architectum

INTERNATIONAL MAGAZINE FOR BRICK ARCHITECTURE







RENEWAL AS NATURE'S INSPIRATION TO PROTECT OUR CLIMATE

Giving buildings a second chance by renovating, extending and upgrading them is actually the most natural thing in the world: Old things are given a new lease of life, and at the same time we protect the climate. The construction and renovation sector is one of the sectors with the greatest potential for cutting ${\rm CO_2}$ emissions. Time is of the essence when it comes to climate change, and as a pacesetter in our industry we know we have a responsibility for future generations and so are taking the necessary steps – now!

One important aspect in this regard is how old buildings are carefully and stylishly renovated and brought to life again. After all, since buildings have an impact on emissions over a span of many decades, they are a key building block in fulfilling the climate protection mission.

This issue of architectum presents selected projects showcasing sustainable renovation. I'll let the venerable houses and squares on the following pages speak for themselves and tell their stories. By using carefully selected materials, not only have they been given a new life which has enhanced their value, they also offer sustainability for future generations, thanks to the CO_2 savings that have been achieved.

A historic palace restored to its former grandeur and put to new use in the Czech Republic, a 1960's tower in the Netherlands that was saved with a sophisticated renovation upgrade and a previously bleak, asphalted public square offering completely new synergies in Estonia: These and other examples clearly show how sustainable architecture and construction planning can open up new perspectives for the future. I hope you enjoy reading about them all!

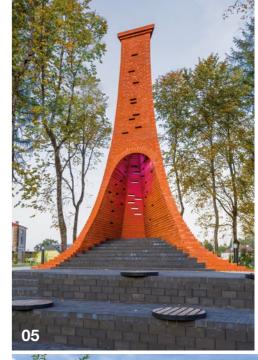
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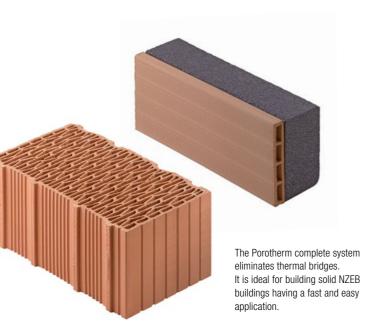
TURNING NEW INTO OLD

Bricks age with dignity – the more time passes, the more interesting they appear. But it would be rather tedious to wait decades for them to acquire the right look. Instead, Wienerberger has developed a new retro collection of ceramic façade bricks at the Aseri factory in Estonia. Bricks from the Retro Line family meet modern standards but have a charmingly rustic style. They all have rough surfaces and the appearance of bricks that have mellowed naturally with age. Bricks in the MRT60 format measure 285 \times 85 \times 60 mm and are available in five shades: Retro White (natural white), Retro Red (red), Retro Flame (red/brown), Retro Brown (brown) and Retro Black (black).

www.wienerberger.ee



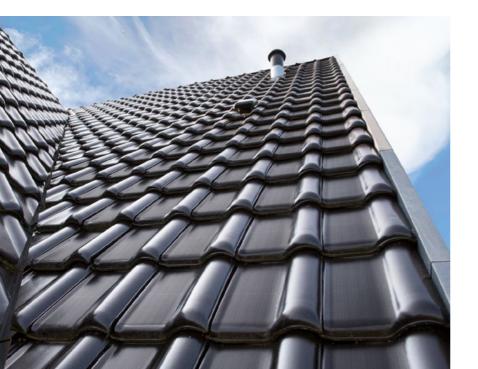
Charmingly rustic appearance, contemporary high-quality function: the new Retro Line made in Estonia.



STOP WASTING ENERGY

The new Porotherm complete system consists of our new Porotherm Thermal T insulation boards combined with monolithic blocks from the Porotherm BIO PLAN family. This solution brings huge advantages during the building phase: it keeps building sites clean and tidy, can be easily and accurately assembled and considerably accelerates construction time. The Porotherm complete system also has great benefits during the planning and using: the masonry is homogeneous, which contributes significantly to energy conservation for building Near-Zero-Energy Buildings (NZEB) with a healthy indoor climate.

www.wienerberger.it/azienda/novita/sistema-completo-porotherm



A SUN-LOVING COMBINATION

At Wienerberger, we are constantly expanding our range of products that support the energy transition to meet our own sustainability standards. One of these new products is the Wevolt energy roof. It is a combination of the Alegra 10 ceramic roof tile and the Alegra 10 Wevolt solar roof tile. The two types of tiles are completely identical in format and have matching Noble Black Engobe finishes. All moulded parts are available in the same colour to create a uniform appearance. In this way, the Wevolt energy roof generates renewable energy while retaining the familiar look of a tiled roof.

www.wienerberger.nl/wevolt

The Wevolt energy roof looks conventional but produces solar energy.



HOW A TAR FIELD BECAME A JEWEL

More diversity in public spaces – this dream was achieved with the redesign of the central square in the Estonian city of Torva. With a strong focus on the location's history, Arhitekt Must paved a symbolic place.

ow did this project in the city centre of Torva start?

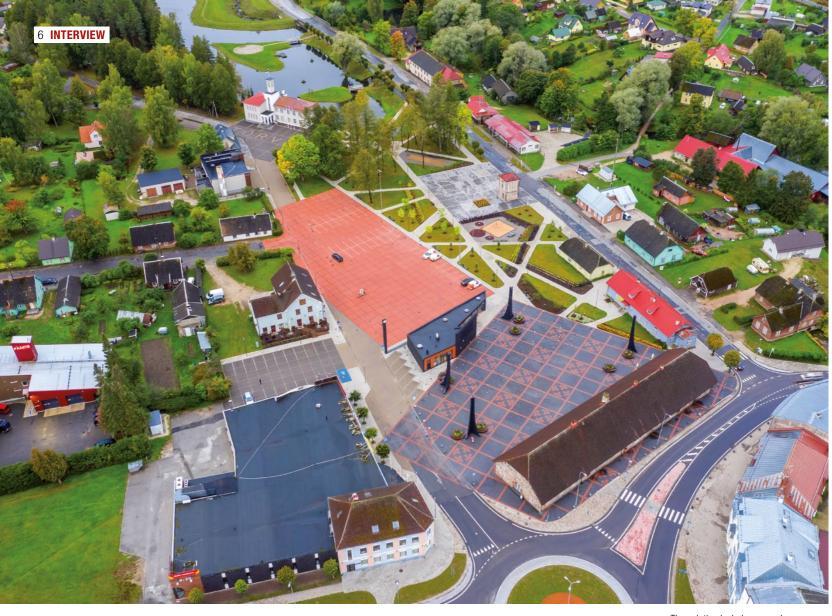
Architect Mari Rass: The name of the town Torva (torv means tar in Estonian) has a connection with the traditions of tar production in the area. The town is located at an important crossroads, where a wooden tavern was built in the first half of the 19th century. After the building was destroyed in a fire in 1890, a tavern was built from the rubble, which remains the

town's landmark to this day. Behind the tavern and in the heart of the city is the central square, whose transformation we were allowed to realize with our design "Mulgi Resort" after a municipal competition.

Why was the central square in need of transformation?

The square was marked by a large and monofunctional asphalt field behind the old tavern building. >

A former car park was transformed into a meeting place. A specially designed canopy of lights also adds to the unforgettable atmosphere.



> The centre was used most successfully by cars, buses and trucks, being able to find a parking space in a self-organised system. A changing understanding of the functioning and possibilities of public space paved the way to reshaping the city centre.

How did you manage to change the use and focus of the place?

One of the special features of Torva is the untouched nature of the Ohne River valley right in the heart of the city. The new solution expands the landscaping even further, to the old tavern building, unifying the Ohne River valley with the centre into a whole. The contrast between the asphalt field and the dim park with large trees was abolished – the old trees were pruned and new short and tall landscaping was planted, forming greeneries for park activities. The precipice by the river was made less steep and a brick sculpture was erected, the so-called Torva Chimney. With its onshore flight of stairs, it attracts people in the central square to discover the primeval world by the river and to take a walk, play or have a picnic in nature.

What is the biggest upgrade of the area in your planning?

Instead of one central square, the new solution offers plurality. The landscaping reintroduced into the city centre will be made into five squares: the central square, the market square, the municipal council square, the bus station square and the parking lot. Squares with strict geometry interrupt the flow and freedom of nature. Their layout invites visitors to explore the whole city – from a distance, the next building or a beam of light draws the attention. The square is a concentration of social activities, a dense urban unit. Due to the variety, each square can be exactly the right size to fulfil its function – to host fairs, concerts and community movie nights.

The central square behind the tavern in the heart of the city has been turned into an attractive open urban space every season. A network of wire ropes resting on four steel poles has been pulled over the square, creating a distinctive ceiling of lights. Together with the screening wall of the bus pavilion, a functional space for city events will be created. The centre of

The solution includes several smaller squares with different uses and functions instead of the previous large, central, car-dominated square on the asphalt field.

FACTS & FIGURES

Project name

Tõrva Central Square, Tõrva, Estonia

Architecture

Arhitekt Must OÜ (Mari Rass, Ott Alver, Alvin Järving, Kaidi Põder), engineers Novarc Group AS, lightning ceiling idea in collaboration with Stuudio Tallinn OÜ

Client

Tõrva City Government

Products used

Penter Punane Kare STT52 (Red Rough) and Grafiit Kare STT52 (Grafit Rough), Terca Clinker red smooth FAT65

Year of completion 2018



The redevelopment of the square created new spots that invite visitors to linger. The Törva Chimney is a particularly popular place for people to sit on the steps and enjoy a view of the river.

Red and black clinker bricks form a traditional Mulgi pattern. Torva is dense, compact and due to the diversity of the spatial conditions, it is always bustling with life.

What was the reason for the use of bricks?

The many different squares create new synergies in the public space and thus a democratic and flexible environment. The new clinker paved areas with orthogonal edges overlap with the existing landscape and create clearly delineated squares. Central square, parking lot square, playground square, rural community square – they all play their role in the larger whole. We used red clinker paving stones for the pavement in the squares and contrasting black clinker paving stones to draw the Mulgi pattern, a traditional pattern from the historic southern part of Estonia. We chose the same combination for the stairs by the reservoir. We also added the red clinker bricks with a smooth surface for the chimney sculpture.





Ott Alver, Mari Rass and Alvin Järving from Arhitekt Must OÜ.



»The square is a concentration of social activities, a dense urban unit. Due to the variety, each square can be exactly the right size to fulfil its function.«

Mari Rass, Arhitekt Must OÜ

PRESERVING HISTORY FOR THE FUTURE

Perfectly laid brick paving revives the history and charm of bygone days at The Red Castle, a listed building in the Czech Republic.

FACTS & FIGURES

Project name

Červený zámek/The Red Castle, Hradec nad Moravicí, Czech Republic

Architecture

ATELIER 38/Jan Zelinka, Luděk Valík

Client

National institute of cultural heritage

Product used

Penter Novoton WS tumbled

Year of completion

renellations, towers and brick as far as the eye can see: the neo-gothic castle Červený zámek in the town of Hradec nad Moravicí in the Czech Republic owes its name to its striking brick masonry. The Red Castle was built as stables between 1874 and 1881 as an extension of the older White Castle. It belongs to one of the largest castle complexes in the Czech Republic and forms part of the country's cultural heritage. After being damaged during both world wars and following several modification and restoration projects, the castle was finally renovated from the ground up in 2019. Today, it is used as a social centre for festivities and for artistic and cultural events.

CONSOLIDATION AND RESTORATION The first phase of reconstruction and monument-protection-compliant restoration rectified the most urgent problem: the structural integrity of the walls, vaults, lookout and roofs. The roof covering and dormer windows were also replaced and the courtyard was redesigned. The renovation work also solved the problem of rainwater running from the courtyard into the lower stables (the cellar rooms accessed from the courtyard), which was endangering the historic building. The newly repaired, monumental, double-span vaulted room is now used for exhibitions, concerts and as a glyptotheque for storing original statues and fragments of the roofs and façades from the building.



The first phase of reconstruction and monument-protection-compliant restoration concentrated on the structural renovation of the walls, vaults, lookout and roofs.

HERRINGBONES FOR THE HORSES This latest purpose is made possible by the newly paved floor that was laid throughout the entire stable building during the renovation work. The architects decided to use Penter Novoton WS tumbled Old Dutch pavers. The paving bricks are laid in a herringbone pattern and blend in perfectly with the rustic look and historic walls of this extraordinary space. This has had the desired effect of retaining the castle's special ambiance despite the renovations and restoring its original condition as faithfully as possible. ■







Formerly stables, today an artistic and cultural venue. Now, as then, the look is defined by the herringbone paving.



ONE MATERIAL WITH MANY LIVES

Few buildings have to change and adapt as frequently as those in the retail sector. When two Albert Heijn stores in the Netherlands were renovated, the architect chose to use recyclable ClickBrick bricks. hen redesigning two Albert Heijn shopping centres in the Netherlands, the VOCUS architecten team had to comply with a range of requirements: visible sustainability, a contemporary aesthetic, environmental responsibility and integration in the circular economy. The buildings in Leeuwarden and in Nijmegen owned by the client Ahold have been adapted, changed and embellished several times over the decades. The client decided it was time for a new vision.



The portal at the entrance and the parapet around the building are also clad with bricks. This visually connects all the façades and creates a powerful presence.





The building at the Leeuwarden site is visually light despite its size thanks to the warm, beige colour scheme and the Birchwood brick variant.

ONE-TO-ONE REUSABILITY "A robust building that is also pleasant to the touch. A spatially powerful design following the principle of the circular economy wherever possible. This is the synergy I was looking for", says architect Michael Noordam, who assumed responsibility for project management at both locations. The two redesigned façades feature large areas filled with recyclable ClickBrick bricks; in Leeuwarden, they are combined with aluminium elements and in Nijmegen, with vertically mounted

roof tiles. "All the façade materials we employed can be reused one-to-one", says Noordam. This means that the materials comply with the sustainable concept and the client's wishes. "We suggested designing the façade system so that it could be easily replaced or recycled", explains Noordam.

LARGE JOINT-FREE SURFACES The innovative Click-Brick system was ultimately chosen. "There are several reasons why we chose ClickBrick for the >







In Nijmegen, the architect opted for façades made of warm red ClickBricks with interspersing surfaces made of black roof tiles and vertical cladding.

FACTS & FIGURES

Project name

Renovation of Albert Heijn XL, Leeuwarden and Nijmegen, The Netherlands

Architecture

VOCUS architecten, Michael Noordam

Client

Ahold

Products used

Leeuwarden: ClickBrick in Birchwood; Nijmegen: ClickBrick in Redwood + Tuile du Nord 44, varying colours

Year of completion 2019

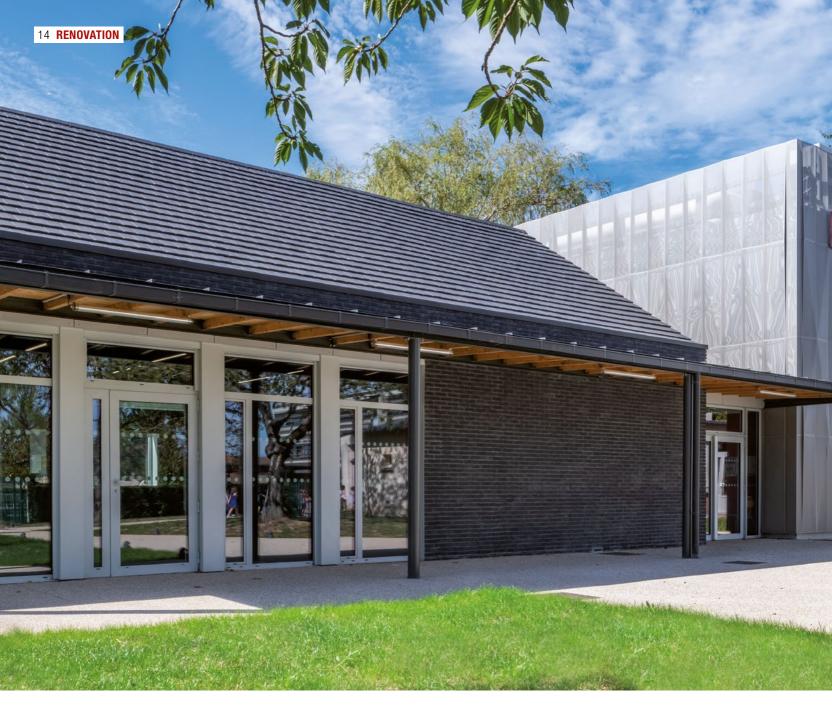
> Leeuwarden and Nijmegen projects", explains Noordam. "The dry stacking method was not the only deciding factor. ClickBrick is a traditional product in a new form. The basic brick unit may be large compared to conventional bricks, but the format is still immediately recognisable".

ClickBrick is an ideal material for creating large surfaces free of mortar joints. The brick variants chosen for the two shopping centres have a lot of texture and rough surfaces, which creates a dynamic appearance. "For the façades, we were looking for a clear rhythm that could hold its own against the impact of logos and other visual elements", says Noordam.

ONE MATERIAL WITH MANY LIVES The shade Birchwood was chosen for the Leeuwarden project. In Nijme-

gen, where the building harmonises more closely with the surrounding built environment, the façades consist of warm red ClickBrick surfaces with areas clad with roof tiles in three dark tones: scorched blue, matt ceramic slate and anthracite. Time was a key factor in both refurbishment projects. "It was a great advantage that ClickBrick can be installed in any weather", says Noordam.

However, the architect does not know how long the façades in Leeuwarden and Nijmegen will exist in this form. "Big changes are made about every five years in the supermarket sector. For example, if Ahold decide to replace the façades, the bricks could be reused for housing projects. That's the beauty of ClickBrick as a building material: it has many lives. It lasts forever".



REINVENTING A VIBRANT SITE

The outer shell of the French L'Ampli youth centre building is just as dynamic as the activities taking place inside: unorthodox, animated and unmistakable.

he youth centre in the French commune of Fontenay-le-Fleury is named L'Ampli, meaning "the amplifier". As the name suggests, a great deal of energy flows through this place, particularly musical energy. Previously a school, the building has been repurposed to create a location for activities and events connected to the music centre. It incorporates a web radio station, a rehearsal and recording studio and a concert hall. To this end, the building was comprehensively renovated and gave a dynamic outer envelope. The extracurricular project for the youth of the town was initiated and advertised by the commune of Fontenay-le-Fleury. The architectural competition was

ultimately won by the firm Architectureo in collaboration with the architectural practice Hamadryade.

contrasts add excitement For the team of architects, the main objective of the task was to reinvent the former school and to turn it into a place that would be well received by young people. Initially, the renovations were not planned to be quite so extensive, but the task turned into a large project after all: only the walls of the main building were retained. Extra floors and an extension were added to create more space. The architects quickly decided on hand-moulded Terca terracotta bricks in matt black with a slight grey





The materials used to renovate the youth and music centre had to fulfil thermal, sustainability and visual requirements.



shade for the façades and Vauban tiles in black for the roof to create an interplay of contrasts between the materials. The cladding used on the main building creates clear lines while the textured surface adds interest to the look. "The rough, dynamic aspect of the Terca bricks and the option of combining them with both the black Vauban tiles and metal outer façade structure is fantastic", says architect Emilie Ouazi.

DIALOGUE BETWEEN REFLECTIONS In addition to the aesthetic qualities, Architectureo and Hamadryade also wanted to fulfil certain thermal requirements. In particular, they wanted to exceed the performance

stipulated by the RT2012 thermal insulation regulation. Minimal maintenance of the façade bricks and roof tiles was one of the deciding factors when selecting the materials: the rugged and authentic appearance of the ceramic construction materials will not be impaired for many years to come. The impression created by the combination of black bricks and tiles generates a dialogue. The mortar joints chosen by the design team produce a contrasting yet still homogeneous result. In this way, the former school was turned into a feel-good location for young people to let off steam, learn, jam and immerse themselves in music.

FACTS & FIGURES

Project name

L'Ampli, Fontenay-le-Fleury, France

Architecture

Agence Architectureo, Emilie Ouazi; Agence Hamadryade Architecture, Julien Dumont

Client

Commune of Fontenay-le-Fleury

Products used

Terca Agora black graphite, Koramic Vauban 2 Droite slate

Year of completion

2020

LIVING REPOSITORY OF KNOWLEDGE

How can a medieval townscape be developed and architecturally upgraded while retaining its character? In Rottenburg, Germany, this question is answered by a grey monolith.

bishop's palace on one side and medieval old town on the other. In between, a new five-storey building, grey and imposing, but still harmonising with the urban fabric. The team of architects at Harris + Kurrle Architekten from Stuttgart, Germany puzzled over this exceptional challenge. The towering municipal library was erected at a prominent urban location in Rottenburg am Neckar in 2017. The building replaced three badly dilapidat-

ed, medieval structures. It was intended to revive the town centre, create a social meeting point for the town's residents and fill the vacant site.

EARTHQUAKE-RESISTANT MASONRY This massive building made of thick, single-shell masonry complements the existing historical urban fabric discreetly and with a great depth of character. The appearance was not the only important aspect in this project. The

FACTS & FIGURES

Project name

Municipal library, Rottenburg am Neckar, Germany

Architecture

Harris + Kurrle Architekten BDA

Client

Town of Rottenburg am Neckar

Products used

Poroton S10-42,5-MiWo, Poroton system accessories

Year of completion

2017



The surfaces of the façade and roof in plaster render and copper blend in well with the existing building materials used in the old town. A large glass façade on the ground floor invites visitors into the library and café.

cracking", says project architect Vojtech Bast from Harris + Kurrle Architekten. The library windows are 2 by 2 metres in size. To alleviate the weakening of the structure caused by the large windows, they were framed with reinforced concrete bracing columns and clad with additional brick products from the Poroton system accessory range. This eliminated the need for additional components, such as insulation, which would have been visible in the façade. The rendered brickwork matches the typical building materials used in the town, but has been reinterpreted in terms of colour and texture with a brushed plaster finish.

AWARD-WINNING ARCHITECTURE This extraordinary urban development project has received several awards: the 2020 Baden-Wuerttemberg State Prize for Building Culture in the category Building for the community, the 2020 Otto Borst Prize for Urban Renewal and the German 2019 Brick Award. It has also garnered praised for its versatile functions beyond its use as a library and for the way in which it improves and merges harmoniously into the historic townscape. ■

town is located between the Swabian Jura mountains and the Black Forest in a region with a very high risk of earthquakes (seismic zone 3). Therefore, the design had to be extremely stable with well-proportioned interior spaces and a mass that is highly efficient in terms of structural analysis and construction physics. The energy-efficient design is primarily based on passive methods. It uses a highly insulated building envelope and a perfectly calculated ratio of windows with solar control glazing. Exposed concrete ceilings act as natural thermal masses.

MINIMISED RISK OF CRACKING The municipal library building was finally implemented as a solid brick structure made of Poroton S10-MiWo bricks with integrated mineral wool thermal insulation. "We searched for a long time to find a product that would meet all these demands. It was important to us to have a uniform plaster base with a minimised risk of





The chosen combination of brick and dark mortar allows the building to blend in harmoniously with the aesthetics of the adjacent older buildings.





STRIKING SLOPE

A social housing project on Falkoner Allé in Copenhagen, Denmark required a design that would fit in with the surrounding fin de siècle buildings in which no two bricks are alike.

FACTS & FIGURES

Project name

Social housing, Falkoner Allé, Copenhagen, Denmark

Architecture

Mangor & Nagel A/S

Client

Boligorganisationen AAB

Product used

Egernsund EW0466 Kobber

Year of completion

2019

The building plinth facing the street is embellished with patterned brickwork.



ow do you design a modern building to fit into a historic district? This was the question the architects at Mangor & Nagel from Copenhagen asked themselves when they began the design process for this very special building. The residential project, consisting of 14 family apartments, was to be built on the historic Falkoner Allé in Frederiksberg, Copenhagen, which is known for its classic fin de siècle residential buildings. The new building was intended to extend the existing terraced buildings, to fill the vacant site on the corner and yet still remain visually faithful to the historical ambience.

NOT UNNECESSARILY CONSPICUOUS This challenging building bridging the old and new has now been completed and has already won awards. In 2020, it was named one of the Architectural pearls of the year by the Danish daily newspaper Berlingske. The façade attracted special attention: the classic red brick and decorative relief details fit perfectly into the historic streetscape. The jury justified the award as follows: "This new and graceful building masters the rare art of being itself without being unnecessarily obtrusive. This should not really be a reason to write a news story, but that is how things are today: the current norm is the opposite, namely unnecessarily conspicuous buildings. The brick façade, tiled roof and subdued window frames that correspond to the adjacent buildings mean that one doesn't immediately realise that the building is new. But this initial assumption is belied by the asymmetrical structure and the postmodern roof pitch".

BRICKS WITH A SPECIAL PATINA The bricks were developed by the Danish brick manufacturer Egernsund Wienerberger and specially designed to harmonise with the façades of the existing brick buildings. In particular, the bricks used in this project were intended to mirror the bricks of the adjacent Church of the Deaf, which has been there since 1904. "It was crucial that the bricks resemble those of the church. And this was a special challenge because the church has stood there for over 100 years and has been marked by wind, weather and city life", says Janus Steenberg, architect and client advisor at Egernsund Wienerberger. For this reason, the architects chose a newly developed brick named Copper. It is characterised by a deep red colour and dark surface accentuated by natural pigments. "No two bricks are alike. The dark surface gives them a touch of patina so that they look like the 100-yearold bricks from the church next door", he explains.

FORM BLENDS INTO THE SURROUNDINGS The geometry of the building also reflects the architects' consideration of the surroundings. The building rises six floors from street level and is thus aligned with the adjacent properties. However, the roof drops down to the second floor towards the courtyard to come in line with Falkonergården, an old, one-story villa that has been repurposed as a kindergarten. "It would be too imposing if there was a five-storey difference in height between the new building and Falkonergården. The pitched roof balances out the difference and makes the transition harmonious", says Janus Steenberg, who is satisfied with the result. ■

The paving must withstand the heavy loads caused by visitor traffic and emergency vehicles yet still offer minimal rolling resistance for wheelchair users.



A COLOURFUL RECEPTION

The car park of the Balthasar Children's and Young People's Hospice in Olpe in the Sauerland region of Germany lets patients and visitors arrive in a positive atmosphere: the area is paved with colourful Penter pavers spread out like a brightly striped carpet in front of the building.

he remodelling of the grounds of the Balthasar Children's and Young People's Hospice is unconventional, which reflects the ethos of this special place. Landscape architect Doris Herrmann was commissioned to redesign the outdoor areas of the building in Olpe/Biggesee in North Rhine-Westphalia. It was built in 1998 as the first German children's hospice. "Many perceive hospices as sad places", she says, "but everything is completely different here". Despite the difficult circumstances, the atmosphere is cheerful. The focus lies on the happy moments that the families can experience together in the time that remains here.

A GARDEN TO DISCOVER This attitude is reflected in the outdoor facilities. Working in close collaboration with hospice management, Doris Herrmann developed a design that opened up the steeply sloping and previously barely usable garden grounds and expanded the communal areas. She used warm and natural materials such as wood and pavers, played with colours and shapes and introduced many creative ideas. The result is a welcoming garden with paths that meander through the grounds. Even the car park is unusual. The eye-catching surface paved with Penter pavers is reminiscent of a





Penter paving bricks in four shades: the colourful stripes fit together perfectly in a cheerful and varied pattern. The windmill in front of the entrance forms the logo of the Children's and Young People's Hospice.

colourful carpet and puts the visitors in a positive mood. "I wanted to make it easier for the children when they arrive. They should immediately have the sense that they feel happy here", explains the landscape architect.

COLOUR SCHEME FROM THE LANDSCAPE Doris Herrmann chose the pavers both for their warm appearance and for the ability of the natural material to store and release heat. Doris Herrmann combined stripes of Eros tumbled, Triton tumbled, Siena and Märkish pavers from the German and Dutch

Penter range. The stripes are of varying widths and have lively colour transitions from grey to bright yellow tones. Laying more than 2300 m² of pavers posed a special challenge. The different thicknesses of the paving variants were compensated using the base layer to create a level surface in the car park. The surface also had to be able to withstand the loads of visitor traffic and emergency vehicles. Furthermore, the hospice management wanted the surface to be butt-jointed to minimise rolling resistance for wheelchair users.

CHALLENGE OF A BUTT-JOINTED FINISH When using a butt-joint laying method of this kind, the absence of joints can lead to unsightly spalling when the paving is subjected to heavy loads – a conundrum that was not easy to resolve. Initially, as expected, spalling did occur in one or two areas, but this did not spoil the look of the tumbled or Siena pavers. Only the Märkish pavers, with their classic linear form, were finally removed and re-laid with joints. This is also easy to do with pavers: they are almost indestructible and can, therefore, be reused even after decades of use. ■

FACTS & FIGURES

Project name

Balthasar Children's and Young People's Hospice, Olpe, Germany

Architecture

LandschaftsarchitekturBuero, Doris Herrmann

Client

Gemeinnützige Gesellschaft der Franziskanerinnen zu Olpe mbH (GFO)

Products used

Penter pavers – Eros tumbled in black nuanced, Triton tumbled in grey nuanced, Siena WF and DF in sand yellow and Märkish in yellow nuanced

Year of completion 2017

A GATEWAY TO THE PRESENT

From baroque façades through a gateway to the modern day: a historic square in Osijek, Croatia has been revitalised with an extraordinary brick pavilion.

ntil 2013, Vatroslav Lisinski Square in Osijek, Croatia was an undeveloped open space used as an informal car park even though the square and its surroundings had great potential. The site is part of the Osijek Tvrđa, an 18th-century baroque citadel. For this reason, the Tvrđa Renovation Agency set itself the task of upgrading the square and announced a restoration competition. The most important factor in defining the concept for the renovation of the square was to create a space that conveyed an image and an identity to the outside world combined with a new and individual architectural quality.

MULTIFUNCTIONAL PAVERS The design entered by the Tim d.o.o. studio from Zagreb ultimately won the competition. The creative concept involved connecting the different levels of the square with multifunctional and carefully conceived elements. The most exciting element is a modern pavilion, whose shape defines one of the four sides of the square and creates a gateway. With this pavilion, the designers have created a special landmark by making innovative use of Penter pavers in red and blue: not only for the paving the floor, but also for cladding all the other surfaces of the gateway. "Planning and designing a contemporary square with modern materials in the historical, baroque heart of the Osijek Tvrđa was a great challenge", says Željko Andraši, director of the Tvrđa Renovation Agency in Osijek, which is also the project client. However, it was made possible by using multifunctional and visually attractive pavers.

ELEGANT MEETING POINT The lower level of the square was finished in Semmelrock La Linia Grande concrete pavers. The large format and clear lines blend elegantly into the ambience. The jury came to the conclusion that the size, dimensions and material of

FACTS & FIGURES

Project name

Vatroslav Lisinski Square, Osijek, Croatia

Architecture

Tim studio d.o.o.

Client

Tvrđa Renovation Agency in Osijek

Products used

Semmelrock La Linia Grande, Penter Rotblaubunt

Year of completion

2019

the proposed paving did not conflict with the historical atmosphere of the square and the citadel. The combination of innovative concrete paving stones with multifunctional pavers succeeded in transforming the previously undeveloped open space into an attractive square and a popular meeting place. "I am completely satisfied with the appearance of the square", says Andraši. "Above all, the modern materials used counterpoint the surrounding baroque façades and create an unobtrusive, contemporary open air venue".



Transformed from an informal car park into an elegant meeting place: the project showed how it was possible to modernise and revitalise Vatroslav Lisinski Square.







LIVING IN A CANDY FACTORY

Instead of confectionery, dream homes are now being produced in an old factory in Tallinn, Estonia. The modern three-part residential complex is an innovative mix of historic and new buildings.

FACTS & FIGURES

Project name

Klausson Candy Factory, Tallinn, Estonia

Architecture

Architectural agency Luhse ja Tuhal, Ra Luhse

Client

Endover Real Estate

Product used

Pottelberg 301, anthracite engobe

Year of completion

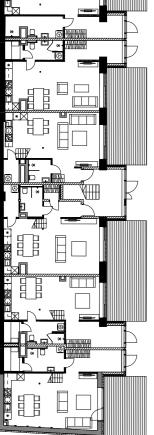
2020

The existing stock of two high-quality buildings was mapped and renovated; one old Soviet-era building was replaced by a new building.

ccording to architect Ra Luhse from the Luhse ja Tuhal architectural practice, the very idea of living in a candy factory was so appealing that he was determined that his team would be the one to design this extraordinary project. It is a residential complex on the premises of the old Klausson candy factory in the Estonian capital of Tallinn. During this refurbishment project, two old factory buildings were redesigned, a new three-storey building was built and a private courtyard was created.

FROM INDUSTRIAL BUILDING TO LIVING SPACE The site of Rudolf Klausson's confectionery factory, founded in 1920, is one of the oldest inhabited areas in Tallinn. The original boiler house, brick chimney and limestone buildings lining the street have been preserved. Until 2017, the factory was used by various companies for producing confectionery. The property was eventually bought by Endover, a property developer specialising in converting industrial period buildings into modern living spaces. By this stage, the building was in very poor condition. Some extensions from the Soviet era had to be demolished due to poor quality, while valuable old >







The team of architects came up with clever solutions for the interiors to compensate for the differences between typical residential structures and a factory building.



The former candy factory has been turned into a familyfriendly residential complex.



The new, three-storey residential building with anthracite-coloured brick façades and roof in the same colour harmonises perfectly with the renovated factory buildings.

> parts were carefully restored. "The details of the wooden structure were restored with great effort. In this way, we created very special living spaces", recalls architect Ra Luhse.

ATYPICAL SOLUTIONS Due to their former use as a factory, the buildings feature high ceilings and large,

irregular rooms. "This presented us with the exciting challenge of finding atypical design solutions", says Ra Luhse. For instance, they designed loft apartments spanning two floors and huge glass panels that direct light into the core of the building. "The old limestone walls that hold the historical value of the building were exposed as much as possible in the interiors". The roof and façades of the new building were constructed using the ceramic roof tile Pottelberg 301 in anthracite engobe. Combining the old fabric of the buildings with new, natural tiles has retained the antique flair of the factory and upgraded the quality of the living space. The planted inner courtyard and an underground car park provide the necessary infrastructure and harmoniously connect all the buildings together. ■



The reserved elegance, straight lines and semi-matt, anthracite engobe tone of the roof tile model chosen for Havienne, underscores the unusual roof architecture of this project.

DREAM HOMES IN A LISTED BUILDING BY THE DANUBE

The former Tegetthoff naval barracks in Vienna, Austria radiates new splendour almost 90 years after its construction. Residents now live luxuriously under the lavishly renovated tiled roof of this listed building.

FACTS & FIGURES

Project name

Havienne, Vienna, Austria

Architecture

the I sopht I loft, Doris Kutscher & Rita Reisinger-Schöbel

Client

PBE Tegetthoff Projektentwicklung GmbH

Product used

Tondach engobe roof tile in anthracite black

Year of completion 2018

avienne is a real eye-catcher whether you pass by it on bike, train or boat. The complex housing 20 luxury apartments in the 19th district of Vienna deservedly won the 2018 FIABCI Prix d'Excellence Austria award in the Heritage category. The building is certainly old, but you wouldn't know to look at it. It was built in 1930 as the Tegetthoff naval barracks directly on the banks of the Danube. Architect and co-owner Rita Reisinger-Schöbel and architect Doris Kutscher from the | sopht | loft in Vienna took on the project. They transformed the 3400-m²

property into dream homes. The old building now contains spacious apartments and penthouse apartments with ceilings up to 6 m high and two new bungalows were also added.

HARMONISED COLOUR SCHEME This extraordinary renovation project required the highest standards. "Only the highest quality materials were considered for these luxury units", says architect Rita Reisinger-Schöbel. "We opted for Tondach tiles in anthracite engobe for the 1700-m² roof area", she adds. Be-



The roof tiles have roughened upper surfaces. They are laid in a double-lap pattern, making them one of the highest-quality and most weatherproof types of roofing.



forehand, it was an undeveloped attic space roofed with natural clay tiles. "In consultation with the Federal Monuments Authority Austria (BDA), we quickly decided in favour of these roof tiles due to their colour. They look fantastic and the building material is both high in quality and durable", says architect Doris Kutscher. "No other material came into question for this purpose".

COMPLEX STRUCTURE As the former naval barracks is a listed building, the BDA applied strict rules, particularly for the reconstruction of the roof area. The old roof structure, which rested on massive concrete supports for many years, had to be removed. The new substructure consists of a steel primary framework with a wooden secondary structure. The result is a classic lightweight structure on which the 19-by-40-cm tiles are mounted. "We had to adhere strictly to the existing shape of the roof and were not allowed to make it even one millimetre higher or wider. The basic requirement of the monument authority was that the form of the roof had to remain visible even during construction", says Reisinger-Schöbel.



This was also a very unusual project at other levels. "We started by installing flood protection, which we had to reconcile with the building's preservation order. In addition, we have changed the function of the building and created new floor plans. We have never built a roof of this size before", says Kutscher. "A lot of exciting aspects came together in this project". ■

AN ORIGINAL IN A NEW GUISE

It was actually slated for demolition, but it was impossible to imagine The Hague's skyline without this triangular tower. The yellow fellow has now been brought back to life with sophisticated renovation and expansion plans.

wenty storeys high with a triangular floor plan and a facade made of pale vellow glazed bricks: built in 1967, the Toren van Oud is a distinctive feature of The Hague's skyline. This slim tower on the Dutch coast stands amongst congress centres, museums, office buildings and public green spaces and shapes the urban landscape. It originally served as accommodation for conference visitors and also concealed the chimneys of the conference centre's own power station. However, over the years, successive owners found it difficult to find uses for the tower and it was finally earmarked for demolition. In 2013, the building owner Do Tetteroo took on the project with a design team and developed a viable utilisation plan, not least to keep the skyline made famous by so many postcards unchanged.

NEW FLOOR PLAN, TRADITIONAL PROPORTIONS The vellow tower was finished in 2020. Part of it houses fully furnished, short-let apartments and another part is home to service providers. Two extra stories were added and now serve as penthouse apartments with fantastic views. "We built a completely new, load-bearing façade around the existing building", explains Do Tetteroo. "The characteristic yellow pattern of the façade was retained: horizontal stripes of glazed brick alternating with strips of windows in slim metal frames". The colours are based on the Hague variant developed by architect Bob Oud on the basis of De Stijl primary colours: the blue of the sea and the yellow of the dunes translated into glazed bricks. "The combination of materials is very special: metal, concrete and glazed bricks", says the architect responsible for the refurbished building, Dennis Hofman.

SEARCHING FOR THE ORIGINAL It was important for the design team to keep the original look. "The tower is not a monument", says Tetteroo, "but if you want to preserve the look, the original condition of the building is the best starting point". The original parapets



The original bricks were simple, red bricks with a pale yellow glaze applied subsequently. The new bricks are themselves yellow, but have the same texture and colour glaze as the originals.

proved to be invaluable when searching for a new facing brick. However, a great deal of research was required to find out about the masonry bond, brick formats and raw materials previously used, as well as the original colouring. The original façade bricks were simple, red bricks with a pale yellow glaze applied subsequently. Brand-new yellow bricks, sawn into strips are now used. The surface has the same rugged texture as the original hand-finished bricks and exactly the same colour glaze: a soft, shiny yellow. "I'm very satisfied", says Do Tetteroo. "Our many hours of research produced a wonderful result. Numerous people have put a huge amount of effort into this project and it is clearly visible in the end result".

FACTS & FIGURES

Project name

Toren van Oud, The Hague, The Netherlands

Architecture

Bos Hofman Architektenkombinatie, Dennis Hofman and Archipelontwerpers, Eric Vreedenburgh

Clients

Euraco Vastgoed + Westend, Do Tetteroo

Product used

Glazed facing bricks, custom-made

Year of completion

2020



