



# architectum

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**Shining rebirth**

**The Martin House by Frank Lloyd Wright**

**Living in the “snail’s shell”**

**Ecological living in Belgium**

**Expressive silhouette**

**A golf clubhouse in Switzerland**

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# Editorial



*Franz Kolnerberger  
Head of Product  
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**Dear Readers,**

Following a complete face-lifting the 10th edition of our international roof architecture magazine "Architectum" comes to you in a fresh, completely redesigned look. To honour this jubilee we show you the ceramic roof tile in its full range of applications. Whether as tailor-made tiles for listed, historical roof landscapes, for designing modern architectonic landmarks or as an essential element of energy efficient new builds – clay roof tiles are always first choice. Ecological, sustainable and in prime manufacturing quality with 30 years of guarantee.

We hope you enjoy discovering exceptional roof architecture!





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Clay as first choice



*Only clay made it possible to recreate the historic roofing with its special roof tiles, ornamental ridges and fittings.*



# Clay at play

## Charlton Farm Children's Hospice wins the Clay Roofing Award 2008

**40,000 roof tiles and fittings from Sandtoft contributed to the success of this project. Clay was the only roofing material that satisfied all the requirements for the conversion. Nestled in rolling pastures and woodland, the Charlton Farm Children's Hospital stands on an extensive estate in Bristol. Since 2007, it has been a flagship development for the provision of the very best of palliative care for children with life limiting conditions and their families.**

It took more than four years to renovate one of England's leading hospice facilities on the former grade I and grade II listed derelict farm set of 3,000 square metres. The architects decided to go down the path of sustainable conservation and merged the carefully revitalised structures with the new buildings. 37,000 clay Gaelic tiles as well as 3,000 clay plain tiles, 900 clay ridge tiles and 600 fittings were specially made to order.

**Aesthetic, flexible, functional.** These three properties were decisive for the choice of clay as the material for the roof tiles. The roof's clay covering is extensive and complex; however, its refined design has a simultaneously subtle and unobtrusive effect in the overall architectural ensemble. Ultimately, the aim was to dispense with grand features and to reproduce the original, complicated roof construction. Only clay made it possible to recreate the historic roofing, with its special roof tile formats, ridge details and fittings. In total the project required 8 different styles of ridge in addition to 40,000 tiles. Particular care had to be given during the roof restoration to the population of pipistrelle bats that occupied some of the buildings. In order to preserve the bats' habitat, special 'bat tiles' were made with access cowls to allow exit and

entry to the roof structure.

A special jewel is the listed area in which butter was once produced. Here, the wonderful, ornamented roof was faithfully recreated to match the original. The hexagonal Buttery has a split level roof creating a turret detail and is finished with Sandtoft's Humber clay plain tile with ornamental club tiles fixed in triple course alternate feature bands.

The children's hospice has already won several prizes, including the respected "Clay Roofing Award" in London in 2008. As the jury justified its decision at the time, "It is an excellent example of a new built project blending with existing buildings, without compromising the original architectural integrity of the site in any way."



**Client** Children's Hospice South West  
**Architect** Grant Elliot, Lacey Hickie Caley Architects, The Design Studio, Exeter

**Main contractor** Bob French of Cowlin Construction Ltd, Bristol

**Roofing** Mathew Camilleri of M Camilleri & Sons Roofing Ltd

**Clay roof tiles** Gaelic Single Roman clay tile natural red, Humber clay plain tiles, bespoke ornamental ridges





# Original structures

## Large roofs that reach for the sky

The twenty tenant-occupied houses that FARO Architects designed for the Nolmerban estate in Petten are not big, but have great presence. Built in three rows, their roofs soar above the dunes: “The plan refers to typologies that one finds here in many new build estates. But we’ve given it a happy touch,” says Pieter Weijnen from FARO Architects.



“Bouwcompagnie” develops and builds new houses in many locations throughout North Holland, often in new build districts. The fifteen smaller tenant-occupied houses built here are above all intended for young people and offer a very modest living space. FARO Architects was responsible for the design. “We have tried to design a real quarter with streets arranged around a square,” explains Pieter Weijnen. Characteristic of these houses are a low verge and a relatively large roof.

**Enduring quality.** The houses can be seen from far away, mainly due to the pointed roofs and fresh orange colour. “The client wanted enduring quality and houses that fit their surroundings. To this end we chose typologies that are frequently used in the surrounding area, farms and half-hipped roofs. However, we didn’t take this reference too seriously, but changed it and placed it in a different light.” The roofs begin just above the lintel of the entrance doors and reach upwards by more than the average floor height. At the ends of the terraces, the ridgeline makes an upward leap, with the highest point reaching up to seventeen metres. The roofs are uniformly covered

with clay roof tiles from the Koramic range: Migeon Vauban in natural red.

Weijnen also has words of praise for the craftsmen: “Making such roofs is a great challenge from a craft point of view.” Ridgelines and rafters come together at the roof apex, which was given a zinc cap. Both the rhythm of the tiles and the regularity with which the ventilation tiles were applied influences the somewhat playful look of the project. All the tiles were specially anchored, not just those of the tall pointed roofs. As Weijnen explains, “Even if it cannot be scientifically proven, the wind in Petten blows twice as strongly as in the rest of the Netherlands.”

*The characteristic silhouette of the houses is visible from afar. The steeply soaring roofs and bright orange colour make them a real eye-catcher.*

**Client** Bouwcompagnie  
**Architect** FARO Architects  
**Roofing** VBK Schagen  
**Clay roof tiles** Vauban straight cut, natural red



# Once upon a time

... there was a healthy snail's shell to live in.

**Built from ecological materials, with very low energy consumption and no loss of comfort - it sounds almost like a fairy tale. But for the Lambregts family from Mortier the dream has become a reality. And they have architect Claudy Mercenier from ARTerre to thank for this.**

Within the scope of the "Building with energy" campaign, architect Mercenier set himself the goal of designing a house that has outstanding thermal insulation and therefore benefits ideally from the available solar energy. He also remained true to his preference for ecological building materials: materials that harm neither health nor the environment. The result: A house with 179 square metres of living space, which is comfortable and pronouncedly energy-saving and also harmonises perfectly with its surroundings.

**In perfect harmony with nature.** The house is heated with a pellet furnace, while a mechanical ventilation system with a heat recycling function provides a comfortable indoor climate. Hot water is supplied through solar collectors and in the future, photovoltaic panels will convert solar energy into electricity. "The choice of the shell shape is not only aesthetically motivated," explains the architect. The curvature on the north of the building serves as a cold buffer, while the inclined south-facing side lets sun in and affords a view of the landscape.

For the roofing, Mercenier chose the anthracite-coloured, matt clay roof tile Koramic Migeon Actua. "I'm a big fan of clay roof tiles," he says. "They are value for money, simple to lay and give sloping roofs a nice, rhythmic effect. In this case, I decided on Migeon Actua because of its large, economic format, its simple and unadorned lines, and because its colour harmonises perfectly with the surrounding houses. Like wood, clay roof tiles also acquire a lovely patina over time. The result is a house that changes with the seasons and the natural surroundings in which it is embedded. Just like a real snail."





For the roof covering of his single-family house built to ecological standards, the architect chose anthracite-coloured matt clay roof tiles, which are inexpensive and simple to lay.

**Architect** Claudy Mercenier, ARTerre – Fléron  
**Roofer** Emmanuel Liegeois – Herve  
**Clay roof tiles** Migeon Actua slate engobe

# Shining rebirth

## A house for sophisticated needs

**The search for true-to-original roof tiles for the “Martin House”, an architectural jewel by American architect Frank Lloyd Wright (1867-1959) for the construction of his home in the Buffalo New York suburbs, he was the highest paid executive in the US and had been for the previous 3 years. Martin, a self-made man and visionary who appreciated fresh ideas and original thinking, was the secretary of the Larkin Soap Company, one of the largest retailers in the USA at the time. A close friendship developed between the almost identically aged men – Martin was 37 when the order was placed, Wright 35 years old – and Martin became one of the architect’s most loyal supporters and patrons.**

The Martin House can look back over a long history. When Darwin Martin commissioned the now world-famous architect Frank Lloyd Wright (1867-1959) for the construction of his home in the Buffalo New York suburbs, he was the highest paid executive in the US and had been for the previous 3 years. Martin, a self-made man and visionary who appreciated fresh ideas and original thinking, was the secretary of the Larkin Soap Company, one of the largest retailers in the USA at the time. A close friendship developed between the almost identically aged men – Martin was 37 when the order was placed, Wright 35 years old – and Martin became one of the architect’s most loyal supporters and patrons.

**For sophisticated needs.** The Martin family moved into their new home in November 1905. At the time, the costs for building a nicely appointed single-family home in Buffalo were around 7,000 dollars. Martin had paid around 200,000 dollars for the complex of houses comprising five related buildings and a

half hectare of land. The complex comprised the main building, the actual Martin House (with about 1,400 square metres of living space) with an adjoining colonnade to the greenhouse, a carriage house with living units for the chauffeurs, the Barton House for the sister and brother-in-law and the gardeners’ cottage. The Martin House was then and is now recognised as the ultimate expression of Frank Lloyd Wright’s Prairie House style, in which he blended organic forms with geometric elements. Characteristic features include the strong, horizontal planes, deeply overhanging eaves, the central open fireplace, the basement, a cantilevered roof and the harmonious integration into the landscape. When the Martins moved into their home it had its own electric supply and central heating.

**Chequered history.** Darwin Martin lost most of his fortune in the stock market crash of 1929 and died just a few years later following a stroke. The house and ancillary buildings stood empty for sixteen years afterwards. Buffalo’s extremely harsh winters and





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*In 1954, an architect from Buffalo purchased the building, which had stood empty for sixteen years, and saved it from imminent demolition.*

repeated instances of vandalism took a heavy toll on the former architectural jewel. In 1954, an architect from Buffalo purchased the property to save it from imminent demolition. The main house was in a very bad state at the time, while the other buildings had to give way for the construction of three architecturally questionable apartment blocks. No other Wright site had withstood such degradation and remained standing.

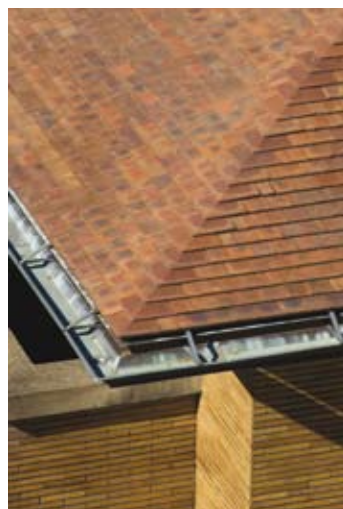
**Shining rebirth.** In 1967, the ruinous estate passed into the possession of the University of Buffalo. However, a non-profit-organisation intended to save the Martin House was only created at the end of the 1980s and was made up of a group of dedicated local people. A huge fund raising campaign, which is running to this day, soon showed initial success. The goal of restoring the complex to its former glory has slowly but surely been achieved.

The refurbishment was entrusted to the architecture office of Hamilton, Houston & Lownie and began with the taking of conservation measures to preserve the overall condition in the form of reinforcing brickwork and façades, both of the Martin House and the smaller Barton House. Then, however, began the long, drawn-out search for the right roof tiles, because the original roof tiles were no longer available and only a few originals from the 1950s roof still existed.

**Magnificent roofing.** Ted Lownie, who headed up the team of architects, scoured North American tile producers, but was unable to find any which could have reproduced the original weather-stained tiles. In 1994, Lownie turned to the small Canadian company Northern Roof Tiles, an importer of high-end clay roof tiles, reminiscent of the brown flamed clay plain tiles (Brun Flame) by French roof tile maker Aléonard and the planners eventually ordered the required product in the French town of Pontigny.

**A special challenge.** First, all the roofs were re-roofed as part of the gigantic 50 million dollar renovation. A very special challenge turned out to be the manufacture of the extremely low pitched Arris style hip tiles, which the French Koramic plant stubbornly addressed until the desired result was reached. The Martin House Restoration Corporation had in the meantime purchased the three apartment blocks for demolition in order to reconstruct the original ancillary buildings in their place. Thanks to the donations received, building work was able to continue in 2005 and will be completed in 2010. The property of the Martin family has already become a tourist magnet for visitors from around the world. And under the magnificent Koramic clay roof, this prestigious, American architectural landmark can face the next 100 years with confidence.

*In the brown flamed clay roof tile from French roof tile factory Pontigny Aléonard, a tile was found that matched the original weathered roof tiles.*



**Client** The Martin House Restoration Corporation  
**Architect** Hamilton, Houston & Lownie Architects, Buffalo NY,  
[www.hhlarchitects.com](http://www.hhlarchitects.com)

**Project leader** Ted Lownie, Matthew Meier & Jamie Robideau  
**Main contractor** L.P. Ciminelli Inc. Buffalo NY 14202  
[www.lpciminelli.com](http://www.lpciminelli.com)

**Project manager** Wayne Scott  
**Roofing** Grove Roofing Services Buffalo NY 14220  
[www.groveroofing.com](http://www.groveroofing.com)

**Clay roof tiles** Aléonard Pontigny brown flamed  
**Koramic partner** Northern Roof Tiles, Ontario, Canada  
**Project manager** Chris Gannon

[www.thedarwinmartinhouse.org](http://www.thedarwinmartinhouse.org)



### About Frank Lloyd Wright

The American architect Frank Lloyd Wright (1867-1959) loved to overcome limits with his buildings. His structures ruffled feelings and were the cause of numerous controversies. Frank Lloyd Wright achieved world fame in 1959 with the New York Guggenheim Museum on New York's 5th Avenue.

One central aspect of his creativity lies in close contact with the landscape of his home state of Wisconsin and in the virtually seamless integration of his buildings into the landscape, as can be witnessed in one of his best-known buildings, the Fallingwater villa built alongside a waterfall. During the commission-scarce period after the stock market crash of 1929, Frank Lloyd Wright gave lectures at Princeton University, which were also published. He also wrote several books that dealt with subjects such as his ideas on town planning and published various periodicals. During the world economic crisis, he developed a new type of house, the so-called "Usonian House". A cheap, single home on one level, which he implemented in numerous variations.

Wright tried to use his architecture to express the American spirit of democracy, the pioneering spirit and solidarity. The central element was therefore most often the fireplace as a meeting place for the community, around which he developed the building. As one of the first architects ever to do so, Wright spoke of "organic construction", by which he meant the organic relationship between architecture, art, nature and human living areas.

### Some of his works

1908 Frederick C. Robie House, Chicago, Illinois

1916 Imperial Hotel, Tokyo

1935 Villa Fallingwater, Bear Run, Ohio, Pennsylvania

1956 Solomon R. Guggenheim Museum, New York



# Striking outlines

## The right colour draws attention

The imposing building of an apartment block at Zonnehaven near Ostend deviates a little from the traditional development around it. Not only due to the bright colours of its verge, but also through its somewhat unusual roofline, which is made up of a number of pointed monopitch roofs.



All thirty-two apartments of the south-facing building have a sun terrace, with those on the topmost floor having an area of up to 70 square metres. The project was executed to a design by architect Roland Vandecasteele in close Co-operation with the Department for Spatial Planning of the town of Ostend. "The streetscape is largely determined by older, individual terraced houses. We therefore decided to retain this specific character, both in the verges and in the roof construction," explains the architect. Three colours of Wienerberger façade bricks intermingle in the verge: the red Tinto, the white Casa Lena and the grey Agora Titan. "The red verge surfaces conceal the kitchens. We chose white and grey as a contrast to the red

colouring. The use of different colours underscores the different uses in the streetscape," according to Roland Vandecasteele.

**Colourful accents.** In order for the roofs to appear as uniform as possible, the client and architect decided on flat, natural red clay roof tiles as these harmonise best with the existing streetscape. The natural red colour of the Vauban roof tiles goes perfectly with the red Tinto façade bricks. Proper ingress of air is ensured through the roof construction using red-brown KoraTech® ventilation elements in the eaves.

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*In order for the roofs to appear as uniform as possible, the client and architect decided on flat, natural red clay roof tiles as these harmonise best with the existing streetscape.*



**Client** Degroote nv – Ostend  
**Architect** Vandecasteele Roland & zoon  
 Kris – Ostend

**Contractor** Vastgoed Degroote – Ostend  
**Roofing** Goegebeur & zoon – Torhout  
**Façade bricks** Forum Tinto, Retro Casa Lena,  
 Agora Titaangrijs

**Clay roof tiles** Vauban straight cut natural red  
**Technical accessories** KoraTech® eaves ventilation  
 elements



The red clay roof tiles of the façade cladding were laid on a wooden supporting framework with a ventilation space to the rear. The concept is therefore not only aesthetically successful, but also has the advantage of needing little maintenance, while improving the thermal insulation and energy efficiency of the building.



# Successful duo for a zero energy house

## Tiles and photovoltaics for roof and façade

**In order to anticipate upcoming thermal building regulations, the owner of the house opted for an energy efficient building right away. Very quickly, clay proved to be an exceptionally versatile building material meeting the specifications on façade and roof.**

Jean-Marc Boisson decided to build an exemplary house in terms of environmental technology. A bioclimatic concept as well as robust and economical materials were used to create the design of architect's office Allier-Myotte and Pouget Consultants, a specialist in thermal studies, both of whom specialise in solutions for sustainable development.

**Aesthetically successful and energy efficient.** The red Vauban straight cut KoraSun® PV clay support roof tiles for the façade cladding were fixed to a wooden supporting framework with a ventilation space behind. This concept requires little maintenance and improves the thermal insulation and energy efficiency of the building.

As there is no central heating, it was decided to cover the energy requirements by installing the KoraSun® photovoltaic system. This system, which combines design, aesthetics and high-tech in one, integrates harmoniously into the roof. KoraSun® comprises interconnected PV modules which are secured to PV support roof tiles. The glass laminates

with the multicrystalline solar cells are encapsulated in an innovative polyurethane frame, a product from the automotive technology sector. This robust and reliable solution means that UV light, frost, hail and other weather influences have no effect on KoraSun®. The system is aesthetically attractive and achieves an optimal output of approx. 120 Wp/m<sup>2</sup>. The 40 KoraSun® modules installed here can generate approx. 3,000 kWh of electricity per year. By comparison: The electricity needed for a 4-person household is approx. 3,000 to 4,000 kWh/year. The modern slate-grey Actua clay roof tiles go perfectly with the KoraSun® modules; large, flat, clear and with clean lines, they are exactly right for the desired architecture of the building. The Actua model has a flat visible surface, a special feature of standing seam roof tiles. With the photovoltaic system for generating power, the house can rightly call itself a zero-energy house.

**Architect** Allier-Myotte  
**Contractor** Maison Helies  
**Clay roof tiles** Vauban straight cut natural red, KoraSun® PV support roof tiles and Actua slate grey.



# Contemporary and classical

## The prototype of an archetype

**Möbius Research and Consulting was on the search for a building with a commercial position and ample car parking in Sint-Martens-Latem. To accommodate the required functions, a villa was demolished and replaced with a new build. As an expression of a clear personal identity in harmony with building regulations, the company has now found its new home in a “prototype of an archetype” – as architect Thierry De Vos calls it.**

On a dynamic business street with office buildings and exhibition spaces, the municipality is trying to retain the traditional villa character. Therefore, the “office building had to retain a roof angled at 45 degrees,” as Thierry De Vos explains, “and the building’s depth and width were also precisely specified.” Bontinck Architecture and Engineering started from an archetype of two floors and pitched roof and chose Aléonard clay plain tiles in three different colours for the roofing. “This created a building with traditional contours in just those materials,” explains the project manager.

**Past and present in dialogue.** “Ultimately, the weathered character also determined the choice of colour.” The use of plain tiles was originally intended to be somewhat fanciful, as a type of eye-catcher in contrast to the local housing, for which such plain tiles are often used on villas in the country-house style. “This classic building material is also extremely

suitable for projects with a contemporary and timeless character, such as this office building.” In this way, it was also possible to almost invisibly integrate the eaves.

Contemporary accents are provided by the openings in the façade and ground floor as well as the roof, with its deeply recessed window façades. The fact that these recesses are angled in an easterly and westerly direction is not only for aesthetic purposes. “The natural incidence of light is reinforced, without causing shadows.” The dialogue between past and present and their different textures determined the choice of clay and aluminium as materials: the verge shingles with their scaly effect are raw, the aluminium of the window frames smooth and cool. According to the architect, this also stands for the contrast between introverted and extroverted.”






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*The dialogue between past and present and their different textures determined the choice of clay and aluminium as materials.*

**Client** A-concept – Sint-Martens-Latem  
**Architect** Bontinck Architecture and Engineering – Ghent  
**Roofer** Devabo nv – Waregem  
**Clay roof tiles** Aléonard Patrimoine 16/27, colour combination: 33% each of Rouge de Mars, Noir de Vigne, Vert de Lichen



The olive-brown façade bricks harmonise perfectly with the imposing roof of green engobed beaver tiles.



# Green Building

## The subtle charm of earthy colours

**Each investor who builds the house of its dreams aims at comfort and functionality. Small details do make the difference. Some of us highly appreciate the building's harmony with its surrounding, others pay attention to uniqueness and wish to emphasize the individual character. It is all possible thanks to the use of materials with an interesting texture and original colours.**

Thorough selection of materials and colours makes this ground floor house with a usable attic so special. Its position with regard to cardinal directions is also of great importance. The plot location allowed to design the main entrance at the Western side. At the designing stage the architect did not take final decision concerning the colour of the elevation and tiles, so that the owners had an opportunity to make their own selection that best meets their needs.

**Subtle and dynamic.** The owners aimed at building a house that would be significantly distinguishable from a typical housing estate. Its uniqueness and individualism was emphasized through applying a natural colouring to the entire building of expressive shades of greens and browns.

The vast hip roof with four dormer windows is characterized with a solid, homogeneous shape and a low-key elevation in natural earth colours. The most important issue at the designing stage was to find a roofing that would best harmonize with the walls

texture and at the same time be meeting high usability requirements as well as drawing attention to its unique colouring.

It was decided that the façade is made from Terca Gandawa brown and olive facing bricks which resemble a mosaic thanks to the filling with an anthracite joint. The dynamics of the building's front elevation and the roof character are perfectly emphasized by green beaver tiles harmonizing with the dim green of the frames as well as a spacious, stylishly arranged garden, spreading from the eastern site. Skillful combination of particular components leaves no space for any colour discords.

"The house makes a coherent architectural design due to appropriately selected colours which are warm and calm as well as the harmony of the form. Subtle play of various natural colours perfectly matches with the colouring of the nearby forest and at the same time constitutes the prevailing factor making the building so unique", says Jarosław Kwiatkowski, the architect from the Spin Design Studio.



**Architect** Jarosław Kwiatkowski,  
Pracownia Projektowa Spin,  
Polen

**Roofer** Edward Szerszeń,  
Jurków k. Limanowej

**Clay roof tiles** Beaver tile, green engobed  
**Facade bricks** Terca Gandawa olive-brown



# Inside yet outside

## *Orientation aid and variety in one*

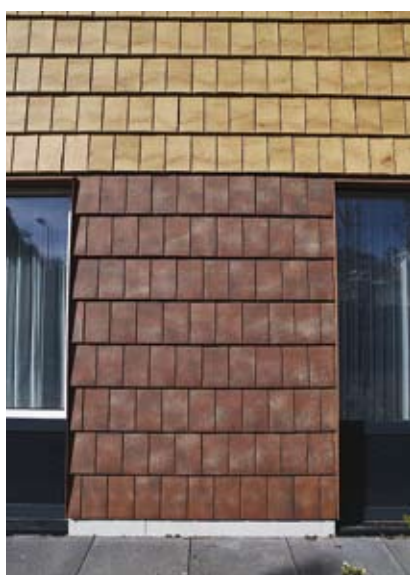
Heldoorn Ruedisulj Architects from Leeuwarden designed the new care home in IJmuiden, which was given a façade cladding of clay roof tiles. The tiles cover not only the road-facing façade, but also the façade of the semi-public inner areas.



The new care home in the northern Dutch town of IJmuiden stands on a site in the middle of a green space that internationally renowned Dutch architect Marinus Dudok (1884-1974) had once planned as an integral element of the town planning concept. The aim was to bring variety to the structure of the estate and to give the dense sea of houses more air. It was in this spirit that a building arose in contrast to the surrounding development.

**Uniform and airy.** Due to its psychogeriatric and somatic residents, the care home has to satisfy very special requirements. Of importance here are the conflicting priorities between the two main functions of living and caring. The parts of the building housing the residential groups were given their own entrance door with intercom and letterboxes, and were also arranged around a landscaped courtyard as free-standing blocks. The blocks are connected to each other by semi-public corridors. This enables the residents to go for a short walk in an enclosed, safe environment. The free-standing buildings also provide lots of daylight and a good view of the road, which helps residents with reduced brain function to get their bearings.

For the façade cladding, the architect opted for flat roof tiles in champagne yellow to give the building a friendly appearance and a clear contrast to the surrounding brick façades of the 1960s. In order to give the semi-public corridors the character of an external space, the outer cladding was continued through into the courtyard.



*Flat clay roof tiles in champagne yellow were specially selected to give all the façades the friendliest possible impression.*

**Client** Woningbedrijf Velsen  
**Architect** Heldoorn Ruedisulj Architecten Leeuwarden  
**Clay roof tiles** Vauban straight cut Burgund and Champagne



# Expressive silhouette

*The fusion of old and new*

In the clubhouse of the Sempachersee Golf Club, traditional materials blend with a new design that corresponds to the building's purpose. With its expressive silhouette, it is impressive how exceedingly modern a conventional covering with clay roof tiles can be.



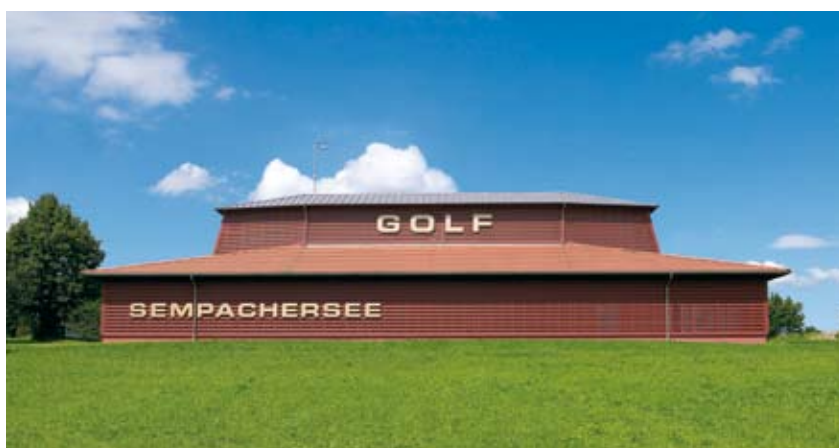
The Sempachersee golf course, located about 15 kilometres from Lucerne, was recently extended with a second 18-hole course, making it the largest golf course in Switzerland in terms of area. In conjunction with this expansion, the Zurich-based architect's office of Smolenicky & Partner was instructed to erect two new buildings: a clubhouse with restaurant and the new building yard. The room layout and maximum volume of the new builds was not to exceed those of the demolished old buildings. The clubhouse was placed on a slope in the terrain where the flat plateau of the golf course transitions to a steeply sloping drop. This is where the wide view of the Sempachersee and the Alps behind it opens up.

**Rustic yet sophisticated.** The aim of the architecture was to blend the old, rustic and agricultural culture with the sophisticated lifestyle of golf culture to create a new entity. The materials used, including a wood façade and tiled roof, therefore correspond with the traditional. However, despite the use of traditional materials, the new build awakens an impression of dynamism and speed.

The shape of the roof follows the two yards, vaults over the kitchen area and covers the lake-facing conference rooms. Surfaces with different inclines run into each other at different angles. The roof was covered

with natural red smooth adjustable clay tiles up to an angle of just 12 degrees. Only one of the abutting faces was too flat and could not be executed as a tiled roof. Instead, a standing seam panel roof was installed. It is the steep roof that gives the building its height, despite being only one-storey tall, thereby lifting the club house out of the landscape. All chimneys and exhaust installations were recessed into the eaves. This created a pure and undisturbed roof line and a little of the initially desired flair of a grand hotel.

**Client** Largura AG, Sempach  
**Architect** Smolenicky & Partner Architektur GmbH, Zurich  
**Construction management** Aluba AG, Flaach  
**Roofer** Benno Erni GmbH, Wiesendangen  
**Clay roof tiles** Plano smooth adjustable tile natural red ZZ Wancor (Wienerberger Switzerland)



*Traditional materials are also used indoors. The omission of every second vertical plank in the wall cladding and its backlighting create a special effect.*



# Art on the roof

*Stylishly renovated in a mediaeval ambience*

The “Gasthaus Zum Riesen” in Miltenberg am Main is one of the oldest inns in Germany. First mentioned in 1158, it has played host to emperors and kings. Now, one of the roofs has been refurbished using very special beaver tiles from the Manufaktur range.



When the severely run-down “Zum Riesen” inn was approved for demolition in 1970, architect Werner Jöst and his wife “rescued” the famous building and subjected it to a programme of extensive refurbishment. Today, the former carriage hall houses an inn, while the Jösts live on the upper floors. However, most of the historic hotel is still to be found on this site.

The lively roof landscape of this complex, which dates back to 1590, and its different roofing materials, small canopies, oriels and little towers demand very special solutions that are especially suited for listed buildings. As not enough historic tiles were available for the new roof, Friedrich Staib from architect’s office Staib und Wiener in Würzburg ultimately chose the Manufaktur range from Koramic while searching for an adequate roofing material.

#### **Interview with architect Friedrich Staib, Architekturbüro Staib und Wiener, Würzburg**

For 30 years, the office of Staib und Wiener has mainly been involved with looking after listed buildings. Architect Alfred Wiener was heavily involved in Bavaria with the development of methods for investigative and analytical processes for listed buildings.

#### **The roofing of the “Zum Riesen” inn is made up of many different roofs. How do you go about tackling a job like this?**

The inn is roofed with various materials of differing ages. After a thorough analysis of the roof landscape, we developed a schedule of measures which showed the client what, when and where things had to be done.



#### **So why was one of the old tiled roofs completely retiled?**

We try to keep the old roofing or supplement what’s there with comparable materials. However, old historic roof material is increasingly hard to come by, of uncertain quality and also expensive. Moreover, the inn is in Miltenberg’s pedestrian zone, surrounded by pedestrian traffic, with all the consequences of safety, transporting materials, scaffolding and building time. The decision in this case fell in favour of a completely new roof.

#### **And how did you come across Koramic?**

We researched which roof tile manufacturers could reconstruct a roof tile that matched what we wanted to have there as closely as possible. The interplay of colours and surface finish were particularly important to the client. After extensive testing, only clay beaver tiles from Koramic’s Manufaktur range were considered in the end.

#### **What experiences have you gained with the Manufaktur range?**

We worked with Koramic for the first time on this project. But I think that in the future we will probably make full use of the wide range of colour and surface technologies of this range, especially their fine adjustment, for the purpose of listed building maintenance.

**Client** Cilly und Werner Jöst, Miltenberg

**Architect** Staib und Wiener, Würzburg

**Roofer** Andreas Hofmann, Eibelstadt

**Clay roof tiles** Beaver tiles from the beaver gallery, size 18 x 38 cm, 16 mm thick, special order



Architect Friedrich Staib

# In harmony with the location

## A school grows

**The school of Fessy, which is housed in a building constructed at the end of the 19th century, was to be expanded with a third primary school class. The new building had to fit harmoniously into the urban development of the town while retaining its general coherence and structure.**

The joint considerations of the local authority and architect resulted in the expansion along the rural road being planned as an extension of the original building in the middle of a green zone. "This building lays the foundation for a structure that is noted for the way the buildings weave around the old playground, while simultaneously retaining the familiar impression and original position within this small village," explains architect Yohann Forel.

**Harmoniously expanded.** Three focal points characterise the procedure for the complex – school, multipurpose hall and school canteen – and determine the interventions outdoors – school yard, playing field and car park. For the roofing of the classrooms, Yohann Forel chose red nuanced Jura Nova roof tiles from Koramic. These were suitable for both the 45-degree roof and for the façade cladding, which was to be given quite deliberate accents. The nuanced colouring was prescribed by the local development conditions. However, to give the whole project a contemporary touch, the architect additionally chose natural zinc, a material that works in perfect synergy with the roof tiles.



*The red nuanced Jura Nova roof tiles from Koramic are suitable for the 45-degree roof and for the façade cladding.*





*Architect Yohann Forel*

**Client** Fessy Local Authority  
**Architect** Yohann Forel  
**Roof truss and roof** Favrat  
**Clay roof tiles** Jura Nova nuanced for roof and

# Simply calming

## In harmony with the environment

**A private investor from Mazovia built a house in a quiet area, far from the city noise. The assumption was that it should blend with the colours of the surrounding landscape and harmonize with the neighbouring buildings. Appropriately selected roofing played a crucial role in achieving this goal.**

A functional, spacious, one-floor house with a usable attic was built on a beautifully forested plot. The designers aimed at blending the building with the adjoining area. Especially the natural, warm colours of the roof and façade were to harmonize with its surrounding. Red and brown facing bricks used for the façade were matched with the colour of the roofing nicely shining in the sun, while the window frames and doors, wooden beams and finishing roof strips make the house complete, full of life, light and character. The house is a clear example of an American architecture delighting with the play of colours and an exquisite style as well as fully expressing the specific character of the surrounding housing estate.

**Elegant and reliable.** The construction of a 380 m<sup>2</sup> house with a two-side complex roof required the use of tiles that would best emphasize the place character and perfectly blend with the surrounding green area. The red Reńska Suwakowa E80 engobe tile was selected. "It makes an elegant and very reliable roof

and at the same time, thanks to its regular, simple form, definitely "calms down" the roof – explains Józef Grobelny, chief executor of the building. Other crucial issues that influenced the choice of the product, apart from aesthetic reasons, were related to the technical side. "I have been using Koramic tiles for years" – says Józef Grobelny. – I appreciate their high quality, easy assembly, wide selection of products and their availability thanks to the well developed network of distributors."

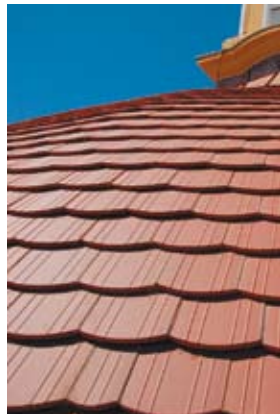
The house delights with its shapes and subtle colours. Two prevailing shades of red, the darker one, and the more low-key one of the façade, as well as the vivid red colour of the roofing definitely contrast with the snow white architectural elements, while the whole building makes a perfectly harmonious composition. "It is all thanks to Koramic tiles that allowed us to create a house that sustains its individual character and at the same time so well blends with its surrounding" – says the owner.

*Thanks to the natural, warm colours of the roof and façade the house not only harmonizes with the neighbouring buildings, but also blends with its surroundings.*





**Architect** Ryszard Szewczyk,  
Studio Stylowy Dom  
**General contractor/** Gro-Dach, Józef Grobelny  
**Roofer** Aleksandrów Łódzki  
**Clay roof tiles** Reńska Suwakowa E80,  
red engobed



# A new roof with a historical dimension

## The ongoing process of refurbishing a castle

**The Moritzburg lake district, with the hunting castle at its centre, is one of Dresden's most attractive local leisure areas. Just 15 kilometres from the city centre, the Baroque castle complex draws thousands of visitors a year. The roof of almost 4,000 square metres in area has been given a new covering of special Koramic clay beaver tiles.**

Erected by Duke Moritz of Saxony between 1542 and 1546 as a hunting lodge in the middle of a pond on a granite bluff, the castle of Elector Fredrick Augustus - Augustus the Strong - was converted around 200 years later into a prestigious hunting lodge and maison de plaisance to plans by Matthäus Daniel Pöppelmann. Now in the possession of the Free State of Saxony, the refurbishment of this large property and related parkland is a constant exercise in maintenance.

**A constant process.** The many measures demanded for the conservation maintenance of such a complex historic estate, including the façade renovations, are being supported by Dresden-based architects Dietmar Kunze and Hans Zerjatke. "The renovation of the roof began in the mid-1990s with the re-roofing of the tower in the northwest corner. In 2008, the west façade with chapel and the south-western hunter's tower were refurbished; this year it is the turn of the south, east and north faces, together with the renovation of the roof on the south-east tower. This work should be completed in 2011," architect Kunze explains the process.

**Based on a historical model.** The newly laid beaver tiles from Koramic's Manufaktur range precisely follow the historical pattern. "The lobster-back construction of the beaver tiles corresponds to the Saxon format. Instead of the normal three ribs found in this format, the tiles on the Moritzburg have four ribs and are only 32 centimetres long instead of 38 centimetres. This shorter beaver tile variant is important for the large onion towers and the heavily swept shape of the Renaissance chapel roof. Here, the shorter beaver tiles prevent excessive jamming of the roofing," says Kunze. The beaver tiles from Koramic's

Manufaktur range also offer a special advantage: they are produced slightly convex as standard and exhibit a sweep of about 2 millimetres. This almost imperceptible curvature not only supports easier laying of the tiles on flat surfaces, but also simplifies the covering of large onion towers. The slightly convex beaver tiles, upturned at the tip, are easier to grout with a compulsory ventilation gap at the rear and prevent any jamming of the roofing in areas of irregularity. The beaver tiles, with the unnoticeable cavity behind their tips, disrupt the capillarity between the courses of tiles, provide a smoother, flatter appearance and thus increase the aesthetics of the roof surface.

Before the new roof went on, the wooden roof trusses were refurbished. To give the final covering the roundest possible appearance, special, flexible layered wooden battens were used. Each beaver tail tile was, as is the practice in Saxony, secured with a compulsory ventilation gap at the rear and additionally secured to the storm-exposed west tower with screws. A sarking membrane is unnecessary when a mortar suitable for listed monuments is used and the ceramic roofing can also air and dry out without obstruction on the side facing the roof space.

**Client** Free State of Saxony, Saxony State Ministry for Finance

**Architect** Kunze – Zerjatke, Dresden

**Roofer** Dächer aus Meisterhand, prop. André Schlagowsky, 08459 Neukirchen

**Clay roof tiles** Beaver tiles from Koramic's Manufaktur range with four ribs, lobster-back construction, 18 x 32 cm in size and slightly convex.





# Charity in the grand style

*Clay roof tiles as the first choice*

To date this 3,000 m<sup>2</sup> residence in Southern Pennsylvania is the largest single Patrimony roof supplied by Northern Roof Tiles, the North American importer of Koramic clay roof tiles. A total of 196,000 tilers were supplied in a three size 3 colour blend.

*Clay roof tiles were the first choice of the architects when they had to decide how to cover the roof of a splendid residence like that.*

The owners needed not only a new home, but also one that included suitable accommodation for holding charity events which are a very important part of their life. The house includes a formal reception area, dining room and ball room and in the first three years they have raised close to \$3m for charity.

**With splendour and grandeur.** The family area of the house comprises a large gourmet kitchen, a two story library finished in antique chestnut. Overlooking the ballroom is a gallery space to exhibit the clients' extensive art collection. From this level a secret passageway leads through to the second floor of the library. The lower level of the home, usually known as the basement, contains a second larger gallery, a professional grade twenty seat home theatre, a cigar smoking room, and a 15,000 bottle wine cellar with internal fountain. Architects, Olivieri Shousky & Kiss, decided very early on in the design process that a house of his size and grandeur needed a roof of similar status and Patrimony was their first choice. The first challenge for local roofing contractor Donald B Smith Inc was that they had never installed a tile roof before! However as they had years of experience installing slate roofs and as I believe 'a slater can

tile, but a tiler cannot necessarily slate' a simple site instruction course 'Roof Tile 101' plus our regular tips and pointers was all that would be needed, plus a few phone calls and site visits along the way. All the clay roof tiles were pre-blended on the ground and as work progressed the installers were able to deal with any challenging details that arose. The finished roof is a testament to all that is terrific about Patrimony clay roof tiles and the great craftsmanship of the installers.

**Architect** Paul Kiss, Olivieri Shousky & Kiss, P.A. Collingwood, New Jersey.  
www.olivieriarchitects.com

**Projektmanager  
Koramic partner** JB Miller  
Northern Roof Tiles, Ontario, Kanada

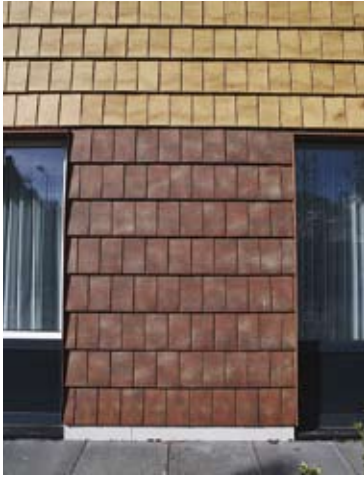
**Clay roof tiles** Aléonard Patrimoine Farbkombination Rouge de Mars, Vert de Lichten, Noir de Vigne

**Format** 14 x 25 cm, 15 x 26 cm, 16 x 27 cm





**Wienerberger**  
Building Value



**KORAMIC**