

# FOZ

FOCUS ON ZINC

#18



VMZINC

# Editorial

It is with great pleasure that we present to you the new edition of FOCUS ON ZINC.

Since 1996 VMZINC® have produced a brochure that shows the possibilities of zinc and hopefully provides some inspiration for future projects.

Our 18<sup>th</sup> edition again covers a wide array of fascinating projects from around the world. Visit 16 countries and 20 projects that showcase a wide range of systems and buildings, ranging from private houses to corporate buildings, from contemporary to retrofit, all executed with respect to building quality, the environment and the used materials.

The projects presented highlight buildings that reveal the beauty of zinc, show creative use of techniques and continue to focus on our different surface aspects for roofs and façades. Our older pre-weathered aspects are supplemented each year by new colors, which enrich a unique range.

At VMZINC®, we continue to place Architecture at the heart of our business, working closely together with the architects and roofers to create memorable buildings that are meant to last for a very long time.

We sincerely hope you get new inspiration by discovering the projects we selected for you and we wish you a very pleasant reading experience.

Still passionate about Zinc.

## The editorial committee

**FOCUS ON ZINC N° 18** - November 2021. FOCUS ON ZINC is the international architecture magazine from VMZINC®. It is published in French and English.  
**Publication Director** Bram Callens **Project Manager** Corinne Gessat **Editorial Committee** Valérie Brihan, Arwa Boussaa, Stéphane Corbel, Charles Derreumaux, Philippe Gustin, Eric Jacob, Karina Jensen, Jonathan Lowy, Knut König **Editorial Contribution** Valérie Brihan, Jenny Gilbert, Jon Lowy, Olivier Namias, Open place  
**Design** Malo Jéhin - VM Building Solutions **Printing** Groupe des Imprimeries Morault.  
© Copyright VM Building Solutions - November 2021. Any total or partial reproduction of this document is subject to prior written authorisation from VM Building Solutions.



02 BELGIUM



04 NETHERLANDS



06 PORTUGAL



07 UNITED KINGDOM



08 SWITZERLAND



10 GERMANY



11 FRANCE



12 NORWAY



16 BELGIUM



18 USA



22 TURKEY



23 INDIA



24 FRANCE



26 FRANCE



28 SPAIN



30 SCOTLAND



32 ITALY



33 AUSTRALIA



34 CANADA



38 CHINA

# A new golden age

In Durbuy, in the Belgian Ardennes, the "Sanglier des Ardennes" underwent a major renovation. This new prestigious hotel complex, designed by the architects at the Durbuy-based Atelier 47 firm, has several buildings.

To ensure harmony between the latter and with the immediate environment, the architects chose to combine traditional bricks with ANTHRA-ZINC® facade panels.

A modular system of MOZAIK® zinc cassettes in a beige colour, specially created for this project, gives the complex a look that is both playful and luxurious.

**Belgium - Durbuy**  
Le Sanglier des Ardennes

**Architect** Atelier 47  
**Contractor** Diagon  
**Techniques** MOZAIK® Cassettes, VMZINC® Interlocking panel  
**Aspects** PIGMENTO® beige, ANTHRA-ZINC®  
**Surface** 390 m<sup>2</sup>  
**Copyright** Jump pictures



# Lines and materials

Heerle Villa, at the heart of Dutch North-Brabant, is made up of two volumes of accommodation overlooking a central garden.

The flawless integration of natural materials such as brick, wood and zinc prompts a simple reading of the building's forms.

The creativity of the architects at grassodenrijder\_architecten (Bergen op Zoom) can be seen in singular architectural details such as Standing seam profiles with different widths giving relief to the envelope, and the box gutters that create harmonious transition between the roofs and facades.

The grey shades of the QUARTZ-ZINC® and the brick bring character to this exceptional, elegant house.

**Heerle - Netherlands**

Private villa

<b>Architect</b>	grassodenrijder_architecten
<b>Contractor</b>	J.v.K. Daken B.V. Breda
<b>Technique</b>	VMZINC® Standing seam
<b>Aspect</b>	QUARTZ-ZINC®
<b>Surface</b>	350 m <sup>2</sup>
<b>Copyright</b>	Hans Gorter Fotografie

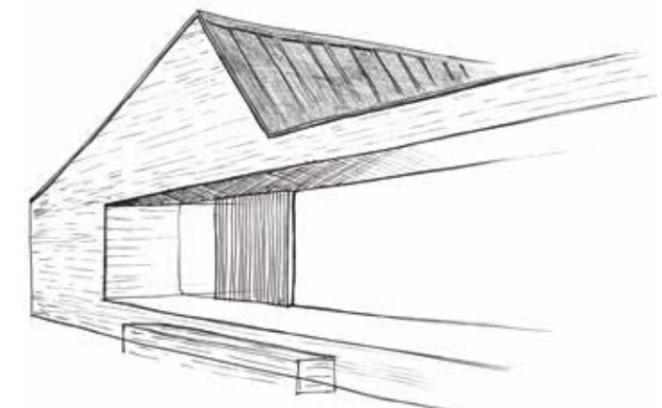


Illustration : grassodenrijder\_architecten

# From outside to inside

In Ílhavo, on the Portuguese coast, the Arch House accommodates the offices and home of architect Maria Fradinho, who founded the Frari studio.

The facade arch that gives this building its name echoes the arch of the neighbouring porcelain manufactory, which the architect loves.

This industrial inspiration is also expressed in the choice of a 370 m<sup>2</sup> ANTHRA-ZINC® envelope for the roof and facade.

Covering almost all of the building, the material conveys a strong architectural image while tracing a clear line between interior and exterior.

**Portugal - Ílhavo**  
Arch house

<b>Architect</b>	Frari architecture network Maria Fradinho
<b>Contractor</b>	Duarte & Vieira
<b>Techniques</b>	VMZINC® Standing seam, VMZINC® Flat lock panel
<b>Aspect</b>	ANTHRA-ZINC®
<b>Surface</b>	370 m <sup>2</sup>
<b>Copyright</b>	Ivo Tavares Studio

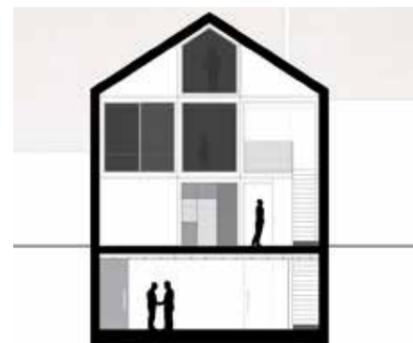


Illustration : Frari architecture network

# Art in the countryside

The founder of Adam Richards Architects decided to build his family home in the middle of a field, next to a farm cottage in the South Downs national park.

For him, this project marks ten years of presence and commitment in this region in the south of England.

"I wanted to confront the geometric forms of abstract art with traditional forms and materials" says the designer of this raw concrete structure with brick facades and roofs covered with 400 m<sup>2</sup> of Standing seam ANTHRA-ZINC® PLUS.

Awarded several prizes by the Royal Institute of British Architects (RIBA), "Nithurst Farm" is reminiscent of the region's brick-built farm

buildings and of a simple geometric form whose gradually elevated floors create the impression of a minimalist sculpture.

This desire for a combination of forms and materials is accompanied by a play of stylistic influences.

Although the arched windows punctuating the thick patinated brick walls have an older connotation, the interior composition, where the concrete is visible, draws its aesthetic from a sci-fi film made during the Soviet era: "Stalker" by Tarkovski.

This house is as much an artistic manifesto as an ode to family life in the countryside.

**United Kingdom - Petworth**  
Nithurst Farm

<b>Architect</b>	Adam Richards Architects
<b>Contractor</b>	Roles Broderick Roofing Ltd
<b>Technique</b>	VMZINC® Standing seam
<b>Aspect</b>	ANTHRA-ZINC® PLUS
<b>Surface</b>	400 m <sup>2</sup>
<b>Copyright</b>	Brotherton Lock

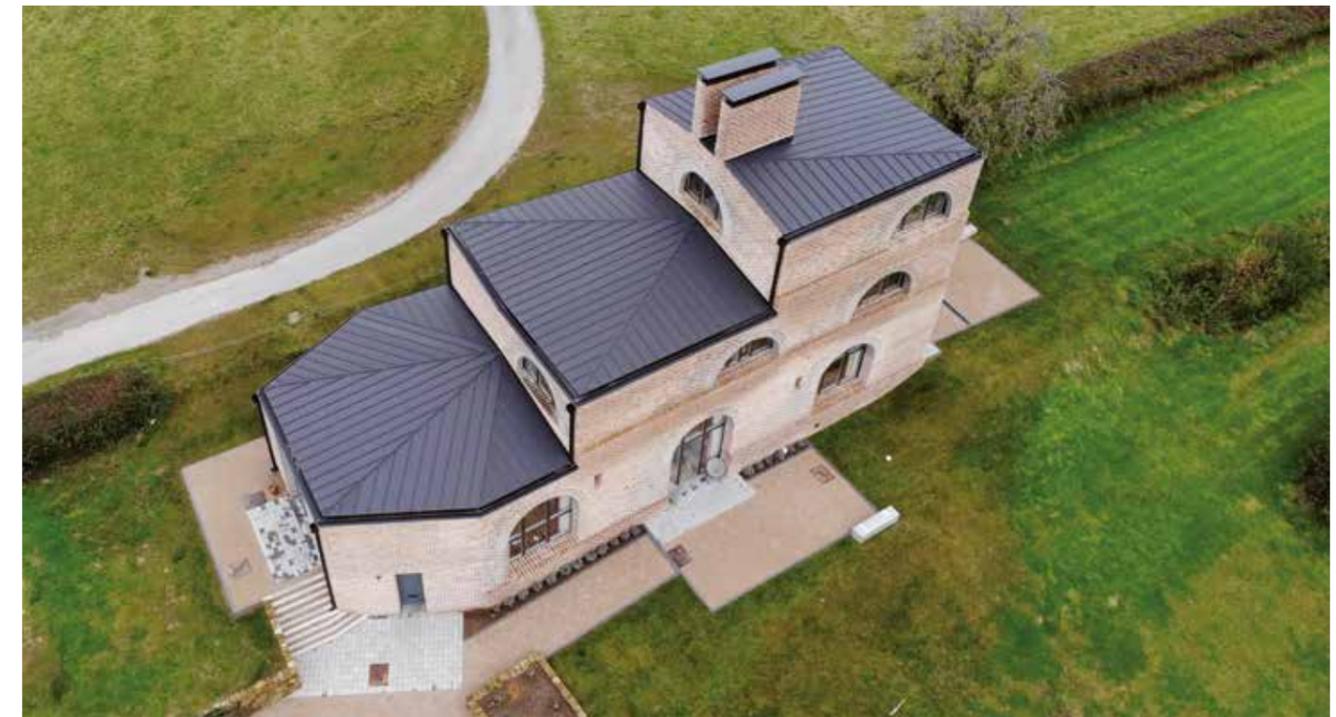


Illustration : Adam Richards Architects

# A vibrant black box

Below the Swiss town of Döttingen, on the east bank of the River Aar, the LUMO Architekten AG firm (Döttingen) designed this two-family house with impressive volumes.

The lines of this three-storey building – the ground floor posed on a raised concrete slab and two upper floors overlooking the river, the neighbouring orchard and a roof terrace – seem to follow the unique topography of the site, between the river dyke and the hill sloping upwards to the town.

The homogeneity of the monochrome facades, clad mainly with ANTHRA-ZINC® Zig Zack profiles, makes the volume look like

a “black box” – an image that is heightened by the fact that the protruding window frames are similar in colour to the zinc.

The angular lines of the Zig Zack profiles animate the exterior walls, making the built volume classic and elegant, changing “from a warm brown-black to a deep black according to the sunlight and the time of day” says the architect.

This aesthetic choice is accompanied by efficient management of renewable energies – for example with the highest roof housing a photovoltaic system – which led to this project being awarded Minergie certification.



**Switzerland - Döttingen**  
Private house

**Architect** LUMO Architekten AG  
**Contractor** Knecht + Zutter AG  
**Techniques** Zig Zack profiles  
 Perforation  
**Aspect** ANTHRA-ZINC®  
**Surface** 660 m<sup>2</sup>  
**Copyright** Paul Kozlowski



# Three dimensions

Designed by the Thomas Hillig Architekten firm (Berlin), the five-storey office building at number 7 Ritterstraße gives a new dimension to this street in the Kreuzberg district of Berlin.

Its three-dimensional facade featuring 600 m<sup>2</sup> of Interlocking panel is compelling with its play of protruding modules punctuating the different floors.

This sculptural facade highlights both the flexibility with which zinc can be installed and the creativity of the architect.

The colour and monochrome aspect of the QUARTZ-ZINC® create a striking contrast with these volumes and give true elegance to the complex.

**Germany - Berlin**  
Office building

<b>Architect</b>	Thomas Hillig Architekten
<b>Contractor</b>	Peter Ness Bauklempnerei GmbH
<b>Technique</b>	VMZINC® Interlocking panel
<b>Aspect</b>	QUARTZ-ZINC®
<b>Surface</b>	600 m <sup>2</sup>
<b>Copyright</b>	Thomas Hillig



# Interplay of shade and light

Whether perforated or Standing seam, zinc has pride of place on the facades and roofs of the care home in Onet-le-Château.

CL Architecture, which designed this 800 m<sup>2</sup> building, opted for a luminous finish with the AZENGAR® surface aspect.

While the environmental characteristics of zinc appealed to the architect – the building was designed taking an eco-design approach – the durability of zinc and its multiple perforation possibilities were just as decisive for the architect.

A singularity that gives this building its own signature, as well as its architectural style.

**France - Onet-le-Château**  
Care home

<b>Architect</b>	CL Architecture
<b>Contractor</b>	Paul Barriac SAS
<b>Techniques</b>	VMZINC® Standing seam Perforated sheets
<b>Aspect</b>	AZENGAR®
<b>Surface</b>	800 m <sup>2</sup>
<b>Copyright</b>	Paul Kozlowski



# Fitting into the landscape

The "Skjoldnes" complex, located on the hilly coast of a fjord in the south-west of Norway, was designed by the 3rw Arkitekter firm in Bergen.

On a single plot, this prestigious project featuring five housing units and a public park covering a motorway, was developed in three distinct phases for a total of 21,550 m<sup>2</sup> and 130 housing units.

A 1930s villa, redesigned as a café/workspace, was conserved in memory of the site, as was a boat house that now accommodates the residents' nautical activities. For the designers, the architectural challenge resided

in fitting the geometry of the new buildings into the topography of the plot's steep, rocky coast.

Apart from its form, the complex's integration in the landscape also determined the choice of natural materials such as wood, stone and zinc.

The latter covers more than 1,000 m<sup>2</sup> of facades in PIGMENTO® grey that was coloured to order.

Perfectly harmonious with the stone, glass and green roofs of these luxury apartments overlooking the sea.

## Norway - Bergen Skjoldnes Villa

<b>Architect</b>	3rw arkitekter AS
<b>Contractor</b>	Beslag & Balkonger AS
<b>Technique</b>	VMZINC® Standing seam
<b>Aspect</b>	PIGMENTO® grey
<b>Surface</b>	1,000 m <sup>2</sup>
<b>Copyright</b>	Kirstine Mengel





# Chrysalis

In Europe, between half and three quarters of the labour force work in the tertiary sector. However, permanent presence in the office has been put into question in recent months because of the pandemic.

The increase of remote working now means corporate properties need to be reinvented to provide a better setting and improved comfort for staff. For companies, turning the office into an attractive space is a means of keeping their best elements and recruiting new talents.

For the owners of tertiary buildings, renovation is a means to ensure a property retains its rental value over the years. Offices get old and become obsolete, and difficult or even impossible to rent.

The Falcon building in Grand-Bigard is an emblematic project demonstrating the changes necessary in the tertiary sector. The building was constructed in the 1980s, close to the Brussels ring road.

It faithfully reflects the architectural characteristics of the time. The main corner entrance defines two symmetrical blocks, forming a dynamic triangular form.

The facades clad the volume with a very smooth film combining SSG (Structural Sealant Glazing) and aluminium panels.

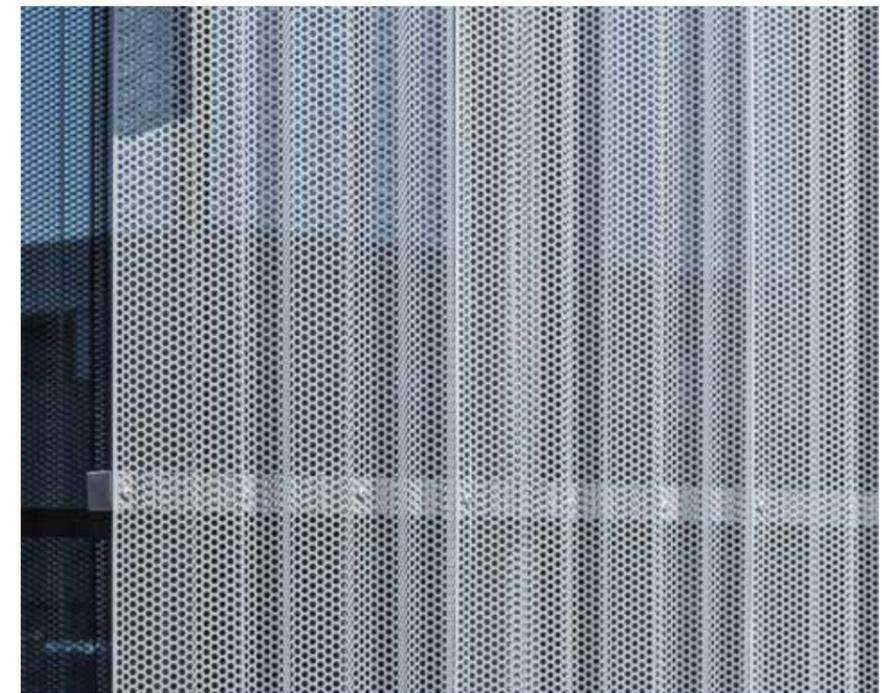
Impeccable yet banal, this repetitive skin literally leaves architectural audacity at the door of the company, the building's only expressive element.

Fédérale Assurance purchased the building in 2015 and, as it was necessary to bring the building in line with current standards, used this opportunity to also change its image.

The building's metamorphosis was ensured by adding a chrysalis in zinc, which is used here for facade rather than roofing.

Installed very simply on a metal structure, perforated zinc panels create assertive translucent volumes, allowing the original building to be more or less visible according to the light.

The OSK-AR firm's project combines the aesthetic with the functional, filtering solar radiation and improving the building's heat balance.



**Belgium - Grand-Bigard**  
Renovation of the Falcon building

<b>Architect</b>	OSK-AR Architecten
<b>Contractor</b>	Build-X
<b>Technique</b>	Perforated and folded zinc
<b>Aspect</b>	QUARTZ-ZINC®
<b>Surface</b>	1,400 m <sup>2</sup>
<b>Copyright</b>	Jump pictures



# Summit meetings

The University of Chicago, south of the city centre, was developed around several parks that were created for the 1893 Universal Exhibition. Urban planners consider these to be an example of how to design a garden city. This setting makes it one of the most pleasant campuses in the United States, but does not prevent the university from encountering problems related to its growth. The campus lacks space however, in particular meeting spaces.

The Rubenstein Forum intends to equip the institution with sufficient meeting spaces, thanks to a 100-million dollar donation from the sponsor after whom the project is named. The building was designed by the Diller Scofidio + Renfro architecture firm in New York, the team behind a number of high-profile cultural and academic buildings.

Some have compared the centre to a pile of books. As with their Diane Vagelos Center project for Columbia University in New York, the architects designed a tower, the second on the campus after that of the Logan Art Center, an 11-storey building completed in 2011. The objective was to create a landmark and establish a visual connection between downtown Chicago and its southern suburb, while creating views overlooking Lake Michigan.

Initially designed as a glass tower crowned with a glass box, the 10-storey building evolved into a system of superimposed boxes. Each two-storey volume is designed as an independent unit with a double height of glass on one side, creating the impression of a village square facilitating informal meetings and discussions between participants at a symposium. The large glass surfaces allow the city and the landscape into the interiors, providing a second, more symbolic connection with the urban environment.

The structure alternates prestressed floors and concrete slabs. Installed with great care, the metal cladding gives the project its credibility, finely articulating the configuration of the stacked boxes and exposing the openings.

From inside the rooms, a bevelled aluminium frame erases the structure, and from the outside, turns each space into a monumental tableau vivant, animated by the users moving beneath the artificial light.

The side walls are clad with QUARTZ-ZINC® Flat lock profiles, whose matt finish emphasises and contrasts the brushed aluminium frames of the glass facades. The vertical joints of the panels prolong the joinery of the curtain walls.

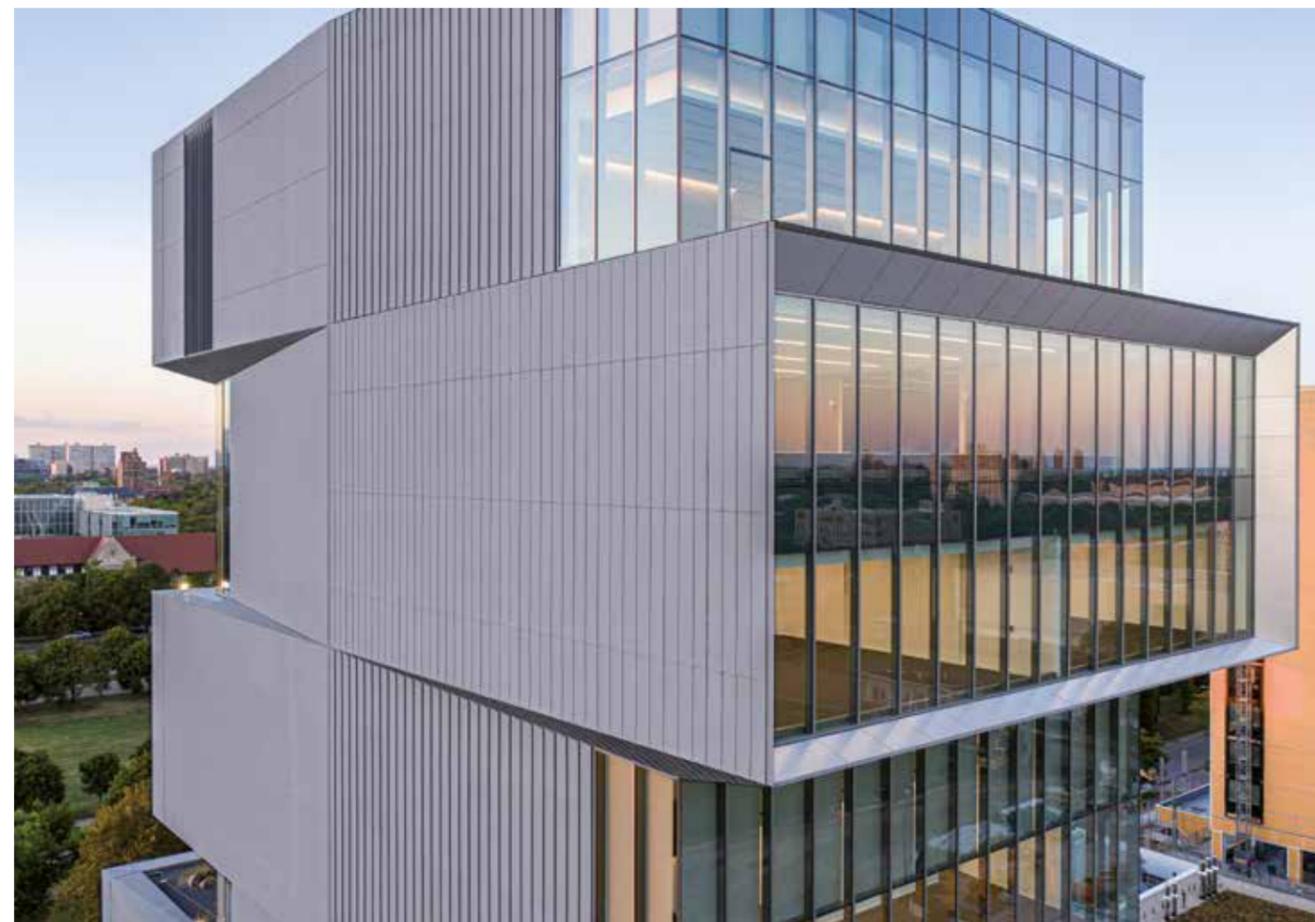
For the Granoff center, constructed in 2011 on the Brown University campus in Providence, the Diller Scofidio + Renfro firm had used composite zinc panels to give the walls the appearance of a pleated tri-dimensional veil.

Here it explores a different expressive register of the material, playing on repetition, flatness, analogy between the glass and metal materials, and monumentality.

## USA - Chicago David Rubenstein Forum

<b>Architects</b>	Diller Scofidio + Renfro
<b>Contractor</b>	Tuschall Engineering Company
<b>Technique</b>	VMZINC® Flat lock panel
<b>Aspect</b>	QUARTZ-ZINC®
<b>Surface</b>	1,945 m <sup>2</sup>
<b>Copyright</b>	Brett Beyer





# Under a single roof

Located in Ankara, this "model factory" – the first of its kind in Turkey – is playing an important role in the country's structural transformation. Its mission is to support small and medium businesses to transition to Industry 4.0.

This mixed-use 2,000 m<sup>2</sup> building, designed by architect Mustafa Erkan Kaçar, houses steel and reinforced concrete structures, covering all of the buildings' training rooms,

conference halls, exhibition spaces. Overall perception of the building is ensured by a Standing seam QUARTZ-ZINC® envelope on the roof and side facades.

This cladding ensures a homogenous reading of this complex – where the modernity of zinc is associated with a determination to digitally transform industry.

<b>Turkey - Ankara</b>	
Asosem Training centre	
<b>Architect</b>	Mustafa Erkan Kaçar
<b>Contractor</b>	Irmak Tic
<b>Technique</b>	VMZINC® Standing seam
<b>Aspect</b>	QUARTZ-ZINC®
<b>Surface</b>	2,000 m <sup>2</sup>
<b>Copyright</b>	Gizem Baykal



Illustration : VMZINC®

# For the greater good

The XLRI School of Management in Jamshedpur, a top-ranking business school, decided to expand with the construction of a new campus in Jhajjar in the Delhi region, in the north of India.

Spread out over 36 hectares, the buildings of this new school were designed by the SPP Architects firm in Gurgaon "with respect for nature and a wish to foster climate awareness".

The campus obtained the Indian Green Building Council's "Gold" certification for ecological construction. For the facades of the main buildings, the architect wanted a

material that would be coherent with the image of modernity associated with the XLRI.

Zinc's aesthetic qualities and flexibility led him to choose various surface aspects of zinc: 2,500 m<sup>2</sup> of interlocking panels in QUARTZ-ZINC®, ANTHRA-ZINC® and PIGMENTO® blue, which he mixed in an original, random manner.

Playing with the widths, colours and finishing of these panels, he created a texture that responds harmoniously to the painted walls on the lower parts of the facades and gives his architecture a modern signature.

<b>India - Jhajjar</b>	
XLRI School of management	
<b>Architect</b>	SPP Architects
<b>Contractor</b>	Woodrap Corporation
<b>Technique</b>	VMZINC® Interlocking panel
<b>Aspects</b>	QUARTZ-ZINC®, ANTHRA-ZINC®, PIGMENTO® blue
<b>Surface</b>	2,500 m <sup>2</sup>
<b>Copyright</b>	Gitesh Gupta, Studio BluOra



# An authentic marriage

Between river and sea, the Maximilien Robespierre middle school in Port Saint-Louis du Rhône has a net floor area of 10,000 m<sup>2</sup> spread out in three buildings.

On the roof terrace of one of these, 6 town houses for staff accommodation are set back from the bare portion of the facade. Their natural zinc envelope, installed using the Standing seam technique, distinguishes them from the rest of the building.

The roofing and side facades are combined with a slatted rough timber cladding.

The natural aspect and nobility of zinc convinced architect Frédéric Rill that this natural combination would create an elegant contrast.

**France - Port Saint-Louis du Rhône**  
Robespierre Middle School

**Architect** Frédéric Rill  
**Contractor** Jimenez Charpentes  
**Technique** VMZINC® Standing seam  
**Aspect** Natural zinc  
**Surface** 2,200 m<sup>2</sup>  
**Copyright** Paul Kozlowski



# Zinc origami

The creation of a gymnasium and the extension of the canteen at the Champollion High School in Grenoble were entrusted to the Milk Architectes firm in Annecy.

Located amidst historic buildings dating from the 19th century, the roof of this complex was designed as a zinc origami.

Perfectly installed, this 2,230 m<sup>2</sup> Standing seam zinc roof creates a set of shallow-pitch facets that seems to float in the air.

The choice of PIGMENTO® red ensured perfect integration with the tile roofs of the old buildings.

**France - Grenoble**

Restructuring and extension of the Champollion High School

- Architects** MILK Architectes  
SORIA Architectes & Associés
- Contractor** Société Dauphinoise  
Charpente Couverture
- Technique** VMZINC® Standing seam
- Aspect** PIGMENTO® red
- Surface** 2,230 m<sup>2</sup>
- Copyright** A-Merillod-ONIXSTUDIO



# A cabin among the trees

In the Moraleja neighbourhood of the town of Alcobendas, north of Madrid, the Vasco Vieira Arquitectos firm designed this house like a "cabin among the trees".

It was the discovery of a plot mainly planted with one single species that decided the architects to preserve this natural environment and design this project in harmonious dialogue with it.

The non-wooded zones of the plot were identified and served to determine the form of the building, made up of several "branches" connected to each other by bridges and corridors. To minimise the impact of this

layout, the designers chose to elevate the construction above ground level, in the form of light structures.

For the architect, the natural exterior materials had to reflect this structural lightness. They also had to be reusable or recyclable.

He chose a cladding of zinc combined with wood. 2,750 m<sup>2</sup> of Standing seam zinc with a PIGMENTO® brown surface aspect clad the facades of this villa, whose original design is in perfect harmony with its preserved environment.

**Spain - Alcobendas**  
"La Moraleja" Private house

**Architect** Vasco Vieira Arquitectos  
**Contractor** Antonio Ramos  
**Technique** VMZINC® Standing seam  
**Aspect** PIGMENTO® brown  
**Surface** 2,750 m<sup>2</sup>  
**Copyright** Paul Kozlowski



# Tradition revisited

Whitehorn Hall is one of two student accommodation buildings designed by HLM Architects for the University of St Andrews in Scotland.

With a surface area of 2,000 m<sup>2</sup> and 184 rooms spread out in several units, Whitehorn Hall is located within a protected heritage zone.

To respond to the baronial architecture of the site, 1,700 m<sup>2</sup> of Standing seam QUARTZ-ZINC® PLUS roofs include revisited gable chimneys to house the ventilation ducts.

This programme won the 2019 Scottish Design Award.

**Scotland - St Andrews**  
Whitehorn Hall

<b>Architect</b>	HLM Architects
<b>Contractor</b>	Procladd
<b>Technique</b>	VMZINC® Standing seam
<b>Aspect</b>	QUARTZ-ZINC® PLUS
<b>Surface</b>	2,000 m <sup>2</sup>
<b>Copyright</b>	David Barbour Photography



# A contemporary complex

Powell Hall is the second student accommodation building commissioned from the University of St Andrews from the HLM Architects firm.

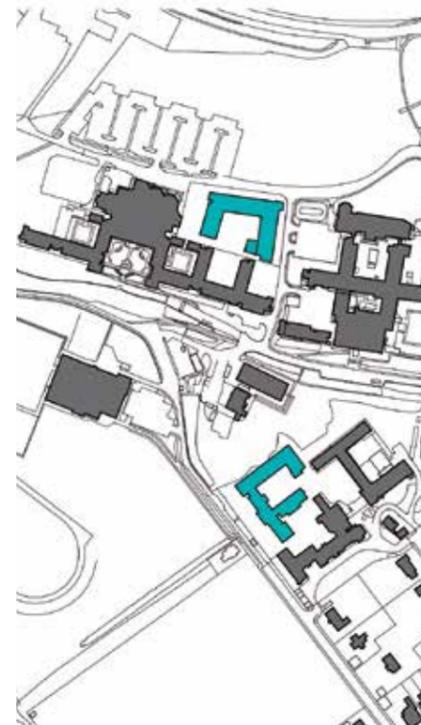
To punctuate its facades with bricks and individualise its 205 rooms, the designers created bay windows, which mark each floor with their standing seam zinc surrounds.

The PIGMENTO® red surface aspect, also used on an extension of the roof, was chosen to accentuate the visual context of this part of the campus by giving a contemporary echo to the existing buildings.

This aesthetic choice was also determined by the durability of the material, which contributed to Powell Hall being awarded a BREEAM "excellent" rating.

**Scotland - St Andrews**  
Powell Hall

<b>Architect</b>	HLM Architects
<b>Contractor</b>	Procladd
<b>Technique</b>	VMZINC® Standing seam
<b>Aspect</b>	PIGMENTO® red
<b>Surface</b>	1,000 m <sup>2</sup>
<b>Copyright</b>	David Barbour Photography



# A luminous renaissance

**Italy - Milan**  
Renovation of office buildings

**Architect** Dolce Associati Architettura  
**Contractor** Asti Srl  
**Technique** VMZINC® Interlocking panel  
**Aspect** PIGMENTO® blue  
**Surface** 3,000 m<sup>2</sup>  
**Copyright** Pier Mario Ruggeri



The sleek line of the buildings, the quality of the details and the colour that plays with the sky give an architectural signature to these renovated buildings, which have taken on a new lease of life.



# At the heart of the city

**Australia - Adelaide**  
St Andrews Hospital

**Architect** Wiltshire Swain Architects  
**Contractors** Mossop Construction + Interiors, SA Construct  
**Technique** VMZINC® Interlocking panel  
**Aspects** PIGMENTO® blue, green, QUARTZ-ZINC®  
**Surface** 4,900 m<sup>2</sup>  
**Copyright** David Sievers Photography



The zinc cladding rising towards the sky seems to be posed upon the building, which is punctuated by long openings that give it a singular appearance. A harmonious integration in a residential environment.



Illustration : Wiltshire Swain Architects

# A technological blade

Created in 1967, the Humber College Institute of Technology & Advanced Learning offers continuous professional learning courses in a multitude of subjects, from journalism to law, via music, tourism, commerce, etc.

57,000 students frequent the north campus, one the institution's two sites, where a new building dedicated to innovation and digital technology was recently constructed.

The architecture of the Barrett Center for Technology Innovation (Barrett CTI) reflects Humber College's high ambitions in the areas of automation, digital manufacturing, software, etc.

Its expressive volumes make it a campus landmark. With its bevelled western facade, it has the dynamic appearance of a blade tip ready to slice through the space of the campus.

Beneath the sloping facade, a curtain wall spanning three floors reveals the interiors. A towering interior patio gives a visual outlet to the central corridor leading to the classrooms, meeting rooms and practical workrooms. A hollow space cuts through this circulation from the ground floor to the roof.

This space is both spatial and environmental, ensuring natural ventilation. It is completed by other systems, making the building extremely efficient in terms of eco-design: concrete walls providing thermal inertia, a passive envelope, a sunscreen regulating natural light in the classrooms, high albedo roofing reflecting solar radiation rather than harvesting solar energy.

The zinc facade plays an important role in the building's environmental design and contributes to its zero carbon certification. It is as though its design was deducted by subtracting sunshine parameters.

The zinc elements give way to glass wherever needed, when necessary integrating sunscreens or reflectors that redirect the light onto the ceilings.

This strategy is underpinned by the modularity of the metal cladding and gives regularity to the wall and its irregular perforations.

The dark colour of the preweathered zinc contrasts with the orange cladding on the gable wall, contributing to the overall dynamism of the building.



**Canada - Toronto**  
Barrett Center for Technology Innovation (BCTI)

**Architects** Perkins and Will Architects  
**Contractor** Bothwell Accurate  
**Technique** VMZINC® Interlocking panel  
**Aspect** ANTHRA-ZINC® STRAT  
**Surface** 10,000 m<sup>2</sup>  
**Copyright** Tom Arban, Scott Norsworthy



# An athletic landscape

Founded almost 2,000 years ago, Datong, 270 km west of Beijing, is not considered as one of the Chinese mega-cities, despite the fact that it is as large as the largest European cities. With three million inhabitants, modern-day Datong was developed around mining.

The municipality undertook significant actions to break with this negative industrial image: the old medieval wall was recreated and a sports complex was constructed in the west of the city, near the artificial lake of Wenyingshu reservoir. The complex will be used for regional and national competitions, while providing the sports facilities that the city had been lacking.

Together with the CCDI institute of architecture, the Australian branch of Populous, an international agency specialising in large sports facilities, designed the four entities of the complex.

A multi-sports training hall, a gym and a swimming pool and a 30,000-seat stadium capable of accommodating athletics competitions. A series of juxtaposed shells close this sports arena.

The complex contrasts with the majority of stadiums seeking to express their sporting values: performance, speed, etc. We all remember the "bird's nest" Olympic stadium in Beijing.

Here, the architects also refer to nature, geology and geography, with the multiple shells of the stadium evoking the Yungang Grottoes, a tourist attraction in the region. These geological formations were turned into Buddhist temples housing numerous monumental statues.

The sports complex emerges like a new landscape on the edge of the city. The entrance between the shells is reminiscent of that of the local grottoes.

The stadium's metal structure is clad with PIGMENTO® blue zinc panels. The cladding lines a complex of steel sheets ensuring watertightness.

Zinc covers small elements produced using a hybrid technique, adhered onto honeycomb panels and fixed to the structure using a system of clips specially developed for the project.

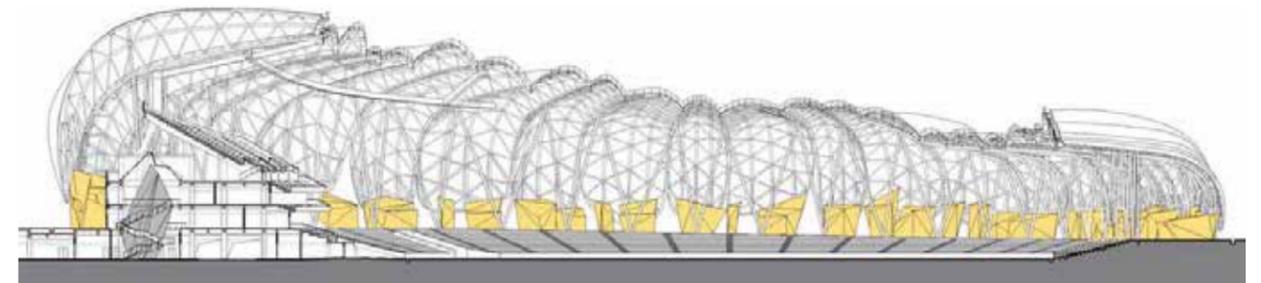
It is used on the other sports buildings, in particular the swimming pool, whose form is inspired by the movement of the front crawl.



## China - Datong

Sports centre

<b>Architects</b>	CCDI + POPULOUS Architects
<b>Contractor</b>	China Construction Eighth Engineering Bureau Co., Ltd
<b>Technique</b>	Zinc honeycomb
<b>Aspect</b>	PIGMENTO® blue
<b>Surface</b>	101,705 m <sup>2</sup>
<b>Copyright</b>	Zhang Yang





# Details and forms



1



2



4



3



5



6



7

- 1 and 5 > Norway, Finnskogen - PAN Tretopphytter - Architect: Sivilarkitekt Espen Surnevik AS
- 2 > France, Cernay - Training centre for guide dogs - Architect: AGVA
- 3 > United Kingdom, London - Islington square housings - Architect: CZWG Architects
- 4 > Greece, Attica - Private house - Architect: George Varelas
- 6 > France, la Primaube - Care home - Architect: Droit de Cité Architectes
- 7 > France, Clermont Ferrand - Departmental archives - Architect: CRR Architectures

## PRESENT IN OVER 30 COUNTRIES

info@vmbuildingsolutions.com  
www.vmpzinc.com

**ARGENTINA** | Korzin s.a.c.i. | Tel. : + 54 11 4653 1425 | www.vmpzinc.com  
**AUSTRALIA / NEW ZEALAND** | VM Building Solutions Australia | Tel. : + 61 2 93 58 61 00 | www.vmpzinc.com.au | www.vmpzinc.co.nz  
**AUSTRIA** | VM Building Solutions Deutschland GmbH | Tel. : + 43 664 5147284 | www.vmpzinc.at  
**BELGIUM / LUXEMBOURG** | VM Building Solutions nv | Tel. : + 32 9 321 99 21 | www.vmpzinc.be | www.vmpzinc.lu  
**CANADA** | CBC Specialty Metals & Processing | Tel. : + 416-736-0797 | www.cbcmetals.ca  
**CHINA** | VM Building Solutions (Shanghai) Co., Ltd. | Tel. : + 86 21 5876 9671 | www.vmpzincasia.com  
**CZECH REPUBLIC / SLOVAKIA** | VM Building Solutions CZ s.r.o. | Tel. : + 420 721 442 444 | www.vmpzinc.cz  
**DENMARK** | VM Building Solutions Scandinavia A/S | Tel. : + 45 86 84 80 05 | www.vmpzinc.dk  
**FRANCE** | VM Building Solutions sas | Tel. : + 33 1 49 72 41 50 | www.vmpzinc.fr  
**GERMANY** | VM Building Solutions Deutschland GmbH | Tel. : + 49 201 836060 | www.vmpzinc.de  
**HUNGARY** | VM Building Solutions Hungary Kft. | Tel. : + 36 23 452 452 | www.vmpzinc.hu  
**INDIA** | VMZINC India Pvt Ltd | Tel. : + 91 22 6225 3400 | www.vmpzinc.in  
**ITALY** | VM Building Solutions | Deutschland GmbH | Tel. : + 39 2 94750174 | www.vmpzinc.it  
**JAPAN** | VM Building Solutions UK | Tel. : + 44 0203 445 5640 | www.vmpzinc.com  
**MIDDLE EAST / NEAR EAST / NORTH AFRICA / GREECE** | VM Building Solutions UK | Tel. : + 44 0203 445 5640 | www.vmpzinc.com  
**NETHERLANDS** | VM Building Solutions nv | Tel. : + 31 6 51 04 87 49 | www.vmpzinc.nl  
**NORWAY** | VM Building Solutions Scandinavia A/S | Tel. : + 47 922 50 796 | www.vmpzinc.no  
**POLAND** | VM Building Solutions Polska Sp z o.o. | Tel. : + 48 22 632 47 61 | www.vmpzinc.pl  
**PORTUGAL** | VM Building Solutions Ibérica, S.L. | Tel. : + 351 914 680 333 | www.vmpzinc.pt  
**RUSSIA** | Union Zinc | Commercial: Alexandra Antoshchenko | Tel. : +7-916 974 86 74 | www.union-zinc.ru  
**SOUTH KOREA** | Sunnie International Ltd. | Tel. : + 82 2-3141-4774 | www.vmpzinc.kr  
**SPAIN** | VM Building Solutions Ibérica, S.L. | Tel. : + 34 93 298 88 80 | www.vmpzinc.es  
**SWEDEN** | VM Building Solutions Scandinavia A/S | Tel. : + 46 73 656 04 22 | www.vmpzinc.se  
**SWITZERLAND** | VM Building Solutions Deutschland GmbH | Tel. : + 41 31 747 58 68 | www.vmpzinc.ch  
**TURKEY** | VM Building Solutions Türkiye | Tel. : + 90 212 243 38 03 | www.vmpzinc.com.tr  
**UNITED KINGDOM / IRELAND** | VM Building Solutions UK | Tel. : + 44 0203 445 5640 | www.vmpzinc.co.uk | www.vmpzinc.ie  
**USA** | VM Building Solutions USA Inc. | Tel. : + 1 984 212 5471 | www.vmpzinc-us.com