SWISSPEARL ARCHITECTURE 13

International Edition – High Profile Buildings

SWISSPEARL®

SWISSPEARL ARCHITECTURE 13

FORM FOLLOWS FUNCTION?

Most buildings are set up for a certain purpose and are dedicated to a special use, be it as schools, hospitals, laboratories or other functions. Often enough, these buildings dominate the area around them and also require a fine balance between economy, long-lasting quality, and excellent functionality, as well as an acceptance by their surroundings, over a long period of time. A building must also be able to accept changes due to new technologies or a new use, i.e., a change of purpose, for example, when lofts are created out of old factory buildings.

Another interesting aspect of modern buildings is the fact that the shape and the façade no longer reveal the purpose of the building. We can even speak about a new "autonomy of the façade". You have to get nearer. You are invited to take a closer look at the building to find out what is happening inside. We are proud to show you some interesting examples of how our products have been helping architects in this aspect of their work. I hope you will enjoy this issue of Swisspearl magazine.

Anders Holte, CEO Eternit (Switzerland) AG

Further articles focusing on building construction for the health sector, such as those shown in the above photos taken in the US state of Washington and in Bulgaria, will be published in the next issues of Swisspearl Architecture.

Contemporary Healthcare Design

THE ANTI-TYPE

In September 2010, Richard Rogers won a star-studded competition to design a new cancer treatment centre in central London. The fact that this competition drew the interest of such notables as Zaha Hadid, Norman Foster and Nicholas Grimshaw, despite its relatively modest budget, testifies to the growing attraction of a sector that is proving resistant to the economic climate. Healthcare construction is *booming* around the world. Fuelled by a growing middle class that claims access to more healthcare, countries in the Middle East and Asia, most notably India and China, are building hospitals on an unprecedented scale. In Europe and the United States, the economic crisis has had a considerable impact on healthcare construction, but it continues to be a top performer for the industry, totalling more than 44 billion dollars in the United States last year alone.

The reasons for this continual growth are not only demographic but also structural. A plethora of healthcare facilities that were built in the first decades after World War II are now grossly outdated and in need of reorganisation or replacement. This complex task involves urban as well as aesthetic considerations, which increasingly requires – and attracts – the involvement of renowned architects. As a result, healthcare architecture, which for decades was dominated by specialist contractors whose blunt and anonymous functional structures lacked any aesthetic aspiration, is witnessing a remarkable resurgence.

This resurgence is spurred by the emerging principles of 'evidence-based design', which drives the strategies of most new healthcare facilities. Evidence-based design employs the results of research and post-occupancy evaluations to create environments that are beneficial to patient wellbeing and increase staff efficiency. Nursing stations and supply storage areas, for instance, are increasingly decentralised and located close to patient rooms in order to cut back on staff time spent walking and fetching. While patient rooms traditionally mirrored each other along central corridors, as they do in hotels, they are now 'same-handed', i. e., identically oriented, which lessens the probability of medical errors.

Such practices have a direct impact on the layout of floor plans, but evidence-based design promotes a holistic approach that includes the physical appearance of buildings as well as their setting. Studies have shown that well-designed hospitals with meticulously conceived outside spaces and maximum daylight exposure can boost the morale of both staff and patients, thus significantly impacting the healing process. Healthcare facilities are therefore not just the place where medical care is provided, but an integral part of it.

The overall design strategy aims at avoiding the overbearing and often unsettling appearance of hospitals by concealing their purpose. The competition brief for Rehab, a private clinic in Basel, Switzerland, explicitly

called for a building that does not look like a hospital, and Herzog & de Meuron's transparent, wood-slatted structure, completed in 2002, radically subverts the conventional typology. In recent years, designers have experimented with a wide range of materials and shapes to dispel preconceptions and establish a new image for healthcare facilities. This 'stealth care architecture', as it was aptly coined by Dutch architect Arnoud Gelauff, has ultimately engendered an eclectic 'anti-type' that seeks to understate rather than emphasise the buildings' specific function.

Similarly, the spatial arrangement serves to distract patients from the actual purpose of their visit by creating a sense of casualness. Spacious and light-flooded lobbies provide an informal gathering area and serve as the hub of an intuitive location system that funnels visitors to the respective parts of the complex. At C. F. Møller's Akershus University Hospital in Oslo, winner of last 2009's prestigious Building Better Healthcare Award, all departments are linked by a glass-roofed boulevard. Featuring a range of public functions, such as a café, hairdresser and florist, the 'glass street' emulates a town-like environment antithetical to the monofunctional character of the institution (see Swisspearl Architecture 11).

Akershus University Hospital is noteworthy, not only for its evidence-based design but also for its groundbreaking implementation of sustainable features such as geothermal energy and locally sourced materials. The implication that the best way to promote public health is by contributing to a healthy environment seems somewhat inescapable. Nonetheless, the fear of additional regulation and costs have made healthcare construction a latecomer in terms of sustainable design. This seems paradoxical since the construction costs of healthcare facilities are almost negligible in relation to their operating costs. Evidence-based design has prevailed, not least because the savings resulting from efficiency increase usually recapture the incremental costs within a few years and recur annually.

Examples such as Akershus or Karlsberger's Dell Children's Medical Center of Central Texas in Austin, which at the beginning of 2009 became the first inpatient hospital in the world to achieve LEED Platinum status, indicate that the healthcare industry is, after all, ready to adopt a more long-term perspective regarding the environmental impact of their facilities. This is especially significant with respect to their façade design. Few healthcare projects are sufficiently funded from the outset and subsequent budget constraints logically affect the façade structure first and foremost. New projects, such as those illustrated in this edition of Swisspearl Architecture, lend credence to the idea that the future lies in environmentally sound and durable building envelopes that can provide a crisp and attractive aesthetic for many years to come.

Patrick Zamariàn

For a new health care studies tract at an Oregon college, the architects from SRG Partnership Portland referred to the local climate and weather to create a facility with completely natural ventilation.

Lane Community College, Eugene, USA

WEATHERPROOF

"WITH THE SWISSPEARL PANELS, WE CREATED A HIGH-QUALITY APPEARANCE WITHIN A MODEST CONSTRUCTION BUDGET." SRG PARTNERSHIP

The slogan of Oregon's Lane Community College in Eugene is 'Transforming lives through learning'. With its latest addition, a generous teaching tract for health care studies, the college shows how the learning environment itself can become educational. The new building, hosting ten classrooms, several casual study areas and 37 faculty offices, was to be exemplary in healthy and sustainable architecture. Lane Community College commissioned the west coast-based SRG Partnership with the task, an architectural firm founded in 1972 with offices in Portland, Seattle, and San Francisco. They not only brought the necessary experience in working with educational institutions, they could also draw on a whole array of LEED-certified projects (Leadership in Energy and Environmental Design).

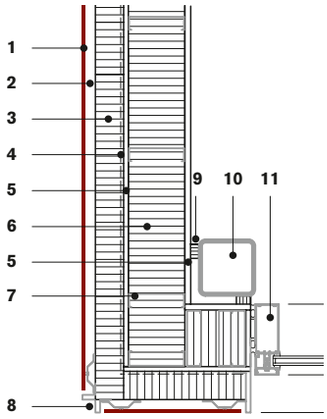
The structure the architects designed consists of three rectangular blocks arranged to form a variety of open spaces. The two smaller units contain the offices, while the larger one hosts the classrooms. The arrangement of the three blocks creates dynamic working spaces and niches for the students within the hallways.

The big challenge, however, was to create completely naturally ventilated facilities. Project architect Paul Waters explains how this was achieved: "The entire building breathes. There's an open space serving as a 'lung', which runs the full height and length of the classroom block and supplies the classrooms with fresh air and light." The skylight at the lung's apex has motorised windows, which operate in accordance with the classroom windows, thus controlling temperature and the necessary fresh air supply. Translucent automatic shades below the glass of the skylight modulate the sunlight. Additional skylights over the stairs and the central study space, together with translucent walls, allow the light to filter into the adjoining classrooms and offices.

A further measure was taken by carefully placing the various rooms according to their use. To avoid direct sunshine in the classrooms, for instance, they face north, thereby profiting from generous views of the forested hills nearby. The windows of the south- and west-facing offices, in contrast, were equipped with light shelves and additional blinds.

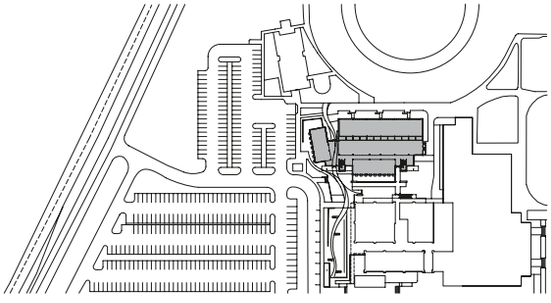
On the outside, the building was clad in light grey Swisspearl panels, laid vertically on the classroom block and horizontally on the two office blocks. Here exposed rivets make for a livelier façade facing the campus. The new complex was linked to the existing facilities by elevated wooden boardwalks and a covered bridge. Eugene's

The arrangement of the building's three blocks creates a variety of open spaces. The classroom block contains the complex's 'lung', supplying it with fresh air and daylight.



Horizontal section corner 1:20

1 Swisspearl® cement composite panel 8 mm
2 Ventilation cavity, hat channel
3 Thermal insulation, horizontal z-furring
4 Moisture barrier
5 Gypsum panel
6 Thermal insulation
7 Metal stud
8 Metal trim
9 Sealant
10 Steel column
11 Aluminium storefront window

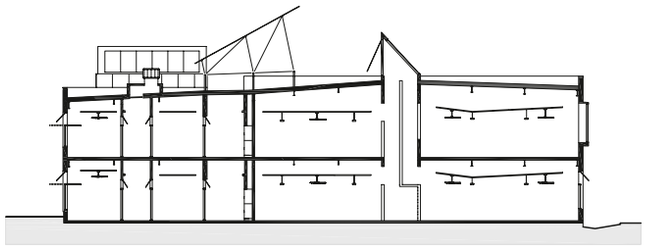


“ACHIEVING A NON-AIR-CONDITIONED, NATURALLY VENTILATED BUILDING WAS THE BIGGEST CHALLENGE IN THIS PROJECT.” SRG PARTNERSHIP

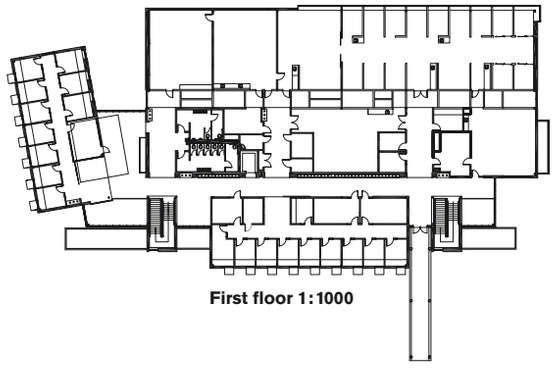
annual 140 days of rain were put to good use as well. The rainwater is collected and feeds the planters that encircle the new building.

With the help of the local climate and weather, the architects thus managed to create a non-air-conditioned, naturally ventilated building within a modest construction budget, fulfilling the college’s requirements for green architecture as well as modern, spacious teaching facilities. *Mirko Beetschen*

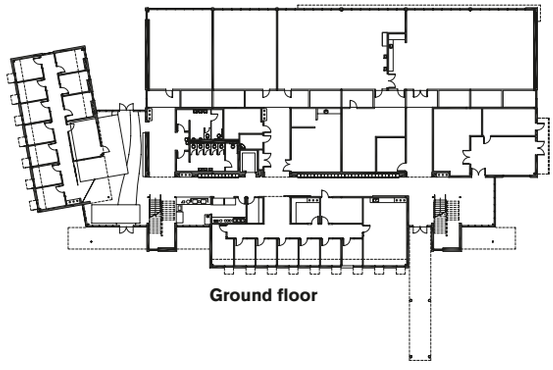
Location 4000 E. 30th Ave, Eugene (OR), USA
Client Lane Community College, Eugene
Architects SRG Partnership, Portland, USA
Building period 2009–2010
General contractor and façade construction Lease Crutcher Lewis, Portland
Façade material SWISSPEARL® CARAT, Sapphire 7061 and Onyx 7090



Section 1:500



First floor 1:1000



Ground floor

Nuovo Polo Ospedaliero del Tigullio, Rapallo, Italy
Collage of Shapes and Colours

The new hospital provides the residents of Rapallo in the north Italian province of Genoa with extensive outpatient facilities and an inpatient ward for up to 160 people. Designed by architect Mauro Strata, the C-shaped design consists of three 3-storey buildings situated around a landscaped garden and covering an underground car park.

Anchoring the complex along the southern edge of the property, the central operating building houses the surgery and diagnostic services as well as a rehabilitation centre and an emergency ward. Inpatient rooms are located in the two narrow side wings, which are connected by a fully glazed structure that serves as the hospital's vertical circulation area.

The joint structure defines a trapezoidal internal plaza at the entrance level that constitutes the heart of the complex and the central node for its clear and intelligible way-finding system. Topped by a larch-planked roof terrace accessible from the second floor, the space is illuminated by a series of large skylights. The full-height glass wall facing north allows a view of the garden and the nearby mountains, while services such as the information desk, shops, a bar and a chapel underline the public aspirations of the plaza.

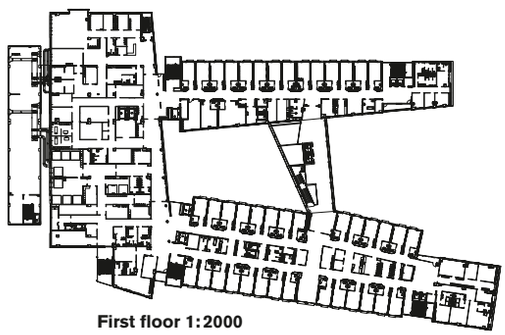
The exterior design is driven by the desire to give each element of the complex its individual colour and shape, thus avoiding any sense of uniformity while acquiescing a certain lack of unity. The inpatient wings have a recessed ground floor painted white and yellow, while the upper sections are clad in light grey Swisspearl panels structured by protruding white window reveals. Separated by glazed staircases, the extremities (housing offices and a restaurant) are emphasised through tilted walls and vibrant red

“THE ARCHITECTURAL LAYOUT IS EXTREMELY CLEAR AND FUNCTIONAL AND ALLOWS YOU TO EASILY IDENTIFY ROUTES, FEATURES AND FUNCTIONS OF THE VARIOUS HOSPITAL AREAS.” MAURO STRATA

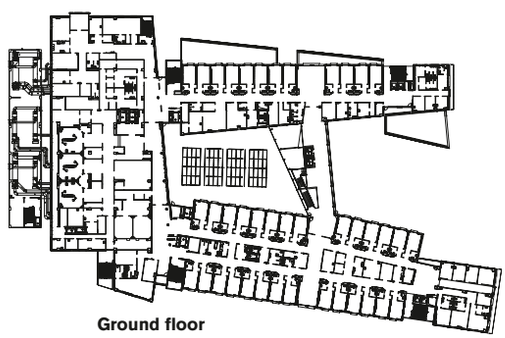
panelling. Additionally, the west wing features a vaulted, copper-clad annex curving out along Via San Pietro and a corresponding single-storey auditorium stretching into the garden.

The operating block is sheathed with dark grey panels divided by horizontal aluminium profiles and boasts an eye-catching red oriel window displaying a geometric arrangement of small slit-like openings. A slender block for technical facilities shields the building against the noise impact of the adjacent motorway, while its metal lattice façade and polished tubes add a high-tech touch to the overall complex. *Patrick Zamariàn*

Location Via San Pietro, Rapallo (GE), Italy
Client Regione Liguria ASL 4 ‘Chiavarese’, Chiavari (GE), Italy
Architects Mauro Strata, Genoa, Italy; Francesca Sposetti, Genoa, Italy
Building period 2008–2010
General contractor Stil Edil Costruzioni, Gorlago (BG), Italy
Façade installer CEMMACS, Arcore
Façade material SWISSPEARL® NOBILIS, Grey 211 and Grey 214; PLANEA Red P 313

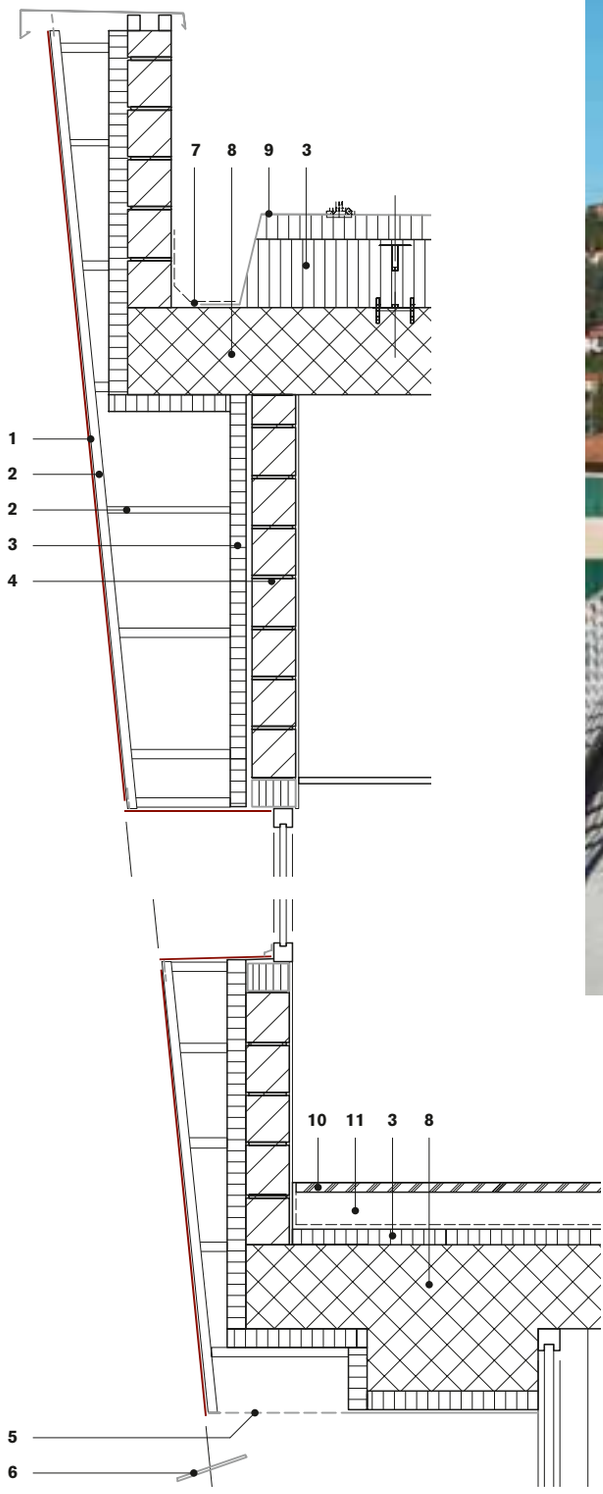


First floor 1:2000

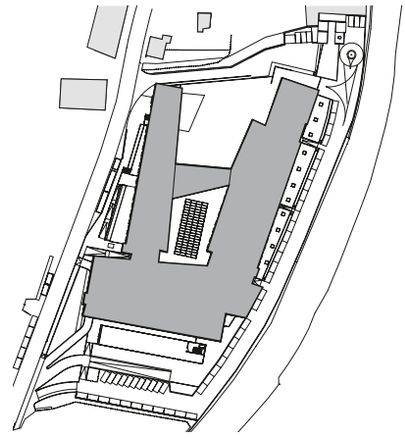


Ground floor

1 **Swisspearl® cement composite panel 8 mm**
2 **Aluminium sub-framing**
3 **Thermal insulation**
4 **Brickwork**
5 **Perforated metal sheet**
6 **Aluminium sunshade**
7 **Waterproofing**
8 **Concrete**
9 **Prepainted aluminium roofing sheets**
10 **Floor tiles**
11 **Cement screed**



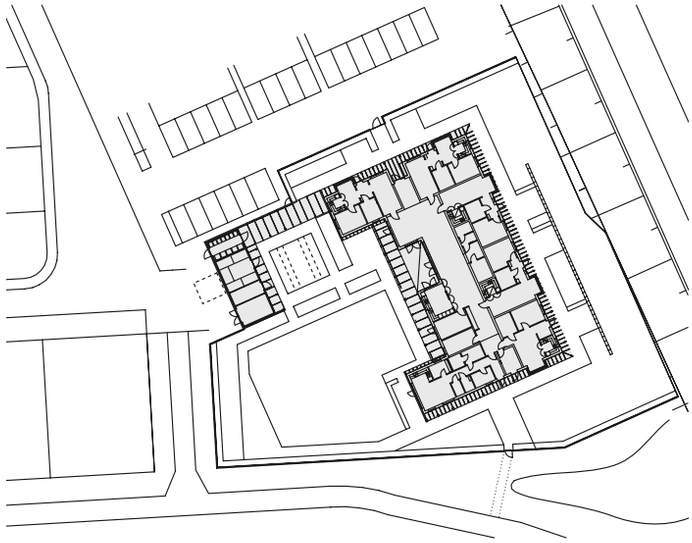
Vertical section 1:30



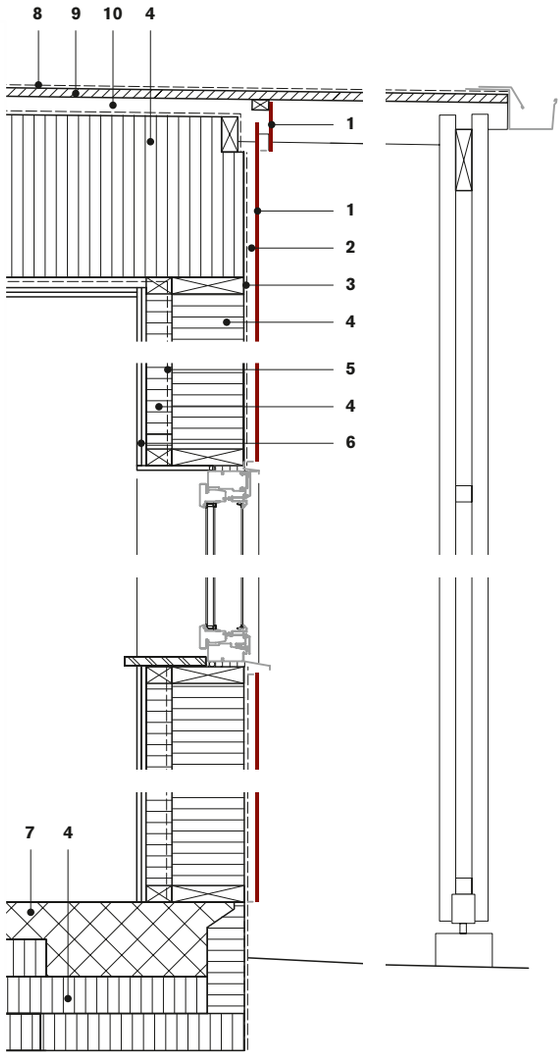
On the edge of Lund, architect Gunilla Svensson has realised a sheltered housing project that is supposed to look as much like an ordinary housing estate as possible. Shape and colour were the key ingredients to achieve this goal.

Sheltered Housing, Lund, Sweden

HARMONIOUS & HOMELY



The scale of the building was to be toned down and it should not be perceived as an institution.



Vertical section 1:20

1 Swisspearl® cement composite panel 8 mm
2 Ventilation cavity, vertical battens 28 mm
3 Moisture barrier
4 Thermal insulation
5 Vapour barrier
6 Gypsum panel, double-ply
7 Concrete
8 Waterproofing, double-ply
9 Timber board 22 mm
10 Ventilation cavity

"SWISSPEARL IS BEAUTIFUL, UNPRETENTIOUS AND EASY TO WORK WITH. WITH A LIGHT CONSTRUCTION BEHIND IT, IT IS A PERFECT BUILDING MATERIAL." GUNILLA SVENSSON

In times like these when brand architecture and builders everywhere are striving for the most extravagant houses, the requirements for this project were rather out of the ordinary. On the outskirts of the city of Lund in southern Sweden, a small piece of land was to be built over with the most inconspicuous and normal one-storey building possible. The reason for this is that its future inhabitants suffer from the development disorder known as autism and therefore need the most harmonious and quiet environment possible. "Our brief was to design sheltered housing comprising five individual apartments and a communal area", architect Gunilla Svensson explains. "The scale of the building was to be toned down and it should not be perceived as an institution. The environment must not give rise to conflict or surprise, but be clear, logical and homely."

The main building is a long residential tract with two short wings, forming a rough C-shape. Together with an outbuilding that contains a garage and storage space, a pergola connecting the two buildings and the natural fences form a roughly quadratic courtyard, which holds the communal, strictly designed gardens. A covered patio runs all around the residential tract providing communal zones towards the garden and private outdoor spaces on the far side. The apartments themselves contain a living room, bedroom, bath and kitchenette for each inhabitant.

The façades of the buildings were all clad in uniform Swisspearl panels. "We selected a dark shade", Gunilla Svensson says, "which helps to limit the scale of the building and complements the timber details and vegetation." The horizontal installation, the dark grey colour and the patio construction in wood all help create a quiet, harmonious atmosphere.

Mirko Beetschen

Location Utmarksvägen, Lund, Sweden
Client City Municipality, Lund
Architects Gunilla Svensson arkitektkontor, Lund
Building period 2010
General contractor and façade constructor
NCC Sverige AB, Lund
Façade material SWISSPEARL® CARAT,
Black Opal 7021

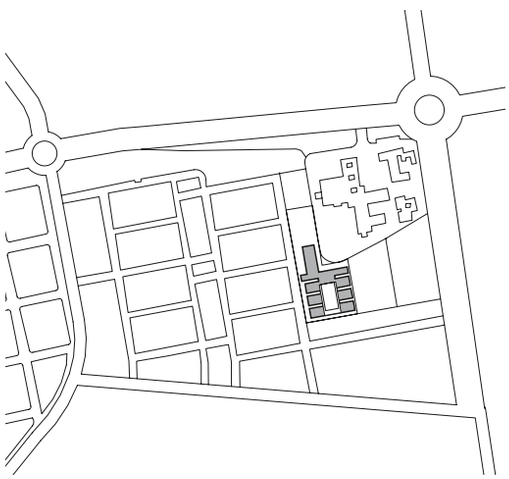
Medical Centre with Day Care, Talavera de la Reina, Spain
An Ensemble of Volumes around a Courtyard

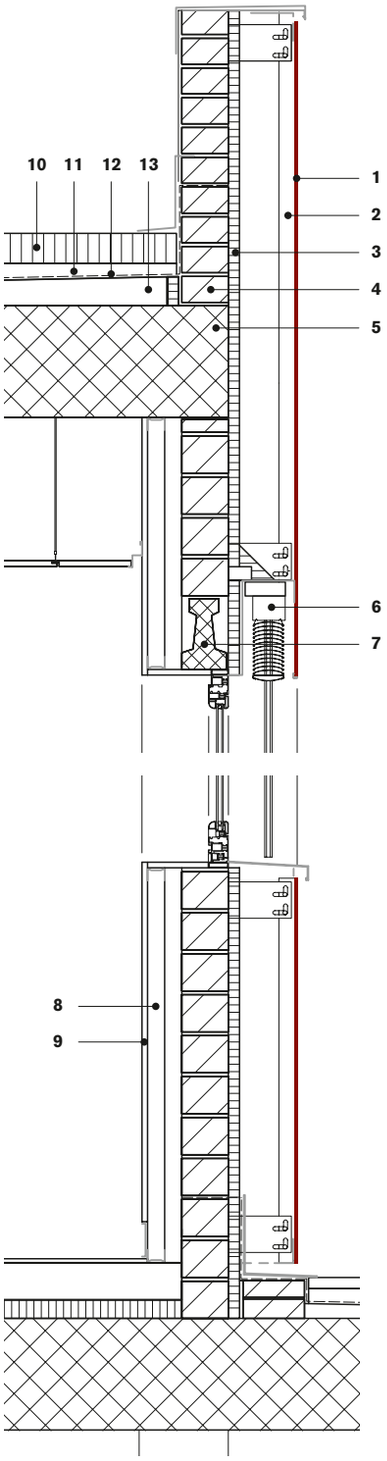
"THE OVERALL SYSTEM HAS A FRONT VENTILATED FAÇADE THAT GIVES THE BUILDING AN ENCLOSURE WITH SPECIAL ENERGY-SAVING FEATURES, WHICH ARE THE MOST IMPORTANT MECHANISM FOR ENERGY SAVINGS BECAUSE THEY REDUCE ENERGY DEMAND BY APPROXIMATELY 30 PERCENT." ALFONSO TERCEÑO GONZÁLEZ

In Talavera de la Reina in the Spanish province of Toledo, a new care centre for the intellectually challenged sits snugly on its site. The complex is set slightly back from the access road in order to provide privacy for its occupants. Comprised of two parts, the day care centre faces west, while six distinct modules to the north and south accommodate the in-patient section. An intermediate zone housing the administration and service areas connects these two parts. The three zones have been configured around an interior courtyard and garden, which seems to fulfil a primarily visual function as there are only two small doorways connecting the interior to the exterior.

The in-patient section of the complex has been subdivided into six independent volumes, each comprising eight bedrooms and a communal living and dining area, which can be further subdivided by closing floor-to-ceiling sliding panels. The volumes illustrate the programmatic subdivision of the plan into three dimensions, and also serve to reduce the scale of the complex.

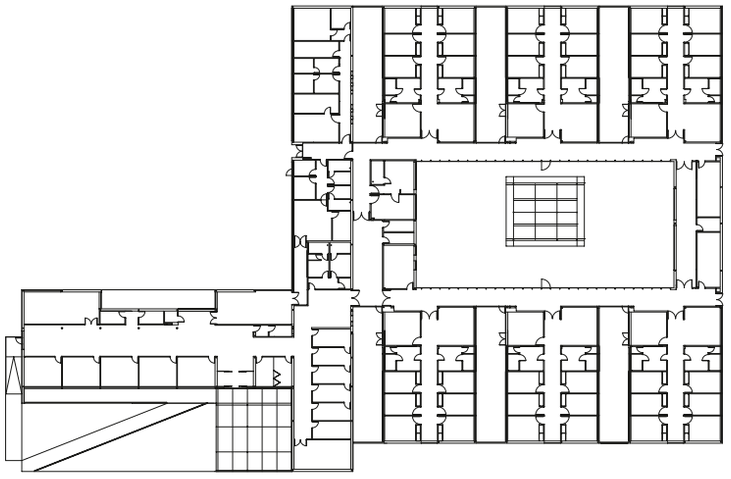
The materiality of the complex is noteworthy. The low-lying, single storey structures have been clad in horizontally mounted Swisspearl panels. In stark contrast, the architect has juxtaposed white composite panels with long-format dark masonry on the lower part of the façade as a kind of a plinth below the strip windows. Like the composite panels, the brickwork has been laid horizontally. The fine, white pointing of the mortar joints visually links the two contrasting façade planes. The elongated strip windows and their silvery grey aluminium sunshades form the intermediary façade element in terms of colour patina. The configuration of the volumes and the design



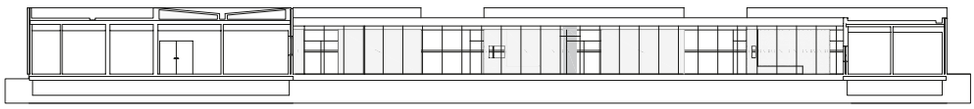


Vertical section 1:20

1 Swisspearl® cement composite panel 8 mm
2 Aluminium sub-framing
3 Thermal insulation, mineral rock wool
4 Brickwork
5 Concrete
6 Blind
7 Concrete beam
8 Sub-framing galvanised
9 Gypsum panel
10 Filter panel 80 mm
11 Cement screed
12 Waterproofing
13 Concrete screed



Ground floor 1:1000



Section 1:500

of the elevations reveal an eye for composition. The fact that the medical centre remains single storey across its numerous volumes, lying low on the ground plane, is no doubt a positive attribute for the users of the building, who are vulnerable and sensitive. One hopes that greenery will be planted that will grow and soften the edges of the complex over time and render it more homely.
Anna Roos

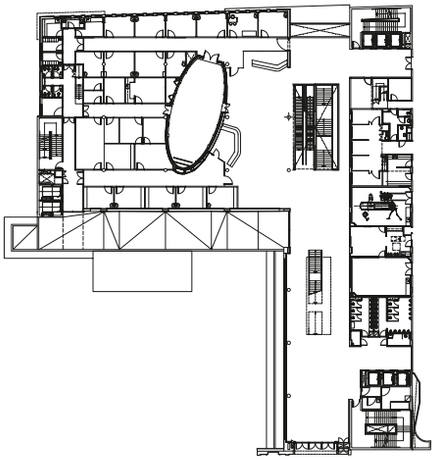
Location Orfebres, Talavera de la Reina, Toledo, Spain
Client Consejería de Salud y Bienestar Social Comunidad Castilla La Mancha, Toledo
Architect Alfonso Terceño González, Ávila, Spain
Building period 2009–2010
Construction manager La Hoz Hermanos Constructores SA, Ciudad Real, Spain
Façade construction Grupo Coliseum, Yuncos, Toledo
Façade material SWISSPEARL® CARAT, Onyx 7099

Hospital Italiano, Buenos Aires, Argentina
Contemporary Image

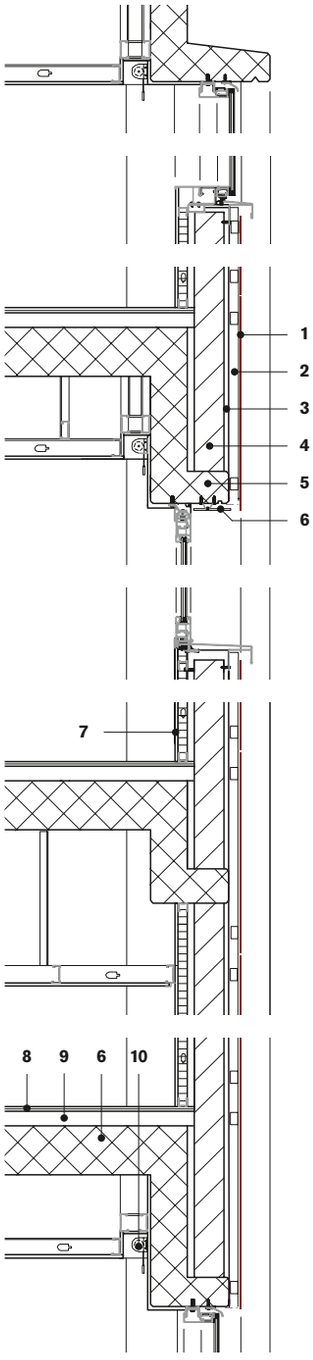
The New Ambulatory Facilities for the Hospital Italiano de Buenos Aires were added on to a century-old health complex. The location of the new construction was determined following the development of an exhaustive master plan. To that purpose, some wings of the old building were demolished and the corresponding medical activities and services were relocated within the complex.

The new seven-storey building consists of three articulated volumes, each containing different functions and connected through the main circulation of the existing hospital to the other areas and medical services. The building is a mix of traditional and new construction techniques. Two fair-faced concrete volumes frame the Swisspearl façade, which is an important contribution in achieving a contemporary image. Between the old and new sections is a glass wall that opens on the entrance hall and corridor area. The change in materials will animate the fairly simple volumes.

The brick-red colour of the façade panels intentionally matches the paint of the existing buildings and transposes it onto a new and different material. In addition, the red façade of the new hospital construction imparts a human as well as a contemporary note. *Michael Hanak*



Ground floor 1:1000



Vertical section 1:30

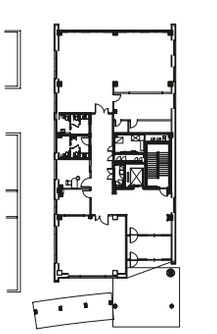
1 **Swisspearl® cement composite panel 8 mm**
2 **Ventilation cavity**
3 **Exterior plaster**
4 **Brickwork**
5 **Concrete**
6 **Soffit panel**
7 **Gypsum board**
8 **Ceramic floor tile**
9 **Cement screed**
10 **Roller blinds**

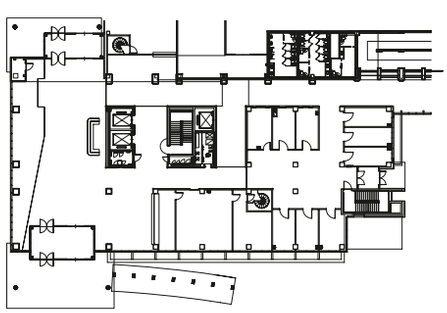
Location Tte. Gral. J. D. Perón 4184, Buenos Aires, Argentina
Client Hospital Italiano de Buenos Aires
Architects Urgell–Penedo–Urgell (with Lynch–Pierantoni–Lopez–Vago) and Marjovsky–Urruty, Buenos Aires
Building period 2009–2010
General contractor Constructora Sudamericana, Buenos Aires
Façade construction SA, Buenos Aires
Façade material SWISSPEARL© XPRESSIV, red 8230

The red cement composite panels of the façades continue on the inside over the main entrance behind the glass wall.

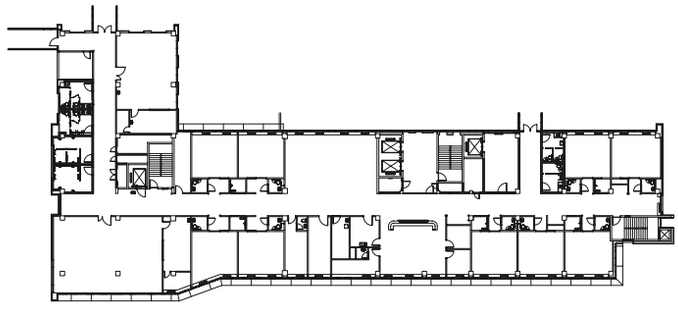
National Rehabilitation Centre, Seoul, South Korea

More Space





Ground floor 1:1000



First floor

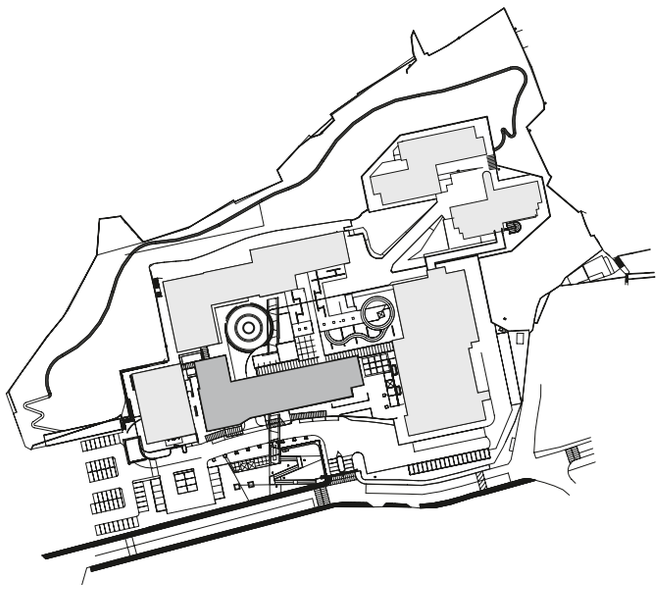
“SWISSPEARL IS SOFT AS BRICK, YET ACCURATE AS METAL.”
SPACE GROUP

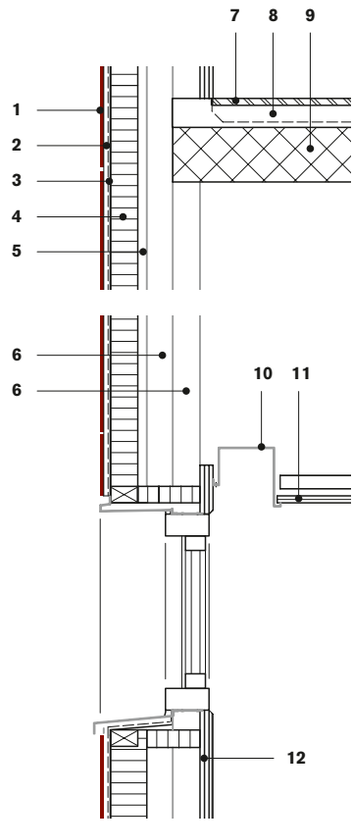
For the extension of Seoul’s National Rehabilitation Centre (NRC), the architects from Space chose a combination of glass and Swisspearl panels to create visual harmony with the existing conglomeration of styles and materials.

The South Korean Space Group was founded in 1960 and to date has realised more than 1000 projects worldwide. Today it has more than 600 employees in eight countries. Its core business is still architecture, but this has been enhanced over the years by urban planning, engineering, and construction business management as well as the publication of books and magazines.

When faced with the task of extending the existing facilities of Korea’s National Rehabilitation Centre on the northern outskirts of Seoul, the architecture firm had to find a common denominator to unite the countless materials of the old buildings with the new tract. It did so by using glass in combination with Swisspearl panels for the façade, a material that is for the architects “soft as brick, yet accurate as metal”.

The new addition, a variegated construction in metal, glass and cement composite panels in different colours, is a decisively contemporary statement while nodding to the architectural jumble of the NRC’s sixty-year history. With these new facilities, the NRC, the only specialised rehabilitation hospital in Korea, has doubled its capacity and now offers 200 beds. It hopes to raise the country’s awareness of the necessity of follow-up treatment, physiological as well as psychological, as a public and not a private task. *Mirko Beetschen*





1 Swisspearl® cement composite panel 8 mm
2 Ventilation cavity, aluminium sub-framing
3 Moisture barrier
4 Thermal insulation 75 mm
5 Square tube, galvanised
6 Steel column, stainless
7 Ceramic tile
8 Cement screed
9 Concrete
10 Light fitting
11 Suspended ceiling
12 Gypsum panel, double-ply

Vertical section 1:20

The new addition to Seoul's National Rehabilitation Centre is a contemporary statement that pays tribute to its past history.

Location Seoul, South Korea
Client National Rehabilitation Centre, Seoul
Architects Space Group, Seoul
Building period 2009–2010
General contractor Public Procurement Service, Seoul
Façade construction Sunpark Co. Ltd., Seoul
Façade material SWISSPEARL® CARAT, Topaz 7073 and Sapphire 7061

The Giant Interactive Group corporate headquarters in Shanghai is the first building commission in China for both Morphosis and Swisspearl, thus crowning a professional relationship that has existed for almost a decade. The campus of China's leading online game developer and operator combines a sinuous office building with an augmented ground plane that contains a variety of public spaces and bridges an existing road. A glazed walkway on the second level connects the various parts of the campus, providing opportunities for casual encounters between the employees.

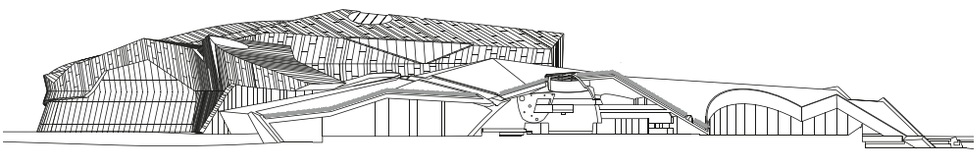
Giant Interactive Group Corporate Headquarters, Shanghai, China

DRAGON ISLAND

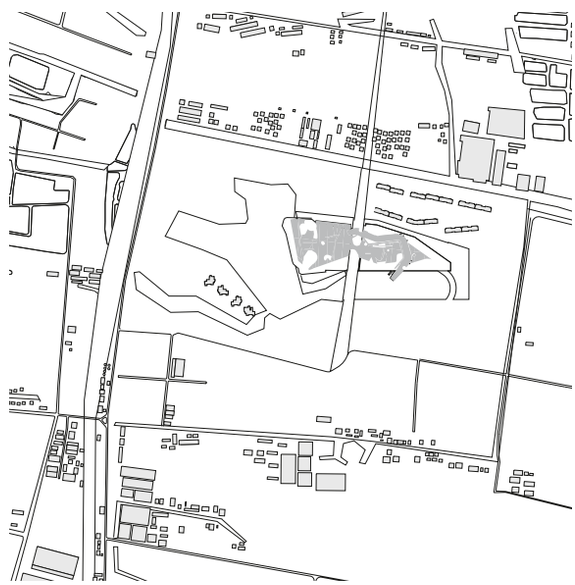
"THE GIANT CAMPUS IS A COMPACT VILLAGE THAT ACCOMMODATES DIVERSE PROGRAMMATIC FUNCTIONS IN A FLEXIBLE FRAMEWORK OF ARCHITECTURAL FORMS THAT MOVE INTO AND OUT OF A SCULPTED LANDSCAPE." MORPHOSIS

Located 20 miles southwest of downtown Shanghai, Songjiang is one of seven designated satellite cities and will eventually serve as a high-tech corridor into China's most populous city. At the present time, the 3.2 hectare site of the Giant Interactive Group corporate headquarters, China's leading online game developer and operator, is surrounded by undeveloped farmland amidst an extensive network of canals. Morphosis used this unobstructed rural setting for a bold and uncompromising structure that covers the entire plot and spans a four-lane highway to connect the eastern and western parts of the campus. Recalling the firm's NOAA Satellite Operations Facility where large parts of the plan were embedded in the ground, the Giant Interactive Group campus combines an iconic office building with a 'lifted landscape' that contains 75 percent of the area. By extending the existing canals and complementing them with an artificial lake, the architects have created an insular topography whose continuous edge serves as a public outdoor plaza.

The elevated ground plane is covered by an expansive undulating green roof and creates a smooth transition between landscape and building. It houses myriad shared public spaces, all of which have access to natural light through skylights and enclosed courtyards. The spatial arrangement is based on a flexible internal column geometry that is independent of the main steel structure, allowing the designers the flexibility to shape the diverse spaces according to the program requirements. On the west campus, the clubhouse provides a swimming pool and other recreational facilities for employees while a company guest hotel houses 17 glass-floored suites that project over a wildlife pond. The east campus across the Husong



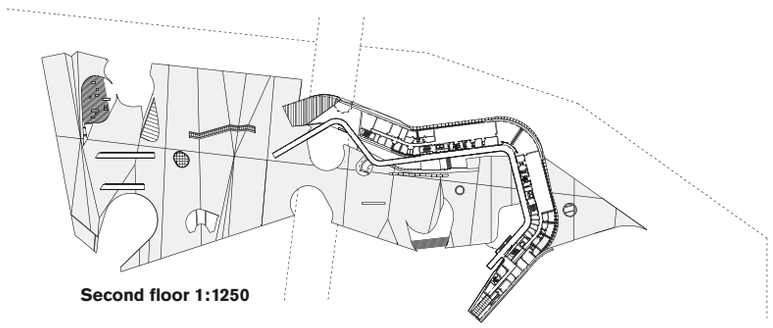
Sections 1:1250



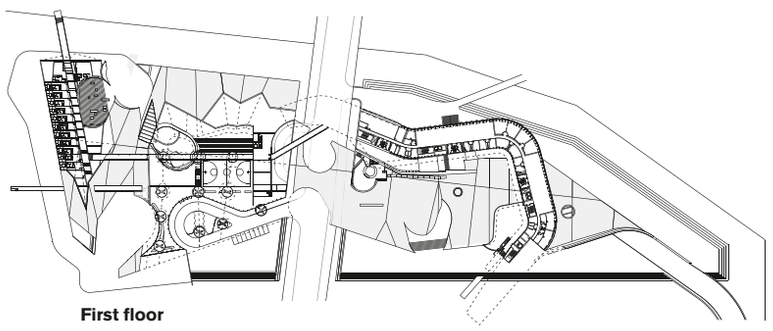
"AN UNDULATING OFFICE BUILDING AND AN AUGMENTED GROUND PLANE MARRY ARCHITECTURE TO LANDSCAPE AND ENVIRONMENT TO SITE." MORPHOSIS

Highway features a library, auditorium, exhibition space and cafeteria. Meandering through and emerging from the sculpted ground plane, the actual office spaces are accommodated in a slender, sinuous structure, suggestively termed 'The Dragon' by its Chinese clients. The creature's head contains executive suites and cantilevers dramatically over the lake; the body is conceived as a continuous, non-hierarchical space, divided into an open-plan office zone and a core containing conference and break areas that extends along the southern edge of the bar. An imposing stairway leads to an enclosed fully glazed walkway on the second level that serves as the main circulation spine of the complex. Stretching from one end of the campus to the other, the corridor connects the office building in the east to the clubhouse in the west and encourages social interaction between employees. The spatial concept provides substantial flexibility – a fact that proved beneficial even before the building was completed. More than a year into the design process, the client decided to use the entire building for its new Internet gaming division rather than the pharmaceutical parent company of its original design, but the scheme managed to successfully adapt to this transition.

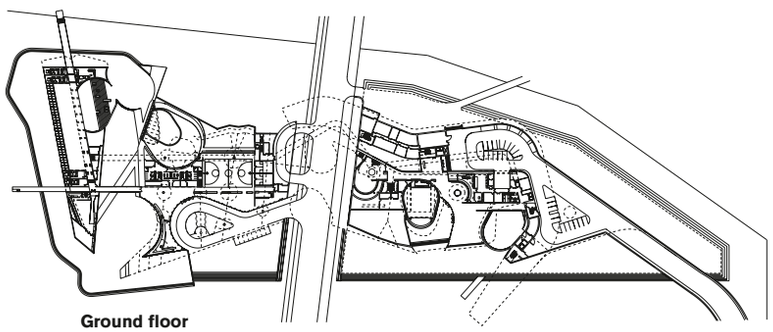
In the last decade, Morphosis has employed Swisspearl panels in half a dozen major projects, although initially solely for interior use (Student Recreation Center; Federal Building) or to counterpoint a more prominent steel-clad façade (Hypo Alpe-Adria Center). At NOAA, Morphosis fully exploited the aesthetic potential of the panels for the first time by tilting them and extending them onto frames that are not part of the exterior walls. This design strategy of disengaging the skin from the supporting



Second floor 1:1250



First floor



Ground floor

"THE STRATEGY WAS TO CREATE EACH OF THE PROGRAM SPACES AS INDEPENDENT PIECES FLOATING WITHIN A LARGER ENVELOPE." TED KANE, MORPHOSIS

structure eventually led to the Cahill Center, whose folded and anamorphic façade masked an essentially staid rectangular box. By contrast, the Giant Interactive Group headquarters' formal complexity is structural rather than superficial. The volume itself is angled and deflected, but the façades are plain and lack the eruptive shifts of earlier projects, particularly the Cahill Center. Large openings carved into the cladding reveal the recessed glass curtain wall and the considerable depth of the multi-layered envelope. *Patrick Zamarià*n

Location Husong Highway, Shanghai, China
Client Giant Interactive Group, Shanghai
Architects Thom Mayne, Morphosis, Culver City (CA), USA; Ted Kane, Hann-Shiuh Chen, Mario Cipresso
Building period 2006–2010
Façade and roof construction Beijing Jianghe Curtain Wall Co., Ltd, Shanghai
Interior installer Toprun Enterprise Group Ltd., Guangzhou, China
Façade material SWISSPEARL® XPRESSIV, Dark Grey 8220
Roof material SWISSPEARL® CARAT, Anthracite 7020-R
Interior material SWISSPEARL® CARAT, Onyx 7099

Talking with Ted Kane, Morphosis,

Ted Kane received a Bachelor of Architecture from the University of Kentucky and a Master of Architecture from the University of California, Los Angeles. He works from Morphosis' Shanghai office and was one of the project architects of the Giant Interactive Group corporate headquarters.

The Giant Interactive Group Campus is Morphosis' first project in China. Was it the result of a competition?
It was not a competition, but multiple architects were interviewed for the project. The master plan for the Giant Group Campus was designed by SWA Group and the client asked them to recommend possible architects for the different projects on the site. We were interviewed for the headquarters, which is but one of multiple parts of the campus. Other architects were selected for the cafeteria, the workers' housing and the CEO's villa, which is under construction at the moment. So we share the overall site with three other architects.

The site is essentially farmland with few other buildings and presumably no building regulations. How did this affect the design process?
It did allow us a lot more freedom to experiment, but there actually is a zoning code. Songjiang district is one of seven satellite cities that Shanghai is developing to keep down the density of the downtown core, so it is a regulated area. For instance, there are height limitations, which is one of the reasons why our building is so low. We are at the maximum height. The western part of the property was originally zoned for parkland and we wanted to keep the landscape as a park-like environment, but still allow it to be developed. We also wanted our building to span a public road to connect the east and west campuses. During the design process, we had to negotiate with the city to allow all this to happen, so we didn't have complete freedom. However, because the land was undeveloped, we did have some say. SWA was still developing the master plan when we came on, so we worked with them on the final plan.

The structure combines an office building with a 'lifted' landscape that contains large parts of the remaining program. Can you tell us something about the relationship between building and landscape?
The idea was to have the building set in a landscaped garden; we wanted all the office areas to have views of the landscape as well as access to sunlight and outdoor plazas. All the shared public spaces, such as the exhibit hall, conference area, server room, cafeteria, swimming pool, gymnasium, bar area, clubhouse and hotel, are placed under a continuous green roof. This folded, undulating landscape encloses a very disparate program, and the strategy was to create each of these program spaces as independent pieces floating within a larger envelope. The landscape provides a connecting tissue for the whole campus. They are actually two sites, but we wanted to ensure that it reads as one campus so that the workers can feel part of one community and interact with each other. We have created courtyards that we cut out of the landscape, and the entire waterfront of the man-made lake is an outdoor plaza space with seating areas.

***Los Angeles Times* architecture critic Christopher Hawthorne made the unflattering assertion that in many of Morphosis' projects the "daring of certain spaces depends on the cooperative, go-along conservatism of others", meaning that standout elements such as the façades come at the expense of the spatial design. The opposite seems to be the case at the Giant Interactive Group campus. The spatial complexity of the building seems to equal, if not exceed, its formal complexity. Would you agree with that?**
Yes, I would agree with that. Our approach was slightly different to that of other projects that are much larger in scale and have a much more generic type of program space that has to be accommodated. Here, we had a very particular program and since the building is not that large, we were able to articulate it. Our strategy was to systematise the logic of the building and use the technology available in China. The green roof canopy, which contains about 75 % of the program, is a steel structure with a concrete deck topped with a green roof. This system was all 3D modelled, and China has some of the best steel factories in the world with really high-tech equipment that allows them to fabricate complex shapes directly from 3D models. The complexity that was put into the system did not increase the cost of the building and gave us the flexibility to work with the interiors. Each of

the program spaces are, as you say, very unique and complex, but some of that complexity was taken out of them because the roof and the main structure were already determined, almost like a warehouse type space. This enabled individual spaces the freedom to shrink or grow and interact with each other, based on programmatic requirements.

Sustainability is a guiding principle of Morphosis. What does this mean with respect to the Giant Interactive Group campus?
We haven't obtained a LEED rating on this project because it is quite uncommon in China, but we tried to accommodate as many sustainable features as possible through our mechanical system and design strategies. The façades and green roof have a very high insulation value and we used an underfloor MEP system, which is very efficient and very rare in China. The Chinese mechanical engineers, being much more conservative than US engineers, preferred more traditional systems, and we had to push the part as much as we could to get it to be sustainable. Some things did get dropped, but that happens in every project. We can't always get everything we want, but the overall strategy was retained.

What role do the façades play in this context?
The façade system definitely is part of that strategy as well. We are using a double-skin system that has multiple applications. The envelope allows us to minimise the heat load gain due to its vented façade, while at the same time giving us great flexibility. We knew that going into China would involve difficulties with coordination, especially on the mechanical end, so we wanted to build as much into the design as possible in order to give us flexibility on site. It is a pretty deep skin with an 800 millimetre gap between the insulation layer and the Swisspearl panelling, which enables the plumbing and other things to be hidden from view.

The outermost layer on most, if not all your buildings, is some sort of panelling – usually metal or cement composite or a combination of both. What criteria do you apply when selecting a specific cladding material?
It varies from project to project. Generally, we try to use materials that have some flexibility, are easy to install and repetitive. We like this combination of complexity and repetition because it gives us a cost advantage. The panels are usually mass-produced, but edges can be cut or trimmed on site. This is one of the advantages in using Swisspearl panels, they are very easy to work with. Being in China, we knew there would be a lot of loose ends, so we wanted to avoid a material that would necessitate the fabrication of many complex pieces and require a great deal of control on site. We needed some flexibility, which is one reason why we preferred Swisspearl on this project. We wanted its simplicity, but also the high quality and long-lasting nature of the material.

It wasn't your original choice, though, was it?
No, we had first specified corten steel, but corten is not commonly used as a building material in China and logistically it became too difficult to get it tested and approved. When that didn't work out, we became very determined to use the Swisspearl panels, which are not available in China and had to be imported. The client suggested aluminium panels made in China but their quality isn't very good and they don't age very well. Looking at the long-term aspect of the building, we wanted a quality material that will last for 20, 30 years and still look good. Having used Swisspearl panels on many projects before, we had no concerns about their quality and were able to convince the client.

While Swisspearl has a well-established network of distributors in the USA, this was not (yet) the case in China in 2008. You mentioned that you had to import the panels. How was the cooperation with Swisspearl?
Actually, it was very good. When we decided to go with the Swisspearl panels, the contractor expressed some concerns because he had never used them before. The Swisspearl crew came to China and we explained the system to the contractor who, in turn, took the necessary training for it. It really is a very simple system and does not require a lot of skilled labour, so it is actually ideal for China. Normally, much of the material is pre-cut in Switzerland, but because of the project's speed, the contractors had to do some of the cutting themselves. Ideally, it would have all been prefabricated, but due to time constraints, we did a lot of that in China.

Due to regulatory limitations, foreign architects are not allowed to produce construction documents for buildings in China. Hence, projects often don't turn out quite the way they were conceived. Did you have any problems with that?
There were some issues, but overall it went better than we expected, which is partly due to our relationship with the client. It is a private client as opposed to a public entity, so we had much more flexibility working with him and being involved. When we were given the project, part of our stipulation was that we controlled the quality: we needed to be on site, we needed to be part of the construction document process. We prepared a complete 3D model set and then I went to China and, along with the local architects, we worked directly with the Local Design Institute in their office to bring it to CD level. It wasn't a process where you just hand off your drawings and say: "Ok, take it from here!" We were very involved in translating our drawings into Chinese standards, and the BIM modelling helped a great deal because it is a very complex building and we used the model to coordinate and communicate many of the issues.

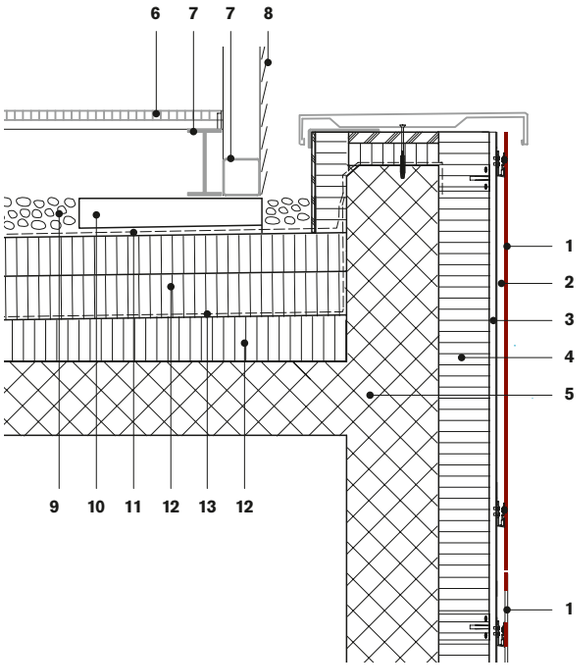
You are happy with the outcome?
Yes, we are pretty happy. Working in China was a good experience for us. We were able to get much more building than we could in the US and not only because building costs are so much lower. In China right now the clients are interested in new ideas, and when they hire western architects, they want something that isn't completely standard. We had a lot more freedom to experiment with different ideas about how an office building should work, how the master plan should work. This campus is very big, and it is very rare to ever have an opportunity like this in the US.

Interview by Patrick Zamarià̀n

Designed by the Polish architects, Medusa Group, the new office centre for Rödl & Partner resembles a refined and largely enclosed black box, situated at a crossroads in the centre of Gliwice. The office spaces are located on the rear side of the building and contain large windows opening onto the landscaped courtyard area.

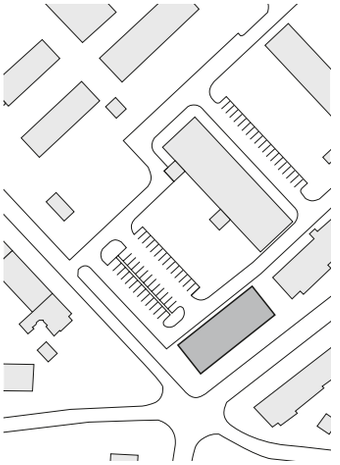
Office Centre Rödl & Partner, Gliwice, Poland

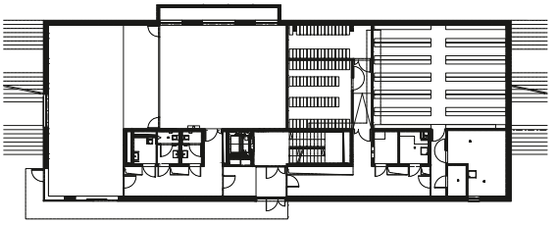
SKIN AS A FILTER



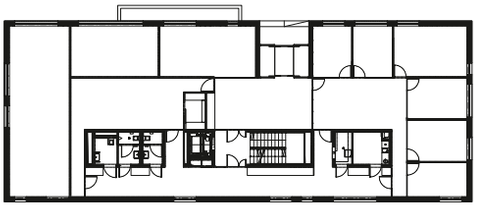
Vertical section 1:20

1 Swisspearl® cement composite panel 8 mm
2 Ventilation cavity 40 mm
3 Vertical sub framing, aluminium
4 Thermal insulation, mineral wool, moisture barrier
5 Concrete
6 Steel grating 23 mm
7 Steel support profile
8 Protective wall
9 Crushed granite 100 mm
10 Concrete pad
11 Polypropylene geotextile
12 Thermal insulation
13 Vapour barrier





Ground floor 1:500



First floor

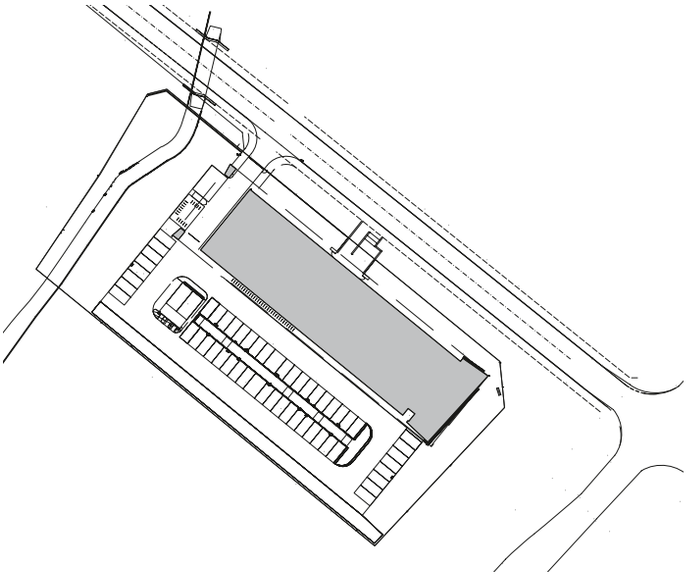
This new corporate building for the German-based consulting firm Rödl & Partner is part of a larger regeneration scheme, which includes the conversion of an old granary for housing and service purposes and the construction of two new garage facilities. The office building designed by the Medusa Group architects occupies a prominent urban location at the intersection of three major public roads. A clear-cut monolithic volume entirely clad in slender and vertically aligned black Swisspearl panels.

A random arrangement of irregularly sized windows, some of which are screened by perforated panels, adds to the refined appearance of the building. Ceiling-high glazing, further emphasised by a corner canopy, connects the ground floor cafeteria with the adjoining streetscape. Wide stairways on either side of the building respond to the sloping site and lead to an elevated courtyard where the main entrance is located. The layout of the three upper floors shows two distinct spatial layers divided by an elongated core that contains vertical circulation elements, i. e., the elevator and central staircase, as well as lavatories and other service rooms. Surprisingly, the horizontal circulation area extends along the south-eastern façade facing the street where glass-covered concrete walls reflect the sunbeams piercing through the perforated panelling.

Oriented towards the northwest and overlooking the courtyard through large windows, the actual work area unfolds as a continuous open plan office subdivided into smaller compartments through a flexible partition wall system. A cut-out of the cuboid body of the building contains a top floor terrace clad with striking amber panels, providing a break area for employees while creating a conspicuous contrast to the all-embracing black skin membrane. *Patrick Zamariàn*

Location Zygmunta Starego, Gliwice, Poland
Client LTJ Investments, Gliwice, Poland
Architects Medusa Group, Bytom, Poland; Przemo Lukasik, Lukasz Zagala; with Dominika Marek
Building period 2009 – 2010
General contractor INBUD, Żywiec, Poland and JANTAR, Gliwice, Poland
Façade construction Metalplast-Stolarka, Goleszów, Poland
Façade material SWISSPEARL® CARAT, Black Opal 7024 and Amber 7083

Office Building Ericpol, Krakow, Poland
Horizontal Layering



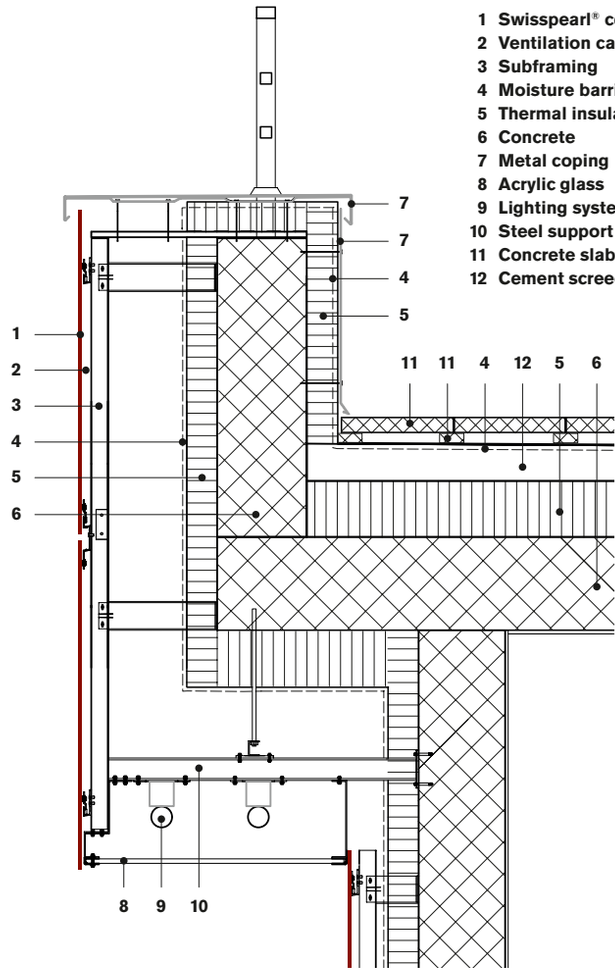
Drawing on the intellectual potential provided by 22 universities, Krakow is becoming increasingly important as a major scientific and research centre in eastern Central Europe. In 1998, the city established Krakow Technology Park as a 'special economic zone', offering income tax exemptions and other incentives to high-tech companies willing to settle in the area.

The new corporate building for Ericpol, Poland's leading exporter, accommodates public functions on the ground floor, such as the reception lobby and cafeteria, as well as the main server room and other technical facilities. The two upper levels comprise office space arranged around a supporting service and circulation core. Executive suites and conference rooms are located on the recessed attic floor, with each room having access to a panoramic roof terrace that provides views of the city's landmarks.

The tripartite design of the building volume is indicative of the functional division of the spatial program. The ground level is clad in light grey Swisspearl panels and appears to be largely enclosed. Slightly protruding and bridging a driveway leading to the rear parking lot, the two office floors visually dominate the overall structure. In contrast to the ground level, they feature large window openings and glazed surfaces framed by distinctive dark grey panels. Striking orange profiles accentuate the horizontality of the design, as do the louvered *brises soleil* that shade the fully glazed attic floor.

Few vertical elements counterpoint the horizontal layering of the façades. Most notably, two columns of panelling highlight the central entrance of the building. In addition, the canted surfaces of the side façade and the two corner pillars, respectively, suggest the structural nature of the concrete frame construction while at the same time asserting a sense of representation. A lighting system integrated into the underside of the overhanging roof enhances the effect at night and reflects the degree of precision that went into the design of this building.
Patrick Zamariàn

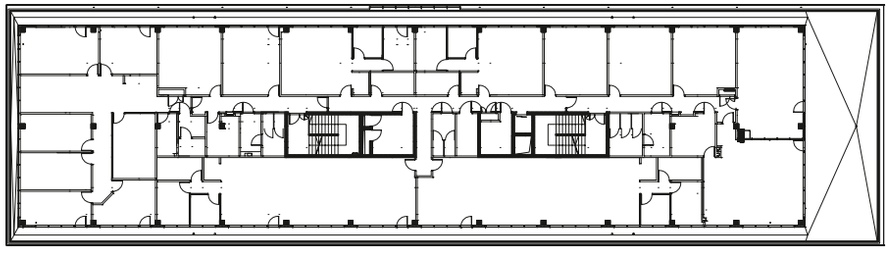
"THE ELEGANT IMPRESSION AND SOLIDITY IS ACHIEVED BY USING SWISSPEARL PANELS IN TWO SHADES OF GREY, BY HIDING THE PANELS' FIXTURES, AND BY USING THIS FLEXIBLE SYSTEM THAT ALLOWED AN UNRESTRICTED FAÇADE COMPOSITION."
PXM – PROJEKT – POŁUDNIE



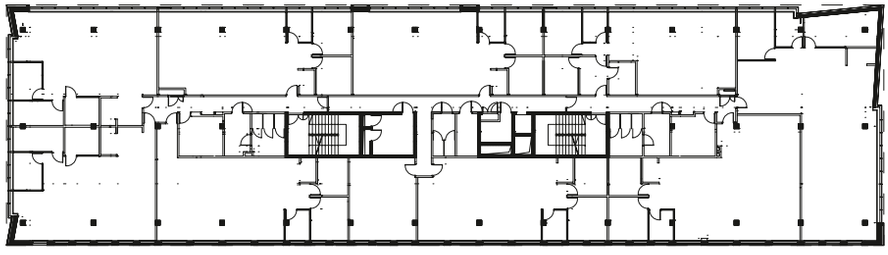
Vertical section 1:20

Location Bobrzyńskiego 12, Krakow, Poland
Client Ericpol Telecom, Krakow
Architects PXM – Projekt – Południe, Krakow; Bernard Marszałek, Krystian Mrożek, Magdalena Rosa-Piechota, Irenusz Krawiec, Anna Kołczak, Jakub Gowin, Marek Świerczyński
Building period 2009 – 2010
General contractor Erbud, Krakow
Façade construction Persena, Głogów Małopolski, Poland
Façade material SWISSPEARL® CARAT, Black Opal 7020 and Sapphire 7060

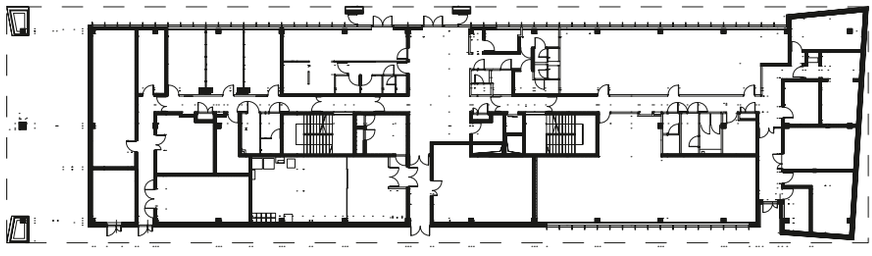
“THE OFFICE SPACE WAS DESIGNED WITH FUTURE EXTENSIONS IN MIND; AT PRESENT, IT HAS A POTENTIAL OF PROVIDING SEVERAL HUNDRED WORKPLACES.” MAREK CIASTOŃ, REAL ESTATE UNIT DIRECTOR, ERICPOL TELECOM



Third floor 1:2500



First floor



Ground floor

The building where Eternit (Switzerland) AG had developed its products for the last 50 years was in urgent need of renovation. The modular construction with the memorable silhouette stands at the entrance to the factory area. The completely new façade displays an appropriate character – with an unprecedented joint pattern. Eternit (Switzerland) AG has decades of experience with the principle of the rear-ventilated façade, which has proven itself once again. With the additional insulation, the renovated building is proof that ecological construction can look very attractive .

Technical Testing Centre of Eternit (Switzerland) AG, Niederurnen

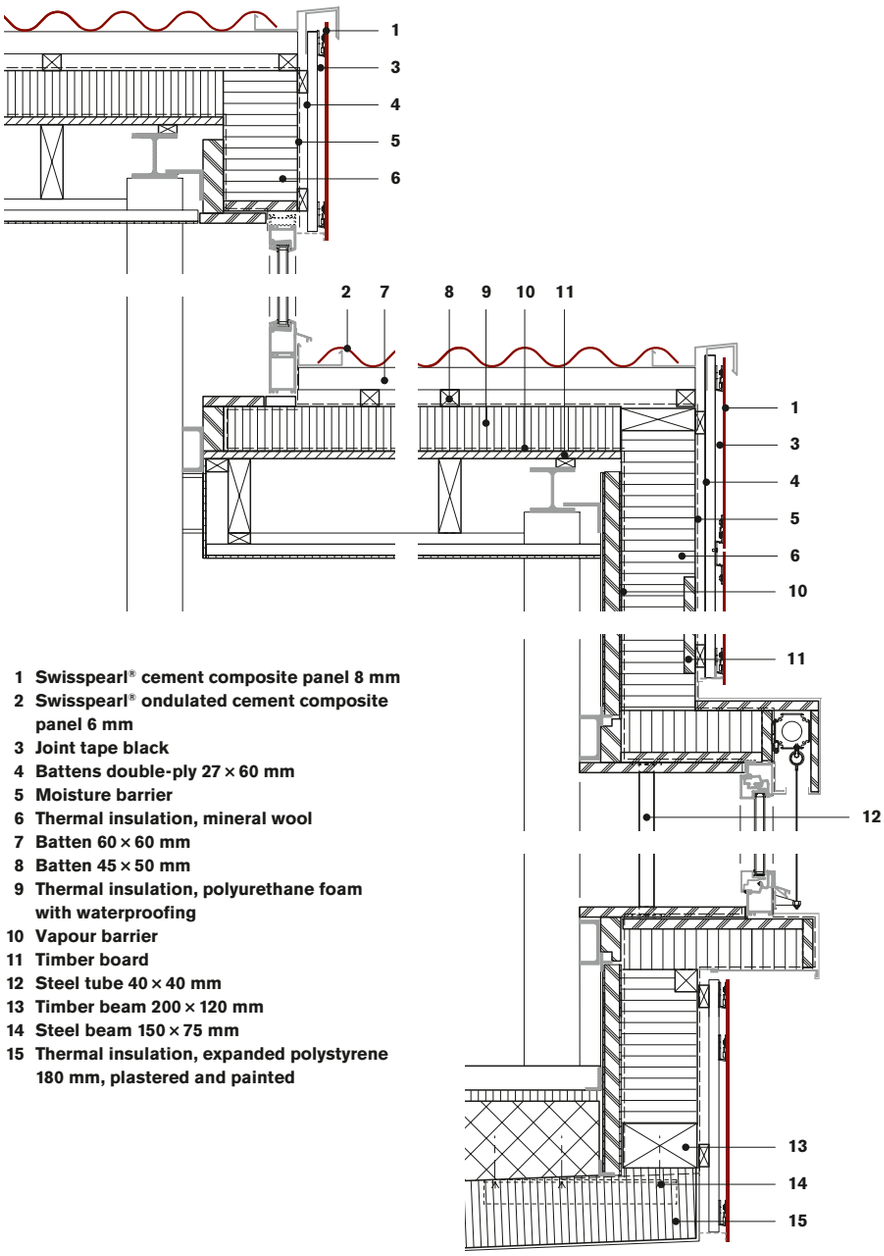
CARRY THE CHANGES – AND UPDATE

"NOT ONLY DO THE PANEL FORMATS VARY, THE JOINTS SHOW OFF THE VARIETY OF VOLUMES: A VERY UNUSUAL PRESENTATION." CADOSCH & ZIMMERMANN

The workplaces did not have sufficient thermal insulation or indoor climate protection. Therefore, Eternit (Switzerland) AG decided to modernise the research building, which was constructed in the 1960s. The architects Cadosch & Zimmermann implemented the renovation in three stages: façade renovation for the Technical Testing Centre first, then the central laboratory and, finally, an interior renovation of the entire facility.

The idea was to bring all the various architectonic demands under one roof. On one side, the new Swisspearl façades should express the innovative spirit of the company while, on the other, the high-quality architectural expression of the existing system should be kept. A total renovation of the building shell was essential from the technical aspects of comfort and energy efficiency. Solid blue Swisspearl panels were so placed that they never disclose the serial construction, instead presenting a more dynamic textural joining pattern with variable formats and joint widths. Through the use of a high-quality heat coupling system, the original strip windows – slightly projecting and equipped with awnings – take on an even more concise form and connect the single construction elements together. Unsightly façade apertures for climate control systems, ventilation valves, etc., could be eliminated completely. In addition, the base has a dark tone while the main floor projects over it as white panels. The flat angled double pitch roof is now covered with Ondapress corrugated panels, thus reversing some confusing details from an earlier roof renovation. The chimney of the existing oil heating system, a marked component of the entire ensemble, also received a new cladding with joint dynamics similar to the main façade.

Location Eternitstrasse, Niederurnen, Switzerland
Client Eternit (Switzerland) AG, Niederurnen
Architects Cadosch & Zimmermann, Zurich; Roman Schneider (project and construction manager)
Building period 2009 – 2010
Façade construction Gebrüder Thoma AG, Amden; Elmer & Blumer Bedachungen AG, Mollis, Switzerland
Façade material SWISSPEARL® CARAT, Azurit 7040 Xpressiv; EFASAL corrugated panel, custom colour Reflex Satin White 9291

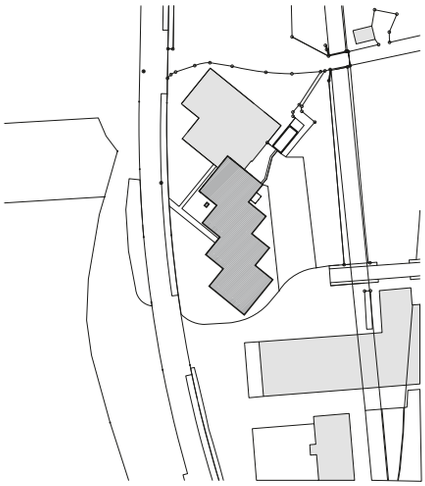


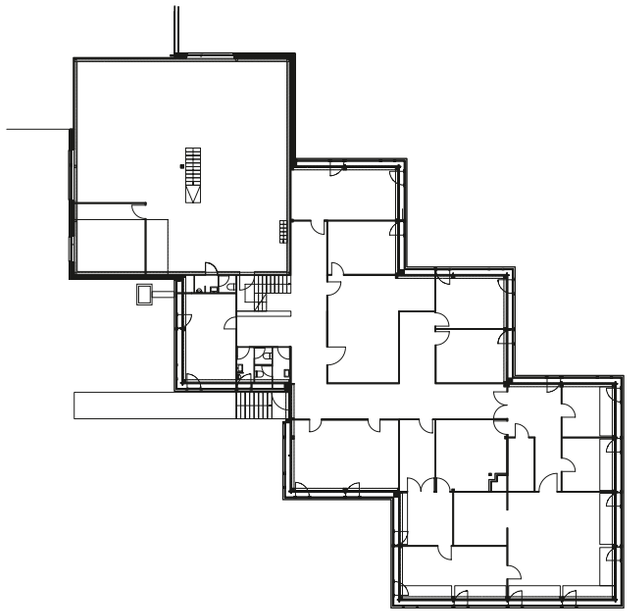
1 Swisspearl® cement composite panel 8 mm
2 Swisspearl® ondulated cement composite panel 6 mm
3 Joint tape black
4 Battens double-ply 27 × 60 mm
5 Moisture barrier
6 Thermal insulation, mineral wool
7 Batten 60 × 60 mm
8 Batten 45 × 50 mm
9 Thermal insulation, polyurethane foam with waterproofing
10 Vapour barrier
11 Timber board
12 Steel tube 40 × 40 mm
13 Timber beam 200 × 120 mm
14 Steel beam 150 × 75 mm
15 Thermal insulation, expanded polystyrene 180 mm, plastered and painted

Vertical section 1:20

In the second stage, the central laboratory workshop, annexed in 1978, was fitted out with a new shell of fine corrugated Efasal panels. The lustrous white tone that the architects selected for the roof, as well as the façade skin, lets the rather heavy volumes appear to be lighter and these recede somewhat against the filigree volumes of the first stage. The theme of the window frames was also applied here in a slightly modified form. The renovation of the interior rooms, which have changed considerably over the course of the years, has still to be done.

Built in 1960, the research laboratory was one of the most axiomatic buildings of the post-war modern movement in the Canton of Glarus. Its serial volumetric layout and its prefabricated façade construction make the building worth preserving. An integral preservation is not possible, though, due to the usage demands, and the detailing of the original building parts is no longer convincing. However, Cadosch & Zimmermann, inspired by the original spirit, found ways to continue it in the contemporary form of the renovation. In the same way that the serial mounted sandwich elements were once an expression of the architecture style of that time, so today is the unprecedented use of panels and joint pattern alignments in the façade. *Michael Hanak*





Ground floor 1:500

Considerable energy savings could be achieved through the use of new insulation and a new application of Eternit corrugated panels for the roof system.

Interview

Talking with Stefan Cadosch of Cadosch & Zimmermann Architects, Zurich

Stefan Cadosch, not only did you rebuild the research laboratory of Eternit (Switzerland) AG with Jürg Zimmermann, you also work part-time at the company. Thus, you were well acquainted with the situation and the background.

Right. The classic modern Testing Centre serves as a quasi 'flagship' at the factory entrance – in front of the administration building. This building, also from the 1950s by the architects Haefeli Moser Steiger, underwent a careful, 'light' renovation in recent years. The owner has for decades now taken the trouble to approach any renovation with the architectural culture in mind. In their own buildings, they keep the high-quality buildings and create new ones.

Do the usage demands stand in the way of an integrated preservation approach?

Appropriate for a research department, Thomas Schmid experimented consciously with his design in 1959/60. The serial sandwich elements with solid white Pelicolor panels were very convincing at that time with regard to lower costs and prefabricated manufacture. However, the building has not fulfilled the demand for energy efficiency for a long time now. Unfortunately, renovating the façade right up to the supporting structures was unavoidable. However, we wanted to keep the building substance with the four diagonally offset wings and its classic division into base, middle and roof as a typical expression of its time.

Apparently, entirely new approaches were pursued for the façade design?

At the time of its construction, the research building was already in the vanguard in its appearance and construction. In turn, we asked ourselves about the most current expression of an Swisspearl façade. A fleeting glance brings a confusing impression due to the various distances between the joints of the individual vertical and horizontal panels. When you look closer, it is clear that the joint is a design theme that energises and unites the building parts. We have interpreted the façade structure as a texture. And, we are thoroughly conscious that these deviations from a 'normal' layout are a provocation for the customary visual habits.

Why blue for the façade?

The choice of blue – the queen of colours – for the solid colour composite cement panels was one of the biggest challenges to be overcome in recent years by the research laboratory. Therefore, this intensive blue panel is one of a kind. Seen from the perspective of how blue has been traditionally applied in industrial construction, then here it is most certainly an appropriate interpretation.

Could the renovation concept be described as a sympathetic transformation?

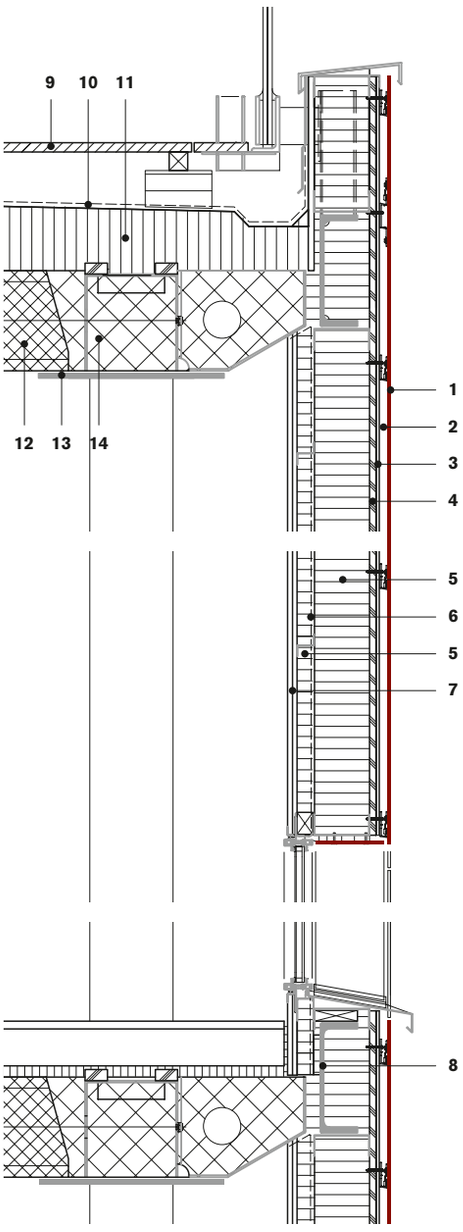
To retain the general expression of the building and at the same time adjust it to a current architectural form was our approach. At the Testing Centre, we put our contemporary architectural concept into dialogue with the architectural language of the 1950s. The existing building lives from its overall form rather than the details. In the renovation, we have therefore intentionally continued the existing quality and added something new, at least I hope so.

Interview by Michael Hanak

Built in the shape of a comma, this new building in Copenhagen symbolises an urban design transition. With its expressive gesture, the 'Comma House' is a communicative sign of transition. The façades also take up the contrasts of the surroundings: while one part is anchored on site through the use of dark bricks, the other, clad with white cement composite panels, tapers off and appears light and airy.

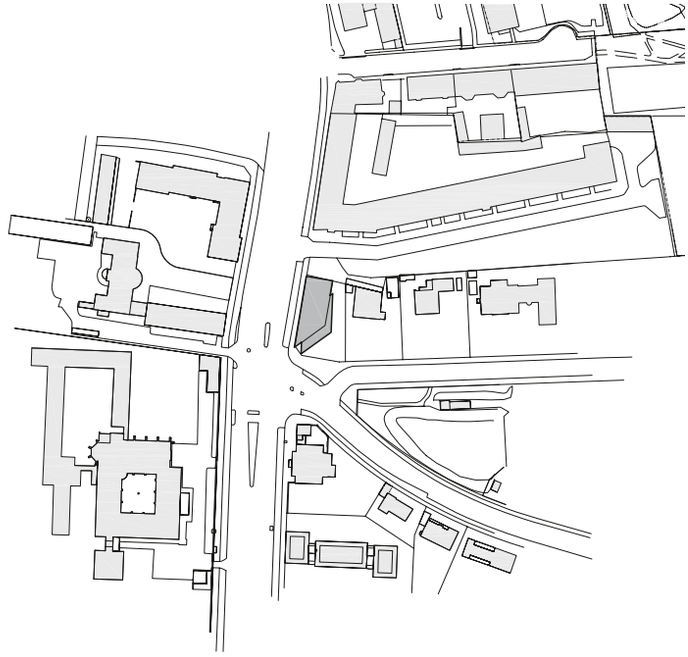
Commercial Building Kommahuset, Copenhagen, Denmark

A SYMBOL OF TRANSITION



Vertical section 1:20

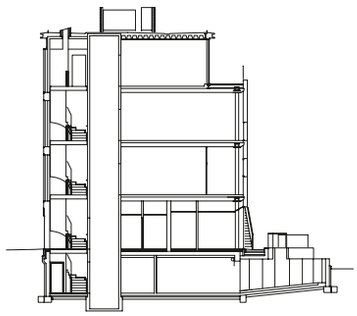
1 Swisspearl cement composite panel 8 mm
2 Ventilated cavity
3 Cement chipboard 8 mm
4 Plywood 18 mm
5 Thermal insulation, light steel framework
6 Vapour barrier
7 Gypsum panel, double-ply
8 Steel beam to support façade
9 Hardwood deck
10 Waterproofing
11 Thermal insulation, foam glass
12 Pre-cast hollow core concrete slab 270 mm
13 Structural steel beam
14 Concrete, cast in situ



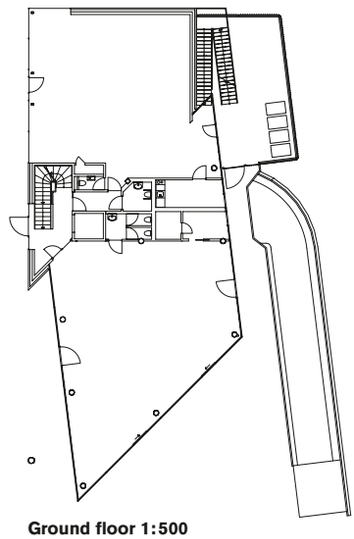
The new commercial building in Copenhagen stands on a key urban design location: a significant corner between the excursion axis Strandvejen (coastal route) and a street that diverges diagonally towards the sea. To clarify for those not familiar with the area: Strandvejen is the famous boulevard that starts in the Danish capital and then leads north along the coast of the Øresund, where coveted residential areas stretch out alongside it. The building site is near the Copenhagen city limits to the suburb district of Gentofte, which are hardly noticeable because of the continuous construction. The surrounding area has both residential and office buildings that vary between three to six floors. Somewhat further north on the former industrial harbour, a building shaped like a beer glass indicates the former site of Tuborg Brewery, which was converted some years ago into an attractive living area at the water's edge.

The concept was to create a commercial building that would not only replace the long-vacant villa, it would also give the site an architecturally significant face that would integrate well with the quite different kinds of buildings in the surrounding area. The central idea of the architect Henning Skaaning Larsen, head of the office of M8 Architects, was to give an emblematic form to the analysed

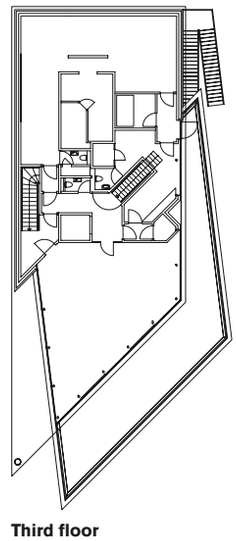
“THE BUILDING, WITH ITS VOLUME AND SHAPE, JOINS THE EXISTING FAÇADES ON STRANDVEJEN IN A NATURAL WAY, AND CREATES A MORE UNIFIED WHOLE.” M8 ARCHITECTS



Cross section 1:500



Ground floor 1:500



Third floor

The different sizes of Swisspearl panels are developed so that they fit on a standard size panel, giving a minimum of waste when cutting.

theme of 'transition and break'. With consideration for the traffic flow, community borders and building typology, they created a building in the basic form of a comma. Analogue to the punctuation mark, which on a textual level indicates transition and creates connection, the building, which they named the Comma House, should be an expression of the current situation of transition in urban design. While the northern part of the building terminates in regular right angles, the southern part tapers off.

In an extrapolation of the chosen theme of transition, the façades are also different. The dark grey face brick lends the northern part of the building a heavy and rather closed appearance. In contrast, the southern part radiates lightness and liveliness through the use of white cement composite panels. Accordingly, the building parts are also differentiated by their construction: the massive part consists of prefabricated concrete elements, while the lighter part is a steel skeleton. The cement composite panels are mounted without visible fastenings based on the Sigma 8 System. Squared, vertical and horizontal formats are mixed in such a way that no joint direction dominates. The irregular panel pattern and the seemingly random window distribution do not give away any hints about the storey layout.

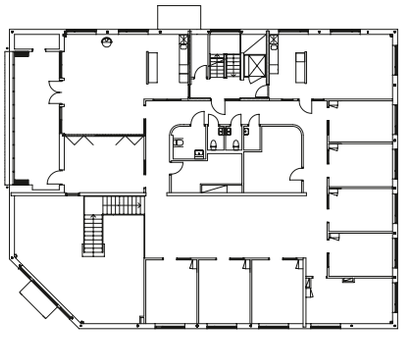
The ground floor has a café and a shop, while a fitness centre has rented the two upper floors and the recessed attic level. The pointed corners of the roof project out expressively. In its total gestalt, the Comma House stands out as a communicative symbol and yet fits in with the other impressive detached houses along the street.
Michael Hanak

Location Strandvejen 32E, Copenhagen, Denmark
Client Kommahuset Aps, Copenhagen
Architects M8 Arkitekter Aps, Copenhagen
Building period 2008–2010
Façade construction Østergaards A/S, Vallensbæk Strand, Denmark
Façade material SWISSPEARL® CARAT, Onyx 7091

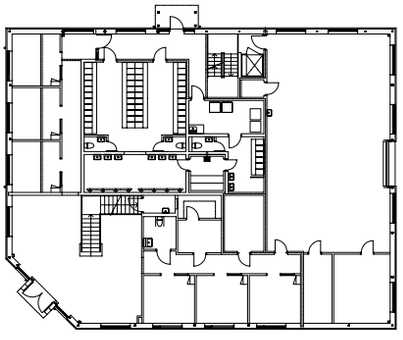
Chimney Sweep Headquarters, Malmö, Sweden
Brand New Black Building

After three centuries of being accommodated in rental premises, the chimney sweeping company, Sotarna i Malmö AB, at last has a 'home' to call its own. The new building gathers all its functions and staff under one roof. Situated in a newly developed industrial area in Malmö, the site is well connected to road networks.

The southwest corner of the rectilinear plan has been chamfered to accommodate the main entrance. In the double volume entry hall, a staircase leads up to the offices and conference room, while the services areas are situated on ground level. The structure is comprised of a concrete framework and load-bearing steel columns. A 90 centimetre high concrete plinth forms the base for the eight horizontal bands of Swisspearl cladding above. The bands are interspersed with protruding metallic profiles to emphasise the façade's composition and the volume of the building. The Swisspearl cladding is, of course, a rich black colour. The section aptly culminates in a chimney at its apex. *Anna Roos*

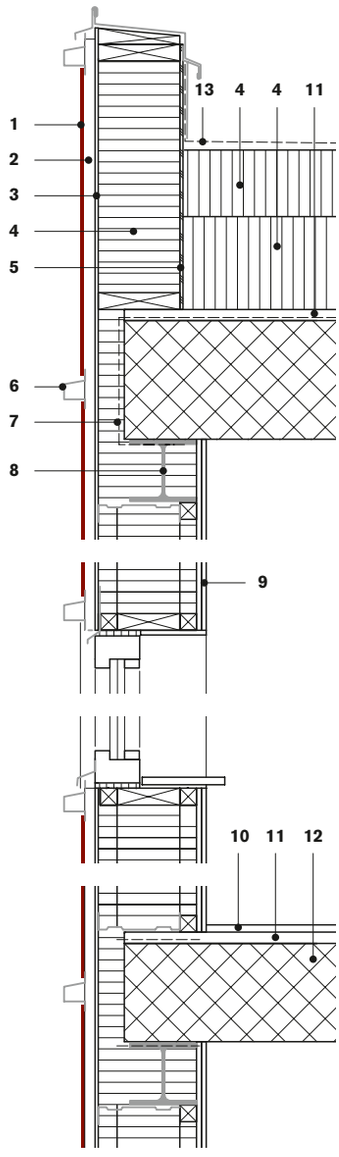


First floor 1:500

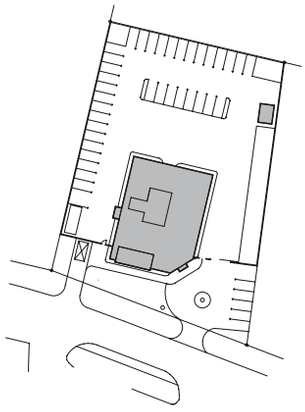


Ground floor

1 Swisspearl® cement composite panel 8 mm
2 Ventilation cavity 34 mm
3 Weather board 9 mm
4 Thermal insulation, mineral rock wool
5 Plywood 22 mm
6 Aluminium profile
7 Slab insulation
8 Steel beam
9 Gypsum panel, double-ply
10 Wood or carpet tiles
11 Cement screed
12 Concrete
13 Waterproofing



Vertical section 1:20



"AS YOU WOULD EXPECT IN A BUILDING FOR CHIMNEY SWEEPS, IT IS CROWNED BY A PROMINENT CHIMNEY." BERTIL MERNSTEN

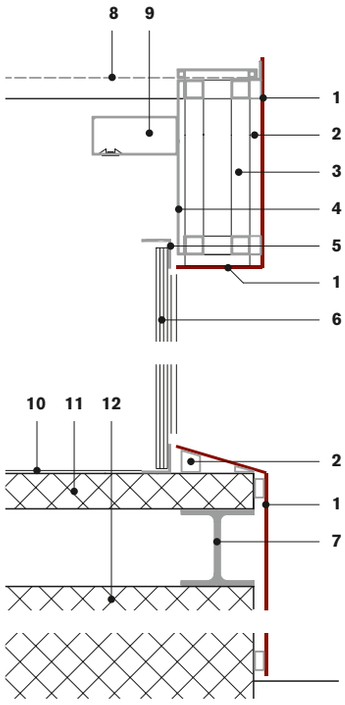
Location Vevaxelgatan, Malmö, Sweden
Client Sotarna i Malmö AB
Architect Mernsten Arkitektkontor AB, Bjärred, Sweden
Building period 2009–2010
Construction manager and façade construction Peab AB, Förslöv, Sweden
Façade material SWISSPEARL® CARAT, Black Opal 7025

Aquarium for the 'Human Fish', Postojna Cave, Slovenia
Underground Exhibit

The Postojna cave system with a depth of 115 metres is one of Slovenia's main tourist venues, attracting up to 5000 visitors a day. The caves provide a permanent habitat for 85 species, a selection of which is on display throughout the various passages and chambers. Most prominently, the aquarium for the olm (*Proteus anguinus*), called the 'human fish' by the local population because of its colour, occupies a widened area along the educational pathway, with a special entering point.

Studio Stratum designed the fish tank as a crisp sculptural object, deliberately at odds with the fluid organic shapes of its surroundings. Placed on a massive concrete plinth, the structure, framed by Swisspearl Carat panels, cantilevers towards arriving visitors, thus advertising the exhibit from a fair distance. The trapezoid shape adapts to the inclination of the path, presenting three large glass surfaces for viewing and enclosing all the service devices in a compartment on the narrow far end of the structure. A sheet metal lattice allows water to drip through the roof, while optical fibre illumination further improves the living conditions of the creatures. *Patrick Zamarià*n

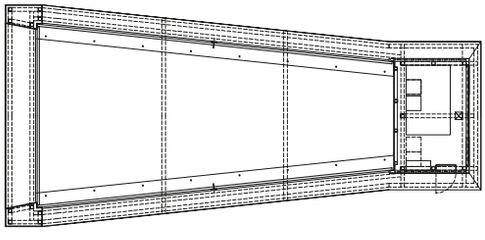
Location Jamska cesta 30, Postojna, Slovenia
Client Turizem Kras, Postojna
Architects Studio Stratum, Ljubljana, Slovenia; Polona Filipič, Peter Šenk
Building period 2009–2010
Façade construction Demmo, Helbl Franc s. p., Laporje, Slovenia
Façade material SWISSPEARL® CARAT, Black Opal 7020



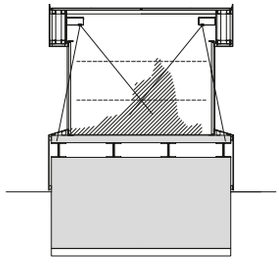
Vertical section 1:20

1 Swisspearl® cement composite panel 8 mm
2 Subframing
3 Steel structure
4 Stainless steel cladding
5 Stainless steel frame
6 Safety glass
7 Structural steel beam
8 Sheet metal lattice roof
9 Stainless steel light box
10 Stainless steel bottom
11 Concrete slab
12 Concrete base

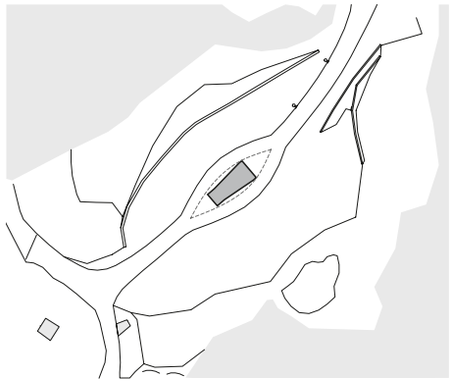
An aspect of displaying the 'human fish' publicly is to educate people about the vulnerability of the underground living creatures and about the need for their protection.



Horizontal section 1:100

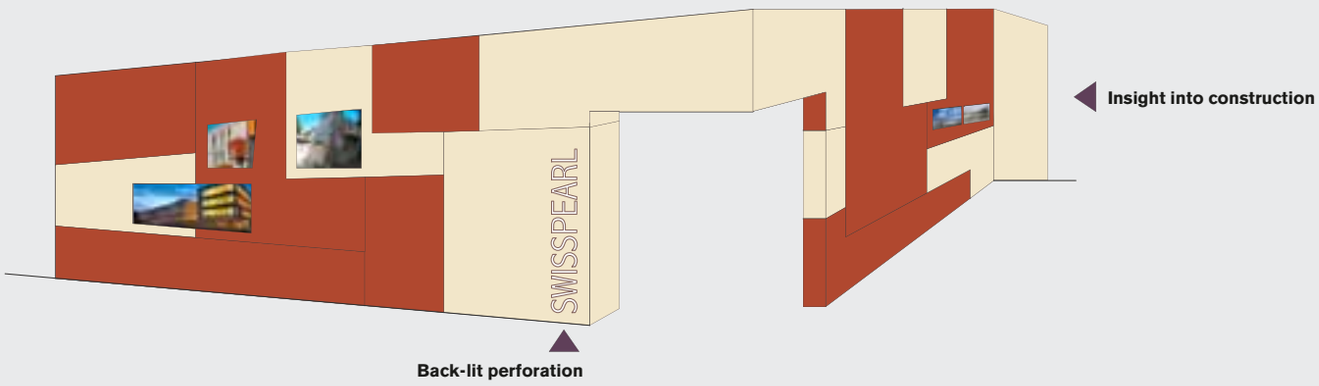


Cross section



World Architecture Festival 2010

Dividing wall for the Judges and Speakers Lounge at the WAF.



Is there really a 'World Building of the Year'? Can such a thing be located and recognised from the ten thousand or more new buildings each year? The World Architecture Festival (WAF), which took place 3–5th November, 2010 in Barcelona, enthusiastically pursued this question for the third time with a high-quality jury and a challenging programme for visitors from all over the world. The latest communication means started the process. With nearly global coverage, architects and planners worldwide were invited to submit finished or fresh from the drawing board designs to the jury for evaluation. From the total of 23 categories for various prizes, all projects submitted in the main category of Completed Buildings participated in the race for the Building of the Year award.

Gianluca Racana of Zaha Hadid Architects obtained the price for the World Building of the Year 2010.

Harvard team wins student competition, with new paradigms for disaster-relief regeneration in Haiti.

The numbers of the festival speak for themselves: around 2000 architects from over 70 countries were expected, representatives from 60 and more media partners attended, and more than 500 projects were submitted, nearly half of which made it to the short list. This implies that projects were introduced to the jury and the public personally by the submitting architects. In addition to challenging seminars and incisive key lectures, the presentations of the projects by the architects were the essential highlight of the event: the eloquent demonstrations, colourfully accompanied by spectacular visualisations, expressive videos and virtual tours captivated both the jury and the public.

Among the winners, there were actually some newcomers as well as well-known names from the architecture scene. For example, the local offices of Enric Miralles – Benedetta Tagliabue won in the category Display with the Spanish Pavilion for the Expo 2010 in Shanghai, Zaha Hadid topped the category Culture with the MAXXI, the National Museum of XXI Century Arts in Rome, and the offices of David Chipperfield took the prize for Civic and Community for the City of Justice in Barcelona. The selection of the Building of the Year was certainly not an easy task, but in the end, the highly original museum design by Zaha Hadid won out.

The supporting role of the sponsors at an event of these dimensions was accommodated with attractive platforms. The Judges and Speakers Lounge was provided, for example, exclusively by Swisspearl. The dividing wall with its unusual design separated the space for the main actors from the public areas. Exciting discussions ensued about the range of applications and the design possibilities of this exceptional material.

Anyone who focused his attention on current and upcoming trends in architecture found few surprises; however, the latest topics already under discussion found considerable support. For instance, the developments in sustainable and ecological construction methods were clearly in the forefront, either in sophisticated building technology concepts, coupled with carefully selected architectonic basic typologies, or in energy efficient visions for entire cities and settlement areas.

In fascinating contrast, the place of the traditional broadly diversified approach of ornamentation is once again finding acknowledgement in the world of architecture. The new delight in the playful part of beauty

MAXXI, Rome, architect: Zaha Hadid.

City of Justice, Barcelona, architect: David Chipperfield Architects.

Spanish Pavilion, Expo 2010, Shanghai, architect: Miralles Tagliabue.

will certainly be supported by the opportunities offered by computer-supported constructions for exceptional forms, structures and oscillations. Also clearly recognisable is the growing urbanisation of the built environment, more precisely in the industrial centres of the explosively prosperous Arab and Southeast Asian regions where densification is the rule of the day for living as well as for working structures. The typology of high-rises is enjoying a worldwide resurrection, however, with the clear intention to communicate cell structures in the most individual manner. With regard to building materials, surfaces and their effects will be the subject of strong experimentation. Material selection remains extensively in the classical areas of glass, concrete and steel; however, the diversity of natural raw materials such as adobe, clay and wood are definitely on the march.

The WAF appears to have achieved a place in the architecture scene, despite its tender years. Intensive and exciting debates were once again an important part of it. The only downside of the event remains the somewhat hectic announcement of the rankings, while the arguments of the respective juries generally remain opaque. But where such questions remain open, space also opens up for a personal investigation – and the award-winning buildings will no doubt be the focus of many deep discussions on the various communication platforms.

Stefan Cadosch

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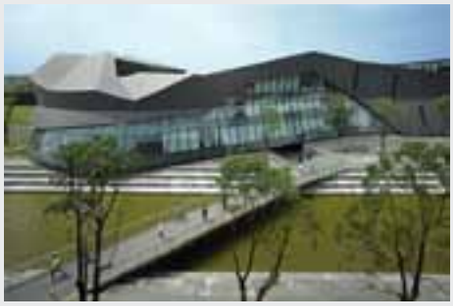

Argentina Hospital Italiano, Buenos Aires

China Giant Interactive Group Corporate Headquarters, Shanghai

Denmark Commercial Building Kommahuset, Copenhagen

Italy Nuovo Polo Ospedaliero del Tigullio, Rapallo

Poland Office Centre Rödl & Partner, Gliwice
Office Building Ericpol, Krakow

Slovenia Aquarium for the 'Human Fish', Postojna Cave

South Korea National Rehabilitation Centre, Seoul

Spain Medical Centre with Day Care, Talavera de la Reina

Sweden Sheltered Housing, Lund
Chimney Sweep Headquarters, Malmö

Switzerland Technical Testing Centre of Eternit (Switzerland) AG, Niederurnen

USA Lane Community College, Eugene

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