SWISSPEARL ARCHITECTURE 15

International Edition – High Profile Buildings

SWISSPEARL®

SWISSPEARL ARCHITECTURE 15

ATTRACTIVE LIVING

Thanks to their tactile surface and their robust but not massive construction, cement composite panels are gladly being used on all kinds of buildings – and for housing construction as well. Which is why we are featuring villas, single family and multiple family homes and housing settlements as our main theme of this issue of Swisspearl Architecture.

The connection between cement composite panels and building construction is obvious: the need for protection from natural forces was the original reason for building a house. And Swisspearl façade systems protect people and buildings. Over human history, house construction has developed in many varied steps. Today, the desire for beautiful living spaces and comfortable residential milieus with an aesthetic aging of the façade is in the forefront of residential construction. Should one consider this a luxury? We don't think so! We are convinced that our systems not only guarantee protection but also contribute to taking pleasure in life!

We are proud that the broad product range and the proven characteristics of Swisspearl façade systems is inspiring many architects in many countries to such diverse, attractive design solutions for housing construction. We will focus all our efforts to ensure that this remains the same.

I wish you good reading with this issue of Swisspearl Architecture.

Anders Holte, CEO Eternit (Switzerland) AG

MONUMENTS OF ARCHITECTURE

Current Developments in Bulgaria

Varna Towers in Varna, by Architektural Studio Stanimir Mihailov

Independent and free Bulgarian architecture is still in a very young stage of development. History reveals that Bulgaria has suffered annexation and repression by different cultures and political doctrines for many, many years: the Ottoman imperial domination (14th to 18th centuries) and the Soviet communistic political regime (1944–1990). During Ottoman rule, Bulgarian architecture was isolated from West European development, and did not experience the sequence of styles like Gothic, Renaissance, Baroque, Rococo, and Classicism. The only place where European political influence did not face strong resistance from Islamic culture was a nice town called Russe on the Danube River. It is the first Bulgarian city designed according to European guidelines, and even today walking through the streets you have a feeling of a Viennese atmosphere.

The biggest urbanisation started during the time when Bulgaria belonged to the Soviet Union. The majority of residential and public buildings were constructed according to the typical standard architectural stereotypes as in all other post-Soviet socialistic countries. Architectural thinking and practice were dictated from Moscow and the Communist Party, and thus interrupted the natural development process of Bulgarian architecture. The victory in the Second World War laid the ground for a new style – "Socialist Realism" – in the USSR. Triumph architecture is very visible in the capital of Sofia, but it is mainly government administration and some public buildings of national value. Today, most of the town's population are still living in post-communistic residential high-rise concrete blocks. It is exactly these residential buildings from that time that disturb the landscape of the city and make no high-quality contribution to the architecture: banal, identical, dirty-grey, depressed big boxes. The main trend was aligned with rationality, and being economical was most important. The peak in construction of public and administrative buildings (parliament houses, court palaces, banks) was reached just before the celebration "1300 years of the Bulgarian Nation" in 1981. A lot of cities benefited from professionally designed, emblematic, and valuable architectural projects.

Probably the most colourful and dynamic times in Bulgarian architecture are the last two decades just before the global finance crisis started. Independence opened the gates

Resbiomed Eye Clinic in Sofia, by Vanica Architectural Bureau

Noveo Office Center in Sofia, by Artec Architectural Studio

for new individual expression, interpretations of world architecture and experimentation with new materials. The biggest towns and resort cities along the Black Sea coast have drastically changed in character, especially in public surroundings. Has it developed in a way that Bulgarian architects wanted it to? The majority would answer no. Fresh Bulgarian capitalist freedom meant that the architect has to work according to the investors' desires, without a mutual dialog for finding a compromise. A lot of "New Bulgarians" appeared in the country, people who became rich and powerful in a very short period of time, people who were seeking "prestige" and "luxury" status. Usually it finished in failed imitations, true architectural kitsch: interpretation and very often transformations of the forms and models from past Bulgarian architecture, balusters, meaningless balconies, arches, a "three-minute culture". Economic interests fought for every square meter, leaving behind a healthy ratio between green zones and built-up areas. Corruption in a municipal administrative sector poured oil on the flames which helped create an illegal chaos in the construction field.

In one aspect, intellectual and cultural communities are very grateful that a financial crisis hit the country. Construction was frozen in a deep sleep for many years and the crisis offered enough time to think, adopt new EU standard construction regulations and prepare for the future with sustainable architecture. It seems that today project developers have awakened from a cultural and capitalistic shock and now have a vision that is more closely united with Bulgarian architects concerning aesthetic architectural development. International modern architecture has had a strong stimulating role and provided more possibilities for Bulgarian architects. Now, new technologies are integrated into almost all new commercial construction projects. Each office building or trade centre is seeking to be different, energy-saving and attractive. The same tendencies concern the new residential complex developments. Past oversupply raised selective demand and decreased client demand. Ventilated façade technology was the best solution and it is widely used. Aluminium composite cladding panels mainly dominate, but over time investors and architects have started to understand that it may have been an economical solution but it is not sustainable, and therefore have started to search and use alternative materials that have long-lasting value: maintenance-free, no deformations, minimum discoloration through time and a beautiful way of natural aging. It is important to mention that Bulgaria is still a low-budget country, which significantly limits the possibilities and flexibility in accomplishing exterior design. On the Black Sea coast and in smaller towns, the majority of the building façades are finished in plaster and this tendency will still be followed in the near future.

Bulgarian architects very often like to search for new inspiration from the past, especially from the 19th century. Construction of that time continues in the same spirit, conditionally described as "Bulgarian National Revival Architecture". It possesses exclusively unique qualities which distinguish it from other construction traditions in the world, and it is like a reflection of the Bulgarian national character, culture, and mentality. One of the most famous is a glamorous Rhodope mountain house in the typical architecture style: constructed from stone and wood with bizarre chimneys on top, while some other buildings are so tremendous and breathtaking that they look like castles. But probably the most important feature, noticeable from afar, are the noble and eccentric oriels, carried out up to one meter distance from the façade, thus increasing the volume of the upper floor. The Rhodope group preserves and maintains these national architectural monuments, where history was made and the flame of Bulgarian culture still burns. *Zydrunas Katutis*

Sofia Outlet Center in Sofia, by Studio 17,5

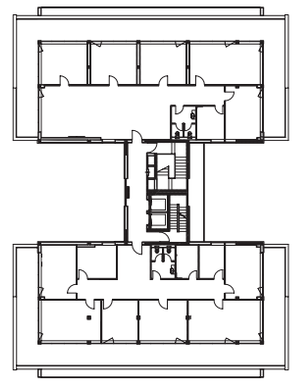
Noveo Office Center, Sofia, Bulgaria
High-Class Office Building

In Bulgaria, the trend for the emergence of large complexes with mixed use, including residential functions, led to the recognition of the need for a comfortable business environment. One response was the Noveo Office Center in Sofia. Its functionality and plain aesthetics are a logical extension of the building, constructed with the latest building technologies and rationally used to achieve the high energy efficiency of Class A.

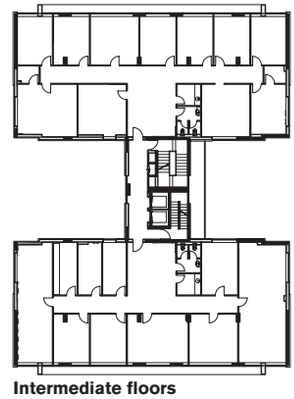
The ventilated façade system of Noveo combines contemporary vision with high-level insulation and natural ventilation conditions. It dramatically reduces moisture on the walls, eliminating the problem of condensation, and allows the building to "breathe". The suspended double-skin glass façades, oriented towards two main boulevards, provide a shield against the aggression of the outside conditions in the big city, such as noise, pollution, and wind and temperature variations. All this makes the Office Center not only an investment in the future, but also part of the new construction perspective: seeking a viable price not only for construction, but also for the functioning of the site.

In addition to ensuring extremely low operating costs, the decentralised air conditioning system has allowed an innovative approach in the design and architecture of the building. To the north, the Center borders on a boulevard that acts as the main link between the centre of the city and the western suburbs. The building has also played a significant role in developing interior space management. It consists of two parallel buildings, oriented towards the adjacent urban arteries and connected to the centrally located communication core. The main entrance is centrally oriented towards the eastern façade, facing the ground level parking and is easily accessible from the two adjacent boulevards. *Konstantin Antonov, Artec Architectural Studio*

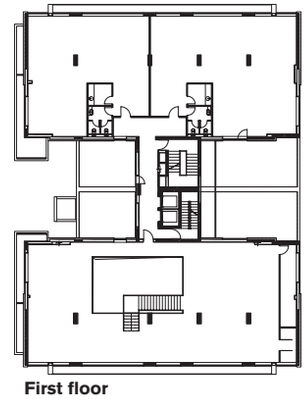
Location Tsaritsa Yoanna Blvd. 162, Sofia, Bulgaria
Client Stroymaks Bulgaria; Aleksandra Group; Artec Design, Sofia
Architects Artec Architectural Studio, Sofia
Building period 2007 – 2009
General contractor and façade construction Stroymaks Bulgaria, Sofia
Façade material SWISSPEARL® REFLEX, Champagne 9290



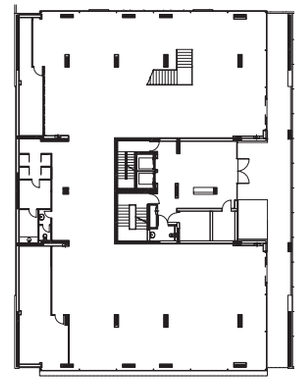
Upper floors 1:500



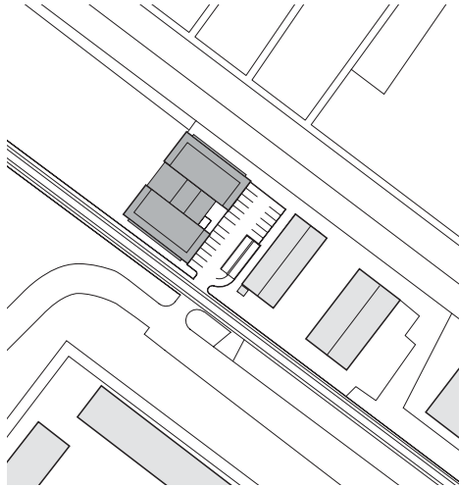
Intermediate floors

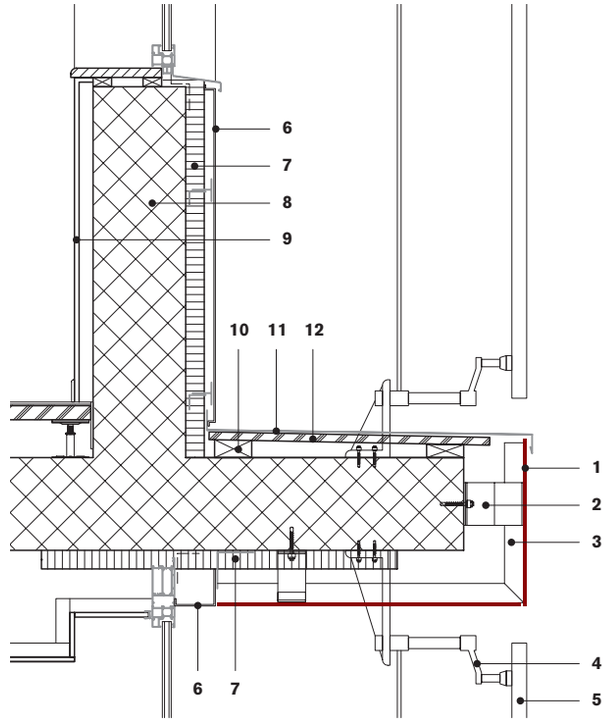


First floor



Ground floor





Vertical section 1:20

1 Swisspearl® cement composite panel 8 mm
2 Bracket
3 Subframing
4 Glass fastening clamp
5 Glass panel
6 Aluminium composite cladding
7 Thermal insulation
8 Concrete
9 Gypsum board
10 Batten
11 Galvanized steel with polyester coating
12 Plywood

Varna Towers, Varna, Bulgaria
Natural and Modern

The harmonic façades of the complex create, in combination with the glass, the impression of a natural stone lining. The layout of the two towers is an example of a modern interpretation of classical architecture, characterised by a balance of proportions. Architect Stanimir Mihailov, who designed the Varna Towers, says: "Certainly, the association of the appearance of the building came to me from Notre Dame in Paris."

The Commercial Center is located at the entrance of the Bulgarian Sea capital and is often called the "Western Gate of Varna". With its distinctive silhouette of the two office buildings, it completes a series of tall structures along the boulevard, firmly shaping the western entrance to the city. The pastel colour of the cement composite façades and the glass façades emphasise the presence of the building, without imposing it, through the combination of the natural iridescent colours. The location of the cement composite panels is also inventive because they are hung on the contours of the building, thus highlighting its architectural forms, while the glass on the "inside" adds volume to it and even ethereality, despite its size. This way, it almost merges with the atmosphere.

The twin towers are the first of their kind in several aspects: the only revolving restaurant in the Balkans is located in its east tower; it turns 360 degrees in 40 minutes and offers amazing views over the Bay of Varna and Hemus Motorway. In addition, Bulgaria's first licensed heliport on top of a building is located on the western tower.

There are two separate main entrances for pedestrians at the front of the complex at each end on the boulevard side. These open on two round, high atrium areas in the interior at both ends of the southern commercial gallery. Forty-five percent of the common areas are landscaped "urban spaces" with their streets, squares, fountains, and solar atriums. *Stanimir Mihailov*

Location Vladislav Varnentchik and Republic Blvd., Varna, Bulgaria

Client Varna Towers (Investors: Densy and City Center)

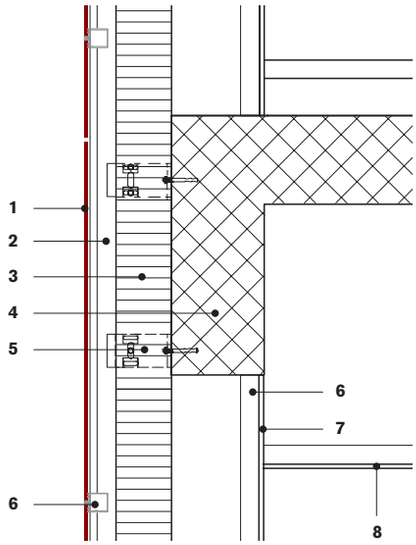
Architects Architektural Studio Stanimir Mihailov, Sofia, Bulgaria

General contractor Top Build, Varna

Building period 2007–2009

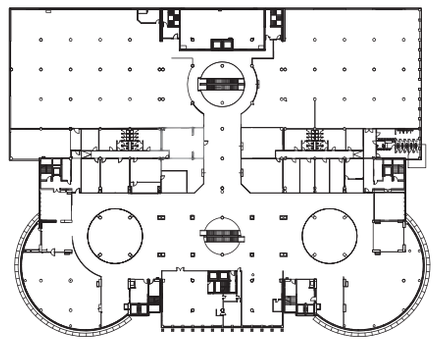
Façade construction Juventa 3; TAL Engineering; Kristian-Neiko, Sofia

Façade material SWISSPEARL® CARAT, Onyx 7090; REFLEX, Champagne 9290

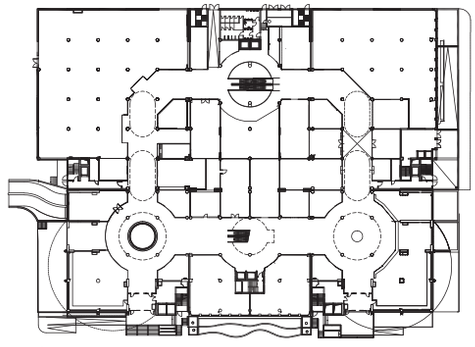


Vertical section 1:20

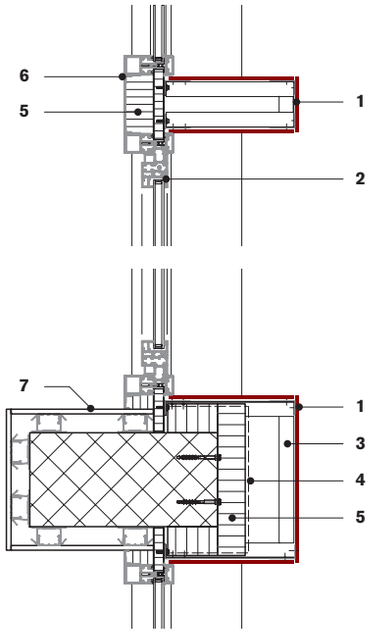
1 Swisspearl® cement composite panel 8 mm
2 Ventilation cavity, vertical subframe
3 Thermal insulation
4 Concrete
5 Bracket
6 Aluminium substructure
7 Gypsum board
8 Suspended ceiling



First floor 1:2000



Ground floor



Horizontal section columns 1:20

1 Swisspearl® cement composite panel 8 mm
2 Aluminium curtain wall
3 Subframing
4 Moisture barrier
5 Thermal insulation
6 Aluminium cover
7 Gypsum board

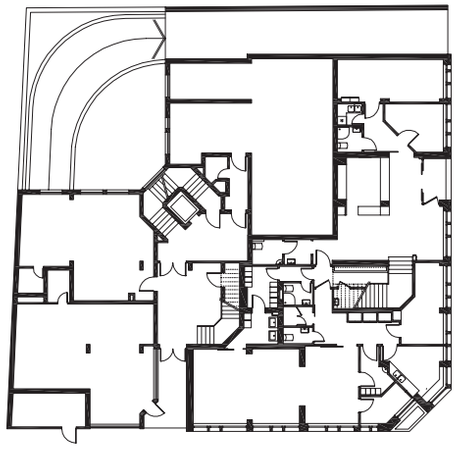
Resbiomed Eye Clinic, Sofia, Bulgaria
Improving Visibility

Resbiomed was originally a clinical research company, founded in 2000. Its Sofia-based corporate head office covers the Balkan countries and Southeast Asia. The company is now expanding its activities with a high-end eye clinic in Sofia. The new Resbiomed Eye Clinic is situated on the ground and first floors of an existing six-storey building. Before the conversion, the building itself was quite simple: the ground floor façades were finished in dark brown ceramic cladding and had large shop windows while the upper floors were finished in white plaster and had brown wood-finish window frames.

The primary aim was to create a distinguishing look for the new eye clinic and provide a façade resolution that allowed flexible use of the interior spaces. The existing large shop windows were further divided and additional façade columns were designed to form a denser window grid. Swisspearl Reflex panels were selected for the column finish for their deep natural colours. The windows in between were glazed with highly reflective blue glass, supplying a uniform dark background to the colour columns.

The interior of the main entrance was also designed with Swisspearl Reflex panels in various colours on the walls, bringing the cheerful colours from the façade inside. "If you want to see … the difference" is the clinic's company slogan. Reasonably, to the investor, the design's main feature was to make the building more visible.

Krasimir Djedjev



Ground floor 1:500

Location Pozitano Street, Sofia, Bulgaria
Client Resbiomed, Sofia
Architects Vanica Architectural Bureau, Sofia
Building period 2011
General contractor Argogroup Exact, Sofia
Façade construction Muharski, Sofia
Façade material SWISSPEARL® REFLEX, Night Blue 9242, Cobalt Blue Ice 9241, Blue Ice 9240, Platinum 9020, Silver 9000, Champagne 9290, Gold 9272, Autumn Leaves 9270

Sofia Outlet Center, Sofia, Bulgaria
Simple Play with Light

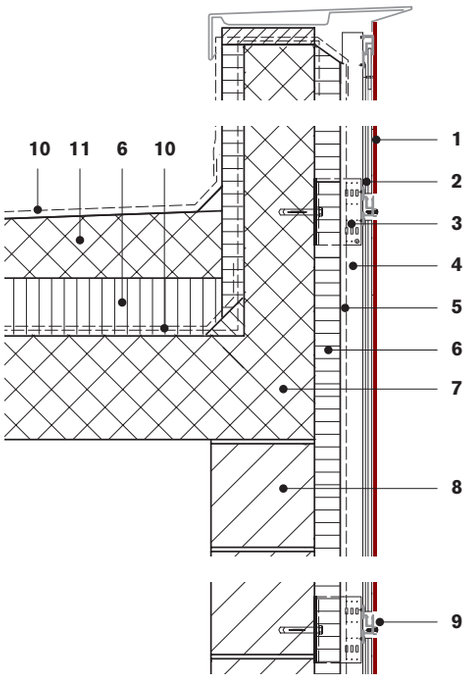
The architects had a weighty task in making a simple design for a mall without any attractions. The plot would only include commercial areas, configured in a very complicated way on the second line behind the shops in the surrounding secondary urban centre. As a result, the Sofia Outlet Center is distinguished as being plain, but at the same time elegant and frugal with funds. Its focus is on the corners that are visible in certain perspectives.

The complex is comprised of retail space in various sizes, formed as independent shops and organised into three levels, with a built-up area of 36,567 square meters. On the first level, part of the area is designated for shops, with the other part for partially underground and surface parking lots with 500 parking spaces.

The storage and auxiliary facilities are located on the second underground level of the building. On the upper levels, there are shops for clothes, accessories, sporting goods and restaurants.

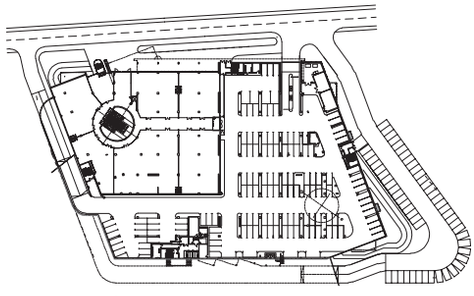
The abundance of forms and natural lighting, achieved through atriums, emphasises the architectural design of the building. The way the complex communicates with the light is in fact the effect of its simplistic appearance. The play of the building with light rays and the way the shading is seen on its façade creates an association to a black and white photographic reproduction among the urban chaos of colours and shapes.

The simple outline of the building is finished with relatively large panels without openings on the neutral façades, demonstrating typical modern architecture based on rotational configurations, which is expressed here in the interior. As the architectural office Studio 17,5 explains, “The façades are interesting spots that pursue you

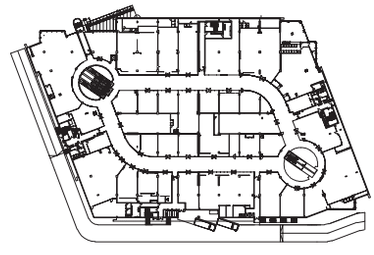


Vertical section 1:20

1 Swisspearl® cement composite panel 8 mm
2 Vertical subframing
3 Bracket
4 Ventilation cavity, vertical supporting profile
5 Moisture barrier
6 Thermal insulation
7 Concrete
8 Brickwork
9 Metal profile
10 Waterproofing
11 Concrete bedding to fall



Ground floor 1:1000



First floor

discreetly when you perceive the building in full with its environment. They are the ones that present the visual emphasis that attracts the audience. The façades were even used as a giant screen at the official opening of the building." *Atanas Stoev, Studio 17,5*

Location Tsarigradsko shosse Blvd. 1528, Sofia, Bulgaria
Client GVA Grimley LPP, London, Great Britain
Architects Studio 17,5, Sofia
Building period 2007 – 2009
General contractor K & K Engineering Ltd., Sofia
Façade construction Juventa 3 Ltd., Sofia
Façade material SWISSPEARL® CARAT, Onyx 7090

This elongated single-level home is situated along a prominent row of mature fir trees that indicate the boundary between the natural landscape and the cultural landscape. Despite its rigid rectangular geometry, the house blends in with its verdant surroundings, commanding spectacular views through large glazed openings. Fully retractable sliding doors transform it into an open pavilion, making the most of the famously temperate climate of the island.

Linear House, Saltspring Island, British Columbia, Canada

DRAWING THE LINE

True to its name, this striking villa by celebrated Canadian architects John and Patricia Patkau was inspired by a notion of linearity, which permeates the spatial arrangement as well as its formal expression. Far from being an abstract idea superimposed on the actual plot, the basic principle derives from a precise survey of the surroundings. The single-family residence is located on a 16-acre farm on Saltspring Island, the largest of the Gulf Islands situated in the Strait of Georgia between Vancouver Island and mainland British Columbia. While the original cottage was sold and relocated, other farm buildings, notably the barn, garage and studio, have been retained and incorporated into the scheme.

The gently sloping site is bisected by a long row of mature Douglas firs, separating an orchard to the south from a hay field overlooking the nearby coastline to the north. Grasping the potential of the unusual setting, the architects anchored their building alongside the line of trees, giving it a sense of place amidst the open field. The elongated timber-framed structure, 84 meters long and just about 7 meters wide, accentuates the threshold between the natural landscape to the north and the man-made ensemble of existing buildings and vegetation to the south. Additional fruit trees were planted to complete the rectangular layout of the orchard and clarify the boundaries between the different elements of the plan.

According to the architects, the cladding of the building envelope in homogenous charcoal grey Swisspearl panels seeks to convey the "experience of a dark stealth-like figure sliding in and out behind the screens of trees," allowing the house to blend into the dark green foliage of the firs. Partly obscured by trees and other greenery on either side, the full extent of the house remains imperceptible when seen from a distance, while at close range rows of vertical fins visually break the horizontal emphasis of the building. Despite the dark and somewhat daunting exterior, high ceilings and an open-plan layout make the interior of the house airy and welcoming. Walls and ceilings are lined with translucent acrylic panels, which disperse the light entering through more than forty skylights scattered across the roof. The house features continuous parquet flooring and bespoke wood fittings and furniture; a sculptural concrete fireplace divides the sweeping living and dining area from private spaces such as the lounge, bedroom, and office.

The principal dwelling is separated from the guest quarters by a breezeway that corresponds with a parting of the trees on either side, thus framing a spectacular view

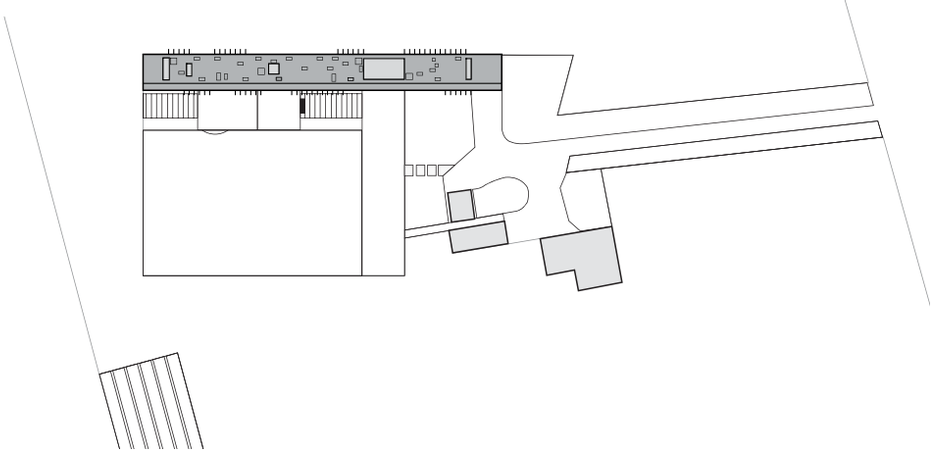
“THE EXTERIOR RAIN SCREEN OF THE HOUSE IS CLAD IN CHARCOAL-COLOURED CEMENT COMPOSITE PANELS WHICH RENDER THE HOUSE ALMOST INVISIBLE WHEN SEEN AGAINST THE DARK GREEN FOLIAGE OF THE FIR TREES.” PATKAU ARCHITECTS

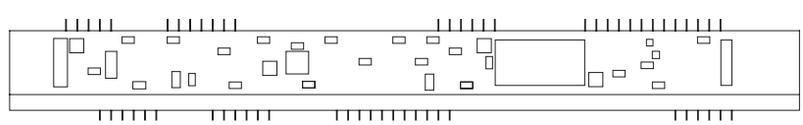
"THE TREES THEMSELVES ARE TEXTURAL: OLD, TORN AND WINDSWEPT. THEY HAVE A KIND OF OLD HEART. THE IMPULSE TO SITE THE NEW HOUSE NEXT TO THESE FIGURES WAS BOTH INTUITIVE AND IMMEDIATE." PATKAU ARCHITECTS

of the nearby water. The building's most striking feature, however, is the dramatic roof canopies that are supported by a pair of deep composite wood beams and cantilever more than 8 meters at either end. Southward, the roof folds out and covers a walkway, shielding the interior from direct sunlight. On the opposite side, the building opens through a number of glazed openings, the largest of which extends more than 23 meters. Taking advantage of the temperate microclimate of the island, the suspended aluminium sliding doors are fully retractable, transforming the home into an open pavilion if desired.

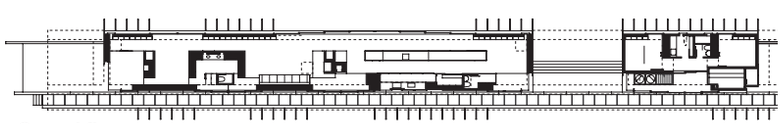
Impressive though they may be, iconic, concept-driven projects by their very nature tend to be self-referential, disregarding the context in which they are built. Commendably, when it comes to the Linear House, these concerns are unfounded. While it is a bold and staggering manifestation of a – literally – straightforward concept, not only is this concept based on a sensitive examination of the actual site, it is also finely attuned to specific local distinctions. The uniform acrylic panels, which establish the dimensional module for the project, speak for the extraordinary diligence that went into the design of this building, as does the Swisspearl cladding, which has been executed at a level of precision second to none.

*Patrick Zamarià*n



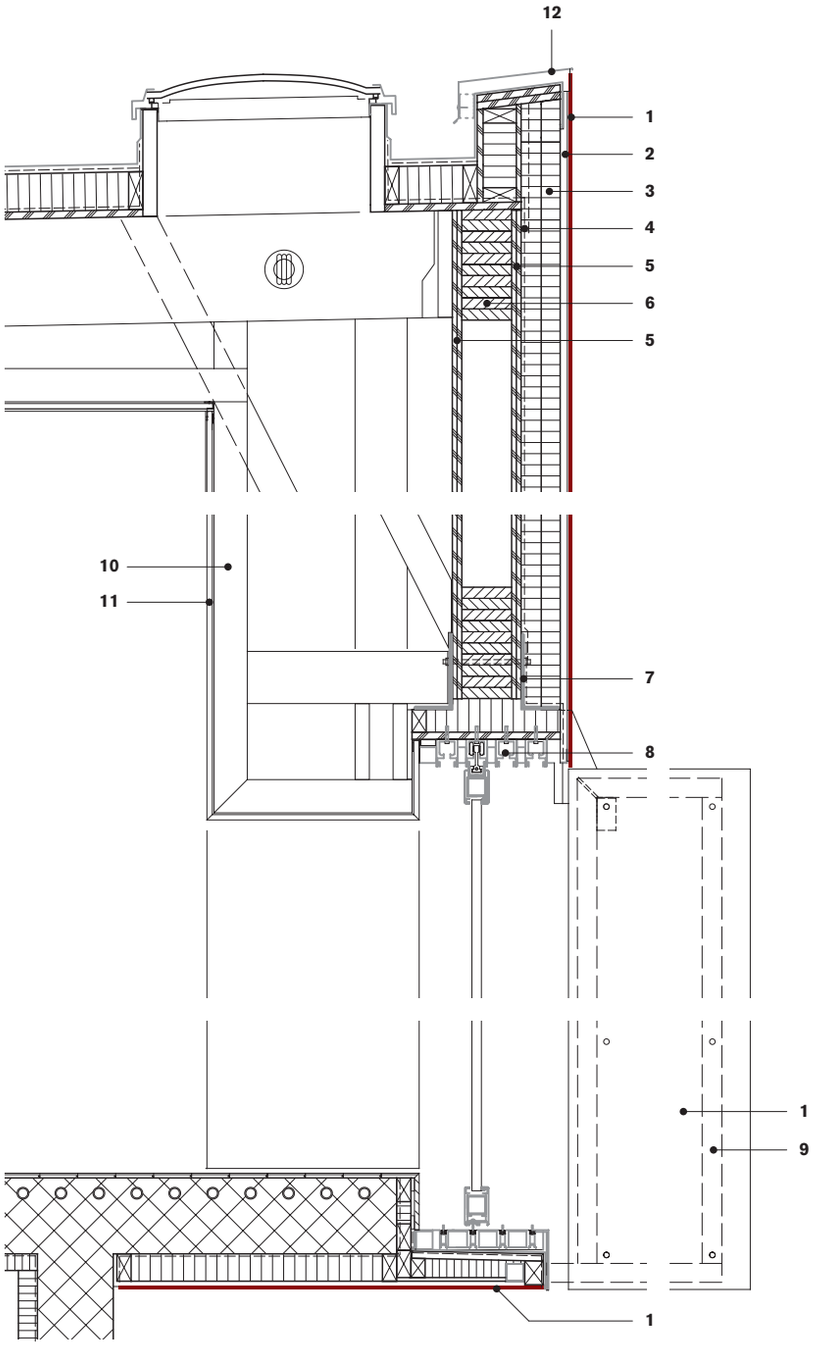


Roof plan 1:800

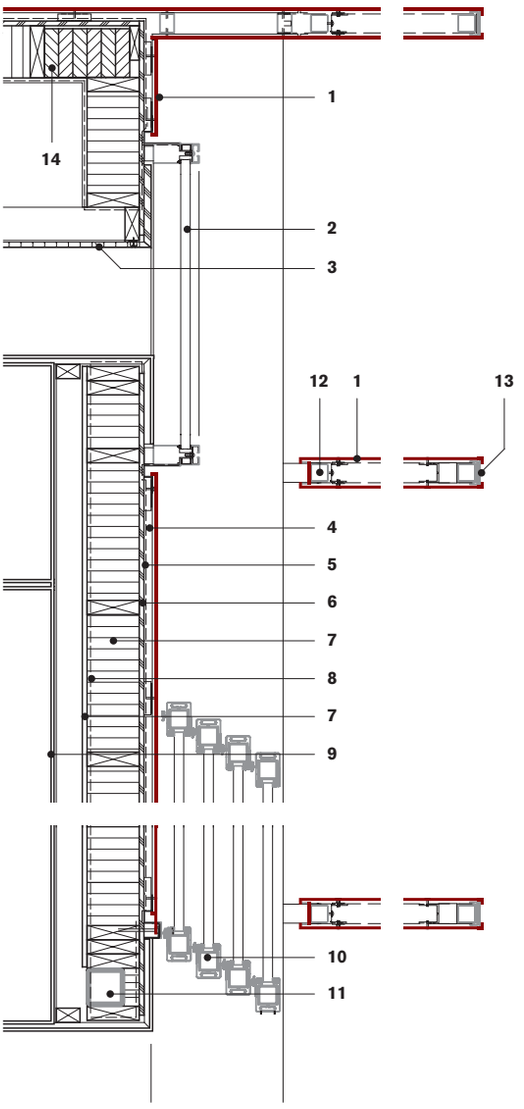


Ground floor

“THE PANELS ARE FULLY RETRACTABLE SO THAT DURING THE PROLONGED FAIR WEATHER PERIOD OF SALTSPRING ISLAND, THE HOUSE CAN BE TRANSFORMED INTO AN OPEN-AIR PAVILION, MORE SHELTER THAN A ‘PROPER’ HOUSE.” PATKAU ARCHITECTS



Vertical section 1:20



Horizontal section 1:20

1 Swisspearl® cement composite panel 8 mm
2 Ventilation cavity, pressure treated battens
3 Thermal insulation, galvanised Z-girts 90 mm
4 Vapour barrier
5 Composite stressed skin plywood, double ply
6 Glulam beam 38 × 140 mm
7 Steel angle
8 Top hung double glazed aluminium sliding doors
9 Steel tube frame 51 × 51 mm
10 Wood framing
11 Translucent double skin acrylic panel
12 Prefinished metal parapet flashing

1 Swisspearl® cement composite panel 8 mm
2 Double glazed aluminium curtain wall
3 Translucent double skin acrylic panel
4 Ventilation cavity, vertical strapping
5 Moisture barrier
6 Plywood sheating 12 mm
7 Thermal insulation, fiberglass batt
8 Vapour barrier
9 Hardwood veneer shelving unit
10 Top hung double glazed aluminium sliding doors
11 Steel column 89 × 89 mm
12 Steel tube frame 51 × 51 mm
13 Prefinished metal flashing
14 Glulam column 38 × 140 mm

Location Saltspring Island (BC), Canada

Client Private

Architects Patkau Architects Inc., Vancouver (BC), Canada; John Patkau, Patricia Patkau, Peter Suter, Hiro Kurozumi

Building period 2007–2009

Façade erector and general contractor Gord Speed Construction (BC), Canada

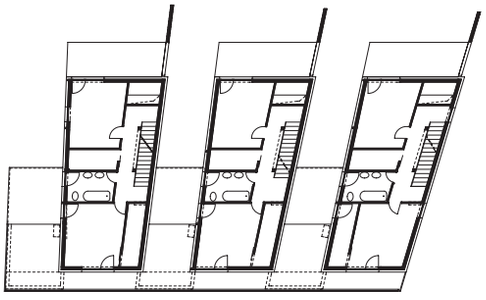
Façade material SWISSPEARL® CARAT, Black Opal 7025

Houses on Jurčkova Street, Ljubljana, Slovenia

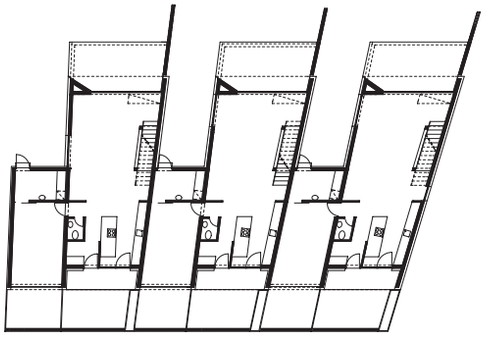
CRYSTAL TERRACE

Celebrating the twentieth anniversary of Slovenia's independence, the Museum of Architecture and Design in Ljubljana is currently exhibiting a selection of major architectural works of the past two decades. Participants include Sadar & Vuga, Bevk Perović and Dekleva Gregorič, all of whom have been featured in Swisspearl Architecture, thus testifying to the high esteem in which Swisspearl panels are held by the country's architectural vanguard. Also featured are Jože Peterkoč's award-winning houses on Jurčkova Street. Dubbed "prismatic crystals" by their designer, they constitute an unconventional solution to a mundane building task within an intricate planning environment.

“THE HOUSES ARE DESIGNED AS SMALL PRISMATIC ‘CRYSTALS’ THAT ARE CONNECTED ON THE GROUND FLOOR TO A GEOMETRICALLY CORRECT VOLUME OF AUXILIARY SPACES.” JOŽE PETERKOČ



First floor 1:500

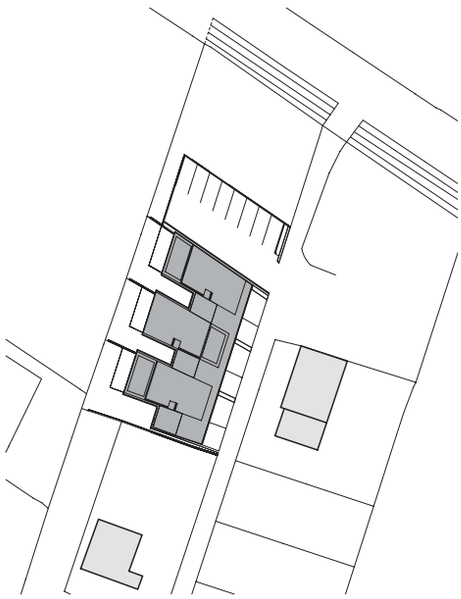


Ground floor

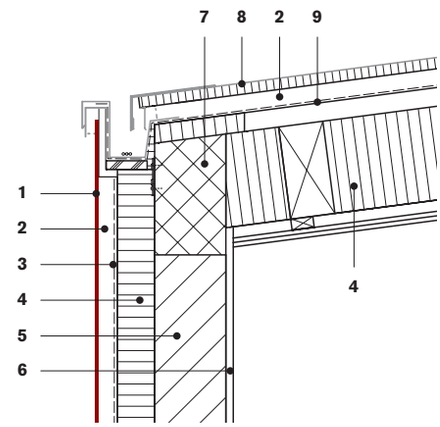
Jurčkova Street cuts like a knife through the sprawling suburban area that stretches from Ljubljana city center to the vast Rudnik shopping district in the southeast. In view of a future extension of this main thoroughfare (which may include the addition of a tramline), urban planning regulations call for a strip of roughly 27 metres along the road to remain free from any permanent construction. Architect Jože Peterkoč was therefore compelled to leave half of the plot largely untouched and squeeze the building, which consists of three separate houses built for three different private investors, into a rather confined area set back from the road.

The ground floor is an open-space living and dining area that spatially connects with the upper storey bedrooms and the enclosed roof terrace through vertical atriums and an open staircase. In order to fully utilise the buildable area, the ground plan fans out, adapting to the trapeze-shaped outline of the parcel. Consequently, there are no rectangular rooms in any of the three houses; all garages, bedrooms and lavatories are rhomboid and progressively more distorted towards the northern edge of the plot.

Peterkoč designed the project as a hybrid between a housing terrace and single-family detached homes. The three units are linked by a continuous ground floor garage and uniformly clad with large white Swisspearl panels. In



1 **Swisspearl® cement composite panel 8 mm**
2 **Ventilation cavity**
3 **Moisture barrier**
4 **Thermal insulation**
5 **Brickwork**
6 **Plaster**
7 **Concrete**
8 **Roof metal panel**
9 **Waterproofing**



Vertical section 1:20

contrast, the architect emphasises the autonomy of the houses by varying the direction of the roof pitches while simultaneously controlling the shading of the interiors and the intermediate courtyards. Likewise, the carefully placed full-height window openings lend a lively, individual touch to the façades while providing a surprising degree of privacy, despite the narrowness of the overall scheme. *Patrick Zamariàn*

Location Jurčkova cesta 24, 24a, 24b, Ljubljana, Slovenia
Client ab hiše d. o. o., Ljubljana
Architect Jože Peterkoč, Ljubljana
Building period 2009
General contractor G & A gradnja za trg d. o. o., Ljubljana
Facade erector Emil Jerkovič, Zgornji Brnik, Slovenia
Facade material SWISSPEARL® CARAT, Black Opal 7020 and Onyx 7090

Social Housing Via Senigallia, Milan, Italy

COLOUR AND BRIGHTNESS

How does one go about planning a social housing complex in a period of budgetary cutbacks and economic turmoil? Architect Remo Dorigati's project in Milan seems to achieve a high quality of living despite its tight budget constraints.

The usual sense of deprivation one associates with social housing in metropolises worldwide has been dispelled in this project in northern Milan. Rather than creating depressing housing blocks for the most vulnerable members of society, architect Remo Dorigati has designed a conglomeration of sleek, modern buildings that defy one to pity the inhabitants. The collection of multi-storey buildings on the oval site relates to the scale of the surrounding housing stock in the area. Eschewing a monolith structure, the scattering of buildings into three large and four smaller freestanding volumes creates a myriad of outdoor green spaces. The architects refer to their landscape concept as "urban gardens" which also extend onto the fifth façade as roof gardens overlooking the greenery below.

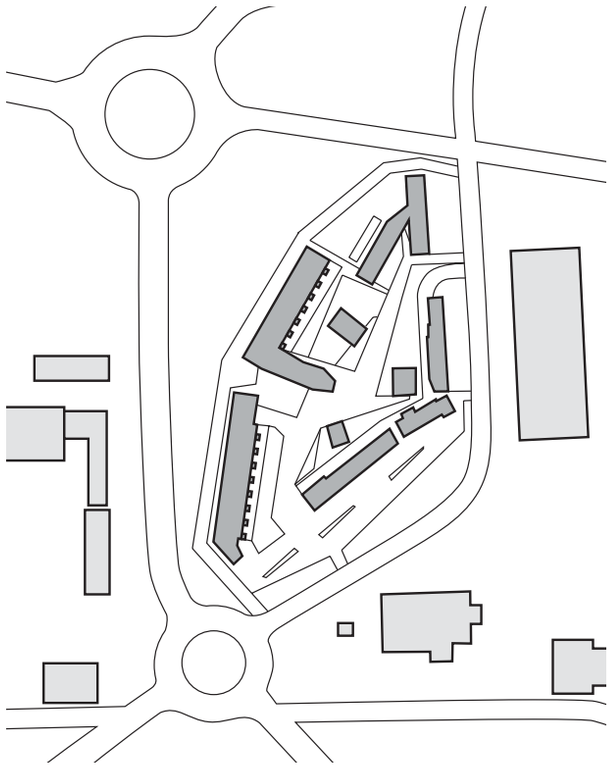
The mixed-use project offers venues for the arts and entertainment events as well as for offices. Along the central route through the site, a linear body accommodates a housing community for the elderly as well as residents with intellectual disabilities. Common areas are provided which open to the gardens, enabling the inhabitants to meet in a neutral, communal area. Situated in close proximity to busy arterial road networks, the urban planning concept has created an enclave with its own identity separate from the surrounding housing blocks.

An important aspect that the architects explored is energy-efficiency: studies were conducted to make sure that heat loss was kept to a minimum, while water resources were optimised to include rainwater collection to irrigate the gardens. Furthermore, there is a plan to cover the north façade of the tower with solar panels.

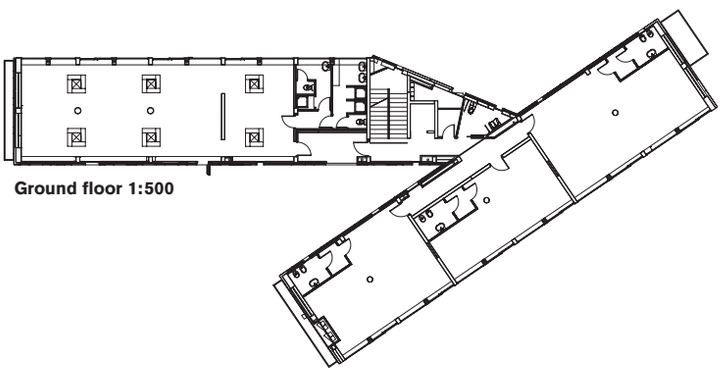
The façades facing the exterior perimeter of the site have been clad in Swisspearl cement composite panels. A subtle variation of russet red hues harks back to the traditional palette of Italian architecture and lends the façades complexity and a rich aesthetic. The contrast of the complementary green of the surrounding lawns and trees further enriches the overall impression.

The random play of elongated, vertical Swisspearl panels with window openings neatly slotted within the panels creates a lively, dynamic aesthetic. Clipped eaves and flat roofs on the buildings evoke an abstract, contemporary architecture. Positive and negative volumes alternate between the service cores and balconies and create a honeycomb effect on the façades somehow reminiscent of shipyard containers. The corrugated cladding of the boxes, together with the smooth cladding of the panels, further fragments the large elevations.

The repetitive rhythm of the service boxes is broken by the more complex, shifted rhythm of vertical and horizontal punctured openings on the small square façades, producing a collage effect like children's toy blocks stacked in a matrix. The balconies can also be transformed by enclosing the front opening in glass to create an ancillary space: a study or children's playroom.



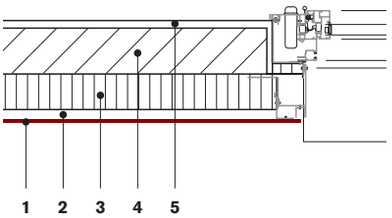
THE CLUSTER OF BUILDINGS WITH THEIR SHIMMER OF RED HUES CREATES A SENSE OF MOVEMENT AND A SUBTLE COMPLEXITY.



Ground floor 1:500

Five storeys higher than the adjacent buildings, the vertical "head" of one of the large buildings stands proud, creating a focal point and a beacon for the estate. The sliding vertical slot openings set in the elongated Swisspearl panels accentuates this vertical thrust towards the sky. The choice and colour of cladding material on the assembly of buildings has been paramount in creating an uplifting atmosphere. This can be particularly important to the most vulnerable in the community, those who do not venture out on a daily basis to work and tend to pass their days within their homes. *Anna Roos*

"THE NEW PROJECT IS CHARACTERISED BY A HYBRID CONFIGURATION THAT EXISTS IN THE CATEGORIES OF INTERIOR SPACE, MORE CONNECTED TO THE PEOPLE, AND OUTER SPACE, WHICH ACTS AS AN URBAN HINGE." REMO DORIGATI



Horizontal section 1:20

1 Swisspearl® cement composite panel 8 mm
2 Ventilation cavity
3 Thermal insulation, mineral wool
4 Brickwork
5 Plaster

Location Via Senigallia, Milan, Italy
Client Commune of Milan
Architect Remo Dorigati, Oda Associati, Pavia, Italy
Building period 2008–2010
Façade construction and general contractor
Giesse Impianti S. R. L., Paderno Dugnano, Italy
Façade Material SWISSPEARL® CARAT, Coral 7030, 7031, 7032

The vertical thrust creates a clear focal point for the enclave.


18

On the beach of Apelviken in the Swedish health resort of Varberg, a settlement of lookalike holiday houses was developed. They are exceptional not only through their extraordinary location right on the sea, but also through their minimal styling and uniform use of materials. The roof and façades are protected from the sea breezes with light-coloured cement composite panels and allow the homey interior life to extend into the outside patio.

Apelviken Beach Houses, Varberg, Sweden

AESTHETIC WIND PROTECTION

Façades and roof are merged into one single form and are covered with the same cement composite panels.

The small town of Varberg, which lies on the west coast of southern Sweden, celebrated its 200th year as a health resort in 2011. Varberg is very well known for its baths, whose history goes back to the beginning of the 19th century. The town's showpiece is the magnificent "Cold bath house" (*Kallbadhuset*), a bathhouse built on piles in the sea. It is typical of the time, 1864, with its orientalised style of ornamentation, triangular windows and cupola towers. After it was destroyed twice by storms, the Varberg citizens rebuilt it each time, so that today it is still their pride and town landmark.

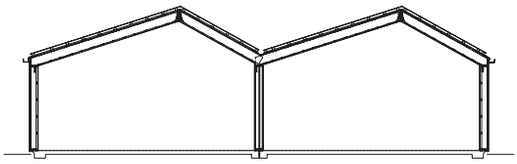
Today, tourism in Varberg is still oriented to the baths and water sports. The city has three spa and wellness complexes. Along the coast, there are countless beaches that invite swimming and are well known for their wind- and kite-surfing. One of these areas is the former fishing village of Apelviken, which lies two kilometres south of the town centre. It has a long shallow bay with a long sandy beach that is popular with sun worshippers as well as being widely known among surfers.

As with almost all of Scandinavia's beaches, summer-houses dot Apelviken's coast. Native as well as foreign visitors treasure these simple, small houses set close to the sea. Apelviken now also has 30 new beach houses that were built as part of the 200-year celebration to replace older houses. The newly inhabited small structures sit on a spectacular site directly behind the sandy beach of the bay. They are built in pairs and arranged in four straight rows on the common lawn. Each of the identical houses has two bedrooms and offers places for a maximum of eight guests. The living room shares the roof with the patio.

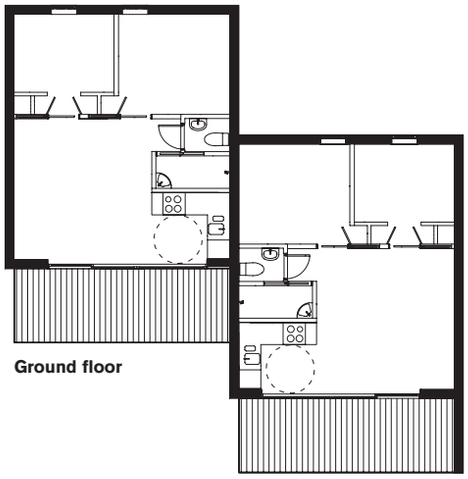
“THE DECISION TO CLAD BOTH WALLS AND ROOF WITH THE SAME PANEL WAS STRAIGHTFORWARD.”
KARLSSON WACHENFELDT ARKITEKTER

The builder was the community itself. The mandate was for consistently high quality in planning and execution. To ensure first-class architecture, the Vabergers engaged the young ambitious architect’s office of Karlsson Wachenfeldt Arkitekter in Göteborg. Johan von Wachenfeldt and Mattias Karlsson started their own office in 2005 and today have ten employees. For the construction, the long-established firm of Byggbröderna in Falkenberg was engaged. The town, the architects and the construction company all took mutual responsibility for a good result.

On the side directly on the water’s edge, exposed to the constant salty sea breeze and the occasional hefty storm, it was important to find roof and façade materials that were robust and durable in every aspect. In addition, an aesthetic appealing appearance was desired as well as a simple cleaning method. The solution was uniformly col-



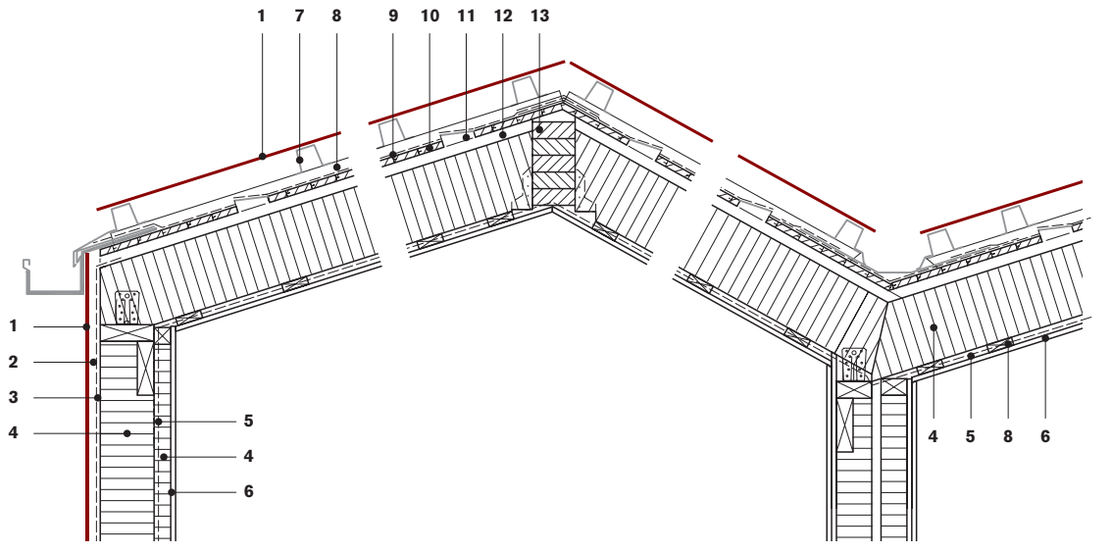
Vertical section 1:200



Ground floor

oured cement composite panels from Swisspearl for the façades and roofs. The decision to clad both the façades and the roofs with the same panels was clear to all those involved and decisive for projections for the future. The use of one material simplified maintenance and gives the buildings a coherent effect. The architects selected three slightly different but still similar white-grey colour tones.

The one-storey holiday houses are built with wood construction methods – like the old Cold bath house. Façades and roofs are clad with the lighter cement composite panels in a continuous horizontal format. The external joints of the identical houses are simple: the inclined surface of the double-pitched roof glides, without a ledge or a projection, over into the sidewall. In front of the window, half of the roof projects over the patio and the resulting niche is finished in wood, thus creating a contrast between the robust weather protection and the homely interior furnishing of the holiday home. *Michael Hanak*



Vertical section 1:20

1 Swisspearl® cement composite panel 8 mm
2 Ventilation cavity 25 mm
3 Moisture barrier
4 Thermal insulation
5 Vapour barrier
6 Gypsum board
7 Steel battens
8 Wood battens
9 Waterproofing
10 Wooden boards
11 Ventilation hatch
12 Ventilation cavity 30 mm
13 Glulam beam 115 × 225 mm

Location Surbrunnsvägen 2–8, Varberg, Sweden
Client Varberg Community
Architects Karlsson Wachenfeldt Arkitekter, Göteborg, Sweden
Building period 2009–2010
Façade instllation and general contractor Byggbröderna i Falkenberg, Falkenberg, Sweden
Façade material SWISSPEARL® CARAT, Onyx 7090, 7091, 7099

An existing building from the 1950s had to be demolished to make way for this new mixed-use building in Brunico, a small picturesque town close to the Austrian border in the mountainous region of northern Italy.

Residential and Commercial Building Art 20, Brunico, Italy

STACKED VOLUMES

"THE STRENGTH OF THE DESIGN IS ACHIEVED THROUGH ITS EXPRESSIVE AND CAREFULLY ARRANGED VOLUMES."
COMFORT ARCHITECTEN

Location Stegener Strasse 19, Brunico, Italy
Client HOBAG Estate Agents Pty Ltd., Brunico
Architects Comfort Architecten, Brunico; Dr. Arch. Marco Micheli & Dr. Arch. Michael Mumelter
Building period 2008–2010
Façade construction and general contractor Baustoff + Metall Italia Pty. Ltd., Brunico
Façade material CARAT, custom colour, sandblasted

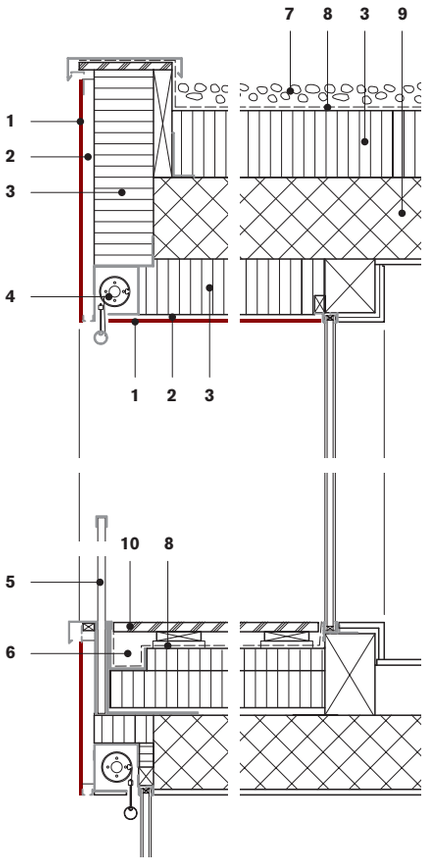
The building is composed of various horizontal volumes stacked onto one another.

The footprint of the building, designed by Comfort Architecten, was to be kept as tight as possible in order to allow enough space for delivery vans and aboveground parking bays. The brief required a design that accommodated well-functioning, high-quality commercial as well as apartment spaces. The concept was to design a structured building volume that, due to its incisions and projections, would create outdoor terraces on each level. The orthogonal building is four storeys high with a light well on its western edge that allows daylight to filter in from above all the way down to the ground level. Thanks to the stacking of the various levels and the shifting of volumes, projections and cantilevers, a myriad of varied spaces, terraces, and covered outdoor areas have emerged.

The building provides spaces for businesses as well as housing units. There are shops on the ground level and offices on the first floor level, while the two upper floors accommodate four apartments of various sizes. The third floor has three apartments: a single-bedroom, a two-bedroom and a three-bedroom. A generous three-bedroom apartment is situated on the uppermost level with a deep, covered balcony facing south that stretches completely across the communal spaces of the apartment (i. e., dining and living areas). The manner in which the balcony has been enclosed means that the terrace that extends off the living area of the lower apartment is visually private from the apartment above it.

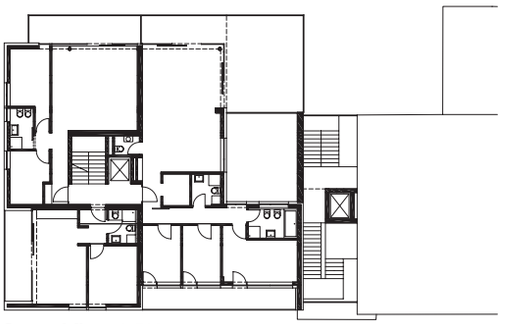
The brute strength of the reinforced concrete of the structure enables deep cantilevers to be supported. The second storey projects as far as 2.8 metres beyond the glazed envelope of the ground floor. The combination of the glazed ground floor façade set deep behind this cantilever gives an impression of lightness and elevation to the ensemble. The extreme cantilever of around 7 metres on the north-eastern side of the building is held by a slender, V-shaped steel support. Despite the architectural contrast of this building with its stacked volumes and flat roofs, the building nevertheless nestles well within Brunico town. This harmonious fit is due partly to the fact that the building corresponds sensitively to the scale of the existing urban fabric of the small town and the pitched roofs of the neighbouring buildings.

The materials used for the building play an important role in the aesthetic of the architecture. The reduced palette of materials and the choice of colours tie the building into its surrounding rugged mountainous landscape composed of numerous national parks. The combination of exposed concrete, pre-oxidised copper sheeting and white

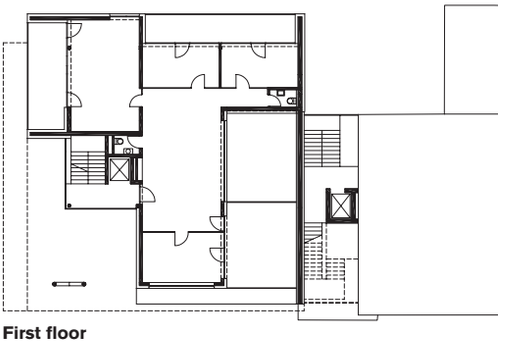


Vertical section 1:20

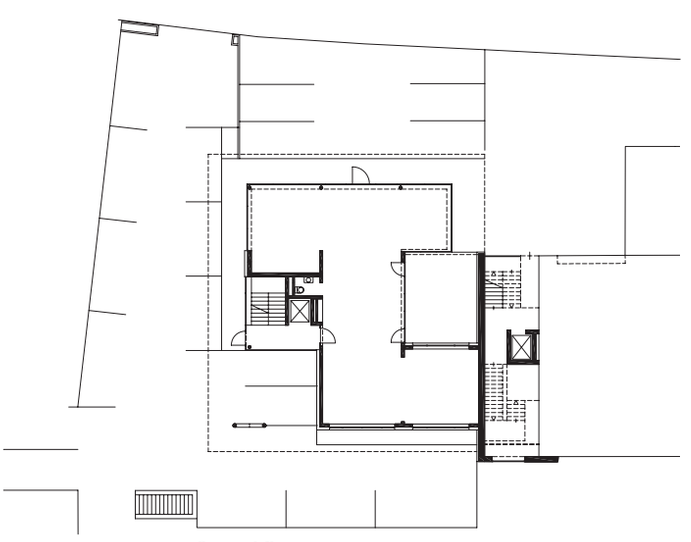
1 Cement composite panel 8 mm
2 Ventilation cavity
3 Thermal insulation
4 Sunshade, textile
5 Balustrade, glas
6 Gutter
7 Gravel
8 Water proofing, polyvinylchloride
9 Concrete
10 Weather board



Second floor 1:500



First floor



Ground floor

cement composite panels creates muted planes of colour that allow the volumes to be read clearly. The warm, brown hue of the copper sheeting is echoed in the brown tinted glass of the glazed balustrades that enclose the outdoor terraces and compliments the potentially cool, sombre concrete. The horizontal format of the cement composite relate to the elongated horizontality of the fenestration. The southeast orientation of the buildings and its openings assures a high level of natural light. The building has been encased in a 16–20 centimetre layer of thermal insulation to protect it from the elements and to reduce the need for artificial heating and cooling of the building.

Overall, the new building, with its expressive abstraction, is a positive addition to the urban fabric of the small South Tyrolean town. One hopes that the users are content with the light, airy spaces that Comfort Architecten have designed for them. *Anna Roos*

“THE FOUNDATION OF THE DESIGN WAS TO CREATE A STRUCTURED VOLUME THAT OFFERS A LARGE NUMBER OF OPEN AREAS AND TERRACES FOR EVERY LEVEL BY CUTTING AWAY FOR PROJECTIONS AND APERTURES.” COMFORT ARCHITECTEN

The choice of façade finishes sensitively ties the building into its broader environment.

Architect Stefan Ahlman remodelled the office building of the Salvation Army in the centre of Helsinki to create an apartment house. At the same time, he renovated the church in the courtyard, a handsome red face-brick building built in 1895. The office building from the 1960s had a smooth grid pattern façade with panel cladding. The building regulations provided for a perimeter block development where each apartment has a view and its own balcony on the courtyard side. The finished balconies run the entire width of the façade, have metal railings and are divided by glass panels. Each apartment opens with a broad glass sliding door on the meter deep balconies, which makes the inner spaces near the balconies larger.

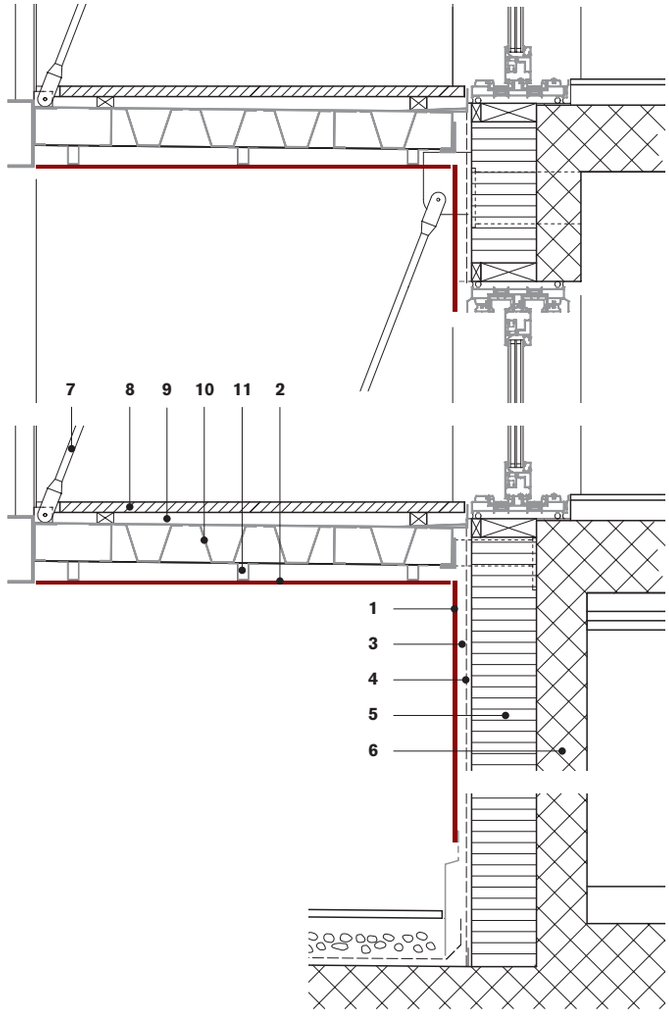
The choice for the new façade cladding fell on Swisspearl panels because of their uniform appearance and the range of attractive colours. As an extra finish, panels with slit perforations were installed on the sides of the window fronts of each apartment. The horizontal slits are 5 centimetres high and 50 centimetres long and form a screen that still lets daylight into the private inner spaces. In addition, they lend the entire façade a certain lightness and transparence, thus giving the Swisspearl façades a modern look in direct contrast to the old brick church.

Michael Hanak

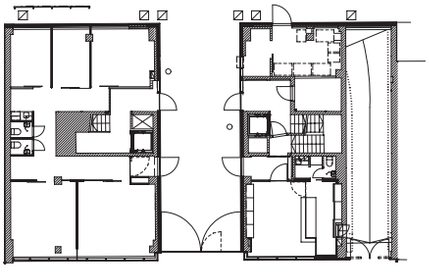
Remodelled Apartment House Uudenmaankatu, Helsinki, Finland

Transparence and Private Sphere

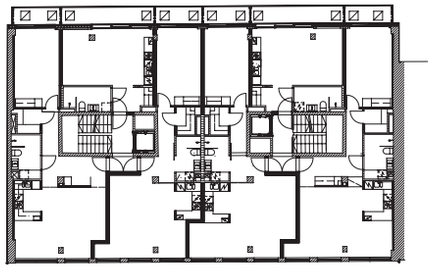
Swisspearl's light, beautiful uniform colour and form gives a modern look to the remodelled building.



Vertical section 1:20



Ground floor 1:500



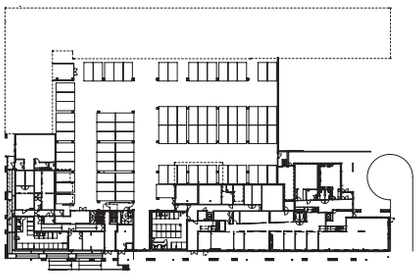
Second floor

1 **Swisspearl® cement composite panel 12 mm**
2 **Swisspearl® cement composite panel 8 mm**
3 **Ventilation cavity, vertical batten 30 mm**
4 **Moisture barrier**
5 **Thermal insulation**
6 **Existing structure**
7 **Tension rod, stainless steel**
8 **Wood floor**
9 **Batten**
10 **Balcony structure, steel**
11 **Batten, steel**

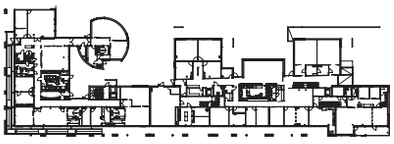
Location Uudenmaankatu 40, Helsinki, Finland
Client Fölkhälsan, Helsinki
Architect Stefan Ahlman, Helsinki
Building period 2009–2010
General contractor Haahtela Oy, Helsinki
Façade erector Vantaan RH Rakenne Oy, Vantaa, Finland
Façade material SWISSPEARL® CARAT, Topaz 7073, Black Opal 7025 and Onyx 7093

The panels were installed with open joints. At the back of the panel, there is a specially designed "raincoat" that provides extra protection for the wall.

Sesam Housing, Helsinki, Finland
On Top



Ground floor 1:2000

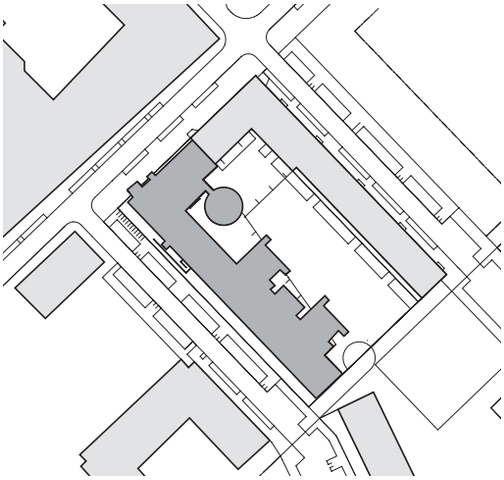


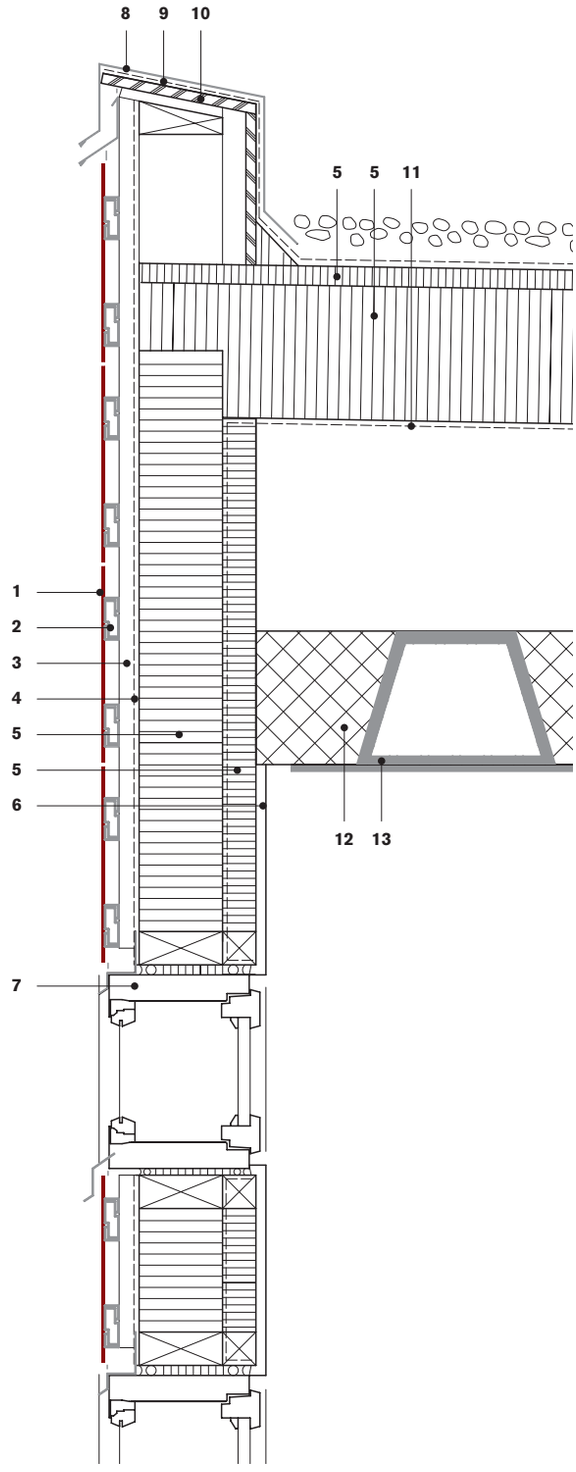
Upper floor

The Arabianranta quarter in Helsinki was earlier an extensive industrial site and has been developed since the 1990s into urban residences and workplaces. Today, 10,000 persons live here and new residences are continuously being built, often selected for their experimental approach. The city administration added a special condition to the new quarter plan: each new building should have a differently shaped architectural element on top and must differentiate itself from the building in material, colour, and form.

The Sesam residence, designed by the architect Stefan Ahlman and completed in 2009, features a "container" placed on the upper building. This two-storey structure, which contains two apartments, lies set back from the lengthwise façades and projects over the front face of the building. The separate upper section differs from the dark brick façade of the six-storey bottom section through its intense russet cladding panels in small horizontal format. The open joints of the back-ventilated façade have been fitted with special rain protection in order to withstand the hard weathering influences of the Gulf of Finland. The form and colour give the lofty structure its special identity and long-range effect. *Michael Hanak*

Location Pariisinkatu 8, Helsinki, Finland
Client Fölkhälsan, Helsinki
Architect Stefan Ahlman, Helsinki
Building period 2007–2009
General contractor Haahtela Oy, Helsinki
Façade erector Suomen Lähiökunnostajat Oy, Kerava, Finland
Façade material SWISSPEARL® REFLEX, Autumn Leaves 9270



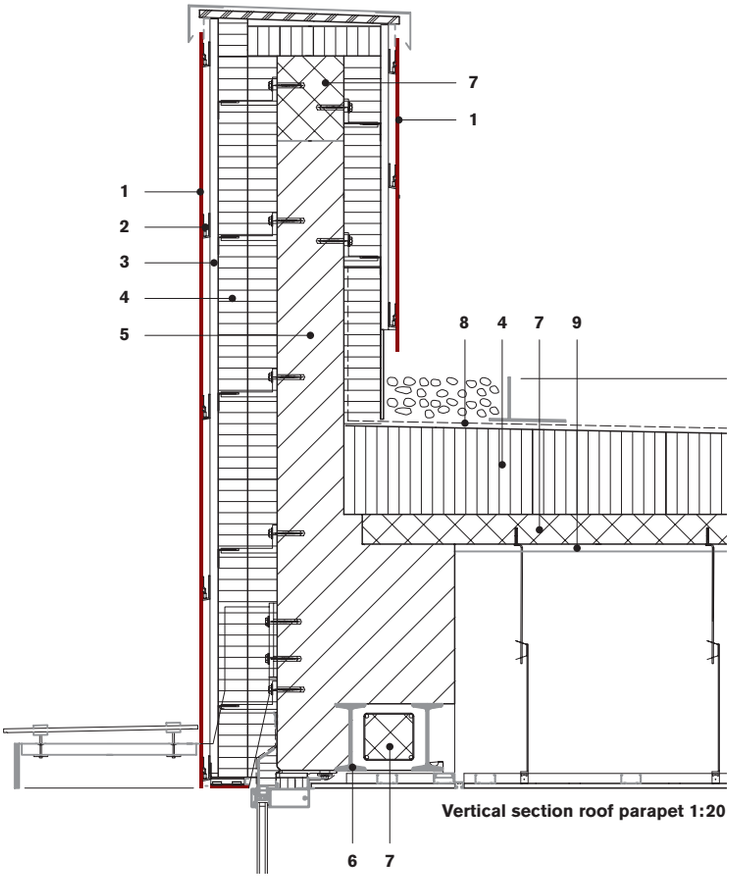


Vertical section 1:20

1 Swisspearl® cement composite panel 8 mm
2 Fastening parts 28 mm
3 Ventilation cavity, vertical battens 25 mm
4 Moisture barrier
5 Thermal insulation
6 Gypsum board
7 Window frame
8 Metal coping
9 Waterproofing
10 Plywood 16 mm
11 Vapour barrier
12 Concrete
13 Deltabeam

Branik House, Prague, Czech Republic
A House on a House

The deep red Swisspearl panels give the building warmth and richness, while still remaining sleek.



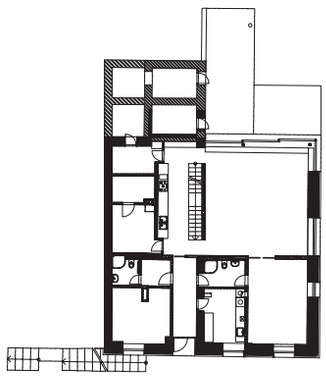
Vertical section roof parapet 1:20

1 Swisspearl® cement composite panel 8 mm
2 Invisible aluminium anchor system
3 Ventilation cavity
4 Thermal insulation
5 Brickwork
6 Steel profile
7 Concrete
8 Waterproofing
9 Corrugated steel sheet

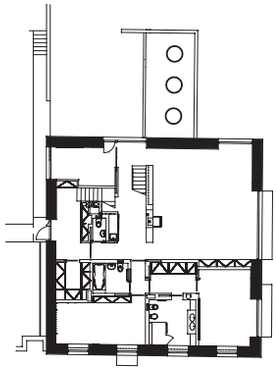
"IT WAS NOT ONLY AN EXCEPTIONAL RESIDENCE, IT WAS ALSO A UNIQUE LOCATION THAT OFFERED EXCLUSIVE VIEWS OF PRAGUE, WHILE GUARANTEEING A HIGH LEVEL OF PRIVACY THROUGH THE ORIENTATION OF THE SLOPE." JAN LAPČÍK

This 1970s villa in a quiet quarter perched above Prague was renovated by Jan Lapčík's and Jarmila Kopečná's design. Previous villa's alteration was realised in the 1980s by the son in law of the original architect Jan Prager. In those days, a large steel enamelled half-cylinder was superimposed onto the original 15 by 15 metre cubic volume. The large circumference of the half-drum accommodates a spacious double-storey extension containing spaces for work and leisure. Juxtaposed with the deep russet red Swisspearl cement composite cladding of the pre-existing double-storey volume is the "Yves-Klein-blue" half drum. For the panels, which are hung horizontally with 10 millimetre joints, the architects chose the largest possible format. The architecture eschews postmodernism due to its confident asymmetry. The interiors are meticulously detailed with luxurious finishes, expensive timbers and travertine stone. The split-level villa opens its north-western corner to a glass-covered, outdoor timber-decked area that faces on a private pool. The result is an elegant, slightly fanciful home for an affluent family. *Anna Roos*

Location Prague, Czech Republic
Client Private
Architects Jan Lapčík and Jarmila Kopečná, Prague
Building Period 2008–2010
Façade construction Stanislav Hájek – Primaizol, Kutná Hora, Czech Republic
Façade material SWISSPEARL® CARAT, Coral 7030 and Black Opal 7020

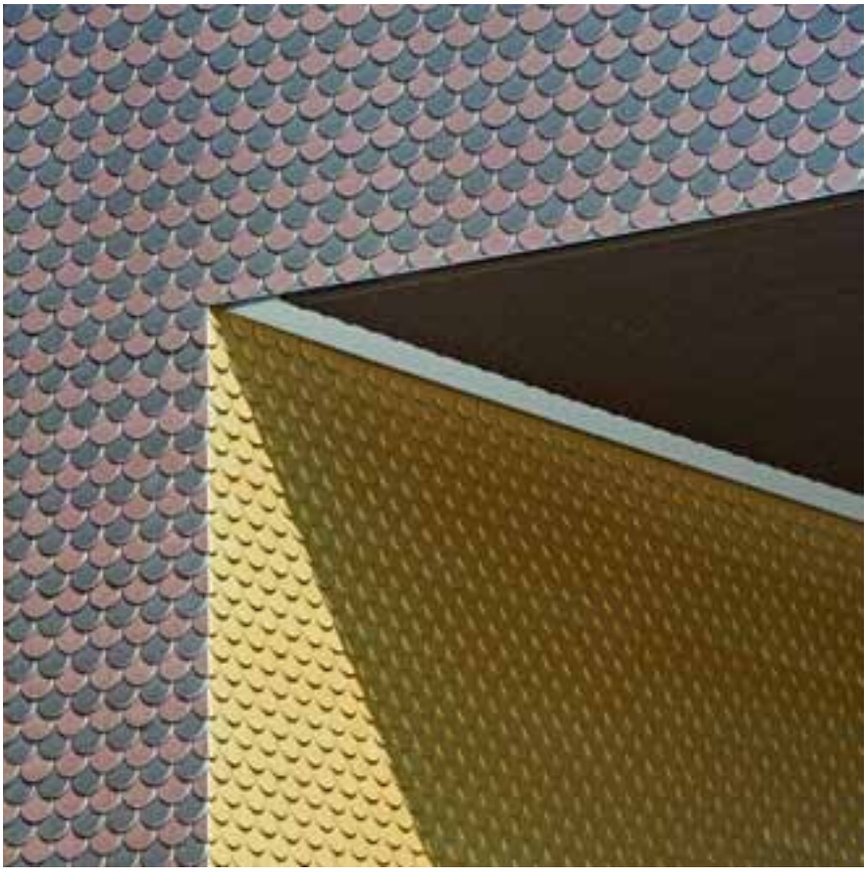


Ground floor 1:500



Second floor

Apartment Hotel, Rotkreuz, Switzerland
Iridescent Pullover



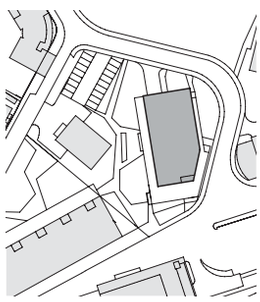
Round black and brown cement composite modules create an iridescent scaled skin. The entrance area uses the same kind of round elements in golden anodised aluminium as a complement.

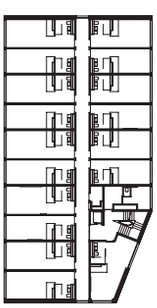
As you approach the Rotkreuz Railway Station, one of the new multi-storey constructions immediately catches the eye: a modern façade with round shingles – and in two colours at that! The half-round Swiss modules are presented with the curves oriented downward and alternating in black and brown tones. Depending on how far away you are, the surface begins to fluoresce. From a distance, the individual points of the façade form a surface like the pixels of a monitor display. From close up, the rows create horizontal and vertical structure lines from the contrast of the two colours, which in turn draws the stippled image over the entire building. No material change or joints interrupt the flat surface of the view. "The scale skin serves as a foil for the strict façade pattern, which also overrides the storeys," states architect Martin Jauch, "so that the façade begins to dissolve." He concludes with a wink of the eye: "We wanted to use the festoon elements differently from the usual way." In conversation, it becomes clear that a banal application of the Swiss slate was out of the question for the architect. As an additional extra, the receded entrance is clad with the golden anodised aluminium shingles.

The lengthwise rectangular building with considerable depth encloses a three-star hotel. The guests have a choice of 47 comfortably designed rooms, 3 furnished studios and a loft suite. With its favourable situation on the traffic axis between Zug and Lucerne, the hotel is oriented to individuals, mainly business people. On the top floor, there are an additional 3 rental apartments.

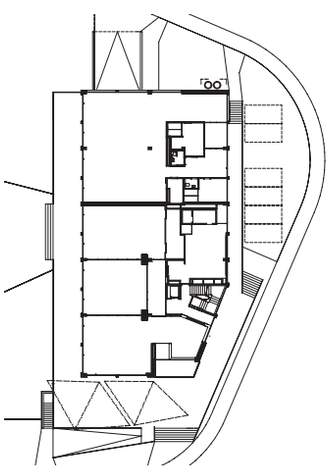
The building project, as well as the interior architecture, stem from the Lucerne architects Martin and Monika Jauch-Stolz. They have implemented the solid structure in local concrete and then wrapped it in an iridescent pullover – a projected, back-ventilated Swiss slate façade.
Michael Hanak

Location Mattenstrasse 1, Rotkreuz, Switzerland
Client Rotkreuzhof-Immobilien AG, Rotkreuz
Architects MMJS Jauch-Stolz Architekten AG, Lucerne, Switzerland
Building period 2009–2010
Façade construction Alex Gemperle AG, Hünenberg, Switzerland
Façade material Small formats NOBILIS, Black N012 and Brown TR914

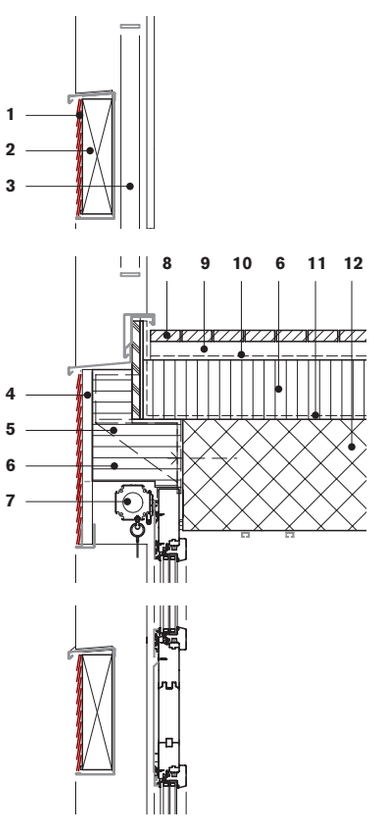




Second floor 1:1000



Ground floor



Vertical section penthouse terrace 1:20

1 Cement composite panel 4 mm, double layer
2 Longitudinal carrier, Glulam
3 Railing
4 Ventilation cavity, vertical battens
5 Metal substructure
6 Thermal insulation
7 Sunshade, textile
8 Flooring
9 Subframing
10 Waterproofing
11 Vapour barrier
12 Concrete

A residential settlement with many high-quality elements, planned by Althammer Hochuli Architekten, has gone up at the foot of the Käferberg in Zurich. Irregularly distributed buildings create exciting outdoor spaces. Angled façades give the houses multi-faceted views. The many layered construction composition with the rear-ventilated cement composite panels plays with foreground and background.

Housing Settlement Guggach 8, Zurich, Switzerland

COMPLEMENTARY STRUCTURE


20

The property lies near the junction between two city quarters and is well connected through a transit road that runs through Zurich. For a long time, the land was used for allotment gardens. The premises rise gradually from Hofwiesenstrasse to the edge of the forest in the west where the Käferberg, a popular recreation area, begins.

In 2005, Althammer Hochuli Architekten won the competition to design a new housing settlement on this site with a project that was impressive for its urban design qualities. Along the noisy arterial road, a single long extended linear building closes off the area. Behind it, five compact housing blocks are distributed in an apparently free manner. The architects found that the rambling plot with its constrictions made large volumes difficult. Their goal was to provide a view of the surroundings and the nearby forest through the positioning of the buildings. To do this, the ground plan of each of the apartment buildings has many angles and corners.

Using the angles in the façades allowed Althammer Hochuli Architekten to achieve many advantages at the same time. First, the zig-zag figures fit the ground plan of the plot. Second, the dimensions of the buildings are broken up, thus winning the approximate proportions of one of the existing former electricity plant buildings. Third, the irregular geometries of the buildings lends diversity to the view from the different apartments. Fourth, flowing green spaces originate around the building and fifth, the buildings create lively spaces in between. In addition, the four-storey building is on a slightly inclined hillside and thus has approximately a half-storey offset. Therefore, the continuous pedestrian infrastructure between the buildings, under which the underground garage is located, is connected with cascading steps. The buildings and outside spaces balance each other mutually as complementary structures.

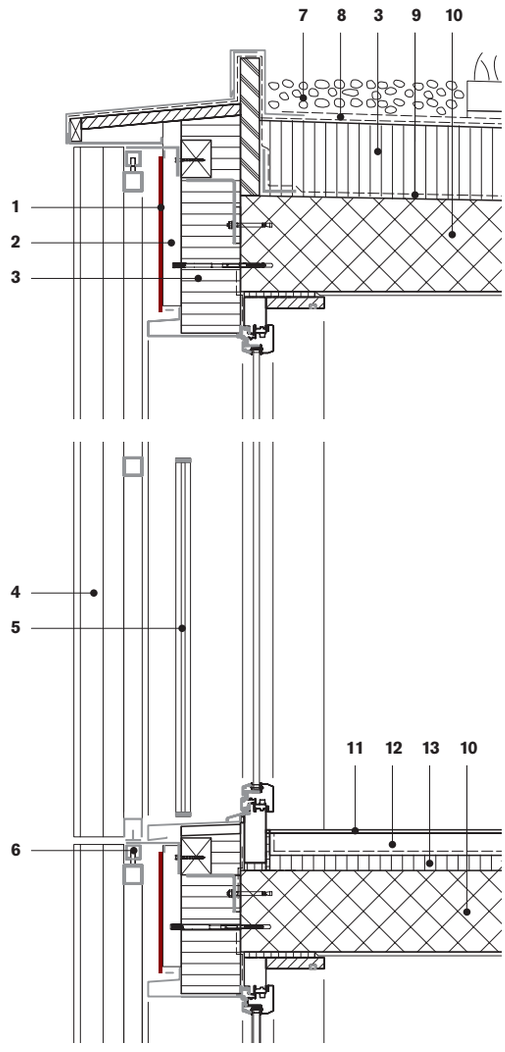
The most striking feature of the façades is the projecting sliding shutters with vertical aluminium blinds. The relative proximity of the apartment buildings to each other required the architects to seek appropriate sight and sun protection. They had smoothly sliding elements produced in natural anodised aluminium whereby the blinds are inset at a fixed angle. An absolutely precise production and assembly was the precondition because these storey-high blinds come very close to the areas in front of the decks. Thanks to just two centimetres clearance, the blind elements, which cover about half of the façade surface, form a “film” over the building. The residents also vary the façade appearance in how they place the blinds in front of the windows or balconies.

The buildings with their many angles produce many diverse shapes. The building entrances are placed in these angles and create additional variation in the façades.

For the actual cladding, the builder and architects selected deep red and, on the street side, white Swisspearl panels. Formal as well as technical considerations led to the decision to use a rear-ventilated façade system. One consideration is that the cement composite panels form a quiet, neutral background for the light-green sliding aluminium elements. Incidentally, the colour concept for the façades was developed by the artist Thomas Rutherfoord. Other considerations were the structural benefits of a façade system with cement composite panels for continual weather protection, freedom from maintenance, security gained from a long functioning service life, and the resulting sustainable economical life cycle.

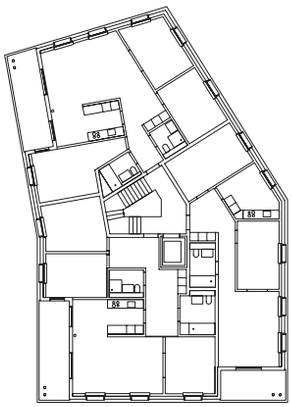
The result is a housing development that was in many aspects just as demanding as it is successful. From an urban design perspective, the position of the buildings to each other and the exterior spaces created thereby form a strong statement. Architecturally, the buildings are appealing through their precise design and colourful harmonised façades. Structurally, it is mainly the projected rear-ventilated façades and the resistant materials that project a long life cycle. *Michael Hanak*

"FOR THE CEMENT COMPOSITE FAÇADE, THE NEARLY MAINTENANCE-FREE SERVICE LIFE AND THE LATER POSSIBILITY TO RECYCLE WERE DECISIVE FOR THEIR SELECTION."
ALTHAMMER HOCHULI ARCHITEKTEN

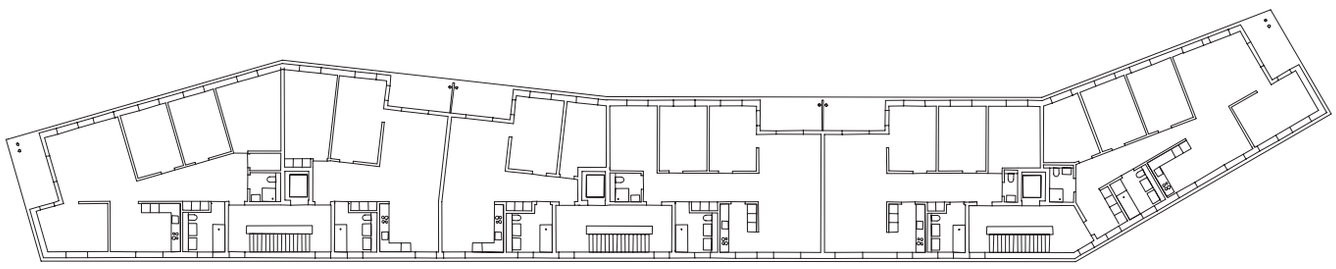


Vertical section 1:20

1 Swisspearl® cement composite panel 8 mm
2 Ventilation cavity, vertical battens
3 Thermal insulation
4 Sliding shutter, anodised aluminium
5 Railing, flat steel
6 Guide rail for sliding shutter
7 Gravel
8 Waterproofing
9 Vapour barrier
10 Concrete
11 Parquet
12 Underlay floor, dividing position
13 Sound absorbing material

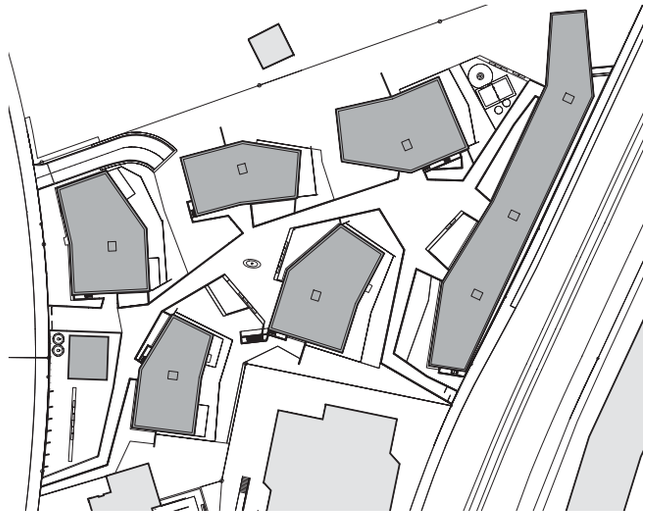


Regular floor Käferholzstrasse 1:500



Regular floor Hofwiesenstrasse

Location Hofwiesenstrasse 153, 157, 161, Käferholzstrasse 12–20, Zurich, Switzerland
Client Baugenossenschaft der Strassenbahner, Zurich
Architects Althammer Hochuli Architekten AG, Zurich
General Contractor GMS Partner AG, Zurich Airport
Landscape Architects Rotzler Krebs Partner GmbH, Winterthur, Switzerland
Building period 2008–2011
Façade construction Dörig Bedachungen Fassadenbau AG, Berg, Switzerland
Façade material SWISSPEARL® CARAT, Coral 7031 and Onyx 7090



Talking with Margrit Althammer and René Hochuli, Zurich, Switzerland

Margrit Althammer and René Hochuli have led an architecture office in Zurich since 1992 and today have four to seven employees. The focus of their work is housing construction.

Margrit Althammer, Architect ETH/SIA/BSA, Swiss native, 1982–1988 studied Architecture at ETH Zurich, 1996–1998 lecturer for design at the Zurich University of Applied Sciences, Winterthur.

René Hochuli, Architect ETH/SIA/BSA, Swiss native, 1982–1989 studied Architecture at ETH Zurich, 1998–2007 lecturer at the Zurich University of Applied Sciences, Winterthur.

Tenants are now moving into the last finished apartments in the Guggach 8 housing settlement in Zurich. How did this project come about?

In 2005, the Baugenossenschaft der Strassenbahner (Cooperative Building Society of Tramway Employees), one of the long-time active building societies in Zurich, held a competition among ten selected architect teams, and our office won. The jury considered that our design would give the Guggach site an independent housing development with a high-grade identity. Our project was dynamic in the free placement of the six slightly angled three-to-five storey, flat-roofed buildings on a broad ground plan. The realisation was delayed, however, until the right-to-build contract for the property was approved by all the authorities.

In Zurich's metropolitan area, many new housing settlements have sprung up in recent years. The new settlement must be seen as part of this ongoing development, right?

The city of Zurich is currently experiencing a dynamic growth phase. In 1998, the Zurich City Council set a goal to build 10,000 new apartments within ten years. In addition, they supported the building societies with land releases with the right-to-build and with accelerated approval procedures. After nine years, the goal had already been exceeded. The not-for-profit apartment building developers, who own more than a fourth of the total apartment inventory of the city, played a central role in the construction of low-priced housing and thus took over an important social-political function in the city's development.

How was your relationship with the builder in this case?

The Baugenossenschaft der Strassenbahner owns 843 apartments in Zurich. Its first building went up in 1926 with the first Guggach settlement which has since then grown to its most extensive form and its eight stages are now finished. The agreement on the new building project was very businesslike and professional. The building society wants to achieve a balanced ratio of ecological, constructional and tenant-related needs.

Was the Minergie label required?

In the competition, we projected buildings with a high energy-saving standard. Concerning the controlled ventilation required for the Minergie label, however, for this site near the forest, we wanted to dispense with it, so that the residents could air out their apartments themselves, if needed. The building society wanted a high-quality and sustainable building standard without having the Minergie label or the price alone being the deciding factor. Together with the builder, we decided not to seek the Minergie certification.

What other measures for an environmentally appropriate building did you take?

We made sure that our energy concept was ecological. Heating is done with warm pumps that are supplied from several geothermal probes. They raise heat gained from the earth to the desired heating temperature. In summer, they take the warmth away and cool the apartments (Free Cooling). This is not only efficient and economical, it is also extensively CO_2 neutral. Natural gas is used to supply hot water. Last, but not least, the high-quality building envelope contributes its part in keeping the need for heat and energy use as low as possible.

How is the building envelope constructed?

We wanted to use a rear-ventilated façade with all its advantages. The structural benefit of the façade system with cement composite panels lies in the long-lasting weather protection, nearly maintenance-free upkeep and security gained from a long service life, thus guaranteeing a sustainable and economical life cycle. The housing development unites state of the art energy savings through the façade construction and building technology.

What were the experiences on the construction site during the installation of the façade?

Sometimes the vertical blind elements required that the entire façade be executed with high dimensional accuracy. Based on the storey-high windows and the vertical offset blinds, it was decided to give the cement composite panels a slender vertical format. The width of the storey-high panels is just half of the standard product. This lets the vertical lines characterise the façades and lends the compact building volumes a graceful appearance.

The window frames should also be mentioned. They are as fine as the guides of the track element and with their bare aluminium surface clearly frame the windows and balconies.

The paling fence railings are finished in grey coated steel. For the rest, the base under the façades is carefully finished in faced concrete. The entire inner support structure was also concreted on site.

The façades have their own separate look: extremely precise.

The apartment buildings are actually precision structures. The accuracy is extremely high. Accordingly, the cement composite panels were an obvious choice. The façades have their own measurement system. The large format cement composite panels determine the exact position of the frames, windows, and railings. Production and assembly of the façades in interaction with the sliding shutters require very high standards and dedication from the workers. All participants must work together.

You have concentrated intensively on apartment buildings for quite a while. What living qualities are the most important for you?

Requirements, needs, and possibilities are different for every project in housing construction. We like to keep a certain generosity in mind and a varied programme for the apartments.

The six buildings of the Guggach 8 settlement comprise a total of 78 apartments. In the long linear building along the street, we have oriented all the bedrooms towards the inside of the settlement. In the block houses, we have oriented the apartments mostly towards the park-like surroundings. The entrance is designed as its own space and as a spatial expansion of the living area. This gives the apartment floor plan a feeling of generosity. Every living room is allotted both a flexible space and a spacious balcony. The rooms are organised in order to allow for different programmes for the apartments.

Thank you for taking the time to talk with us.

Interview by Michael Hanak

PROVEN – RAMLÖSAGÅRDEN, HELSINGBORG, SWEDEN

Ramlösagården is a residential estate located on the outskirts of Helsingborg in Sweden. In this non-descript and stylistically incoherent neighbourhood, Danish architects Vandkunsten designed a self-contained and distinctively urban complex, composed of 27 terrace-type dwellings, arranged in four rows of various lengths around a landscaped courtyard.
The spatial concept involves a continuous transition from public to private, leading from the courtyard through a front patio into the open-space living and dining area and, ultimately, to the private bedrooms upstairs. Main and auxiliary spaces are divided into separate layers, the former clad in anthracite Swisspearl panels, the latter recessed and fully glazed. Counterpointing the staggered arrangement of the building masses, slender clerestory windows, glass balustrades and pergolas add a markedly horizontal element to the overall design.
Six years after completion, Swisspearl Architecture talked to Anders Modig, who manages Ramlösagården on behalf of HSB Nordvästra Skåne, about his experience with Swisspearl panels.

Location Magnioliavägen, Ramlösa, Sweden
Client HSB Nordvästra Skåne, Helsingborg, Sweden
Architects Vandkunsten, Copenhagen, Denmark
Building period 2004 – 2005
General contractor Peab AB, Förslöv, Sweden
Façade material SWISSPEARL® CARAT, Black Opal 7020

Anders Modig has been working for HSB Nordvästra Skåne since 1986 and is the current property manager for Ramlösagården. As such, he is responsible for the maintenance of the buildings and mediates between the board of the housing cooperative and its residents.

Anders Modig, what was the idea behind the façade design for the Ramlösagården project, and why did you choose the Swisspearl panels?

Vandkunsten wanted a plain material that gave a dark and "clean" appearance to the building. They suggested the Swisspearl panels because they had experience with this façade material from earlier projects, both with us and other builders. In our building process, we support the architects and think they should have a strong impact on the final result. So we had no objections to their choice of material. We have used Swisspearl panels in several projects, most recently in Laröd just outside Helsingborg where we have just finished another housing project with Vandkunsten.

How did people react to the look of the building in general, and the chosen façade material in particular?

The first buyers liked the design very much; all 27 houses were sold in just one month. In this area, there are a variety of houses that have been built by "free builders"; Ramlösagården is like an oasis because of its cohesive architecture and strict, clean appearance. The neighbours were – and still are – very pleased with it.

Where do you see the qualities of Swisspearl panels?

Swisspearl panels allow us to build high-quality houses within a short production time. They meet the strict Swedish requirements for fire resistance and live up to the demands that we, as a builder, have regarding the longevity of the cladding and its maintenance. Furthermore, if there is vandalism it is easy to change the panels. That hasn't happened yet, but some panels were incorrectly mounted by the builder and had to be replaced. It was a quick process that didn't disturb the residents.

Would you say then that the panels have stood the test of time? Do they still look good?

The panels were a very good choice for this project, and everyone is pleased with the properties of the material. The panels have fully lived up to our expectations. I was there last week, and it's a lovely building and environment!

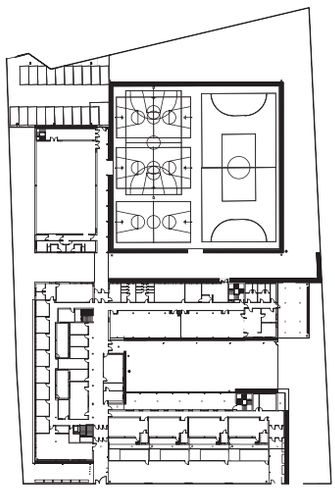
Interview by Patrick Zamarián

First Cycle Education School, Boecillo, Spain

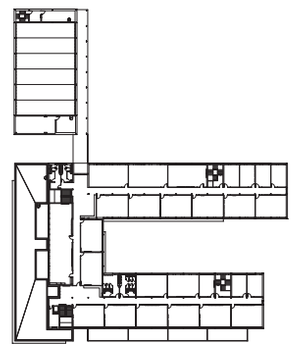
HORIZONTAL ELEGANCE

This new school by architect Alfonso Terceño González boasts a sleek and distinctly horizontal classroom floor whose continuous ribbon windows are precisely aligned with the dark Swisspearl panelling on its façade. Various design measures are employed for the lower sections in order to balance the particular functional requirements with the intended formal expression.

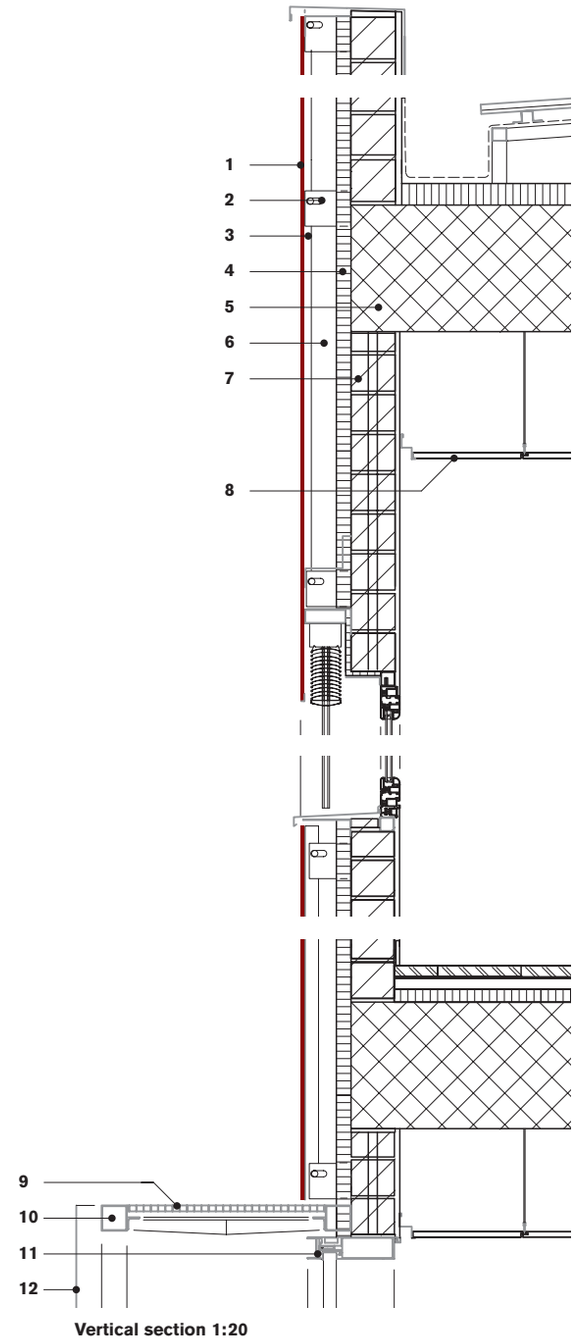
“ORGANISED PLAY AREAS STRATIFY THE BUILDING: FIRST, THE CHILDREN’S ZONE, THEN THE PLAYGROUND OF THE PRIMARY AND SECONDARY SCHOOLS, AND FINALLY, THE SPORTS ZONE WHERE THE GYM IS.”
ALFONSO TERCEÑO GONZÁLEZ



Ground floor 1:2000



First floor



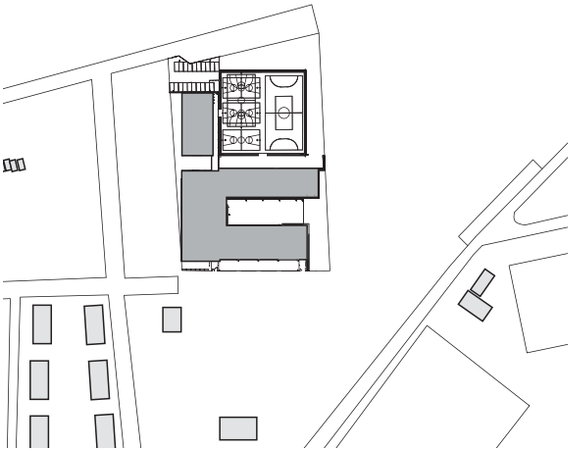
Vertical section 1:20

Location Calle Real/Calle Hoces del Duratón, Boecillo (Valladolid), Spain
Client Junta de Castilla y León – Consejería de Educación (Regional Government of Castile and León – Department of Education), Valladolid
Architect Alfonso Terceño González, Ávila, Spain
Building period 2010–2011
General contractor ASPICA Constructora, Valladolid
Façade erector Grupo Coliseum, Yuncos (Toledo), Spain
Façade material SWISSPEARL® CARAT, Black Opal 7022

1 **Swisspearl® cement composite panel 8 mm**
2 **Bracket**
3 **Vertical subframing**
4 **Thermal-acoustic insulation, mineral wool 60 mm**
5 **Concrete**
6 **Ventilation cavity**
7 **Brickwork**
8 **Suspended plaster ceiling**
9 **Gateway**
10 **Galvanized steel substructure**
11 **Curtain wall aluminium carpentry**
12 **Metal mesh panel**

Alfonso Terceño González's school facility in the Spanish village of Boecillo sits on a previously undeveloped plot that has been divided into a "sports zone" (a gym with a large outdoor hard pitch) and a C-shaped school building enclosing a playground in its centre. The main hallway leads from the south entrance through the school and continues as a covered passageway that connects it with the adjacent gym. Primary and secondary classrooms are located on the upper floor in order to exploit natural light. Likewise, the infant classrooms, which are situated on the ground floor of the south wing, open onto sun-drenched outdoor play areas. The north wing accommodates common areas, such as the cafeteria and a large multi-purpose room, while the transverse section houses the library as well as administrative and faculty rooms, some of which are lit by two internal courtyards.

The façade design reflects the programmatic distinction between the first and second floors. Clad in dark-blue Swisspearl panels and featuring continuous ribbon windows, the classroom floor visually dominates the building and lends it a markedly horizontal appearance. The lower sections introduce a range of design features to mitigate the symmetry of the overall layout. The south wing boasts a conspicuous T-profile with overhangs shading the south-facing infant rooms on one side, and providing a sheltered break area for pupils on the other. The north wing juts out lengthwise, using steel braces reminiscent of González's residence for the mentally ill in Ávila (see Swisspearl Architecture 14). The ground floor windows on the remaining sides are covered by filigree aluminium mesh screens, while rooms such as the kitchen, bathrooms and the corridor endings, where visibility is less important, feature perforated Swisspearl panels that allow the influx of light without affecting the coherence of the façade composition. *Patrick Zamarià*n



"THE SHELL HAS A CONSISTENT IMAGE, DARK AND CLOSED, WHILE THE INTERIOR IS QUITE THE OPPOSITE: BRIGHT COLOURS, GREAT CLARITY AND TRANSPARENCY IN ORDER TO FACILITATE THE INTEGRATION OF CHILDREN."
ALFONSO TERCEÑO GONZÁLEZ

ITMS Telemedicina do Brasil, São Paulo, Brazil
Location Rua Desembargador Eliseu Guilherme, 53 – 12° and. – conj. 121, São Paulo, Brazil
Client ITMS do Brasil Ltda., São Paulo
Architect Maurício Karam, São Paulo
Building period 2011
General contractor R2 Segurança do Trabalho, meio Ambiente e Construção Civil Ltda., São Bernardo do Campo/São Paulo
Façade construction Rodrigo Fabio da Silva, São Bernardo do Campo/São Paulo
Façade material SWISSPEARL® CARAT, Azurite 7042 and Sapphire 7060

Brazil – Stamping Game

For the São Paulo branch of ITMS Telemedicina do Brasil, a company specialised in telemedicine services, two floors of office space were projected in the business heart of the city. With the atmosphere of a "residential loft", Brazilian architect Maurício Karam gave the rooms a high-tech feature using a differentiated lighting system and neutral colours, such as grey and blue, to correspond with ITMS's visual identity and logo. The clients are received with comfort in a wide area with a double ceiling height to provide a more cheerful atmosphere. The office design came from functionality and ITMS's characteristic as a medical services company. "We created an office small in size, but great in functionality and design," comments Maurício Karam.

Composed of straight lines, all the offices were built with grey and light blue Swisspearl cement composite panels and white MDF furniture, which lends a contemporary look. "We had the choice to cover the space with a slab or take advantage of the free span that the place provided," says Karam, "we chose to create a new concept that gives the visitor a new experience."

The stamped logo on the panels makes up a "stamping game". "The monolithic aspect of the material provided a differential in terms of visual coating. A moulding descends vertically shaping the straight white side lighting," explains the architect. *mh*

Brazil – Beautiful Finish

The plant in the region of Cotia is designed to meet the needs of a company that produces beauty products for professionals. The primary need of the programme was a large storage area, so the building is basically a large shed with shipping and receiving ends. The administrative part lies in the centre of the building and is divided into three floors.

From the outset, the project was designed to be efficient, targeting mainly the speed of execution. That's why precast concrete façade panels and a metal roof were chosen for the building system. The gold panels, with their clean and flawless finish, reflect the sunlight and have a beautiful effect.

The detailed project was developed piece by piece, since the façade had a design fully cut and the end result was exactly as designed. The execution was perfect. There were no surprises along the way that required any adaptation. It is impressive to see the precision with which the whole work was done to minimize losses, and the absence of errors. This is common practice when Swisspearl products are involved – not only in Brazil. The end result is outstanding beauty. *mh*

Industrial and Commercial Building Marco Boni, Cotia, Brazil
Location Estrada dos Estudantes 910, Cotia, Brazil
Client Florence Industrial e Comércial Ltda.
Architects Idea 3 Arquitetos Associados, São Paulo, Brazil
Building period 2010
Façade erector and general contractor Eusebio Rioseco, Santiago, Chile
Façade material SWISSPEARL® REFLEX, Gold 9272

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