



SWISSPEARL ARCHITECTURE 14

International Edition – High Profile Buildings

SWISSPEARL®

SWISSPEARL ARCHITECTURE 14

Report

2 Constant Change – Contemporary Approaches to Educational Facilities

Educational Buildings

4 Gilmartin Elementary School, Waterbury, USA

The S/L/A/M Collaborative, Glastonbury

10 Interview: Talking with Julija Singer, The S/L/A/M Collaborative, Glastonbury, USA

12 Expansion of the Primary and Music Schools Albert Schweitzer, Meran, Italy

Greti Innerhofer-Torggler, Meran, and Gernot Lesina Debiassi, Naturns

16 Vă and Öllsjö Schools, Kristianstad, Sweden

Horisont Arkitekter AB, Malmö

20 Multi-Purpose Hall at Trinity Grammar Preparatory School, Strathfield, Australia

NBRS + Partners, Milsons Point

24 Paradise Canyon Multi-Purpose Building, La Cañada, USA

Osborn, Glendale

28 Vocational College EUC Syd, Aabenraa, Denmark

ZENI architects, Aabenraa

30 University of Modern Science, Győr, Hungary

Gelesz és Lenzsér Kft., Budapest

32 Dragon Kindergarten, Odense, Denmark

C. F. Møller, Århus

36 Mirijevo Kindergarten, Belgrade, Serbia

Vesna Cagić Milošević, Belgrade

Proven

40 Bækkegård School, Ølstykke, Denmark

Mangor & Nagel, Frederikssund

42 Bryggan Secondary School, Vellinge, Sweden

Chroma Arkitekter AB, Malmö

Other Building Types

44 Fiera Milano Executive Offices, Rho, Italy

5+1AA, Genoa; Jean-Baptiste Pietri Architectes, Paris

48 Block 21, Austin, USA

Andersson-Wise Architects, Austin; BOKA Powell, Dallas

52 Service Building GIFI, Turin, Italy

Valter Broccardo, Turin

54 Pacific Plaza Office Building, Tacoma, USA

BLRB, Tacoma

58 Residence for the Mentally III, Ávila, Spain

Alfonso Terceño González, Ávila

Flash Info

62 Extension of the Schungfabrik, Kayl, Luxembourg

Atelier d'Architecture Beng, Esch sur Alzette, Luxembourg

64 SABIS International School, Adma, Lebanon

Kamal Homsí Architects SAL, Beirut

ADD SOME COLOUR TO YOUR DAY



We know that colours have an important influence on our psychological and physical wellbeing. Depending on tone and hue and their many combinations, colours evoke moods, associations, and feelings in us. Architects have taken this into consideration for decades when designing living spaces and work places in order to promote optimal comfort or performance potential.

In the last two to three years, Swisspearl has been involved in numerous projects where a clear trend towards using more colour for the façades can be observed. Whether used as an additional accent, a contrast or a combination with tone on tone, architects throughout the world are increasingly adding more colour to their new and renovated buildings. Together with forms, volumes, and alignment, colour combinations help the architectonic environment convey a new ambience, vitality, and wellness.

This is especially true for schools: form, space, and colours, both inside and out, create a comfortable atmosphere for a 'learning landscape' and offer a positive incentive to learn so that one day a well-schooled and highly motivated new generation will be prepared to take over our roles and responsibilities.

This issue of our magazine shows how quite different, but equally inspired, architects in Europe and abroad have solved the assignment to create learning environments in fourteen educational centres by using Swisspearl products and our broad colour palette.

Enjoy the colours – and the reading!

Anders Holte, CEO Eternit (Switzerland) AG

CONSTANT CHANGE

Contemporary Approaches to Educational Facilities

A large number of today's schools were established in the first two decades after World War II. Built as quickly and cheaply as possible to satisfy the acute demands of the baby boom generation, many have now become obsolete and are in desperate need of repair or replacement. In order to address the alarming shortage of adequate educational facilities, school administrations in various parts of the world have launched ambitious modernisation and construction initiatives.

In 1997, the Los Angeles Unified School District began a USD 27 billion overhaul of its facilities – the largest such endeavour in U.S. history. Over a period of fifteen years, more than a hundred new schools would be erected, while more than 800 existing schools would be updated and expanded. Meanwhile, in 2003, the UK government embarked on the unprecedented Building Schools for the Future programme (BSF) for England that envisaged the rebuilding or refurbishing of every single secondary school in the country by 2020, with a public expenditure predicted to reach USD 72 billion.

The BSF scheme is noteworthy in that it specifically emphasised the significance of school architecture as a catalyst for educational transformation, in particular, the current pedagogical agendas of 'every child matters' and 'personalized learning'. However, while the ambition and scope of the programme was unparalleled, so was the extent of its failure. Despite the storm of indignation last year when BSF was scrapped by the new government, it is generally acknowledged, even amongst its supporters, that it had missed its primary targets. By all accounts, the new schools did not improve the quality of education nor did they significantly contribute to changing its practices.

This failure is characteristic of the difficulties encountered in providing meaningful design proposals within a context marked by constant change. Facing the tricky task of meeting the spatial requirements of the current curriculum, while at the same time anticipating – or even inspiring – its future changes, architects at times tend to design school environments that are incongruous with the pedagogical methods they are meant to support. The extent to which school buildings affect teaching and learning performance remains a matter of debate. However, it is widely undisputed that the correlation as such exists. The notion of the 'classroom environment as the third teacher', a cornerstone of the Reggio Emilia approach towards

education and promoted by ever-progressive and highly influential Scandinavian school planners, has indeed become a common credo amongst architects and pedagogues alike. Although the criteria for, and significance of, good architecture are subject to change and vary among the different stakeholders in educational planning, there are recurring themes that have preoccupied the debate in recent years.

Given the rapid succession of methods and ideas, adaptable structures and flexible, multi-functional spaces rank high on school planners' wish list. In line with the current orthodoxies of clustering, cross-year grouping and all-age schooling, classrooms are designed as polyvalent, combinable spaces with integrated group working zones. The rooms connect closely to the expanded hallways, which thus become collaborative learning areas. In contemporary Scandinavian schools, such as Arkitema's



Ørestad College in
Copenhagen, by 3XN.



Hellerup School or 3XN's Ørestad College, both in Copenhagen, the consequent advancement of this open-space concept has led to the abandonment of traditional classrooms, and therefore corridors altogether.

The versatility of schools is further enhanced through a variety of additional spaces such as workshops, media centres or the ubiquitous 'cafetorium', a canteen with a stage at one end, many of which have a dual purpose and are open to the public. By this means, schools as 'hybrid buildings' (Wolf D. Prix) forge strong links with local communities, which are considered vital for their success. The ultimate objective, however, is to accommodate a wide range of experiences and activities that inspire various types of learning: intellectual, physical, practical, emotional, spiritual, cultural and, above all, social. Given the importance of so-called 'soft' skills as a qualification for success in almost any profession, social interaction, while largely disregarded in traditional school settings, is strongly encouraged through the addition of open and informal communal areas. Henning Larsen's Jåttå Voca-



Hellerup Primary School in Copenhagen, by Arkitema.

tional School in Stavanger, one of Norway's most advanced school buildings, is designed as a quasi-urban entity whose learning 'quarters' are accessed via a central street that doubles as a vibrant gathering area for the entire school community.

The wish to create a holistic learning environment is echoed in the construction and operation as well as the appearance of educational facilities. In light of the skyrocketing energy needs due to the comprehensive integration of ICT in schools, the long-term benefits of eco-friendly and energy-saving measures are self-evident. However, sustainable design features also provide the platform for a wider pedagogical agenda, serving as a teaching tool to highlight and disseminate environmental issues. Advertising the youthful orientation of the buildings to their neighbourhood, strikingly colourful façade schemes also seek to have a positive visual impact on the school children, deterring them from anti-social behaviour and instilling a sense of pride and belonging. Designed to a very high standard using durable and sustainable materials, such as the Swisspearl panels shown in the following examples, the schools of the 21st century are becoming a symbol for the value that society sets on the education of its children. *Patrick Zamarian*



Jaattaa Vocational High School in Stavanger, by Henning Larsen Architects.

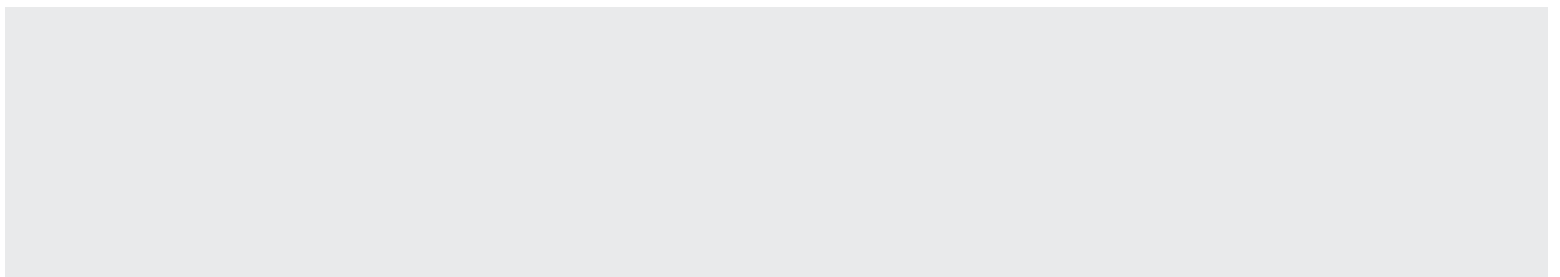


This new school, located in the southern outskirts of Waterbury, houses 550 students between the ages of four and fourteen. The facility comprises three distinct wings connected by a transparent central lobby. The wide range of façade materials includes masonry walls, zinc tiles and, most notably, Swisspearl panels in four different shades used for the dramatically slanted and curved classroom wing.



Gilmartin Elementary School, Waterbury, USA

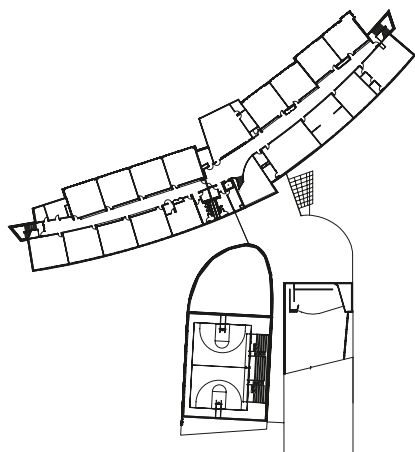
AMERICAN QUILT



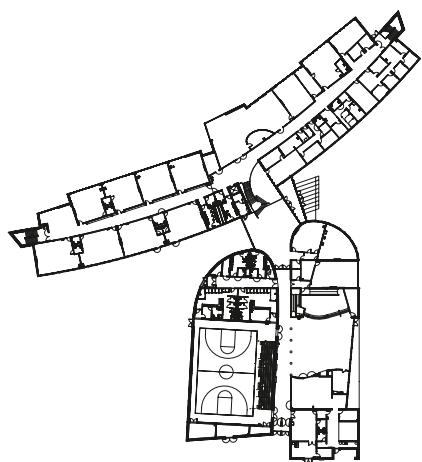




It is essentially a T-shaped building, slightly skewed to fit the topography of the site and to provide dynamic sequences of space and a more stimulating environment than a typical modular building.



First floor 1:2000



Ground floor

The State of Connecticut covers more than three-quarters of the public school construction costs in its territory. Fuelled by these subsidies, the city of Waterbury currently has seven school building projects under way worth a combined USD 240 million. Designed by The S/L/A/M Collaborative, Gilmartin Elementary School was erected in the former parking area of an eponymous 1960s facility that had become obsolete and was demolished in its entirety.

Inaugurated in August 2010, the 550-seat school is part of an effort to revitalise the 'neighbourhood school' model that was abandoned decades ago in favour of centralised – and widely disliked – middle schools. The first of three proposed pre-kindergarten through eighth-grade schools in Waterbury, Gilmartin more than doubles the size of the original facility, allowing students to stay in the same building throughout their elementary and middle school years. The layout and location of the new school conform to this approach. Set at the edge of a residential neighbourhood, the 80,000 square foot facility does not 'fit in' with the scale of the adjacent single-family homes in the traditional sense. Instead, Gilmartin School defines a new centre of attraction for the Hopeville neighbourhood, anchoring it along Spring Lake Road, one of the main roads leading south from the city centre.

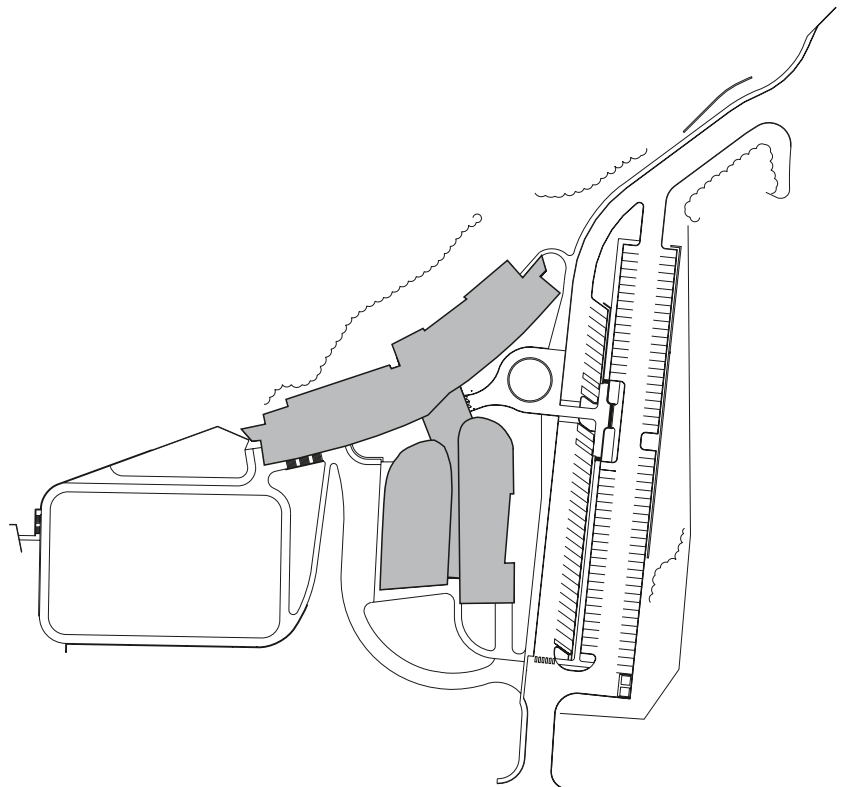
“THE AMBIGUOUS GEOMETRY AND COMPLEX FORMS OF THE SCHOOL ALLOW FOR DIFFERENT ASSOCIATIONS AND INTERPRETATIONS.”
JULIJA SINGER, THE S/L/A/M COLLABORATIVE

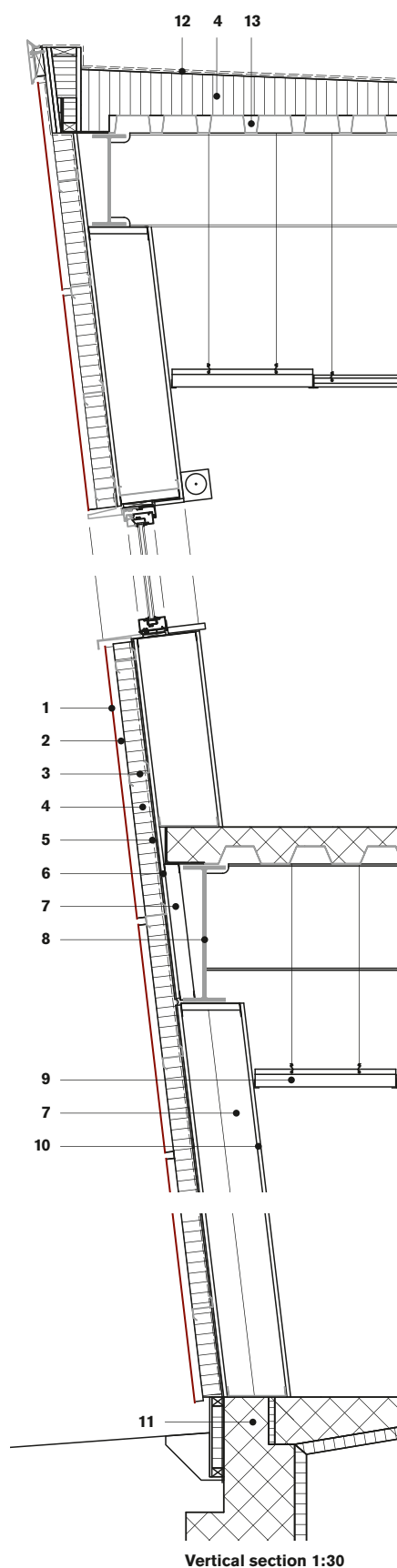


“WE WANTED THE FAÇADE TO PROJECT THE DIVERSITY OF THE CULTURAL AND SOCIAL BACKGROUNDS OF THE PUPILS IN THE SCHOOL. WITH MANY CONTRASTING MATERIALS OF DIFFERENT COLOURS, TEXTURES AND ORIGINS, THE BUILDING FAÇADE EMBODIES THE STORY OF AN AMERICAN QUILT.” JULIJA SINGER, THE S/L/A/M COLLABORATIVE

The school’s floor plan is based on a T-shaped diagram, slightly distorted to match the site topography. It comprises three distinct wings arranged around a circular entrance plaza, complete with ceremonial flagpoles and a triangular sundial. To avoid the repetitive nature of conventional modular schools, each wing has its own formal expression, creating a multi-faceted and inspiring environment for the students. On an ideational level, the harmonious combination of contrasting materials of different colours and origins reflects the diversity of the students’ cultural and social backgrounds, thus ultimately serving as a symbol for the nation itself.

Upon arriving at the school, visitors first notice the lateral wall of the classroom wing, which establishes a clear sense of hierarchy between the showy fronts facing the central plaza and those more restrained to the rear, a pattern that pervades the entire project and adds to its somewhat scenographic nature. The north façade has a cool modernist touch to it, combining brickwork with ribbon windows and a fully glazed middle section. The south façade, in contrast, is bright and flamboyant, exhibiting a playful combination of Swisspearl panels in red and various shades of blue. Dramatically slanted and curved, the wall provides the signature element of the school,





“THE BUILDING IS ORGANISED AROUND THE FOLLOWING PRINCIPLES: CLARITY OF FORM, DEPARTMENTAL AND FUNCTIONAL ADJACENCIES, AND A STRONG CLEAR CIRCULATION DIAGRAM THAT MINIMISES TRAVEL DISTANCES WHILE DISTINGUISHING BETWEEN PUBLIC AND ACADEMIC SPACES.” GLENN R. GOLLEBERG, PRINCIPAL IN CHARGE, THE S/L/A/M COLLABORATIVE

directing the sightline compellingly towards the entrance lobby, which features full-height glazing and a prominent glass canopy.

The cafeteria building is topped by a sloping roof and complemented by a lower, rounded annex that visually breaks down the scale of the main structure. Both parts are clad with glazed zinc tiles, evidently referring to the city’s past as the cradle of brass manufacturing in the United States. Aligned with the cafeteria wing and orientated towards the sports grounds, the gymnasium completes the school complex, featuring masonry walls with large clerestory windows and a vaulted roof that corresponds nicely with the curved classroom building.

Separating the academic spaces from the communal, the central lobby serves as the intersection of the different wings. On one side, it connects to the hallway between the cafeteria and the gym, both of which are multi-functional spaces, allowing them to be used by the community for after-school activities. On the other side, the lobby extends into the classroom wing, leading past the administration and reception area into the media centre. The first floor also houses the lower school classrooms with the kindergarten having direct access to an enclosed playground. The classrooms for the older pupils are located on the second floor and accessed via a generous staircase that constitutes the eye-catching feature of the lobby.

Patrick Zamariàn

Location 94 Spring Lake Road, Waterbury (CT), USA

Client City of Waterbury

Architects The S/L/A/M Collaborative, Glastonbury (CT), USA (Glenn Gollenberg, Principal in Charge; Kemp Morhardt, Project Manager; Julija Singer, Design Architect; Todd Schaefer, Job Captain; Jeff Zepperi, Kristin Shutts, Staff Architects; Steven Murray, Faruk Bhura, Structural Engineers; Thomas Swale, Landscape Architect; Andy Ketchum, Interiors)

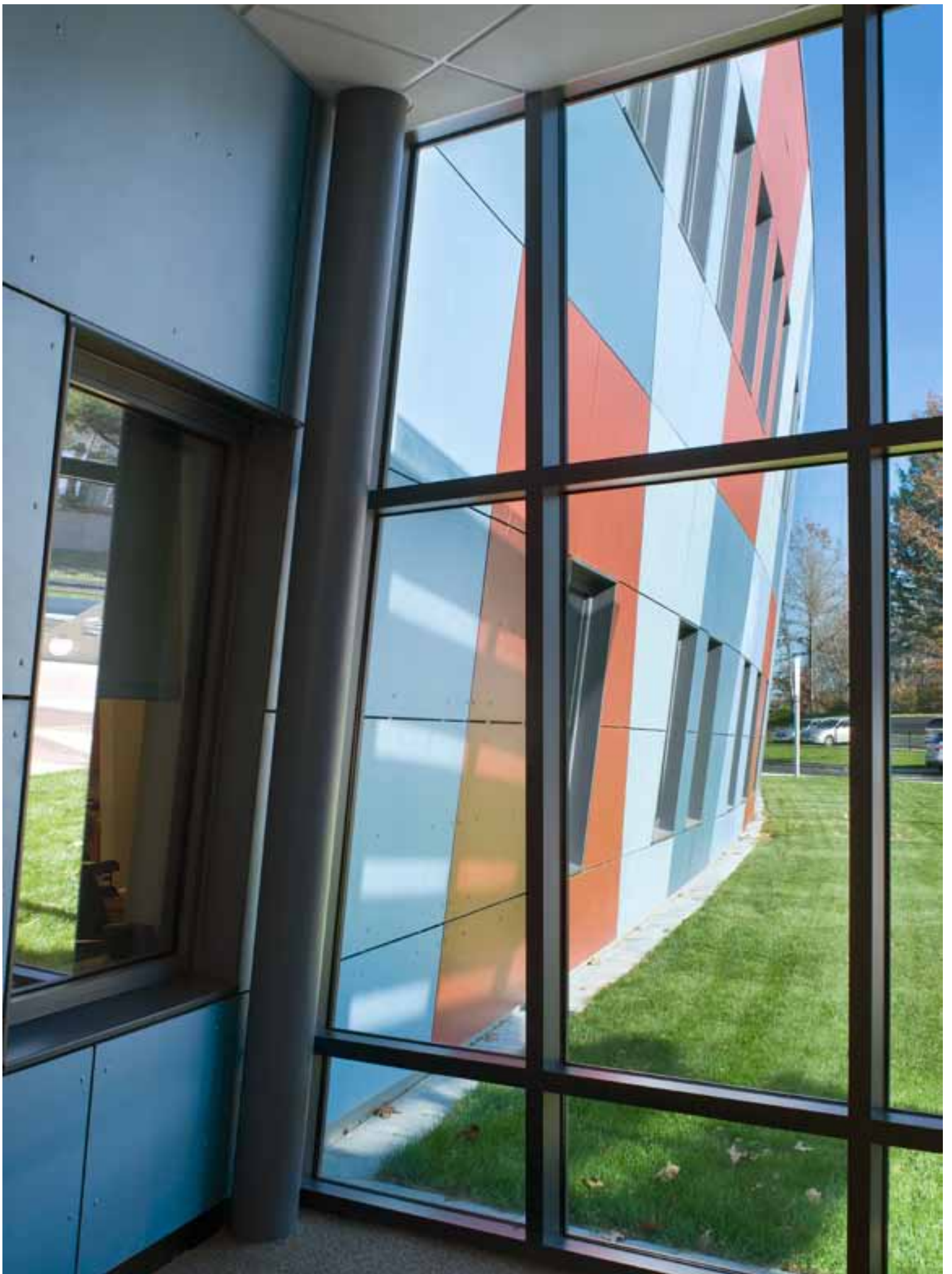
Building period 2008–2010

Programme Manager O & G Industries, Torrington (CT), USA

Construction Manager Morganti, Danbury (CT), USA

Façade construction H. Carr & Sons, Inc., Providence (RI), USA

Façade material SWISSPEARL® REFLEX, Blue Ice 9240, Sunset 9230; CARAT, Azurite 7042, 7043



Talking with Julija Singer, The S/L/A/M Collaborative, Glastonbury, USA



Todd Schaefer, Julija Singer, Glenn Gollenberg, Kemp Morhardt from The S/L/A/M Collaborative.

Julija Singer received a Bachelor of Architecture degree from the University of Belgrade and has worked in Europe, the Middle East, and the USA. She is currently located at the S/L/A/M Collaborative Connecticut office and was the design architect of Gilmartin School. Julija is a LEED Accredited Professional and a member of AIA and NCARB.

You recently completed a new elementary school in Waterbury, CT. Can you give us a short summary of the project's history?

This project was a vital component in the strategic plan to improve public schools in the city of Waterbury. The Waterbury school system historically operates on an elementary (kindergarten through 6th grade), middle (7th and 8th grade) and high school model. Gilmartin School, being a pre-kindergarten through 8th grade school, marks a change in this regard. We worked closely with the School Building Committee, who selected the final design.

Gilmartin Elementary School replaces an older facility on the same site. How did the construction process go?

There was a smaller modular school on site that was built in the 1960s. The intent was to build a new wing with classroom, library, and ad-

ministration spaces in the first phase while keeping the existing school operational. In the second phase, we had planned to move the children into the new classroom wing, demolish the old school and complete the project by building a new gymnasium, kitchen and cafeteria. However, by the time we completed the design documentation, the client had found an empty school in the area; they relocated the children and eliminated the need for phased construction, which helped simplify the entire construction process.

The scheme is based on a T-shaped diagram and comprises three wings, each with its own form and function. Can you explain the concept?

The main concept was to provide a clear organization of the academic teaching spaces and the assembly areas by distinguishing between a quiet zone for studying and contemplation, the branches of the 'T', and a noisy zone for active play and large gatherings, the stem of the 'T'. The main lobby is the central intersection between the two zones and the administrative offices are placed near the main entrance for easy access and supervision. The building is planned and organized to shorten travel distances between different departments. The ambiguous geometry and complex forms of the school allow for different associations and interpretations; the intent was to break away from a traditional modular school and use a wide range of materials.

How does the school relate to its built environment and to the natural surroundings?

The form(s) of the building were designed to respond to the topography of the site. Public spaces, such as the gym, cafeteria, stage and main lobby, are oriented towards the neighborhood and are easily accessible, while the classrooms occupy a wing that is oriented towards rolling hills and the valley to take advantage of the view. The north-south orientation of the classroom wing and the distance from the residential properties further enhance the quiet, contemplative character of those spaces.

The three wings are connected through a central lobby, which serves as a hub for the entire facility. How do the different spaces of the building interact with each other?

I think of the central lobby as a point of orientation for the entire building. The lobby is completely transparent with glazed walls, and from there one can catch a glimpse of the field on the other side of the school, the cafeteria, music room and gymnasium to the left and the library, classrooms and offices to the right. Also, in as much as the central lobby is the focal point of the school and the intersection where all the different spaces sort of 'touch' each other, it also serves as an exuberant display of all the exterior materials we used to design this school. They are all visible and accessible to touch here. We used them as an educational tool as well as for construction materials. Regarding interaction, in the classroom wing, there is a centrally located library and some collaborative break time areas in the main corridor. In the active public zone, there is an even more vibrant interaction among the music classrooms, stage, cafeteria and gymnasium. Most of these spaces are quite visible from the central lobby as soon as one enters the school.

Gilmartin is a pre-kindergarten through 8th grade school and accommodates school children from ages 4 to 14. How do you provide an environment that suits such a wide range of students?

This was a challenge. Our site and program didn't allow for a campus-type building where we could provide a separate pavilion for each grade. Instead, we located younger students on the ground floor and older students on the second floor, which is a common practice. We provided separate art rooms for younger and older grades, a small reading area with a view in the younger children's classroom wing, and, of course, furniture and gym equipment appropriate for each age group. The reasoning behind designing a pre-K through 8th grade school was to provide a sense of stability and continuity in the children's educational life, to enable siblings to attend the same school together for a prolonged period of time and to provide a place where they can feel safe and secure.

In line with the idea of a 'neighborhood school', Gilmartin offers multi-functional spaces that are open to the public for after-school activities. How does that work?

Multi-functional spaces such as the cafeteria (with stage), the gymnasium, family room, etc. are located in the stem of the skewed 'T' diagram and are directly accessible from the main lobby. Visitors can use those spaces without walking through the rest of the school. Concerts, graduation parties or sports events can be easily staged and followed with refreshments because the gym and cafeteria are next to each other. The wayfinding is obvious. One of the comments we overheard at the opening of the facility was: "I always get lost in any school I go to visit, but not in this one ..."

The three wings differ in plan and form, but most notably in their materials. What were the criteria for the selection of the various façade materials?

We wanted the façade to project the diversity of the cultural and social background of the pupils within the school. With many contrasting materials of different colors, textures and origins, the building façade embodies the story of an 'American Quilt'. The tactile characteristics of the materials, different scales and shapes were taken into consideration, not just as visual imagery, but also as a learning tool, especially for the younger children. The way they would experience the school environment was important to us.

The most conspicuous façade is the 'public' front of the classroom wing. Serving as a signature wall for the entire facility, it shows a colorful pattern of Swisspearl panels. Can you explain the idea behind this design?

The abstract, bold design is there to distinguish this school from any other, to evoke dynamic movement and the ever-evolving experience of learning. At the same time, it celebrates play as an inseparable component of any successful educational philosophy, because if it's not fun, it's not going to happen. Also, this school is located in the backyard of a residential neighborhood, the site is almost hidden, and we felt the need to give it a strong presence. We were able to accomplish this by using the Swisspearl panels.

Why Swisspearl?

Swisspearl panels presented a perfect solution because their selection of colors is exceptional, as is their versatility. We were able to cut them in many different, irregular shapes and install them on the curved, slanted wall. The quality of the entire wall assembly that we were able to achieve using this material made it our first choice. We were pleased that our client was supportive of this relatively new technology. The public school clients in our area tend to be more traditional and conservative.

Environmentally sound and energy-efficient measures are increasingly important in architecture nowadays, especially in educational facilities. How did you address this issue, and what role does the building envelope play in this context?

As an office, we are committed to designing high-efficiency buildings. We have signed the AIA 2030 Commitment to implement steps that can advance AIA's goal of producing carbon-neutral buildings by the year 2030. It is a rather aggressive plan which calls (for this year) for all new buildings to be designed to meet a fossil fuel energy consumption performance standard of 60 percent below regional average for the given building type, with further reductions each year until we eventually reach a carbon-neutral footprint by the year 2030. The Swisspearl panelling at Gilmartin School was designed and installed as a cladding of rain screen walls, which have excellent thermal properties. In addition, the school will have solar panels installed on the roof of the gymnasium.

The S/L/A/M Collaborative is an active member of the Green Building Council and consistently features on the ENR Top 100 Green Design Firms list. Nonetheless, Gilmartin School has not been LEED certified. Why is that?

We designed this school as an equivalent of LEED Silver certified, which is the minimum for every public school in the state of Connecticut. However, LEED certification is costly, and the client chose to use the money for the sustainable elements of the building instead.

Your office designs a lot of educational facilities, from elementary schools to university campuses. In general, how important are school buildings for the delivery of education?

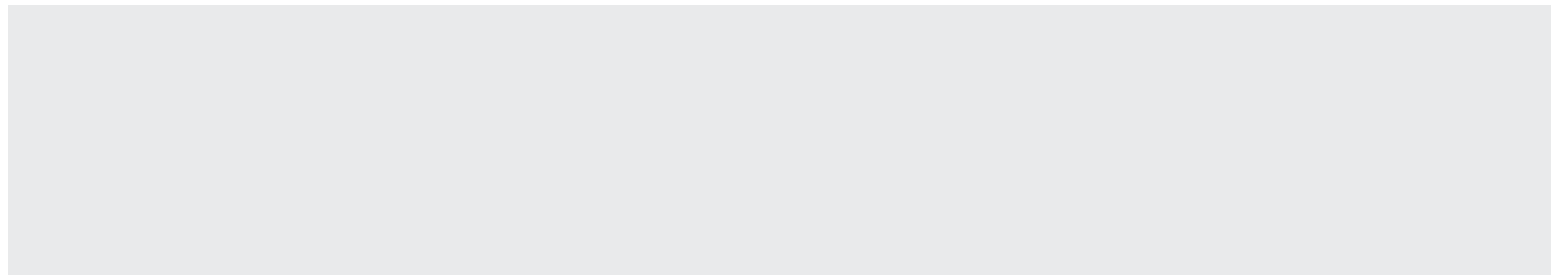
They are very important for both delivery and development. Students and teachers certainly deserve good school buildings. Although there are many different educational philosophies, which can easily seduce you, a good school building should provide spaces that will benefit learning in general, yet enhance different types of learning: formal, informal, structured, small group, large group, and one-on-one tutoring. In addition to a clear concept and a clearly defined spatial organization to go with it, we always aim to design site-specific buildings with a strong image and a structured environment within which each student can feel at home, safe and confident to venture out to explore the world and to return ...

Interview by Patrick Zamarian

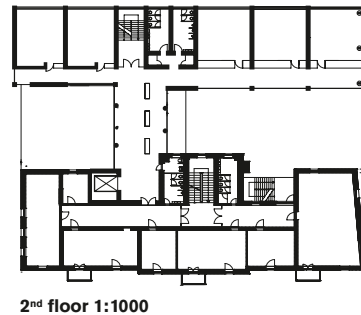
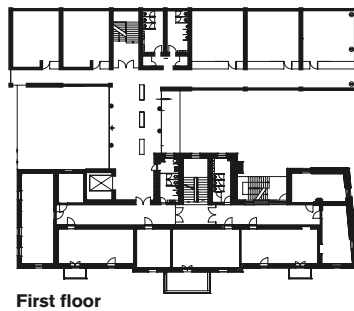
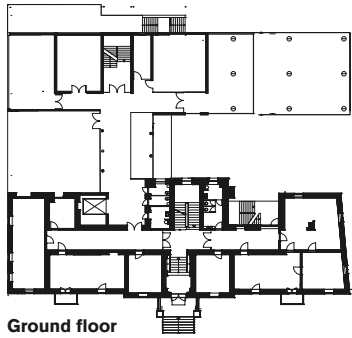
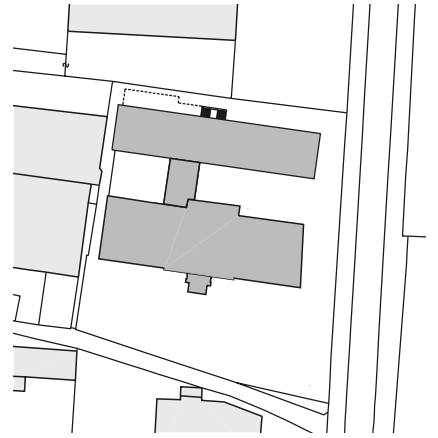
A growing need for space as well as requirements for fire protection and access for the handicapped prompted the city of Meran in the South Tyrol to expand an existing school building. A further spatial requirement was that the school should still be able to operate during the renovation, an other aspect that is typically a determining factor in school construction today.

Expansion of the Primary and Music Schools Albert Schweitzer, Meran, Italy

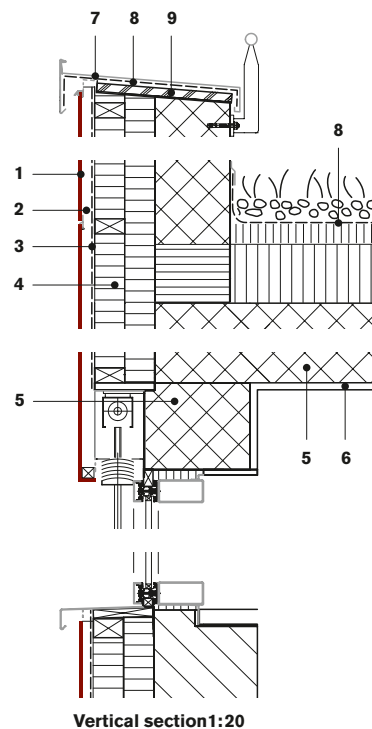
MODERN CONTRAST







“THE PRIMARY AND MUSIC SCHOOLS EACH HAVE THEIR OWN SPACE AS WELL AS SHARING THE MUTUAL AREAS. AS A MEETING PLACE, THE LATTER SHOULD PROMOTE COOPERATION AND AN EXCHANGE BETWEEN THE TWO SCHOOLS.” GRETI INNERHOFER-TORGLER



- 1 Swisspearl® cement composite panel 8 mm
- 2 Ventilation cavity
- 3 Moisture barrier
- 4 Thermal insulation
- 5 Concrete
- 6 Plaster
- 7 Sheet metal
- 8 Waterproofing
- 9 Chip board



The reinforced concrete was thermally insulated and clad with façade panels. The glazed connection between the old and the new buildings are implemented as thermally separated aluminium profiles, as all the windows.

The four-storey school building, erected around the end of the 19th century, was originally planned as a hotel. The primary school in the lower floors reported a growing need for space and the music school on the two upper floors was suffering from an extreme shortage of space. To alleviate the problems, architects Greti Innerhofer-Torggler and Gernot Lesina Debiasi proposed a somewhat lower construction slightly north and parallel to the existing building, which required that a smaller earlier annex be demolished. The spatial elevation was kept and a glazed services tract now connects the old and new buildings. The first step was to construct the new building for the primary school. The second step will be to renovate the older building, which has some history attached to it. In future, this part of the school will be reserved mainly for music education. The implementation schedule was set so as to ensure that the operation of the primary school could continue uninterrupted.

The new reinforced concrete construction is differentiated from the historical building by its decidedly classic modern form. The cubical structure of the two upper storeys with its strip windows sits on a recessed extensively glazed base as well as round pilotis. The clear definitive main volume is clad with radiant white cement composite panels of varying formats, which is emphasised by the grey retained for the foundation. Accordingly, the roof is also enveloped with grey panels. Orange projecting roofs set a colourful contemporary accent over the main entrance, which is on the glazed connection tract, and over the side entrance. *Michael Hanak*



Location 30. April-Strasse, Meran, Italy

Client Town of Meran

Architects Greti Innerhofer-Torggler, Meran, and Gernot Lesina Debiasi, Naturns, Italy

Building period 2008–2010

General Contractor ZH General Construction Company AG, Sand in Taufers, Italy

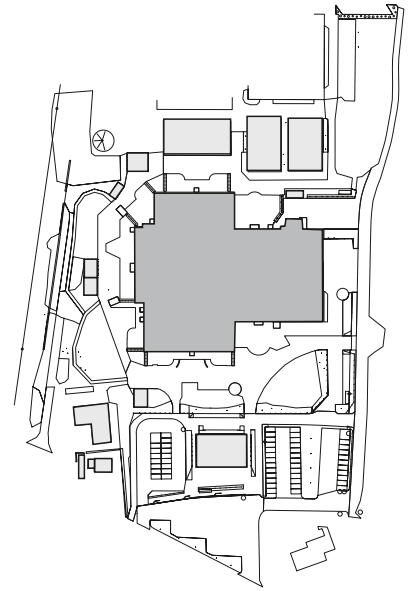
General Project Manager Architekturbüro Stecher, Prad am Stilfserjoch, Italy; Kurt Stecher

Façade construction Zimmerhofer AG, Sand in Taufers

Façade material SWISSPEARL® CARAT, Onyx 7090 and Black Opal 7020; SWISSPEARL® PLANEA, Orange P712

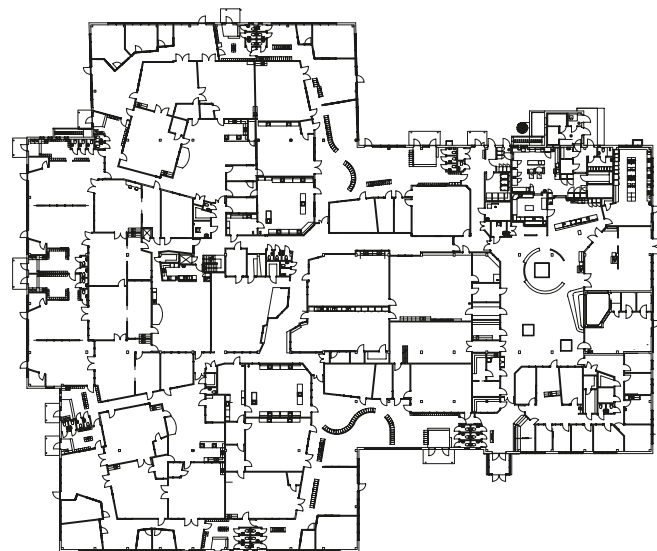
Vä and Öllsjö Schools, Kristianstad, Sweden

The Test of Time



Renovating two school buildings from the 1970s in southern Sweden, Horisont architects opted for Swisspearl panels as the most durable, resistant and elegant façade solution.

As with so many communities and cities these days, the Swedish municipality of Kristianstad in Scania is also faced with the task of having to renovate buildings from the 1970s, a decade that was marked by material experiments, not all of which proved to be durable solutions. Kristianstad is currently in the process of renewing school buildings from that time and commissioned the young architectural company Horisont to refurbish a comprehensive school for 500 pupils between the ages of 6 and 16. "Inside, the school has been completely remodelled to suit a modern organisation," Mikael Gustafsson, project manager and co-founder of the office, explains. This meant a completely new organisation of the entrances and the windows and thus the replacement of the old brick façade. The architects decided to use Swisspearl panels, a material they have already worked with in several projects and appreciate for its durability and lightness. The composite panels in red, black and silver "give the buildings a completely new look and have made it fit for the future," says Mikael Gustafsson.



Ground floor 1:1000



Location Blåtands Väg 20, Kristianstad, Sweden

Client Kristianstad Municipality

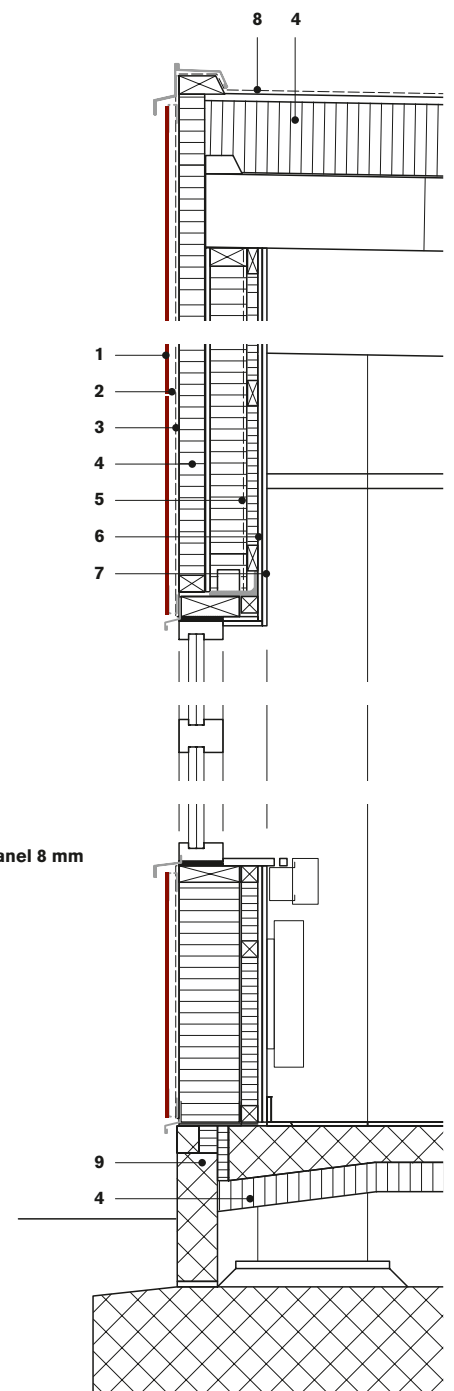
Architects Horisont Arkitekter AB, Malmö, Sweden

Building period 2010

General contractor and façade construction JS Byggnads AB, Kisa, Sweden

Façade material SWISSPEARL® CARAT, Onyx 7090, Black Opal 7020 and 7024; SWISSPEARL® REFLEX, Champagne 9090

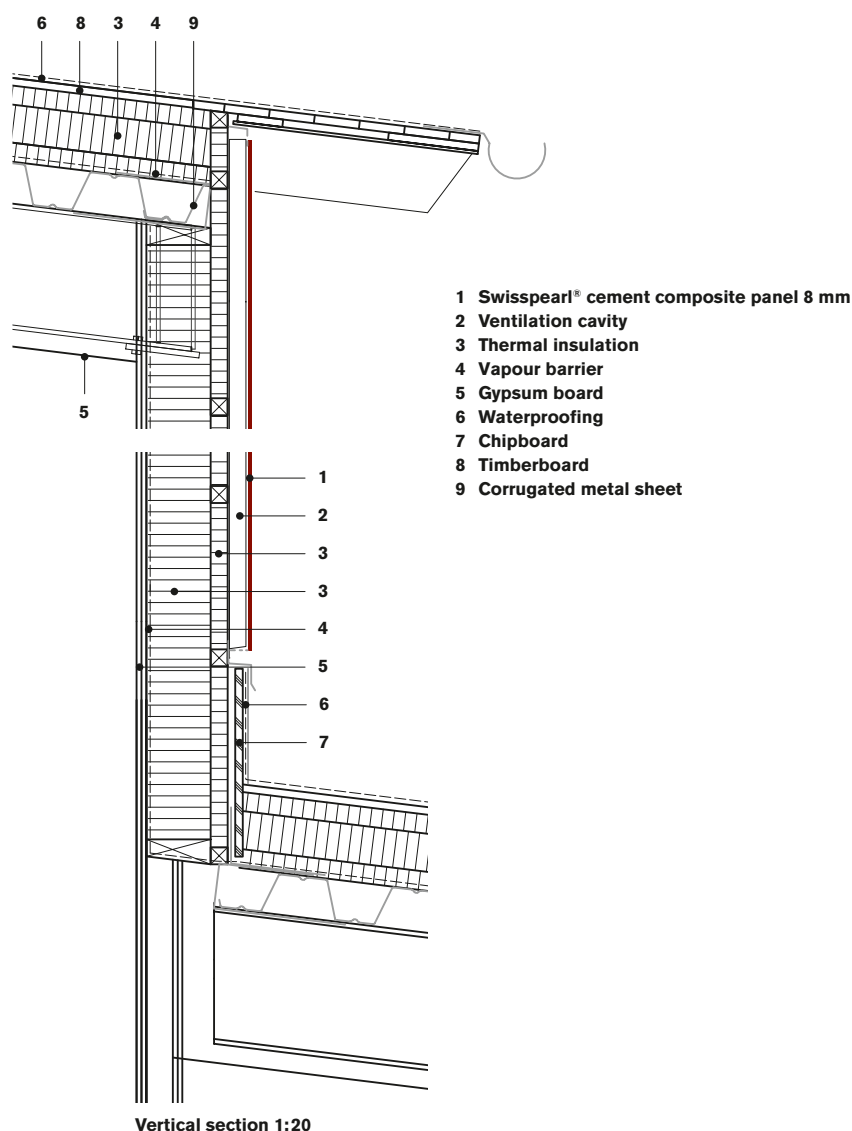
- 1 Swisspearl® cement composite panel 8 mm
- 2 Ventilation cavity
- 3 Moisture barrier
- 4 Thermal insulation
- 5 Vapour barrier
- 6 Chipboard
- 7 Gypsum board
- 8 Waterproofing
- 9 Concrete



Vertical section 1:20



The Malmö-based architectural firm Horisont, which was founded in 2007 by Mikael Gustafsson and Marcus Jansson and already counts 15 employees, also got the commission to renovate and extend Kristianstad's Öllsjö School. The architects wanted a simple, modern material that would work both for the façades of the existing buildings as well as those of the new additions and so again went for Swisspearl panelling. "Visually, to gain a modern look and a certain architectural lightness of the volumes in contrast to the old and new brick-clad parts, and technically, to provide the buildings with long-lasting non-organic materials, able to withstand the test of time and young pupils," is how project manager Mikael Gustafsson explains their decision. Through their new cladding in dark grey panels with bright streaks of gold and white, the conglomerate of school buildings has gained both harmony and durability. *Mirko Beetschen*



Location Folkvandrigen 1, Kristianstad, Sweden

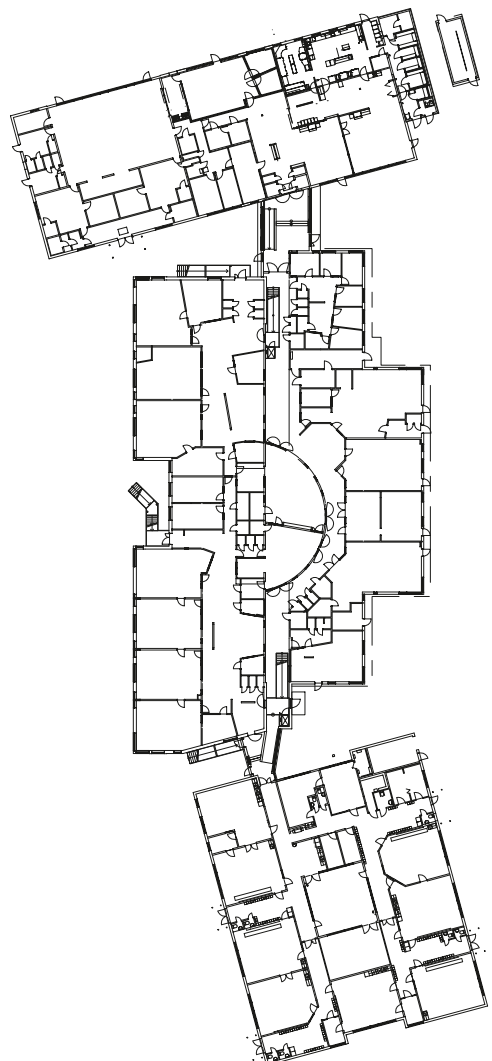
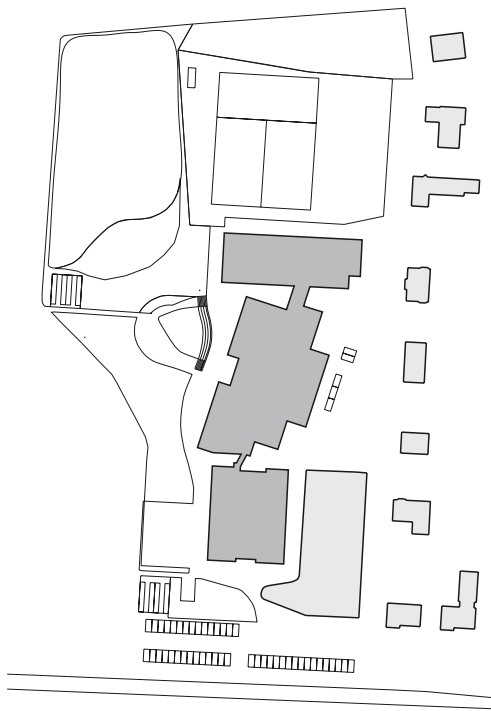
Client Kristianstad Municipality

Architect Horisont Arkitekter AB, Malmö, Sweden

Building period 2009–2010

General contractor and façade construction Peab AB, Helsingborg, Sweden

Façade material SWISSPEARL® CARAT, Black Opal 7025, Sapphire 7060, Coral 7030; SWISSPEARL® REFLEX, Silver 9000



Ground floor 1:1000

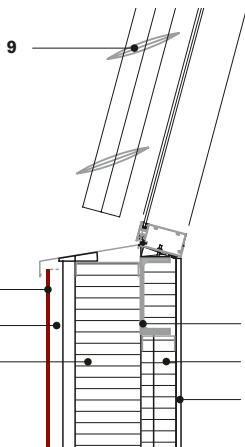
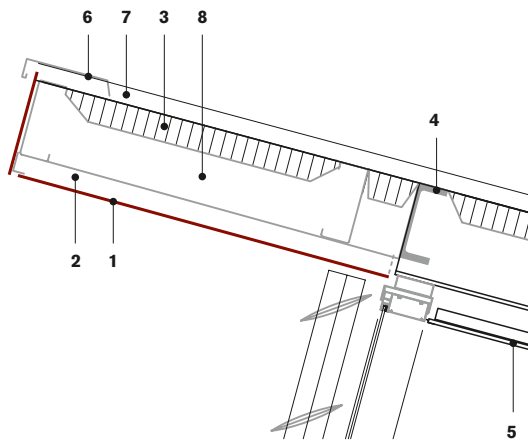


This new multi-purpose hall adds much-needed flexible learning space to a private school campus on the outskirts of Sydney. Sited on the edge of a Heritage listed garden, the design of the building is guided by the desire to minimise its impact on the existing vegetation.

Multi-Purpose Hall at Trinity Grammar Preparatory School,
Strathfield, Australia

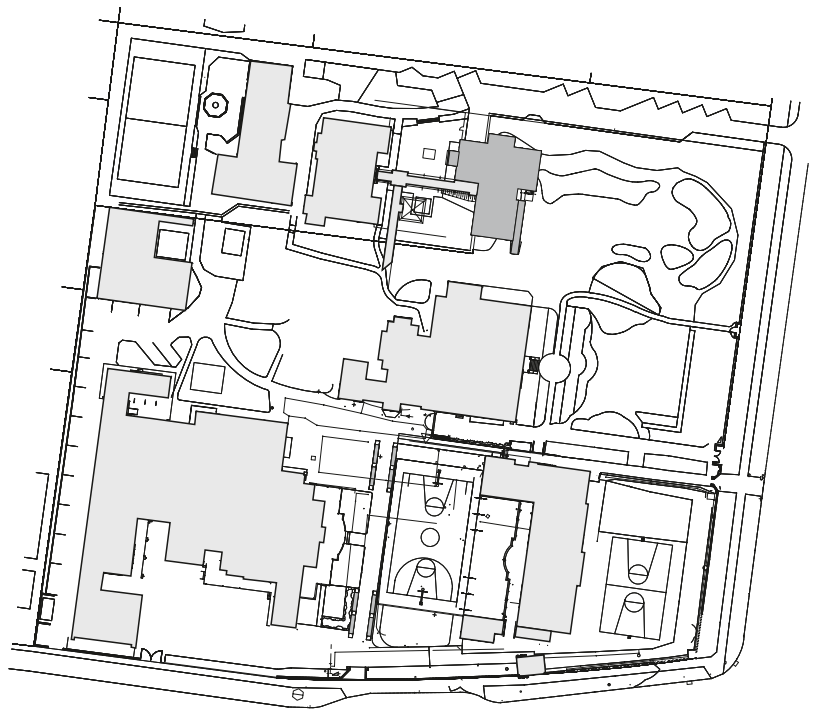
FLOATING PAVILIONS



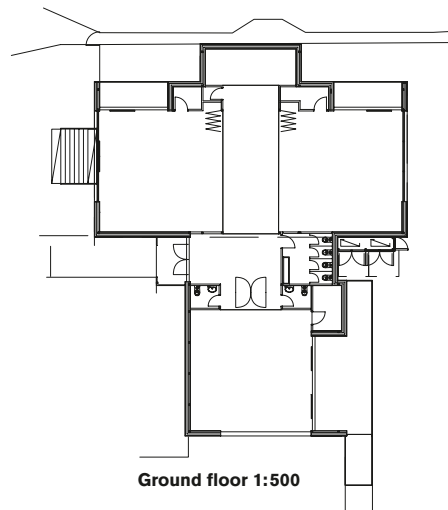


Vertical section 1:20

- 1 Swisspearl® cement composite panel 8 mm
- 2 Ventilation cavity
- 3 Thermal insulation
- 4 Structural steel
- 5 Gypsum board
- 6 Metal sheet
- 7 Metal roof
- 8 Steel beam
- 9 Aluminium sun louvre



“THE GENERAL PURPOSE LEARNING AREAS CAN BE JOINED TOGETHER INTO LARGER SPACES BY OPENING THE FOLDING WALLS.” JOHN BAKER, NBRS + PARTNERS



Ground floor 1:500

Trinity Grammar School is a private Anglican day and boarding school that operates three campuses in the western suburbs of Sydney along with a rural education centre further inland. The campus in Strathfield, located nine miles from the city centre, accommodates the preparatory school, which caters to boys from pre-kindergarten through 6th grade.

In 2009, NBRS + Partners was selected to design a new library within the undercroft of the historic Llandilo House as well as a new multi-purpose hall. For want of an alternative location on site, the hall had to be built in the northeastern corner of the campus on the edge of a heavily vegetated and Heritage listed garden.

The building is divided into two separate pavilions that are joined together and linked to the adjacent infants' department by a covered walkway leading through the

playground area. The pavilions are lifted off the ground to minimise their impact on the site and studiously arranged to fit in amongst the existing vegetation. Ultimately, 22 trees had to be removed to accommodate the new structure, but the architects took utmost care in retaining rare species and protecting them during construction.

This thoughtful approach is echoed by the unpretentious design of the building. The two pavilions are elegant but modest volumes clad entirely in Swisspearl panels and topped by mono-pitched roofs. The architects chose coral red and jade green panels to distinguish the two parts and blend them with their surroundings, while black panels were used for the intermediate parts.

Meeting the school's needs for additional flexible learning space, the new multi-purpose hall provides a cluster of three classrooms that can be combined and separated



through folding walls. Each area features a large sliding glass door onto a covered veranda that can be used for open-air classes. Slanted highlight windows provide ample natural light within the halls and allow the students to catch a view of the surrounding trees, thus enhancing the connection between the interior and the landscaped garden. *Patrick Zamariàn*

Location 115–125 The Boulevard, Strathfield (NSW), Australia

Client Anglican Diocese of Sydney, Australia

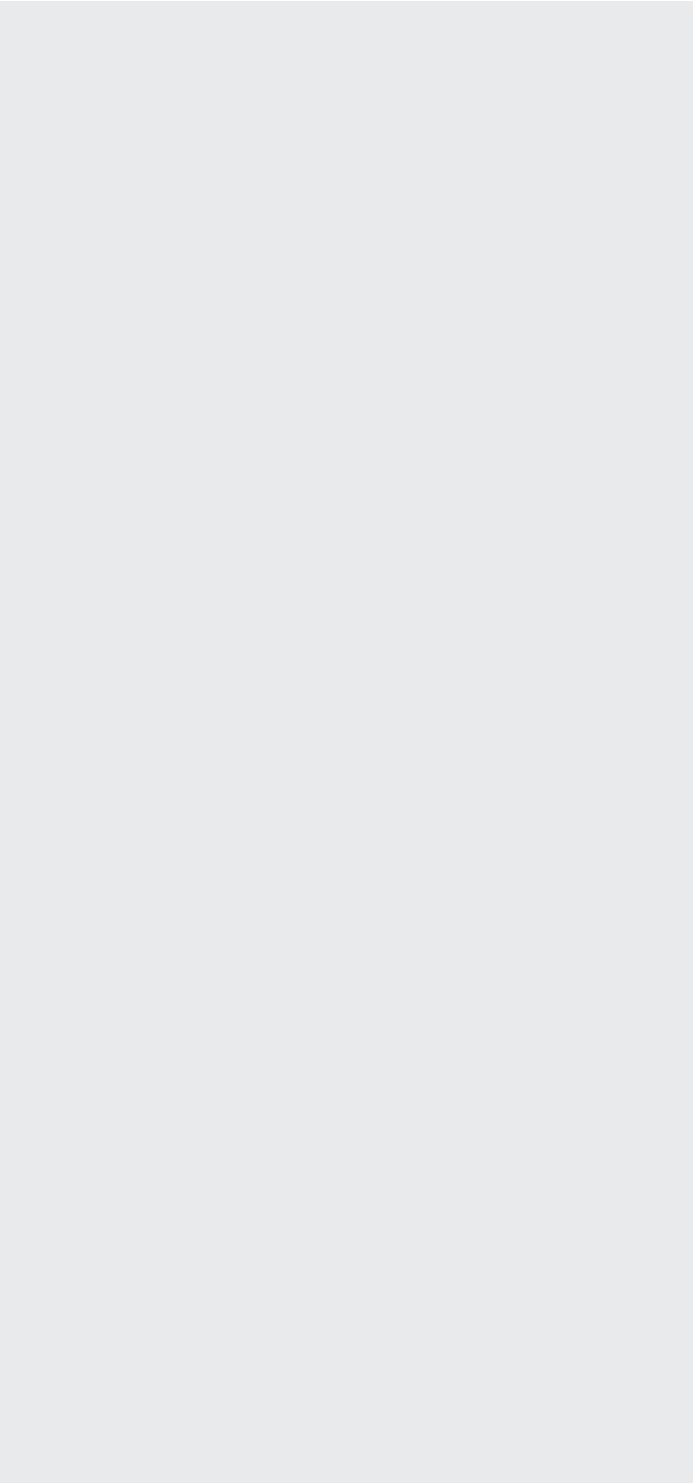
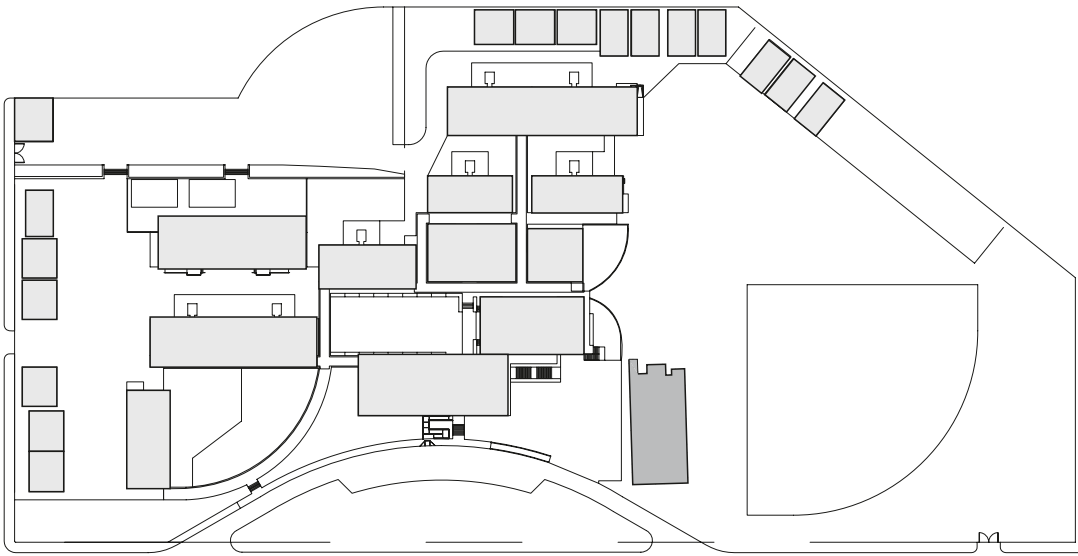
Architects NBRS + Partners, Milsons Point (NSW), Australia

Building period 2010–2011

Construction Manager Kane Constructions, Alexandria (NSW), Australia

Façade construction Eastern Building Contractors, Gosford (NSW), Australia

Façade material SWISSPEARL® CARAT, Black Opal 7025, Jade 7052, Coral 7033

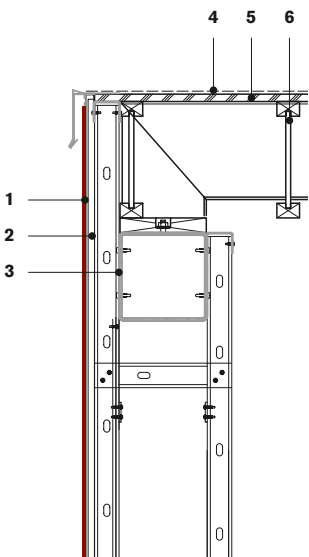


From a project with a tight site and a restricted budget, California firm Osborn Architects has created a simple building that gains its visual and functional strength through a striking folded roof.

Paradise Canyon Multi-Purpose Building, La Cañada, USA

UNDER ONE ROOF





Vertical section 1:20

- 1 Swisspearl® cement composite panel 8 mm
- 2 Ventilation cavity
- 3 Steel beam
- 4 Waterproofing
- 5 Plywood
- 6 Roof truss

The eye-catching roof serves several needs: it forms the canopy for the entrance, shelters an access ramp, hides the technical equipment and forms itself into a large and silhouette-defining rainwater drain.



“We had already planned to use Swisspearl in several earlier cases,” says Michael Pinto from Osborn, “but all these projects, for one reason or another, haven’t been realised yet.” The Swiss cement composite is however present in a recent work where Pinto acted as the design principal. The brief was to design a multi-purpose building for an elementary school in La Cañada, a community in Los Angeles County. “In California, for a public project like this we are mandated to utilise the lowest bid when selecting a contractor,” the architect says. “We felt that in the current competitive bidding environment, it was essential to use materials that have an inherent precision in their system logic.” Although cement plaster would have been the most cost-effective solution, Osborn Architects did not want to run any risks with a budget that wouldn’t allow any missteps. “Imperfections of a plaster job are often only discovered when the scaffolding comes down,” Michael Pinto explains. “The Swisspearl system therefore was an investment in a quality guarantee.”

The building, which serves as gymnasium, theatre and meeting hall, reshapes a secondary entrance to the campus and serves as a link between the parking area, sports fields and kitchen tract. Osborn Architects wanted to echo the slender projecting rooflines of the existing build-

ings in a massive roof that virtually defines the structure. It wraps the plain concrete box in several folds, thereby forming a canopy for the entrance, as well as containing a ramp, concealing mechanical equipment and draining the roof in an elegant V-shaped incision. The latter, together with the big letters formed from the Swisspearl panels, gives the whole structure its distinction. “The panel system allowed for a continuous plane that brackets the building like a big wrapper,” Michael Pinto sums up the project. “We like how several small needs have consolidated into this grand gesture.”

Mirko Beetschen

Location 471 Knight Way, La Cañada (CA), USA

Client La Cañada Unified School District

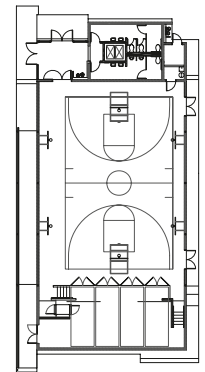
Architects Osborn, Glendale (CA), USA

Building period 2008–2009

General Contractor G. Voskanian Inc., La Crescenta (CA), USA

Roof construction Westside Acoustics, Northridge (CA), USA

Roof material SWISSPEARL® CARAT, Nobilis Grey 215



Ground floor 1:750

“IT WAS ESSENTIAL FOR US TO UTILISE MATERIALS THAT HAVE AN INHERENT INTEGRITY AND PRECISION, THAT’S WHY WE CHOSE CONCRETE, CHANNEL GLASS AND SWISSPEARL PANELS.” OSBORN ARCHITECTS



Vocational College EUC Syd, Aabenraa, Denmark

“Stand Out” Facility



Complementing a vocational education centre built in 1975 and expanded in 1982, this roof extension accommodates training facilities for future dental assistants and hair dressers. Reflecting the client’s desire for a veritable “stand out” project, ZENI architects employed a range of shapes and colours in the façade cladding to visually set it apart from the original structure. The two-story addition is designed as a lightweight steel construction extending beyond the existing building and featuring a central rotunda reminiscent of an energy accumulator.

Serving as an environmental showcase project for the school, the centre incorporates a range of sustainable features. A highly insulated ventilated façade clad with green Swisspearl panels in different shades reduces the energy consumption of the building and signals the green aspirations of the facility. A digital screen fitted into the panel-

ling displays the CO₂ reduction of the building as well as the amount of electricity generated by the façade-mounted solar panels. *Patrick Zamarian*

Location Stegholt 35/36, Aabenraa, Denmark

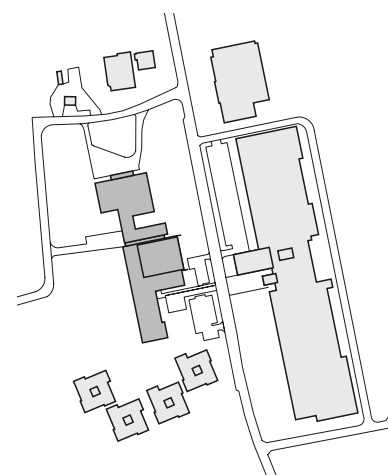
Client EUC Syd, Sønderborg, Denmark

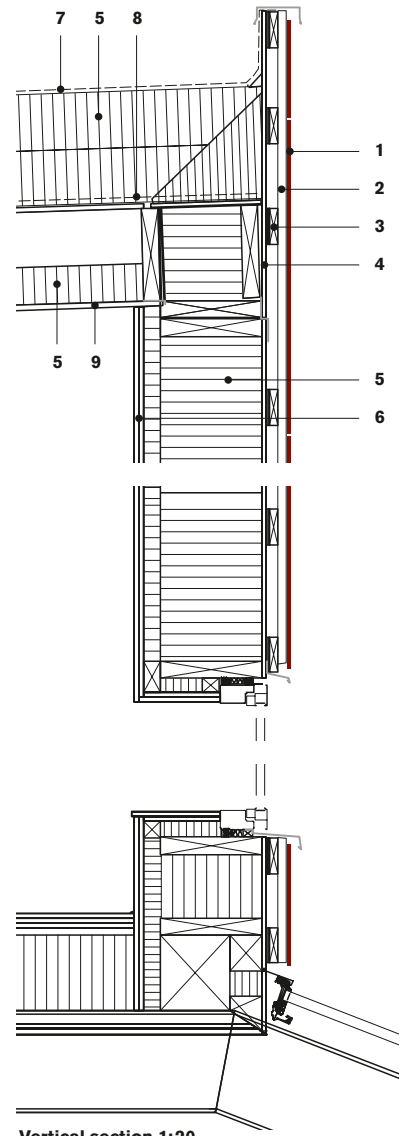
Architects ZENI architects, Aabenraa

Building period 2009–2010

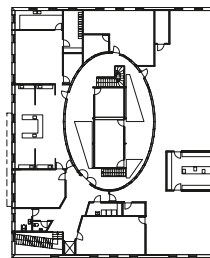
Façade construction Søgårdby A/S, Aabenraa

Façade material SWISSPEARL® CARAT, Black Opal 7020, Jade 7050, Jade 7052

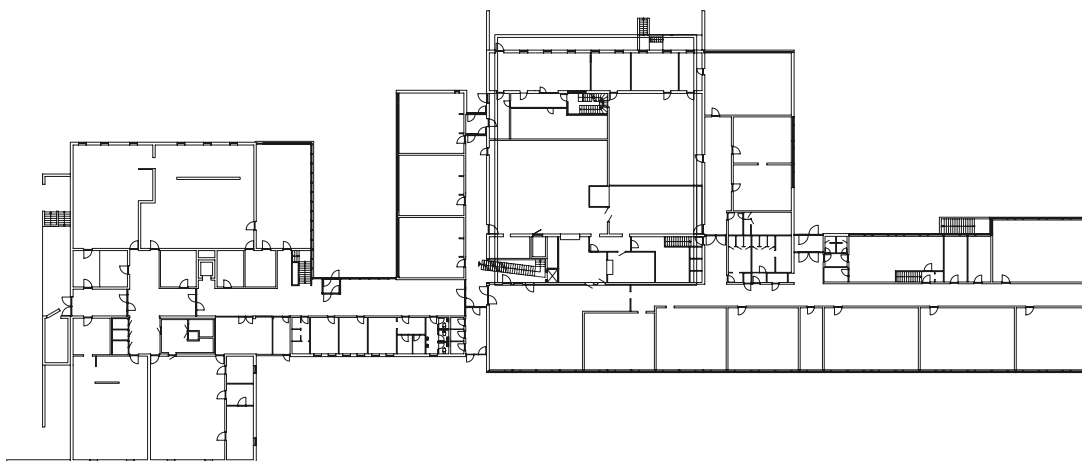




Vertical section 1:20



First floor 1:1000

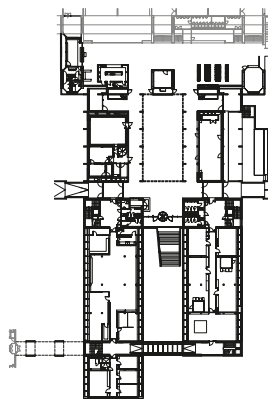
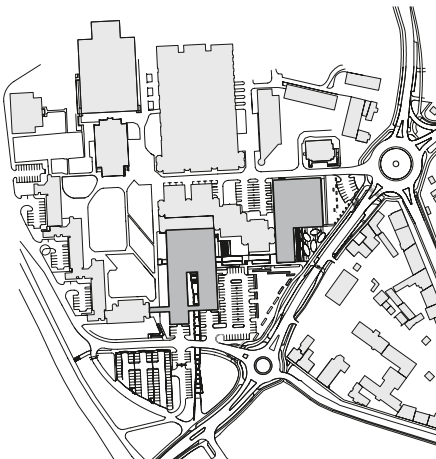


Ground floor

- 1 Swisspearl® cement composite panel
8 mm
- 2 Ventilation cavity
- 3 Sub-framing
- 4 Gypsum board, wind shield
- 5 Thermal insulation
- 6 Gypsum board
- 7 Waterproofing
- 8 Vapour barrier
- 9 Plywood

University of Modern Science, Győr, Hungary

New Brutalism Clad in Blue



Ground floor 1:2000

The new science buildings of Széchenyi István University in Győr are clearly designed to link to the existing structures of the 1970s. The existent, multi-storey faculty buildings and the new extension read as a family of structures on the university campus.

The extension of Győr University was seven years in the planning. The initial project was cancelled due to lack of funds before an updated design by the commissioned architects, Gelesz and Lenzsér Architects, eventually went up on the site in 2009, thanks to the injection of EU funding. The brief comprised the extension of educational facilities as well as a new library. The existing surrounding structures of the university were built during the 1970s in the New Brutalism architecture typical of that period. The architects of the extension, Gelesz András, Krikovszky Balázs and Anschau Péter, took their cue from the exposed concrete of these neighbouring buildings. Thus, the new extension was built with exposed concrete so that the new structures are visually related to the existing architecture. The façades of the new buildings have been enlivened with the deep blue of the Swisspearl composite cement panels to create an abstract interplay of planes, together with the light grey concrete of the structure and the glass panes of the fenestration. The Swisspearl cladding does not extend down to ground level, but starts instead above the louvred panels to create a plinth, which elevates the building mass.

The extension has a clear rhythmic structure. However, unlike typical Modernist architecture where the grid structure is situated within the interior of the floor plan and the curtain wall sits beyond it, here the circular columns are placed on the exterior of the façade. A second row of double height pillars create exterior walkways and an elegant, monumental rhythm to the street elevation. The clear grid structure has been extended into the interior of the building where the combination of concrete and blue Swisspearl panels has also been used to give a sense of continuity.

The concrete architecture is understated and conveys an egalitarian message, 'education for all' rather than conveying the elitist message of the neo-classical architecture of so many university buildings. The Swisspearl panels create a light-hearted, bright contrast to the potentially sombre concrete. *Anna Roos*

Location Egyetem tér 1, Győr, Hungary

Client Széchenyi István University, Győr

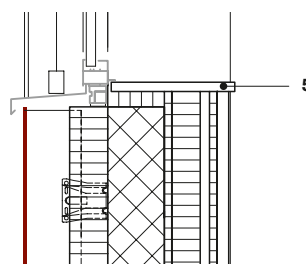
Architects Gelesz és Lenzsér Kft., Budapest, Hungary

Building period 2009–2010

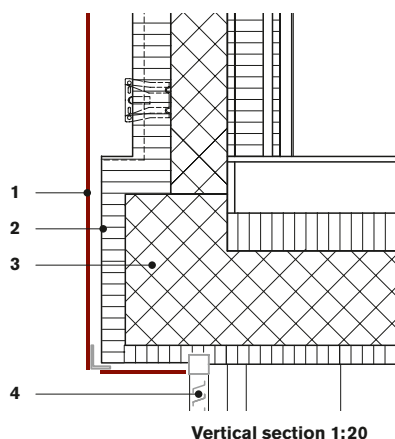
Construction Manager ZÁÉV Zrt., Zalaegerszeg, Hungary;
Stukkó Kft. and Intrados Kft., Győr

Façade construction Meilinger János, Győr

Façade material SWISSPEARL® CARAT, Azurite 7041



The rhythm of the vertical structural elements in the foreground and the horizontal Swisspearl cladding of the balustrade that runs along the length of the façade create a bold aesthetic.



Vertical section 1:20

- 1 Swisspearl® cement composite panel 8 mm
- 2 Ventilation cavity
- 3 Bracket
- 4 Thermal insulation
- 5 Concrete

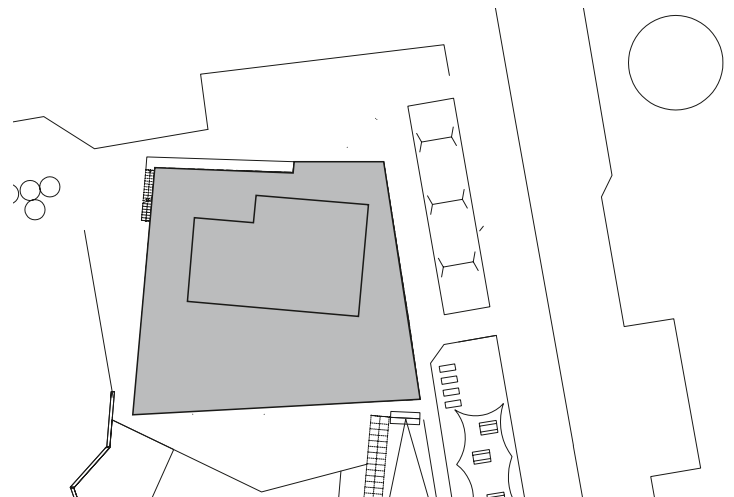


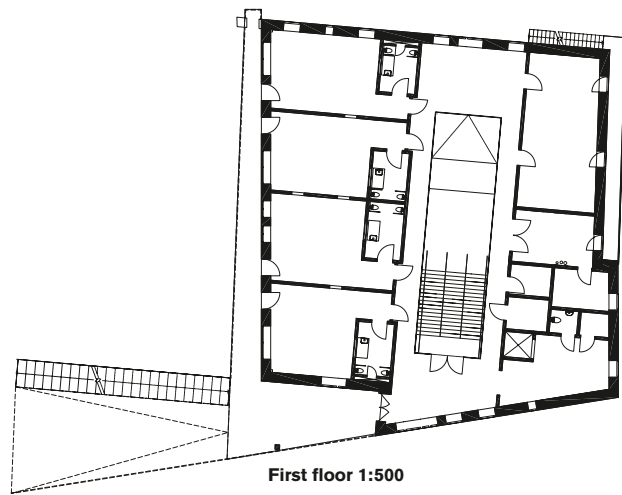


Dragon Kindergarten, Odense, Denmark

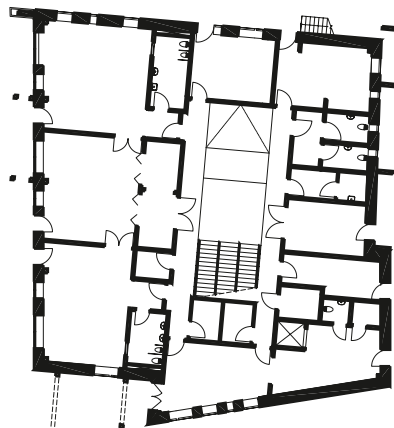
A PLAYFUL INTERPRETATION OF NORDIC MODERNISM

“The architecture of the building draws its inspiration from Nordic Modernism, the simplicity and clarity of which express a sense of confidence.” C. F. Møller



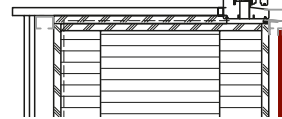
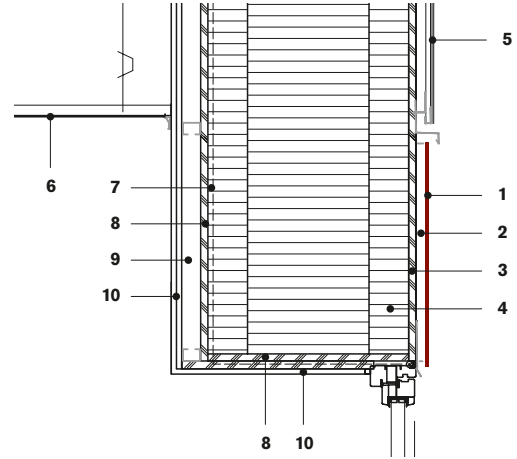


First floor 1:500



Ground floor

- 1 Swisspearl® cement composite panel 8 mm
- 2 Ventilation cavity
- 3 Chipboard
- 4 Thermal insulation
- 5 Plaster
- 6 Suspended acoustic ceiling
- 7 Vapour barrier
- 8 Plywood
- 9 Cavity
- 10 Gypsum board



Vertical section 1:20

This project is built according to the passive-house regulations.



Location Sanderumvej 83, Odense, Denmark
Client Community of Odense
Architects C.F. Møller, Århus, Denmark
Building period 2009
Construction Manager Torry Faxø, Odense
Façade construction Jeni Byg Entreprise Aps, Nyborg, Denmark
Façade material SWISSPEARL® CARAT, Onyx 7090



The architects of the Dragon Kindergarten, the Danish firm C. F. Møller, set high ideals for this project, both with regard to the architectural aspirations for the users as well as environmental aims. C. F. Møller's humanistic approach honed in on the needs and ergonomics of pre-school children and sought to create an atmosphere that enriches the lives of the children and is conducive to their development and growth. Thus, the plan has the classrooms directly linked to the outdoor play area. A close proximity to the earth has been proven to make one feel psychologically secure.

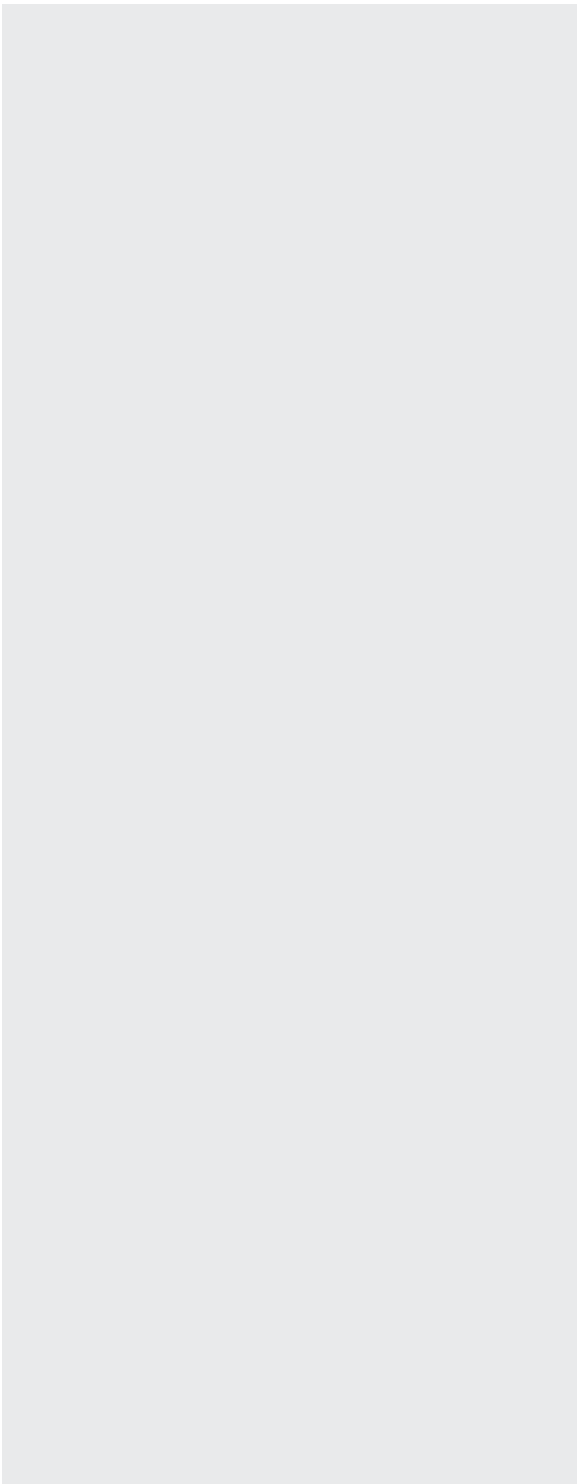
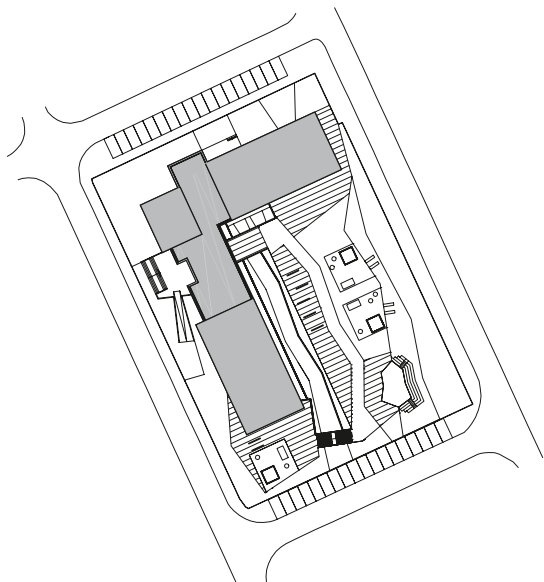
The classrooms are flooded with natural light creating bright, pleasant spaces. The numerous randomly placed windows on the east and west elevations have exaggerated sills that create deep niches. The unusual positioning of the windows, some of which are at floor level, shows the architects' consideration for the perspective of the pre-school users. The combination of timber frames for the window openings with the Swisspearl cement composite panels creates a lively, light-hearted aesthetic appropriate to a kindergarten.

The materials have been carefully selected for their ecological credentials. The architect was mindful not only of the building's energy consumption, but also of the high

quality of the interior climate, including high levels of natural light to try and keep the CO₂ load as low as possible. The optimisation of the construction process was also carefully considered as this phase accounts for up to half of the total energy consumption.

The geometric form of the building has been modelled; the south-eastern corner was carved away to receive a large ramp and staircase that is a dominant feature of the building. The ramp links to the upper level balcony that runs along the length of the classrooms and forms a weather-proof overhang as well as a sunshade for the lower classrooms, which spill out onto the generous timber deck, sandpit and lawn. *Anna Roos*

**“... TO CREATE AN UNUSUAL AND INVITING KINDERGARTEN WHICH, WITH THE HELP OF CHARACTERFUL ARCHITECTURE, WILL PROVIDE A WELL-FUNCTIONING AND EXCITING FOUNDATION FOR INSPIRATIONAL PEDAGOGICS.”
JULIAN WEYER FROM C. F. MØLLER ARCHITECTS**



The playful use of colour in this Belgrade day care centre is an effective expression appropriate for the preschool children it accommodates. The bold colours accentuate the rectilinear volumes and brighten the children's environment to create a sense of well-being.

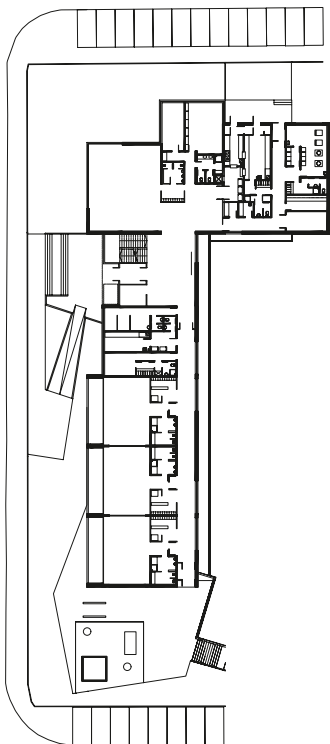
Mirijevo Kindergarten, Belgrade, Serbia

A VIBRANT PLACE OF PLAY

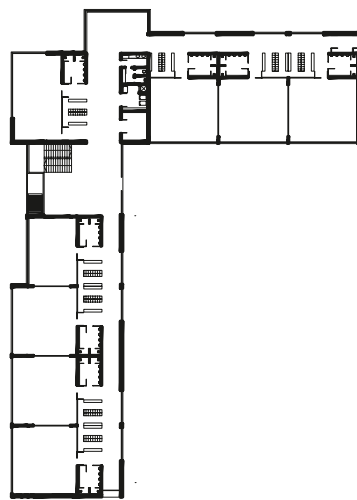




Along with the colour contrasts, the stepped forms reduce the scale of the kindergarten.



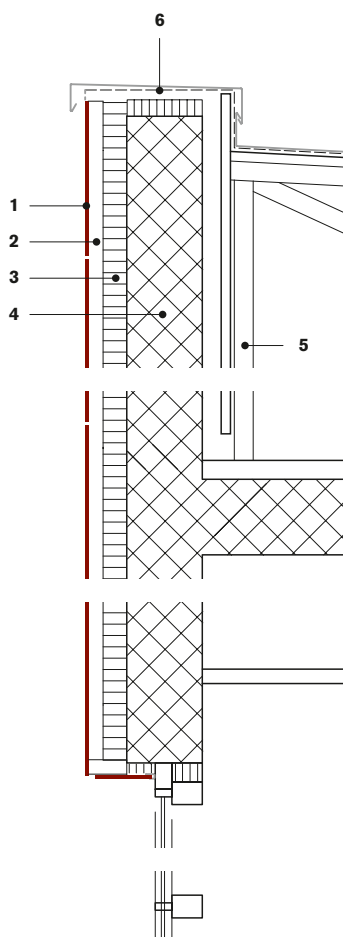
Ground floor 1:1000



Basement

Designing buildings for children requires a special sensibility and an awareness of the diminutive dimensions of preschool children. This childcare centre in Belgrade has attempted to take the particular needs of children into consideration. As preschool children are generally not yet able to read, the architect, Vesna Cagić Milošević, has cleverly used colour coding on the building façades to demarcate the various zones of the kindergarten so that the children can understand their environment and easily orient themselves without the need to read signage.

The architect's vivid colour choices have been used to further emphasise the shifting orthogonal forms of the centre, which has been designed in an L-shaped form. The clear visual separation of functions has been conceived such that the brightly clad structures, orange, blue, and green, are designated for children, whilst the adult areas



Vertical section 1:20

- 1 Swisspearl® cement composite panel 8 mm
- 2 Ventilation cavity
- 3 Thermal insulation
- 4 Concrete
- 5 Steel column
- 6 Moisture barrier



A confident use of colour demarcates the lower forms.

**“THE APPLICATION OF COLOUR FUNCTIONS AT SEVERAL LEVELS:
THE INITIAL LEVEL – VIVID AND PLAYFUL COLOURS SYMBOLISING
THE FUNCTION OF THE BUILDING (KINDERGARTEN) ...”
VESNA CAGIĆ MILOŠEVIĆ**

have been clad in muted shades of white and grey. The colour coding of the forms also serves to reduce the scale of the centre so as not to be overwhelming for the 250 young children who spend their weekdays there.

The Swisspearl cladding panels were an apt choice to realise Milošević’s confident colour concept. The panels are manufactured in a broad array of colour palettes, giving designers a wide choice. The architect opted for strongly contrasting colours rather than subtle nuances to convey his vision for the children’s centre.

The L-shaped configuration of the structures creates a generous playground to the southeast of the site. The bold use of colour in the architecture has been extended into the landscape design: the playground, the mini-amphitheatre and the encircling fences have also been painted in the similar bright hues of the building façades. The

strongest architectural expression of this conglomeration of shifting rectilinear structures is certainly the strong use of colour. *Anna Roos*

Location Meše Selimovića 11, Belgrade, Serbia

Client Investment Agency, City of Belgrade

Architect Vesna Cagić Milošević, Belgrade

Building period 2009–2010

Construction Manager Ratko Mitrović Dedinje, Belgrade

General Contractor Belgrade Municipality Gradska uprava grada Beograda, Belgrade

Façade construction RM Megaexterijer, Čačak, Serbia

Façade material SWISSPEARL® CARAT, Sapphire 7060 R, Planea P 712 and P 113, Florit P 4987, Zenit P 3767



PROVEN – BÆKKEGÅRD SCHOOL, ØLSTYKKE, DENMARK

The design of the Bækkegård school in the Danish town of Ølstykke is based on the ‘schools within schools’ principle. The main structure of the building is divided into three separate classroom wings, arranged around inner courtyards and linked together by a central gymnasium that doubles as a multi-purpose hall.

The load-bearing structure consists of glue-laminated timber columns and beams braced by few concrete cores, which provides a great deal of flexibility, allowing the school to adapt to changing pedagogical methods if necessary. The skeleton frame is filled with prefabricated insulated wall elements clad in dark Swisspearl panels and horizontal timber boarding, respectively. The same combination of materials is used in the glass-topped double-height hallways.

Eight years after completion, Swisspearl Architecture spoke with project architect Max Møller of Mangor & Nagel about Bækkegård school and his experience with Swisspearl panels.



Max Møller was born in 1963. He graduated from the School of Architecture in Copenhagen with a technical background as a structural architect. Møller is a project manager and architect with Mangor & Nagel in Frederikssund.

Max Møller, what expression were you looking for at the Bækkegård school, and what were the requirements for the cladding?

The facility is quite large, approximately 8600 square meters: a big building on a small site. We wanted it to appear lightweight and black, with a natural texture, so it could be part of the landscape. The cladding had to withstand heavy use by children and adolescents, and construction had to be fast and economical. This led us to the Swisspearl panels, which we used for most of the building. Small portions of the façade are timber clad and painted orange to add a little softness to the ‘hard’ Swisspearl panels.

Did you consider any other materials?

Yes, there was a competition for the panels but the quality of the other possible choices just wasn’t up to the standard of the Swisspearl panels. They meet local fire regulations, come in different colours and qualities, and have good weather resistance and resilience. We had used Swisspearl panels before, in another school in 2002, and we have used them since, if not necessarily in a large building such as the Bækkegård school.

What are the primary qualities that make the difference?

Firstly, the panels have a texture that gives them a solid appearance. They are cement composite panels, and you can see it. If you put paint on a façade panel, the material underneath could be anything. A Swisspearl panel is honest about what it is, and I think that is very nice. Secondly, the colour goes through the panels. If you put a knife into any other façade material, you will damage it. With Swisspearl,



you don't! I think that is the best quality of these panels, and it is very important in school buildings because they are always vulnerable to some kind of vandalism.

With hindsight, would you say Swisspearl panels were the right choice for this project?

Yes, absolutely. It is about a year since I last saw the school, and I think it still looked very nice. The wood cladding has a patina to it – it has aged, but in a nice way – and the Swisspearl panels still look like new. We chose these panels because they are practically maintenance-free. A few years ago, some students drove their scooters into a wall, so some of the panels had to be replaced, not because they were old but because they were damaged.

Interview by Patrick Zamarian

Location Bækkegårds Plads 2, Ølstykke, Denmark
Client Municipality of Egedal, Denmark
Architects Mangor & Nagel A/S, Frederikssund, Denmark
Building period 2002–2003
General contractor and façade construction NCC Construction, Hellerup, Denmark
Façade material SWISSPEARL® CARAT, Black Opal 7020



PROVEN – BRYGGAN SECONDARY SCHOOL, VELLINGE, SWEDEN

The Bryggan Learning Center was built in 2004 and houses facilities for adult education and supplementary space for the adjacent upper secondary school. Located on an open campus on the outskirts of the Swedish town of Vellinge, the two-story building refers to the existing 1970s structures in both size and material expression.

The centre is built around two load-bearing external walls clad in yellow bricks and a corresponding internal wall that runs through the building along the main circulation zone and also contains all the necessary installation shafts. The remaining fronts are post-and-beam structures filled with aluminium-framed glazing and anthracite Swisspearl panelling, respec-

tively. The latter is also used for the cladding of three blocky vertical volumes that project off the south façade and counter-balance the irregular geometry of the main building elements. The panelling extends to the inner parts of the walls, thus seeming to permeate the glass membrane and blurring the boundaries between inside and outside.

Ann-Sofi Krook of Chroma Arkitekter AB (formerly bm Arkitekter AB)* was the project architect for the Bryggan Learning Center. Swisspearl Architecture, which published the school building in issue 2, talked to her about her experience with Swisspearl panels.





Ann-Sofi Krook was born in 1960. She has a Master of Architecture degree from Lund University, has extensive experience in the design of schools and municipal buildings and is a founding partner of Chroma Arkitekter.



Ann-Sofi Krook, what were the specific requirements for the façade material at this school?

I wanted a material that had a light appearance – in contrast to the tile façade on other parts of the building.

You chose Swisspearl panels for large parts of the exterior cladding of the building. How did people respond to the design?

Both client and students liked it very much. It is an excitingly different building in the municipality of Vellinge.

Where do you see the advantages of Swisspearl panels?

I especially like that the colour is not 'solid'. It doesn't look plastic-like, but more like a natural material. I looked at different cladding materials on buildings and found that the Swisspearl façade panels retain a high quality even after some time. The panels are stained completely, even the edges, so it doesn't matter if they move a little bit, the edges still look good. Swisspearl also has a sales representative in southern Sweden who has good knowledge of their products and is very service-minded.

Have the panels lived up to your expectations?

Yes, they have kept their original appearance very well. They still look very good, both inside and out. They have aged naturally, 'with beauty' so to speak. No graffiti or vandalism has been done to the façades in the eight years since the completion of the project, so none of the panels had to be replaced.

With hindsight, would you say Swisspearl panels were the right choice for this project?

Yes, they were. In future projects I would like to do some experimenting with Swisspearl panels: combining panels of different colours, some of them possibly custom-made, and applying figurative carvings to make them look like tattooed façades ...

Interview by Patrick Zamarian

Location Norrevångsgatan, Vellinge, Sweden

Client Sture Lindström, Lennart Willemo, Community of Vellinge

Architects Chroma Arkitekter AB*, Malmö, Sweden; Ann-Sofi Krook; Collaborators: Thomas Malmqvist, Annika Markstedt, Nisse Norling

Building period 2004

General contractor and façade construction Nimab AB, Sjöbo, Sweden

Façade material SWISSPEARL® CARAT, Black Opal 7020

* The original company, bm Arkitekter AB, was dissolved in 2005 and Ann-Sofi Krook, along with two of her colleagues, started a new firm called Chroma Arkitekter AB.



The result of an international limited competition, this administration building by 5+1AA complements the sprawling grounds of the Milan Trade Fair in Rho. Dubbed the ‘horizontal tower’ by its designers, the structure combines two separate buildings within one envelope, intertwining horizontal and vertical design principles to create a sitespecific and highly evocative new landmark.

Fiera Milano Executive Offices, Rho, Italy

HORIZONTAL TOWER





Designed by Alfonso Femia and Gianluca Peluffo of the 5+1AA practice, in collaboration with French architect Jean-Baptiste Pietri, this administration building for the Milan Trade Fair in Rho consolidates its executive offices which had previously been scattered over various premises. The 21,000 square meter facility is wedged between the east gate of Massimiliano Fuksas' imposing exhibition complex and the underground railway station exit, overlooking major infrastructural facilities, such as the Milan–Turin highway to the east.

The desire to design a building that interrelates with the neighbouring fair while asserting its formal autonomy inspired a hybrid concept that blends two contrary design principles. Echoing the horizontal layout of the fair grounds, the slender, tapering building features a distinctly horizontal structure, allowing different interactions with the varied contexts on either side. Gold-tinted glass panes are used for the northern tip of the building, while the northwest façade, facing the fair, is clad in gold Swiss-pearl panels. Southward, the envelope seems to dissolve, peeling off its panelling and transforming it into a lively arrangement of suspended opaque glass panes that serve as brise soleils on the southeast façade that faces the city of Milan.

Towering over the adjacent fair pavilions, the structure encloses two separate buildings, linked by a full-height entrance lobby. Based on the classical tripartite division of base, middle and top, the two 13-story buildings add a markedly vertical element to the design, thus counterpointing the horizontality of the overall scheme. Raised above road level, the base separates the pedestrian flows in a succession of expanding (foyer) and compressing (canteen, offices) spaces. Visually dividing the elevation of the building, a two-story horizontal slot between the 5th and 6th floors frames a panoramic view of the scenery. The top floor accommodates a large roof garden and boasts a somewhat oversized circular helipad as the conspicuous signature element of the new office building.

Patrick Zamarian

“THE DECISION TO COMBINE TWO SEPARATE BUILDINGS WITHIN A SINGLE ORGANISM ALLOWS US TO FULLY COMPLY WITH ALL THE FUNCTIONAL AND FINANCIAL DEMANDS STIPULATED BY THE CLIENT.” 5+1AA

Location Largo Metropolitana 1, Rho, Italy

Client Sviluppo Sistema Fiera spa, Milan, Italy

Architects 5+1AA (Alfonso Femia, Gianluca Peluffo and Simonetta Cenci), Genoa, Italy; Jean-Baptiste Pietri Architectes, Paris, France

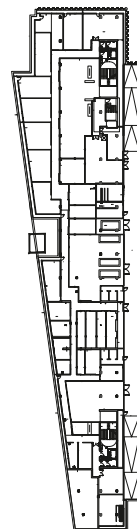
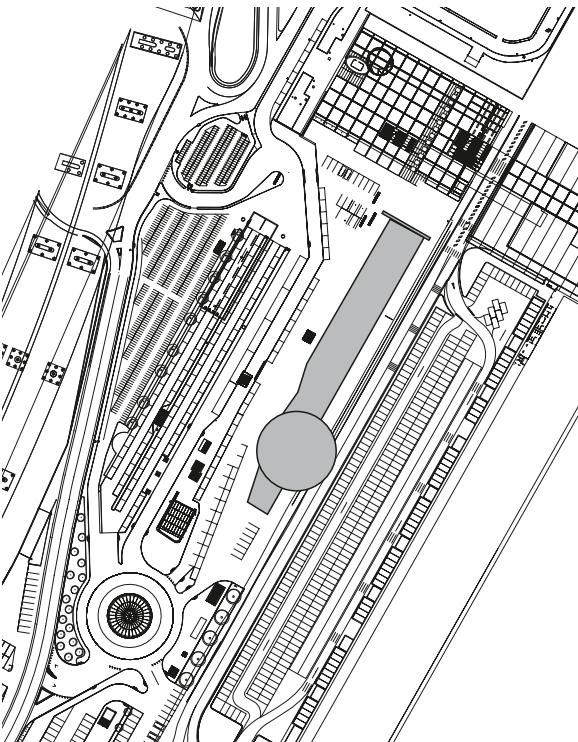
Building period 2008–2010

General contractor and façade construction Italiana Costruzioni spa, Milan

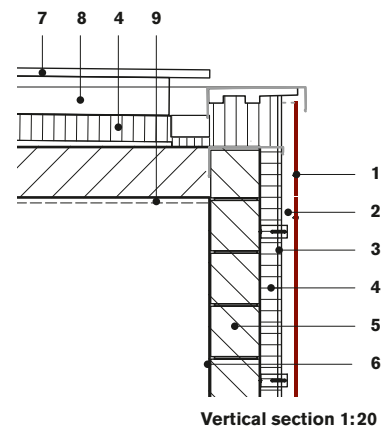
Façade material SWISSPEARL® REFLEX, Gold 9272



“THE HORIZONTAL TOWER AND THE VERTICAL BUILDING, A COMBINATION OF TWO BUILDINGS, ARE THE TWO ‘SOULS’ MAKING THIS A REPRESENTATIVE AND SYMBOLIC BUILDING.” 5+1AA



Basement 1:2000



Vertical section 1:20

- 1 Swisspearl® cement composite panel 8 mm
- 2 Ventilation cavity
- 3 EPS board
- 4 Thermal insulation
- 5 Brickwork
- 6 Plaster
- 7 Photovoltaic panel
- 8 Photovoltaic, sub-framing
- 9 Vapour barrier



Block 21, Austin, USA
Urban Landscapes



Location 200 Lavaca Street, Austin (TX), USA

Client Stratus Properties Inc., Austin

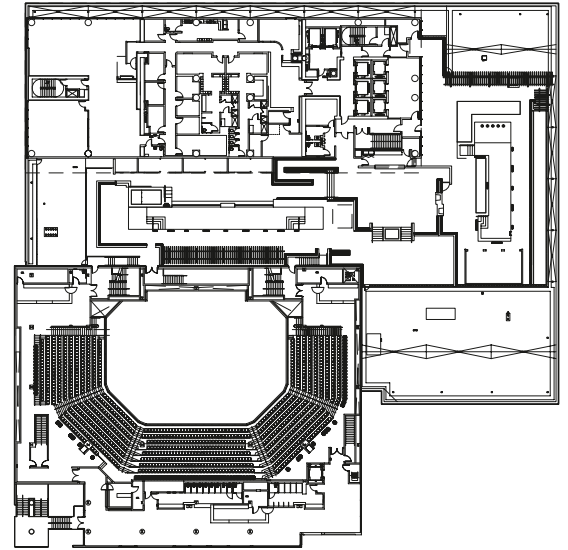
Architects Andersson-Wise Architects, Austin, and
BOKA Powell, Dallas (TX), USA

Building period 2008–2010

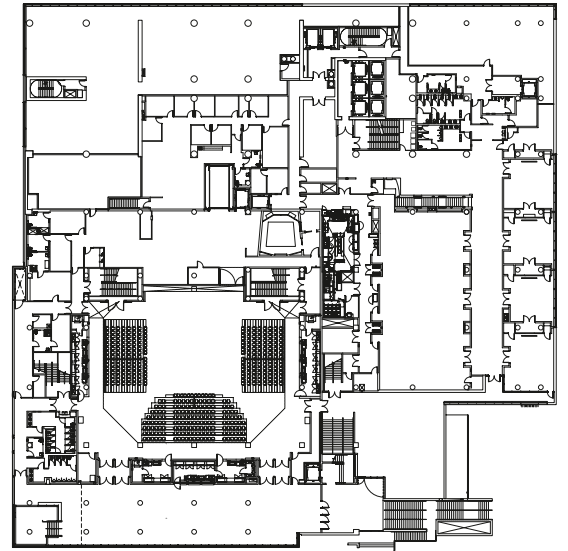
General contractor Austin Building Company, Austin

Façade construction R. M. Rodgers Inc. / Underwood
Sheetmetal Inc., Houston (TX), USA

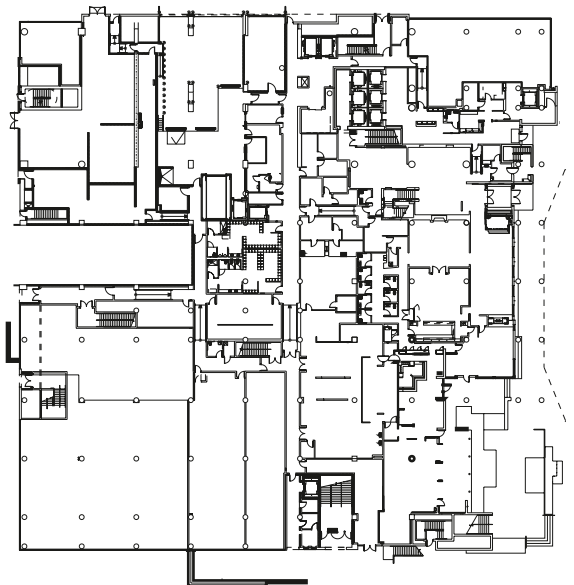
Façade material SWISSPEARL® CARAT, Black Opal
7024 and 7025; SWISSPEARL® XPRESSIV, Dark Grey
8220 and Anthracite 7020 R



4th floor 1:1000



2nd floor



Ground floor





The different façades take their inspiration from local cliff faces. Grey glass for the tower and Swisspearl panels in various shades of grey for the lower buildings create sheer smooth skins.

With their Block 21 high-rise project, local architects Andersson-Wise Architects and BOKA Powell have added another piece to Austin's growing skyline. The sustainable building derives its design from local geography and climate.

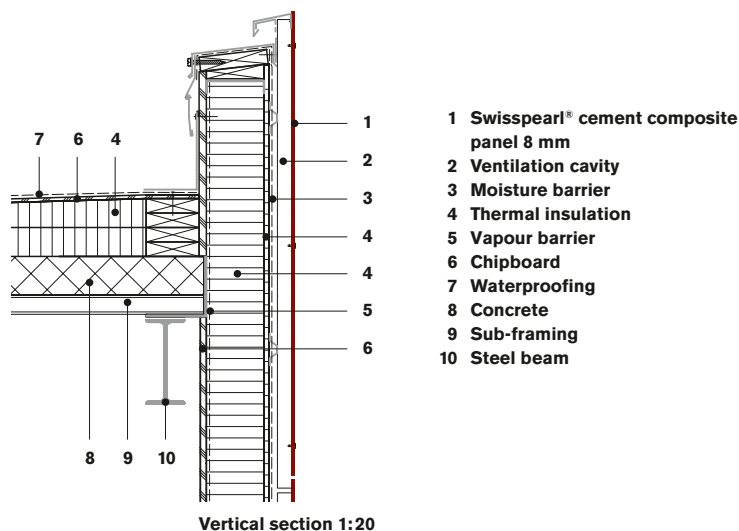
The live music capital of the world, as the city of Austin is often called, was founded in 1835. Waterloo, its original name, became Austin and the capital of the newly independent Republic of Texas in 1839. Its steady growth throughout the next 100 years was curbed by the Great Depression and only picked up again in the 1980s when Austin developed into a major city, attracting many high-tech companies. Austin today is known for its liberal climate and its strong local art and, especially, music scene.

Although the city's buildings are moderate in height and there is the Capitol View Corridor law, a restriction that preserves the view of the Texas State Capitol from different parts of the city, Austin is currently undergoing a high-rise boom and a strong densification of its core districts. Local architectural firm Andersson-Wise Architects got a green light for their Block 21 project in 2005, which encompassed the rebuilding of a downtown site with a dense complex for mixed use. The finished project, executed by Andersson-Wise Architects and BOKA Powell, today hosts a 250 room W Hotel, 159 luxury apartments, a large music theatre and space for offices, retail and gastronomy.

Formally, it consists of three volumes: a three-storey building as a horizontal base, a tower that rises at one edge of the base, and a massive theatre volume next to it. "Our approach began with an understanding of the site's climate and the massing and scale of the structures surrounding it," Arthur Andersson explains. "The overall composition is like a minimalist piece of art, communicating the inter-relationship of solids and voids." As for the design, the architects took their inspiration from the city's location on the Balcones Fault line and the Colorado River. "We looked at the way wind and water have shaped the geometry and texture of the land. The exterior skins of the buildings became cliff faces and were detailed to be sheer and smooth."

The architects chose soft grey glazing for the tower and Swisspearl panelling for the base and theatre buildings. "This product allowed for a very precise and orderly layout for the fenestration and division of the panels," the architects said. Together with the flush windows and slender aluminium frames, this made for an elegant façade that changes its expression throughout the day. The theatre volume, a unit of its own and a compliment anchor to the tall tower, was designed as a "pure cube with a void cut away from the lower level", thus creating a big porch. The façade is again made of Swisspearl panels, here accentuated by a pattern of silver steel rivets and the choice of two different tones of grey. "The purity of the material was a natural fit for rigorous geometry," Arthur Andersson says. *Mirko Beetschen*

"THE ABUNDANCE OF CLIFFS, ROCK LEDGES AND CAVE STRUCTURES UNIQUE TO THIS PART OF TEXAS LENT SPECIFIC IMAGERY AS WE WORKED TO REALISE A BUILDING THAT IMBUED A STRONG SENSE OF PLACE." ANDERSSON-WISE ARCHITECTS/BOKA POWELL





Service Building GIFI, Turin, Italy

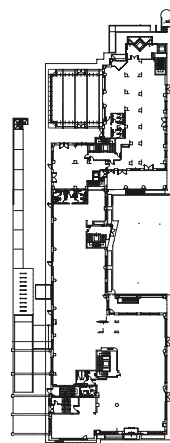
Signature Tower



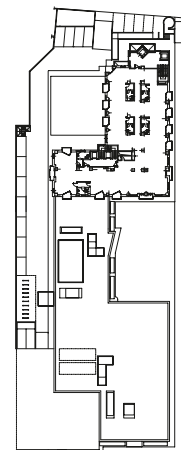
This service building for the facility management company GIFI is part of a comprehensive renovation and extension of an existing industrial estate on the southern outskirts of Turin. Blurring the traditional boundaries between office and production work, the floor plan is divided into small working units interspersed with areas for administration and supervision.

The edifice comprises multiple parts, most of which are aligned in height with the adjacent six-story buildings. A high-rise on the southern edge of the property serves as the hallmark of the complex, drawing the attention of motorists passing through the nearby highway junction. Architect Valter Broccardo employed a light grey Swiss-pearl cladding to distinguish the new building from the existing prefabricated concrete structures; horizontal stripes in a darker shade highlight the different levels of the building while aluminium is used for roofs and windows as well as the glazed elevator tower.

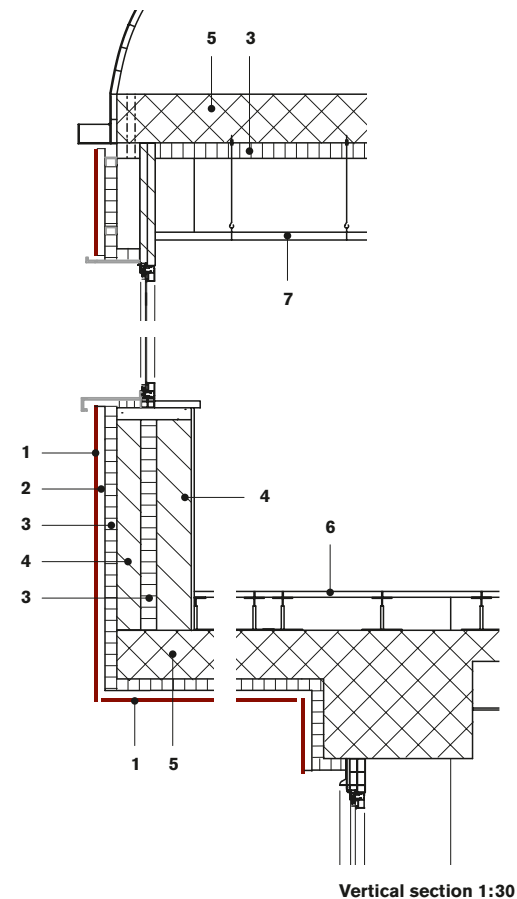
Patrick Zamariàn



Ground floor 1:2000



Typical upper floor



- 1 Swisspearl® cement composite panel 8 mm
- 2 Ventilation cavity
- 3 Thermal insulation
- 4 Brickwork
- 5 Concrete
- 6 Hollow floor
- 7 Suspended ceiling



Location Strada del Drosso, Turin, Italy
Client GIF I s. p. a., Turin
Architects Valter Broccardo (Assoc. Umberto Paschero), Turin
Building period 2007–2009
General contractor Edilgros s. p. a., Turin
Façade construction Dalleria srl, Agrate Brianza (MI), Italy
Façade material SWISSPEARL® CARAT, Onyx 7091,
 Black Opal 7020; SWISSPEARL® NOBILIS, Grey N 212





Pacific Plaza Office Building, Tacoma, USA

Turkish Delight

Developed through a public-private partnership between the City of Tacoma and Pacific Plaza Development LLC, this conversion of a crumbling parking garage into a mixed-use facility showcases the latest in energy-efficient and sustainable retrofit technology. USD 2 million in 'green' expenditures comprising five percent of the total cost have been invested in turning it into Washington's first LEED Platinum Core and Shell building.

What to do with the two concrete behemoths that have blighted downtown Tacoma ever since they were built? This question was the starting point for the conversion of an outdated parking garage on Pacific Avenue into a state-of-the-art mixed-use facility. Erected in 1970, Park Plaza South and its sister garage two blocks north were touted to be the driving force behind the city's downtown resurgence. Instead, the decaying structures became emblematic of its gradual decline. In 2005, the City issued a call for proposals to regenerate the two garages, and Pacific Plaza Development LLC, a consortium of PCS Structural Solutions, Absher Construction and BLRB Architects, submitted a winning scheme that was intended to overhaul, rather than demolish, the existing structures.

Construction on Park Plaza South, the smaller of the two, started at the end of 2007. Retaining 78 percent of

the original structure, the engineers implemented such measures as a new concrete elevator core to strengthen the garage and make it seismically sound. The three existing decks are complemented by an additional parking level and two stories of Class A office space. Designed as a lightweight steel structure, it is furnished with light-toned Swisspearl panel walls, parquet flooring and wood panelled ceilings. At street level, extending the sidewalk allowed the architects to bring the new retail space flush with the once gloomy parking overhang, while a new public stairway connects Pacific Avenue with Commerce Street.

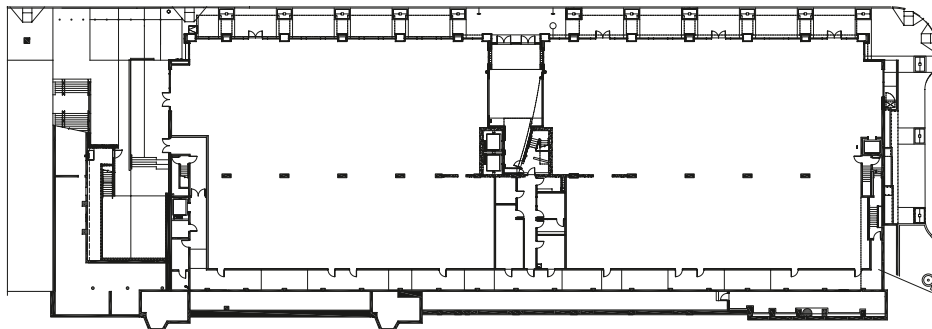
The functional parts of the facility are identified through different façade materials. A far cry from the rough bush-hammered texture of the original building, the refurbished retail and garage levels have a smooth cream-colored concrete finish. The uninsulated sidewalls are sheathed in anthracite Swisspearl panels that interface with the weathered zinc cladding of the office sections. Serving as 'structural lanterns', protruding vertical glass boxes indicate the position of staircases and accentuate the lobby entrance.

The use of recycled or regionally sourced materials is one of many sustainable features incorporated in the

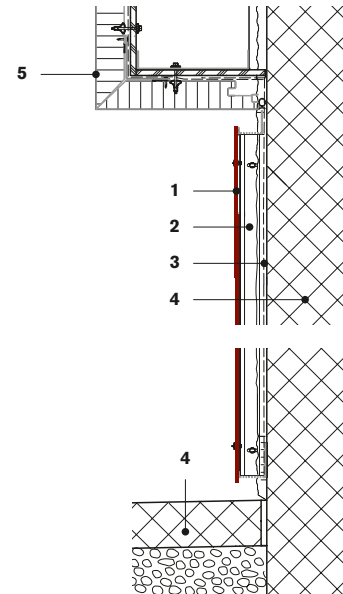


scheme. Careful management of the demolition process allowed an imposing 98 percent of debris to be diverted from landfills, and high-efficiency lighting and HVAC systems will reduce energy consumption by a third. The re-discovery of a subterranean Turkish bath, which has been turned into a rainwater cistern to irrigate the extensive green roof, ultimately raised the facility from the initially targeted Silver to a LEED Platinum level.

Patrick Zamarian



Ground floor 1:1000



- 1 Swisspearl® cement composite panel 8 mm
- 2 Ventilation cavity, aluminium sub-framing
- 3 Moisture barrier
- 4 Concrete
- 5 Metal wall panel

Location 250 Pacific Avenue, Tacoma (WA), USA
Client Pacific Plaza LLC & City of Tacoma
Architects BLRB, Tacoma; Dave Pool
Building period 2007–2009
General Contractor Absher Construction Company, Puyallup (WA), USA
Façade construction Johnston Construction Company Inc., Tacoma
Façade material SWISSPEARL® CARAT, Black Opal 7020
Interior material SWISSPEARL® CARAT, Onyx 7090



Parking garage before retrofit.



“PACIFIC PLAZA INCORPORATES MULTIPLE ENERGY-EFFICIENT AND ENVIRONMENTALLY SUSTAINABLE FEATURES THAT SET IT APART FROM OTHER COMMERCIAL BUILDINGS IN THE REGION AND HELPED IT ACHIEVE THE LEED® PLATINUM CERTIFICATION.” BLRB ARCHITECTS





Residence for the Mentally Ill, Ávila, Spain

Elegant Play of Contrasts

This residence in Ávila in central Spain is a place of refuge and calm for its residents. The architecture, with its fine proportions and human scale, instills a feeling of balance and harmony.

The new residence by architect Alfonso Terceño González was designed as two separate structures: a single-storey structure where the recreational spaces are located and a triple-storey structure that accommodates the residents in the upper two storeys and the service areas on the ground level. The triple-storey elongated structure is balanced between a ground level plinth and zigzag steel girders on a concrete base. This elevation of the upper two floors creates a feeling of suspension and lightweight architecture.

Terceño designed the residence with a play of contrasts: light and dark, solidity and transparency, as well as in his

use of contrasting forms and proportions. The most obvious contrast is in the façade treatment. On the upper levels, the façades have been clad in sleek, Swisspearl cement composite panels in light colours. In contrast, the lower parts of the façade have been clad in dark bricks and elongated masonry with white pointing. The contrasting proportions of the fenestration, generous horizontal openings to the southeast and small punctured openings to the northwest, is another example of the play of contrasts.

Another formal aspect of the buildings is the play of surface planes projecting and receding forwards and backwards. The large perforated aluminium screens are projected away from the white façade plane and cast soft shadows onto the Swisspearl panels. The screens act as sunscreens, while also giving privacy and security to the

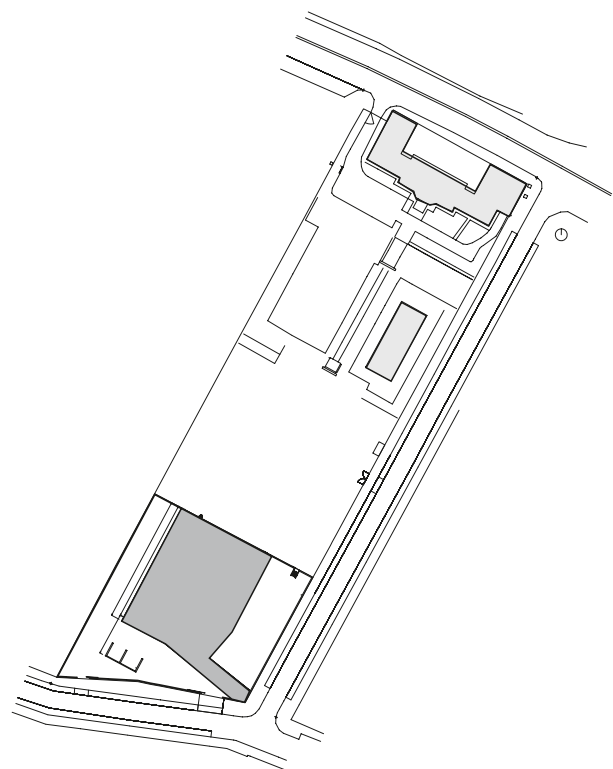


The upper levels of the triple-storey block are suspended between the recessed plinth and the steel girder supports, giving the building a feeling of weightlessness.

residents; they also cast delicate shadows onto the smooth elevation.

The overall impression is of a carefully balanced ensemble where light and shade, positive and negative, create a harmonious composition that will, hopefully, have a calming and therapeutic effect on the inhabitants.

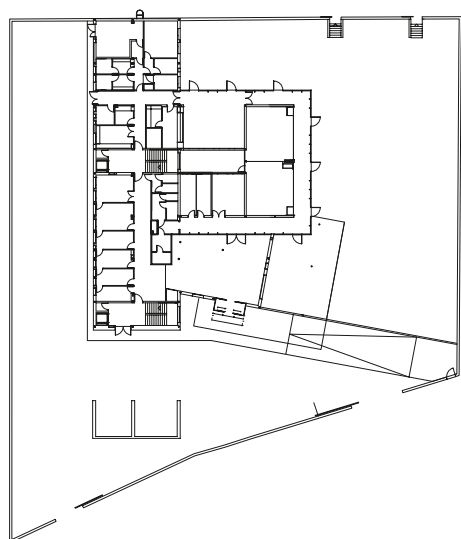
Anna Roos





“I HAD IN MIND THAT, IN A PLACE WITH A CLIMATE AS COLD AS ÁVILA’S, PEOPLE WOULD SPEND MORE TIME INSIDE THE BUILDINGS THAN IN THE COURTYARDS OR GARDENS, HENCE, THE GENEROSITY OF THE ARRANGEMENTS OF THE INTERIOR OF THE RECREATIONAL AREAS, IN CONTRAST TO THE REST OF THE BUILDING.” ALFONSO TERCEÑO GONZÁLEZ

There is a subtle interplay with the fenestration and the format of the Swisspearl panels that ties the various elements of the façades together.



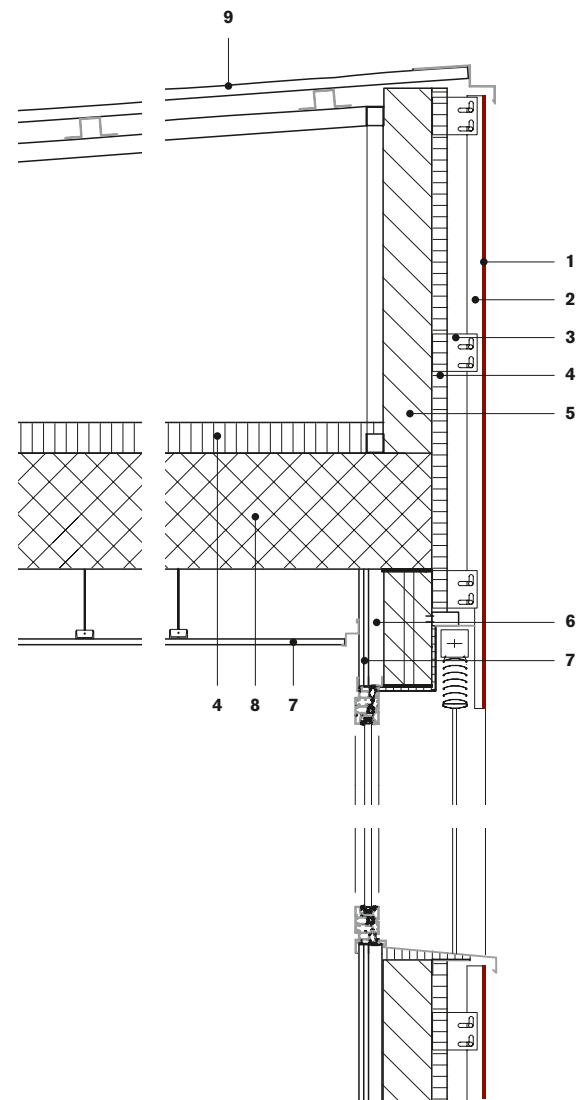
Ground floor 1:1000





The elevations have a complex rhythm of openings and textured planes set off by the sleek neutrality of the Swisspearl cladding.

- 1 Swisspearl® cement composite panel 8 mm
- 2 Ventilation cavity, metal framing
- 3 Bracket
- 4 Thermal insulation
- 5 Brickwork
- 6 Cavity
- 7 Gypsum panel
- 8 Concrete
- 9 Metal roof



Vertical section 1:20



Location Camino del Gansino, Ávila, Spain
Client Junta de Castilla y León – Consejería de Familia e Igualdad de Oportunidades
Architect Alfonso Terceño González, Ávila
Building period 2010
Construction Manager Volconsa, Ávila
Façade construction Grupo Coliseum, Yuncos, Spain
Façade material SWISSPEARL® CARAT, Colour Onyx 7099, Silver 9000



LUXEMBOURG – ART ENRICHES BUILDING



Armand Strainchamps was born in 1955 in Dudelange, Luxembourg and trained in 1978/79 at the Académie Royale des Beaux Arts de Bruxelles and from 1979–1985 at the Ecole Nationale Supérieure des Arts Visuels La Cambre in Brussels where he received his diploma. Armand Strainchamps works as an artist and filmmaker in his studio in Luxembourg. He has completed several art projects in art and architecture collaborations.

The Schungfabrik in the Luxembourg community of Kayl started out in 1912/13 as a shoe factory. For the last 20 years, however, the charming industrial monument has functioned as a cultural centre. Recently, the Atelier d'Architecture Beng built an extension to house the practice rooms for the Harmony Orchestra of the villages Tétange and Kayl.

The small simple hall has been insulated accordingly. Several of the façades have cement composite cladding: the main building with its conical roof has white panels and the adjacent building with rooms for the infrastructure is clad with grey panels. The Luxembourg artist Armand Strainchamps painted the cement composite panels above the glazed entrance.

Armand Strainchamps, you did the artwork for the new extension of the Schungfabrik. What is the story behind it?

For the extension at the cultural centre, a cultural intervention seemed appropriate. The community's cultural representative, Guy Assa, invited me to participate and put me in touch with the architect. The building project and its proportions were already decided, but together we found the right place for the artwork on the building.

All 30 panels show the same female form, though in different colours. Could you comment on the choice of theme and the colour concept?

The search for an idea led me to a muse who welcomes the visitor to the Cultural Centre with open arms. Following the pattern of the other façades, I adopted the repetitive panel structure and repeated the figure on a variety of different background colours. The feet were given the colour of the panel next to it each time. The coloured feet are an allusion to the former shoe factory next door, which produced shoes for the mine and enamelling workers, but naturally I did not want to portray the actual shoes. A written word under each figure expresses the joy of art and creativity.

Incidentally, I painted each of the women by hand and each has its own little differences. What interests me most in general is the colour rhythm created by the complete work.

Cement composite panels, which are also used for the rest of the front of the building, were the background for your paintings. What was your experience with this material?

As I said before, the materials had already been decided by the architects, so I tested the feasibility of painting on them. The almost white cement composite panels turned out to be well suited for the painting process. More cumbersome was the weight of the single panels: I could not move them by myself in the studio.



Which colours did you use? What did you have to consider?

First, I tried out several colours on different Swisspearl panels. One of them, an image painted with the acrylic paint Lascaux, another Swiss product by the way, was left in the garden over the winter. It withstood the weather very well. After that, I occupied myself with choosing the colour tones. I did the design for the arrangement of the images on the computer, with the help of Photoshop as usual.

I hope you are happy with the finished piece. Maybe you can tell us what effect you expect it to have on the public? What reactions have you received so far?

The buildings and the park surrounding it are still waiting for their inauguration. Which is why I haven't had any reactions from the public as yet. The architects and, most importantly, the mayor are very happy. I see this combination of artwork and architecture as a welcoming gesture for a cultural experience. It would make me very happy when visitors would take a moment to reflect and ask themselves: Which colour do I like best? Which word speaks to me the most? How creative am I personally? In other words, a reflection about one's own personal approach to culture, that is what I would like to pass on to every single person.

Armand Strainchamps, thank you for this insightful conversation.

Interview by Michael Hanak



Extension of the Schungfabrik, Kayl, Luxembourg

Location Rue Pierre Schiltz, Kayl, Luxembourg

Client Administration Communale de Kayl

Architects Atelier d'Architecture Beng, Esch sur Alzette, Luxembourg

Building period 2010–2011

General Contractor and façade construction M. Mutsch & Fils, Troisvierges, Luxembourg

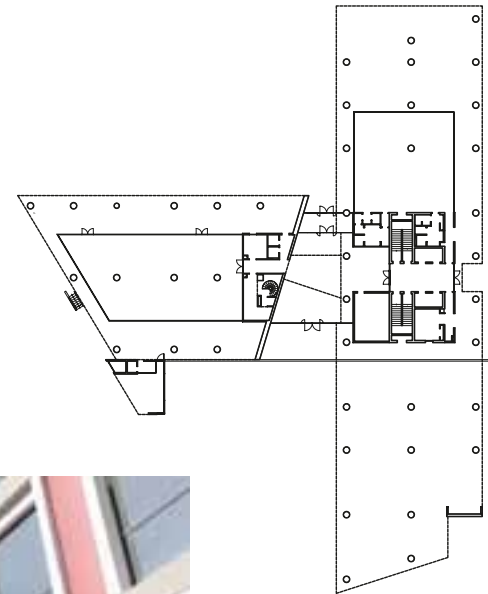
Façade material SWISSPEARL® CARAT, Sapphire 7060 and Onyx 7090

Artwork Armand Strainchamps, Luxembourg (www.armandstrainchamps.com)



Lebanon – Playful Staggered Composition

Just north of Beirut, in a quiet area overlooking the Mediterranean Sea, lies the world headquarters of SABIS International School. The complex is treated as a ‘T’, with the wings of the building defining the triangular access courtyard. The transparent ground floor serves as an entrance and houses a fully glazed cafeteria and gym, while the upper modular floors are dedicated to various configurations of office spaces. A three-level atrium features plants and cross bridges that serve as links between the two blocs. The elevations reflect the internal grid with a playful staggered composition of glazed and wall panels. Concrete vertical sun-breakers and coloured panels contrast the dark grey massive lateral walls. *Kamal Homsi Architects*



Ground floor 1:1000



SABIS International School, Adma, Lebanon

Location Adma, Lebanon

Client SABIS International School

Architects Kamal Homsi Architects SAL, Beirut, Lebanon

Building period 2008–2010

Façade construction K & N Haddad, Beirut

Façade material SWISSPEARL® CARAT, Coral 7031

Publisher

*Eternit (Schweiz) AG, CH-8867 Niederurnen, Switzerland
phone +41 (0)55 617 13 07, fax +41 (0)55 617 12 71
liliane.blin@eternit.ch, www.swisspearl-architecture.com*

Editor *Michael Hanak, Zurich, Switzerland*

Advisory Board *Stefan Cadosch, Zurich*

Detail plans *Deck 4 GmbH, Zurich*

Translations *Beverly Zumbühl, Zurich*

Design *Bernet & Schönenberger, Zurich*

Proofreading *Jacqueline Dougoud, Zurich*

Printed by *Südosstschweiz Print AG, Chur, Switzerland*

Photos

Adam Mørk / 3XN, Copenhagen (p. 2)

Arkitema, Copenhagen (p. 3 right above)

Kontraframe, Copenhagen (p. 3 left bottom)

Warren Jagger, Providence (pp. 4–9)

René Riller, Schlanders (pp. 12–15)

Claes Westlin, Malmö (pp. 16–19, 42–43)

Eric Sierins of Max Dupain & Associates, Milsons Point (pp. 20–23)

Edmund Barr, Los Angeles (pp. 24–27)

Rune Backs, Copenhagen (pp. 28–29)

Szabó Béla, Óttévény (pp. 30–31)

C. F. Møller, Vejle (pp. 32–35)

Vladimir Popovi, Zemun (pp. 36–39)

Lasse Jacobsen c/o HBC, Holbaek (pp. 40–41)

Jürg Zimmermann, Zurich (pp. 44–47)

Thomas McConnell, Austin (pp. 48–51)

Jürg Zimmermann, Zurich (pp. 52–53)

Steve Wanke, Warren (pp. 54–57)

Ron Llyod c/o BLRB Architects, Tacoma (p. 56 bottom)

Marcos Gil Jimenez, Toledo (pp. 58–61)

Armand Strainchamps, Limpersberg / Luxembourg (pp. 62, 63 bottom)

Christof Weber, Luxembourg (p. 63 above)

Sabine Haddad-Knaitre, Beit Chabab (p. 64)

Print run 20,000

The magazine Swisspearl Architecture is distributed exclusively by authorised distributors in 40 countries on 5 continents.

ISSN 1661–3260

The contents of this magazine are the responsibility of the authors concerned. Drawings kindly transmitted by the architects correspond to the design phase; detail plans were only reworked for greater legibility. Neither the editor nor Eternit (Schweiz) AG checked the constructive accuracy of the drawings.

All presented buildings are realised with cement composite panels Swisspearl® Carat, Reflex, Xpressiv, Nobilis, and Planea manufactured in Switzerland by Eternit (Schweiz) AG.

This magazine and all its contributions are protected by copyright.



Australia Trinity Grammar Preparatory School, Strathfield

Denmark Vocational College EUC Syd, Aabenraa
Dragon Kindergarten, Odense
Bækkegård School, Ølstykke

Hungary University of Modern Science, Győr

Italy Primary and Music Schools Albert Schweitzer, Meran
Fiera Milano Executive Offices, Rho
Service Building GIFI, Turin

Serbia Mirijevo Kindergarten, Belgrade

Spain Residence for the Mentally III, Ávila

Sweden Vä and Öllsjö Schools, Kristianstad
Bryggan Secondary School, Vellinge

USA Block 21, Austin
Paradise Canyon Multi-Purpose Building, La Cañada
Pacific Plaza Office Building, Tacoma
Gilmartin Elementary School, Waterbury

SWISSPEARL®

Fascination of innovation.