

PREFARENZEN

PREFARENZEN Journal





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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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PREFARENZEN



The Compelling Desire for Novelty

Curiosity serves as a driving force, particularly in the field of architecture. It is the initial impulse that encourages us to question things, rethink spaces, experiment with materials, and explore alternative solutions. Without curiosity, there would be no innovation, development, or progress.

This isn't just about technological or design innovations; it's primarily about an attitude: curious people listen attentively, ask questions, and show genuine interest in others. In our fast-paced world, where efficiency and sensory overload are the norm, curiosity stands out as an asset. Embracing curiosity means taking a moment for people, their needs, and the stories they share.

Childlike curiosity embodies the purest form of this mindset: it is unprejudiced, open, and playful. Children approach the world with wonder, questioning and discovering everything around them with an enthusiasm that many adults have lost. In architecture, maintaining this childlike perspective is essential; it empowers us to be courageous and imaginative, helps us face challenges with a new outlook, and inspires us to create innovative designs that surprise.

This curiosity is also central to PREFA: we are committed to staying close to our customers, being attentive to detail, and remaining open to new ideas. Those who maintain curiosity create connections, and that is precisely where good architecture begins.

Are you curious about the upcoming pages? If so, I hope you enjoy browsing and discovering them!

Jürgen Jungmair Your PREFARENZEN Ambassador

PJ EIGHT**POINT**ZERO

PS: And if you can't get enough, on our PREFARENZEN platform www.prefarenzen.com there is even more inspiration for architecture, design, and craftsmanship waiting for you!





henever there's a chance to visit PREFA's sister company in Budapest, everyone at PREFA international is excited to join in – and for good reason. The success story of the multidisciplinary team, spearheaded by Judit Nemere and Tímea Kovács, has been a hot topic of conversation for quite some time. It's not just their colleagues who admire their inspiring management style; the tinsmiths, artisans, and architects who regularly participate in the high-profile events at the modern PREFA headquarters value it too!

Budapest is a vibrant metropolis that serves as the cultural and economic heart of the country. Approximately one-fifth of the Hungarian population resides here, contributing significantly to over a third of the national economic output with their innovative strength and commitment. "PREFA Hungary has truly stepped up to become a vital player in the construction industry and building trade after two decades of dedication."

The city attracts approximately 300,000 students from around the world who benefit from the prestigious universities in the capital. These young talents are highly sought after by companies both nationally and internationally. While the service, finance, and IT sectors dominate Budapest, the automotive industry in cities like Győr and Debrecen has timely adapted to the future of electromobility and plays a central role there as well.

In this economic environment, PREFA Hungary has





The inventor of the 'magic cube', Ernő Rubik, was a Hungarian architect and professor who was fascinated by space, movement, and shapes. In 1974, he invented a mechanical puzzle to help his students grasp spatial thinking. What began as a teaching aid transformed into a global phenomenon – the Rubik's Cube. For Rubik, the cube represented more than a mere toy – it was an expression of creativity, logic, and curiosity. Thus, with a simple idea, an architect changed the world of thinking. truly stepped up to become a vital player in the construction industry and building trade after two decades of dedication. It all began with small steps and a great deal of commitment. Every opportunity to showcase aluminium as a building material for roofs and façades was seized. Through on-site training, PREFA supported hundreds of small businesses – most with fewer than five team members – helping them gain a competitive edge in the market.

This approach opened the door to building lasting partnerships and connecting many of the tradespeople nationwide. It also fostered genuine friendships and a spirit of collaboration, with everyone eagerly helping one another with personnel, machinery, and materials when needed. Together, they've created a one-of-a-kind PREFA community!



Judit Nemere and Tímea Kovács

Many years ago, PREFA Hungary made a significant impact on architecture. Renowned architects successfully utilise the properties, colours, and structures of the roof and façade systems as design elements in projects of all sizes, as demonstrated by the examples on the next page.









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1 — Object: Company building Product: Prefalz Colour: P.10 light grey Architecture: Zsolt Sorosi & Éva Kalóczki

2 —

Object: Faculty of Economics and Business Product: Prefalz Colour: P.10 PREFA white Architecture: Bánáti + Hartvig Architekten mit LIMA Design Ltd. Object-related individual solution

3 —

Object: Detached house Product: Prefalz Colour: P.10 anthracite Architecture: Téralkotó Stúdió: Szabolcs Nagy-Miticzky, Bence Sárkány

4 —

Object: Industrial building Product: Prefalz Colour: P.10 traffic yellow (bespoke colour) Architecture: Ákos Takács, CÉH Gruppe, Budapest



6 —

Object: Holiday home Product: Prefalz Colour: P.10 light grey Architecture: Prof. Dr. Zoltán Bachmann und Dr. Ágnes Borsos

7 —

Object: Restaurant Product: PREFA Siding Colour: P.10 PREFA white Architecture: Zoltán Reznicsek







PREFA Hungary Sets New Standards

'With the ongoing boom in the building construction sector and the rising demand from our consulting, sales, and training activities, we felt motivated to find a new location that offered larger office and storage space back in 2020. As we diligently searched for a suitable and future-proof property, we stumbled upon a fully developed site in the Törökbálint industrial park. The size, the hillside location, and proximity to the motorway and Budapest made it a compelling choice. We knew this was our chance and had to seize it!' recall Judit Nemere and Tímea Kovács.



Text: Carl Bender Photos: Croce & Wir

In addition to conventional central warehouse functions, the goal was to establish a venue for training, continuing education, communication, events, and international gatherings. To realise this vision, the company relied on skilled staff open to taking on new responsibilities.

In addition to the high-bay warehouse and long goods storage facility, along with the two-storey office wing, the building stands out with its bronze wall panels, the PREFA Academy on the upper floor, and the fully equipped training workshop below. The glass entrance hall also serves as an extensive product display area. The striking colour scheme in the interior design throughout all areas may suggest that women are in charge here. /



"For us, the building is already a success story."

The venue successfully passed its first test as an event location during its opening in November 2024, hosting over 300 guests from nearly all 20 PREFA countries, including representatives from business and politics, as well as partners and customers. Since then, the training courses at the Academy and the workshop have been fully booked, international PREFA meetings have taken place, and a three-day in-house exhibition, in collaboration with twelve partner companies, attracted over 450 visitors.

'For us, the building is already a success story,' says Judit Nemere, adding: 'Of course, there were a few bumps along the way, but everyone involved in the construction was committed to finding the best possible solution. Thanks to the professional cooperation, thoughtful planning, and top-notch execution, a truly special building has come to life. We are thrilled with it!'

















Object: PREFA Hungary

Product: Rhomboid Façade Tile 44 × 44 bronze, PREFA Siding metallic silver, PREFABOND metallic silver Architecture: Enikő Várhelyi, Helfrich Szabolcs from Upright Masters Ltd. Execution: GOMÉP Kft. Installer: Pilisi Pléh-Boy Kft., Balogh Szig-Bád Kft., Árpád Bagyinka

PREFARENZEN



PJ EIGHT**POINT**ZERO



From Slum to Exclusive Residential Area

Text: Kornélia Kiss Photos: Croce & Wir

Over two decades, the **Corvin Quarter** has transformed from a slum into a highly prized and popular residential area in the centre of Budapest. When designing the Grand Corvin residential building, the architects at LAB5 focused on light, green spaces, and high-quality materials.

The Corvin Quarter urban development initiative is the largest urban regeneration project in Central Europe and one of the most notable real estate endeavours in Hungary's capital. Over 20 years, 22 hectares of land that were once considered a slum have

New Pedestrian Island in the Bustling City Centre

Spanning 700 metres, the Corvin Promenade is the centrepiece of the Corvin project. This space was designed by the renowned English landscape architect Robert Townshend. After 18 years of construction, the final residential building on the promenade was completed in 2022. The complex, developed in two phases - Grand Corvin 1 and Grand Corvin 2 - features a total of 558 apartments. The investor selected the architectural firm through a tender process. Despite numerous specifications, the chosen firm, LAB5 architects, delivered innovative solutions for the room layouts and façade designs.



been transformed. Residents lived in rundown and overcrowded municipal and private housing. To address this, the district administration opted to partner with private investors for the urban renewal project. The Futureal Group took on the task, with the district administration utilising the funds from investors to build new homes for the displaced former residents of the dilapidated social housing. At the same time, the project developer eagerly took the opportunity to design the revitalised district, which includes 2,700 new apartments, 50,000 square metres of commercial space, and 130,000 square metres of office space.

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Architect Linda Erdélyi, LAB5





The architectural style of the promenade needed to be consistent, prominently featuring limestone, glass balcony railings, and orange hues. The building's height was specified at 30 metres along the promenade, significantly tapering down at the rear where smaller homes neighbour the Grand Corvin. 'We concluded that we shouldn't create a large 'houseboat' here; rather, we envisioned a structure divided into different sections, reminiscent of the old, organically built houses in the area,' explains Linda Erdélyi, a member of the LAB5 architecture team. She co-founded the firm in 2007 alongside András Dobos, Balázs Csaba Korényi, and Virág Anna Gáspár after completing her studies. LAB5 has since expanded to over 20 employees and established a strong reputation for its extensive residential and office developments. Besides construction planning, the firm also specialises in interior design.









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Light and Warm Tones

Each section of the Grand Corvin has its distinct character, contributing to the building's less imposing appearance. The surrounding area influenced the choice of materials: limestone is prevalent along the promenade, whereas the older streets of the neighbourhood feature brickwork. The façades reflect the diverse range of materials found in this area. Additionally, the vertically installed PREFA aluminium siding, covering more than 800 square metres, plays a key role in shaping the building's aesthetic image.

The architects intended to steer clear of using just plain plaster to reproduce the orange colour; instead, they sought a high-quality material. For Linda Erdélyi, a key consideration was the material's ability to reflect light, particularly given the building's north-facing orientation. 'When sunlight hits the façade, it is reflected into the courtyards, bathing the building in a warm, inviting tone,' she noted. The PREFA Siding façade panels were specially manufactured for this building in the unique colour metallic salmon. PREFA architectural consultant Sándor Forró supported the team of architects with product selection, planning, and construction supervision. He emphasises the importance of sustainability: 'It is very important that PREFA is largely produced from recycled aluminium, and almost 90 % of the products we bring to market are recyclable, making them very environmentally friendly.'









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A Central Location and High Quality can be Appealing

The architects prioritised the amount of green space, leading to the building being set back from the street and the creation of spacious front gardens. The house, much like the rest of the neighbourhood, has gained popularity, as evidenced by rising property prices. A 63 square metre flat is currently listed for rent at €1,100 per month on a well-known property platform. Furthermore, a 33 square metre flat featuring a small front garden is up for sale at approximately €220,000, which is more than double the average price in Budapest at present. In addition to its central location and green gardens, modern amenities such as smart home technology, energy-efficient construction, and balconies throughout enhance the value of these flats.

Having a chat with the facility manager, who is around nearly all the time, provides valuable insights into the building's resident demographics. The luxurious apartments on the upper floors are primarily owned by affluent local families who appreciate the prestigious location and its proximity to business hubs and the city centre. On the other hand, the rental units are primarily home to students, expatriates, and workers from nearby big companies. As a result, English is the primary language spoken daily, highlighting Budapest's growing importance to international businesses.

Object: Residential complex Grand Corvin Product: PREFA Siding Colour: Bespoke Colour metallic salmon brushed Architecture: LAB5 architects | Linda Erdélyi, András Dobos, Balázs Csaba Korényi, Virág Anna Gáspár PREFA object consultant: Sándor Forró Installer: Ács-Bádogos-Szigetelő Kft. Client: Futureal Holding

Architecture with Roots and Wings

Photos: Croce & Wir

Imre Makovecz is regarded as the foremost representative of organic architecture in Hungary. His buildings, which seem to emerge from the landscape like living beings, stand in stark contrast to the technocratic architecture of the 20th century. While the official building policy of the socialist era emphasised industrial efficiency and standardisation, Imre Makovecz designed spaces that nurture identity and resonate with the soul.





His role model was Károly Kós, an architect, writer, and cultural politician who developed a nationally influenced style of architecture in Transylvania around 1900, based on local building forms and craftsmanship traditions. Imre Makovecz embraced this intellectual legacy in the 1960s when he began his career in state-controlled planning offices but



Ecumenical Chapel of Rebirth in Devecser

soon chose to forge his own path.

He became famous for the cultural centre in Sárospatak in northern Hungary, which was completed in 1983. The building marked a turning point; its expressive design language and symbolic architecture gained international recognition. However, Imre Makovecz did not remain a star architect; his real work began in the structurally weak regions of Hungary.

Architect Imre Makovecz 1989





Protestant Church in Siófok





Hagymatikum Thermal Bath in Makó



Roman Catholic Church of Szent István in Százhalombatta

He constructed community centres, schools, csárdas, After the political transition in Hungary, Imre Makovecz



Balázs Csóka

Architect Balázs Csóka studied under Imre Makovecz. Alongside his practical work, he engages in architectural theory and is part of the editorial team for the magazine 'Országépítő', meaning 'We are building our country'. In 2018, Balázs Csóka was awarded the Pro Architectura Prize for his contributions. PREFARENZEN wishes to thank him for his insights on this article.

and churches, often in villages neglected by the state. His construction methods broke with uniformity: instead of panels and standard components, he used handcrafted wooden structures, forms from nature, traditional spatial arrangements, and archetypal designs elements. For him, architecture was not a technical product but an expression of a cultural attitude. His buildings tell stories about trees, birds, the sky, and the earth.

In 1981, he founded the Visegrád Building Camps, where architecture students could plan and construct their own designs. This institution shaped an entire generation of young architects and established the foundations for Imre Makovecz's architectural firm. In 1989, he collaborated with like-minded individuals to create the Károly Kós Association and the architecture magazine Országépítő, which is still in publication today.

designed striking church buildings in Paks and Siófok, bringing him nationwide fame. In 1992, his design for the Hungarian pavilion at the World Expo in Seville was realised - a thoroughly symbolic structure that embodies Hungary's cultural independence and spiritual depth. Numerous projects followed, including university buildings, churches in Transylvania, the Hagymatikum thermal baths in Makó, and many others.

Following the 2010 red sludge disaster, he participated in the reconstruction of Devecser. The 'Chapel of Rebirth', inaugurated in 2012, became a symbol of his idea of architecture as a spiritual home.

Imre Makovecz died in 2011. His work lives on as a legacy of architecture that not only reflects culture but also creates it.





Text: Carl Bender | Photos: Croce & Wir

The Guardian of Traditional Architecture

Architect Krisztina Ujj Mészáros

Those looking to buy a house in the Balaton Uplands usually think first of the thatched houses typical of the region. There are two options: an existing building can be stylishly converted into a weekend home, or a new building can be constructed in the traditional country house style.

In both cases, architect Krisztina Ujj Mészáros is a true expert in the classic rural architecture of the Balaton Uplands. A Budapest University of Technology and Economics graduate, she was also a student at the travelling school of Imre Makovecz, Hungary's most famous representative of organic architecture. For around 15 years, she deepened her knowledge alongside the renowned architect and restorer Dr. Endre Szűcs. Her architectural firm, MÉRMŰ Stúdió – named after a geometrically designed decorative form from the Gothic period – represents the scientifically sound and consistent transfer of traditional rural architecture into contemHer designs incorporate historical proportions, roof pitches, and decorative façade elements. Renovating and redesigning a partially collapsed 19th-century clay house presents a significant challenge: she must satisfy both the technical and spatial needs of the client and the guidelines set by historic preservation authorities, along with structural requirements. This task goes far beyond classic architecture and involves drying out the walls, reconstructing the roof framework, and building pergolas featuring plastered round columns, openwork balustrades, and round arches. Furthermore, it's essential to establish the appropriate floor structure, install



porary building culture.

Krisztina Ujj Mészáros has been a freelance architect for several years, and her keen attention to detail has earned her the trust of discerning clients who highly value landscape conservation and harmonious integration. electrical and plumbing systems, and create accurate replicas of historic windows and doors.

Architect Krisztina Ujj Mészáros





The thatched roofs typical of the region require a great deal of expertise. The craft of thatching, which is not taught in any school, is now only mastered by a few experts; their knowledge is passed down from master to apprentice. Krisztina Ujj Mészáros maintains close contact with these experts, as well as with other artisans who can create artistic façade decorations, period-style windows and doors, and custom-designed baking ovens. Through this collaborative craftsmanship, she is helping to pass on historical knowledge to future generations.



"The biggest challenge in the renovation is restoring the original splendour and design."



She often works late into the night in her studio. However, her nature-loving lifestyle extends beyond architecture: she is also passionate about her horses. She operates one of the country's most important Haflinger stud farms in the Balaton Uplands National Park.



Underground Sightseeing

Budapest Metro Line 4

Zoltán Erő, the chief architect of Budapest and the leader of the entire underground project, took time to guide PREFARENZEN on a tour, emphasising the concepts and features of the ten unique underground stations. He suggests that any tourist fascinated by architecture and infrastructure should include this underground attraction in their travel plans.



Planning Marathon

Initial concept designs date back to the 1970s, but political and financial obstacles delayed the project until the

contract was finally signed in 2004. The competition was won by PALATIUM Studio, led by Zoltán Erő and Balázs Csapó. Due to the project's scale, they formed a creative network with the second and third-placed firms - sporaarchitects and Gelesz és Lenzsér - along with two other partners. The idea was that each of the ten stations should possess its own artistic signature while being connected by a common architectural vocabulary.

Text: Kornélia Kiss Photos: Croce & Wir

Architect Zoltán Erő



Technical Masterpiece

The 7.4 kilometre route between Kelenföld vasútállomás (Buda) and Keleti pályaudvar (Pest) goes under the Danube for the first time. The depths of the stations vary significantly: while sections closer to the surface were built using the 'Milan top-down' method, which involves removing layers from above, the river crossings and inner-city sections required tunnels up to 30 metres deep. This complexity contributed to the decade-long construction timeline, which also included the use of a tunnel boring machine measuring 6 metres in diameter and 106 metres in length.











The Ride Experience

A common mix of materials was agreed upon: each station combines exposed concrete, glass, and metal in a unique way, sometimes featuring organic curves and, at other times, showcasing strict linear lines. Structural innovations, such as intersecting concrete beams inspired by the structure of bone tissue, reduce the number of supports and create open hallways. Each of the ten stations invites passengers to linger. Only then does one become aware of the architectural and structural engineering achievements made by the team of architects, artists, and civil engineering experts. The M4 is more than just a transportation project; it combines engineering ambition, artistic freedom, and a budget of around $\in 1.2$ billion.



For passengers, every metro ride transforms into a voyage of discovery through an underground exhibition – a unique feature of the European underground network. Upon entering Fővám tér station, the dialogue between rough, exposed concrete and reflective stainless steel dominates. The crossed beams cast sharp shadows that change depending on the time of day, forming a choreographed play of light. Deep underground, the mosaics on the walls of Szent Gellért tér convey local references to the nearby Gellért Baths. The trains glide silently through the tunnels, while strips of light on the floor and a clear information system along the platforms guide the way. This contrasts with the equally impressive historic M1 line, which began operating in 1896 as the first underground railway in continental Europe, featuring wooden carriages and is still in service today.

New Kids on the Rock



Object: Cable car 3S Jandri – Les Deux Alpes Product: PREFA composite panel Façade areas: approx. 4000 m² - 3.426 units PREFABOND Rhomboids Colours: P.10 PREFA white, P.10 pure white, smoke silver Architecture: ATEAM, Johann Sevessand Installer: Michel Verney – Charpente et Menuiserie de l'Oisans PREFA object consultant: Frédéric Dumazot Client: SATA GROUP Cable car supplier: POMA



Pioneers of Year-Round Mountain Tourism





Text: Carl Bender Photos: Croce & Wir



Monce remote mountain villages. Daily life was significantly influenced by agriculture and livestock farming. Sheep and goat cheese helped the inhabitants survive the harsh winters in the mountains for centuries.

Due to heavy snowfall, the road down to Le Bourgd'Oisans was often impassable for months. This isolation fostered a strong sense of solidarity and resourcefulness within the village communities, which has endured to this day.

The 1924 Winter Olympics in Chamonix and the growing popularity of skiing inspired the locals to build a relaxation spot on the plateau between the two villages. The first tourist accommodations were established. Within two generations, many farming families transitioned into hoteliers, innkeepers, or ski instructors. The Jandri Pass Road was constructed under challenging conditions, reaching up to 3,300 metres to the Glacier de Mont de Lans. This facilitated the development of the ski area and the construction of cable cars.

Since the merger of the two municipalities to form 'Les Deux Alpes' in 2017, year-round tourism has been promoted. This has resulted in consistently high occupancy rates for the approximately 35,000 hotel beds and 44 lifts. Today, it is one of the most modern and largest Alpine tourist regions in Europe. It imposes strict requirements on all stakeholders to protect the heavily burdened ecosystem. SATA Group develops and operates many of the tourist facilities in L'Alpe d'Huez, La Grave, and Les Deux Alpes and employs more than 1,100 people from the surrounding regions under the AEON quality label. The focus is not only on the operation, maintenance, and safety of the ski area's cable cars and lifts, but also on the management of mountain restaurants, rental properties, tourist residences, and apartments for employees.

The largest project in the company's 65-year history was launched before 2021.

The Jandri Express, built in 1985, could no longer handle the increased number of guests – the construction of a modern gondola lift with at least twice the capacity was long overdue.





The New Jandri

In November 2024, the moment arrived: one of the fastest cable cars entered service after a record construction time of just 18 months. Only seven supports are needed to cover the 1,600 metres of elevation at speeds of up to 29 km/h, making integration into the landscape easier.

Around 100 companies were involved in the project, with an average of 350 employees working across the various construction sites every day.

Complex Planning – Short Construction Time – 50 Years of Operation

Planning for the project began in 2021 following a comprehensive site analysis and consultation with nature conservation authorities. First, the positions of the supports were determined, the cable car technology was developed, the designs of the stations and safety concepts were drawn up, and the project was submitted to the relevant authorities. The detailed planning of the three station buildings was carried out by ATEAM Architects, who maintained constant communication with POMA's engineers due to the project's complexity. The industry leader in ropeway technology, whose factory is located only 90 kilometres away, has already built more than 8,000 ropeways worldwide, collectively accommodating 6.5 million passengers per hour.

The Dimensions Speak for Themselves

The Jandri can be travelled in two sections. The middle station at 2,600 metres above sea level forms the facility's heart, where both sections are powered and monitored. During extreme weather conditions, the gondolas are parked in a large, partly underground 2,000 square metre garage and are regularly checked and serviced. Thirteen kilometres of suspension cable and 6.5 kilometres of haul rope made of high-strength steel, weighing around 700 tonnes, were laid across seven supports.



Fast, Modular and Digital

The choice fell on the proven 3s technology, which combines two suspension cables and one transport cable, utilises efficient drive systems, and is managed through digital monitoring. The 51 cabins, each accommodating 24 seats and 8 standing places, can transport up to 3,000 passengers per hour. The cable system and the 4.5 tonne cabins are designed to withstand extreme storms with wind speeds reaching up to 100 km/h.



Additionally, three highly complex station buildings were constructed in the high alpine areas, explaining the project costs of around 148 million euros.



An Architectural Balancing Act

he Oisans region has successfully preserved its Alpine recreational identity while accommodating modern requirements. The trend towards sustainable architecture that combines aesthetics and functionality represents the future of tourism in the French Alps. Energy-efficient construction, solar technology, and environmentally friendly materials have become standard. The harmonious integration of new buildings into the landscape is also becoming increasingly important.



Architect Johann Sevessand and Installer Michel Verney

Architect **Johann Sevessand**, co-founder of ATEAM Architectes in Crolles (Grenoble area), is seen as a trailblazer. Since 2011, he has worked alongside Nicolas Debrosse and Loïc Reynier to transform the firm into a highly sought-after company with 22 employees. Well-defined structures and clear task distribution strengthen the team and leave a lasting impression on clients.

In 2017, Johann Sevssand made headlines in a competition featuring a partially underground ski lift station. The goal was to avoid diminishing the landscape with purely functional structures. ATEAM won the contest, executed the project, and caught the interest of other tourist destinations. This led to numerous projects spanning all construction phases.

One of the standout projects was the planning of an office building for the SATA Group in L'Alpe d'Huez. Under significant time pressure, ATEAM delivered a convincing concept and ensured on-time completion.

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Their performance was remarkable – in 2021, ATEAM was also entrusted with the largest infrastructure project in the region: the new Jandri.

One Project – Three Construction Sites

'We approached this project with deep humility. The architecture was significantly shaped by the technical specifications,' remarked Johann Sevessand during the tour in Les Deux Alpes. Early input from POMA's engineers provided crucial data, enabling the team to devise the volume and spatial concepts.

More than 20 options were evaluated for the valley station alone. Key considerations included traffic flow, entrance areas, sales spaces, offices, washrooms, technical rooms, and social areas.

The cable car stations are uniquely designed to enclose technology while remaining structurally independent. Consequently, the building framework and cable car technology sit on distinct foundations. Afterwards, laminated timber beams – some reaching lengths of up to 24 metres were installed.

Huge cranes lifted the elements into position. Local carpenter Michel Verney was responsible for the timber construction and façade assembly at all three stations.



Impactful Architecture

The façade design captivated immediately from the start presentation: a variable rhomboid - patterned design that blends seamlessly with the landscape throughout the year, whether surrounded by forest slopes, snow, rocks, or glaciers. After several attempts, the team agreed on the shape, size, and three suitable colours. Selecting the right material was challenging. Mineral fibre panels proved too heavy, while aluminium suppliers could not satisfy warranty requirements. PREFA France stood out with PREFABOND, which weighs only 7.6 kilograms per square metre, is frost-resistant down to -50 °C and provides a 40-year colour warranty along with a 20-year material warranty. This makes it perfect for high mountain areas.

Despite the harsh weather conditions, Michel Verney and his crew successfully installed over 3,400 prefabricated panels across 4,000 square metres of façade. The three colours were arranged precisely as intended to ereate the desired effect.

High-Altitude Challenges

The two mountain stations were finished the following summer. The middle station, situated at an altitude of 2,600 metres, features a transfer platform, a 5,000 square metre gondola garage, a control centre, rescue rooms, and recreation areas. It is one of the largest construction sites in the French high mountains.

Simultaneously, the mountain station was constructed at an altitude of 3,200 metres – despite permafrost, icy cranes, and adverse weather conditions with wind gusts of up to 100 km/h. Around 600 employees worked under sometimes extreme conditions to ensure the facility opened as planned in November. Concrete was mixed on-site, with materials delivered along the unpaved Jan-



dri Pass Road.

The project was thoroughly reviewed and monitored beforehand to ensure compliance with nature conservation laws. The architects also focused on sustainable construction methods, utilising wood and recyclable materials, such as PREFABOND aluminium composite panels made from an average of 77% recycled aluminium.

Today, the project impresses not only with its functionality but also with its aesthetics. Depending on the lighting conditions, the façades resemble ice crystals, snowflakes, or crystalline rocks, creating a successful architectural statement in the high mountains.









Hard to Believe, but True!

The first day on the slopes was fantastic! We got up early and enjoyed the freshly groomed slopes under a clear blue sky. The vast ski area and the elevation of 3,000 metres were impressive – but also exhausting. During a break at a mountain hut, we took in the spectacular mountain



A brief report from the PREFARENZEN team

In Jandri, we had the pleasure of meeting Anikó and György - she had a snowboard, and he had skis. They managed to squeeze into our gondola just in time! When they spotted our camera equipment, a warm and curious energy immediately filled the air. Both work in marketing in Budapest and spent their first winter holiday in France. We asked them about their impressions of Les Deux Alpes:

'The journey was long, but our anticipation kept us going. The small chalet we are staying in is very cosy. The fresh mountain air and the breathtaking view of the peaks immediately lift our spirits and put us in a holiday mood. panorama with a view all the way to Mont Blanc.

Yesterday, we tried touring skis and climbed through untouched nature with a group. The descent through the deep snow was fantastic, and the sauna afterwards topped off the feeling of happiness. Spontaneously, we ended up at the ice rink in town in the evening and had a blast.

We also tried après-ski. The atmosphere at the Umbrella Bar was vivacious. We met lots of nice people and toasted to a fantastic day.

Unfortunately, our holiday ends tomorrow. It has been our best winter holiday so far, and we hope to return one day with our children,' adds Anikó with a wink. After 17 minutes, we arrived at the Glacier de Mont de Lans mountain station. We concluded with a souvenir photo — Anikó and György were thrilled to be featured in the Journal. Captivated by this encounter, we returned to our tasks in the morning light.

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Thomas Hill **PREFARENZEN** Ambassador of Good Vibes

only knew PREFA from the TV adverts that used to run during my lunch breaks on the cross trainer at L the gym. The big logo, the distinctive voice, and the annoying jingle didn't really appeal to me. However, a few years later, I had my interview at PREFA. Initially, I thought, "This isn't for you". But everything turned out differently.

Early Dreams – Big Goals

Thomas Hill spent his childhood in Dessau, a Bauhaus city, during the GDR era. The third of six children and the only boy, he quickly learned the importance of asserting himself. Thanks to his loving parents, he enjoyed a happy childhood filled with play, sports, and strict schooling. The stories shared by his relatives in the West, along with secretly watching banned television programmes, sparked his desire for a more liberated life from a young age.

The decision to start training as a machine and plant fitter was not random. He hoped that this profession would allow him to travel the world. However, the regime denied him this freedom because of his connections to the West. After the fall of the Berlin Wall, he moved to Augsburg to live with relatives and found a job at a metal construction company.

'Dirty hands and cold metal always bothered me. I felt the urge to do something bigger, to create, to contribute. That's why I was certain I wanted to make a career change'.

Career – But not at any Cost

He was already working as the head of production line development at a large electronics company when he crossed paths with the manager of a prominent German organisation during his honeymoon in Mexico. 'You're a sales guy. You can talk, you're articulate. Come and join the sales team. We have a position in southern Germany. Get in touch with me after your holiday!' He did, but unfortunately, the position had already been filled. 'But I knew what I wanted to do: I wanted to work in sales.'

Despite significant concerns from his family and friends, he decided to leave his stable job as a young father to pursue a role in sales with a medium-sized facade construction company.

'I was confident that I would be successful.' After seven years, by the time he became the sales manager, he was contacted by a headhunter. 'I had my first interview with PREFA in 2008. That's when the success story really took off. PREFA Austria was already well-positioned in terms of products and access to architecture. That was particularly exciting for me as a "Bauhaus kid". I practically grew up in the front garden of the master craftsmen's houses.'

"To Achieve Success in Architecture, be a Service Provider"

Carrying products like the 44 × 44 rhomboid façade tile, siding.X, and FX.12 in my briefcase, I was among the first PREFA project developers in Germany to focus on advising architects and planners while building new networks. This period also marked the launch of new catalogues and the birth of PREFARENZEN as a communication platform for architects. For a project like this to succeed, you need many colleagues from different departments who support you along the way and have your back. Since then, things have constantly improved and moved forward. It's a team effort. The PREFARENZEN books are ideal for discussions with architects and even replace most brochures and catalogues.

Today, I have 16 colleagues at PREFA Germany who are spread across the country and share my passion for roof and façade projects, ranging from consulting to detailed planning. Although we all follow our path, we exchange experiences and are eager to adopt one or two good ideas from each other.'

You Need to Cherish the Soil you Cultivate

'I have a constant inner desire to see something new. I travel a lot around the world, read extensively about architecture, and appreciate clean lines and edges. I can't sit still. What I find beautiful is often the next trend – whether others see it the same way, I don't know. But what I advise and convey is usually very well received. Architects don't set trends, so to speak. They have ideas and are guided by the materials available on the market. I see myself as a guide and helper. It's always nice to see how enthusiastic architects are when I suggest a composite panel or a serrated profile, simply because I like it and think it looks good and high-quality. I often meet young architects who have just graduated. They are happy when I assist them with planning the substructure, the design, or a detail. This shows that I effectively position our products, and architects are always pleased to return to me for advice and support. That's how I perceive my job. I always strive to be available when I'm needed. When I retire, I want to be able to say: 'I spent most of my working life doing what I love, what gives me pleasure.' It couldn't be better.'

'When I drive through cities today and see the numerous buildings with PREFA roofs and façades, I feel a sense of pride. You immediately recognise: "Ah, you were involved in that - it looks great!" That's what drives me: knowing I can contribute to something significant. My goal has always been to make a difference and be actively involved rather than just following behind. It fills me with joy and pride every day, especially when projects like these are realised and later even immortalised in the PREFARENZEN books – that's the icing on the cake'.

Today, I spend my free time with my family engaging in sports, travelling, and spending part of the winter in the Canary Islands. On weekends, I take my dog Emma for long walks in the forest. I also often spend time in the kitchen, surprising my wife, my daughter and her boyfriend, and our friends with unusual dishes. Cooking is my second great passion after PREFA.

Text: Carl Bender Photo: Croce & Win

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PJ Word Rap

with THOMAS HILL

- Early bird or night owl?
- Both
- Veal sausage or gingerbread cookies? Veal sausage
- Social media or Pub? Pub
- Museum oder Stadion? Museum
- Comedy or drama?
- Comedy
- New building or old building? Old building

During that period, many regions in Germany remained uncharted. Aluminium roofs were rare. Despite this, Thomas Hill's charm and wit helped him persuade tinsmiths and roofers in Bavaria to adopt PREFA within a few short years. The turning point came in 2010 with the launch of the P.10 coating system featuring a matt appearance, available in a variety of colours. 'A matt piece of sheet metal that just lies there. This opened the doors to the world of architecture. It gave us a real boost,' Thomas Hill recalls with bright eyes.

Tête-à-tête with Thomas Hill

'I was a wrestler in the GDR, but I decided to give it up because it came with a fair amount of pain and sacrifice. Plus, I've always felt that violence isn't really my thing. As I grew older, my hormones kicked in, and I realised it was time to focus more on getting to know the opposite sex instead of spending all my time in the competition hall. So, I did just that and hung up my sports career.

- Speaking or typing? Speaking
- Hops or grapes? Grapes
- Poetry or prose? Poetry
- Flip-flops or trainers? Flip-flops
- Battery or fuel tank? Fuel tank
- Kitchen or garden? Kitchen
- Still or sparkling? Sparkling
- Head or gut? Rational gut type



PREFARENZEN

PJ EIGHT**POINT**ZERO



Thermal Culture in Milan: Who Would Have Thought?

Milan, the capital of the Lombardy region renowned for fashion, design, and sport, now boasts yet another attraction: since April 1, 2025, the opening day of 'De Montel – Terme Milano', the city has been home to Italy's most extensive urban thermal park, elegantly housed in a listed and completely renovated Art Nouveau complex in the San Siro district.

Text: Christiane Bürklein Photos: Croce & Wir

Urban Renewal and Local History

Equestrian sports, Art Nouveau, and thermal water represent three essential elements of a unique urban renewal project where history meets the future, visionary planning aligns with first-class craftsmanship, all within the distinctive location of 'De Montel – Terme

Giuseppe De Montel and Milan's Golden Equestrian Age

San Siro's connection with sport dates to the early 19th century when the first horse races were held in Milan. This sport fascinated many and led to the founding of the Società Lombarda per le corse dei cavalli (Lombard Society for Horse Racing) in 1883. Giuseppe De Montel, born in 1879, was also a passionate horse lover and a successful entrepreneur in the textile industry, as well as the chairman of an elite club called the 'Clubino'. His vision was to make Milan the Italian equivalent of the British horse racing mecca of Newmarket, which necessitated suitable infrastructure. In 1915, during the First World War, he commissioned architects Arrigo Cantoni and Paul Vietti Violi to build his stables, which were completed in 1921. In addition to his facility, the gallop racecourse was opened in 1920, followed by the trotting racecourse in 1925. A tip for football fans: the legendary Giuseppe Meazza football stadium, home to AC Milan and Inter Milan, better known as San Siro, has been in existence since 1926.

However, De Montel's success came to an end in 1938 when he was forced to flee and abandon the stables due to his Jewish origins. The impressive Art Nouveau complex, a symbol of a glorious era, fell into oblivion but survived the waves of demolition in the 1970s and 1980s. It was finally listed as a historic monument in 1987; however, this designation was unable to prevent the buildings from falling into disrepair.

Milano.' This initiative brings thermal baths to the doorstep of Milan's residents, thereby reviving a long-standing tradition of thermal culture in the city.

The decision made by the city of Milan in 2007 to drill for thermal water at the site of the former De Montel stables and to successfully strike it at a depth of 396 metres was not a random choice. Known since Roman times, three wells containing 'acqua marcia' (sulphurous water) existed in Milan until a few years ago. The sulphurous water, used as a panacea, could be consumed in Parco Sempione, Viale Piceno, and Piazza Sant'Angelo. The oligomineral thermal water discovered during drilling, certified by the Italian Ministry of Health, is particularly suitable for treating skin diseases due to its high levels of sulphates, bicarbonates, and essential minerals.

Object: De Montel – Terme Milano Product: 3.600 m² PREFA Rhomboid Roof Tile 44 × 44 and 800 m² Prefalz undercover pv system P.10 light grey, PREFA Solar Panel Mounting System Colour: P.10 light grey Architecture: Studio Giancarlo Marzorati, J + S SpA, Progettisti Associati Tecnarc s.r.l. Installer: Art Coperture S.r.l. – Artur Cekrezi, GMP – Mauro Galavotti & C.S.N.C. PREFA object consultant: Sergio Sorce und Alessandro Porru Client: Terme & SPA Italia S.r.l., Fonds Azimut SGR



Architect Federico Pella, J + S SpA

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Embracing the New while Valuing the Old

In the meantime, San Siro has evolved into an exceptionally diverse area, where spacious green spaces coexist with densely populated residential areas, single-family homes sit alongside high-rise buildings, and social housing is interspersed with elegant villas. The city of Milan, as the owner of the De Montel site and a member of the C40 network (where mayors from almost 100 leading cities around the world work together to take the urgent measures needed to tackle the climate crisis), included the approximately 16,257 square metres of the site, encompassing two buildings with roughly 3,000 square metres, in the 'C40-Reinventing Cities' tender in 2017. The criteria included 'renovating existing buildings to revive the site's historical appearance' and ensuring the sustainability of the intervention. It was clear that the complex was a listed building, and all interventions required approval from the Superintendency of Archaeology, Fine Arts, and Landscape. These requirements significantly influenced the choice in favour of PREFA materials.

Architecture between Challenge and Vision

The winning project was ultimately 'Teatro delle Terme' (Thermal Theatre, as the name becomes clear upon viewing the complex) by the team of architects Marzorati/J + S SpA and environmental experts Progettisti Associati Tecnarc SRL.

Architect Federico Pella, Architecture BU Director and founder of the J + S SpA firm, describes the project as a bold, perhaps even crazy step: 'It was a bold approach to rebuild an Art Nouveau building with the strictest heritage restrictions and completely change its function: from horse stables to a wellness and feel-good place for people.'



"It was a bold approach to rebuild an Art Nouveau building with the strictest heritage restrictions and completely change its function: from horse stables to a wellness and feel-good place for people."



Photo: J + S SpA

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Working Together During the Pandemic

The critical stage of the project's development coincided with the COVID pandemic. Federico Pella noted that collaboration with the Italian monument protection authorities was exceptional: 'All discussions with the superintendency occurred via Teams calls, and we secured the required permits quickly. I extend my heartfelt gratitude to the monument protection authorities for their support.'

Federico Pella emphasises the role of architect Giancarlo Marzorati, who passed away on 24 December 2024. Marzorati's extensive experience was crucial during the collaborative concept and negotiation phase of the functional redesign, significantly contributing to the project's successful completion. One can imagine that converting horse stables into thermal baths presented a significant challenge, particularly in adhering to all relevant regulations.

Architecture Between Past and Present

The original Art Nouveau building failed to meet the new standards, particularly in terms of routing and spatial flow. The newly integrated elements were designed to be prominent, featuring recognisable pre-painted metal sheet cladding. The reconstruction relied on historical photographs and illustrations. Louis Sullivan's well-known assertion, "Form follows function," is critical here, as it was not merely a matter of historical reconstruction, but primarily about controlling the new functions appropriately. Landscape features, such as the 'corte preziosa' (inner courtyard) and the 'parco urbano' (urban park), are also vital, acting as connectors between the thermal baths and the cityscape, while enhancing the visual link to the urban landscape, which conveys a distinct charm to the complex. Furthermore, a total of 2,300 trees will be planted in these green spaces over the next decade.













Sustainability and Material Selection with PREFA

The selection of PREFA rhomboid roof tile 44 × 44 and Prefalz for flashings, both in P.10 light grey, meets the rigorous standards of the C40 competition (thanks, in part, to the 40-year guarantee). 'We intentionally opted for PREFA because their roof panels are crafted from recycled aluminium and are entirely recyclable – aligning with the circular economy,' says Federico Pella. Additionally, PREFA stands out aesthetically as the roof panels emulate the appearance of traditional stone roof coverings.

The solar panels, also a requirement for the competition, were seamlessly integrated using the PREFA solar mounting system, promoting energy sustainability in a contemporary style. The roof was installed by Art Coperture and GMP - Mauro Galavotti, who have been involved from the beginning. Artur Cekrezi, Mauro Galavotti, and their team bring extensive experience with various materials and working on historic, listed, and unique buildings, enabling them to expertly cover the 4,400 square metre roof area, including the window inserts in the roof, which were reconstructed from prefabricated artificial stone elements based on historical designs.

Federico Pella emphasises PREFA's significance for the project, stating: 'Thanks to PREFA rhomboid roof tiles, we were able to revive the appearance of the historic building while meeting the demanding sustainability goals of C40 - Reinventing Cities.'

A New Landmark for San Siro

'De Montel - Terme Milano' represents the initial phase of a comprehensive master plan for urban renewal and will thus be regarded as a 'pre-existing structure,' serving as a model and flagship project for future developments in San Siro.

Designed by Studio Marzorati, based on a concept by Terme & SPA Italia and subsequently developed by J + S SPA, the project is intended as a 'Quality Venue'- an accessible space in the heart of the city that enhances the everyday quality of life. 'If we succeed in enhancing people's daily well-being, we will have achieved our goal,' concludes Federico Pella.





"If we succeed in enhancing people's daily well-being, we will have achieved our goal."



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Terme & SPA Italia: Wellness and Sustainability in an Urban Context

This is the precise goal of the operator Terme & SPA Italia, which financed the project alongside the Azimut SGR fund. Founded in Rome in 2021, Terme & SPA Italia operates major sites, including Terme di Saturnia and Monticello SPA & FIT. Significant emphasis is placed on sustainable development and cultural integration within the local community.

Antonio Samaritani, managing director of Terme & SPA Italia, emphasises in our conversation in one of the beautiful halls of the complex that they have succeeded in giving the city of Milan back a valuable piece of its historical heritage: 'The perfect harmony between the original Art Nouveau structures and contemporary needs creates a unique experience. Every room, even the massage rooms, has windows that maintain a constant dialogue with the urban environment – a real, unique feature in an urban spa.' As a result, the Terme De Montel offers its visitors an oasis of well-being in the heart of the city, easily accessible by car, but primarily by bicycle or public transport. For Antonio Samaritani, wellness embodies beauty, respect for historic building fabric, and sustainability. Every detail - from the materials to the lighting design and even the fragrance - has been meticulously crafted to foster a welcoming atmosphere for all generations. The craftsmanship of the people who worked here is an essential part of the quality of the experience, and this is evident as soon as one enters the spa itself, whose entrance is hidden behind an impressive waterfall: a popular spot for selfies. Behind the reception desk, a sensory journey begins where you can leave everyday life behind - at least for a while - and, as the spa's website claims, 'reinvent yourself', a reference to the C40 Reinventing Cities competition.



Managing Director Antonio Samaritani, Terme & SPA Italia

The operators aim to utilise cultural offerings to transform the thermal baths into a genuine hub and the driving force behind a new urban lifestyle in San Siro. According to Antonio Samaritani, this effort is being conducted in close collaboration with the Municipality 7 of Milan. It is also noteworthy that the thermal baths offer various discounts for specific segments of the Milanese population, ensuring the facilities are accessible to a diverse audience. As part of a larger master plan, De Montel - Terme Milano is providing a decisive impetus for the cultural and social renewal of the district, impressively demonstrating that thermalism, even when offered in a historic building, can be absolutely 'pop'.

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"The perfect harmony between the original Art Nouveau structures and contemporary needs creates a unique experience."

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2045: An Elephant or 10,000 Mice

Contests are a well-established practice in the architecture and construction industries. They are associated with enhanced outcomes, fair market access, contract opportunities, and superior quality in both design and craftsmanship. However, is this truly the case? Isn't the notion of 'better together' more relevant on a construction site compared to 'first to finish wins'?

Numerous studies explore the willingness of humanity and individuals to cooperate. Not all research supports the idea that the ability to collaborate is a core human trait that enhances survival. However, a closer look at construction practices reveals a different story: successful buildings can only be achieved through collaboration. They present cooperative challenges. Outstanding projects are characterised by the collective effort of all participants striving toward the optimal outcome. Consider how incomplete a construction shell would be without finishing touches, a floor layer lacking a structural engineer, or an architect without the expertise of a tinsmith.

Long-Distance Cooperation

The advantages of cooperative behaviour are no longer just based on empirical evidence; they have become a scientifically validated theory. Individuals are more effective when collaborating, whether it's as neighbours, within a local community, or on a societal level. 'We are a global organism,' I recently discovered this during a meeting with complexity researcher Andrew Ringsmuth. Thus, cooperative behaviour should be the prevailing approach over time. No organism can increase its longevity by isolating its components or preventing their collaboration. Nevertheless, this does not rule out the need for the organism to adapt and evolve in response to external conditions, both in the short run and the long run.

Complex Systems

Predicting the future behaviour of complex systemslike planets, societies, ecosystems, or built environments - is a challenge. However, the interconnections among their individual components are vital to their functionality. Imagine 10,000 mice compared to an elephant: the moving mass is the same, but their functioning is different. This distinction is important: a large group requires more energy to communicate than a single entity, which may not even recognise the need for coordination. When systems become chaotic or face potential collapse, it's essential to 'repair' the communication and collaboration among the individual parts. Cities, towns, and societies operate as complex systems, necessitating coordination and enhanced cooperation to function effectively. This principle may also extend to planning and architectural practices. Envisioning buildings not as mere static structures, but as products of a fully developed, dynamic, and sometimes error-prone yet solution-oriented entity can lead to transformative outcomes.



shared vision for the future is nearly akin to designing a social utopia. Yet is that not precisely what architects are trained to achieve? Throughout our studies and daily experiences, we consistently envision structures, spaces, relationships, and environments that do not yet exist and have not yet materialised. I refer to this as the 'core competence in design,' which serves as an excellent foundation for envisioning a common future, provided we keep in mind that not everyone wants the same future. (You cannot simply group 10,000 mice) Dipl.-Ing. Claudia Gerhäusser, MA – an author, designer, and lecturer.

Education: Architecture and Exhibition Design.

She studied at Bauhaus University in Weimar, the University of Pennsylvania, and the Fashion Institute of Technology in New York. From 2010 to 2016, she taught seminars and gave lectures on interior design at Graz University of Technology. Her emphasis lies in materials and processes of architectural design, focusing on the interplay between economy, ecology, and design.

As a Fulbright scholar, she promotes international academic exchange and is a co-founder of the artist group oiXplorer. She has curated FORUM STADTPARK Graz and, since 2020, has devoted more time to her passion for writing. In 2020, she also took on responsibility for the journalistic aspects of the PREFARENZEN books, visiting all selected projects and their architects each year.

Implementing shared visions for the future will require financial investment, and above all, it will necessitate resources for coordination and cooperation. As a shared goal, this is a feasible task. Resources could be reallocated, with less funding directed toward competition and more toward cooperation. Thus, the question arises: one elephant or 10,000 mice?

What Type of Cooperation Would We Like to See?

Now, where should collaboration begin in the architectural process: in the preliminary design phase, in phase 0, when analysing framework conditions, or only after scaffolding is established on-site? Transformation researcher Stella Schaller states, 'It starts with a shared vision of the future.' This simple sentence presents us with an even more difficult task, though. Creating a

"Just Pie in the Sky"?

Sceptics may see this as science fiction, while others view it as a plausible utopia. The key to cooperatively developed visions of the future is that they consider the realities, experiences, and abilities of many individuals. Ideas that have already been implemented elsewhere can be adapted for use in new contexts. These are not merely the pie-in-the-sky dreams of individual creators but rather tried-and-true models that can be replicated and tailored for specific context needs.

2045: Looking for specific examples? Soon, you might see bicycle highways from Copenhagen also appearing in Hamburg and Graz. Advanced rooftop solar panels could generate energy in Leipzig's historic city centre, while restored sections of the Rhine, Neckar, and Steyr rivers may meander gracefully through the landscape. Note: Claudia Gerhäusser typically poses questions to architects, craftspeople, and researchers on behalf of the PREFARENZEN team. In this issue of the Journal, she offers her insights on the current state and future developments.

PREFARENZEN

PJ EIGHT**POINT**ZERO



A Church with a Solar Roof: **Faith in the Future**

The energy transition and the shift to sustainable energy sources pose significant challenges. Church roofs are becoming increasingly important as potential sites for photovoltaic installations; however, the requirements for preserving historical monuments and adhering to construction regulations must also be considered. The renovation of the Church of St. Charles Borromeo in Nuremberg illustrates how, since the amendment of the Bavarian Heritage Protection Act in 2023, it has been possible to activate such surfaces on a large scale using PREFA solar roof tiles.

Text: Carl Bender Photos: Croce & Wir

A Church as a Power Plant

The church's photovoltaic system not only fulfils its own electricity needs but also supplies the adjacent kindergarten, rectory, parish hall, and 38 neighbouring residential units with clean energy. The expected annual electricity production is approximately 93 MWh, which also constitutes a significant contribution to the local energy transition.

Architectural Integration and Technical Details

PREFA solar roof tiles blend seamlessly into the church's aesthetics, despite the fact that the roof was originally covered with natural red Franconian clay tiles that had weathered to a dark grey.

A total of 1,233 modules and 4,600 metres of cable were installed to implement the 123 kWp system.

A Historical Gem in the Heart of Nuremberg

The Church of St. Charles Borromeo in Nuremberg-Mögeldorf is an important architectural monument showcasing Franconian Expressionism. Constructed in 1926/27 according to the plans of architect Fritz Fuchsenberger, it has largely remained unchanged over time. The church is regarded as a remarkable example of architectural design from that period. Initially, he faced considerable resistance from the parish. In contrast to the original preliminary design, Fritz Fuchsenberger surprised everyone with his minimalist approach and the reorientation of the building by 90 degrees. By incorporating large, high-positioned windows, he created unique lighting effects in the church interior that reflect the sun's entire course throughout the day.

The limited financial resources led the architect to reduce the design to its essentials. For the first time in a church building, the decision was made to use sandlime bricks sourced from an artificial sandstone plant just a few kilometres away. The innovative family business developed the process and delivered the bricks in various hues directly to the construction site. The stones were processed right from the lorry, saving both time, effort and money.

By combining bare walls with expressively laid bricks in arches, reveals, and corbels, along with a few natural stone elements, the architect created a striking religious character that defines the church as a place. This impression extends inside as well. Inside, the expressive wall paintings by Paul Thalheimer, the church furnishings designed by Fritz Fuchsenberger himself, and the tapestries – most of which were designed and woven The architect Josef Weber, responsible for the church administration, was the driving force behind the project. He successfully secured the necessary financial resources and funding from various sources. It was only through the amended Monument Protection Act that it became possible for protected buildings to be equipped with PV systems under certain conditions.



After the First World War, a modern architectural language began to emerge, yet it was seldom applied to church construction during that period. Fritz Fuchsenberger became weary of depending on historical styles and chose to embrace contemporary design principles instead. He aimed to merge the simplicity of early Christian church forms with elements of expressionism in his architecture. by Sister Deocara at the Abbey of St. Walburg – are all impressive.

Thanks to a vigilant sacristan and a stroke of luck, the church endured the war largely unscathed. With only some minor renovations, the organ was restored, and the crypt expanded into a lower church, meaning that no substantial investments have been required in nearly 100 years.

However, in recent years, damage to the roof has become more frequent, making renovation inevitable.

Object: Church St. Karl Borromäus Product: PREFA Solar roof tiles: 1,233 units, PREFA roof tile R.16 approx. 500 m² Power: 123 kWp, Cables laid: 4,600 m Roof area: approx. 800 m Expected electricity production: 93 MWh/year Architecture: Architekturbüro Peter Troppmann Installer: Erhard Achtelstetter GmbH PREFA object consultant: Holger Voit Client: Kirchengemeinde St. Karl Borromäus

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Architect Peter Troppmann

Architect Peter Troppmann from Regensburg was tasked with evaluating, conducting product research, planning, and managing the construction of the exterior renovation. Six months after its completion in autumn 2024, he reflects on the success of the project: Four years ago, we started collaborating with all stakeholders involved in the contractual project to find a solution for covering the roof. There were two fronts: one group insisted on a tin roof at any cost, while the other, prioritising historical preservation, advocated for a traditional roof covering.

Calculations revealed that the historical roof structure no longer met current standards for tiles – I believe it was 56 kilograms per square metre– in terms of load-bearing capacity. The beautiful, massive hanging truss would have required structural reinforcement, which would have distorted the roof's shape.

Until then, there had been no discussions about a PV system. After the Bavarian General Conservator, Mathias Pfeil, allocated funds to explore suitable ways to utilise PV systems for listed buildings, my office was tasked with searching for and evaluating appropriate systems. Ultimately, we established direct contact with several reputable providers across Europe. We examined their products directly with the manufacturers regarding technology, functionality, and aesthetics and subjected them to a selection process. After numerous visualisations, we decided on two systems that were compatible with the listed building. In the end, the entire committee voted unanimously to adopt the PREFA system. Among various factors, it was crucial that the PREFA solar roof tile is compatible with the PREFA R.16 roof tile, enabling us to cover the church's secondary roofs with the same quality and standard look. For the roof renovation, it was necessary to fully scaffold the building. Therefore, it made sense to clean the entire façade at once, along with cleaning or replacing the historical sheet metal, the ornamentation from 1927, the vases on the stepped gables, and the beautiful rainwater hoppers. Some of the cracks in the façade were quite severe, so they were reinforced with stainless steel anchors embedded deep in the joints. To effectively preserve the integrity of the sand-lime brick and the joints, we decided to use a steam process with a wide fan nozzle after experimenting with a particle beam process (a type of sandblasting method) using garnet sand with a grain size of 0.01 to 0.06 millimetres.

This led to a significant improvement: we were amazed at how much dirt and dust were removed and how visibly enhanced the coloured limestones appeared once again. This demonstrates that monument protection is inherently sustainable. We consistently focus on existing buildings, do not demolish any monuments, and always aim to preserve as much as possible.

Preserving monuments is really showing its importance right now, and it's exciting to see that we can also actively protect our climate!'

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'I have been a self-employed architect specialising in the preservation of historical monuments for 26 years. Before that, I worked at a firm focused on historical monuments for eight years. I came to this church because of my experience in the field of historical monuments, including the renovation of roof trusses. Most likely, my network, which extends from Regensburg to Nuremberg, has indeed played a role. We are now about to start the PV system, which makes me proud.

My team and I are fascinated by the multiple, interdisciplinary project phases that involve not only seeking a new use for the building but also include the necessary research. In the past, drawings were created by hand on-site, using cardboard and pencil, to produce the best possible documents. Here, we digitally measured the roof structure, establishing the foundation for all subsequent work steps.

• Note on Using *Copper and Aluminium* in Preserving Historical Monuments

When connecting copper to aluminium, appropriate precautions must be taken to prevent chemical reactions that could cause material damage. In this project, for instance, stainless steel water channels were utilised and covered with PREFA aluminium. In very old copper pipes like these, the corrosion process is largely complete. Deposits in the pipes also provide a certain degree of protection and reduce the contact between the water and the copper. Here, ion erosion is minimal and highly unlikely to cause any damage.

Sustainable Solutions for Roof and Façade

PREFA at the BAU²⁵ Exhibition in Munich

PREFA, the exclusive expert in aluminium roofing, façades, and solar systems, served as a key gathering spot for architects, planners, and tradespeople in Hall A3. Attendees explored the latest innovations and solutions tailored for high architectural standards and value-enhancing renovation projects. Emphasis was placed on Prefalz Solar, providing an elegant enhancement for traditional standing seam coverings.

Text: Carl Bender Photos: Croce & Wir



solutions for roofs and façades was evident throughout the trade fair. Planners, installers, and investors were particularly impressed that PREFA solar products are entirely manufactured in Austria and that all necessary cables and plug connections are prefabricated by PREFA according to the roof or façade plan. This guarantees that the system can be easily installed, tested, and assured by any trained tinsmith. This applies to both solar roof tiles and Prefalz solar modules on standing seam roofs.

PREFA has also broadened its colour palette by introducing a new hue, P.10 prefa bronze, which is available for various products. The PREFABOND aluminium composite panel is now provided with a brushed aluminium finish. The new roof drainage system in patina grey merges a classic look with modern aluminium properties. for our development and sales team to showcase new products and conduct direct consultations with interested parties from the construction industry,' reports Jürgen Jungmair, PREFA's International Marketing Manager, who, along with his team, is responsible for designing and executing the exhibition stand. The various areas and open layout attract visitors from all directions. 'Participation in this international trade fair is essential for us. After all, we are represented in 21 countries and aim to continue growing.'







