

JESSE REISER

NANAKO UMEMOTO

# EXPRESSION OF INTEREST: ARCHITECTURAL DESIGN COMPETITION NEW BUILDING FOR THE FACULTY OF ARCHITECTURE BUILDING AND PLANNING, UNIVERSITY OF MELBOURNE

For this project, Reiser + Umemoto, RUR Architecture, PC along with Ove Arup (ARUP) and Focus Lighting, Inc. forms comprehensive team of professionals, which comprises the full range of disciplines of Architecture, Landscape Architecture, Lighting Design, Structural Engineering, Civil Engineering, MEP and Data Engineering, Geotechnical Engineering, Environmental Consulting and Sustainability. Our experience has been that truly innovative architectural projects are motivated by our contributions as architects and landscape architects to the cumulative expertise of our collaborators, clients and consultants. Our collaboration has been prompted by a new paradigm that is emerging in contemporary design between architectural practice and the built environment. It is our intention to produce a fundamentally new relationship between site, structure, and use that derives from the unfolding space/time of dynamic structures. This is neither modernist engineering-architecture, nor post-modern high tech, but rather for the first time there exists the possibility of a synthesis between the environment and built structures.

The New Building for the Faculty of Architecture Building and Planning project is no exception. Here exists the perfect opportunity to fundamentally rethink the central campus building and its surrounds: the facility must perform like a city, integrating all the functions concurrent with the varied tracks of daily classes and lifestyles within easy reach of one another, while seamlessly blending into its environments, both formally and organizationally.

# 05.1.1: BUILT PEDAGOGY

The new Architecture Building and Planning Facility at the University of Melbourne is to become a central learning and administrative facility for the School of Design. Here is an opportunity, in Australia's most culturally vibrant city, to synthesize the educational infrastructure of the Architecture / Urban Design, Landscape Architecture, Property, and Construction and Planning programs, while contributing to the campus and city experiences as a whole. As the building contains the more public functions of a research facility and library, it is imperative that the building has a connection to the greater landscape, adjacent buildings, as well as the city of Melbourne.

Certainly the quality of the facility itself is of utmost importance, yet the treatment of the edges and addressing context is also just as crucial, not simply to provide a campus building for public use, but rather to provide a cohesive piece of the urban or semi-urban fabric and activate adjacent sites and neighborhoods.

Here we would imagine a design proposal which seeks to expand and use those currents of pedestrian and student use which flow though the site, rather than subdivide and separate them; existing organizational elements will ultimately create a framework for design which will be used and expanded upon, rather than discarded in favor of a clean-slate design mentality. Our team envisions a completely integrated design approach, fusing together building spaces and plazas, interiors and exteriors, along with artistic elements, pathways, seating areas and building connections. The new Architecture Building must perform as a set of complimentary systems, that first and foremost will address programmatic concerns, yet also adapt to a varied set of formal and organizational issues. It must perform like a city, integrating all the functions concurrent with daily classes and lifestyles within easy reach of one another, while seamlessly blending into its environments, both formally and organizationally.

Also of significant interest to our firm is time, in its relationship to project life - static building installations without responsiveness to changing urban conditions or flows are neither useful or desirable to the contemporary campus, and this project is a prime opportunity to give the new Architecture Building a dynamic relationship with its environment. Many of our projects take advantage of construction phasing strategies to provide opportunities to generate time-based building phasing, dynamic planting plans, or best project management scenarios; this artificially-induced succession allows for the feasible construction, phased introduction of sensitive species, as well as a reinforcement of the natural infrastructures of earlier successional species underlying successful multi-layered native ecologies. Administratively, this affords an opportunity to better utilize the public money for the greatest good, as well as restrict top-down project phasing policies that may have overtly detrimental impacts on local ecologies.

To work in this way is inherently sustainable – when understanding stabilities and discontinuities in human uses, one cannot help but become in-tune with the collected exigencies of the natural environment. As such, we do not see sustainability, energy efficiency, re-greening or responsible water management as additional elements, applying them to a design solution, but rather as existing conditions. We find it a necessity to work within these modes, recognizing them as discrete flows of themselves that have their own trajectories, and in turn shape the course of others around them. These modes of working will certainly be of primary importance in determining opening design moves for the new Architecture building, and will certainly play into overall strategies for attaining its desired Greenstar Rating.

# 05.1.2: THE ACADEMIC ENVIRONMENT

The key aspect of collaboration or the bringing together of disparate disciplines is inherently architectural, and must be a foundation for any critical educational program. So too must the building operate with the spirit of collective advancement. The building must function like a city. It is connected to its surrounding landscape, and access to and from the building has to be highly functional, and it must blend into its landscape (fabric) seamlessly.

Altogether the eleven undergraduate academic paths, plus the graduate academic paths, as well as the faculty, administrative staff, research groups, external students, and general public, all make up quite a varied constituency. A university student that enters the building on a daily basis has different requirements than a public user that only drops by to use the library or for lectures, both of whom also has different requirements from the administrative assistant who works daily in a departmental office. With respect to the requirements of daily use, the building will be designed around these separate user groups, considering their relationships to access, technology, scale of facilities, natural conditions, and any number of other pertinent design factors. These user groups can then be organized for greatest isolated benefit, and then be blended together in common spaces and heavier use zones in the most culturally productive way.

RUR enthusiastically supports the University in its goal to use advanced design and construction techniques in the building design and maintenance processes through the integration of design and construction drawings will be streamlined through the successful use of these technologies such as Building Information Modeling (BIM), and as such, advanced levels of design and fabrication are possible, where before limited to very prosaic and normative design models. The benefits of Building Information Modeling do not stop in the design and consultant coordination phases. In many campus or multi-building projects, facility maintenance and energy analysis are greatly improved and simplified by maintaining and reviewing a catalog of Building Information Models of all buildings.

Reiser + Umemoto, RUR Architecture P.C., is also uniquely positioned to satisfy the university's goal of a world-class internationally recognized educational facility. Our projects are widely published and consistently achieve international recognition, and we have built a number of award winning projects at a wide range of scales. Currently, the firm carries tremendous momentum forward with the ongoing construction of O-14, scheduled for completion in Fall 2009 - O-14 has been very widely published in the months leading up to its completion, and has already begun to be recognized as a popular cultural icon of Dubai. We also gained considerable international attention within the architectural field in late 2007 when we were awarded first place honors during the international jury phase of the Terminal 3 at Shenzhen International Airport Competition, designed and developed in collaboration with ARUP. Also recently, RUR won first prize in 2006 in the competition to design and build the Alishan Tourist Infrastructure in Taiwan, ROC, another project developed in collaboration with ARUP, and one which has received international design acclaim. We have recently completed design development and construction drawings, which are currently being priced for bid; project construction is due to begin in late 2010. Additionally, in 2003, Reiser + Umemoto were among six firms selected to put forth a design proposal for the World Trade Center, in a collaborative effort with other internationally acclaimed firms know under the name of "United Architects".

Above all, this building will reflect its success and vision of the University, and its goals of becoming an renowned and internationally-engaging institution. The facilities must therefore be comprehensive and upscale in design, as if publicity and renown were imbued in the spaces of the building. Moreover this high design facility will be equipped to be at the forefront of architectural design research, having the most advanced facilities, and will certainly be spiritually uplifting for the students and administration.



# 05.1.3: THE DESIGN STUDIO

The dominant ambitions of he school, integrating research, teaching, and practice, are shared by all members RUR in their personal and professional lives. As such we can easily identify with the three separated forces that share resources in times of overlap. We can envision the new Architecture building in a similar way; as incorporating separate ecologies of varying levels of degree programs, library visitors, general university students and faculty and administrative staff. Each of these can be thought of as separate worlds, often existing in parallel to the others, yet often having no interaction. Indeed, even the realms of advanced architectural education it is possible and highly likely to engage in very different tracks of research, some immersed in history and theory, and some immersed in materiality and fabrication.

In a typical architecture building these worlds are either separated wholesale, or there is ubiquitous sharing of limited resources among all worlds. Rather than the geographic partitioning or communal sharing of extant facility models, we envision a new paradigm in education; one which considers a synthesis between uses, while still affording separate resources. This new synthesis of building ecologies promotes cross-cultural interaction where desired and greater specialization where needed. As such, a building's form and function expresses its dynamic. In order to accomodate the weaving of diparate program elements together, and taking advantave of new technologies in design and construction, the building's form must be forward thinking, and accomodate multiple inputs. It must creating a new ground, a new environment, and an entirely new world around the school.

Additionally as an icon of architectural pedagogy, the responsibility lies with the facility to impart on its students an ethos of responsibility for the future - sustainability can thus be conceived of in a new and comprehensive way. This encompasses both ecological and cultural sustainability, the deeper significance of which for Melbourne and intelligent environments extends beyond the notion of 'green building' to the broader issues of social and cultural sustainability as well. An centralized urban campus building is not a merely a machine for learning; it is a vital place for human culture and interaction. Moreover, it must represent the highest aspirations of the people of Melbourne, and, by extension, our common humanity. Our devotion to speed, technology, and efficiency should not blind us to the fact that cultural expression is as essential as the air we breathe. The new Architecture Building will propose a vital cosmopolitan embodiment of such values – here stands a fantastic opportunity, in which global technology and local culture can be synthesized without risking superficial pastiche or caricature.

# 05.1.4: THE LIVING BUILDING

Our design team approaches sustainability, energy efficiency, re-greening and responsible water management as existing conditions that must be accounted for (in much the same way an inventory of site conditions must be taken), rather than additional elements to be applied to a design solution. As such, we are consistently and continuously developing innovative methods of reducing our buildings' drain on their environments, and improving our clients' ability to maintain and operate their property. Implementing high performance design elements like green materials, energy reducing / producing materials, energy conservation strategies, and passive sustainable building strategies, are all active design elements in all phases of our projects. For example the dynamic form of our O14 office tower's perforated concrete exoskeleton has attracted international attention in the design community and has been widely published - and its shell's passive cooling effects, saving cooling costs by 30%, have also been extensively documented.

Building adaptability and sustainability are of primary concern to Reiser + Umemoto, ARUP, and Focus Lighting. Many included in our project team are active participants in these ways of working, being LEED certified professionals, actively participating on various domestic LEED certified construction projects, and completing additional sustainable building projects internationally. The passive cooling effects of our O14 office tower's exoskeleton were recently documented by the Discovery Channel, on a CBS News produced television special entitled "Impossible City, highlighting innovative building in Dubai; the special first aired in October 2007. Additionally, on many of our projects, we have worked with specialists in daylighting and natural ventilation to insure the most comfortable interior atmosphere for visitors while maintaining sustainable energy levels. In 2007, the unique shell patterns of our O14 and Shenzhen International Airport were strategically developed in concert with ARUP so as to provide the greatest lighting affects while maintaining a comfortable environment for the users. Similarly, we worked closely with ARUP's daylighting specialists to produce multiple lighting scenarios and developed a simple and efficient fritting detail to soften direct light due to the structure's porosity and Shenzhen's light quality.

In the new Architecture Building at the University of Melbourne, a comprehensive green building system will inform

design at all levels. These may be classified in three major themes: environment, collection, and technology. Sun studies indicate a beneficial use of natural glare-free lighting throughout the whole complex. An integrated built shading device in the south facade prevents overheating in summer and creates different gradient of light intensities. Natural light and solar gains will be present in the entire building. Likewise, cooling is only directed to the zones of actual occupation. The need of a comprehensive home for the School of Design requires a larger building than currently available, the vast roof area of which allows for the collection of both water and solar energy. Water collection possesses a dual functionality. Greywater and building runoff can be collected and used for campus irrigation, building cooling and maintenance. Solar energy can also be collected to reduce the ongoing costs of building operation. There are additional benefits to solar collection in the form of reduced CO2 emissions from the power plants that normally supply the city. New lighting solutions, like spectrally-enhanced lighting, are key to reduce the building energy use and enhance the quality of inhabited spaces. Advanced building control systems guarantee a significant improvement in energy performance. It responses to changes in the internal and external environment and optimizes the building operation. Therefore it lowers maintenance costs and staff will enjoy greater levels of comfort and personalized control. Additionally, an integrated building security system ensures the safety of the building and its inhabitants. It protects the facility, people and data from burglary theft and fire. It reacts swiftly and assuredly to any eventuality and with the totally integrated building solution it creates the best possible condition for the users and inhabitants.

# 05.1.5: CAPABILITY AND PROCESS

The new Architecture Building will be an important new campus space, serving as a catalyst for future progressive development. The design of such an prominent project requires exemplary attention and dedication from the design team. At Reiser + Umemoto, the design of the new facility will be advanced under the direct supervision and direction of the principals, Jesse Reiser and Nanako Umemoto.

Reiser + Umemoto is a unique practice where the Principals of the firm, Jesse Reiser and Nanako Umemoto are able to maintain a high level of design involvement with every project the office is undertaking. On a day to day basis, the principals are engaged with every design project from beginning to end to ensure the highest possible quality and originality is achieved. This is made possible by the clear understanding of the design philosophy of the firm at every level of the workforce, which maintains a core group of very skilled designers who have been with the firm through various project cycles. Many of the Firm's employees are former students of Jesse Reiser and Nanako Umemoto from highly reputable Universities where all of them investigated different trajectories of design under the guidance of Jesse Reiser and Nanako Umemoto. This allows a seamless transition to the work environment as the principals are already familiar with the strength and capabilities of each employee and can guide them into most efficient and productive direction.

Jesse Reiser and Nanako Umemoto will dedicate their efforts personally on the most successful outcome of the design of the new Architecture Building as they will rely on the proven record of their key personnel under the direct supervision of their Project Architects / Landscape Architects for the project. Key personnel will be given the responsibility to manage and coordinate different aspects of the project including but not limited to layout & program, documentation, geometry, material research, façade, structure, finishes. RUR has a team made of strong and dedicated individuals with superb education, creativity and technical skills who have been working closely and successfully as an efficient group for few project cycles. Our in-house team offers a complete range of skills from design, advanced 3D modeling/scripting, documentation and representation, integrated technology solutions such as Building Information Modeling (BIM), and technical and creative solutions for strong and efficient management, coordination and communication. Additionally, our connections to highly reputable Universities around the Globe enable us to have access to a big pool of new talent and fresh ideas in case of rapid expansion. The Firm is in a perfectly suitable condition to expand as mid-level management, the most important segment of a growing design firm, would be made of personnel who have been with the firm for extended period of time and have a deep understanding of the design philosophy as they will be the core group to convey and implement the firms design philosophy with the guidance of the Principals.

RUR and **ARUP** have a long standing and good relationship, the collaborative nature of which spans well over 10 years. ARUP provides a wide range of consultant services, which in a large scale project like the new Architecture Building will work as an advantage for our team. The physical proximity of our offices here in New York, will create a close and effective collaboration as we will be able to put our heads together at a moments notice to tackle design problems and



produce design and technical solutions with unmatched resources available to us. ARUP brings a wide ranged experience to the table in their experience with projects executed all over the world, including Melbourne. The global presence and resources of ARUP will enable our team to achieve creative solutions and meet benchmark requirements efficiently. ARUP has offices all around the world, including in Melbourne, which will position our team in close proximity to the the University and its representatives, for efficient communication, frequent presentations and a convenient meeting and operation location for the entire team.

Additionally, Focus Lighting, Inc (New York) will provide assitance as Lighting Consultants; RUR and Focus have also had a positive and collaborative relationship. It is a very challenging task to engineer lighting systems for complex geometry structures, yet Focus Lighting has worked with strong rigor on several competitions and two ongoing projects, to come up with most creative solutions. Their international experience and knowledge of alternative markets for procurement of comparable fixtures will help us manage budget at all levels.

Reiser + Umemoto will lead all Planning, Design, and Management tasks and activities, in the areas of Architecture, Landscape Architecture and Urban Design, and utilize ARUP's technical expertise in the varied engineering disciplines required, including but not limited to MEP Engineering, Structural Engineering, Daylighting, Facades, and Site Engineering Focus Lighting, Inc. will provide lighting design assitance. If successful in winning the project, we will endeavor to establish relationship with a local Melbourne-based architect, in order to facilitate permitting, observation and communication. ARUP's already established Melbourne office will be of great assitance in providing engineering support to our local architect. Our two teams worked seamlessly in this way with the assistance of local architect AEDAS, during the design of the Terminal 3 at Shenzhen International Airport competition, completed in 2007.

#### **FIRM EXPERIENCE**

Reiser + Umemoto, RUR Architecture P.C. (RUR) an internationally recognized architectural firm has built projects at a wide range of scales: from furniture design, to residential and commercial structures, up to the scale of landscape design and infrastructure. Jesse Reiser and Nanako Umemoto have established their office as an innovative laboratory in which significant social, cultural and structural ideas are synthesized into a tangible, dynamic architecture. Their growing international recognition has enabled them to pursue this research as an inherent principal in their design work. Each principal is committed to limiting the practice to those projects which merit significant focus, thereby insuring that any project that the firm undertakes receives their undivided attention. Quality is seen to be more important than quantity. As a result each principal is available for all stages of the project, from design conception, development and implementation.

From its inception in 1986, Reiser + Umemoto has been visibly involved in an ongoing inquiry into connectivity among disciplines, namely between architecture, landscape architecture and urban design, and has received awards such as the Chrysler Award for Excellence in Design in 1999, and in 2000, the Academy Award in Architecture by the American Academy of Arts and Letters. The firm's 1990 study of the New York State water supply and Croton Aqueduct corridor, funded by the National Endowment for the Arts, established the firm as specialists in large-scale, infrastructural urban developments. In 1998 and 1999, the firm developed a proposal for the East River front of Manhattan, and was selected as one of the five participants in a competition focusing on the West Side of Manhattan sponsored by the International Foundation for the Canadian Center for Architecture. The firm has been involved in many international invited competitions and has recently won first prize in the competition for the design of the Alishan Tourist Infrastructure in Taiwan, which is currently under construction. Their project for 0-14, a 22-story office tower in Dubai, is also under construction and is scheduled to be completed in late 2009. Jesse Reiser and Nanako Umemoto published the award-winning Atlas of Novel Tectonics in 2006, and in 2008 they both received the Presidential Citation from President George Campbell of the Cooper Union for outstanding practical and theoretical contributions to the field of Architecture.

### **RECENT WORK:**

2008

- Office Tower, Aeon (II), Dubai, UAE (Under Development)
- Home Delivery Exhibition, Museum of Modern Art, New York, NY (Built)
- FC Shakhtar Training Facility, Donetsk, Ukraine (Under Development)
- Taipei Performing Arts Center International Competition, Taipei, Taiwan ROC
- Marina Tower, Dubai, UAE
- Installation, Miyake Madison, New York, NY (Under Development)

### 2007

- Set Design and Construction, Princeton University Production of 'Boris Godunov', Princeton, NJ (Built)
- Finalist, Invited Competition, Shenzhen Airport T3 Design Competition, Shenzhen, China

- Masterplan, Business Bay, Dubai, UAE
- Aigen Residence, Sand Point, NY (Built) • Epstein Residence, Fort Lee, NJ (Built)

#### 2006

- Office Tower O-14, Dubai, U.A.E. (Under Construction)
- Finalist, Museum of Contemporary Art, Cleveland, OH
- Finalist, New Orleans Waterfront Redevelopment

#### 2005

- Alishan Tourist Infrastructure Construction Document Phase (Under Development, Pricing for Bid)
- Benwitte and Silberman Residence (Built)
- Finalist, Invited Competition, Aeon Mixed-use Tower, Dubai, UAE

### 2004

- Sanshui Foshan Urban Development Competition, Foshan, China.
- Alishan Tourist Infrastructure, Schematic Design, Taiwan ROC
- Cohen Residence Landscape, New Jersey (Built)
- Mirvis Apartment Renovation, Jerusalem, Israel (Under Construction)
- Canopy Construction for Temple Rodeph Sholom, New York City (Built)

### 2003

- Winners of Alishan Tourist Routes, New Taiwan By Design International Competition, R.O.C.
- New Museum Invited Competition, New York City
- Canopy design for Temple Rodeph Sholom, New York City
- Apartment Renovation, Westside, New York City (Built)
- Soho Loft Renovation, New York City (Built)

#### 2002

- Lower Manhattan Development Corporation Finalist for the Design Study Of the World Trade Center Site, New York; Lead Firm of United Architects (also with GL Form, FOA, UN Studio, & KK Architect) • BMW Plant in Leipzig, Germany, Finalists
- Installation "Flux Room", commissioned for Latent Utopias", Landesmuseum Johanneum Co-production: Steirischer Herbst, Graz, Austria
- House at Sagaponac, Southampton, New York City (Under Development, Pricing for Bid)
- Reiser + Umemoto Apartment Renovation (Built)
- Klein Apartment Renovation, New York City (Built)
- Façade lighting for Temple Rodeph Sholom, New York City (Built)

#### SELECTED PROJECTS:

Reiser + Umemoto, RUR Architecture P.C. provides a full range of involvements with the relationship of architecture, structure and landscape. Our experience has been that truly innovative architectural projects are motivated by our contributions as architects and landscape architects to the cumulative expertise of our collaborators, clients and consultants. We have included a variety of Architectural, Landscape Architectural, and Urban Planning and Design projects - both built and conceptual. The work shown illustrates our firm's capacity to successfully design at a great number of scales and to detail projects at all levels of construction - additionally, many of these projects are internationally renowned, award-winning examples of excellent design, skillful implementation, and continued client satisfaction.

## 0-14

22-Story Mixed-Use Office Tower Dubai, UAE 2007 (Under Construction-Completion scheduled for Fall 2009)

FC Shakhtar Soccer Training Facility Training Facility, Multipurpose Center and Dormitory Donetsk, Ukraine 2008 (In Development-Construction scheduled for 2011)

Reference: Project: 0-14 Client: Mr. Shahab Lutfi Creekside Development Corp. Dubai, UAE Tel: 011-971-50-651-3444

Shenzhen International Airport - Terminal 3 New Terminal International Competition Shenzhen, China 2007

Alishan Tourist Routes Tourism Facilities and Infrastructure Alishan Mountain, Taiwan R.O.C. 2005 (In Development-Construction scheduled for 2009)

















O-14 stands at the heart of business bay. The tower's concrete shell not only is the structure of the building but also creates a lace-like facade open to light, air, and views. 21 stories of custom-designed office floors are carried without the barriers of conventional columns and walls. At ground level, exclusive shops link this site to Business Bay's waterfront esplanade combining high-end shopping eminent culture and popular entertainment. Below grade, four levels of parking provide capacity for over 400 cars. The shell is not only the structure of the building, it acts as a sunscreen open to light, air, and views. The openings on the shell modulate depending on structural requirements, views, sun exposure, and luminosity. A space nearly one meter deep between the shell and the main enclosure creates a so-called "chimney effect," a phenomenon whereby hot air has room to rise and effectively cools the surface of the glass windows behind the perforated shell. This passive solar technique essentially contributes to a natural component to the cooling system for O14, thus reducing energy consumption and costs, just one of many innovative aspects of the building's design. As of December 2008, the first 15 levels of O-14's lace-like exoskeletion and slabs have been cast - the building is scheduled to be completed in fall of 2009.

# 0-14







The new training facility for team Shakhtar will be as much a part of its public image as its performance on the field. Formerly sports facilities were more like camps with isolated training venues divided into separate buildings (gym, medical, residential functions, and football fields). They were used only for practice and regroup and were closed off from the public eye. The new global relationship between press, fans and players demands bringing them into much closer proximity.

Given the imperative for media access our design concentrates the activities of the primary user-groups: players, coaches and staff, public and press within a highly efficient envelope. This new type of "publicized" facility will in no way however, compromise its primary function of training and maintenance of the players.

Each user group has its own way through the facility except at crucial meeting points where press meets players and the public visual access to events and players-in-training. Where possible the players will not be hidden away but be an integral part of the publicity and advertising of the team. The central public feature links outside to inside, the players to public and press, is the central lobby; a dramatic space that connects all functions of the complex, where the history and successes of FC Shakhtar will be celebrated.

# TEAM SHAKHTAR SOCCER TRAINING FACILITY Multifunctional Center

22-Story Mixed-Use Tower (Commission, Under Construction - Scheduled Completion Fall 2009) Dubai, United Arab Emirates, 2007













Ervanpin site - Rather than assembling functions in a collection of separate buildings, an economical Glulam decking system integrates buildings smoothly into each other and into the landscape. Glue laminated (Glulam) timber beams will serve as the support for an economical and highly flexible decking system which allows for the creation of a long inflected spine along which programs are distributed. The decking Glulam assembly serves both as a structural element and a programmatic element, continuous with the landscape, it creates a wide, sloping boardwalk leading up from the gardens surrounding the building to a sunset viewing platform. The building itself is an openwork, with low appreciable building mass and minimal foundation impact.

# New Terminal International Competition (1st place - International Design Jury, 2nd place - Local Jury) Shenzhen, China 2007







ALISHAN TOURIST ROUTES

Bridge, Station, Platform, Landscape & Infrastructure Competition (1st Place, Currently Under Construction) Alishan Mountains, Taiwan 2005





The airport, perhaps the quintessential modern typology, has paradoxically found itself in a state of arrested development. Instead of the bland monoculture of contemporary airport, we propose spaces for travelers that are locally diverse and unique yet globally coherent, spaces that humanize technology rather than merely represent it, spaces that are ultimately attuned to the diverse needs, moods, and aspirations of the contemporary traveler. The tectonic is likewise dynamic. Rather than the predictable pastiche of hi-tech materials, Shenzhen Airport will employ a traditional (modern) material, concrete, but fabricate it using new concepts in engineering and the technology of mass-customization in formwork and fabrication. The shift from standardized construction to mass customization will result in a range of architectural form, organization, and effects for T3 impossible just a few years ago.

The spaces of Shenzhen Airport are determined by the orchestration of a linked series of ambient zones created by the continuous modulation of form and light. The dramatic spaces of the Main Terminal are constructed of a hybrid of smooth shell and glazed diagrid in sweeping form leading the traveler onward and upward. Upon entry the soaring underbelly of the roof orients the traveler sweeping him inward toward the center of the space and columns punctuate and reinforce the space's plasticity. Variation of light and the "virtual form" is accomplished by locally shifting the cross sectional angles of the openings across a range of 45 degrees. The concourse vault appears to dramatically change shape as the travelers move towards their respective gates. This systematic flexibility allows us to modulate the crown of the vault with a cloud dapple pattern, while externally the diagrid is entirely regular, allowing for the economy of standardized glazing and cladding units. The cross sectional depth of the vault is likewise entirely uniform. The ambient illumination and formal effects above give way to a logic of way-finding and directed vision at eye level. Banks of openings correlated to each gate are incrementally angled to allow the traveler to bring his gate and respective aircraft into a continuous view from 20 meters distance as they move from travelator to their gate.

SHENZHEN BAO'AN INTERNATIONAL AIRPORT



One degree of latitude = One kilometer of altitude. This is a crucial equation in the understanding of the potential of the Alishan Mountain as a tourist site. It allows both an ecological and cultural connection between Taiwan and a family of nations via a material argument about culture in the new global society: that new regionalisms can be constructed at all levels of material practice. A Journey up the Alishan Mountain is a journey through four distinct ecosystems - we propose transforming the Alishan railroad right-ofway into an agricultural strip, supplying a series of specialty restaurants and a microeconomy of taste tourism.

Fenquihu site - Historical inertia has kept this vast public space a trainyard, but in fact, it is more like a piazza. Given the fact that there are only two trains a day passing through it, there is an incredible opportunity to transform the space into a resource for tourists, residents, and travelers. By paving the right-of-way at Fenquihu with Grasscrete and suppressing the tracks, we create a continuous flow of green from the parking areas, bamboo forest, and community center to the station and the town. Bleachers line the edge of the plaza along the natural slope of the topography, creating an amphitheater for performances and events. An arching footbridge forms both an enclosure and gateway.



# Recognition

Jesse Reiser + Nanako Umemoto have established their office as an innovative laboratory in which significant social, cultural and structural ideas are synthesized into a tangible, dynamic architecture. Their growing international recognition has enabled them to pursue this research as an inherent principal in their design work. Each principal is committed to limiting the practice to those projects which merit significant focus, thereby insuring that any project that the firm undertakes receives their undivided attention. Quality is seen to be more important than quantity. As a result each principal is available for all stages of the project, from design conception, development and implementation.

Jesse Reiser received his Bachelor of Architecture degree from the Cooper Union in New York and completed his Masters of Architecture at the Cranbrook Academy of Art. He was a fellow of the American Academy in Rome in 1985. Architect and landscape architect Nanako Umemoto graduated from Cooper Union following studies at the School of Urban Design at the Osaka University of Art. In addition to teaching at Columbia University, Reiser and Umemoto have taught and lectured throughout the United States, Europe and Japan. Their work has recently been published in Assemblage (Cambridge, MA), A+U (Tokyo), Space Design (Korea), Architectural Record (New York) Academy Editions (London), Architecture Magazine (New York) among others. Their work has been exhibited widely, participating in shows in Oslo, Bregenz, Paris, Tokyo, London, Rome, Amsterdam, Kyoto and New York. A comprehensive monograph of their work, Projects and their Consequences, is currently in production and is scheduled for publication in Summer 2010.

#### Awards and Grants

2008	<ul> <li>Presidential Citation, The Cooper Union for the Advancement of Science and Art</li> </ul>	
2006	<ul> <li>Gutenberg International Prize of Leipzig – Goldletter – 1st Prize, "Atlas of Novel Tectonics"</li> </ul>	
	<ul> <li>Jan Tschichold Prize for Best Designed Swiss Books, "Atlas of Novel Tectonics"</li> </ul>	
2004	<ul> <li>First Prize for the design of Alishan Tourist Infrastructure</li> </ul>	
2003	<ul> <li>Research Grant in the Humanities and Social Sciences, Princeton University</li> </ul>	
2002	<ul> <li>AIA Award, BMW FACTORY in Leipzig, New York</li> </ul>	
	<ul> <li>Graphic Design Annual Award, "Le Corbusier at Princeton", exhibition at the Princeton Art Museum</li> </ul>	
	• Environmental Design Award of the American Institute of Graphic Artists, "Le Corbusier at Princeton", exhibition	
2000	<ul> <li>Academy Award in Architecture, American Academy of Arts and Letters</li> </ul>	
	<ul> <li>Graham Foundation Grant towards publication of "Atlas of Novel Tectonics"</li> </ul>	
1999	• Daimler/Chrysler Design Award	
	<ul> <li>New York State Council of the Arts Grant towards publication of "Atlas of Novel Tectonics"</li> </ul>	
1998	Progressive Architecture Award	
	Van Alen Institute, Projects in Public Architecture, East River Design Project Commission	
1993	Graham Foundation Grant, "Croton Aqueduct Study"	
1992	<ul> <li>Project Grant, New York State Council on the Arts, The Architectural League of New York, Co-Sponsor</li> </ul>	
1990	National Endowment for the Arts, Design Arts Grant In Architecture	

- 1988 New York Foundation for the Arts, Gregory Millard Fellowship in Architecture
- 1984 • Prix de Rome In Architecture

#### **Major Exhibitions**

Spr 2009	<ul> <li>"Patterns", Curated by Paul Andersen, Harvard, Graduate School of Design</li> </ul>
Fall 2008	<ul> <li>MoMA Home Delivery, Museum of Modern Art, New York, NY</li> </ul>
Fall 2008	<ul> <li>Performalism, Tel Aviv Museum of Art, Tel Aviv, Israel</li> </ul>
Spr 2008	<ul> <li>2007 Shenzhen-Hong Kong Biennale, Finalist - Shenzhen Airport T3 Design Competition.</li> </ul>
2005	<ul> <li>MoMA. House at Sagaponac, Dept. of Architecture and Design - Entered into Permanent Collection.</li> </ul>
	<ul> <li>Beijing Biennale, Alishan Tourist Infrastructure and Foshan Urban Development</li> </ul>
2004	<ul> <li>"Venice Biennale Arsenale" &amp; "Interchanges", Venice Biennale US Pavilion, Italy</li> </ul>
	• "Tall Buildings", MOMA, New York City
2003	• "Intricacy" exhibition at the Institute of Contemporary Art, Philadelphia
	<ul> <li>Centre Pompidou – IFCCA / Westside Convergence Model. Entered into Permanent Collection</li> </ul>
2002	<ul> <li>"WTC proposals", Winter Garden at the World Financial Center, New York City</li> </ul>
	<ul> <li>"Latent Utopias", Installation "Flux Room", Landesmuseum Johanneum Graz, Austria</li> </ul>
2001	<ul> <li>Le Corbusier at Princeton, Princeton University, New Jersey, 2001, Organized by Reiser + Umemoto</li> </ul>
2000	• The Long View, A series of five exhibitions on Contemporary Architecture organized by the Museum of Modern Art
	and the Municipal Arts Society, New York, Curated by Reiser + Umemoto
1997	<ul> <li>Reiser + Umemoto, 'Solid-State Architecture', The Berlage Institute, Amsterdam</li> </ul>
1995	'Eidetic Images', The Architectural Association, London
	• World Architecture Triennale, Nara, Japan (MAT)

• 'Machines D'Architecture,' Cartier Foundation, Paris 1992

#### **Recent Publications**

2008

2007

2006

2005

2004

- "Impossible City", CBS News Documentary, aired on the Discovery Channel. October, 2008. New York, NY. June 2008. (Vector Wall)
- Atlas of Novel Tectonics (Japanese Edition). Reiser + Umemoto. Shyokokusya, Japan. October 2008
- 1000x Landscape Architecture. Verlaghaus Braun Publishing. October 2008. (Wolf Residence)
- AV Proyectos, "Reiser & Umemoto", #026 2008. Spring 2008. pp 52-53. (Shenzhen T3)
- New York Times. "The New, New City" by Nicolai Ouroussoff. June 8th, 2008.
- Frame China. Beijing, China. July 2008. (Boris Godunoff / Princeton)
- CONCEPT: International Magazine of Competition, "O-14", O-14, August 2008. pp 100-105.
- New York Times. "Instant Houses, Then and Now" by Nicolai Ouroussoff. July 18th, 2008.
- Interni & Décor. Korea. July 2008. (Vector Wall)
- Prestige House. Warsaw, Poland. Volume 4, Number 6. July August 2008. pp 4-7 (O14)
- [Hong Kong Newspaper], September 17th, 2008, Culture Section, pp 38 (Shenzhen T3)
- Travel + Leisure, "Tomorrowland", O-14, September 2008. pp 83-90.
- "A Hole New World" Building Magazine . London, UK. October, 3rd 2008. (014) Wallpaper\*, "Storey Time", O-14, October 2008, p 232.

- Australian Concrete Construction. Volume 21, Issue 6. December, 2008. p12 (O14) Newsweek (International Edition) "Redesigning The World. December 2008-January 2009. pp 92-93. (014)
- Space Craft: Fleeting Architecture & Hideouts, Flux Room, p 208-209, Die Gestalten Verlag, Berlin, 2007.
- The Big Project, "A Dynamic Hybrid", AEON Complex, Issue #5, 2007, p 44-45
- Wallpaper, "Holey Office" Jan. 2007, p 71.
- 100% Office (RS), "Double Bend" (Unicare Systems), Feb. 2007, p 24.
- 100% Interiors Home (RS), "Sagaponac House", March 2007, p 92.
- Design Diffusion News, "In the Heart of Business Bay", March 2007, p 75-77.
- New York Times, "A Lost 'Boris Godunov' is Found and Staged", Wednesday, April 11, 2007, p B1, B8.
- The Architects Newspaper, "Boris, Bungees and Beyond", April 25, 2007, p 22.
- Civil Engineering, "Perforated Tower May Dazzle Dubayy (Dubai)", May, 2007, p 15.
- A+U: Architecture and Urbanism #440, May 2007, p 86-95.
- Abitare, "Dubai: Second Life City" June 2007, p 102-103.
- Ambientes, "Reiser + Umemoto", June 2007, p 26-28.
- AA Files, Atlas of Novel Tectonics Book Review, July 2007.
- C3, "Skin and Structure" (O-14 Building), July 2007, p 54-57.
- Harvard Design Magazine, O-14, Spring / Summer 2007, Inside Cover, p 4.
- FORM: Pioneering Design, "Interactivity: Set for Alexander Pushkin's Boris Godunov", July / Aug. 2007, p 20-21.
- 2A: Architecture and Art, "High in the Middle East", O-14, Autumn, 2007, p 77.
- Three Oranges Journal, "Boris Godunov in America", Nov. 2007, p29-33.
- Metropolis, "Skyline of Tomorrow", Nov. 2007, p 98-99.
- Atlas of Novel Tectonics. Reiser + Umemoto. Princeton Architectural Press. 2006.
- 306090, "Ornament and Its Other" by Jesse Reiser, Vol 10, 2006.
- The Architects Newspaper, "Pattern Recognition" Nov. 17, 2006, p 9.
- Architectural Record, "O-14 by Reiser + Umemoto" Dec. 2006, p 34.
- The Architectural Review, Atlas of Novel Tectonics Book Review, October 2006.
- Arquitectura Viva, "Proximo Oriente", Number 111, 2006, p 70-71
- Art Investor # 06, Germany 2006, O-14 pp 74
- Green Light, "Reiser + Umemoto, RUR Architecture P.C." May 2006, p 38-39.
- Metropolis, Atlas of Novel Tectonics Book Review, June 2006.
- Princeton Weekly Bulletin, "From the Drafting Board to the Stage" Nov. 20, 2006, p 1, 3, 6.

- World Architecture, "Mixed Team. Mixed Design." February 2005, p98-101.
- Dialogue Architecture + Design + Culture
- vergence pp 62-633
  - National Diet Library pp 195

 MoMA Home Delivery: Fabricating the Modern Dwelling, Exhibition Catalog. Barry Bergdoll, Ed. Museum of Modern Art, • Performalism: Form and Performance in Digital Architecture, Exhibition Catalog. Tel Aviv Museum of Art, Israel. June 2008. • Nikkei Architecture, "Carefully Designed Shell Improving Environmental Performance", O-14, October 2008, pp 31-35. New York Construction Magazine Insert, "Ysrael A. Seinuk, P.E. Consulting Engineers: Celebrating 30 Years", 2007, p 4-5, 15. • Emerging Talents, Emerging Technologies. Ed. by Neil Leach and Xu Wei-Guo. Architectural Biennial catalogue. p 83,137. Harvard Design Magazine, "Toward a Well-Tempered Digital Design" by Antoine Picon. Harvard GSD Fall 2006 / Winter 2007. New Taiwan By Design, International Competition, Tourism Bureau, ROC, Taiwan January 2005. (Alishan Tourist Routes) Design and Technology for Hypersurface Architecture, Shokoku Sya, Japan 2005, pp 74-75 (Alishan Tourist Routes) • Focus - Metamorph9. International Architecture Exhibition, Fondazione La Biennale di Venezia, Venezia 2004, West Side Con-• "Architects Talk, Interviews with Architects", Henri Praeger, Jana Richter, Berlin 2004, Jesse reiser Interview pp 16-29, Kansai

• Cahiers thematiques No 4, 'Filiations(s)', Ecole d'architecture de Lille, oct 2004, 'Megastructure metaphorique' pp 216-221

