

#14

International Magazine
for Brick Architecture

2014/15 www.architectum.com

architectum





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HEAD OF INTERNATIONAL
PRODUCT MANAGEMENT
CLAY BUILDING ENVELOPE
AND LANDSCAPING
SOLUTIONS

EDITORIAL

Dear Reader,

Do you know that feeling when you expect something specific and you are surprised, when it turns out to be different from what you envisaged? That's what happens to many people when it comes to brick. They expect solid and safe buildings, which are stable, durable and nice to look at. There is hardly anyone who thinks brick is unlikeable. However, when thinking of brick do you also think of innovation, energy efficiency or modern architecture? Even we, as people dealing with ceramic building materials on a daily basis, are often surprised with the modern, forward-thinking and versatile ways architects and companies use brick today. Brick has developed from being a traditional, plain building material into an innovative, modern and adaptable material providing solutions for the entire building envelope. It's not for nothing that our slogan is "Building Material Solutions".

In the current issue, we present several exceptionally beautiful projects, which will also amaze you. Did you know that an office building in Austria completely does without any heating and cooling? Or are you aware that the brick façade of a residential building in Paris is self-cleaning? Be impressed by well-ventilated façades, delicate structures and poetic walls. And be forewarned that you will get to see more facets of this natural building material than usual. That's because we have broadened our perspective and feature all possible applications of brick – both on the roof as well as on walls and façades.

I hope you enjoy this issue as much as I did and I wish you a pleasant and inspiring read.

Franz Kolnerberger

IMPRINT

EDITOR Wienerberger AG, 1100 Wien **PUBLISHING HOUSE** Austriaischer Wirtschaftsverlag GmbH, 1050 Wien **CHIEF EDITORSHIP** Christine Müller (Austriaischer Wirtschaftsverlag), Rita Kremsner (Wienerberger AG) **CO-OPERATION** Ruth Scheuer (AT), Sabine Merlevede (BE), Arnaud Mounier-Duchamp (FR), Alexa Uplegger (DE), Carmen Kommer (DE), Jolanda Stam (NL), Sabine Heinrich-Renz (DE), Nicky Webb (UK), Laura Coyne (UK), Sabine Linner (AT), Norbert Prommer (AT) **PHOTOGRAPHS** Architectur Steinbacher Thierlicher ZT GmbH (36–37), Ruud Peijnenburg (8–9), Guenter Standl (10–11), Marko Huttunen (10–13), Andrew Smith/SG Photography (14–15), Ruud Peijnenburg (20–21, 34–35), Christian Richters (22–25), Norbert Prommer (26–27), Frank Korte (28–29) **GRAPHICS AND DESIGN** Simon Jappel (Austriaischer Wirtschaftsverlag) **PRINTING** Stiepan & Partner Druck GmbH, Hirtenbergerstraße 31, 2544 Leobersdorf **PRODUCTION** Ueberreuter Druckzentrum GmbH

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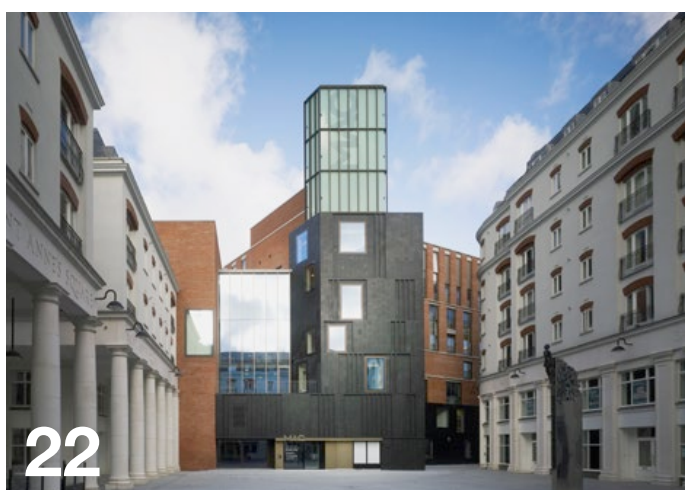
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THE (BRICK) BUILDING OF THE FUTURE**
Sustainable construction with bricks



The Plano 11 clay roof tile opens up new creative possibilities.

GERMANY

PLANO: MINIMALIST ON THE ROOF

Straight, plain and elegant – when it comes to roof claddings, architects and planners rely on a clear design vocabulary and dark shades. The product segment of Koramic roof solutions by Wienerberger has consistently developed these trends with the seemingly minimalist flat tile, Plano 11. The modern clay roof tile combines aesthetics and economic efficiency and also opens up new paths for creativity. Plano 11 is an ideal roofing solution for contemporary, architecture of new buildings as well as for properties undergoing refurbishment; it is produced with full and half verge tiles. This minimalist tile is available in a modern colour range: natural red, red engobe, slate grey and black as well as special engobe anthracite.

www.wienerberger.de



The new Cassia series by Terca.

BELGIUM

CASSIA: EXPRESSIVE AND UNMISTAKABLE

The surprising feature of the Cassia series is the ease with which this extra-long brick (size: 495 x 95 x 48 mm) changes its appearance. This feature is a result of the special surface structure, which is smooth on one side and shows long cracks on the other. The alternation between smooth and cracked sides generates an unmistakable and individual look on the façade. The intensity can be varied with the frequency and regularity of alternating the two sides. Cassia is available in four shades: red, brown, shadow, and braised.

www.wienerberger.be



Bellus is a Belgian plain tile lending the roof an attractive and contemporary look.

BELGIUM

BELLUS: SLIM DESIGN, LIGHTWEIGHT, COLOURFAST

The new Bellus plain tile by Wienerberger is currently the lightest and slimmest roof tile available on the Belgian market. It can replace old slates and roof tiles and is also perfectly suited for new buildings. Its slim, modern shape lends every roof an attractive, contemporary look. Bellus has the appearance of a slate tile made of clay. Ceramic accessories guarantee a neat finish and a level of detail that harmoniously complements the architecture. The ridge is available in two opening angles suitable for roof slopes from 30° to 50°. The perfectly interwoven verge slates neatly dovetail with the roof surface.

www.wienerberger.be



The clear characteristics of bright stars were translated into a new range of facing brick: the Astro series – six high quality hand-shaped bricks.

NETHERLANDS

ASTRO: WITH ASTRO THE FAÇADE IS THE STAR

Astro stands for six kinds of brick with vibrant, fresh colour nuances, which are baked on a bright basis and enriched in the same way on all sides, also on the ends. This production method results in a sequence of shades ranging from (semi) matte to glossy, depending on the amount of added 'stardust'. Owing to the identical texture and the overlapping basic colours, 'the six' can be easily combined, and each kind also creates a shining result by itself. For façades with multiple accentuations and individual expression.

www.wienerberger.nl



The domed shape combines the traditional construction of vaults with modern digital tools for the creation of a complex shape. Image: Manuel de Lozar, Paula López Barba

SPECTACULAR FESTIVAL PAVILION

Map 13 recently completed construction works on Bricktopia – a spectacular domed pavilion next to Barcelona's 'Fabra i Coats' art space. The brick pavilion is located on the site of an old spinning mill and designed to serve as an events space that also provides shelter from the strong sun. The undulating form was constructed for the Eme3 International Architecture Festival, which took place earlier this year.

Bricktopia's materiality reflects the industrial nature of the courtyard and the nearby nineteenth century factory. The vaulted pavilion is an economical, functional and versatile form that is indigenous to Catalonia. Its complex shape required an impressive amount of craftsmanship to build, which brings up an interesting connection to the mechanised facilities that surround it.

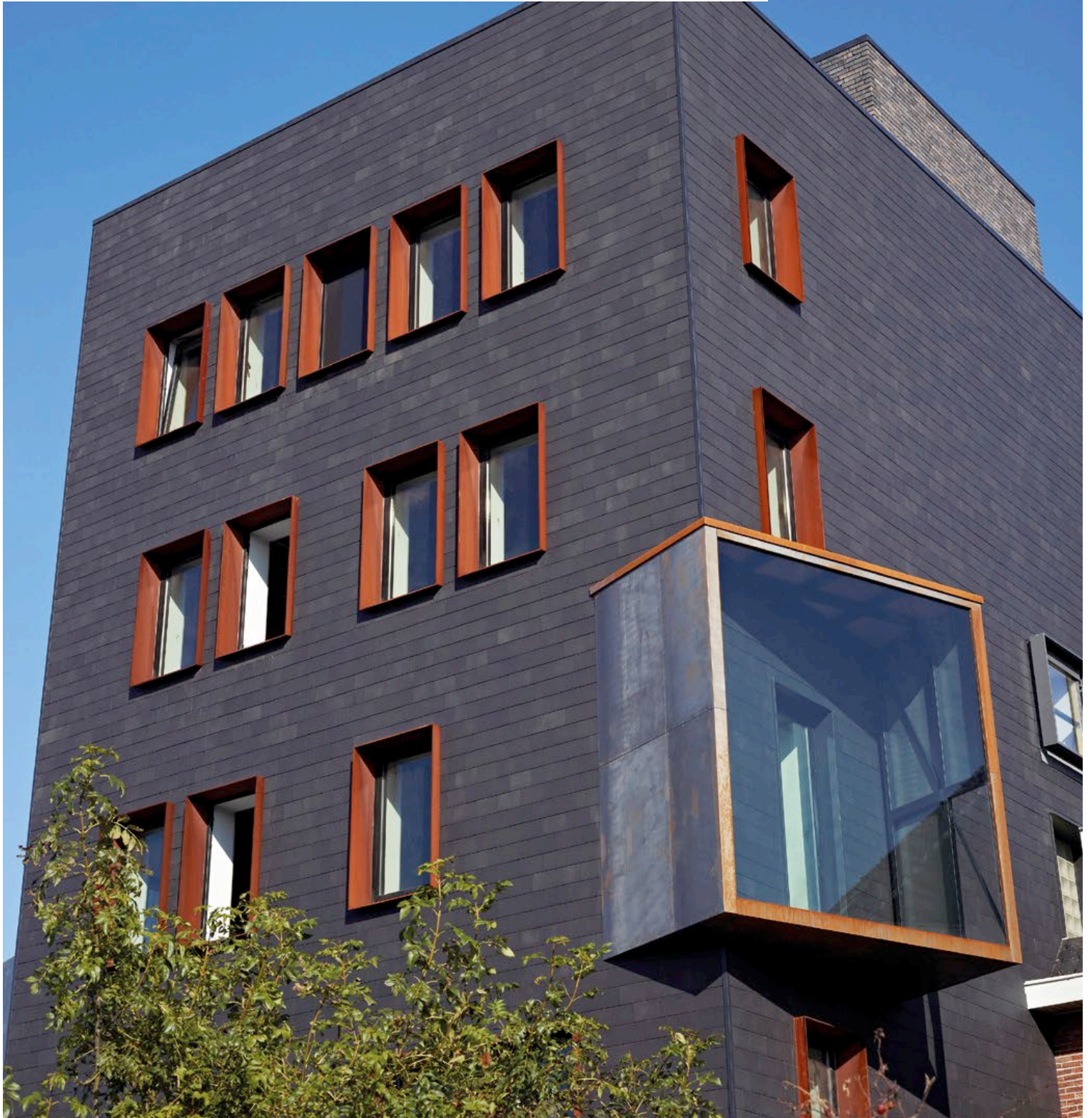
Designed using advanced digital tools, a series of research was conducted beforehand to explore material traditions and combine them with the construction knowledge of tile vaulting. The pavilion was developed in an enclosed area of a nineteenth-century factory, also uses brick as a building material and shapes a new topography in the old courtyard. Providing an open space for outdoor activities during the hot summer in Barcelona, the structure contains areas for a bar, a small stage and places to relax.

www.eme3.org



OLD TOWER WITH A NEW LOOK

THE FORMER CUSTOMS TOWER AT THE LOCK BETWEEN THE BRUGES RINGVAART AND THE BOUDEWIJN CANAL HAS BEEN BEAUTIFULLY REFURBISHED AND CONVERTED INTO A NOTARY'S OFFICE WITH AN EXTRAVAGANT CLAY TILE.



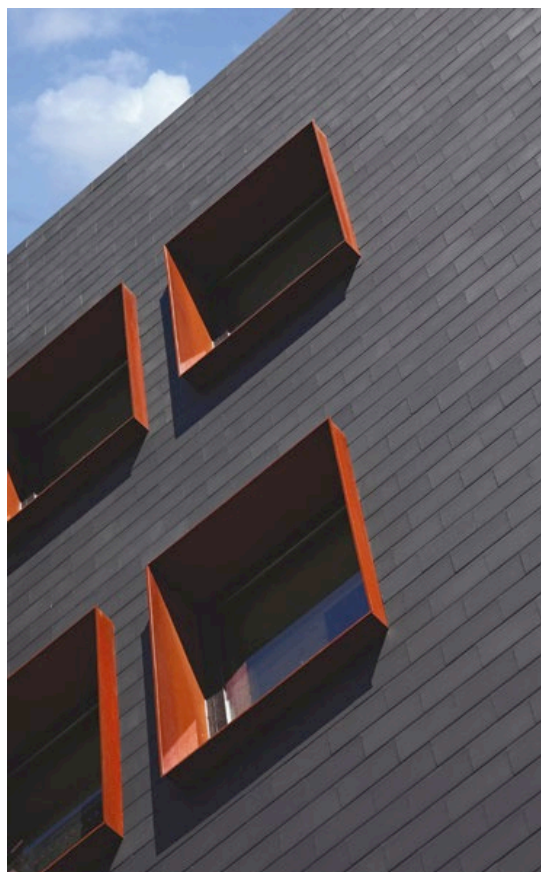
The five storeys of the tower were exposed right down to the inner cavity leaf, to which a continuous polyurethane insulation on a wooden supporting structure was attached. The windows in the existing wall openings, the rhythm of which varies per storey, were maintained and complemented with two extra cubes filled out with enamelled sheets of glass.

AESTHETIC CLAY TILE WITH 'INDUSTRIAL DESIGN' The numerous windows required an external wall finishing in a small and thus more economic format. The slate-coloured 'Koramic Façatile' clay tile with its flat shape was a perfect choice. The sustainable ceramic material fits in with the industrial environment and gives the notary's office an extravagant style. The colour of the tiles harmonises with the adjacent building and strengthens the buildings character. Additionally, the aluminium profiles from the Façatile product range provide for corners at perfect right angles. The invisible flashing behind the clay tiles guarantees impermeable windproof sealing. A cavity with an anti-vermin net at the bottom creates a constant air flow in the cavity. The window frames of the 68 windows have been fashioned in Corten Steel. The main entrance to the notary's office is indicated by a large glass section. The tower also has two new extensions with garages and carport located behind, constructed in a combination of load-bearing brickwork and concrete walls, and mostly finished off with the lively 'Terca Hectic Gesmoord' facing brick. This brick owes its richly nuanced character and its irregular pattern to a second firing. As if a container has been pushed into the building, a generous cube made of Corten Steel and glass acts as special eye-catcher and attracts peoples attention even from a distance.

WORKING IN COMFORT The open-plan office above the garages and the carport is generously flooded with daylight thanks to the double curtain wall. The fifteen metre high tower offers a stunning panorama of Bruges and Zeebrugge. Internally, the structural steelwork dating from the 1950s was completely modified. Only the existing staircase was preserved.

On the two upper levels, the original concrete U-shaped arches remained visible. The building is fitted out with under-floor heating fed by a natural gas condensing boiler. The notary's office is air-conditioned using a ventilation system with heat recovery.

With the 'Notariaat aan de Sluis' and its distinctive façade covered in clay tiles, architect Filip Verbeke provided a valuable stimulus breathing new architectural life into this rather neglected neighbourhood.



The façade with sustainable Façatile clay tiles blends in with the industrial environment; from an aesthetic point of view, this tile gives the notary's office an extravagant appearance.

INFO

PROJECT
Notary's office in Bruges

CLIENT
Notariat Blontrock, Bruges

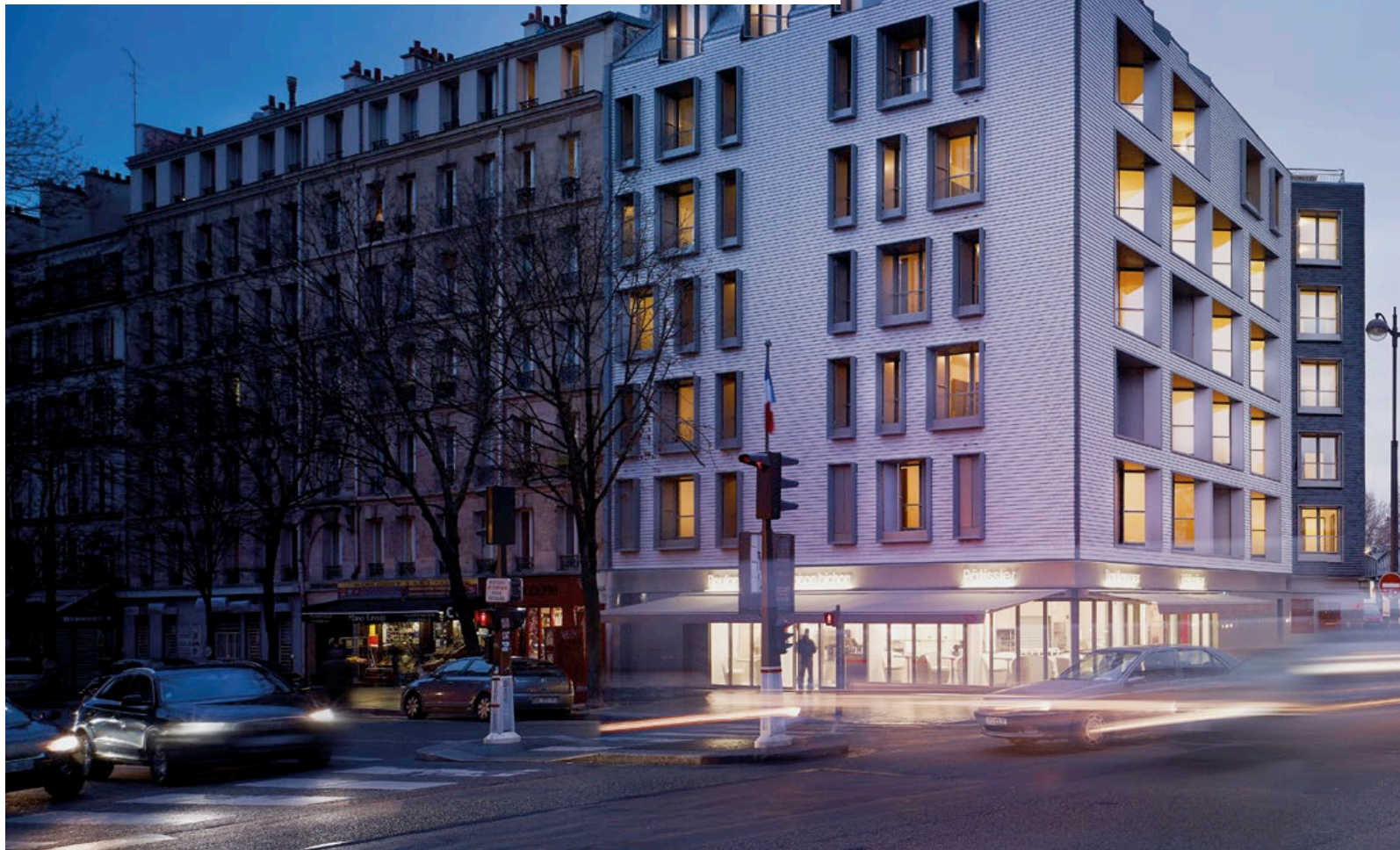
ARCHITECT
ARFIVE, Filip Verbeke, Oostkamp

USED MATERIAL
Koramic Façatile slate engobe

COMPLETION
2013

HOUSE WITH A NEW LIVERY

THE INTERPLAY OF URBAN-STYLE AND SUSTAINABILITY HAS ALWAYS INSPIRED THE CREATIVE PARTNERS OF FRESH ARCHITECTURES. THAT IS WHY THEY CHOSE THE KORAMIC® TILE BY WIENERBERGER AS NEW LIVERY FOR THE INNOVATIVE MULTI-FAMILY HOUSE IN PARIS.

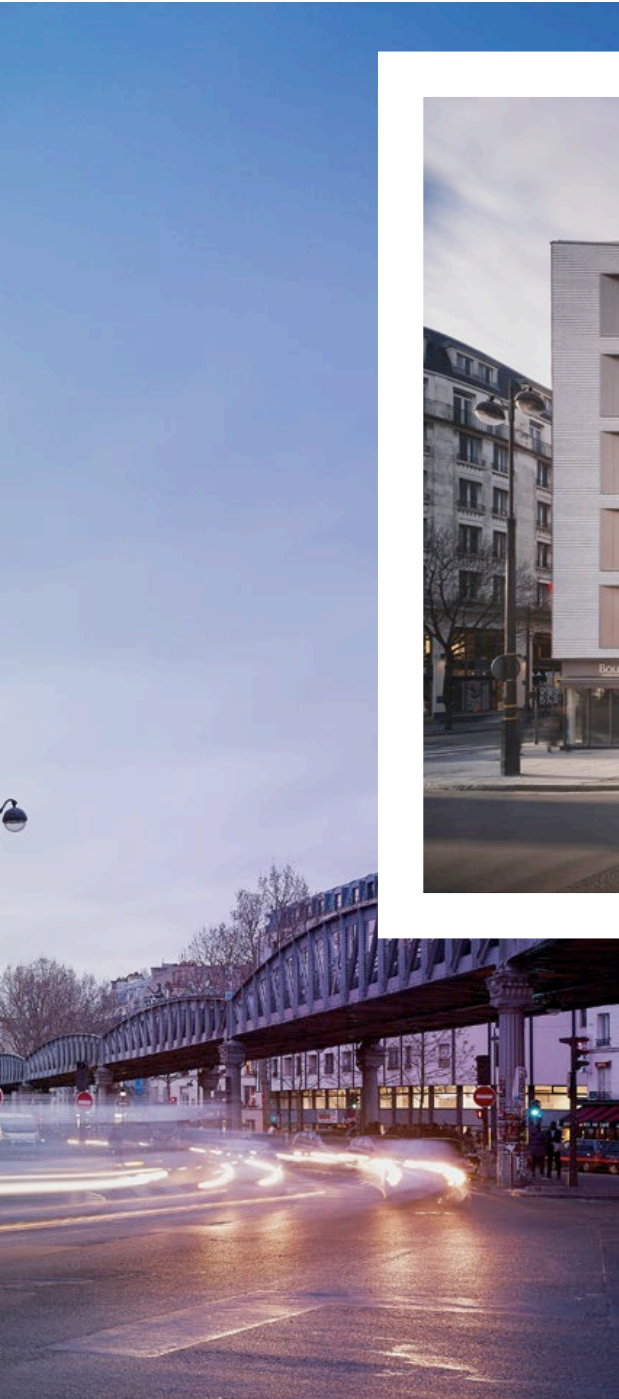


The building with 16 apartments on Place Stalingrad, at the corner of Rue du Faubourg Saint-Martin and Boulevard de la Villette, is situated in a prominent location – pedestrians, road traffic and elevated railway provide for permanent movement in the lively district. The challenge was to harmoniously blend the building with the dynamics of the location, whilst providing maximum protection for the internal areas against the hectic external environment.

QUIET AMIDST THE HUSTLE AND BUSTLE The multifaceted geometry of the house and the freely distributed window openings ensure a balanced appearance. Arranging the apartments on both

sides, with those on the south side opening up towards a calm and green island, offers the residents a niche of peaceful quiet amidst a continuously active environment. The elaborate constructive form makes it possible to protect the privacy of the occupants without taking light from them.

IN A SHIMMERING BRICK LIVERY From the roof down to the façade, the building's 'skin' is made of plain, enamelled, white Koramic 301 tiles, which give the building the character of a bright and simultaneously protective niche in the pulsating environment of a big city. Julien Rousseau, managing partner of Fresh Architectures, explains the reasons for choosing the Koramic® tile: 'In addition to its



advantages in terms of quality and sustainability, this glazed tile cleans itself from dirt deposits and lets the façade appear like a compact and integral whole. Its broad range of colours allows for a nuanced colored mixture giving the external envelope a pleasant shimmer – both during the day and at night when the lights of the city are reflected on the façade.'

SUSTAINABILITY PAR EXCELLENCE With the exterior cladding being optimised according to the French BBC standards, the Koramic® tiles are connected to a sub-roof cladding to improve the waterproofing and thus contribute to the longevity of the building. The low-energy construction testifies the high demands on sustainability and innovation.

A central network of renewable heat, controlled mechanical ventilation, partly solar-heated sanitary water, rain water recovery for watering the garden and many more are attributes of this exemplary sustainability project.

INFO

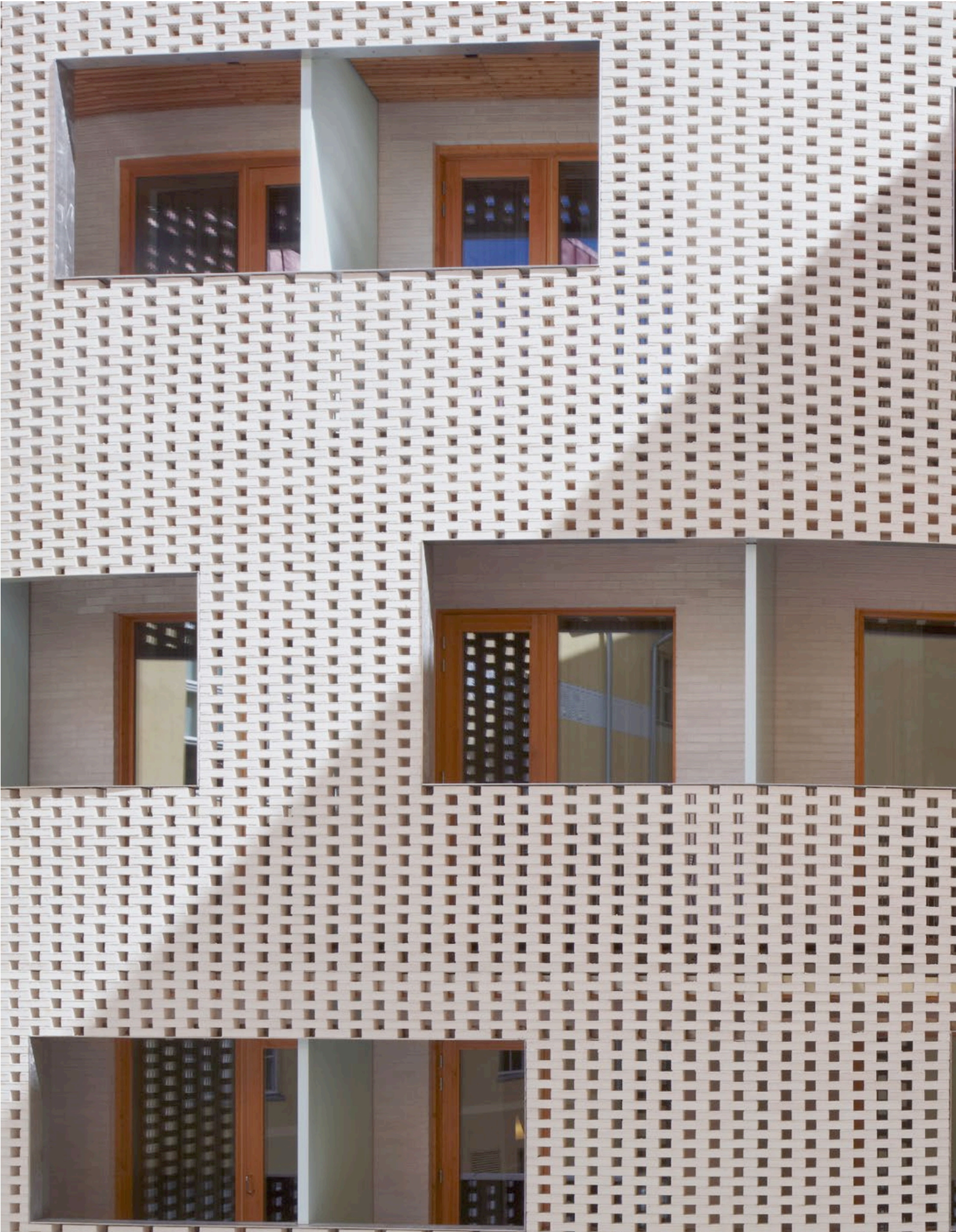
PROJECT
Multi-family house in Paris

CLIENT
SIEMP, Paris

ARCHITECT
FRESH ARCHITECTURES, Paris

USED MATERIAL
Koramic 301 flat tile, 6 shades
(2 dark, 1 ruby-coloured, 3 different white enamelled)

COMPLETION
2013





TRUE QUICK-CHANGE ARTIST

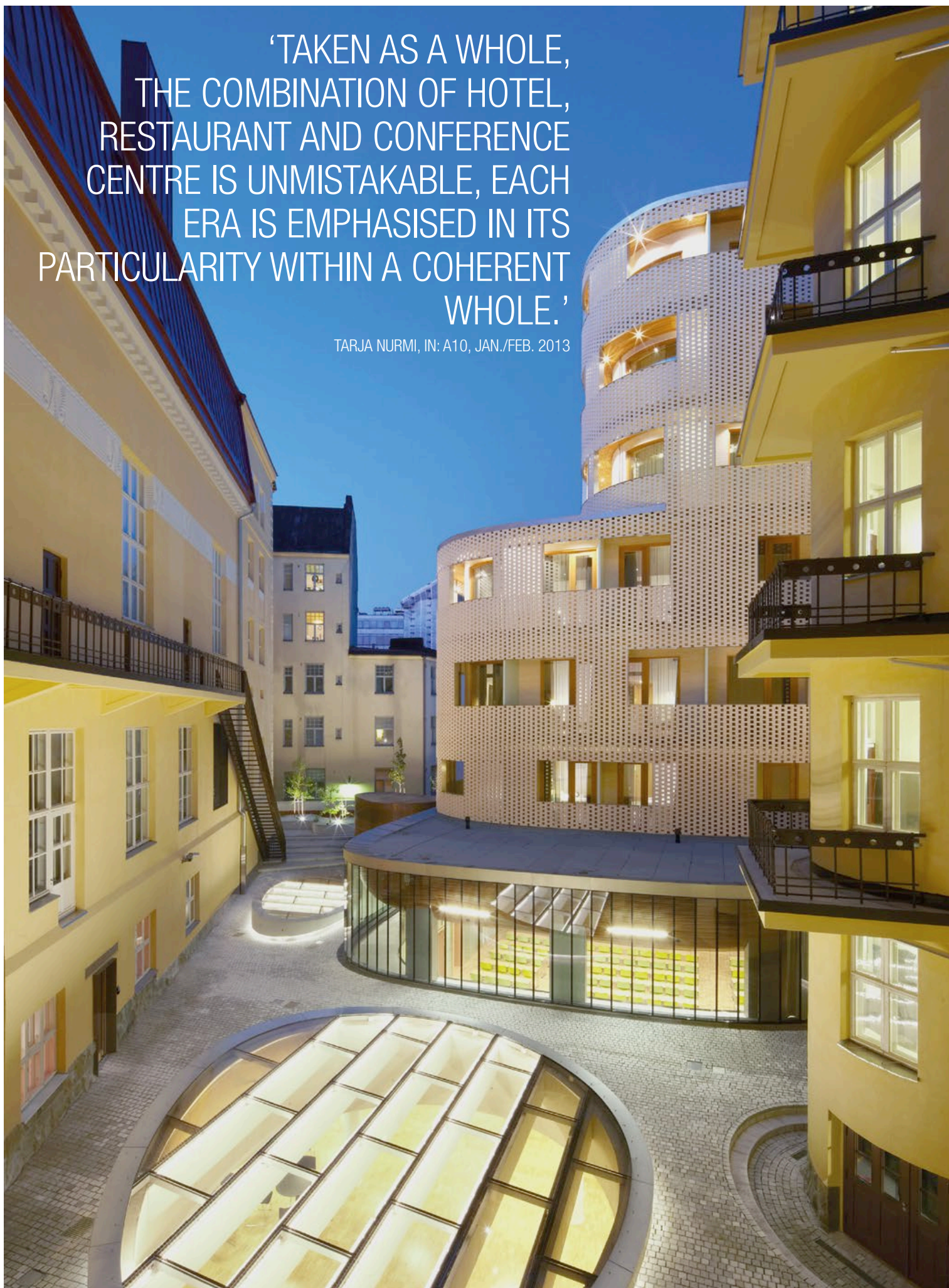
THE CONVERTED AND EXTENDED PAASITORNI HOTEL AND CONFERENCE CENTRE WAS ORIGINALLY BUILT FOR THE LABOUR MOVEMENT. IT NOW APPEARS IN THE SURPRISING LOOK OF A DELICATE LACY GARMENT.

'THIS IS CONTEMPORARY ARCHITECTURE AT ITS BEST; SURPRISING, MULTIFACETED AND YET MAINTAINING A MYSTERIOUS ELEMENT.'

PENTTI KAREOJA, IN: ARK 5/2012

‘TAKEN AS A WHOLE,
THE COMBINATION OF HOTEL,
RESTAURANT AND CONFERENCE
CENTRE IS UNMISTAKABLE, EACH
ERA IS EMPHASISED IN ITS
PARTICULARITY WITHIN A COHERENT
WHOLE.’

TARJA NURMI, IN: A10, JAN./FEB. 2013





The custom-made brick matches the historic context. It has a fresh, new appearance.

When an ensemble consisting of buildings dating from various eras is extended to another house, you may ask yourself: “Will this turn out to be a hotchpotch of styles. Or will the annexe succeed to do justice to the historic context – without having to hide behind it.” The new architectural complex reminded the Finish ‘ark’ magazine of Woody Allen’s Leonard Zelig: as if the ensemble had the ability to change its identity depending on the perspective without abandoning its individual character.

Completed by Karl Lindahl in 1908 with a solid granite façade, the building with U-shaped extensions now uses the inner courtyard for the gently curved annexe. When viewed from the street, only a few subtle details indicate that something has changed. The 1950s office building makes a welcoming gesture with its new glass façade and the reception, lobby and bar located behind.

PLAY OF LIGHT AND EMBROIDERY The remarkable transformation only comes in to view in the rear area of the courtyard. Large ‘light ponds’ have been embedded in the paving of the entire site and provide natural light for the foyer in front of the conference rooms on the underground level. The

façade of the annexe is made of ivory-coloured bricks resembling over-sized embroidery with its pattern shielding windows and even balconies, a rather exceptional feature for an inner-city hotel. The open-work enclosure acts like a filter in front of the solid exterior wall; it projects a varied play of light into the rooms. At night, it shines like a lantern. Loggia-like openings interrupt the ‘laced’ brick façade. The white perforated brick with distinctive holes was specifically developed for this particular purpose. The oval holes on both ends allow tolerances for the steel supports used to connect the bricks and strengthen the wall. Most houses in the surroundings are built of brick. ‘We could feel it’, the architects say, ‘this brick was exactly the right durable material for the new wing. We have chosen the colour and texture to merge the brick with the neighbouring buildings.’

ROOMS WITH INDIVIDUAL CHARACTER All building sections accommodate hotel rooms, which with their individual design help to generate various atmospheres. That way, the existing historic building is respected, whilst simultaneously implementing contemporary architecture. This combination results in a congenial and exciting whole.

INFO

PROJECT

Paasitorni Hotel and Conference Centre, Helsinki

CLIENT

HWA Helsinki Workers Union, Jorma Bergholm

ARCHITECT

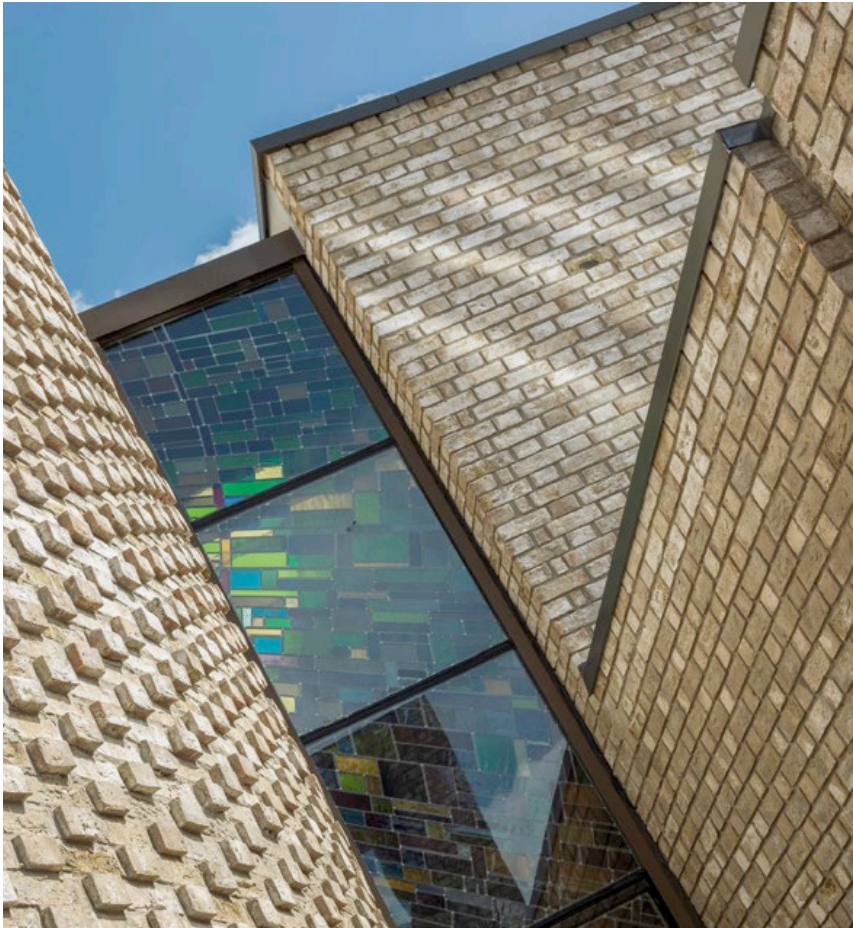
K2S Architects, Helsinki

USED MATERIAL

Tuohi Retro, modified special brick

COMPLETION

2012





MONASTERY WITH HEAVENLY QUALITIES

THE UNIQUE ARCHITECTURAL DESIGN OF THE CARMELITE MONASTERY IN LIVERPOOL HAS CAPTURED THE IMAGINATION OF MANY ARCHITECTS ACROSS GREAT BRITAIN. INDEED, SO MUCH SO, THAT THE PROJECT WAS AWARDED THE ARCHITECT'S CHOICE AWARD AT THE 2013 BRICK DEVELOPMENT AWARDS (BDA).

The elaborate brickwork itself embodies a sense of timelessness, tradition and calmness and is thus in keeping with the monastic way of life. With the monastery being located in a traditional village, the use of a singular material also serves to ensure the building appears as an entity and expresses a sense of community appropriate to the area

VERSATILE BRICK It was a fundamental requirement for the architects, Austin-Smith Lord, to very carefully adapt the brickwork to the planning. Wienerberger's Con Mosso brick was chosen for its soft and textured surface, which makes it equally suitable for internal as well as external use. As such, the brick was used internally most notably within the chapel and the cloister. On the façade, the appearance subtly changes according to the time of day and weather conditions; the changing shape of the shadows deliberately exudes a sense of calmness and tranquillity.

Whilst the building is modern in its expression, the monastery also showcases a traditional monastic design approach in its form and layout. Taken as a whole, a striking and yet harmonious transition between internal and external living has been

achieved. The paradisiacal garden is a wildlife haven and also includes a kitchen and vegetable garden as well as an orchard. Within the chapel interior, the headers project at a higher level in order to break up sound reflections and maintain the peaceful atmosphere.

UNDER THE SIGN OF SUSTAINABILITY Beyond the distinctive brickwork, the monastic complex has to be recognised for its minimal energy requirements. By incorporating natural ventilation, improved insulation, maximised daylight and renewable energies - such as ground source heating pumps and solar water heating - the building is able to ensure best possible sustainability.

For centuries past, monasteries have been built of brick and the Carmelite Monastery is no different in this respect. However, the bricks provided by Wienerberger allow the building to express both a traditional and a modern architectural aesthetic through the cumulative effect of its textured brickwork. The result was a project that Wienerberger was extremely proud to have been a part of: a building perfectly executed down to the last detail to provide a home for the Carmelite Sisters in Liverpool long into the future.

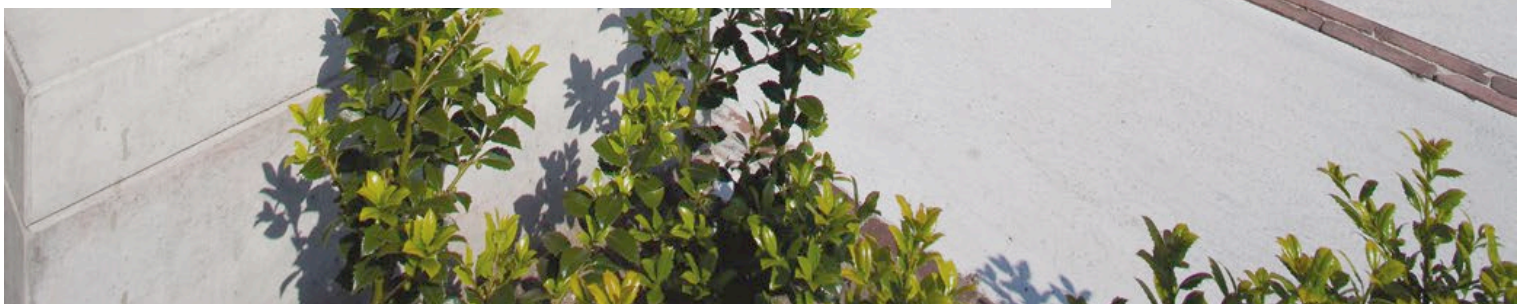
INFO

PROJECT
Carmelite Monastery, Liverpool
CLIENT
Carmelite Order, Liverpool
ARCHITECT
Austin-Smith:Lord, Liverpool
USED MATERIAL
Con Mosso
COMPLETION
April 2013



AS IF IT WERE A STACK OF PAPER

WITH THE NEW STATE ARCHIVES, CONTEMPORARY ARCHITECTURE HAS BEEN IMPLEMENTED IN BRUGES. PURPOSE-MADE TERCA WATER-STROCK FACING BRICKS GIVE THE SOLID FAÇADE AN EXCEPTIONAL APPEARANCE. THE DELICATE STRUCTURE ON THE FAÇADE LETS THE BUILDING LOOK LIKE A PILE OF PAPER ABOVE A TRANSPARENT AND OPEN GROUND FLOOR.





The State Archives are not only housed in the new building, but also occupy space in the restored former Dominican abbey which is, besides other functions, also used as a hotel. On the abbey's ground floor, the beautiful drawing rooms have been reinstated and turned into multifunctional conference spaces. The first floor can be used for offices and workshops. A glass footbridge with a view of the towers of Bruges provides a link to the archives in the new part.

STACKED PAPER ARCHITECTURE The new building is reminiscent of a stack of paper with irregular edges and an equally irregular roof shape, which seems to be inspired by a crumpled sheet of paper. The ground floor accommodates the transparent reading room that opens up onto the street, the water and the pedestrian square. At the back, new records arrive in windowless spaces where they undergo their initial treatment. The actual archive spaces are located on the first and second floor. In order to create the ideal conditions for conservation, no windows have been included with the exception of a wall opening in a protruding corner.

FAÇADE WITH PERSONALITY A blind façade is an enormous challenge for an architect. Olivier Salens solved this task by giving the building a strong identity through choosing the extra long and

narrow Terca water-struck facing brick with a special red finish. This contemporary facing brick series is characterised by a rough, uneven structure and a weather-beaten, rugged look and available in six different colours. The architect further exploited the qualities of the Terca water-struck Special by laying the bricks in an unevenly receding and protruding pattern. In this way, daylight constantly brings life to the strong tactile surface. Kinks in the top line of the façade provide extra dynamics resulting in a striking roof shape. At night, this is further emphasised by integrated lighting.

ROOF WITH FOLDED LOOK The roof's copper finish is made up of a collection of several slightly sloping roof areas. The building thus gives a more small-scale impression and conforms to Bruges' typical carpet of red-brown sloping roofs. This kinked structure harmoniously merges the archive building with the abbey on one side and the smaller terraced houses on the other side. The special shape of the roof is repeated in miniature version in the copper logo on the front façade.

INFO

PROJECT

Bruges State Archives

CLIENT

Van Laere, Leasinvest

ARCHITECTS

Salens Architecten, Olivier Salens, Bruges

USED MATERIAL

Terca water-struck Special red

COMPLETION

2012



MULTIGENERATIONAL LIVING

WHAT MAY APPEAR TIMELESS WHEN FIRST LOOKING AT THE MULTIGENERATIONAL HOUSE IS AT SECOND GLANCE PERCEIVED AS DARING BRICK ARCHITECTURE WITH DESIGNER ASPIRATIONS. THE FAÇADE BUILT OF LARGE-FORMAT POLARIS FACING BRICKS BY WIENERBERGER ADDS SPECIAL EMPHASES.

Living together under one roof has been the dream of architect couple Anja and Jochen Engelshove from Neuenkirchen. The couple had planned and implemented a multigenerational house for a family of four and a parental couple in 2012. Two adjoining cubes were constructed on the generous site, the floor plans of which are with their visual axes oriented towards the landscape. The parents live on the ground floor on a separate level, whereas the first floor provides sufficient areas of retreat for the young family.

FASCINATING FAÇADE STRUCTURE The extra long and narrow Polaris facing brick from the Terca façade solution range – light grey nuanced – and the anthracite-coloured façade panels in the entrance area, the terrace and in the interior perfectly complement the aluminium window frames and



exterior blinds. Proportions and details are accurately coordinated with the light grey façade and the cubic standard shapes. The special laying of the bricks and the play of light and shadows resulting from the deliberately omitted jointing clearly visualise that every water-struck brick is a unique specimen. The result is a fascinating façade structure.

IN LOVE WITH EXTRAVAGANT GREY 'Red facing bricks are the traditional building material used in this region. In grey they look very extravagant. We discovered the Polaris water-struck quality during a journey – it was love at first sight', Anja Engelshove keenly explains.

MAXIMUM ENERGY EFFICIENCY The architect and the building contractor are conscious advocates of solid construction using brick. One reason for

this is the special room climate. The Poroton T18 plane ground blocks with a wall thickness of 17.5 centimetres were chosen as economic wall solution. The two-shell structure with a high thermal insulation is almost free of thermal bridges – an important precondition for the building planned according to the passive house project package (PHPP). The annual energy consumption for heating amounts to 22.1 kWh/m²a, and the annual primary energy demand is 22.2 kWh/m²a. Triple-glazed windows, controlled ventilation with heat recovery, brine-to-water heat pump, which is also able to cool passively in summer, as well as the economical underfloor heating in all rooms ensure maximum energy efficiency.

INFO

PROJECT
Multigenerational house Engelshove,
Neuenkirchen

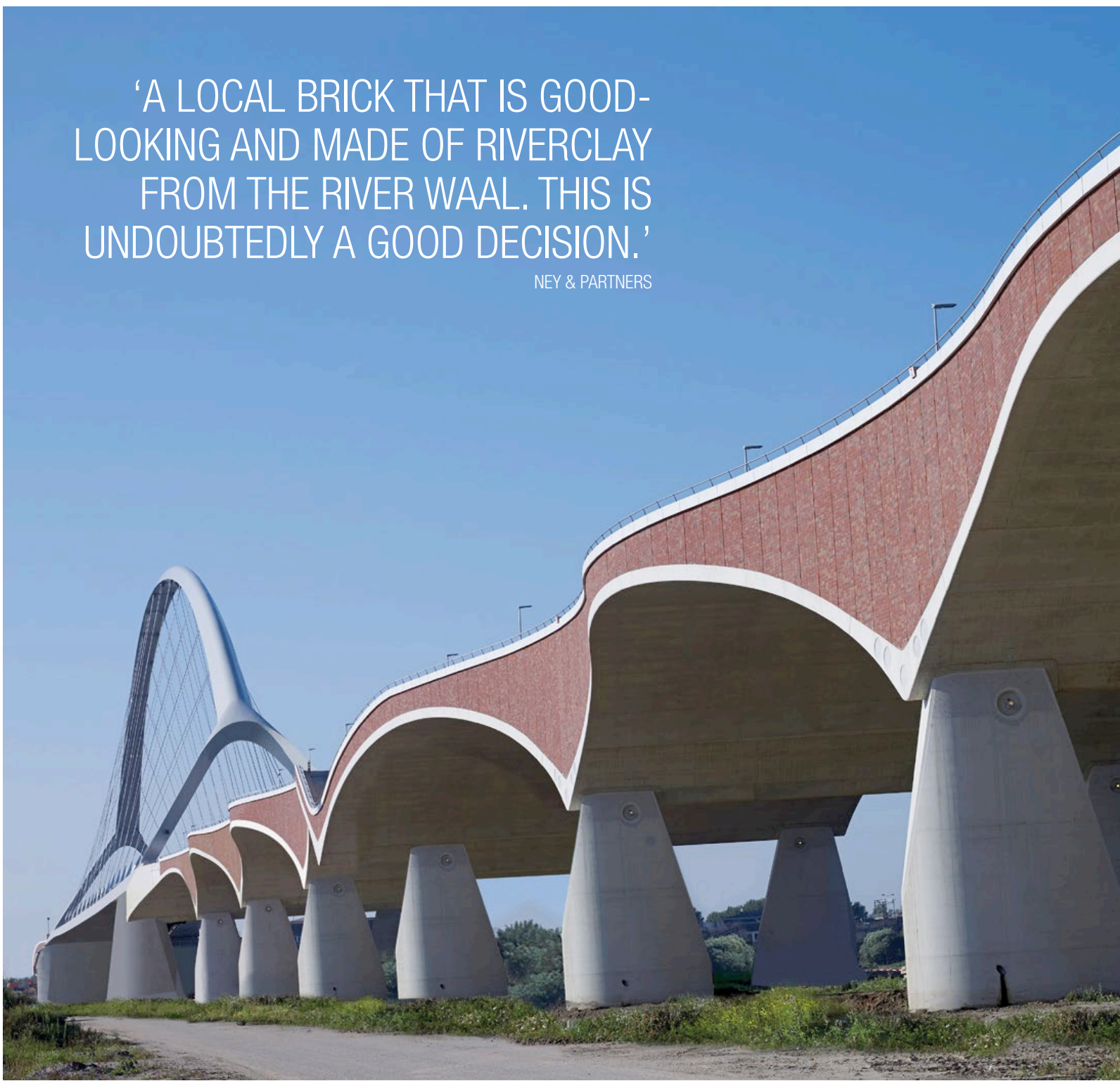
CLIENT
Anja and Jochen Engelshove,
Christa and Gottfried Hoffmann

ARCHITECT
Dipl.-Ing. Architektin Anja Engelshove,
Dipl.-Ing. BDB Jochen Engelshove

USED MATERIAL
Wall: Poroton T18 plane ground block,
17.5 cm
Façade: Terca Polaris,
525 x 115 x 40 mm, light grey nuanced,
COMPLETION
2012

‘A LOCAL BRICK THAT IS GOOD-LOOKING AND MADE OF RIVERCLAY FROM THE RIVER WAAL. THIS IS UNDOUBTEDLY A GOOD DECISION.’

NEY & PARTNERS

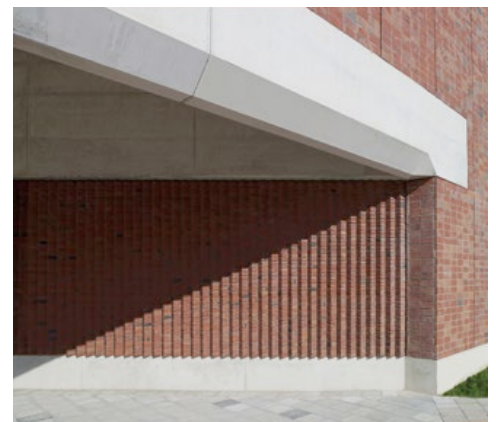
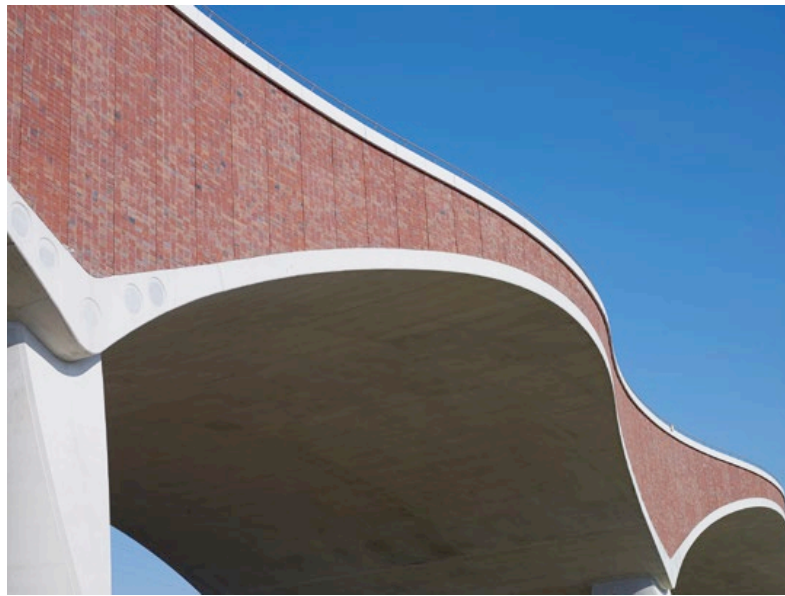


In the tendering procedure for the new city bridge, both appearance and maintenance played a central role. Therefore, Ney focussed his primary attention on the choice of materials. The main arch was built of steel, the ramps are made of connected concrete shells faced with bricks. In particular the use of brick played a decisive role.

Laurent Ney explains: ‘The city wanted an urban bridge although the bridge is not directly situated in the city. Additionally, the length of 1.2 kilometres is unusual for a city bridge. However, the use of brick helps to reflect the identity of Nijmegen in the bridge.

The tendering assumed a life span of at least one century. Brick lasts longer than that without any problems. Furthermore, brick ages in an appealing way and requires little maintenance.”

LOCAL BRICK A reddish brown brick was chosen for the arch. ‘In the Wienerberger showroom, one brick immediately caught our eye. When it turned out that this brick is produced only a stone’s throw from the bridge, it was perfectly obvious for us: a local brick that is good-looking and made of riverclay from the river Waal of all rivers is undoubtedly the perfect



BRIDGE EMBRACING A RIVER

AT THE END OF 2013, THE NEW DE OVERSTEEK CITY BRIDGE WAS OFFICIALLY OPENED IN NIJMEGEN. THIS IMPRESSIVE ARCH BRIDGE REDUCES THE TRAFFIC IN THE INNER CITY. THE DESIGN BY NEY POULISSEN ARCHITECTS & ENGINEERS FROM BRUSSELS USING CONCRETE AND BRICK GIVES THE BRIDGE ITS UNMISTAKABLE CHARACTER.

material', the architect comments on his choice. A stripe of the bridge deck is paved with a comparable red brick. The colour of the side walls thus merges into the paving. The underpasses are also finished with brick.

BRIDGE AS INSPIRATION FOR NEW OPEN SPACES The construction of 'De Oversteek' is part of a large-scale city expansion programme around the river Waal. As a result, the river will soon run through the city instead of flowing round it as before. The bridge will then not only serve as a traffic artery.

Ney: 'Our surrounding area is much too restricted to allow remaining spaces to develop. In my opinion, infrastructure projects should therefore always merge with the city. For example, new open spaces were created underneath this bridge, which can soon be used for concerts, exhibitions and other uses. That way, the bridge becomes part of the public space', Ney explains about the design concept.

INFO

PROJECT
City Bridge, Nijmegen
CLIENT
Community of Nijmegen
ARCHITECT
Ney & Partners, Brussels
USED MATERIAL
Flamenco VB facing brick
Wienerberger Bemmell
COMPLETION
2013



THE ART IN BRICK BUILDING

THE IMPRESSIVE NEW METROPOLITAN ARTS CENTRE (MAC) COMPLETED IN 2012 ADDS A WORLD-CLASS VISITOR DESTINATION TO BELFAST'S CATHEDRAL QUARTER. WIENERBERGER'S MELLOWED RED SOVEREIGN STOCK PLAYS A DECISIVE ROLE FOR THIS ACHIEVEMENT.

'WE AIMED TO CREATE A BUILDING, WHICH WOULD WITH ITS WARMTH AND TEXTURE REFLECT THE HERITAGE OF THE FACTORIES AND WAREHOUSES OF THIS CITY.'



Wienerberger's high quality Mellowed Red Sovereign Stock water-struck brick used for this project has been widely used across Ireland with its different colour shades for a number of years – it is ideally suited for both traditional and contemporary buildings.



The £18 million MAC at St Anne's Square received double recognition at the Brick Development Association's 2012 Brick Awards – winning both the Best Public Building prize and the highly coveted Supreme Award. The decisive factor for this success was the interplay of the exposed red brick finish with the glass elements and a basalt cladding. With this external finish, the modern building reflects the surrounding buildings of this grand Victorian merchant city.

CULTURE REFLECTS HERITAGE The MAC accommodates a broad range of cultural facilities and is alive with exhibitions, theatre performances, dance shows, and experimental works. Ian McKnight from Hackett Hall McKnight, who were commissioned after winning the international open design competition initiated for this project, said: 'We sought to create

a building that reflects the heritage of the city's mills and warehouses, not only in its resilience and constructional legibility, but also in its warmth and texture and essential humanity.'

TWO DEFINING BLOCKS 'The project is defined by two brick blocks each with a different expression. The foyer occupies the tall voids between these two forms, a space characterised by light entering from the top and defined by internal elevations of brick and concrete reflecting the typical streetscape of the area. The foyer is dominated along one side by a four-storey wall of brick piers. They act as strong and dramatic element within the foyer and are a main defining moment of the building', the architects explain their project.

The identical type of brick was used for the building's exterior: a deep brick wall wraps the public

Red brick, concrete and basalt used for the MAC remind visitors of the city's rich history while heralding a new cultural future.



spaces, forms the 'cuts' in the block and continues into the foyer, where it creates an interior 'urban room'. In addition to an extensive use of structural in-situ concrete, the brick was used as an internal exposed finish. The architects succeeded to establish a relationship between the new MAC and the city's historic landscape, thus giving the visitors a sense of moving easily from the surrounding streets and the square into the world of the MAC within.

BRICK WITH CHARACTER Choosing the right brick was critical to this project. After comprehensive research, the final brick selection was made because its character, texture and warm colour tone were perfect for the MAC and this particular brick resembled the traditional red Belfast brick of the nearby buildings. Mellowed Red Sovereign Stock is part of a range of high quality water-struck bricks available from

Wienerberger, which are available in various colours. This attractive water-struck style of brick has been widely used across Ireland for a number of years and is ideally suited to both traditional and contemporary buildings.

Approximately 300,000 Mellowed Red Sovereign Stock facing bricks were used in total, making the construction of the MAC one of the biggest brick construction projects in Belfast in recent years.

The building's finish is also exceptional in every respect. Its dust-coloured brick walls with horizontal concrete stripes form a cool, lean elevation to the surrounding streets, paying homage to the industrial buildings of Belfast. The red brick, concrete and basalt used for the MAC remind visitors of the city's rich history while heralding a new cultural future.

INFO

PROJECT
Metropolitan Arts Centre (MAC), Belfast
CLIENT
The MAC, Belfast
ARCHITECT
Hackett Hall McKnight, Belfast
USED MATERIAL
Mellowed Red Sovereign Stock facing brick, 65 mm
COMPLETION
2012



The interior and exterior walls as well as the ceilings play an essential role, so that the use of construction materials was reduced and perfectly co-ordinated. Interfaces and possible defects are thus also reduced. Being able to decide on the relationship to the environment all by oneself is a crucial concern for client and architect, Dietmar Eberle. His credo: do things as easily as possible!

ECOLOGICALLY SOUND AND AFFORDABLE LIVING The preconditions for a house free from any technology: brick and rooms with a ceiling height of up to 4.30 metres. When questioned about economic efficiency, Eberle initially addresses pleasant light distribution in the interior, which was abandoned in favour of economic optimisation and compensated with technology in the 20th century: 'Floor-to-ceiling

windows are designed to achieve a maximum possible exploitation of daylight. In 80 percent of all cases, the windows are positioned wrongly.' Eberle wants to build in a way that people with normal incomes can have affordable housing. He already took first steps in favour of ecologically sound construction with his initiatives 35 years ago, long before sustainability was branded: the passive house with controlled ventilation.

CORE ELEMENT: BRICK MASONRY The façade is an impressive monolithic structure constructed as a cavity wall, with each layer built of bricks with a thickness of 38 centimetres. The inner layer provides pressure resistance, whereas the second one is responsible for efficient insulation. This construction is pollution-free and durable, balances the insulating, storage and load bearing properties and thus creates

A HOUSE, FREE FROM TECHNOLOGY

THE HEADQUARTERS OF THE INTERNATIONALLY OPERATING ARCHITECTURAL FIRM BAUMSCHLAGER EBERLE IS BASED IN LUSTENAU AT LAKE CONSTANCE. A WELL-PROPORTIONED OFFICE BUILDING WITH BRICK CAVITY WALLS COMMITTING ITSELF TO THE CREDO: DO THINGS AS EASILY AS POSSIBLE!



the conditions for solid mineral plasters containing slaked lime. Roof and ceilings are made of pre-fabricated concrete units, which are cast on site. The result: a pleasant, constant indoor climate as a definite advantage of the brick construction method.

WHAT HAS BRICK GOT TO DO WITH WELL-BEING? The building material brick allows for balanced differences in temperature between the indoor air and surfaces as well as between the surfaces. A basic principle of the energy concept was the consideration of traces of the occupants inside the building and using them to control the ventilation via windows. Consequently, the number of people that are inside the building at the same time matters in the calculation. Deep window reveals reduce the heat input; internal ventilation sashes for optimal

indoor climate are controlled via sensors but can also be operated manually. In the preliminary stages, complex simulations of flow conditions were carried out to determine the exact shape of vent openings. In winter, waste heat of computers provides a great heat input, and in summer, the sashes are opened at night to cool the interior with supply air. Sensors support the users' activities. 'And that's all there is in terms of technological devices', Eberle sums up.

According to Eberle, one could handle the resources in the office building without technology – external temperature, light, air quality, windows, and rooms – in a way that their use values improve and increase in the long term. In Vorarlberg, the building concept in brick construction is now applied in social housing projects. Two other projects will commence this year.

INFO

PROJECT

House without technology – office building in Lustenau

CLIENT

Baumschlager Eberle Architekten, Lustenau

ARCHITECT

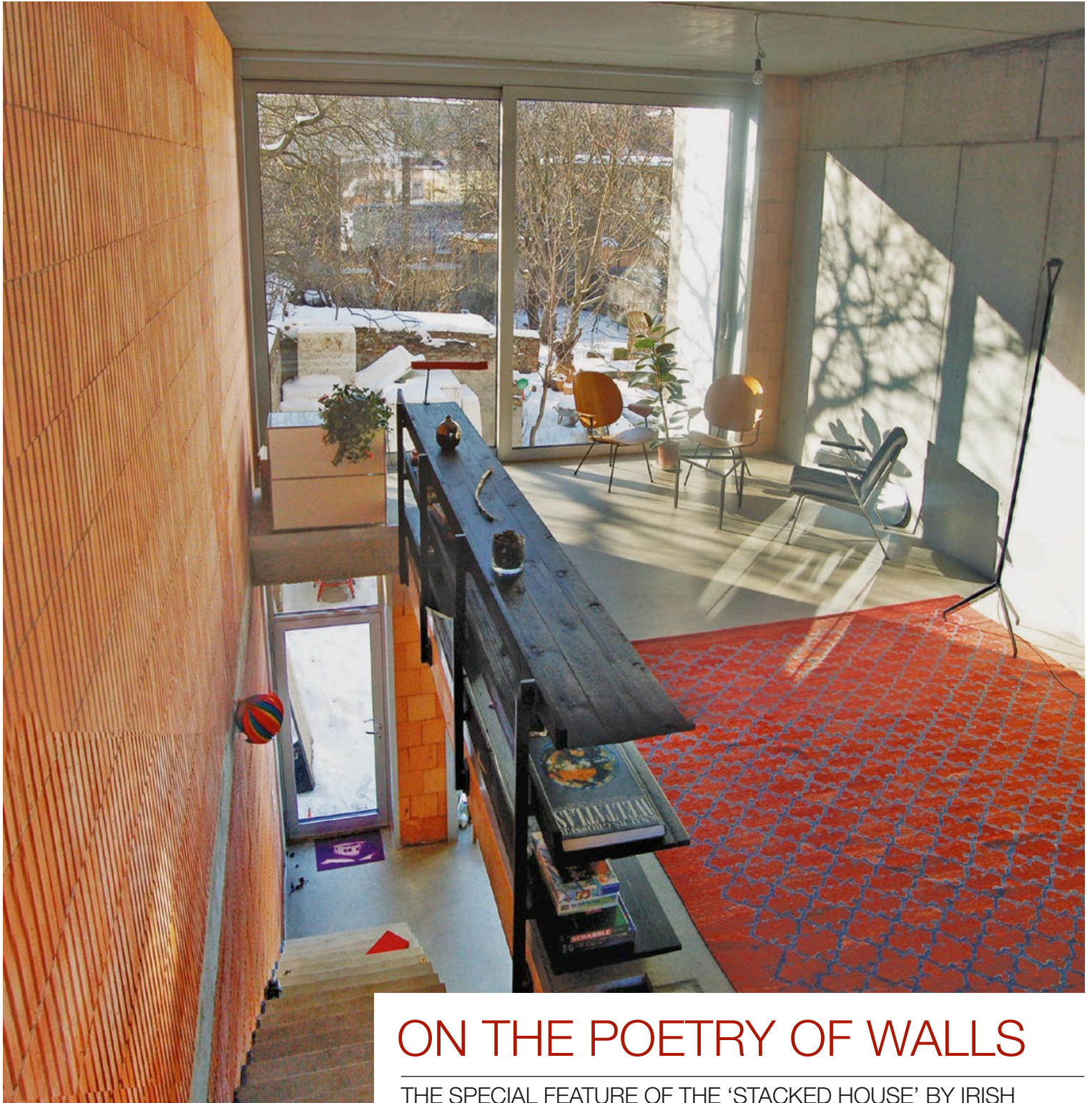
Baumschlager Eberle Architekten, Lustenau

USED MATERIAL

Exterior cavity wall:
internal shell 38 N+F,
external shell Porotherm 38 Hi N+F
Interior wall: Porotherm 25–38 N+F

COMPLETION

2013



Rough bricks with a warm red shade generate a homely atmosphere.

ON THE POETRY OF WALLS

THE SPECIAL FEATURE OF THE 'STACKED HOUSE' BY IRISH ARCHITECT MICHELLE HOWARD IS THE HONEST WAY IT EXPLAINS ITSELF. THIS IS ACHIEVED SIMPLY BY USING A SINGLE OPEN BRICK LAYER.



The building's façade is constructed from 36.5 centimetre Poroton building blocks with integrated insulation. On the outside, they are finished with a thin light brown coat of paint, which has a sealing effect and is yet able to breathe. The brick surface is rough. 'I often watch passers-by, who stroke our house and really want to feel the surface of the bricks', Howard, who has designed her own country house, enthusiastically says. 'This is how easily one can arouse curiosity. That pleases me tremendously.'

IRISH FLAIR The spatial concept is guided by the layout of an Irish country house. You walk through the door and immediately find yourself at the building's heart. The higher you get, the more private the rooms. The ground floor consists of a generous living and dining room with a ceiling height of 3.20 metres. The following three floors accommodate bedrooms and guestrooms as well as a studio.

IF ONLY WALLS COULD TALK In the interiors, the colour of the bricks was of particular importance. The raw, orange-coloured bricks with their warm shade radiate cosiness and warmth. Their colour is slightly

nuanced. 'Here you can see that an industrial product like brick actually is an individual, natural material', the architect explains. Smooth concrete walls form a contrast to the structured brick walls. Traces and signs of rust and formwork are deliberately not removed, because the way the house was actually built shall remain visible. The more you look around in the 'Stacked House', the more you learn about the construction process. Even the wall tiles in the kitchen and bathroom are only glazed and let the red shading of the ceramic material vaguely shine through.

VARIED USE OF BRICK It is essential to the architect that interiors are designed as self-adjusting rooms – bricks by Wienerberger make this possible, so that the need for technology is minimised. The wide reveals of the aluminium windows fulfil several functions. They elegantly seal the edges of the cut Poroton blocks and simultaneously serve as benches and shelves. Most importantly, however, they intensify the entering daylight with their reflections.

In a very aesthetic way, the 'Stacked House' illustrates the varied ways brick can be used and how a building is thus given its very individual character.

INFO

PROJECT
Multi-storey residential building in Berlin

CLIENT
Michelle Howard

ARCHITECT
Michelle Howard

USED MATERIAL
Poroton S11-P and Poroton T8-P, filled with Perlit

COMPLETION
2012

A HOUSE WITH HIGH STANDARDS

TO GIVE THIS RESIDENTIAL HOUSE A ROYAL TOUCH, ARCHITECT THOMAS GOLDSTEIN CHOSE NOT ONLY ESTABLISHED TRADITION BUT ALSO THE, IN HIS EYES, 'MOST BEAUTIFUL BRICK IN THE WORLD'.



Thomas Goldstein is one of those architects who like to work 'single-handedly', exploit excellent competencies and choose the most exquisite materials to 'achieve the best possible result'. Goldstein primarily dedicated himself to building private homes, and in this field increasingly to high quality detached houses – both as newly constructed buildings as well as renovation projects. Although predominantly working in France, he is sometimes also involved in assignments abroad, for example in Slovakia, in Africa or as far as China. 'It is all a question of will and good collaboration', he acknowledges.

This beautiful contemporary house with a 300-square metre floor area is located close to the German border, about fifteen kilometres from Colmar in Alsace. Therefore, the building benefits from its privileged green location on the edge of a forest, which adjoins the development area.

Starting from a two-storey wooden skeleton conceived as a basic structure, the building is divided into different units like the entrance area, a very spacious garage and technical rooms, which

surround the more intimate centre almost like a protective envelope, and then open up in the direction of the terrace and the swimming pool towards nature.

EXQUISITE TOUCH From the viewpoint of the architect, the roof of this residential house should be tiled in an appropriate way. So the choice was the Pontigny Aléonard flat tile. His motives: 'I love this traditional, natural, raw, and pure flat tile with its finely nuanced shades. There is nothing better than this, particularly since we have always been subject to strict regulations in this field. The impressive mass of this roofing lends the contemporary building an exquisite touch and adds this traditional character, which lets the house perfectly merge with its surroundings.'

TRADITIONAL CHARACTER Remarkable features are the hip rafters and flashings ensuring tightness, the delicate covering made of blue-green zinc and an elegant roof gutter which edges and continues the roof. Mounting them is of course very demanding because everything needs to be perfectly laid and aligned.

INFO

PROJECT
Single-family house in Windensolen

CLIENT
Private

ARCHITECT
Thomas Goldstein, Wintzenheim

USED MATERIAL
Brick Pontigny Aléonard,
colour: brown flamed, red flamed and
naturally aged



It is therefore necessary to contact the respective experts with profound knowledge. Admittedly, this requires a great commitment on all sides, but it leads to results that satisfy everyone: clients, craftsmen and provider. 'And that is exactly how I love to work!', architect Goldstein emphasises.

After all, nothing was left to chance: the solid insulation, one step ahead of prevailing regulations, cladding made of red glazed Marin resin, stone plaster, stainless steel frames, groundwater heat pump, comfort ventilation system, Canadian well – everything seems to be made for merging the harmony of rooms with the quality of technology and materials.

PURE LUXURY FOR WELL-BEING

THE 'STADL' IS THE MOST RECENT OF EIGHT EXCLUSIVE HOLIDAY HOMES OF PURESLEBEN LOCATED ABOUT 30 MINUTES FROM GRAZ AT THE TUNAUERG IN THE SÜDSTEIERMARK REGION. SURROUNDED BY VINEYARDS AND IN THE MIDDLE OF A PICTURESQUE LANDSCAPE, GUESTS CAN PERFECTLY RELAX IN THIS OASIS OF WELL-BEING.



Do you recognise this feeling? You hear a term, picture the idea and then you are suddenly surprised by something completely different. This can happen to you with the 'Stadl' at the Tunauberg. What sounds like an old barn getting on in years, turns out to be an exclusive holiday home for discerning demands.

SUCCESSFUL REVITALISATION The former farm building, which is about 150 years old, was preserved in its original form, revitalised, and now, after comprehensive conversion measures, it enthuses with a gabled roof and open timberwork. The protecting walls made of spruce wood were also incorporated in the new design. Last but not least, the replaced roof with high quality roof tiles supplied by Wienerberger subsidiary, Tondach®, complements this great example of successful revitalisation.

PURE NATURE In the interior, the design is characterised by untreated natural wood types such as oak and spruce and warm earthy shades. Regional materials have been used throughout the building. Distributed over two levels, a generous living room and a fully equipped kitchen with a dining area are available for the guests on the ground floor. Spacious sleeping areas are located underneath the steep roof.

RELAXING INTERIOR ATMOSPHERE The highlight of the 'Stadl' is a small wellness area with a partly glazed sauna, which can be used as both a Finnish sauna or as a sanarium. A natural pond with a plunge pool and the bathroom with a freestanding bathtub and a relaxing sofa complement the choice that leaves nothing to be desired. This is pure life in its finest form.



INFO

PROJECT
 PURESLeben, Stadl Tunauberg

CLIENT
 PURESLeben GmbH, Gabersdorf

ARCHITECT
 DI Ernst Giselbrecht, Graz

USED MATERIAL
 Tondach® Biber tile
 round beaver tail, natural red

COMPLETION
 2011



Since this is an all-day school, a solution accommodating all functions beneath the same room was preferred. The architect has taken this literally and clad both the roof and the façade with the same dark roof tile.



BENEATH THE SAME ROOF

THE PLAIN, SMALL MONASTERY LOCATED IN THE VILLAGE CENTRE OF OISTERWIJK WAS RECENTLY EXTENDED IN A GRATIFYING WAY WITH THE ADJOINING ALL-DAY SCHOOL. BOTH BUILDINGS ARE FINISHED WITH ROOFS AND FAÇADES MADE OF BRICK. THE RESPECTIVE SHAPE AND DETAILING IS, HOWEVER, COMPLETELY DIFFERENT.

As a respectful addition to the existing monastery complex, the new building proves to be an independent volume full of character.

In the course of time, the monastery grounds had lost their original beauty, the enclosing wall had crumbled away, and the monastery itself was no longer used. A primary school had been built to the main building. But even this addition no longer fulfilled the requirements, and so the old site was given a new chance.

SEARCH FOR THE IDEAL SHAPE The commissioned office, DAT architecten from Tilburg, began to search for the ideal shape. The specifications were not exactly easy to fulfil. Architect Eefje Rikhof: 'The required twelve classrooms, a sports hall, offices, and a childcare facility needed a considerable amount of space. And all that in a relatively small quarter consisting of 1930s residential houses. A modern building in such a context – so we thought about the best way to implement these specifications?'

The monastery itself offered first starting points. 'The existing pitched roof was an important criterion, and the maximum ridge height was soon determined. Since this is an all-day school, a solution accommodating all functions beneath the same room was preferred. We have taken that literally', Rikhof laughs. 'In the design phase, we folded a

small box and put the school building underneath.' This concept finally developed into the roof and the façade, which was clad with dark roof tiles. This roof tile is a material frequently used in the quarter. Owing to the unusual application of the tile one cannot immediately recognise that this is a building dating from the 21st century.

RESPECTFUL CONTRAST With its proportions and the calmly structured façades, the new building established a relationship to the monastery building. Rikhof explains: 'The vertical windows of the monastery are, for example, reflected in the school.' At the same time, a contrast should also be expressed. 'Large parts of the roof truss are finished without windows as the roof area was designed as large as possible. The side façades feature a playful cladding in bright colours, giving the building an element of softness.'

BIODIVERSITY Squares are laid out all around the building, where the children can become familiar with nature and biodiversity. 'The roof gutters, for example, were mounted so that bats and swallows can nest there', Rikhof reports enthusiastically.

INFO

PROJECT
Brede School De Waterhoef, Oisterwijk
CLIENT
Community of Oisterwijk
ARCHITECT
DAT architecten, Tilburg
USED MATERIAL
Actua10LT leikleur mat
COMPLETION
2012



TRANSFERRED TO THE PRESENT

THIS ENSEMBLE IN A VIENNA SUBURB MERGES THE OLD AND THE NEW INTO A HARMONIOUS AND YET EXCITING WHOLE. THE REWARD: THE '2013 AUSTRIAN BRICK AND ROOF AWARD' IN THE 'PITCHED ROOF WITH CLAY ROOF TILES' CATEGORY.

A piece of history is still to be read above the garage entrance: in the so-called portal arch brick, which closes the brick arch at the top, the year 1790 is still inscribed. Apart from that, the old suburban house in Penzing seems to have been beamed to the present, or better, to the 'day after tomorrow'. The vermillion on the façade has a strong modern look, and the tiled roofing exercises modest restraint in conformity with the millennium. In places where one had once expected small, old-fashioned dormers, 15 window prisms craving for the future jut out into the streetscape as if the house had put on cool sunglasses. 'The residential building on Penzinger Straße not only looks back upon a past, but also on a more recent turbulent history', architect Roland

Thierrichter says, who planned the refurbishment and conversion project together with his partner, Stefan Steinbacher, for the Vienna-based property developer, Premium. 'After all plans had already been completed and we had already successfully worked our way through the first construction negotiation, a part of the project was subsequently placed under a preservation order.'

COACH GARAGE AND SMOKE ROOM AS NEW LIVING SPACES Seen in this way, the epochal mixture of the house is the product of planning and building law factors. In the inner courtyard, the old gutted coach garage, which was once also used as a place for bottling brandy, was extended with a new



wing. An also listed smoke room in the backyard was carefully refurbished and converted to suit residential uses. The entire courtyard was redesigned with green areas, gravelled zones and red concrete. The building comprises 23 old and newly constructed residential units in total. The only elements holding together the mix dating from different periods is the almost monochrome colour design.

PITCHED ROOF AS EYE-CATCHER The most conspicuous intervention on the street side was carried out on the roof. The old roof, which was in a poor structural condition anyway, was replaced by a new, slightly steeper steel and wood structure. In close coordination with the Federal Monuments Office,

the roof was subsequently finished in the form of a 'Doppeldeckung' with so-called 'Wiener Taschen'. The flat extruded tiles, which are equivalent to the historic model, give the building its characteristic appearance without folds. The 15 knob-shaped, aluminium-clad dormers are a stylistic extra. The blue-tinted glass emphasises the contrast between the old and the new, or, as architect Thierriecher put it: 'This is a contemporary project implemented in 2010, with all its sharpness and high level of detail, and this fact should not and cannot hide behind history.'

INFO

PROJECT
Residential house on Penzinger Straße,
Vienna

ARCHITECT
Architektur Steinbacher,
Thierriecher ZT GmbH, Vienna

USED MATERIAL
Tondach® Tasche, flat tile



SUSTAINABLE BUILDING WITH BRICK

ANYONE BUILDING AN ENERGY-EFFICIENT HOUSE TODAY ACHIEVES MORE THAN JUST SAVING HEATING COSTS. THEY ALSO HELP TO DO SOMETHING AGAINST GLOBAL WARMING AND CLIMATE CHANGE. THE KEY TO THIS IS THE RIGHT COMBINATION OF BUILDING ENVELOPE, BUILDING SERVICES AND HEATING TECHNOLOGY AS WELL AS THE INCREASED USE OF RENEWABLE ENERGY SOURCES, SUCH AS SOLAR ENERGY.

Constructing a house is a multi-dimensional process, with every decision having immediate effects on the future. This not only means the impact on the very personal, individual future of the individual, but on the future of society as a whole. Climate change, scarce resources and increasing energy prices rank among the greatest challenges of the 21st century. Buildings account for a whole 40 percent of total energy expenditures. This means that building modern houses can make a considerable contribution to containing energy consumption.

For many years, Wienerberger has been dealing with the issue of how energy-efficient construction can do justice to the individual requirements of the occupants. The knowledge gained led to the development of the e4

brick building concept. It combines energy efficiency, quality of living, environmental consciousness, and affordability to achieve a sustainable overall package, because it fulfils people's essential needs regarding living space, whilst simultaneously complying with latest EU Directives.

THE FIRST E4 BRICK HOUSE The e4 brick house 2020 in Zwettl, Lower Austria, is the first house in Europe entirely built according to the e4 concept. This pilot project was planned in collaboration with an ambitious private investor and a Wienerberger 'MassivWertHaus' master builder, and it was completed in 2012. Single- and multi-family houses are currently developed according to this concept in seven other European countries.



ENERGY

Minimal energy requirement through the right combination of highly insulating building envelope made of brick with innovative building services and heating technology.

EMOTION & HEALTH

Individual dream homes providing a unique quality of living, healthy interior climate and a safe home for many years.

ECONOMY

Low construction costs as well as extremely low operating, maintenance and energy costs through uncomplicated, highly efficient heating systems based on renewable energy sources.

ENVIRONMENT

CO₂ savings through the use of environmentally friendly building materials and cost-efficient, renewable energy sources like the sun, environmental heat or biomass.



At the end of November 2013, the house was ready for occupation, and the research project could be commenced with the residents moving in.

THE (BRICK) BUILDING OF THE FUTURE

THE TWO-STOREY 'EFFIZIENZHAUS PLUS SCHLAGMANN/BAYWA' IS SITUATED IN BURGHAUSEN IN THE SOUTHEAST OF GERMANY. THE UNCONVENTIONAL SINGLE-FAMILY HOME WITH A BASEMENT AND A GARAGE PRODUCES MORE ENERGY ON AN ANNUAL AVERAGE THAN IT NEEDS FOR ITS OWN OPERATION. THE OCCUPANTS USE THE EXCESS ENERGY FOR ELECTRO MOBILITY.



Assembly of the solar thermal and photovoltaic modules on the south-facing roof surface: the solar system that was integrated into the roof surface allows the combination of solar heat, photovoltaics and roof windows.

In the context of the 'Zukunft Bau' research initiative, which is promoted by the German Federal Ministry of Construction, the brick house is accompanied by a two-year scientific monitoring procedure and tested by a family under real-life conditions in everyday operation. The scientific assessment started in December 2013 when the family moved into the house, which had been deliberately designed and implemented as a construction style typical of the area with a climate-conscious orientation. In addition to a photovoltaic installation and the use of solar heat for the generation of power and heat as well as innovative energy storage systems, the building is also equipped with an optimal building envelope in the form of a massive, highly insulating brick masonry, its storage mass serving as a large energy depot.

Owing to its plain and white plastered exterior, the two-storey building with a natural red pitched roof is not particularly conspicuous.

Its special characteristics are in the brickwork and in the detailed planning of the energy concept: in terms of figures, the photovoltaic installation and solar thermal collector surfaces on the rooftop will cover at least 85 percent of the annual heating demand and 50 percent of the annual electricity demand via self-generation. The use of certified low-emission building materials and the avoidance of emissions contribute to achieving healthy indoor air.

Georg Dasch, architect, Straubing: 'The house is a successful combination of ecology, reason and joy of living.'



architectum

#14

International Magazine
for Brick Architecture

2014/15 www.architectum.com