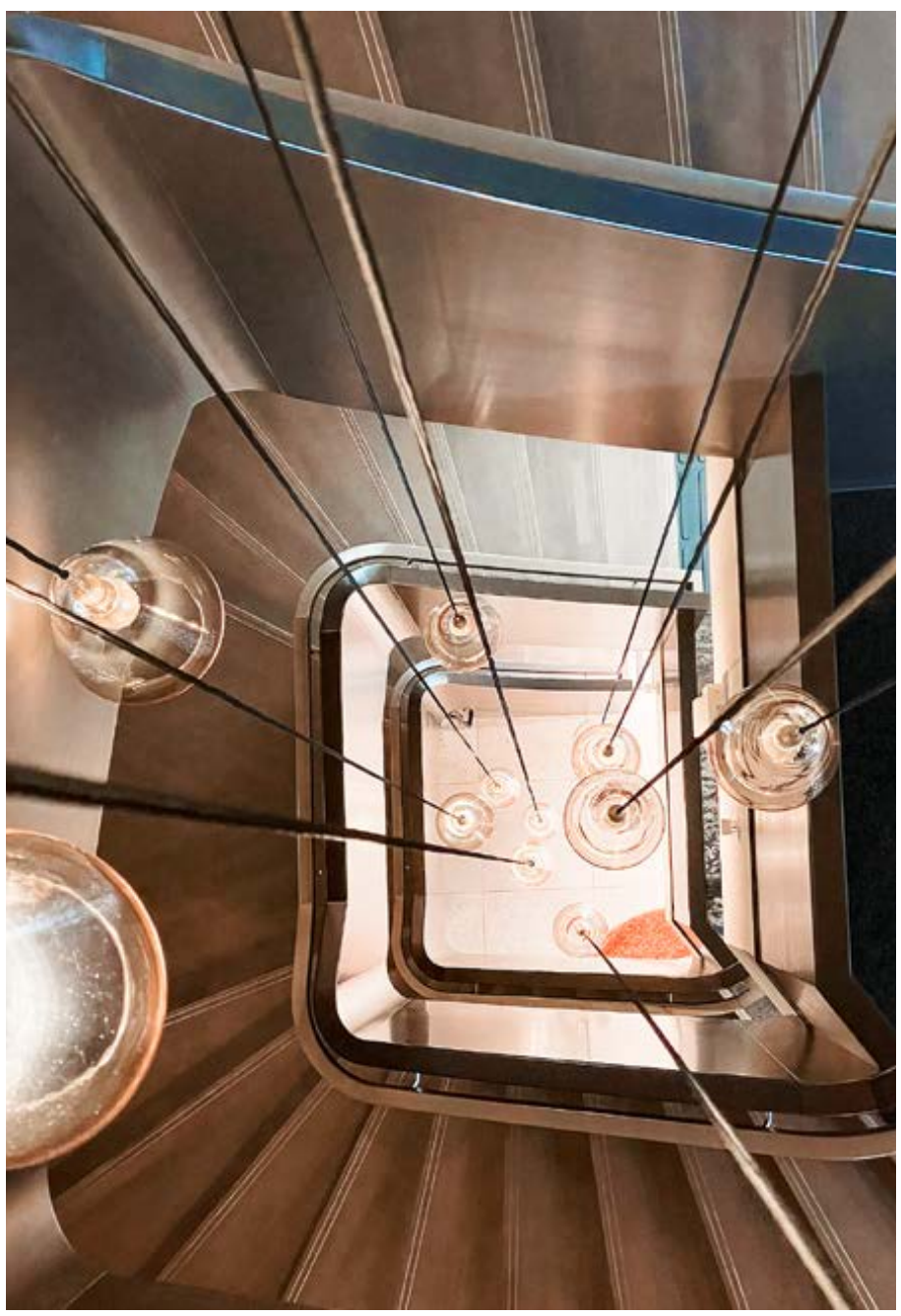
planning by specifications

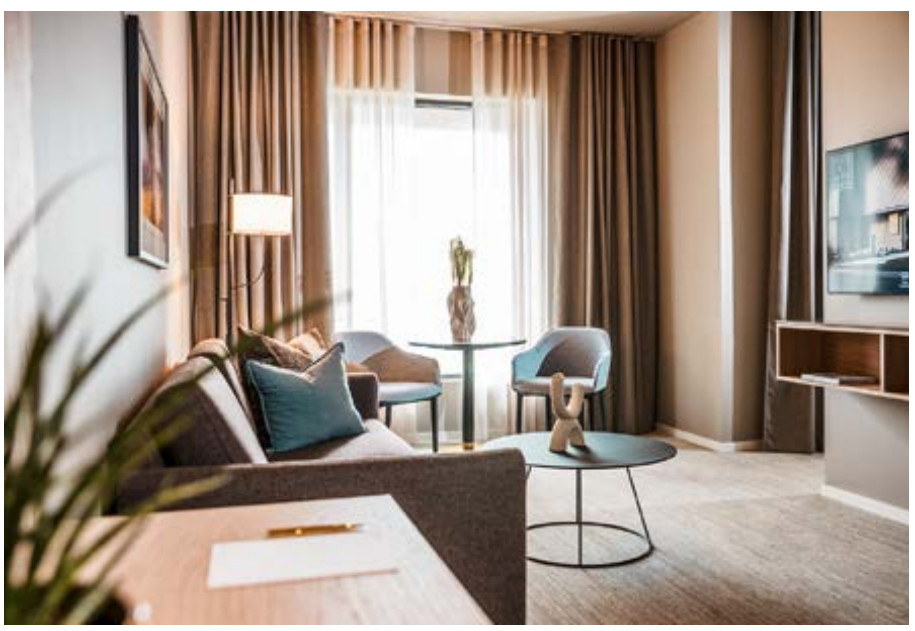
The distance to Oslo made it impossible for the planning architect Ajas Mellbye to accompany the island project until completion. By mutual agreement, the project was handed over to **Forum Arkitekter** based in Bergen. The experienced team of 11 architects was now responsible for realising the architectural concept according to the existing plans.

Anne Carlsen and **Kine Fristad** adhered to the established parameters as closely as possible, despite many unexpected events and open questions, and completed the work to the satisfaction of everyone involved.
The building was constructed according to the TEK17 standard, one of the strictest building codes in the world, with an estimated energy consumption of around 139 kWh per square metre per year. The floor plan is almost rectangular and two external elevators connect the four floors. The basement houses the non-visible production kitchen and technical rooms. To meet the requirements, many adaptations were necessary regarding insulation, ventilation, heating and fire protection.
As a reference to the landscape, the hotel's color scheme was to reflect the rocky terrain. "We discovered the brown aluminium tile from PREFA for implementing this bold design. The light reflections of the scale-like tiles resemble the light and shadow play in the surroundings," says Anne Carlsen.

Major planning challenges arose not only from the geological conditions but also from the asymmetries in the roof and façade. Due to the steep slope, the installation of the wall tiles had to be done in two stages. At a certain height, it was physically impossible for the installers to reach the substructure with the scaffolding. A solution was needed. Consequently, it was decided to carry out a subtle division on the visible envelope. First, the upper part of the so-called roof slope was installed completely, and then, with the help of safety measures, the lower part of the façade was continued according to standards. "The desired appearance and elegant design are still very well achieved," says Kine Fristad.

It was the first time that the two architects worked with PREFA material and they emphasise the good cooperation with the Norwegian branch and the smooth process of ordering and delivery.





PREFARENZEN ambassador in the Balkans:

A portrait of Filip Dubrovski

Since 2022, Filip Dubrovski has been driving the use of PREFA aluminium in Croatia, Bosnia and Herzegowina, Montenegro, Serbia and his home country North Macedonia from Zagreb. We met up at a cosy café in the former industrial complex and current art district of Rijeka, where he shared with us why he finds his job so fascinating and how he benefits from his own experience as an architect.

Every year, Filip Dubrovski travels tens of thousands of kilometres along the coastal and inland roads of the Balkan Peninsula to provide personal consultations to architects and builders. "Whether they are realising projects from the first draft to completion or have detailed questions about the product range PREFA offers: it is my job to know what makes them tick and work with them to find a tailor-made solution." His experienced colleague Zoran Jakopović and he have already made a name for themselves as reliable partners in their catchment area: "Every wish, every question and new contact goes directly through us. We are informed about everything and can quickly respond to enquiries about prices, products, individual solutions or any other concerns related to the use of aluminium. This personal contact provides a solid foundation on which both sides can build."

From Skopje to Chicago to Zagreb

Anneliese Heinisch: Where does your special relationship with architecture come from?
Filip Dubrovski: That's a story that begins in my hometown of Skopje. I come from a family of architects and developed an interest in architecture very early on. Especially my mother is happy that I also chose this path for myself. She was a renowned architect and realised buildings all over the Balkans during her time at ADG Mavrovo. Her most famous one is probably the Boris Trajkovski sports hall in Skopje. With this background, I experienced my childhood and teenage years in Skopje during the 80s and 90s. Skopje was considered the most modern city in the whole of Yugoslavia at the time. Due to the earthquake in 1963, four fifths of it had been destroyed and rebuilt at a great expense. Growing up in such a modern city was very interesting for me. We were rather focused on the future, not so much on history. This made it all the more difficult for me when the city was compulsively kitschified in neoclassicist style years later.

After his architecture studies at the University of Skopje, Filip's path led him to Chicago, where he completed his master of science with his thesis "New Sustainable City in Macedonia" via a Fulbright Scholarship at the Illinois Institute of Technology. When he returned to North Macedonia in 2013, he realised there were few possibilities for young architects and decided he was going to have to pursue his goals elsewhere. He eventually secured a permanent position as an architect at a promising Croatian architectural office based in Zagreb. "I was very excited to be accepted and moved to Croatia. I felt at home here right away," raves Filip.

Facing the future with courage

AH: Were you familiar with PREFA at the time?
FD: I was aware of it, but my first contact with PREFA as a building material wasn't until my early days in Zagreb. As I recall, Zoran Jakopovič advised me on a project with Sidings. What impressed me was that an industrial company could have such a comprehensive approach to architects. The input I received was excellent, even when it came to intricate architectural details. I continued to work with PREFA products and technology a lot later on, when I was self-employed as an architect. And I always stayed in contact with Zoran. When he mentioned that PREFA was looking for an object consultant, I decided to switch sides without further ado.

AH: What has happened since then? How has PREFA been received by architects in the Balkan countries?
FD: They love the material and like to use it for contemporary architecture. Oftentimes, they come across it when doing research or became familiar with it during their studies abroad. Due to the proximity to the Adriatic Sea and extreme weather phenomena such as the strong downslope wind Bora with up to 200 km/h, many discover their interest in aluminium as a solid and weather-resistant design material which they can also use for sophisticated detail solutions. Later on today, I have a consultation with an office here in Rijeka about a project that is going to be clad with the serrated profile. The building is located at the new marina docks, right on the shoreline, so the architects want to be certain that the material can withstand the aggressive environment without any flaws and comply with the standards. I'm going to discuss all the important details with them and put them in touch with some companies that have been trained by PREFA.

AH: How has your search for quality-conscious installation companies been going so far?
FD: To be honest, it has been less than encouraging. In Croatia, there aren't enough tinsmiths who can process aluminium at a convincing level. Once you have mastered working with PREFA and discover the craftsmanship and artistic possibilities, you almost become a sculptor. Recently, we have noticed a growing demand for training courses at the PREFA Academy in Ig, situated just south of Ljubljana, aimed at equipping future professionals with the skills to handle PREFA products correctly and tackle complex tasks.

Some downtime in between

AH: With all your professional commitment, do you ever find time for yourself?
FD: During the construction season, my hobbies really do take a back seat! This past winter, I went on a skiing vacation in Austria, in Bad Kleinkirchheim in Carinthia. My plans for this summer are not set in stone yet. Although I love the Adriatic coast, I tend to stay away from tourist hot spots in the warm season. I find that it is better to visit architecturally and urbanistically interesting coastal cities like Split or Zadar in winter! But maybe I shouldn't say that out loud …

AH: Unfortunately, I must be going soon. But if you would like to stay in Rijeka a little longer and are craving some Croatian home cooking, you should definitely join me at the Konoba right across from this café. I'm a passionate hobby cook and always find inspiration there. When I have friends over at my place, I like to try out vegetarian reinterpretations of classical Macedonian dishes like *Pastrmajlija*, which is a kind of pizza, or a stew like *Tavče Gravče*. They remind me of my childhood in Skopje and give these traditional dishes a fresh touch.

Text: Anneliese Heinisch
Photo: Croce & Wir

PJ Word Rap

with FILIP DUBROVSKI

— *Lynx or wolf?*
Wolf
— *Acoustic or electronic?*
Both
— *Large format or small format?*
Small format
— *Man or machine?*
Man
— *Vegetarian or vegan?*
Pescetarian
— *Plane or train?*
Definitely traveling by train!
— *Analog or digital?*
Analog
— *Red wine or white wine?*
Red wine
— *Island hopping or road trip?*
Both
— *Surfing or wakeboarding?*
Wakeboarding!

The Corvin Department Store in Budapest

When visiting the Hungarian metropolis, one can tell that a revitalisation and modernisation wave has swept across many parts of the city. A notable facet of this development is the renovation of the historical Corvin Department Store at the Blaha Lujza Square. Unlike many other building projects, the restoration follows a unique concept that maintains the building's historical significance while creating contemporary living spaces.

From the past to the future

The "Corvin," Budapest's first luxurious shopping centre, was opened in 1926 by Max James Emden, a wholesale merchant operating from Hamburg. With the magnificent building, planned by the popular architect Zoltán Reiss, he surprised people with a wide range of offers. They came from far and wide to combine shopping in the elegant ambience with a visit to the café-restaurant while enjoying some live music.

Unfortunately, the department store complex was severely damaged by shelling and fire in 1944 and could only be partially used from then on. After nationalisation in 1948, it was named "Department Store Budapest" and was eventually integrated into the department store group "Centrum" in 1967. The decision was made to make a statement by erecting a pre-set sheet metal façade as a temporary solution, without taking the historic building into consideration. People eventually became accustomed to the unadorned building shell and the popular shopping centre was in operation until its final closure.

It was not until 2017, more than five decades later, that the new owners decided to remove the "box" and herald a new era for the traditional department store. Olivér Balogh, project manager and partner of the real estate developer Blue Door Consulting, commissioned the architect Olivér Ornig with the architectural management of the project and the design of the office, hotel and retail areas. For the reconstruction of the listed façade, he hired architect András Bordás from the office M-Teampannon Építészmérnöki Kft., an experienced expert on historical buildings.

András Bordás told the PREFARENZEN journal about the interesting work that kept him busy over the course of several years: "We already began with the reconstruction and planning of the façade when the department store was in operation and still clad with the sheet metal. It almost felt like an expedition: we had to climb through a small opening in the back of an Asian shop to get to one of the balconies. When we got to it, we saw for the first time the massive damage that had been done to the façade. We were shocked by how brutally the steel beams of the substructure had been attached to the magnificent façade, destroying it beyond repair. Added to that, a ventilation shaft had to be routed through the building and a large part of the side façade needed to be removed while the underground railway was being constructed."
After these discoveries, the architects realised that a restoration was impossible. The investors raised the necessary budget for the new building, together with the monument preservation authorities, the city and the government. Freed of its sheet metal shell, the building was scaffolded and veiled in a mega display showing a true-to-scale illustration of the original façade.

"We spent several weeks on the scaffolding to carry out the measurement and documentation with stone and painting restorers. Reliefs were moulded, details were drawn and photographed and countless colour and material samples were made with artificial stone and concrete." They served restorers and craftsmen as a basis for the authentic reconstruction of the façades created in the Neo-Renaissance, Neo-Baroque and Art Nouveau style.

András Bordás was also responsible for the restoration of the building's only gable roof and explained the process to us: "For many decades, the original metal roof was only hastily repaired, especially after the substanial war damage. Several layers had to be removed in order to get to the hundred-year-old reinforced steel roof structure. We were in favour of a metal roof right from the start, but we left the final decision up to the investors.

Text: Carl Bender
Photos: Croce & Wir

Object: Corvin Department Store, Budapest, HU
Product: PREFALZ
Colour: P.10 zinc grey
Architecture: M-Teampannon Építészmérnöki Kft.
PREFA object consultant: Sándor Forró
Installer: SPM Illés Szabó, Bádogos Stúdió Kft.


CORVIN
téli vásár · téli vásár · téli vásár
30-40%

Foto: © F.O. FOTO


HANAM
Libri
SPAR

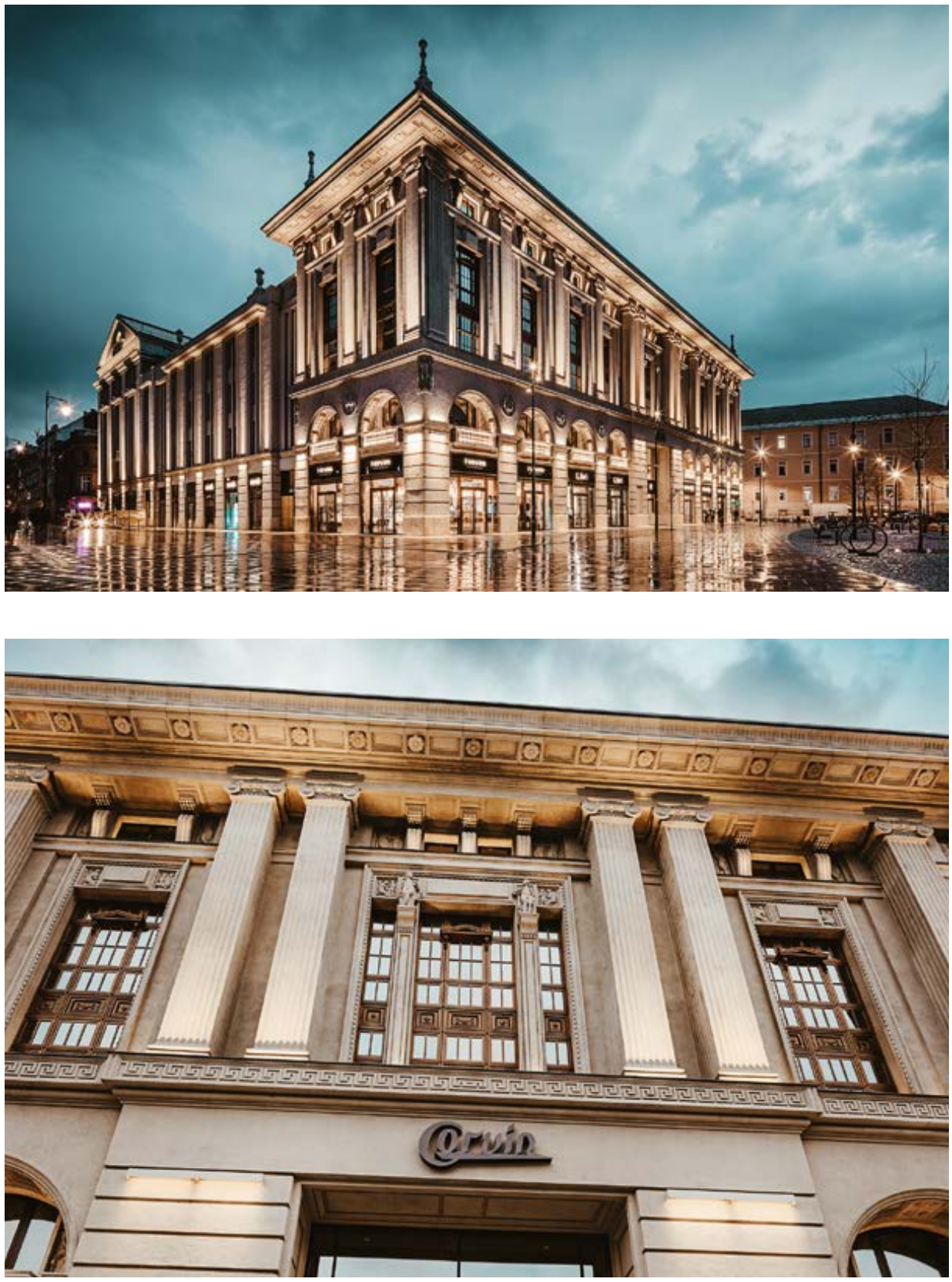
Bordás András

They remained faithful to their credo, just like with the renewal of the façade, and opted for the highest quality. The tinsmiths performed excellent work during the installation at great heights. They flawlessly laid the approximately 800 square metres of PREFA aluminium and perfectly integrated the large roof windows as well as all connections. I think it is going to last for the next hundred years."

While work was in progress on the roof and façade, the building complex was gutted, technically renovated and around 17,000 square metres of versatile space were created. The retail spaces on the ground floor and basement have been let since autumn 2023. A hotel with a restaurant, office spaces and several lofts for multiple uses are being created on the upper three floors.

New life at the Blaha Lujza Square

During the renovation of the department store, the Blaha Lujza Square was remodeled as well. In the process, a significant part of the busy junction was turned into a car-free and barrier-free zone. Parking spaces and side lanes had to give way to generous green areas, which have already become a popular meeting place for people of all ages.



Nemere Judit from PREFA Hungary, Forró Sándor with architect Bordás András

Photo: © Real Fiction Filmverleih

Max Emden – a visionary with style

The ‘department store king’ Max Emden came from a Jewish merchant family from Hamburg. Born in 1874 during the burgeoning *Gründerzeit* era, he was already a partner at his ancestors’ textile trading company together with his brothers when he was thirty years old. Within only a few years, he managed to develop it into an international department store group, with department stores in major cities like Munich, Berlin or Stockholm. He achieved great commercial success with a concept that can be compared to modern franchising, supplying selected retail outlets throughout Germany with his extensive range of goods. The retailers received exclusive rights and were obliged not to offer any other products. Business went so well for everyone involved that his goods were sold at over 200 shops within a short period of time.

By the 1920s, Emden was already a wealthy man when he decided to build a department store in Budapest inspired by the Parisian model. With clear ideas in mind, he had architect Zoltán Reiss plan the “Corvin Áruház” project at the location of the popular Apollo revue cinema. In its stead, Hungary’s first department store was built behind a generously adorned classicist façade in a record time of less than three years and opened on 1 March 1926. The building looked like a two-storey palace. Behind the high windows, however, were four stories with various departments that offered not only everyday goods but also a wide range of high-quality fabrics, clothing, furs, shoes, jewelry and much more. The entrance hall with the glass roof invited customers to stay. You could not only do your shopping here, but could also enjoy a restaurant, café, photo studio, theatre ticket sales and other services.

Apart from his business, Max Emden also built up an impressive art collection and led an expansive life. After he divorced in 1927, he sold 19 of his department stores to Rudolf Karstadt as well as 150 other stores and moved to Switzerland, where he acquired a coveted group of islands in the Lago Maggiore and had a palace built for himself. From afar, Emden kept an eye on the political developments in Germany, feeling safe from persecution since he had converted to Protestantism many years ago. Although he became a Swiss citizen in the year 1934, he was forced to experience how the German authorities confiscated his remaining goods, artworks and department stores.

Marked by disappointment, he died in Muralto in the Swiss canton of Tessin in June 1940. With their documentary “Also Life is an Art – The Case of Max Emden,” directors André Schäfer and Eva Gerberding show how his heirs are still fighting for the return of looted art to this day.

PREFA Academy

The bridge between theory and practice

Text: Carl Bender | Photos: Croce & Wir

PREFA Academy Germany invited the PREFARENZEN team to visit three of the four training centres for application technology together with Berthold Ruck. This took place on the occasion of the expansion of the training programme for architects and planners starting in summer 2024.

PREFA places great emphasis on the proper installation of its roof, solar and façade systems by trained trade partners. The PREFA Academy has found a way to encourage companies to invest in the further training of their employees. Behind this concept is a large team of skilled and experienced application technicians who are eager to pass on their knowledge.

PREFA Academy for architects: Why not?

Berthold Ruck and his team see a great need for practice-oriented training for architects and planners. Thomas Weiß, Head of Training at the Academy in Neu-Ulm, explains:
"Together with my colleague Oliver Kroll, we have been training around 400 interested roofing craftsmen and representatives of educational institutions and vocational schools here every year since 2018. Architects, planners and students are taught the basics about planning and material properties. In the past, it was common to also learn a building trade in addition to studying architecture to gain practical experience at the construction site. That is precisely what we try to provide here.
In our workshops, we use standard as well as individual details to illustrate what one should look out for when planning roofs and façades, taking building physics requirements into account. Topics like building physics, building sealing or the avoidance of wind and expansion noises through clever planning are very popular among the participants. In practical exercises, they learn how to create a rainproof roof from aluminium sheet with just a few tools and skilful folding and edging. In the process, they also gain a better understanding between practical realisation and targeted planning. These courses usually take place in early summer and autumn."

Second stop – a different picture

When we visited the Academy in Rheinbach near Bonn, twelve craftsmen from Luxembourg were taking part in a "standing seam basic training." This gave them the opportunity to put what they had learned in theory into practice on roof models with the support of their instructors Ralf Naumer und Sinisa Krusec.
For architect Jan Mikolajczak from the office K6 Architekten, this was an excellent occasion to experience the precision of this work at close quarters. He was there to discuss details relating to using a PREFALZ covering for an extremely steep roof together with PREFA object consultant Carsten Friedt and one of the master tinsmiths. The architect took the opportunity to try his hand at using the folding pliers out of interest.

The newest of the four well-equipped training centres is located in **Hamburg**, where the hosts Michael Eggers and Christian Thrien run an information seminar for architects. The participants have different backgrounds and shared with us what moved them to take part in this training programme during a break.

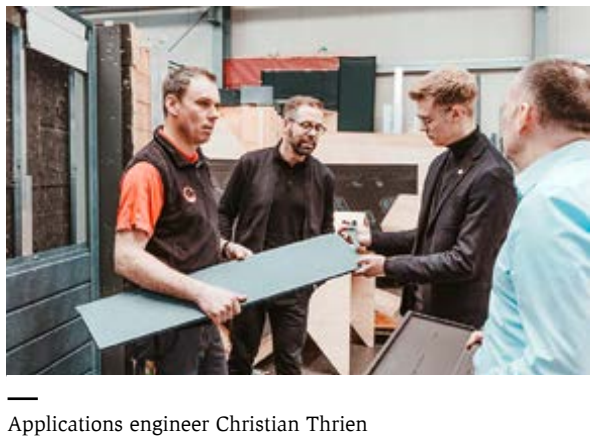
Applications engineer Thomas Weiß

Berthold Ruck, Carsten Friedt and Sinisa Krusec

Architect Jan Mikolajczak and applications engineer Sinisa Krusec

Applications engineer Oliver Kroll

Sales manager north Michael Eggers



Applications engineer Christian Thrien

Christoph Frenzel,

from the office Frenzel und Frenzel Architekten, Buxtehude

“I like to take part in training courses like these because I always want to be up to date. Especially when it comes to complex tenders for roofs and façades, we have to be certain that all details can be realised. There are situations in which we as architects need support, and that is when we take the opportunity to get help from our PREFA object consultant.”

Julian Behrens,

architect at Viebrockhaus AG, Harsefeld

“As an architect, I specialise in planning prefabricated houses with a high degree of ecology. Since I’m looking for sustainable façade systems, the appointment today came just at the right time. You can touch and test all the materials here. We also find that being able to take part in special façade workshops right here at the Academy is a great option for us. The Hamburg location is perfect for this.”

Michael Volkmer,

planner and real estate agent, Boizenburg/Elbe

“In addition to my activities as a real estate agent, I focus on planning and tendering do-it-yourself houses. Most of my customers are private individuals who, for various reasons, want or need to build themselves. I aim to ensure that they use good materials and that the quality and appearance of the houses reflect contemporary trends. That is why they often decide to use aluminium building envelopes. I’m here today because I’m interested in the PREFA solar roof tile.”

Germany`s first PREFA showroom

The fourth stop on our journey takes us to Feldkirchen near Munich. The suburban community is not far from the trade fair city Riem and is easy to get to via the A94 motorway. PREFA has adapted an ideal building in a good location in the town centre and turned it into a consulting and exhibition centre.

It makes a big difference whether we present our products in catalogues or whether architects, installers or builders can experience the materials, their surfaces and their colours here on a large scale," sales manager Frieder Zaiß knows from experience. "We have equipped the showroom so that, aside from trade fairs, smaller events can also take place here."

Thomas Hill is one of the project developers who directly benefit from the new location. He mainly consults architectural offices from the greater Munich area and is planning to also organise consultations at the Academy in the future. Having access to most PREFA products here would also benefit planners, installers and investors. The showroom is also available to certified installers for consultations with their customers. A real win-win situation.

Sales manager Frieder Zaiß, architect Stefan Heigl and project developer Thomas Hill

CONTACT

Interested parties can schedule appointments via e-mail, telephone or directly with their PREFA consultant.
The showroom is not continuously staffed and does not yet have regular opening hours.

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Studer actively supports integrating energy elements in façades and roofs of buildings. His most important target group are architecture students, who will be faced with the task of convincing builders of the effective symbiosis of space, form and technology, of in-roof and integrated façade solutions in the future. He reminds that this is something that architects and project developers should do early on in the design phases. Studer finds that integrated photovoltaic systems like those offered by PREFA are the answer to the current dilemma.

Daniel Studer therefore sees a need for political control. Currently, mainly on-roof PV systems, which are quick to install but are vastly uninteresting from an architectural point of view, are being used. In Switzerland, in-roof PV and on-roof PV are subsidised with almost equal amounts. Studer says that we need new ways of thinking here and is for a subsidy freeze for on-roof PV. Instead, the integrated systems should be supported all the more strongly.

"Until around 1800, humans generally built ecologically and sustainably. Why shouldn't that be possible today?"

PV is the new normal

"Mission accomplished!" The only thing left for him to do is finish writing their new book ***Made of Solar****, and the most important aspects regarding photovoltaics, both in terms of construction and design, will be summarised for the time being. The pioneer* ***Daniel Studer****, lecturer for building technology and construction as well as co-director alongside Daniel Mettler of the BUK at the ETH in Zurich, sees it as an important mission to further develop what has been a rather additive technology until present and convey it as an integral part of good architecture. "Applying the technology effectively," he says, "is a question of whether architects accept it."*

Text: Claudia Gerhäusser | Photo: Daniel Studer

The technology significantly shapes the overall aesthetic appearance, explains Daniel Studer. His vision is to explore and utilise the design and construction potentials of photovoltaics in an architectural context. "Why do without it?" He argues in favour of no longer viewing architecture as an energy consumer and fully exploiting its potential for energy production instead. "Being a prosumer is an entirely new task." That this does not have to exclude a sophisticated design anymore is something the lecturer has been conveying to his students and as an architect in his own projects for years. Studer, who supports the pluralism of postmodernism, sees construction, technology and architecture as a unit.

And now briefly to the classic photovoltaic cell. It is rectangular, dark, highly reflective and needs many technical additions to function efficiently. The cells are known as distinctive solar power plants that can basically be screwed to any roof or balcony railing. But this is not what Daniel Studer is talking about. He makes it clear that its technology should be taken seriously as an architectural element and understood as an integral part of our buildings. "Today, photovoltaic cells can have different colours, they can be designed as a building envelope." According to him, there are very many examples of how photovoltaics can be integrated into an overall design concept. The notion that architects have nothing to do with, or do not know what to do with this sustainable technology is no longer in tune with the times. His students gratefully take up on this approach, says Studer. "None of them question whether photovoltaics should be part of every building anymore." Until ten years ago, there was hardly any demand to find inspiring architectural solutions for an increasingly improving energy technology. To change this, Studer reorganised teaching and demanded what seemed logical: a both constructive and aesthetic connection between buildings and photovoltaics. It was during this time that the website solarchitecture.ch was created which presents examples of successful architecture whose photovoltaics are not understood as a parasite or unavoidable evil but are practically celebrated as a new design element.

An outlook

According to Daniel Studer, we will have to design differently, embrace a different planning culture and build physically differently in the future. That is why he is already a whole topic ahead in his research practice: he is increasingly focusing on the building-inherent reduction of heating demand through innovative heating systems and the utilisation of building mass as a heat storage. Just like with solar architecture, he continues, there are also models with architectural merit here. We should not imagine that buildings as storage mass resemble medieval castles but rather learn to question the extensive glass fronts that have become fashionable over the past 30 years.

When asked more specifically about the future, Studer offers an outlook: "In 10 years, we will be living closer together and will have recognised this as a quality. The costs of our food supply will have increased by then, which will bring more awareness to this important aspect of our lives." He also believes that the problem of CO_2 emissions caused by a high energy consumption could be minimised by fully using renewable energy sources in the future. "It all depends on which energy sources we utilise."

"Not changing ourselves is not an option," he puts it succinctly. In Europe and large parts of the world, he says, "we" simply cannot build anymore, with the effect that we will have to densify existing residential areas and cities due to climate change. "We should recognise that as a quality and design it accordingly as soon as possible. Otherwise, we will not stand a chance." In his mind, this is a great starting point, a new complex and interdisciplinary task for everyone who wants to participate in a human and humane future. He pauses for a moment before becoming very precise once again: "We do not need better technology. We need better architecture."

The answer to the dilemma

Photo: Croce & Wir

The same way the Swiss PV pioneer Daniel Studer proclaims PV as the new normal in architecture on the previous page, PREFA also sees its future in the further development of active roof and façade systems.

Through the development of the solar roof panel, PREFA has created a technically and visually advanced in-roof PV system, thus entering an entirely new segment. “It was clear to us that we needed to offer architects and builders systems that meet their design requirements,” says Jürgen Jungmair from his perspective as Head of International Marketing. “The successful cooperation with our Austrian production partners and the high demand encouraged us in our efforts right from the start.”

“It was clear to us that we needed to offer architects and builders systems that meet their design requirements.”

New building or upgrade: the PREFALZ solar module

“The new PREFALZ solar modules are available in black and come with matching black anodised module clamps. They can be installed on both new and existing PREFALZ roofs,” explains Bernhard Allmer, Photovoltaic Product Manager at PREFA. With the specially developed clamps, the solar modules are attached directly to the standing seams, so there is no need to penetrate the roof with screws. The specially designed 2 metre long glass/glass PV modules are extremely durable and can withstand high mechanical loads, whether from hail, storms or snow.

Maximum efficiency, even in the summer heat

Furthermore, the system is highly efficient. With 10 % higher output compared to conventional PERC cells, TOPCon cells set a new standard. “They convert more sunlight into electricity, even in diffuse light conditions, resulting in a higher overall yield. The created energy can be used directly, fed into the grid or stored,” explains Bernhard Allmer. Additionally, the PREFALZ modules offer higher temperature resistance, meaning that their output decreases only slightly as temperatures rise. This results in minimal performance loss and ensures reliable energy production over a long period.

Photo: © Sebastian Wegerbauer

High-quality production in Austria

PREFALZ solar is 100 % compatible with the PREFALZ roof system. It offers a 10-year product guarantee, a 25-year performance guarantee on the solar module as well as an additional 25-year product guarantee on the PREFA substructure. The PREFALZ solar module is developed and produced to a high standard in Austria and comes from a CO_2-friendly production facility.


PREFA
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