SWISSPEARL ARCHITECTURE #21

CUSTOM MADE

swiss pearl®

Coat made of 7531 brand labels
or «759 987,20 Euro Coat»
by Silke Wawro (2004)

CUSTOM MADE

I am pleased to present you with *Swisspearl Architecture* in new dress. On the occasion of the rebranding of our firm, we have consolidated the previously separate publications, for the domestic market and export countries, into one single magazine and given it a fresh outfit. Our publication informs you about timely topics in architecture and offers an overview of Swisspearl projects realized around the world.

Good architecture knows no borders. From Asia to North and South America through to Europe, one finds Swisspearl products everywhere in extremely diverse surroundings and applications. Leafing through this publication, it becomes apparent that in architecture, the striving for individuality and distinctiveness is just as great as ever – as it is in fashion, too. The conceptual connection of clothing and building shells is no accident. Custom-made shells, the creation of a unique exterior, and the expression of prevailing taste are commonalities that can be mutually inspirational.

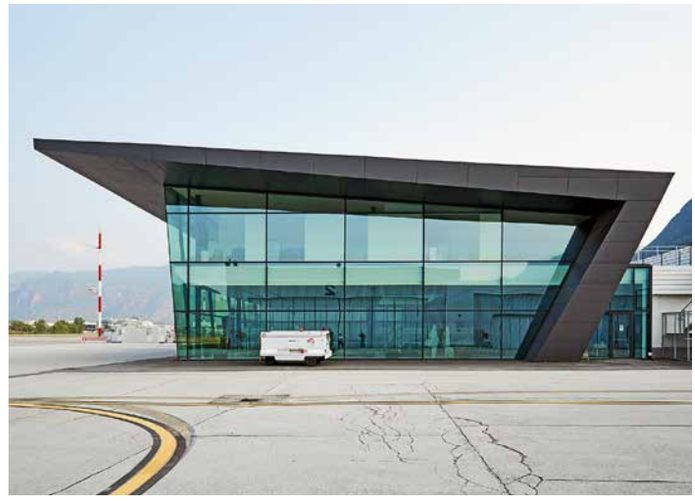
What architects and fashion designers share is therefore obvious: A great desire for aesthetics coupled with an absolute will for functionality. We at Swisspearl don't have a lot to do with runways, coutouriers, and fashion boutiques. But for everyone who is interested in roofs and façades, we offer tailor-made solutions with our palette of Swisspearl products: first-class in their manufacture and composition, available in the precise color desired, and custom-fit for the building form.

In this sense, join us in discovering the world of Swisspearl, with its possibilities and frontiers. I hope that you enjoy reading issue 21 of *Swisspearl Architecture*.

Urs Lehner, CEO Swisspearl

Urs Lehner's defined goal as CEO is to further develop both national and international growth markets. In doing so, focus nonetheless remains on customers' specific wishes and their fulfilment through custom-fit products.

CUSTOM MADE



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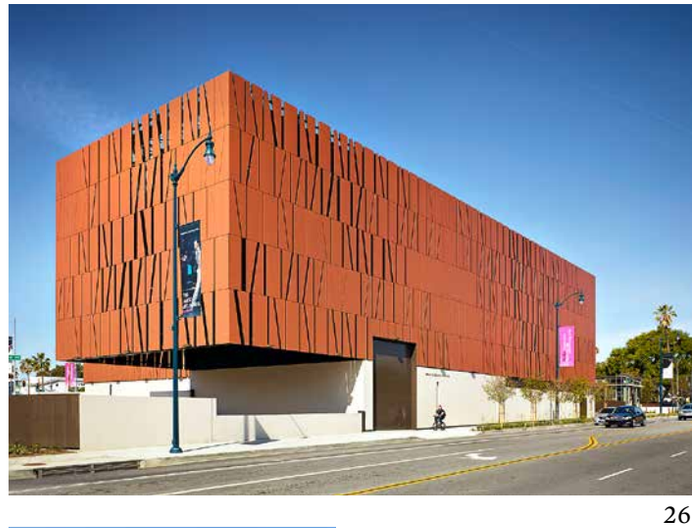

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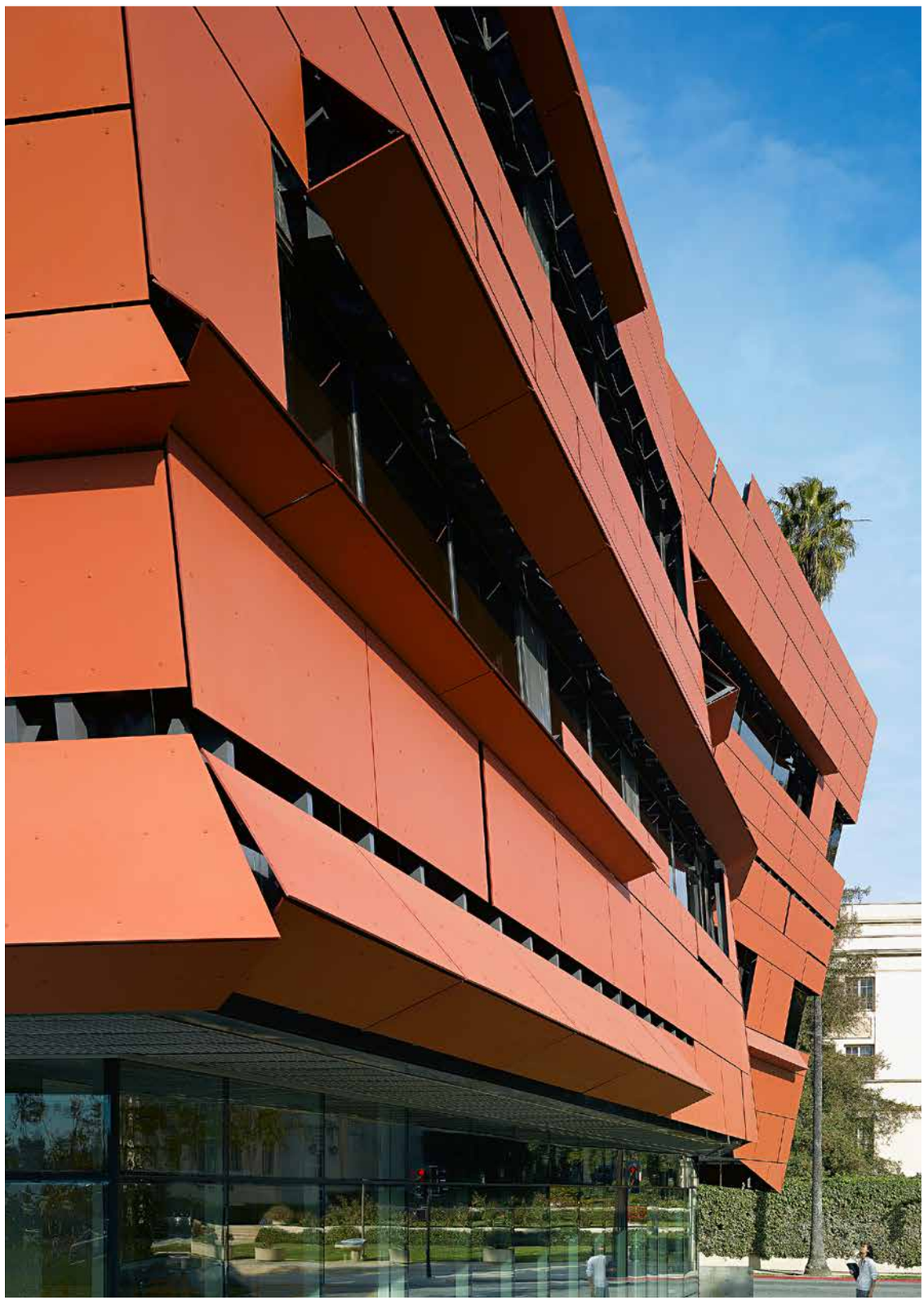


Swisspearl façade, Cahill Center for Astronomy and Astrophysics in Pasadena, USA, by Morphosis Architects (2007/08).

REPORT

TAILORED ARCHITECTURE, CUSTOM-FIT BUILDING SHELLS

Architecture and fashion are often set in relation to one another. The comparison between building coverings and body coverings reveals obvious and surprising parallels. The often invoked commonalities, however, have been overstressed at times. Several fundamental differences exist between the design of buildings and the design of clothing.

MICHAEL HANAK Customization is based on slow, patient, even intimate working processes. In haute couture, measurements are taken for clothing and suits and the relevant body to be clothed is precisely measured. The fashion designer answers individually to the desires and preferences of his or her customer.

In architecture, or at least when it has high cultural claims, architects measure building sites and design appropriate volumes for the relevant site. The client has a significant part in co-determining function and appearance. In both disciplines, plans, models, and prototypes assist in finding the right form. With tailored clothing and custom-made buildings, affinities, even analogies in both objectives and production can be discerned.

Buildings, like clothing

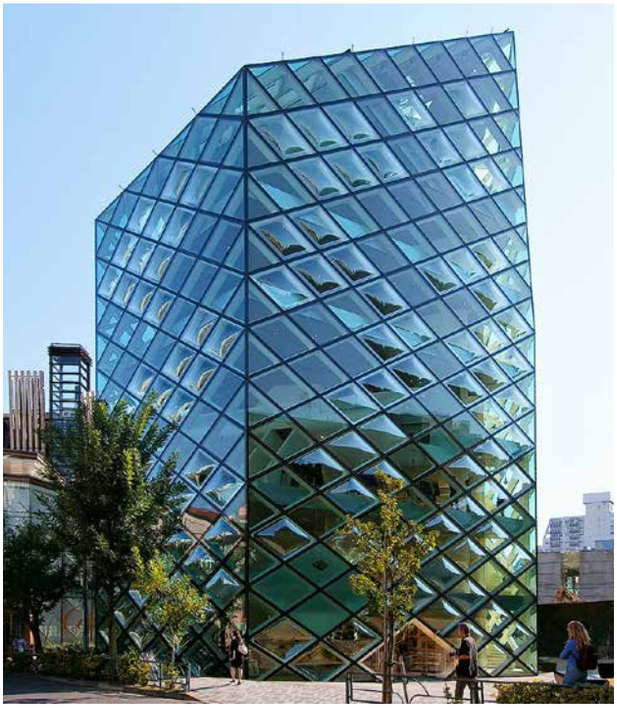
What do the Guggenheim Museum in Bilbao, the Bibliothèque Nationale in Paris, and the Prada shop in Tokyo have in common? They all play on associations to textiles. At times their façades seem thin, sometimes permeable and in motion, at times sewn or stitched. In viewing them, these buildings stir the impression of something floating, dynamic, glamorous – contrary to traditional ideas of architecture as something solid and permanent.

In Tokyo, Herzog & de Meuron covered the crystalline volume with convex and concave, mainly transparent and occasionally opaque glass. Together with the diamond shaped structure, the building shell recalls stitched or quilted material. Frank Gehry astounded in Bilbao with a gossamer skin of silver titan sheet, and surrounded the museum spaces with impetuous, pulsating forms. For the Bibliothèque Nationale in Paris, and with almost all of his buildings ever since, Dominique Perrault used a transparent metal mesh as the outermost layer, thereby lending the façade a shimmering, poetic expression. Many further examples of architecture can be cited to illustrate borrowings from the textile field.

Architecture, like fashion

Creating spaces is the goal in both architecture and fashion. A shell surrounds and defines space. It lies between interior and exterior worlds, mediates between content and environment, as it were. Clothing conceals and presents the human body simultaneously, shows its outlines and omits other parts. We use articles of clothing as protection against the weather, for our wellbeing, and at the same time, present ourselves with it. Buildings surround us, serve particular purposes, and likewise give us protection and comfort. We retreat to our houses, live and work in them. At the same time, a building whose design we have had a say in or have influenced, demonstrates how we position ourselves in our environment and cultural context.

A building's walls like clothing's material protect us from wind and weather, cold and heat, as well as undesired inspection. But clothing, like buildings, is also used to mediate images: Images that express a particular style and thereby the relevant self-image. Fashion, like architecture, is used to announce individuality and affiliation. We like to identify with a building or a piece of clothing and we are identified with them. Clothing, like building façades, is used for representation and self-staging. Image formation,



The Guggenheim Museum in Bilbao by Frank Gehry, the Grand Theatre in Albi, France, by Dominique Perrault, and the Prada Aoyama store by Herzog & de Meuron borrow from the world of fabrics.

The Swiss fabric manufacturer Jakob Schlaepfer mixes metal threads into some of his materials to achieve a sculptural, "architectural" effect.

labelling, and branding are thus widespread in fashion and architecture – at times, also with mutual support.

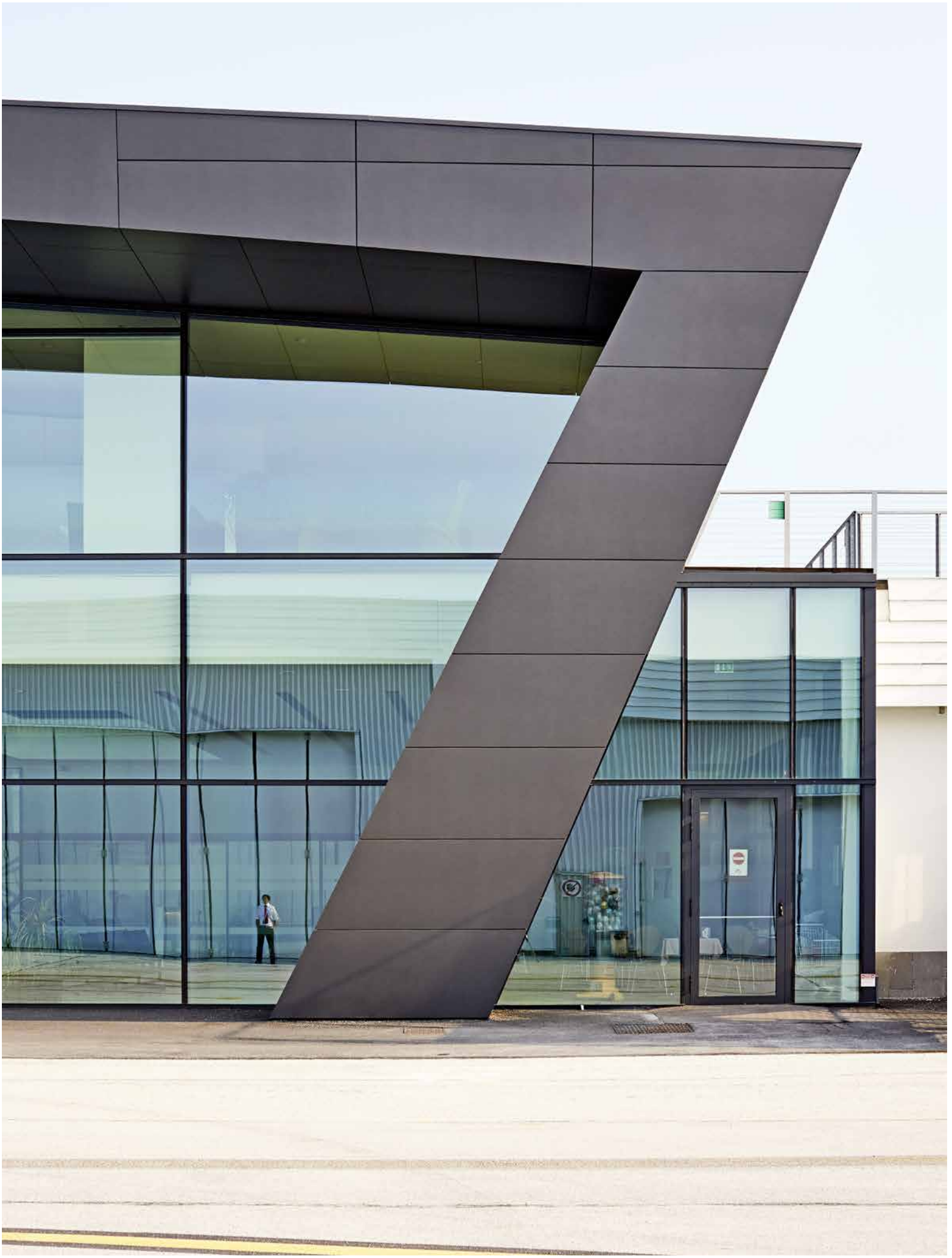
In addition to the more or less obvious commonalities between the shells in architecture and fashion, are also quite a few differences. That applies, first of all, to the time axis: whereas one changes clothing daily, buildings exist for several years. Fashion lives from constant change. Architecture is meant to be enduring and timeless.

Fabric and materials

The inimitably luxurious textiles that Jakob Schlaepfer produces in Switzerland enjoy great international admiration in haute couture. Louis Vuitton, Marc Jacobs, and Vivienne Westwood gather inspiration from them. With a resourceful, innovative spirit, textile designers and fashion designers grasp how to combine traditional stitchery techniques with the most modern hi-tech production. With the addition of metal threads, among other things, they lend the material brilliance and formability. At the latest with the launching of curtains and drapes, Schlaepfer has recently also penetrated the interior decoration market.

On the basis of Dominique Perrault's inquiries, the GKD/Gebrüder Kufferath AG weaving mill in Germany specializes in the production of metal mesh that architects use on buildings. Grid-like structures that seem like fabric, but nonetheless protect the façade, arise from wires and pieces of chrome and aluminum sheet. The permeable curtain has stable and durable qualities, while at the same time filtering light and views.

Swisspearl offers cement composite products, which with their great consistency and durability can be tailored in certain aspects for each building. The custom panel cut, choice of color, installation method, and joint pattern offer possibilities to design the building, or the building shell according to the customer's wishes. After all, architects, like fashion designers, crave high-quality products to yield individual forms of expression and specific methods of expression.



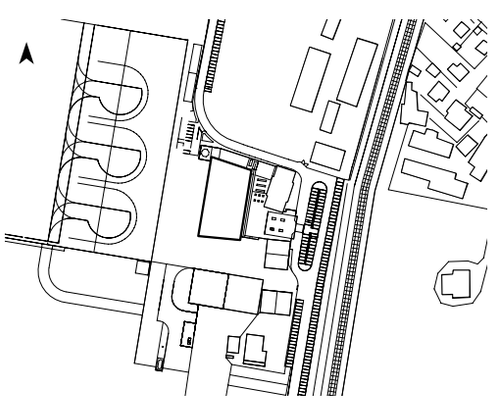
ITALY

NEW TERMINAL WING

Airport Extension, Bolzano

ADDRESS: Francesco Baracca Street 1 CLIENT: ABD Airport Bolzano Dolomiti, Bolzano ARCHITECT: Lukas Burgauner, Bolzano
BUILDING PERIOD: 2010–2012 CONSTRUCTION MANAGER AND FAÇADE CONSTRUCTION: Stahlbau Pichler, Bolzano
FAÇADE MATERIAL: Swisspearl® LARGO, REFLEX Black Velvet 9221

In a single, clear gesture, the Swisspearl clad roof of the new airport extension in northern Italy thrusts upwards as if ready to take flight. The clarity of the wing-like form signifies the function of the building and gives the public structure a strong aesthetic identity that can be appreciated from far and wide.



ANNA ROOS Bolzano's local airport connects the largest city in South Tyrol with other cities all over Europe. Bolzano was historically – previously it was a predominantly German-speaking part of the Austro-Hungarian Empire and was annexed by Italy after World War 1 – and remains to this day situated on a cultural "fault line". Bolzano is tri-lingual, its inhabitants speak Italian, German or Ladin; its economic wealth is based on wine, fruit and tourism. The extension of the local airport to underpin tourism was precipitated by both the International Civil Aviation Organization's (ICAO) call for the extension, as well as the middle and long-term development goals of the airport itself.

Zigzag lines

Bolzano-based architect Lukas Burgauner was commissioned to design the airport extension. Previously the L-shaped airport building was a single-story, low-key structure, greatly in need of a facelift to make it meet the standards passengers expect of European airports nowadays. Burgauner tucked the new, west facing, double-story wing into the "crook" of the existing L-shaped building. In accordance with EU Regulations, the extension accommodates the flow of passengers arriving and departing in generous spaces that also include sanitary facilities.

The bold articulation of the sloped roof and curtain wall façade with their oblique angles creates a strong dynamic and denotes movement and speed. Burgauner has broken with the ubiquitous right angle, which most buildings adhere to, in favour of slanted, zigzag lines. The manner in which the roof tapers to the eaves and the way that the roof and the eastern façade are treated as one, unified element thrusting in an upward trajectory produces a clear architectural statement. A deep eaves overhang, like a cap shading a face, also shelters and shades the high, non-loadbearing curtain wall that faces the runways. The forward-tilting glazed façade is reminiscent of an air-traffic control tower, where the glazing has to be tilted in order to prevent reflections and to allow air traffic control clear views of the approaching and departing planes. The building has no plinth whatsoever, instead, the façade extends all the way down to the ground, which seamlessly moves from outside to inside without any level change, allowing the smooth asphalt surface of the runway to flow into the airport terminal. This austere treatment serves to abstract the forceful forms and increases the overall visual impact.

Dynamic forms

The upper level of the terminal building, accessed via a stairway and lift, houses the administrative areas, VIP lounge, pilot lounge as well as a public transit area. The two reinforced concrete floors are covered by the roof, which is constructed with steel and clad in large-format cement composite Swisspearl panels. Dark grey gunmetal panels have been cut and shaped specifically to seamlessly clad

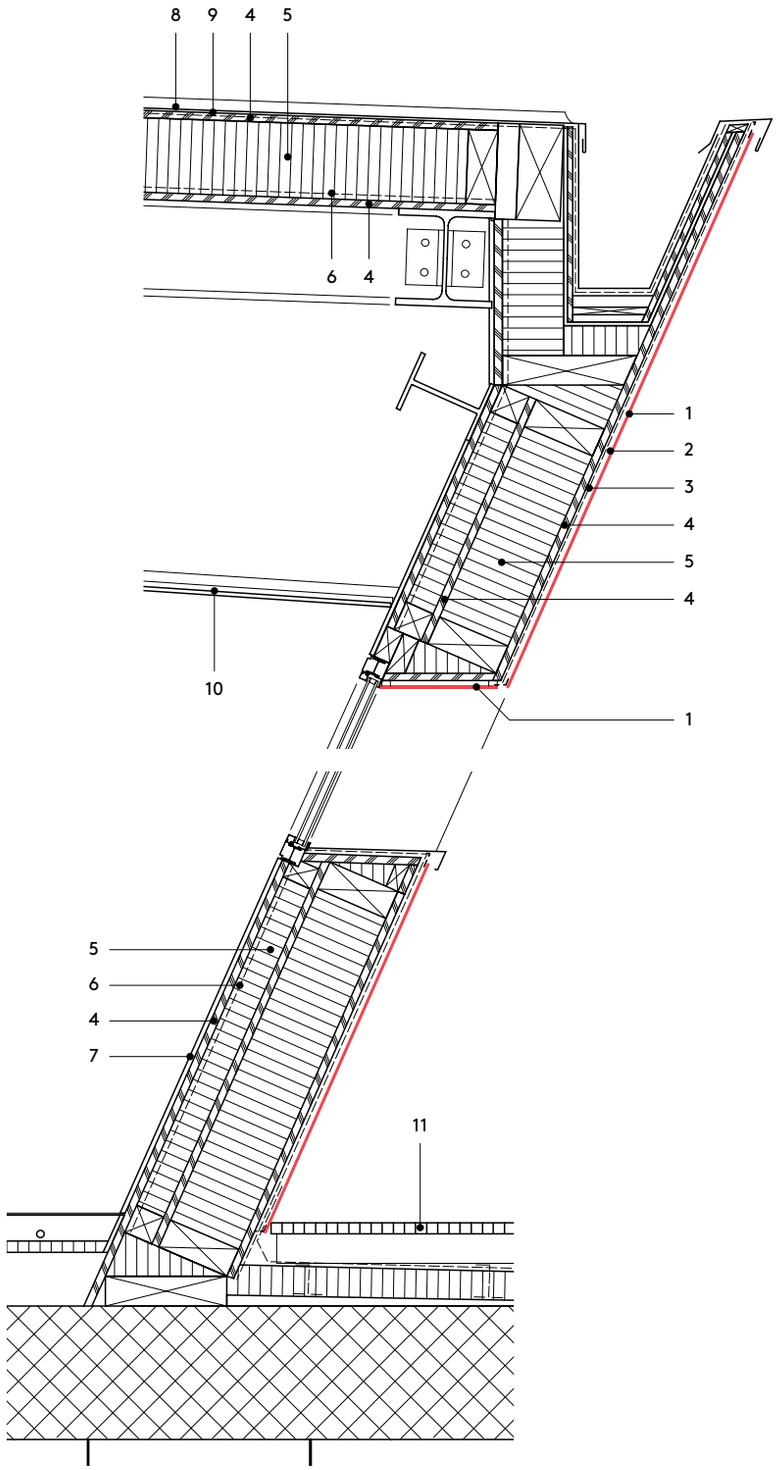
The Swisspearl clad roof thrusts upwards, like a wing.

"The administration area of the air company, ABD, is situated in the upper floors of the new building. It is linked to the lower check-in hall via a generous staircase and a handicap accessible lift."

Lukas Burgauner

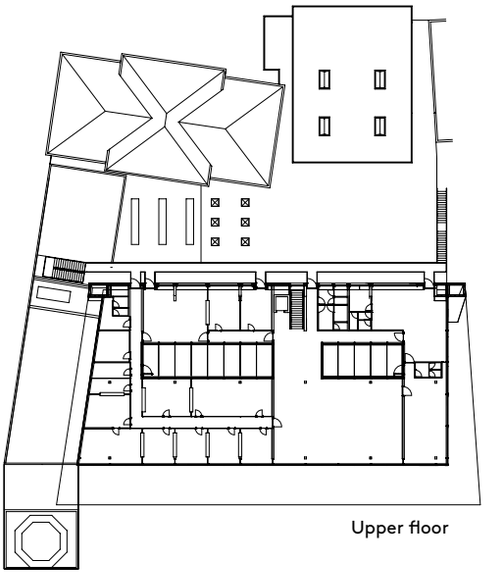
the tapering eaves. The precision of the cladding, the crisp edges and the careful detailing of the glazed façade with its delicately inscribed panes ensure the building's high aesthetic quality. The smooth surface of the slanted roof is interrupted by two atria that allow light to filter down to the lower levels. Unfortunately, these glazed atria spaces on the upper level seem to be unusable spaces and serve only as light filters.

Architecturally speaking this airport terminal has a clear, strong dynamic that corresponds to the building's function. The clarity and small scale of the building are surely positive aspects for passengers enabling easy orientation and a reduction of the potential stress levels that many people experience when they travel by airplane.

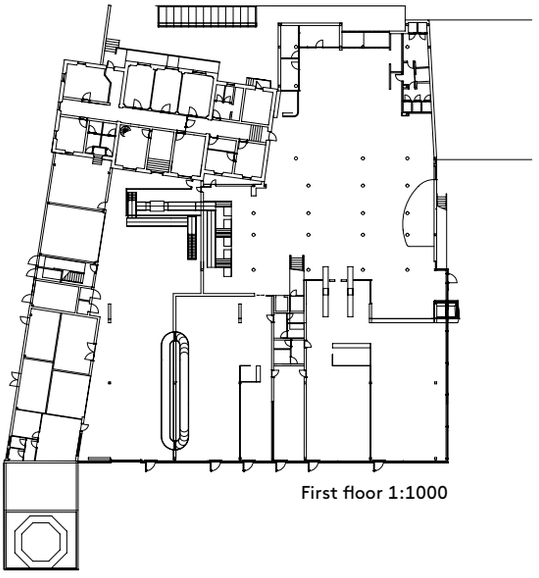


Vertical section 1:20

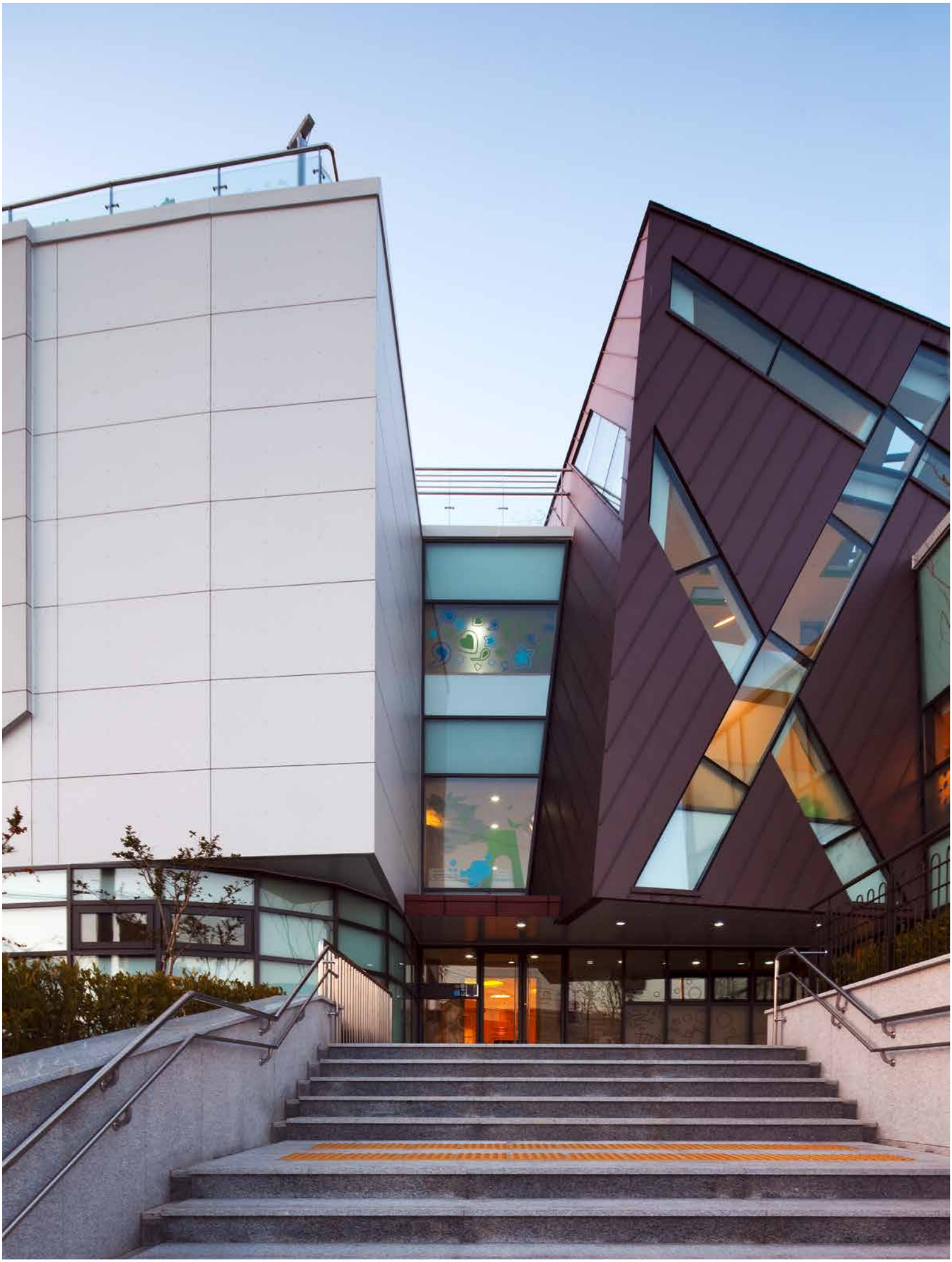
1 Swisspearl® LARGO panel 8 mm
2 ventilation cavity, vertical sub framing
3 moisture barrier
4 oriented strand board
5 thermal insulation
6 vapour barrier
7 gypsum board
8 metal sheet
9 waterproofing
10 suspended ceiling
11 floor grating



Upper floor



First floor 1:1000



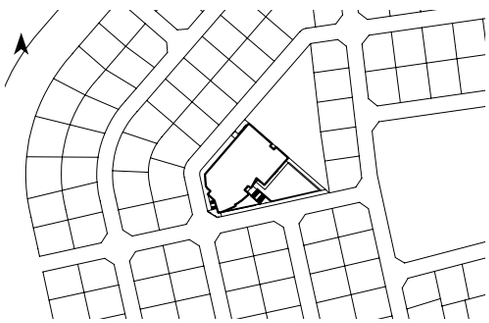
SOUTH KOREA

CHILD CUBE

Doosan Future Trees Nursery, Changwon

ADDRESS: 96-1 Bonggok-dong, Yichang-gu CLIENT: Doosan Heavy Industries & Construction, Changwon
ARCHITECTS: Junglim Architecture, Seoul BUILDING PERIOD: 2011–2013
GENERAL CONTRACTOR: Doosan Heavy Industries & Construction, Changwon FAÇADE CONSTRUCTION: Sunpark Co. Ltd., Incheon
FAÇADE MATERIAL: Swisspearl® LARGO, CARAT Onyx 7090, 7091, 7099, Amber 7081, 7083, Coral 7032

The new nursery in the South Korean city of Changwon offers three hundred kindergarten places for employees of a major local industrial conglomerate. Accommodation is spread over four floors and includes generous indoor and outdoor playground areas. The architects employed a series of design features to animate the façades of the building and express the company's social and educational ambitions.



PATRICK ZAMARIÀN Doosan Heavy Industries & Construction is one of several major South Korean industrial corporations headquartered in Changwon, a city of roughly one million inhabitants on the country's southeast coast. A few years ago the company purchased a built-up site in the center of the city with the intention to erect a nursery catering to the children of local residents in general, and employees of six of its subsidiaries in particular. Seoul architects Junglim were invited to develop a strategy for the site, earmarking some of the existing structures for demolition whilst incorporating others into their scheme. Matters were further complicated by the awkward kite shape of the 1,750-square-meter plot as well as the rigorous health and safety provisions for these sorts of facilities.

Multi-story accommodation

The architects decided to retain two buildings situated along the north-western boundary of the site and convert them into the side wings of the new trapezoid facility. Taking up almost 50 percent of the plot, the residual southeast corner provides ample space for the main access stairs as well as a large outdoor playground area. Unusually for this building type, the kindergarten spreads across four floors in order to accommodate up to three hundred children. Centered upon the entrance lobby, the first floor holds reception and administration offices as well as the canteen and two classrooms with direct access to the play yard. Further classrooms in a variety of spatial layouts are located on the second and third floors; a split-level indoor playground occupies the entire fourth floor.

The additive principle underlying the overall conception notwithstanding, the architects managed to create a unified interior out of the different parts of the building. Each level essentially constitutes one large space, based on a structural grid in reinforced concrete and subdivided into individual rooms by means of light partition walls, thus allowing for future alterations if the need arises.

Visual interest

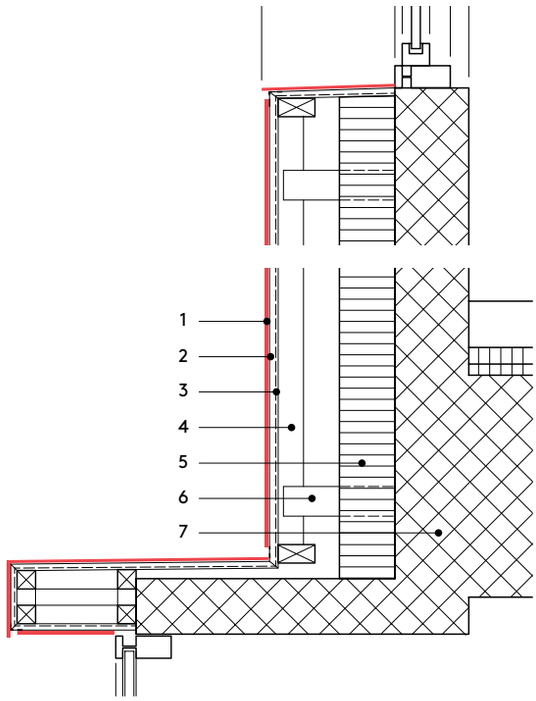
In contrast, the design of the envelope reflects the concurrence of old and new. The lateral parts are uniformly clad in Swisspearl panels in three different shades of light grey while the central section in between shows an irregular grid of slender black steel frames, filled alternately with opaque and clear glass panes. The most prominent feature, however, is an angled cube wedged in between the two side wings, which appears to float above the first floor and extends beyond the roofline allowing rays of sunshine to penetrate through its skylights.

Labelled the "Child Cube" by its creators and described as a "creative workshop broadening children's imagination and creativity", the box stands out against the backdrop of the remaining façades through the dark red coloring of its zinc sheet panelling and the pronounced diagonal emphasis of its joint pattern and criss-crossing slit windows. Striving to appeal to the tastes of the children occupants of the building whilst advertising the company's social and educational aspirations, the architects employed a number of design elements which add what Gropius would have termed "visual interest" to the façades, ranging from stratified panelling to protruding canopies and window frames coated in conspicuous amber and coral red Swisspearl panels.

Criss-crossing windows and a diagonal joint pattern set the Child Cube apart from the remaining façade. Floating above the first floor, it marks the main entrance to the building.

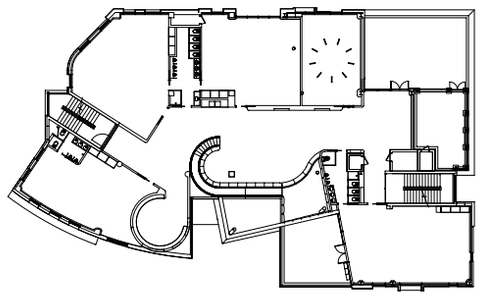
"The main design task was to detect and decide which part of the building should be removed and rebuilt to obtain an optimum space for the new kindergarten facilities and amenities."

Junglim Architecture

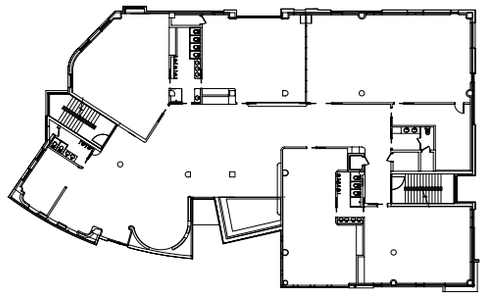


Vertical section 1:20

1 Swisspearl® LARGO panel 8 mm
2 ventilation cavity
3 moisture barrier
4 sub framing
5 thermal insulation
6 bracket
7 concrete



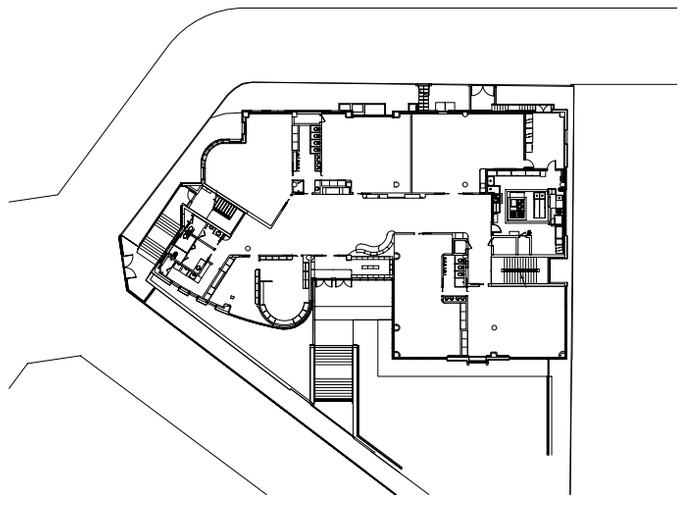
Third floor



Second floor

"Since the kindergarten was specifically designed for the children of the company, the design had to speak of the company's driving notion, philosophy, and educational contribution to society"

Junglim Architecture



First floor 1:750

USA

FISH-SCALE PATTERNING

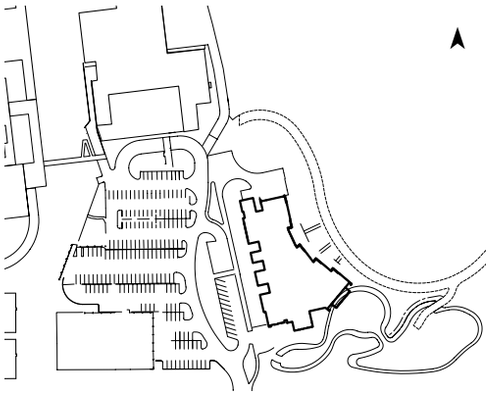
STAR Center, Tacoma, Washington (WA)

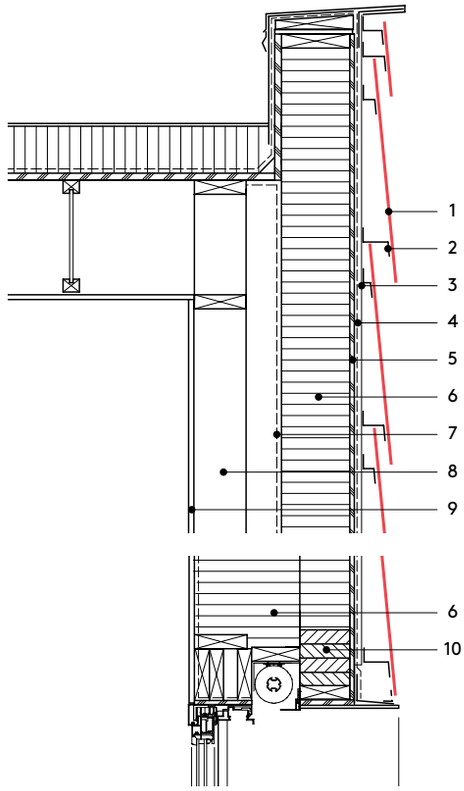
ADDRESS: 3873 South 66th Street CLIENT: Metropolitan Park District of Tacoma, Tacoma, WA
ARCHITECTS: Miller Hull Partnership, Seattle, WA; associate Jeff Floor
BUILDING PERIOD: 2010–2012 GENERAL CONTRACTOR: Jody Miller Construction, Tacoma, WA
FAÇADE CONSTRUCTION: LA Olson Construction, Des Moines, WA
FAÇADE MATERIAL: Swisspearl® LARGO, CARAT Coral 7031

The new community center lies at the heart of a redeveloped regional sports and recreation campus. The primary functions are arranged as an arced series of nesting units that open to the landscaped surroundings and offer views of nearby Mount Rainier. The red Swisspearl clad façade features a unique fish-scale pattern and forms an integral part of an overarching sustainability strategy.

PATRICK ZAMARIÀN The STAR Center – the catchy acronym stands for "South Tacoma Activity and Recreation Center" – is the crowning result of a decade-long campaigning effort by local politicians and community groups. Despite having their bid for a major grant turned down by the Kroc Foundation in 2004, the promoters decided to push ahead with their plans and managed to secure the necessary funding for the 15-million-dollar center from other sources.

Completed in May 2012 after a two-year construction period, the 34,000-square-foot facility is the centerpiece of a comprehensive redevelopment plan for an existing sports field complex, authored by Metro Parks, the municipal corporation that owns and operates the city's public parks, in conjunction with Tacoma Public Schools and the local charter of the Boys & Girls Clubs of America, a non-profit organization offering after-school activities to young people. Accordingly, the STAR Center combines with an existing middle school and the recently completed Boys & Girls Club's Topping HOPE Center to form a 75-acre regional recreation campus providing a number of ball fields, an interactive sprayground, a skateboard park, courts for roller hockey and basketball, a climbing wall, and other places for active and



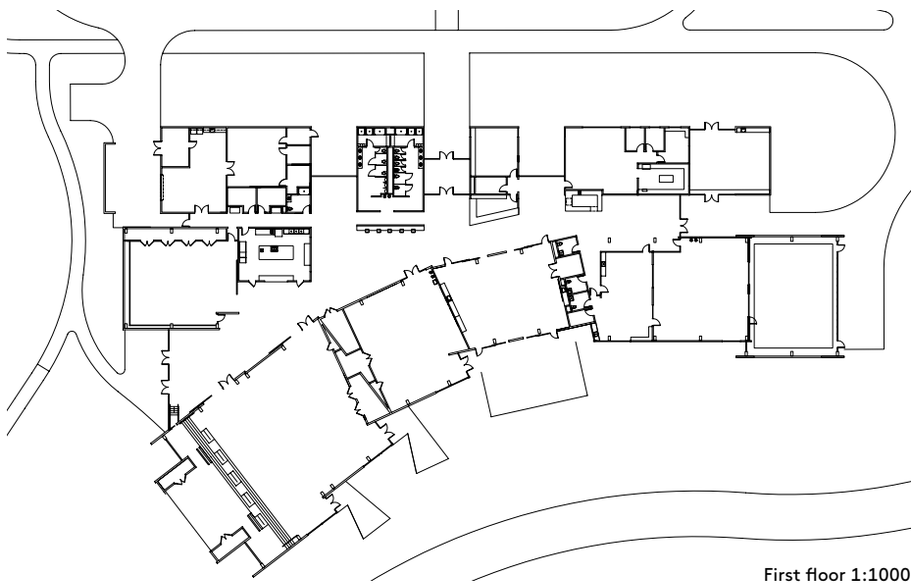


Vertical section 1:20

1 Swisspearl® LARGO panel 8 mm
2 horizontal Z-girts, perforated
3 ventilation cavity
4 moisture barrier
5 plywood board
6 thermal insulation
7 vapour barrier
8 stud framing
9 gypsum board
10 glulam beam
11 concrete

"The fish-scale pattern emphasizes the curve of the nesting boxes through the shadow play across the façade."

Margaret Sprug, Miller Hull Partnership



First floor 1:1000

passive outdoor activities. The program of the STAR Center itself was developed in close consultation with members of the local community and provides a number of much-needed recreational, educational, and cultural indoor resources, designed to Universal Design standards in order to make them fully accessible for local residents with physical disabilities, in general, and incapacitated veterans from a nearby joint army and air force base, in particular.

Arced sequence of nesting units

Designed by architect Bob Hull, sadly since deceased founding-partner of the Seattle-based Miller Hull Partnership, the single-story facility consists of a series of activity spaces organized along a stretched lobby that divides the plan into two distinct spatial layers and houses the main reception desk along with non-program functions, such as a large community table and a seating area with fireplace for casual interactions, a cyber café, a juice bar, and a catering and classroom kitchen. The main access is from the parking lot of the campus, towards which the facility presents itself as a series of individually articulated and largely windowless units, separated by deeply recessed and fully glazed sections that allow light to penetrate the hallway. Low-key in appearance, the front layer comprises lavatories, storage, and other ancillary rooms as well as administrative and therapy offices and a dance studio.

The primary functions, which include a multi-purpose room, a state-of-the-art gym, and a child watch room linked to indoor and outdoor play areas, are accommodated within the back layer facing the landscaped surroundings. Bending outward from the main body, this second layer is designed as a curved sequence of nested boxes, which are lit through north facing clerestories and skylights and have direct access to outdoor patios and a nearby walking trail. In keeping with this "matryoshka" design, the undulating plywood ceiling of the central hallway gradually increases in height, culminating in the south lobby, which serves the 300-seat auditorium. The latter can be divided to different sizes for a variety of uses and features a fully glazed rear stage that projects over the adjoining pond and frames dramatic views of Mount Rainier, the region's foremost natural sight. To function as a theater, a combination of exterior motorized louvers and internal stage curtains control access to natural light and enable the room to be darkened completely.

Comprehensive sustainability strategy

The envelope of the steel-framed building emphasizes the distinction into two spatial layers. The west side facing the parking lot features a lap siding chosen for its conventional scale and painted in a restrained ivory color. In contrast, the eye-catching rear front displays horizontally mounted, coral red Swisspearl panels set against blue-framed windows. The architects utilized an innovative angled cleat system to support the large panels, thus creating a fish-scale pattern, which, in combination with the arced shape of the eastern wall, adds a lively, almost biomorphic touch to the building.

The ventilated Swisspearl façade is one of multiple energy-saving measures through which the STAR Center achieved LEED Gold accreditation. The facility benefits from natural ventilation and lighting, with all windows shaded by exterior blinds to minimize heat absorption. Fifty 300-foot deep geothermal wells supply tempered water to a central heat pump system, which distributes zoned heating and passive cooling throughout the building. The carefully planned landscape design supports these strategies, as three large detention ponds to the south provide natural storm drainage and create a habitat for the area's wildlife.

The rear stage of the auditorium is fully glazed and projects over one of the detention ponds. Exterior motorized louvers and internal stage curtains allow the room to be darkened if required.

INTERVIEW

"EXAGGERATED SHINGLING DESIGN"

Margaret Sprug is a principal of Miller Hull Partnership in Seattle. She received a Bachelor of Environmental Design from Texas A&M University in 1986, and a Masters in Architecture in 1993 from Columbia University. After running her own firm in New York from 1994 to 1999, Sprug joined Miller Hull in 2000. She became an associate in 2006 and principal in 2007.

What can you tell us about the history of the STAR Center project and your involvement in it? The City of Tacoma felt it was necessary to replace an outdated existing recreation facility to better address the needs of the growing population in surrounding neighborhoods, estimated to be 100,000 by the time of the planned building opening. The building owner, Metro Parks Tacoma, secured funding for a new community center through a city park improvement bond in 2005, after which the project suffered delays due to a national economic downturn. Proposals were eventually solicited from architects through a public request process, and the Miller Hull Partnership was one of three firms interviewed prior to selection in 2008. The STAR Center opened to the public in May 2012.

How do the various spaces work together? The east side of the building is a series of nesting boxes holding the main programmatic elements. The largest "box" houses the multi-purpose room and stage, which does double duty as a meeting space and features a 20-foot high clear glass curtain wall that perfectly frames views of Mount Rainier – the tallest peak in the contiguous United States. The main functions are connected by a large central arced spine that serves as the community "living room" while the west side of the building consists of a series of orthogonal boxes that are separate and articulated from one another in order to bring daylight into the central spine. These boxes house the facility's building services and administrative offices.

"The main functions are connected by a large central arced spine that serves as the community 'living room' while the west side of the building consists of a series of orthogonal boxes."

How does the building relate to its surroundings, and what role does the building envelope play in this connection? The STAR Center is one of three major buildings in a regional recreation campus that includes a public school and a nonprofit organization with after-school school activities. The design of the new Center strives to connect to its site in an intuitive way, providing multiple ways to be drawn through the building as well as to engage with the outdoors – whether visually or physically – through natural daylight and expansive views or by being enticed outside to explore the adjacent nature trail and activity fields. The curve of the coral red Swisspearl clad nesting boxes wraps the east side of the building and the south end of the campus. This curve allows each box to view the activity of the playfields, and to bend toward the main view from the site to Mount Rainier. The west side of the building facing the parking lot consists of a series of solids and voids. The solid yellow volumes house functions that don't require much natural light; the voids are deeply recessed, 100-percent glazed, and look out on rain gardens with lush vegetation. To reinforce the inside/outside connection, the yellow lap siding wraps to the inside. The nesting boxes are clad with Swisspearl, although the inside face transitions to flat MDF panels painted to match the bright exterior color.

You mentioned the coral red Swisspearl façade facing the landscaped garden, which is clearly the most conspicuous feature of the new Center. What was the idea behind its unusual fish-scale pattern and how was it realized? The color selection followed from the recognition that the building will be viewed up close as well as from a great distance, while the fish-scale pattern emphasizes the curve of the nesting boxes through the shadow play across the façade. A creative local installer developed the custom furring channel that accomplished the scalloped effect. It was great to work with Swisspearl's technical and sales staff, who were responsive, supportive and genuinely interested in what we intended to accomplish – as represented by their willingness to consider an inventive way to install the product.

What made you choose Swisspearl, and where do you see the main qualities of these panels? Although similar panel materials were considered, the smooth, consistent finish and density of the material seemed more robust and durable than other options, with competing material far more "open" in its texture that seemingly would become dirtier, leading to weathering. Swisspearl was selected for this project because of the large panel size and the superior color consistency and finish as well as its structural integrity, durability, and ease of maintenance – and not least because of the competitive price as compared to a raw material.

Environmentally sound and energy-efficient measures are increasingly important in architecture nowadays, particularly in public buildings. What are the main sustainable features of the Center, and what role does the building envelope play in this context? This project visibly demonstrates sustainable design to neighborhood visitors through natural storm drainage, ground source heat pumps, natural ventilation, and natural day lighting, as well as recycled, rapidly renewable, and low-emitting materials. Large detention ponds to the south of the building provide natural storm drainage and will include an interpretive nature path around the building and site. The building envelope provides a durable and lasting façade that makes sense for a building utilizing public funds, where maintenance and replacement costs are an important consideration.

It has been about a year since completion of the project. Are you happy with the outcome? For the most part, the design team is very pleased with the cladding and its performance. That said, visually – given the exaggerated shingling design – bird droppings are more pronounced than would be with a flat panel siding, but this is not a typical or major problem as the panels are easy to clean.

Margaret Sprug, I thank you for the insights and your time.
Patrick Zamariàn

"The new Center strives to connect to its site in an intuitive way, providing multiple ways to be drawn through the building as well as to engage with the outdoors."

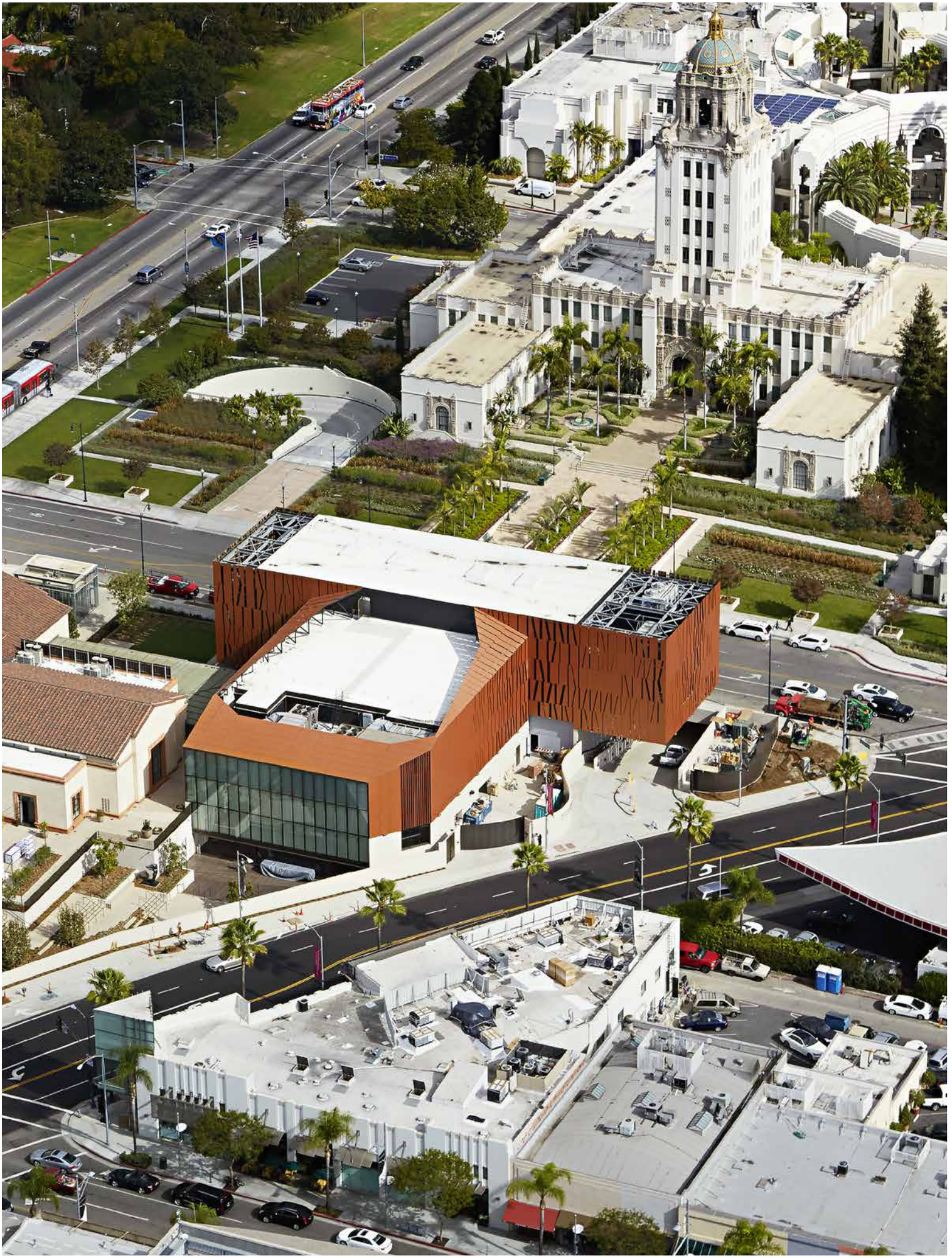
USA

LETTERS TO THE SUN

Wallis Annenberg Center for the Performing Arts, Beverly Hills, California (CA)

ADDRESS: 9390 Santa Monica Blvd. CLIENT: Wallis Annenberg Center for the Performing Arts
ARCHITECTS: SPF:architects, Culver City, CA BUILDING PERIOD: 2011–2013
FAÇADE CONSTRUCTION: The Raymond Group, Orange, CA
FAÇADE MATERIALS: Swisspearl® LARGO, REFLEX Autumn Leaves 9270
MATERIAL INTERIOR: Swisspearl® LARGO, REFLEX Champagne 9290-09


WALLIS ANNENBERG
FOR THE PERFORMING



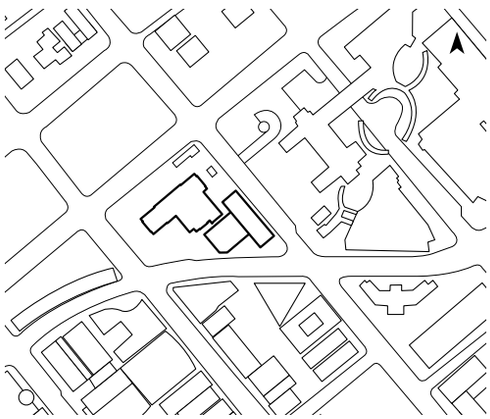
SPF:architects have transformed a dormant city block in the heart of Beverly Hills into a vibrant center for the performing arts. Combining the landmarked Beverly Hills Post Office building from the 1930s with a state-of-the-art, 21st-century theater, the builders created a unique ensemble, in which the two structures mutually highlight the elegance and uniqueness of each other.

MIRKO BEETSCHEN "These are the types of projects that an architect lives for", says Zoltan E. Pali enthusiastically. "To transform a sleepy site and bring it back to life again is an exhilarating experience." Zoltan E. Pali is one of the two founding members of multi-award-winning Studio Pali Fekete architects (SPF:architects), the other being Judit Méda Fekete. Several years ago the responsible committee approached the studio directly about the project to transform an attractive, but disused site in the heart of Beverly Hills into a cultural center. The Culver-City-based office was selected for its reputation for historic preservation and its widely proven design sensibilities.

The starting point was the abandoned Beverly Hills Post Office. The history of the site goes back to the early twentieth century, when Beverly Hills was one of the fast expanding communities on the West Coast. With the growing populace, the need for a mail facility became more and more urgent, until, in 1933, the Beverly Hills Post Office was constructed on the site of the former Pacific Electric Railway station. The building in Renaissance Revival style became a prominent landmark and was only given up in 1993, when postal operations moved to a new facility. As it had been listed on the National Register of Historic Places since 1985, the city grasped the opportunity, bought the building and started looking for a new, cultural use. Twenty years later, in October 2013, the Wallis Annenberg Center for the Performing Arts – simply called "The Wallis" – officially opened its doors to the public.

The crucial coup

The original plan was to turn the former post building into a theater, adding an annexe for classrooms, rehearsal facilities, and offices. When Zoltan E. Pali came on board, the first thing he did was reverse the program. He located the smaller components within the existing three-story building, thereby preserving the original structure and making room for a new state-of-the-art theater. "The new building is a new building", says the architect about the design of the theater. "It absolutely has its own language and doesn't reference the historic architecture." What shapes the new building instead is the site itself. Like the existing structure, the new theater's layout is that of a "T".



The architects thus not only make optimal use of the plot, the dynamic layout also allows for a stimulating interplay between the buildings, forms a series of gardens and courtyards and even creates a pathway from the neighboring city hall through the site to the shopping areas on the other side. Each interior space of the complex has a corresponding exterior plaza or garden that extends the space into the public and takes advantage of the warm climate.

Posting letters

To design a fitting façade the architects started thinking about what used to happen on this site and all the letters that went through the old post office. "What if all this mail actually came back home?" Zoltan E. Pali asked himself. "What if it actually started to clad the building?" So the skin of the new Goldsmith Theater was to become an image of the millions of letters and envelopes that had gone through this site. "We wanted to recreate a human experience", Pali explains. "Who hasn't waited for a college acceptance, a love letter or a birthday card? There was so much to getting a letter before emails and text messaging. These abstract letters aren't just a poetic move, but a way of talking to the community." Having worked with Swisspearl before, the architects decided to use a copper-colored version of the cement composite to create the "envelopes". There are different kinds of letter-shaped sheets on the finished façade; some are closed, some open, some show their front, others their backside.

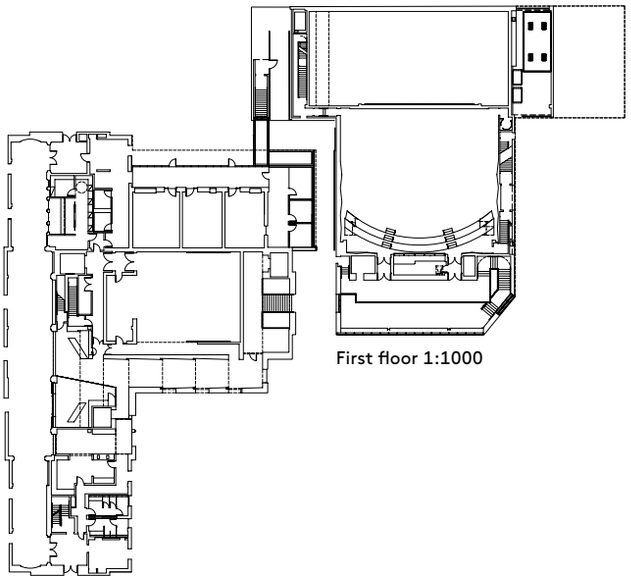
The result is a beautiful building skin with an abstract pattern, its copper color seeming to soak up the southern-Californian sun and reflect it into the neighborhood. The cement composite mantle follows the old building as well as the surrounding street grid. It hides construction details and mechanical equipment and creates a cohesive body of the theater's different elements.

The new Wallis Annenberg Center for the Performing Arts – named after heiress and philanthropist Wallis Annenberg, who donated 25 million dollars for the project – today houses the Goldsmith Theater in the new part, while the spaces that were once used for mail sorting and postage purchases are home to the 150-seat Lovelace Studio Theater, a theater school for young people, a café as well as a gift shop.

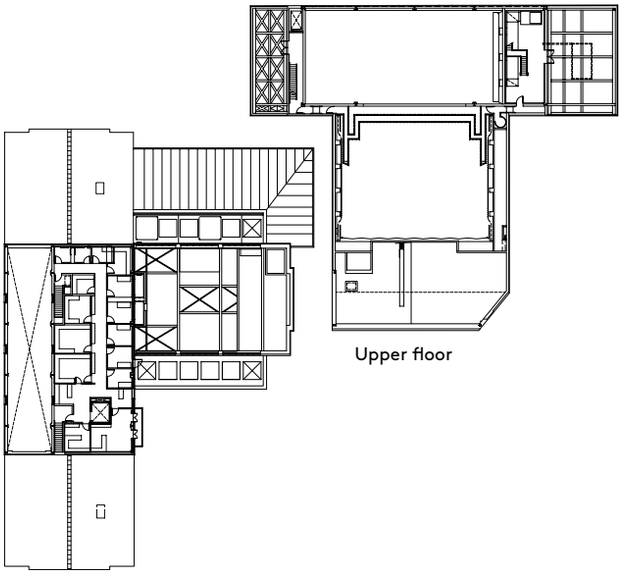
A skin of copper-toned Swisspearl panels in the shape of different letters envelops the new theater building, referencing the former use of the site as a post office.

"Instead of historical elements of the old building, we referenced the actual use of the site."

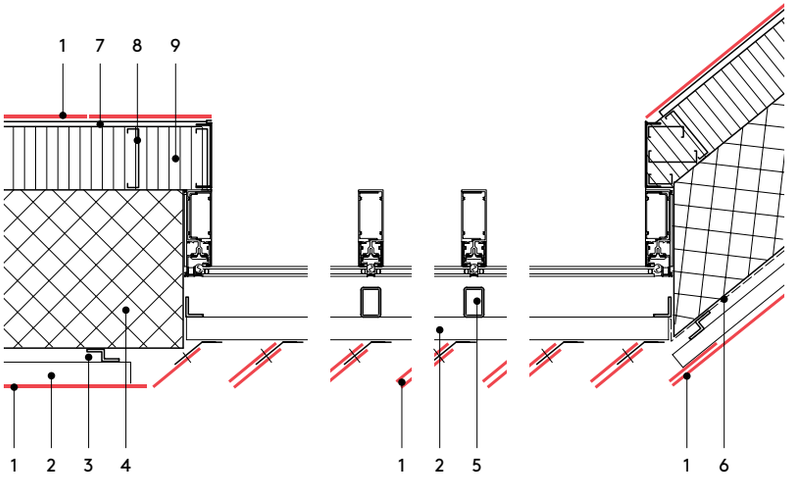
Zoltan E. Pali



First floor 1:1000



Upper floor



Horizontal section 1:20

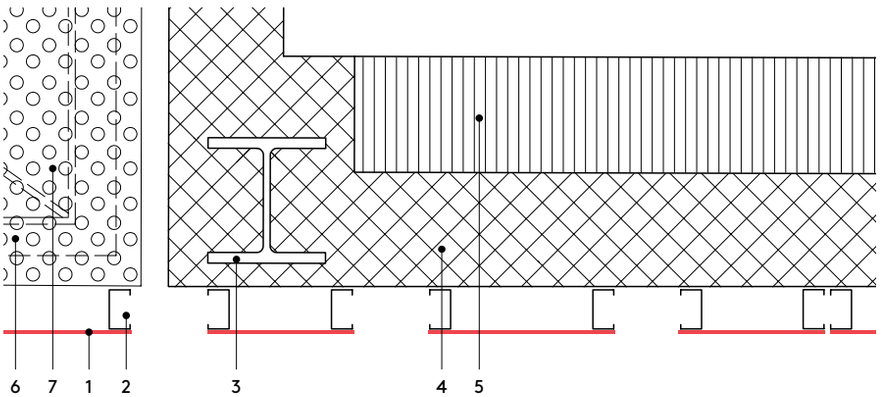
1 Swisspearl® LARGO panel 8 mm
2 sub framing
3 ventilation cavity
4 concrete
5 steel tube
6 waterproofing
7 gypsum board
8 metal stud framing
9 thermal insulation

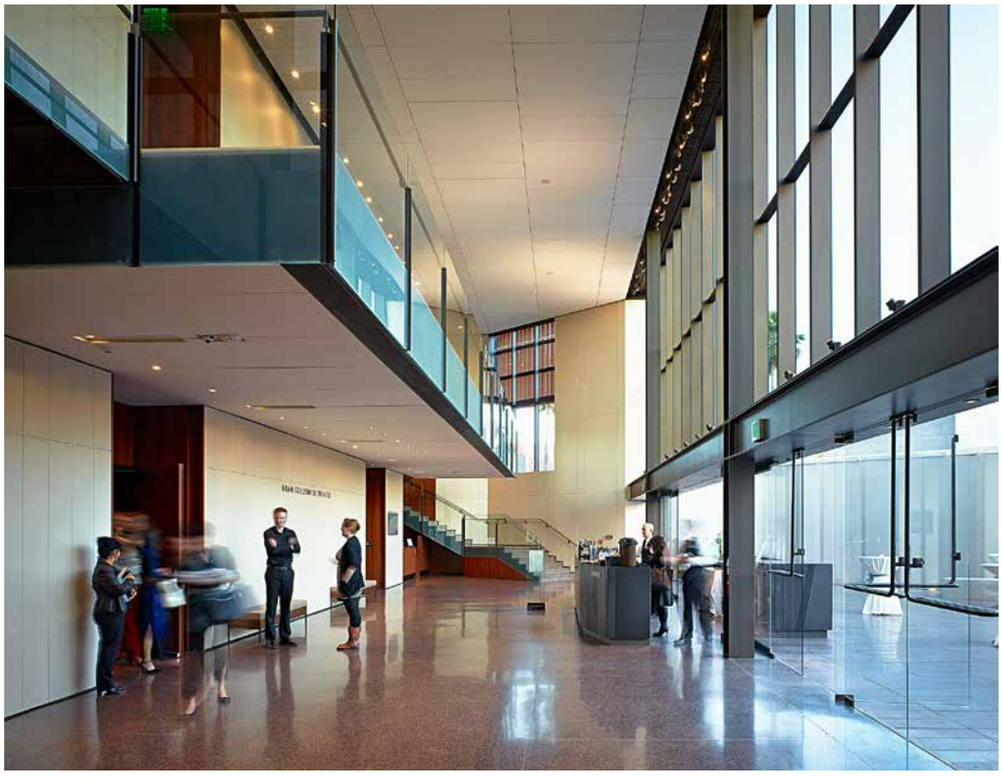
"What I was really striving to achieve on the building was a notion of tactility."

Zoltan E. Pali

Horizontal section 1:20

1 Swisspearl® LARGO panel 8 mm
2 sub framing
3 steel beam
4 concrete
5 thermal insulation
6 structural steel
7 floor grating





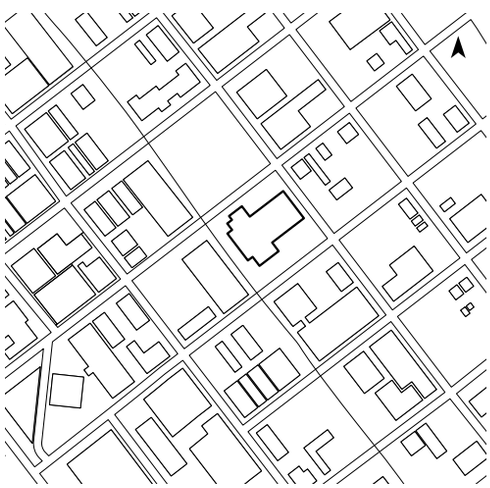
USA

NEW GENERATION LIBRARY

Cedar Rapids Public Library, Cedar Rapids, Iowa (IA)

CLIENT: City of Cedar Rapids, IA ARCHITECTS: OPN Architects, Cedar Rapids, IA
BUILDING PERIOD: 2011–2013 GENERAL CONTRACTOR: Knutsen Construction, Iowa City, IA
FAÇADE CONSTRUCTION: AWS, West Des Moines, IA
FAÇADE MATERIAL: Swisspearl® LARGO, CARAT Black Opal 7025 and Onyx 7091

The design for Cedar Rapids public library by OPN architects was driven by the desire to "embrace openness, and foster public engagement"; a New Generation Library that offers more than previous public library buildings. The elevated building "sits like a lantern in the heart of the urban core, drawing people to participate in community and civic life", says library director Robert Pasicznyuk.



ANNA ROOS Rem Koolhaas's Seattle State Library (2004) raised the bar for twenty-first-century public libraries with its innovations in form and function. Nine years later, in 2013, a new public library opened its doors in Cedar Rapids, Iowa. Like the Seattle library, this library also belongs to this new generation of library buildings that expand the notion of public buildings and do not restrict their purpose to the "sole" function of lending books, but rather, open themselves to a myriad of disparate occupations, whether concert venue, lecture hall, café, relaxing reading lounge, or rooftop garden.

After the deluge

Cedar Rapids was devastated by a flood that swept through the city in 2008; so destructive was the deluge that it is ranked as the fifth largest in US history. Hundreds of homes, businesses, and public buildings were destroyed in its wake; including the city's downtown public library, which was submerged by 2.5 meters of water, damaging the building and its precious contents beyond repair. OPN architects were commissioned to help the community to develop a "vision for a 'Next Generation Library'". The concept was to create a sleek, modern space that would be "like an Apple store" – a trendy and alluring place to be and be seen. The interior spaces are exposed to the vibe of the city; the first floor provides a "vitrine" that visually connects the exterior urban hub of the plaza with the quiet interior spaces, thus knitting the library into its inner-city environment.

Redesign, rebuild

It was five years after the decimation caused by the floodwaters that the new Cedar Rapids library finally opened its doors to the public. Architecturally speaking the T-shaped plan is rationally laid out. The two wings are visually pulled apart by the glazed entrance that creates a bridge between the two volumes: one high and vertically elongated, the other low and horizontally elongated. The open plan is demarcated by both the rhythm of circular concrete columns and the rhythm of the book stacks allowing for the creation of a variety of subsidiary spaces, including a freestanding oval activity room and six study room cubicles – quiet spaces to concentrate. There is a clear choice of materials: glass, concrete and cement composite Swisspearl panels in a confident color palette of black, grey, white with accents of bright red that lift the overall appearance of the interiors. The smooth Swisspearl panels were an appropriate choice of material to create the sleek, unadorned aesthetic of the volumes. Rather than utilizing the standard dimensioned panels, in this project the cement composite panels were manufactured specifically for the façade of the library. Where the façade pulls up to the entrance lobby wedged between the two primary forms, each panel has been separately cut to comply with OPN's bespoken design.


LIBRARY

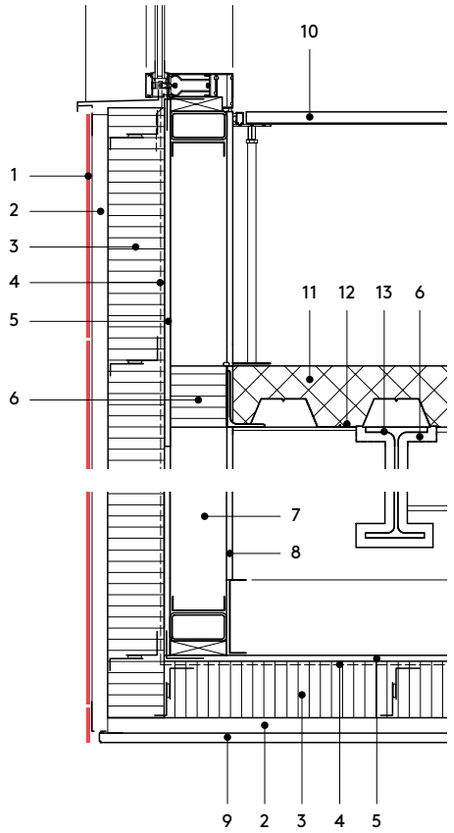

LIBRARY


CEDAR RAPIDS PUBLIC LIBRARY

New downtown hub

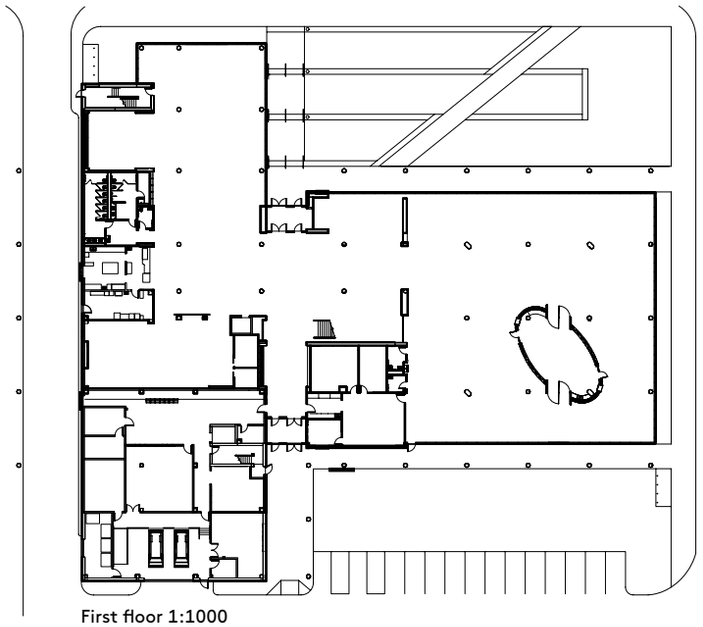
Instead of being cocooned inside a dusty, sombre place, this library has reading spaces that are light-flooded and open to the comings and goings of the local community. The curtain wall creates a living backdrop to the interior spaces. A café and coffee shop entice visitors to congregate, linger, and engage with each other. Even the auditorium – generally a space that bears no relationship to the exterior – faces the audience onto a verdant garden view through lofty double-height windows.

In our digitized age where so many of us are stuck behind screens, working in isolation, the importance of having tactile books and communal places of learning is imperative – places where people can share the same space and learn together still remain important today. With an amazing 108,900 visitors, the issue of 6,200 library cards, the provision of space for 605 organisations to host events and even 50 weddings in the first three months alone; this is surely hard proof of Cedar Rapids Library's unmitigated success, as well as hard proof that libraries are in no way anachronistic. Government funding agencies take note!

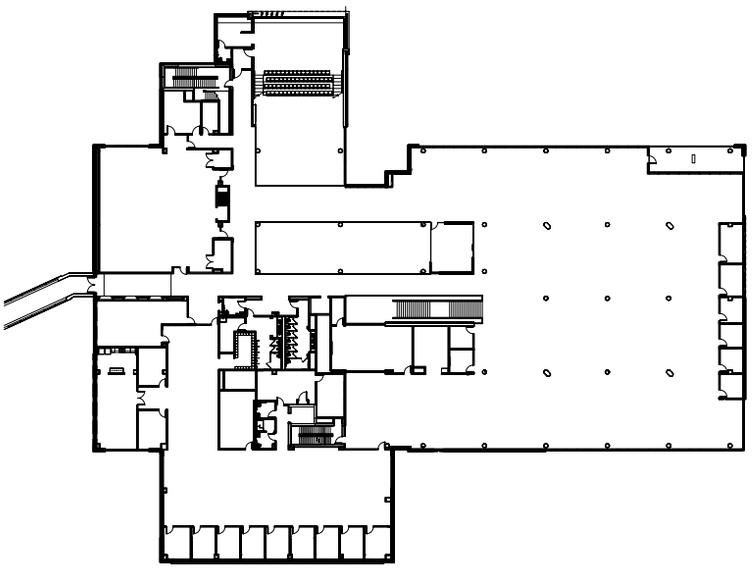


Vertical section 1:20

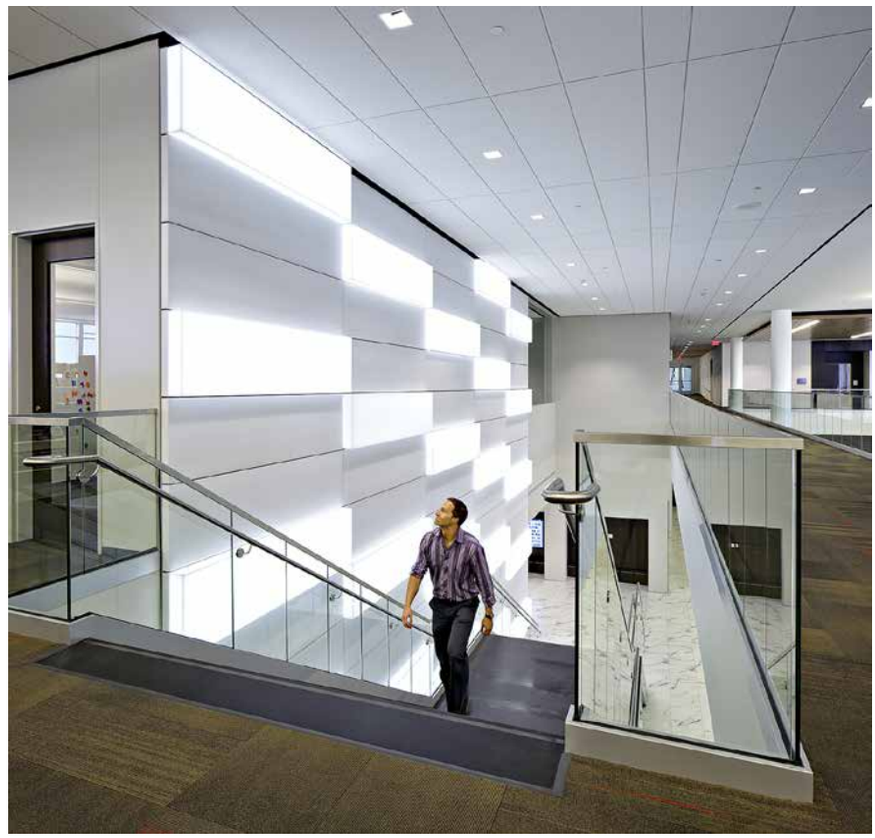
1 Swisspearl® LARGO panel 8 mm
2 ventilation cavity, sub framing
3 thermal insulation, mineral wool
4 vapour barrier
5 glass mat gypsum board
6 fire proofing
7 metal framing
8 fiber gypsum board
9 metal panel
10 raised access flooring
11 concrete
12 corrugated metal decking
13 structural steel



First floor 1:1000

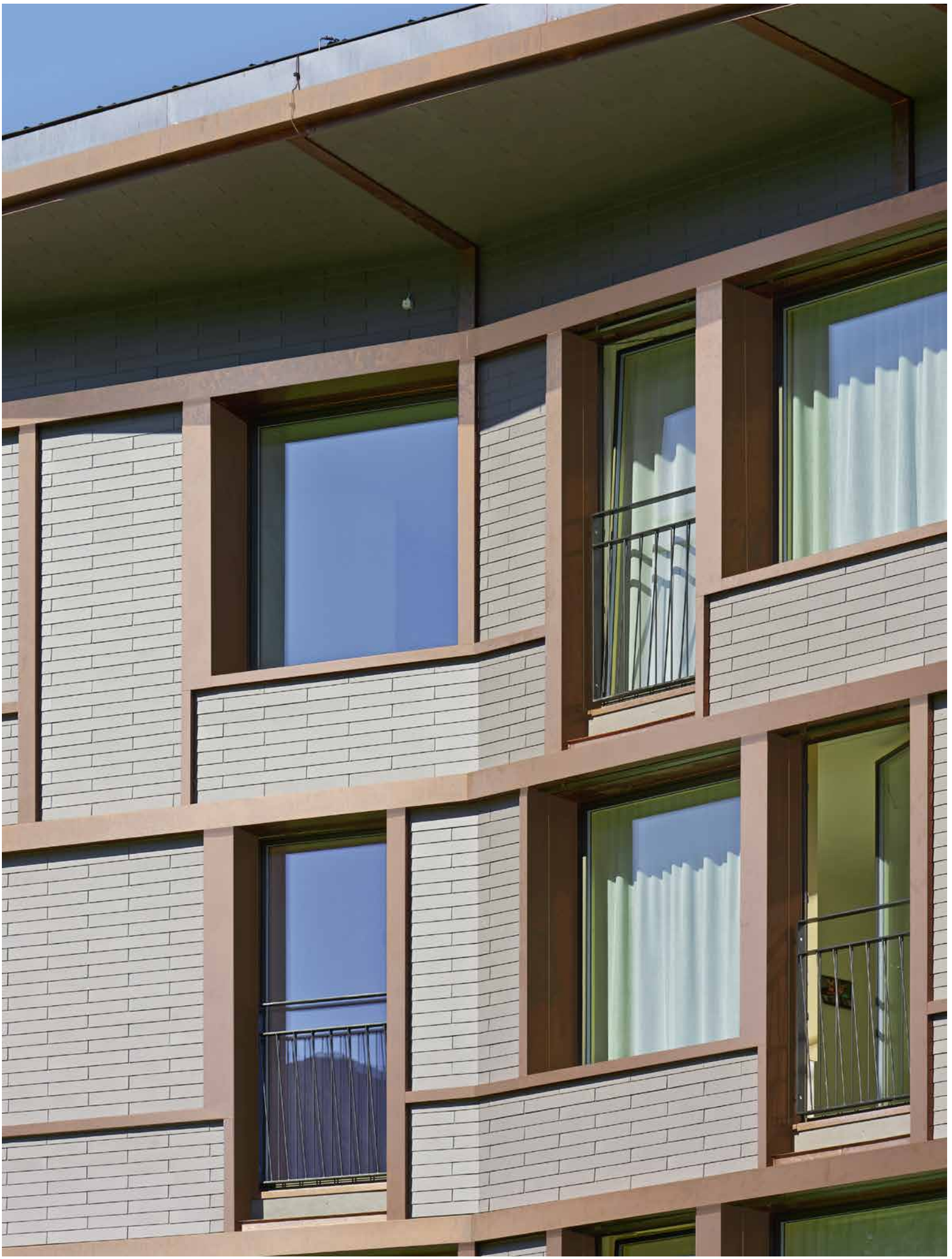


Upper floor



"OPN's skill enabled us to achieve a very high-end, durable design while staying millions under our capital budget."

Robert Pasicznyuk



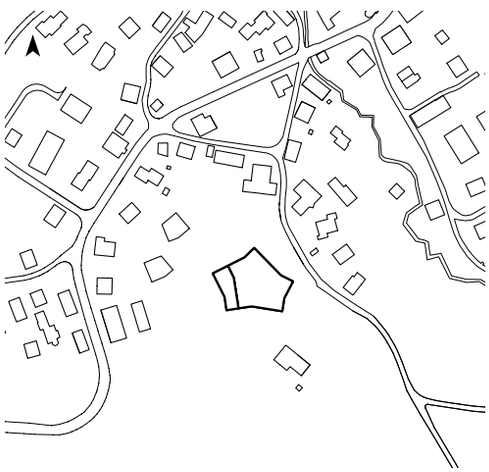
SWITZERLAND

NET STRUCTURE

Da Casa Old Age and Nursing Home, Vella

ADDRESS: Davos Cuort 27d CLIENT: Stiftung Alters- und Pflegeheim da casa val lumnezia, Vella
ARCHITECTS: Allemann Bauer Eigenmann Architekten AG, Zurich
BUILDING PERIOD: 2010–2012 FAÇADE CONSTRUCTION: Constructa Bau AG, Chur
FAÇADE MATERIAL: Swisspearl® CLINAR, NOBILIS Grey N 213

A new old-age and nursing home for fifty-eight residents was created in a remote mountain valley in Graubünden. With deliberate bends in the façade, the architects restrained the major volume and integrated it into the townscape. Small-format cement composite panels finish the wall surfaces.



MICHAEL HANAK The village of Vella is located on a small plateau on a broad slope surrounded by an enchanting Alpine world. The communities in the valley needed new housing for the local aged and infirm. The project by architects Patric Allemann, Martin Bauer, and Marc Eigenmann from Zurich, who had considerable experience with the building type senior center, won out in a public project competition in 2008. As building site, the communities found an undeveloped lot of land facing the valley on the edge of the plateau, not far from the village center.

The new old-age and nursing home was completed in 2012 and two years later, two buildings with senior flats. In early 2013, the communities of the valley merged to become the community of Lumnezia. The new town hall in the center of Vella will likewise be completed at the end of 2014.

Bent building volume

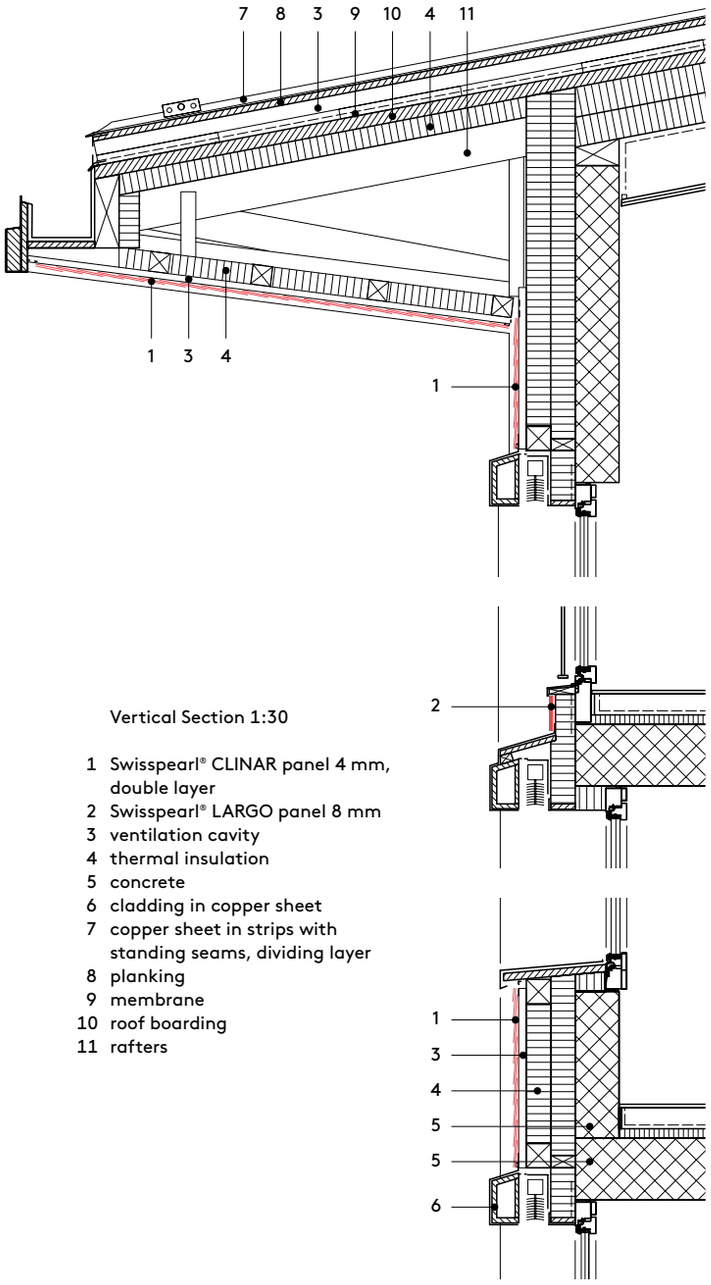
The old-age and nursing home called for a large volume. Yet it maintains distance from the small sectioned village structure and orients on the scale of the school and multipurpose hall at the end of the village towards the valley. A flat hip roof covers four main floors. A further floor rises up from the middle of the roof, but is visible only from afar. The irregular form of the base area is arranged on a pentagon; in addition, every side is bent inward. The entire façade development thus comprises ten sections – a clever move by the architects to minimize the appearance of the building in terms of perspective, and integrate the new structure into the townscape.

The polymorphous building volume can be explained by its interior structure. The rooms, each equipped with a bathroom unit consisting of shower, toilet, and washbasin are lined up along the façades. The service spaces are centralized at the core of every floor. Two adjacent atria direct natural light into the deep floor plans, allowing views via courtyard windows. Since the courtyards change form and position on every floor, the space attains a high quality. The building structure lends the hallways diverse spatial qualities: first, it is possible to circle the core. Second, the cross connections along the courtyards offer further space for the residents of the floors to move freely. And third, cul-de-sacs at the windows of the outer walls, mainly at the position of the bends in the façade, create references to the surroundings.

The remaining spatial program is likewise organized in a richly varied way. The first floor is reserved for common facilities: the cafeteria, a hairdresser, and pedicure salon, among others. The upper stories' recess with regard to the first floor prepares room for a large terrace on the western side of the second floor. And in the attic floor is a chapel.

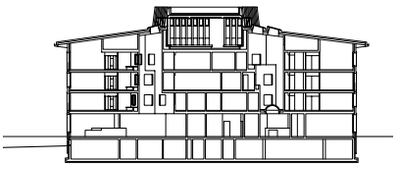
Woven façade

All façades are furnished with small, grey cement composite panels applied offset from one another in narrow, landscape formats. Broad copper-sheet strips frame the façade openings, but continue the closed wall areas, dividing them into rectangular fields. From outside they form a bracket around the individual rooms, which all have a large window and French doors.



Vertical Section 1:30

1 Swisspearl® CLINAR panel 4 mm, double layer
2 Swisspearl® LARGO panel 8 mm
3 ventilation cavity
4 thermal insulation
5 concrete
6 cladding in copper sheet
7 copper sheet in strips with standing seams, dividing layer
8 planking
9 membrane
10 roof boarding
11 rafters



Section

Fourth floor

First floor 1:1000

"The new building orients on the scale of school and multipurpose hall and in dialogue with them formulates the face of the community of Vella towards the valley."

Allemann Bauer Eigenmann

Old-age living in Vella in the village center and in magnificent architecture.

ESSAY

ARCHITECTURE FOR THE BODY

Are there truly parallels between fashion designs and architectural designs, as is often claimed? Crucial are the central aspects of movement and flexibility. A dynamically shaped building remains static, even when its inhabitants move in the space. In fashion design, the movements of the human body are directly related to the flexibility of the materials.

BETTINA KÖHLER Anglo-American fashion designer Charles James, born in 1906, received the Neiman Marcus Award for Distinguished Service in the Field of Fashion in 1953. The jury based James' distinction on a surprising argument: As a designer he lends fashion genius and immortality with his wonderful, timeless designs. Immortality and timelessness have never been considered particular characteristics of fashion. Fashion, quite the opposite, fascinates due to its volatility and irrational changes. It has long offered, through that, a base for enthusiastic agreement or culturally-pessimistic critique.

Fashion designers are aware of this fact. Charles James and the two-generations-older Madeleine Vionnet both attempted, in extremely different ways, to arrive at timelessness in their design and production processes: A timelessness whose realization is visible in the architecture of their clothing. Nonetheless, the claim that there are many parallels in the design and production of architecture and fashion usually goes back to interpreters and critics; not, however, to the fashion designers themselves.

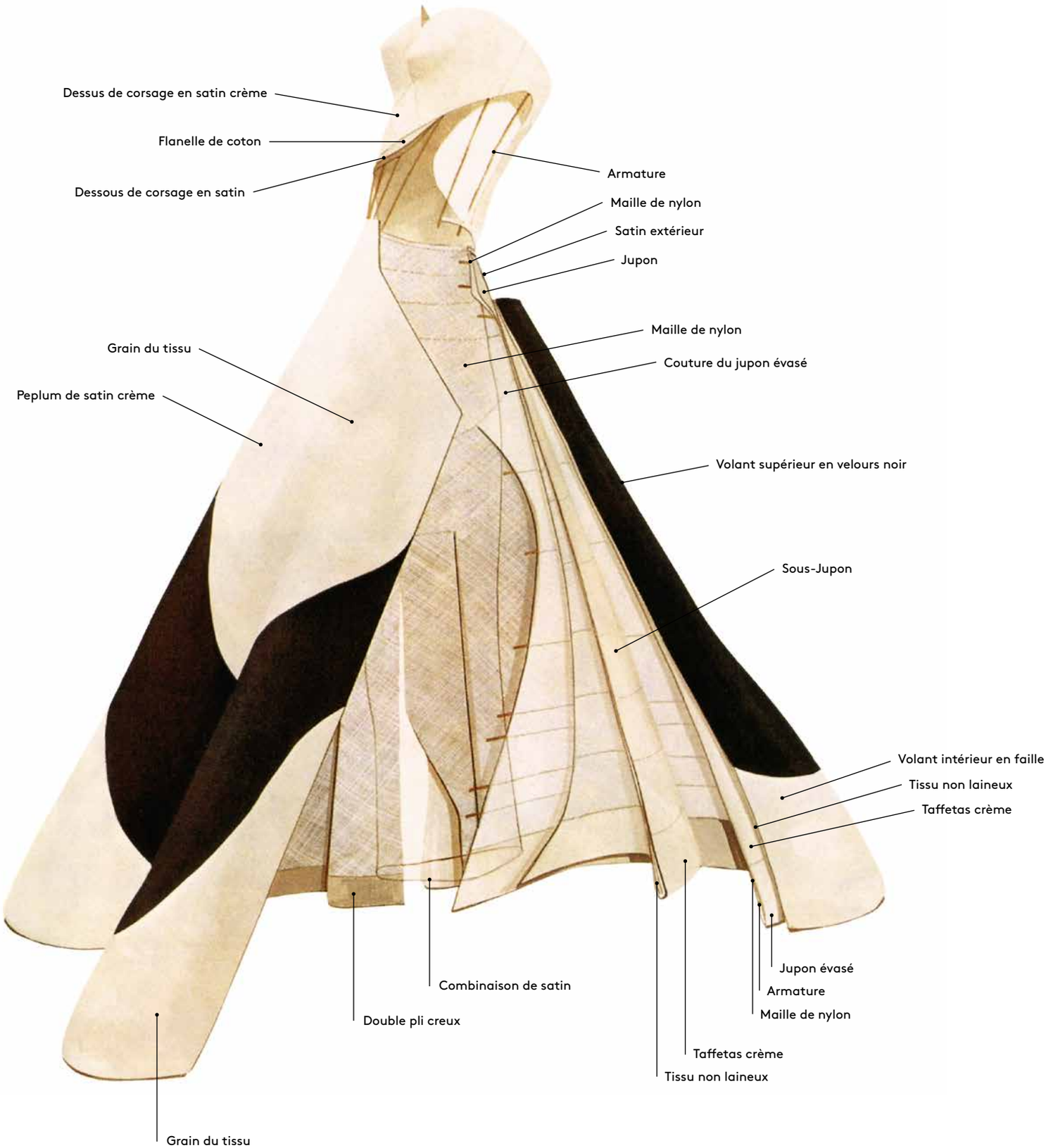
Architectural shaping

What is behind the claim that there are parallels between architectural and fashion design? What concepts about the design of an article of clothing, about its structure, its dynamic space? What ideas about the relationship between the textiles tailored in abstract forms and the individual body measurements? Charles James experimented in the design and production processes with self-developed dummies, substructures, seams, and mainly, with an unconventional layering and connection of materials. This gave rise to flexible yet also form-fitting clothing. An outstanding example of this is the Clover Leaf gown designed in 1953 for Mrs. William Randolph (Austine) Hearst Jr., which James viewed as his legacy. Harold Koda, curator of this summer's major Charles James retrospective at the Metropolitan Museum of Art in New York, summarized the special features of this ball gown in the concept of "architectural shaping".

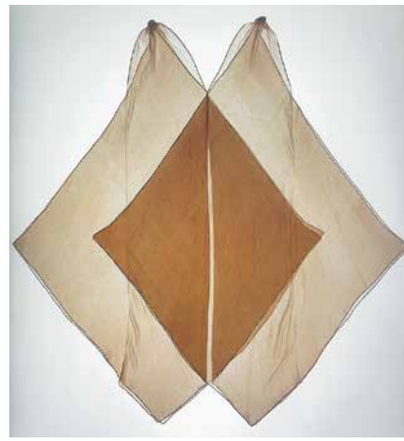
The supporting underskirts are not the usual boned hoops of flexible wands but multi-layered canopies of boning, net, buckram, Pellon, and canvas sandwiched into shape. […] James treated the fixed contours of these engineered understructures as an architectural form that he ornamented without constraint, like a milliner trimming a hat. He pieced together a gown's surface by juxtaposing materials that are not especially compatible with each other or with the cantilevered and form-retaining volumes he desired. […] The gown's graphic power is possible because the seams that join the textiles are freed from structural requirements by the ingenious support system below. […] James thus elevated fashion to fine art, merging the science of engineering with aesthetics. The result is architecture for the body. (Harold Koda, 2014, p. 193)

The Clover Leaf gown met with James' claim of offering tailored evening gowns that respond to the demand of new fashion with movements of the wearer "against and in the flow of the material", radiating in the surroundings. The skirt, resting on the hips, was not meant to touch the floor; instead, while the wearer was dancing, it should rise and fall like the skirt of a figure skater in a pirouette. Despite the gown's relative stiffness, the dancer was meant to experience movement in this glamorous shell as entirely comfortable, and mediate precisely this sensation to the audience.

In order to yield this type of spectacular result in the manufacture of "architecture for the body", steady professional development is required in an area whose borders are merely grazed in the current discussion about the parallels of architecture and fashion. Coordinating the movements of the materials



Drawing of the Clover Leaf gown by Charles James, 1953.



Clover Leaf gown by Charles James, 1953, worn by Mrs. Hearst.

Robe dit Quatre Mouchoir by Madeleine Vionnet, 1920.

Gown by Madeleine Vionnet, in "Vogue France", May 1932.

among themselves, the power of gravity on the materials, and the powers with and against the moving body are at the center of fashion design. Regardless of what is designed, whether a tailored ball gown or a serially repeatable two-piece outfit, whether festive glamour or everyday nonchalance are the goals of a design: the decision of the point or the area on which the dress will be "hung" on the body, and how it moves and is moved from there, is essential in the use and effect of fashion. Those who enter a tent do not move the tent, but those who brush against a dress immediately set it in motion.

Madeleine Vionnet interpreted the "architecture" of clothing in the 1920s and 1930s in an entirely different way than Charles James did. Her declared goal was the freedom of body and material, the refrain from the dress' conventional division into front and back sides, which necessarily leads to a side seam, and the complete renunciation of supportive substructure.

James worked with several layers, Vionnet, on the contrary, with one or two layers that remain visible as such. In several spectacular evening gowns from the early 1930s, only a single flowing layer of material came directly into contact with the body. All that was "inside" of the dress were strategically placed bands making it possible to fix it on the body, but which could move in a certain space. Vionnet's distinguished significance as designer of flexible material spaces is shown no least in that she established the cut at an angular run of thread as a working method and realized it masterly. With that, she came closer to her ideal of a seamless dress volume surrounding the body. She led the dress narrowly around the upper body to then, in a flowing transition, open it in volumes that remained nevertheless harmonious in movement around the leg. She fastened folds and draping only to the extent that they always maintained a leeway that was harmoniously balanced with the movements of the wearer and the own-power of the dress. The cut at an angular run of thread lent the material bounce. Vionnet also used this in drapes and turns so that the geometry of the construction remained invisible and the resulting look moved "naturally" and in no way appeared forced.

Metaphoric parallels

The design of dynamic movement, which was considered an identification of modernity and progress since the end of the nineteenth century at the latest – brought to mind here is Sigfried Giedion's *Mechanization takes Command* – were central for James as well as Vionnet. Their utterly different approaches are conceivable as concepts in fashion design until today. Even when one must admit that under the influence of a frenetic acceleration of production the demands for quality of materials and their precise working to a moving and beautiful space around the body have sunk dramatically.

With a view to the theme of movement, it becomes clear that the claim of parallels between fashion and architecture can only remain metaphoric. A façade woven from metal bands, an interior cast of synthetics, are only metaphorically "flowing" and "textile" or a "movable shell". In reality, all of these elements are static and offer the perceptive gaze, at best, an impression of flexibility.

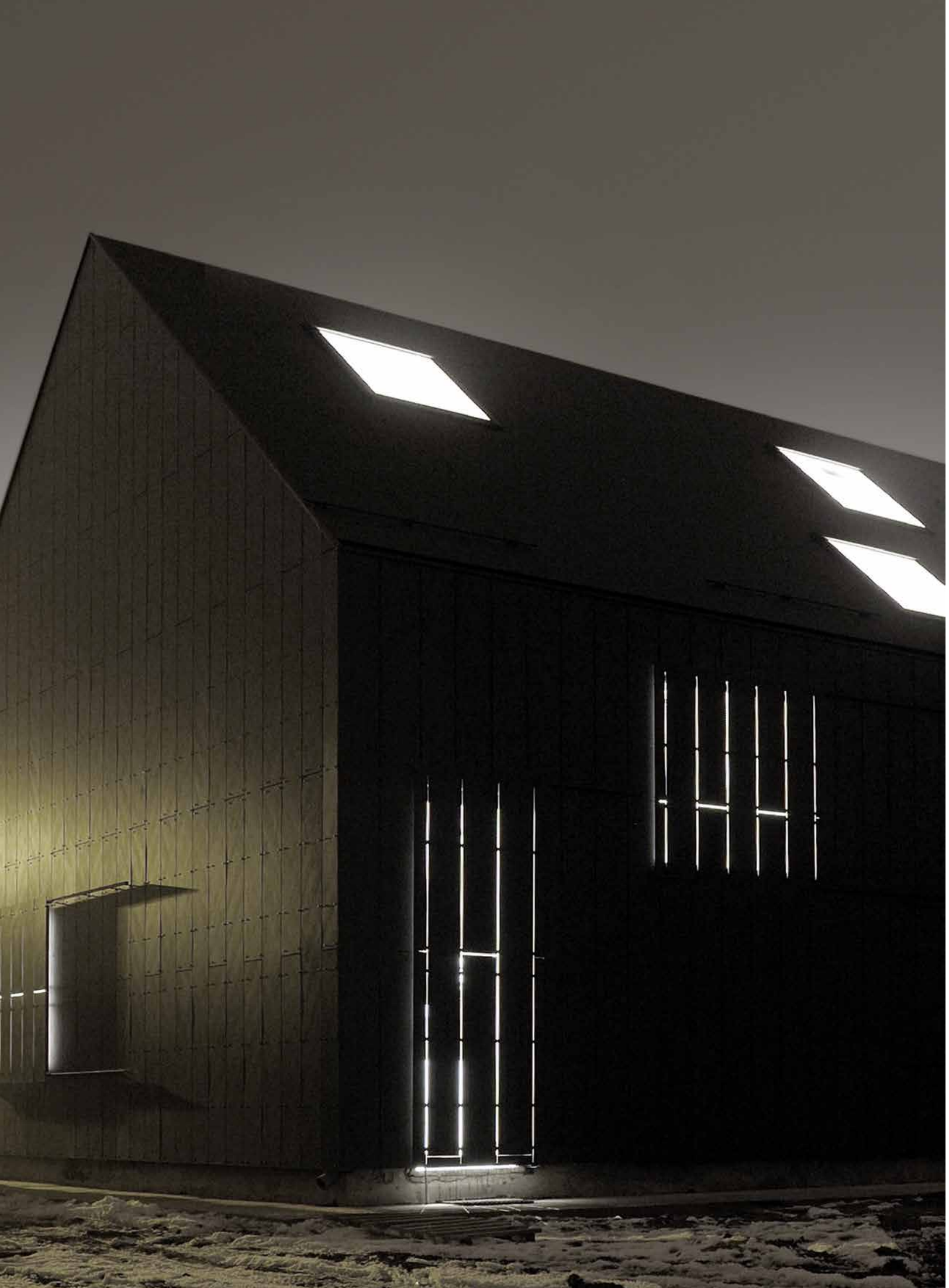
The recently observable markedly strong interest of architecture in fashion might be traced back less to fashion finding its raison d'être in the constant change of forms, than the images and possibilities preserved in the tailor's shop and in textile art: Such as the image of a tailored shell rather than a standardized, neutral architecture based purely on calculation. Or new production techniques for flexible, space-shaping elements that integrate pattern and ornaments and thereby contribute to the individualization of a space.

Should one take seriously the concepts of the creations presented here as challenges to architectural design, then this would mean not only according the flexibility, comfort, strength, and aesthetics of textiles in interplay with other materials a much larger place (again). It would additionally demand opening spaces to individual awareness and dynamic movement in which purposefulness and elegance are the goal; not the piling up of modularized boxes in which the fundamental algorithm generates simply the appearance of variation and liveliness.

Literature
Harold Koda, Jan Glier Reeder (eds.), *Charles James: Beyond fashion,* New York 2014.– Jéromine Savignon, *L'esprit Vionnet,* Université de la Mode, Lyon 1994.– Brooke Hodge, *Skin + bones. Parallel practices in fashion and architecture,* Los Angeles 2007.– Deborah Fausch, Paulette Singley, Rodolphe El-Khoury, Zvi Efrat (ed.), *Architecture: In Fashion,* New York 1994.

Some façade textures and structures recall woven and knitted patterns of fabrics.

Knitted dress from the fall/winter collection 2014/15 by Xess & Baba, Zurich. Different colors of Swisspearl façade slating on the old-age and nursing home in Hasle-Rüegsau by Opus Architekten (2007/08).



SLIDING BLINDS

BUILDING ON THE PAST

Complementing the ensemble of a former rural estate in Serbia, Studio Autori has created an award-winning building that sets itself apart while elegantly reflecting the past. Its façade, roof cladding, and, essentially, sliding blinds in dark grey Swisspearl panels add to its sleek, modern character.

MIRKO BEETSCHEN It was the first architectural work that they oversaw from concept to completion and it brought young Studio Autori from Belgrade much recognition. Dijana Novaković, Maja Trbović, Aleksandra Nikitin, and Dušan Nenadović won the competition to turn an old country estate into a cultural meeting place some six years ago. The estate in Mokrin, a historic village in the Serbian province of Vojvodina in the north-eastern part of the country and close to the Romanian border, is a typical example of a nineteenth-century rural family estate in that part of Serbia. The new owner's plan was to renovate the old buildings where possible and open them for cultural projects, guest lodgings, and, above all, the promotion of local produce. Terra Panonica, as the project is called today, has since become an interdisciplinary platform that helps to revitalize rural life in the war-affected country. The physical concept of the estate was to interpret the ancient village yard and ambience in a contemporary way.

The architects' task included not only the renovation of four historic structures, but also the design and realization of a contemporary building with offices and multifunctional working spaces. "House B", as the new unit is called, replaces the former family house from 1878, which was in very poor condition and therefore had to be torn down. "Our concept for the new building was to keep the shape and proportion of the original structure", architect Aleksandra Nikitin from Studio Autori explains, "but using new and innovative materials". Striving for a monolithic look by cladding the façade and the roof in the same material, the young architects stumbled upon the Swisspearl product. "They proved the perfect choice", says Aleksandra Nikitin. "It not only provided us with a solution for both façade and roof, but also met the client's requirements for long-lasting and ecologically friendly materials."

The architectural quartet completely clothed the formally plain two-story building in dark grey cement composite sheet. "The street façade is a replica of the old façade in terms of its proportion, position and number of openings", the architects further explain. "From the yard side a different idea was realized: Here, the façade has a large number of windows and glass doors, opening the building towards the estate." These openings, however, can be shut with sliding blinds, also clad in the same Swisspearl panelling, creating a completely closed façade. While dark from the outside, the interior is dominated by clean white surfaces and pale wood. The offices and multifunctional spaces can be partitioned according to use and are complete with kitchen and technical equipment. A large timber bench in the workshop on the second floor was built from wooden beams from the old house.

"House B" was the first building to be completed within the Terra Panonica complex. In 2012, the renovation of one of the original buildings followed. Both projects earned Studio Autori an award at the annual Salon of Architecture in Belgrade.

Office Building Terra Panonica, Mokrin, Serbia

ADDRESS
Svetog Save 25

CLIENT
Terra Panonica d. o. o, Mokrin

ARCHITECTS
Studio Autori, Belgrade

BUILDING PERIOD
2010

FAÇADE AND ROOF CONSTRUCTION
Vodotermika Inženjering, Smederevska Palanka

FAÇADE MATERIAL
Swisspearl® LARGO, XPRESSIV Dark Grey 8220

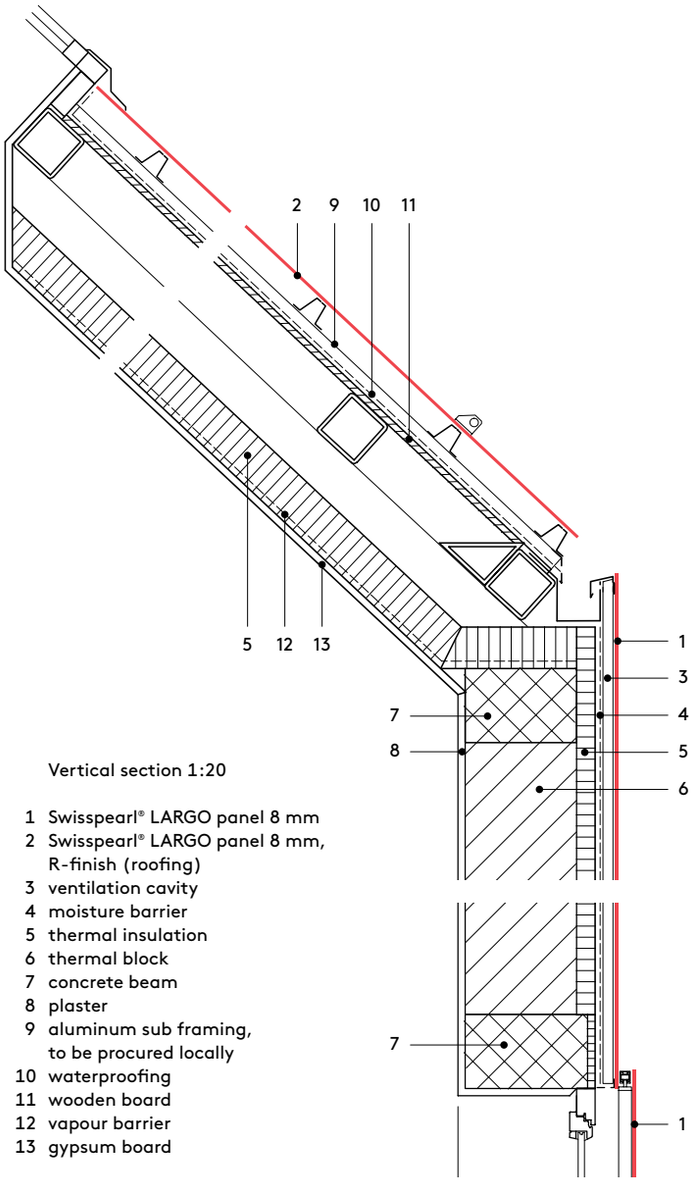
ROOF MATERIAL
Swisspearl® LARGO, CARAT Black Opal 7020 R

"Swisspearl was a great choice for designing 'a monolithic block', providing us with a solution for both roof and façade."

Aleksandra Nikitin

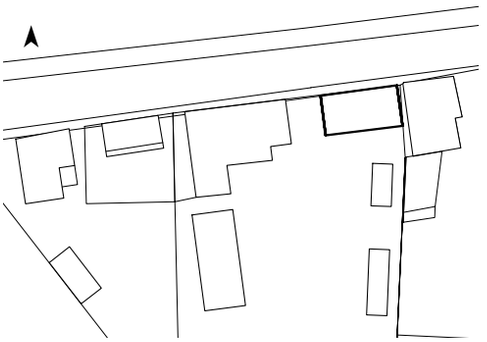
“Important for us was that our approach remain clear from the beginning: reinterpretation of the local heritage through the use of contemporary forms and materials.”

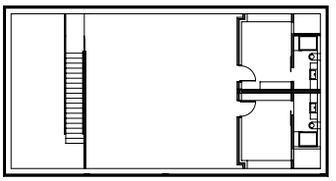
Aleksandra Nikitin



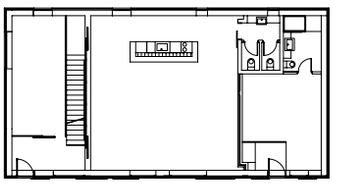
Vertical section 1:20

1 Swisspearl® LARGO panel 8 mm
2 Swisspearl® LARGO panel 8 mm, R-finish (roofing)
3 ventilation cavity
4 moisture barrier
5 thermal insulation
6 thermal block
7 concrete beam
8 plaster
9 aluminum sub framing, to be procured locally
10 waterproofing
11 wooden board
12 vapour barrier
13 gypsum board





Upper floor



First floor 1:400

The only references to the original architecture of the region are the shape of the building and the placement of the windows on the street side. The courtyard side has, instead, a selection of different openings.

PERFORATION

VIEWS IN AND OUT

The residents of the Patio Building Project in Rheinfelden live compactly, and with an inward orientation. The building density in the neighborhood and lack of distant views inspired the architects to design a several-story patio house. Perforated cement composite panels serve to break up the façade.

MICHAEL HANAK When Hansruedi Mergenthaler sold his construction business Rheinfelden due to his advanced age, he decided to build homes on the original factory grounds. The neighborhood, which is close to the center, had been in upheaval for several years: the new large structures holding a great number of flats benefit from the proximity to the city of Basel and the Rhine. The property owner trusted his daughter Lea Mergenthaler with the design. Together with Miriam Braun, she runs the architectural office raum.werk.plus in Lucerne.

The architects contemplated: What type of building is most appropriate nowadays for a private residence? Many home owners want a place of retreat, an individually designed building, and as much space as possible. In a residential area that is becoming increasingly more densely settled, the architects decided that patio houses offer a solution.

The project consists of three buildings with a square-shaped outline and three storys each: two townhouses one with two units, and one with three and a maisonette building. The walls of the townhouses are made of thermo-concrete, which is left visible on the façades and in the patios. The maisonette building is clad with white cement composite panels: on the first floor is a doctor's office with three maisonettes above. The courtyards are located on the top or second from the top story, at a different position in every flat. Different sized wall sections produce targeted lines of sight and viewing relations: into the Jura woods and in the range of nearby hills, but also to the gardens in the neighborhood.

Since all courtyards in the maisonette building border on a façade, the architects decided to use back-ventilated façades with external thermal insulation rather than thermo-concrete. White, perforated Swisspearl panels are hung before them. They cover the building like a fine shell – as semi-transparent as mesh, as light as a cloth, and nonetheless as protective as a filter. The perforation continues the theme of limited opening and permeability. And in the courtyards, a play of light and shadows arises. The perforated panels before several bathroom and toilet windows also provide light directed inward and views outward. The perforations measure 25 and 35 millimeters in diameter and are arranged in two groups, which are mirrored once again. The selected arrangement keeps the montage-base free and guarantees the necessary protection.

The patios provide the flats with protected exterior living spaces, bring light into the building, and enable views out into the neighborhood. Large sliding doors connect the patios with the interior living spaces. The Patio Building Project juxtaposes the living units together with the courtyards. In doing so, it achieves a site-specific solution: individual living with high quality exterior space in the densely settled neighborhood.

Patio Building Project, Rheinfelden, Switzerland

ADDRESS
Baslerstrasse 1–3, Margaretenweg 19

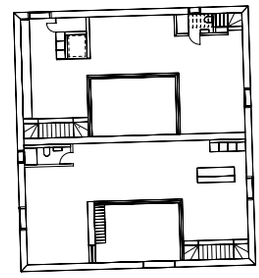
CLIENT
Mergenthaler AG, Rheinfelden

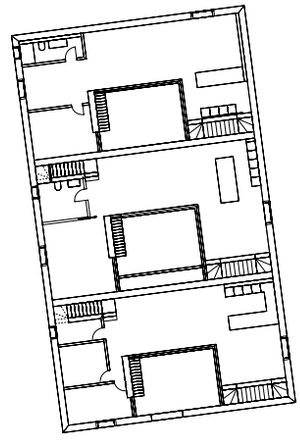
ARCHITECTS
raum.werk.plus, Luzern: Lea Mergenthaler, Miriam Braun

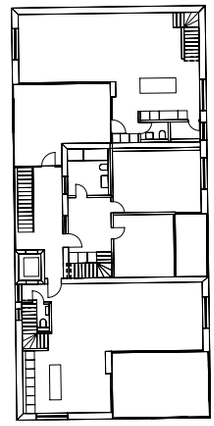
BUILDING PERIOD
2012 – 2014

FAÇADE CONSTRUCTION
Salm Fassadenbau AG, Schinznach-Dorf

FAÇADE MATERIAL
Swisspearl® LARGO perforated, PLANEA white P 111



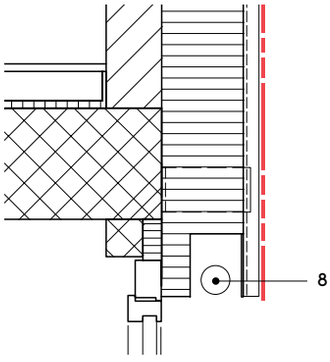


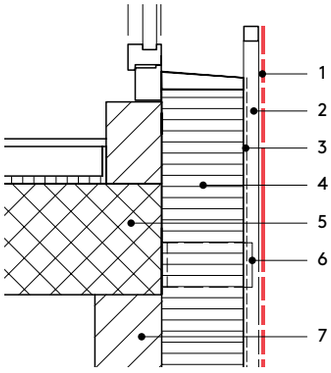


Upper floor

"In addition to flexibility in terms of the size of the house, the ground plans also enable great flexibility in planning and use."

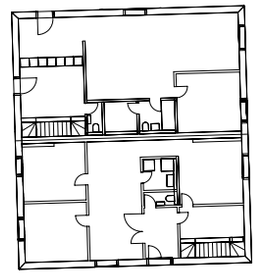
Lea Mergenthaler

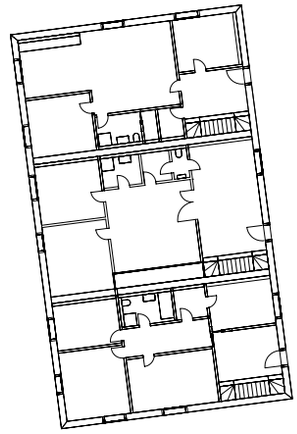


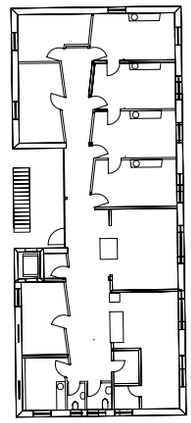


Vertical section 1:20

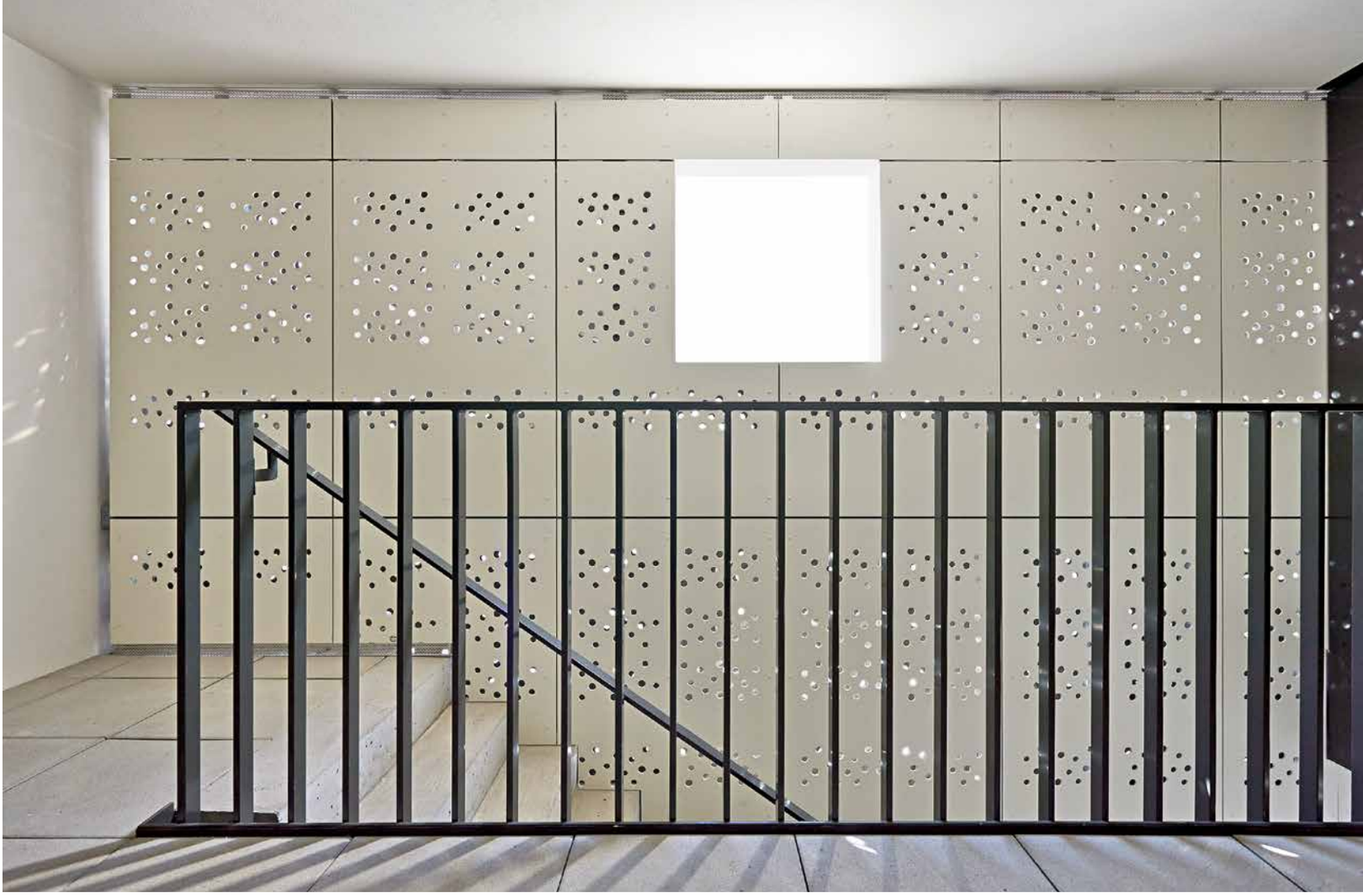
1 Swisspearl® LARGO panel 8 mm, perforated
2 ventilation cavity, vertical aluminum sub framing
3 moisture barrier
4 thermal insulation, mineral wool
5 concrete
6 bracket
7 brickwork
8 roller blinds







First floor 1:500



**Alongside the patios within the buildings,
a private exterior area similar to a yard surrounds
the three buildings.**

FIXATION

RIVETED, FACE FASTENED

The installation technique for cement composite panels is a complex system in which climate conditions, the type of substructure, mounting distances, and, no least, aesthetic issues play a role. Rahel Hartmann Schweizer in conversation with Viktor Rupf, product manager Swisspearl accessories.

Cement composite panels are screwed or riveted. Which technique is used when?
Screws are applied with a substructure of wood, and aluminum or steel rivets with an aluminum or steel substructure.

How can we envisage the riveting process?
The so-called blind rivet is made up of the rivet shaft with head on the top end and a longer mandrel, furnished with a pre-determined breaking point, stuck through the rivet's back end. By pulling the mandrel, the rivet is disturbed at the shaft end, which means that it expands. The mandrel breaks off at the pre-determined breaking point.

How many rivets are required per square meter?
On average, there are a total of six rivets per square meter – clearly less than on the Eifel Tower! The number is calculated – apart from the load of the panels – based on factors such as dimensions, height, form, and location of the building. Apart from that, it is important to maintain certain gaps. The gap to the edge is 100 millimeters maximum and 40 millimeters minimum on the side, and 80 millimeters on the top and bottom.

To what extent is the location of the building decisive?
Location plays a role in terms of climate, whereby mainly wind, temperature, and humidity are of importance. In windy valleys, wind loads are greater than in the middle of the city. In addition, cement composite panels react more to humidity and aluminum more to temperature. Therefore, they have to be able to move.

How do you determine that the panels are able to absorb these differences and not tear; that they are both well fastened and also have a certain flexibility?
By defining fixed points and floating points. Two rivets per panel are mounted in fixed point sleeves. The weight hangs on them; they absorb gravity. The others – without sleeves – function as floating points to allow for a certain play. These floating points alone absorb the wind load.

At the start you mentioned the Eifel Tower. There, one naturally considers the rivets a part of the construction. With the Swisspearl® LARGO panels, on the contrary, architects might consider them to be disruptive at times. Wouldn't it be possible to make them smaller or with hidden attachments?
Many architects do actually prefer invisible attachments. Nonetheless, a minimum head diameter of 15 millimeters is necessary as otherwise, movements would present a problem. With Swisspearl® SIGMA 8, however, we have developed a system that enables a concealed attachment. In doing so, agraffes are fastened with rivets or screws to the substructure and with expansion anchors to the panel. The installation of the system anchor happens already in the factory.

However, there are also architects who take advantage of the attachment as design element – according to the motto, "If you already see them, then they should appear prominently". For that, we have developed various forms that can be used as deco-caps: cylindrical and conical forms, cones, colorless anodized aluminum, and also colored or stainless steel. Meanwhile, we offer quite a selection, but customers can request their own form.

Viktor Rupf has a selection of different attachment parts available for Swisspearl panels. Rivets and deco-caps can also serve as façade design elements, for example in the façade for the nursery in Ennetbaden, Switzerland.

PRESENTING ARCHITECTURE

AIA CONVENTION IN CHICAGO

Nearly 20,000 architects, designers, exhibitors, sponsors and media representatives attended this year's congress of the American Institute of Architects (AIA) in Chicago: an attractive platform for Swisspearl, whose appearance reflected the theme of the conference.

RAHEL HARTMANN SCHWEIZER The congress in Chicago in late June hosted by the American Institute of Architects (AIA), the largest architectural organisation in the US, was entitled: "Design with Purpose". With this, the organizers wanted the word "purpose" to be understood as both noun and verb, thereby thematising the "what" as well as the "how" of creating architecture. The "what" revolved around the aspects of sustainability, comfort, security, and health – for example, under the title: "Green Health: Opportunities for Partnership between Public Health and the Green Building Industry". The "how" focussed on cooperation, being open to social media and new technologies – for example, with the theme "Design Drawing: Combining Traditional Hand Drawing Methods with Advanced Digital Tools".

The congress also included firms presenting their products, services, and technologies. Swisspearl presented its new logo, which hung resplendent over the stand in several Polystyrol versions made by its sister company Swisspor. In keeping with the motto of the conference, the stand's outer appearance was also designed to signalize openness: a light MDF wood construction that opened on two sides, and was covered with a semi-transparent film on the third. The strategy worked: 463 architects and designers visited the stand, and Swisspearl will most likely be able to maintain contact with 30 to 40 percent of them.

Swisspearl also provided answers to the "what" and "how": the pattern of all standard Swisspearl color families – Carat, Reflex, Xpressiv, Planea, and Nobilis – presented an overview of the entire collection. Visitors were able to observe the façade panels at various stages of realization: In a shelf presenting the material and color samples like book titles, at two mock-ups in the middle of the stand, and on a photo of a built object; the bus station realized by the architects Mojca Guzič and Gregor Trplan in Velenje in Slovenia. The choice proved especially fortunate. The image of the building's perforated panels – implemented in Swisspearl® LARGO, CARAT Onyx 7236 – was printed on a semi-transparent material, which evoked stimulating visual interplay.

The AIA Congress 2015 will take place in Atlanta, and already today, Swisspearl has decided to maintain the concept of transparency. However, it also wants to emphasize its competence in the area of customer-specific solutions beyond the standard collection.

The staff at the Swisspearl booth inform and advise interested visitors.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The internationally distributed magazine *Swisspearl Architecture* sets Swisspearl cement composite products within a contemporary architectural context.

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Detail plans
Deck 4 GmbH, Zurich

Printing company
Galledia AG, Flawil

Print run
20,000

Typeface
Brown Pro, Mercury Text

English edition
ISSN 1661–3260

Édition française
ISSN 2297–1637

Deutsche Ausgabe
ISSN 2297–1629

Cover
C1: John Edward Linden, Woodland Hills, CA
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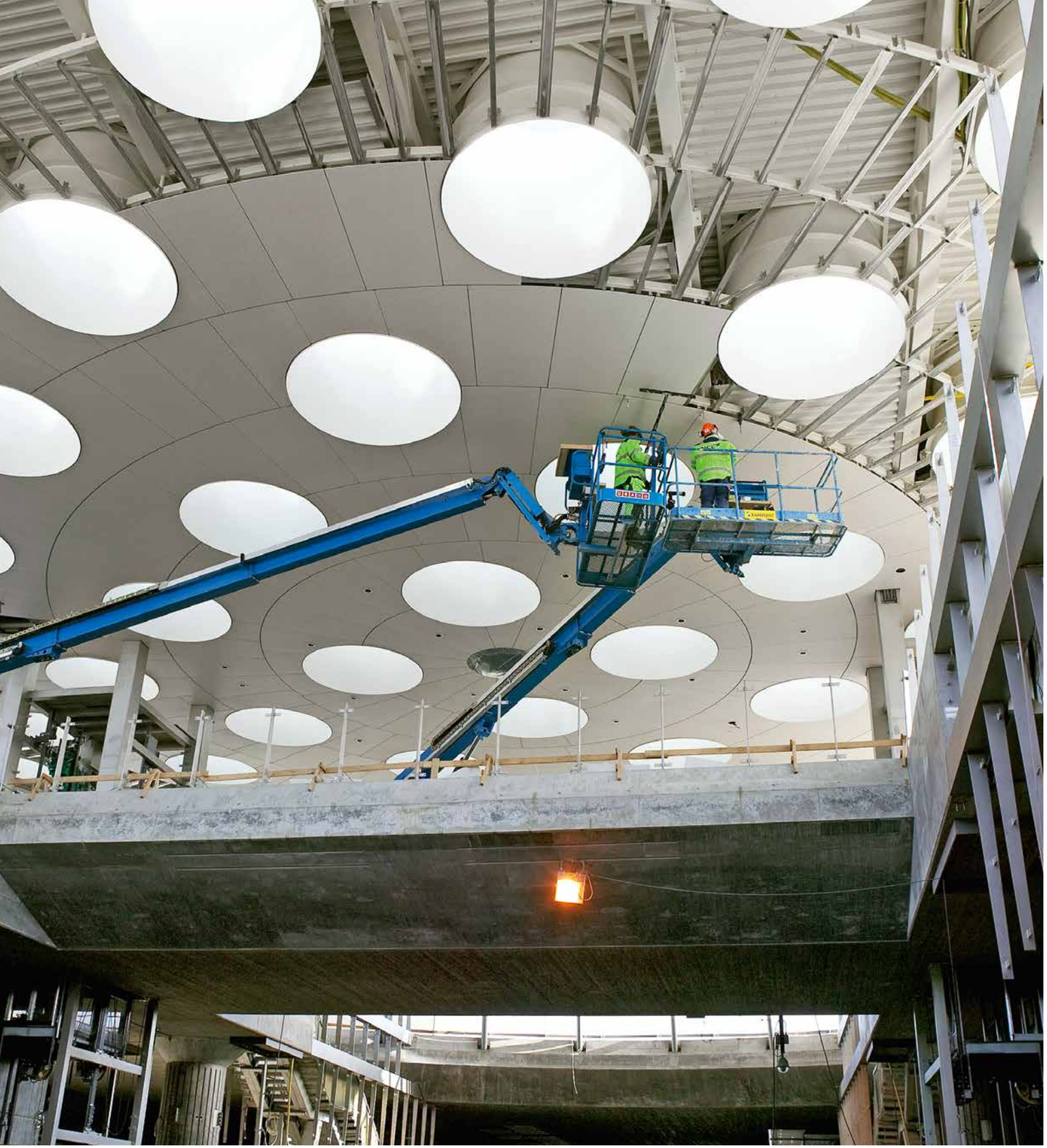
Rahel Hartmann Schweizer is a historian specializing in art and architecture based in Zurich and Bern. After having worked as an editor and on a dissertation on Otto Kolb, she now writes about the interdisciplinarity of architecture, art, and engineering.

Except for CARAT Onyx, Amber and PLANEA shades, all cement composite panels Swisspearl® LARGO are only manufactured in Switzerland.



CUSTOM MADE

In this issue, *Swisspearl Architecture* addresses custom-made solutions for façades and roofs. Curved buildings, polymorphic openings, and special architectural expression demand adaptable, variable, yet nonetheless precise building materials – this gives rise to custom-tailored products for individual buildings and customers.

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