PREFARENZEN 2022

A glimpse behind the façades of modern architecture

PREFARENZEN 2022

99 architects

99, that is the number of architects we have visited in the course of our wonderful PREFARENZEN project so far. Those are 99 architectural works we developed into special photo and text stories. Those are 99 magnificent sources of inspiration for us and all readers.

If you look at this variety of remarkable projects, you rightly ask yourself where the architectural artists and installing masters get their motivation and drive from. How they are able to create works that go way beyond the ordinary and normal.

Where does this strength, courage and endurance to go one step further in the calls for tenders come from? To conjure up images in the decision-makers' minds so convincing that they are transformed into building objects which will stay for many generations.

This leads to an admiration not only for the objects and their creators themselves but also for the many heroic steps that were necessary to get that far. With this admiration, you might perceive the following pages of our PREFARENZEN book differently than initially expected. Let it sink in and try to remember when you went one step further the last time. When was the last time you dared to make the impossible possible?

PREFA has just done it, with an innovative and unprecedented product innovation we will be offering as of January 2022. In the process, we grew beyond ourselves – quite self-confidently – and equally rely on elegance, economic efficiency and independence. Have we made you curious? Good, we will keep you posted ...

Your Leopold Pasquali, CEO

FOKUS – parish centre Sierning

Country: Austria
Building, location: parish centre, Sierning
Category: new construction
Architecture: ARKFORM
Installer: Dach Zach
Roof type: Prefalz
Roof colour: bronze
Façade type: PREFABOND aluminium composite panels
Façade colour: bronze

PREFARENZEN detailed plan page 14/15

Klaus Landerl

»Half gesture, half dialogue«

The bronze-coloured tips that stretch around the small church from the 14th century are particularly striking. The building structure is flat, envelopes the apsis while moving away from it and forms two pointed canopies. ***ARKFORM*** built the new parish centre FOKUS in Sierning with a suitable, elegant sense of necessity. You can tell how much the architects enjoy building: "Make, realise, do" has been at the heart of their work for years. With this determination to build and their corresponding experience, they changed village squares, port areas, head offices and mountain hotels.

The main square of the Upper Austrian village Sierning is dominated by the Parish Church of St Stephen and an old, massive castle, where the municipal authority and the music school are located today. A street that has very little traffic runs through the square, accompanied by a series of information boards about various associations that convey a vibrant community life: alpine association, fruit and gardening association, Kneipp association, choir, homeland associations etc. The active market community between Bad Hall and Steyr is the representative centre of the region with its own hospital and primary school. Since 2016, it has a conspicuous parish centre.

From two times

The new construction seems to hug the massive church in what can be described as half gesture, half dialogue: Two things from two different times that met here in Sierning and have shaped a place together since then. The building is self-explanatory. When passing by and stopping before it, the light falls onto the matt shimmering façade a little differently with every step. Changes in the form and direction of the building structure


FOKUS

make you want to take a closer look – from the main square, from the municipal authority and from the ice cream shop just below the church. Every corner, every fold falls into place. The parish centre stands today where there was once a sturdy, three-storey stone house and has something to offer on all sides. Large windows face south towards a balcony, the church square at the entrance and the beautiful sandstone wall of the apsis. The roof plan with an integrated film rain gutter and a flat slope made of bronze-coloured Prefalz is visually connected to the PREFABOND aluminium composite panels of the façade. The façade's colour resembles the sandstone of the partially High Gothic church. In the interior, it is rounded off with wall stones made of conglomerate.

Klaus Landerl (founding partner of ARKFORM): "My parents got married in this church. I live in the neighbouring town. The pastor originally attended the Higher Technical Institute for Building Construction. This meant that we had a partner – and teacher – on the client's side. He always wanted to know how the details, the rain gutters and the water overflow function. Then, there was the patina discussion. We finally asserted ourselves with the colour-stable aluminium composite panels. Changes in colour would have certainly destroyed the uniform image of the church and the new construction."

Gabriel Trinkl (project manager for the parish centre Sierning): "At the construction site, many things were decided depending on the situation and realised directly. For example, the slopes of the façade areas were marked up on site with the carpenter and the tinsmith."

KL: "To us, detailed work is construction site work and our plans are conversations instead of announcements.

"To us, detailed work is construction site work and our plans are conversations instead of announcements."

It is important to us that we are the contact persons. In Sierning, for example, there was something like a kitchen building committee. The largely over 70-year-old future users of the parish centre kitchen gave us a detailed explanation of what they were going to need. And we reacted to it."

The new construction functionally enriches the active community life. The downstairs belongs to the youth. The ground floor, whose entrance leads to the small main square, is basically a large cohesive space for events. A double wall on the left offers storage space for seating, and the open kitchen, which is located to the right, is reserved for chatting, baking and celebrating.

KL: "The construction was principally financed by the parish community itself. Therefore, we handled the cost calculation with great care. Today, only five years after it was completed, the building would certainly cost twice as much."


FOKUS

A change of scenery: Winterhafen, Linz. Shipyard cranes and machine halls are within view. Four large black letters stand out in an otherwise shabby-looking office building. The same letters are on a black Land Rover in the car park in front of it, this time in yellow. ***ARKFORM*** used to be ARKD once. A few years ago, they moved into the port. Before then, ship engineers sat in the office building and designed ships. Now, a surely eight metre long work table made of jet-black MDF stands between two pillars on the second floor. It is the centre of the office, where co-workers talk, discuss, argue and drink coffee – we are also sitting there and talking about and with ***ARKFORM***.

KL: "Every project changes something in our architecture. For example, we did not think about building in an ecologically sustainable manner that much until we got the assignment for the headquarters of Grüne Erde. Together with terrain: integral designs, we began with the realisation of the production facility, which is built on the basis of extremely radical ecological ideals. We have been trying to convince clients in other projects of the necessity to build sustainably ever since. But sustainability is not a general principle, it emerges in case-specific decisions. For us, this also includes the reconstruction and value retention of the existing substance."

Most buildings by ***ARKFORM*** are built in Linz, Vienna and the surrounding area, as the architects want to operate regionally. Their next project, the conversion of a classical ski hotel from the 1990s and the new construction of several chalets in the middle of the mountains around Hinterstoder, is waiting to be realised. The chalets will receive PREFA roofs that reach down deep into the snow during winter and formally emulate the neighbouring ski hotel. As always, the clients are accompanied from the very beginning.

KL: "Building is difficult and complex on a daily basis. We help with finding the building plot, work out concepts together with the building owner, carry out the realisation, and if we have some say in the art that is placed in the rooms, that's perfect. I prefer working on one project intensively instead of doing three superficially. Oftentimes, friendships are formed in this way of working. At the end of the day, what counts is what you managed to do together."

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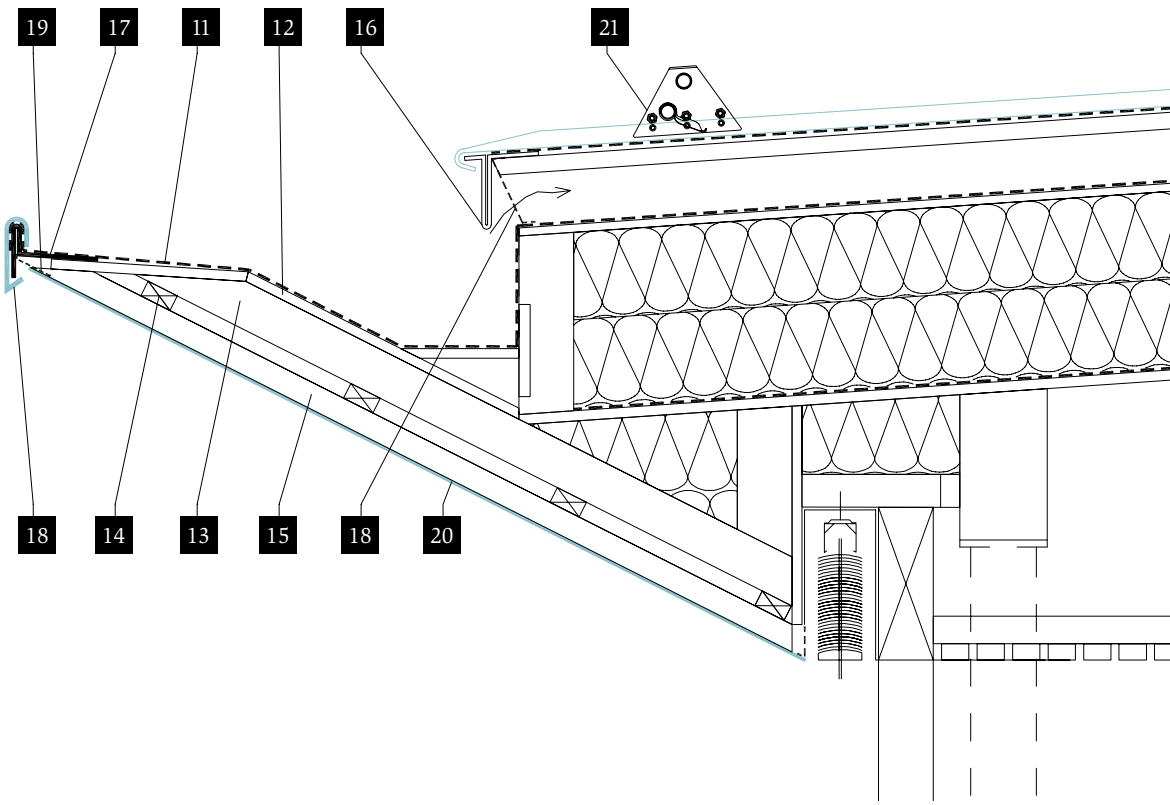
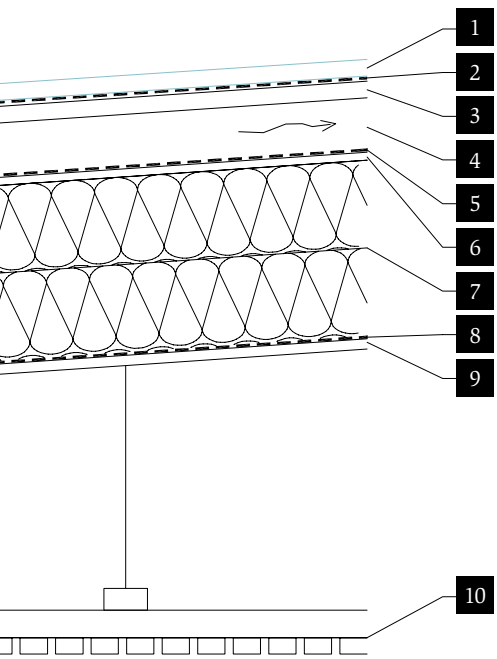
FOKUS


FOKUS

Bottom view – transition to the roof





1 Prefalz double-lock standing seam
2 Separation layer
3 Full planking
4 Counter battens (back ventilation)
5 Underlay
6 MDF incl. underlay function
7 Thermal insulation mineral wool/ 2 × 16 cm
8 Vapour barrier
9 OSB plate
10 Suspended wooden ceiling
11 Film rain gutter
12 3-layer plate
13 wooden pole
14 Battens
15 Aluminium substructure
16 Patent edge cleat strip
17 Fixing strip
18 Veneering
19 Perforated metal plate
20 PREFABOND
21 Seam clamp

Residential houses in Horgen

Country: Switzerland
Building, location: residential houses, Horgen
Category: new construction
Architecture: Grob Schöpfer AG
Installer: Saiti AG
Façade type: ripple profile
Façade colour: wine red

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Thomas Schöpfer

»Four friends at the lake«

A dream view from the roof terrace by Lake Zurich, only 30 metres away from the edge of the forest. It quickly becomes apparent why the four bright red residential units designed by ***Grob Schöpfer Architekten*** were sold out within just a few weeks and why their residents, as diverse as they may be, quickly felt at home there.

Thomas Schöpfer knows he will have to let go of his building projects one day. He is in a town on Lake Zurich and is looking thoughtfully at four parasols. “After all, architecture isn’t a matter of taste, is it?” he asks before revealing that he gave each of the new owners a green parasol for the roof terrace when they moved in. Together with his team, he had picked out the colour, making sure it would match the red façade. And with the rippled metal skin, he made one of his long-cherished dreams come true.

> *“After all, architecture isn‘t a matter of taste, is it?”*

Building on the Sniffle Coast

For Thomas Schöpfer and the office ***Grob Schöpfer Architekten*** from Wil in the eastern part of Switzerland, it is not about the parasols, of course. To them, it is about the whole picture, the understanding that design does not simply end at some point. “It is necessary for individual elements to find their place in an overall concept,” Schöpfer explains. In their building practice, the architects accompany users and investors from beginning to end. They are true generalists, who have become quite rare in the highly competitive areas around the lake. Schöpfer loves the freedom of choice he has with private clients. And he does not mind it if people talk about his projects. In the beginning, the

neighbours talked a lot about the shiny façade and the house with its straightforward design. “That’s just the way it is on the Sniffle Coast.” Sniffle Coast – that is how the inhabitants of Zurich call the supposedly not as attractive southwestern coast of Lake Zurich. Here, you have to open your house toward the northeast if you want the sought-after lake view, which, in principle, is a faux pas from a structural-physical perspective. Here, however, it is the only chance to use the beauty of these last few building plots for the owners. In the Canton of Zurich, new building sites are not developed. That is why the economic pressure on the existing ones is extremely high. As an architect, you have to skilfully stretch the borders of what is permissible here.

Four parcels of land, one skin

The dark-red, compact building volume is not very intrusive and engages in a respectful exchange with its surroundings. An old, overgrown neighbouring house looks like a good friend – which is somewhat rare given the high building density that prevails. What is new often spatially and visually pushes existing buildings aside. In the case of the four terraced houses, the structural gesture remains clear and modest. This place has rid itself of anything that is architecturally superfluous.

The property is divided into parcels and the structure is oriented on a closeby estate of terraced houses from the 1930s in terms of scale. A sloping roof end that is parallel to the street visually summarises the individual units. On the street side, the carport, awning, entrance door and horizontal windows repeat themselves in a calm rhythm. The roofed outdoor area, water surface and loggias in the garden follow the same rhythm. 140 m² per residential unit are distributed over three floors: living room and kitchen on the upper floor, work or children’s room on the ground floor and a studio or bedrooms on the garden floor. ***Grob Schöpfer Architekten*** set the building mass into the slope down to the last centimetre and fully exhausted the building volume that is permissible above ground with loggias and atriums. The great space efficiency reveals compact spatial thinking. The architects have maintained both a functional and a design overview. There are no bells and whistles, only high-quality surfaces, exposed concrete ceilings, oak wood frame windows and a dark red ripple profile façade by PREFA.

Precision work in deep snow

Thomas Schöpfer is proud that the façade was perfectly executed during winter, despite deep snow and temperatures below zero. The 14 cm wide elements of the ripple profile, which were powdercoated in the architect’s desired colour, join together seamlessly. The entire height of more than six metres could be achieved in one piece. This requires exact planning in cutting. A seamless appearance was particularly important to the architects. “Complicated details are not sustainable,” as Schöpfer explains his concept of simplicity. That is also why the incised ventilation slots in the ripple façade are a small highlight in the detailed construction. As it was not possible to use a laser given the long profiles, the installers cut the slots themselves – well-placed, correctly proportioned and slightly slanted from below, so no water drips can form in the interstices. “The sum of all the small details is what makes it good,” Schöpfer explains and adds that he does not understand why back-ventilated façades are not planned more often. According to him, it is the most unproblematic form of façade construction from a structural perspective in the long term.

An understatement, but a perfect fit

In order for ***Grob Schöpfer Architekten*** to be as exact as they are, they take on the roles of building owner, project developer, architect and general planner. In many cases, they are also in charge of selling their own projects. “The knowledge that is generated this way in our team and flows into new projects is our asset,” Schöpfer states. The only role he does not want to take on is that of the sponsor. Daniel Grob and Thomas Schöpfer have been working together as architects for 30 years. After their studies, they became self-employed and have managed to realise many different building types since then. The execution of multiplex cinemas is also part of the architects’ portfolio, although they prefer less extroverted building tasks. They like to dedicate themselves to details, do not like to commission companies they are not familiar with and have thus established a stable network of like-minded workshops through years of practice.

Continuing to dream and develop

The more rationally and composedly Thomas Schöpfer talks about architecture, the more reflected longing creeps into his sentences. He dreamed about the red façade made of metal ripples for ten years until he found a project where he knew it would fit. Time and again, he and his office colleagues visit the buildings they designed to see how they develop. His studies took him to Graz, where he examined examples of the wild Graz School. And he would have also liked to attend the Berlage Institute in Amsterdam back then. Instead, he remained in Switzerland and built. In the next ten years, ***Grob Schöpfer Architekten*** want to continue to focus on residential construction and the topic of energy and architecture. In Schöpfer's opinion, Minergie certificates could be developed further and implemented more seamlessly, for instance.

Whether he can think of another unfulfilled dream? There is a small church ruin in the Engadine he would like to save, convert and bring back to life. But the rest is still a secret. It certainly looks like we will hear from the architects again.

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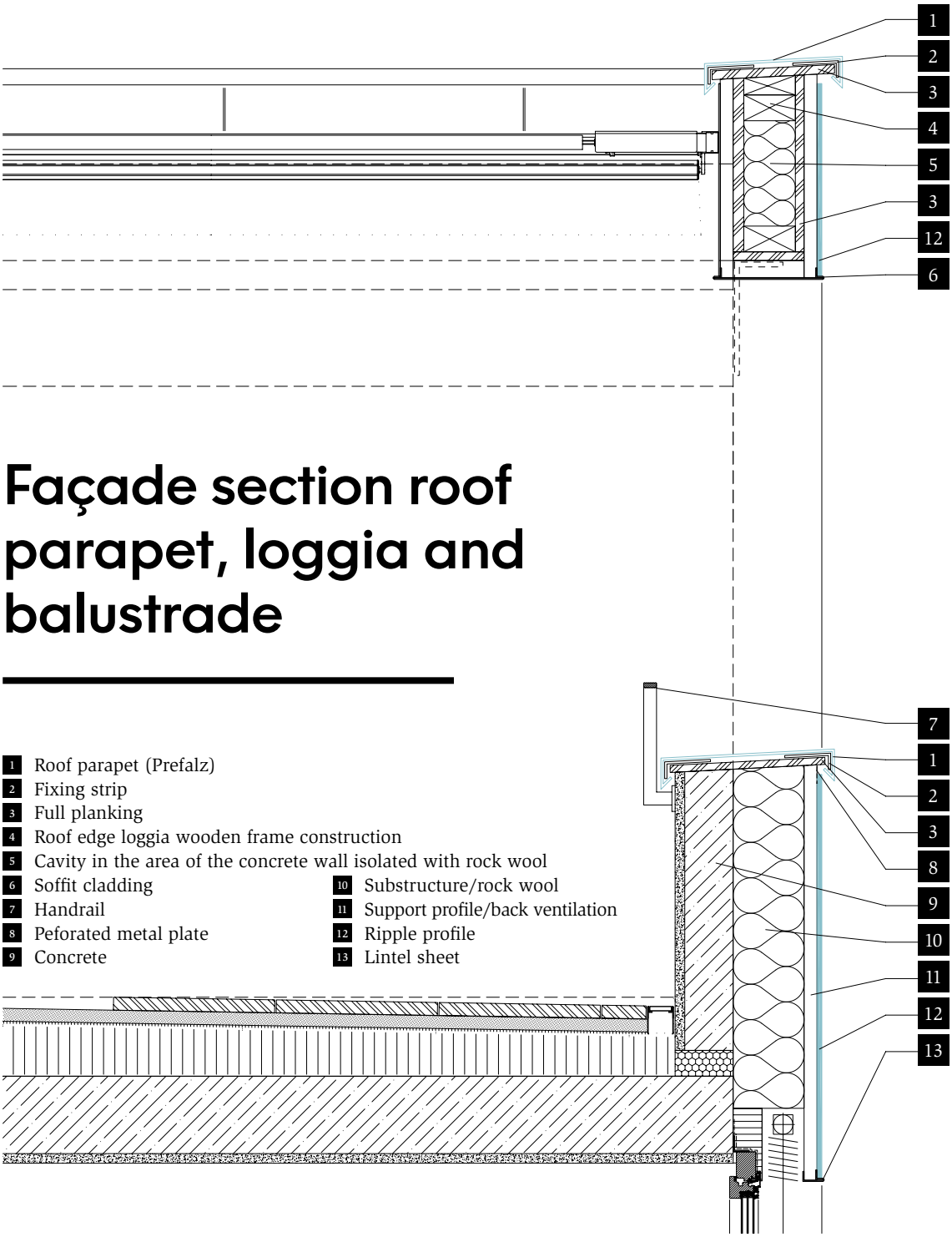
Façade section roof parapet, loggia and balustrade



1 Roof parapet (Prefalz)
2 Fixing strip
3 Full planking
4 Roof edge loggia wooden frame construction
5 Cavity in the area of the concrete wall isolated with rock wool
6 Soffit cladding
7 Handrail
8 Peforated metal plate
9 Concrete
10 Substructure/rock wool
11 Support profile/back ventilation
12 Ripple profile
13 Lintel sheet

Emir Saiti

Façade construction is a discipline of its own

"It is always about how you do something!" Emir Saiti is exact and reserved during our conversation. Nevertheless, he still raves about how "façade construction is a discipline of its own." Judging by his stature, he could have also been a football player. But he is more concerned with the future prospects in the craft and the responsibility he has as a tinsmith.

370 m² of façade area, 2449 kg of material weight, an exclusively concealed fixing with a fixed point in the centre and corresponding sliding points, to allow for a lengthwise material expansion upward and downward. Those are the facts on the red-coated ripple profile façade in Horgen at Lake Zurich.

The execution of this project required "extreme precision". Every non-vertical millimetre is visible on the façade length. And still, it is a façade "and not a piece of furniture," as Saiti tells us. Perhaps one would normally not look at it so explicity.

Grob Schöpfer Architekten and Emir Saiti looked at it more than once and planned meticulously. The cuts had to fit exactly, as the ripple profile was subsequently powdercoated in wine red in one batch, according to the wishes of the architect. Everything else would have been too uncertain, as with a powder coating, colour deviations can generally occur from batch to batch. "The cutting in façade construction," explains Emir Saiti, "is generally that very important moment where you see whether you thought and worked correctly." According to him, it is an "exhilarating feeling" when everything works out with the cutting. But it is also a challenge to ensure "that, in the end, the material fits down to the last millimetre, that nothing is scratched, needs to be reordered or is too much." Of course, a good cut also means lower costs.

Emir Saiti would like architects to pay a little more attention to his craft and to façade construction. "There are many things we would be able to reach with joint planning," says Saiti. There was a good chemistry between Thomas Schöpfer and the tinsmith. This is also reflected in the four houses in Horgen: Two careful designers and doers followed a common idea. With its ripple profile, PREFA was the matching third party in this trio.

cg

Catania WonderLAD

Country: Italy
Building, location: special-care home for children, Catania
Category: new construction
Architecture: FRONTINITERRANA architects
Installer: LS Edil
Roof type: Prefalz
Roof colour: P.10 PREFA white
Façade type: Prefalz
Façade colour: P.10 PREFA white

Antonino Terrana and Vittorio Frontini

»WonderLAD – a protective embrace«

In Catania on Sicily, the architectural office ***FRONTINITERRANA*** of Vittorio Frontini and Antonino Terrana from Florence designed a place for the care and treatment of children suffering from cancer with WonderLAD. An architecture like a protective embrace that supports their recovery in accordance with the competition call and offers innovation and sustainability in building.

Better together

There is an Italian saying that can be translated as: "Good and good does good." For good architecture, you need good clients and good craftsmen. The convincing results were not long in coming, as you can see in WonderLAD in Catania. It is the name of the home for severely ill children that was opened in November 2019. An environment which stimulates the children's vitality through creativity to improve their quality of life and support the affected families.

The ground-level wooden construction with an effective area of 2000 m² has a white envelope made of Prefalz and is located on a 2 ha large area. The various actors explained the perfect interplay between the parties involved: The initiator of the private architecture competition from 2014, the architect Emilio Randazzo from Catania, who brought the LAD PROJECT to life in 2011 together with his wife Cinzia Favara Scacco, leading psychologist at the Polyclinic of Catania. And of course the lead architectural office ***FRONTINITERRANA*** as well as the tinsmith Piero Stanco.

Architecture competition as an opportunity

LAD PROJECT, as Randazzo explains to us, is an approach where architecture contributes to a significant improvement of the quality of life of children who are seriously ill. His wife could observe this in her work as a psychologist with art therapy for children suffering from cancer. "LAD PROJECT arises from the awareness that 'Cure & Care' in paediatric oncology must be the result of a multi-disciplinary intervention in order for it to actually be realised. Just as with the redesign of the Department for Paediatric Haematology at the hospital of Catania, of which WonderLAD is an offshoot, we find the design competition to be the ideal instrument to ensure that the project is of high quality," Randazzo explains to us.

A competition is an excellent opportunity to include civil society in a social project like a home and workshop for seriously ill children. This way, the interest of experts, companies and foundations is awakened, who participate in a major race of solidarity.

"A competition is an excellent opportunity to include civil society in a social project like a home and workshop for seriously ill children."

It was precisely this fact that convinced the young architects Vittorio Frontini and Antonino Terrana from Florence to take part in the competition for WonderLAD. Aside from the large role that architecture competitions generally play in Italy, the two were convinced by the good intentions of the people and supporters involved in the call. "At university, we learn that a competition is the opportunity to develop own ideas and – perhaps – make the 'pitch of your life'. We always enjoyed participating in competitions. At the time of the call for WonderLAD, however, we were very busy, for we had just opened our first construction site as architects after the founding of our office the year before. But when we read the text, we immediately felt that for the people behind it, it was all about the children's well-being. A non-profit association that managed to organise a private competition with a renowned jury. Significant private sponsors were another guarantee of seriousness."

Great encouragement from the architects

The requirements were clear, namely "to create a suitable environment for art therapy, which had only been used in the hospital until then" for the south of Italy, so to design an inviting place to care for children suffering from cancer and accompany them psychologically without the antiseptic image of a hospital. The required sustainability in construction as a basis for the entire project is self-evident for the design work of ***FRONTINITERRANA***, who dispense with petroleum-based products.

"One of the aspects that convinced the international jury when they chose the project from the 104 submitted suggestions was certainly the concept of the embrace. The rooms we formulated as a requirement in the competition call are located here. And then there was the metaphorical reference to a hut and the limitation of the height to a minimum in order to bring the architecture back into a children's dimension," Emilio Randazzo reports. The large number of submissions surprised the jury: Considering that the subject was not an easy one, they were expecting around a dozen participants at the most.

Material and form

Complex geometrical forms, sloping roofs and simple systems are fixed components of the architecture of ***FRONTINITERRANA***. "In the case of WonderLAD, we wanted to design as little as possible so the architecture remains readable. We remembered our own childhood, carried it to extremes and considered the different age groups." In the paediatric oncology, adolescents who are up to 19 years old are treated, as Randazzo tells us. "Therefore, a supposedly 'child-friendly' decoration of the walls, as can often be seen in paediatrics, is not suitable if young patients should have the feeling they are being taken seriously."

Regarding the choice of materials, the call states that WonderLAD "will be built with products and materials which are sponsored or made available at cost price by companies that support WonderLAD, which is in accordance with the winning idea." Consequently, several alterations were made to the original project during the realisation. This was not a problem for the architects, as it encouraged them to find new and convincing ideas, which resulted in the fascinating combination of natural cork from Portugal with the Prefalz System in P.10 PREFA white.

An exchange with craftsmen is essential for ***FRONTINITERRANA***. "We do not see ourselves as the creators. We are simply the ones who design things, and we do it in a dialogue with others." The building envelope made of a durable material like aluminium underlines the idea of a protective environment. At the same time, the architecture integrates itself in the urban context in terms of colour, changes its appearance in the course of the day and reacts to environmental influences when the ash of Mount Etna settles on the roof surfaces and is washed away again by the rain.

Tradition and innovation

WonderLAD is a concise temporary architecture that is closely connected to Sicily. The embrace is a formal reference to the Sicilian "baglio" or "bagghiu", a fortified farmhouse with a large courtyard. The typical floor plan of a baglio comprises a building with an introspective character that is closed to the outside and whose openings all face the inside. Just like in WonderLAD, where the façades clad with PREFA whose few openings frame moments of the interior life, reach down to the ground and present themselves as friendly, but hermetic. The building opens itself towards the courtyard with long ribbon windows, protected from the direct light of the summer sun due to the extended white roof. It creates a pergola, whose supports remind of tree trunks. As a full extension of the interior, the green courtyard gives the children the possibility to be outside all year round.

In WonderLAD by ***FRONTINITERRANA***, the motto 'Cure & Care' of LAD PROJECT is realised in a congenial manner: for the benefit of the young patients, who are supported here in a beautiful environment, and in the sense of architectural innovation on Sicily with a nearly zero-energy building (NZEB) made of sustainable materials.

cb

Piero Stanco

Technical expertise for sustainability and progress

Piero Stanco, who has been processing PREFA material in Catania for 15 years with his company ***LS Edil***, is pleased that an important structural innovation can be seen in Sicily thanks to WonderLAD.

If we think of architecture in Sicily, we usually have Baroque in mind. “I’ve been trying to drive innovation in construction as a tinsmith in Catania with PREFA material for 15 years,” states Piero Stanco, whose business was in charge of the detail planning and laying of the entire white building shell made of Prefalz in this project. All of this happened in full cooperation with the architects of the office FRONTINITERRANA from Florenz, who were responsible for the design of the home for children suffering from cancer.

“The advantages of the PREFA aluminium coils and sheets are relevant not only for the climate in Northern Europe but also for the Mediterranean region. The material is rust-proof, the colour-resistant P.10 surfaces withstand external influences and loads. They are UV-resistant, weather-resistant and not flammable. Here, aesthetics are combined with technological innovation and sustainability, which we need in Sicily,” the tinsmith explains. He is proud of the achieved result that he rightly compares with a “custom-made dress”.

For the architects had decided on a special design of the cladding with differently wide trays, which gives the building with a surface of 8400 m² a greater dynamic. Of course, Stanco’s competence was in demand. Starting with the calculation of the substructure up to the expansion joints in consideration of the large differences in temperature that characterise the Sicilian climate, the planning and handiwork needed to be carried out precisely down to the last millimetre in order to realise the building according to the design.

The architects’ and clients’ happiness gives Piero Stanco and his team great satisfaction. “WonderLAD is an example of applied innovation and becomes a stimulus for sustainable technological advancement, which we want to see here in Sicily.” The realisation would have been impossible without believing in the project and the goal, which is helping seriously ill children get well again. Stanco brought along his expertise as a tinsmith and also supported the realisation of the appealing white building envelope financially. He is particularly proud of the elegant and impressive inlet into the protective embrace of WonderLAD: “It is simply beautiful and meaningful architecture. A flagship project for Southern Italy.”

cb

Hardangerbadet

Country: Norway
Building, location: indoor pool, Øystese
Category: new construction
Architecture: LINK Arkitektur
Installer: Blikkenslagar Flotve AS
Façade type: rhomboid façade tile 44 × 44
Façade colour: bespoke colour plain aluminium

Sonja Fastenrath and Anne R. Bøthun

»A jewel by the fjord«

LINK Arkitektur – represented throughout the whole of Scandinavia with more than 15 locations and 500 employees – is one of the 50 largest architectural offices worldwide. It has a 43-strong team in the city of Bergen located in Western Norway. More than half of them are women and LINK is known to be a family-friendly working environment. Anne R. Bøthun is one of the group leaders in Bergen. Together with Sonja Fastenrath, she steered the client, the community of Øystese and many participants through the demanding long-term construction process of the Hardangerbadet Healthcare Center. Today, the locals mention diamonds and jewels when they talk about the building, and they do not only mean the façade's glossy silver rhomboids that reflect the light and colours of the fjord.

The two architects Bøthun and Fastenrath explain how ***LINK Arkitektur*** function, what their teamwork looks like and that they took the lead in the process in Øystese. “Together with two female structural engineers, we sat at the negotiating table with the developer and the executing companies. We four women had quite a bit to say,” Anne R. Bøth elucidates both attentively and emphatically. The team tries to work from 8 a.m. to 4 p.m. and thus in a very family-friendly manner. The office manages to take on a great number of projects because they split up the work, and while smaller teams work independently from another, they are still in close cooperation – especially for first concept ideas, they like to draw on in-house design workshops. In addition, the “LINK compass” applies in the office, which determines the quality criteria and corporate objectives. The compass serves to secure the balance between ambitions for the environment, economic benefit and social sustainability in their projects. The swimming pool in Øystese was also developed according to this model with “quite a bit of communication”.

Construction challenges
New construction, extension and reconstruction – the project certainly brought about many construction challenges. Nevertheless, Anne R. Bøthun and Sonja Fastenrath talk at great length about the superb and idyllic landscape of the Hardangerfjord first. With its slate rocks, pine forests and the dark green water of the fjord, it can be described as wildly romantic. From the shore, you can spot the bluish ice of the Folgefonna glacier. The architects wanted to explain the project and inevitably talk about the nature it could hardly be described without. No matter which weather conditions are above the fjord, the Hardangerbadet's plain aluminium façade by the shore reflects a myriad of light and colour layers. ***LINK Arkitektur*** built a mirror by the water.

Various materials
On a plot in the town centre of Øystese, there was already a hotel from the 1960s built in brick and dark wood. The architectural extension should stand out from it while still forming a spatial unity with the existing building. A garden courtyard, which is open towards the fjord, emerged between the new construction and the hotel. The swimming pool also opens itself with large glass elements in this direction. The building volume was divided into smaller structures in order to adapt the scale to the buildings in the environment. Each structure received a different façade material. Inspired by traditional building techniques, the architects used slate rocks and vertical wooden lagging. Representative buildings in the area used to be covered with rhomboids made of slate – in Norway, you call them sirupsnipper with a twinkle in your eye, as they look like a form of gingerbread that is typical in Norway. ***LINK Arkitektur*** reinterpreted the forms of the traditional roof covering on the façade by the shore with plain aluminium 44 × 44 rhomboids by PREFA.

Many functions, many bodies
The building is basically conceived in a strongly functional manner and is defined by various spaces that cleverly relate to one another. Wishes and ideas were already considered in the advanced planning process and floor plans changed. Anne R. Bøthun refers to an open, three-storey foyer, which makes the hotel, the swimming pool, medical practices, a therapy centre and a pharmacy accessible. Its space threatened to gradually become smaller during the design process. "It is the most important space in the building," Bøthun says. "People meet here and it should be flooded with light. It should offer views of the other rooms and building parts, so the diversity becomes clear to the visitors. And a view of the fjord and the mountains should naturally also be perceptible from this room."
Regarding the foyer, she and Fastenrath hardly made any compromises. But they allowed more leeway regarding other aspects. For the execution of individual building details, the craftsmen were included at an early planning stage. As the developer relied one hundred percent on local companies, the building became a kind of community project of the people in Øystese over the course of time. The tinsmith Kjell-Arne Flotve was also very interested in contributing to the place with his work.

A jewel in many respects
With this project, the inhabitants of Øystese realised that, despite various differences, they had one thing in common: They also wanted to be able to go swimming in winter or when the weather was bad and not stay at home. With a swimming and family pool, a climbing wall, a water slide, a thermal pool and a sauna, the Hardangerbadet is extremely well designed to meet the needs of various age groups. This also brings people together who did not know a lot about each other before. When you are wearing a bathing suit, you encounter others in a completely different manner than when you are drinking beer at a bar and you are never really anonymous. Therefore, the social sustainability of the project is enormous. This has certainly sharpened people's sensitivity to others in Øystese. In conversations about the swimming pool, terms such as jewel and community often come up. Today, they are all truly proud of this building, as the lifeguard also confirms.

Financing and tourism
The Hardangerbadet is primarily financed through the Healthcare Center and spaces rented out to third parties in the building. The operator concept is a mixture between a private therapy centre with a hotel and a public municipal swimming pool. Building companies and users provide additional financial support for the construction, even if not everyone in Øystese was thrilled from the very beginning. 20 years ago, the first planning approaches were met with scepticism, which is practically forgotten today. The catchment area is the entire region of Kvam. The location by the fjord and the fact that Bergen is just over an hour's drive away attract many people who value the intimacy of small places and the unyielding rugged nature. Moreover, the Hardangerfjord is one of the most important tourist attractions in Norway. Cruise ships pass by Øystese and its new swimming pool. The architecture is probably also perceived internationally, which naturally brings the small community even closer together.

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Pride, slate and aluminium

Everyone knows the Hardangerbadet and its tinsmith in Øystese and the region around the Hardangerfjord. Though the plain aluminium rhomboid façade is not Kjell-Arne Flotve's most spectacular project, it is his most important one to this day. With his contribution to the building, he seamed his way into the hearts of the residents of Øystese. They even say he created a jewel.

Kjell-Arne Flotve has a small office with round, white walls in an old wood chip silo of a former carpentry. He is sitting there as if he was at the steering wheel of an old navigation bridge – the room is a little too small for the tall man with a hands-on mentality. He does not talk much about his work. During the day, Flotve does not have a lot of time for long stories and conversations. He is needed as a boss and a tinsmith in his small tinsmith workshop with five installers. "We do everything, repair a lot," he says with a grin.

Local pride

Everyone in Øystese knows Flotve as an expert in his craft and as the façade maker of the Hardangerbadet. The city followed the project and its implementation for more than 20 years. Today, Flotve is one of those who like to show off the photogenic building: "It is particularly noticeable between the wooden structures and the small cottages. This is because of the plain aluminium façade. We made it," he says not without pride.

Tradition and skill

The inspiration for the swimming pool's rhomboid façade can be found in Flotve's immediate surroundings. On his tinsmith workshop's property, there is also the oldest boat and wood storage house in Øystese, which stands next to an old fish smoke house with an original, irregular slate roof covering. According to Flotve, the closeness to these traditional buildings goes well with the tinsmith profession, which he learned from his uncle Øyvind. When he was eight years old, he already helped out in the tinsmith workshop during his holidays. He went on to become an apprentice when he was fifteen. When he took over his uncle's company on 1 March 2000, it was all over the local newspapers. Since then, he has been busy at construction sites every day. "Øystese is a small village, but we serve the entire region of Kvam," he explains. "We take on jobs that are up to a two-hour drive away. Sometimes, they are only minor repairs. The people here know me for that."

Kjell-Arne Flotve

The ordinary and spectacular

"At sixty," he says, "I'm slowly thinking about who is going to take over the company and the workshop." Kjell-Arne Flotve counts on his employees: "Five more years, then I'm handing it over." So far, they have performed ordinary and spectacular work together. The façade of a restaurant on the Folgefonna glacier is particularly noteworthy. You can see the glacier from Flotve's workshop. Similar to the swimming pool in Øystese, he used PREFA for the façade cladding. On the glacier, the temperatures and transport of the materials are challenging. All materials have to be delivered from Oslo by truck and over the mountains. "You install aluminium manually. This is easier at 15 °C on the fjord than at -15 °C at 1200 m above sea level on a glacier." Flotve and his team work in a very resourceful manner. Sometimes, individual elements are also put to another use. "We've even turned rain gutter holders into clothes hooks," he reveals with a smile, "that's the great thing about the craft."

cg

Window to the Garden

Country: Germany
Building, location: detached house, Bad Soden
Category: new construction
Architecture: Neff Kuhn Architekten
Installer: Spenglerei Knippschild
Roof type: Prefalz
Roof colour: P.10 anthracite

❶ Object-related individual solution

Pascal Kuhn and Patrick Neff

»Remaining small and still creating space«

In Bad Soden near Frankfurt am Main, ***Neff Kuhn Architekten – Studio PPANK*** were originally supposed to renovate a small, old diplomat's villa from the 1950s for a family of five. When they began planning, they did not expect that they were going to realise a new construction in the end. With an excellent feel for the property's potentials and the neighbouring building, the young architects set themselves the goal to remain small in the effect on the outside but to create a new, interesting space with a rising roof ridge.

With plenty of time and calmness even for unpredictable decisions, Patrick Neff and Pascal Kuhn design and realise a generous detached house in one year of planning and one year of construction. The framework conditions are special, as the family has already been living on the building site for years. Until the start of construction, the clients are living in a dark-coloured, cozy wooden house with traditional charm. A fantastic walnut tree stands in the garden. Construction is planned to begin when the family grows. As one of the neighbours tore down a similar house from the same construction period and poor building fabric was revealed in the process, the architects finally recommend opting for a new construction that offers more space and is more suitable for the family's everyday life. It should have a stronger connection to the garden. According to the building regulations, only a building with one and a half storeys is admissible on the property. In order to obtain almost twice as much space in the new construction as in the previously existing building, the architects tilt one of the longitudinal sides of the building. In addition, they scale the façade surface on the side facing the garden, place floor-to-ceiling dormers on the roof and position one storey into the ground. These simple design decisions result in a slightly rising ridge. What does not really have any consequences from a construction perspective becomes an unusual challenge for the tinsmith due to the roof areas that are partially cut in an inclined manner.

Trays and trapezes

From the street, the steep roof area is similarly present as the other façade areas in visual terms. In order for the building structure to be read more clearly, the architects decide to only use one material for the roof and one for the façades. Long-lasting Kebony wood should give the outer walls a soft touch. Pascal Kuhn calls the wood "fried" and laughs as he explains what is behind the sustainable building material. Above all, the material for the roof had to be robust and be able to seamlessly cover various elements. Three large dormers and the parapet of a loggia should not stand out too much visually in the roof area, to create the effect that they are smaller. Anthracite-coloured Prefalz offers these options. A dark roof calms the building volume, vertically set seams evenly structure the area and because continuous trays can be laid precisely, diagonal cuts on the rising ridge are not very complicated. Moreover, the roof without protrusions makes the simple building structure, which becomes broader towards the garden, clearer and more compact.

Partners at the construction site

Both the architects and the clients are fascinated with materials. During the planning stage, they often meet to discuss and assess. What the family needs and which materials can give them what they are looking for are the questions that are at the centre of decisions. For example, the house should work for the children and also be compatible with the adults' ideas of living, which is why the decision was made to use a stone floor instead of a wooden one that seamlessly leads into the garden as a terrace on the ground floor. During the construction period, the clients move into a flat close by so they can be at the construction site every day. The architects consult with them down to the last detail and justify design ideas such as the wing doors in the entire house, which may be unusual for a new construction but spatially underline the house's permeability. They also make sure to include the craft companies in decisions and consult with them early on. The implementing companies at the construction site in Bad Soden are partners for Patrick Neff and Pascal Kuhn.

The key to the construction process and the construction result is inevitably the team that is part of the building's realisation. According to Neff and Kuhn, that is why architects should "make sure that the stress level of all participants stays low".

The own niche
So far, the architects have built detached houses and office buildings in the Rhine-Main area. A consulting contract for European design and interior design caused them to travel to China. As they mainly have private clients, they are aware that they have a special playground for spatially and materially sophisticated buildings. But aside from that, they also look for options to take on communal projects, for instance by organising competitions in residential construction together with other architectural offices. Right now, they are working on the revitalisation of a residential high-rise on behalf of a social housing cooperative.

> *"Architecture provides the solution, not technology."*

Aesthetically unusual
Neff Kuhn Architekten – Studio PPANK prefer to focus rather than realise many projects at once, which would mean they would have to expand their team that is relatively small at the moment. In everyday life, the architects take time for their builders and grasp opportunities that make it possible for them to realise their vision of architecture both from a constructional and an atmospheric perspective. They speak of buildable and spatial quality, work out what is aesthetically unusual together and create spaces that are specifically tailored to their users.

Complementing each other in skills and experience
Both architects gathered different experiences after studying together at the Technical University of Darmstadt. While Pascal Kuhn decided to work in the competition department of a renowned Frankfurt office and concentrated on both functional and design aspects, Patrick Neff joined a small office where he was in charge of all tasks relating to the building process, from approval planning to the execution up to construction site coordination. He says he was lucky that his former bosses also took him with them to cost discussions with building owners and craftsmen. "Back then, I learned how much clarity and perseverance is necessary to realise good architecture and that finances inevitably always play a role." Kuhn and Neff complement each other, which is why their daily routine works pretty well.

Doing architecture
The two believe in the basic idea that architecture needs to be able to move away from the usual. This is also what they convey in their first conversations with potential clients in order to address creative scopes from the beginning. They look for partners who are open to alternatives and go beyond standards.

Architecture without technology?
The architects are convinced that "architecture provides the solution, not technology." Low tech is the keyword for them in the future. They criticise an imbalance between the technical effort and architectural result that can frequently be observed. That is the reason why they try to reach a constructive as well as technical adequateness in their projects. Neff and Kuhn mention that for them personally, the biggest challenge in their future development is to not let their own experiences limit their freedom in design. The architects definitely want to maintain a simple and euphoric "Let's just do it" mentality.

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You have to have a sense of proportion

Andreas Knippschild is not on the roof much anymore – “No time,” he says, “that’s what I have my team for.” Sheet metal workers, roofers and carpenters work at his company, a particularity that needs to be coordinated and planned. Knippschild is in charge of conversations with customers, the technical and temporal planning of the jobs and the organisation at the office. As he reveals, he simply enjoys working with sheet metal, metal and his team.

Spenglerei Knippschild’s strengths are clearly this personal euphoria and an early craftsman consultation in projects. The architects Patrick Neff and Pascal Kuhn, for example, already contacted Andreas Knippschild at the design stage for their detached house in Bad Soden. There should be a rising roof ridge and Prefalz was to be laid in regular tray widths over the roof, dormers and loggia to give the relatively large roof area a calm and elegant appearance. As the tinsmith already joined the planning stage, it was easier to coordinate the measurements in advance.

Individual cut

As Knippschild and his team used mobile folding and profiling machines in Bad Soden, they were able to cut the sheet metal trays individually. That is why the planning and laying took place in smaller sections at the construction site. It was possible to react to inaccuracies and real measurements of other trades significantly faster and more precisely. “A tinsmith needs to have a sense of proportion,” says Knippschild. “He needs to know which point or line he is working towards.” If things get really tricky, he builds prototypes with cutting patterns at his workshop. A while ago, he also did that for the onion dome of the Syriac Orthodox Church Mor Eliyo in the Hessian town of Pohlheim.

Andreas Knippschild

Fast work and honest prices

For the tinsmith, fast work requires thorough planning. This means that he extensively describes his offers and likes to explain to his customers in detail why he charges which prices for which services. “For example, there is always a loss of material due to cuttings. I want to convey to my customers from the beginning that this also costs something.” To him, it is all about trust, integrity and friendliness. He calculates his prices with a corresponding buffer to avoid nasty surprises. “I somehow owe that to my customers,” he says.

A sense of proportion and trout

He sometimes misses a similar sense of commitment and proportion in his apprentices, of which he would like to train more. He cannot understand why the younger generation is not very interested in the profession. According to him, being a tinsmith is very rewarding despite tough working hours “because you really see that something is created that will last.” Aside from that, the order situation is extremely good at the moment. With a specialisation in the reconstruction of existing buildings and smaller objects, says Knippschild, you can make a name for yourself particularly in the Rhine-Main area. “I will work for 20 more years. Until then, my master roofer and tinsmith will be ready to take over the company.” What is he going to do afterwards? Breed trout, ride his motorcycle. What else?

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State music school Buchkirchen

Country: Austria
Building, location: music school, Buchkirchen
Category: new construction
Architecture: F2 Architekten ZT
Installer: Rudolf Schmidhofer GmbH
Façade type: façade shingle
Façade colour: bespoke colour Maya gold

Christian Frömel

»A little bit of flowing space«

Christian Frömel and Markus Fischer, the founders of ***F2 Architekten***, have a thing for classical modern architecture. White flat roofs, narrow supports, an audacity here and there and materials with a noble appearance are the architects' trademarks. In a small town in Upper Austria, they combined their idea of flowing space with golden aluminium shingles.

We are approaching Buchkirchen, Upper Austria. Cornfields and poppy meadows alternate with small wooded areas and massive, square farmhouses. The town itself is still in the distance, it takes a few more curves and hills until you get to the place-name sign. Afterwards, the first thing you see is the steeple, followed by a strong castle roof and finally a gold shimmering rounding that exhibits a uniform pattern. The round façade is part of a pavilion, whose flat, white roof attracts attention in the historical fabric. The area here might be rural, but that does not mean the people here have no idea of sophisticated architecture, as you can learn in Buchkirchen.

Music in the centre

Until recently, the town with approx. 4000 inhabitants was confronted with the problem that it did not have a large area where everyone could meet. The local community has a strong sense of tradition, there is always music at every event. Several wind ensembles, string sections and the brass band that counts more than 70 musicians – rehearsal is on Wednesday evenings – play an important role in local everyday life. They had a very active state music school, but a suitable fairground and the representative building to make their achievements visible had been missing for a long time.

Simple stories

The music school's pavilion building has been the heart of Buchkirchen since 2018. Set back from the main through-road in a distinguished manner, it creates a 20 metre wide forecourt and finally offers the desired stage for the music. Musicians of the school speak of a "welcoming gesture" and refer to the history behind the building's mix of materials. While taking his horn out of the instrument case, nine-year-old Johannes explains: "The metal stands for the brass music, the wood for the woodwinds and the thin columns that carry the roof are the strings of a violin." Christian Frömel confirms that to them, it was about this easily comprehensible idea the users of the building identify with. That is also how they asserted themselves in the competition.

A discourse on façades

F2 Architekten had to fight a bit for the metal façade with matt shimmering shingles. The budget was generally tight. Nevertheless, the architects ensured that the curved building section was realised in the high-quality material. That is also why the 160 m² small shingle façade mounted on a full planking is of particular importance to Christian Frömel: "The metal façade made it possible for us to visualise the building's concept."

Unfamiliar conception of space

The construction embodies a conception of space that is unfamiliar to the town. Here, the generosity of classical modernism and the idea of flowing space meet introverted, thick-walled country houses. The music school is not a compact building structure but consists of several volumes placed under a white roof with a foyer at their centre. It seems that this design is seen, spoken about and used more often precisely because it is so untypical for the countryside. ***F2 Architekten*** and their team have built several luxurious modern houses. They know what is possible if clients can afford to make architecture their passion. In Buchkirchen, they had to say goodbye to many other things due to a few decisive design ideas. The spatial references to great architects of the 20th century have remained visible. The next few years will tell how timeless this architecture between castle and village church ultimately is.

In a former spring factory of a furniture manufacturer in Schwanenstadt, only a 20-minute drive away from Buchkirchen, things could eventually get a little quieter than usual. After its conversion, ***F2 Architekten*** also moved into an office there. Until now, they have been working on up to 50 projects a year. Frömel uses the term "decelerate" to describe what he wants in the upcoming years. In the office, they want to choose more cautiously what they work on and build. "Not building everything," as he says, "is in this sense a freedom that, once you have it, is a true success."

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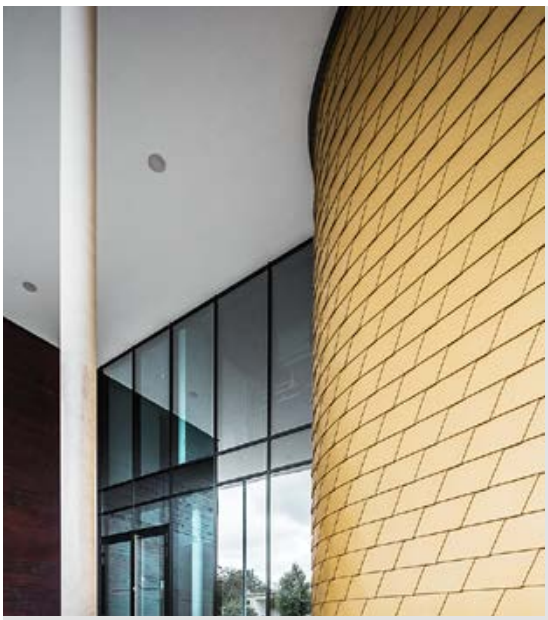

Rudolf Schmidhofer

10 metres, 10 seconds

A tinsmith's workshop which already states on its homepage that it works with 42 mast climbing work platforms, six trucks including loading cranes, 10 accommodation containers, three mobile workshop containers, eight telescopic forklifts and 15 assembly buses does not take on small orders with a façade area of 160 m², right? Wrong. For Rudolf Schmidhofer, it is all about professional work, not the size. You can also demonstrate good craftsmanship in a small project like the state music school in Buchkirchen.

Schmidhofer's façades and roofs are extremely present in Austria. His employees have their hands full with increasingly demanding metal laying work and planning processes. The boss talks about the "small" business in a pleasantly modest way. His craft is booming, however, and architects increasingly appreciate Schmidhofer's work, partly because the third-generation company has more than 120 years of experience.

Rudolf Schmidhofer – who together with his brothers Kurt and Georg took over the tinsmith's workshop from his father – appears to be well-prepared for a conversation. He greets us with pictures of the construction site of the Buchkirchen state music school and explains why he took on this relatively small job in the first place. "The decisive factor is not so much the size, but rather the basic architectural concept and how much freedom the architects give us when it comes to realising detailed solutions independently."

In the next instant, he tells us about connecting the gold façade shingles to the plaster façade, missing straight reference edges in the building and the steady hand you need to fix a perpendicular shingle façade to a full planking that runs in a curve. Schmidhofer readily admits that it would not be possible to keep up the promised quality without his project manager and the experienced foremen. His façades and roofs are ultimately well-organised teamwork.

"Sometimes," he says, "the obsession with details that building owners and architects have makes me smile." After all, aluminium is a living material. If clients are overly meticulous, he uses the "10 metres, 10 seconds" trick: Everything that cannot be seen within 10 seconds from a distance of 10 metres is simply not perceived in everyday life. After his explanation, most of the clients understand that to him, it is not just about precision work, but also about the bigger picture.

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PREFARENZEN 2022

House S. Oberreute

Country: Germany
Building, location: detached house, Oberreute-Irsengund
Category: new construction
Architecture: Yonder – Architektur und Design
Installer: Spenglerei Proba
Roof type: rhomboid roof tile 44 × 44, Prefalz
Roof colour: bespoke colour plain aluminium
Façade type: rhomboid façade tile 44 × 44
Façade colour: bespoke colour plain aluminium

Benedikt Bosch and Katja Knaus

»Thinking out of the room«

A backyard in the west of Stuttgart, steep, narrow streets, tenements from the post-war period. The architectural office of Katja Knaus and Benedikt Bosch of ***Yonder*** is in an urban area with a high building density. What appears to be disadvantageous for some seems to be a great and likeable advantage for ***Yonder***. This applies equally to the rooms they work in as well as their designs and buildings. Is this the incorrigible optimism of the studio founded in 2011 or is there something else behind it?

The architects' office is located on the mezzanine floor of an older building. Katja Knaus and Benedikt Bosch have accepted and creatively upgraded whimsical little details such as exposed pipes, narrow corridors and curiously obscure yard areas. This is not a desperate underlining of irregularities, but rather a loving calmness and joy in what can be recognised and used as an everyday quality. "An exercise in examining what you have," as ***Yonder*** put it. This way of using what is there also includes the garage that was converted into a conference room. Connected to the office by a few steps, it stands out with its chocolate-brown flokati rug, oval table made from maritime pine and rose-coloured chairs. Pure pleasure in the colours and material-based structures prevails here.

Observing realities of life

Not treating materials too much while self-confidently combining them at the same time is part of ***Yonder***. Black polyethylene woven fabric from orcharding, cross-laminated timber boards painted green or counter battens mounted on the façades in an inclined manner have found their way into their designs. Oftentimes, they use what is usual in a somewhat unusual way. None of this seems insincere. It rather indicates that Katja Knaus and Benedikt Bosch closely observe realities of life before they design rooms and buildings. In the past, this design approach resulted in various detached house and apartment building projects as well as interiors.

Katja Knaus (KK): "In this way, we like to research and show the individual potentials of the places we create designs for. Our aim is to realise living spaces for clients. In an interplay with the surroundings, the material characteristics, necessary space and constructive limits lead to site-specific architectural solutions. We find serially-produced drafts rather difficult because each project brings along its own question that deserves an independent answer."

Benedikt Bosch (BB): "Architecture must not be thought in model series, we also discuss this when we teach. The new generation of architects wants to build differently, wants to upgrade existing situations, convert them and build them in a much easier way than was common in the past. The existing structures in our cities are automatically part of our carbon footprint. With ***Yonder***, we turn this demand of sustainably thinking out of the room into reality. This is also based

on our own experience. As we show, less technical effort can mean significantly more spatial and structural quality."

KK: "That will be the topic in architecture in the next ten years. As a society, we do not question established standards often enough. Does every bed need an own room? Is there really always a need for central heating or does it not rather have something to do with the way architecture is finally used whether heating is necessary or not? We like to ask what we can expect us and others to endure and then declutter our designs from a technical and creative perspective accordingly."

A house for retirement

The story of the house in Oberreute-Irsengund required a similarly good feeling for the clients' changing reality of life and the local surroundings. Reducing the expectations was part of the design work ***Yonder*** did in the Allgäu region. A couple from Berlin had seen a report on the architects' House P. and turned to Knaus und Bosch with the wish to build a house on an extremely steep slope for their retirement. The move should take place gradually and the first idea contained something comparable to a tower house, which could have grown from top to bottom along with the couple's needs. The plan was to create the roof and a first upper floor from cross-laminated timber, which the clients would have been able to use relatively quickly. In further construction phases, a guest level and the ground floor with a sauna should have been realised. For a variety of reasons, many things took a different turn and the architects explicitly referred to new framework conditions. In the end, the house was executed with a lower height than planned. A small sauna and guest house was placed separately around an old tree by the slope. Both building structures are connected with an open wooden deck, which constitutes the centre of the property and everyday life like an open courtyard. The panoramic view of the landscape from there is remarkable. In the house itself, there is a slightly stronger focus of the views through specifically placed windows. This renders them suitable for the clients' everyday life and does not make them appear arbitrary. The open living space contains areas that can be assigned to routines – the breakfast window, the evening view, the protective wall next to the reading chair. Again, Knaus and Bosch work out intimate spatial situations from the place itself. And colours also play a decisive role in Oberreute-Irsengund.

The rooms are largely defined by the wooden surfaces of the building material. Only the rooms with doors have a colour that was used for the wall, interstices and light switches: the black sauna, the night-blue bathroom, a cloud grey bedroom. Spatially speaking, that is quite poetic.

Building simpler wherever possible
Yet the architects do not lack the necessary pragmatism at construction sites. ***Yonder*** left the materials untreated as far as possible. For the three roofs of the project – house, sauna and carport – they chose PREFA aluminium designed in plain aluminium, as the material withstands the weather and snow conditions in the Allgäu. Moreover, three different, asymmetrical roof geometries needed to be covered, which was possible with PREFA in consistent quality. The architects had rather graphically appearing roof surfaces in mind, which could be achieved with the material. The roof covering was ultimately tricky for the tinsmith, who hardly found any reference lines on the unusual buildings for the rhomboid skin and the folding sequences.

BB: "Of course, we think about how we can simplify our building processes during the design stage."

KK: "Among other things, that is one of the aims of our commitment to the Association of German Architects. We believe that fundamental changes need to be made to the building legislation. More experiments and building in a simpler way need to become more accepted again. On top of that, it is important to us to support a broad understanding of architecture in our society and counteract wrongdoings in the industry."

In the case of the house on the hillside in Oberreute-Irsengund, all of the specialists involved should work at the construction site in a timely manner, so that coordination effort, time and costs can be reduced, if possible. This does not mean that there were less challenges in a structural sense. The simple and distinctive details that ***Yonder*** realise heavily rely on the exchange with the executing craftsmen.

KK: "We want to build close to the material. This means that we listen to the craftsmen and that construction site work is a deeply human process for us."

Another one of those important aspects Katja Knaus and Benedikt Bosch look for in their work. Their idea of space should shape social interaction from the very beginning. This also means that they spatially work with openness, assess the movements through the buildings in everyday life in advance and sometimes create areas that only receive a use and meaning when their users move in. They do not always want to dictate everything with their architecture but make offers instead. This leads to very beautiful and specific situations.

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Leonhard Proba

On the roof like on the mountain

The three small silver shimmering roofs in the resort town Oberreute-Irsengund in the Allgäu region are within clear view from the surrounding mountain tops – from the Hochgrat, the Schwarzer Grat and even from the Paradies. Thirty-year-old master tinsmith Leonhard Proba accepted the tricky challenge to deal with low hanging rain gutters and almost without straight finished edges. It does not come as a surprise that he trains his calmness and ability to balance by climbing in his leisure time.

The sympathy between the tinsmith and the client of the house in Oberreute-Irsengund is obvious. You could say that they both deal with sheet metal at work. They discuss the sense and nonsense of 96 m long aluminium elements that were installed in the Ferrari World in Abu Dhabi and talk shop about the expansion of the material. The two met at the construction site. “Mr. Proba was here every day,” the client, Mr. Schmucker, mentions. Each of the three roofs, all of them covered with PREFA, features a speciality.

The edges of the residential house’s gable roof, for instance, run together in a slanted direction. There are no right-angled or parallel lines in the roof surface or the inclination. Only the ridge is straight. Therefore, a suitable reference edge where he could have aligned the linear PREFA rhomboid roof tiles was missing for Leonhard Proba. He helped himself by constructing a line that runs centrally in the drawings and in part also right on the roof on site. From this line, he drew their position piece by piece on the wooden full boarding of the substructure before he began to lay the rhomboids.

Proba had already discovered this challenge in the call, had communicated the complexity to the architects and was thus able to convince. It was one of the reasons why he finally took on the relatively small assignment: “I knew you had to think and plan creatively first in order to be able to diligently perform the laying work.”

Of course, he insisted on doing the work on the roof himself. That is something Proba, who had just taken over his father’s business a few months before, would not have necessarily had to do. But aside from business matters and the exchange with other local companies, working with your head and your hands on the roof is simply part of his everyday life. It is very much like climbing, where you also “cannot get out of practice”.

cg

Kindergarten Ulm

Country: Germany
Building, location: kindergarten, Ulm
Category: new construction
Architecture: planformat GmbH
Installer: Gökelmann GmbH
Roof type: rhomboid roof façade 44 × 44
Roof colour: P.10 PREFA white
Façade type: rhomboid façade tile 44 × 44
Façade colour: P.10 PREFA white

❶ Object-related individual solution

Felix Halder and Raik Eisenhuth

»A white crocodile and a little more than just designing«

Since summer 2021, a white new construction by the architects of ***planformat*** is offering clearly structured interiors for the turbulent everyday life of the Protestant Kindergarten in Ulm Jungingen. The building exhibits refinements and, with its rhomboid scaly skin, lies there on the green grass like a white crocodile. Or is it a building consisting of several unopened envelopes? Raik Eisenhuth and Felix Halder prefer to use precise renderings rather than associative images for their designs, act both as developers and architects and, on top of that, intensively deal with the economic framework conditions of their architectural practice.

Capital and support

The homepage of ***planformat*** reads “Architecture, properties, interior”. For five years, Eisenhuth and Halder, one from Schwedt/Oder near Berlin, the other from Isny in the Allgäu region, have been running an architectural firm with which they develop projects themselves and accompany their clients up to the selection of furniture, if desired. From the very beginning, the two architects were interested in an office structure that also works economically. “We never did competitions. Instead, we established a solid business plan to become self-employed. With ***planformat***, we are developers, project developers and architects. Of course, you need the necessary capital for this kind of offer, but we do not need external developers and brokers, who would normally share the profits,” they explain. Therefore, they want to convince with their office and appearance in the environment of customers, banks and developers. The Chamber of Architects Baden-Württemberg and their own families have supported them in this respect.

> *“No coating, no weathering, easy partial replacing.”*

Understanding an architectural office as a firm and securing its efficiency is a precondition for the architect and business information specialist Raik Eisenhuth. At Biberach University, he met Felix Halder, who thinks similarly.

A firm reflected in its office spaces

planformat are responsible for both developer and architectural services. They organise their office spaces in accordance with this structure.

In a converted factory with brick façades and a neighbouring dance studio, they rent what can be described as an "office urban villa". That is quite representative at first glance and at the same time inviting, likeable and stylish. Due to an open staircase and on several work galleries, you have eye contact, communication zones and places of retreat everywhere. "The team that deals with developer affairs is to the right of the staircase, and the design team meets to the left of it," the architects, who go back and forth between these two world rather easily, explain. In their everyday work, they meet with their teams at a long counter on the ground floor, the same place where they also invite their customers to engage in conversations to weigh decisions.

An effective kindergarten floor plan

A change of scenery: About five kilometres away from the office in Ulm in the small village of Jungingen, which appears to consist of a bakery, two churches, a Kebab joint, a driving school, a cemetery, a development area with an interesting street layout and the new kindergarten of the Protestant Diaconal Institution. Their property developer knowledge helped ***planformat*** assert themselves against three other offices here in the award procedure in 2018. Eisenhuth and Halder were able to present themselves as good partners for building owners and clarify essential architectural decisions. Instead of the requirement that the construction could only count one storey, they argued with an effective two-storey solution that complements an existing building on the property and thus enables a larger outside play area, while it also suggests working on two levels. Therefore, the rooms for the kindergarten management

and administration are located on the first floor and the ground floor makes it possible for all children to move about freely. Via two high axes of access – one of them takes up the flight of the existing kindergarten building – the floor plan organises group rooms, the children's kitchen as well as sleeping and exercise rooms. This way, the entrance, wardrobe, access to the garden and connection to the old kindergarten become an action area that is greatly loved and extensively used by kindergarten teachers and children alike.

Efficient protective armour

Aside from an effective floor plan, an efficient façade also counts. "No coating, no weathering, easy partial replacing" were the economic reasons that were essential for ***planformat*** in the design process and material decision in Jungingen. Together with master tinsmith Michael Gökelmann, they could pull a continuous roof skin even over the downward sloping roof edges, over the façades and into the window reveals with 44 × 44 rhomboids. The white aluminium façade stands out nicely in contrast to a vertical wooden lagging of two incisions in the building volume. As is often the case in simple building forms, ***planformat*** also sought out optimally reduced material solutions for their architecture. "I find that a reduction to few materials rather results in a stronger character," states Felix Halder. They stuck to the combination of aluminium and wood and continued changing between white surfaces and warm wood tones with wooden frame windows, a parquet floor, a wooden acoustic ceiling and a relaxed children's rubber boots wardrobe in the interior. The result: Light and reserved rooms that can become a stage for the children.

planformat in the future?

"***planformat*** wants to continue without single-track standardisations. With good details, buildings receive the necessary value to be sustainable. This aspect and wood construction increasingly interest us with every project," Raik Eisenhuth raves about the next steps they would like to take with their architectural firm. They intend to maintain their office structure and not necessarily become too large. "But going for a larger scale and developing an entire quarter" is something that Eisenhuth and Halder would like to take on with their team sometime soon.

cg

Michael Gökelmann

A little more imagination, please!

Master tinsmith Michael Gökelmann from Altheim (Alb) north of Ulm primarily sees the façade of the kindergarten in Jungingen as an opportunity to bring more of an aesthetic variety and quality into the fanciless, one-dimensional plaster façade world of the Swabian Alb. As a façade and roof expert, he is astonished when he finds out how little clients know about alternatives and how many believe that these are above all things more expensive and more complex regarding the implementation.

"We had 1000 m² of façade and roof area, approximately 5250 rhomboids, so a little more than 5 rhomboids per square metre." The master tinsmith remembers the white kindergarten in Jungingen, for which he was commissioned via a public tender in 2019, quite well. He had not heard of the architects of planformat at that point. The challenges especially interested him, and he does not even mean the façade's concealed doors that "have become common". He saw what the architects had in mind with the window reveals and that the building should have downward sloping roof edges. Gökelmann knew the solutions for these details would also make him and his team grow professionally.

Perpendicular rhomboid tips

"Where do I start to lay the rhomboids in a case like that? On the roof? On the façade? On one of the inclined eaves? The building did not have any horizontal or straight reference lines." Gökelmann and his team picked out an imaginary line at eye level from which they could lay the rhomboid tips from bottom to top and over the roof area in a perpendicular manner. They also liked the fact that Raik Eisenhuth and Felix Halder of planformat had very concrete design ideas the team of tinsmiths had to puzzle out down to the last detail. Under these circumstances, Michael Gökelmann was also certain that the clients would be convinced by the architects to realise a base that visually orients itself on the white façade. According to the building regulations, it originally had to consist of stainless steel due to the saltwater and splash-water protection. The result speaks for the tinsmith and architects, who insisted on a white aluminium base. When the collaboration began, the initial scepticism on both sides disappeared. Gökelmann explains enthusiastically how they finally canted individual rhomboids so they would fit in the reveals and the connections would work.

Optimised processes
Gökelmann's workshop is tidy and very well equipped with tools. With seven assemblers and one apprentice, he can handle several construction sites, at least in the closer vicinity. He is continuously expanding his own machine park. With a CAD-compatible punching machine, he even tests own perforated plates and graphic perforated plate samples. In order to sell materials and products, he uses sample variants of various systems he placed right in front of his workshop. "The individual samples are so large and aligned in a way that clients can inspect and understand façades with a realistic impression. Ever since," says Gökelmann, "it has been easier for everyone to make decisions."

And what's next?
He wants to reuse material offcuts in the future and dreams of a well-functioning network in which tinsmiths from the region can exchange residual materials. With an efficient use of building materials, a lot of scrap can be avoided. He can easily imagine PREFA contact persons such as Konrad Eiberger as central figures in such a network. Why not?

cg

Bouldering hall Škofja Loka

Country: Slovenia
Building, location: bouldering hall, Škofja Loka
Category: new construction
Architecture: Arhitektura Peternel
Installer: Tomo Zadravec
Roof type: DS.19 shingle
Roof colour: P.10 anthracite
Façade type: DS.19 shingle, siding
Façade colour: P.10 anthracite

Lucija Franko

»Not everyone can do bouldering halls«

In 2020, ***ARHITEKTURA PETERNEL*** carried out an order that initially seemed somewhat mysterious: A dark building, almost entirely without windows, facing away from the street and without a visible use to the outside. In the middle of an idyllic-romantic rural area in Northern Slovenia near Škofja Loka – a place that is more of a castle than a city and is described as particularly picturesque in many travel guides – they set an anthracite-coloured counterpoint with a bouldering hall in the village of Pevno. The architect Lucija Franko was perfect for this task, not only from an architectural perspective.

Lucija Franko goes to a bouldering hall five times a week to practice. She has been pursuing the sport since her youth and even made it to third place in the World Cup in difficulty climbing. “The sport gives me structure and ensures effectiveness, also with respect to my work,” as she draws parallels between her enthusiasm for sport and architecture. Therefore, she was a stroke of luck and a proven specialist for the unusual building task in Pevno.

Everyone is waiting

The client, who is an enthusiastic boulderer himself, originally wanted to build a bouldering hall which is open to everyone in the small village that only counts a few houses. It should be a place where you can go in and out anytime. It was supposed to be the beginning of a balanced sports and tourism landscape in Pevno. Due to legal requirements, however, the building is unfortunately not open to everyone yet. New tourism regulations for the region around Škofja Loka prevent the opening of the hall as a sports facility. Therefore, the client and friends of his are using the gym privately until the regulations change or the permission for a touristic operation of the climbing gym is obtained.

A dark grey wall

So far, the gym is particularly easy to detect in the historic village cluster and between old hayracks where fresh hay is dried. You stand there before a dark grey, tripartite wall, whose course follows the roadway curve towards the village church. Aluminium roof shingles with a structured surface enfold the entire building structure. It only opens itself at the front sides with warm wooden façades and elongated windows, which lift the hermeticism of the façade and connect the building with a park-like area of the property. If you cut very good bread, it has a firm crust and is fluffy inside. The architecture of the bouldering hall seems to work similarly: A protective aluminium crust with a heart of wood and a soft fall-protection floor.

Remaining simple, being unusual

In the area around Pevno, loud, bright colours have become fashionable. “That is a real problem, although the building regulations and territorial protection don’t even allow it,” Lucija Franko says. The façade colour of the climbing gym was intended to be a calm and dark colour. The anthracite of the shingles stands in contrast to the light brown of the larch wood. Because the individual shingles cover the façade with a small-format pattern, they break its massive effect.

The architect reveals that they had to remove the old brick barn for the new construction, but that it was important for the latter to contain this sense for the scale of its rural surroundings. It should be a simple building. The somewhat unusual form with the inclined walls and the fold as a transition to the roof results from the bouldering walls, which also form the entire interior. What does a bouldering hall look like inside and where are the architectural challenges of this rare building task? Franko knew the answers to these questions from her own experience before she took on the project. That also explains why it was easier to make the decisions together with the office ***ARHITEKTURA PETERNEL*** and the client in the design process.

Tourism in the future?

In Pevno, there will be a glamping site in addition to the tennis court and the bouldering hall in the future. The church bell will surely still be rung by the sacristan manually with a rope in the future. Lucija Franko will no longer be working at the small architectural office when the time comes. She has been teaching Software and Building Information Modelling in Ljubljana for some time now and wants to deepen her knowledge in this area in practice. Instead of lagging behind, she seeks challenges in dealing with high-performance architecture and prefabrication. “I am interested in the digital twin of a building,” she explains. As a future BIM Manager, that is exactly what she will be dealing with. “Move and grow” is what she learned as an athlete. For Franko, this also applies to architecture.

cg

Tomo Zadravec

A roof like a skin

Tomo Zadravec and his team have been behind ***ZA&TO*** since 2014. They were in charge of the tinsmith work on the bouldering hall in the Slovenian town of Škofja Loka and can understand why bouldering requires a particular architecture and special rooms. Another plus: The hall is conspicuous and well suited to become a reference in the region.

Tomo Zadravec likes to climb and boulder a lot himself. Last year, he even went bungee jumping. "It's similar to what I do every day when I work on the roof," he thought to himself. He reveals that his interest in pushing boundaries is what fascinates him both in his work and in sports. "Those seconds, that sense of height, it pushes you."

His work as a master tinsmith with his own company is not always as exciting as bungee jumping or bouldering, but it offers challenges when communicating with clients. And as the head of the company, he is responsible for the craftsman quality of its work. He likes to be on the roof and certainly does not want to become an office manager in the future. If necessary – as was the case in Škofja Loka, at least – he hires external fitters when handling larger projects.

He was impressed by the large roof area of the multi-purpose hall. From a craftman's perspective, the roof and façade are nothing special, but he had not laid an area of approx. 700 m² before. They laid the shingles within a short period of time and with eight workers on the roof at once. A foil roof protected the roof substructure from the unstable weather during the assembly time. The result should be a "beautiful, accurate surface" that extends over both the roof and the façade. Although – "You cannot really speak of a roof and a façade in this object. It is rather a skin that protects a body," Tomo Zadravec explains.

ZA&TO are located in Selce. In the region Gorenjska in the north of Slovenia, they offer roof coverings, roof repairs and tinsmith work. In winter, the weather conditions there are very harsh. The region is known for its televised Skiing World Cup events and the Triglav National Park is also not far away. Zadravec often recommends PREFA to his clients, as the PREFA complete system offers solutions for building envelopes, snow protection and the roof drainage.

There are many aluminium roofs in Slovenia. "The people are starting to rethink things," he says. There is a demand for high quality and a reduced repair effort. In addition, clients are also looking for something that differs from traditional roof tile covering in terms of design. The same applies to the architects he works with. They understand that metal is robust and that there is a lot of creative potential in an aluminium roof.

cg

Kindergarten Niederwerrn

Country: Germany
Building, location: kindergarten, Niederwerrn
Category: new construction
Architecture: hjp architekten
Installer: Wiedamann Bedachungen & Spenglerei
Roof type: Prefalz
Roof colour: P.10 pure white
Façade type: Prefalz
Façade colour: P.10 pure white

❶ Object-related individual solution

PREFARENZEN detailed plan page 100

Jürgen Hauck and Herbert Osel

»Thick skin and three white peaks«

"What we have to say as architects already exists and tells its own story. Others are shaping the future here," ***hjp architekten*** comment on the handover of one of their projects during the inauguration of the Lutheran Kindergarten in the Bavarian Niederwerrn near Schweinfurt. Jürgen Hauck and Herbert Osel have many years of construction and communication experience. A sentence like that clearly shows some attitude. They like to go through the ups and downs of a design and construction process, but what counts in the long run is what they do with their work. They know that in Niederwerrn, things really get started the moment when 125 children storm into the rooms. The time beforehand was exciting enough for the architects with the planning, construction site and detail work – particularly because it is not that easy to build three white peaks in a small Bavarian town.

In July 2017, ***hjp architekten*** received the commission in the VgV bidding process for the Lutheran Kindergarten – not the biggest project in their portfolio, but certainly one they will gladly remember for a long time. Difficult technical details needed to be solved, one of the corners in the timber construction caused them to fail in purely aesthetical terms and the clients did not hesitate to voice criticism. Not all participants understood right away what the architects had in mind with their design idea and the spaces. The clients were not very familiar with plan drawings but made many decisions when they had examples and models at a scale of one to one. In March 2019, they received the building permit after one and a half years of planning. Another one and a half years later, the completed spaces could be used. So a lot had happened before things really got started in Niederwerrn at the end of 2020.

Rooms that match the paedagogical concept

The new building offers space for up to 125 children. Hauck and Osel designed it from within, began with the three central, high rooms that serve as places of action and movement and a bistro area for the children. These rooms connect all the other rooms of the three building structures with each other. As eligible areas, they could be specifically designed in a spacious manner with additional funds regarding their size and room height. The kindergarten teachers in Niederwerrn follow a special concept that does not divide the children into fixed groups but assigns rooms to certain themes and activities. Therefore, they have a mathematics room, the language room, the world explorer room or also a dirt and a clean wardrobe. The three light central rooms also make it possible to go back and forth between these places. They present themselves as a distinctive, white roof landscape on the outside and are easily identifiable in their suburban surroundings characterised by detached and terraced houses. “Like three white, snowy peaks”, Hauck mentions.

Working on peaks
As the roof and façades should blend to form the three white peaks and fire protection required hard roofing, the architects were on the lookout for a material that meets these requirements. Prefalz was suitable because it also made it possible to perfectly manufacture the visually continuous seam lines Hauck and Osel had in mind for the building. They decided to rhythmise the roof and façade surfaces with three different tray widths. "We solved several of the details on the construction site with master tinsmith Wiedamann while he was drawing on his Tablet. He was responsible for the roof truss and the roofing. His employees were also extremely good and innovative." Hauck values collaborating with competent executing companies that come up with solutions beyond regular standards and dare to take on projects that are demanding from a structural design perspective. Instead of uniformly inclined roofs, a verge and eave solution had to be found for the project in Niederwerrn that brings together various roof inclinations without protrusions. As the actual roof ends are set back based on the static middle, the roof truss is exposed not only to vertical but also to enormous horizontal forces. This specific aspect had caused them sleepless nights, but aside from a single corner point in the roof truss, the architects and tinsmith tackled each of these "diabolic constructive challenges". Their commitment to design had motivated them to carry on, and with Mr. Wiedamann, they had a counterpart that went along with them.

Money, one aspect of many
"The high material and execution quality was feasible within the construction budget." Hauck and Osel calculate the costs for us. For Niederwerrn, they had come up with 2 million euros per building structure and were therefore able to stick to the budget with the construction costs. According to them, projects that are not about money are an illusion. The limit imposed by the budget is one of the many aspects why working on architecture is so astounding.

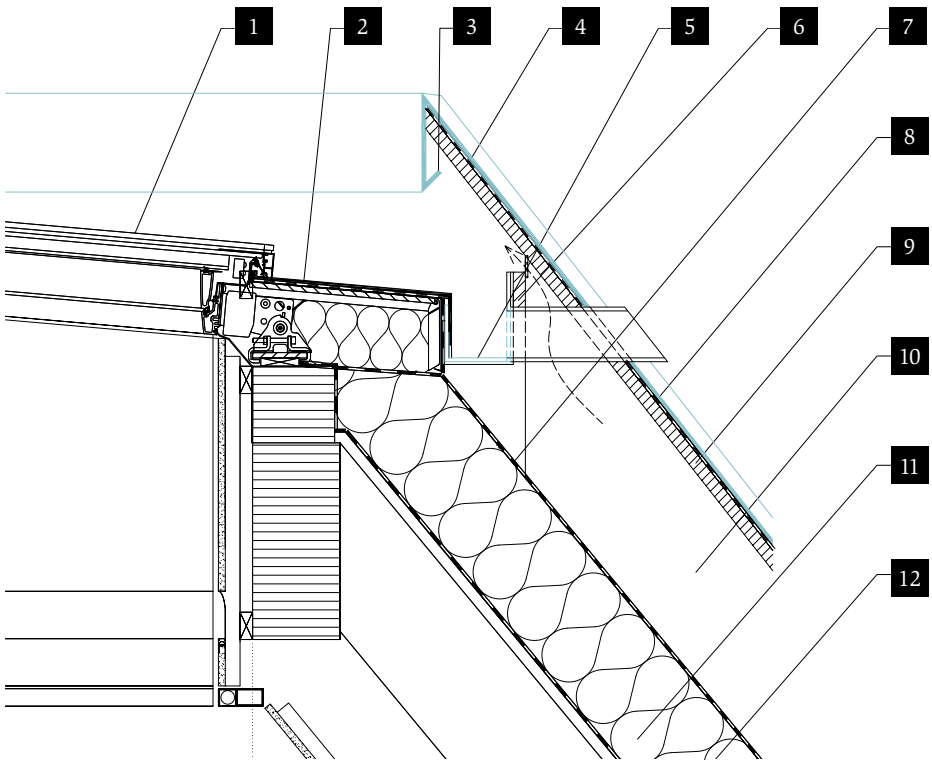
Interdisciplinary planning
hjp architekten offer service phases 1 to 9 and have additionally established themselves as developers, project developers and fire protection experts. Interdisciplinary planning is the right term to describe the architects' service spectrum. However, Jürgen Hauck, an electrical engineer and professor of architecture for design and building construction at the University of Applied Sciences of Central Hesse, and Herbert Osel, who works as a mechanical engineer and architect, do not like to be reduced to planners or pen-pushers. They come from building practice and have acquired a lot of know-how due to several years of experience – at construction sites, at their own planning office and in an academic context. "Always think designing and building together" is the motto of ***hjp architekten*** that is also realised by their 25-strong team. "Sometimes, this is a fight that needs to be fought when the architectural line of the drawing meets with the reality of the construction site. Not everything can be realised as set out in the plan. But, in the end, your own skin gets thicker and you can deal with setbacks faster," as Jürgen Hauck elaborates. He gives young architects the advice to "approach their work without fear".

Not without humour
Despite all the nerve-racking experiences Jürgen Hauck and Herbert Osel have made in the architecture business until today, they have maintained an easy-going philosophical way and a sense of humour. That is why Pablo and Zara, two dogs, are in charge of the back office at ***hjp architekten*** and a big, round cactus next to the sofa in front of the shelf with the shamelessly beautiful building material samples almost looks like it is comfy.

cg

Skylight

1 Skylight element
2 Eaves drip edge
3 Aluminium cladding canted up with drip edge
4 Angled standing seam covering (Prefalz)
5 Box gutter
6 Full planking
7 Sealing strip
8 Separation layer
9 Full planking
10 Back ventilation level
11 Thermal insulation
12 Vapour barrier



Julian and Andreas Wiedamann

Your own team is the real capital

Andreas Wiedamann stands in his office in Bad Kissingen with his Tablet and matching pen and cuts right to the chase: “When I saw the call and the plans of the kindergarten in Niederwerrn by the architects Jürgen Hauk and Herbert Osel for the first time, I knew it was a particularly sophisticated project.” Without hesitating, he draws the three structures of the building as well as a few details and explains both their pitfalls and particularities.

In order to determine the neuralgic points of the project from a craftman’s perspective, the first thing Wiedamann did was focus on the geometries of the roof, which run together at different inclination angles at the corners of the building. These important details needed to be solved individually at each building corner due to the different roof inclinations. In addition, the edges of the eaves and the folding guide above them should include a hidden gutter and ensure the ventilation opening of the back-ventilated aluminium façade and the roof. As Wiedamann also received the order for the entire roof truss, he was able to develop suitable solutions here together with the architects.

Start with the roof

This was also important in another roof detail. A skylight dome constitutes the end of each building structure. It should not be visible from the street, which is why it had to be built inside the roof skin. The problem was solved with a raised instep and a corresponding veneering with extended roof trays. The water of the skylight domes is drained via an overhead gutter under the roof covering. To avoid frost damages, the domes received a trace heating; its warmth is distributed quickly and evenly over the entire roof surface due to the aluminium roof.

Three trays, three widths

Wiedamann and his men laid Prefalz in P.10 pure white over the façades and roofs of the three structures in the tray widths specified by the architects – 25 cm, 33 cm, 50 cm. With the different pre-coiled tray widths, the irregularities of the real measures at the construction site can be elegantly compensated. Moreover, the master tinsmith suggested that the architects use angle seam, which makes it possible to execute the vertical continuous seam lines more exactly than with double lock standing seam. Except for a few places where there was no other technical option, the seams all point in the same direction around the three structures. They were even careful to avoid changing the seam direction in the supporting tray by the window reveals. Naturally, the seam still should not protrude into the reveal. This was finally made possible with another trick that was thought out well in terms of craftmanship.

More than technical details

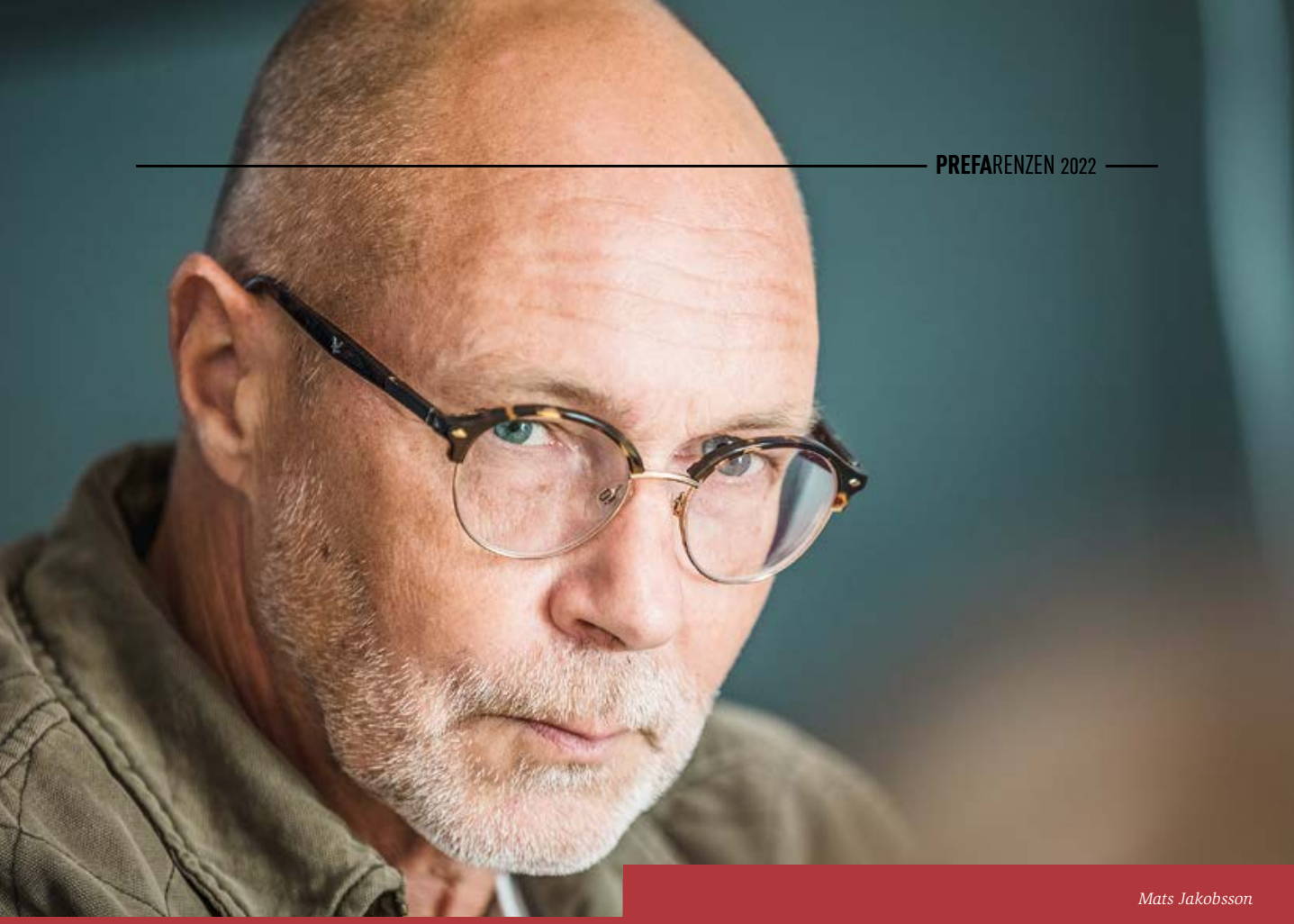
You slightly scratch your head at so many detail requirements? Wiedamann could certainly continue

to explain and share further detailed knowledge with us. He trains many of his 40 employees himself, continues to lead and develop what began together with his father 45 years ago. Today, carpenters, roofers, specialists for slate façades and sheet metal workers are employed at ***Wiedamann Bedachungen & Spenglerei*** in the fifth generation. “My workers’ know-how is the real capital”, he says. Since 2017, his son Julian, who is a roofer and civil engineer, has been increasingly taking on more responsibility in the business. They are planning a smooth generational change where no important handcraft and social competencies are lost as a result. Andreas Wiedamann points out that with all the technical details, it is important not to forget the most important task, which is to accompany the team of many different experts and personalities through the ups and downs of the everyday life of a craftsman with human skill.

cg

Ice arena Gällivare

Country: Sweden
Building, location: ice and event arena, Gällivare
Category: new construction
Architecture: MAF Arkitektkontor AB
Installer: Hala Byggplåtslageri AB
Façade type: façade shingle
Façade colour: P.10 oxide red, P.19 brick red, bespoke colour RAL 8012 (red brown), bespoke colour RAL 3011 (brown red)



Mats Jakobsson

»Of utopia and participation«

"Architecture is a snake: A path of many decisions." Mats Jakobsson says this sentence with conviction. His words reflect an impressive wealth of experience. For more than 20 years, he has been the creative planner of the architectural office ***MAF Arkitektkontor*** founded in 1939. Today, more than 50 architects and engineers work on large urban development and architectural projects at four locations in Sweden. In Luleå by the Northern Swedish Baltic coast, ***MAF*** have converted an old representative banking house into an office. From here, they chiefly realise educational and cultural projects in the provinces Norrbotten and Västerbotten – among them the ice sports centre in Gällivare, which is based on a surprising idea and an ice-cold material decision.

Mats Jakobsson is a specialist for the mining region in the Nordic Sápmi that extends across the ore line between Narvik and Luleå. He was not only on the jury of the sensational competition for the new town hall, the centrepiece of the relocation of the mining town Kiruna in 2013, but has also been accompanying a similar process in the cities Gällivare and Malmberget for decades. In this case, a city also has to give way to ore mining: Malmberget is disappearing completely and its inhabitants and institutions are being relocated to Gällivare. Since 2009, the merging of the cities has been a collective process that is being developed and realised together with the inhabitants of both cities. ***MAF*** is designing important key buildings during this change. In addition to the ice sports centre, these include a higher technical school and a multifunctional event centre, which was designed together with the Canadian architect Michael Green.

A big idea

The story of the new ice sports centre in Gällivare does not simply begin with an empty building plot, but with the big idea of a utopia that underlies all decisions about the new city structure: The opportunity of a multifunctional, newly built middle that unites everything should be realised. That was the result of a series of workshops in 2009 which more than 2000 inhabitants of Gällivare took part in. In terms of urban development, an axis of activities is planned – sports, leisure, culture and education – that extends from the central square in front of the historic elementary school to the residential areas in the northern outskirts of the city. Accessible to everyone, this axis should bring together people from Gällivare with those living in the former Malmberget in the future.

The small details of the form

Mats Jakobsson also understands accessibility as an architectural task. He mentions that it is a question of scale whether people can cope with a building or not. Therefore, the architects designed the ice sports centre with a total surface of more than 6500 m² of usable area so that an individual person does not feel like they are too small when they are near the building. "We slightly slanted the façades and rounded off their corners, so visitors do not have the impression they will tip over. And we were trying to find an expression of modesty that gives the large hall dignity and clarity. It was about what transcends pure functionality," Jakobsson elaborates. The façade should already convey this detailed search for the human scale.

Building from May to November

As August in Gällivare already feels like November in Central Europe, it is difficult to imagine how construction sites work during the other months of the year. Temperatures can be as low as -30 °C in winter. Yet in Gällivare, no one has time for construction sites that stand still for several weeks due to the relocation of the city. "Construction sites normally last from May to November. This circumstance has significantly contributed to the choice of material," Jakobsson explains. The architects of ***MAF*** were looking for a façade material that consists of many small elements and can be laid at any temperature, so they could continue to build in winter. That is how the idea of the PREFA shingle façade came into being. By using the wide-ranging colour palette and the option of additional bespoke colours, the architects designed a visually oscillating pattern for the large hall façades. It was about the changing between the long-distance and close-up effect of the long and flat building. And it is no coincidence that its colour reminds of the levels of an ore mountain from afar.

Pleasure pavilion

But the facades' flickering colour combination can also be something else: It reflects the highly-charged atmosphere and vitality, the dynamic nature and elegance of what happens inside the hall. Sometimes, it seems like the hall is shaking with all the rejoicing and the heat of the ice hockey match. Other times, pirouettes are practiced to classical opera arias. Dancing and fighting takes place on the ice. An own training room for ballet dancers, training areas for children and a sophisticated temperature system for various degrees of ice hardness enable sporting moments for the people in Gällivare at a breathtaking level. Mats Jakobsson says he thought about a classical pleasure pavilion several times while he was working on the ice hall. It should be an architecture for the joie de vivre and give the people here the feeling that they are living in a very special, first-class small city north of the Arctic Circle.

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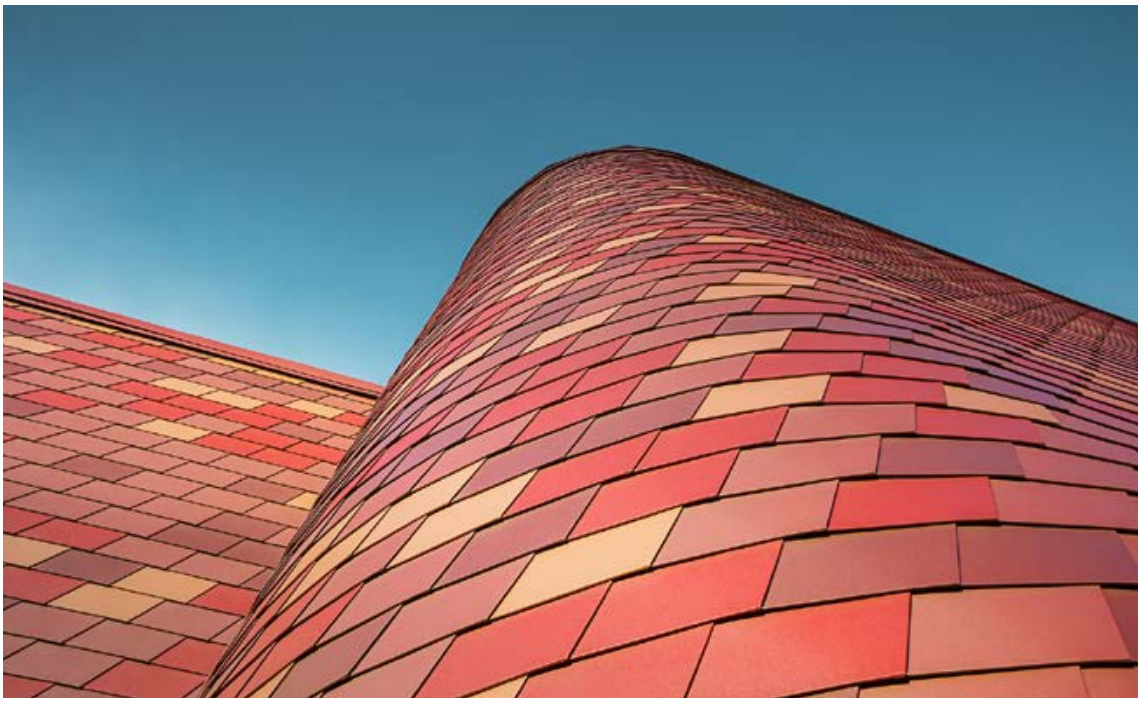
“The façade should already convey this detailed search for the human scale.”



Planning the coincidence

In the far north of Sweden, there are not many tinsmiths. There are generally less people and craftsmen than in the southern part of the country. Master tinsmith Magnus Rahkola and his assemblers regularly came to Gällivare from Luleå, which is about 200 km away, to work on the façade of the ice sports hall – which was not the only difficult challenge that needed to be met.

Magnus Rahkola

The task that manager Magnus Rahkola and his team of ***HALA Byggplåtslageri AB*** accepted in May 2019 was not an easy one. In Gällivare, which is about a three-hour drive away from their own workshop, they only managed to accomplish the architecturally ambitious project of the ice sports centre with good planning and a forward-looking assembly rhythm. Rahkola reveals that he learned a lot from this construction site: "After this assignment, I bought a mobile metal sheet cutter, so we can make adjustments of the details right at the construction sites in the future." In Gällivare, they still had to perform detailed work remotely.

Hard times

North of the Arctic Circle, the construction time per year is short, as temperatures as low as -30 °C can impair a lot of work at construction sites in winter. What is even more crass is the matter with the light and colours: In the bluish light of the polar night that lasts from November to May, colours can hardly be differentiated from one another. Under these working conditions, ***HALA Byggplåtslageri AB*** needed to install a random-looking colour pattern consisting of 26,000 shingles on the partially convexly and concavely bent building.

Four colours

"This is how we planned the coincidence with the colours," Magnus Rahkola shows us an aesthetically appealing pattern made of four shades of red that strongly resemble one another on his cell phone. The architects only informed him about which of the standard colours oxide red and copper brown and the bespoke colours red brown and brown red should be used to which percentage in order to create a random façade image. For the construction site, he visualised the distribution and numbered each individual shingle. In the twilight of the polar night, they were not able to distinguish the colours from one another only by sight.

Social responsibility in the craft

Magnus Rahkola had started to work in the management of a large construction company and actually wanted to leave the north. Of course, things turned out differently. He emphasises his social responsibility to create work-places and train new tinsmiths as a master tinsmith in the region. "One day," he says, "I realised that an own company and the craft offer more challenges than pure management and that you interact with people more directly." Therefore, he took over his father's tinsmith company, which he continues to lead today.

cg

Collegium Jacobinum

Country: Austria
Building, location: student residence, Leoben
Category: new construction
Architecture: Nussmüller Architekten
Installer: Spitzer Dach
Façade type: siding
Façade colour: bronze

❶ Object-related individual solution

Werner Nussmüller

»Sustainable architecture is justifiable«

Werner Nussmüller strives to find unconventional solutions to architectural problems. In 1955, he was one of the first to count on cross-laminated timber and he has been accompanying the Austrian shrinking city Eisenerz in a sensational renewal process since 2005. His architectural office has just experienced its first generational change. Today, their son is continuing to develop what Werner and Inge Nussmüller got off the ground. The office is currently working on the multi-million euro project Post City Linz. The Collegium Jacobinum in the Styrian city of Leoben is quite small in comparison, but no less remarkable.

"It was a direct order from the pastor and something like a volume construction," Werner Nussmüller tells us. He adds that for many residents in Leoben, it was initially difficult to understand the demolition of the extremely dilapidated adjoining church building from the 16th century. A constructive cooperation with the City Planning Directorate and the Monument and Townscape Protection was initiated right at the beginning of the planning phase. After a year of tireless communication, the suitable permissions were finally obtained. One can describe 70-year-old Werner Nussmüller as assertive or, in this case, use his own words: "Sometimes, it takes 70 years and 90 kilogrammes."

Innovative in the best sense

The new construction at the church St Jakob in Leoben Maßenberg, which fills the place with new life as a student hall of residence and cultural meeting point, is innovative in the best sense. ***Nussmüller Architekten*** took a special path not only with the massive wood construction – the master carpenter in charge bent the prefabricated cross-laminated timber panels through an ingenious kind of storage – and the idea of punctually placing the building on a few pillars. The façade also exhausts the limits of its material.

The architects realised a bent building structure that follows the course of the street. It partially rests on the walls of the old rectory and is connected with the existing church hall on the ground floor. Hall and new construction form a kind of inhabitable wall which shields the quiet church garden. Bent convexly on one side and concavely on the other, the aluminium façade must be able to enable the various surface and material expansions. A pattern was laid with differently long siding elements, whose joints are unevenly distributed across the entire façade, and accentuates the bend in the building structure. At the same time, the glidingly mounted sidings can bear the elongation in the façade's bend. The aluminium elements also function at the two slanted front sides, so that the building could receive a surrounding façade. The colouring, which takes on a gold, bronze or muddy shimmering hue depending on the weather situation, was perfect for the architects. It reflects the colours of the historical church wall and inserts the new building into the historical ensemble.

Family business

The office in Graz is somewhat of a family business. The architects mostly work regionally and with high demands regarding the social and cultural sustainability of their buildings and their own modus operandi. They take many local construction supervisions into their own hands. "This way, those in charge take their know-how from the construction site and bring it right back into the office and thus into planning work." Werner Nussmüller raves about what his employees accomplish in the office: "Think when you work. When we draw lines into a plan, we also make decisions and answer questions. With a single line, we decide on the materials and the ecological footprint a building will have."

Life cycle in conversation

"Ultimately, everything we do is about reason." As everyone knows, that is easy to say. For the inquisitive character Werner Nussmüller, this is very serious and the minimum in everyday life. "During the construction, it's about the life cycle of every material. Quality seals like that of the ÖGNB (Austrian Society for Sustainable Building) describe and assess building costs in the long run. This makes sustainable architecture justifiable." You can tell that he likes to engage in conversations. According to him, that is one of the existential characteristics he learned as an architect. Working together through communication is important to him and will remain so despite all the changes the field is experiencing. Werner Nussmüller always works interdisciplinarily and in close exchange with other specialist fields. "No projects without sociologists, none without building physicists," as he explains.

Nevertheless, he is also into competitions and firmly believes in the positive energy of taking part in them. "Afterwards, you meet with the client at eye level, sit down with him at the table and are also part of the winner's circle." He continues that this gives you a much better negotiating position during the construction process, which you certainly need as an architect.

“You have to see what lies ahead …
… and follow up on it.” In 1995, Nussmüller knew intuitively that cross-laminated timber would be the building material of the future. “Of course, things could have turned out differently,” he adds with laughter in his eyes. He had the right feeling on several occasions, which makes it all the more interesting to find out what he regards to be important today. According to him, “conversion and reconstruction, together with establishing a recycling economy in the building industry” are going to be the key issues in the upcoming 10 years. He continues that you have to “find architectural answers in system building, develop façade elements with regard to their exchangeability and serial production.” For him, the French architects Lacaton & Vassal, for instance, are role models.

In addition, Nussmüller underlines that in terms of recycling economies in the building industry, there is a dire need for more highlights and useful pioneer work. “At EU level, there will be more and more legal demands for recyclable buildings in the future.” The signs indicate that things will go in this direction. In any case, ***Nussmüller Architekten*** are already headed there.

cg

Helmut Legenstein

Not everything is an onion dome

Helmut Legenstein has been at the same company since his apprenticeship. For his biggest project, he planned and mounted 12,000 m² of façade surface. In Leoben, there were around 500 m², which is why you could and simply had to go into detail – down to the last millimetre.

During the hour in which Helmut Legenstein travels to work every morning and every evening, he comes up with "the good ideas". Legenstein is a tinsmith with classical training and is basically always flanging, seaming and working meticulously on one thing or another. He was in charge of the detailed planning and realisation of the siding façade of the student residence hall Jacobinum in Leoben. In collaboration with the architects from the Nussmüller office, he set the joints that were necessary to be able to realise the slightly concavely and convexly bent façade and decided on the laying pattern. They were "working at eye level," as he puts it. "We got along right away in technical terms."

In order to underline the shape of the building, the differently long siding panels were fixed in a concealed manner via support bars. The joint width had to be manufactured according to the potential longitudinal expansion. "Aside from the technical know-how, I have also developed a good feeling for the material and its liveliness," as Legenstein states. That explains why the spaces between the panels on the façade in Leoben fit so precisely. From the very beginning, he was confident that the material could put up with the slight bend every element makes.

"What is regarded as an individual solution today used to be standard yesterday," as he reflects on the technical developments and the manual applications in his craft that are increasingly becoming rarer. Currently, there is an industrially produced system for almost every architectural challenge. What is more, the modern craft sometimes does not go with the prescribed monument protection. "Not everything is an onion dome," Legenstein says with a chuckle. This man loves real tinsmith work and not simply pure assembly.

You can guess what he will be thinking about during his next hour's drive. "Green roofs and façades are innovative today." According to Legenstein, it would be promising to develop the suitable components in aluminium. "It's interesting when something comes into being that has not existed yet," he thinks out loud towards the end of our conversation. Working on the project in Leoben had motivated him for this reason alone.

cg

Dialogue, discourse and synergies

Every year in spring, architects, specialist journalists and creative individuals from the PREFARENZEN team meet for a two-day dialogue to select the projects that were submitted from all PREFA countries via the online platform until then and should be published in the PREFARENZEN media.

In 2021, this meeting already took place for the third time in the "Old Barn" on the premises of Grafenegg Castle in Lower Austria. The intensive discussions between the participants were also somewhat controversial, but they finally resulted in the selection of twelve convincing projects from seven countries.

For us hosts, participating in such processes is particularly interesting and important. This way, we gain knowledge about the different perspectives and criteria according to which architects and journalists assess projects. This knowledge strengthens our decisions in marketing and communication.

We are very pleased that PREFARENZEN, as a joint platform of PREFA and architects all across Europe, is perceived as a communicative tool and that this results in valuable synergies for both sides.

If you are also interested in having your projects documented and published in the PREFARENZEN media at a high level, you can nominate them on our online submission platform all year round. A short project description, simple photos and general plans are sufficient in order to participate

Your PREFARENZEN ambassadors
Ursula Obernosterer and Jürgen Jungmair

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