

ARCHITECTURAL RECORD

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Club Nokia at LA Live!, Los Angeles, CA / Architect: Gensler, Santa Monica, CA

PROJECT TWIRL
LOCATION MILAN
DESIGNERS ZAHA HADID ARCHITECTS



TWIRL, AN INSTALLATION by Zaha Hadid Architects on display for two weeks during the 50th anniversary of the Milan Furniture Fair in April, was intended to be a contemporary interpretation of the State University of Milan's 18th-century courtyard. The architects used Slimtech ceramic slabs from Italian manufacturer Lea Ceramiche to transform the space into a 3-D vortexlike structure. Each slab is composed of two layers of 3-millimeter-thick tiles in seven shades progressing from white to black. "Walking around the installation on both levels [of the loggia], during the day and at night, changes the visitor's perception of the piece," says Zaha Hadid Architects project architect Johannes Schafelner. A series of fluorescent tubes – Algoritmo lamps designed by lighting designer/architect Carlotta De Bevilacqua for Artemide – emit light from the center toward the site's edges. The architects now have the project in storage, but hope it will take a spin in other cities in the near future. – *Rita Catinella Orrell*

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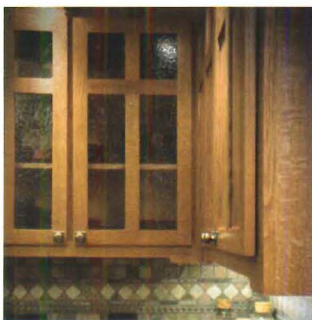
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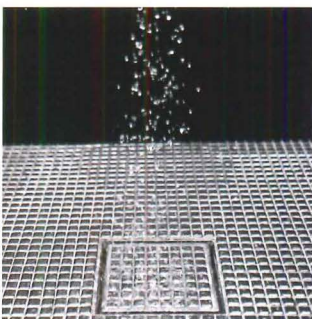
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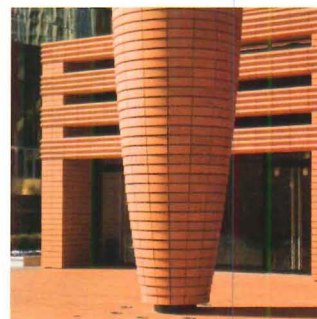
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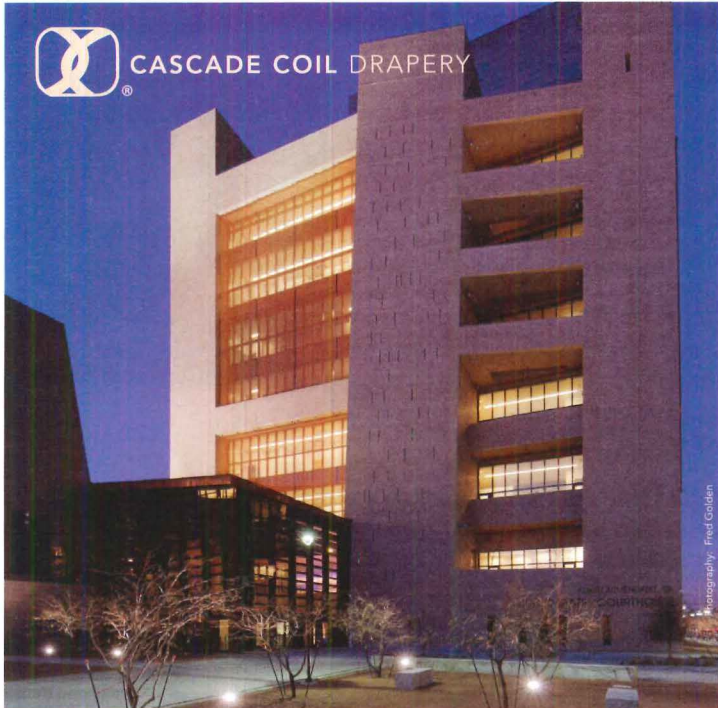


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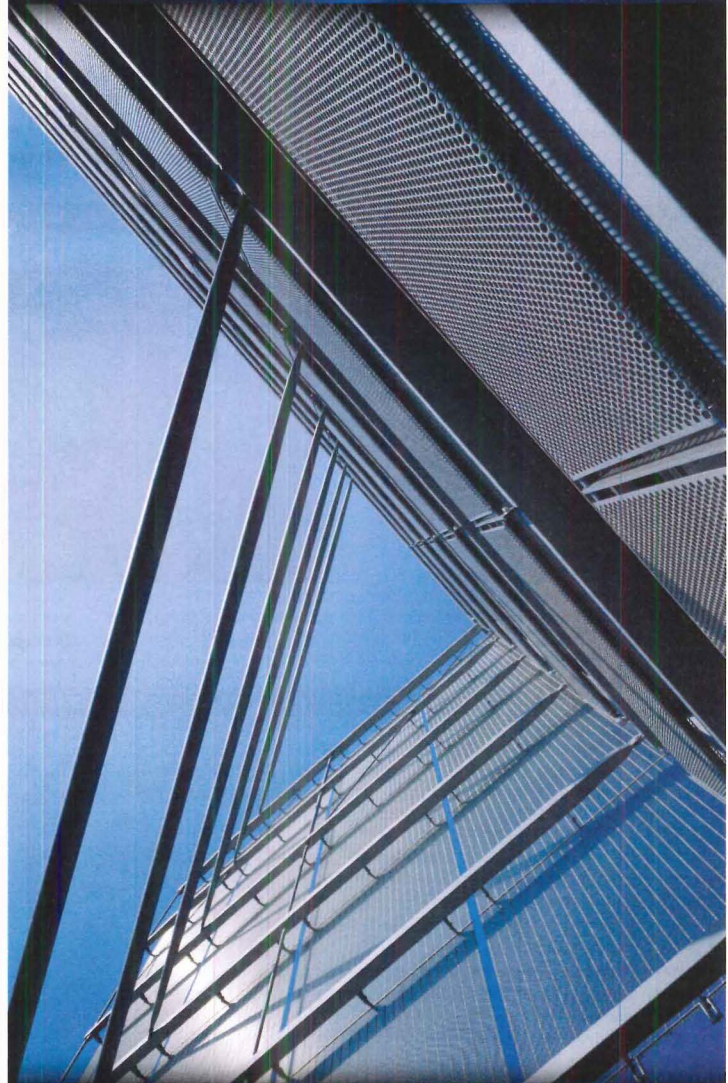
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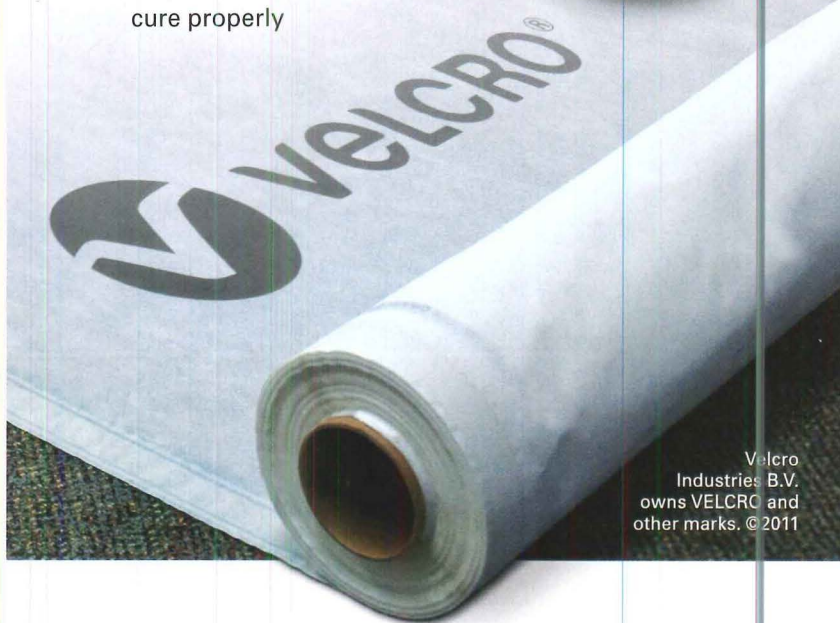
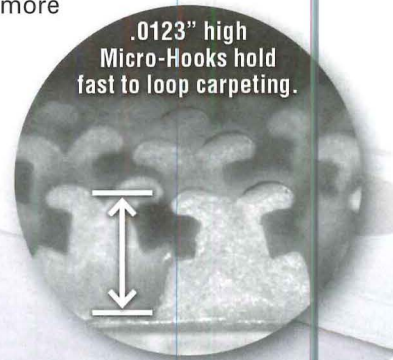
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TAIWAN TOWER International Competition

Let their eyes soar with your imagination!

Calling for

An architectural powerhouse whose passion, imagination, and profession soar above all

Come aboard

An international competition to design Taiwan's most visionary tower!

Site

Taiwan Tower is to be located at the southern tip of Taichung Gateway Park, which is part of the former Taichung (Shuinan) Airport site, Taichung city. It will become a vista at the southern end of a major boulevard. Measuring approximately one hectare, the site is situated across from the Taichung Gateway City to the north.

Space Requirement

The project will comprise of Taiwan Tower and the Museum of Taichung City Development.

Height

Though not aiming to compete in height with other towers of the world, in principle the observatory of Taiwan Tower should provide visitors with a view of the Taiwan Strait. The height is planned to be at least 300 meters.

Design Principles

1. The site context and local architectural character should be integrated with 21st-Century building technology to symbolize the new Taiwan spirit.
2. Taiwan Tower should also answer its call for environment responsibility and adopt the use of alternative energy. In implementing the energy conservation and carbon reduction, Taiwan Tower will act as a model of green building for the 21st century.

Timetable

Stage One Material Submission Deadline	2011/08/29
Stage One Jury Session	2011/09/01 ~ 2011/09/02
Announcement of Shortlist Tenderers	2011/09/02
Stage Two Material Submission Deadline	2011/11/09
Stage Two Jury Session	2011/11/10 ~ 2011/11/11
Announcement of Winning Tenderers	2011/11/11

For more information, please visit

www.TwTower.com.tw

(official launch on May 30th, 2011)

Coordinator

Barry Cheng Architects
TEL: 886-4-2326-1799 FAX: 886-4-2326-5212
Email: barry-cheng@umail.hinet.net

Total Construction Budget

About NT\$ 6,588,000,000.
(About US\$ 220,000,000)
Subject to the approved budget by city council.

Service Fees


The service fee for this project is a fixed fee in the total amount of NT\$ 842,000,000.
(About US\$ 28,000,000)
Subject to the approved budget by city council.

Qualifications for Participation (for Stage One)

1. Any licensed architect of Taiwan (R.O.C.), alone or in joint tender.
2. Any licensed architect (or Firm / Corporation) of foreign country, alone or in joint tender.
3. Joint tender of licensed architects of Taiwan (R.O.C.) and licensed architects (or Firms / Corporations) of foreign countries.

For more information, please visit our website or refer to tender notice.

Host Organization


Taichung City Government,
Taiwan (R.O.C.)

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- Concealed nailing
- Traditional shingle butt
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- Fire resistant
- Rain screen technology



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DATES & EVENTS

International Marble and Granite Fair

Espírito Santo, Brazil
August 23–26, 2011

The Cachoeiro de Itapemirim region, where this fair takes place, contains the largest quarries of marble in Brazil, shelters large, medium, and small extraction, and processes dimensional stone companies. For its 20th year, this fair highlights the evolution of dimensional stone marketing, technology, and innovation. Visit www.cachoeirostonefair.com.

Made Expo

October 5–8, 2011
Milan

The Made Expo will focus on cutting-edge, high-tech innovations in design materials. The show takes a holistic approach to building design and construction, examining all the steps of the building process, from initial design and planning through construction and fit-out. A returning event this year will be the Building Technology Forum, which provides an opportunity for trade associations and federations, design institutions, professionals, and universities to meet in a collaborative setting and exchange ideas on the building process. Visit www.madeexpo.it/en.

CTBUH 2011 World Conference

Seoul
October 10–12, 2011

This conference will focus on the significant value of high-rise buildings in modern society from three perspectives: sustainability, safety, and livability. The goal of the conference is to provide an opportunity to share information with top industrial and academic experts in the field of high-rise buildings as well as experience dynamic aspects of Seoul. For more information, visit www.ctbuh2011.org.

American Society of Landscape Architects Expo 2011

San Diego
October 30–November 2, 2011

More than 6,000 landscape architecture professionals from across the United States and around the world will gather for this annual expo to earn up to 21 professional development hours and to reconnect with the fundamental elements of design. For more information, visit www.asla.org.

Future Cities 2011

London
December 15–16, 2011

Future Cities is an annual conference series dedicated to the sustainable development of England's cities and urban areas. During the two-day event, more than 700 delegates from across the globe will listen to a range of presentations. They will discuss key issues and topics. Visit www.rantrad.co.uk.

Competitions

2011 Cleveland Design Competition

Registration Deadline: July 8, 2011

The 2011 Cleveland Design Competition invites professionals, students, firms, and designers from all over the world to submit plans for a new K-12 public school in downtown Cleveland. The competition presents an opportunity to reimagine the school and explore how educational facilities must evolve. Visit www.clevelandcompetition.com

Architectural Record

Cocktail Napkin Sketch Contest

Deadline: July 21, 2011

All you need is a white cocktail napkin and a pen to demonstrate that the art of sketching is still alive. Licensed architects and related professionals who practice in the United States are invited to enter this contest. Two grand-prize winners will be published in the October issue of ARCHITECTURAL RECORD, and winners will receive a box of napkins with their sketch printed on it. The grand-prize winners and up to 10 finalists will also receive a collection of Pentel Arts writing instruments. Winners and finalists will be exhibited in the online gallery. To enter, go to www.architecturalrecord.com/call4entries.

2011 AECOM Student Competition

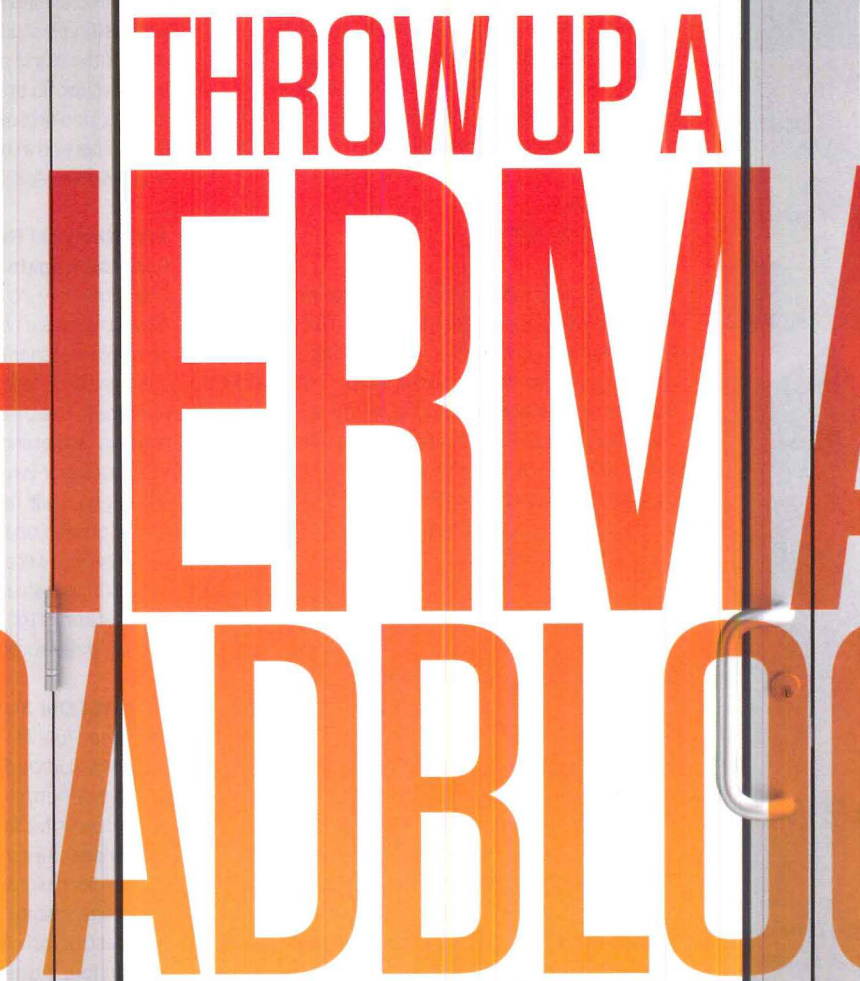
Deadline: July 29, 2011

AECOM's "Urban SOS: Water" competition seeks creative design, planning, and engineering responses to urban sites facing water-based challenges. Responses can range from a strategic framework to a surgical micro-response, or from a whole landscape system to a single piece of architecture or infrastructure. The competition is open to teams of up to four students each for a \$15,000 cash prize. A further award of up to \$25,000 in value will be made available to a charitable/relief organization to help make the project possible. For more information, visit www.aecom.com/urbansos.

Show Us Your Record Collection

ARCHITECTURAL RECORD readers have been subscribers for an average of 18 years. Sixty-five percent of them save their copies for future use. Photograph your collection or your firm's collection of ARCHITECTURAL RECORD and upload at archrecord.com (digital editions count) for a chance to win an iPad. Three winners will be selected, one in each of the following categories: Oldest Collection, Largest Collection, and Most Creative Presentation. The winning collections will be exhibited in a photo gallery. For more information, visit www.architecturalrecord.com/call4entries.

E-mail information two months in advance to recordevents@mcgraw-hill.com. For more listings, visit [architecturalrecord.com/news/events](http://www.architecturalrecord.com/news/events).



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CIRCLE 59

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tive yet functional furniture. Many of Perriand's furniture designs are currently being manufactured by Cassina, which is one of the sponsors of this exhibition. For more information, visit petitpalais.paris.fr.

Sol LeWitt: Structures, 1965-2006

New York City

Through December 2, 2011

The first-ever outdoor career survey of Sol LeWitt's sculptures will be on view at City Hall Park. The exhibition will include 27 works from the seminal artist's modular, serial, geometric, and irregular structures series attesting to his lifelong engage-

ment with the medium and showcasing his most important ideas about sculpture. Two works will be installed inside City Hall and accessible by tour. For more information, visit www.publicartfund.org.

Lectures, Conferences, and Symposia

Florence Architecture

Florence

June 1-30, 2011

This four-week architectural learning experience for aspiring and professional architects will usher

students through different architectural periods to discover the key to the evolution of Italian architecture. The course will be held mostly in the form of walking tours combined with on-site discussions, photometric analysis, as well as hand sketching. However, classes will be also held in the Florence Institute's elegant baroque-style palazzo. At the Florence Institute of Design International. Visit www.florence-institute.com.

Intelligent Cities Forum

Washington, D.C.

June 6, 2011

This forum explores the evolving, deep-rooted connections between technology and ever-expanding cities, from education and energy to government, public health, and transportation. Planners, policymakers, tech professionals, and academics will share ideas about using technology to make cities better places to live and work. For more information, visit www.nbm.org.

In Wright's Drafting Room: Architecture Fantasy Camp

Chicago

June 12-15, 2011; October 2-5, 2011

Within the historic drafting room of the Frank Lloyd Wright Home and Studio in Oak Park, this workshop offers amateur design enthusiasts the opportunity to create unique designs with the assistance of a professional architect. No architecture experience is necessary, as the skilled designers will help participants create a new addition to their home, remodel part of their residence, or design a picturesque dream home. Visit www.gowright.org.

NeoCon

Chicago

June 13-15, 2011

NeoCon features the latest design trends, products, and concepts in office, health care, hospitality, residential, institutional, and government interior environments from more than 700 exhibitors. Thousands of commercial furnishings products and services will debut, including architectural products, building products, and more. For more information, visit www.neocon.com.

Making Cities Livable

Noosa QLD, Australia

July 27-29, 2011

This conference will be a platform for government and industry sector professionals to discuss causes, effects, and solutions that relate to population health, sustainability, natural resource management, transportation, climate change, urban design, and more. Delegates will examine the impact of urban and transportation planning on the health and well-being of the population and the planet. For more information, visit www.healthycities.com/au.



Chris Cunningham Photography
BCWH Architects

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Bill Lempeke Photo
Fanning Holey Associates, Inc.

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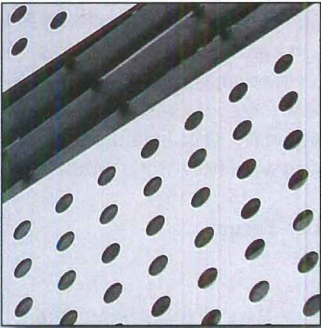
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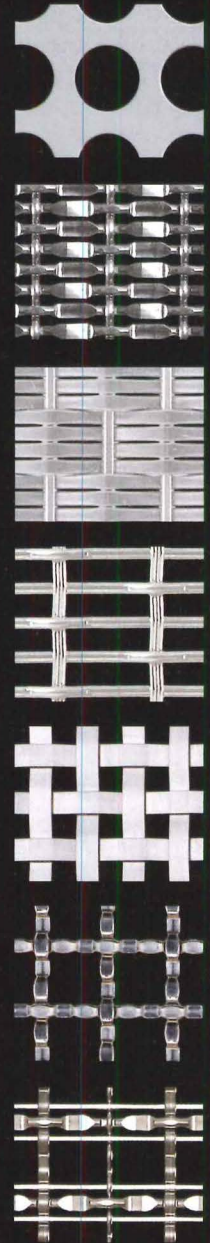
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CIRCLE 28

architects including, among others, Gregory Ain, Raphael Soriano, and Donald Wexler – are offered by architecture students from Cal Poly Pomona and give a unique chance to stay as long as you want and see the entire house. For more information, visit www.neutra-vdl.org.

Lucite 75th Anniversary

New York City

Through June 10, 2011

Lucite International, maker of the eponymous material, is celebrating 75 years with an exhibition at Material ConneXion, showing off vintage accessories as well as current applications of the material,

from architecture and furnishings to industrial design and retail merchandising. The exhibition will present the entire history of Lucite, from its early days as a DuPont innovation and its use in World War II in airplane canopies and submarine periscopes to its widespread postwar use in jewelry and furniture. Visit www.materialconnexion.com.

Vertical Urban Factory

New York City

Through July 10, 2011

The Vertical Urban Factory at the Skyscraper Museum features innovative architectural design, structural engineering, and processing methods

of significant factory buildings from the turn of the 20th century to the present. Divided into four major sections – Modern Factories, Contemporary Factories, New York Factories, and Future Factories – the installation dissects more than 30 projects, including canonic examples of Modernism. For more information, visit www.skyscraper.org.

Painting Urbanism: Learning from Rio

New York City

Through July 30, 2011

This exhibition showcases paintings, documentary footage, photographs, sketches, and plans of past, present, and future projects developed by Dutch artists Haas&Hahn. Featured past projects include the favela paintings in Praça Cantão in Santa Marta and “Rio Cruzeiro” on the stairs of Rua Santa Helena, all in Rio de Janeiro. Present projects include proposals for two New York interventions. Future projects are planned throughout the world. For more information, visit www.storefrontnews.org.

New Olds: Design Between Tradition and Innovation

Holon, Israel

Through September 10, 2011

Curated by Volker Albus, this exhibition at the Design Museum Holon presents works by over 60 Israeli and international artists. They are inspired by historical references and symbols ranging from deer antlers to cuckoo clocks, traditional porcelain, and the history of the Bauhaus. The works are produced through a variety of techniques including weaving, glass-blowing, wood-carving, and 3-D software. Visit www.dhm.org.il.

Daniel Buren: Echos, Work in Situ

Paris

Through September 12, 2011

Contemporary artist Daniel Buren created a site-specific installation at the Centre Pompidou-Metz, which will take up the entire exhibition space in Galerie 3. This commission was initiated in collaboration with Mudam - Musée d'art moderne Grand-Duc Jean, Luxembourg, where Buren created another installation, “Architecture, contemporary architecture: transposition.” The project at the Centre Pompidou-Metz will echo this installation with a new intervention that responds to the space and architecture of the museum. Visit www.centrepompidou-metz.fr.

Charlotte Perriand: De la Photographie au Design

Paris

Through September 18, 2011

This exhibition examines the photography of French architect and designer Charlotte Perriand (1903-1999). Her work focused on the nature of living spaces and how good design can contribute to the betterment of society. Her design work ranged from European embassies to model kitchens and distinc-

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CIRCLE 30

DATES & EVENTS

New and Upcoming Exhibitions

Wendy Heldmann: You Are So Beautiful and I Am a Fool

Los Angeles

June 10–July 29, 2011

Los Angeles-based artist and SCI-Arc public programs coordinator Wendy Heldmann's paintings depict the architectural studio culture replete with cluttered desks, overturned chairs, site models, books, coffee cups, and the materials and tools of the trade such as spray cans, rolls of paper

and tape, stacks of foam and plywood, computer peripherals, X-acto knives, and pens. The paintings reveal the process of distinguishing the private in a communal space and act as portraits of the students who occupy these spaces. For more information, visit www.sciarc.edu.

Jean Prouvé–Architecture

Basel, Switzerland

June 14–18, 2011

The Galerie Patrick Seguin will set up a Jean Prouvé-designed 6-by-6-meter demountable bungalow. First built in 1944 to rehouse war victims in Lorraine, these houses only survived the

postwar period in very limited numbers. Doubly involved in regeneration of the region – as a native of Nancy, France, and an architect – Prouvé won an order for emergency housing from the Ministry of Reconstruction and Town Planning. Readily transported and dismantled, his “shacks” made entirely of wood and metal (the latter of which was in very short supply) were an architectural coup. For more information, visit www.designmiami.com.

It's Different

New York City

June 15–July 29, 2011

This exhibition features work by the 2011 winners of the Architectural League's Prize for Young Architects and Designers. The annual competition, series of lectures, and exhibition was established to recognize specific works of high quality and to encourage the exchange of ideas among young people who might otherwise not have a forum. This year's winners are Ajmal Aqtash, Richard Sarrach, and Tamaki Uchikawa; Jason Kelly Johnson and Nataly Gattegno; Kiel Moe; Unchung Na and Sorae Yoo; Catie Newell; and William O'Brien Jr. For more information, visit <http://archleague.org>.

Talk to Me

New York City

July 24–November 7, 2011

This exhibition at the Museum of Modern Art investigates the communication between people and objects and features a wide range of objects from all over the world, from interfaces and products to diagrams, visualizations, and furniture by designers, students, and scientists – all designed in the past few years or currently under development. For more information, visit www.moma.org.

Ongoing Exhibitions

Reappearing Act: The Star-Spangled Banner at the Smithsonian

New York City

This exhibition documents the renovation by Skidmore, Owings & Merrill of the Smithsonian National Museum of American History at the Mall in Washington, D.C., one of the last buildings by McKim, Mead & White. All images were photographed by Eduard Hueber and range from before to during to after completion of the project. Visit www.archphoto.com.

Neutra VDL House

Los Angeles

Seventy-five years ago, Viennese-American architect Richard Neutra built a radical “glass house” with rooftop and balcony gardens – a project that has since grown into a modern marvel of the architectural world. Saturday tours of the house – a place that saw the beginning of the careers of

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To receive AIA/CES credit, you are required to read the entire article and pass the test. Go to ce.architecturalrecord.com for complete text and to take the test. The quiz questions below include information from this online reading.

Program title: **"Built-in Appliances: Combining Thoughtful Design Innovation with Superior Energy Performance"** (06/11, page 107). AIA/CES Credit: This article will earn you one AIA/CES LU hour of health, safety, and welfare/sustainable design (HSW/SD) credit. (Valid for credit through June 2013). **Directions:** Refer to the Learning Objectives for this program. Select one answer for each question in the exam and fill in the box by the appropriate letter. A minimum score of 80% is required to earn credit. **To take this test online and avoid handling charge, go to ce.architecturalrecord.com**

1. **The projected useful life of major appliances is:**
 - a. 5 to 10 years.
 - b. 7 to 12 years.
 - c. 10 to 18 years.
 - d. 15 to 20 years.

2. **Most appliances can be specified with recyclable materials of all except the following:**
 - a. Steel
 - b. Wood
 - c. Plastic
 - d. Refrigerants

3. **An ENERGY STAR® label on an appliance indicates:**
 - a. overall performance of a manufacturer.
 - b. annual cost to operate the appliance.
 - c. compliance with Federal minimum standards.
 - d. tested ability of appliance models to consume 10 to 50 percent less energy and water than Federal minimum standards.

4. **According to the U.S. EPA, all appliances combined can account for up to what percent of a typical residential energy bill?**
 - a. 24 percent
 - b. 11 percent
 - c. 13 percent
 - d. 54 percent

5. **The use of residential appliances that require less energy to operate have the potential to reduce greenhouse gas concentrations and global warming.**
 - a. True
 - b. False

6. **ENERGY STAR labels can be found on many types of residential appliances except:**
 - a. dishwashers.
 - b. refrigerators.
 - c. cooking appliances.
 - d. clothes washers.

7. **Induction electric cooking is more energy efficient than other cooking systems because:**
 - a. energy is controlled electronically.
 - b. the induction elements transfer electromagnetic energy directly to the pan, where heat is needed.
 - c. no natural gas is needed.
 - d. radiant heating is inefficient.

8. **When designing and specifying refrigerator units, it is generally more energy efficient to design in one larger unit rather than two or more smaller ones.**
 - a. True
 - b. False

9. **In specifying dishwashers, a significant factor in energy use is:**
 - a. the presence of a "soil sensor" to adjust the amount of water used.
 - b. the type of hot water heater in the residence.
 - c. the amount of hand-washed dishes.
 - d. the controls on the appliance.

10. **In specifying clothes-washing appliances, 90 percent of the energy used is attributed to:**
 - a. the type of controls.
 - b. the size of the machine.
 - c. the amount of hot water used per load.
 - d. the choice of manufacturer.

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compliance with the following guiding principles as described by the EPA:

- Product categories must contribute significant energy savings nationwide.
- Qualified products must deliver the features and performance demanded by consumers, in addition to increased energy efficiency.
- If the qualified product costs more than a conventional, less-efficient counterpart, purchasers will recover their investment in increased energy efficiency through utility bill savings, within a reasonable period of time.
- Energy efficiency can be achieved through broadly available, non-proprietary technologies offered by more than one manufacturer.
- Product energy consumption and performance can be measured and verified with testing.
- Labeling would effectively differentiate products and be visible for purchasers.

This review and labeling process can serve an important role in the overall design of a green or sustainable building. Architects quite naturally often focus their efforts related to residential energy use on the building envelope and the heating and cooling systems. However, according to the ENERGY STAR program a typical home energy profile includes 29 percent on heating energy and 17 percent on cooling, or just under half of the total energy usage. The remaining 54 percent is attributed to fixtures and appliances of all types and sizes. This includes 14 percent for water heating, 12 percent for lighting, and 4 percent on electronic devices. The EPA then breaks out appliances separately to include a refrigerator, dishwasher, clothes washer and dryer as accounting for a significant 13 percent of energy use. The remaining 11 percent in their breakdown is attributed to “other” which includes stoves, ovens, microwaves, and small appliances. Combined, then, appliances can account for up to 24 percent of a typical residential energy bill. Therefore, while heating and cooling efficiency are clearly important, it is also very important to pay attention to the energy efficiency of appliances that are specified into residential units since they can also account for a significant amount of the total energy use.

The importance of energy use goes beyond the monthly utility bill, however. Most of the electricity generated in the United States still relies on the burning of fossil fuels, which

dumps carbon dioxide into the atmosphere. The current calculation is that one kilowatt-hour (kWh) consumed (or saved) equals 1.43 lbs of carbon dioxide emitted (or saved) at the power plant. This is significant since carbon dioxide is one of the leading gases attributed to the “greenhouse effect” and global warming. Scientific studies have determined that the average American household consumes enough electricity to produce approximately 9,900 lbs of carbon dioxide a year—almost five tons! Specifically calling for appliances to carry the ENERGY STAR label wherever applicable is one way to improve energy efficiency in a project that can contribute to lower energy use and correspondingly lower emissions. The EPA website www.energystar.gov includes lists of manufacturers and models of all types of appliances that are rated along with recommendations for energy and water efficiency in appliances that are not rated.

The EPA then breaks out appliances separately to include a refrigerator, dishwasher, clothes washer and dryer as accounting for a significant 13 percent of energy use.

Of course, the cost of appliances is also addressed in the ENERGY STAR program. Fundamentally, it should be remembered that every appliance has two price tags: a purchasing price and an operating cost. (That’s not counting the environmental and health costs of burning coal and other fossil fuels in power plants.) Instead of simply comparing purchase prices with one another, the costs to operate the appliance over its useful life (10 to 18 years) should be considered. Most, but not necessarily all, appliances designed for increased efficiency carry slightly higher initial purchase costs. However, the long-term savings are significant and can create a quick payback for the small initial premium of a superior appliance. Consider that the EPA estimates that an average home

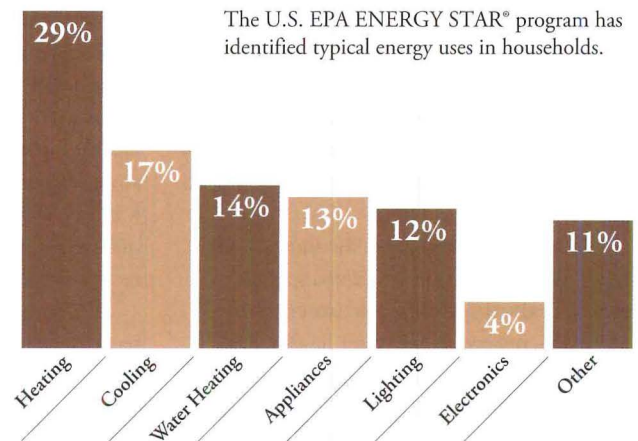


Image from public domain U.S. EPA www.energystar.gov

spends about \$2,200 on energy bills every year and the Rocky Mountain Institute (RMI) observes that “Americans spend \$43 billion annually to run household appliances, which is an average of \$560 per year per family. If every household in the U.S replaced old appliances with efficient models, they’d collectively save at least \$15 billion per year.” The U.S. Department of Energy states that, “Based on our estimates, a typical family with a home more than a decade old could save \$200 per year in electricity and water bills, and 18,600 gallons of water, by switching to highly energy- and water-efficient appliances. If every American household installed these products, the annual water savings would equal the average flow of the Mississippi River into the Gulf of Mexico for five entire days.” Therefore, changing to appliances that have earned the ENERGY STAR label is not so much an additional cost as it is a means to save money on energy and water costs. Hence, specifying energy-efficient appliances is good for the homeowner or renter who pays the energy bill, good for the atmosphere, and ultimately good for the environment.

With all of the above as a basis, specific types of appliances can be looked at in more detail in terms of addressing owner trends, energy and water efficiency, and specific design implications.

Peter J. Arsenault, FAIA, NCARB, LEED-AP is an architect and sustainability consultant based in New York State.

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front oven doors, notorious for being hot to the touch when the oven is in use, are being made with enhanced materials to keep the heat in and be cool to the touch instead. The additional benefits of the glass allow not only a view of what is cooking, but a hard smooth surface that is easy to keep clean.

Refrigeration appliances are increasingly being used for multiple functions such as automatically dispensing cold water and ice. A general concern about water quality has prompted many consumers to use water filters of some type on their drinking water faucets, but that approach can be defeated if the water comes from a refrigerator with an unfiltered line or from ice made of unfiltered water in a freezer. The response by appliance manufacturers has been to incorporate integrated water filtering systems inside of the water and ice dispensing portions of their products creating cold, clear, filtered water and ice.

With all of the above trends and developments in mind, many architects are selecting appliances that can be built-in and blend with the overall design of the space that they are a part of. This approach creates not only a more unified appearance but also a more consistent ease of use by the owners. However, the remaining important consideration of sustainability related to both longevity and energy use warrants some detailed discussion in order to address superior design and performance.

APPLIANCE LONGEVITY AND RECYCLING

According to AHAM, major home appliances have long useful lives, typically 10 to 18 years. When they do finally reach the end and are recycled, they take on new value as an important manufacturing source of raw material. In the United States, discarded appliances (also sometimes referred to as "white goods") are second only to old automobiles as a source of recycled metals, particularly steel. Using recycled steel to create

new appliances has a positive impact on the environment, since it takes up to four times more energy to manufacture steel from virgin ore as it does to make the same steel from recycled material. While steel is the most abundant recyclable component in appliances, it is not the only one—they also contain other metals like aluminum and copper, as well as recyclable plastics and recoverable refrigerants.

Recognizing the significance of recycling in the appliance industry, AHAM established in 1993 the Appliance Recycling Information Center (ARIC). The mission of this center is to "serve as the authoritative source of information on the environmentally

industry, the steel recycling industry, the plastics council, and scrap recyclers. It serves as a forum to share ideas, discuss new technologies, advocate shared views, and promote sustainable recycling practices. Further, it develops and makes available the most accurate technical data about appliance disposal and recycling, including advances in appliance recycling technology. As a testimony to these efforts, 90 percent of the steel in major appliances is reported to be recycled.

AHAM is also a co-sponsor with the Steel Recycling Institute of the Recycling Information Center, a toll-free number that consumers and specifiers can call for information on product recycling, including the recycling of major appliances. Anyone with questions on recycling can call 1-800-YES-1-CAN (937-1226) to reach recorded messages or to ask questions of live operators.

ENERGY STAR® FOR APPLIANCES

ENERGY STAR® is a well known program of the US Environmental Protection Agency (EPA) that provides a government-backed symbol for energy efficiency. It is intended to help consumers save money and protect the environment through energy-efficient products and practices. According to their website, the ENERGY STAR label was established to "reduce greenhouse gas emissions and other pollutants caused by the inefficient use of energy and make it easy for

consumers to identify and purchase energy-efficient products that offer savings on energy bills without sacrificing performance, features, and comfort."

Appliances are a significant category of products within the ENERGY STAR program. Manufacturers can submit their information for review and verification by the EPA that they meet the requirements of the program in order to earn a coveted ENERGY STAR label. To qualify, appliances must minimally incorporate advanced technologies that use 10-50 percent less energy and water than standard models. In addition, all products need to demonstrate

Photo courtesy of Electrolux ICON®



Due to industry-wide efforts, typically 90 percent of the steel in appliances is recycled.

responsible disposal and recycling of appliances and to undertake research into the recycling of major household appliances." In 1994, the Major Appliance Resource Management Alliance (MARMA) was founded to expand on ARIC's mission of increasing the recycling rate of major appliances. Then in 2010, MARMA was reconstituted as the North American Appliance Resource Management Alliance (NAARMA) to allow for the inclusion of more appliance types and to broaden its reach beyond the US to now include Canada. This alliance is comprised of representatives from all sectors of the appliance

Major appliances used in the design of single-family and multi-family residential buildings are evolving. Increasingly they are being designed to better respond to consumer trends, incorporate advanced technology, and perform better with less energy and water use. In short, they are becoming more sophisticated. Architects who are involved in specifying and incorporating such major appliances into their designs need to be similarly sophisticated in understanding the options and factors that influence both design appearance and performance.

CURRENT TRENDS IN APPLIANCES

The ongoing evolution of appliances is driven by a number of factors that are clearly taking hold across the industry. The Association of Home Appliance Manufacturers (AHAM) is generally recognized as an excellent source of information about home appliances and is the leading trade association of the home appliance industry. The association's mission is to "serve the home appliance industry while delivering value to consumers through leadership, education and advocacy." Among other things, this includes determining consumer trends in buying appliances for new or remodel installations. According to a recent consumer preference survey conducted by AHAM, consumers are looking for appliances that are "time savers, are convenient to use, provide easy clean-up, are stylish, have multiple applications, promote healthy cooking and maintain a healthy environment in the home." That's a lot more than just the basics of heating things up or keeping them cold. And, they note that "mini kitchens" are being incorporated



Glass-front oven doors are being made with enhanced materials to keep the heat in and be cool to the touch.

Photo courtesy of Electrolux ICON®

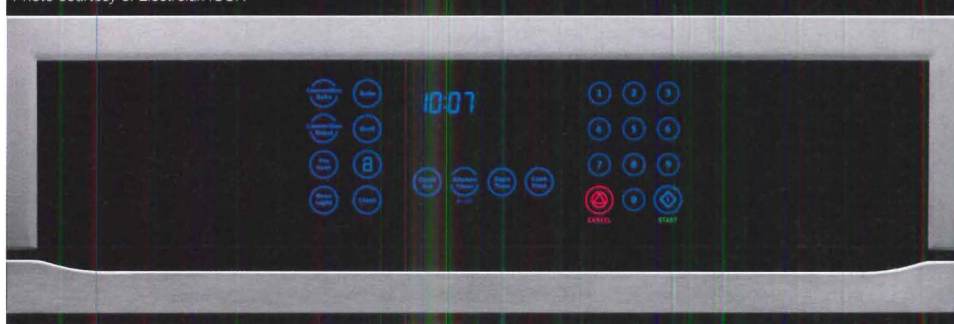
into nurseries, master suites, in-law suites, exercise rooms, family rooms and bathroom spas. This means that appliances are being incorporated into buildings outside of the traditional kitchen location with the design need for some non-traditional sizes and styles. When it comes to appearance, they find that "among the most desired products are kitchen electrics with the retro stainless steel look. Equally popular are high-end professional style models."

Appliance manufacturers appear to be in tune with these observed trends and have invested a lot of thoughtful design into their products to address them. Probably most

noticed is the incorporation of electronic control panels that allow users to plan how and when appliances will operate. Some are even touch-activated providing access to all operating functions that then fade away any choices not selected to provide clear information on what the appliance is doing. This interactive control panel concept makes sense in an environment where so many other things in our lives are controlled in a similar, electronic, manner. Further, this type of control is being applied to a variety of appliance types. Cooking appliances can be programmed for a variety of temperatures, cooking times, and sequences. Refrigeration appliances can be programmed for multiple custom or pre-set temperatures making it possible to store or serve items at their ideal temperatures. Even the lighting in appliances can be controlled to be variable in a transition manner to avoid glare yet provide ample interior light.

When it comes to the physical features of appliances, manufacturers are keenly aware of optimizing those aspects as well. So, oven racks for example, can be designed to glide with greater ease and extend fully for effortless access to cooking food. Glass-

Photo courtesy of Electrolux ICON®



Appliances increasingly come with more sophisticated electronic control panels that respond to consumer demands and provide more options for better performance.

BUILT-IN APPLIANCES:

COMBINING THOUGHTFUL DESIGN
INNOVATION WITH SUPERIOR
ENERGY PERFORMANCE


Sponsored by Electrolux Home Products, INC.

By Peter J. Arsenault, FAIA, NCARB, LEED-AP

Architects can specify built-in appliances with world-class design features that use less energy by incorporating the latest appropriate technology.

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 Use the learning objectives below to focus your study as you read **Built-in Appliances: Combining Thoughtful Design Innovation with Superior Energy Performance**. To earn one AIA/CES Learning Unit, including one hour of health safety welfare and sustainable design credit, answer the questions on page 111, then follow the reporting instructions or go to ce.architecturalrecord.com and follow the reporting instructions.

Learning Objectives

After reading this article, you should be able to:

- Identify and recognize the attributes and features of superior energy performance in built-in appliances.
- Determine the applicable ENERGY STAR® criteria and standards for built-in appliances.
- Investigate and compare the differences between different types of heating systems for cooking.
- Specify and design appropriate built-in appliance installations for new construction and renovation projects.

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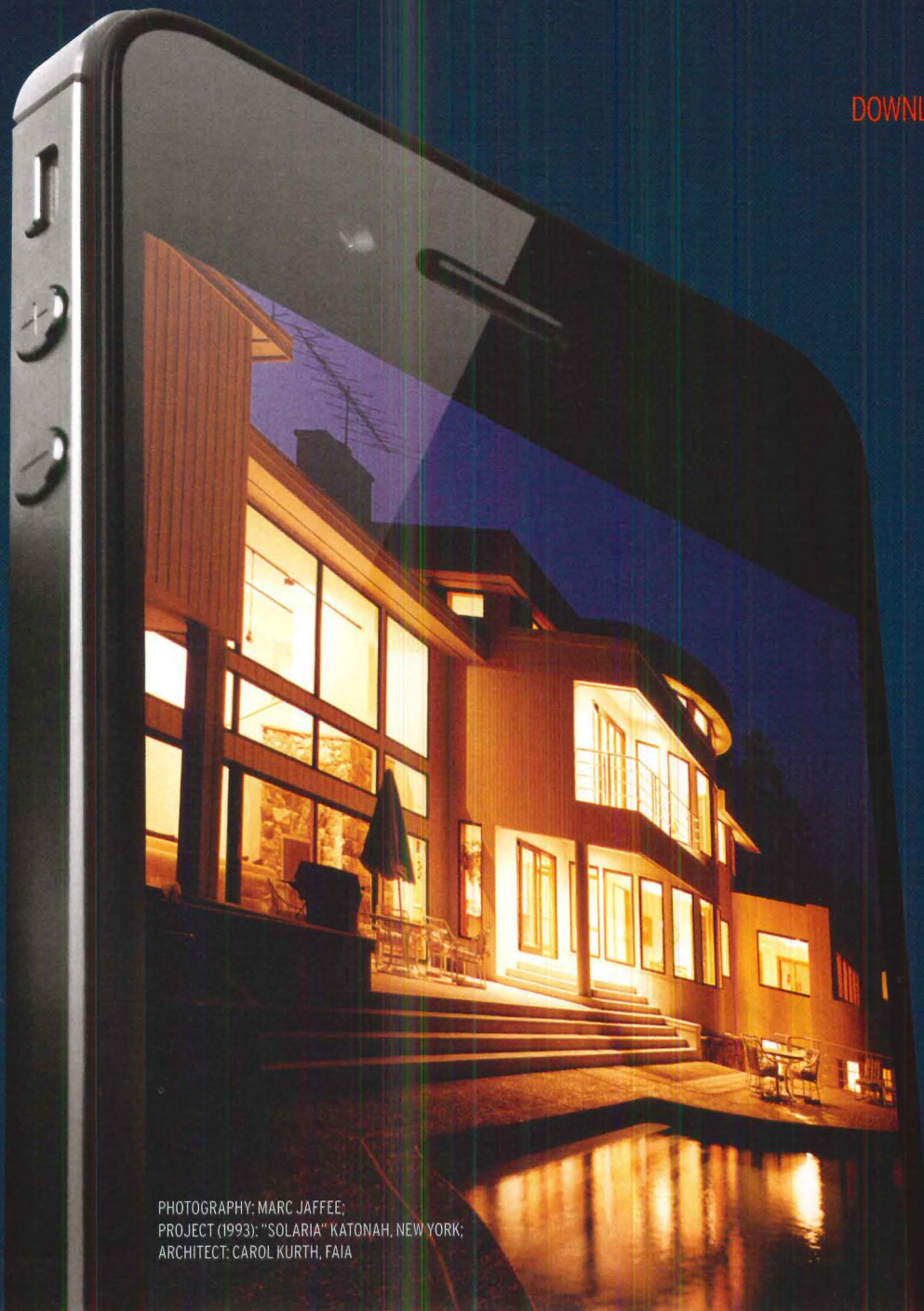
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specifications – an unusual request for poured-in-place construction. “We received a lot of RFIs,” says Hobstetter.

The PUC has a raised floor for managing data infrastructure and for distributing conditioned air. The system was also included in the steel-framed version of the building, but the cavity provides an added benefit now that the structure is made of concrete. The structure’s mass should act like a thermal battery, storing heat generated by people, equipment, and lighting during the day. At night, facility managers should be able to purge this heat by drawing cool outdoor air through the under-floor cavity, helping reduce load on the building’s chillers. Unfortunately, because of the limitations of analysis software, engineers weren’t able to fully exploit the heat-storing capacity of the structure in their design so that they could, for example, make mechanical equipment smaller. “Modeling tools don’t quantify the contribution

of thermal mass well,” says Ravenscroft. “But we believe there is some benefit.”

While the project team tried to make the most of any synergies between the frame and the other building systems, at the same time they worked to reduce the embodied energy typically associated with a concrete structure. To minimize its carbon footprint, engineers have substituted about 70 percent of the Portland cement in a standard concrete mix with supplemental cementitious materials (SCMs), including slag (a byproduct of steel-making) and fly ash (a byproduct of energy generation from coal-fired power plants). By replacing a material that is energy-intensive to manufacture with waste products that might otherwise have been sent to landfills, team members say that they have cut the carbon emissions of the PUC’s concrete in half.

The unusual mix has not been without its challenges, especially for the general contractor, Webcor

Builders. Although it already had experience with cement replacement, the PUC structure called for a much higher proportion of SCMs than any of the company’s earlier projects. With such a high level of substitution, “the products begin to significantly change the dynamics of hydration,” says Matt Rossie, Webcor’s project director, referring to the chemical reaction that allows concrete to set and harden when cement is combined with water. In general, SCMs like slag and fly ash slow the process, but understanding just how much is critical to estimating how quickly a particular mixture will gain strength, which in turn is important to both the quality of the finished product and the construction schedule.

To help determine how soon formwork can be stripped and when post-tensioning can be applied Webcor and its subcontractor, San Jose-based Central Concrete

Supply, are relying on a process known as “maturity testing.” The method involves monitoring the heat generated as a result of hydration with embedded sensors and then correlating those results to laboratory tests for the same mix. “Early strength gain is just a function of temperature and time,” explains Mike Donovan, Central’s manager of technical services.

Relying on this testing method, contractors have been removing forms from the columns about 24 hours after concrete placement and tensioning the horizontal tendons around three days after each slab pour. At press time in mid-May, the frame was almost complete, with only the tensioning of the core tendons remaining. With all the projects’ fits and starts, the contractor is relieved to have reached this milestone. Says Rossie, “It’s extremely satisfying to see the structural system come to fruition.” ■

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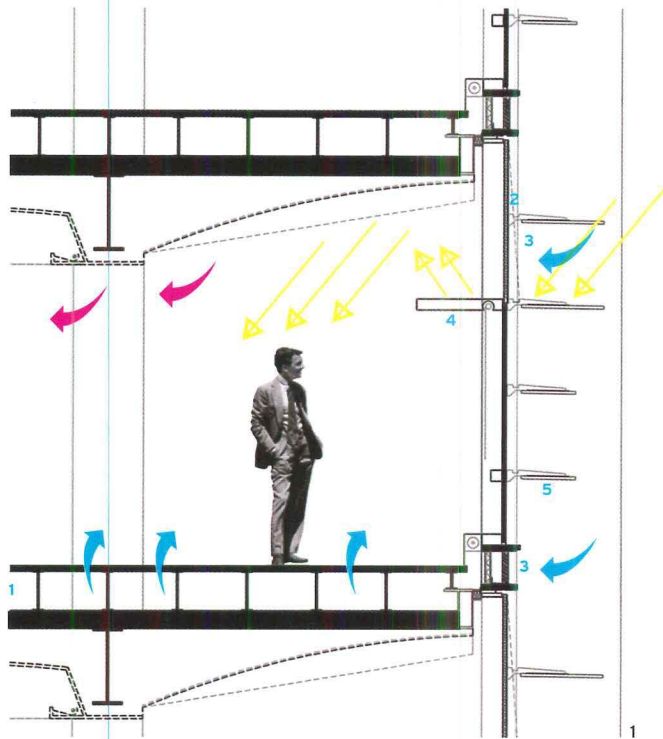
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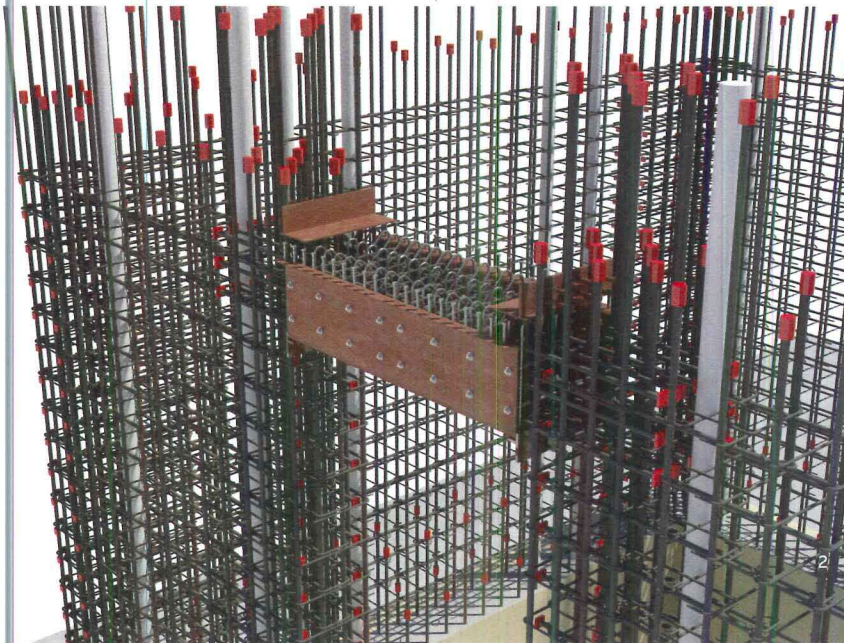
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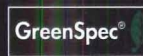
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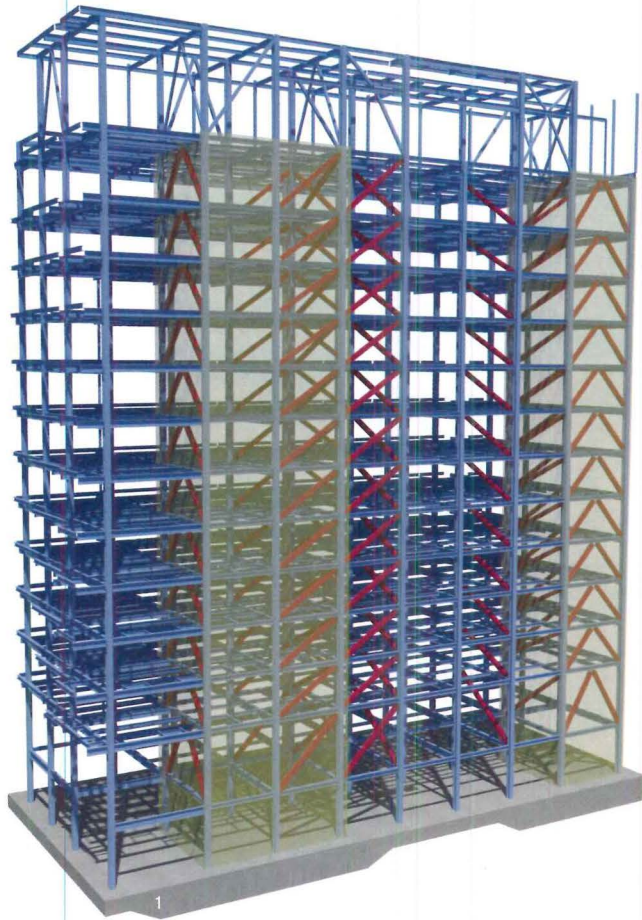
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1. Initially, the building had a steel special-moment-frame structure with viscous dampers (shown in red).
2. As part of an aggressive cost-cutting process, engineers redesigned the structure in concrete, but retained the same column grid and core locations. By swapping the structural system and eliminating suspended ceilings, designers fit another office floor within the same zoning envelope.

“rocking mechanism” because its elements are designed to return to their original position after an earthquake’s shaking. It relies on post-tensioned concrete slabs and two vertically post-tensioned concrete cores. The tensioned tendons, housed unbonded inside ducts placed between the rebar, provide a restoring force, closing cracks that will develop in the concrete during a quake, explains Mar.

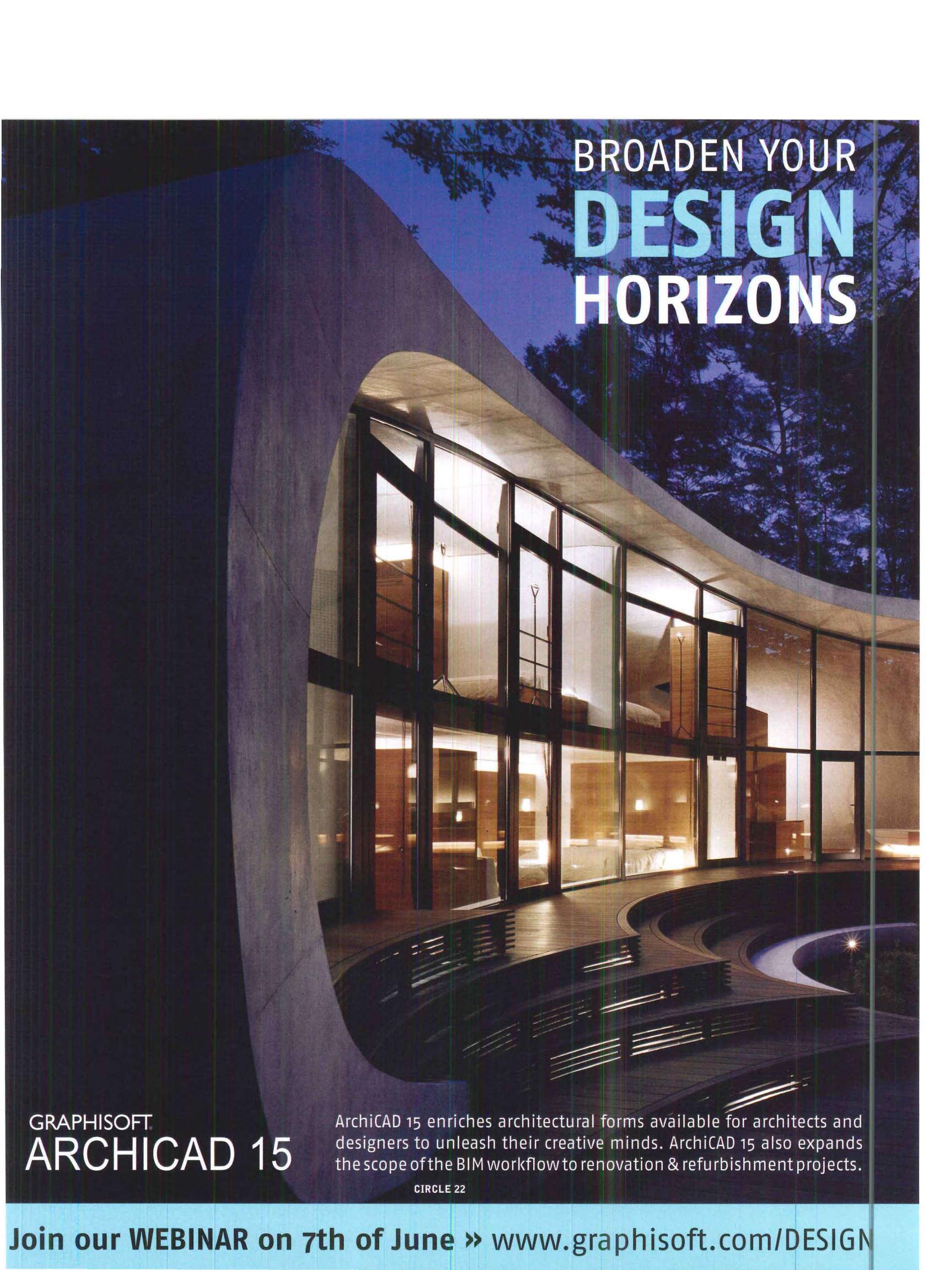
Initially, plans for the PUC building called for a steel structure – one with the same column grid and core locations – but with a special-moment frame that included viscous dampers. Like the post-tensioned concrete building under construction now, the steel version was designed to allow the agency’s staff to maintain continuous operations after a DBE. But during a more extreme event, the concrete frame should perform better, especially in the area of internal acceleration,



says Mar. For example, his team studied the ability of the two systems to protect mechanical equipment secured with standard bracing. They found that the concrete scheme was able to withstand higher accelerations.

Curiously, this level of performance was not the primary motivation for the substitution in structural systems. Instead, the main impetus was the need to cut costs. The move shaved about \$10 million from the construction price, with about half of those savings attributed to the associated elimination of architectural elements, such as fireproofing and finishes, including suspended ceilings. This approach meant that much of the poured-in-place structure would be left exposed, a look that the PUC apparently had no objections to. “You need a client who is able to accept that aesthetic,” points out David Hobstetter, KMD principal.

One bonus of the redesigned structural system was that it permitted the team to reduce the floor-to-floor height by a foot and insert an additional office level within the same zoning envelope. But it also provides other synergistic advantages – for the daylighting scheme in particular. The new concrete structure eliminates the sunlight-blocking deep perimeter beams that were a key part of the special moment frame solution. In addition, the new frame allowed designers to taper the underside of floor slabs toward the curtain wall to help bounce the sun’s rays from light shelves to the ceiling, and then into the interior of the largely open office floors. Photo cells control indirect lighting, dimming fixtures when daylight levels are sufficient. To make sure the ceiling’s color would be compatible with this illumination strategy, designers set a minimum reflectivity for the concrete in the project’s



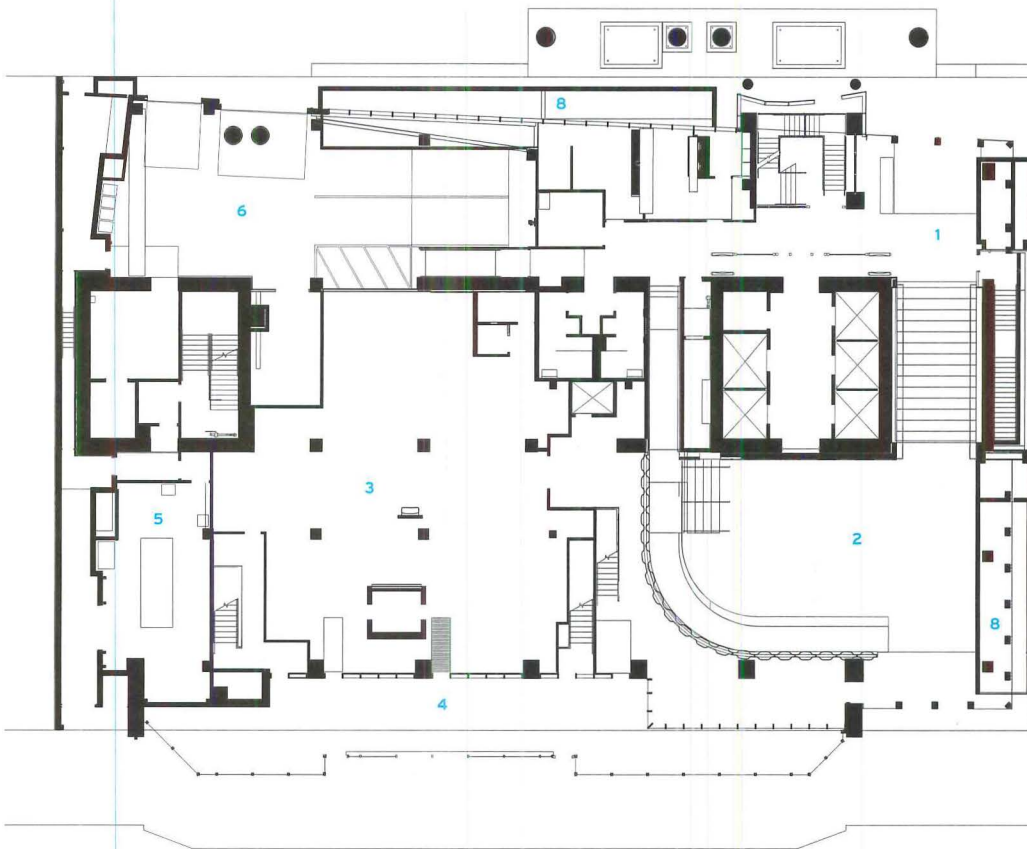
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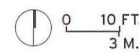
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GROUND FLOOR



FIFTH FLOOR

The turbines and the wastewater-reclamation system are on the leading edge. However, they are not the building's most unusual sustainable elements. Arguably, it is the structural frame, described as "self-healing" by the project's Berkeley-based seismic consultants, Tipping Mar. After a design basis earthquake (DBE) – a major temblor calculated to have a return period of about 475 years – the tower should remain undamaged and safe for employees to occupy immediately. And after a much more powerful and statistically less likely event – a maximum credible earthquake (MCE) – one with a 2,475-year return period – the building should suffer negligible damage. A MCE is the most severe earthquake that can be expected to occur at a given site on the basis of geologic and seismologic evidence. But following such an event, the PUC building should need repair only to the skin or other architectural elements. The approach goes well beyond the requirements of the code, which emphasize preventing loss of life, rather than minimizing property damage or limiting interruption to operations.

The LEED rating system contains no credits that pertain to seismic design. Nevertheless, the PUC team members regard the structural frame as one of the building's primary green attributes. They hope that this durability will earn the project points for innovation. "Resilience is one of the fundamental design goals," says David Mar, Tipping Mar principal. "It is deeply coupled with the client's notion of sustainability."

The structural system includes what is sometimes referred to as a

- 1 UPPER LOBBY
- 2 LOWER LOBBY
- 3 CHILD CARE
- 4 OUTDOOR PLAY AREA
- 5 GENERATOR ROOM
- 6 LOADING AREA
- 7 CUSTOMER SERVICE
- 8 LIVING MACHINE
- 9 OPEN OFFICE AREA
- 10 PRIVATE OFFICES
- 11 CONFERENCE



ABOVE: By late March, contractors had completed 11 levels of the building's poured-in-place concrete frame. The structure has no perimeter beams which might obstruct penetration of daylight into the building's interior.

aggressive goals, asking for a revised design that would achieve LEED Platinum and include on-site renewable power and a wastewater reclamation system, among other features. But before construction could begin, the project was almost scuttled again when estimates solicited in 2008's heated construction market came in several million dollars over budget.

After a rigorous value-engineering exercise, the now \$133 million

building is still on target for the higher rating. The tower will use one-third less energy from the grid than a typical office building, saving \$118 million in energy costs over the next 75 years, according to Brook Mebrahtu, 525 Golden Gate project manager for the city's Department of Public Works.

To achieve these savings, the building deploys a host of tightly coordinated resource conservation and energy production measures

that are almost de rigeur on a green office tower. Except for a swath of Sierra white granite that appears to travel over the roof between the east and west facades, the tower is wrapped in double-glazed, high-performance curtain wall. The building has interior and exterior shading devices for controlling glare and minimizing heat gain, light shelves for daylight harvesting, an under-floor air-distribution system, and a 200 kW roof-mounted photovoltaic (PV) array expected to supply about 7 percent of the facility's electricity.

The building also incorporates a few technologies that are still considered a bit exotic. For example, the tower will have a "living machine." It includes a man-made wetland that will serve as an ornamental feature at the perimeter of the lobby. By mimicking natural processes and relying on plants and other beneficial organisms, the system will cleanse the gray and blackwater generated by the tower, making it suitable for uses such as toilet and urinal flushing. The PUC also hopes to use the reclaimed water for irrigation, but San Francisco does not yet have a permitting process for such systems. According to Mebrahtu, the state and city departments of public health are currently reviewing the relevant regulations.

Another unusual element of 525 Golden Gate is building-integrated wind technology. Six to eight vertical axis turbines, of about 1 kW each, will be mounted on a stair tower on the north facade, taking advantage of a steady wind from the north-northwest. Although they are expected to generate less than 1 percent of the electricity consumed by the building, the PUC will have the option of swapping the turbines out for more efficient ones when the still-nascent building-integrated wind technology improves. In addition, the rotating turbines will serve an important function as a visible source of renewable power, points out Todd Ravenscroft, an associate and project manager in the San Francisco office of Arup, which developed the building's mechanical engineering concept. "You won't be able to see the PVs making energy," he says.

Green at Its Core

An innovative and robust seismic frame is a key part of a San Francisco office building's sustainable strategy and its bid for LEED Platinum. **By Joann Gonchar, AIA**

BELOW LEFT: A set of six to eight vertical axis turbines will be incorporated into a stair tower on the PUC building's north elevation. A bow in the facade will help increase the wind's speed as it travels through the turbines.

BELOW RIGHT: The majority of the south facade has fixed shading devices protruding from its high-performance glass skin. Automated exterior blinds shade the uppermost levels.

POSTPONED AND NEARLY derailed several times, the just-topped out concrete structure of the 13-story office building at 525 Golden Gate Avenue, a half block away from San Francisco City Hall, now seems on a smooth path toward completion next summer, more than a decade after the project was first conceived. Twelve years ago, the city acquired the site, which contained a vacant state office building damaged beyond repair by the 1989 Loma Prieta earthquake. The intention was to build a new tower, designed by a joint venture of the San Francisco-based firms Kaplan McLaughlin Diaz

(KMD) and Stevens + Associates, for several city departments. But in 2002, with design development for the 277,500-square-foot building well advanced, work stalled in the wake of the dot-com bust.

Then in 2006, the San Francisco Public Utilities Commission (PUC) resuscitated the project with plans to consolidate 1,000 employees from two leased locations. The city already had green goals for the building, targeting a LEED Silver rating. But the PUC, which provides water, wastewater treatment, and power generation services to city and Bay Area customers, had more



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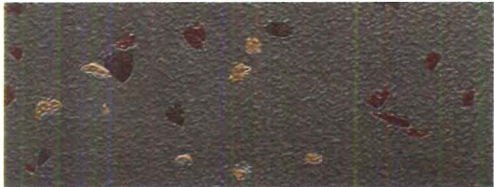
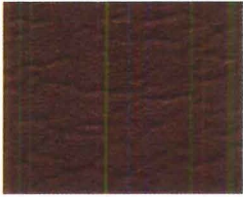
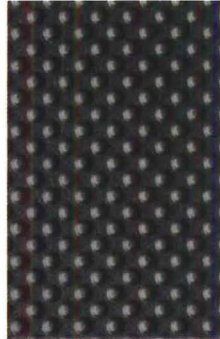
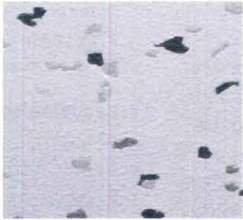
- 1 Describe 525 Golden Gate's seismic system.
- 2 Explain how this system contributes to achievement of performance objectives.
- 3 Discuss how the structure works in tandem with the building's other sustainable features.
- 4 Identify options for reducing the carbon footprint of a concrete structure.

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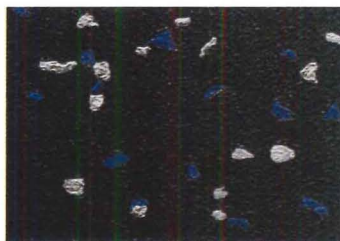
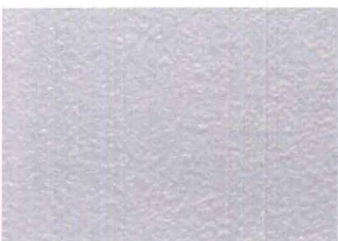


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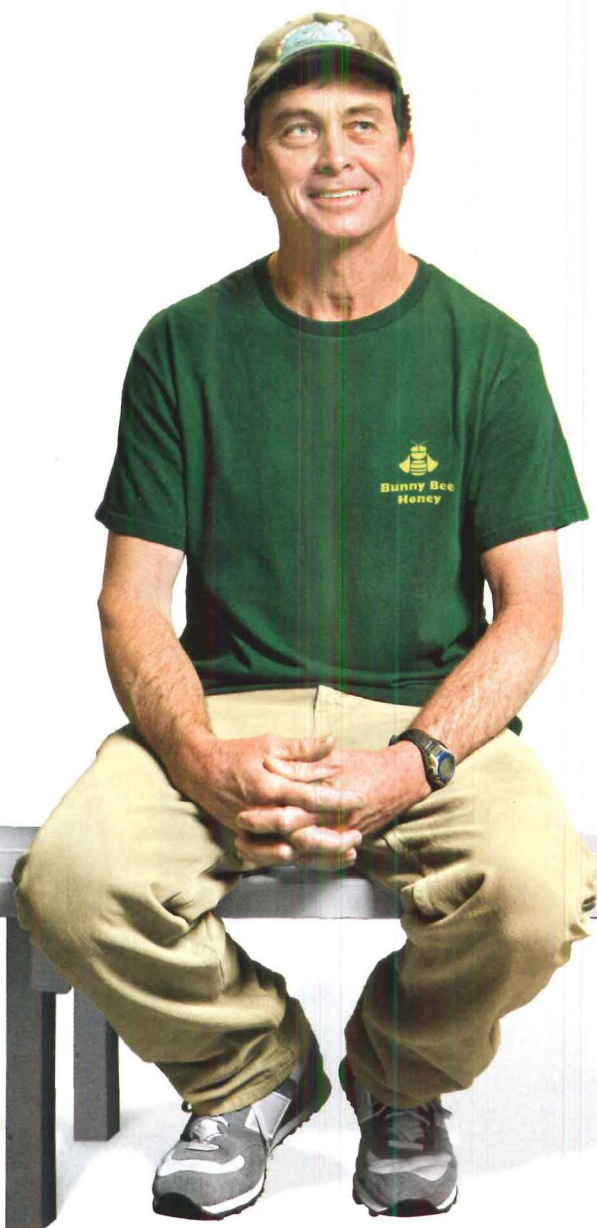
[öko skin]
BY RIEDER

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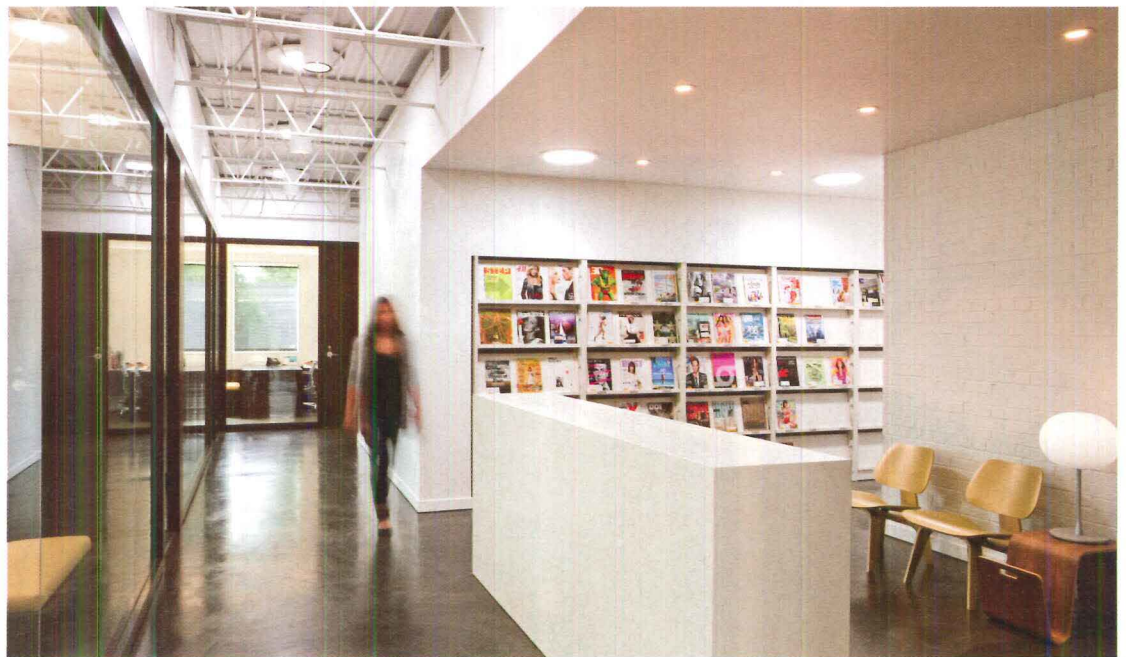


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though they replaced the deteriorating roof with white thermoplastic olefin (TPO) membrane, the insulated exterior walls, and installed insulated glass windows. The architects explored several cladding options, but to keep costs down and preserve the building's character, they ended up retaining the existing brick and painting it gray-brown. To assert KNOCK's brand and provide visual interest they created an entry by punching a box through the front facade and sheathing it in cedar. They then carried the wood box inside to form the reception area and a louvered conference room. "We looked to find moments where we could retain the original building's open-ceiling, warehouse feeling," says Kreilich, so the team left ceilings exposed in the offices and in the open work area (where they inserted sound baffles between the trusses) and dropped them in the hallways and core.

The team added new windows on the south elevation, increased the height of perimeter windows on the west facade, and installed generous glazing between the offices and hallways. These moves, as well as the use of skylights and light tubes, flood the building with daylight while mitigating energy consumption. To accommodate KNOCK's creative as well as account and project management teams, the architects divided the workspace into a bullpen and a chain of enclosed but visually open offices. And to encourage collaboration, they integrated meeting and breakout areas into the design, including pinup walls (which double as acoustic treatments) and a library. Social spaces, such as a yoga room, sundeck, pantry, and large kitchen, address the lack of local amenities and reinforce the office culture.

Combining scrappiness with a bit of attitude, Julie Snow Architects has helped KNOCK package its most important brand: itself. Rather than dressing up the building as something it is not, the architects have revealed its forthright simplicity, helping at once to integrate the Glen into the neighborhood fabric while positioning it as a model that points to a new direction for this ubiquitous, banal building stock. ■



ABOVE: Generous glazing connects offices to circulation and a variety of gathering spaces, like the library.

RIGHT: Daylight floods into a small conference room at the building's core. A large kitchen, with a table that seats 20 (right rear), is an important social amenity for the staff.



CREDITS

ARCHITECT: Julie Snow Architects – Matthew Kreilich, design principal; Pauv Thouk, project manager/designer; Tamara Wibowo, design team

ENGINEERS: Van Sickle, Allen & Associates (structural); American Engineering Testing (geotechnical)

CONSULTANTS: Willie Willette Works (millwork); Otto Painting Design (plaster)

CLIENT: KNOCK

SIZE: 9,750 gross square feet

COST: \$1.3 million (construction)

COMPLETION DATE: August 2010

SOURCES

CURTAIN WALL: CMI Architectural

GLASS: Viracon

MOISTURE BARRIER: VaproShield

LIGHT TUBES: Solatube

ACOUSTIC CEILINGS: Armstrong

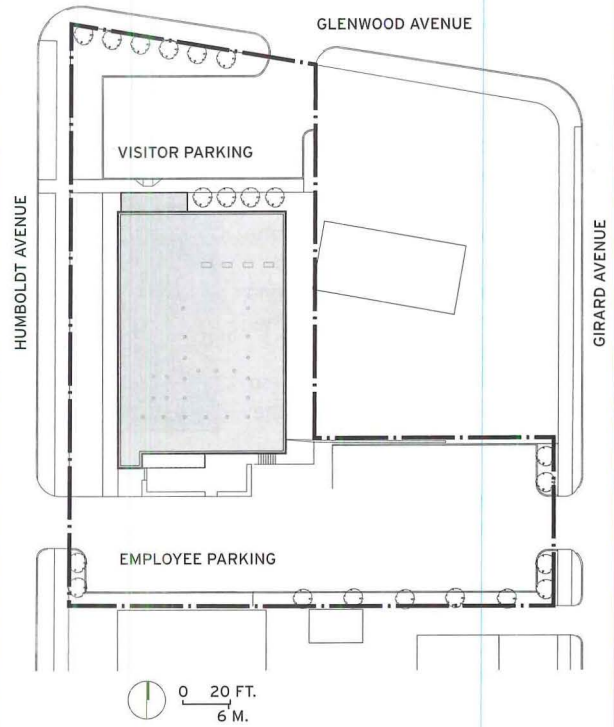
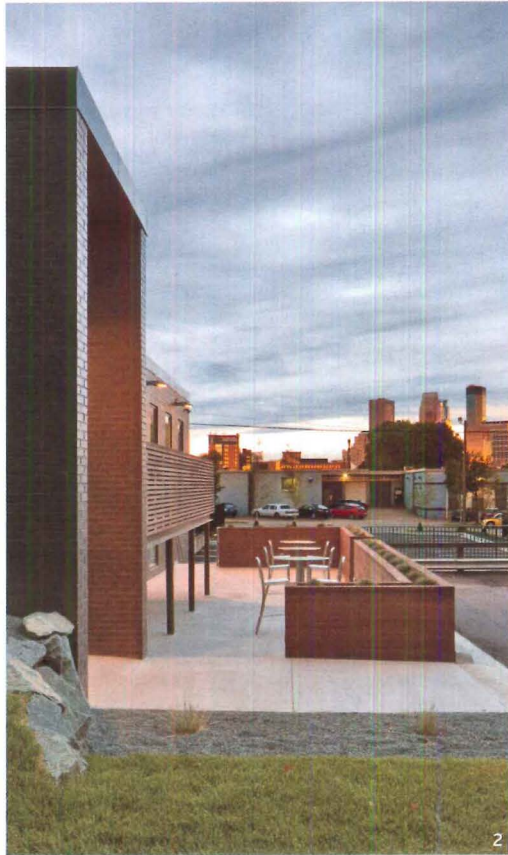
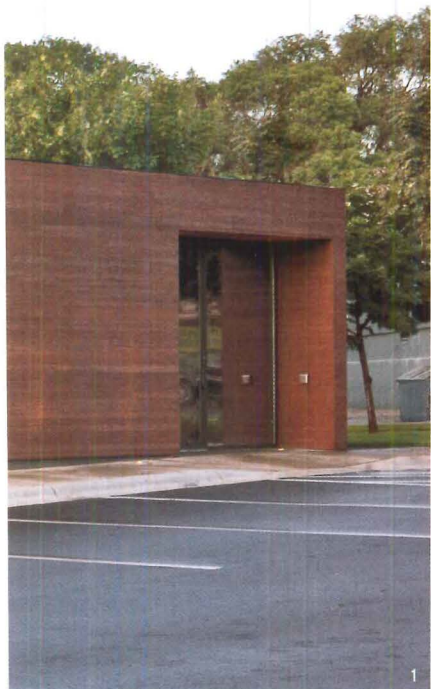
METAL DOORS: Assa Abloy

CARPET: Shaw Eco Solution

SOLID SURFACING: Corian



- 1 MAIN ENTRANCE
- 2 RECEPTION
- 3 CONFERENCE ROOM
- 4 OPEN OFFICE WORKSPACE
- 5 PRODUCTION ROOM
- 6 CRITIQUE SPACE
- 7 YOGA ROOM
- 8 OFFICE
- 9 LIBRARY
- 10 KITCHEN
- 11 BATHROOM
- 12 DECK AND PATIO



the building had “teardown” written all over it. As the economy soured, however, Hall, acknowledging the challenge of securing loans to build from the ground up, instead asked Snow’s office to help reinvent the existing building.

“Our first place was all open,” says Hall. “We needed more privacy, but also an open feel. And we required daylight and wanted to control sound.” The building would include a range of amenities to attract and retain the expanding young staff and, importantly, would serve as a calling card and reflect KNOCK’s work model, founded on creative interaction among various design disciplines.

Good bones enabled the team to repurpose the original steel structure, as well as brick and CMU load-bearing walls at the core,



The Glen

Minneapolis

Julie Snow Architects saves a seemingly hopeless building while making a home for KNOCK, a young creative enterprise.

By Beth Broome



1. To define the entry and assert KNOCK's brand, the architects punched a box out of the front facade and clad it in cedar.
2. A secondary entry connects to parking at the back where downtown Minneapolis is visible in the near distance. A deck and patio are central to the strong office culture.
3. The Glen, looking bedraggled, in its former life.
4. A gold Venetian plaster wall, louvered conference room, and custom walnut furniture and millwork by artisan Willie Willette greet visitors at reception.

IN ITS FORMER incarnation, KNOCK's headquarters, located in a downtrodden precinct of Minneapolis, was a building remarkable only for being unremarkable. Millions of its cousins – aging, uninspired commercial boxes – dot the country's secondary roads from coast to coast. Down-on-their-luck structures, they mostly go unnoticed and there is no love lost when they are felled. Thanks to the vision of KNOCK's team and Minneapolis-based Julie Snow Architects, however, this little building, known as the Glen, is getting a second go at life.

Founded 10 years ago by entrepreneur Lili Hall, KNOCK is a branding, advertising, and design firm based on a collaborative business model. In 2008, as KNOCK threatened to outgrow its rented offices in Minneapolis's warehouse

district, Hall contacted Julie Snow (one of her employees is married to Snow's partner, Matthew Kreilich), to renovate and expand their space. The architects went as far as producing a bid set of documents, but then Hall had second thoughts. Weighing the cost and the fact that the building was up for redevelopment, she decided to investigate buying something of her own. Her search brought her to Minneapolis's bleak Harrison neighborhood, typified by its low commercial construction and modest single-family houses. Across from a supermarket-turned-funeral-parlor and next to an abandoned gas station, a dowdy 1960s former food distribution center caught her eye. The price was right and the site was convenient to Hall's home and KNOCK's largest client, Target, but



ABOVE: The Ufer House (foreground) complements its leafy surroundings.

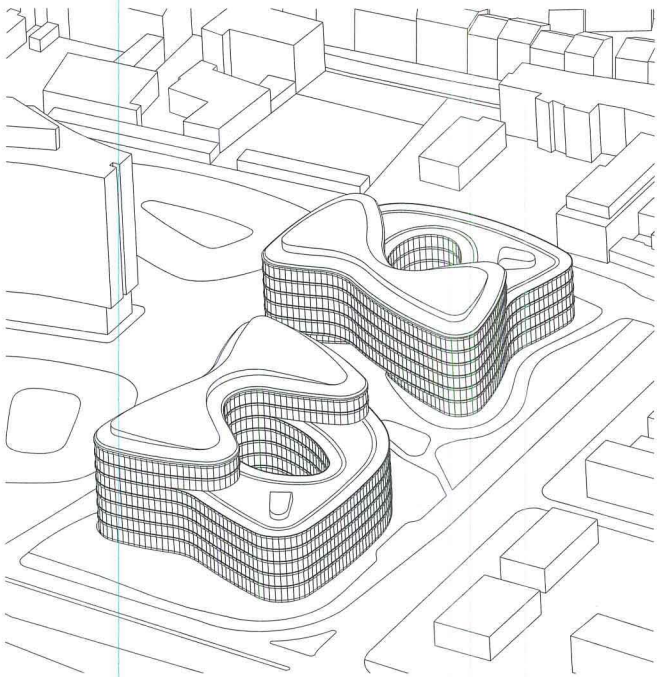
RIGHT: A private health insurance association occupies this office, with interiors by Architekturbüro Mirjam Pell. The ceiling "fingers" are part of Sauerbruch Hutton's design.

like the bull's-eye lighting fixtures, touch screen technology hidden behind colored glass walls in the elevators and elevator lobbies, and unobtrusive wall-mounted glass tablets in offices for climate and security control. All details complement the buildings' undulate exterior, which makes every office space unique.

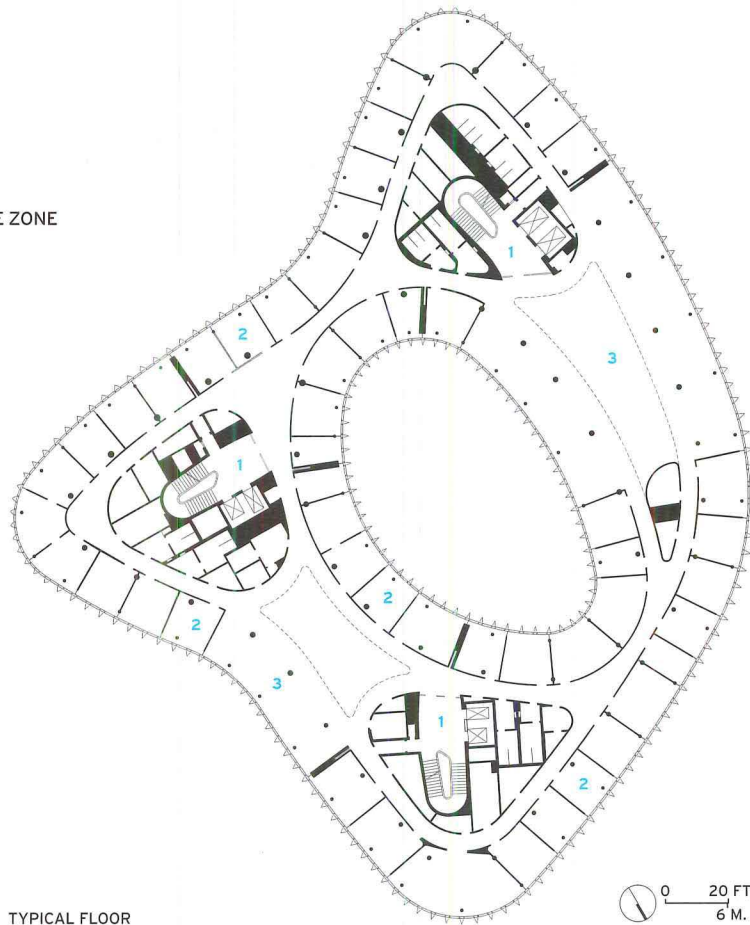
The project has achieved a high level of environmental efficiency. Ultimately, however, it is the attention to form, detail, color, and space that makes the Oval Offices so successful. ■

Layla Dawson is a Hamburg-based architect, literary critic, and author.





- 1 SERVICE CORES
- 2 PRIVATE OFFICES
- 3 OPEN PLAN OFFICES
- 4 MEETING AREA/FLEXIBLE ZONE



TYPICAL FLOOR

CREDITS

ARCHITECT: Sauerbruch Hutton
 – Matthias Sauerbruch, Louisa Hutton.
 principals; Juan Lucas Young, project
 architect

ENGINEERS: Ingenieurgesellschaft AWD
 Agne-Wahlen-Daubenbüchel (structural);
 ZWP Ingenieur-AG (m/e/p)

CONSULTANTS: ag Licht (lighting);
 Müller-BBM (acoustical); Transsolar
 Energietechnik (energy); Weidinger
 Landschaftsarchitekten (landscape)

SIZE: 463,000 square feet

COST: \$116 million

COMPLETION DATE: June 2010

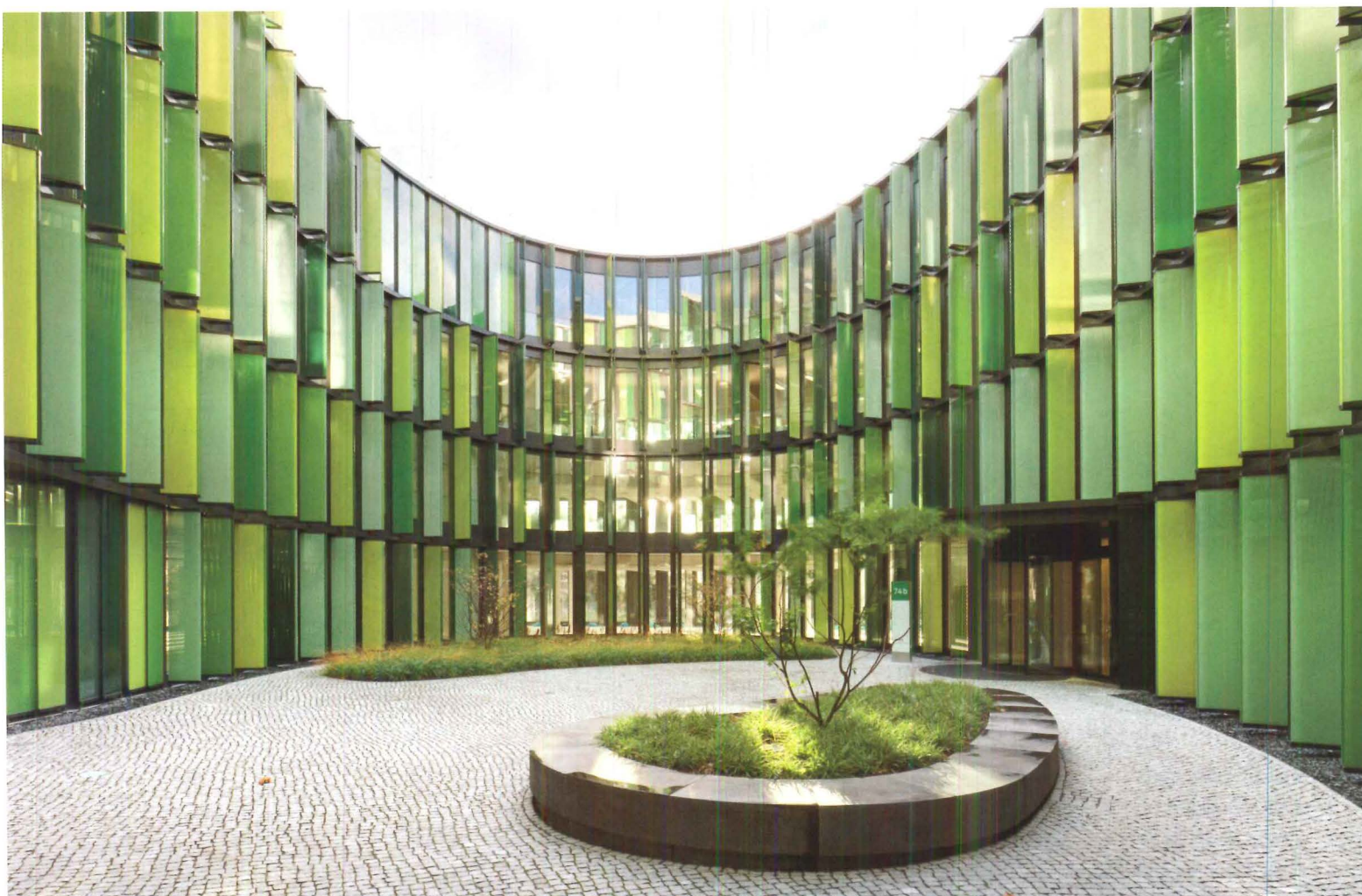
SOURCES

GLASS LOUVERS: Steindl Glas

CURTAIN WALL: Dobler Metallbau

CEILINGS: Formglas

WINDOWS: Saint-Gobain Glass
 Deutschland GmbH; Dobler Metallbau
 (aluminum frames)



Programme, which aims to encourage owners of nonresidential buildings to specify more energy-efficient technologies. Hutton says this success is partly due to a particularly supportive client, Munich Ergo Asset Management, and an open-minded project manager, Burkhard Klother. It also made economic sense. The real estate market in Cologne is highly competitive and green building is an important selling point. The buildings are designed to consume approximately 31,700 BTUs per square foot per year of primary energy, which is less than half the power used in many of the conventional, neighboring air-conditioned offices.

This is largely achievable due to passive climate-control systems. The heating and cooling system pumps Rhine River water, with an average temperature of 61 degrees, through a heat exchanger, which, in turn, regulates water temperature in a closed pipe system embedded in the floor slabs. Rainwater from the site is directly channeled back into the river, shortcutting the usual route through the city's often overloaded drainage and wastewater treatment system.

The facades are made up of full-height windows and fixed panels of insulated, double-glazed units. Occupants can open windows for ventilation and vertical, finlike glass louvers provide shade. (They are computer-operated but can be manually overridden by control panels in each office.) Roof gardens on both buildings insulate the structure and boost the microclimate's oxygen supply, in addition to offering bird's-eye views of the river and city.

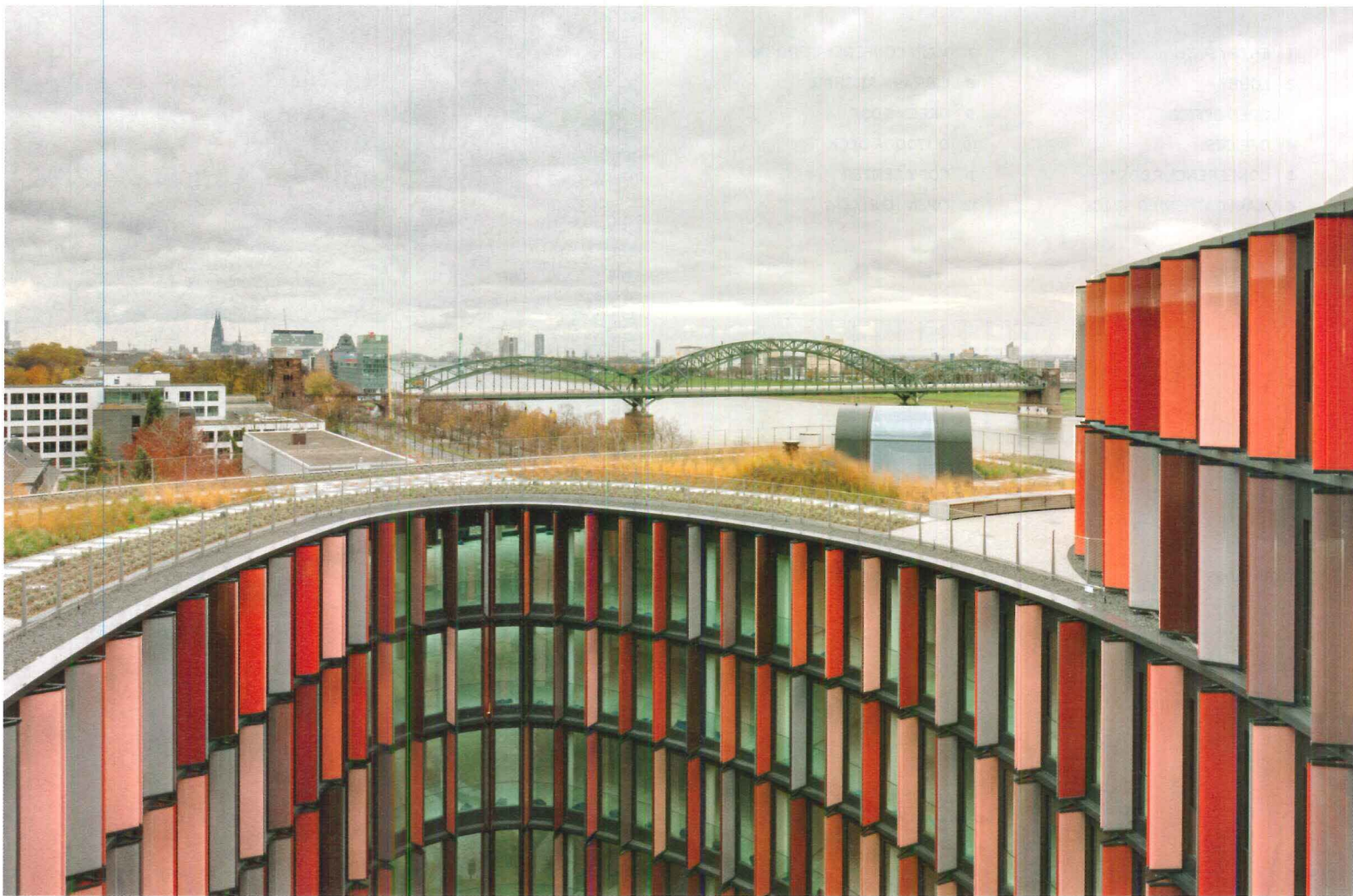
OPPOSITE: The Oval Offices are located in parklike land with views of the Rhine River. Computer-controlled colored glass louvers provide shade. Control panels in each office allow employees to manipulate them, too.

ABOVE: Both offices have a central courtyard. Glass facades and glazed corridor walls allow light to penetrate the width of the building.

The 463,000 gross square feet of flexible space accommodates a total of 1,700 workstations. At press time the project team was completing final punch-list items at Ufer, and Festland was fully occupied. The offices all have access to two of the three vertical circulation cores. Reinforced concrete columns rise from a 242-car underground garage, divided between the two buildings, to support the roof, while smaller circumference columns act as hangers for the suspended floor plates. This configuration makes for open layouts and uninterrupted views to the surrounding landscape.

Ceiling treatments help define programmatic zones. A circulation spine that runs through the daylight-filled workspaces has a dropped ceiling. Cloudlike suspended ceiling "fingers" of hand-molded plaster and resin branch out from the spine and hover over the workstations. Each finger conceals lighting, mechanical ventilation, and a sprinkler system.

Technical and practical features are translated into unique art objects,



Oval Offices

Cologne

The free-form shapes and autumn-colored louvers of two sibling office buildings are studies in contrast to the surrounding business district, proving that chart-topping efficiency can be sleek and comfortable, too.

By Layla Dawson

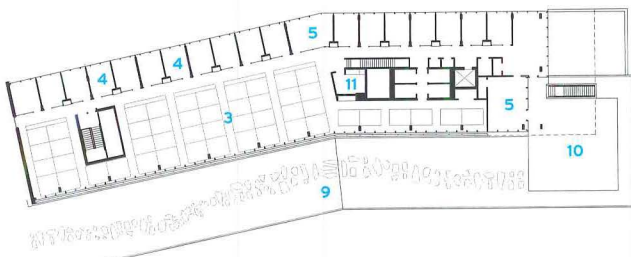
THE GERMAN-BORN AMERICAN painter Josef Albers saw color as pivotal in differentiating between “optical and physical perception” on canvas. In three-dimensional architecture, color also changes mood, alters perception, and liberates or reduces volume. The Berlin-based firm Sauerbruch Hutton, founded in 1989, has used color intuitively in all of its projects, from the 1999 expansion and renovation of the GSW Headquarters in Berlin to the prizewinning Brandhorst Museum in Munich, completed in 2008. Early on, principals Matthias Sauerbruch and Louisa Hutton realized that simple and relatively inexpensive applications of color could help transcend the confines of the site. And they discovered that “color families,” which they often refer to, could be used as another design tool. The Oval Offices in Cologne are no exception to their portfolio.

The offices – two distinct, amoeba-shaped buildings – sit on four acres of parklike land beside the Rhine River and are wrapped in 5,000 red and green glass louvers. The six-story Festland House and the seven-story Ufer House complement the surrounding leafy landscape. The louvers appear to subtly change color depending on their angle and the weather. Over the last 20 years Cologne’s business district has developed outward from the city center around its Gothic cathedral to form a string of unspectacular business headquarters along both banks of the Rhine. The Oval Offices are a contrast here, in aesthetics and energy conservation.

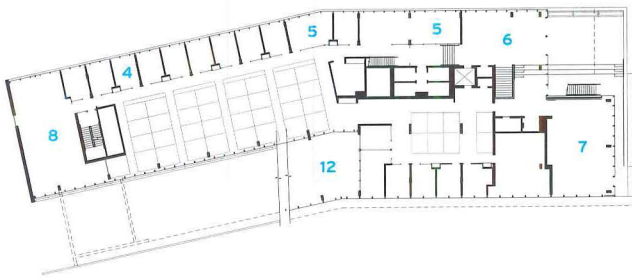
The project is the first in Cologne to earn an EU GreenBuilding certificate, one of the initiatives of the European Commission’s 2004 GreenBuilding

- 1 ENTRY PATH
- 2 LOBBY
- 3 OPEN OFFICE
- 4 OFFICES
- 5 CONFERENCE ROOMS
- 6 MAIN GATHERING SPACE

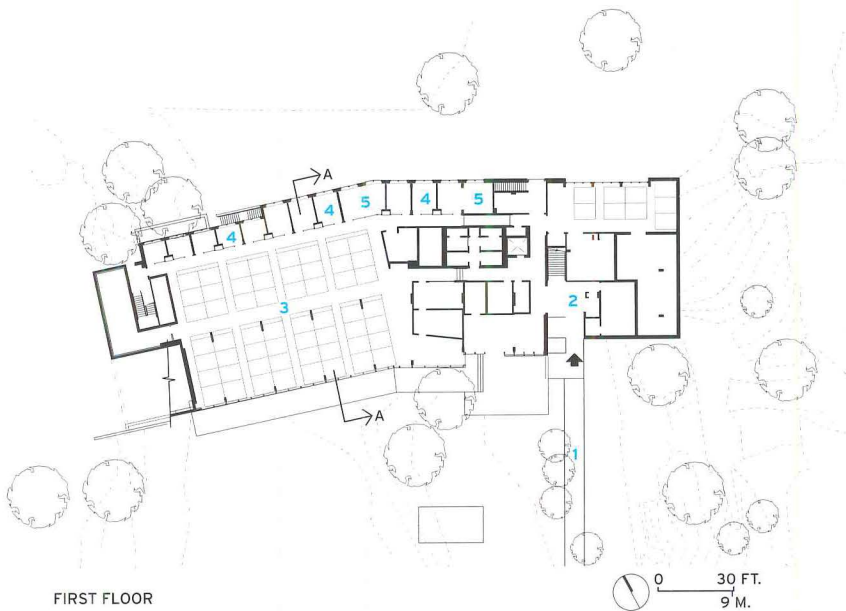
- 7 MAIN CONFERENCE ROOM
- 8 LIBRARY ARCHIVE
- 9 GREEN ROOF
- 10 OUTDOOR DECK
- 11 COPY CENTER
- 12 OPEN TO BELOW



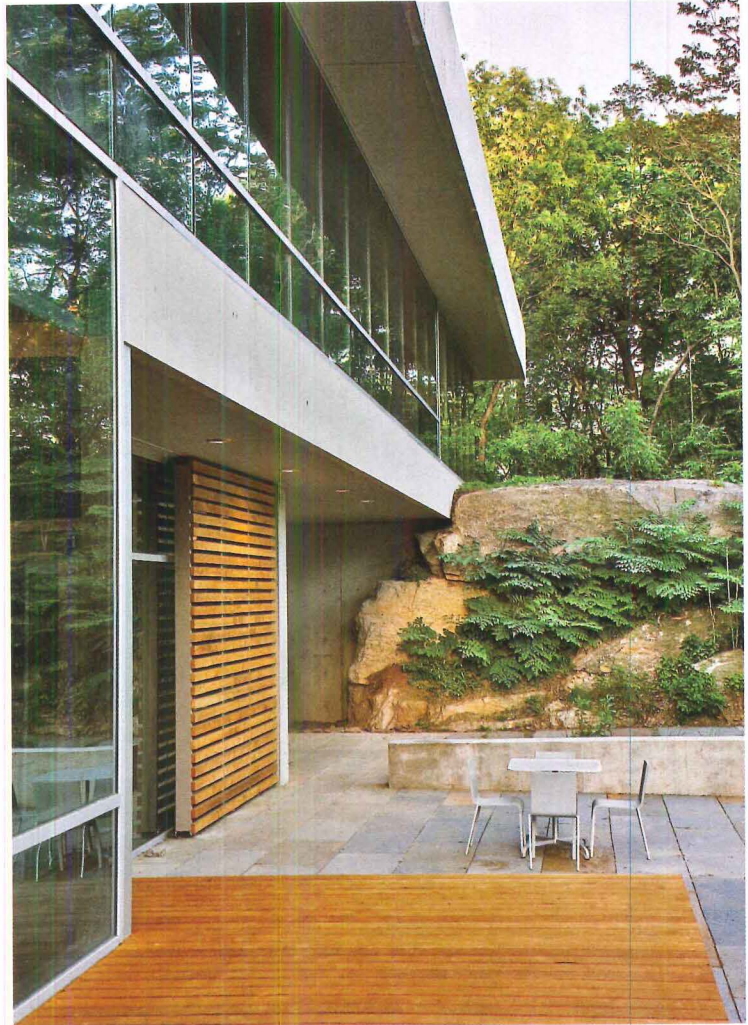
THIRD FLOOR



SECOND FLOOR



FIRST FLOOR



OPPOSITE: A vantage point on a staircase to the third floor provides a view of the main gathering space and library. An outdoor patio extends the gathering space.

ABOVE: The main entrance to the CGC is next to the staff kitchen. A moveable Cumaro wood screen can obscure views into or out of the dining area. Large rock outcroppings anchor both ends of the building.

CREDITS

ARCHITECT: FXFOWLE - Sylvia Smith, senior partner; Susan Masi, associate; Guy Geier, managing partner, interiors

CLIENT: The Wildlife Conservation Society

ENGINEERS: Langan Engineering & Environmental Services (civil); DeSimone Consulting Engineers (structural); Kallen & Lemelson (m/e/p)

CONSULTANTS: HM White Site Architects (landscape); Brandston Partnership (lighting); Cerami & Associates (acoustic)

SIZE: 35,000 square feet

COST: \$29 million

COMPLETION DATE: June 2009

SOURCES

CURTAIN WALL: US Aluminum and Competition Architectural Metals

BIRD-SAFE GLASS: Glaswerke Arnold

LIGHTING CONTROL: Lutron

GREEN ROOF: American Hydrotech

of the conference room. Salvaged from the renovation of the 1903 Lion House, they are a reminder of place and history. In other areas, cleared trees from the site were milled and repurposed for trim.

On all three floors, bathrooms, copy rooms, and other support spaces are clustered at the off-center core. Private offices face north, while open, flexible office spaces face south. Approximately 140 people currently work in the building and there is room for more. "Within a fairly compact footprint, it doesn't feel constrained," says Smith of the private offices, thanks

to minimal furniture that can be easily rearranged. Large windows on the northern and southern facades, as well as glazing in the private offices out to the hallways, allow light to penetrate the depth of the building. A window punctuating the westernmost edge of the building shows a view of a gas-fired 400 kW micro-turbine power system that supplies 100 percent of the building's electricity. Waste heat from the micro-turbines is used for heating and cooling the CGC, and for domestic hot water.

Another important component – just as seamlessly integrated – is

the sloping intensive green roof that doubles as egress. It begins on the third floor next to an outdoor patio and continues to ground level. Native grasses, flowers, and shrubs nearly obscure the outline of a walking path. During the tour, Smith and Chin casually pulled out overgrowth while chatting about gardening. Knowing that many green roofs fail because of leaks, the FXFOWLE team conducted comprehensive water testing on the CGC's roof. Louvers made of locally grown black locust striate the southern facade of the building, adding a weathered aesthetic to the glass and

concrete. Smith notes that black locust is one of the hardest woods and is used elsewhere in the park. The louvers mimic a moveable Cumaro wood screen that helps shade the staff dining room.

Chin says she hears repeatedly from occupants and visitors that they love the building. It's the kind of feedback that the animals in the exhibits she designs can't give. "These [outdoor] seats are filled in good weather. People bring their laptops out. It's actually getting used the way we hoped it would," she says. "I feel like we grew up a little when we came here." ■



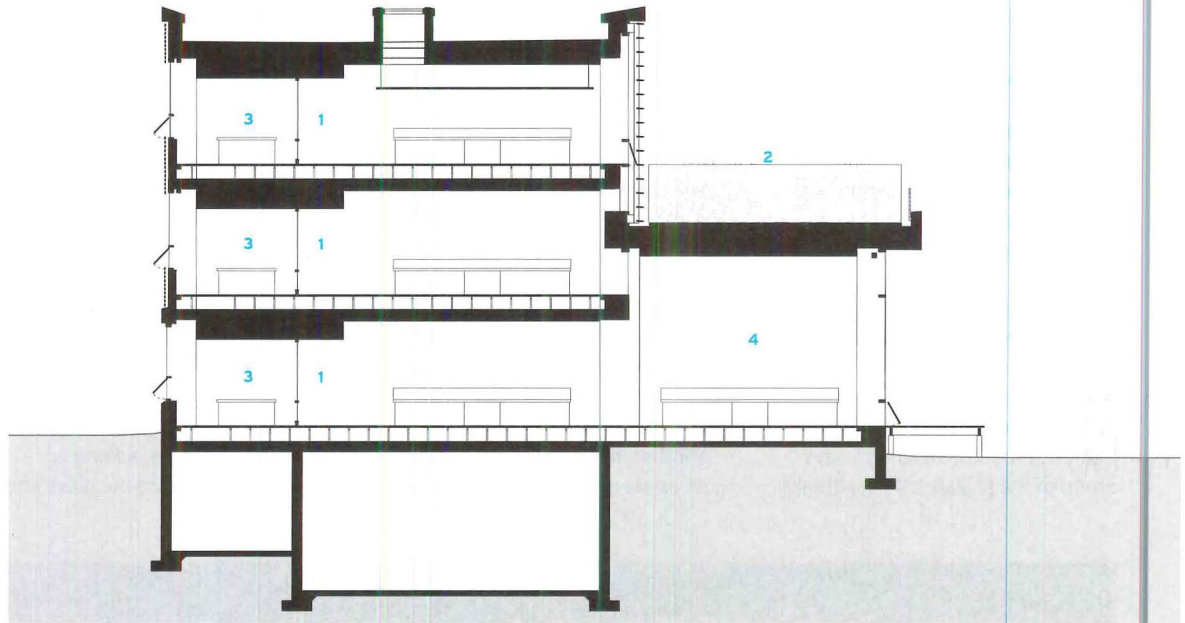
For a video tour of the project see our website or iPad edition.

Society (WCS) programs. WCS operates the largest network of wildlife parks in the world, including the Bronx Zoo, New York Aquarium, Central Park Zoo, Queens Zoo, and Prospect Park Zoo, and operates over 500 conservation programs in more than 65 countries. Until the new headquarters was completed in 2009, WCS employees were scattered in buildings across the Bronx Zoo. FXFOWLE, which had previously renovated the zoo's Lion House in 2008, consolidated various programs with diverse needs at an unused edge of the park. After looking at various configurations, the firm designed the building to intrude as little as possible on the landscape, even inflecting it to save two trees. WCS employees now benefit from chance encounters. "It's really changed our relationship. Proximity is everything," says Susan Chin, vice president of planning and design and chief architect for WCS.

In mild weather, employees eat and work outside on the generous terraces. This was the hope, says FXFOWLE senior partner Sylvia Smith. "Rather than give everyone a private office, we created good workspaces and conference rooms and then extended the building with the outdoor space," she says, pointing to a patio that is the same size as the staff dining room. "We did a lot of pairing, trying to blur the line." When employees sit outside in front of the building they find themselves in the middle of a marshlike valley thick with native grasses.

Park visitors pass close to the private building, but it is set back in the landscape, creating the sense that the CGC is in the middle of the woods, not New York City. A berm built into the natural landscape frames a promenade that guides visitors to its entrance – they are welcome to use its outdoor dining spaces and explore the property.

Smith led a recent tour of the building that began on the ground floor. A glass and poured-in-place concrete entrance leads to a flight of stairs and the real arrival space – the second floor's combined lounge and library – where windows look out to Fordham Road and the New York Botanical Garden beyond.



SECTION A-A

0 10 FT.
3 M.

FXFOWLE wanted occupants to feel framed by the landscape, says Smith. The main conference room, located to the south of the lounge, is an elegant example of this design principle, with a raised floor, clean detailing, and a cantilevered roof that extends the room into the woods. Working with ornithologists at the CGC and the New York

Audubon Society, the firm designed two floor-to-ceiling insulated glass walls made of a type of glazing that birds see as opaque. To humans, the glass looks pleasantly and subtly pinstriped. The CGC is in a migratory path, and the conference room is in the most wooded corner, making this a necessary measure. Rectangular red sandstone panels line the back

- 1 OPEN OFFICE SPACE
- 2 GREEN ROOF
- 3 OFFICES
- 4 MAIN CONFERENCE ROOM





ABOVE: The Center for Global Conservation was inflected to save two specimen trees. Employees often sit on the patio surrounded by the nature preserve setting.

OPPOSITE: Located at the northern edge of a clearing, the CGC's form, sun shading, and ventilation help reduce energy consumption and maximize occupants' comfort.

- 1 CENTER FOR GLOBAL CONSERVATION
- 2 WET MEADOW BIOSWALE
- 3 SEABIRD COLONY
- 4 ASTOR COURT FOUNTAIN
- 5 AQUATIC BIRD HOUSE
- 6 COPE LAKE
- 7 GUERLAIN ROAD
- 8 MICRO TURBINES
- 9 ASTOR COURT ADMINISTRATION



EMPLOYEES ON THEIR lunch break at the Center for Global Conservation (CGC) recently paused to observe wild turkeys roaming in front of the building. In the northwest corner of the Bronx Zoo's 265 acres of New York City parkland, this display isn't a rare occurrence. Nor is the sight of Inca terns swooping in the seabird aviary across from the CGC headquarters. Muskrats and goldfinches visit, too. Perhaps these creatures continue to treat the turf as their own because the rectangular, elongated three-story building – which achieved LEED Gold Certification in 2009 – seems as natural to the site as the two rock outcroppings it bridges.

The CGC, designed by FXFOWLE, houses several Wildlife Conservation

Center for Global Conservation

Bronx, New York

An office building in the Bronx Zoo seems as natural to the site as the surrounding parkland and accommodates multiple programs with minimal resources. Staring out the window is part of the job description. By Laura Raskin

An intensive green roof slopes from the third floor to a wet meadow and provides necessary egress. Native grasses, flowers, and shrubs thrive on its path.



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**ARCHITECTURAL
RECORD**

The Art of Metal

New Hampshire Institute of Art - Manchester, NH
Architect: Dennis Mires, PA, The Architects
Panel Contractor: A.W. Therrien Co.
Material: .032 aluminum PAC-CLAD Flat Sheet
Profile: SNAP-CLAD™ Panels and Flush Panels
Finish: PAC-CLAD Zinc Metallic

LEED Gold Candidate
AIA New Hampshire Excellence in Architecture Merit Award



PAC-CLAD® Panels and Flat Sheet in Zinc Metallic transformed the New Hampshire Institute of Art into a Masterpiece...

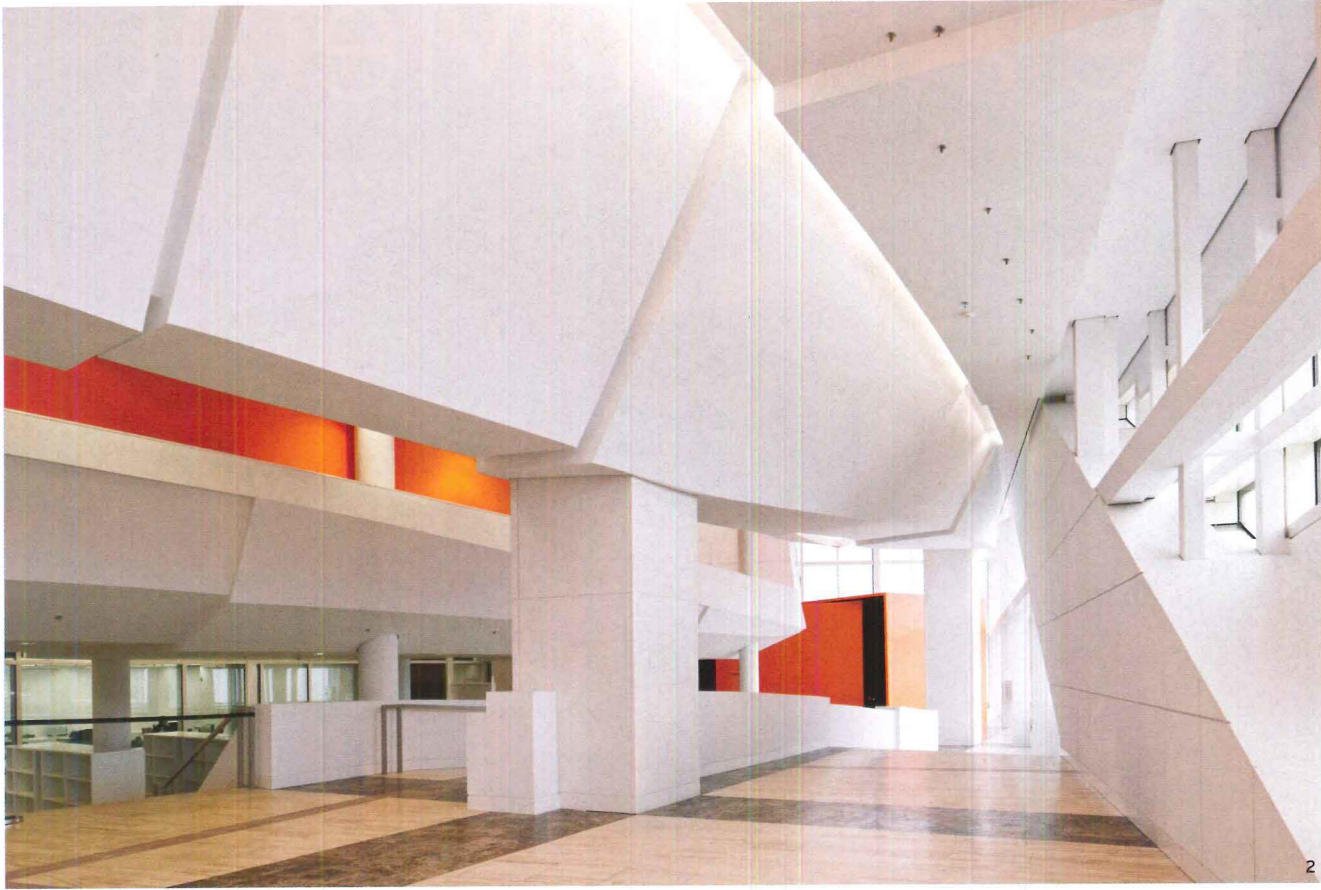
"Metal is a contemporary material that allowed us to differentiate the form with the same material and finish, and yet create different textures: the varying width, vertical standing-seam form versus the metal shingles form. It also provided a hand-crafted character using an industrial material that seemed appropriate for an art college."

—Dennis Mires, PA, The Architects, Manchester, NH



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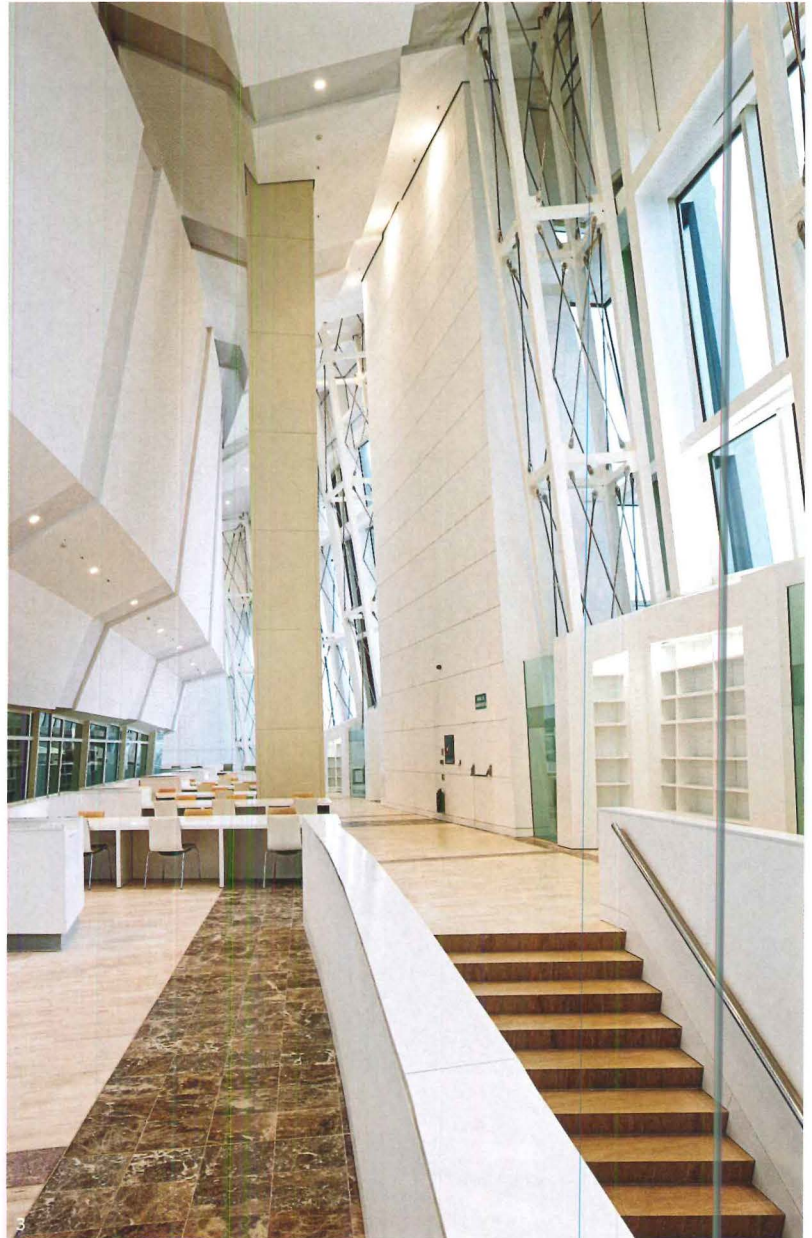
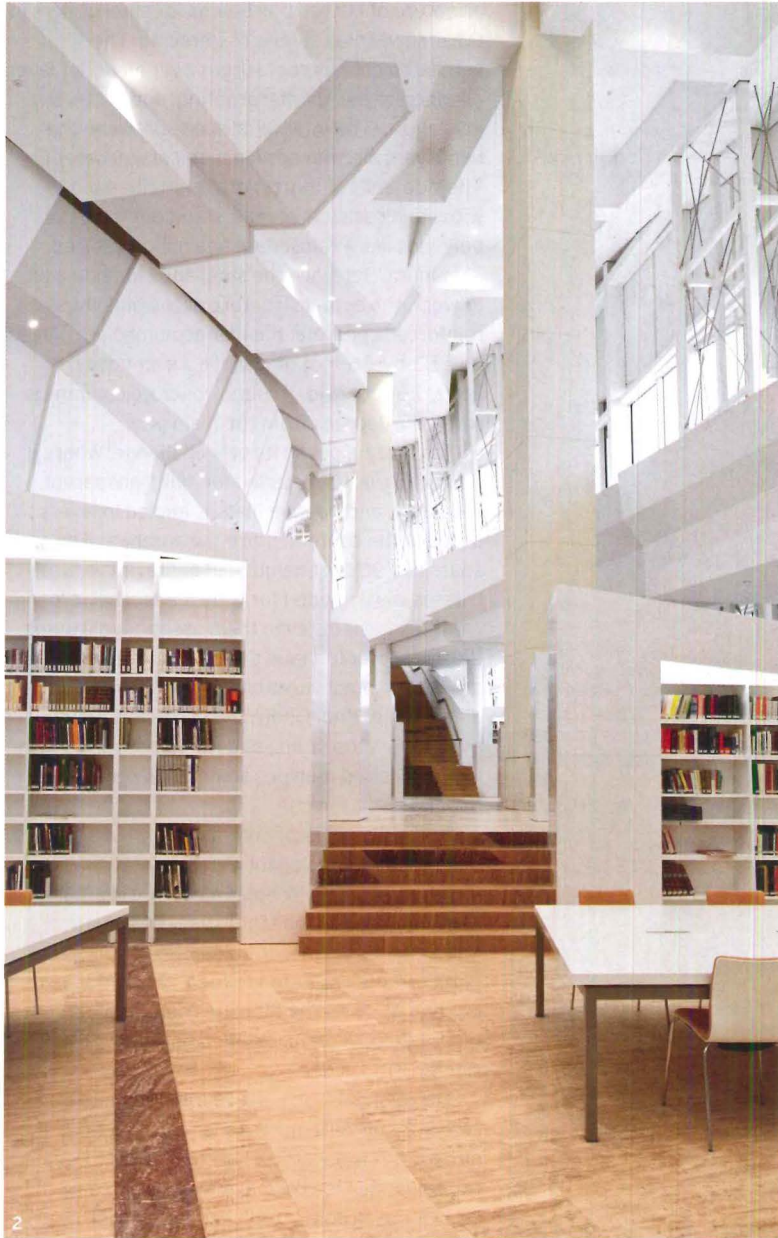
armature of curved box beams (or steel girders in the archive) plus steel cross-bracing. The ventilated chunky roof surges over an under layer of concrete deck, waterproofing, and protective insulation. (The interstitial space between the two layers also houses mechanical equipment.) The side walls of mortarless quartzite panels with stainless steel reveals stand out from the buildings like a rainscreen against galvanized aluminum. But while the steel and stone do a lot of work, the actual structure of the buildings is reinforced concrete: the megacolumns are placed on a 53-by-66-foot grid, while a secondary 26-by-26-foot grid of round concrete columns is rotated 7 degrees from the main one.

The glazing posed its own challenge; where a double curvature is called for, flat transparent, reflective, and opaque glass is angled in layers to produce the contour. Since the library's glass wall soars to a 98-foot height, cable-stayed vertical trusses were needed for wind loads. They are plentiful: It seems even the trusses have trusses. Eisenman wanted (and thought he was getting) gray glass, but it turns bluish and greenish under different lighting. Oddly, the glass sometimes overpowers the stone, and the thick grid of variously sized mullions sometimes overpowers the glass.

This isn't a work of architecture where you are overawed by the elegant detailing of the mullions: the strength actually emanates from the skillful craftsmanship of the stonework. Eisenman gives much credit for the execution to architect of record Andrés Perea Ortega, plus Antonio Maroño, the architect for the Foundation of the City of Culture of Galicia, who has been on-site since 2001.

Although it is too early to fully evaluate a complex still very much under construction, already it has become a lightning rod for debate regarding its high cost, excessive space, and ambiguous program. At least the current government officials in charge appear to be fully behind it: Perhaps the perfect fit of program to form will evolve in time. As it ages, it will no doubt lose its rawness, but probably keep its brute energy. The gesture is so defiant. Its brazen monumentality and unsettling scale ravenously explore the difference between artifice and nature. Time will reveal its significance. ■

1. The library's open stacks and changing levels create alcoves for reading. The shaped soffits and upper walls molded of drywall define the interior spaces.
2. The orange exhibition enclosures on two levels were installed by the foundation to house rare artifacts and manuscripts.
3. The plaster-finished round concrete columns in the archive form a secondary support system for the internal spaces.



1. A granite and quartzite stone slope at the back of the library leads visitors around to the glazed north face.

2. The interior of the library receives daylight from the north window wall; open stacks are designed for individual reading areas. Here 4-foot-square columns support the roof and contain drains.

3. Travertine stairs lead to a mezzanine that contains computer workstations, overlooking the UV-filtering-glass-enclosed core for rare books. On the north glazed elevation, cable-stayed vertical trusses help with wind loads.

CREDITS

ARCHITECT: Eisenman Architects – Peter Eisenman, principal in charge; Richard Rosson, project manager; Sandra Hemingway, project design director

ARCHITECT OF RECORD: Andrés Perea Ortega

ENGINEERS: Euroestudios (civil, structural, m/e/p)

CONSULTANTS: Buro Happold (engineering for concept and design)

CLIENT: Foundation for the City of Culture of Galicia (Antonio Maroño, supervising architect)

SIZE: 155,203 square feet (archive); 186,990 square feet (library)

COST: \$51 million (archive); \$65 million (library)

COMPLETION DATE: January 2011

SOURCES

GLASS: Saint-Gobain (special glazing); Curbiperfil (insulated panel)

METAL FRAME: Schüco

ACOUSTICAL CEILINGS: Baswaphon

BUILT-UP ROOFING: Europerfil (Haircol)



event. As if anticipating such questions, the City of Culture has mounted its own exhibition in the archive featuring a video of Eisenman explaining how he arrived at these striated forms.

Eisenman began with the outline and street plan of the medieval city of Santiago de Compostela based on the shape and ridges of a scallop, the emblem for the shrine. He then placed a similar street pattern on the top of Mount Gaiás to separate the original eight buildings and let the site's topography mold this medieval pattern. Then he overlaid the plan with a Cartesian grid while finally digitally warping the result with a computer-modeling wire frame to generate, he says, "dimension and direction."

Overlays and interplays of these grids are

called out in stonework, mullions, aluminum channels, and glazing, as well as contoured drywall soffits and walls inside the buildings. Lay people might find this flow and deformation a bit obsessive. A different matter is the dynamism of the actual shapes and the surface textures of the swelling and heaving structures. You don't need to climb all the contours of these convulsing carapaces (as some do) to know you have entered an experientially based landscape where kinesthetic and haptic, as well as visual, perceptions dominate. Even inside, where interior surfaces assume quite different shapes, contracting and expanding spaces heighten the temporal experience of architecture.

Executing these leviathan structures should

ultimately cost an estimated \$581 million for the six buildings. But the economy has slowed down the construction schedule to a point where no one is talking about the completion date for the last two buildings, one of which is the opera, the other, now slated for a new technologies center.

Originally the design team wanted grass roofs, but found that grass was heavier and harder to maintain than stone. Nevertheless, the local quartzite (in brown, rose, and off-white hues and varied textures) that clads the roofs and walls proved to be hard for the local quarry to supply on time. Stone also came from Brazil.

The hand-quarried stone, cut by machine in 20-inch square blocks (with blocks at the edges specially trimmed), is mounted on a steel

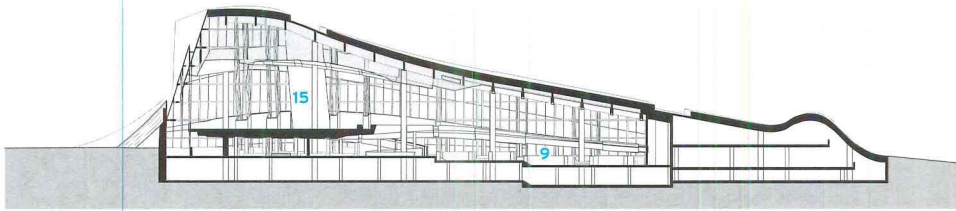


projected space needs were not determined by the architects.

The program, conceived at the cusp of the digital age and during the halcyon years of economic prosperity, got caught in a programmatic and financial time warp. And the government changed in 2005. The archive was slated to be a periodicals library with a large reading room. When it morphed into an archive for storing regional documents, the large space for a reading room was turned over to the exhibition of rare documents. But because of the

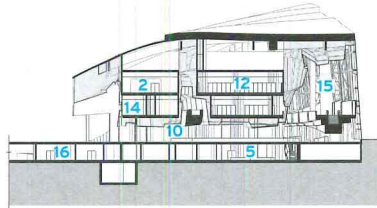
presence of an expansive south-facing glazed wall, temporary polygonal structures enclose the fragile artifacts. As for the library, the original plan to house 250,000 books grew to a million under the wishes of the Galician administration. Now, while rare books occupy a central glazed core, the ongoing digitization of library collections generally raises a question about future space requirements. It doesn't mean that these buildings can't undergo adaptive reuse. But the weak link to the program certainly turns the formal qualities of the architecture into the main

The rectilinear arcade along the north side of the archive contrasts with the slippery slope of granite-paved plaza on the west end of the library. On the other side of a large construction pit rises the Central Services building with conference halls.

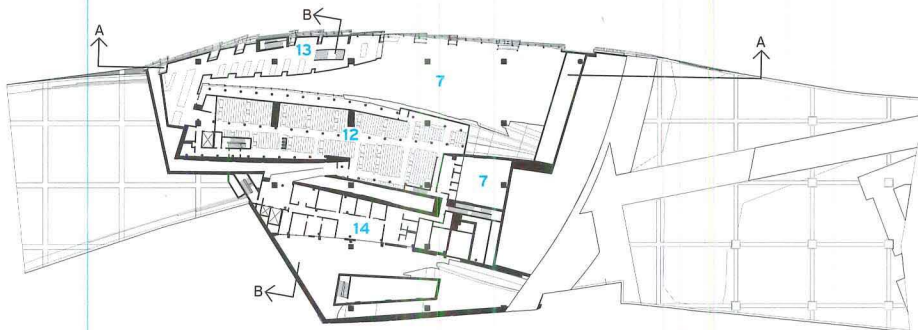


LIBRARY SECTION A-A

- 1 PARKING GARAGE
- 2 MECHANICAL
- 3 BOOKBINDING
- 4 CONSERVATION
- 5 RESEARCH AND SCHOLARS CENTER
- 6 RARE BOOKS
- 7 OPEN TO BELOW
- 8 EXHIBITION
- 9 MAIN READING ROOM
- 10 VESTIBULE
- 11 CLASSROOM
- 12 LIBRARY STACKS
- 13 UPPER READING ROOM
- 14 ADMINISTRATION
- 15 VIRTUAL LIBRARY
- 16 LIBRARY SUPPORT



LIBRARY SECTION B-B



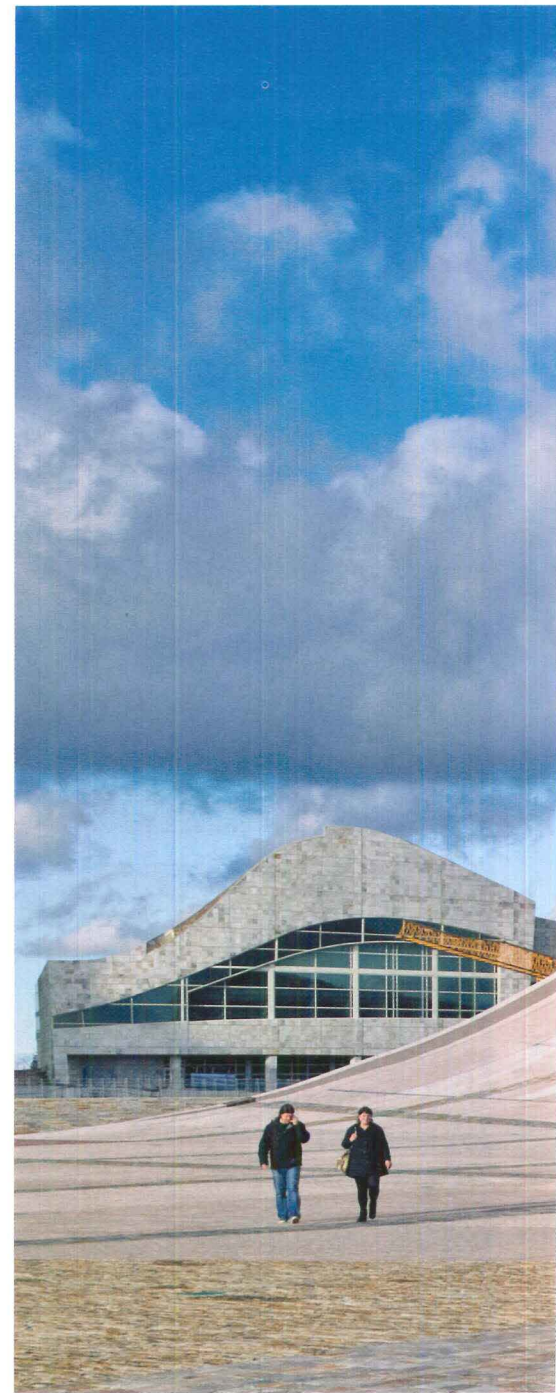
LIBRARY PLAN +1 LEVEL



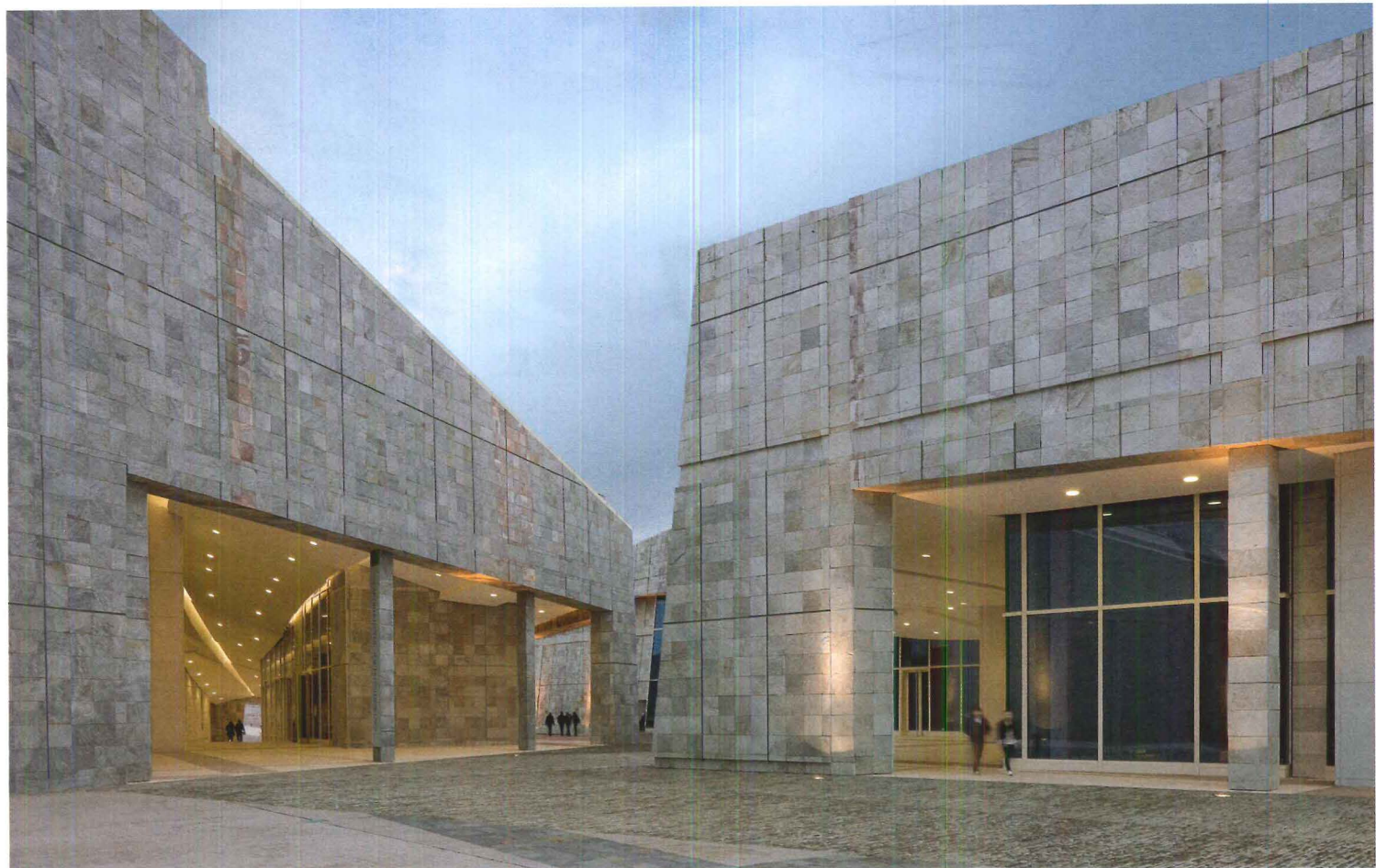
LIBRARY PLAN 0 LEVEL

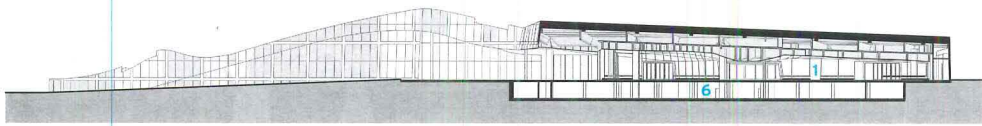


LIBRARY PLAN -1 LEVEL



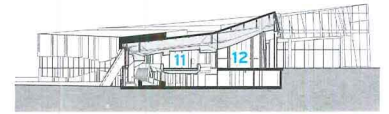
buildings, the 155,205-square-foot Archive of Galicia and the 186,990-square-foot Library of Galicia, opened in January. The 223,889-square-foot Museum of Galicia and the 80,729-square-foot Central Services Building are expected to be completed by late fall, although the museum won't be installed until next spring. It is easy to see that the scale is daunting. When all six structures are finished, the City of Culture could almost function as a small international airport (except, of course, the planes' pilots might mistake the buildings for runways). But the



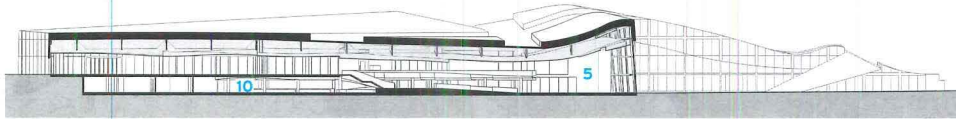


SECTION A-A

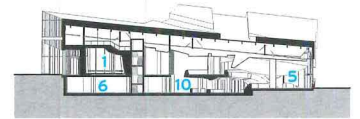
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SECTION C-C



SECTION B-B

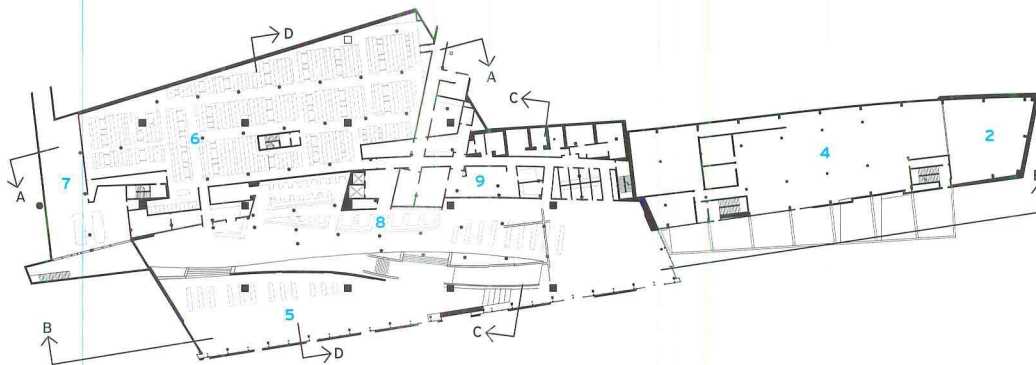


SECTION D-D



ARCHIVE PLAN - LEVEL ZERO

- | | |
|---------------------------|-------------------------|
| 1 CITY OF CULTURE EXHIBIT | 7 MECHANICAL |
| 2 OPEN TO BELOW | 8 REFERENCE ARCHIVISTS |
| 3 ARCHIVE EXHIBITION | 9 GENERAL CATALOGING |
| 4 CENTRAL COOLING | 10 SCHOLARS CENTER |
| 5 READING ROOM | 11 ARCHIVE EXHIBIT |
| 6 ARCHIVE STACKS | 12 CITY OF CULTURE SHOP |



ARCHIVE PLAN - LEVEL ONE

0 30 FT.
9 M.

OPPOSITE, TOP: Visitors park at the east end of the complex, and enter on the red granite and asphalt paths that cleave the archive and the library. The rose and tan quartzite stone surfacing the roof is supported by steel scaffolding above a secondary roof of concrete with waterproofing and insulation.

BELOW: Arcades and open passages lead visitors to the City of Culture exhibition on the north side of the archive. A service tunnel under the complex offers vehicular access to all buildings.



in the right country architecturally. Since the end of Franco's reign in 1975, Spanish architects have been turning out high-quality Modernist design in a country also receptive to the tours de force of internationally known architects. After Frank Gehry's Guggenheim Museum in Bilbao opened in 1997, Manuel Fraga Iribarne, the president of the Xunta of Galicia, initiated the 1 million-square-foot research, study, and arts center for his own region. The brief for the City of Culture ambitiously called for a periodicals archive, library, museum, music theater, central services and administration building, and international arts center with a budget of around \$145 million.

Eisenman's winning scheme, folded into the earth and seductively represented by a molded

wood model, beat out varied proposals by ten finalists: Steven Holl Architects, OMA/Rem Koolhaas, Ateliers Jean Nouvel, Gigon Guyer Architects, Dominique Perrault Architecture, Studio Daniel Libeskind, Juan Navarro Baldeweg, César Portela, Ricardo Bofill/Taller de Arquitectura, and José Manuel Gallego Jorroto.

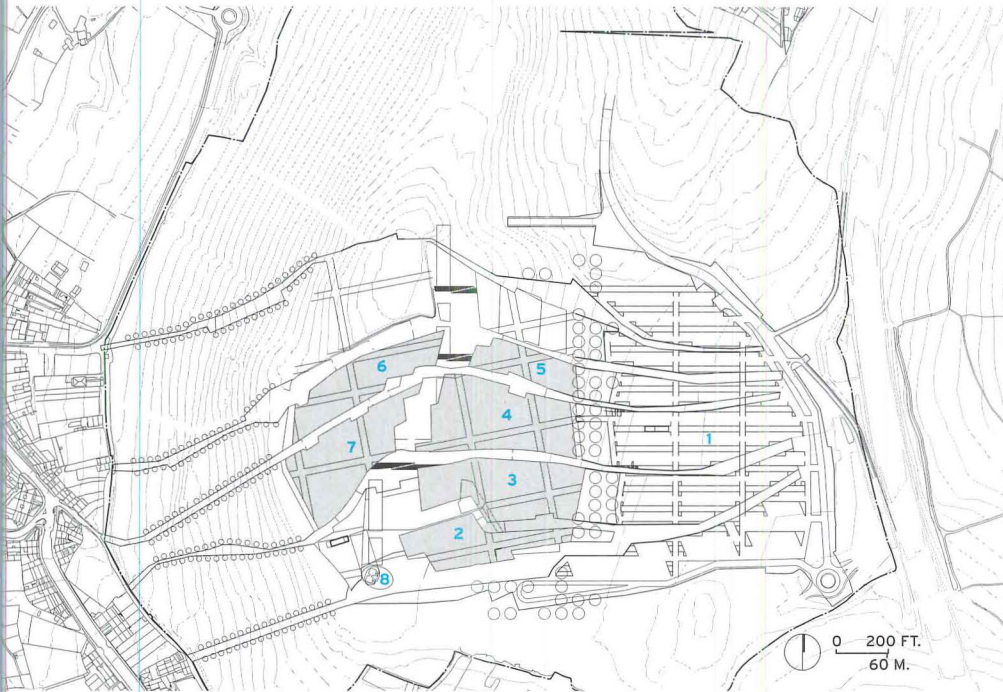
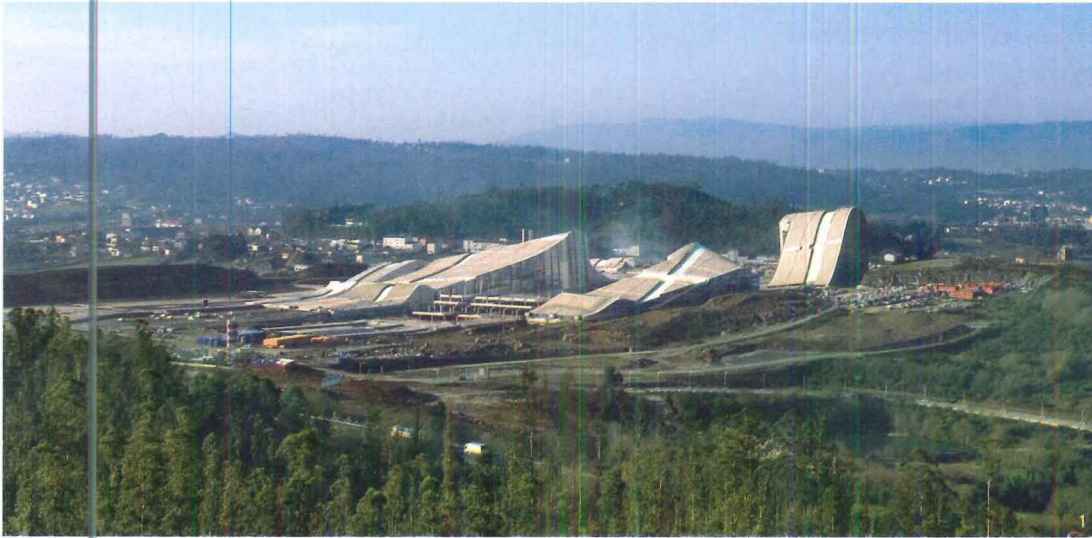
The 173-acre site on Mount Gaiás can be glimpsed from nearby Santiago de Compostela where the cathedral houses the remains of the apostle St. James, brought to Spain from Jerusalem after his death in AD 44. Since the eighth century, pilgrims have trekked to the medieval town to pay homage to his shrine.

Although Eisenman's proposal indicated eight buildings, today it's down to six. Two of the

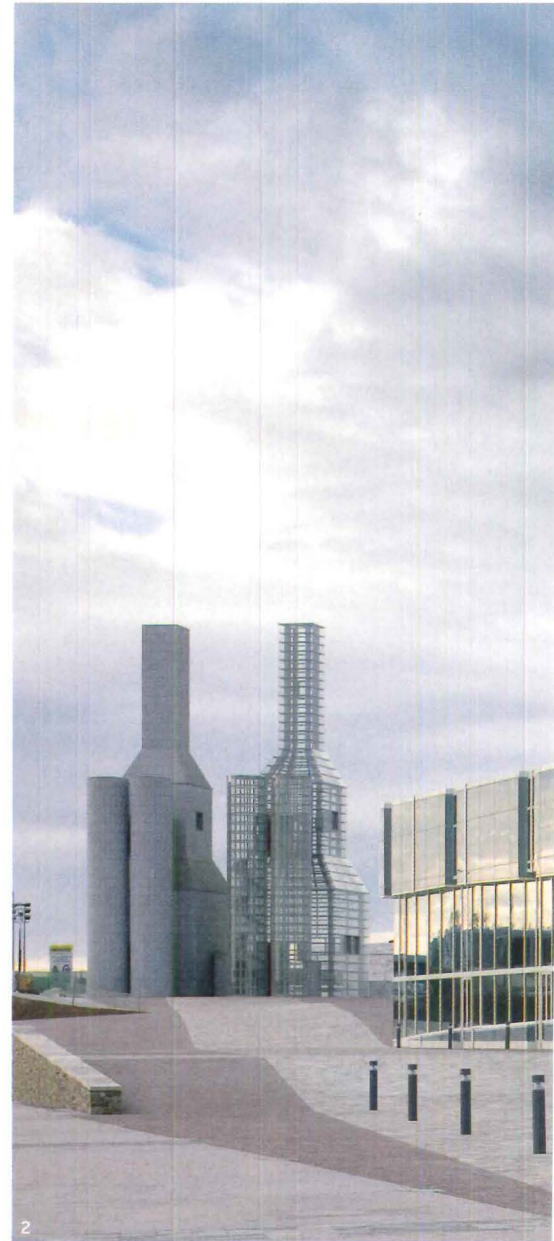
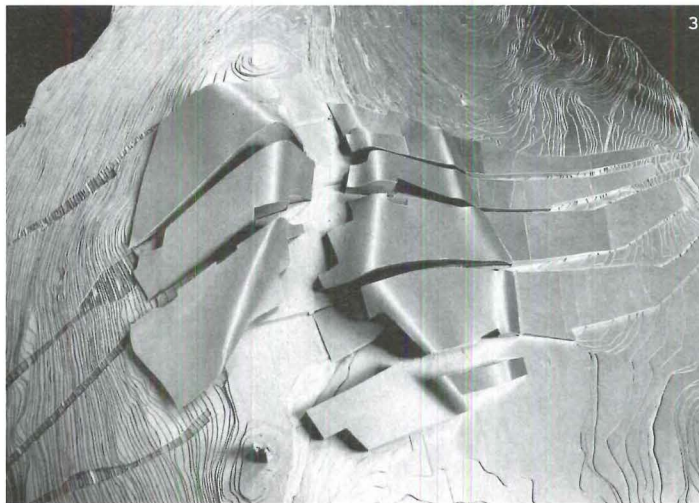
1. From afar, four of the six buildings that compose the City of Culture of Galicia rise up out of the earth with buckling stone-clad forms.

2. Jagged mullions along the south elevation of the archive building frame gray-tinted glass while a white aluminum channel breaks the surface. At the southwest corner are the John Hejduk Towers, originally projected for a site in Santiago de Compostela, but unrealized, and so erected here at Eisenman's suggestion.

3. When Eisenman first won the competition in 1999, the wood model indicated that eight buildings would merge with the topography of the site. As time passed, the program was adjusted and the number of buildings was scaled back to six.

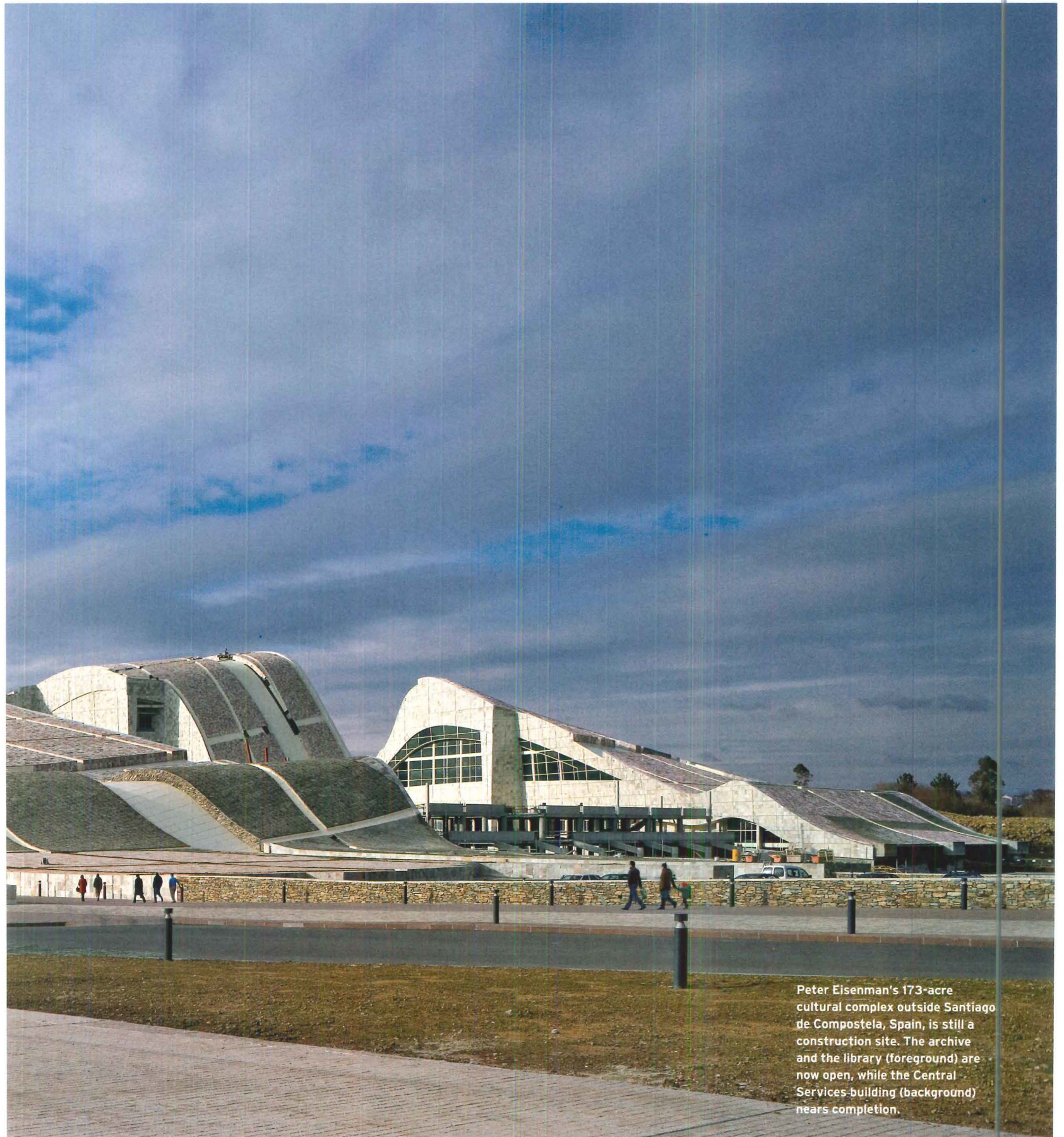


- 1 PARKING
- 2 ARCHIVE
- 3 LIBRARY
- 4 MUSIC THEATER AND PERFORMING ARTS CENTER
- 5 CENTRAL SERVICES
- 6 MUSEUM OF GALICIA
- 7 CENTER FOR NEW TECHNOLOGY
- 8 JOHN HEJDUK MEMORIAL TOWERS



THE EVOCATIVE TITLE of the exhibition *Cities of Artificial Excavation: The Work of Peter Eisenman, 1978-1988* at the Canadian Centre for Architecture in Montreal in 1994 turns out to be an oracular description of the architect's City of Culture of Galicia in northwest Spain. Eisenman's project of a lifetime, now 12 years in design and construction, has involved serious digging and earthmoving to create topographical man-made structures that blur figure and ground. With two buildings just open, the complex's raw state presents an artificial landscape of thrashing, gnashing stone creatures restlessly rising up from the earth before subsiding into calm ripples.

Eisenman won the competition for the City of Culture in 1999 at the right time economically, and

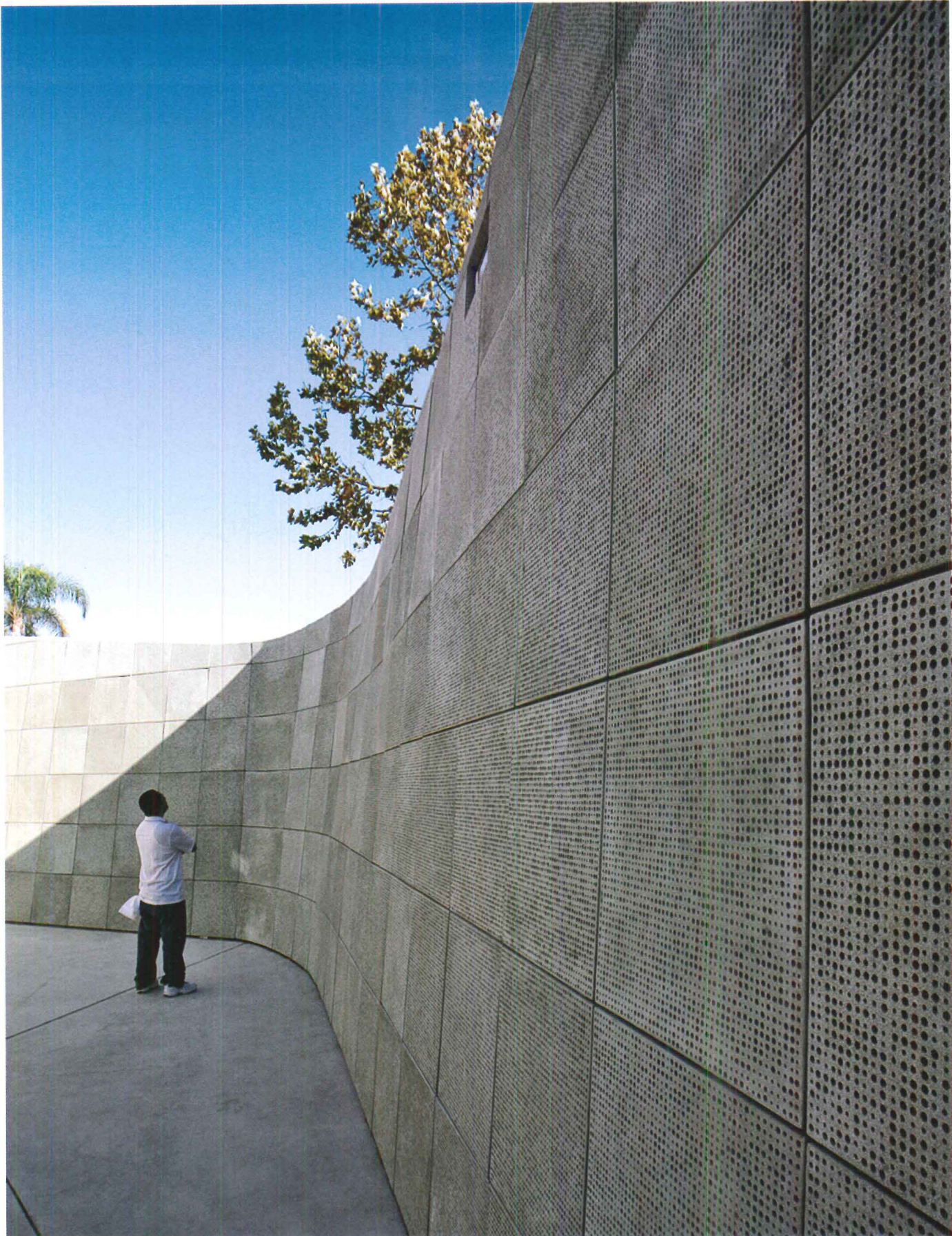


Peter Eisenman's 173-acre cultural complex outside Santiago de Compostela, Spain, is still a construction site. The archive and the library (foreground) are now open, while the Central Services building (background) nears completion.

CITY OF CULTURE OF GALICIA ARCHIVE AND LIBRARY

Eisenman Architects / By Suzanne Stephens







One display looks at genocides in places such as Darfur and Rwanda. Underneath the entry ramp, artifacts from the Auschwitz-Birkenau State Museum in Poland stand as silent witnesses.

But even as the rooms get more constricted, the architects offer views to the other side of the circulation loop where exhibits tell about the liberation of the camps and survivors making new lives in Los Angeles. Near the exit, a presentation room gives visitors the chance to hear a survivor talk about the Holocaust. Then as they leave, they return to the park and the sounds of people going about their lives. Just outside the building, an existing sculpture dedicated to the Holocaust leads visitors to an outdoor room that Belzberg designed in memory of the 1.2 million children

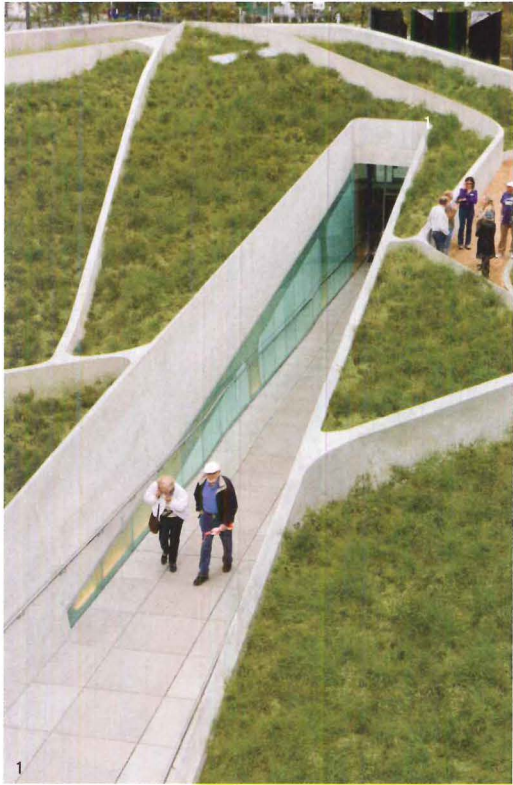
killed during the Nazi era. Wrapping the walls around the space, glass-fiber-reinforced concrete tiles punched with 1.2 million holes of different sizes and depths make a visual and tactile reference to the young lives lost six decades ago.

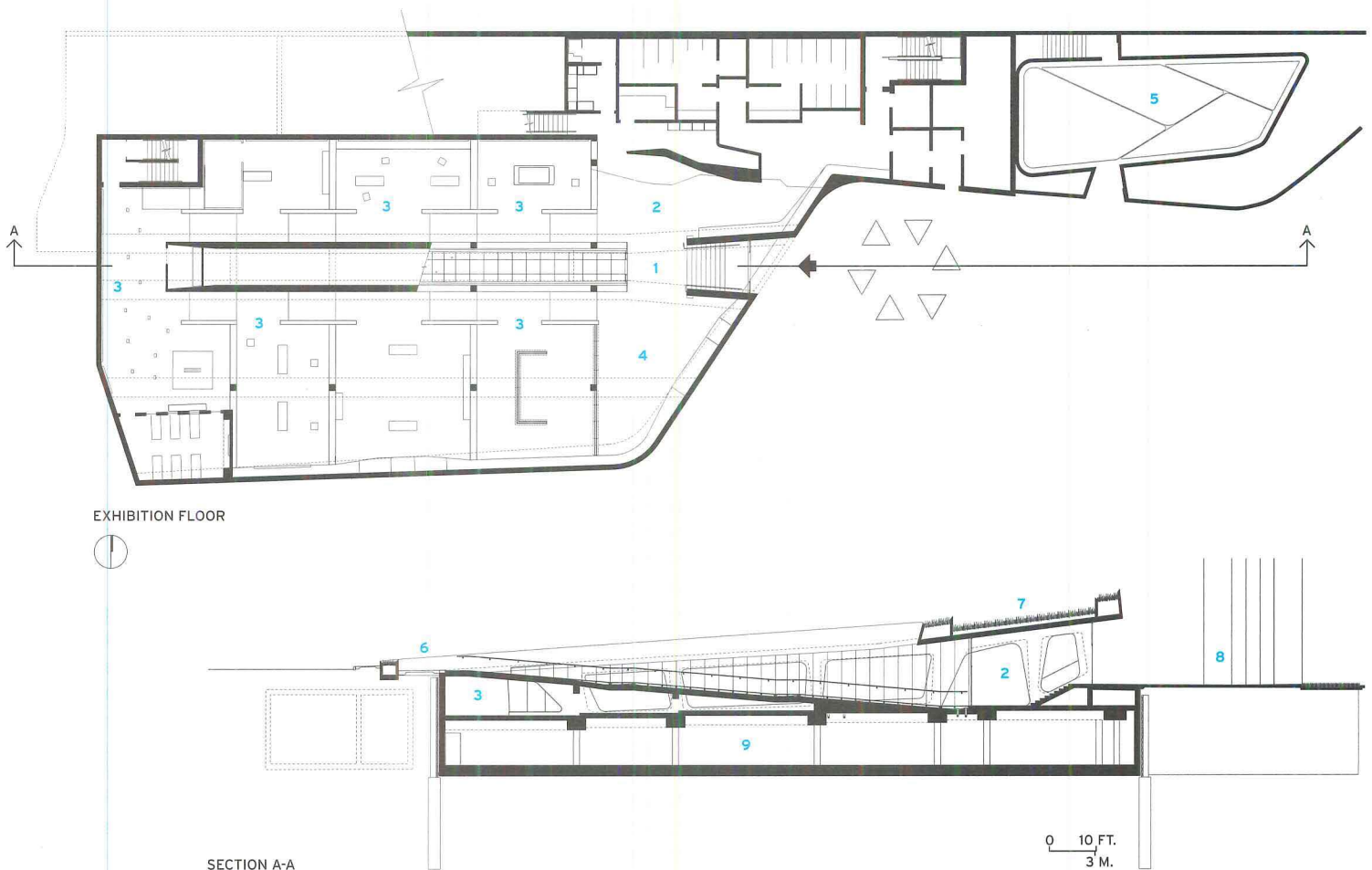
The building earned a LEED Gold Certification by insulating interior spaces with a 2-foot-thick green roof, capturing rainwater and using it for irrigation, and including recycled fly ash in the concrete, among other strategies.

In deferring so thoroughly to its park setting, the museum lost a chance to project a stronger public profile. But its refusal to preach and its dramatic procession of increasingly intense spaces engage visitors in an architectural and philosophical dialogue not easily forgotten or ignored. ■

ABOVE: Views underneath the entry ramp and through the museum to the other side of the gallery loop help connect later chapters of the Holocaust story (such as the liberation of the concentration camps) with the more grim parts of the narrative.

OPPOSITE: An outdoor room serves as a memorial for the 1.2 million children killed during the Holocaust. Each child is acknowledged with a hole of a different size and depth punched into GFRC tiles wrapping around the space. The architects located the memorial near a playground in the park, so the sounds of living children would help populate the space.





EXHIBITION FLOOR

SECTION A-A

0 10 FT.
3 M.

CREDITS

ARCHITECT: Belzberg Architects – Hagy Belzberg, principal in charge; Aaron Leppanen, Carina Bien-Willner, Lauren Zuzack, project managers; David Cheung, Brock DeSmit, Cory Taylor, Dan Rentsch, Chris Arntzen, Andrew Atwood, Barry Gartin, Justin Brechtel, design team

ENGINEERS: William Koh (structural); John Dorius (mechanical); Alex Antonio (electrical); Jon Irvine (soils/geology)

CONSULTANTS: Lisa Benjamin and Karla Dakin (landscape)

CLIENT: Los Angeles Museum of the Holocaust

SIZE: 36,000 square feet

COST: \$14 million

COMPLETION DATE: November 2010

SOURCES

CONCRETE: Cemex

CURTAIN WALL: Arcadia, GlasPro

- 1 ENTRANCE
- 2 LOBBY
- 3 GALLERY
- 4 SURVIVOR PRESENTATION ROOM
- 5 CHILDREN'S MEMORIAL
- 6 ENTRY RAMP
- 7 ROOF GARDEN
- 8 EXISTING MONUMENT
- 9 PARKING

1. Visitors enter the museum by walking down a long concrete ramp that slowly blocks out the sights and sounds of the adjacent park.

2. Daylight slides into the museum from the entry ramp and along the edges of walls, creating a dramatic play of darkness and light.

3. Belzberg designed the exhibitions using a "plug-and-play" system of displays that can be easily changed over time. The architect worked with the firm Potion to create the interactive digital content for the exhibitions.

An angled green roof with paths connects the new building to existing circulation through Pan Pacific Park and helps negotiate the transition from a shopping center on one side of the site to the residential neighborhood on the other sides. The dark metal pillars of an existing Holocaust monument stand at one end of the building.

YOUR VISIT STARTS in an unremarkable city park adjacent to a generic shopping mall. Local kids are playing tag, while a man in short sleeves throws a stick for his dog and a family picnics on the grass. You follow a concrete path, which turns into a gently sloping ramp descending into the ground. On either side of you, concrete walls rise to meet an angled green roof, slowly blocking out the sounds of people enjoying the park. The laughter gets more faint, the excited chatter less distinct. As you enter the Los Angeles Museum of the Holocaust (LAMOTH), you get a hint of what Jews and other persecuted people must have experienced on their way to Nazi concentration camps, gradually losing contact with the small pleasures of the everyday world. The architectural procession, as designed by Hagy Belzberg, confronts you with what Hannah Arendt called “the banality of evil,” a phrase that chills us still because it conflates the quotidian with the horrific.

Tucked into the side of Pan Pacific Park, behind a parking lot servicing a post office and a shopping center called the Grove, LAMOTH is easy to miss. Instead of aiming for the heroic or monumental, Belzberg used a “layered strategy combining the urban and the metaphorical,” he explains. By “urban” he means a design that fits into its park location and works with the residential neighborhood just beyond. And by “metaphorical” he means a building that alludes to the Holocaust without being literal or specific. Because the museum deals with other genocides in addition to the one perpetrated by the Nazis, Belzberg steered away from any Jewish iconography.

During his research for the job, Belzberg visited many of the 16 major Holocaust museums in the United States and related projects abroad. One that struck a responsive chord with him was Peter Eisenman’s Memorial to the Murdered Jews of Europe, which stands in the heart of Berlin and draws people who happen to be in the area as well as those intent on visiting the site. “Seeing and hearing people having their lunch or enjoying the outdoors actually added to the experience,”

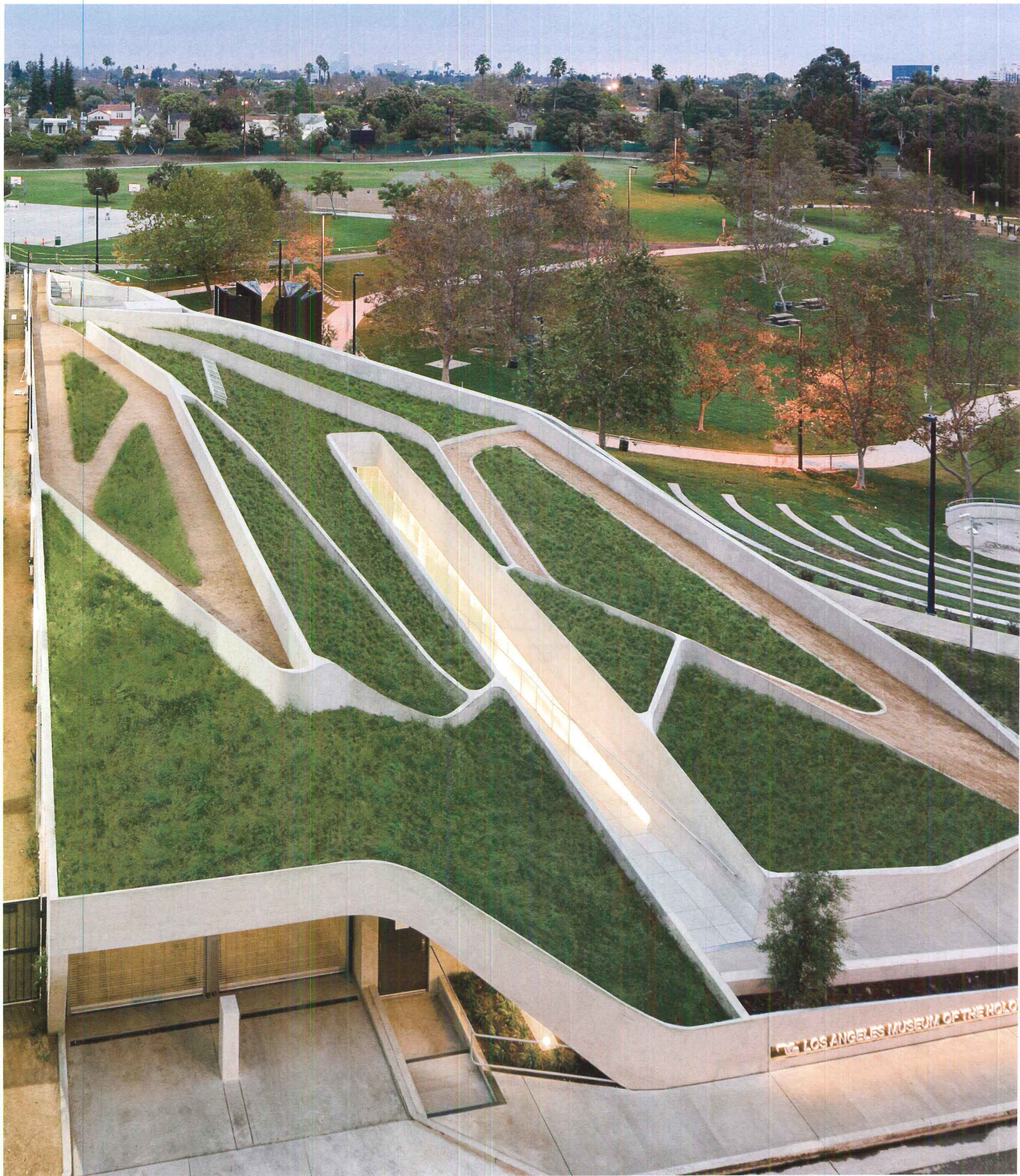
recalls the architect, because it reminds you that some people’s lives continued during the Holocaust while others’ came to a ghastly end. He also appreciated that Eisenman’s design – 2,711 concrete blocks of varying heights – engages people and that its “symbolism is open” to interpretation.

Working with a small size (36,000 square feet) and a limited budget (\$14 million, or \$389 per square foot), Belzberg and his team created an intense experience by using a few simple devices – such as compressing space in certain areas, releasing it in others, and manipulating daylight everywhere. Soon after visitors move from the open park to the narrow entry ramp, they begin to feel the mood change. As they descend to the lobby, they find themselves enveloped by an exposed concrete skeleton that is both sensuous in its curves and a bit ominous in its form. To save money and time, the architects used shotcrete to create the fluid geometry of the vertical walls and poured concrete only for the roof and floors. (After spraying the shotcrete on steel reinforcing bars, workers troweled the walls to give them their curves and smooth finish.)

LAMOTH, which was founded in 1961 by Holocaust survivors and had a Wilshire Boulevard location for a number of years, still has more than 25 survivors working as docents. At the reception desk of the museum’s new home, each visitor gets an iPod, which provides sounds and images that help bring history to life. The first exhibition space, entitled “The World That Was,” features a large “community table” with a display that engages visitors as a group.

As people move through the museum and the topics become more grim (Kristallnacht, the Nazi concentration camps), the building’s sloping roof makes the rooms feel tighter and darker. At the same time, visitors experience the exhibits less as a group and increasingly as individuals engaging with a single screen or image. Daylight slips inside from above and around the edges of walls – a precious commodity brought in as if by stealth.







The architects created the curved vertical walls of the 36,000-square-foot museum by spraying shotcrete on metal frames and then troweling it. They used poured concrete only for the floors and roof.

LOS ANGELES MUSEUM OF THE HOLOCAUST

Belzberg Architects / By Clifford A. Pearson





1. A glass-lined stairway leads from the Lincoln restaurant's plaza-level dining room to the street-side reception area, prep kitchen, and wood-lined private dining room.
2. Travertine-patterned carpeting surfaces the glass-enclosed east dining room where diners enjoy views of the Metropolitan Opera, Reflecting Pool, and Henry Moore Reclining Figure on the plaza.
3. The sweep of the Brazilian wood ceiling echoes the flow of the green roof throughout the horizontal plan of the dining room, shaping distinct yet transparent vignettes both intimate and festive.

containment system to prevent the sod from sliding onto the plaza during a heavy rain. It is topped with a 10,400-square-foot expanse of Kentucky Bluegrass and Tall Fescue grass, a mix recommended by Cornell Department of Horticulture turfgrass expert Dr. Frank Rossi, for its virtually season-proof color and resilience.

When they were designing it, "we imagined prying the lawn up from the plaza, and filling it in with glass below," says Diller. "The effect is a beautiful, bucolic, urban space where you can lose all track of time and have a picnic."

For a more refined dining experience, the architects worked with Lincoln Center and restaurateur Nick Valenti in the conception and design of Lincoln, an 11,000-square-foot restaurant with a modern Italian kitchen led by chef Jonathan Benno. The most visible of the pavilion's interior programs, the Lincoln main dining room, bar, and display kitchen occupy the horizontal stretch of the plaza level, wrapped in glass. To blur the distinction between indoors and out, the designers acknowledged the external materiality with such surface treatments as a sweeping Brazilian-wood-plank ceiling that follows the undulation of the roof and appears to cantilever out beyond the glazing, as well as a Brazilian limestone floor tile

and travertine-patterned carpet both consistent with the color of the outside paving.

At the operator's request, the restaurant continues down to the east section of the street level, where the architects added a second entrance and private dining room, in addition to a back-of-house prep kitchen, service and staff stations, and mechanical rooms that cut deep into the infrastructure beneath the plaza and plinth levels. To do this, the crew had to maneuver around 50-year-old structures and systems as they carved new spaces and upgraded electrical and HVAC designed to be invisible to visitors of the restaurant and lawn up above.

Likewise, the two firms coordinated with Rockwell Group to embrace the Film Society's 17,518-square-foot Elinor Bunin Munroe Film Center into the building's core and shell, dipping down to the south to accommodate a central amphitheater and two screening rooms. The center's breezy café and faceted orange-glass box office belie such complexity, however.

"There were a lot of things that had to be done behind the scenes," recalls Smith. The idea was to minimize the complications. "So all you see is the beautiful gestures that we feel come out of the DNA of Lincoln Center's original design." ■



For a video tour of the project see our website or iPad edition.



OPPOSITE: Rather than compete with the existing monumental structures, the architects created a lithe, transparent structure that enlivens West Sixty-Fifth Street with an entrance to the restaurant on its east side and the faceted, orange-glass box office of the Film Society of Lincoln Center's new Elinor Bunin Munroe Film Center on the west.

LEFT: The former Milstein Bridge and entrance of the Juilliard School on Lincoln Center's north plaza circa 1970, site of the new Lincoln restaurant pavilion and Laurie M. Tisch Illumination Lawn.

CREDITS

ARCHITECT: Diller Scofidio + Renfro – Elizabeth Diller, Ricardo Scofidio, Charles Renfro, principals; Kevin Rice, project leader/ FXFOWLE – Sylvia Smith, principal in charge; Heidi Blau, project director; Robert Katchur, Heng-Choong Leong, project architects

ENGINEERS: Ove Arup & Partners

CONSULTANTS: Matthews Nielsen Landscape Architects, Dr. Frank Rossi, Cornell Turfgrass Program (lawn); Tillotson Design (lighting); R.A. Heintges (curtain wall)

CONTRACTOR: Turner Construction

CLIENT: Lincoln Center for the Performing Arts

SIZE: 40,000 gross square feet (lawn, restaurant, and film center)

COST: withheld

COMPLETION DATE: September 2010

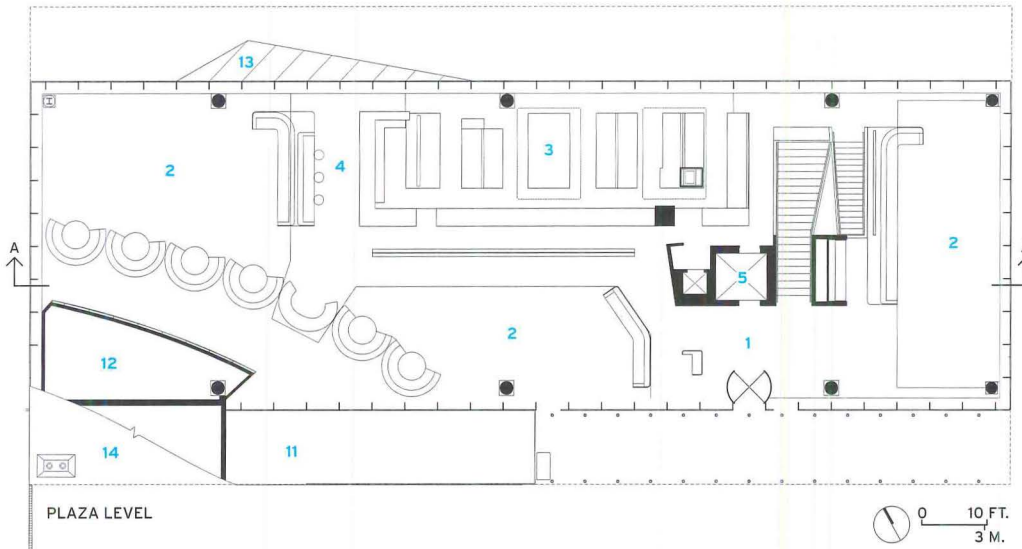
SOURCES

CURTAIN WALL: Saint-Gobain/Eckelt

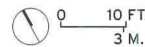
ROOF/LAWN: American Hydrotech (green roof system); Tuckahoe Turf Farms (turf)

METAL: Permasteelisa North America (panels, roof fencing)

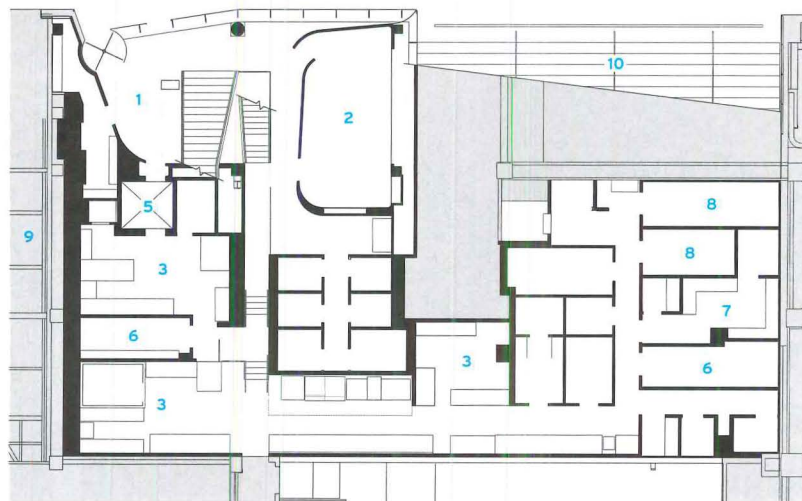
WOOD: Prodema (exterior soffit); Rulon (restaurant ceiling)



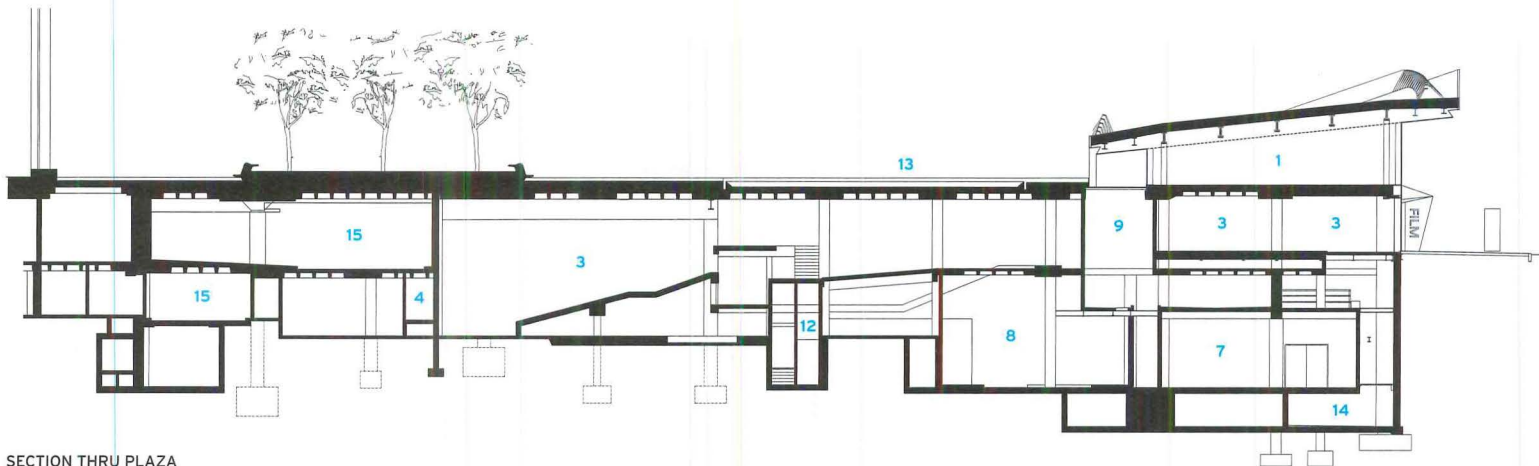
PLAZA LEVEL



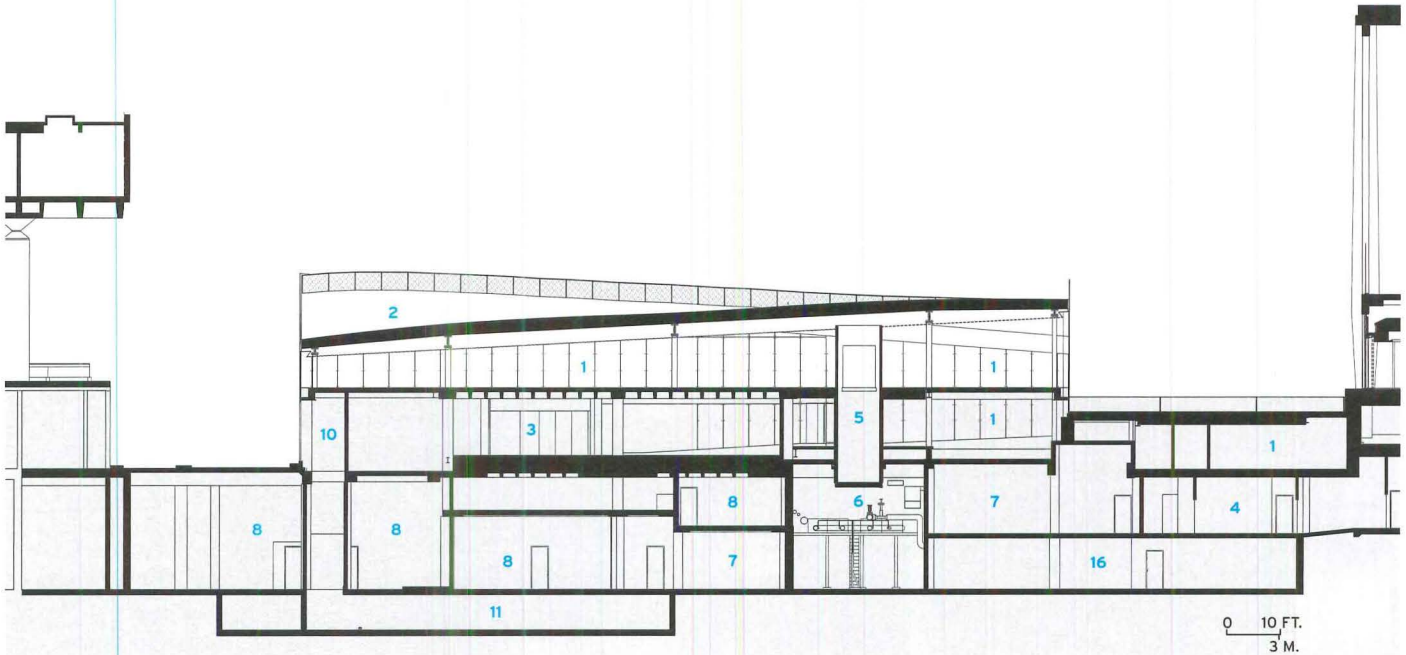
- 1 ENTRY/RECEPTION
- 2 DINING
- 3 KITCHEN
- 4 BAR
- 5 ELEVATOR
- 6 STORAGE
- 7 OFFICE
- 8 LOCKER ROOM
- 9 ELINOR BUNIN MUNROE FILM CENTER
- 10 PLAZA STAIR
- 11 AIR INTAKE SHAFT
- 12 MECHANICAL SPACE
- 13 FILM CENTER CANOPY
- 14 LAWN/ROOF ENTRANCE



STREET LEVEL



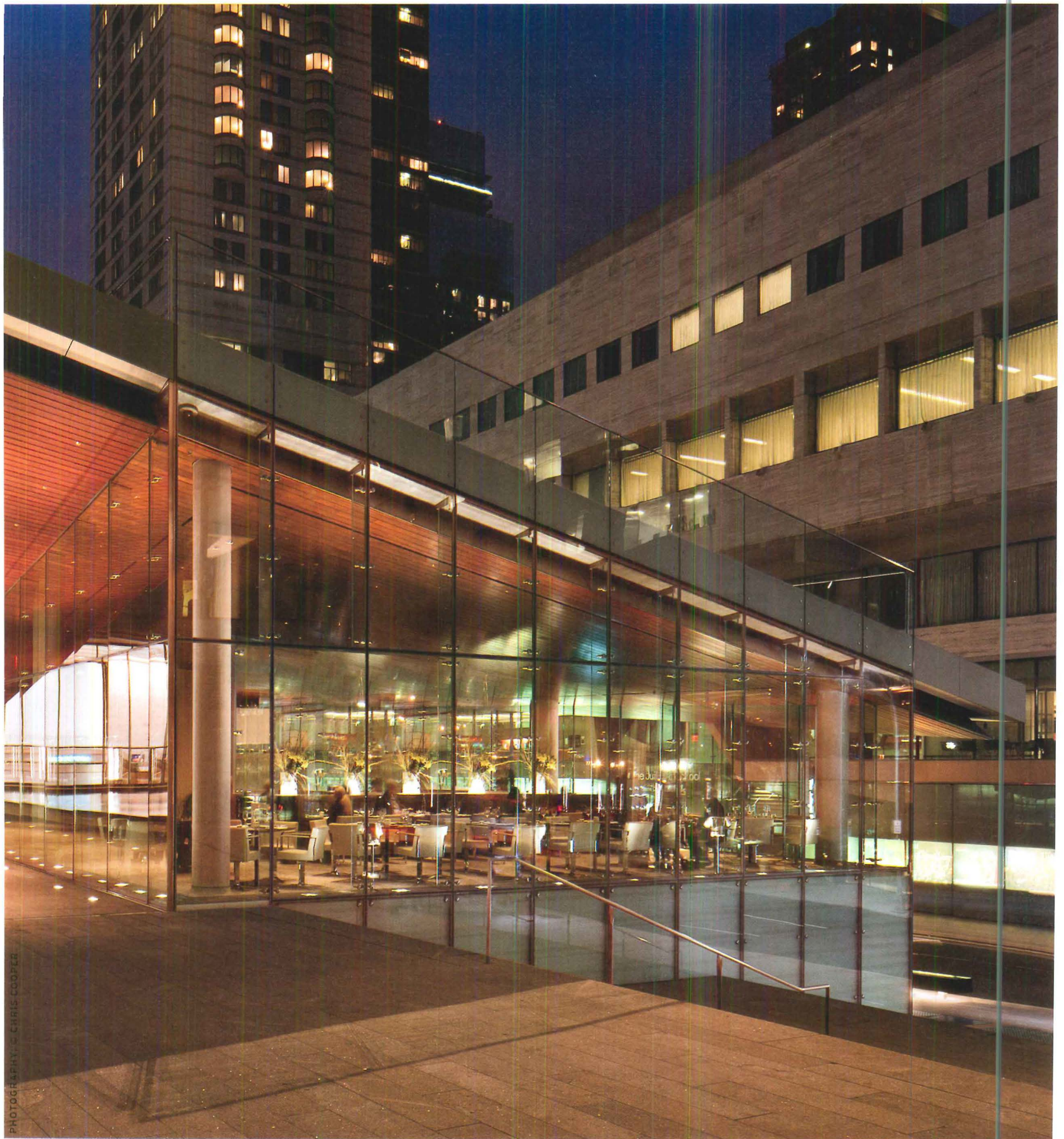
SECTION THRU PLAZA



SECTION A-A

- 1 LINCOLN RESTAURANT
- 2 LAURIE M. TISCH ILLUMINATION LAWN
- 3 ELINOR BUNIN MUNROE FILM CENTER
- 4 CORRIDOR
- 5 ELEVATOR
- 6 STEAM ROOM
- 7 ELECTRICAL SWITCHGEAR ROOM
- 8 FAN ROOM
- 9 INTAKE PLENUM
- 10 EXHAUST SHAFT
- 11 EXHAUST PLENUM
- 12 UTILITY CHASE
- 13 PAUL A. MILSTEIN POOL
- 14 POOL RESERVOIR
- 15 VEHICULAR PARKING/DRIVEWAY
- 16 CENTRAL MECHANICAL PLANT





buffer that sheltered Lincoln Center's intimate public spaces from street noise.

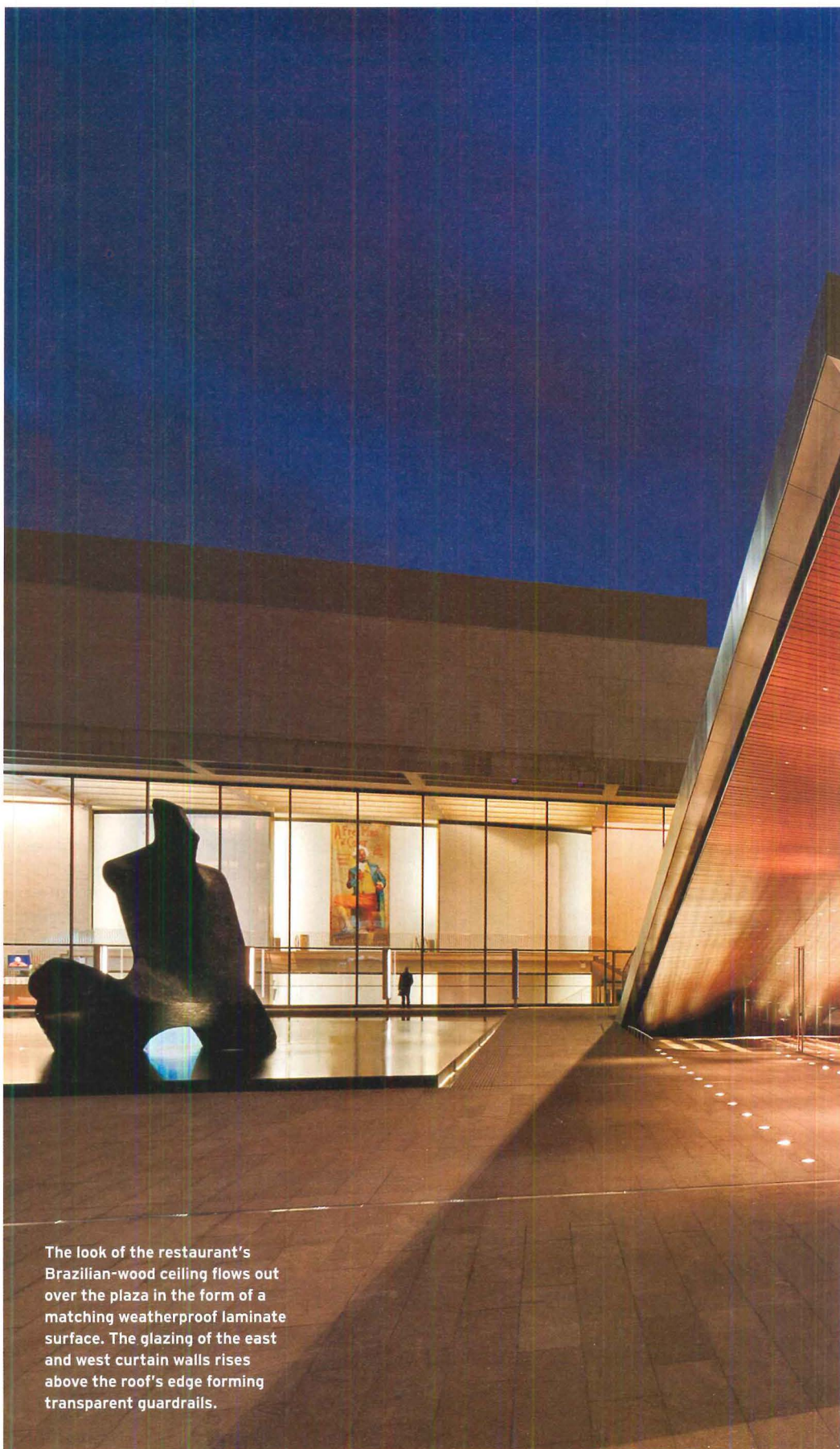
To fulfill the client's need for an alternate place of congregation, the design team planned to replace this common area with green space. At the same time, they had to integrate the Film Society of Lincoln Center's new theater complex into the podium below (a Rockwell Group project was already slotted for that location), as well as figure out how to bring a new destination restaurant to Lincoln Center.

Sizing up the location (and lack of available real estate), they opted to combine all three of these programs in a sectional relationship to one another. Concurrent with the design phase, the two firms worked with the city to reduce West Sixty-Fifth Street from three lanes to two and expand the sidewalk from 15 to 25 feet, so that they could create a gracious pedestrian esplanade. According to DSR principal in charge Elizabeth Diller, "Between the street frontage for the restaurant and the ability to offset some of the noise coming into the plaza by the structure, it was absolutely the right place."

The intricate two-story pavilion straddles a newly expanded 55-foot-wide grand staircase and reconfigured access to the main campus, and transitions street and plaza with structural glazing supported by glass fins. On the street, this transparency turns the campus inside out and presents a welcoming face to the city. At the plaza level, it provides an airy, crystalline base for the new Laurie M. Tisch Illumination Lawn, an inviting green roof that doubles as a pocket park.

The language, says Diller, is closer to landscape architecture than that of the existing monumental structures. To this end the design teams at DSR and FXFOWLE joined forces to develop the precise form of the roof. After numerous discussions and studies examining pitch, size, scale, and use, the architects devised a hyperbolic paraboloid (hypar), or saddle shape, that dips to touch the plaza at the southwest corner and provides a point of entry up onto the lawn. Based on a frame of straight steel beams rotated against one another and layered with concrete, the hypar surface twists and rolls gently with slopes of up to 18 degrees, mimicking one of the diminutive hills in nearby Central Park. The gentle curve, says FXFOWLE principal in charge Sylvia Smith, is made by modifying the perimeter – in this case, the north and south edges.

What appears to be nature's handiwork, however, is a carefully constructed intensive green roof system, says Smith. Approximately 12 to 18 inches deep, the surface comprises layers of insulation, waterproofing, a series of check dams and drains to direct water flow, an irrigation system, and a sophisticated soil-

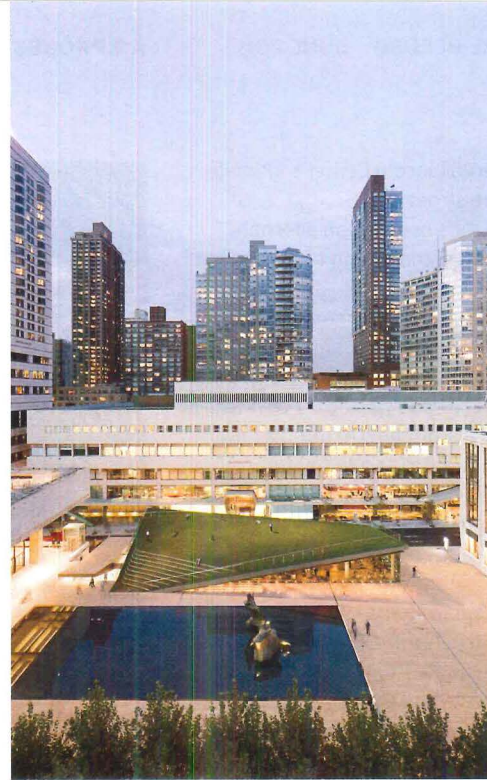


The look of the restaurant's Brazilian-wood ceiling flows out over the plaza in the form of a matching weatherproof laminate surface. The glazing of the east and west curtain walls rises above the roof's edge forming transparent guardrails.



Open to the public, the Laurie M. Tisch Illumination Lawn doubles as a green roof for the glazed pavilion.

TOP RIGHT: The verdant hyperbolic paraboloid-shaped roof shelters the plaza from noise and transforms it into a tranquil alfresco salon.



BUILT UP ON a plinth, and clad in relentless swaths of travertine, Lincoln Center was once considered by many to be a remote acropolis of culture. A half century after it was built, the iconic mid-20th-century performing arts compound is coming down to earth, or at least to the surrounding streets of New York City's Upper West Side.

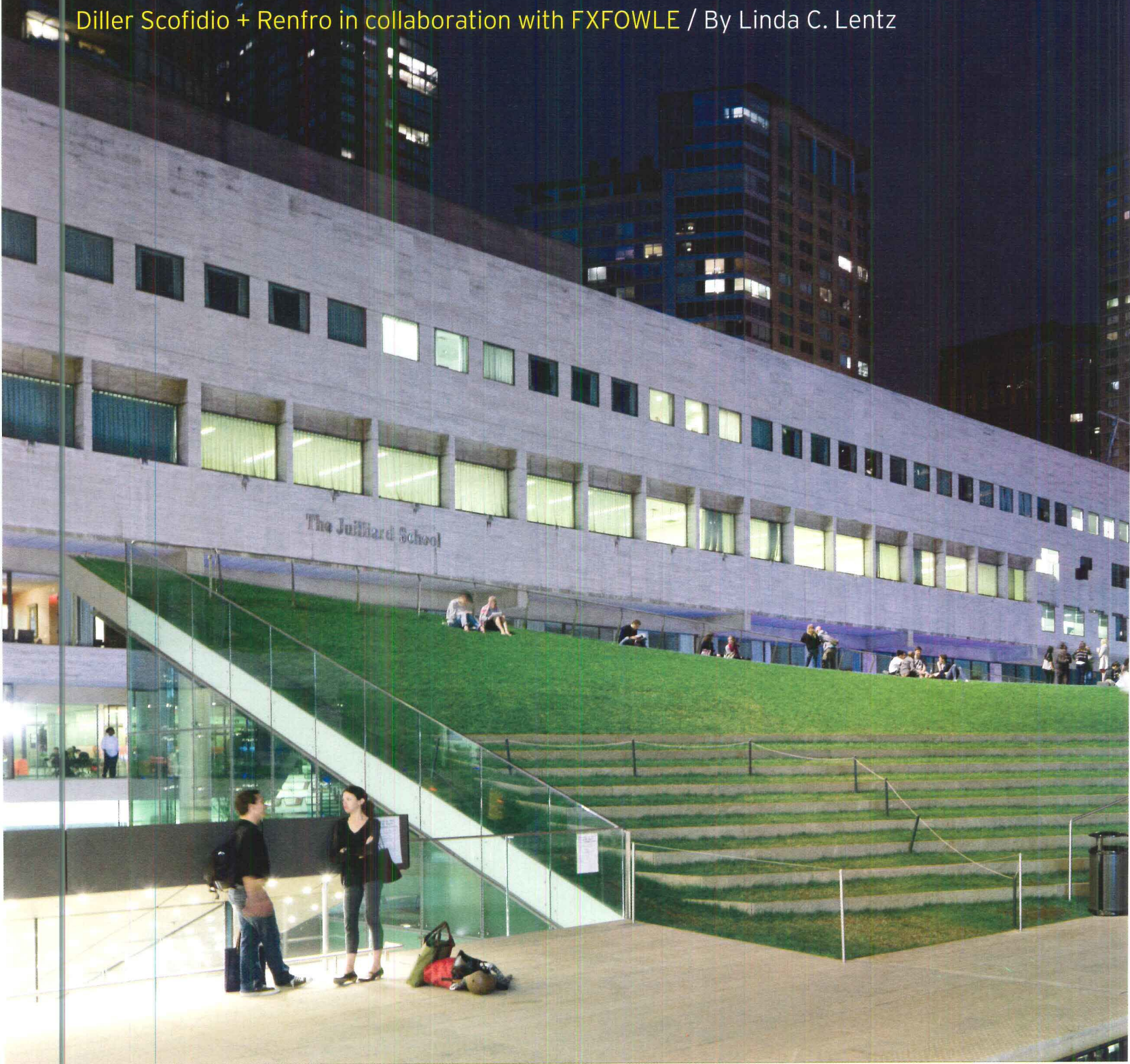
The podium and stone remain. But a whimsical glass pavilion – the latest phase in the eight-year redevelopment of the 16-acre campus by collaborating firms Diller Scofidio + Renfro (DSR) and FXFOWLE – is engaging theatergoers, tourists, and the neighboring community with a first-rate restaurant, state-of-the-art film center, and a rare patch of urban green on its roof.

Indeed, this populist intervention in many ways culminates the team's efforts to revitalize the complex and its intersecting thoroughfare, West Sixty-Fifth Street, a master plan initiative responsible for the previously completed Alice Tully Hall renovation [RECORD, June 2009, page 62], and the Juilliard School extension [RECORD, February 2011, page 96]. This is largely due to the comprehensive 40,000-square-foot project's strategic location on the site, as well as the critical programmatic elements the architects were required to incorporate into it: cultural, public, and private.

The new building replaces the southern edge of the former Milstein Bridge, the massive 200-foot-long overpass that dominated West Sixty-Fifth Street and linked the theaters to the main entrance of Juilliard on its north side. And, while the architects deemed the removal of the large span essential to reconnecting Lincoln Center to the city, there were two factors to consider before it could be demolished. The Milstein Bridge served as Juilliard's student outdoor campus. It also served as an acoustical

LINCOLN RESTAURANT PAVILION & LAWN

Diller Scofidio + Renfro in collaboration with FXFOWLE / By Linda C. Lentz





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ARCHITECTURAL RECORD

Cocktail Napkin Sketch Contest 2011

OFFICIAL ENTRY FORM

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Call for Entries

If you are a licensed architect or related professional who practices in the United States, you can enter this remarkable contest.

All you need is a white cocktail napkin and pen to demonstrate that the art of the sketch is still alive. Two grand prize winning submissions will be published in the October issue of Architectural Record and winners will receive a box of napkins with their sketch printed on it.

Grand prize winners will also receive a collection of **Pentel Arts writing instruments** valued at more than \$200. Up to ten finalists receive a collection valued at more than \$100. Winners and finalists will be seen in the online Cocktail Napkin Sketch Gallery.

HOW TO ENTER:

- For Cocktail Napkin sketch, think about unleashing your creative genius within about 20 minutes.
- Sketches are to be drawn specifically for this competition.
- Sketches should be architecture oriented.
- Create a sketch on a 5-inch-by-5-inch white paper cocktail napkin.
- Use ink or ballpoint pen.
- Include the registration form below or from the website.
- You may submit up to 6 cocktail napkin sketches, but each one should be numbered on the back and include your name.
- No digital entries and no digital files accepted!
- No entries will be returned.
- The architect maintains the copyright for the drawing.
- Judges for this contest are Architectural Record Editors.
- All materials must be postmarked no later than July 21, 2011

TWO Grand Prize WINNERS!

For more information and official rules visit:
www.architecturalrecord.com/call4entries

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Are you registered?

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When you register for the contest, your personal contact information provided on the registration form is added to an electronic mailing list so that we can select the winner. We may share the data collected about entrants with other units within The McGraw-Hill Companies and with companies whose products or services we feel may be of interest to you.

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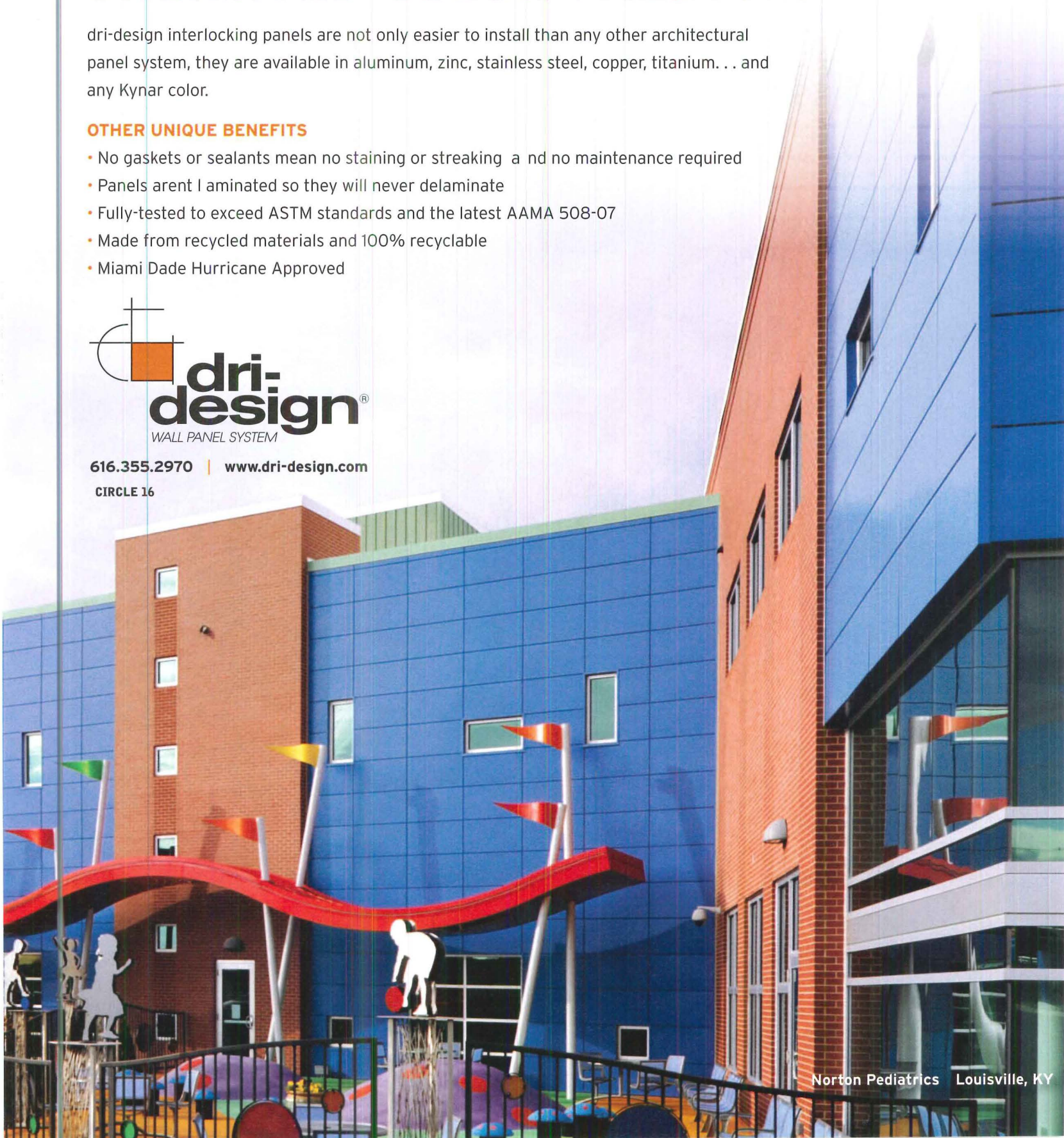
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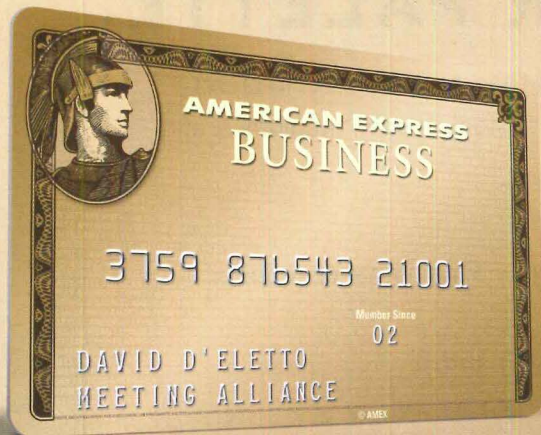


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CIRCLE 16



Norton Pediatrics Louisville, KY



Meeting Alliance used the Gold Card to turn ice sculptures into grateful employees.

David D'Eletto, Barbara Jackson and Michael Franks, owners of Meeting Alliance, started their event management company with a simple collection of contacts from their previous lives. Today, the owners use their Gold Card from American Express OPEN to purchase everything from computers to flights to ice sculptures. And with the reward points they earn, the company can then throw a soiree for some of their most important contacts yet—their employees. How can the Gold Card serve your business?

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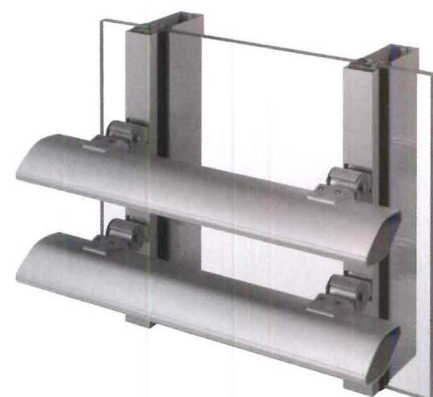
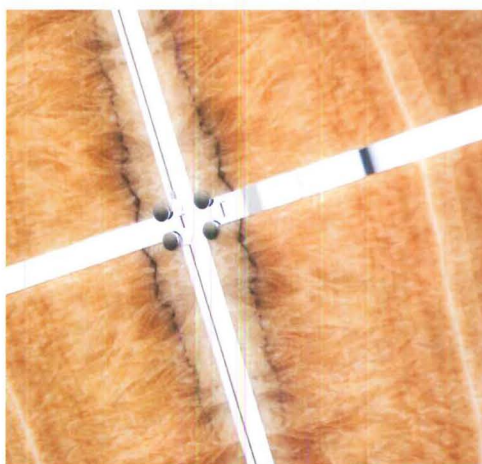
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PRODUCTS IN BRIEF

A SAMPLE OF THE LATEST NEW BUILDING PRODUCT INTRODUCTIONS FROM SEATING TO SUNSHADES. **RITA CATINELLA ORRELL**



Sayl Chair

Herman Miller hermanmiller.com/sayl
Designed by Yves Béhar, the Sayl Chair features an "eco-dematerialised" design that uses fewer materials and reduces weight and volume. SAYL's flexible elastomer suspension back eliminates hard edges and the need for a frame. Part of Herman Miller's Thrive portfolio, the chair comes in a 90 percent recyclable suspension back or an 86 percent recyclable upholstered work-chair version. **CIRCLE 207**

UltraLatch

SOSS Door Hardware soss.com
Known for producing door hardware products in the United States for over a century, SOSS now introduces UltraLatch, an ADA-friendly, hands-free lockset for residential and commercial applications. Ideal for children or disabled users, UltraLatch allows the wrist to maintain a neutral position and requires just a half-inch push or pull movement to open the door. The handle is available in eight finishes with an optional privacy latch. **CIRCLE 208**

Mixology Tile

Crossville crossvilleinc.com/mixology
Crossville introduced several new products at this year's Coverings tradeshow, including Mixology, a new line for interior, vertical applications that replicates cast metal. Each of the wrought metal tiles contains a minimum of 50 percent postconsumer recycled content. Seven field tile designs are available in 4"-square and 6"-square sizes, plus 10 trim options and two mosaics. **CIRCLE 209**

ViviStone Glass

Forms + Surfaces forms-surfaces.com
ViviStone is the latest addition to Forms + Surfaces' VividGlass line of specialty architectural glass. ViviStone's interlayers, laminated between two lites of glass, feature ultrasharp, full-scale, full-color representations of stones selected from quarries around the world. Virtual Quarry, located at virtualquarry.com, is a companion online tool that makes it easy for architects to assemble and build their own glass slab designs. **CIRCLE 210**

RoofStone

LiveRoof LLC liveroof.com
Developed as an enhancement to LiveRoof, a modular green roof system that allows for the natural sharing of water, nutrients, and beneficial organisms across the entire rooftop strata, RoofStone pavers are suitable for rooftop pathways, landings, and patios. The 1'-wide x 2'-long x 4"-thick pavers come in six colors, weigh 54 pounds each, and feature a base of 100 percent postindustrial polypropylene. **CIRCLE 211**

Versoleil SunShades

Kawneer kawneer.com
Pre-engineered for multiple curtain wall systems, Versoleil SunShades offer a variety of blade options as a standard offering. The design allows for the adjustment of blade angles during installation based on sun angle and building orientation. To maximize energy savings, reduce solar heat gain, and increase occupant comfort, blades can be horizontally tilted at eight different angles, or vertically tilted at 15 different angles. **CIRCLE 212**

For more information, circle item numbers on Reader Service Card or go to architecturalrecord.com/products.

Firm: John Friedman Alice Kimm AIA | Photographer: Fotoworks

breaking boundaries

CIT AEROSPACE LOBBY

John Friedman Alice Kimm designed a fluid suspended ceiling for the lobby of the Graduate Aerospace Laboratories in collaboration with 3form Advanced Technology Group. ATG developed custom hardware to enable a precise installation of the complex forms.

MATERIAL

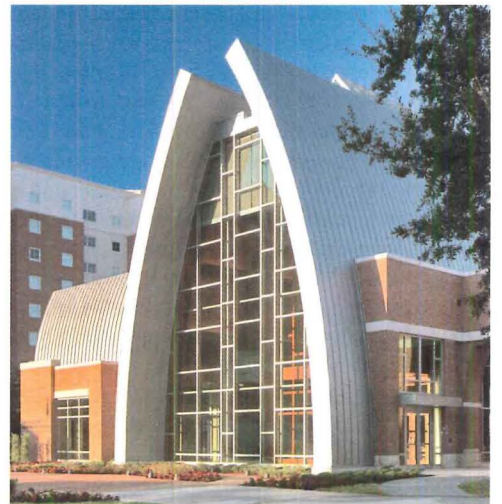
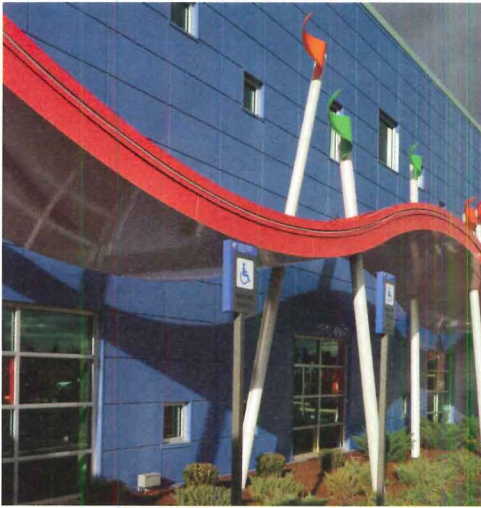
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Rainscreen for Pediatric Hospital

Dri-Design dri-design.com

Designed by Laughlin Millea Hillman Architecture, Louisville, the Norton Healthcare-Kosair Children's Hospital in Brownsboro, KY, features approximately 7,500 sq. ft. of .080"-thick aluminum exterior Dri-Design panels finished in Berkshire Blue. The patented Dri-Design wall panel system is an affordable dry joint, pressure-equalized rainscreen system that can be made from a variety of materials. **CIRCLE 201**

FormaBond II

CENTRIA centria.com

FormaBond II is a complete metal-composite wall system that is installation ready. The lightweight panels feature the manufacturer's horizontal dry seal joinery to minimize water penetration and maximize ventilation, which reduces the potential for material degradation and mold. Available in a variety of colors, the smooth panel has a flat design that offers sharp exterior sight lines with crisp corner transitions or soft flowing curves. **CIRCLE 202**

A Golden Box

GKD gkdmetailfabrics.com

The Golden Box, a two-story private home in Singapore designed by the local branch of Australian firm K2LD, is covered in approximately 4,500 sq. ft. of gold-anodized, semi-transparent GKD Alu6010 woven metal mesh. The 222 panels offer the residents privacy without obstructing light and views, while also serving as a sunshade that blocks direct heat and sunlight. **CIRCLE 203**

Art Institute Finished with Zinc Panels

Petersen Aluminum pac-clad.com

Approximately 9,500 sq. ft. of Petersen Snap-Clad panels and flush panels finished in zinc metallic were used to clad the new studio and residence hall facility for the New Hampshire Institute of Art in Manchester, NH. Designed by Dennis Mires of local firm the Architects, the 32,000-sq.-ft. LEED Gold facility is the first urban campus building in the state to include alternative energies in design. **CIRCLE 204**

Amphitheater Canopy

Alcoa reynobond.com

Reynobond ACM was chosen to skin the canopy of the new Piedmont Arrendale Amphitheater in Demorest, GA, designed by architects Armentrout Roebuck Matheny Consulting Group of Athens, GA. The material was selected for its durability, light weight, excellent dimensional ability, and capability to be shaped and cut. The faceted geometry of the canopy required each panel to be cut to size. **CIRCLE 205**

Zinc Panels for University Chapel

Rheinzink rheinzink.com

The exterior of the 15,000-sq.-ft. Sykes Chapel and Center for Faith and Values at the University of Tampa is clad in brick, glass, granite, and three types of Rheinzink pre-weathered blue-gray panels. Approximately 17,500 sq. ft. of 0.8mm double-lock standing seam panels clad the roof, 6,500 sq. ft. of 1.2mm-thick vertical reveal panels clad the facades and soffits, and 3,000 sq. ft. of zinc composite material were used in the fascia and canopies. **CIRCLE 206**

For more information, circle item numbers on Reader Service Card or go to architecturalrecord.com/products.

PRODUCT FOCUS METAL CLADDING

A ROUNDUP OF RAIN SCREENS, PANELS, MESH, AND OTHER CLADDING SOLUTIONS IN METAL. RITA CATINELLA ORRELL

Metalworking Firm Still in Fashion After 90 Years

CELEBRATING ITS 90TH anniversary this year, the Cantú, Italy-based metalworking firm Marzorati Ronchetti specializes in custom-made furnishings, art, and cladding for public and private spaces. Headed by Stefano Ronchetti, the grandson of one of the founders, the company regularly cooperates with architects and designers on projects ranging from high-end retail, such as the De Beers store in Los Angeles by Antonio Citterio (shown below left and right) to cultural works, like the Design Museum in Holon, Israel, by Ron Arad.

A majority of the firm's work is for commercial projects, while 15 percent is residential and 25 percent involves design pieces and art sculptures, such as the Spun (Coriolis) chair, architect Thomas Heatherwick's new rotating chair made in carbon steel and bronzed brass shown at this year's Salone del Mobile in Milan (a plastic version of the chair is being produced by Magis). Thanks to branch offices in New York, London, Dubai, and Düsseldorf, Marzorati Ronchetti is a truly worldwide company, exporting 98 percent of its production. While specializing in stainless steel, the firm also works in carbon steel, aluminum, silver, and even wood, using various techniques, including polishing, blackening, patinating with acid, and hand-hammering. Depending on the project, artisans work either by hand or with the latest CNC milling and laser- or water-jet-cutting technologies.

For a recent project in the United States, the company fabricated an attention-grabbing exterior cladding on the high-profile corner of Santa Monica Boulevard and Rodeo Drive in Los Angeles for the Italian fashion house Missoni, designed by Patrick Kinmonth and Antonio Monfreda of Kinmonth Monfreda. "As designers, we naturally needed collaborators to realize the highly demanding architectural vision that we conceived for Missoni. Marzorati Ronchetti were outstanding in their contribution," says Kinmonth, who, with Monfreda, designed the entire project, inside and out. Designed to reflect the Missoni brand's balance between "revelation and concealment," according to Kinmonth, the exterior imitates a fabric made of interwoven, opaque white-powder-coated aluminum bands that filter the light of Los Angeles into the glass walled box of the store during the day, while the facade becomes a lantern at night.

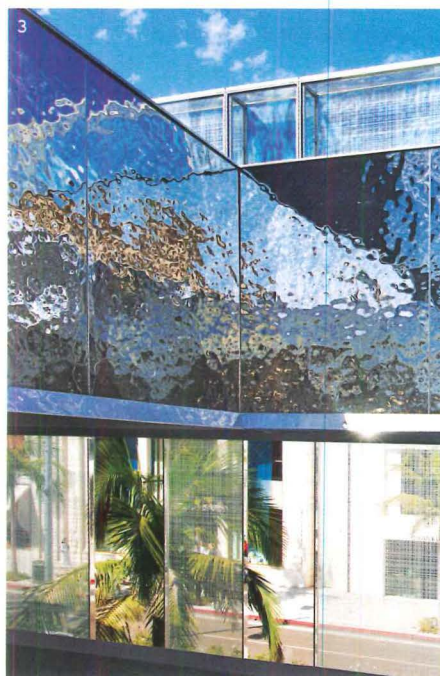
"Unlike most stores, we were not intent on trying to show as much as possible of the interior from outside," says Kinmonth, "but on luring you to investigate further." The 78 aluminum sheets, which cover the structure in glass, steel, and cement, weigh a total of 22,000 pounds and were shipped by container from Italy to Los Angeles.

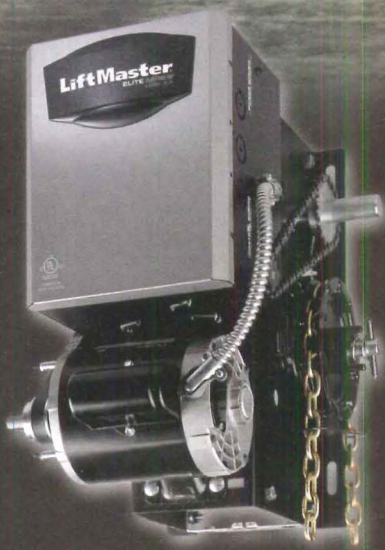
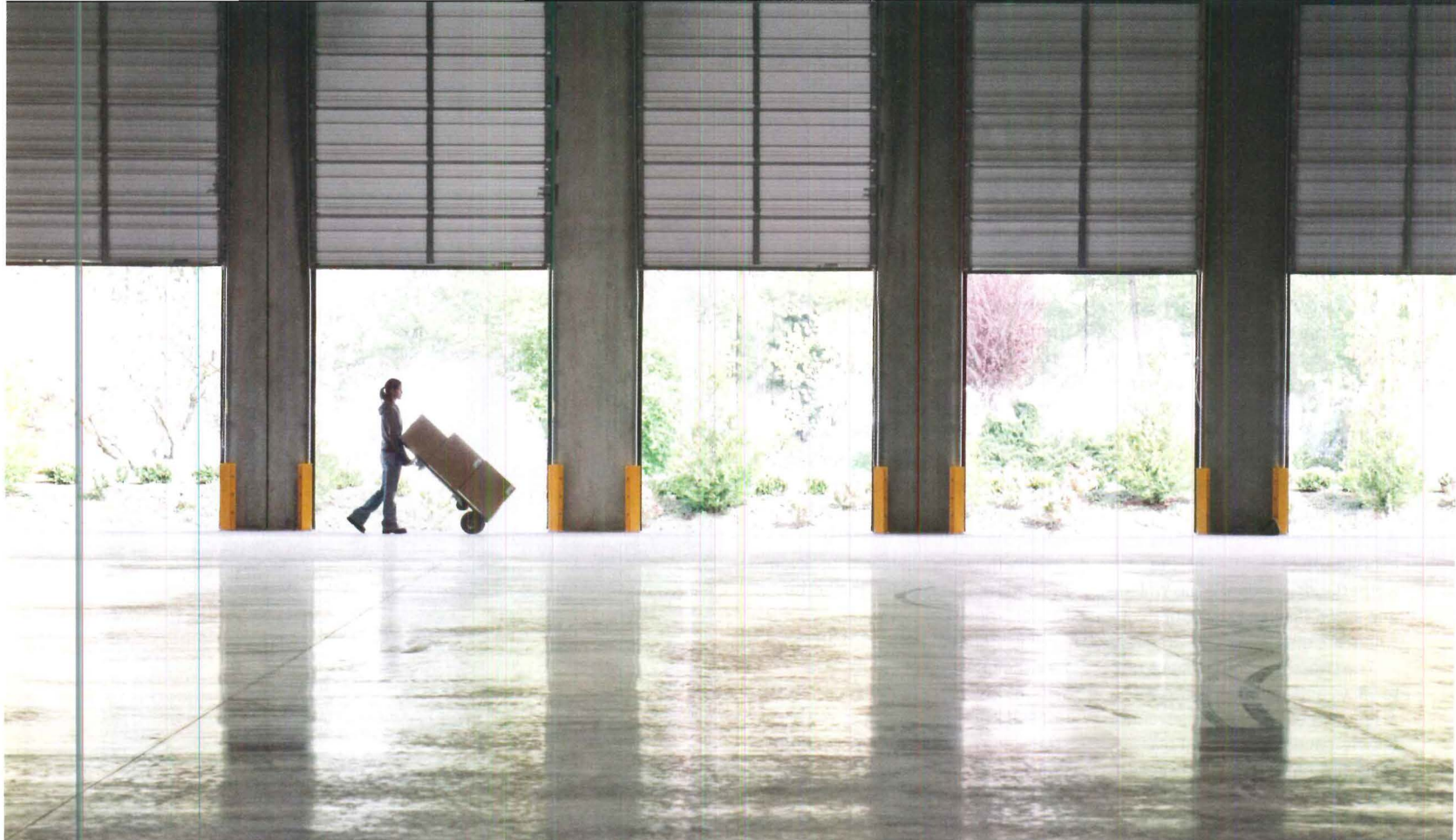
"Perhaps the biggest challenge for all of us was how to keep the poetry of the original idea through the practical building process," explains Kinmonth. Marzorati Ronchetti needed to devise a way for the entire exterior to hinge open for cleaning in all directions and allow access to all components of the facade and the steel and glass elements behind it. The resulting design, says Kinmonth, "is a source of constant wonder and pleasure to all of us who worked on the building." Marzorati Ronchetti, New York City. marzoratironchetti.it **CIRCLE 200**



1. The woven aluminum bands of the Missoni boutique in Los Angeles by Kinmonth Monfreda help transform it into a lantern at night.

2.+ 3. For the double-layered facade of the De Beers store in Los Angeles by Antonio Citterio, Marzorati Ronchetti produced a skinlike system that includes a wall of hand-hammered stainless steel "leaves," contrasted by a crystal facade that covers the entire building.





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HOUSE OF THE MONTH **INGRID SPENCER**

IN MAASTRICHT, THE NETHERLANDS, WIEL ARETS DESIGNS THE H HOUSE, AN IRREGULARLY SHAPED GLASS PAVILION.

"I'M HAPPY WITH my wife," says Dutch architect Wiel Arets, "because we are comfortable together and yet she still challenges me. Every day we discover something different about each other. This is how architecture should be."

Arets has tried to achieve that goal with his design for a 2,251-square-foot glass house in a hilly suburb of Maastricht, the Netherlands, for dancer Jo Willems and actor Jan van Opstal, both of whom are also landscape architects.

The two-story house opens out to views and light by the careful placement of thick, UV-resistant, double-paned transparent glass walls alternating with translucent and opaque glazing. The skin encloses irregularly shaped volumes where a poured-in-place concrete

which have been fit-out with fixtures from a line Arets designed for Alessi. The rest of the house can be partitioned into different spaces by curtains made of parachute material. "The clients are interested in movement," says Arets, "and they wanted a space that could be a kind of stage for living – a space that would change to suit whatever activity they were involved in." Even the beds are on casters, the better to rearrange space at will.

The architect naturally had to face the question of energy use. "Hardly any air-conditioning is needed," he says, "because like a stone church, the concrete columns, floors, and ceilings absorb the heat during the day, keeping the house cool in the summer."

Nevertheless, Arets inserted a

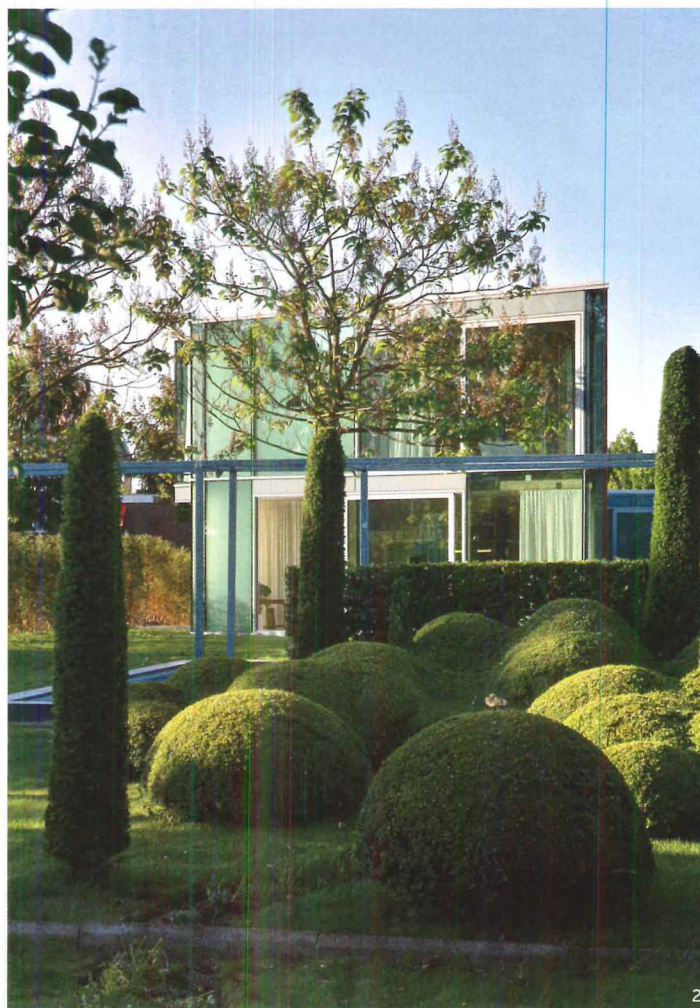


structure of columns and slabs allows spaces to have an open plan. Since Arets placed the columns to be as unobtrusive as possible, the central staircase, made of Corian-covered plywood and suspended from the second floor, provides a dramatic sculptural element. (A handrail is inserted along one side.) At the base of the stair, three Corian-sheathed pieces of furniture act as stepping stones down as well as functioning as seats or tables.

There are only two enclosed rooms in the house – the bathrooms,

radiant heating and cooling system in the concrete floor and ceiling slabs for very cold or hot days. During the summer the system is supplemented by cooling tubes integrated into plasterboard walls installed behind the opaque, gray glass panels.

Willems and van Opstal have created a lush formal garden behind the house, which they open up to the public several times a year. Being able to observe the landscape in different seasons is paramount: "We are gardeners, and since every



1. The interior of the H House features an open plan, since concrete columns are moved to the perimeter. The floors and ceiling are concrete as well in this latter-day version of Le Corbusier's Maison Domino project (1914-15).
2. Since the angular glass house is located in a residential neighborhood, its owners decided to create a highly contoured garden adjoining it.
3. The two-story house is sheathed in translucent, opaque, and transparent glass, with curtains added for privacy and glare reduction.

season changes so dramatically, we really live with those variations in this house," says van Opstal. Arets agrees with both clients' attitude, adding, "People rethink their ambitions each day. Why not live in a house that can adjust to these different moods?" ■

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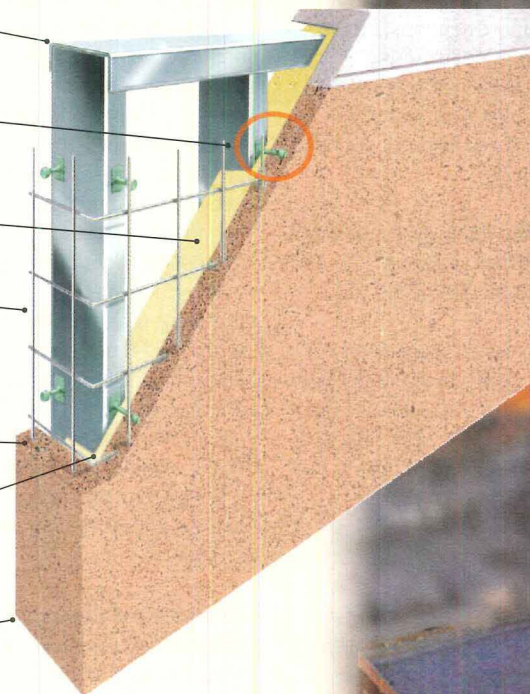
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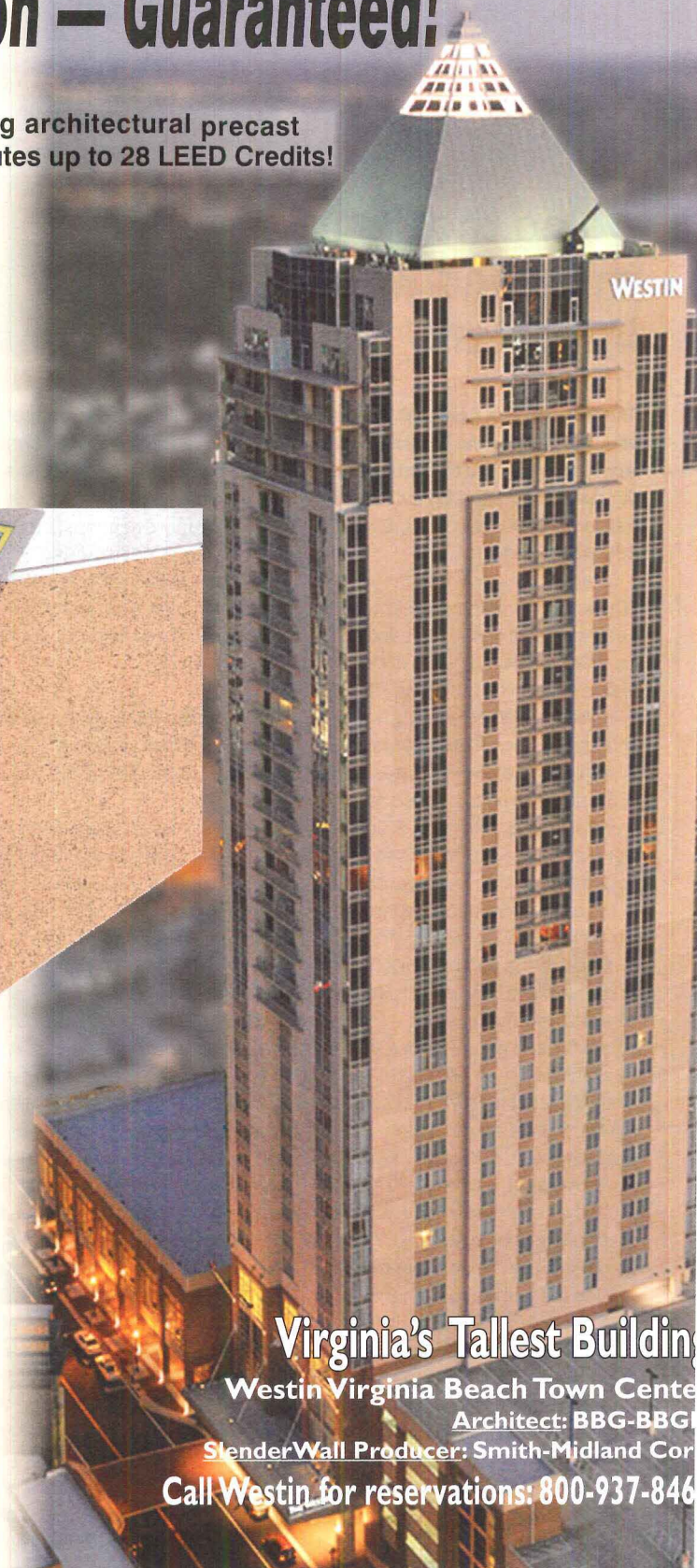


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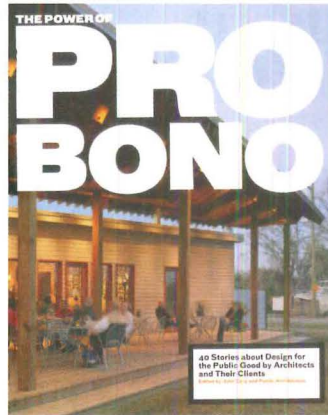


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CIRCLE 18

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Doing the right thing and why it is important



The Power of Pro Bono: 40 Stories about Design for the Public Good by Architects and Their Clients, edited by John Cary, Majora Carter, John Peterson. Metropolis Books, 2010, 288 pages, \$40.

Who knew – until now – that the best voice to explain what architecture can do for the public is the public itself? *The Power of Pro Bono* makes this clear with side-by-side essays by clients and architects. The book features 40 projects by a range of designers from HOK and Gensler to Studio Gang and SHoP Architects to such young firms as Hathorne Architects in Detroit and Stephen Dalton Architects in Southern California. Included in the book is work for arts organizations, schools, health centers, and civic groups.

Loudly and clearly, those served by architecture corroborate design's capacity to enrich and dignify people's lives. In one example, Martha Murphy, a Gulf Coast resident, explains, "I realized after the storm [Hurricane Katrina] that buildings help define a community. . . . To be a community, we needed a place to gather. . . . And this is what SHoP [gave us]."

Similarly, Paul Baricos, the executive director of New Orleans' Carrolton-Hollygrove Community Development Corporation, says, "There are several corner stores here, but they mostly sell alcohol, cigarettes, and junk food – nothing fresh." Each week his new Hollygrove Market, the work of CRG Architecture, purchases \$4,000 in produce from local farms,

"and we think we can triple that eventually," he adds. "The farmers now have confidence they can sell their produce straight to us."

Beautifully designed, *The Power of Pro Bono* is documented with excellent photography and sets an important benchmark for the diverse public benefits of architecture. *Bryan Bell*

Down Detour Road: An Architect in Search of Practice, by Eric J. Cesal. MIT Press, 2010, 236 pages, \$22.

Author Eric Cesal graduates with his master of architecture degree in the winter of 2008, just as the economy collapses. With no job prospects, he returns home to live with a parent on Maryland's Eastern Shore, where he finds Detour Road – a rural route whose name seems to sum up his last decade as a full-time student and a lover of architecture, but with no place to practice. So he begins to write. This book is highly unusual for an architecture opus: It is well written, it is funny, and it is wise in so many ways. I literally "couldn't put it down," as the old book-review saw goes, and read it in one sitting.

Cesal ruminates on the effects of the "Great Wake," as he dubs the economic meltdown, on the architecture profession. The Great Wake, he believes, requires architects to recast themselves in roles they are just beginning to understand – as innovators, empathizers, and empowered professionals. The architects of the new economy, Cesal writes, will have new roles to play, but only if they honestly

assess themselves as their own worst enemies, out of touch with contemporary culture and not valued for what they can do.

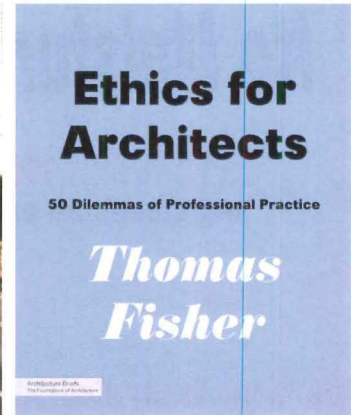
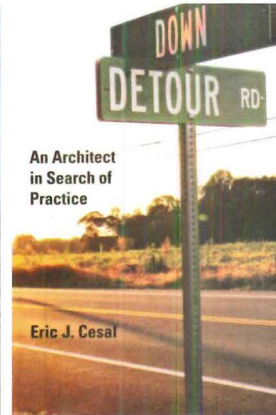
Cesal finds useful parables for architects and their predicament in the most unusual places: the relationship of bartenders to bar owners, how prostitutes are and are not like architects, and how a good architect is like a fire extinguisher. And there are wonderful, thoughtful lines throughout, such as: "Solving problems that matter to nonarchitects is what gives our profession power," and "We must consider architecture in such a way that doing the right thing is more lauded than doing the new thing."

Cesal offers a unique, refreshing take on the profession. *Michael J. Crosbie.*

Ethics for Architects: 50 Dilemmas of Professional Practice (Architecture Briefs), by Thomas Fisher. Princeton Architectural Press, 2010, 144 pages, \$25.

In a world that applauds individual success and recognition in business, Thomas Fisher reminds architects of their important yet subordinate role as members of a larger ecosystem. Each of his six chapters is framed by an obligation of designers (to the public, the client, the profession, colleagues, and the environment).

Anecdotes introducing each chapter describe familiar ethical dilemmas faced by architects in daily practice. Fisher provides thoughtful analyses, often drawn from ancient



philosophical sources, from Lao Tzu to Epicurus, that show the implications of following one path of conduct rather than another. He grapples particularly with decisions that involve personal risk and pose the greatest ethical challenges.

The topics he covers range from agreeing to unpaid employment to accepting extravagant commissions during economic downturns to developing land that lies within wildlife migratory paths. Fisher encourages readers to rethink their priorities beyond monetary gain and demonstrates through discussion and analysis that financial riches alone have never satisfied architects. His book is an invaluable aid for developing a more rounded definition of success in architecture. *Stella Lee*

Briefly Noted:

Brasília-Chandigarh: Living with Modernity, by Iwan Baan. Lars Müller Publishers, 2010, 240 pages, \$60.

This large-format (14 by 11 inches) book presents Iwan Baan's riveting photographs of Brasília and Chandigarh, the 20th century's most famous Modernist cities. Each picture occupies a double-page spread, so it can show off the bustling, multilayered social and physical contexts for the famous buildings by Oscar Niemeyer and Le Corbusier. Baan has a rare skill for capturing the people and places that bring architecture alive. Essays by Cees Nooteboom and Martino Stierli provide analysis, but it's the images here that will grab you. *Clifford A. Pearson*



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CRITICISM NEEDS TIME, AS A SECOND LOOK AT THOM
MAYNE'S SAN FRANCISCO FEDERAL BUILDING SHOWS.

DURING ANY GIVEN week, I'm told, 100 or more design buffs take self-guided tours of the San Francisco Federal Building (SFFB) by Pritzker Prize-winning architect Thom Mayne [RECORD, August 2008, page 96]. The tour's flyer gushes over the "world-famous architect" and his creation, focusing on such details as green design features that aim to cut lighting costs by 26 percent and the Sky Garden, a "three-story open space [that] provides spectacular

apart from thousands of other bureaucratic holding pens, in a squat four-story annex that rarely appears in architectural photographs of the 2.1-acre complex.

I mention the latter space because it's the portion of this public building that gets the most use by the public, yet it received zero scrutiny from critics – me included – when the SFFB debuted in the summer of 2007. We reviewed the newcomer as though it were a



LEFT: The four-story barlike annex terminates with a sculptural end elevation on Mission Street.

BELOW LEFT: The Federal Building's 240-foot-tall tower is the architectural showstopper: connecting it is the annex that does a lot of work.



with executive architect SmithGroup, the attention-getting angle was the embrace of sustainability by one of architecture's most swashbuckling provocateurs. Critics played up the 18-story office tower oriented to maximize daylighting and ventilation, and its cascading veil of perforated stainless steel panels, some of which snapped open and shut in response to the movement of the sun. Magazine photographs accented how the ripple of panels ricochets across a plaza to land on the roof of a freestanding café at the corner of Seventh and Mission streets, an intersection in dire need of noncriminal activity.

"Our primary interest was to produce a performance-driven building that would fundamentally transform its urban surroundings," Mayne says in the booklet released by the General Services Administration to mark the project's completion.

But the heroic story line left out the mundane Social Security offices. It also neglected to mention that the sidewalk walls of the café are thick concrete, a security measure that undercut the café's come-hither appeal. The café attracts few nongovernmental patrons – because of not only the forbidding shell, I suspect, but also the clumsy low-ceilinged interior that provides an oppressive counterpart to the rooftop show.

There have been other glitches. The veil's movable panels have been locked in a closed position for months while adjustments are made to the building control system.

Public access to the Sky Garden and other interior spaces in the tower is cramped by a security gantlet that requires you to pass through a metal detector, then sign in and show your ID.

As for the hoped-for 26 percent reduction in lighting costs, "the performance has gotten better but we haven't yet hit that 26 percent baseline," says building manager Warren Sitterly, "primarily because people's behavior has yet to change." You can lead a workforce to sustainability but you can't make it green.

Make no mistake: I'm glad San Francisco has this Mayne attraction. I love the energy it brings to the skyline, the way it proclaims green design needn't be meek. There's a kinetic grace in such small touches as the glass fins on the northwest-facing wall that glow in the afternoon, illuminated by the sunlight they diffuse in a reliably low-tech way. I even take solace in the ivy that has begun to soften the restaurant's blunt walls.

The San Francisco Federal Building had its close-up, its moment as an object of architectural fascination. Now it belongs to the city as a whole. Ultimately, that's the perspective from which a major building's success or failure is judged – whether or not we critics pay attention. ■

John King is the urban design critic of the San Francisco Chronicle and author of Cityscapes: San Francisco and Its Buildings (Heyday, 2011).

views for tenants and visitors."

Not included in the tour: the Social Security office where, more often than not, at least half of the 94 black metal chairs are filled by regular citizens waiting for their numbers to be called. And the supplicants aren't feasting on postcard-worthy views. They're in a windowless room with only a (slightly) canted ceiling to set it

sculpture and then moved on.

Standard practice, perhaps, but in the process we ignored what sets architecture apart from other arts. Buildings are created to function as part of their physical and cultural surroundings, and they reveal themselves with the slow passage of time.

In the case of the 605,000-square-foot complex that Mayne and his firm Morphosis designed

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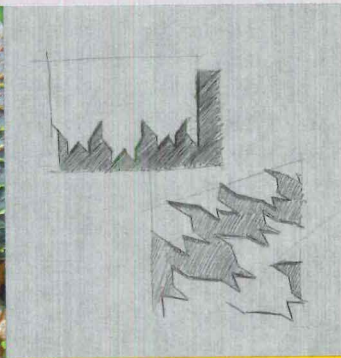
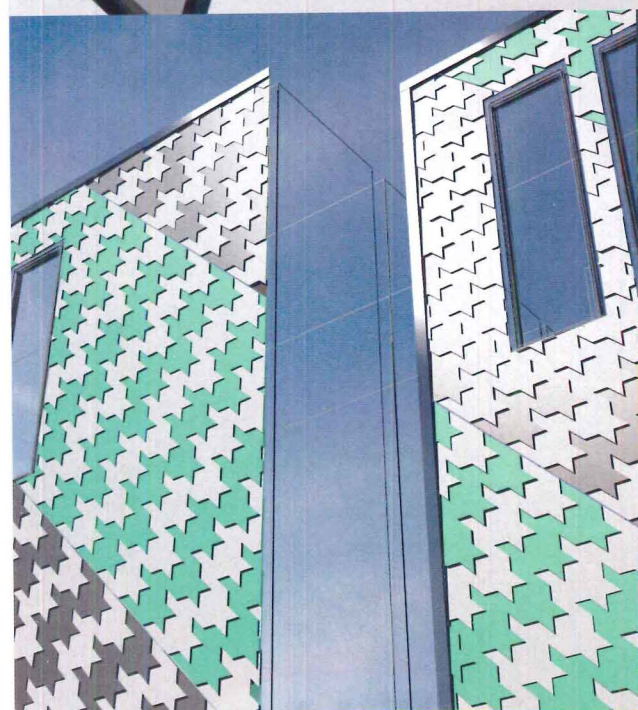


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CIRCLE 21

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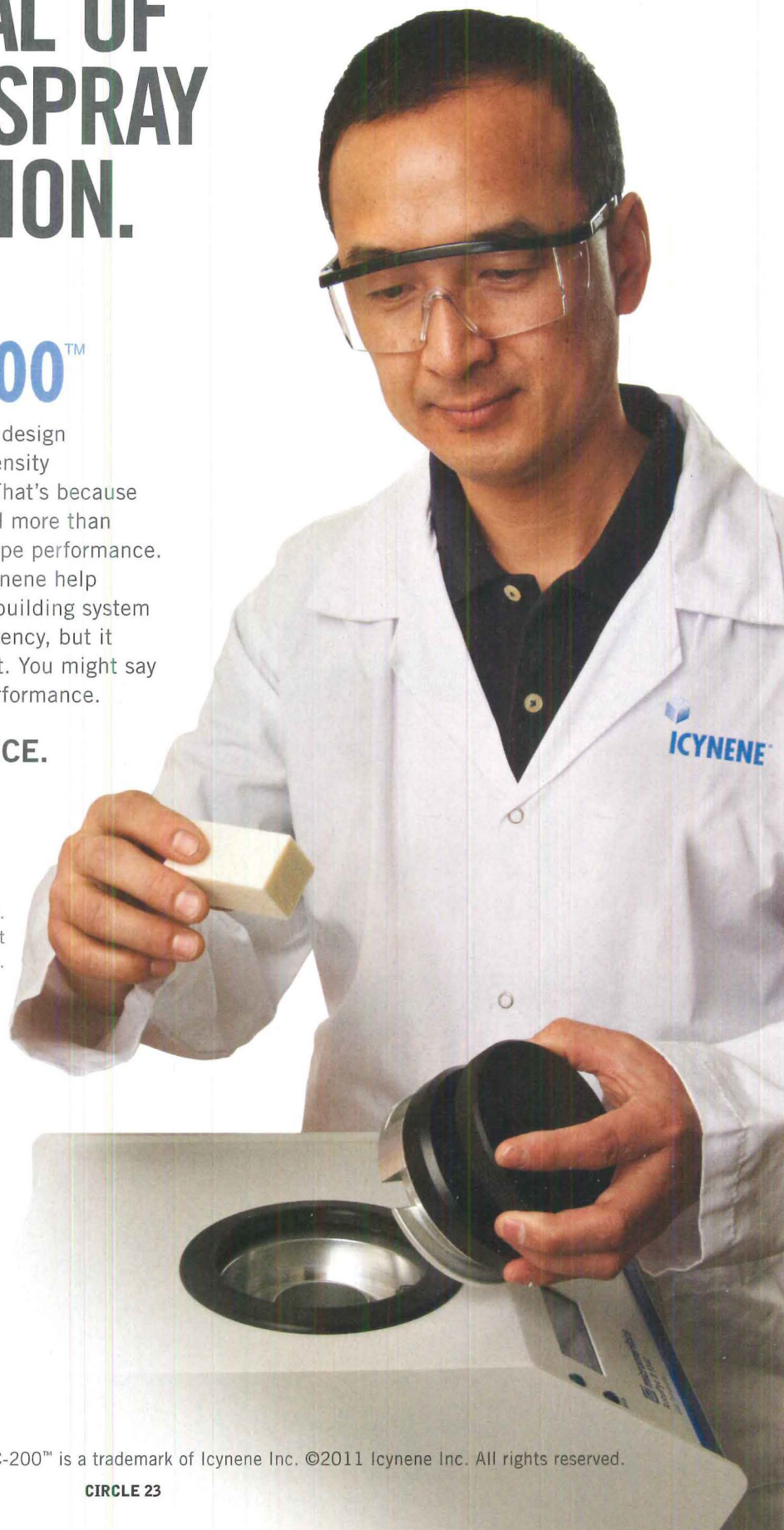
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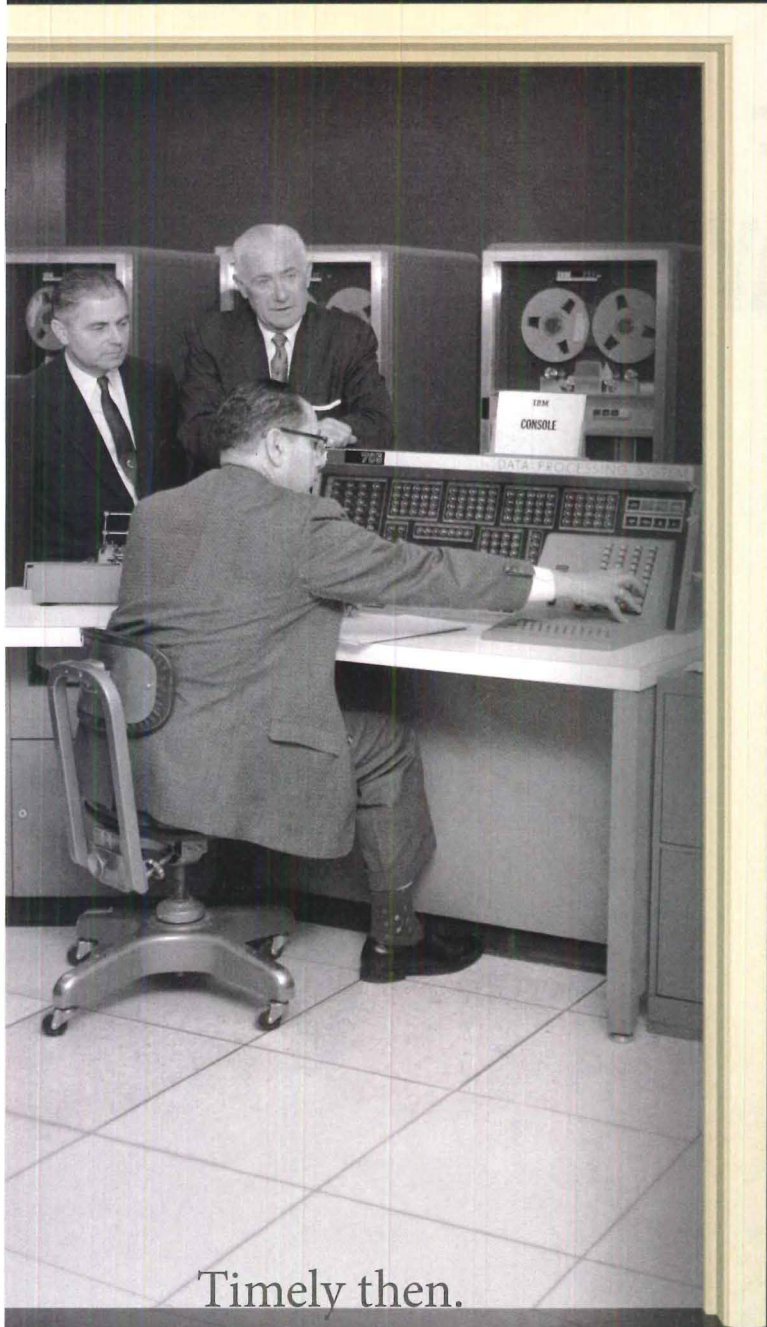
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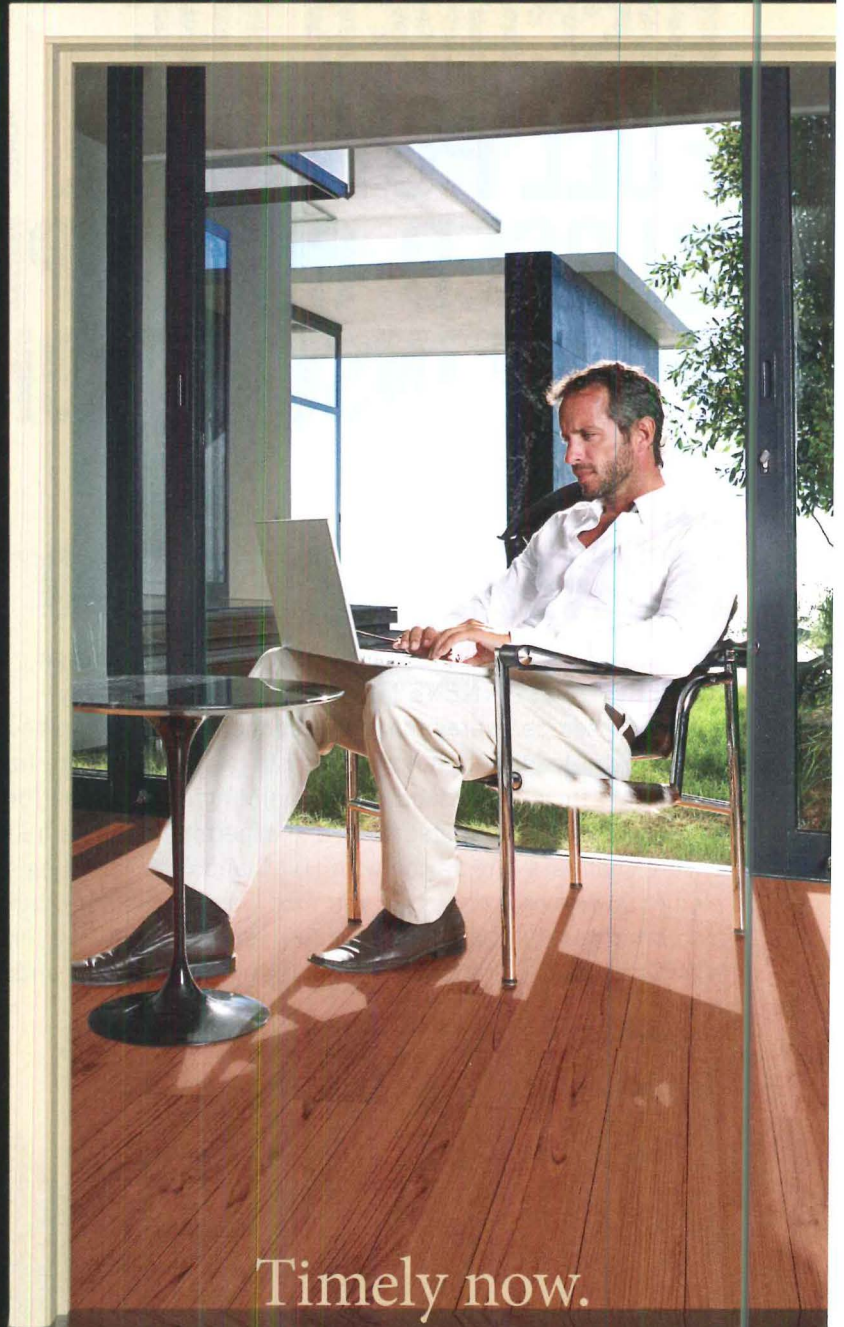


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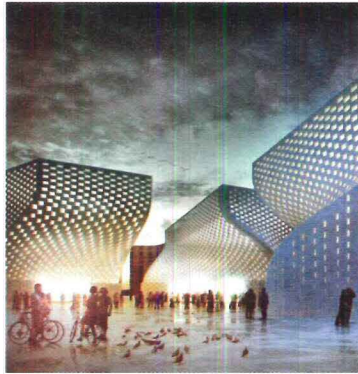
Project **Museum of the Built Environment**
Location **Riyadh, Saudi Arabia**
Architect **FXFOWLE**

The Museum of the Built Environment is one of FXFOWLE's six active projects in the King Abdullah Financial District, a 55 million-square-foot development in Riyadh. Resembling a chiseled rock and partly clad in prismatic laminated glass panels, the 340,000-square-foot museum is sited on a large plaza bisected by a sunken pedestrian parkway. The building will house galleries, a 150-seat auditorium, and a restaurant, in addition to a monorail station and a network of skywalks. Work has begun, with completion slated for 2012.



Project **University Building**
Location **Bogotá, Colombia**
Architect **Steven Holl Architects**

Steven Holl Architects has unveiled its preliminary design for a new Doctorate's Building at the National University of Colombia in Bogotá. Made of white high-performance fiber-reinforced concrete, the 70,000-square-foot U-shaped building will feature a range of sustainable strategies and include labs, classrooms, offices, an auditorium, and a café. The architects hope to begin construction in 2012.



Project **Cultural Center**
Location **Tirana, Albania**
Architect **BIG**

Bjarke Ingels Group – in collaboration with Martha Schwartz Partners, Speirs + Major, Buro Happold, Lutzenberger & Lutzenberger, and Global Cultural Asset Management – won a competition to design a new 290,625-square-foot cultural complex in Albania's capital, Tirana. The project consists of a mosque, Islamic center, and a Museum of Religious Harmony. The perforated facades were inspired by *mashrabiya* screens, which provide shade and privacy while still allowing views out. The firm's winning scheme was announced May 2.

Sale of Folk Art Museum Sparks Demolition Fears



New York City's American Folk Art Museum, designed by Tod Williams and Billie Tsien Architects and completed in 2001, has been sold to its next-door neighbor, the Museum of Modern Art. Because MoMA is looking to expand, speculation is rife that the folk art museum, located on West Fifty-Third Street, will be demolished.

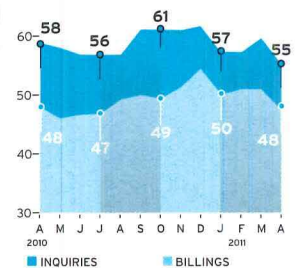
A MoMA spokesperson couldn't disclose terms of the deal, which was finalized on May 10. The folk art museum reportedly approached MoMA about the sale in order to help erase \$32 million in debt, according to a statement from MoMA.

The 30,000-square-foot building – critically praised for its manipulation of space and light within a tall, slender volume – sits between MoMA and an empty lot where Hines, a global developer, plans to build a condo tower by Jean Nouvel that also will contain MoMA galleries. Williams and others fear that the folk art museum could be razed to sweeten the development

opportunity. But MoMA claims that the eight-level building, clad with distinctive metal panels, will be saved and used as exhibition space.

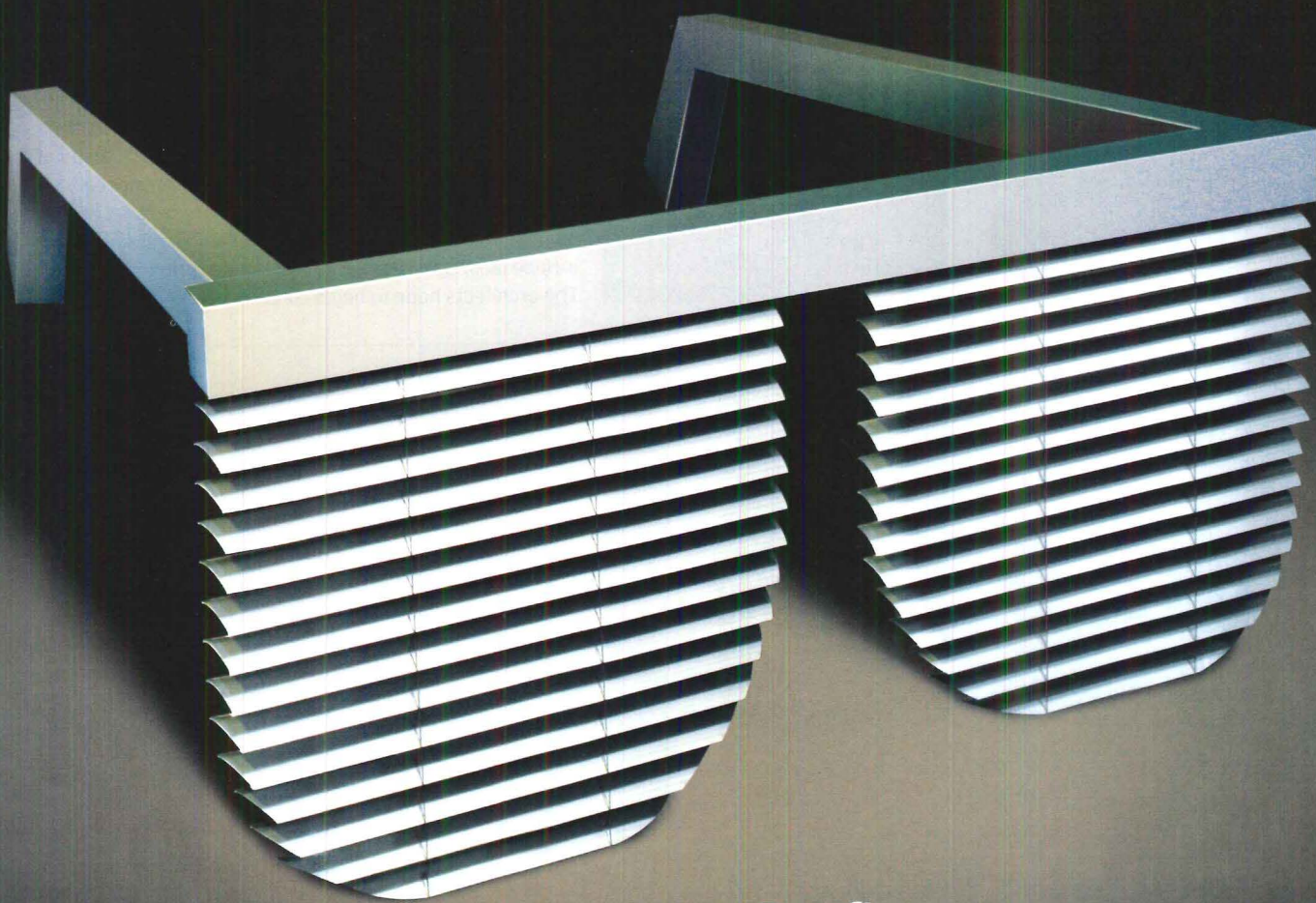
Since Williams and Tsien launched their Manhattan-based practice in 1974, only one of their projects has been bulldozed – a small shop on the Upper East Side. To witness the demolition of anything you created is difficult, Williams says: "When you make a building, you put your heart and soul into it and send it out into the world." He also hopes the museum is not converted to offices because it was specifically designed to house art.

It's unknown when the folk art museum, which has about 5,000 pieces in its collection, will vacate its current home. Its exhibition space will now be limited to an existing 5,000-square-foot gallery near Lincoln Center. "We don't know what will happen yet," says Susan Flamm, a museum spokesperson. "The point is, we have to move." *C.J. Hughes*



ABI Downswing

After hitting 50 or above for five straight months, the Architectural Billings Index dropped to 47.6 in April. The inquiries score slipped to 55.0, down from 58.7 the prior month. Kermit Baker, AIA chief economist, says that most firms have at least one stalled project due to lack of financing. "That issue continues to be the main roadblock to recovery," he says, "and is unlikely to be resolved in the immediate future."



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[FIRM CULTURE]

Not Your Standard Office Decor

Rather than putting their own projects on display, some design firms are using communal areas in their offices to stage art exhibitions throughout the year.

WHEN IT COMES to decorating their office walls, architects typically display images of their projects. But in the early days of Fox & Fowle (now FXFOWLE), the firm, launched in 1978, didn't have any completed buildings to show off. So cofounder Bruce Fowle enlisted his artist friends to hang their work in his budding Midtown office.

More than three decades later, FXFOWLE has built award-winning structures around the globe, yet the company is still inviting artists to present their creations in its Manhattan headquarters. In fact, when the firm relocated to a larger space in 1986, it incorporated a room specifically designed for exhibitions. "We wanted an area dedicated to the work of artists," says public relations director Brien McDaniel, who manages the firm's in-office art program. FXFOWLE now organizes four shows a year, each running about three months. "We have more applicants than we have room for," says McDaniel, noting that the gallery is booked through early 2013. "A lot of people are interested, and it's all by word of mouth."

While corporations often own art collections, and while libraries and coffee shops commonly stage shows by fledgling artists, exhibitions are rarely hosted in private offices. But FXFOWLE is one of a handful of U.S. firms that serve as venues for painters, photographers, sculptors, and other artists – both emerging and established – to exhibit their work. Generally, these shows are not widely advertised and are open to the public by appointment.

Organizers say the benefits are manifold: The art adds zing to the office and stimulates creativity among employees while also conveying the firm's enterprising spirit to

visiting clients. For artists, the program offers a chance to show their work outside of their studios, a hard-to-come-by opportunity in cultural meccas like New York City. Some artists even make money off the venture. "We had a client from Japan in here one weekend," says McDaniel. "He stopped in the gallery on the way out, loved the work [by Linda Abbey], and bought six paintings." The watercolors, which featured Americana scenes, each sold for \$600 to \$700.



TOP: Jose Alberto Maldonado's work was shown at FXFOWLE's New York office. BELOW: In Denver, Roth + Sheppard began hosting exhibitions this year.

Gensler's Midtown Manhattan office introduced its art exhibition program in 2007, when it moved into a new space. (The company's San Francisco branch started a similar program in the 1980s.) To date, the New York outpost has presented 13 exhibitions, with pieces put on view in corridors, conference rooms, and the lobby. "We try to make the shows as different as possible," says design principal Mark Morton, who serves as curator. Past exhibitions have included a collection of images by

students and faculty members from the New York-based International Center of Photography and a bold mural by the German artist Markus Linnenbrink. For each show, the firm prints a brochure, hosts a reception, and pays for delivery and installation of the artwork.

Currently on view at Gensler is *Adrift/Afloat*, a collection of diagrams, drawings, and sculptures by Stephen Talasnik. The Manhattan-based artist, whose abstract work is inspired by the "language of archi-

itecture and engineering," says it's his first time assembling a show for an office. "I'm usually in museums and galleries. But this is no insurance agency," he says of the design firm. "This was an opportunity to show my work in an incubation environment." Talasnik even created four site-specific sculptures for the Gensler show, including two skeletal, serpentine forms that hover over separate conference tables.

In-office exhibitions aren't limited to the two coasts. In Denver, Roth + Sheppard relocated to a historic brick building in January, and at the center of the loftlike space is a long gallery framed by wood columns and sheer curtains. So far, the firm has staged two exhibitions there. One featured the work of University of Colorado architecture students. The other, which stemmed from a design competition the firm helped organize, featured roughly 80 models and drawings of modern houses. Principal Jeffrey Sheppard says they plan to host a show in their "Temenos Gallery" every few months. "Right now, we're putting together a photography exhibition," he says. "We want to see how the space works for art." ■

BY C.J. HUGHES

[RECESSION REPORT]

Architecture Employment on the Rise

Finally, some good news for the hard-hit design profession: Firms are hiring again.

AS THE THIRD anniversary of the collapse of Lehman Brothers approaches – the event that delivered the knockout punch to an already reeling U.S. economy – a trend is emerging that may have once seemed unthinkable. Firms are hiring again.

To be fair, staff levels are not at their prerecession highs, as new employees are being added in dribs and drabs. In fact, some of the firms boosting payrolls are reluctant to discuss their expansions, lest they get inundated with resumes for openings that are scarce.

Yet those firms' principals say that signs of renewed demand for design services are strong enough to justify new hires. "We're starting to see improvement," says Rick Kobus, a founding principal of Tsoi/Kobus & Associates. In 2008, at its peak, the

are now coming from the medical industry, such as a new research facility for Vertex Pharmaceuticals to be built near Boston Harbor. Kobus notes that clients are being unusually diligent. "There's so much attention paid to how money is spent and where it's spent, instead of just racing ahead," he says.

Universities are coming through for other firms. Crawford Architects' Kansas City office hired two new architects in the last six months, bringing its head count to 15, though that's still below its 23-employee peak, says firm principal Stacey

programs," says Jones.

The firm, which has an office in Sydney, also has relied on overseas projects. In that sense, Crawford has something in common with larger firms, like Gensler, which recently opened offices in Bangalore, Singapore, and São Paulo and has hired "several hundred" employees to help staff them, according to a spokesperson. In contrast, Gensler cut 25 percent of its staff, from 3,700 to 2,800, during the downturn (which officially ran from December 2007 to June 2009, according to the National Bureau of Economic Research).

"There are firms that are getting relatively busy again, and we are one of them," says Bradford Perkins.

In a similar boat is Perkins Eastman, which credits projects in China, India, and Vietnam as the impetus for its recent hiring of 20 people, most of whom are architects, says founding partner Bradford Perkins. Over the course of the recession, Perkins Eastman axed 20 percent of its staff, dropping from 750 to 600. While work is picking up, Perkins still characterizes the recovery as "uneven." "There are firms that are getting relatively busy again, and we are one of them," he says, "but there are others that are having serious problems."

Government commissions are another silver lining. For instance, Architectural Nexus, of Salt Lake City, recently designed a data center for the National Security Agency in Draper, Utah. That project and others helped the firm up its staff from 100 in 2009 to 170 today, says Kenner Kingston, a senior principal.

Combination architecture and engineering firms may have had an advantage because one side propped

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up the other. The head count at Arkansas-based Crafton Tull dipped from 330 to 250 during the recession, but the cuts could have been far worse without numerous natural gas well projects for engineers, says spokesperson Daryl Whitmer. The firm, which has added 10 people on the design side in 2011, is also finding sweet spots with colleges; it recently designed a campus for the Tulsa Technology Center, a two-year public college in Owasso, Oklahoma.

The brighter outlook is supported by statistics. The Architecture Billings Index, a measure of the industry's health, had hit scores of 50 or better for five straight months before dipping to 47.6 in April. Also, in the first quarter of 2011, the federal jobless rate among architects and engineers was 4.6 percent, down slightly from the fourth quarter of 2010, when it climbed to 5.5 percent, according to the U.S. Labor Department.

Those upticks jibe with what executive recruiter Tom Ward is seeing. The first half of 2010 was a "disaster," he says, but in recent months, he's been deployed for a handful of job searches. "I would call it a 'tentative feeling' about things improving," he says.

Indeed, firms that are making job offers are still nervous about the future. Johnson Fain, of Los Angeles, saw its staff plummet from 108 to 40 in a year's time; it's now back up to 50 based on inquiries about mixed-use local developments, says principal Larry Ball. But developers are slow to fully commit to those projects, a trend that gives the recovery a scattershot vibe. "It's all speculative," Ball says. "I don't see things going gangbusters yet." ■



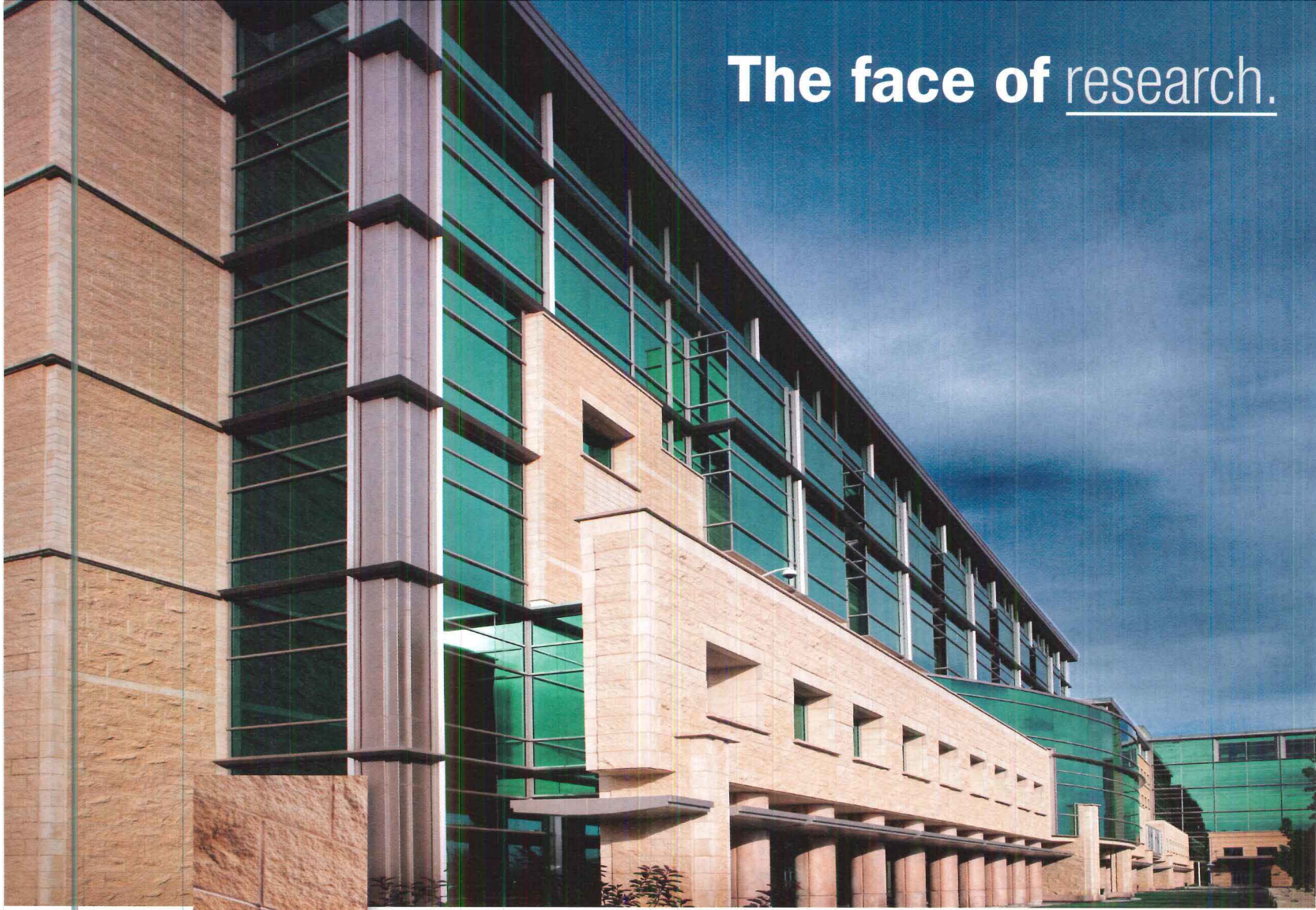
A 1940s firm seems to be awaiting the postwar building boom, much as today's architects hope construction will be on the rise following the recent recession.

Boston-based firm employed 130 people, but dropped to 70 last summer, as project after project was canceled. This year, however, the firm has hired three employees; two are architects who had been laid off.

For Tsoi/Kobus, which historically focused on colleges, commissions

Jones. Among the recent projects for Crawford, which previously concentrated on pro sports stadiums, are hockey arenas for Penn State and Notre Dame. With the stock market soaring again, "universities have stopped getting the jitters and are continuing on with their building

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CIRCLE 56

A New Perspective

How can the profession play a bigger role on the stage of contemporary American life?

AS ARCHITECTURAL RECORD'S new editor in chief, it is my pleasure to welcome you to the June issue. I couldn't have timed a better entrance: The May issue was the biggest in three years, and the number of loyal readers make the magazine the leader in the field. I welcome the chance to take RECORD forward as an independent journal, as it has been for most of its 120-year history; independence is essential to editorial integrity.

I come from the world of mainstream journalism, with 30 years' experience as a cultural reporter, editor, and architecture critic, primarily at *Newsweek* magazine. That background has helped set my agenda for RECORD: I plan to cover the vital news and ideas in architecture and practice today and to bring those stories to you quickly. With information moving faster than ever, we're continuing to integrate RECORD's print edition with archrecord.com. Against the barrage of digital verbiage and visuals coming at you every day, we're committed to curating our pages to bring you the most essential reporting, analysis, and design criticism.

We'll also continue to feature what you value most in RECORD: significant projects, accompanied by stunning images and visual information of clarity and utility. We'll produce key details of construction, materials, and innovative technology. We'll seek a balance in what we cover, from high-profile architecture to the inspiring and innovative work of emerging architects; from big city projects to designs from regional corners of America and distant parts of the globe.

But I don't believe RECORD should only hold a mirror to the profession's built work: The magazine must be an advocate, a sharp elbow, a resonant voice for design's essential role in grappling with some of the country's most urgent difficulties.

We're all well aware that architecture is at a crossroads, and not just because of the recession. When I went to the AIA convention in New Orleans last month, I found an abundance of professional questioning. One architect I spoke with put it this way: The biggest issue facing architecture is relevance. Does good design matter in our culture? There are still buildings as spectacles going up that grab public attention, but do the core values of architecture have much impact on our world? Is architecture marginalized as public and private construction budgets are slashed? And what can architects do in the face of the gargantuan problems laid out by the convention's keynoter, the Pulitzer Prize-winning journalist Thomas Friedman,



about the future of life on this planet? When Friedman talked about sustainability, he didn't just mean green buildings; he meant a way of life.

But I found optimism in New Orleans, too. Local architects Allen Eskew and Steve Dumez, of Eskew+Dumez+Ripple, talked about how Hurricane Katrina had transformed their practice. After the 2005 disaster, they spent months engaged in community outreach. "Architecture and planning became a way for people to hold on to the future," said Eskew. The architects became better listeners. Their just-published monograph of work is titled, not coincidentally, *Building Community*. In one of the book's essays, Harvard professor and urban designer Alex Krieger places them in the tradition of the citizen architect. Eskew and Dumez's intense involvement in New Orleans' recovery can't be described by merely listing their thoughtfully considered cultural, civic, and educational projects or their designs for urban space; it comes from the way they marry their expertise with a larger sense of responsibility. "Citizenship and professional values are seen as mutually supportive, not independent variables," Krieger writes.

Their work is part of a heartening trend among architects to cross disciplines, to engage in landscape, urban design, planning, engineering, and art – or to collaborate with experts in those fields – for projects that are transforming our cities, such as Seattle's Olympic Sculpture Park or the High Line in New York. Many architects are educating their clients in green design and the importance of urban context. They're devoting more time during the slow economy to civic planning or engaging broadly in the regions where they work. They understand that architecture exists not just to make structures to shelter human activities but to create places for human experience. They, too, are citizen architects.

A magazine is a kind of community as well, and going forward, I hope that you'll be actively engaged in RECORD, telling us what you like, what you wish for, what you're thinking. You practice humanity's most enduring social art, and we believe architecture should have a stronger voice in the national conversation.

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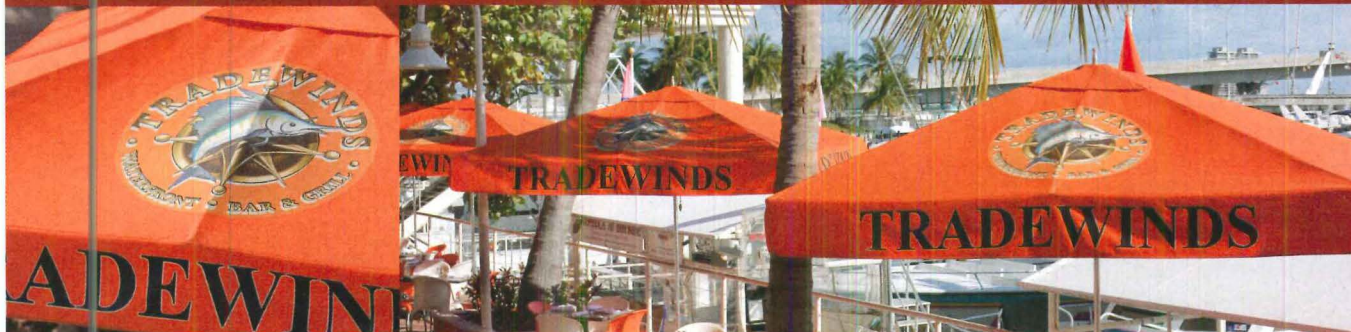
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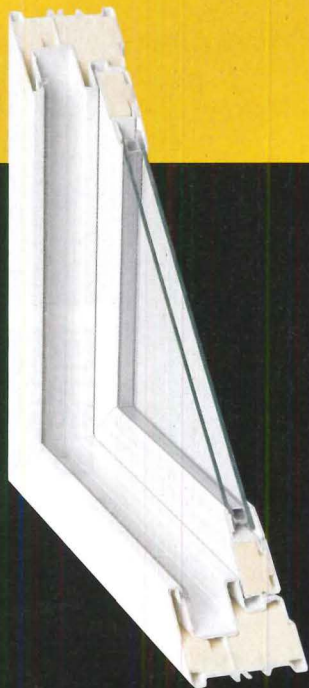
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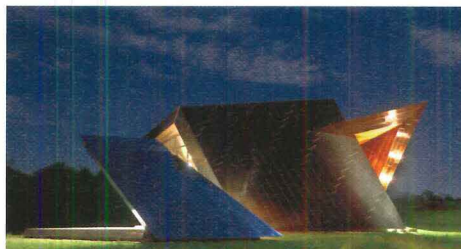
To enter any of our open competitions and contests, visit architecturalrecord.com and click on "call for entries" at the bottom of the home page.

Our April editorial, "Domestic Seduction: Why We Are Drawn to Those Sexy, Dangerous Houses," explained why we selected the RECORD Houses featured in that issue, and it drew impassioned responses from readers.

[COMMENTS AND LETTERS]

I have read and enjoyed ARCHITECTURAL RECORD for years for its quality of presentation and relevance within my profession. However, with all due respect a fine journal deserves, I am most disappointed in the April 2011 issue and concerned that it simply plays into the negative stereotype of the profession by the average American and why the profession is quickly becoming irrelevant in this society. The houses you continually choose to

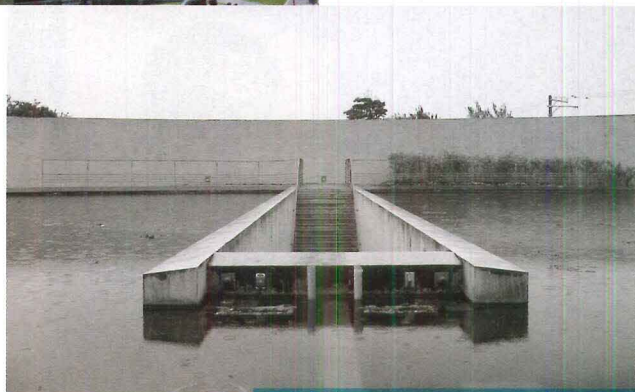
show are very upper-crust and elitist and one has to wonder who can afford them. Is it not possible to show one or two houses that even upper-middle-class Americans can afford, much less middle-class or working-class? And still maintain the standard of excellence in architecture? How about a house that has some context so we can see



Studio Daniel Libeskind's 18.36.54 House was included in our annual Record Houses feature.

how it fits into the setting? Why is it that all the photos show no context? I think RECORD would be a stronger journal if it stepped out of its comfort zone and highlighted housing for the lower 90 percent of America. —Gisela Schmidt

[READER PHOTOS]



Recent additions to our reader photo galleries include images of Meyer & Van Schooten's ING Group Headquarters in Amsterdam (top), Tadao Ando's Shingonshu Honpukuji on Awaji Island in Japan (middle), and Richard Meier's Ara Pacis Museum in Rome (bottom).



[CORRECTION]

The photographs of Bohlin Cywinski Jackson's Uniqlo Shanghai project, shown on pages 164-166 of the Lighting Section in the May 2011 issue, should have been credited to © Nic Lehoux. Lehoux is not associated with Nacasa & Partners.

Great buildings have always represented something more than the materials and systems that went into them. The Greek orders represented civilization over barbarity. The Gothic cathedrals pointed to a higher celestial reality. Wright's houses represented a new sense of freedom and opportunity on the American prairie. The Bauhaus represented the potential inherent in new technologies. These potentials, like the Bauhaus itself, have not quite lived up to expectations. In any event, none of these movements was completely self-referential. Maybe the problem is that today's world seems to stand for nothing more than the maximization of return on investment, and it is doing a very poor job at that as well. Maybe the "sexy," "dangerous" work that appears in design magazines serves as nothing more than empty props—backdrops for the vain glory of fast-talking visionaries and their indulgent patrons. Sexy? Dangerous? Or just sterile, and strangely predictable. Monuments to nothing. Architects provide the clothing for insights and new realities, but to create them we need more than architects. We need philosophers, theologians, statesmen, investors, and critics who can see outside of their sexy, dangerous, predictable boxes. —Anonymous

I like the extreme nature of some of the houses you select. If I want to see a standard house, I can just drive down the street. It is good to have a magazine that highlights cutting-edge and experimental structures. —Jerry Thorpe



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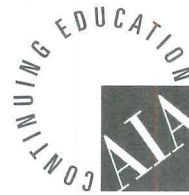
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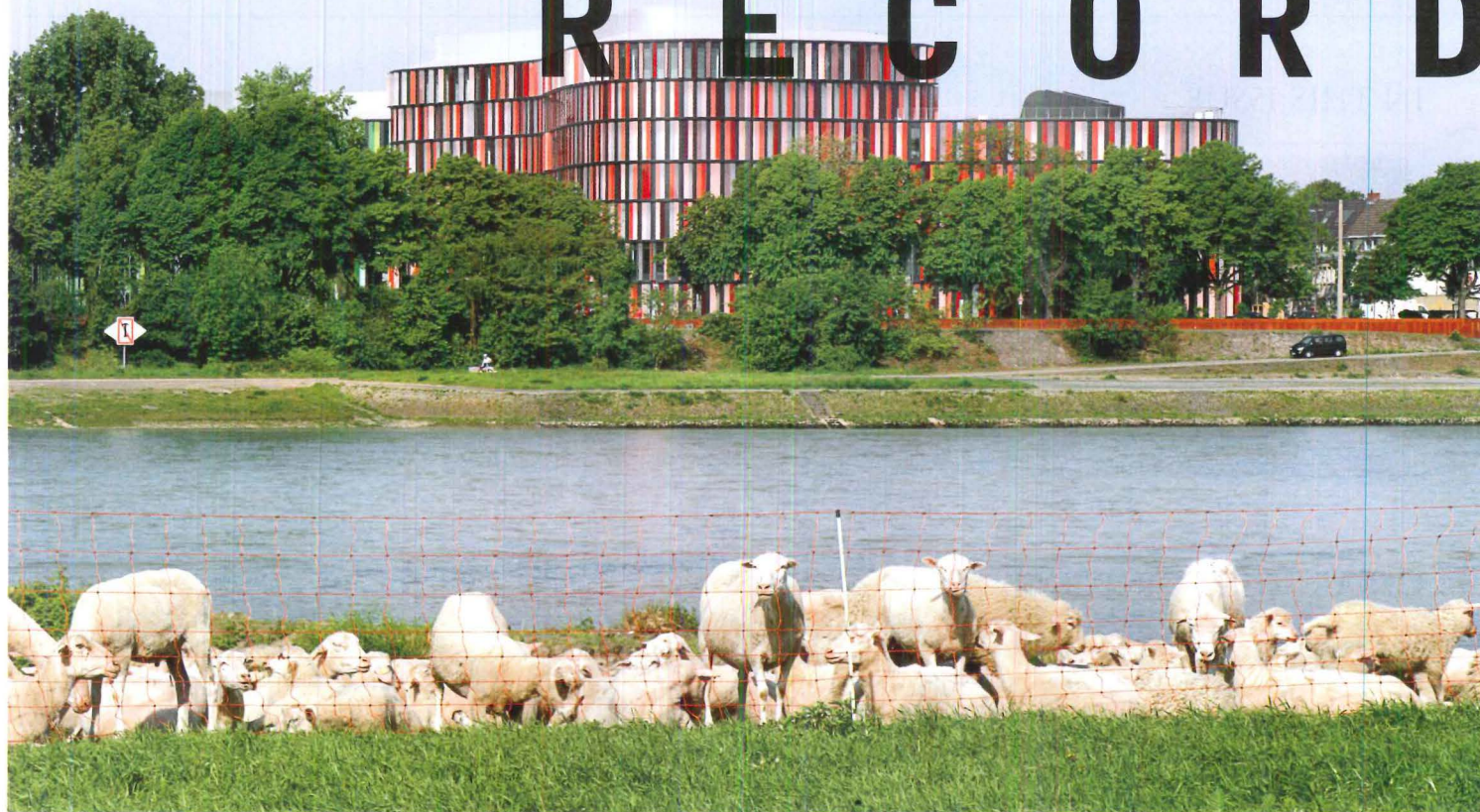


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ON THE COVER: City of Culture of Galicia, Spain, by Eisenman Architects. Photo by Iñigo Bujedo Aguirre.

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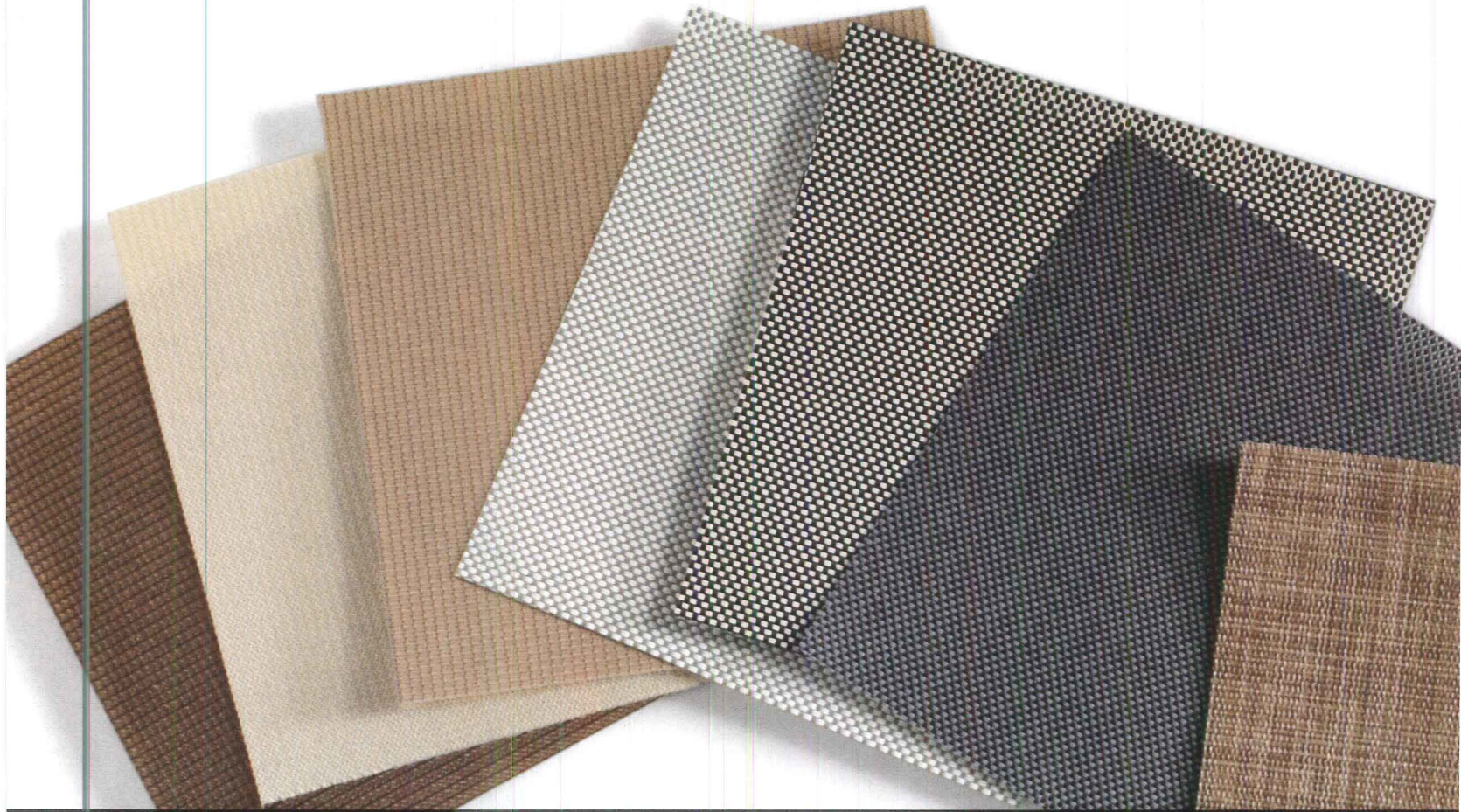


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DIRECTOR, CREATIVE SERVICES William Taylor, william_taylor@mcgraw-hill.com
PRODUCTION MANAGER Stephen R. Weiss, stephen_weiss@mcgraw-hill.com

SENIOR DIRECTOR, MHC MEDIA PRODUCT DEVELOPMENT Michael Mc Nerney, michael_mcnerny@mcgraw-hill.com
MANAGER, CONTINUING EDUCATION Marissa Wyss, marissa_wyss@mcgraw-hill.com

VICE PRESIDENT, BUSINESS SERVICES Maurice Persiani, maurice_persiani@mcgraw-hill.com
DIRECTOR, CIRCULATION Brian McGann, brian_mcgann@mcgraw-hill.com

SENIOR MARKETING MANAGER Marybeth Whited, marybeth_whited@mcgraw-hill.com

FINANCE DIRECTOR Ike Chong, ike_chong@mcgraw-hill.com
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ADVERTISING SALES

NORTHEAST: Joseph Sosnowski
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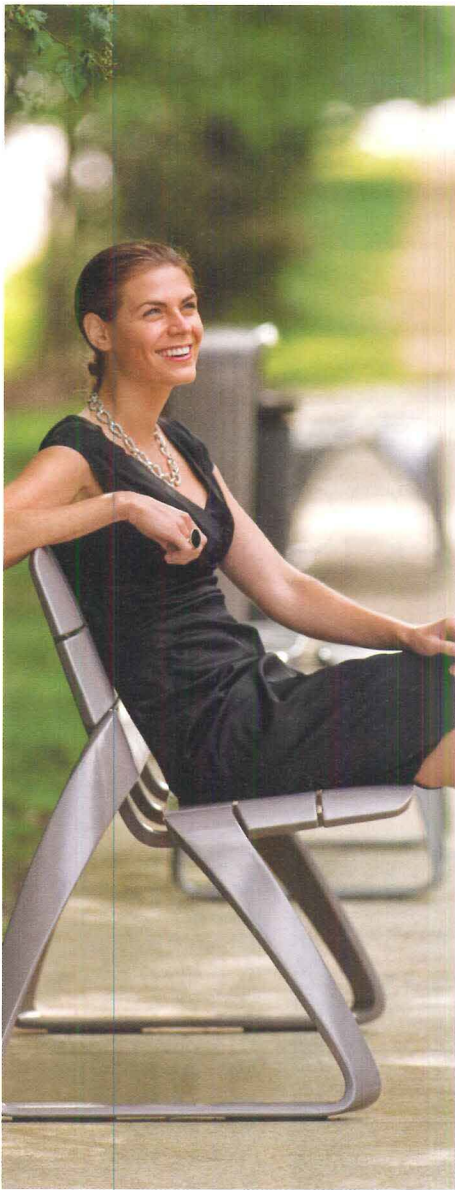
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PRODUCTION MANAGER Juan Ramos, juan_ramos@mcgraw-hill.com
EDITORIAL PRODUCTION Rosa Pineda, rosa_pineda@mcgraw-hill.com

ART DIRECTOR Helene Silverman, helene_silverman@mcgraw-hill.com
CONSULTING ASSOCIATE ART DIRECTOR Donna Agajanian, donna_agajanian@mcgraw-hill.com
CONTRIBUTING ILLUSTRATOR, PRESENTATION DRAWINGS I-Ni Chen

EDITORIAL SUPPORT Monique Francis, monique_francis@mcgraw-hill.com

EDITORIAL ASSISTANT Laura Raskin, laura_raskin@mcgraw-hill.com

CONTRIBUTING EDITORS Sarah Amelar, Robert Campbell, FAIA, Andrea Oppenheimer Dean, Martin Filler, C.J. Hughes, Blair Kamin, Jayne Merkel, Robert Murray, B.J. Novitski, David Sokol, Michael Sorkin, Ingrid Spencer

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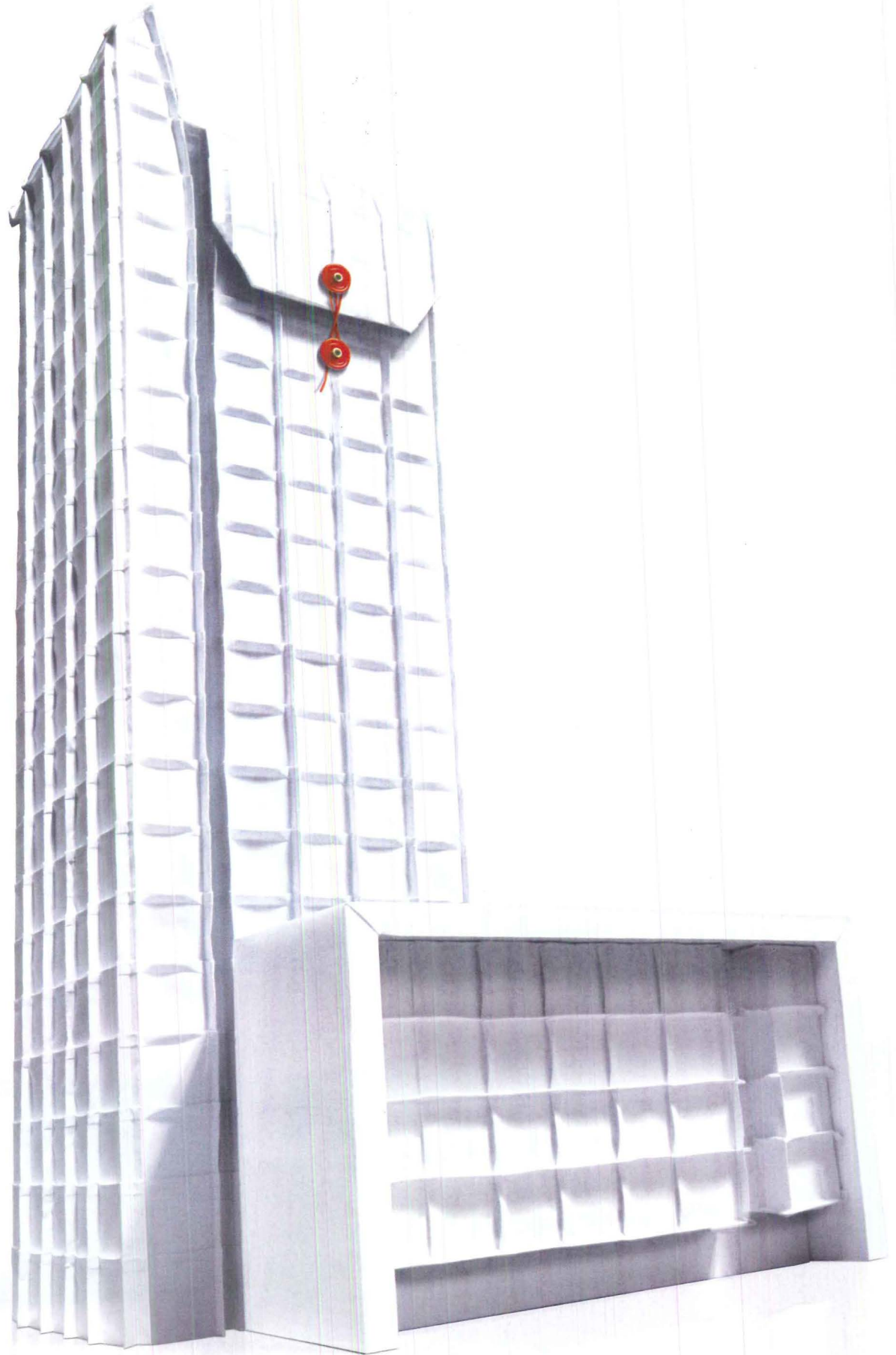
RBC Centre by architect Kohn Pedersen Fox Associates. Building envelope by Oldcastle BuildingEnvelope™

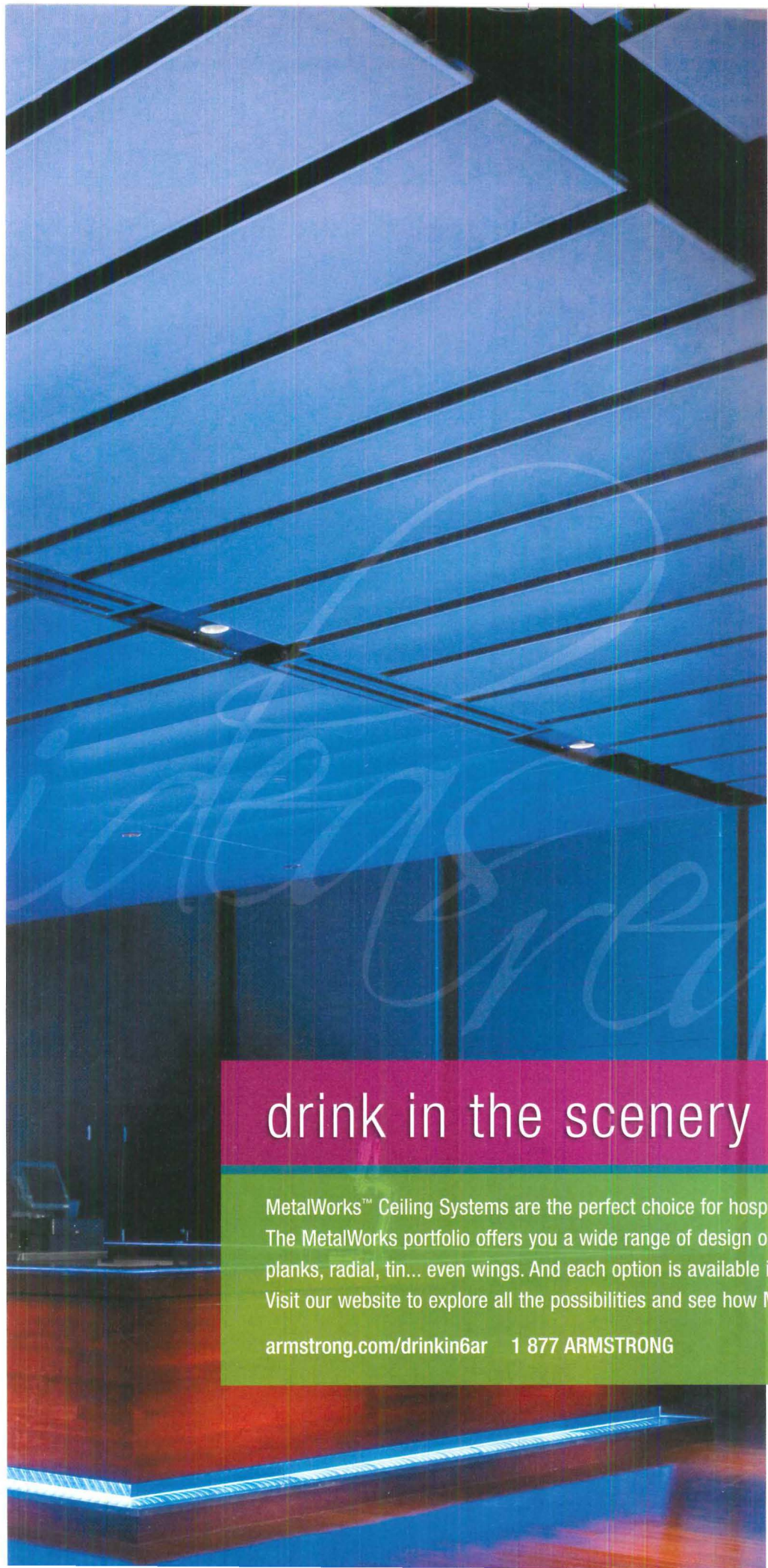


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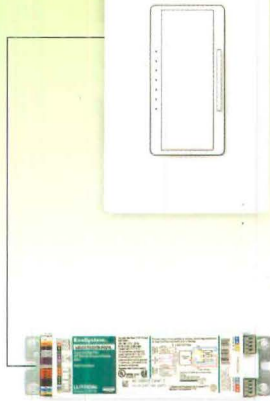
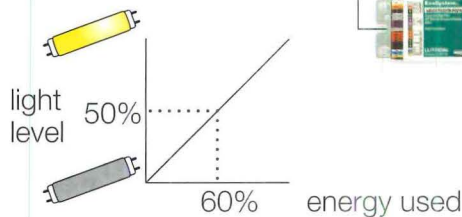
Lutron® — save energy and reduce operating costs

NEW Quantum® light management solutions can **SAVE 60%** of lighting energy used in your building, respond to **peak pricing** and **demand response** signals,

AND improve comfort and productivity by utilizing dimming, occupancy sensing, automated shading and daylighting.

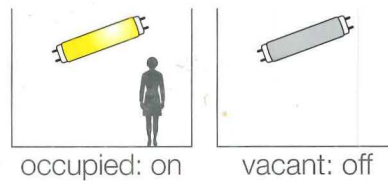
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- Hyperion™ solar-adaptive shading can save 10% on HVAC

Summer Days: close shades to keep heat out and provide soft, even light, for an enjoyable work environment



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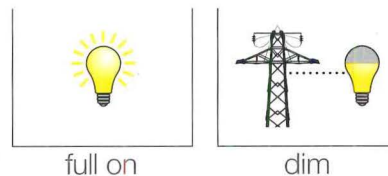


Year Round Days: close shades to reduce glare and increase employee productivity



Smart Grid Integration

- Automatically or manually reduce energy usage to avoid peak pricing penalties by adjusting lights and shades
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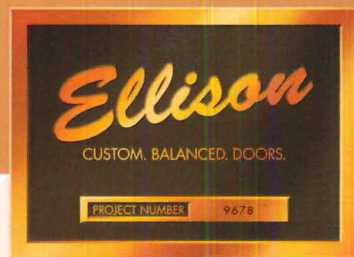


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