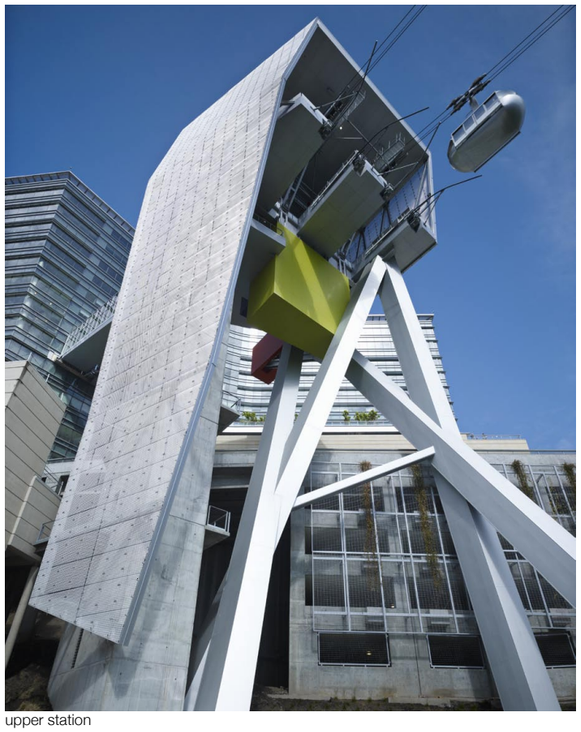
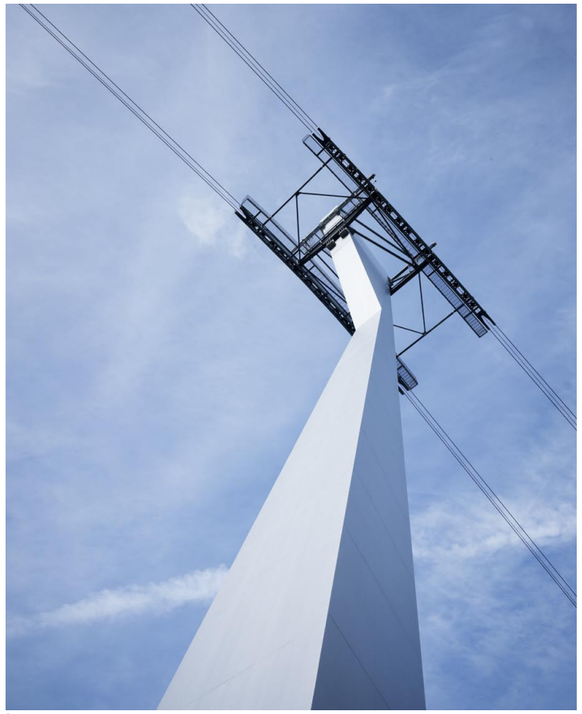
01 PORTLAND AERIAL TRAM



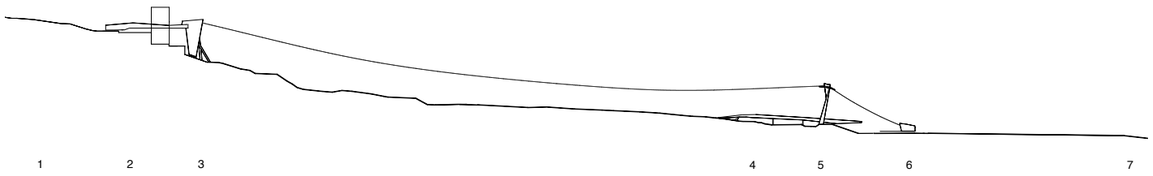
upper station



tower

tram car and Mt. Hood

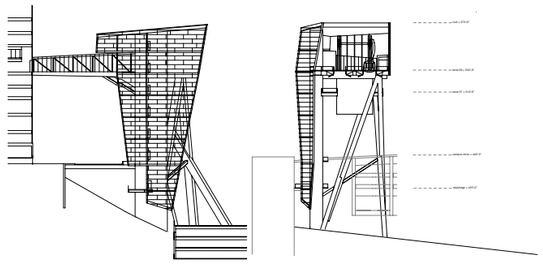
lower station



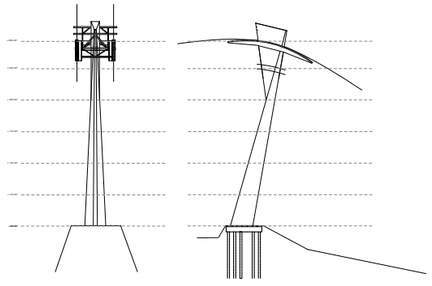
site section

1. oregon health sciences university
2. tram entry
3. upper station
4. pedestrian bridge
5. tram tower
6. lower station
7. willamette river

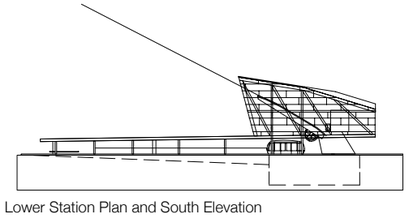
site plan



Upper Station South Elevation and East Elevation



Tower East Elevation and Section



Lower Station Plan and South Elevation

Built Pedagogy

Connecting the Oregon Health and Sciences University hillside campus with 65 acres of redevelopment property along the Willamette River below, OHSU could expand its campus in order to not relocate. The aerial tram is a visionary yet functional link between the two neighborhoods, furthering the city's public transit system with an environmentally sustainable system.

Operating within a highly political environment, every aspect of the process involved public scrutiny, from the design competition presentations through open design workshops and institutional review to construction involving interstate highway coordination.

The tram is designed as a minimal intervention with light and open structures. The building components include an upper station, an intermediate support tower, a lower station, and two tram cars, which operate in a jig-back configuration. The project also included urban design planning and landscape design.

The upper station is an open air covered platform supported by braced steel legs balancing on a steep site, wedged between hospital buildings – basically an impossible condition. There was no direct access to the site during construction; the station had to be assembled in the air. Passengers must pass through a medical building to enter the platform, considered within the hillside campus as the 9th floor.

The intermediate tower is built of steel plate, shaped in response to the physical forces acting upon it. It leans to approach a 90 degree angle with the tram cables; it is wider at the base, tapering as it moves up to provide clearance for the tram cars and then flares outward to support the saddles.

The lower station, a covered open platform at street level, is the public center of its new neighborhood. Like the upper station, its steel frame is clad with expanded metal panels. This skin provides a sense of directional enclosure yet does not separate inside from outside. The system's equipment is housed in a machine room below the landing. The tramcar, curvilinear with reflective aluminum and glass, is intended to dematerialize against the sky as it passes over the urban neighborhood below.

Schedule
competition first prize 2003 / completion 2007

Budget
$57 million, including tram equipment and soft costs

Reference
Dr. Joe Robertson, President, OHSU
503 494 8311 robertjo@ohsu.edu

Merit

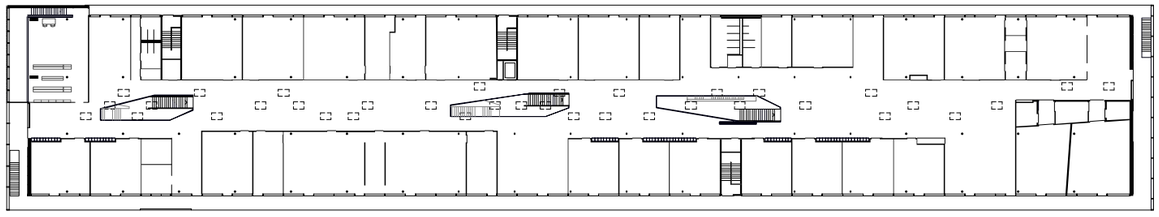
awards
- Honor Award for Architecture, AIA California Council 2008
- Presidential Award, American Institute of Steel Construction 2007
- Excellence in Concrete Award, Oregon Chapter American Concrete Institute 2007
- AIA / Los Angeles Next LA Honor Award, 2006

publications
- The Phaidon Atlas of 21st Century World Architecture, "Portland Aerial Tram," Phaidon Press, New York, 2008
- Detail, Concept Edition, "Portland Aerial Tram," Hubertus Adam, Münich, Germany, May – June 2008
- Detail Annual, "Portland Aerial Tram," Archiworld Co., Ltd, Seoul, Korea, Jan. 2008
- World Architecture #209, Women in Architecture, "Portland Aerial Tram," Tsinghua University School of Architecture, Beijing, China, November 2007
- summa+89, "A La Altera de Los Angeles, Buenos Aires, Argentina, V Sept. 2007
- Architectural Record, "Aerial Tram," August 2007
- Modern Steel Construction, "Ideas," May 2007

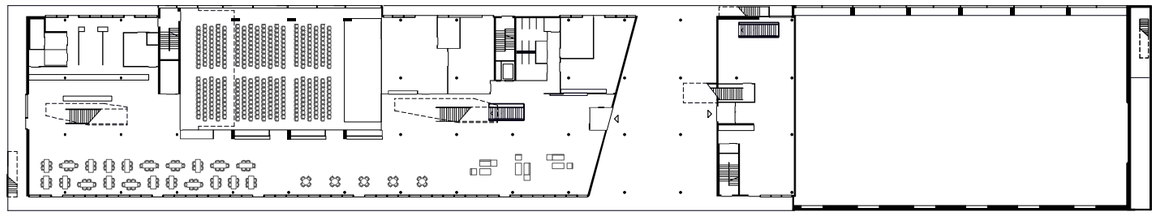
02 THE ZÜRICH INTERNATIONAL SCHOOL

south facade

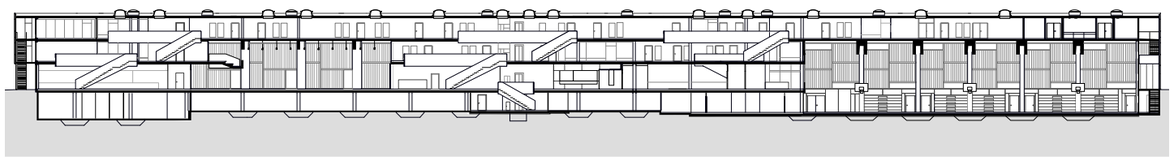
elevation detail



level 02 plan

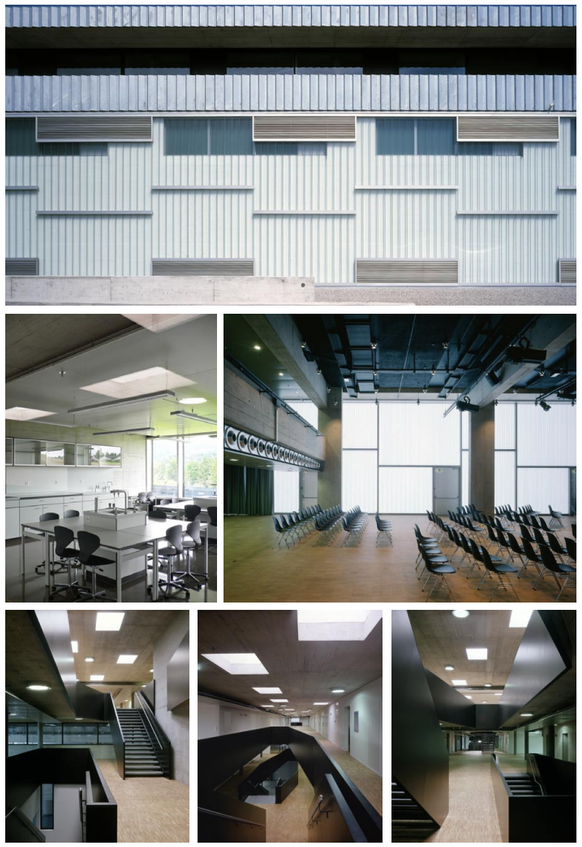


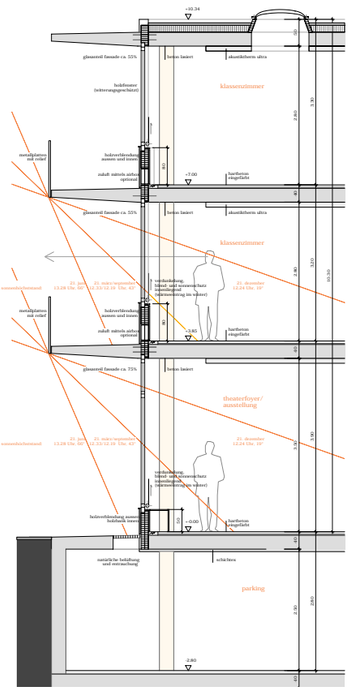
level 00 plan



longitudinal section

5 10 20 50





section detail

Built Pedagogy

The Zürich International School is an English speaking school for students in the greater Zurich region. It includes classrooms, laboratories, workshops, offices, public use auditorium, library, cafeteria, gymnasium, parking garage, and sports fields.

The project was the winner of an invited architectural competition in which the primary strategy was to group all program components into one building, creating a single dense structure and thereby minimizing the construction footprint and costs while giving back open space to the community.

Economic considerations led to the logic of minimal resources. Functional requirements were directly translated into architectural space. Qualities were derived from a network of relationships, including movement, visual connections, daylight, and spatial awareness. The architectural concept is based on an economy of means. The compact volume as well as the selection of basic materials contribute not only to minimal investment costs but also accentuate a straightforward appearance. Whatever could be avoided was eliminated throughout the development of the project. Not only is the construction simplified but also the building's maintenance is reduced.

The Academic Environment

The interior organization is conceived as that of a campus in which interior plateaus are formed with program spaces adjacent to a continuous open space, used by the students as public use and multifunctional spaces.

The Design Studio

The atmosphere is that of a workshop. This provides a framework for students to work, play and generally be encouraged to participate in their environment as they make it their own over time.

The Living Building

A significant component of the building is the integration of energy efficiency using renewable resources. Through the use of geothermal heating and cooling, no additional air conditioning or heating systems are required. Ventilation is provided locally in the classrooms without the need for central ducting. The Project received an Swiss energy performance rating of Minergie-P.

Schedule
competition first prize 2004 / completion 2008

Building Area
8,000 m2

Budget
$16 million

Reference
Jon McLeod, Upper School Principal
011.41.58.750.2400 zis@zis.ch

Merit

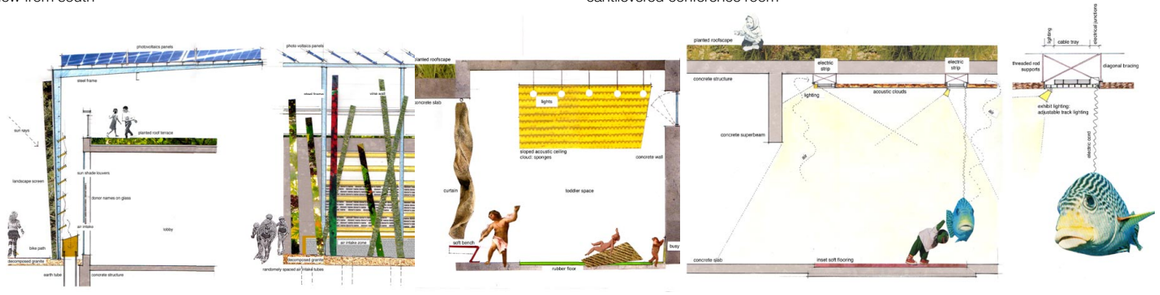
publications

- Archithese, Swiss Performance 09 Issue, "Zürich International School, January 2009, Zürich
- Neue Zürcher Zeitung, Ein Labor für Kinder von Zürichs „Business-Nomaden," August 23, 2008

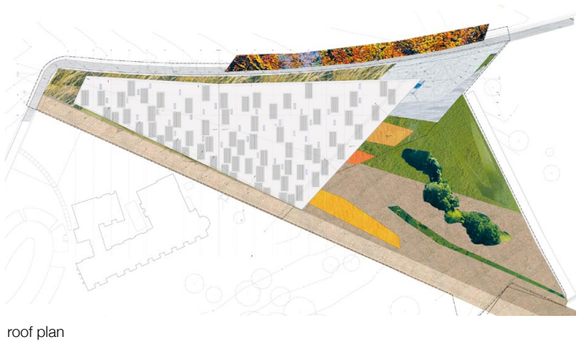
03 CHILDREN‘S MUSEUM OF LOS ANGELES

view from south

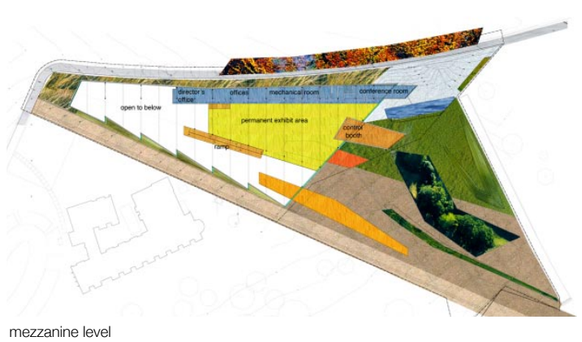
cantilevered conference room



systems collage

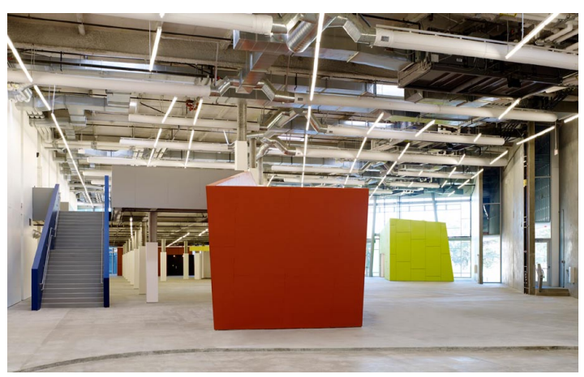


roof plan

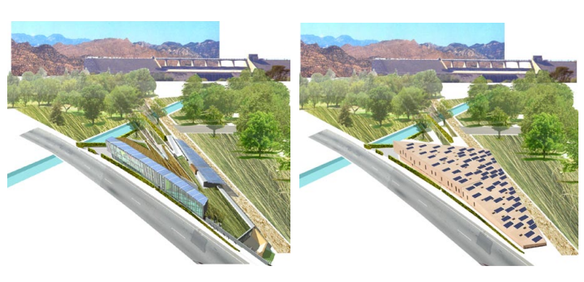


mezzanine level

entry

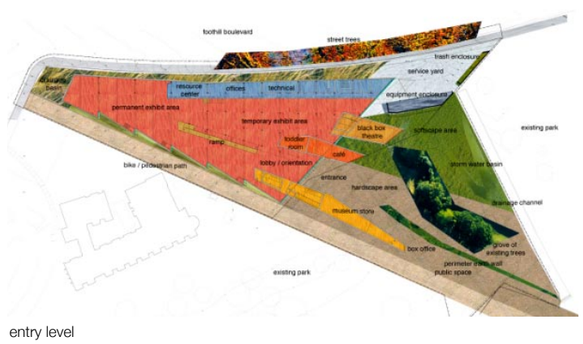


interior



CMLA I

CMLA II



entry level

Built Pedagogy

The design philosophy for the new Children’s Museum is based on three primary principles. First, pursuant to the educational mission of the Museum, the building will serve as one of the exhibits and instruct observers how it works. Second, the design of the structure is based on conventional construction with the sustainable logic in its use. Finally, the architecture will be part of the infrastructural landscape of the park.

The Children’s Museum is integrated into the landscape of the Hansen Dam Recreational Area through scale and a playful use of materials. The building emerges out of the ground, shifting in height from a child’s height of 4 feet to 36 feet high at the entrance. Three smaller sculptural volumes in the garden bridge inside and outside, bringing the park into the museum. The building includes exhibition space, offices, workshops, café, store, and theater.

The Academic Environment

Through manipulating conventional materials and environmental systems in unconventional ways, the building prompts visitors to ask what a building can be and leave with more questions than when they arrived.

The Design Studio

Toward the goal of education, alternate paths lead into and through the open and flexible gallery spaces organized on two levels. Along the paths, the visitor can see how the building functions in terms of structure, energy systems, and materials used. The load-bearing elements are uncovered, allowing the observer to notice what holds up the roof and question how they perform. The mechanical, electrical, and plumbing building systems are visible and interactive. The landscape exposes the natural elements such as rain by bringing the building alive with the spitting, shooting, and funneling of water to demonstrate the storm water management and transform the garden into a temporary fountain.

The Living Building

The design of the building employs sustainable logic in the application of common building systems. As flexible space, changes over time will not require building reconstruction. The entry is oriented toward the prevailing winds, allowing the local climate to cool the interior. Natural ventilation is augmented with misters, which cool the air through vaporized water. Tilt-up concrete walls are used for their thermal mass to shield the interior from solar heat gain. Storm water is collected and stored on site for percolation into the ground, reducing additional loads onto the storm drain system.

Schedule
competition first prize 2002 / completion 2007

Building Area
5,400 m2

Budget
$22 million, excluding exhibits

Reference
Cecilia Aguilera Glassman, Chief Executive Officer, CMLA
818 786 2656 x126 cecilia@childrensmuseumla.org

Merit

awards
- The Building of America Network, Community Service Award, 2009
- AIA / Los Angeles Next LA Merit Award, 2005
- AIA / Los Angeles Next LA Merit Award, 2002

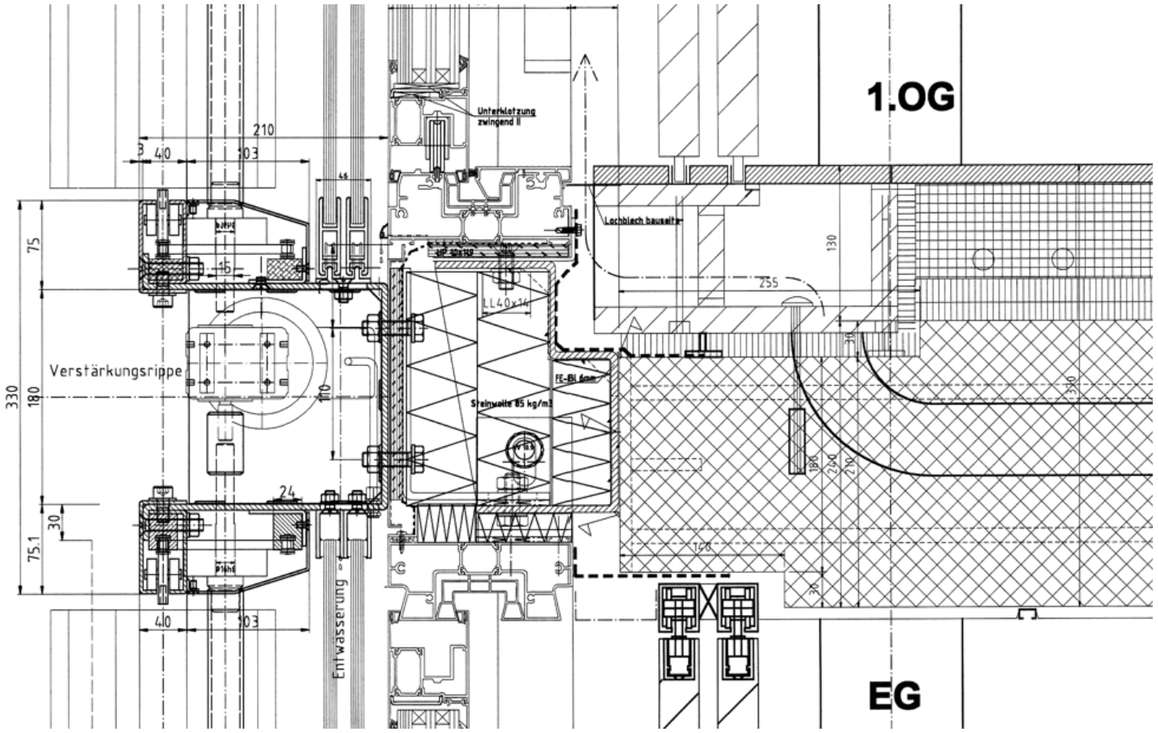
publications
- LA Architect, “AIA / Next LA Awards,”Jan-Feb 2006
- hochparterre, Zeitschrift für Architektur und Design, Zürich, February 2003
- LA Architect, “AIA / Next LA Awards,”Jan-Feb 2003

04 APARTMENT BUILDING HOHENBÜHL

facade closed

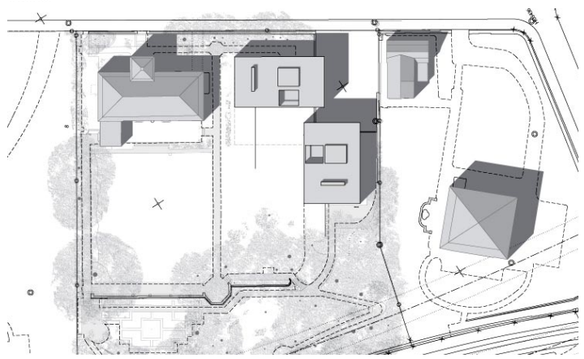
facade varied

facade open



facade detail

interior



site plan

Built Pedagogy

In the heart of Zurich, buildings, streets, parks, and plots are pocket-sized from an urban point of view. Land parcels are characteristically small. The project brief asked for luxury apartments in a historically protected park. In architecture, the notion of up-scale housing typically implies generous spatial dimensions. With the project in the center of Zurich, however, the answer to the task was delivered differently – by putting architecture under the microscope and emphasis on the detail.

The story of this project is that of one particular detail. It has been suggested that small parts of buildings tell the story of their making. While Mies van der Rohe proclaimed “God is in the detail,” others have come to realize that it is in fact the devil who is in the detail. Indeed, present-day construction can be quite telling, revealing the prevalent procedures of a building industry at work. Quick, cheap, and undemanding, the fabrication of parts complies to the law of efficiency. Whether attributed to poetic expression or operational efficacy, the detail is an ideological battle ground of sorts, where two traditions clash.

For this housing project an alternative trajectory was pursued, attempting to bridge the two traditions. Working collaboratively with a group of professionals: architect, structural engineer, energy expert, façade manufacturer, machine fabricator, and artist, a special curtain wall was designed, one addressing a series of technical parameters as well as the elegance of building construction.

The project encompasses two discreet buildings encased by composite skins. What was originally used as a mass-produced mesh for conveyor belts in industrial bakeries was here transformed into a silver fabric, a curtain that acquires various complexions according to changes in light. Analogous to clothing, this sunscreen – a key component of the energy system – presents itself as a coat that is both protective as well as handsome. Behind this screen, an all-glass skin envelops the building’s volume. This is followed in the interior by additional layers comprised of sliding wood privacy panels as well as a track for curtains.

Silver membrane, glass, colored panels, and curtains are flexibly interrelated. Residents choreograph their own environment. At any time of the day or year they can modify their own degree of seclusion, shading, and view. Simultaneously, they are able to define the building’s appearance ranging from disguise to disclosure to complete transparency.

Schedule
competition first prize 2002 / completion 2004

Budget
$6 million

Merit

awards
- best architects 07 – Germany, Austria, Switzerland, November 2006

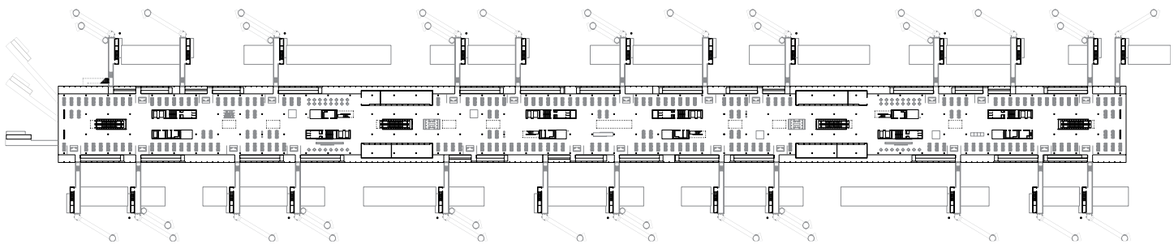
publications
- best architects 07, “Apartmenthäuser Hohenbühl”, Zinnobergruen, Düsseldorf, November 2006
- Detail, “Facades + Materials”, München, November 2005
- archithese, Swiss Performance 05, Text: Judit Solt, January 2005
- Metamorph, 9. International Architecture Exhibition, exhibition catalogue, Venice Biennale, September 2004

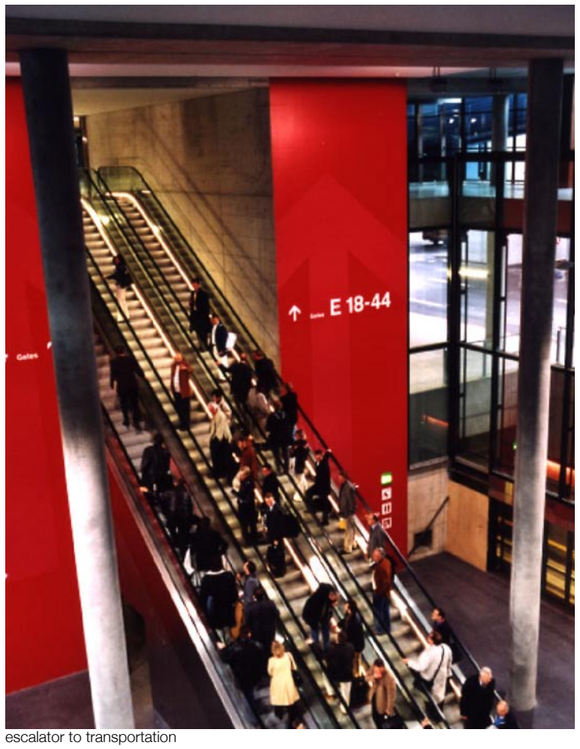
05 MIDFIELD TERMINAL, ZURICH INTERNATIONAL AIRPORT


approach by plane

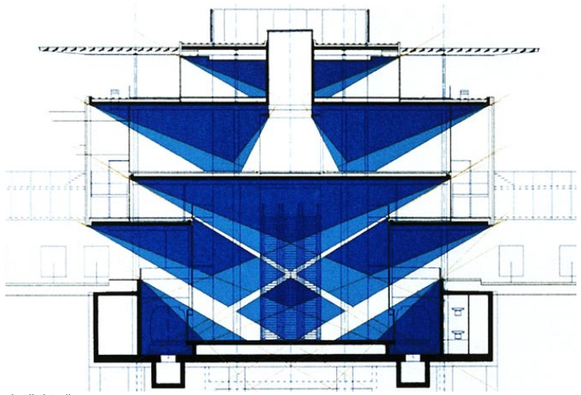
departure level

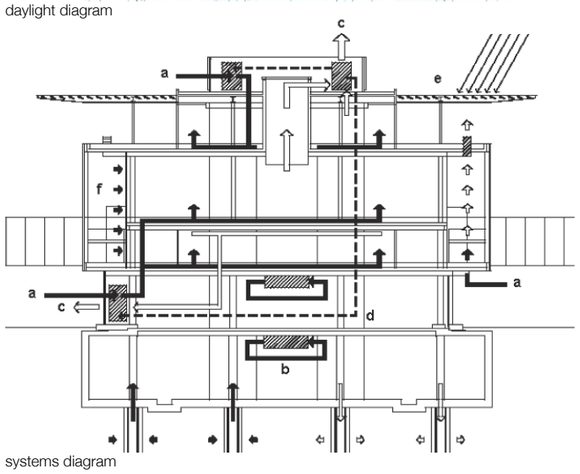

elevation


site plan



escalator to transportation


daylight diagram



systems diagram

Built Pedagogy

The Zurich International Airport has recently been expanded, including a new 27-gate midfield terminal. The goal of the Airport Authority was to achieve the most progressive ecological airport building in Europe.

Contemporary airports could be characterized by two diverging tendencies. On the one hand, travelers routinely encounter terminals which can hardly be distinguished from one another. Due to limited resources, facilities often express banality and dullness. On the other hand, new designs tend to promote overwhelming formal exuberance. Here passengers encounter a spectacle of spatial and visual information.

For the Zurich midfield terminal another approach was pursued, addressing economical considerations in conjunction with the client's request for a recognizable design. Conceptually, the terminal uses the logic of minimal resources to identify a forthright aesthetic expression. Functional requirements were studied as to their essential properties and translated into architectural space. Qualities were derived from a network of relationships, including movement, visual connections, daylight, and spatial awareness. The architectural concept is based on an economy of means. Formal and economic aspects reinforce one another.

The Living Building

A significant component of the building is the integration of environmental control systems. Energy efficiency is emphasized through the use of renewable resources. The structural foundation piles are utilized as integral parts of the energy concept using the stable ground temperature to cool or heat the building as required. Accordingly, no additional air conditioning nor heating systems are required. The glazed facades form a thermal buffer zone, climatically protecting the building's interior.

The integration of photovoltaic cells within the shading panels of the roof structure make use of solar energy to generate electrical power. Rain water is collected on the roof, stored in a series of tanks, and utilized as grey water for toilets. The entire roof is landscaped providing water retention, minimizing the load on site drainage systems. Landscape materials include seasonal planted areas as well as crushed recycled glass gravel.

Schedule
competition first prize 1996 / completion 2003

Building Area
90,000 m2

Budget
$300 million, including soft costs / excluding luggage system

Merit

awards
- red dot design award, Sessa One, airport seating June 2003
- Prix Solaire Suisse, Photovoltaic Installation Oct. 2002
- Goldene Hase Hochparterre, Planted Courtyards, Dec. 2002

publications
- hochparterre, Werner Huber, "Ein Tanker auf der Piste," March 2005
- hochparterre, Zeitschrift für Architektur und Design, August, 2003
- Der Gartenbau – L'Horticulture, Solothun, January 2003
- Dock Midfield Flughafen Zürich Werkbericht, Zürich, 2002
- tec 21 "Dock Midfield", November 2002
- archithese, "Zwischen Pragmatik und Poesie; ARGE Zayetta: Dock Midfield, Flughafen Zürich" September 2002
- LA Architect, "Zürich Airport," May - June 2001
- Schweizer Ingenieur und Architekt, "Dock Midfield," Article by Marc M. Angélil, July 1998
- Passenger Terminal World, "Airport 2000: Project for a Midfield Terminal at Zürich International Airport," London, April 1998
- Zürich Airport, "Airport 2000, Das Neue dock für Unseren

06 CAPABILITY AND PROCESS

agps architecture is a multidisciplinary 40 person team in Los Angeles and Zürich, Switzerland, bridging the realms of infrastructure, architecture, and landscape. Founded in 1982 by Marc Angélil and Sarah Graham, European partners include Reto Pfenninger, Manuel Scholl, and Hanspeter Oester.

The group operates between theory and practice, within the mutual dependency of ideas and production. We consider architecture as a collaborative enterprise, exploring relationships between design processes and products.

Team collaboration is essential to our design process, based on cooperation with professionals from various fields of endeavor and knowledge. Our work is not rooted in an understanding of architecture as a closed system but as a network of relationships in a state of continuous re-definition.

From the development of urban strategies to the identification of specific construction techniques, the work engages in a search for the yet undiscovered. Unlike many architectural practices, we work with only a few projects in the office at any one time, so as to guarantee the daily involvement of partners and key personnel. For the New Building for the Faculty of Architecture, Sarah Graham and Marc Angélil are the key partners and will actively participate through all phases of design and construction. Representatives of the University of Melbourne should contact Sarah Graham for all matters through the duration of the work.

Selected Awards

HT96.4 Horgen House:
- AIA / California Council Honor Award, 1999
- AIA / Los Angeles Merit Award, 1999
- Reiners Stiftung Architectural House Award, 1999

Esslingen Town Center:
- L.A. Winners Award for Esslingen Town Center, The Architectural Foundation of Los Angeles, 1997
- Honor Award, American Institute of Architecture, California Council, 1996

Topanga Ranch
- AIA / Los Angeles Next LA Merit Award, 2003

Waschanstalt, Zürich, Historic Renovation & New Construction
- Best Building Award, Canton of Zürich, 2001

Selected Open and International Competitions

- Zürich International School, Adiswil Zürich, First Prize 2004
- International Planning Center, Nanjing, China, First Prize 2004
- Master Plan for the Herzo Base and adidas “World of Sports”, Nürnberg, First Prize 1999
- Midfield Terminal, Zürich International Airport, with Martin Spühler, First Prize 1996

Selected Publications

- The Phaidon Atlas of 21st Century World Architecture, “Portland Aerial Tram,” Phaidon Press, New York, 2008
- Detail, Concept Edition, “Portland Aerial Tram,” Hubertus Adam, Münich, Germany, May – June 2008
- summa+89, “A La Altera de Los Angeles, Buenos Aires, Argentina, V Sept. 2007
- Time + Architecture, “House on a Ranch,” Shanghai, 2008-1
- Casabella, Milano, July 2002
- Architecture d’Aujourdhui, “Concours pour L’aménagement du Siège adidas à Herzogenaurach Allemagne,” December 1999
- Bauwelt, “Gelandet auf der Herzo Base,” article by Nils Ballhausen, Sept.1999
- Architecture, “Precision Crafted,” Article by Raul Barreneche on the Horgen House, December 1998
- Architecture, “Living with the Box,” Aaron Betsky, July 2000
- Steel Profile, “Special Effects,” Melbourne Australia, 1996

Statement of Process

Our projects vary widely, based on inventive problem-solving approaches. Projects range from transportation infrastructure, including the Midfield Terminal at the Zürich International Airport ($300m) and the Portland Aerial Tram ($57m); institutional buildings, including the Children’s Museum of Los Angeles ($20m), The International Union for the Conservation of Nature ($15m), and the Zürich International School ($16m); and urban design, including the Esslingen Town Center ($25m) and the adidas world headquarters in Nürnberg, Germany.

As demonstrated through numerous international design awards, publications, and exhibitions, agps is committed to a thorough resolution of spatial, economic, and environmental considerations in our work. Our goal is to develop with the owner a true partnership that results in exceptional architecture.

We are essentially interested in the mutual dependency of ideas and making. It is the thinking about making that allows a built object to convey meaning. In order to navigate between these, operational procedures need to be as much designed as the objects themselves. Products and processes stand in shared relation to one another.

Based on our experience to date, we believe that technology should be as simple as possible in order to get the job done, including the development of sustainable building systems. The architecture should present a posture established by the project’s needs.

Project Delivery

Our team will remain intact throughout the process from concept and schematic design through construction in order to maintain continuity and carry out architecture of the highest quality. From the outset, a team of consultants will be assembled who will contribute to the design and technical solutions. We believe in establishing the essential ideas of a project in collaboration with the client and engineers and then finding ways to efficiently transform these ideas into physical form.

The collaborative process begins with listening and discussing possibilities with the owner. We believe it is essential for all participants to define expectations and financial parameters as well as program and spatial potential at the outset of a collaboration. These understandings are to be reinforced throughout the duration of the work.

agps and our team of consultants will provide full architectural services, best summarized in the American Institute of Architects (AIA) document B141, Standard form of Architect’s Services: Design and Contract Administration, as well as by agreement with the Owner.

During the schematic and design development phases, agps will conduct workshops with the University of Melbourne stakeholders, in order to cooperatively establish the appropriate questions and answers to ensure the delivery of an outstanding project. The design team will then prepare refined site design and building plans for review and discussion with the project stakeholders prior to the preparation and delivery of final construction documents. The architects will assist the University of Melbourne with obtaining bids as needed.

It is essential that the architects are on site regularly throughout construction. It is anticipated that agps will establish a field office in Melbourne for the duration of the building process. Only through frequent site visits can the architects ensure that the construction complies in full with the Construction Documents.

In keeping with the traditional role of the architect in Switzerland, agps architecture provides full construction management services, including the role of the General Contractor, in many of our European projects. We are highly versed in the management of construction, including schedules, budgets and contractual relationships with subcontractors.

Proposed Design Team

Four people will form the core of the agps team, each with different responsibilities.

Sarah Graham, Partner in Charge
responsible for design, client contact, and overall team coordination
Education: M-Arch Harvard Graduate School of Design; BA Stanford University, Art History and Design
Registration: American Institute of Architects, Fellow Swiss Architect Association
Practice: 25 years experience as Design and General Partner
Teaching: Visiting / Adjunct Professor: University of Southern California; Visiting Professor: University of California Berkeley, Harvard Graduate School of Design, Rhode Island School of Design
Partner in Charge of recent projects: Portland Aerial Tram; Children’s Museum of Los Angeles; Topanga Ranch.

Marc Angélil, Design Partner
responsible for concept development and its translation into construction
Education: Doctor of Technical Sciences ETH-Zürich; M-Arch ETH-Zürich
Registration: Fellow of the Swiss Architect Association
Association: Swiss Architect & Engineer Association, Board Member of the Holcim Foundation for Sustainable Construction
Practice: 25 years experience as Design and General Partner
Teaching: Professor, Architecture and Design, ETH-Zürich; Associate Professor, University of Southern California; Assistant Professor, Harvard Graduate School of Design

Dominik Arioli, Project Architect, LEED AP
responsible for coordination of engineers and sustainable design systems
Education: Masters in Technical Design, Winterthur, Abt. Architektur, Diplom Arch. HTL, LEED Accredited Professional, Masters of Advanced Studies in Business Administration
Practice: 15 years experience in technical architectural development

Mark Ericson, Project Manager
responsible for team management, project development, and landscape design
Education: M-Arch Southern California Institute of Architecture; BA Rutgers College
Practice: 6 years experience in architectural design; 5 years experience in construction
Teaching: University of Pennsylvania visiting lecturer in architectural representation

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