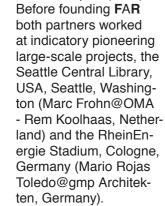
FAR with its team of ten architects was founded in 2004 by architects Marc Frohn and Mario Rojas Toledo and works as a network linked between Cologne (Germany), Santiago de Chile and Los Angeles (USA); it joined forces with rheinpark r in 2008. In 2007 the practice received the prestigious NRW design award in Germany in recognition of the extraordinary architectural quality as well as the innovative power of the office. "The projects and buildings of this young office are not characterized by the superficial haste of a globalized architect, but instead show profound souveranity and clarity both in their concept as well as realization." (Excerpt from the laudation for the NRW Design Award, Germany). In the same year FAR frohn&rojas also won the "AR award for emerging architecture" (UK).

In 2009 the office received the DETAIL-award in the category ArchitektureXport. FAR has participated in a series of international exhibitions, including the Venice Biennale 2006 and 2008. During the next 5 years the office will be featured in a travelling exhibition associated with the German "Network for Archi-





tectural Export (NAX)".

# **CONTACT INFORMATION:**

#### **Architecture:**

FAR frohn&rojas/rheinpark\_r www.f-a-r.net / www.rheinpark.org contact: M.Arch Marc Frohn Architekt AKNW mail: koeln@f-a-r.net t. +49 (221) 282387-0

# Structural engineer:

Schlaich, Bergermann und Parnter www.sbp.de contact: Prof. Dr. sc. techn. Mike Schlaich t. +49 (30) 8145283-0

### Climate engineering + M&E:

downie consulting engineers www.downieconsult.com contact: Paul Downie t. +44 (20) 7250 4000

# **Local Contact Architect:**

Cracknell Lonergan Architects www.cracknelllonergan.com.au contact: Peter Lonergan t. +61 (2) 9565 1554

### AWARDS (selection):

University Campus FH Duesseldorf 2009 commended

2009 DETAIL-Award 2009, ArchitekturXport, Munich, Germany, prizewinner

"Equalizer", competition for Mercedes-2008 Benz, 1st prize and retention

AR award for emerging architecture. 2007 London, UK, prizewinner

NRW Design Award. 2007 Germany, prizewinner

2007 Reiners-Stiftung, Architecture award, Germany, commended

2007 BC award, Italy, best international works, commended

2006 Competition Erich-Kästner-School, Bochum, Germany, 1st prize (completion in 2009)

Primery and Secondary School with Afterschool Care Center and Threefolds Sports Hall, Holzkirchen, Germany, 1st prize (completion in 2005)

International Center Stuttgart, Germany 2001 2nd prize

#### **EXHIBITIONS:**

German Architecture Museum. Frankfurt, Germany

Venice Biennale 2008; Chilean pavilion 2008 EUTOPIA, Chile, Architecture and 2008

Development, Museu da Casa Brasileira, São Paulo, Brasil

2008 Center for German Architecture, Berlin, Germany

2008 Emerging Architecture Award 2007, Cologne, Germany

2008 International German Architects. Turin, Italy

2008 AR award for emerging architecture, Seoul, Korea

BAK & ifa: "Junge Architekten + Stadt planer aus Deutschland International" International travelling exhibition featured project

2007 RIBA London

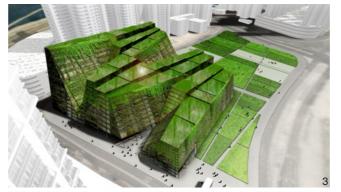
2007 Convertible City (Formen der Verdichtung und Entgrenzung); KAP Forum, Cologne (b&k+brandlhuber + marc frohn)

2006 Venice Biennale; German Pavillion (b&k+brandlhuber + marc frohn)

deSingel, International Art Center. Antwerp, Belgium

### **PUBLICATIONS:**

FAR frohn&rojas has been published extensively in several important architectural magazines around the world as well as in book publications, like recently in the "German Architectural Annual 2008/09" by DAM (German Architecture Museum, Frankfurt), the Italian "Skiro Yearbook 2008" and "Strike a Pose: Eccentric Architecture and Spectacular Spaces" by L. Feireiss and R. Klemten.













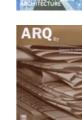


R E C O R D































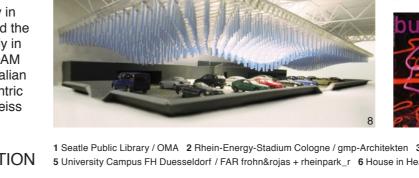














# Capability and Process

Over the last years we have gained an international reputation for outstanding and innovative design. At the same time we have proven our capability of delivering architectural projects on time, in budget and to the full satisfaction of our clients, both private and institutional. After winning the competition for a large primary and secondary school complex of 12.000 sgm in Holzkirchen, Germany we completed the project in 2005. A project overview and the client's contact information are attached as part of this application. Currently we are in the finishing stages of another school complex of similar scale in Essen, Germany which we are about to hand over to the clients. In both of these public projects we managed to fulfill the very tight budgetary constraints and timelines. In December 2008 we were invited by the state government of Northrhine Westfalia, Germany to participate in the design competition for a new university campus in Duesseldorf, the first such endeavour of this scale in Germany in over 20 years. Our entry for this project was commended and placed 6th. (A project overview is included as part of this application) Next to our design and building experience of educational environments our office has gained considerable experience in building in foreign countries, enabling us to respond well to local challenges very early in the design stage.

Our experience in design and project delivery is complemented by a strong team of structural and environmental engineers as well as our Australian partner office Cracknell Lonergan Architects, who have gained considerable experience in international collaborations amongst other projects; as the local partner for the realization of the German International School in Sydney. The internationally renowned structural engineering firm Schlaich, Bergermann & Partner from Germany has extensive experience in institutional projects of all scales (e.g. German Parliament) and made its name as engineers for the highly acclaimed 1972 Olympic Stadium in Munich. FAR frohn&rojas/rheinpark\_r would act as the team leader for the project. We are registered in the "Architektenkammer NRW", the professional board of architects in Germany.

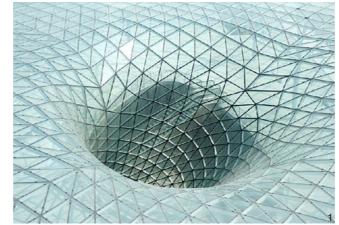
We consider it to be a unique opportunity to have the faculty of architecture, building & planning as clients and users, and in case of delivering the winning scheme, would like to tap into this great resource. In order to productively incorporate the faculty's feedback we suggest the following strategy: Based on the competition proposal we would like to arrange two workshop sessions or "Denk Dinners" (thinking dinners) as we call them bringing together representatives from the academic body, the students, the administrative side and the design team. They would take place shortly after the competition. Based on the key framework laid out by our entry the clients, users and architects could discuss and brainstorm the integration of further needs, many of which could not be fully integrated into the entry, due to the nature of a competition,. These two brainstorming session would be additional to the regular client

meetings following in the process. During the bidding and construction process the local architects would bring their familiarity with local requirements to the table. At least one member of our office would be continuously present in their office during this period in order to assure the tight integration of design and construction issues.

#### **SCHLAICH BERGERMANN UND PARTNER**

structural and civil engineer www.sbp.de

Schlaich Bergermann und Partner, Stuttgart, Germany are independent consulting civil and structural engineers. This consultancy strives to design sophisticated engineering structures ranging from wide-span lightweight roofs, a diversity of bridges and slender towers to innovative solar energy power plants. Our ambitions are efficiency, beauty and ecology. For the sake of holistic solutions we seek the collaboration with architects and engineers from all fields of expertise who share our goals.











- New German Parliament Arc Rehnisch und Partner
- Munich Olympics Arenas Arc. Behnisch und Partner
- Olympic Stadium, Rectractable Roof, Montréal Arc. Roger Taillibert



Consultans / Local Contact Architect

## **DOWNIE CONSULTING ENGINEERS**

energy engineer + M&E engineer

www.downieconsult.com

Downie Consulting is a London based company specialised in low energy and sustainable design solutions with a clear strategy to create low carbon buildings through environmentally considered designs. Since forming in 1999, we have explored modern solutions to services engineering challenges and brought a fresh approach to new building designs, blending traditional and new technologies to reach the desired conditions and produce low and zero carbon buildings and continue to set the trend in our market.

- Green Apple Award 2006 National Gold Winner
- Sustainable Building Awards Finalists 2006
- RICS Sustainable Building Of The Year 2007









- Burgess Park Sport Pitch Development, London Arc. Studio E Architects Green Apple Award 2006
- 3 Dairy Lodge-Hobhouse, Somerset Arc. SCDLP Architects

1,7 New Trade Fair in Milan

station, China

Arc. BIAD / Beijing

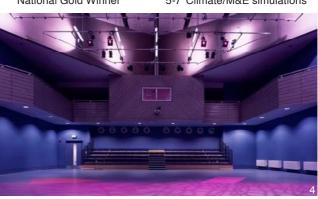
Arc Massimiliano Fuksas

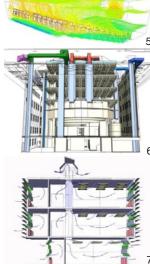
tem, Riyadh, Saudi Arabia

New Guangzhou Railway

50 kW Dish/Stirling Sys-

- Townley Grammar School for Girls, Bexleyheath, UK, Arc. Studio E Architects





### **CRACKNELL LONERGAN ARCHITECTS**

Local Contact Architect

www.cracknelllonergan.com.au

Peter Joseph Lonergan, Arch. Reg. No. 5983 ABN 55100940501

Cracknell & Lonergan Architects Pty Limited is an Australian based architecture firm experienced with the realization of educational facilities as the German International School in Sydney, Terrey Hills. This project is a collaborative effort with the international based German Architectural firm Staab Architecture&Design. It has involved a total design for a new school, including design and construction management and the treatment with the local relevant boards and authorities. As a matter of course the office is used to the local building codes.



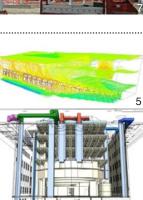
1-4 German International School Sydney Arc. Staab Architekten Local Contact Architect Cracknell Lonergan with Atelier 21 Sydney







ARCHITECTURAL DESIGN COMPETITION



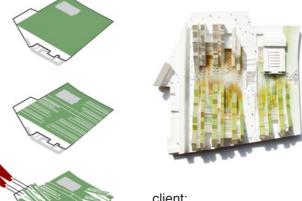
# THE EDUCATIONAL LANDSCAPE AS AN URBAN INTERFACE

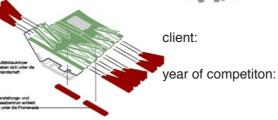
The origins of the European university, investigation and education are placed less in closed architectonic spaces then in open-spaced gardens. Plato, for example, as is known, taught his students in the shadows of the olive trees in a publicly accessible grove of Athens. But in the course of time these informal structures solidified and were institutionalized by the construction of educational and sport buildings. This starting process of spatial and technical specialization and progressive demarcation of the public space designates the development of educational architecture until the emergent past. In Germany it disembogues into the new buildings of the autarchic outer-city campuses of the 1970s.

The growing importance of regional identification of universities, the renunciation of pure lecture-oriented classes and the different learningconfigurations: decentralization due to digital mobility are issues that present a challenge to the educational institutes. It is steadily more difficult to conciliate these requirements with traditional functional architecture. The key to our design is retaking the original thought concerning "educational landscapes". This image of educational landscape is developed as a central element, on one side as a year-round green valley and an esplanade as an active point of intersection between campus and urban space. This new learning environment manifests in a significant work of architecture, in both appearance and performance as also in its urban design, activating and connecting the campus and its community. At the same time the campus is traversed by indoor/outdoor learning and communication zones. The characteristic hillside and bottom of the valley are integral parts of the "Zero-Emission" climate-concept and make it tangible in an architectonic way. It demonstrates an integrated design between the natural and built landscape in and around the building using advanced servicing technologies and sustainable resources. The energy requirements are completely covered by the energy supplied by its environment.

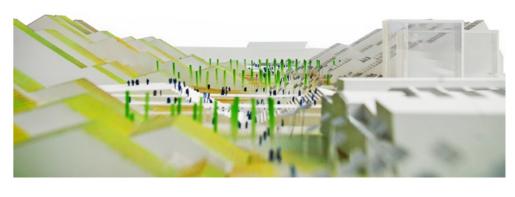
In the artistic faculties of architecture and design the studios are placed on stepped platforms. A complex spatial sequence results from the visual connection of these areas, despite the clear linear architectonical organization of the bars. The studios make use of the sheds which are formed by the mountain-like roof structure and are oriented to the north, generating a widely distributed light. With this kind of studio-organization the building communicates the notion of ongoing work, enabling the in-process work of students to be highly visible and making possible discussions and exhibitions of contemporary and historical work.









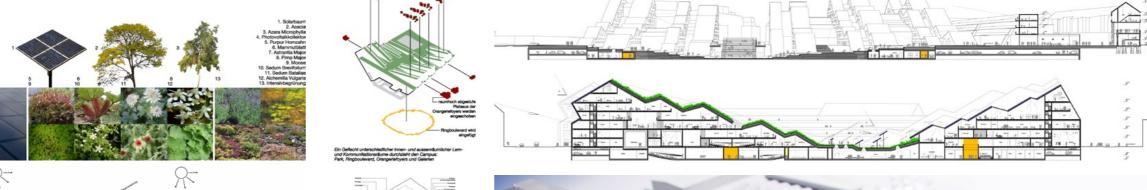


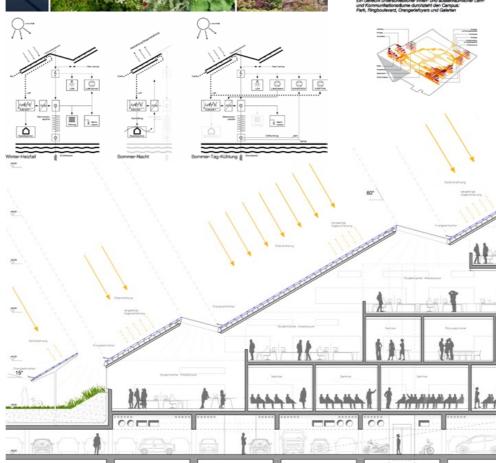
Bau- und Liegenschaftsbetrieb NRW, Germany 2009 invited competition 6th prize

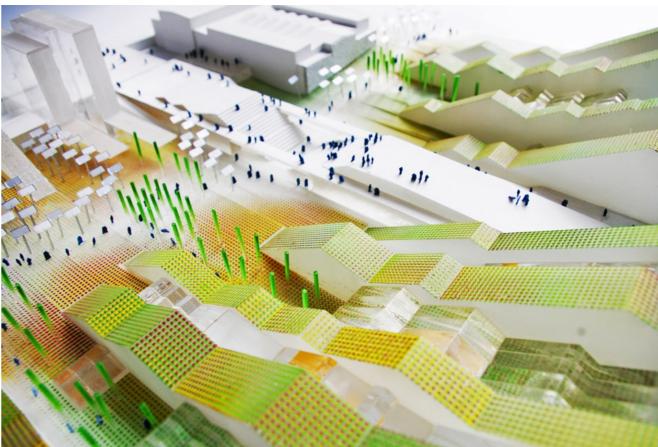
6th prize
FAR frohn&rojas/
rheinpark\_r

# Project Information gross cubic meters

gross cubic meters 511.623 m³ gross floor area main use area 54.126 m² building costs 5125 Mio €







# THE HIERARCHY OF THE EDUCATIONAL LAND-SCAPE AND CAMPUS ORGANIZATION

Based on the client's requirements, the project frames a clear programmatic functional campus organization: All commonly used premises form a built plinth. Placed upon this are clusters of departments, developed as double-bars and shared spaces between the bars. A mesh of educational and communicational landscape interweaves the plinth and clustered department-bars; and in the course of this interplay evolves an intelligent hierarchy of educational rooms with different levels of intimacy. This provides a range of opportunities from quiet, individual research to collaborative work with other academics. A ring-boulevard provides circulation to all these different learning environments: the Orangery-fovers as climatic-buffer zones of the the department-clusters, workshop areas, "green" conference rooms, sports areas and private retreat-areas which allow concentrated studying under the (solar-) trees; we hark back to Plato's grove.

The plinth is the connecting element of the campus. A lecture-hall-center and exhibition center, the central workshop areas and all commonly used areas are placed in it. This single-level element shows a hard edge to the underground car park yet interlocks with the green valley. This interlocking, together with a series of atriums allows an excellent lighting situation for all functional areas. In a rhythmic sequence, the ring-boulevard connects to the park area, to the vertically steped Orangery-foyers and to the gallery-zones of the departments above. As a connecting element it offers a multitude of impressions of the campus becoming a dynamic life-line, a foundation for a compelling work environment for all students, staff, and visitors.

#### **FLEXIBILITY**

The main structure of the design, which organizes the campus as a plinth with add-on double-bars as clusters zones, allows a maximum amount of flexibility. The narrow bar (6,5m) accommodates mainly offices, while situated in the wider bars (10,5m) are laboratories and other utilizations with higher installation requirements.

The building depth allows a multitude of spatial utilizations; the supporting framework is placed within the façade and allows a maximum amount of flexibility concerning local or large-scale re-organizations of the structure. All rooms are assessed to work with mechanical or natural ventilation. The bars have multiple access points, from the street front, the underground car park or the park side. The structure allows efficient department organization with short ways between laboratories and offices yet offers attractive means of meandering.



This sustainable design demonstrates an outstanding performance by the use of the best available material technologies, local climate conditions, sun shading and natural ventilation to provide a high level of occupant comfort in combination with a very determinate budget.

As opposed to the general notion that our living environments can be properly described and designed "in plan", this project is a design investigation into how the qualitative aspects of the wall, as a complex membrane, structure our social interactions and climatic relationships and enable specific ecologies to develop. The project breaks down the "traditional" walls of a house into a series of four delaminated layers (concrete cave, stacked shelving, milky shell, soft skin) in between which the different spaces of the house slip. Each layer is characterized by very specific climatic, atmospheric, structural, material and functional properties and through that becomes part of the intelligent hierarchy underlying this low-budget project: while the innermost zones host the most demanding areas (e.g. kitchen and bathroom) the house and its materials roughen up toward the outside. From the inside out the layers build upon one another, both materially, in terms of the climate concept and geometrically, blurring the boundary between the interior and the exterior and creating, through the specificity of the different materials used (many of which are not common in architectural applications), a series of qualitatively distinct environments. The building's most standout feature, an energy screen typically used in greenhouse construction, constitutes the outermost layer, creating not only a high quality natural light and comfortably climatized zone inside by natural ventilation but

# **Project Information**

 Zero-Heating-Energy House german standard "Nullheizenergiehaus" (evaluated concerning primary energy needs)

2004-06 planing phase 01/2006 planning application 02/2006 start of construction 02/2007 completion

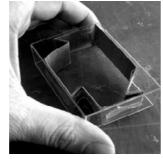
gross cubic meters 707 m³ gross floor area main 230 m² use area 205 m²

building costs 0,2 Mio €

- publicated extensively in several important architecture magazines worldwide
- winner of the AR award 2007
- winner of the DETAIL-prize 2009 category "ArchitekturExport"







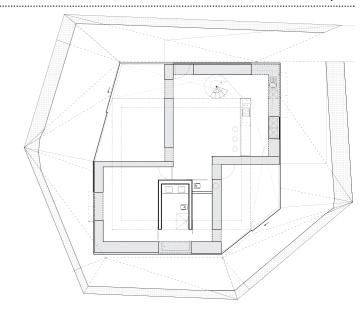
also, through its folding and sometimes- reflective/ sometimes-translucent surface, contributes to the diamond-cut appearance of the structure. With its separated wall layers the project unites architectural and energy concepts. They become inseparable as in between the different membranes a series of specific climate zones emerges. Thus the individual wall layers do not only build upon one another geometrically, starting from an extruded concrete core developing into a diamond-shaped soft skin, but in the context of the energy concept establish a finely calibrated hierarchy amongst one another.















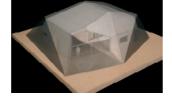
client:

Patricia Krause Senft, Santiago de Chile t. +56 99 4891688 2007 FAR frohn&rojas

year of completion: architects:











gross cubic meters

gross floor area

main use area

Parallel to the design work in his architectural practice Marc Frohn has addressed the challenges to educational environments extensively in his academic teaching and research activity. He initiated and cotaught the design and research program "Knowledge Building" at RWTH Aachen University and published key findings in a brochure under the same title. He also participated as an author in the EU-funded research study "Science Communication" addressing changes of the German University environments in the light of the development of a global knowledge economy.

#### SCHOOL WITH TWO GROUND FLOORS

The concept of the school with two 'ground' floors was developed as a solution to the existing elevation change. The lust green meadow provides direct access to the elongated volumes, which feature classrooms. Four courtyards cut into this upper level, exposing the rooms below, a sports hall and administration offices.

The building features a concrete core heating/ cooling system. Collectors, located just below the outdoor sport areas, produce radiant concrete slabs within the building. A comfortable in-door temperature is maintained throughout the year.

Acoustics are improved with vertical ribs within the ceilings. The vertical nature of these ribs is favorable because it does not disturb the efficiency of the concrete core system.

Ultimately, the upper level meadow satisfies the building's heating and cooling requirements, while providing pleasant circulation above and an exposed concrete ceiling below.

This setup with its two 'ground' floors promotes the interaction between students from all year levels, at the same time providing visual and acoustic privacy. The linear structure provides a maximum amount of flexibility permitting a range of formal and informal teaching and learning spaces as used evermore in all kind of schools taking advantage of modern learning and teaching methods. The building and its classroom configuration responds to a new staffstudent interaction and work styles in their layout, furniture and equipment focusing on new established experiential learning, turning away from the classical frontal lecture based classes.

#### **PROJECT INFORMATION**

	_
2002	open competition with 400 participants – 1st prize
11/2002	retention of planning
02/2003	planning application
07/2003	start of construction
07/2005	completion

Nominated for the "Prize of the Union Confederation of German Architects, Bavaria" in 2006







- primary school with 12 classes
- after-school care center
- multipurpose hall
- threefolds sports hall
- outdoor sports complex

-bauwelt 33/2006: "Das größte Dach im Dorf"

- -l'architecture d'aujourd'hui 05/2006
- -AIT 05/2006

client: Markt Holzkirchen und

Landkreis Miesbach,

Kreisbaumeister W.

Pawlovsky t. +49 8025 704 274

rheinpark\_r Architekten







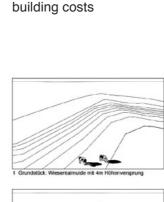
- secondary school with 20 classes

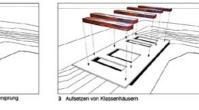
- publications

Germany

year of completion: 2005







57.905 m<sup>3</sup>

12.719 m<sup>2</sup>

7.987 m<sup>2</sup>

24,5 Mio €

