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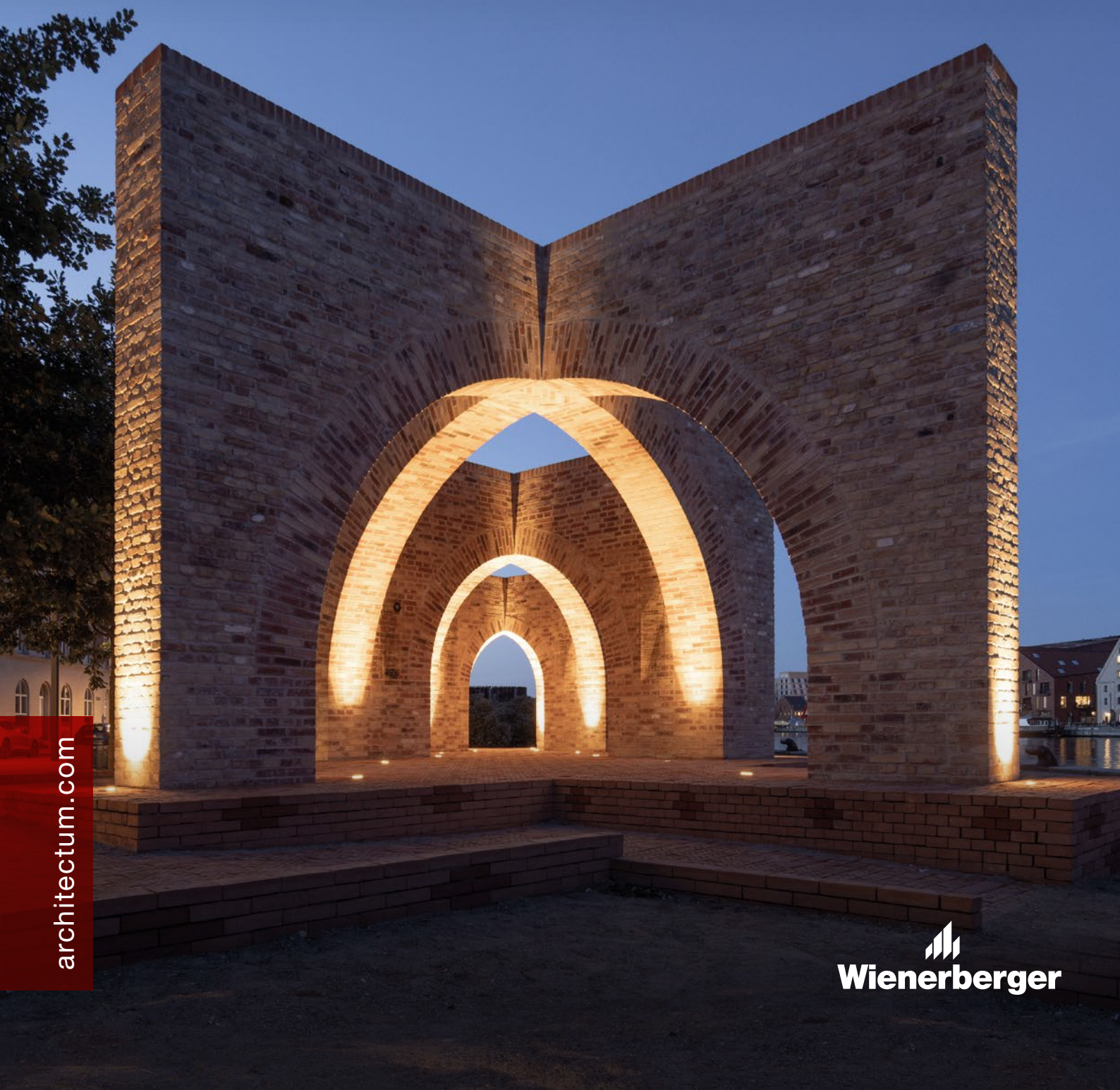

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Wienerberger

CONTEMPORARY ARCHITECTURE MUST EMBRACE A HOLISTIC APPROACH – NOW MORE THAN EVER

Architecture must always be ready to strike out in new directions if it wants to create spaces that future generations will enjoy living and working in. However, we can only create buildings that continue to provide a high quality of life in the future by combining proven and tested architectural principles with modern, innovative solutions. Today this is more important than ever since the current ecological challenges we face demand a sweeping transformation toward a greener economy.

There are few areas where this change must be implemented as wisely and as carefully as in the field of architecture, where a welcoming, attractive ambience and affordability are just as important as environmental factors and energy efficiency. Only if these criteria are balanced, innovative solutions can unleash their full impact and produce a result that combines a high quality of life with sustainability and appealing aesthetics.

This edition of architectum shows how this can be done. The case studies presented here include a number of projects involving work on historic protected buildings, such as the re-roofing of Europe's largest brick-built church in Gdańsk, Poland, or the new buildings that have been erected in the grounds of the former Turley barracks in Mannheim, Germany. These examples show how innovative concepts and materials can be used in a way that preserves the unique character of the buildings by respecting the historical heritage while at the same time creating completely new qualities. This holistic approach is a vital prerequisite for functional aesthetics and thus for a sustainable quality of life.

I hope this and the other best practice examples described here, including a Viennese housing complex in a colourful sunflower style, a Dutch leather and shoe museum that pays tribute to craftsmanship and an old hen house that has been given a new lease of life as a country house full of character.

I hope you will enjoy reading about them all as much as I did.

Heimo Scheuch
CEO Wienerberber AG

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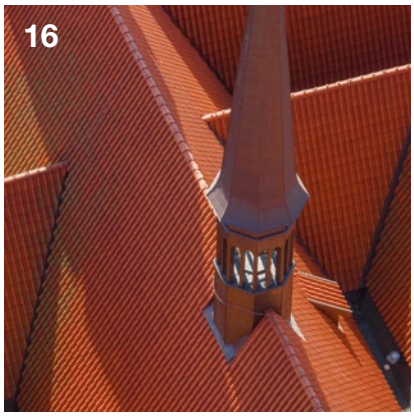

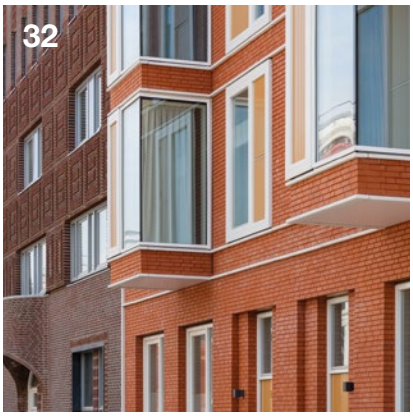

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GREEN SPACES AND SUNFLOWER-YELLOW FAÇADES

These residential buildings extend a warm welcome to the sun with their south-facing façades. With the help of Argeton, sun-yellow ceramic façade panels, Architect Luis Palacios created an easily recognisable village in the urban expansion area of “Wildgarten” in Vienna’s twelfth district. A conversation about human measure and innovative materials.

← The Argeton ceramic façade panels shine brightly in the sun at Wildgarten, in Vienna's 12th district.

Wildgarten" is an urban expansion area in Vienna where uniform building sizes were consciously rejected. In the heart of a section of buildings ranging from XS to XL, the Spanish architectural firm Arenas Basabe Palacios most recently created eleven residential buildings with 82 residential units.

How long have you been involved in this project?

Luis Palacios: I have been involved with the project for over ten years. I came on-board back when I was still an architecture student. A few colleagues and I took part in the Europan 10 competition, where we had to develop an innovative housing concept for a future urban expansion area. Fortunately, we won the competition and were invited to design the master plan. The project team later became our architectural office.

→ Facing the sun: The yellow façades of the sunflower houses face the south. Like sunflowers, they stretch their faces to the sun.

↓ View into the gardens: For the most part, the kitchens and dining rooms look into the green. In these green spaces of the Wildgarten, care has been taken to ensure that there are communal areas without fences.

What was your process for developing the master plan?

Luis Palacios: The entire process took many years. At first the project was called "Gartenhof", then "Gartenstadt 2.0", then "The Commons" and finally "Wildgarten". After winning Europan 10 with our proposal, we set up a design process that worked like a game. We created a game board and the rules of the game and in cooperation with various city stakeholders, as well as building groups, citizens and experts from different areas of urban planning, we played through different scenarios of how a residential area could be democratically designed. We calculated models and conducted numerous workshops. The game served as a tool to help the participants understand the needs of a city. Sometimes there are very clear differences and even opposing ideas, but with the game board, we were able to play through the scenarios in a practical way and design a democratic city.

So you had already pre-defined the building plots that you were later authorised to design?

Luis Palacios: Yes, exactly. In 2010, we began working on the master plan, creating a garden matrix to guide the building design. In 2017 we were invited to test our own matrix as architects.

Can you help us understand the matrix?

Luis Palacios: It basically works like a chessboard made of gardens, where the planners are then allowed to play. Every building should have a garden that faces south. This was a fixed point in our planning, and the buildings behind it could be freely designed. Our sunflower houses follow this plan: The rooms with daylight, such as the kitchen and dining room, face the south (and the green space), while the bedrooms and washrooms face north. Not all planners followed the guidelines, but that's the beauty of it! This fits in well with the neighbouring allotment garden settlement; this architecture emerged just as fluidly in what was more or less a regular garden matrix. >

© Photos: Andreas Hafenscher

↑ An organically growing mix of buildings in various styles was to be created on the chessboard of the “Wildgarten” city. This diversity pleases Architect and Master Planner Luis Palacios.

The ceramic façade panels are compelling both because of their bold colour and their distinctive texture, which changes a little during the day depending on the position of the sun.

Luis Palacios, Architect

> **In addition to the garden matrix, they also specified a system with varying sizes: the buildings are not all the same size, but range from XS to XL.**
Luis Palacios: Right. A democratic city needs buildings of different sizes to accommodate different investment opportunities. Since the buildings were different sizes, we were able to create a nice transition between large social housing projects and the small buildings on the neighbouring allotment settlement.

The buildings beam in bright yellow, reflecting the sun and creating a very friendly atmosphere overall. How did you and your team decide on the materials?
Luis Palacios: The yellow façades reinforce the idea of the garden matrix. The sunflower houses face the sun like sunflowers. The buildings are abstract and white, but the orientation towards the south and the gardens is reinforced by a bright yellow façade. The terraces are also south-facing. To give this idea a certain materiality, we chose the product Argeton. These ceramic façade tiles were a compelling choice, not just because of their bold colour, but also because of the distinctive texture that changes a little during the day depending on the position of the sun.

Monolithic Porotherm bricks were chosen for the masonry under the façade. What has been your experience with this?
Luis Palacios: It's been great! Brick masonry with integrated full thermal insulation is unusual in Spain. We normally build brick walls between concrete columns that are insulated separately. With the Porotherm 38 W.i Plan it was possible to work faster and cleaner, because of the use of Porotherm, a clay block filled with mineral wool, on a 38mm thickness external wall, so additional insulation is not required. This product and the system are an innovative and sustainable wall solution that has proven to be more efficient than other solutions on the market. For the buildings' residents, the monolithic blocks also create a very pleasant indoor climate.

↑ The sunflower houses do their name justice: not only do the yellow façades of the buildings face the sun, but the terraces do too.

After many years of work on the "Wildgarten", how satisfied are you with the plot and the buildings that have been built?
Luis Palacios: We visit the site every year and are very satisfied with the result. The "Wild Garden" is something very special. The human measure is respected, the different sizes and the green spaces between the buildings create communal spaces, so-called "Allmende" or "Commons": People use the outdoor areas without fences. It is a car-free area that is well connected to the city and where people can move about freely. The people who live there are very happy, as are the builders, the municipality, the engineers and everyone who was involved in the process. This year, for my 40th birthday, I invited my family to Vienna to show them our designs and they were overwhelmed by how the open spaces are shared by so many people. In Spain, tresidential areas with such a communal atmosphere like this don't really exist; it seems like a fairy tale to us. <

FACTS & FIGURES

Project name
Sunflower houses, Vienna, Austria

Architecture
Arenas Basabe Palacios

Client
ARE (Austrian Real Estate Development GmbH)

Products used
Wall: Porotherm 38 W.i Plan, Porotherm SBZ;
Façade: Argeton ceramic façade panels

Year of completion
2020

LOW-TECH FOR HIGH ENERGY

The client was looking for an impressive new building, a place to house modern offices and with a strong focus on sustainability. At the same time, the new headquarters of the Stiftung Unionhilfswerk Berlin shouldn't be pretentious. The challenge was met with a sustainable, low-tech concept.

Baumschlager Eberle Architekten's Berlin office was faced with the challenge of bringing together various requirements in one place. The result is a high-quality brick building with a total primary energy requirement of only 62.1 kWh/m²a. The right building materials and a low-tech concept made this possible, because technical systems for optimising the energy performance of buildings are often thought of as too short-term: "Technical systems are expensive, require a lot of maintenance, increase life cycle costs and have a high energy demand themselves," explains Gerd Jäger, co-founder and Managing Director of Baumschlager Eberle Architekten Berlin. Unionhilfswerk's new office building therefore exploits the laws of physics and manages to perform with as little technology as possible while maintaining a high level of comfort and optimal room con-

FACTS & FIGURES

Project name
Unionhilfswerk Berlin, Germany

Architecture
Baumschlager Eberle Architekten Berlin

Client
Stiftung Unionhilfswerk Berlin

Products used
Poroton-S10-42,5-MiWo, Poroton-WDF-120-P, Poroton-WDF-80-P

Year of completion
2021

↖ The heat stored in the walls and ceilings can be emitted into the interior of the building for up to three months.

→ Spatial connections are created by the light courtyards arranged just offset to each other, which form the central element of the building.

ditions. The thermal mass of the building envelope made of highly insulating Poroton clay blocks plays an important role here.

STORING AND EMITTING HEAT

With its tidy perforated façade, upright window formats and circumferential frames reminiscent of Berlin's Wilhelminian buildings, the administration building has stood in Berlin Tempelhof since 2021. For the heating and cooling concept of the five-storey office building, the architects used the thermal storage mass of the exterior walls and storey ceilings and optimised the proportion of glazing to reduce heat loss. The windows, which are flush with the exterior façade on the inside, are shaded by the deep reveals when the summer sun is high in the sky. This makes external sun protection almost entirely unnecessary. Night cooling is used via central atriums. The building only needs

↑ In order to capture as much daylight as possible in the offices despite the shade, the side reveals of the windows are bevelled.

to be heated or cooled a few days a year. "The storage capacity of the bricks lasts up to three months. If the wall can still absorb warmth in late autumn, it will last until February," explains Gerd Jäger. Underfloor heating – supplied by a reversible heat pump in conjunction with a photovoltaic system – can be switched on as required.

A STRONG PRESENCE IN THE DISTRICT

For structural reasons, the 42.5 cm thick Poroton block with mineral wool filling was used for the monolithic wall construction. To further increase the thermal insulation, the architects added Poroton-WDF blocks filled with perlite to the construction. In total, this resulted in a 59 cm thick wall construction with an overall U-value of 0.15 W(m²K). This compact and efficient form allows for a high level of comfort and optimal room conditions inside the building. "We've created a building that embodies and makes visible the attitude of the foundation. It strengthens the presence of the Unionhilfswerk in the borough and sets an urban accent through its architecture," says Gerd Jäger. ◼

RESPECTING CRAFTSMANSHIP

The newly inaugurated Shoe and Leather Museum in the Schoenenkwartier district of the city of Waalwijk takes its inspiration from local history and transports that history into the future with hand-crafted waterstruck bricks.

Leather tanning and shoemaking are inseparably linked to the history of the city of Waalwijk. The founders of the Leather and Shoe Museum searched for a place where they could permanently display the exhibits illustrating this dynamic history for a very long time. Eventually, they found Raadhuis Ensemble on the town hall square. The building complex at this site had always been the centre of the leather and shoe industry and is now going to spend its golden years as a leather museum. After the renovation of the existing buildings and the inauguration of the Shoe and Leather Museum, the district was also fittingly renamed the Schoenenkwartier (shoe district).

↑ A minimal palette of materials and colours creates an understated background that puts the emphasis on the exhibits instead of the architecture.

← The new building blends in with the pre-existing historical brick buildings. Neighbouring historical buildings are viewed through the large windows.

EMBEDDED IN A HISTORIC ENSEMBLE

At the site, Civic Architects found an ensemble of pre-existing brick buildings from 1930 designed by Dutch architect Alexander Kropholler. Kropholler was an exponent of the "historical style" and did not skimp on eye-catching details and ornaments. In 1980, rectangular, three-storey wings were added to the pre-existing buildings. Civic Architects began their work in 2020. The architects' aim was to make the best possible use of the existing material: "We wanted to keep as much as possible," explains architect Gert Kwekkeboom of Civic Architects. And so the concrete walls from the 1980s >

The smaller bricks are still an easily recognisable element of the façade and do not get lost in the overall picture.

Gert Kwekkeboom, Civic Architects

> were stripped down to their bare bones and filled with bricks. Large circular openings perforate the walls, providing glimpses of the exhibition rooms. “The atmosphere was very important to us: open spaces, lines of vision and respect for the pre-existing structures”, the architects explain.

A COMBINATION OF SOFT AND BOLD SHADES

For the walls Terca Menton and Terca Verda – hand-moulded bricks – were used to create a warm impression in conjunction with the existing buildings. “We wanted to build an interplay of warm, soft hues juxtaposed with the existing ensemble”, explains Gert Kwekkeboom. To avoid detracting from the bright red of the existing buildings, the architects chose somewhat softer shades. “The brick we used is greyer and slightly sandy”, explains Kwekkeboom. In addition, they are slightly smaller than those of the pre-existing building, where the bricks were laid in a Flemish bond. In this style, an alternating laying of shorter and longer bricks creates a staggered look. Flush joints in the same colour as the masonry complement the brickwork. Finally, the architects were very satisfied with their choice of products: “The smaller bricks are still an easily recognisable element of the façade and do not get lost in the overall picture.” <

© Photos: Wienerberger B.V.

FACTS & FIGURES

Project name
Schoenenkwartier, Waalwijk, The Netherlands

Architecture
Civic Architects

Client
Municipality of Waalwijk

Products used
Terca Menton HV BNF, Terca Menton HV WF and Terca Verda HV WF

Year of completion
2022

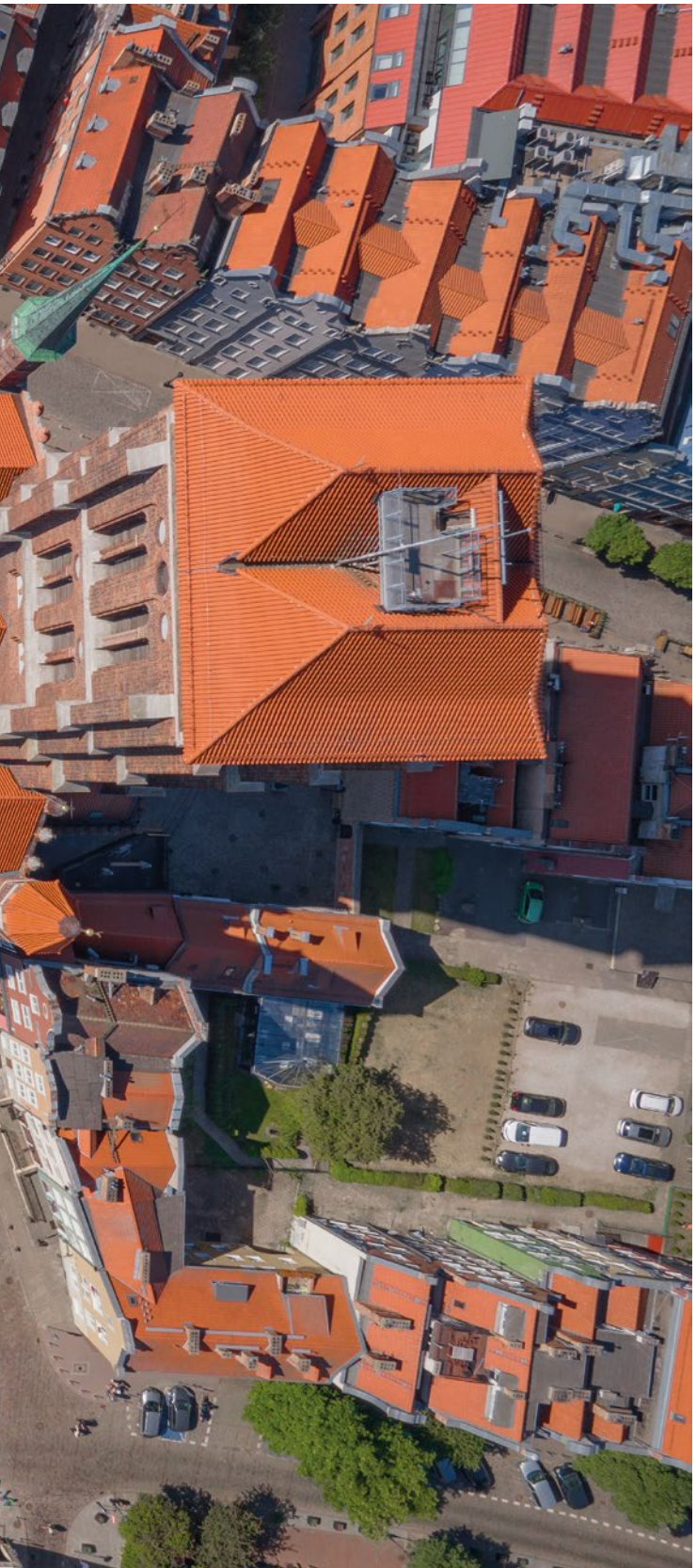
↙ An interplay of shapes and colours: large circular openings penetrate the walls, offering glimpses of the exhibition rooms.

↓ Civic Architects reinvigorated historic brick buildings and created new lines of view. The soft shades of the Terca bricks harmonise with the bright red of the pre-existing buildings.

← Craftsmanship at all levels – the museum not only exhibits craftsmanship, it also cleverly integrates crafted details into the masonry.

SACRED BUILDING OF SUPERLATIVES

It is monumental: the Cathedral Basilica of the Assumption of the Blessed Virgin Mary in Gdańsk, Poland, is the largest brick church in Europe – and it was recently re-roofed.



© Photos: Wienerberger Ceramika Budowlana

Gdansk is particularly popular with many travelers because of its historic city center. A central feature for all visitors is the magnificent St. Mary's Basilica. Now that the impressive tiled roof has been completely renovated and its substructure fortified, visitors can admire it once again from the church tower. The foundation of the largest brick basilica in Europe was laid in 1343. The complete construction took 159 years and the last roof tile was fitted in 1502. Today, this hall church extends over 100 metres in length. It features three naves, three transepts and a complicated system of roof ridges. As many as 26 columns support the heavy vault, which is surrounded by 31 chapels. Seven towers adorn the church, one of them a monumental bell tower that rises about 50 metres above the roof.

REFURBISHING A HISTORIC ROOF

In 2015, researchers from the Technical University of Gdańsk conducted an analysis and found that both the roof and the steel substructure were in poor condition and no longer met current wind and snow load standards. The ceramic roofing and cladding elements had also deteriorated to the point where they could no longer be repaired. Hence, the roof had to be replaced and the weight of its structure had to be significantly reduced. During renovation of the church, the roof and its tiles were completely removed and replaced with new components. Almost 100,000 tiles were laid on a roof area of 7052 m². >

← Multiple parallel naves and transepts give the cathedral basilica in Gdańsk its monumental appearance. The cathedral is considered to be the largest brick church in Europe.

> LIGHTWEIGHT TILE FOR LISTED BUILDINGS

The roof surfaces were covered using Koramic E28 monastery tiles. The shape of this type of tile makes it perfect for listed buildings. Koramic E28 monastery tiles look almost identical to historical “monk and nun” tiles, whereas the two interlocking parts are not mortared together because they are coupled during the manufacturing process. This means that the tiles not only require less maintenance, but are also much lighter than their historical equivalent. The renovation reduced the weight of the roof by 40 percent – equivalent to more than 500 tonnes. The imposing roofscape can be seen in its entirety from the viewing platform on the main tower and thanks to the roof renovations, it will probably last for decades or even centuries to come. ◼

© Photos: Wienerberger Ceramika Budowlana

FACTS & FIGURES

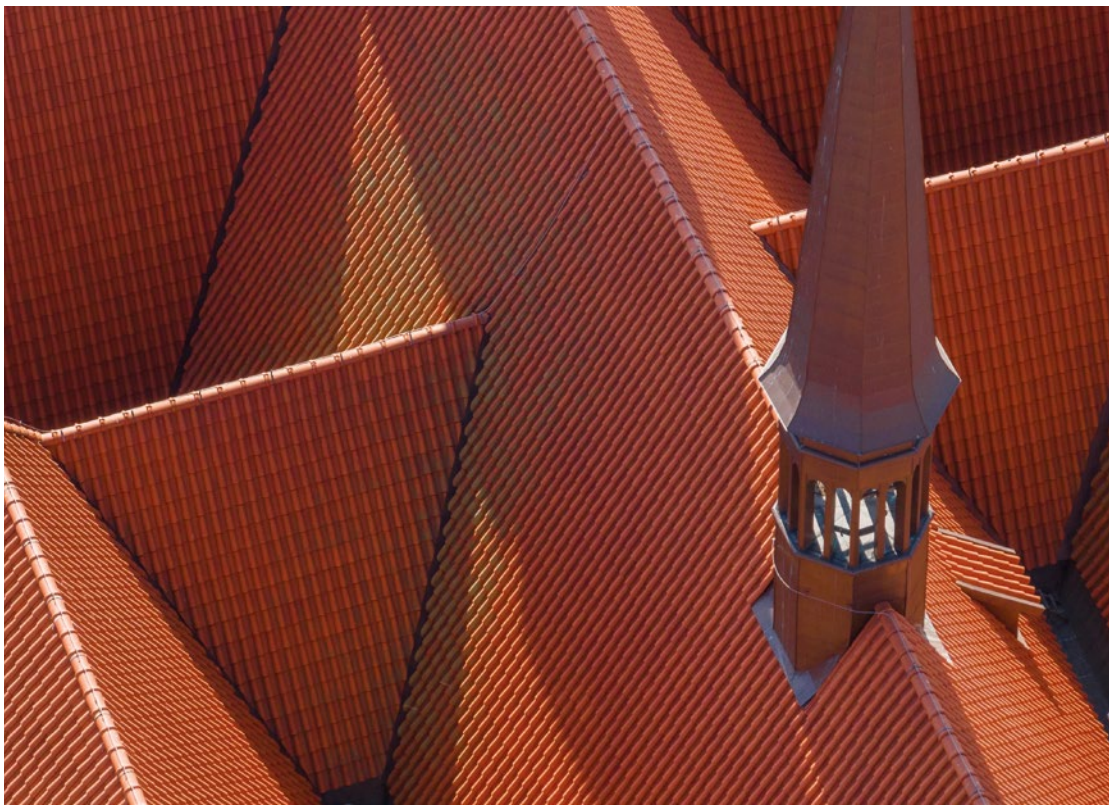
Project name
Roof of the Cathedral Basilica of the Assumption of the Blessed Virgin Mary, Gdańsk, Poland

Client
St. Mary's Basilica Gdańsk

Product used
Koramic E28 monastery tile

Completion of church renovation
2020

Completion of roof renovation
2018



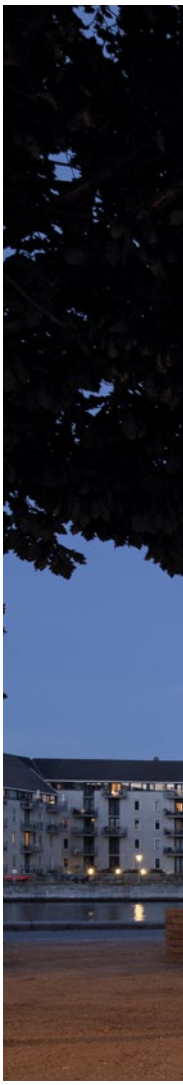
↑ During the general refurbishment of the church, the entire substructure was rebuilt and the new roof was covered with 97,300 Koramic E28 monastery tiles, which reduced the weight of the complete roof at the same time by 40 percent.

← Breathtaking: The observation platform on the main tower offers a panoramic view of Gdańsk, and a spectacular sight of around 7000m² of natural red roofscape.

Thanks to the characteristic Koramic E28 monastery tile E28, the St. Mary's Basilica in Gdańsk blends in perfectly with the bright red cityscape.

FOCUSING ON THE PARADOXES OF THE BRICK

Copenhagen is the UNESCO World Capital of Architecture 2023. The year also marks the 400th anniversary of Copenhagen's Masonry Guild and the introduction of CO_2 requirements for new buildings in Denmark. The “Bricks in Common” pavilion located on the waterfront of Copenhagen illustrates how CO_2 reducing bricks will change the future.



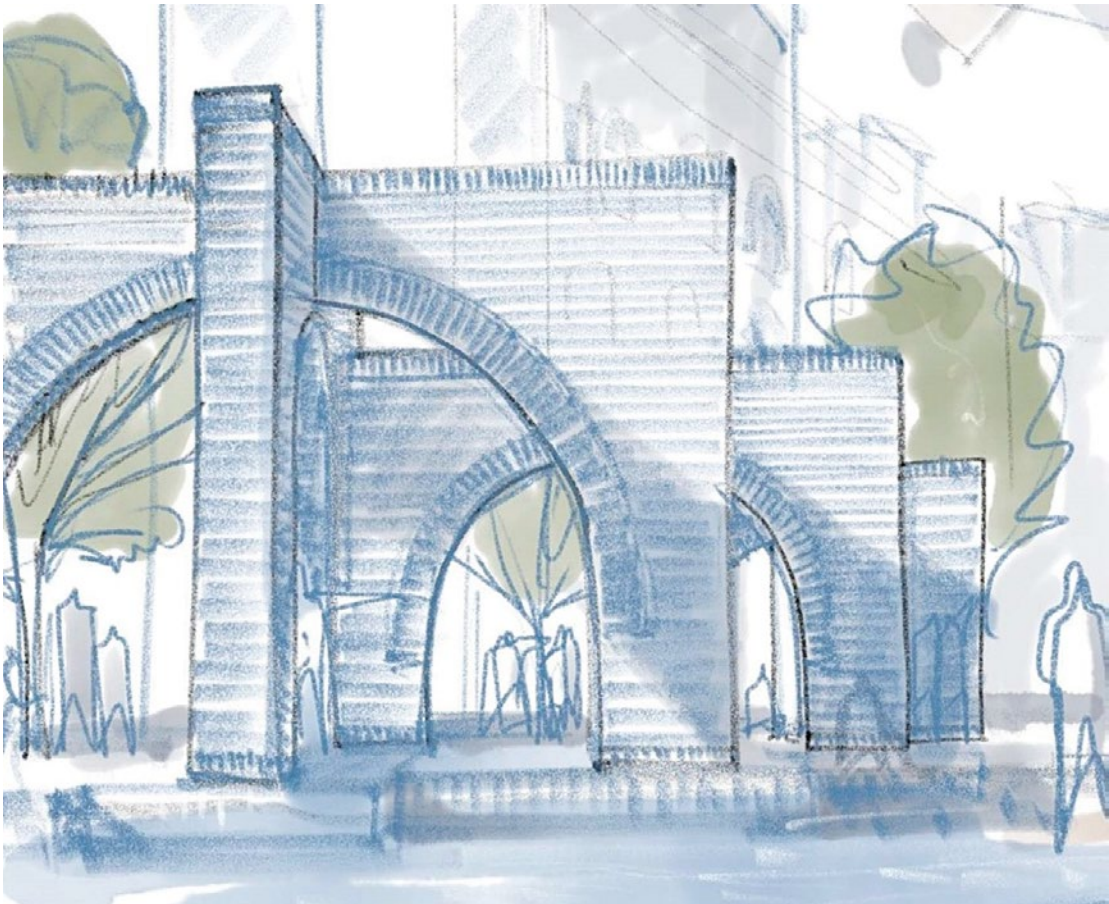
© Photos: Kontraframe

↑ The "Bricks in Common" pavilion presents a vision of sustainable building in the future. It was set up by the Danish Chamber of Architects and the UIA 2023 World Congress of Architects.

Thinking of Denmark, the first impression that comes to mind are the red brick buildings that make its Danish cities so charming. Copenhagen was selected as the UNESCO World Capital of Architecture for 2023. Bricks are a part of the Danish architectural tradition and therefore also of the event to celebrate this accolade.

THE PARADOXES OF THE BRICK

"Bricks have played a central role in Danish architecture and is an important part of our architectural heritage", explains Nanna Flintholm, architect and partner at the Danish firm AART Architects. "As a building material, bricks have many advantages: it is a robust and durable material that ages gracefully and can be recycled under the right conditions. But bricks also pose a challenge because manufacturing them consumes a great quantity of resources. Building with bricks in the future will require innovation and new approaches to the material, taking carbon emissions, consumption of resources and recycling into account." To draw attention to this need for progress within the construction sector, AART worked with Egernsund Wienerberger and other partners to design a pavilion sited >



← The largest arch was built with 70 % recycled bricks and Egernsund Wienerberger´s CO_2 reducing LESS bricks.

↙ The three arches illustrates the challenges in the building industry, and they also shows a way forward with CO_2 reducing bricks.

> by the Copenhagen harbour. The project is called “Bricks in Common”. It addresses the paradoxes in using bricks as a building material, focusing on the tradition of using bricks while also examining how they can be used sustainably in the architecture of the future.

THE EVOLUTION OF BRICKS

The pavilion consists of three crossed arches of different sizes. Despite their differences in size, all three arches have roughly the same carbon footprint of one tonne. The critical factors are the percentage of recycled material used, the burning of the bricks and their type. The smallest arch has been built from a traditional, solid brick burned using conventional gas. The middle arch represents the present and has been built using the most climate-friendly and sustainable bricks currently on the market – the CO_2 reducing LESS bricks from Egernsund Wienerberger, which consist of 15 % less material and are burned with certified biogas. The middle arch also consists of 30 % recycled bricks, and reduce emissions by 50 % per square meter compared to the smallest arch.The biggest arch, however, reduces carbon emissions by a full 75 % per square meter compared to the smallest arch. This arch was built with a share of up to 70 % recycled bricks. “Bricks in Common” gives us a preview of how to reach the goal for 2030. <

FACTS & FIGURES

Project name
UIA Pavilion Copenhagen, Denmark

Architecture
AART Architects

Client
City of Copenhagen

Product used
Façade bricks series LESS

Year of completion
2023

↓ It's anything but obvious that this residential building near Münster is a former hen house.

COMING HOME TO ROOST

An old hen house was transformed into a country home with a strong character in the German Münsterland region: traditional, sustainable and with a maximum of cosy warmth.

In the Münsterland region of northern Germany, a couple are delighted with their new home amongst an expanse of fields where chickens once used to roam free, enjoying a country life. Its blended style combines sustainability, traditional craftsmanship and renewable energies under one roof. The starting point for this special project was a 35-metre-long former hen house without a paved floor, which architects Anja and Jochen Engelshove transformed into a country retreat for generations to come. >

↑ In the historically traditional manner of the Münster region, the bricks were laid and the joints immediately smoothed instead of being pointed afterwards.

In the midst of Münsterland, an old hen house has been reborn as a country house full of character with an exterior clay bricks façade that is not only striking but also carries on a tradition.

FACTS & FIGURES

Project name
Landrefugium Münsterland, Germany

Architecture
Engelshove Bau GmbH

Client
privates

Products used
Terca hand-moulded bricks in reddish brown nuanced, with white slurry

Year of completion
2022

> RECOGNISABLE TRADITION

In addition to renovating and integrating the existing building, one important aspect of the refurbishment was to retain the Münsterland country house style. To this end, the load-bearing capacity of the floor and the existing materials were tested for reusability right at the beginning of the project. 50% of the original roof structure has been preserved. The original intermediate floor in the roof structure was removed and the roof beams restored. Today, the roof beams give the open-plan living, dining and kitchen space its special character. The focus of the entire renovation project was on the sustainability of materials, local traditional crafts and renewable energies. For this reason, a heat pump with a geothermal probe was used to supply sustainable energy. As part of the renovations, existing openings were enlarged to allow more daylight into the interior.

RUSTIC FRESH INTERPRETATION

On the outside, a clay brick façade was chosen in keeping with the style. The clients requested a look that was as natural and warm as possible. “We deliberately replaced the clinker bricks with new ones of the same size that show off hand-crafted beauty in their irregularities”, explains Jochen Engelshove.

The product choice fell on Terca hand-moulded bricks, reddish-brown nuanced with white slurry, which authentically bring out the original character of the house. The rustic appearance of these hand-moulded bricks radiates a special naturalness and warmth – unmistakable and long-lasting for generations to come. Each of these bricks is as unique as the technique used to lay them. In the traditional manner of the Münster region, the bricks were laid and the joints immediately smoothed instead of being pointed afterwards, as is customary. The result is distinctive.

This light-flooded country house is a glowing example of sustainable construction in old buildings and for the reinterpretation of historical building culture. <

← In the Landrefugium Münsterland, an elegant exterior embraces a cosy interior – a place of relaxation in a country-house style.

Electricity from the roof: these residential buildings keep their promise. With an average energy consumption, there is no need to buy electricity in addition.

© Photos: Wienerberger B.V.

NET-ZERO-ENERGY HOMES

Twenty-two new residential buildings in the Dutch village of Ameide will bring lasting joy: these innovative houses generate all the energy they need themselves.

With a traditional brick look in a light, warm sand colour and renewable energy from the roof, this residential project in the Dutch village of Ameide exceeds most modern efficiency requirements. Since 2021, new buildings in the Netherlands must meet the BENG standard. This means that the buildings have a near-zero demand for externally supplied energy. The 22 new residential buildings in Ameide already significantly exceed these requirements. They do not use any fossil fuels; they are well insulated and equipped with heat pumps. A heat recovery system heats the buildings and the Wevolt X-Roof generates the electricity the households require. This zero-on-the-electricity-meter approach promises that, with average energy consumption, no more electricity will be needed than can be produced on the roof.

SOLAR POWER WITHOUT THE EYESORE

The roofs are completely covered with Wevolt X-Roof PV modules, which have a special feature: they do not look like solar panels from a distance – instead they blend seamlessly into the roofs. With the help of the Wevolt X-Roof PV modules, the roofs themselves become solar power plants. Although the PV modules form a continuous surface, they can be replaced individually in the event of damage. In terms of colour, >

↑ The ClickBrick Pure façade looks like traditional masonry with a classic joint pattern, but is a dry stacking system. The installation is quick and clean and in case of any repairs, this system is easy remountable, the brick can be replaced at any time.

FACTS & FIGURES

Project name
Tuinhof Ameide,
The Netherlands

Architecture
Hans Been Architecten BNA

Client
Municipality of
Vijfheerenlanden

Products used
Façade: Terca ClickBrick
Marziale HV,
Roof: Wevolt X-Roof

Year of completion
2023

↑ Wevolt X-Roof creates a continuous roof surface without conventional “on roof” systems. This looks good and is easier to install and maintain than other systems on the market.

> the modern roofs hardly differ from their anthracite-roofed neighbours. The dark solar cells shimmer dark grey bluish in the sunlight and thus also form an aesthetic contrast to the light brick façade.

INNOVATIVE MATERIALS

The ClickBrick Pure façade brick was used on the front, which provides a crisp and robust appearance. Although it is a dry stacking system and requires no mortar, it creates the appearance of masonry with a traditional joint pattern. White and brown accents of Terca ClickBrick Marziale HV alternate on a yellow background with darker areas bringing a varied shading to the masonry. ClickBrick Pure is a dry stacking circular and remountable system and therefore has obtained the silver Cradle-to-Cradle certificate. Project manager Peter Holl of Reuvers Ontwikkeling & Bouw, the contractor, sums it up: “Using Terca ClickBrick Pure in combination with the Wevolt X-Roof was a perfect fit for this sustainable project.” <

→ Bay windows, projections, indentations, patterns and colours – no two façades are alike in the new Leidsche Rijn district of Utrecht.

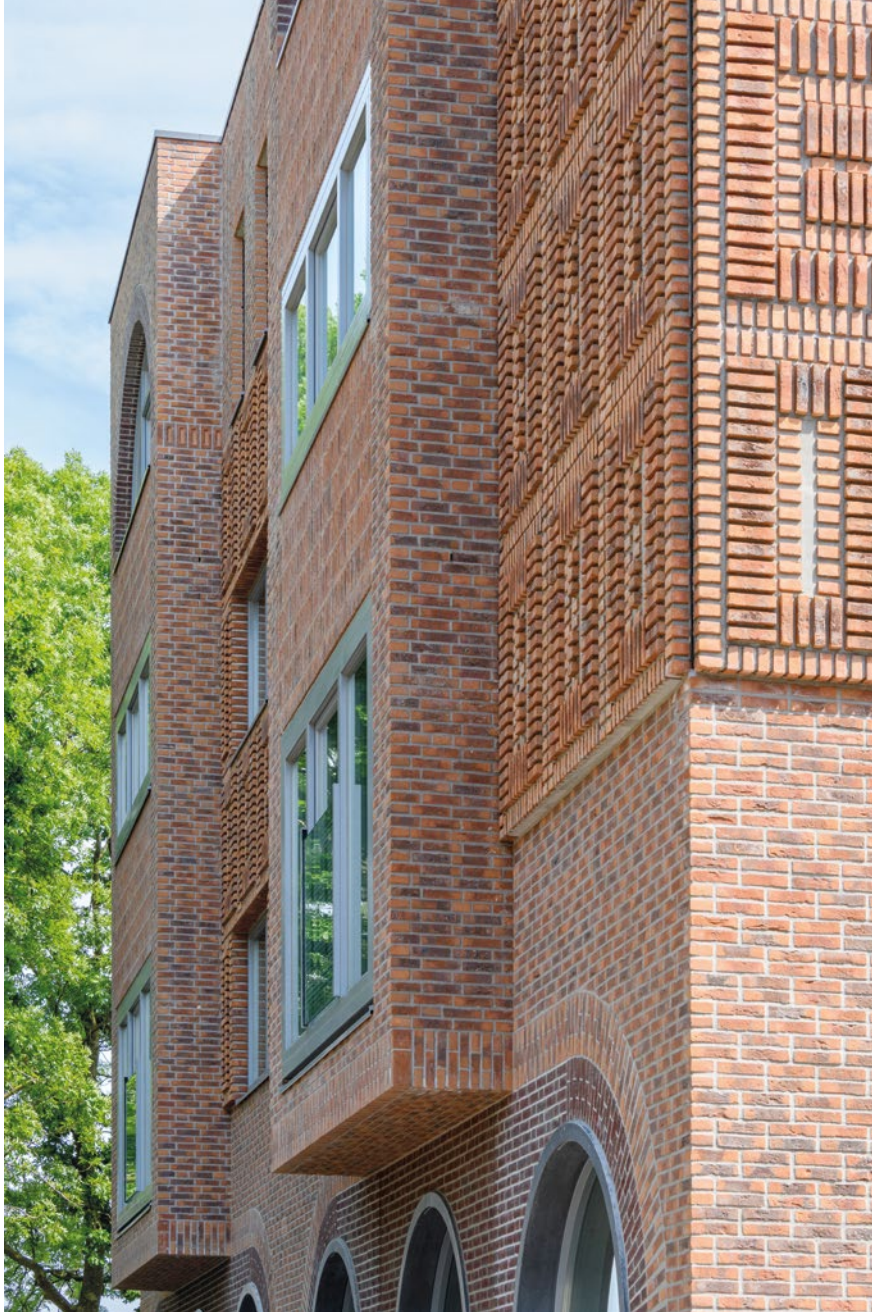
SYMPHONY OF BRICKS

Two architectural agencies combined their ideas of urban harmony in these apartment blocks and created façades that are unparalleled. The harmonious name: Sinfonia.

A love of bricks has been immortalised here. Two architects created two very different apartment blocks in an urban expansion area of Utrecht , whose façade appearance is anything but uniform and which are appropriately named Sinfonia. The lively symphony of colourful façade bricks was created on the drawing boards of Marlies Rohmer Architecture & Urbanism and Marta Meijer of Dok architects. The two architects worked together on the two apartment blocks for five years and combined their ideas to create a coherent ensemble of movement, urbanity and pliability. >

We designed our façades using rhythms, proportions and strong colours. That's how we created these distinct characters.

Marta Meijer, Dok architects



← The diverse façades express the sophistication of a city and raise the spirits of passers-by and residents alike.

> COLOURS OF LIGHT

The buildings combine a sequence of projections and indentations, small balconies, colourful façades, high entrances, curved sections of wall and rich details. There are a total of 50 residential units in the single, double and triple-width houses. “We designed our façades using rhythms, proportions and strong colours. That’s how we created these distinct characters”, explains Marta Meijer of Dok architects. A uniform colour concept calms the ornamental diversity. Vivid shades of red, brown and yellow shine on the Sinfonia façades. Different coloured joints of various thicknesses were also used. Meijer used joints in the same colour as the brick, Rohmer worked with grey joints. >

↑ The search for the perfect brick was well worth it: with their variety of colours, the bricks used for the 50 living units fit perfectly into urban life, yet still create a sense of permanence.

→ The architects created the single, double and triple-width houses with special attention to detail and let the brickwork shine.

FACTS & FIGURES

Project name
Woonblokken Sinfonia,
Utrecht,
The Netherlands

Architecture
Marlies Rohmer
Architecture & Urbanism
and Marta Meijer
Dok architects

Client
Van Wanrooij Bouw &
Ontwikkeling

Products used
Façade: Veldbrons Gesinterd HV WF, Navarra HV WF, Blauwrood Genuanceerd HV WF, EF and Teunisbloem WS WF; Paving brick: Ravenna DF

Year of completion
2021/2022

← They took care to emphasise the diversity of colour even in the smallest details. Wienerberger supplied both the facing bricks and paving stones for this project.

> IN SEARCH OF PERFECTION

The decision to choose bricks did not come out of the blue: “We spent a lot of time looking for the perfect brick not only from the aesthetic point of view, but also in terms of feasibility”, explains Marlies Rohmer. Using sample panels and a box full of clinker bricks, Terca façade bricks in harmonising colours were finally selected. Marc Beurskens, commercial director of Aberson, was involved in the selection process: “The great thing was that the ranges of bricks went well together. Furthermore, the selected materials were also available in English formats, which fitted perfectly to our vision for the brickwork.” In addition to the facing bricks, the clay pavers for this project were also made by Wienerberger. The Ravenna paving brick in a thick format creates a cohesive calm against such a busy façade. Marta Meijer, architect at Dok architects, is extremely happy with Sinfonia: “I love the cheerfulness of the buildings; it does something to you. You can see that the apartment buildings are brought to life by their diversity.” ◼

A NEW TAKE ON HISTORY

The Turley site in Mannheim is being repurposed: a modern residential quarter was created on the former barracks areal. These four new buildings create a sensitive contrast to the existing buildings.

Cities do not always grow at the edges – empty urban land that is no longer used for its original purpose is a reserve that can be used to satisfy modern demands for space. The 120-year-old Turley site in the German city of Mannheim was just such an example. Built as barracks during the German Empire, it served the US Army as a base until 2007 under the name Turley Barracks. Starting in 2012, the twelve-hectare site has been converted into a residential area. Architect Max Dudler was commissioned to design three residential buildings and a day-care centre covering an area of around 5000 m². The architect used one of the historic barracks buildings to define the identity of the development. He positioned the minimalist, monolithic new buildings accordingly and created an urban ensemble with a lively town square. The square is slightly elevated and forms a social centre for the residents.

A SYMBIOSIS OF OLD AND NEW

Architect Max Dudler not only wanted to integrate the existing building, but also to showcase the modern architecture. “When centuries-old building fabric is properly transferred into the present, modern, timeless architecture emerges.” Both the new buildings and the resulting town square are characterised by this tension between old and new. The project houses 19 flats with up to five rooms in the residential buildings. Minimalist steel balconies protrude from the smooth façades, some only a little, some much further, and >

← Red Neckar Valley hard sandstone characterises the existing building and adorns the plinth of the neighbourhood square.

↑ A mineral light plaster in pale brown and the steel surrounds of the windows and balconies establish a connection to the late 19th century and the existing building.

FACTS & FIGURES

Project name
Turley Areal (Alte Kaserne)
Mannheim, Germany

Architecture
Max Dudler GmbH, Berlin

Client
Sebastian Wipfler, Wipfler Turley Immobilien GmbH & Co. AG

Product used
Poroton S10-MW

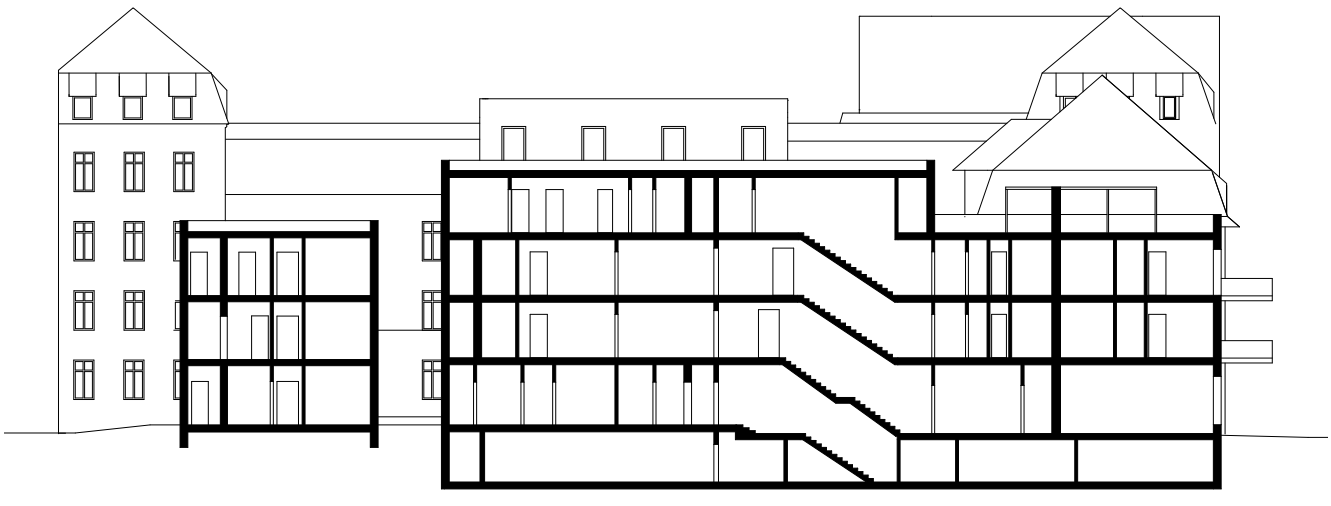
Year of completion
2021

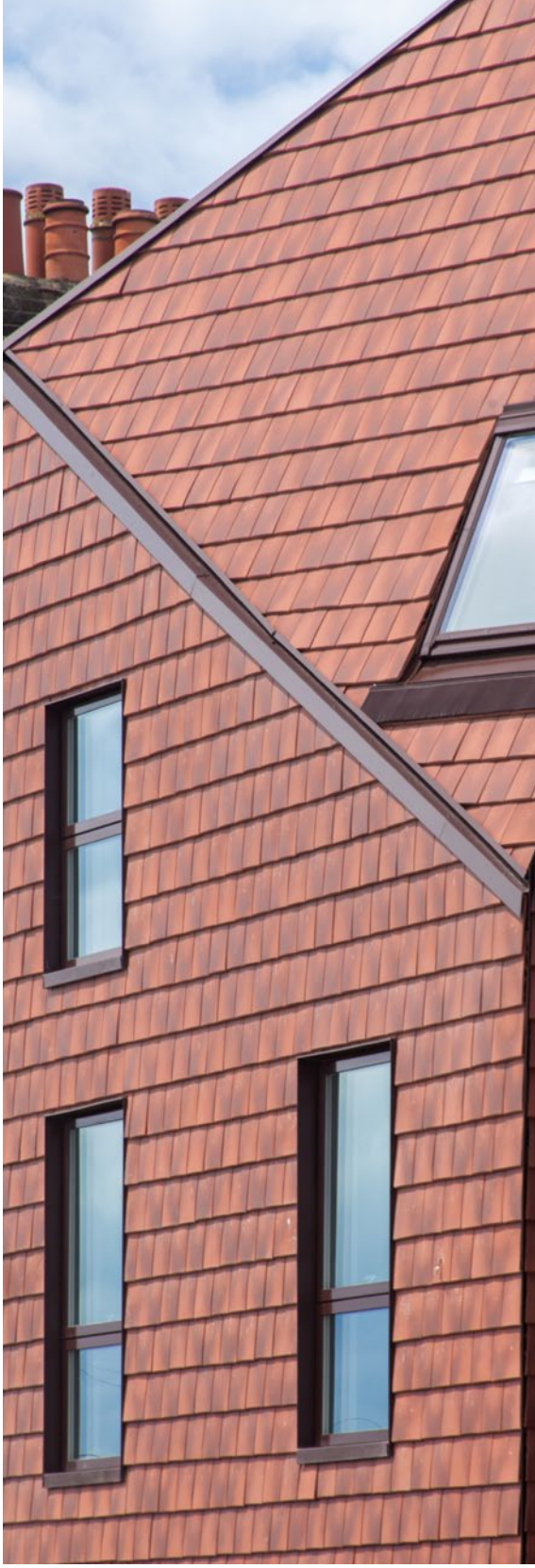
> have the appearance of industrial steel constructions. This creates open spaces of different sizes depending on the size of the flats and creates a connection between the new buildings and the historical stock.

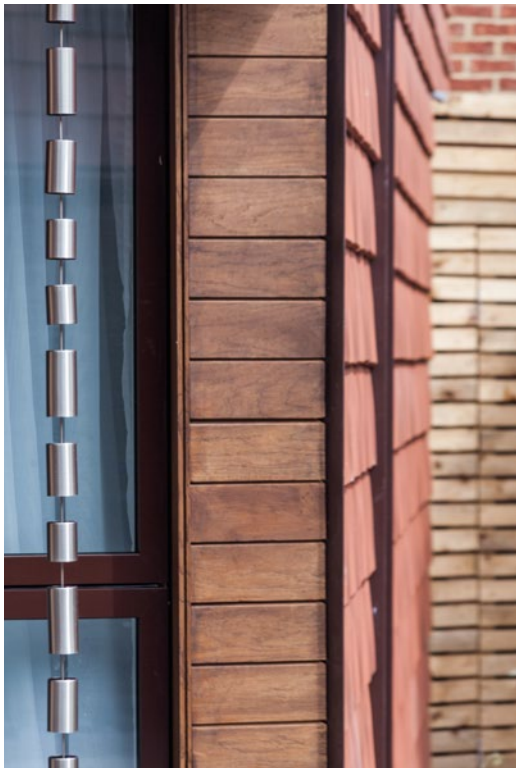
SOLID AND AESTHETIC

Inspired by the 19th-century construction style of the existing building, the new developments are intended to withstand the test of time. The architects chose Poroton S10-MW blocks with an integrated mineral wool filling to build walls with a thickness of 36.5 cm. These meet the requirements for energy efficiency, structural calculations, sound insulation and fire protection. A mineral light plaster and the neutral light brown colour complete the austere aesthetic; the steel surrounds and folding shutters on the windows and balconies pick up the colour scheme and echo the late-19th-century image. One aesthetic detail creates another clear connection: the former barracks building is made of red Neckar Valley hard sandstone, which was also used for the plinth and paving of the neighbourhood square. <

→ Clear lines, a distinct design language and austere aesthetics characterise the new buildings. Beneath the simple façade are solid brick walls that do not require additional insulation thanks to their mineral wool filling.







FACTS & FIGURES

Project name
Kaolin Court, London, United Kingdom

Architecture
Stolon Studio

Client
House of Tuesday

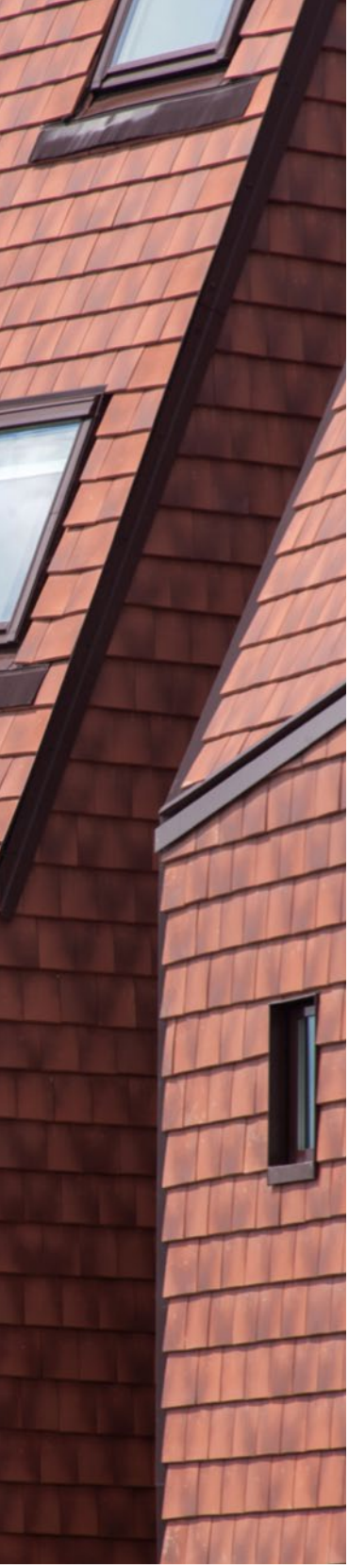
Products used
Roof and façade: Sandtoft 2020 Flanders;
Pavers: Baggeridge Blue Dragfaced Square Edged Cobbles

Year of completion
2020

↖ The sloping roof ridges were calculated using models of the sun's path to let as much sun as possible into the courtyard all year round.

↑ The unusual roof shape required a more restrained colour design, which is why the same material was chosen for the façade and roof.

← The housing combines private sanctuaries with communal indoor and outdoor spaces.



SHADES OF NATURE

As a natural product, red tile fits ideally into a green environment. A project in Lewisham, a quiet part of London, took advantage of this fact in a communally accessible courtyard.

From the outside, people can only guess at the idyll within. A landscaped inner courtyard forms the heart of a residential project that focused on social interaction and using the highest quality of materials. Commissioned by a small housing association, the aim was to create high-quality housing at affordable prices. The planners at Stolon Studio also gave a lot of thought to energy efficiency, biodiversity and communal living. They wanted the inner courtyards to become both social meeting places and sanctuaries for the residents. No fences were used and all boundaries are formed by plants and ponds. The pandemic proved the success of this concept. People moved into the project shortly before the first lockdown in 2020 and residents shared and enjoyed the communal green space right outside the doors of their flats.

EXTERIOR AND INTERIOR VALUES

A direct relationship to nature was particularly important to the planners. Therefore, elements that support biodiversity were incorporated into the landscaping. Raised beds, lawns, masonry ponds and brick pavings throughout create a multifaceted garden. The inner courtyard is hidden from view from the outside and passers-by first notice the quirky roofscape. The roof surfaces slope at unusual angles because they are aligned to the path of the sun. The architects used models to calculate the incidence of light to ensure that the courtyard got as much sun as possible all year round. Despite the unusual geometry, the planners created a consistent image by using the same tile for the roof and façade.

PRECISELY CUT TO FIT

One tile for almost all building surfaces: the natural irregularities of the Sandtoft 2020 Flanders clay tile in the reddish colour brings structure to the façade. This tile provides great flexibility and performance, and is therefore also suitable for a wide range of roof pitches and can follow even the most unusual building geometry using customised fastenings. The architects chose this clay tile because it best expresses the sculptural form of the building and provides an aesthetic light and charm throughout the complex. Even on dull days, warm, bright light reflects across the brick surfaces into the courtyards and interiors. For the courtyard floor, the designers chose dark pavers with a naturally weathered texture: Baggeridge Blue Dragfaced Square Edges in a bluish grey creates the desired rustic appearance and echoes the natural textures of the roof and façade.

THE “FIFTH FAÇADE”

In the heart of the Cité Jardin district, the town of Plessis-Robinson wanted a European-style housing development: a residential building entirely in the spirit of the historic architecture of the Belle Époque.

Not far from the centre of Paris, in the municipality of Plessis-Robinson, a residential complex has been created that plays with European style. Modern living in historic architecture was the goal set by the municipality. This task was entrusted to the architect Manuel Silva and his office SUPD’AD. For the project, he found a plot of land containing a hole about six metres deep that he integrated into his plans right from the start.

BACK TO THE GOLDEN AGE

Today, the pit has been transformed into a large central pond. Around it, Silva arranged twelve residential buildings that contain a total of 502 flats, including 38 social housing units. On the street side, the architect followed the client’s wishes and planned a sequence of

façades visually inspired by the style of European capitals. They draw on the canals of Amsterdam, are inspired by the Grand-Place in Brussels and reference the neoclassicism of Rome and the Praça do Comércio in Lisbon. They wanted the whole development to feel like a visit to the Belle Époque, a >

↓ The city expressly requested the opulent flair of the Belle Époque and architect Manuel Silva gave each roof its own style using a rich palette of colours and ornamentation.

The pointed shapes, high archways and matching roofs of Plessis-Robinson take you back to another time: the Belle Époque.

← Lisbon, Brussels, Rome or Amsterdam – the street layout in Plessis-Robinson draws on inspirations from European style.

→ The Koramic Vauban 2 Droite roof tile in three colours creates a calm unity and harmonises the different styles of buildings.

> nostalgic favourite particularly in France. During this golden age, lasting from 1870 to the First World War, historicism mingled with art nouveau and industrialisation merged with the romantic. The period was the clear inspiration for this housing project.

HARMONY ON THE FIFTH FAÇADE

Manuel Silva defines the roof as the fifth façade of a building and believes it deserves to be finished in the same high quality as the vertical surfaces. He chose the terracotta tile Koramic Vauban 2 Droite, which he presented on sample panels. “The fact that the client valued quality, they immediately agreed with the choice of terracotta”, says Silva. Equipped with numerous skylights, bay windows and dormers, the roof presents a visual variety that is unified by the choice of material. It was certainly a technical challenge to cover the many projections and cut-outs seamlessly and attractively, but this hurdle was also overcome. “The Koramic Vauban 2 Droite roof tiles had to be perfectly aligned from one façade to the other, paying particular attention to the skylights.” The architect chose three shades of red, brown and slate, which provide orientation and unity on the roof and cover a total of around 7000 m². Although the roof tiles tie the development together, the different colours give each building its own character. <

FACTS & FIGURES

Project name
Plessis Capitales,
Plessis-Robinson, France

Architecture
SUPD’AD

Client
PRIM’ARTE and VILL’ALBA
in Paris (75)

Product used
Koramic Vauban 2 Droite
in Red, Brown and Slate

Year of completion
2019

Architectum by Wienerberger

architectum_wienerberger

architectum.com

Wienerberger