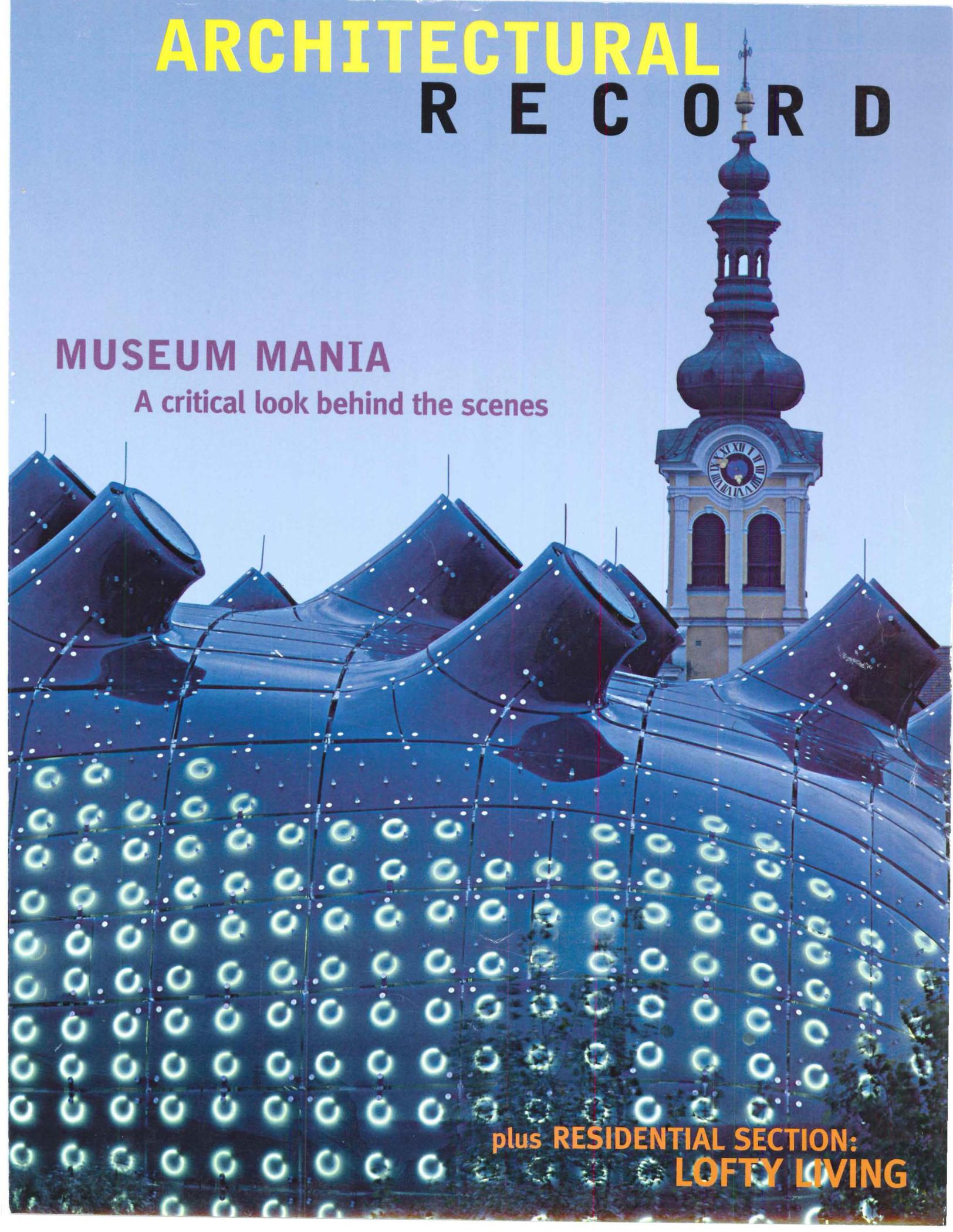


ARCHITECTURAL RECORD

The cover of Architectural Record magazine features a photograph of a modern building with a curved, perforated facade. The facade is composed of dark panels with a grid of circular holes, which are illuminated from within, creating a pattern of glowing circles. In the background, a traditional building with a tall, ornate tower and a clock face is visible against a clear sky. The overall scene is captured in a cool, blue-toned light.

MUSEUM MANIA

A critical look behind the scenes

plus RESIDENTIAL SECTION:
LOFTY LIVING

CEILING SYSTEMS

[Between us, ideas become reality.™]

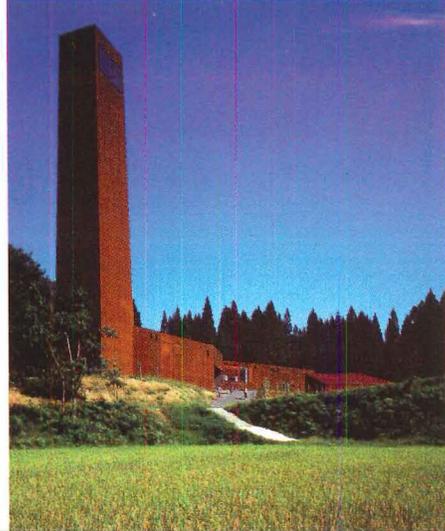
bend your mind



ARCHITECTURAL RECORD

01.2004

On the Cover: *Kunsthhaus Graz*, by Spacelab Cook-Fournier. Photograph by Paul Ott
Right: *Matsunoyama Science Museum*, by Takaharu & Yui Tezuka Architecture/MIAS.
Photograph by Katsuhisa Kida



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For 8 additional museums, go to Building Types Study at architecturalrecord.com.

Building Science & Technology

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by Barbara Knecht*
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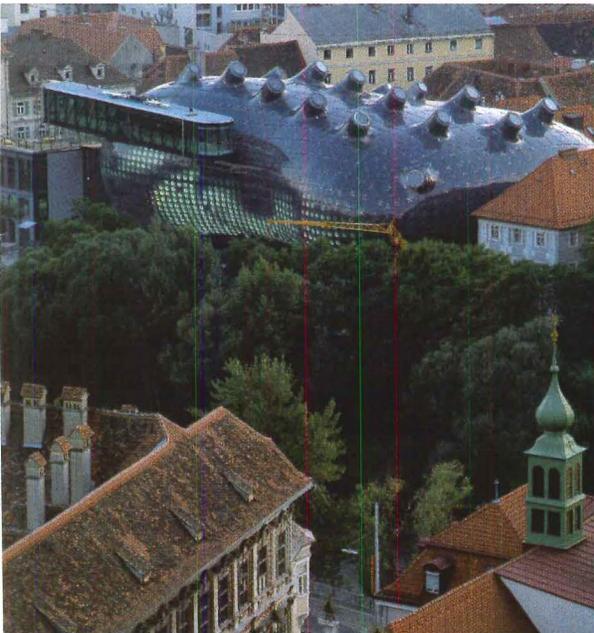
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The AIA/ARCHITECTURAL RECORD
Continuing-Education Opportunity is "Accessibility
Regulations and a Universal Design Philosophy Inspire the Design Process"
(page 145).

You can find these stories at architecturalrecord.com, including expanded coverage of Projects, Building Types Studies, and Web-only special features, such as "In the Cause of Architecture" and "Innovation," a section devoted to new materials and methods.

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Photography © Paul Ott

Daily Headlines Get the latest scoop from the world of architecture.

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Building Types Studies: Museums

Architecturally, they are the most significant building form of our era. Gone are the days when museums were seen as dusty mausoleums. Instead, they have become architectural extravaganzas, where you go for performances, films, shopping, dining—oh, and to see the works on view. This month we feature 15 museums, from Spain to Japan, St. Louis to Ithaca, New York.

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Innovation

On the heels of our successful fall Innovation Conference in New York City, we present the Innovation section of archrecord.com. The purpose of this section is to expose the unnoticed and evaluate potential for major change. Both new materials and new ways of combining old ones are in development. Advances in materials science, increased private and public alliances, and the infiltration of digital technology into everything have conspired to create pockets of experimentation and unusual collaborations among architects, engineers, and manufacturers. We invite our readers to continue their own investigation.

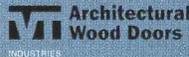


Photography © Julius Shulman

archrecord2

When you can do it all yourself, collaboration is key. Is that a contradiction in terms? This month's archrecord2 Design architect, Todd Farrage, doesn't think so. As architect, metalworker, furniture maker, and sculptor, Farrage teams up when he knows two or more heads will help him concentrate on his strengths for a project. Our Work architects also know the value of sharing. Essex Street Studios has become a mission control center for several thriving N.Y.C. architects.

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Receive CES Credits Online

Read *Record's* building science features/continuing education self-study courses and file for CES credits. This month learn and receive credit on the latest technology usage in university and industry research facilities.

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Digital Practice

This quarterly digital section includes such features as research on digital fabrication, a green residential tower that has wireless Net power, digital tools that aid carpet and textile design, and in Digital Architect this month: How museums use digital tools to enhance exhibit design. Digital products include management tools, online resources, and design software.



Photography © Paul Warchol

Residential

New York City has the lion's share of loft living spaces. Some have soaring Italianate windows and cast-iron detailing. Others look like warehouses with loading docks, freight elevators, exposed functional elements, and graffiti-stained front doors. In short, lofts offer a blank tablet for occupants to inscribe with their own ideal of residential comfort. Even the National Association of Home Builders is featuring the loft as the "new American Home of 2004" at its annual convention, the largest gathering of home builders in the U.S., this month. We are pleased, since lofts provide an endlessly variable opportunity for design. Here are a few examples to whet your appetite.

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Lighting

This quarterly section reveals how lighting designers and architects are using new lighting techniques in innovative ways to make lighting function as an integral component of space, whether as a signature visual element or an inherent wayfinding device.

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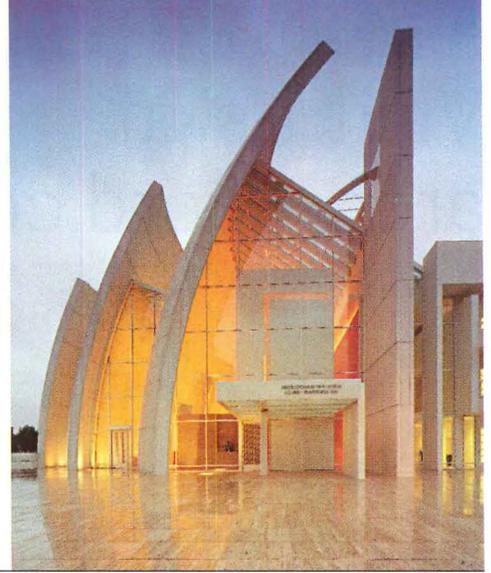


World Trade Center

Rebuilding News. Get the latest updated coverage on the rebuilding process with news and insight.

ARCHITECTURAL RECORD

02.2004



On the Cover: Opera House in Tenerife, by Santiago Calatrava. Photograph by Alan Karchmer/ESTO
Right: Jubilee Church, by Richard Meier. Photograph by Alan Karchmer/ESTO

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- 88 TV Asahi Headquarters, Tokyo** by Naomi R. Pollock, AIA*
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- 94 James H. Clark Center, California** by James S. Russell, AIA*
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- 100 Jubilee Church, Rome** by Peter Popham*
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For seven additional adaptive reuse projects, go to Building Types Study at architecturalrecord.com.

Building Science & Technology

- 129 Integrating Contemporary Systems into Historic Structures Without Destroying Significant Fabric** 
by Nancy B. Solomon, AIA*
Architects are upgrading old buildings, without destroying the past.
- 139 Digital Architect** by Lindsay Audin and Deborah Snoonian, P.E.*

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Continuing-Education Opportunity is "Integrating

Contemporary Systems into Historic Structures Without Destroying Significant Fabric" (page 129).

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February 2004



Photography © Luis Asin

Daily Headlines Get the latest scoop from the world of architecture.

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Building Types Studies: Adaptive Reuse

What do you do when the original use of a building has run its course but the structure still stands? Adaptive Reuse is explored in this month's BTS. Perhaps it's beyond the normal scope to turn an old fish salting factory into a visitor's center, but it's being done. Beyond the three buildings featured in the pages of our magazine, our Web site features seven additional projects from all over the world.

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Innovation

On the heels of our successful Innovation Conference, we present the Innovation section of archrecord.com. The purpose of this section is to expose the unnoticed and evaluate potential for major change. Both new materials and new ways of combining old ones are in development. Advances in materials science, increased private and public alliances, and the infiltration of digital technology into everything have conspired to create pockets of experimentation and unusual collaborations among architects, engineers, and manufacturers. We invite our readers to continue their own investigation.



Photography © Alberto Ferrero

Retail Interiors

Shopping – either you love it or you hate it. The architects of this month's retail interiors heighten the visual experience regardless of your stance on the activity. Whether you're buying high-end luggage, stylish clothing, or tile, the interiors of these stores beckon you to spend more time and money in these retail establishments. **Virtual tours** of this month's Retail Interiors are exclusive to our Web site.

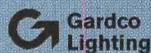
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Lighting

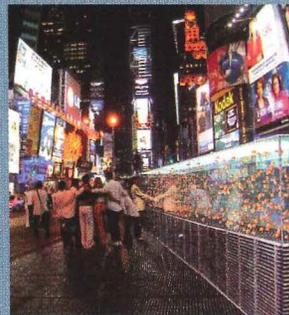
This quarterly section reveals how lighting designers and architects are using new lighting techniques in innovative ways to make lighting function as an integral component of space, whether as a signature visual element or an inherent wayfinding device.

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World Trade Center

Rebuilding News. Get the latest updated coverage on the rebuilding process with news and insight.

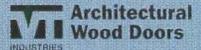


Courtesy Della Valle + Bernheimer Design

archrecord2

The architect-client relationship is a standard consideration in an architect's of work. This month's archrecord2 explores non-traditional relationships in the world of architecture. Design architects from DellaValle + Bernheimer Design have had their share of working ties. But in their newest project, they explore the familial side in a house extension. Work architect Linda Samuels takes her students for a ride and explores relationships formed on the move and on the road.

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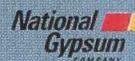
Digital Practice

This quarterly digital section features the digital revolution in museums, research on digital fabrication, a green residential tower that has wireless Net power, and digital tools that aid carpet and textile design. Digital products include management tools, online resources, and design software.

Receive CES Credits Online

Read *Record's* building science features/continuing education self-study courses and file for CES credits. This month learn and receive credit on the latest technology usage in university and industry research facilities.

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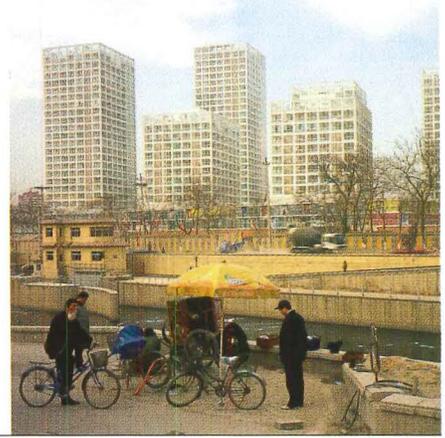


ARCHITECTURAL RECORD

03.2004

On the Cover: Oriental Pearl TV Tower, Shanghai. Photograph by Sam Lubell

Right: Jian Wai SOHO. Photograph by Andy Ryan



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For 10 additional K-12 projects, go to Building Types Study at architecturalrecord.com.

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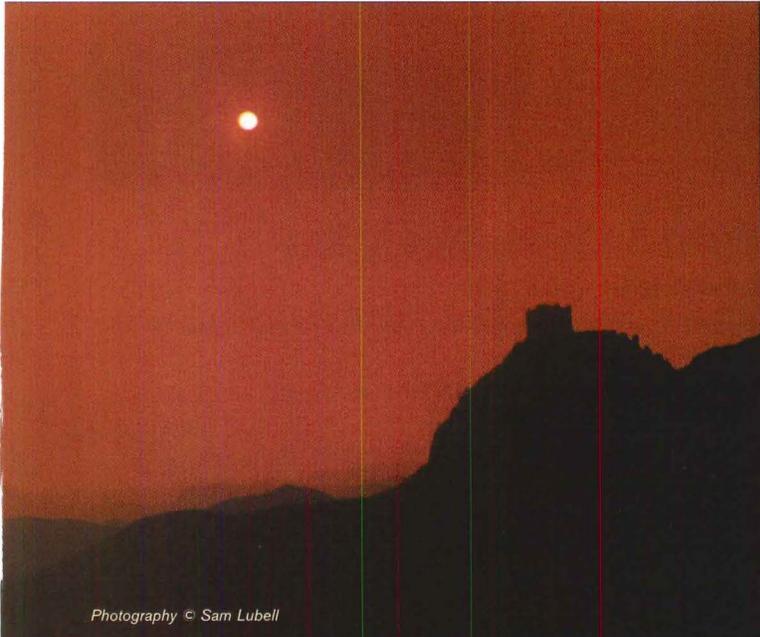
Continuing-Education Opportunity is "Hearing Is

Believing: ArupAcoustics Has Put the Audio Back Into Acoustics" (page 149).

You can find these stories at www.architecturalrecord.com, including expanded coverage of Projects, Building Types Studies, and Web-only special features, such as our special section this month on China.

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March 2004



Photography © Sam Lubell

China

This month's issue of *Architectural Record* is dedicated to the recent surge of new architecture in China. Several Chinese cities are attracting locally and internationally known architects to enhance their skyline. This month on our Web site, we dig a lot deeper into our China issue.

FEATURES

Getting Work in China – we've compiled a list of firms presently working and firms with upcoming projects in China.

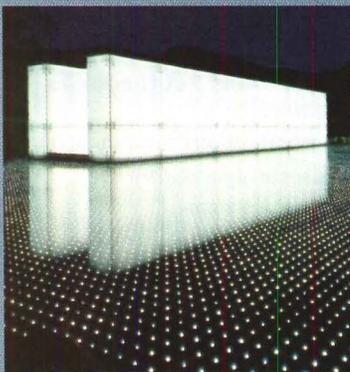
In the article **Future Present**, get to know the new generation of Chinese architects. Our Web coverage highlights more of these young architects' new work.

The China **Photo Essay** is expanded on our site. Also exclusive to our Web site are photo tours of China taken by *Architectural Record* editors. Take a virtual tour with compelling photos of China.

Daily Headlines

Get the latest scoop from the world of architecture.

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Photography: © Toshiro Kaneko

Nagasaki Peace Memorial, Japan
Akira Kuryu, Architect

Lighting

This month we visit three distinct projects. In Salem, Mass. we see how natural and artificial light mix to illuminate one of the nation's oldest art collections. In Montreal, a former theater lighting technician jazzes up the night skyline, and a memorial hall is thoughtfully lit in Nagasaki.

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Walker Zanger Micromosaic

Products

Each month we feature a Product of the Month, trade show reviews, updates to our Green Product Guide and a focus on a product area. This month check out the latest in tile, stone, and concrete. Also, check out our new user-friendly Reader Services section.

Receive CES Credits Online

Read *Record's* building science and continuing education self-study courses and file for CES credits. This month, learn the latest technology usage in university and industry research facilities.

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Photography: © Richard Baines

Lycée Français, New York City
Polshak Partnership Architects

Building Type Studies: K-12 Schools

Class is now in session. From San Francisco to New York, see what schools have their students' attention, and take a stroll through the hallowed halls of these private and public schools. In addition, our Web site has 10 extra schools that earn good marks on their permanent records.

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archrecord2

This month we speak to Design architect Li Hu. Born and raised in China, Li Hu currently lives and works in the U.S. His work with Steven Holl Architects and his own firm, OPEN architecture, have led him to projects in China. He is also co-founder of the publication *32:Beijing/New York*.

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WebInsider

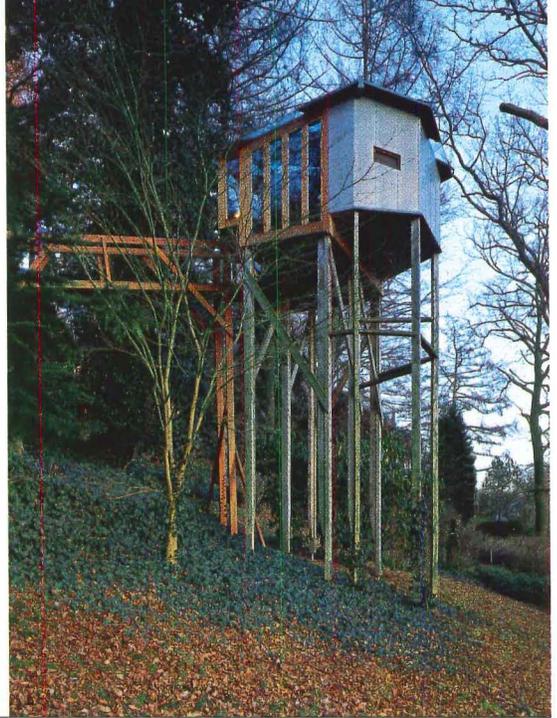
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ARCHITECTURAL RECORD

04.2004



On the Cover: Solar Tube House. Photograph by Bruno Klomfar
Right: Hexenhaus. Photograph by Roland Halbe

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To see six unbuilt houses, including renderings, models, and drawings, go to Building Types Study at architecturalrecord.com.

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 **The AIA/ARCHITECTURAL RECORD**
Continuing-Education Opportunity is "Aging Baby Boomers
Want Smart Houses for Their Golden Years" (page 167). To find out about
other Continuing Education opportunities in this issue, go to the box on page 167.

You can find these stories at www.architecturalrecord.com,
including expanded coverage of Projects, Building Types Studies, and
Web-only special features.

Visit us at archrecord.construction.com

April 2004



Building Types Studies Record Houses

Make yourself at home in the 49th Annual Record Houses section. Experience the best in contemporary design from the coasts of Brazil and Japan to the wooded sites of Atlanta and Vienna. Find more plans, specs, and photos of these houses on our Web site.

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Project Portfolio

This month, in a web exclusive, we feature unbuilt houses. All six residences will be built in the weekend retreat area of Sagaponac, NY. See what design-savvy architects like Shigeru Ban, Hariri & Hariri, and the late Samuel Mockbee have envisioned for future housing in Eastern Long Island

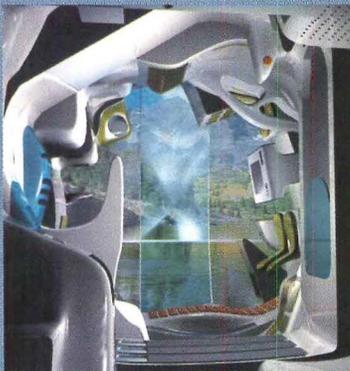
Daily Headlines

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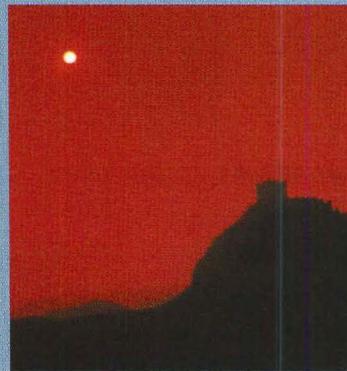
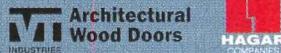


archrecord2

Continuing our Houses theme, this month we look at two concepts for truly alternative housing. In the RemoteHome, architect Tobi Schniedler connects two homes with internet-linked sensory and kinetic devices. Austrian firm AllesWirdGut has an altogether different spin on housing. On our site we have more photos and interactive features of these unique housing ideas.

Courtesy of AllesWirdGut

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Photography © Sam Lubell

China

Check out our special section dedicated to the recent surge of new architecture in China. Many Chinese cities are attracting locally and internationally known architects to enhance their skyline. We dig deep into our China coverage with young architects' projects and other firms' upcoming projects. Be sure to explore China with photo essays by editors of *Architectural Record*.



Therma-Tru fiberglass door system

Products

This month come see what's new in our product focus on windows and doors. Also, read our trade show review of the Cologne Fair in Germany. You'll also find Product of the Month, more trade show reviews, and updates to our Green Product Guide.

Receive CES Credits Online

Read *Record's* building science and continuing education self-study courses and file for CES credits. This month, learn the latest technology usage in university and industry research facilities.

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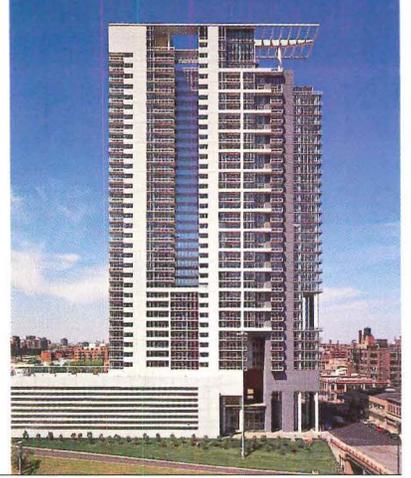
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ARCHITECTURAL RECORD

05.2004

On the Cover: Soldier Field, by Wood + Zapata. Photograph by David Seide/Defined Space
Right: Skybridge, by Perkins & Will. Photograph by Nick Merrick/Hedrich Blessing



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The AIA/ARCHITECTURAL RECORD Continuing-Education Opportunity is "Alternative Energy Sources" (page 169). To find out about other Continuing Education opportunities in this issue, go to page 169.

You can find these stories at www.architecturalrecord.com, including expanded coverage of Projects, Building Types Studies, and Web-only special features.

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May 2004



Chicago Feature

Take another look at the Windy City – a place with a rich architectural past and a design-savvy future – and examine projects like Skybridge Housing, Soldier Field, and the IIT campus. Read more about Helmut Jahn, whose Chicago-based firm adds European styling to new buildings worldwide.

archrecord2

Learn more about several young architects changing the face and the future of Chicago including Ammar Eloueini, an architect who divides his time between Paris and Chicago. Also, meet Mohammed Lawal who runs an architectural youth program in Minneapolis.

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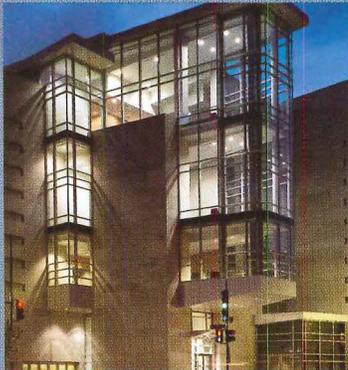
Daily Headlines

Get the latest scoop from the world of architecture.

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The Deutsche Post Tower / Photograph © Andreas Keller



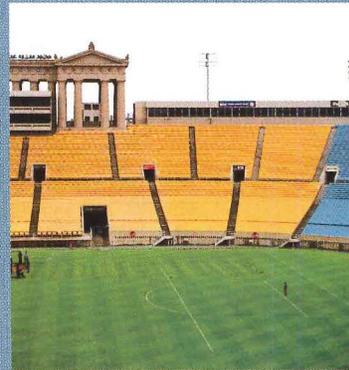
Building Type Studies

Civic Buildings are the focus this month. Peruse the buildings that help form your community – libraries, activity centers, and courthouses. Even more projects are shown exclusively on our Web site.

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Washington Convention Center
Photograph © Brian Gassel/TVSA

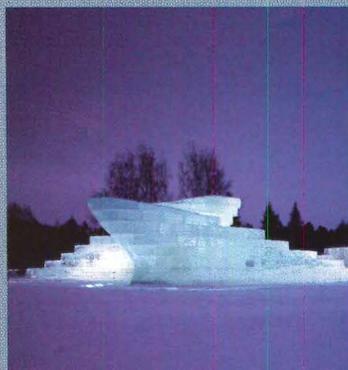


Multimedia Annex

In this new Web site section, you will have easy access to all past Web-based features. Virtual tours of museums, restaurants, retail interiors, and archives of interviews all in one place. Come see what you may have missed.

This month we feature the award-winning photo essay by Joshua Lutz.

Soldier Field, Chicago
Photograph © Joshua Lutz



Lighting

Our lighting section will dazzle you. Revisit the Snow Show and see the integral part that lighting played. We also visit two artists who merge light and space for arresting visual results.

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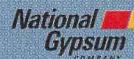
Snow Show, Finland
Photograph © Richard Barnes

Receive CES Credits Online

Read *Record's* building science and continuing education self-study courses and file for CES credits. This month, learn the latest technology usage in university and industry research facilities.



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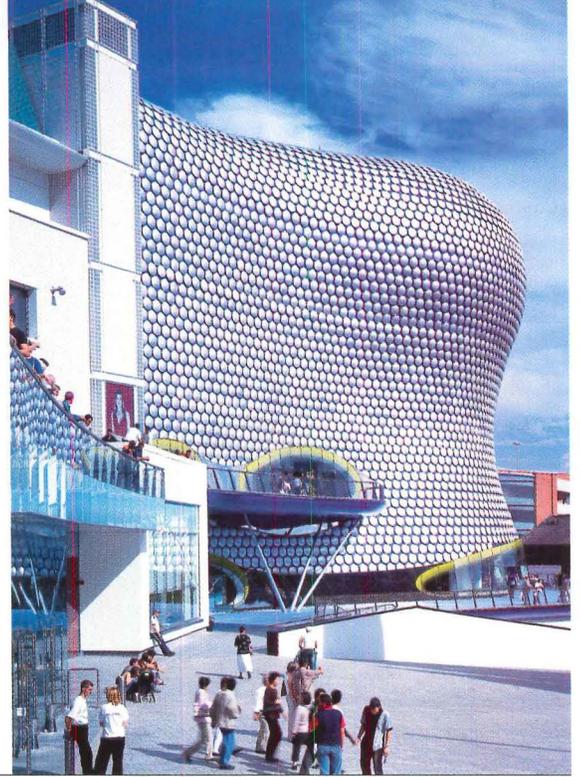
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ARCHITECTURAL RECORD



On the Cover: Sambo teaching kids around the kitchen table at Spencer House, where he lived and worked, Newbern, Ala., 2000. Photograph by Timothy Hursley
Right: Selfridges, Birmingham. Photograph by Nicholas Kane/ARCAID

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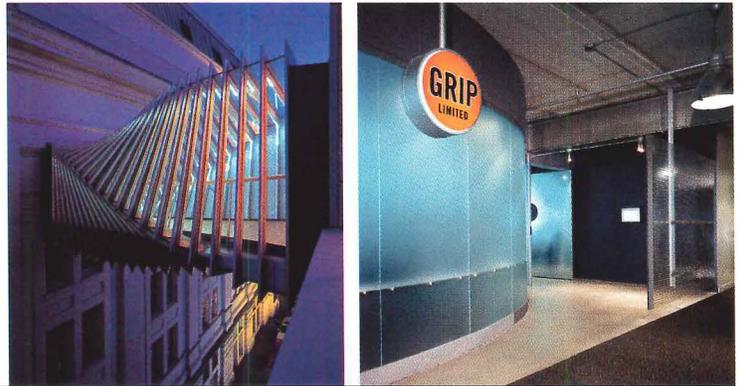
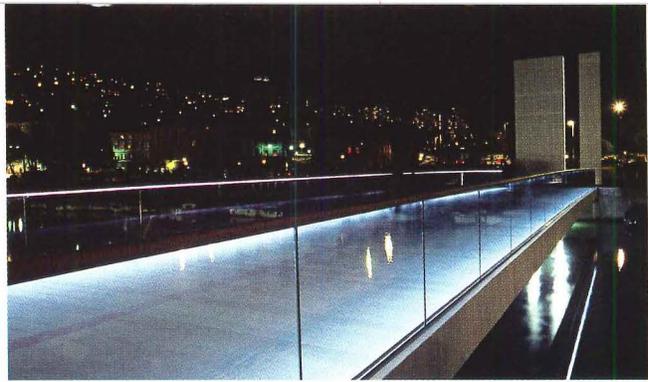
The AIA/ARCHITECTURAL RECORD

Continuing-Education Opportunity is "Architects Discover Bridge Design Can Be the Perfect Union of Art and Science" (page 279). To find out about other Continuing Education opportunities in this issue, go to page 279.

You can find these stories at www.architecturalrecord.com, along with expanded coverage of Projects, Building Type Studies, and Web-only special features.

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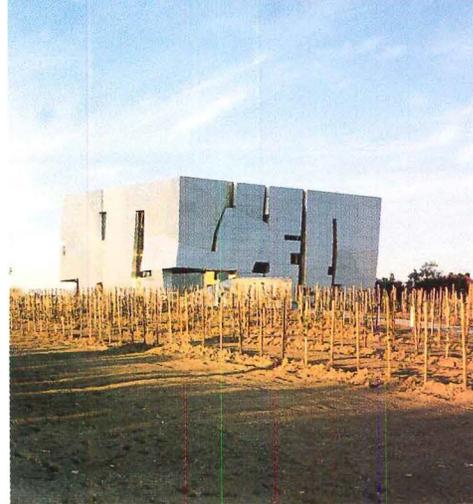
ARCHITECTURAL RECORD

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Photograph by Timothy Hursley Photos

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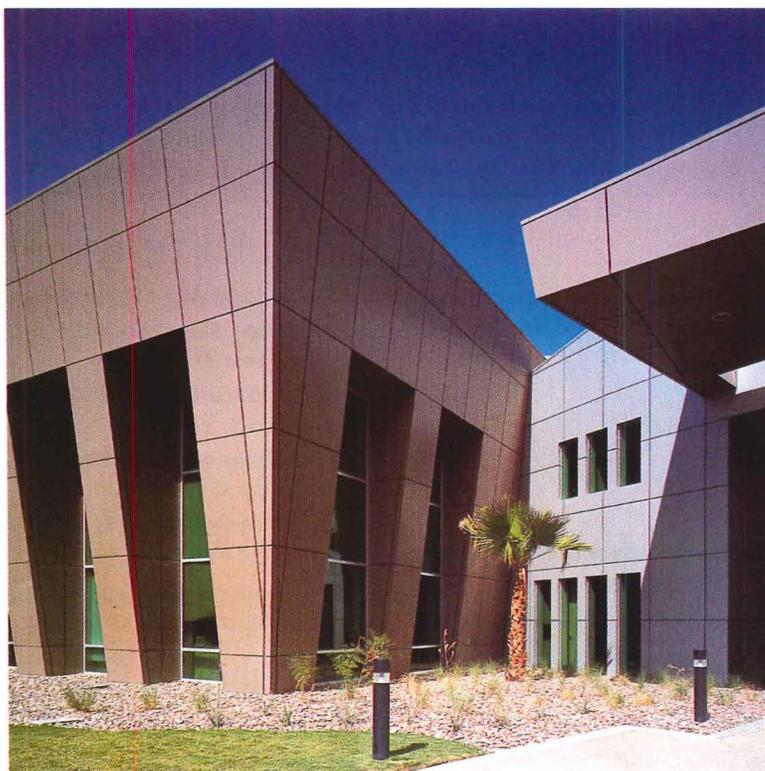
The AIA/ARCHITECTURAL RECORD
Continuing-Education Opportunity is "Defining

Component-Based Design" (page 153).

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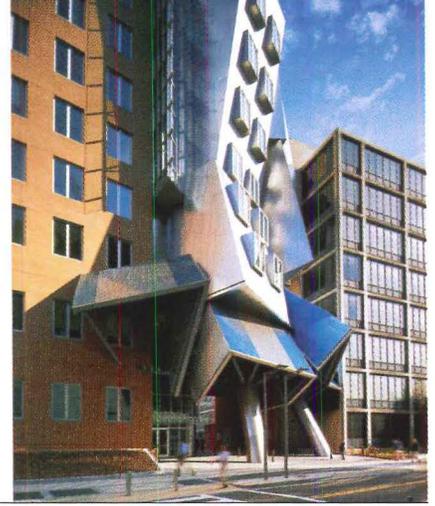
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ARCHITECTURAL RECORD

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On the Cover: *Smith College Campus Center*. Photograph by Jeff Goldberg/Esto
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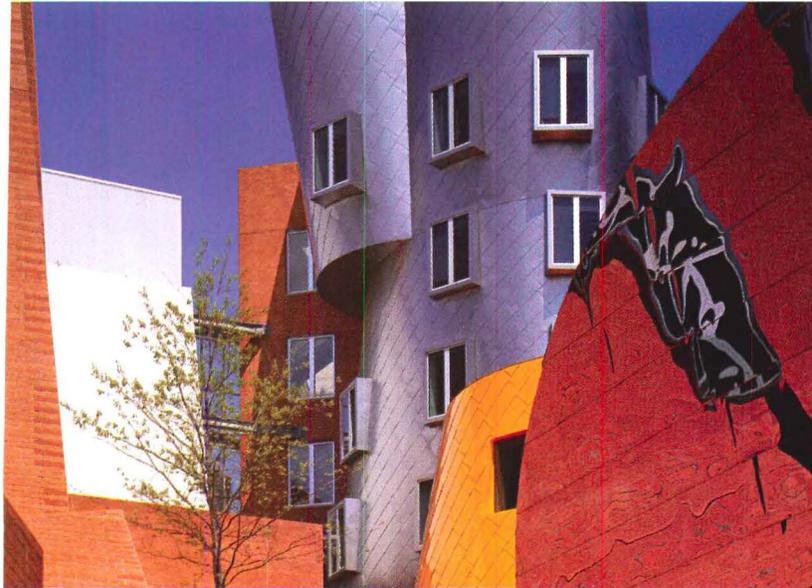
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August 2004



The Ray and Maria Stata Center for Computer, Information, and Intelligence Sciences, Cambridge, Mass. Photography: © Roland Halbe.

Project Portfolio

Architects are transforming student life and learning on college and university campuses. Renovations and expansions of these institutions are highlighted this month.

Products

Glass and glazing to maximize views, privacy, and energy-efficiency is this month's focus. You'll also find the submission form for the 2004 Product Reports, updates to our Green Product Guide, and Product of the Month.

Daily Headlines

Get the latest scoop from the world of architecture.

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James Hotel, Scottsdale, Arizona. Photography: © Eric Laignel.

Building Types Study: Hotels

We're checking into some of the best designed hotels around the world. No reservations? No problem. **New** to our Web site this month, Special Correspondent, Suzanne Stephens, will lead you through a tour of the hotels including some that are not in the pages of our magazine.



Polyhouse, Venice, California. Courtesy XTEN Architecture.

archrecord2

Can two architects with varying backgrounds agree on a certain type of architecture? XTEN Architects prove that it is entirely possible. Also, University of Texas students are doing constructive things with their time this summer.

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CAD Center, Tokyo. Photography: © Toshio Kaneko.

Lighting

An office in Tokyo as well as a nightclub in New York benefit from dramatic uses in lighting. This month we also find that collaborations in lighting efforts can be just as important as the choice of fixtures.

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This month: New guidelines highlight the relationship between sustainable design and human health. Plus, the unique design dynamics of glass block.

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On the Cover: *Q!*, by Graft. Photograph by Hiepler Brunier
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The AIA/ARCHITECTURAL RECORD

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* You can find these stories at www.architecturalrecord.com, including expanded coverage of Projects, Building Types Studies, and Web-only special features.

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September 2004



Photography: Courtesy Concrete Architectural Associates

Record Interiors

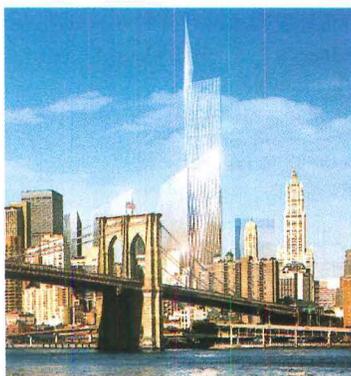
Our 2004 interiors cover an array of functions, forms, and venues, ranging from a holistic pharmacy in Amsterdam to a cultural center in Warsaw; a café and a small museum in New York City; and a hotel in Berlin.

Even more interiors are on our site and are just as eclectic including the Virgin Airlines lounge at JFK in New York; an upscale clothier in Toronto; and a skin care clinic in Santa Monica, CA.

Daily Headlines

Get the latest scoop from the world of architecture.

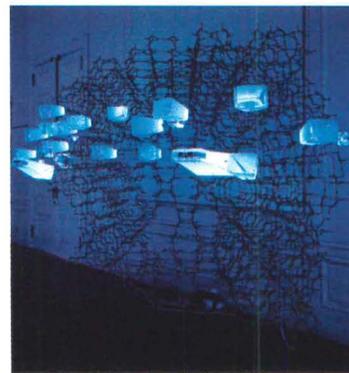
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Ground Zero – Three Years Later

Explore the results of an extensive planning process that began just after the September 11 attacks. Exclusive to our Web site, you can read more architects' responses to the current design plans and see Ground Zero from above with our interactive map.



Photography: Courtesy Greg Irikura

archrecord2

Provoking the senses through their architecture, Boston's Studio Luz describes just a few of their inventive projects. On the opposite coast, Marques Davis devises a plan to bring architectural gatherings to the people with Architecture Radio.

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Soft Wall, molo design, Vancouver

Products

The newest in sustainable Walls and Ceilings are rounded up and presented to you this month. You'll also find updates to our Green Product Guide and Product of the Month.

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This month: Understanding air, heat, and moisture flow for better air quality. Plus, green product evaluation necessitates making trade-offs.

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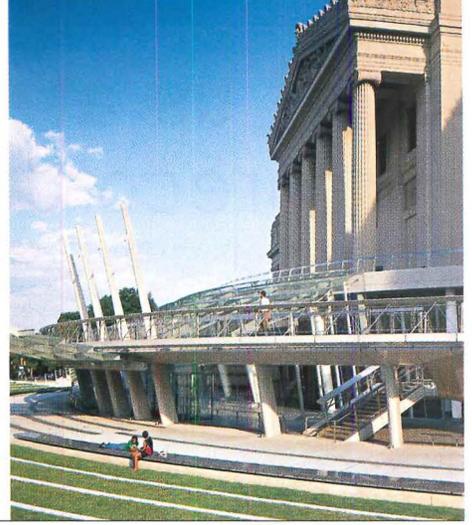
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ARCHITECTURAL RECORD

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On the Cover: Danish Jewish Museum, by Studio Daniel Libeskind.

Photograph by Bitter Bredt

Right: Brooklyn Museum entrance, by Polshek Partnership. Photograph by Richard Barnes

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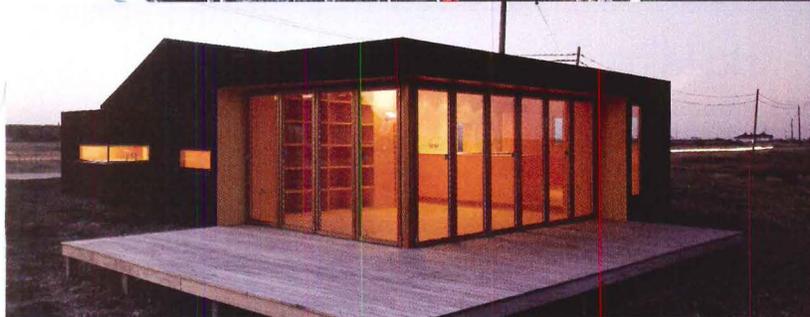
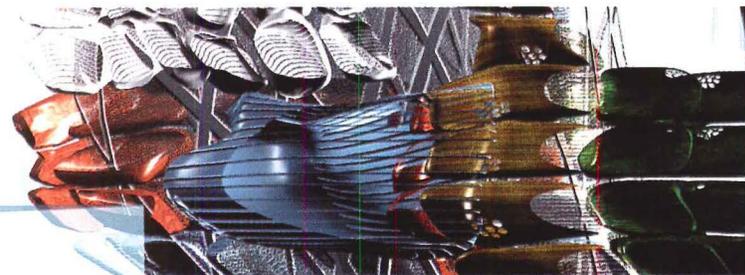
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October 2004



Top: Courtesy Kolatan/MacDonald Studio, New York; Residential Highrise
Bottom: Vista House, Dungeness, Kent, England Photography: © Chris Gascoigne

Venice Biennale

While you may not have had the opportunity to get to Venice to check out this year's show, our Web site provides you with an insider's look at the U.S. Pavilion and the talented young architects that made the show a success. We'll also supply opening-party pictures and audio commentary from the participating architects.

Residential

In this quarterly section, we take a trip outside the city limits and explore houses off the beaten path. Discover a residence in the highlands of Texas, a beach house in England, and a villa on a remote island in Finland. And, as always, we feature the House of the Month exclusive to our site.

Daily Headlines

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Gregorio Marañón Maternity and Pediatrics Hospital
Madrid; Photography: © Duccio Malagamba

Building Types Study

There's a new science to the art of healing. Let us give you a tour of the newest in health-care design and save you the insurance strife. On our site, find five more hospitals and medical centers.



Montreal Cultural and Administrative Complex, 2003
Image: Courtesy NOMADE

archrecord2

The Canadian firm, NOMADE, has an all-inclusive style in urban design. Integrating ideas from many sources is what brands this young firm. Also, a new program, New York Designs, gives young designers a foothold in a very competitive market.

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Alucobond; Acxiom River Market Tower, Little Rock
Courtesy: Alcan Composites USA

Products

Durable metal-clad products and treatments are examined in this month's Products section. You'll also find updates to our Tradeshow Reviews, Green Product Guide, and Product of the Month.

Receive CES Credits Online

This month: Designing for disassembly and deconstruction—reducing construction waste. Also, find two additional articles on-line for Continuing Education credits.

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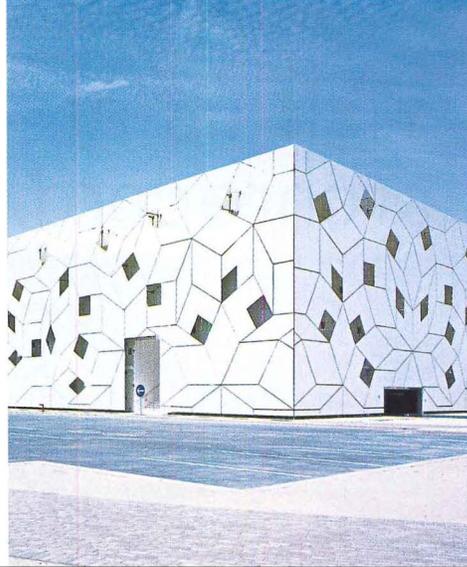
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On the Cover: Church of Padre Pio, by Renzo Piano Building Workshop.

Photograph by Christian Richters

Right: Liberal Arts and Science College, by Kazuhiro Kojima + Kazuko Akamatsu/C+A.

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November 2004



Britomart Transport Centre, Auckland, New Zealand; Architect: JASMAX; Mario Madayag Architecture (associate architect)
Photography © Patrick Reynolds

Business Week/Architectural Record Awards

In our 8th annual *Business Week/Architectural Record Awards* we recognize the design solutions that enhance business success. Have a look at the 10 winners that span the globe and include an urban center New Zealand, a foreign ministry in Israel, and an athletic facility in Japan. Also included in our coverage are nine finalists and the editors' choices.

Daily Headlines

Get the latest scoop from the world of architecture.

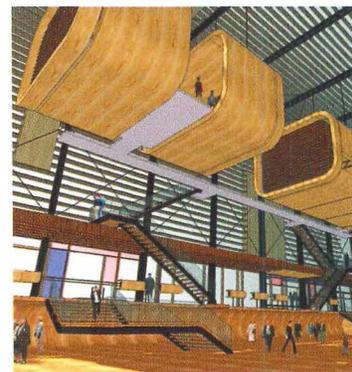
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Studio/Gang/Architects, sports stadium
Photography © Sergio Martucci and Virginia Acosta

Venice Biennale

Our Web site provides you with an insider's look at the U.S. Pavilion and the talented young architects that made the show a success. You'll find opening-party pictures and audio commentary from the participating architects.



Japan Library, Competition Entry, 2003
Courtesy Andrew Maynard

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You're invited into the newly designed home of an architect-couple who had to find the time to complete this personal project. Also, an Australian "Young Gun" gets the opportunity to show his designs internationally.

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Equinox at Columbus Circle, New York City
Photography © Paul River/archphoto

Lighting

An eclectic trio of projects are showcased in this month's section. Lighting considerations have been made for guests of a hotel in Berlin, visitors to a museum in Washington, D.C., and the members of a fitness center in New York City.

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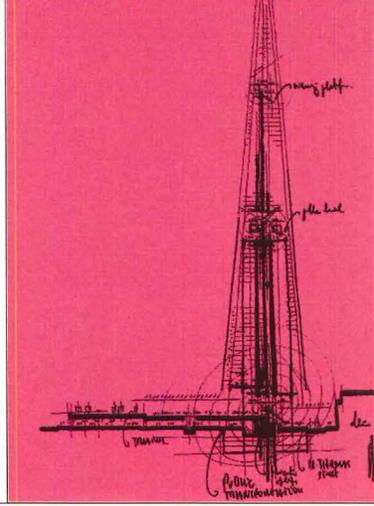
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ARCHITECTURAL RECORD INNOVATION

NOVEMBER 2004

On the Cover: Renzo Piano's London Bridge Tower combines apartments, a hotel, offices, and retail shops in a tower that rises from a large base into a razor-sharp spire that recalls the city's church steeples. The 66-story, double-glazed high-rise sits adjacent to a major rail station on the former site of the Southwark Towers. It will be completed in 2009. Image courtesy Renzo Piano Building Workshop.



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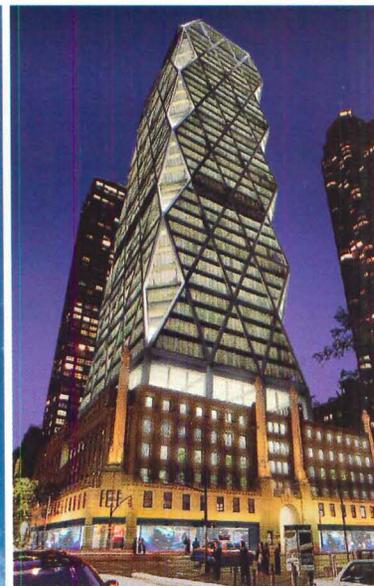
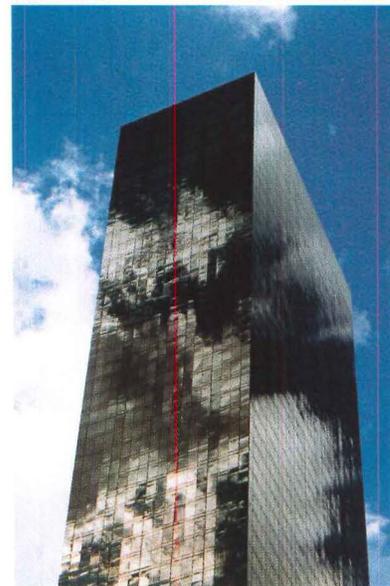
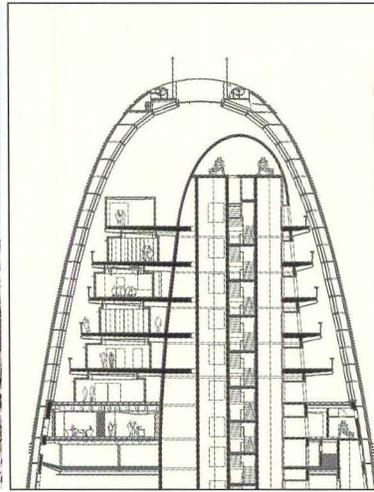
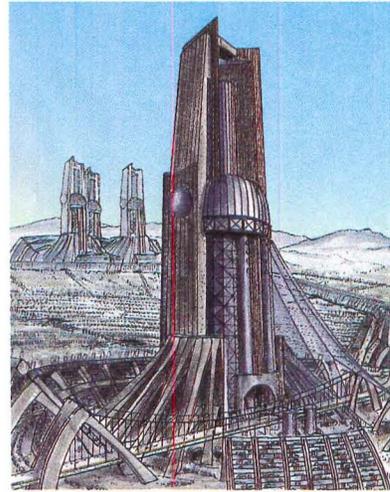
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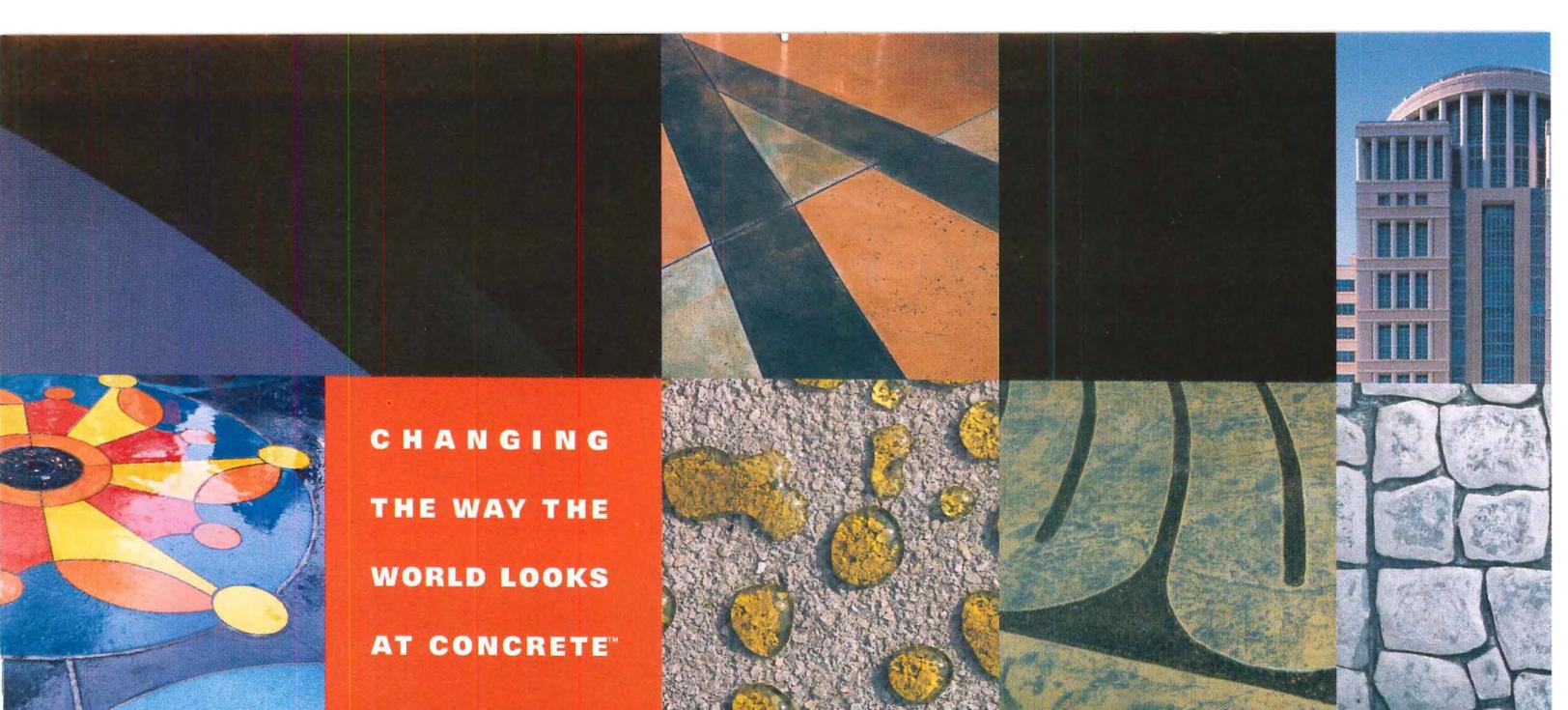
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Above (clockwise from top left): Paolo Soleri's proposed Hyper Building, image courtesy the Cosanti Foundation; the Agbar Tower, image by Jean Nouvel; the Hearst Tower, image by Foster and Partners; Trump World Tower, photographed by Jeff Goldberg/ESTO.

INNOVATION is a special supplement to Architectural Record

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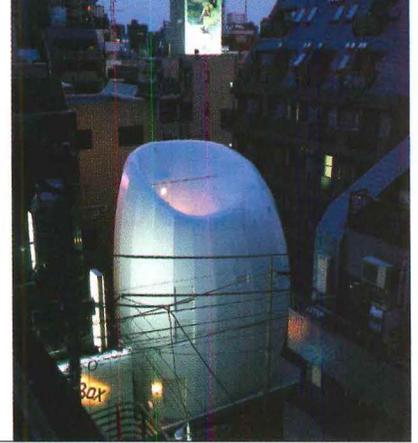
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On the Cover: *Miran Galerie*, by dECOi
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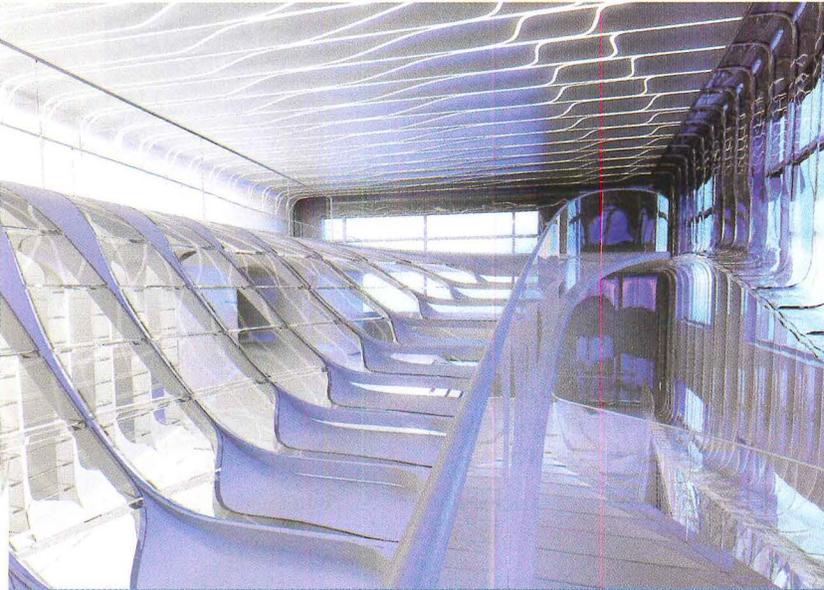


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Continuing-Education Opportunity is "Entrepreneurial Curators Seek Innovations" (page 215). To find out about other Continuing Education opportunities in this issue, go to page 241.

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December 2004



Reebok Flagship Store, Shanghai, China
Image courtesy Contemporary Architecture Practice

Design Vanguard 2004

This year's 11 firms investigate the interrelation of natural and built environments. Hailing from six different countries, from Spain to Korea to Chile, discover the complex designs of these young firms. On the Web, we expand each Design Vanguard architect's coverage with more projects, drawings, and renderings.

Daily Headlines

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Products

The 2004 Product Reports are in! Read about the top contenders listed by category on our site. Also, find the best of the best in innovative architectural products in our Editor's Picks.



Rendering courtesy RTKL

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This month we focus on competitions. Peruse the entries of an interoffice design competition recently held by RTKL and also learn more about an array of competitions that are available to you.

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Shapiro Campus Center, Waltham MA
Photography © Chuck Choi

Building Types Studies

Architects are enlivening university and college campuses with thoughtfully designed buildings. While we discuss five projects in print this month, we more than double the projects we cover on our Website.

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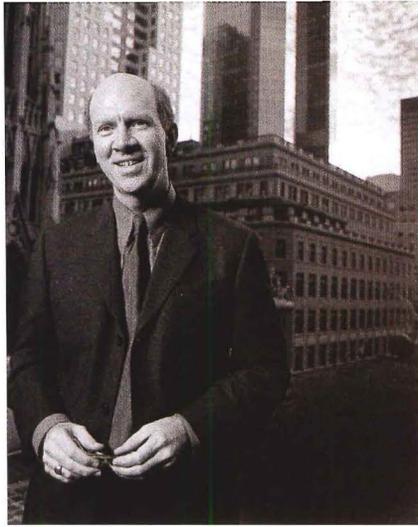
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Hurry Up and Wait

Editorial

By Robert Ivy, FAIA

Wait. That single word may be one of the most difficult to achieve in our frenetic age, but concerning the memorial at the World Trade Center site, the best advice is to slow down, allow time to pass and our perspective to clear, and then to build: We are simply too close to events to commit to such a seminal urban monument. Despite the fact that a winner may have been selected at the writing of this editorial, until construction has already begun, it is not too late to defer the decision and to consider alternatives.

This is not to undervalue the work of a distinguished jury that has labored through an unimaginable, Herculean process, sifting through 5,201 entries submitted in an outpouring of feeling and creative energy. We owe them all—designers and jurists—a debt of gratitude. Nor is it to categorically deny the value of the eight projects that rose to finalist status: Each, in its own way, answered the specific programmatic demands, occasionally artfully or poetically.

However, having examined the models and drawings and visited the Web site, the viewer remains unconvinced and curiously unmoved by the results, which seem to pose the memorials as chilly destinations; correspondingly, the critical response has been almost universally cool. Why do these abstracted designs fail to convince us? The answers coalesce around the role of monuments and memorials historically and suggest why we should wait.

As this magazine has noted, monuments and memorials evolve, as the memories and emotions of succeeding

generations shift through time. Unfortunately, the eight solutions offered thus far have been too heavily burdened with the present. Implicitly or explicitly, they have been asked to serve as immediate mnemonic aids for the individual lives lost (on 9/11 and in the 1993 incident); as reminders of the significance of horrific events; as placemakers, sanctifying and segregating holy ground; as mediators, offering points for reflection and transcendence; and as destinations in a vibrant city. Art can only do so much.

Faced with such gravitas, the designers of the eight final solutions understandably resorted to metaphor, employing falling water to conjure a sense of loss or pain, an immense light-filled cloud, which suggests cosmic transcendence, hanging lamps or cenotaphs or engraved glazing or trees to recollect individual lives. All honor and mourn abstractly, standing in and representing events without recreating them, an infinitely preferable treatment to a more literal, figurative one. All speak to this moment but leave lingering questions for future visitors: specifically, what really occurred here?

None would serve as an effective destination, now or in the future. Large subterranean spaces, even those punctuated by light, would provide a gloomy, funereal setting in the heart of Manhattan. Falling water below grade is inevitably dank and uncomfortable; in cold weather, temperature and humidity combine into an inhospitable, damp environment. And what happens to the exposed, undifferentiated ground plane we see in almost all the plans? Amei Wallach, an arts commentator, suggested skateboarders might find the large

Editorial

open spaces tempting. Otherwise, the building footprints have been left largely unresolved.

Scale poses a fundamental problem for the competition. Consider that the footprint of each original tower consumed almost 45,000 square feet of space. The site is simply too large for a single, concentrated memorial, an issue that becomes quickly apparent in viewing the disjuncture between the original submissions and the later models. Whereas the first submission boards bristled with ideas, compact and contained, those ideas dissipate when splayed against the multiple acreage of the proposed site. As rendered, the human figure seems antlike and overwhelmed.

For all their artfulness, none of the proposed memorial schemes captures one shred of the immediacy present in the foundation wall left exposed in the Daniel Libeskind plan. The sheer scale of the remaining slurry wall, with its pock-marked gigantism, uniquely relates to the scale of what had gone before—twin towers that had been the world's tallest structures with a 1,368-foot peak. The wall's authenticity, as witness to an obliterated real world, supercedes art and provokes strong feelings in a way no constructed, mediating object could.

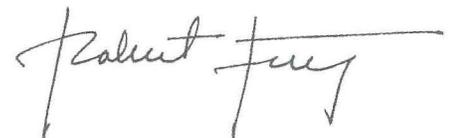
Additionally, Libeskind's master plan for the site constitutes memorial making, employing the realities of the place itself, and building up a framework of new structures for contemporary New York in a dizzying way that few monuments could compete with. The entire design relies on rhetorical underpinnings, with its spiraling array of ascending towers, culminating in the recently announced Freedom Tower, excavated foundations, and walkways, including the debated "Wedge of Light." While Libeskind intentionally left space for the memorial to come, as did each architectural team, his own design, entitled *Memory Foundations*, satisfies much of what we might expect any monument to do: allow us to recollect and move on.

Instead of competing with his strong design, or creating a vacant field of dreams, other suggestions are in order.

Here is one, of many to follow. First, provide legal safeguards for the property. Legislation may be necessary to secure the highly valuable property from future development. Then construct a temporary destination within the footprints as a locus of grief, tapping into the strong need for the public and the families of the victims to visit and express their thoughts and feelings. September 11, 2001, prompted a flood of individual expression, from poems and music to candles and flowers, which continues. A wall of remembrance, meant to accept these offerings, could be beautifully and simply built and serve a generation of survivors.

Ultimately, an interpretative museum that houses the history of events at the World Trade Center site should occupy part of this ground, to include the story of the making of the entire complex and the shards of the towers' destruction. Actual steel from the towers, the Yamasaki models, artifacts from the offices, films produced, and biographies of the heroes and the lost—all need a permanent home and a narrative to accompany them, as a recent show at the New York Historical Society demonstrated. The museum could be located, if need be, below grade.

Passage to the museum could then proceed through a transitional zone, a significant processional way allowing visitors to alter perceptions and change gears psychologically from the city's pace. The passageway could descend from the open air to a darkened space below ground, much as these memorial makers have suggested—a walkway shrouded in a translucent cloud of remembrance, or perhaps one punctuated by hanging lanterns or trees. Its ultimate goal, however, would no longer be darkness or the void, but a real place, enlivened by human activity, that explains events and offers a search for meaning. To arrive at that understanding, to more fully comprehend the aftermath, we all need time before we build.





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Letters

Good doers

I want to compliment you on your September 2003 Practice Matters column ["Altruism in Architecture," page 87]. Too often the community service that architects provide is overshadowed by other professions, and as an industry we need to recognize the value that pro bono services offer those communities that otherwise would not have access to architects.

Your article clearly identified the challenges in supplying pro bono services. What it neglected to highlight, however, are the many community design centers, such as the Neighborhood Design Center, that provide a vehicle for architects who want to volunteer their services.

The Neighborhood Design Center (NDC) was founded in 1968 by a group of architects and planners who volunteered their time and talent to help Baltimore's low-income communities rebuild during that time of urban disinvestment and civil rights protests. Over the subsequent decades, the organization has broadened its scope of services and its volunteer base to provide a range of pro bono design and planning assistance to low- and moderate-income communities.

In 2002, 42 community projects were completed, with an additional 32 in progress, in our Baltimore and Prince George's County offices. More than 140 volunteers provided pro bono design and planning assistance totaling nearly \$250,000 of in-kind professional services.

And we are not alone. The Association for Community Design is a clearinghouse for learning about other such centers across the country (www.communitydesign.org).

I hope that more articles like yours can be featured that emphasize the community design services that architects and design centers

are providing. For more information about the Neighborhood Design Center, visit www.ndc-md.org.

—Mark Cameron, AIA
Executive Director
Neighborhood Design Center
Baltimore, Md.

It's a wonderful life

When I saw the title of Robert Campbell's Critique of the Italian hill towns [October 2003, page 67], I thought, oh boy, here we go—even ARCHITECTURAL RECORD has succumbed to *Under the Tuscan Sun*. But upon reading, I found it to be informative and interesting. However, I'm writing out of a frustration that I feel over the fact that we Americans can't seem to get past the theme park areas where we might learn the real lessons to be found in thriving Italian cities.

Over the past few years, since getting together with my Italian wife and partner, I've spent a lot of time in the smaller cities of the Italian north-east. Cities of the Veneto region like Portogruaro and San Dona di Piave are thriving. In these areas, one finds an incredible mixture of old Italian architecture, active farming, and a more than healthy light industry. I can ride a bicycle from the 400-year-old farmhouse of my wife's family through beautiful grape vineyards, stop to pick a few wild berries along the way, and turn a corner only to come upon one of the thousands of small manufacturing plants with stainless-steel air scrubbers (the pollution laws are very strict) along its sides. I can turn another corner to come upon one of the little villages, with its small market and church, and then just a bit farther, ride by a rather large winery exporting wine all over the world.

I tell my friends that cities like these in Italy are like Del Mar or Carmel in California, but there are differences—working middle-class and even poor people get to live in

these Italian cities, too.

We architects and city planners owe it to ourselves and our clients to get away from the Sierras and Pienzas and see the Italy not spoiled by tourists. We might learn that protecting a quality of life is not about stricter zoning laws, height limits, floor area ratios, or requiring all new homes to have a front porch. Maybe it's about putting families first, making sure that people can find jobs close to home, allowing density to rise to a level where homes are affordable.

—John Helm, AIA
Helm & Melacini Architects
San Diego, Calif.

So Tschumi

Why did you give Bernard Tschumi six valuable pages of print for the FUI School of Architecture [October 2003, page 102]? The project looks more like a 60s industrial park than a place of learning. No matter how you edit the article, I just can't imagine this being a pleasant or inspirational place to learn the craft of architecture. The "two boldly colored pavilions" seem to have borrowed their super graphics from a public pool. They are so introverted in plan that they couldn't possibly contribute to this concept of "Academic Village" that your article proposes. I doubt the in-between spaces are "as important as the ones inside." They look completely isolated and devoid of pedestrian references. The flanking classroom and office buildings are so ruthlessly generic that they recall some of the more Fascist examples of Aldo Rossi's work. From the photos in the article, the most successful space seems to be the rather understated, low-budget design studios. But then get a look at the outdoor walkway. Brutal!

Academic Village? You are throwing your accolades around much too generously.

—Ron van der Veen, AIA
Seattle, Wash.

A lesson learned

One of the most rewarding aspects of the design of educational projects is the faculty and staff that participate in their development. After reading your feature on the design of Tschumi's architecture building, I was happy to discover he had found a similar experience to ours at Florida International University. We worked on a 75,000-square-foot University Foundation building constructed concurrently with the School of Architecture. The design interest spearheaded by the university president, Modesto Maidique, and augmented by the faculty, students, and users of the building, was invaluable to its success. The campus setting and heightened level of intellectual experimentation provide a distinct platform to discuss, design, and execute ideas. The team generated the ideas, and thus each team member took ownership of them. Ultimately, it resulted in a building much better than could be conceived individually. Often architects are criticized as being self-absorbed when they create their designs for buildings. The educational building provides a unique avenue of collaboration distinct from other building typologies.

—Carl F Knutson
via e-mail

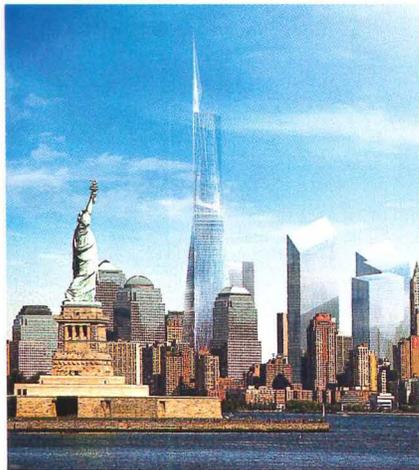
Corrections

In the October News article about Chicago's Soldier Field [page 30], Tony Montalto was incorrectly referred to as the project's lead designer. Tony Montalto, along with Joe Dolinar of Lohan Caprile Goettsch, served as the stadium project director. Benjamin Wood and Carlos Zapata are the lead designers of the stadium at Soldier Field.

We welcome your comments. Send letters to rivy@mcgraw-hill.com.

REBUILDING LOWER MANHATTAN

Freedom Tower's design unveiled



A rendering of the tower within the skyline.

After months of strained collaboration, Daniel Libeskind and David Childs, FAIA, revealed their design for the 1,776-foot "Freedom Tower," the first new office building, and the tallest, at the World Trade Center site.

The plan, revealed at Federal Hall in Lower Manhattan on December 19, 2003, is wider

and less angular than the sketch that Libeskind submitted to the Lower Manhattan Development Corporation last winter.

The largely glass tower adheres to the asymmetrical street grid, torquing upward to the top of its office portion, at 70 stories. It then moves to a light

structure of tension cables, integrated with wind-harvesting turbines (hoped to provide 20 percent of the building's power), which top at 1,500 feet, and terminates with an off-center, 276-foot spire meant to echo the

upraised arm of the nearby Statue of Liberty.

Despite changes to his initial design, Libeskind said the new form "honors the principles of the site plan," while New York Governor George Pataki, a major player in the architects' collaboration, said that Childs's contribution "adds to the beauty of the building."

In addition to 2.6 million square feet of office space, the building will include public lobbies, retail, and transit components at the bottom

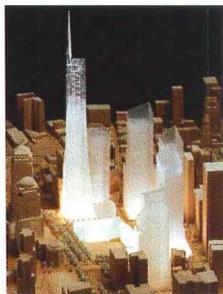
levels and observation decks and a restaurant at higher levels.

It is designed with a solid concrete core, with extra support from its top level steel cables and its twisting, diagonal structural grid. Other safety elements include extra-strong fireproofing, biological and chemical filters in the air-supply system, and very wide stairways.

The tower is expected to break ground in mid-2004, top out in mid-2006, and be completed by the end of 2008.

Critical response is mixed. Many have lauded the building's twisting form and technical innovations, but Martin Filler, architec-

ture critic of the *New Republic*, said he found the structure "awkwardly porportioned," and, ultimately, a "slicked up developer's building with some vague echos of Libeskind's original plan." *Sam Lubell*



A crystalline Freedom Tower model (left).



The "Lucy" House, by Mockbee's Rural Studio (above); Lake/Flato's Center For Art in Fort Worth, Texas.



Regional Acclaim: Mockbee, Lake/Flato win 2004 AIA Awards

In a powerful nod to regional architecture, the American Institute of Architects announced that it will give its 2004 Firm Award to Lake/Flato of San Antonio, Texas, and its Gold Medal for individual excellence to the late Samuel Mockbee, FAIA, head of Auburn University's Rural Studio. The awards will be presented March 3 in Washington, D.C.

Lake/Flato Architects was founded in 1984 by two protégés of highly influential Texas architect O'Neil Ford, and in many ways reaffirms his legacy of clarity, honest use of materials, sensitivity to place, and an absence of pretense. "One of the reasons we stayed in San Antonio is because of its tradition of responsive Modern work," says partner David Lake. "We've spent 19 years making architecture that is

particular to its place."

Lake/Flato has won more than 90 regional and national design awards, including AIA Honor Awards in 1992, 1997, and 1999. Among its recent projects are the Crow Education Pavilion at the Dallas Arboretum, the Center for Art in Fort Worth, and the SBC Arena, home of the NBA's San Antonio Spurs.

"Sambo" Mockbee, who died in 2001, founded the Rural Studio, which has worked since 1992 to provide shelters for Alabama's rural poor communi-

ties. His students changed ordinary materials into extraordinary architecture, building new houses and completing projects like a farmer's market, a children's center, a chapel (made mostly from used tires), and a community center. They have also completed hundreds of repairs and renovations.

Mockbee's own work, delicately quirky in touch, drew inspiration from vernacular sources such as overhanging roofs, rusting metal trailers, and dogtrot houses. His awards include the National Building Museum's first-ever Apgar Award for Excellence in 1998; one of only 25 "genius" grants from the McArthur Foundation in 2000; and a Mississippi Governor's Award for Excellence in the Arts in 2001. *S.L., David Dillon, and Andrea Dean*

Farnsworth House Saved With a last-minute fund-raising push, preservation groups purchased Mies van der Rohe's legendary Farnsworth House. See Residential News, page 157.

Record News

OFF THE RECORD

The AIA's Topaz Medallion for excellence in architectural education has been given to **Stanford Anderson**, cofounder of MIT's doctoral program in History, Theory and Criticism of Architecture, Art, and Urban Form.

Harold Adams, FAIA, has retired as chairman of **RTKL Associates**, where he served for 34 years. **Paul F. Jacob III, AIA**, has replaced Adams as the new chairman of the firm's board.

Architect **Ken Shuttleworth**, who sketched the original plans for the nearly completed **Swiss Re headquarters**, known also as the "London Gherkin," has decided to leave **Foster and Partners**.

Architect **Eason Leonard**, cofounder of I.M. Pei & Associates, now **Pei Cobb Freed & Partners**, died of pneumonia on November 13, 2003. He was 83.

World Trade Center developers **Silverstein Properties** settled a long-running dispute with its lender, **GMAC Commercial Mortgage Corporation**. The Port Authority of New York and New Jersey will spend \$563 million to buy out GMAC.

Michael Houlihan, head of Hedrich Blessing Photographers, an architectural photo firm, died on November 5, 2003, of cancer.

Rafael Viñoly has been selected to design the expansion and renovation of Carrasco International Airport in Montevideo, Uruguay.

Five architects with the Princeton, New Jersey-based firm **The Hillier Group** have departed to form their own office, known as **ikon.5**.

The San Francisco Conservatory of Music, designed by **Simon Martin-Vegue Winkelstein**, has broken ground. The \$80 million building is expected to be completed by 2006.

Financial issues force museum closures, cancellations

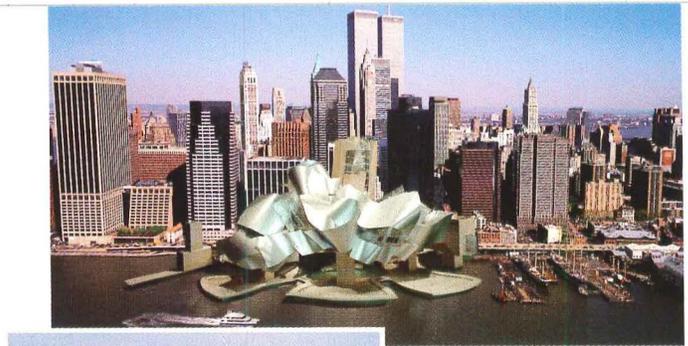
The closure of the Bellevue Art Museum in Seattle in September was the latest bad news in a string of museum projects that have been delayed, downsized, closed, or even cancelled before construction.

A shortage of operating funds was the culprit in the "temporary" closures of the Bellevue, designed by Steven Holl, AIA, and the Guggenheim Las Vegas, by Rem Koolhaas, last year, as well as the shelving of Frank Gehry, FAIA's \$950 million, 400-foot-tall scheme for a new Guggenheim facility in Manhattan. In the case of Bellevue, a fund-raising campaign prior to the museum's closing to raise an additional \$3.1 million yielded only \$1.7 million.

Meanwhile, plans by Renzo Piano to redesign the Art Institute of Chicago have been downsized, with the 290,000-square-foot project taken down to 220,000 square feet, partly as a means to control costs. And the \$200 million-plus replacement for the Los Angeles County Museum of Art, to be designed by Rem Koolhaas, was quietly killed this past spring. It is likely to be replaced by a \$50 million addition to the existing complex by Piano.

While the poor economy of recent years is one of the most frequently cited reasons for the troubles facing many museums, money alone may not provide the full answer to their problems. Ron Fredman, vice president of marketing for the Hartsook Companies, a Wichita, Kansas-based consultancy, thinks some institutions may not be doing enough outreach.

"What often happens is that organizations tend to become reliant on a small handful of major donors," he says. In those cases, museums "can run the risk of floating up and



Top to bottom: Frank Gehry's New York Guggenheim (cancelled); Santiago Calatrava's Milwaukee Art Museum addition (overbudget); Steven Holl's Bellevue Art Museum (closed); Rem Koolhaas's Guggenheim Las Vegas (closed).



down with their fortunes."

Anne Butterfield, a Harvard, Massachusetts-based fund-raising consultant to museums, has her own opinions as to why architecturally ambitious projects get into trouble. In her view, much of the trouble is architecture. In the current museum environment, she said, "There is a notion that every new (museum) building has to be a signature by a famous architect," adding that "the building drives the project, not the content or the programming of the museum," she said. The result, according to Butterfield, has been a lot of overbuilding.

"It is no longer unusual to see projects of \$200 million to \$300 million, and these are not all from major institutions in major cities. That's a lot of money."

For example, Santiago Calatrava's addition to the Milwaukee Art Museum opened to near-universal acclaim in 2001,

with a budget of about \$100 million, which was higher than the \$50 million originally projected by museum officials. At last report, the project needs to raise an additional \$20 million from donors.

Despite many museums' woes, the reports of charitable giving appear fairly healthy. In 2002, Americans (including corporations, foundations, and individuals) gave a record \$241 billion to charitable causes, including the arts, according to Giving USA, an annual report issued by the Center on Philanthropy at Indiana University. That sum follows a previous record set in 2001 for \$239 billion.

Yet foundation giving is slightly down, and that decrease hits the art world hard, because museums are highly dependent on foundation gifts—in some cases as much as 10 percent of their entire portfolio.

Still, Fredman says cost overruns and debt are not necessarily the name of the game in museum construction, pointing out that several high-profile projects, including Tadao Ando's highly praised Modern Art Museum of Fort Worth, came in on time and on budget. *Morris Newman*



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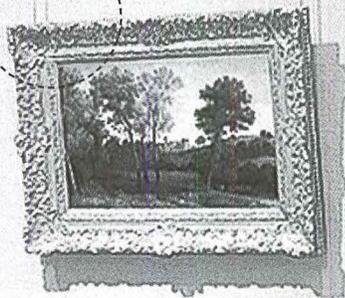
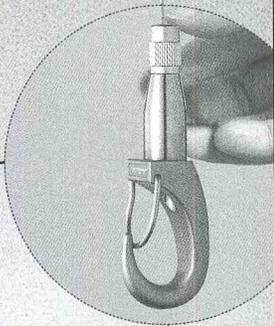


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Record News



Finishing up the new federal building.

Safer Oklahoma City Federal Building opens to tenants

The new Oklahoma City Federal Building, replacing the Alfred P. Murrah Federal Building destroyed by a truck bomb in 1995, received its first tenants, the Small Business Administration (SBA) of Oklahoma City, the week of December 8, 2003.

The structure, designed by Carol Ross Barney + Jankowski Architects of Chicago, stresses high security while not seeming, says firm principle Jim Jankowski, like a "fortress."

For extra security, the three-story, horse-shoe-shaped building is placed away from the

street and includes concrete bollards to avoid car or truck bombs. It has a steel-plated main entrance and employs concrete on its solid walls and outer edges.

Still, the building, which faces north toward the memorial to those killed in the bombing, appears light, with a large glass curtain wall, and has many security features that are not immediately obvious. Concrete lobby blast walls are integrated into the design, as is the glazed, shatterproof window system designed to resist blasts. The building is also engineered to prevent progressive collapse, which destroyed the Murrah building. "We tried to make [the security elements] a part of the design so they didn't hit you in the face," says Jankowski.

Jerry McKaskle, a loan officer at the SBA who worked in the old federal building and whose sister died in the 1995 bombing, originally was strongly against moving into the building, but now has come around.

"Now I see that all my trepidations were unfounded. It's built like a fortress," he says. Other major tenants plan to move their offices to the building in the coming months, although some workers have objected. S.L.

Gehry proposes plan that would transform Brooklyn

Frank Gehry, FAIA, joined at a press conference by New York Mayor Michael Bloomberg and developer Bruce Ratner, recently unveiled his designs for Brooklyn Atlantic Yards, a giant development in downtown Brooklyn that, if built, will include stores, housing, offices, and, most notably, a new basketball arena for the New Jersey Nets. The project, Ratner pointed out, will only happen if his investment team lures the Nets to Brooklyn.

The \$2.5 billion development will include 2.1 million square feet of office space, 4.4 million square feet of residential space, 300,000 square feet of retail space, and an 800,000-square-foot, 20,000-seat sports arena. The arena, still in early planning stages, will be clad in titanium, with two glass facades and a roof garden and rooftop skating rink.

"This project is the capstone of the renaissance of Brooklyn," said Mayor Bloomberg. Gehry stressed that the arena would maintain the intimacy achieved with his Walt Disney Hall, a quality missing from most modern sports arenas. "We're designing it from the inside out," he said, adding that he is touring most of the best stadiums in the country for more ideas.

The tallest building in the development will be a 44-story, free-form office building that Gehry stressed would assure an "iconic presence as a centerpiece." Meanwhile, Olin Partnership will be designing 6 acres of landscaped green space for the project.

While the plan met with enthusiastic approval from Mayor Bloomberg as well as from Brooklyn politicians on hand, several neighborhood residents were fiercely protesting outside. "It's too big, it's too obtrusive, and it's in the wrong place," said Patti Hagan of the Prospect Heights Action Coalition. S.L.



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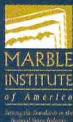
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Record News

Shanghai leaders debate skyscraper height limits

Looming over the sprawling city of Shanghai is proposed legislation that would put strict constraints on commercial and residential development. The Shanghai People's Congress is considering an amendment to a law that would limit building heights to 18 stories.

There are several reasons for the new law. First, since the SARS epidemic, there is a growing desire for operable windows in all buildings—which most skyscrapers do not have—in order to provide adequate ventilation for office workers. Second, some see the government taking action against an overheated economy by limiting business growth. Third, some see the measure as a way of encouraging habitable spaces downtown instead of intimidating towers filled only with work spaces.

Perhaps the biggest reason for the height limit is speculation that if the 2,000 skyscrapers currently in planning stages are built, the weight could cause the city to sink and the subway system to collapse. Some geologists say that Shanghai is already slowly sinking under the weight of too many buildings. Today the city has over 4,916 buildings of eight floors or more, with 2,800 over 18 stories tall, including the 1,380-foot Jin Mao Tower, designed by Skidmore, Owings & Merrill, and the 1,614-foot Shanghai World Financial Center, by Kohn Pedersen Fox, now under construction. As a result, the city has been sinking at a rate of 1.5 centimeters annually. The Lujiazui financial district, a former marsh area housing a dense concentration of skyscrapers, sank 3 centimeters last year.



Shanghai's skyline, from across the Huangpu.

Geologists say the city's worsening subsidence is due to overexploitation of underground water supplies in addition to the weight of buildings. Shanghai's growing population of 16 million has placed pressure on the city to pump from deeper underground to find good quality water, increasing the risk of subsidence.

But there could be many undesirable results of the measure. "The Chinese are learning the worst lessons from Americans," says Scott Springer, an architect at Kohn Pedersen Fox. "The proposed solution will make things worse," Springer claims. If building in Shanghai continues to spread out rather than up, he says, certain aspects unique to Chinese cities, such as ancient neighborhoods, winding streets, and even bicycle parking, could be lost. With Shanghai's growing population, it also seems likely that sprawl and traffic congestion would increase. Open spaces, such as the area between Pudong and the airport, would probably be lost to low-density development. Perhaps in a not-so-distant future, businessmen from Los Angeles will sit in Shanghai traffic feeling right at home. *Tony Illia and Karen Lindskog*



Moneo's Kursaal Auditorium.

Moneo collects 2003 RIBA Gold, Koolhaas to win in 2004

Spanish architect Rafael Moneo was awarded the Royal Gold Medal at the

Royal Institute of British Architects (RIBA) on Wednesday, November 12, 2003. Given in recognition of a lifetime's work, the Royal Gold Medal is approved personally by the Queen and given annually to a person or group of people whose influence on architecture through a distinguished body of work has had a truly international effect.

A prolific architect, Moneo's work includes the Thyssen-Bornemisza Museum in Madrid, the Davis Art Museum at Wellesley College in

Massachusetts, the Audrey Jones Beck Building for the Museum of Fine Arts in Houston, and Our Lady of the Angels Cathedral in Los Angeles. Work under construction includes the Bazaar in Beirut, and the Prado Museum extension and the new Mother and Children's Hospital, both in Madrid.

A few weeks later, Pritzker Prize-winner Rem Koolhaas, designer of structures like the Netherlands Embassy in Berlin, the master plan and Grand Palais for Lille, France, and the upcoming CCTV headquarters in Beijing, was named the 2004 recipient of the award. He will collect the Gold Medal next fall. *Lucy Bullivant*



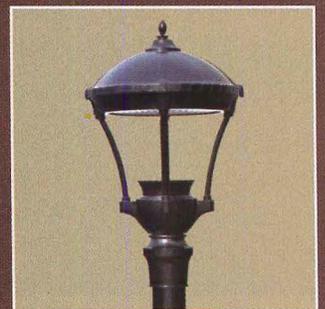
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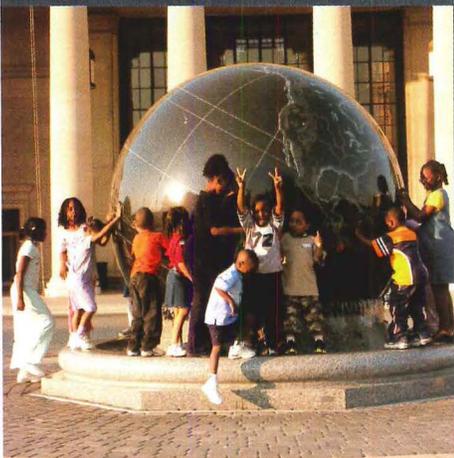
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Record News

Modernist masterpieces being torn down around Los Angeles

It is not unusual to hear Los Angeles derided as a preservation-free zone—a place that has little respect for history, and where culture is manufactured and, ultimately, disposed of. A cliché, yes, yet a recent rash of demolitions of important Modernist houses suggests there may be at least a faint ring of truth to it.

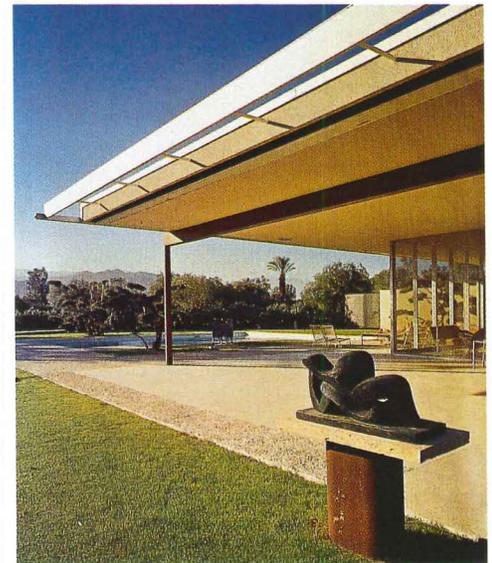
Among the more significant losses over the past two years have been Richard Neutra's 1963 Maslon House in Rancho Mirage, as well as Rudolf Schindler's 1924 Packard House in San Marino and his 1928 Wolfe House on Catalina Island. In all cases, new owners decided to level the existing houses to make way for new designs.

Schindler, Neutra, and their disciples created hundreds of Modernist residences in the early to mid 20th century that are scattered widely throughout the metropolitan area, more than in any other American city.

The Wolfe House occupied a dramatic site on a steep hillside. Schindler's use of cascading forms with cantilevered decks have prompted some observers to wonder whether the house might have been an inspiration for Frank Lloyd Wright's 1934 Fallingwater. Neutra's Maslon House was considered a pure example of mid-century Modern, with open floor plans and extensive glass leading out to a large parklike yard with pool. It was in pristine condition at the time of its demolition.

While a snug house on a spacious lot might have been just right for mid-20th century purposes, California's rapidly rising property values have changed the economics of buying such properties. "What's driving many of the transactions are the insane property values in California," says Ken Bernstein of the Los Angeles Conservancy. "Two-bedroom bungalows on the city's West Side are now routinely priced between \$800,000 and \$1 million. With the majority of property value obviously in land, people pursue the lot rather than the architecture." With prices nearly doubling over the past three years, prospective buyers look at a relatively small, older house on a large lot as a good candidate for a teardown, to make way for a larger, more accommodating contemporary design.

Take Neutra's 1941 Maxwell House: New owners bought the 1,700-square-foot house a year ago for \$1.6 million—paying almost \$1,000 per square foot. Attracted by the 13,000-square-foot lot in a neighborhood of larger homes, the buyers had plans for a new house on the property, going so far as to get an approved



Neutra's Maslon House, recently destroyed.

demolition permit. Alert preservationists, acting quickly, stayed the demolition and nominated the house for monument status, effectively saving the house.

Unfortunately, no comprehensive survey of historic properties exists in Los Angeles. The Getty Conservation Institute, which is laying the groundwork for such a survey, estimates that less than 15 percent of greater Los Angeles has been surveyed up to now. Only if a party formally proposes a property for a landmark designation does it merit review by the Los Angeles Cultural Heritage Commission, currently run by a staff of two (the comparable Landmarks Commission in New York City has a staff of more than 50). According to some estimates, only about 2 percent of buyers understand and appreciate architectural properties. Yet this well-informed minority has not only prevented the demolition of several important properties—America's only Oscar Niemeyer residence, located in Brentwood, was resold to an aficionado after being briefly threatened—but has also been instrumental in restoring them. Ex-Gucci chief Tom Ford has spent \$2 million restoring a Neutra House, while production company owner David Zander has spent \$4 million on a ground-up restoration of a Frank Lloyd Wright house in Pasadena known as La Miniatura. Yet the threat remains. In the Los Feliz neighborhood, a Wright house sits, stripped, waiting for a savior. And the fate of the newest Neutra to come on the market, a house in Pacific Palisades, is anyone's guess. *David Maurer*



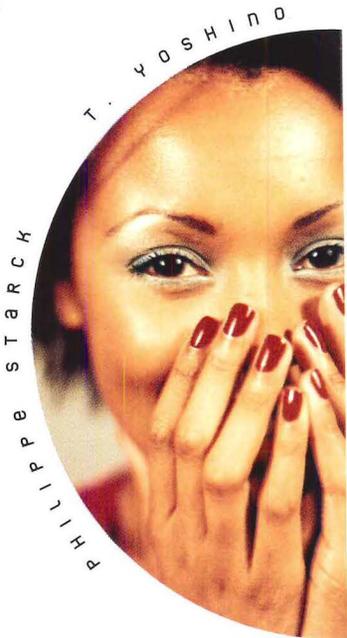
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Seattle Art Museum unveils Allied Works' expansion design

Brad Cloepfil of Allied Works Architecture, Portland, Oregon, unveiled his design for a 300,000-square-foot addition to Venturi Scott Brown's 1991 Seattle Art Museum (SAM). The 16-story, steel-and-glass expansion is immediately north of the existing 5-story concrete structure. A four-story brise-soleil will alter the Minimalist grid as it shifts to accommodate changes in daylight levels or with art exhibitions within.

To break down the barriers between floors of the essentially vertical museum, Cloepfil proposes a series of offset, double-height galleries that allow visitors to see up and down within the museum as they circle through exhibitions. "Part of Allied Works' ingenuity is in creating a flow of light and people through the space," says SAM director



Cloepfil's SAM expansion includes Weiss/Manfredi's Olympic Sculpture Park (above).

Mimi Gates. Washington Mutual will lease the upper floors and relinquish them as needed, with SAM eventually tripling its current size to 450,000 square feet. Construction is scheduled to begin mid-2004, with the museum occupying the first 95,000 square feet in 2007. *Sheri Olson, AIA*

Johnson designing Children's Museum in Guadalajara



Philip Johnson Alan Ritchie Architects has been selected to design the Children's Museum of Guadalajara, a 54,000-square-foot

building on the outskirts of the city.

The museum features unusually morphed cubes, cones, cylinders, and pyramids: an experiment with traditional geometry that is new for Johnson, who long professed the superiority of

simple shapes over manipulation of form. These forms are laid out on a small island to be separated from the mainland by a "springy" bridge.

The project is the brainchild of Mexican businessman Jorge Vergara, who has commissioned several projects from prominent architects for the JVC Center, a large-scale development outside the city.

Other cultural projects under way by the firm include a 370-seat recital hall for the Pennsylvania Academy of Music in Lancaster. *S.L.*

Cincinnati's Underground Railroad Museum near completion

The National Underground Railroad Freedom Center is scheduled to open this summer along the banks of the Ohio River in Cincinnati. The late Walter Blackburn of Indianapolis-based Blackburn



Architects was lead designer for the 158,000-square-foot, \$110 million museum. His firm worked with BOORA Architects of Portland, Oregon.

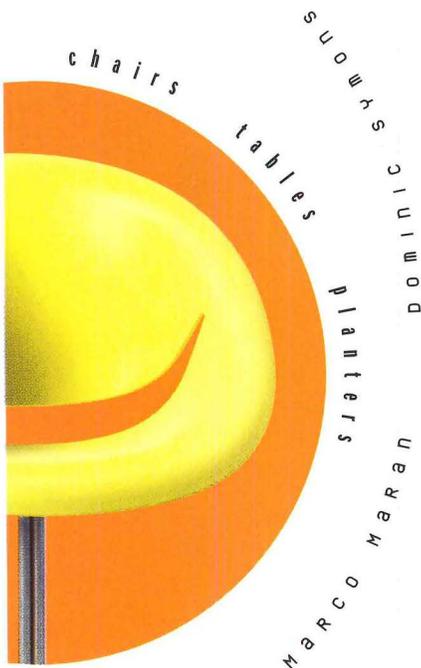
The architects created three pavilions connected by glass bridgeways to symbolize the cooperation vital to the success of the Underground Railroad. The middle structure is five stories tall with a mix of public and administrative space, while the two side pavilions each contain three floors for exhibitions. The museum also includes a performance

theater, an eternal flame of freedom, and a full-service café.

Rough travertine stone from Tivoli, Italy, covers the east and west faces of the building. On the north and south, copper panels complement the stone and will

change in appearance as the center ages. Many of these exterior walls curve back and forth in a nod to the Ohio River, where historians estimate as many as 40 percent of all escaping slaves made their way to freedom.

Also included is a slave pen dating back to 1833. The 20-by-30-foot, two-story log structure was rescued from a farm in Maysville, Kentucky. Virtual tours of the building are available at www.freedomcenter.org. *Michelle Taute*



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Lectures

January 7
Rodolfo Machado
Principal of Machado and Silveti Associates, Boston, MA



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January 14
Building a Better Los Angeles

Katherine Perez, executive director of the Transportation and Land Use Collaborative of Southern California

January 22
McKim, Mead & White

Samuel G. White, principal of Platt Byard Dovell White, New York, NY

January 27
Industrializing the Process of Producing Energy Savings

Gregory Thomas, president of Performance Systems Development

Exhibitions

DC Builds: The Anacostia Waterfront

opens January 17, 2004



DC BUILDS: THE ANACOSTIA WATERFRONT

Stories of Home: Photographs by Bill Bamberger

through March 7, 2004

Masonry Variations

through April 4, 2004

Up, Down, Across: Elevators, Escalators, and Moving Sidewalks

through April 18, 2004

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TEN Arquitectos designing new tower in Harlem



Enrique Norten of TEN Arquitectos is designing a 380-foot-tall, 550,000-square-foot mixed-use tower in Harlem. Known as Harlem Park, the project, located on 125th Street

and Park Avenue, includes a 200-room Marriott hotel, office spaces, conference rooms, retail spaces, a fitness center, and music clubs. It will

be the tallest structure in Harlem and the area's first major tower. The hotel has a particularly sleek, Modern design for a Marriott, and Norten says the company is already using images of the hotel to "modernize" its image.

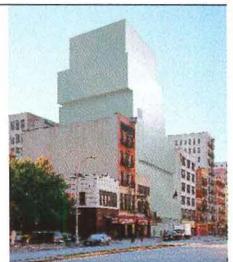
"For me, it's obviously a big mark in New York to be able to build a tower," says Norten. "It designates the development of an area that has been screaming for something to happen there." Norten says he hopes the building will be completed by the end of 2004. S.L.

New Museum unveils design for future home

The New Museum of Contemporary Art in New York City has unveiled the design for its future home on the Bowery. The 60,000-square-foot structure is designed by Kazuyo Sejima and Ryue Nishizawa of the firm SANAA in Tokyo.

The seven-story building is made up of a stack of white rectangular boxes shifted off axis in different directions. The boxes are clad in zinc-plated steel and include skylights and windows to provide views of the city. The new building, at 235 Bowery, will double the New Museum's current

facilities in SoHo. It will include flexible exhibition space, a media center, a café, and rooftop terraces. The initiative is part of a \$35 million capital project that includes erecting the new building, doubling the Museum's endowment, and other growth plans. A small exhibition about the new design opened at the New Museum on November 14, 2003. S.L.



Gensler designs Lemay Museum, with "auto" focus

Gensler Architects unveiled the design of a new museum to house the largest private car collection in the world. The 750,000-square-foot Harold E. LeMay Museum in Tacoma will explore America's love affair with the car through a combination of education and entertainment. "The building's curving shape and look of chrome and glass hint at what is inside," says project designer Alan Grant.

A 90-foot-tall spiral ramp will display 150 of the collection's 3,000 cars, with 50 feet of it above grade and the remainder burying into the museum's underground car vaults. The \$100 million museum will be built on a 9-acre site that is part of the City of Tacoma's \$10.7 million contribution to the project. Ground breaking is planned for 2005, with the museum to open to the public in 2007. S.O.

Williams Tsien help Milwaukee maintain edge

New York firm Tod Williams Billie Tsien Architects is in the midst of design development for a residential project that will be the firm's first multifamily residential building.

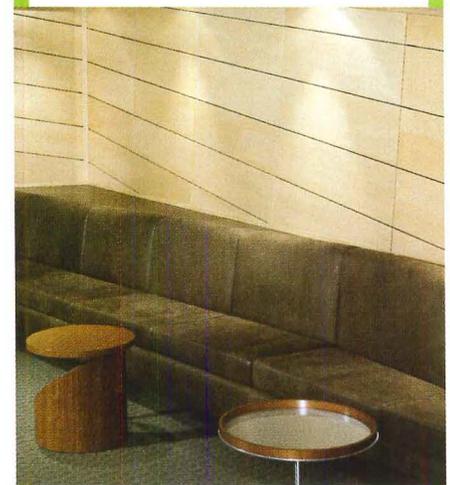
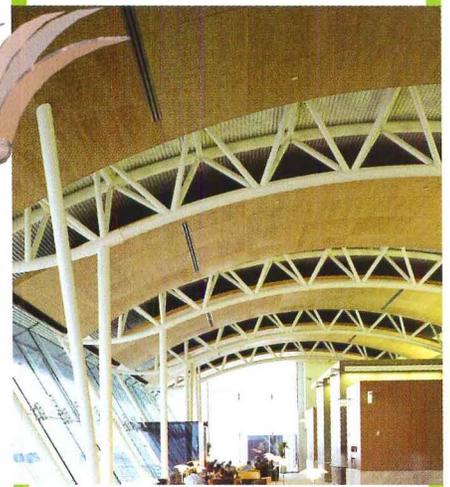
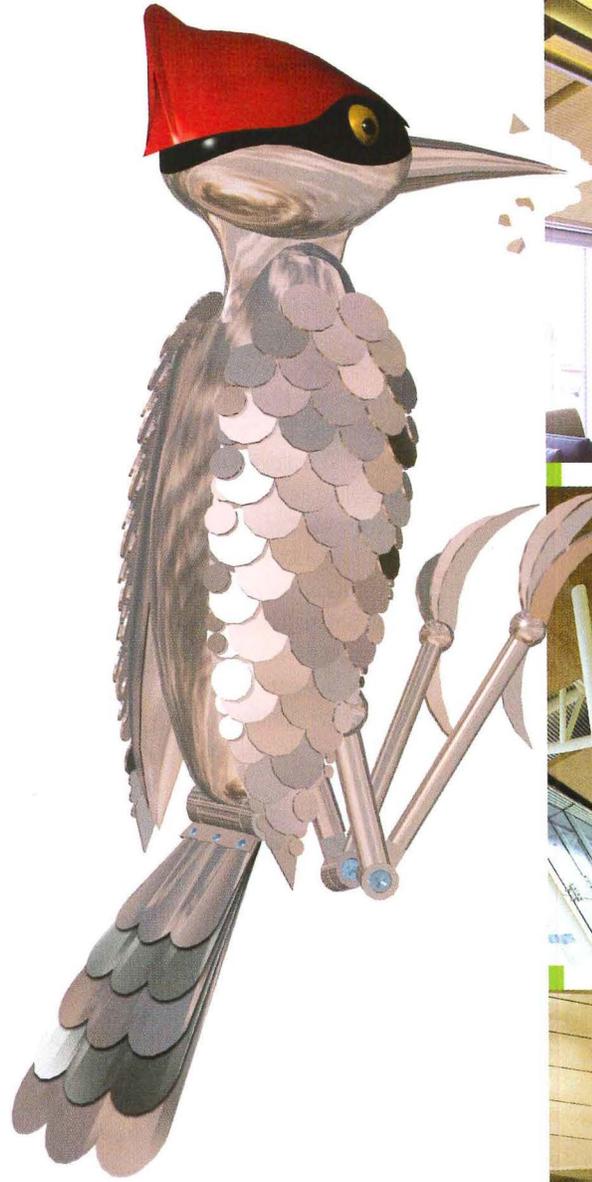
Designed as a \$20 million, 33,000-square-foot residential condominium development, it



is located on the Milwaukee River, with dramatic views of downtown. The building will feature approximately eight condominium units with underground

parking, as well as a restaurant and potential office space. Designed as a glass-and-steel structure surrounded by a poured-in-place concrete wall on three sides, the six-story building is an opportunity, according to Williams, to further develop design concepts that the firm has been exploring, such as the juxtaposition of heavy with light, as well as the layering of spaces.

John E. Czarnecki, Assoc. AIA



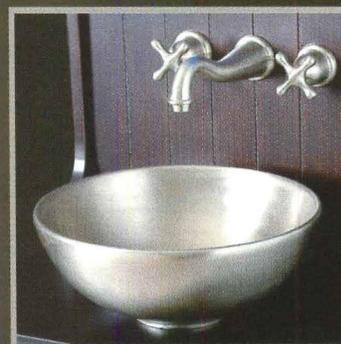
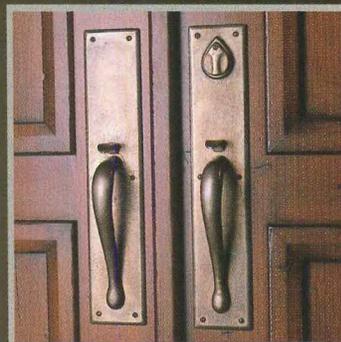
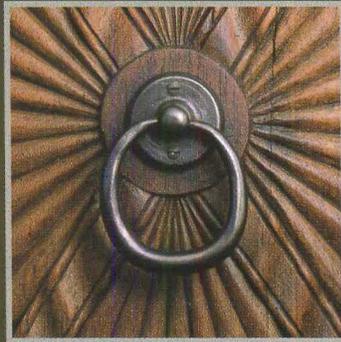
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Record News

New BBC music center part of ambitious building program

As part of a determined agenda to upgrade its facilities and engage the public through architecture, the British Broadcasting Corporation (BBC) has hired London-based Foreign Office Architects to design a new music center at White City, London. Also competing for the commission were Future Systems, Ushida Findlay Architects, and Zaha Hadid. The new music center, to be called the Music Box, is slated to open in 2006. The 700,000-square-foot, irregularly curving structure will house BBC music ensembles and provide state-of-the-art recording facilities.

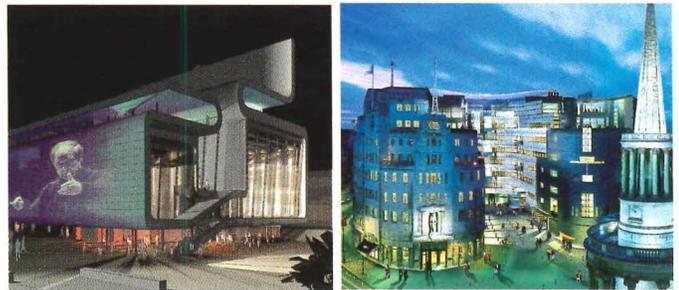
The Music Box is part of a wider plan to move all of the BBC's performing groups into new or renovated buildings in the next four years, and to streamline its properties and create clearly defined bases. Over the course of the next decade, the BBC will focus on three major projects in London: Broadcasting House, in the center of the city; White City, in west London; and Television Centre, in Shepherd's Bush, also in west London.

In October 2000, the BBC chose London-based MacCormac Jamieson

Pritchard to refurbish Broadcasting House, its flagship headquarters. Expected to be complete in 2008, large areas of the building will be opened to the public, and the building will also include a 43,055-square-foot newsroom, the largest live broadcast center in the world.

The White City development, a 17-acre campus designed by London-based Allies and Morrison, also aims to integrate the BBC into the local community and involves several new buildings, including a new broadcast center, a large office building, and a services building. Lastly, in 2008 the BBC hopes to redevelop its Television Centre, making it more accessible to local residents as well as more attractive. No architect has been chosen for the project.

Diana Lind



Rendering of the Music Box (left); plans for Broadcasting House (right).

Versaille's Hall of Mirrors to be painstakingly renovated

Nothing at the Château de Versailles was ever done halfway. In the biggest cultural sponsorship project ever undertaken in France, Versailles' famous Hall of Mirrors is being returned to its 17th-century splendor. The restoration, to take five years and an estimated \$10 million, is being undertaken pro bono by restoration specialists the VINCI group, in partnership with the French Ministry of Culture. (It is rare in France, a country with few tax incentives for corporate sponsorships, to find such a patron.)



The Hall of Mirrors was built by Jules Hardouin Mansart between 1678 and 1684, and includes, most notably, 357 mirrors. The mirrors, however beautiful, were made using heated mercury to fuse the glass to its tin backing. The steam from the mercury baths is highly toxic, and the process was outlawed. So to replace damaged segments, restorers will have to find similar period mirrors, perhaps saved from other châteaux.

Other elements to be restored include 30 ceiling paintings by Charles Le Brun, wood and stucco wall decorations and moldings, gilded ornament, marble wall panels, statues, and parquet floors. Electrical wiring and fire-safety systems will also be updated, and climatic studies are currently ongoing to find out what is the best air-conditioning system for the continued preservation of the space.

Already a six-month survey has been completed to establish exactly how the room was constructed and how much damage there is, including a computerized topographical survey to provide an accurate 3D plan of the room. (No other reliable plans exist). *Claire Downey*

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News Briefs

Architect named to develop site of Former D.C. convention center

The Washington, D.C., Office of the Deputy Mayor for Planning and Economic Development has selected a team that includes Lord Norman Foster to redevelop the site of the city's former convention center. Located at 900 9th Street NW, the site will become a new neighborhood consisting of housing, shops, parks, and cultural attractions.

Mayor Anthony Williams called the development "a tremendous opportunity to build a dynamic new identity for downtown's East End." Construction is expected to begin in 2005.

In addition to designing Berlin's Reichstag



Washington's initial vision for a "town square."

and London's City Hall, Lord Foster is working on master planning projects for Hong Kong and London and mixed-use plans for Liverpool, in England, and Sydney, Australia.

Other members of the team include Hines Interest Limited Partnership, a mixed-use development firm; Archstone-Smith Residential, which specializes in urban apartments; and Georgetown Development Corporation, a developer of commercial and civic real estate. S.L.

Cooper Union names Mayne architect of new academic building

The Cooper Union in New York City announced that Thom Mayne of Morphosis will design the school's new academic building. The building, which will rise to nine stories and cover an entire block in Manhattan, will be Mayne's first major project in New York City. Mayne has not produced any designs for the building yet, having been selected on the basis of a Request for Proposal and an in-depth interview process. He was one of four finalists selected from an initial field of 150. Construction is slated to begin in 2006 and end in two years. *Kevin Lerner*

Canada's airports getting major makeover

A new generation of international airports designed to capture the individuality of each city is rising across Canada, notably in Toronto, Montreal, and Ottawa.

The new Ottawa Macdonald-Cartier International Airport, more worthy of the Canadian capital than the obsolete 40-year-old terminal it replaced, opened October 12, 2003, six months early and on \$232 million budget—and ahead of multibillion dollar expansions of the other two cities' airports.

A joint venture of Brisbin Brook Beynon Architects (BBB), Toronto, and Stantec Architecture, Vancouver, designed the new airport, which is capable of handling 5 million passengers a year.

Floor-to-ceiling windows and skylights allow natural light to flood the 650,000-square-foot terminal building and present unobstructed views of the airport ramps and runways. Ottawa straddles a major canal and river system, which inspired the architects to incorporate a watercourse with simulated rapids, falls, and canals, terminating in a wall-length waterfall cascading into the arrivals hall.

A \$3.3 billion expansion of Toronto's Lester B. Pearson International Airport designed by Skidmore, Owings & Merrill and Moshe Safdie Associates will be completed early next year after a 10-year approvals, design, and construction process. The new terminal will replace two old terminals that will then be demolished.

Meanwhile, a new jetty to facilitate clearance of U.S.-bound passengers at Montreal's recently renamed Pierre Elliott Trudeau International Airport opened last April and was followed by an expansion of the terminal, completed in July. A new international arrivals complex is to be completed in 2004; the last of a three-phase, \$536 million renewal of the airport. The Montreal-based architectural teams include Provencher Roy Architectes, Pratte et Associés Architectes, Le Groupe Cardinal-Hardy, and Le Groupe ARCOP. *Albert Warson*



Expansion of Toronto's Lester B. Pearson Airport.



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New & Upcoming Exhibitions

Hopping Fences: Influences in Modern Living **Philadelphia**

January 16–May 2, 2004

This project showcases five interdisciplinary design/build firms from the Philadelphia area. The multilayered exhibition is conceived as an alternative to traditional furniture or design shows by acting as a conceptual reflection on how design impacts on and is impacted by modern urban living. Call 215/545-0767 or visit www.philartalliance.org.

The Maine Perspective: Architectural Drawings, 1800–1870 **Portland, Maine**

February 7–May 22, 2004

The first of a three-part series that will examine the history of Maine architecture, this exhibition encompasses drawings made between 1800 and 1875. The array of 50 drawings on view ranges from the naive graphics of early local amateurs and builders to the sophisticated midcentury projections of trained designers from as far away as Boston, New York, and Washington, D.C. At the Portland Museum of Art. Call 207/775-6148 or visit www.portlandmuseumofart.org.

Technology & Tradition in Japanese Contemporary Architecture **New York City**

February 26–28, 2004

Sponsored by Japan Society, ARCHITECTURAL RECORD, and the Architectural League, this symposium features prominent contemporary Japanese and Western architects, architecture critics, curators, scholars, and engineers. Call 212/752-3015, e-mail gsnible@japansociety.org, or go to www.japansociety.org.

Ongoing Exhibitions

Stories of Home: Photographs by Bill Bamberger **Washington, D.C.**

December 4, 2003–March 7, 2004

Compelling photographs of low-income, first-time home buyers explores what it means to own a home. *Stories of Home* pairs portraits and visual

essays by Lyndhurst Prize-winning photographer Bill Bamberger with excerpts from interviews conducted by families in Chattanooga, Tennessee; San Antonio; and rural eastern North Carolina. The resulting panorama is a unique contribution to the national dialogue about the impact and importance of affordable home ownership. At the National Building Museum. Call 202/270-2448 or visit www.nbm.org.

Welcome to Eastern State Penitentiary **New York City**

December 10, 2003–February 6, 2004

Albert Vecerka is an architectural photographer affiliated with ESTO. This exhibition shows large color photographs of a prison that was built with the belief that solitary confinement would bring prisoners penitence and redemption. Visitors can experience the isolation of the prison by entering

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the exhibition through prison doors and stepping into a life-size cell. At the Parsons School of Design, Arnold and Sheila Aronson Galleries. Call 212/229-8987.

Design Collaboration through Imagery San Francisco

Through January 15, 2004

An exhibition of works by Bay Area architectural illustrators Robert Becker, Robert Frank, Christopher Grubbs, Norman J. Kondy, James Leritz, Yves Pierre Rathle, Michael Reardon, and Art

Zendarski. The show demonstrates how these renowned artists and designers collaborate with architects during the design process to achieve successful visual communication of proposed environments. At the AIA SF Gallery. Visit www.aiaf.org.

Rem Koolhaas/OMA/AMO Berlin

Through January 18, 2004

This exhibition is the largest ever about the Dutch architect Rem Koolhaas, his architectural office OMA, and its think tank, AMO. OMA/Rem Koolhaas

has assumed a leading position in the architectural world through its innovative research techniques, thinking, and design. The exhibition is an overview of OMA/AMO's architecture and design projects and presents a selection of its most outstanding innovations. At Neue Nationalgalerie Berlin. Visit www.smb.spk-berlin.de.

Lectures, Conferences, Symposia

Harvard Design School Executive Education Seminars Boston

January 27–29, 2004

Health-care design events include "Ambulatory Care Facilities: The Planning and Design of Key Health-Care Portals," "Strategic Facility Master Planning: Balancing Competing Health-Care Facility Choices," and "Demand-Based Space Programming for Health-Care Facilities: An Approach and Workshop." Visit www.gsd.harvard.edu/execed.

Manufactured Concrete Products Exposition 2004 Atlanta

February 6–8, 2004

MCPX brings together manufacturers and suppliers in one large trade show where all the latest products and services for the manufactured concrete products industry can be found. At the Georgia World Congress Center. Call 877/627-3976 or visit www.mcpix.org.

AEC Systems: Technology for Design & Construction Orlando

February 17–19, 2004

Addressing all facets of the architectural design, engineering, and construction industries, this revitalized technology marketplace will showcase a multitrack educational conference, networking events, and exhibitions of cutting-edge trends that drive the diverse sectors of these industries. At the Orange County Convention Center. Call 800/451-1196 or visit www.AECYSTEMS.com.

Competitions

Ceramic Tiles of Italy Design Competition 2003

Deadline: January 30, 2004

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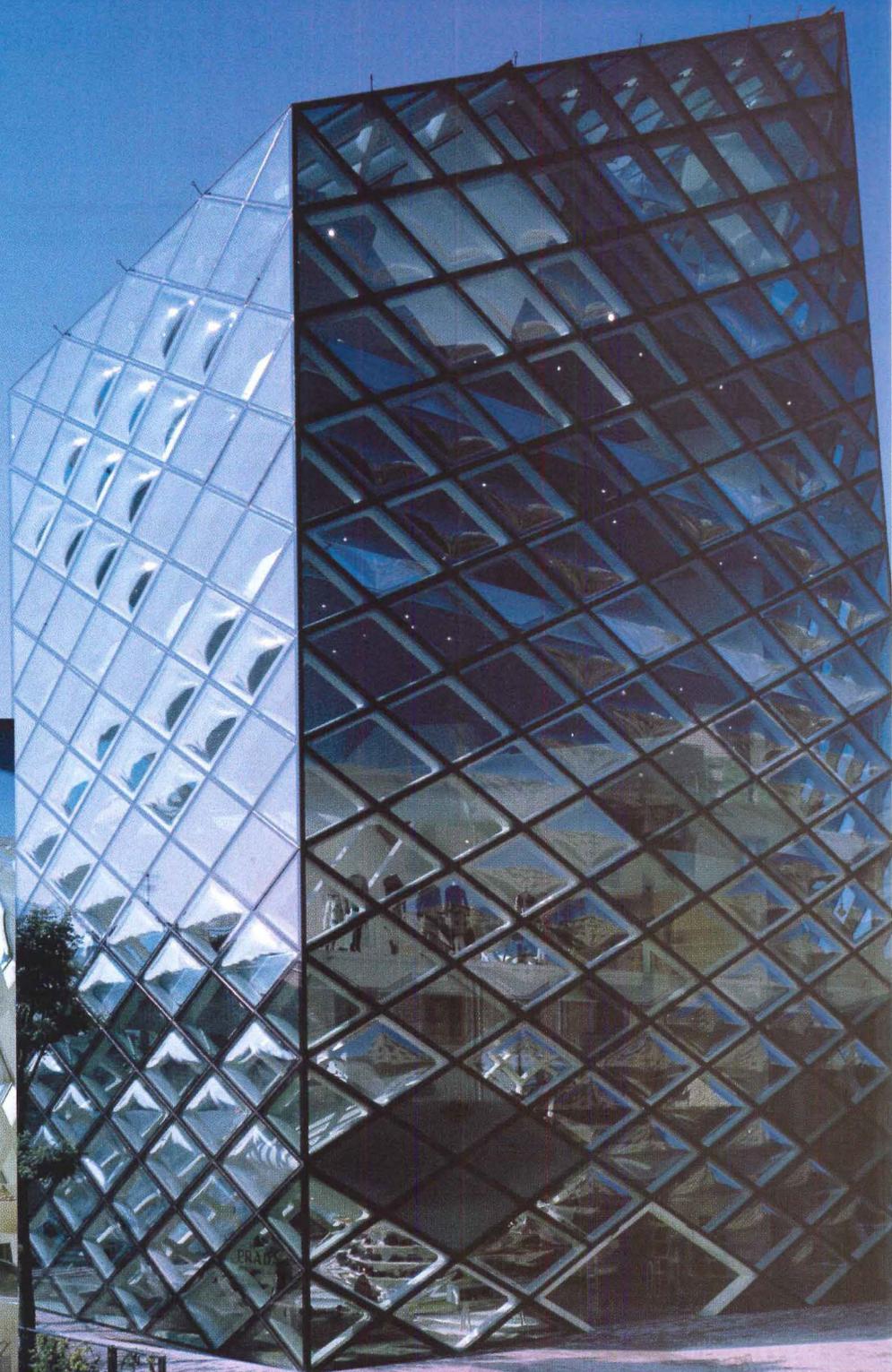


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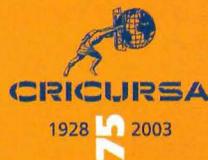


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Dates & Events

attributes as well as how they meet their functional and technical requirements. For information, visit www.italiatiles.com or www.witalytile.com.

Snapshot 04: Current Houston Design on View Houston

Deadline: January 30, 2004

The Rice Design Alliance invites Houston design professionals to participate in this open-call exhibition, which will run at Lawndale Art Center April 9–May 1, 2004. Call 713/348-4876 or

visit www.rda.rice.edu.

The 2004 Internship Development Program Outstanding Firm Awards Washington, D.C.

Deadline: January 30, 2004

This award recognizes outstanding programs in support of interns, including training opportunities, mentoring, continuing educational programs, and evident commitment to the Intern Development Program. Call 202/626-7456 or visit www.aia.org.

International Solutia Design Awards

Deadline: February 1, 2004

Architects and designers from around the world are invited to participate in the sixth annual design awards. The competition will recognize projects that demonstrate innovative use of any of Solutia's architectural glazing products. Call 877/674-1233 or visit www.Solutia.com.

2004 Northeast Green Building Awards

Deadline: February 3, 2004

The annual competition is open to built works, either new construction or renovations, completed after January 1, 1998, and before January 1, 2004, in the northeastern U.S., as well as to student projects. Award categories include places to live, work, and learn. Call 413/774-6051 or visit www.nesea.org.

2003–2004 Young Architects Forum

Deadline: February 13, 2004

The competition is open to architects and designers 10 years or less out of undergraduate or graduate school. Winners receive a \$1,000 cash prize, and their work will be exhibited and published in an annual catalog. Call 212/753-1722 or visit www.archleague.org.

Broadway Square Design Competition Fargo, North Dakota

Deadline: March 15, 2004

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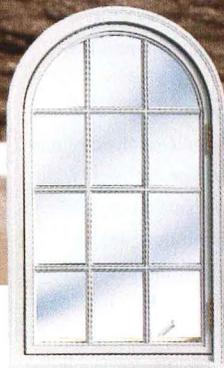
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FOR THE EMERGING ARCHITECT

DEPARTMENTS

When you can do it all yourself, collaboration is key. Is that a contradiction in terms? This month's archrecord2 Design architect, Todd Farrage, doesn't think so. As architect, metalworker, furniture maker, and sculptor, Farrage teams up when he knows two or more heads will help him concentrate on his strengths for a project. Our Work architects also know the value of sharing. Essex Street Studios has become a mission control center for several thriving N.Y.C. architects.

DESIGN

Todd Farrage: the whole package



Design and construction almost always involve a collaborative effort. California native Tom Farrage understands this well. Since receiving his architecture degree from SCI-Arc in 1986, his career has involved creative collaborations with everyone from hometown acquaintances and former classmates to world-renowned architects and a legendary photographer.

"At SCI-Arc, I got a reputation for being tool-happy," admits Farrage, who, upon graduating, opened his own metalworking shop adjacent to the campus where he designed and fabricated jewelry, lighting, furniture, and sculptural objects. His work caught the attention of passersby, among them Thom Mayne and Eric Owen Moss, who both began to involve Farrage on a number of built projects and exhibitions that required custom metalwork of extraordinary detail. "I get excited when I come up with new details," explains Farrage. "My work is an ongoing investigation, and the forms I create are a result of the tools that make them."

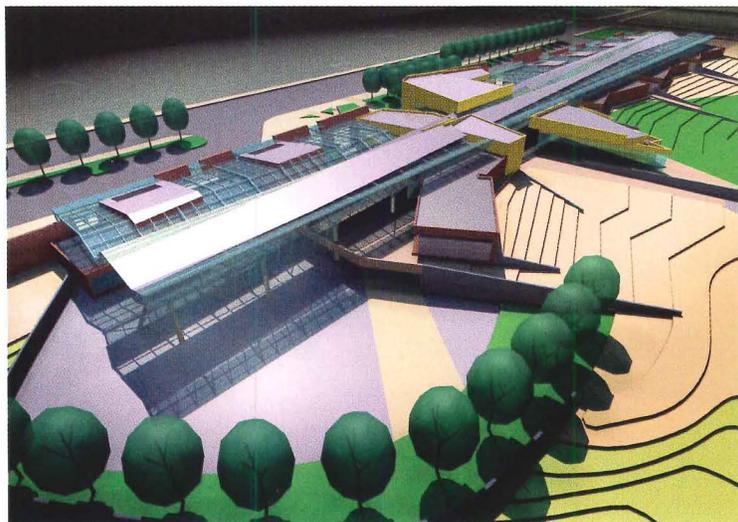
Farrage's recent projects designing interiors, renovations, and new construction have taken this investigation a step further and involved him in a new series of collaborations. As one half of Nakao::Farrage Architects, Farrage began experimenting with what he refers to as a "screen-to-site" design-build method. Together, he and fellow SCI-Arc alum Scott Nakao employed a hands-on approach to create environments that blend structure and furniture into unexpected geometries and bold forms.

In its projects for the headquarters of two different media companies, Nakao::Farrage transformed a former dance studio and a manufacturing warehouse into professional offices with an edge. The first of these, for Circa 2k, a company that produces commercials and documentaries, allowed complete freedom in terms of design but required even more ingenuity when it came to building. With a budget of only \$30,000, Farrage himself was responsible for most of the fabrication and construction. "We'd take the renderings to the site and often build the same day without need of working drawings," Farrage explains.



HSI Productions, Culver City, Calif., 2001

HSI, one of the world's top producers of commercials and music videos, hired Nakao::Farrage to design its West Coast production offices. Skewed geometries and a cantilevered roof, along with Farrage's expert metalwork, give the building a quirky edge.



Felix J. Appleby Elementary School, Blythe, Calif., 2005
Designed by Rachlin-Farrage Architects, this 50,000-square-foot

K-12 school, in the agricultural community of Blythe, is a labor of love for Farrage—he was a student there. The school's linear design was dubbed "The Learning Street."



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That project led to one almost 10 times bigger, with a budget to match. Nakao::Farrage's design for HSI's West Coast offices combines angled walls with skylights of varied shapes and sizes set amid a vaulted ceiling with wooden trusses. Another dramatic feature is the glass conference room which cantilevers out 18 feet over the entrance.

Farrage has most recently teamed up with architect Michael Rachlin and is currently at work on a very personal project—the design of the new Appleby Elementary School in his hometown. “I’ve been lucky to have worked with people like Thom and Eric who’ve allowed me to play the craftsman role,” admits Farrage, “and with Scott and Michael, where I can play the architect role.”

This jumping back and forth has proved advantageous on occasion. While work was nearing completion on the HSI offices, photographer Julius Shulman asked Farrage to fabricate and install new handrails in his home. “I’ve worked with Julius before, and it’s always involved some bartering,” explains Farrage. “That time, he agreed to photograph HSI—and we ended up with some beautiful images.” *Josephine Minutillo*
Go to architecturalrecord.com/archrecord2 for more on Todd Farrage, and to submit your own projects.

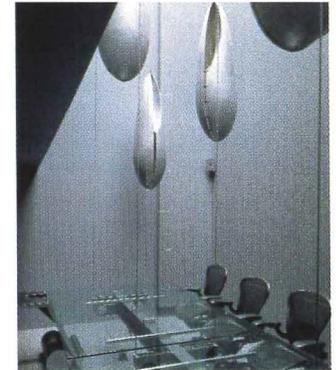


Smashbox Studios, Culver City, Calif., 1997

Dean Factor hired Nakao::Farrage Architects to design and manufacture all furniture, finishes, and details for this studio building.

SHR Perceptual Management, Scottsdale, Ariz., 1999

Designed by Morphosis, fabricated by Farrage. Farrage was asked to make “everything hang from the ceiling,” even the table (below). The pods are sculpted fiberglass, brushed with aluminum powder.



WORK

Share and share I like: Essex Street Studios

In most cities, including New York, it’s not unusual to have diverse design professionals sharing the same studio space. Record Vanguard architects from 2000 Lewis.Tsurumaki.Lewis (LTL) were doing just that in a building in



downtown Manhattan until the need arose to find their own space.

“We had been subletting some cubicle space on a floor with some other firms, many of them actually friends of ours,” explains Paul Lewis. “But we never saw each other. It’s the nature of the cubicle that you don’t just walk in and interrupt someone while they’re working, so passing conversation didn’t happen.”

LTL first came upon its current offices on Manhattan’s Lower East

Side when the team needed a space to store their tools. “We had been kicked out of our shop, and knew this building had a shop in the basement,” David Lewis says. A few months later, the space above, a 2,000-square-foot former vintage-clothing store, became available.

After four frantic weeks of building, Essex Street Studios opened in January 2001. The storefront space features a large conference area as you walk in, with two continuous rows of desks lining the walls, and a mezzanine above. According to David, “We decided that rather than profiting or cutting our own rent, we would divide the rent evenly by the number of desks.” The space features a total of 27 desks. Each tenant pays for the desk they occupy and shares overhead expenses, including plotters, copiers, fax machines, and cleaning services, as well as the library.

Finding tenants came easily—mostly by word of mouth, and mostly young architects just out of school or just starting their own practice, but all doing interesting work.

Several of the tenants have won the Young Architects Award from the Architectural League of New York.

“We approached LTL to rent some space here,” says Makram El-Kadi of L.E.FT Architecture, who was working on a project with LTL when the studio was opening. Eric Bunge of nARCHITECTS, another original tenant, concurs, “It’s fantastic to be able to share not only physical resources, but also the talents of everyone around. Many of us also teach, so we rely on each other when it comes time for studio reviews.”

Ten small firms, mostly 3–7 people in size—including BriggsKnowles Architecture + Design, Normal Group for Architecture, and several individual architects and graphic designers—currently occupy the studios, though the number frequently fluctuates as temporary tenants sometimes rent for short periods at a time. “Another advantage of sharing this space, besides it being just more social,” Paul says, “is a certain degree of job security. It’s happened that as one firm’s workload slows down, another firm in need of an extra person would hire from within. It’s a beneficial situation across the board.” *Josephine Minutillo*

What Every Architect Should Know About Copyright Law

Practice Matters

By Richard M. McDermott and Jason M. Sneed

DEPARTMENTS

As digital cameras, copy machines, and cheap scanners have proliferated, it has become harder than ever for architects to prevent unauthorized copying of their work. And the ease with which material can be downloaded from the Internet seems to have made people more disrespectful than ever of laws intended to protect intellectual property. It is imperative that architects know what their rights and legal remedies are should they discover that people are using their work without permission.

Copyright law basics

Here's a review of the basics.

Certain rights are granted to anyone who creates an original work of authorship and fixes it in a tangible medium of expression, like a drawing, photograph, CAD file, Web page, or even an actual building. The first of these rights is the exclusive right to reproduce the work. The second is the right to use the work to prepare similar works, also called "derivative works." The third is the right to distribute copies of the work to the public—by sale, license, rental, lease, or assignment. Only the creators of an architectural plan or elevation, for example, or those employed by them, have the right to make copies of the work or to make other plans based on the original.

No one else can sell or license the right to build anything based on the floor plan or design, or build the

structure itself without the creators' permission. Copyright rights can cover other things, such as the performance of a musical composition, but these seldom apply to architects or architecture.

It is also worthwhile to point out that copyrights are not patents. Patents can protect inventions, a new machine or manufacturing processes, the visual ornamental characteristics of an article of manufacture, even genetically engineered plants. A copyright can protect your buildings from being copied, but it can't keep someone from copying concepts or ideas.

One common misunderstanding is that original works of authorship are not protected until they are registered with the U.S. Copyright Office. Actually, all kinds of works—a building, a song, a novel—are protected as soon as they are fixed in a tangible medium of expression. But no legal action can be brought against an infringer until copyright registration has been obtained. Because getting a copyright normally takes four to six months, it is prudent to register your design work as soon as it is created, rather than waiting until there is an urgent need to enforce your rights.

Early copyright registration also enhances the copyright owner's remedies in the event that the work is infringed upon. If the creator of a work sought registration within three months of the work's creation, regardless of whether an infringement took place before registration, he may collect statutory damages. This is important, because often an

infringer will claim that because a project built from copied drawings was not profitable, the copyright owner did not suffer a loss. But copyright owners who are entitled to statutory damages do not have to prove they suffered a loss in order to collect money from an infringer. Because the U.S. Copyright Office is a federal agency, all copyright cases are tried in federal court. Statutory damages are discretionary and are set by the judge trying the case. They can be as much as \$30,000 per infringement, or up to \$150,000 for each instance of willful infringement, which occurs when the infringer knew the work that he copied was copyrighted. Attorneys' fees may also be recoverable in some cases.

Another misperception is that one cannot copyright a building. In fact, you can. Since Congress passed the Architectural Works Copyright Protection Act in 1990, buildings themselves can be registered. Prior to 1990, anyone could reproduce buildings that looked identical to those created by others, as long as they did not use copied drawings to build them. Now, copyright owners can register completed buildings as well as drawings. According to the act, the "work includes the overall form as well as the arrangement and composition of spaces and elements in the design, but does not include individual standard features" such as doors and windows. A building design doesn't have to be innovative to receive protection—in fact, the bar is very low as to what constitutes something

worthy of being copyrighted—as long as the creation is original to the copyright registrant.

How to register your work

You can learn how to register your work, as well as many other things that apply to protecting architectural works, by getting U.S. Copyright Office Circular 41, found online at www.copyright.gov/circs/circ41.html. Architectural works are registered as works of visual art using Form VA. This is also available online from www.copyright.gov/forms/formvai.pdf.

The basic application fee is \$30, but it costs more if the applicant wants to expedite registration. Since the copyright act now distinguishes between architectural plans and completed architectural works, the architect or builder should register plans of unbuilt work as well as structures created from their drawings that have been completed. When a finished structure is being registered, the drawings can be supported with interior and exterior photographs.

A copyright notice should be made in the following form: with the copyright symbol or the word *copyright*, the year of first publication of the work, and the name of the copyright owner or a name by which the owner can be recognized; for example, "© 2003 Smith & Jones Architects, Inc." The notice must be located in a conspicuous place on the documents. Effective use of copyright notices can limit the defenses that an "innocent infringer" is able to use to refute a claim of infringement or to minimize dam-

Richard M. McDermott and Jason M. Sneed are attorneys with the firm Alston & Bird, in its Charlotte, North Carolina, office.

Practice Matters

ages. The notice also tells a person who might want to use the work whom to contact to get a license.

An important difference between copyright and trademark law is that a trademark owner, such as the Coca-Cola Bottling Company, must vigorously protect the public's association with their trademark, Coke; otherwise, their rights to protection will be lost. A copyright owner is not required to send warning letters to, or worse, sue every infringer in order to retain their rights. A copyright owner might skip suing a contractor who copied a design once because the chances of recovery are small, but may later sue a large contractor who had copied it hundreds of times and against whom the chances of making a recovery are greater.

Who owns the copyright?

Some clients assume that because they paid an architect to design a

structure, that they "own" the building's design. This not true unless the architect and client agree on this point up front. Your contract with a client should specify, first, that the architect is an independent contractor and not the client's employee. Second, unless you are selling the rights, the contract should reiterate

THE KEY INQUIRY IN A COPYRIGHT INFRINGEMENT ACTION IS, SIMPLY PUT, WHETHER THE DEFENDANT COPIED.

that the architect owns all the copyrights for works created pursuant to the contract.

Third, it is advisable that the contract state that only when the works are completed, sealed, and the architect has been paid for all services complete to date, will the right to build a specified number of structures based on the plans or drawings be granted to the client. Clients who wish

to build more than one structure based on a set of drawings can negotiate with the architect to build a set number of buildings or to buy the copyright altogether.

It is not uncommon for a client to hire an architect to design a building but then stop the work before it is complete. If the client later hires a builder to complete a structure from the preliminary drawings, the architect may be able to recover damages from the builder

for infringement, and damages for breach of contract from the client, as well as contributory infringement. Contributory infringement means that the client induced the builder to commit the infringement. As part of those damages, the architect may be able to recover the revenues he or she would have received had the project gone to completion, plus attorneys' fees and costs.

Confusion about copyright ownership may also arise occasionally between architects and their employees. All employment agreements, whether made with permanent employees or temps, should clearly state that employees' work products are "works made for hire." This means that the employer owns the copyright rights to any work prepared by an employee within the scope of his or her employment. Information about work for hire laws is available in U.S. Copyright Office Circular 9, at www.copyright.gov/circs/circ9.html.

See you in court

The key inquiry in a copyright infringement action is, simply put, whether the defendant copied. Copying can be claimed in one of two ways: by showing direct copying, where there is evidence that the defendant made actual copies of the drawings; or by showing indirect copying, where, for example, a defendant could have measured a structure and redrawn it. Two ele-



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Practice Matters

ments are required to prove a work was copied. The first is that the accused infringer had access to it, and the second is that the copyrighted work and the allegedly copied work are "substantially similar."

This situation is not as straightforward as it sounds. If Architect Smith copyrighted a building design and a few weeks later Architect Jones independently created the same building design, Jones did not infringe. If a dispute between them arises, Smith has to prove that Jones had access to the Smith design and copied it. To defend himself, Jones must prove he created the work "independently," without access to the prior work. Whether the compared works are substantially similar is determined based on the perspective of an ordinary observer, not the perspective of one skilled in architecture. To further confuse matters, copyrights might have been granted

to both architects for their similar designs. The copyright office does not check to see whether a design is truly one of a kind when deciding to grant a copyright. It only gives an item a cursory review to determine whether it meets the threshold of originality necessary to make it copyrightable.

If infringement can be proved, sometimes an out-of-court settlement between the parties can be negotiated. In addition to the amount of the settlement, those on opposite sides of the dispute have to agree on two things. First, they must decide what is to become of the allegedly infringing works. Often, infringing works, like drawings, are destroyed. In the case of a building, it is probably more practical for the parties to negotiate a settlement than to bulldoze. The second thing they must agree upon is whether the terms of the settlement should be kept confidential. The terms of most commercial litiga-

tion settlements are sealed, but it may be in the copyright owner's interest not to do so. If the terms are known, the information could be used to set a value for other settlements, and the size of the award may deter people from being tempted to infringe in the future.

Practical considerations

While a copyright mark may discourage some infringers, in the end there is little point in registering your buildings unless you are willing to take legal action against offenders, and it can be a good thing to have a reputation as one who is willing to take infringers to court. But before instituting a lawsuit, you need to be realistic about whether you can win your case. If you cannot prove that the infringer had access to the copyrighted work, and that the derived work is substantially similar to your own, it will be hard to win. Next you must consider cost. The fees for getting a simple copyright infringement case to trial can be in excess of \$100,000. And because the copy-

right act permits the prevailing party to recover his or her attorneys' fees, a plaintiff who brings a weak case to court may wind up paying the defendant's legal bills.

If your intention is to use the aggressive prosecution of copyright infringements to create an income stream, discuss the feasibility of this goal with an attorney. The federal courts are busy, and getting a case to trial can take 18 to 24 months. Even before that, the amount of time it takes to prepare counsel for trial, make depositions, locate evidence, and participate in a trial may be far more than most people realize.

Sadly, architects who publish their works on the Internet are particularly vulnerable to infringers. A person who once had to go to some trouble to copy a professional's work can now do it in seconds. If you don't want your work to be copied, it is probably best not to put it on the Internet. If your work is posted without your permission, you should consult an attorney who can help you consider your options. ■

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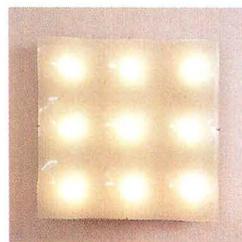
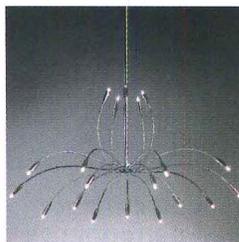
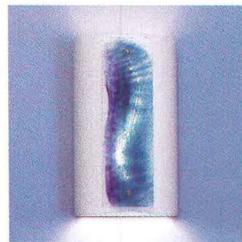
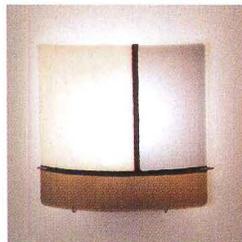
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Of landmarks and memorials: Getting mad (and MAD) about all the wrong things

Critique

By Michael Sorkin

In 1989, after a protracted struggle, the federal government removed Richard Serra's *Tilted Arc* from the plaza in front of the Jacob K. Javits Federal Building in Lower Manhattan. The brief against the sculpture had been its alleged disruption of the public space in which it sat. Although I had no particular love for *Tilted Arc*, I argued at the time that the rage against it was in large measure a displacement of anger that should have been directed at the awful architecture that formed its backdrop—serenely ugly, and in its hugeness, Minimalist to the point of idiocy.

Two similar cases of displacement are being enacted in Manhattan today—one at the southwest corner of Central Park and the other all the way downtown. The first centers on Columbus Circle, where an ongoing controversy rages over plans by the Museum of Arts & Design (MAD), formerly the American Craft Museum, to reskin its new home in the former Huntington Hartford Gallery of Modern Art, designed with confectionary panache by Edward Durell Stone in 1964. This odd building has become a cause célèbre for preservationists, who argue for its historic and formal consequence. I have always held this quirky, bright little folly in affection, and strongly agree it should be saved. Articulating the argument is

problematic, however.

Although I love the building, defending it on the narrow grounds of its aesthetic importance requires a grain of salt: This is not a "great" work in the sense that the Guggenheim is or Penn Station was. Defending this building requires a somewhat more expansive—if equally compelling—interpretation of the idea of preservation. It should be saved because many hold it in deep affection for various private reasons, because it is a very good building, and—perhaps especially—because it contributes so strongly to defining its site. The gleaming white marble punctuation visible down Broadway, the polka-dot frou-frou of its corner apertures, the legendary lollipop columns at its base, all vitalize Columbus Circle indelibly, represent the place in mind and memory.

Neutron-bomb approach

This is a gray area in landmarking, one which must recognize that artistic and historic arguments engage only a limited range of meanings. Where, in this construct, do we fit singularity, familiarity, identity, difference? Landmarking is a form of consent, a compact about what is collectively valued in the city. In its focus on the physical and the artistic, landmarking always risks the neutron-bomb approach, preserving the object but killing the cultural setting in which it acquires its meaning. A more expansive view of landmarking is like rent control, a subsidy (or a "taking," as lawyers say) that would enable neighborhoods to continue the process of



Edward Durell Stone's building at Columbus Circle is still causing controversy.

diversifying. This approach, though, would require a different style of consensus, one that goes beyond form to embrace lived life.

The importance of 2 Columbus Circle exceeds the categories through which its future is being argued: We simply do not have a legal basis for saving nice old friends. As with *Tilted Arc*, however, the displacement at Columbus Circle comes in the poignant absurdity of the intensity of the debate when far larger battles have already been lost

and when issues so crucial to the future of the place are on nobody's agenda. It becomes even more imperative to save this building because of the monstrosities that surround it and loom over it, including the just-completed Time Warner Center, which sets new lows in original design moves per unit volume.

The result of a developer competition in which the Metropolitan Transit Authority auctioned off the site to the highest bidder, the Time Warner Center is far too large, a

Contributing editor Michael Sorkin is an architect and heads the urban planning program at City College of New York.

Critique

problem dramatically exacerbated by the scalelessness of its smooth, unperforated, black skin. Looming over Central Park and holding down a crucial corner of its architectural envelope, the building is whimsically dark, in contrast to the generally pale color of the structures around the park. From a million angles it appears to be a rude lump on the cityscape, faceless after the manner of the corporation that rents it and the corporation that designed it.

Ignoring what's below

The major experience of Columbus Circle for most people, however, is in their encounter with the subway station beneath it, the busiest in the system and one of the most unspeakably filthy and labyrinthine, totally degrading to travelers. And here is the main displacement: The complete failure to deal meaning-

But the most grotesque displacement in town has been recently revealed in the results of the competition for a memorial at Ground Zero. This is surely the most managed displacement ever, a virtual Ponzi scheme, revealing—like Columbus Circle—a set of priorities that are realized precisely backwards. From the start, the Lower Manhattan Development Corporation (LMDC) has made craven use of architecture—a classic instance of what magicians call misdirection. We are distracted by the ridiculous travails of David Childs and Danny Libeskind trying to agree on the shape of the world's tallest office building in order to avoid the question of precisely why the world's tallest office building (as well as its shrimpier kith) must be built on this hallowed ground.

And now we are vilely dis-

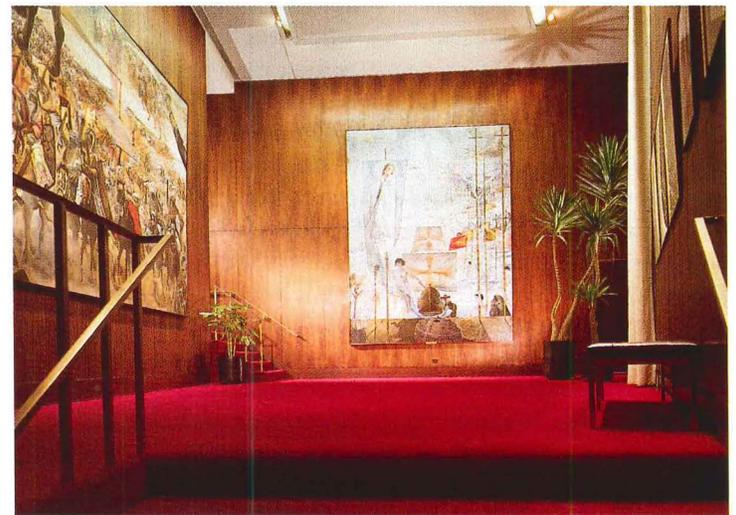
THE COMPETITORS FOR THE WTC MEMORIAL HAVE DONE NOBLY TO STRUGGLE THROUGH A PIOUS FOG OF CONSTRAINT.

fully with the most profound urban question on the site. Patting themselves on the back for the building's curved base, twin towers, and door at the end of 59th Street, the project's boosters tout its civic presence and formulaic "urbanity." And a good time will doubtless be had by the media executives and hyper-rich who sport in its boardrooms, condos, and upmarket hotel and restaurants. Meanwhile, like the slaves in Fritz Lang's *Metropolis*, the masses will continue to sweat and toil below in a zone visited by no nicety whatsoever and with no meaningful influence on the architecture above. This is the income gap literalized in steel and glass. And this is the context in which the haste to destroy the last winning and familiar thing on the circle becomes especially ludicrous, as the place is sucked dry by the vacancy of the cultural forces behind it.

tracted by the act of hallowing. The finalists in the memorial competition have been almost universally criticized for the generic character of their submissions and the abstracted quality of their iconography. Again, the heat is being misdirected away from a problem that—at the gargantuan scale of real estate development—is simply glanced over. Look at what has been decided for the memorial designers in advance: adjacent 1,776 foot-high office building, abstracted representation of Lady Liberty's arm, wedge of light, lines of access, site below grade (but not to bedrock!), glazed slurry wall, giant waterfall. The competitors have done nobly to struggle through this pious fog of representation and constraint with any form of integrity, knowing that whatever they proposed will have chamfered buildings flying over it and will sit in a hole at the foot of the humongous building



The interiors of Huntington Hartford's Gallery of Modern Art at 2 Columbus Circle (above and below) were destroyed when they were turned into offices.



that will—in its preening supersize and banal iconography—usurp memorial duties in the service of the egotistic ambitions of our governor, the lease-holder, the LMDC, and the architects.

Eloquence of the void

I say, let us keep one of the eight memorial finalists—how shameful the cries to set aside the competition process when we finally have an open one!—and forget about the clutch of needless buildings that will engorge the coffers of Larry Silverstein, the Port Authority,

and the architects. The astonishing eloquence of the void—which has the potential to become a matchless urban space—will never be equalled by slick styling and enormity. It is our last chance to save this place for everyone, to create a site for conversation and contemplation, a terrain for additional memorials and expressions from the diversity of voices—so movingly expressed in the aftermath of the tragedy—but now subsumed in the uniformity of form and intent that threatens to destroy this place once more. ■

Gehry's Disney Hall: Does it deserve the hosannas?

Commentary

By John Pastier

Frank Gehry's Walt Disney Concert Hall has been the most anticipated building of our time. Even before a paying customer heard a note, it commanded more ink and bandwidth than many worthy buildings had over their entire existence. Metaphors flowed like Amazonian waters as writers vied to mirror the design's inventiveness. Now open, does it deserve the hosannas?

Absolutely. The realized building surpasses anything promised by decades of models and drawings. Often seen as a reprise of Gehry's Bilbao Guggenheim Museum, it's actually the source of Bilbao's form and style. Disney Hall was first conceived in 1987 [RECORD, November 2003, page 134], and launched the billowing, swirling forms that have marked at least 15 Gehry designs since. It led the way from his skewed Cubistic expressionism, crystallized in his own house remodeling of 1978, to his current lyrical and baroque visual vocabulary.

Disney as L.A. savior

Local boosters hope Disney Hall can revitalize its city as the Guggenheim did in Bilbao. This is naive. Bilbao is far smaller, and the museum is its one major visitor draw. Nor is a visual comparison fruitful. The Guggenheim is blessed with a splendid riverfront site within a coherent urban fabric nestled amid green hills. Disney labors to

John Pastier, a Seattle-based design writer and consultant, was the Los Angeles Times' founding architecture critic.

transcend what is still largely an automobile-scaled urban vacuum.

It fronts on Grand Avenue, which has emerged as downtown's major civic and cultural artery but still feels like a highway and an unfinished urban-renewal artifact. The small Museum of Contemporary Art, by Arata Isozaki, Rafael Moneo's Cathedral of Our Lady of the Angels [RECORD, November 2002, page 124], and a music school by Hardy Holzman Pfeiffer lend architectural interest, but banality is more prevalent in the form of parking lots and garages; Welton Becket's uninspired Music Center, a three-stage performing arts complex housing the Chandler Pavilion (where the orchestra used to play); and two large Mussolini-Modern county buildings flanking an underused pedestrian mall.

Two blocks of Grand will soon be rebuilt with a curving roadway, wider sidewalks, street trees, and fewer traffic lanes, but even now Gehry's opus gives it newfound grace and presence. Remarkably, its billowing stainless-steel exterior manages to be at once playful and monumental. It responds to light and weather, becoming as solid as a mountain range, as golden or rosy as a sunset, or as cool and delicate as fog. The oily handprints that already cover its surface are a popular tribute to its tactile attraction.

It turns its best face to Grand, where a glass lower lobby opens wide, free to the public for extended hours, even when no events are scheduled. Next to it are a gift shop and Patina, a high-end restaurant

designed by Hagy Belzberg [RECORD, December 2003, page 100].

A broad entrance stair ascends from the corner of First and Grand, but Disney's other three sides about spottily developed, sloping urban highways rather than humanely built city streets. Gehry's response was

the Roy and Edna Disney/Cal Arts Theater, an intimate café and superbly equipped black-box performance space.

A secluded 1-acre public garden wrapped around two sides of the metal superstructure, 34 feet above Grand, provides the pedes-



Taking bows at Disney's opening are (below, from left) Esa-Pekka Salonen, Yasuhisa Toyota, and Frank Gehry. First-night fireworks lit up the sky (above).



to make a low plinth on First, and front the other two streets with flat rectangular structures clad in warm limestone. These house administrative and musicians' quarters and

trian amenity absent elsewhere. Two amphitheaters offer public-programming possibilities within an understated landscape design by Melinda Taylor. This features mature trees transplanted from donors' gardens, and a peculiar broken-crockery fountain designed by Gehry to honor donor Lillian Disney. The fountain recalls the iconoclastic, Gaudíesque folk artist Simon Rodia, of Watts Towers fame.

Piranesian lobby; serene auditorium

The crisp orthogonality of the hand-

Commentary

some red-walled entrance from the underground garage is the one exception to the hall's omnipresent curved forms. Above, Gehry created an intricate set of circulation spaces rather than an easily comprehended grand lobby. A sensuously rounded space off the upper entrance, meant for preconcert talks and chamber-music presentations, is hampered by its openness to the noise of the lobby. Massive, abstracted tree forms—disguising columns, ventilation, and lighting—make the fragmented lobbies feel cramped. Skylit asymmetrical upper lobbies access the symmetrical seating tiers. The overall effect is Piranesian and a bit confusing to first-time patrons.

This spatial complexity gives way to an Apollonian lucidity in the auditorium. The room layout has clarity despite its complex geometry, and a sense of lightness, augmented when concealed sky-

lights softly diffuse daylight. Gehry calls it "my I.M. Pei space." The monumental angularity that marks Pei's work is absent, but Gehry's detailing and finishes are as elegant and meticulous as Pei's. Finished primarily in warm Douglas fir, the auditorium's curved forms also subtly evoke Alvar Aalto's interiors and Charles Eames's molded-wood furniture designs. This surface treatment is not just aesthetic; its convexity is essential to the hall's acoustic success.

Acoustically, a high-wire act

Although highly personal, the hall's design reflects a genuinely collegial collaboration between Gehry and acoustician Yasuhisu Toyota, of Nagata Acoustics. These marriages don't always go well. Many acousticians are imperious, and struggles between them and designers have been legendary.

Sound seems to enter **a listener's body** not through just the ears but through the eyes, every pore in the skin ...

—Mark Swed, *Los Angeles Times*

The overall effect was full-bodied and clear but in a modern, somewhat **clinical** way.

—Anthony Tommasini, *The New York Times*

Shop fronts are dingy, buildings grimy, beggars huddle on refuse-strewn pavements.... Yet turn back and there it is, **a silver hallucination** between the high-rises.

—Shirley Apherthorp, *The Financial Times*

When all the instruments sounded at full volume, you experienced **a composition out of Orson Welles**: The big picture was clear, yet every detail was distinct.

—Alex Ross, *The New Yorker*

Pumpkin into carriage, cabbage into concert hall, **bippidi-bobbidi-boo**.

—Herbert Muschamp, *The New York Times*

In Gehry's work you see echoes of ... **Gaudí, Scharoun, and Saarinen**; in Salonen you hear **Sibelius, Ravel, and Boulez**.

—Pierre Ruhe, *The Atlanta Journal Constitution*

The orchestra prizes clarity and crackle, hammer-stroke accents and crystalline counterpoint, and the hall obliged, with a sound that was **limpid, vivid, and electric**.

—Justin Davidson, *Newsday*

[Through structures like Disney] we **identify with the beautiful** and the exceptional; we understand ourselves and our aspirations.

—Ada Louise Huxtable, *The Wall Street Journal*

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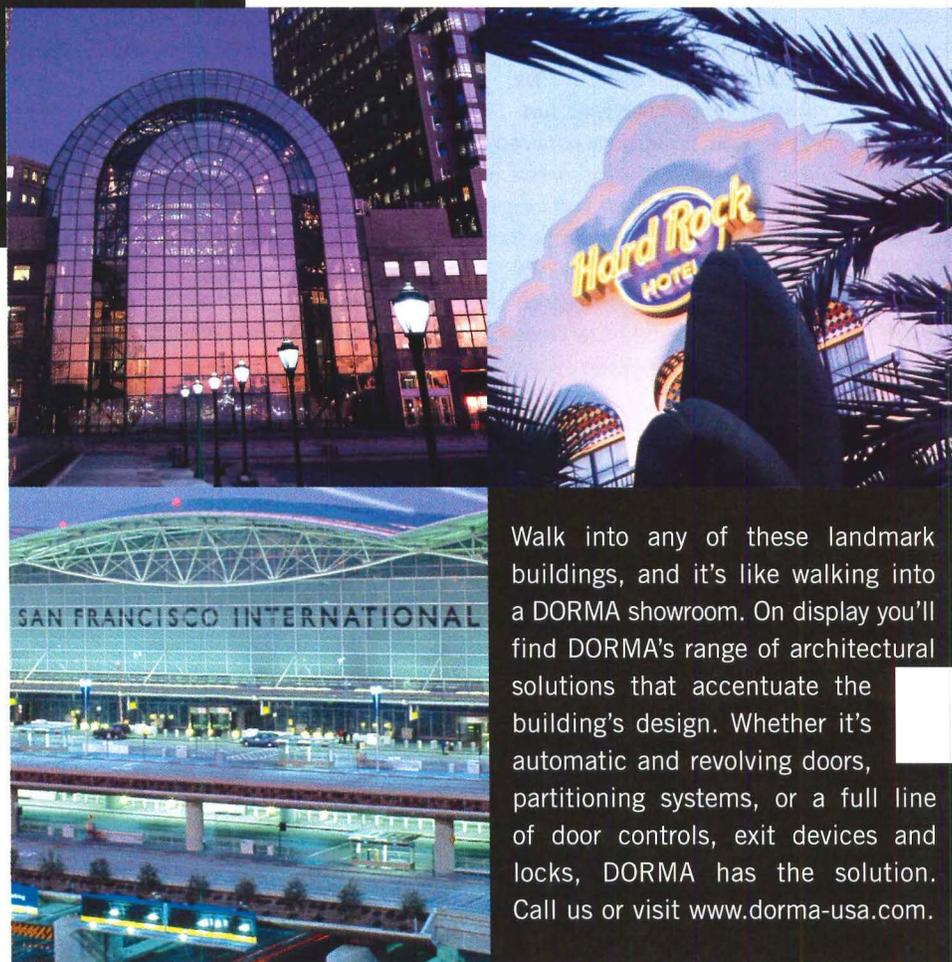


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Commentary

"I gave Yasu more than he wanted," Gehry says. "If he asked for a cylinder, I'd give him a sphere." But once, he gave him less: Toyota wanted to suspend a large reflector over the orchestra, but Gehry felt it would look wrong, so the acoustician bowed to visual concerns, with no apparent ill effect.

The seating plan puts the stage near the center of the hall and surrounds it with seats on all sides, bringing the audience closer to the players and allowing many patrons to see the conductor's facial expressions. The design dispenses with elements such as a proscenium, orchestra shell, adjustable stage canopy, and suspended reflectors, which are traditionally used to shape the sound and tune the hall. Here, all depends on the walls and ceiling; this unencumbered space is the acoustic equivalent of a high-wire act without a safety net. A moderate

capacity of 2,265 seats creates an acoustic advantage over larger halls, including the Philharmonic's previous 3,197-seat venue. "We were always fighting the Chandler's acoustics," said Esa-Pekka Salonen, the Philharmonic's music director and chief conductor. "Disney is responsive, resonant, and enhances our efforts rather than diminishing them." He finds the sound "a lot more detailed, but also more homogenous, unified, and layered."

Critical reaction has been uniformly positive. The highest praise comes from Mark Swed, the *Los Angeles Times* music critic. Just arrived from Boston (and its famed hall) for Disney's opening concert, he privately declared that "as of tonight, Symphony Hall is no longer the finest concert hall in America." My own sense, after sitting in 10 locations during six concerts and rehearsals, is that the hall can deliver superb

sound: clear, articulated, immediate, warm, and rich—but not always. A virtuoso pianist produced a muddy bass line by playing too hard and using too much pedal. Two conductors fell short of the formidably skilled Salonen, producing a less transparent and detailed sound, even with a much smaller orchestra. The hall is not a magic wand; it rewards mastery but also exposes anything less. It seems best suited to music of our era, but that might just reflect the strengths and inclinations of the first wave of performers.

Inevitably, the sound quality varies by location. One seat to the side of the stage sounded better than two others nearby, but all had better instrumental balance and blend than similar seats in London's Royal Festival Hall, Denver's Boettcher Hall, and Davies Hall in San Francisco (although not as good as Amsterdam's Concertgebouw). Halfway back, near a side wall, the sound was a bit constricted, but five seats inward it expanded nicely. The sound in the top balcony, usually the

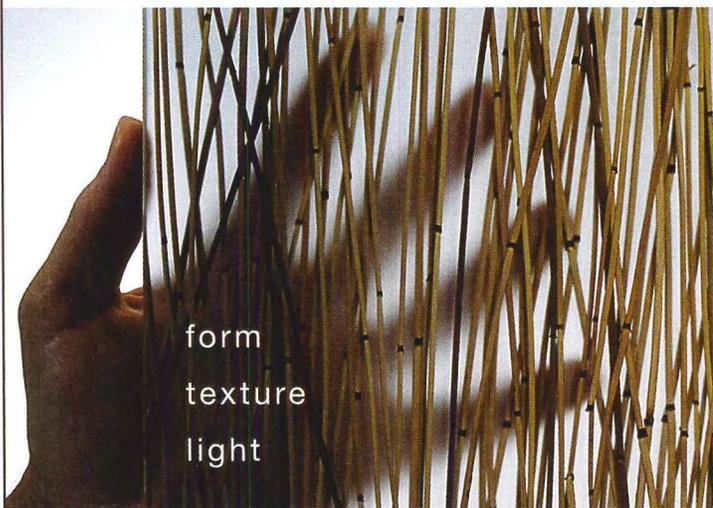
best spot in older halls, lacked some immediacy and impact in big climaxes—something I've also experienced in Seattle's recent Benaroya Hall.

I agree with Swed, Toyota, and Salonen that it's too soon for a definitive verdict on the acoustics. The conductor continues to mold the orchestra to the hall, repositioning players, tweaking the height of the risers, and otherwise tinkering with instrumental balance. He says, "I'm curious about the limits of this hall. We haven't reached them yet."

What is clear is that Los Angeles has gained a genuine civic centerpiece, a powerful cultural landmark that could become its most recognizable visual symbol. Gehry has designed a building that greets the world with unabashed drama and serves the art of music with disarming clarity and directness, evoking Mahler in its exterior and Haydn at its center. In time, it may prove to be the most successful fusion of musical acoustics and modern architecture anywhere. ■

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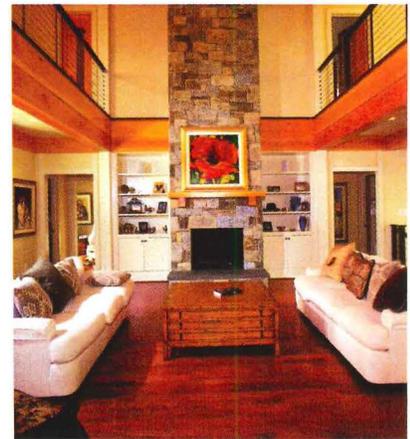


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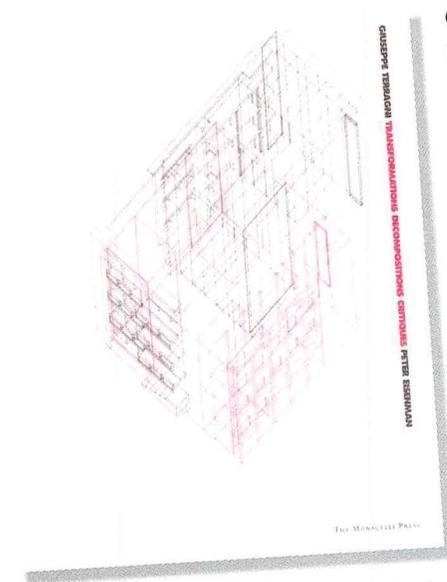
After 40 years of waiting, tomes on two 20th-century architects finally arrive

Books

Giuseppe Terragni: Transformations, Decompositions, Critiques, by Peter Eisenman. New York: The Monacelli Press, 2003, 304 pages, \$60.

In the mid-1970s, I sent \$36 to MIT Press for a forthcoming book on Giuseppe Terragni by Peter Eisenman. That book has now emerged, not from MIT Press but from the Monacelli Press in New York. Eisenman has been working on this tome, we are told in the pre-publication publicity, for 40 years. Forty years! That's biblical, and I'm sure that's Eisenman's intention. With him there are always "hidden masses of implications, a veritable world that reveals itself to those whom it may concern—which means those who deserve it." (That's a quote from Le Corbusier, circa 1948, but applies here, I think.)

Peter Eisenman has indeed been "working on" Terragni for a very long time, and while he was not originally responsible for presenting Terragni to English-reading architects (Panos Koulermos and G.E. Kidder-Smith published first), Eisenman rightly "invented" Terragni. By this I mean Eisenman explained Terragni to a suspicious architecture community once convinced that the master of Como was either a second-rate copier of Corbusier, Johannes Duiker, and various middle-European Modernists, or that he was just another Fascist, like all the architects working for Mussolini. For many Modernist architects, Terragni's buildings were



often too thick and solid (the Casa del Fascio in Como), too classicizing (the various tombs and monuments), or too "Fascist" (the Danteum and Palazzo Littorio projects).

Eisenman argued strenuously all these years that Terragni could not be judged, or explained, through a Corbusian or Miesian lens. And he brought Terragni to life in lectures and two important articles published about 30 years ago. This book is a magnificently produced expansion of those articles. In it, Eisenman exhaustively analyzes Terragni's two most important masterpieces: the Casa del Fascio (1932–36) and the Casa Giuliani-Frigerio apartment house, both in Como (1939–41).

The book's subtitle, *Transformations, Decompositions, Critiques*, serves as the structuring device for the text. The Casa del Fascio is "transformed," the Casa

Giuliani-Frigerio is "decomposed," and the "critiques" are essays by Terragni himself (on the Casa del Fascio, first published in 1936), and by Manfredo Tafuri ("Terragni, Subject and Mask," first published in *Oppositions* in the 1980s). It is significant that Eisenman uses the term "decomposition" rather than "deconstruction." "Decomposition" is a word Terragni used (in his *Relazione sul Danteum*, 1938), and Eisenman is, in fact, decomposing

the facades of the Casa Giuliani-Frigerio. He may also be "deconstructing" Terragni, but that's another matter.

Starting with the premise that his book is as much about himself and his way of viewing architecture as it is about Terragni, Eisenman proceeds to attack the subject with myriad drawings supporting a dense, but surprisingly readable, text. He avoids the pitfall of many poststructuralist writers by eschewing much of the lingo. His voice is that of an architect. But his text is not easy. One must stop and examine the drawings after almost every sentence, and if one does so, the reward is there. Using and reusing illustrations to make his point, much as he might do in a lecture, Eisenman makes a convincing case for his "readings," although I'm not so sure that his "method" is quite as revolutionary as he proposes.

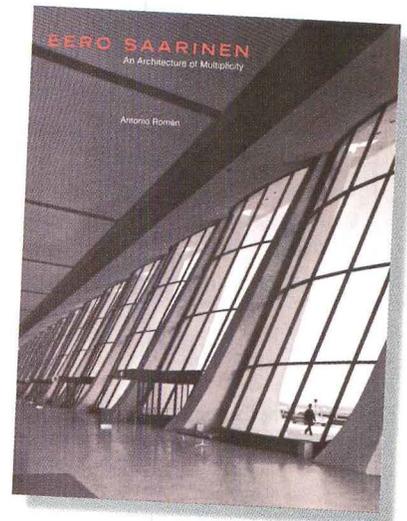
Nevertheless, for any architect who loves the detail of the craft, this is a book to pore over and return to, time and again.

Thomas Schumacher

Eero Saarinen: An Architecture of Multiplicity, by Antonio Román. New York: Princeton Architectural Press, 2003, 225 pages, \$60.

Eero Saarinen was one of America's greatest architects, yet in the more than 40 years since his death, no definitive monograph of his work has appeared. Now comes Spanish architect and historian Antonio Román's *Eero Saarinen: An Architecture of Multiplicity*, claiming to be a groundbreaking landmark that "sheds new light on Saarinen's most important works."

Saarinen was often faulted for having designed a wide variety of works in a very short time ("an architect of too many shapes and



Books

too few ideas," a contemporary noted). Thus, the designer of such seminal works as Washington, D.C.'s Dulles International Airport, the CBS Building in New York, and the John Deere headquarters in Moline, Illinois, has been relegated to the purgatory where we often banish controversial, misunderstood, or unfashionable architects like Paul Rudolph, Edward Durell Stone, or Richard Neutra. Román has attempted to "explore the architectural mechanisms by means of which an architect can produce a valuable body of work, despite the apparent lack of unity." Answering the critics, however, and prolonging that tired debate, instead of bringing fresh analysis to the work, seems a curious way to rehabilitate Saarinen's reputation.

Román has chosen several "subjective categories"—creating, dwelling, building, socializing, and

judging—and applied them to TWA; the colleges at Yale; Dulles and the St. Louis Arch; General Motors and CBS; and the Sydney Opera House (for which Saarinen was one of the judges) to explore the architect's "multiplicity." Sadly, the author's prose is often dissertational and leaden ("Following his father's interest in comprehensive design, Saarinen envisioned design in a broad scope"), while Román's hero apparently speaks only in platitudes ("Each age must create its own architecture out of its own technology, and one which is expressive of its Zeitgeist").

An Architecture of Multiplicity, moreover, would have been stronger were it not so riddled with errors. The American Embassy in London is on the west side of Grosvenor square, Le Nôtre should be spelled properly, there is no Bradford College at Yale, the atrium photo

at Deere is of Kevin Roche's work, and so on.

Factual errors, theory-speak, and pretentious title aside, there is not much new in Román's book, and the illustrations are really disappointing. Handsome though they may be, the use of contemporary black and white images throughout (including Ezra Stoller's old chestnuts) makes the book a sort of Eisenhower-era period piece. That same 1956 Chrysler is still parked in front of TWA.

Antonio Román unwittingly demonstrates that the book on Eero Saarinen has yet to be written. *William Morgan*

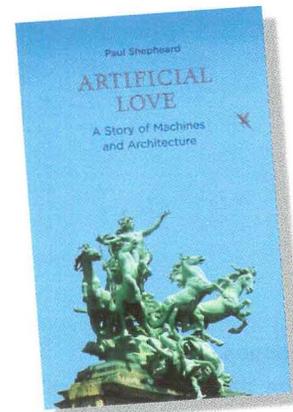
Artificial Love: A Story of Machines and Architecture, by Paul Shephard, Cambridge: MIT Press, 2003, 212 pages, \$16 (paper).

In *Artificial Love*, Paul Shephard attempts to assemble a universal theory of structure, one in which "technology is a force of nature," as if all the by-products of mankind, our toasters and skyscrapers as

well as our guns and slums, arose as naturally from our primordial past as a fish walking out of the ocean.

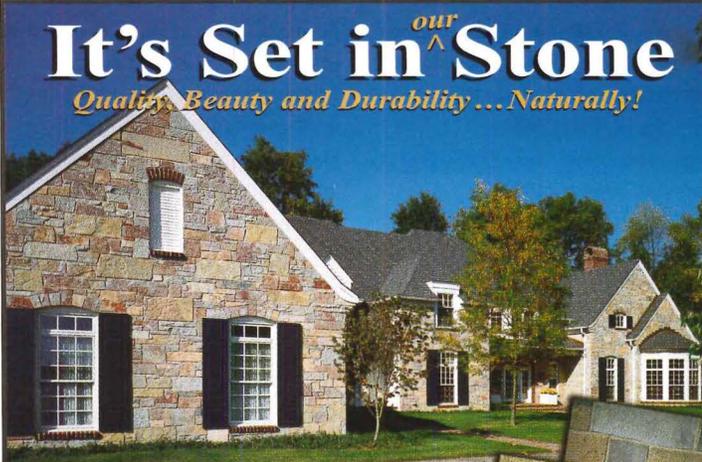
Unlike many such books on design, Shephard's is accessible and entertaining, sustained by anecdotes from literature and

the media, as well as theories offered up by a precocious niece and moody brother-in-law. It won't take more than a few train rides to read, which is a virtue considering the weight of the chosen subject. However, the author's short chapters frequently stray into the kind of unfocused musings that float



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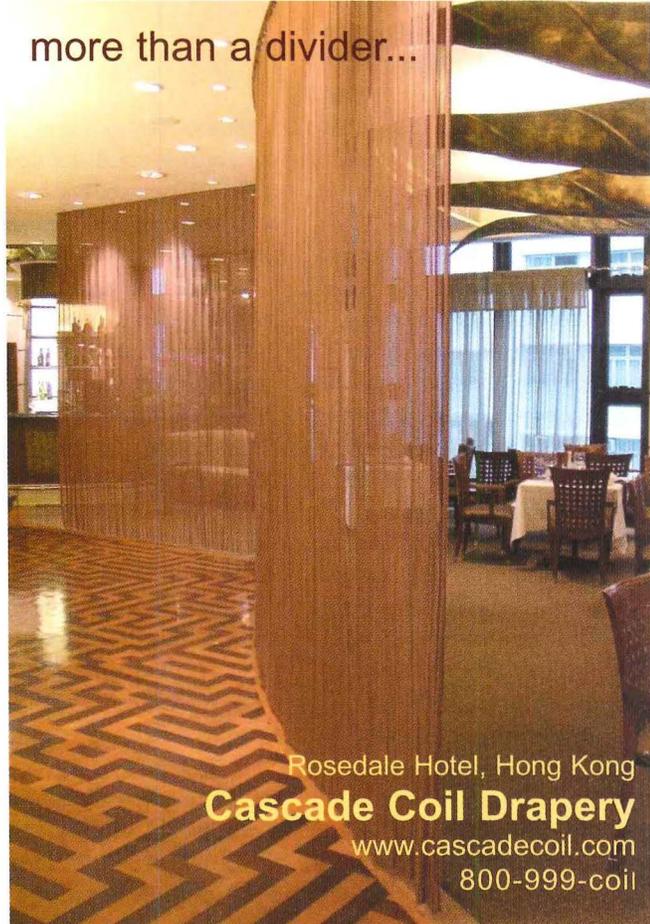
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Books

around graduate study seminars. Do we need to play a lengthy semantic game, for example, of determining whether a thermostat is a machine, an automaton, or a tool?

For all his love of structure and machines, Shepherd has a low opinion of conventional architecture, favoring instead product design and mechanical engineering. He lionizes the radio-controlled car rather than Radio City Music Hall. "That is why machines seem so effortlessly architectural to me," he writes, "as though architecture really is happening somewhere other than in the buildings."

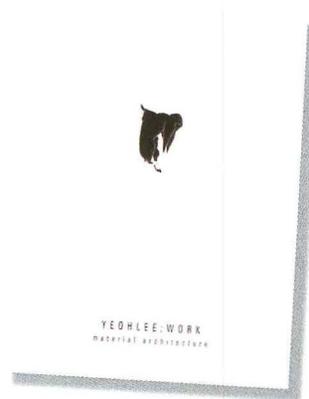
Shepherd, a British architect who writes from Texas, embraces the state's parking lots and islands of air-conditioned offices, arguing that "all cities, including this turbulent Houston, are no more or less than human nests." This Darwinian argument, confident that all human

constructs stem from our genes, is weak, however. Unlike the ants in the anthill, who have no choice but to obey instinct, we can choose to redress our pollution, congestion, and aesthetic blight, rather than to look around and shrug our shoulders, as the author does, and claim "the problems will always be there, like the stars and the planets."

Will Yandik

Yeohlee: Work—Material Architecture, edited by John S. Major and Yeohlee Teng. Melbourne, Australia: Images Publishing, 224 pages, \$65.

Using the word "architecture" has become fashionable in fashion circles to give a semblance of depth to a field lacking much of a history of critical discourse. Clothing designer Yeohlee Teng, though, has always thought of her work in



architectural terms—creating elegantly disciplined garments envisioned as shelter for the body and engineered to minimize waste of fabric, labor, and time. Born in Malaysia but long based in New York, Yeohlee first made a name for herself with a hauntingly simple cape that Robert Mapplethorpe wrapped around Lisa Lyon in a famous photograph from 1982. Remarkably, the cape is made from one piece of fabric, with no waste.

Since then, Yeohlee has explored structure, enclosure, and movement in clothing, using both

innovative and traditional materials. She designs for people she calls "urban nomads," modern individuals who don't have time to change their clothes as they run from a business meeting in New York to a flight to Kuala Lumpur. In 1998, she exhibited her designs at the Netherlands Architecture Institute/NAI alongside the buildings of Ken Yeang, with whom she grew up in Penang.

Reflecting Yeohlee's intellectual approach to clothing design, this book includes a collection of thoughtful essays by people such as Museum of Modern Art curator Paola Antonelli, Walker Art Center curator Richard Flood, and Richard Martin, who was the curator in charge of the Costume Institute at the Metropolitan Museum of Art until his death in 1999.

Not surprisingly, the book itself sports a crisply modern design with plenty of white space and a striking black-and-white cover that shows how powerful simplicity can be. *Clifford A. Pearson*

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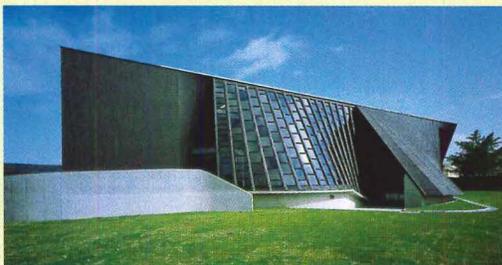
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Fumihiko Maki (far left); Reiho Community Hall, Hitoshi Abe (center); Springecture B, Shuhei Endo (left). PHOTOGRAPHY: © DAICI ANO/NACASA & PARTNERS (CENTER PHOTO)

Snapshot



By Ingrid Whitehead

In Galicia, the region of Spain's Iberian Peninsula that lies farthest northwest, visions abound. It was a hermit's vision in the 9th century that led people to the body of Santiago, or St. James, first cousin to Jesus. A town was built around the church that housed Santiago's grave, and thus Camino de Santiago (The Way of St. James) began, leading pilgrims along the "Pilgrim's Way" to Santiago de Compostela, the Holy City (and UNESCO World Heritage City) at Galicia's heart.

Today, it's part spiritual quest and part Bilbao Effect that have led Galician city planners, ministers of culture, university chairs, and architects to find a way to bring pilgrims and tourists to the region. A modern city of art and culture, the Ciudad de Cultura, is springing up beside Santiago de Compostela as a place where the history and heritage of Galicia can be honored and exhibited, where new technologies converge with the old in an 810,000-square-foot, \$125 million cultural complex. Peter Eisenman won the competition to design it from a shortlist that included Rem Koolhaas, Jean Nouvel, and Daniel Libeskind; and two striking towers by architect John Hejduk have risen as the city's first built structures.

Two towers announce Galicia's new City of Culture



Snapshot

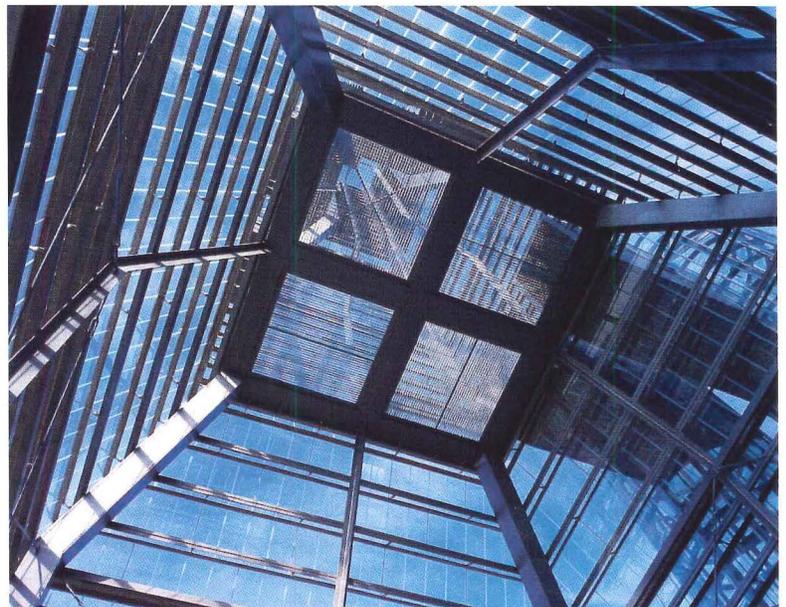


The Hejduk Towers are iconic beacons at the entry point of the City of Culture. The steel structures are clad in granite and glass tiles, respectively.

The two steel towers, which Hejduk designed with Antonio Sanmartín G. de Azcón supervising and serving as project architect, will eventually be followed by a museum of Galician history, a center for new technologies, a music theater, a library, and an arboretum.

The towers stand in memorial to Hejduk, the former dean of Cooper Union's School of Architecture. These aren't Hejduk's first buildings in the region—his Centro Civico la Trisca building in Santiago de Compostela was completed in 2001. He originally designed the towers in the early 1980s as botanical lab structures for Santiago de Compostela. Politics got in the way, and the project floundered. Sanmartín had been involved in the original project, and as part of the City of Culture team, he and Eisenman, Hejduk's longtime friend and colleague, rallied to get the towers built. With the exterior geometry of Hejduk's original design preserved, the towers will be used as exhibition spaces and viewing stations, as the 82-foot structures provide views of the entire city.

Hejduk died in 2000, before the towers were built. However, according to his daughter, Renata, he died knowing his vision of the towers would become reality. "Peter promised my father that the towers would be built," said Renata Hejduk, "and he and Antonio have honored that promise." ■





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Putting Art in Its Place: An Interview with Victoria Newhouse

By Suzanne Stephens

After a new museum has opened to great fanfare—and the architects have gone on to their next project—comes the verdict of the museumgoers, curators, and perhaps those who create the works on view. Often the architecture seems at odds with the exhibited work. Victoria Newhouse, an architecture historian, is completing *Art/Power/Placement* (Monacelli Press), an investigation of the manner in which art is displayed and perceived within a museum environment. In the book, which combines history with criticism, Newhouse explores such topics as the shifting venues of some of the best-known artworks, including the *Victory of Samothrace* and the *Laocoön*. But she also discusses problems of displaying art in the museums built in the last few decades. *ARCHITECTURAL RECORD*'s special correspondent, Suzanne Stephens, recently talked with Newhouse about how well the work of art is served or not served by architecture, and considerations that architects and their clients should take into account.

AR: In your forthcoming book, *Art/Power/Placement*, you focus on the way that the installation of art influences the spectator's perception of it, which has obvious implications for the architecture of the museum. What impelled you to take on this subject?

VH: When I wrote *Towards a New Museum* (Monacelli Press, 1998), I addressed the importance of the container and its content, especially the ongoing conflict between a neutral and a contextual setting for showing art. The elusive issue of context piqued my interest. Just as an event—the Yoshi Tanaguchi expansion of the Museum of Modern Art (MoMA) in New York—spurred me to write the museum book, since I felt it would change the character of the institution, so an exhibition I saw prompted me to write *Art/Power/Placement*. That exhibition was *Jackson Pollock*, curated by the late Kirk Varnedoe, which opened at MoMA in November 1998, the year my museum book was published. Seeing the show in New York and then the next year in London at the Tate Gallery was a revelation: I was overwhelmed by how different the works looked in the two instances, and how different were the messages conveyed.

First, the one in London made magnificent use of natural

light, whereas the one at the Modern depended on artificial light. Art looks so much better in natural light. Second, there was the sequence. In MoMA's Pollock show, installed by Varnedoe, the artist's late, post-poured work was downplayed: You could easily have missed it. In London, it provided a dramatic climax.

AR: But you can't depend on natural light alone.

VH: Certainly natural light needs to be supplemented by artificial light, and I have no problem with a mixture—but the way natural light shifts in tone affects the way you see the artwork. In some museums, such as Louis Kahn's Kimbell Museum in Fort Worth, the top lighting makes you subtly aware of the clouds and meteorological changes outside. But in other museums, such as the just-finished Modern Art Museum of Fort Worth by Tadao Ando [*RECORD*, March 2003, page 98], the light is too homogenized. You have the feeling you are in an artificial cocoon.

AR: A number of museums have taken over old factories and warehouses because of the sheer space allowed. Does this solve the lighting problem? Any good examples come to mind?

VN: Light in the Dia:Beacon building is quite successful. It's an old Nabisco factory, just about an hour by car from New York City, and has north-facing skylights, many clerestory windows, plus conventional windows [*RECORD*, October 2003, page 108]. In other words, every kind of daylight is available. Also, a light artist, Robert Irwin, worked on the renovation. What could be better? An artist often has a feel for the installation of art objects that is far superior to that of curators and architects. Betty Parsons used to have artists install shows of other artists in her gallery in New York during its heyday in the 1940s and 1950s. The Danish Neoclassical sculptor Bertel Thorvaldsen, who died in 1844, played an active role in designing a museum in Copenhagen for his work, which is a model for the use of natural light. He said both horizontal (side light) and vertical (top light) were needed.



1.

Kunsthhaus, Bregenz, Austria, by Peter Zumthor, exterior and an interior gallery (1); Kimbell Art Museum, Fort Worth, by Louis Kahn (2); the Guggenheim Hermitage in Las Vegas, by Rem Koolhaas of OMA (3).

AR: Peter Zumthor's *Kunsthhaus* in Bregenz, Austria (1997), explores yet another approach to lighting [1]. How does his museum fare in your estimation?

VN: Bregenz is like the Kimbell in its ingenious use of light. Zumthor designed a glass-walled box within which gallery levels are inserted—supported by asymmetrically placed concrete bearing walls. Horizontal space between each of the gallery floors allows natural light to come in through the exterior glazed walls. It is then filtered down through open-jointed, etched-glass ceiling panels and supplemented with artificial light. The diffused illumination would be perfect for paintings, except you have the same problem as at the Kimbell with wall textures. Here raw concrete absorbs the light, and polished gray terrazzo floors reflect it. This presents a problem for seeing oil on canvas, but it works for other kinds of art.

AR: Is this concern for the nuances of light something that has only occurred since the development of the museum in the past few centuries?

VN: Actually, the importance of lighting for art was already understood in antiquity. Recent discoveries suggest that in the 7th century B.C. a number of Greek temples had skylights made of Parian marble tiles from the Cyclades. The marble was translucent, like alabaster. Even the Parthenon may have had some form of a skylight, and sidelighting from windows facing the statue of Athena. We have long known about the windows, but because they were screened by the temple's peristasis, the ceiling would have been a more important source of light.

AR: In your book, you discuss very particular architectural elements that must be taken into account when mounting art, such as the nature of the museum wall. What is it about the wall that is so critical?

VN: An enormous body of theoretical writing by Rosalind Krauss and others has been devoted to the relationship between the art object and the wall. I talk about the more mundane subject of the physical wall itself. The important thing is scale: The wall should not be too high or too long for the work displayed on it. Soft materials, such as plaster and wood, are better than hard materials like stone and metal, since the softer materials provide a more harmonious transition to the artwork. Hard materials make an older painting look disjunctive, and stone walls in particular have intrusive masonry joints that are distracting. Most curators argue that stone walls kill art, but architects continue to design them. Even for the Kimbell, Kahn used travertine: Paintings there have to compete with the masonry joint lines of the stone. On top of that, stone has a tendency to leach away the painting's light. In the Kimbell, the work looks better on temporary partitions than on the travertine walls [2].

AR: We all know Rem Koolhaas's *Guggenheim Las Vegas* museum for temporary exhibitions has closed. But you found Koolhaas's second museum space, the *Guggenheim Hermitage* in the Venetian Resort in Las Vegas (2001), which remains open, to be problematic for displaying art. Why? [3]

VN: For an architect who is as sensitive to materials as Koolhaas, it is surprising he would use Cor-ten steel for peripheral walls and for the thick movable panels partitioning the galleries [RECORD, January 2002, page 100]. This is possibly the most ill-considered material used as a background for art in recent memory. The museum was



2.



3.

designed to show works from the New York Guggenheim and the Hermitage in St. Petersburg. Koolhaas's rationale was that the velvety quality of the waxed, rusted steel would replicate in a modern idiom the rich, colored textiles against which paintings are seen at the Hermitage. This interesting concept just didn't work.

The idea for the Guggenheim museum in Las Vegas was inspired by the Bellagio Gallery of Fine Art, which the casino owner, Steve Wynn, opened in Las Vegas in 1998. The idea came to the Guggenheim's director, Thomas Krens, when he learned that half a million people visited the gallery in the first eight months it was open and paid \$12 each to see Impressionist and contemporary paintings. As he said, "If you're in the missionary business, you go where the heathens are. This is what we did in Las Vegas." Wynn's gallery installation is as funky as Las Vegas [4]. Paintings are hung against black-velvet-covered walls. The carpeting is brightly patterned and garish, all very high kitsch. Koolhaas's Guggenheim space is exquisitely elegant—a veritable strongbox insulating the reality of the genuine masterpieces from the make-believe of the casinos. Located in a hotel where escalators whisk visitors upstairs to Venetian-style canals, complete with gondolas and "Il Sole Mio" piped in for background, it is hard to fault the architect for his bid for authenticity. Unfortunately, he achieved his goal at the price of the art.

AR: Let's look at wall colors and frames. What sort of colors work best?

VN: Color depends on what is being shown. Nineteenth-century artists protested bright red walls in the universal expositions that drew such crowds at the time. However, last winter at the Metropolitan Museum's *Manet Velasquez: The French Taste for Spanish Painting* exhibition in New York, red walls proved to be tremendously flattering to the 17th-century Spanish paintings hung on them. The exhibition originated at the Musée d'Orsay in 2002, where all the walls were a putty-gray and made these paintings appear more somber and less exciting.

AR: What about the frames?

VN: Frames chosen by the artist should be left in place if possible. When the Museum of Modern Art reopened after its 1984 renovation and expansion by Cesar Pelli, the museum's director of painting and sculpture, William Rubin, shocked the art world with his homogeneous reframing of many paintings. He substituted flat, narrow, antique gold strips for the individually distinct, deeply carved, gilt frames of the Post-Impressionists.

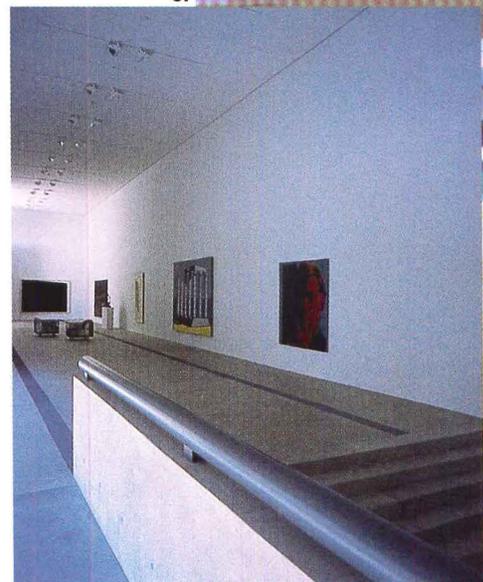
While some of the older frames had been added by former owners, others had been chosen by the artists. It is tremendously presumptuous to change the ones the artists selected, because frames affect the way the work was seen historically. This situation was reversed at MoMA's millennium exhibition, *Changing Visions: French Landscape, 1880–1920*, where the curator, Magdalena Dabrowski, not only used some of the muted chocolate brown, gray, and dark greens seen in the art dealers' galleries and collectors' homes of the time, but replaced the modern strip frames with traditional, carved, gold ones, like those originally used. The older frames' high profile created a *répoussoir* effect that gave the pictures added depth.

AR: What about the size and length of walls. What do you think of the requirements of the painting vis à vis the architecture?



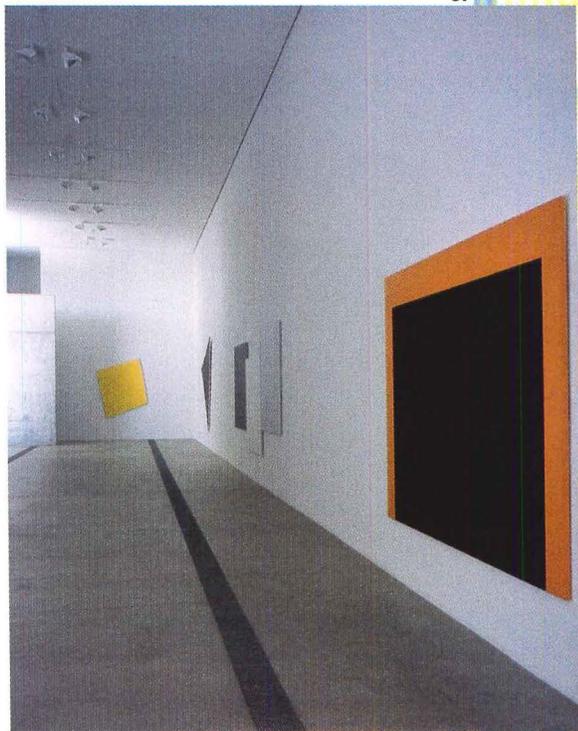
4.

5.



The Bellagio Gallery of Fine Art, Las Vegas (4); an exhibition gallery at the Pulitzer Foundation for the Arts in St. Louis, by Tadao Ando (5); Ellsworth Kelly's own installation of his paintings in the Pulitzer Foundation (6).

6.





7.

VN: Long walls in contemporary buildings are usually difficult to hang, certainly with Modern architecture. Tadeo Ando has a habit of creating one principal gallery with long walls, which are inimical to art. In his design for the Pulitzer Foundation for the Arts in St. Louis, the grand, elegant, main gallery has a 170-foot wall that is interrupted at one end by a monumental stairway [5]. Even though the stair reduces the hanging area by about one third, the remaining wall is still too long to fill satisfactorily. In its proportions and natural illumination, the Pulitzer's large gallery is architecture at its best, but the long wall is a challenge for painting. Once again, an artist, in this case Ellsworth Kelly, met that challenge with the installation of his own work [6]. Neither does

the long wall work in the largest gallery at Gehry's Bilbao Guggenheim [RECORD, October 1997, page 74]. Philip Johnson has always said it is best to have only one painting per wall, and Frank Stella says maybe two. But without the framework of window alcoves, columns, pilasters, and decorative moldings found in pre-Modern buildings, such as the Louvre, objects often appear to be cast adrift in space.

AR: *The spaces by Josef Kleihues for the Hamburger Bahnhof Museum für Gegenwart in East Berlin (1996), in new wing of a former railroad station, are dramatic, but the walls are 263 feet long. What do you think of the effect on art?* [7]

VN: It is problematic. The walls are too high and the space in relation to them is too narrow—the gallery is 46 feet wide. You feel as if you are in an endless corridor. On these vast planes, large works of contemporary art from the Eric Marx collection appear like a series of billboards lost in a desolate landscape.

AR: *What about the scale of the artwork to the architecture? In some cases, the work is so large, it requires very different considerations.*

VN: The scale of art and the space in which it is seen is the most acute problem of today's displays. The proliferation of large artworks since the late 1940s has spawned the misguided assumption that the bigger the exhibition space, the better. Yet the one-size-fits-all approach shortchanges not only the artists producing small-scale art, but large work as well. Richard Serra's installation of *Torqued Ellipses* (1996–97) in three different venues is a good case in point. These Cor-ten steel behemoths, 40 tons each, with walls that rise as high as 13 feet, transcend traditional sculpture as we know it, becoming more akin to architecture. Indeed, Serra has said that the pieces are predicated on the body's movement through them, something like Le Corbusier's *promenade architecturale*. In order to experience the forms and material, as well as the way light plays on the works' contours, the visitor must enter the opening slit in the sculpture's wall and follow a disorienting maze of spaces.

In one installation in 1997, three *Torqued Ellipses* were displayed inside Dia:Chelsea's single-story, warehouselike building, across the street from its main four-story art center on West 22nd Street in Manhattan [8]. The gallery was big enough to allow walking around each piece, yet snug enough to provide a framework for them. Placed just a few feet below the dark wood roof beams and wedged into the space illuminated by skylights, each sculpture felt like a powerful coil about to spring. Serra remarked, "The outside of the form reads better. Its definition is clearer in relation to a vertical plane than it would be to a flat, open landscape." At Gehry's Bilbao Guggenheim,



8.

Hamburger Bahnhof Museum, Berlin, renovated by Josef Kleihues (7); Richard Serra's *Torqued Ellipses* (1996–97) at the Dia:Chelsea in New York in 1997–98, in a space renovated by Richard Gluckman (8); and in 1999, in the Bilbao Guggenheim in Bilbao, Spain, designed by Frank Gehry (9).



9.



the series shown in 1999 was less effective [9]. It was installed with Serra's long Cor-ten steel *Snake* (1996), which is part of the museum's permanent collection. In a gallery bigger than a football field, with ceilings too high to relate to the sculpture, too much space around the pieces, and walls that echoed the curved sculpture, the eight *Torqued Ellipses* lost the tautness achieved by the three in New York.

At Dia:Beacon now, two *Torqued Ellipses* and a torqued spiral (*Untitled*, 2000) are crammed into a space so constrained one can hardly see individual pieces from a distance. However, the installation encourages movement through them, and they come off far better [10].

AR: You mention artists' sensitivity to installing art: what about architects designing exhibitions?

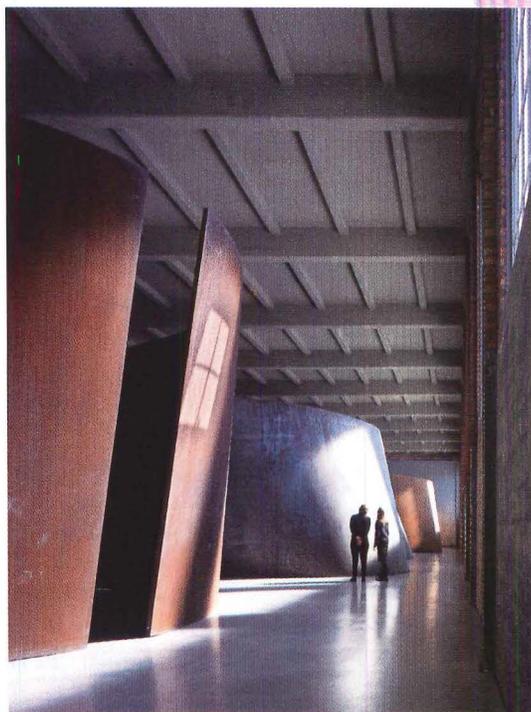
VN: Architects are especially good with installations of their own work, as was demonstrated in 1986 with *The Architecture of Frank Gehry* show that Gehry installed at the Walker Art Center in Minneapolis. Gehry responded to a request by Mildred Friedman, the design curator, for an architectural space you could walk into. He created a fish-shaped, shingled structure to display his fish lamps made out of vinyl shingles. Then Peter Eisenman took that experience a step further with *Cities of Artificial Excavation* at the Center for Canadian Architecture in Montreal in 1994. He designed a new space using his own vocabulary, virtually destroying what had been there. The installation was like an excavation that revealed an Eisenman building [11]. But some architects' work has not been displayed well.

AR: Such as?

VN: The exhibition of Jean Nouvel's architecture at the Centre Pompidou in 2001–02 was a disappointment. Because he rarely draws, and considers small exhibition models to be merely aesthetic objects unrelated to the reality of a built structure, Nouvel relied on projected images. The ensuing slide show in a black-box setting was useless in terms of understanding the architecture [12]. Nouvel's work is about light, and to see projected images in a dark setting was disappointing. It needed film clips and computer walk-throughs at least, but that idea was dropped for budgetary reasons.

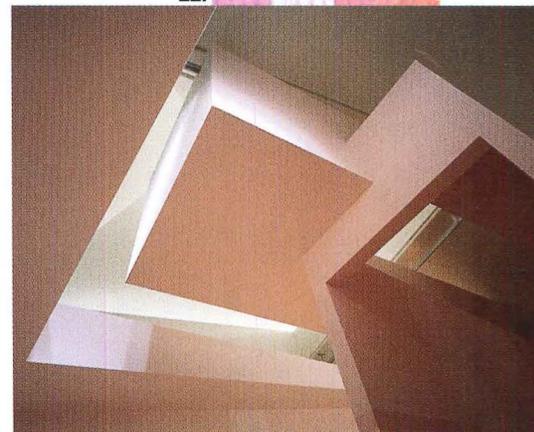
AR: Many of these examples sound prescriptive for the ideal installation. Do you have a favorite museum for viewing art?

VN: While there are problems with different kinds of installation, there are no hard rules for good museum display. My favorite environment is the artist's studio, free of preconceived ideas, with no labels or didactic intentions. Without having seen Renzo Piano's new Nasher Sculpture Garden in Dallas (page 100), I would say the best museum for sculpture is Carlo Scarpa's tiny addition of 1957 to the Canova Museum in Possagno, Italy. Everything is right, the light and materials are perfect: It is sheer magic. For painting, I would argue that Frank Lloyd Wright's Guggenheim (before Gwathmey Siegel's intrusion destroyed the circulation) was great for the medium-size easel paintings for which the museum was intended. In face, Wright had the artist's studio in mind when he designed the canted walls, which function like an easel. ■

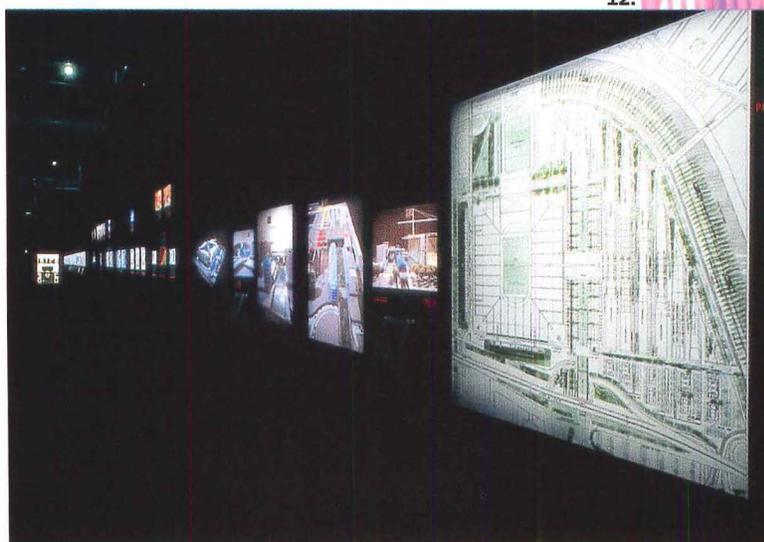


10.

Richard Serra's two *Torqued Ellipses* and a torqued spiral (*Untitled*, 2000) at Dia:Beacon in Beacon, New York (10); Peter Eisenman's *Cities of Artificial Excavation* installation of his architecture, at the Center for Canadian Architecture in Montreal, 1994 (11); and the exhibition Jean Nouvel at the Centre Pompidou in Paris, 2001–02 (12).

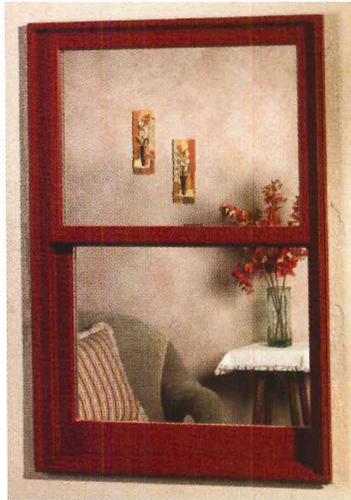


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Are museums suffering from architectural overload?

The recipe for new museums includes an eye-catching form, a high-design architect, and money. What happens if the user gets indigestion? A clinical look

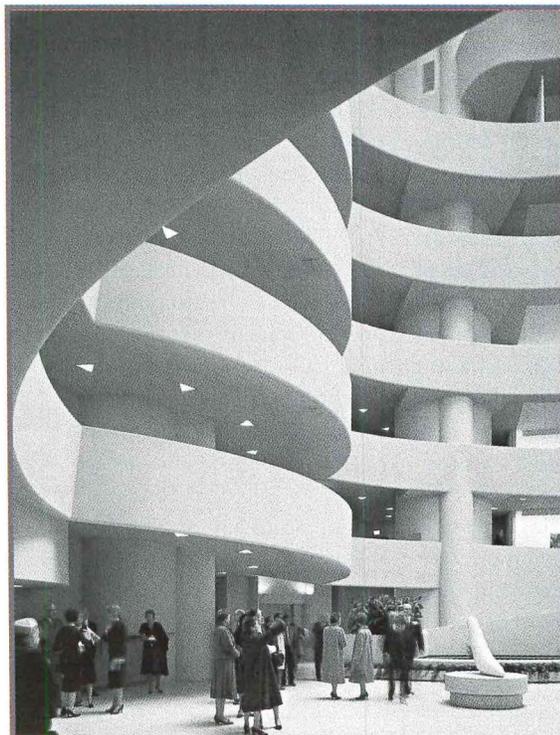
By Suzanne Stephens

By now, no one north of Patagonia needs to be told that the museum is architecturally the most significant building type of our era. As cultural icons, museums act as magnets that can help a city or town establish its own identity, or consolidate its position on the touristic map. Gone are the days when museums were seen as dusty mausoleums. Instead, they have become architectural extravaganzas, where you go for performances, films, shopping, dining—oh, and to see the works on view. A cadre of high-design architects have forged their reputations, or at least burnished them, with their formally evocative work in this area. As such, these “starchitects” function as powerfully effective emissaries of architecture’s contribution to culture. But criticisms keep mounting that so many of these museums emphasize architecture at the expense of the objects on view. You could say this era began in 1959 with the completion of Frank Lloyd Wright’s Guggenheim Museum in New York (below). Artists lambasted it for its spiraling, canted-wall exhibition spaces. (Not all agree with them: Victoria Newhouse defends the original Guggenheim, while criticizing other museums, in “Putting Art in Its Place,” page 80.)

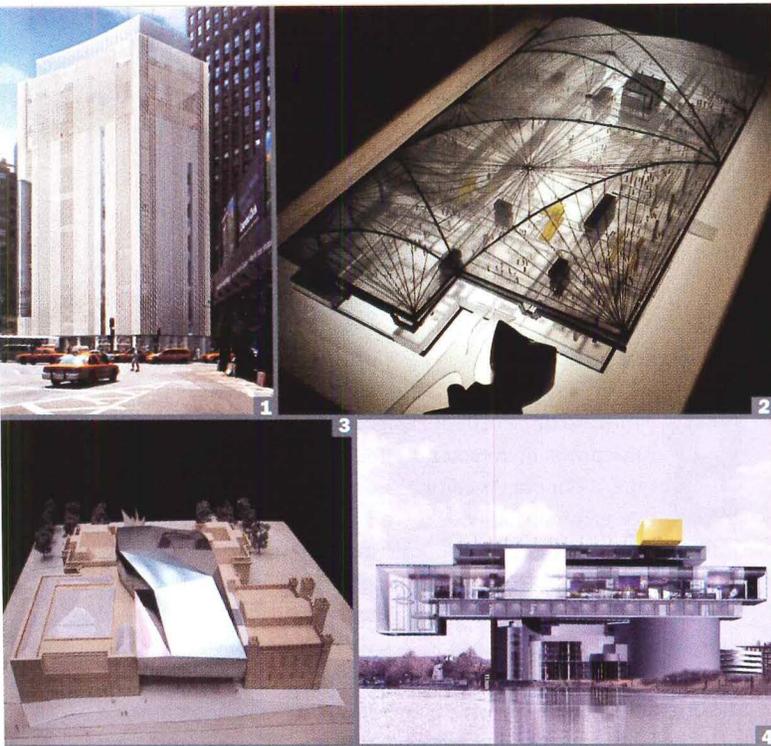
And in spite of criticism, the museum boom continues. Judging by the current crop of museums shown on the following pages, and by reports of numerous others currently in construction, it is not screeching to a halt. At the same time, financial problems have precipitated the closing or canceling of construction of several, and delayed or downsized others (see News, page 24). For example, Rem Koolhaas’s \$200–300 million design for the Los Angeles County Museum of Art, which called for tearing down most of the site’s existing structures, was sacked about a year ago. Now LACMA and philanthropist Eli Broad are in serious talks with Renzo Piano to add a \$50 million building to the complex.

Quite often, the controversy over the cost shakes up the museum’s administrative structure. When Koolhaas’s design for the \$200 million expansion of the Whitney Museum in New York was aborted last May, Maxwell Anderson resigned as the director, in great part because he had backed the expansion, coming into conflict with powerful board members. According to the *The Hartford Courant* (July 25, 2003), the resignation of the director of the Hartford Atheneum in Connecticut, Kate M. Sellers, followed by the departure of the chairman of the board, was linked to the scheme that the Dutch firm UN Studio (Ben van Berkel and Caroline Bos) came up with for the museum. Now the scheme has been jetti-

Arguably, Frank Lloyd Wright’s Guggenheim Museum (1959) in New York started it all: The architect creates an instant icon that draws crowds curious to see the architecture—and supposedly the works on view.



PHOTOGRAPHY: © EZRA STOLLER/ESTO



Goodbye to all? 2 Columbus Circle for the Museum of Arts & Design, New York City (1) is being worked on, but Rem Koolhaas's Los Angeles County Art Museum (2), UN Studio's scheme for the Hartford Atheneum (3), and Jean Nouvel's Pittsburgh Science Center (4) are dead.

a number of museums, is now completing a survey of museum directors, curators, architects, and others involved in the field, to see how architecture can better help the institutions. In casual conversations with museum staffs, Carbone increasingly got the sense that the ultimate user—the museumgoer—was being left behind in the grand scheme of things. His more official survey, which he is still conducting, reveals that several years after a museum's opening, a wide gulf exists between the expectations of the clients and the actual physical result. In order to further explore the survey's implications, Carbone has organized a daylong symposium, to be held on February 14 at New York City AIA's Center for Architecture.

Other insights the survey presents are also intriguing. For example, both the museum directors and architects insist that the best client is a strong client, yet

soned by the new director, Willard Holmes, who dislikes the idea of closing the museum for a two-year construction period. An expansion is still in the offing, but the particulars are yet to be decided.

At least the fracas over the Hartford Atheneum didn't involve potential litigation by the museum, as the *Pittsburgh Post-Gazette* (May 14, 2003) reported to be the case when Jean Nouvel was fired by Carnegie Museums of Pittsburgh. Nouvel's scheme for the Carnegie Science Center, one of the four components of the group, was ditched last spring because the cantilevered design exceeded its \$90 million budget. By late November, Carnegie was said to be close to agreeing that Nouvel could keep the \$1 million he had been paid; but it has withheld \$171,000 he had also billed.

These are contentious times. Although museums are hardly alone in being affected by the shaky economy, their high-profile status spurs questions about firings, delays, and downsizing. Is there more than the economic turbulence at fault? Indeed, some museum controversies aren't just about money: The brouhaha created by plans to totally redo Edward Durell Stone's Gallery of Modern Art of 1964 (now known as 2 Columbus Circle) for the Museum of Arts & Design (formerly the American Craft Museum) in New York with a new scheme by Brad Cloepfil of Allied Works is one case in point. Cloepfil, an up-and-coming architect who designed the Contemporary Art Museum St. Louis (page 124), has attracted a lawsuit from three New York preservation groups

MUSEUM DIRECTORS JOKE ABOUT THE "NEW BUILDING SYNDROME": DIRECTORS LEAVE WHEN THE BUILDING IS FINISHED.

seeking to save the Stone building. Opposition even includes heretofore nonpreservation types, such as Herbert Muschamp of *The New York Times* (November 24, 2003) or critic Michael Sorkin (Critique, page 59), who want to keep it for reasons of architectural character.

What is going on? It's easy to blame the architect, especially a high-design type. On the other hand, the fundamental problem could be attributed to the balance of power between the architect, the museum director, and the board of trustees. Ken Carbone, the designer whose firm, Carbone Smolan Agency, has been responsible for the graphic programs for

many museum directors feel they are in a weak position, "overshadowed by the presence of the name architect," as Carbone puts it. As Alan Shestack, deputy director of the National Gallery of Art in Washington, D.C., says, "The architects I know personally who are successful in obtaining commissions are very articulate and good at selling their ideas to a group of trustees. They win you over. Directors might be awed by it and feel once the board has bought into the architect's vision, it is very hard to oppose any aspect of it." One director told Carbone, "Many trustees think if your degree is in art history, and you do not have an M.B.A., somehow you are going to be a little softheaded. The museum director is just somebody the trustees hire, like the foreman of the ranch."

Then, too, some museum directors may not have that much experience carrying out huge expansion campaigns and working with architects. According to the American Association of Museum Directors, 40 percent have been on the particular museum job for five years; 50 percent for 10 years. Carbone suggests these statistics indicate that probably a generation younger and newer at the job has landed a heavy responsibility to deliver the museum expansion to a board of directors already committed to the project. "Few museum directors do this more than once," Carbone says, "except for Glen Lowry [director of New York's Museum of Modern Art], who went through the process three times before the MoMA expansion."

Directors of museums often joke about "New Building Syndrome," where the director leaves as soon as the museum expansion is finished. The reason? It can be exhaustion, or because the board seeks a fresh face to go after new money for the collection and operations. In September, Charles Desmarais, the director and C.E.O. of the Lois and Richard Rosenthal Center for Contemporary Art in Cincinnati, designed by Zaha Hadid [RECORD, August 2003, page 87], stepped down from his post four months after the opening of the much-heralded museum. Board member and donor Richard Rosenthal was quoted in the *Cincinnati Enquirer* (September 24) as saying, "People just got tired, and a new energy artistically and managerially will be good for everyone." Peter Marzio, director of Houston's Museum of Fine Arts, also attributes the revolving-director problem to the tendency for museums to exaggerate future attendance numbers to bolster fund-raising enthusiasm. "You raise the expectations so high that you can't possibly sustain it," he says. "So if

the museum doesn't do what it is supposed to, the director gets fired."

Other factors besides a realistic working relationship between the architect, the director, and the board need to be considered to create a happy end result. Take the program: MoMA director Glen Lowry, whose museum is currently being expanded by Yoshi Tanaguchi and Kohn Pedersen Fox, explains, "We did a program of requirements long before we looked for an architect. Often programs get written with the architect. We made the decision that we couldn't figure out which one to hire unless we knew what we wanted to build." Then again, the museum may be overly ambitious in its allocation of space to galleries: As Shestack says about the National Gallery, "We have as much exhibition space as we need in this museum. A visitor cannot see it in one day. So why would we want to put more stuff on view if we're already exhausting the visitor?" One director pointed out that an expensive expansion was often used as the solution for raising money for repair and maintenance—the dull part. No one wants to donate money to an auditorium addition, but if a glamorous architect and a big-deal expansion is part of the mix, voilà.

The problem is that in the long run, too many museums have not thought about operating costs. The Milwaukee Art Museum's debt crisis (News, page 24) stems, some say, from a relatively smaller donor circle, as compared to the large supply of deep-pocketed types who run cultural oases elsewhere. In New York, trustees of the Pierpont Morgan Library and of MoMA could decide with a chilling aplomb to literally tear down previous expansions that were 10 and 20 years old, respectively, in order to plunk down larger, newer, and costlier models.

Museums with weak collections, or none at all, naturally hope that a great work of architecture will draw an audience. Glen Lowry insists the collection and the way it is installed are most important. "The building is an added enhancement," he says. "The only analogy I can think of is this: You buy a great bottle of wine. You can drink it in a plastic glass or a crystal goblet. The bottle of wine does not change, but it's going to taste infinitely better in the crystal goblet than it does in the plastic glass because your sensitivity and your perceptions of the wine's perfume will be enhanced by the crystal goblet. But let's not forget that the crystal goblet can't make the wine any better than it is."

Architecture, like the crystal goblet, is still better than a plastic glass, or a mere brick box. A great work of architecture will still enrich the museumgoer's experience and provide some of the few opportunities for the general public to actually see high-quality, thought-provoking, or beautiful buildings. We think the variegated collection of museums on the following pages, most of which are art museums, do just this, but we make no guarantees that they are going to solve all the problems they are intended to.

Take, for example, Peter Cook's and Colin Fournier's Kunsthau in Graz (page 92). You may ask how RECORD can give prominence to such a wild and crazy museum. (Because we can't resist its charms!) Admittedly, it is an exhibition hall for contemporary shows, and therefore not accountable for presenting a permanent collection. Nevertheless, Victoria Newhouse, who commends the Kunsthau "for fitting wonderfully into

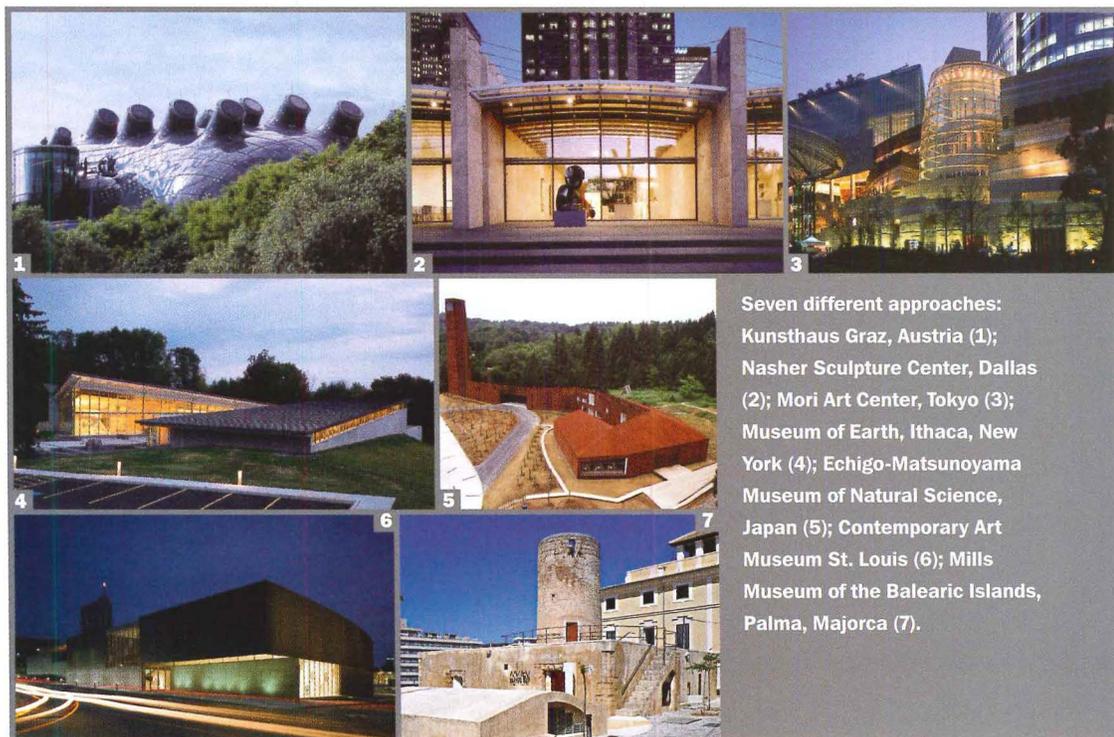
the city fabric," finds the exhibition space problematic, especially on the second floor, where curatorial and fire concerns resulted in a very dark space without natural lighting. And, she notes, the stark, white, freestanding partitions for the temporary exhibitions are too distracting for the art, especially when seen against the steel mesh background.

We are showing other museums whose exhibition spaces may be flawed: the parking-garage look of the galleries in the Contemporary Art Museum St. Louis, designed by Brad Cloepfil of Allied Works (page 124), will need a lot of high octane art to rev them up. On the other hand, the Nasher Sculpture Center (page 100), by Renzo Piano, seems to offer a serene oasis among Dallas's high-rises, plus a remarkable integration of outside and inside spaces. In the case of the Mori Art Center in Tokyo (page 106), Gluckman Mayner dramatically separates the interior galleries

SEEING ART IN GREAT ARCHITECTURE IS LIKE DRINKING WINE OUT OF A CRYSTAL GOBLET, COMPARED TO A PLASTIC GLASS.

from the perimeter walkway that provides a view of another artwork—the city. The Echigo-Matsunoyama Museum of Natural Science by Takaharu and Yui Tezuka (page 118) snakes through the land with a Cor-ten structure that generates an experiential, linear display space. The Museum of Earth in Ithaca, New York, by Weiss/Manfredi, also takes dramatic advantage of the site (page 112). Finally, there is the Mills Museum of the Balearic Islands in Palma, Majorca (page 130), where the Barcelona-based architects, Ricardo Flores and Eva Prats, have added concrete and stone accretions, impeccably sculpted and carved, to the interior and exterior of an old windmill. The result is a powerfully architectonic work, even if the architects lost control over the exhibition installation.

All of these architects have slaved away to create that crystal goblet. If it has some cracks, it does suggest that more needs to be thought out and confronted in interacting with the clients—the museum directors and trustees—whether they are sympathetic or dismissive, strong or weak. Carbone emphasizes that building the institution comes before the architecture. From his side, Lowry adds: "No work of architecture can be better than its client, no matter what the architect tells you. And if it doesn't meet the goals of the institution, it is not going to be a great building." ■



Seven different approaches:
Kunsthau Graz, Austria (1);
Nasher Sculpture Center, Dallas
(2); Mori Art Center, Tokyo (3);
Museum of Earth, Ithaca, New
York (4); Echigo-Matsunoyama
Museum of Natural Science,
Japan (5); Contemporary Art
Museum St. Louis (6); Mills
Museum of the Balearic Islands,
Palma, Majorca (7).

Yikes! Peter **Cook's** and Colin **Fournier's** perkily animistic **KUNSTHAUS** in Graz recasts the identity of the museum and recalls a legendary design movement

Harpooning a whale? Not quite. Workers touch up the acrylic-glass skin of the contemporary art museum in Graz. The biomorphic structure, 147,956 square feet in size, is marked by light scoops known as "nozzles," as well as a rooftop rectangular structure with curved ends, called the "pin." From the pin, visitors can see the picturesque town—and a close-up view of the "Friendly Alien."



Archigram is back, judging by the Kunsthau, the museum in Graz that one of its founders, Peter Cook, has designed with Colin Fournier. If ever there was a movement that everyone dismissed as hopelessly utopian and absolutely unbuildable, it's the one initiated by Archigram in 1961. This is when Cook, with Warren Chalk, Ron Herron, Dennis Crompton, David Greene, and Michael Webb, got together at the Architectural Association in London. The group seemed about as close to the lunatic fringe of the pop phenomenon as one could get. As the Beatles of architecture, Archigram broke down the dreary conformity of the 1950s, sweeping aside sclerotic convention with their antics, and served up a madcap architectural cock-

Liane Lefaivre is the chair of History and Theory of Architecture at the University of Applied Arts in Vienna. She is the coauthor, with Alexander Tzonis, of Critical Regionalism (Prestel, 2003).

Project: *Kunsthau Graz, Graz, Austria*

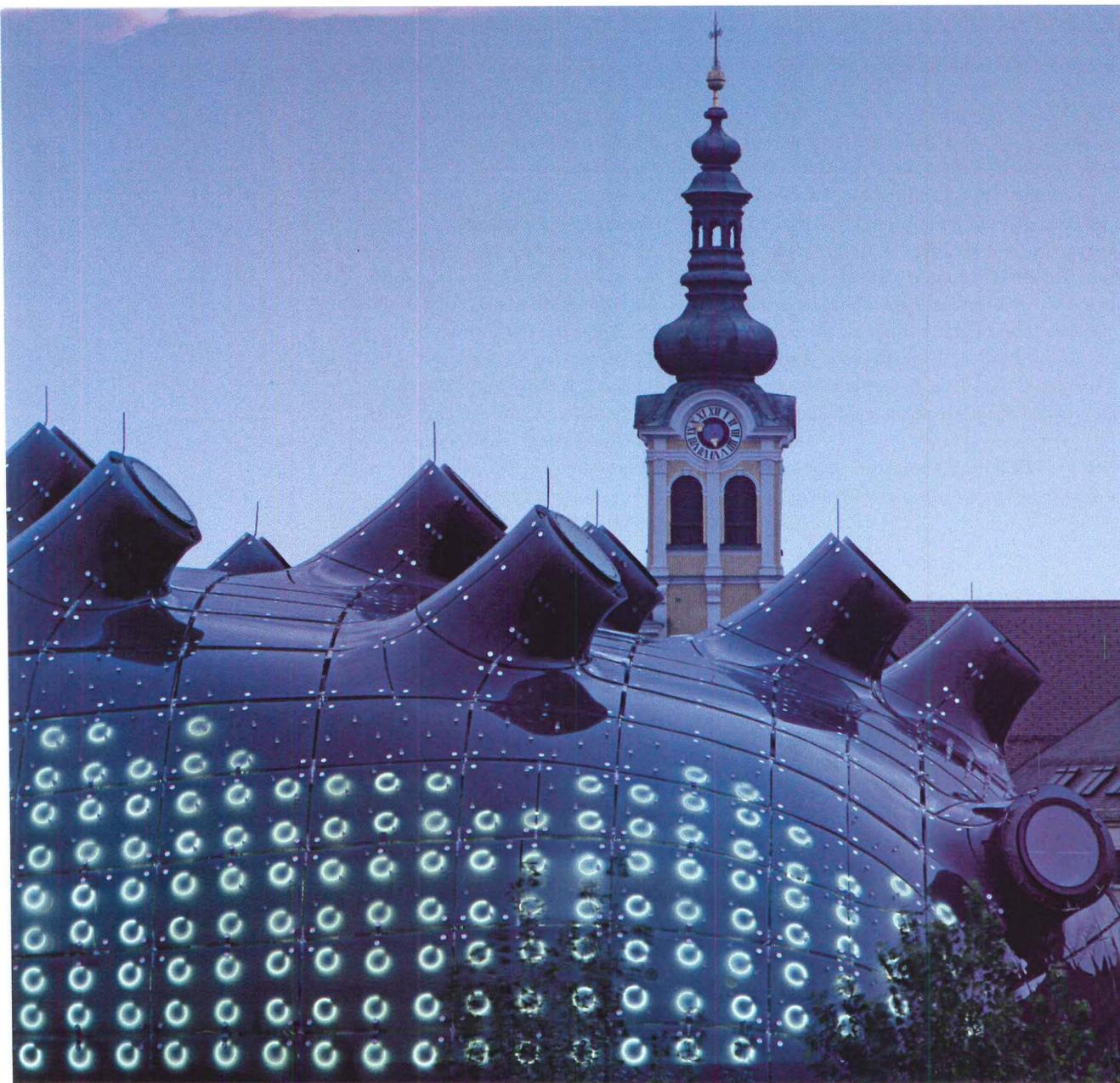
Owner: *City of Graz*

Architects and engineers:

ARGE Kunsthau, a joint venture: Spacelab Cook-Fournier—Peter Cook and Colin Fournier, principals; Niels Jonkhans, design architect. Architektur Consult/Domenig, Eisenkock, Peyker—Herfried Peyker, partner in charge; Dietmar Ott, project manager. Bollinger+Grohmann (structural engineers)—Klaus Bollinger, partner in charge

Digital designers: *Realities United*





The multisnouted blob, in which a double-curved, fluorescent-lit acrylic-glass structure is supported by a triangulated steel shell, strangely fits into the picturesque gable- and tile-roofed city. The nozzles are directed north to bring natural light to the exhibition space within.

tail, mixing new information technology with Buck Rogers popular mechanics and imagery right out of Cape Canaveral.

It has taken 40 years, but now it seems the world has finally caught up with where Archigram's head was in the early 1960s. The Kunsthau in Graz, which Cook and Fournier call the "Friendly Alien," came about when Cook, the chairman of the Bartlett School of Architecture at University College in London, and Fournier, a professor at Bartlett who had worked with Bernard Tschumi on Parc de la Villette in Paris, entered the Kunsthau competition in 2000. Under the name Spacelab Cook-Fournier, they won the commission, forming a joint venture (called ARGE Kunsthau) with two German firms, Architektur Consult and engineers Bollinger+Grohmann. With the museum's fall opening, Archigram's wildest flights of imagination have finally landed on Earth. And in the most unlikely place, too: Graz, almost three hours by train from Vienna, is one of the prettiest towns you'll ever see [for more on Graz, see *RECORD*, May 2003, page 123]. Literally popping out amid three- and four-story, 18th-century pastel-colored Baroque buildings straight from a Mozart opera, the new building is a whopper of a big, bright, blue bubble with a shiny, scaly, acrylic-glass skin that not only has a serious case of goose bumps but that flashes and glows in the dark.

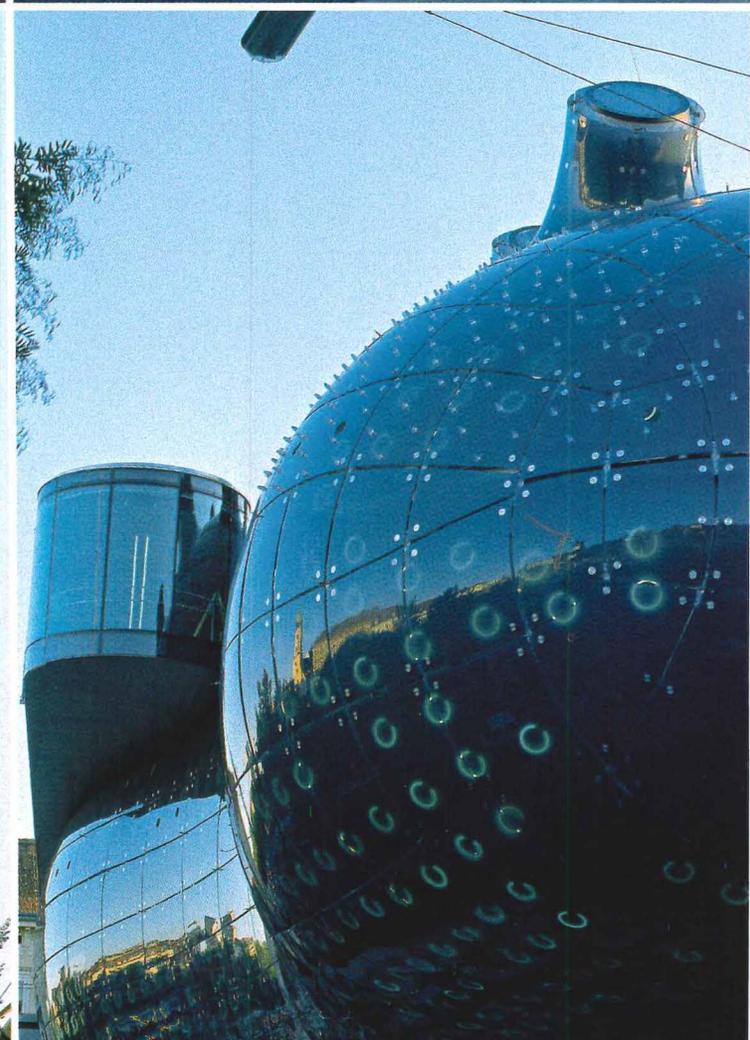
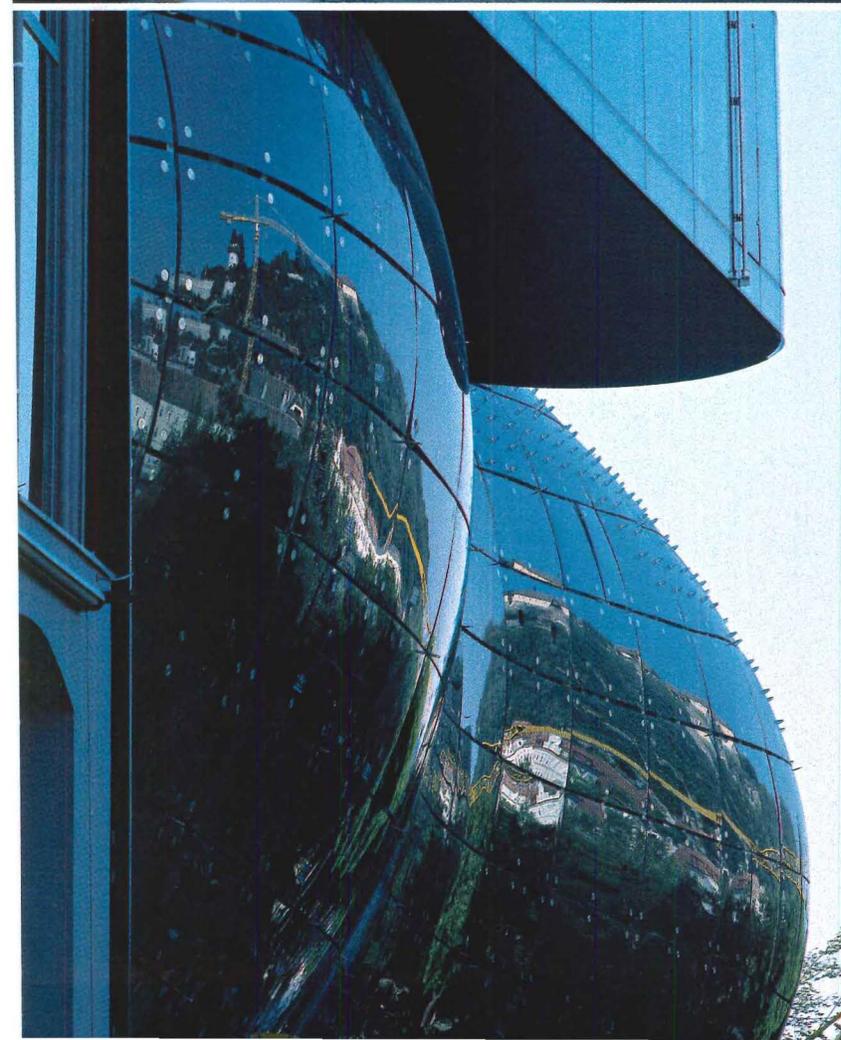
You've just got to love it, nozzles and all. The people of Graz do.

But then they're not boring, "cool" folk. One fall morning the place was just bursting with jovial people dressed up in their Sunday best Tyrolean hats with feathers or tassels, and boiled wool jackets. This is High Archigram—not a wimpy, fizzled out, aesthetically correct version of it. The nozzles, for example, are touted as devices for catching light, equipped as they are with electronically controlled louvers. They come with quirky, spiral-tube light fixtures, looking like fluorescent springs, for dark conditions. Functional though they may be, these protruding sci-fi windows are straight out of Ron Herron's series of drawings, *Walking Cities*, of 1963.

The rectilinear glazed shaft precariously cantilevered on top of the billowing form serves no purpose whatsoever from the curatorial point of view. But the "needle," as it's called, offers a sweeping panorama over the city. It is right out of the lookout atop Peter Cook's Montreal tower project of 1963.

And then there is the "pin," a travelator. Archigram's first magazine, dated "May 61," and only one page, had some declarations in verse about the terrible state of contemporary architecture, and some words in bubbles floating between the poems. *Flow* comes back several times on that cover. And *fun*. The pin is a particularly enjoyable way of flowing from the ground floor to the second and third floors. This innovative circulation





The \$49 million Kunsthaus nestles in the city fabric like a playful sea creature washed up from the Mur River (right and opposite four). Bridges link it to the Eisernes Haus, a cast-iron structure (opposite, top right), renovated as part of the project. The ground floor is glazed, while circular fluorescent tubes underneath the double-curved acrylic skin transform it into a low-resolution screen.



device is totally integrated into the exhibition space. It starts where Frank Lloyd Wright's Guggenheim Museum left off. Whereas Wright's circulation system was meant for paintings, this one is better adapted to contemporary, large, multimedia installations, allowing them to be taken in from different angles. Thanks to the pin, in viewing the current show, *Perception*, which features paintings, sculptures, photographs, and installations, you feel as if you are slowly flying over the exhibition pieces. This sense of an overview is in the best Archigram tradition. At the same time, the traveler is a feature that the late Cedric Price, teacher and idol at the Architectural Association during Archigram's years, introduced in his Fun Palace project of 1961.

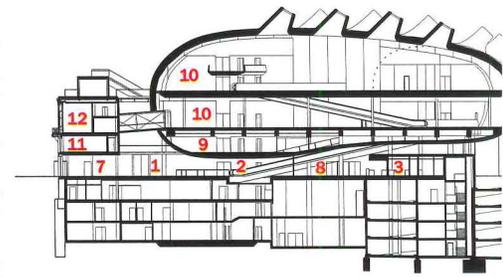
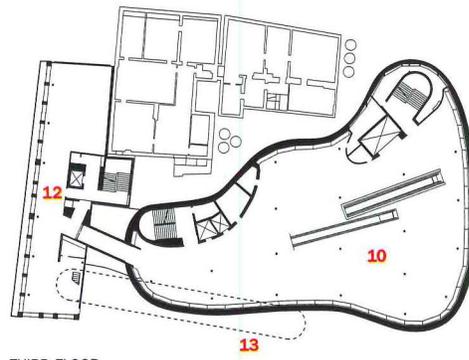
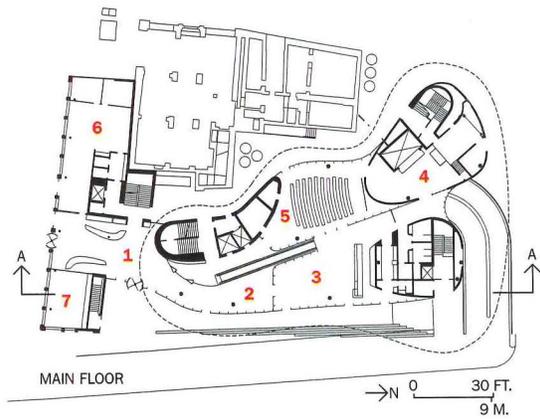
The translucent, blue, acrylic-glass skin is also textbook Archigram. In that first Archigram issue of 1961 are other little bubbles with the words *plastic* and *skin!*. Because the Kunsthaus's exterior is conceived of as a double-layered skin, it is also used for what the architects call "Communicative Display," derived from the belief that the facade of the spectacular building should be a membrane hinting at activities within.

This digital display was carried out by Realities: United, a firm specializing in architectural lighting, directed by two brothers, Jan and

Tim Edler, former students at the Bartlett. The system they developed for this project, called BIX (a cross between big and pixel), is a field of 925 standard, circular, fluorescent tubes placed under the outer skin of the building [RECORD, March 2003, page 177]. All the lights can be controlled individually with a computerized system, so not only can they be switched on and off, but their intensity can be changed at an infinite variability 18 times per second. In this way, the east facade of the Kunsthaus has been turned into about a 148-foot-wide and 66-foot-high, low-resolution "gray scale" display that is highly integrated into the complex, double-curved facade structure. Simple messages, animations, and film clips can appear and disappear within the skin.

True to the pop aesthetic, this skin looks like it must have cost a fortune: It did not. The materials involved—the acrylic-glass skin, the standard circular lighting features—make the whole enterprise exceptionally economical, according to Cook, as does the unadorned exposed concrete structure seen inside.

The building is just as friendly up close as it is from practically everywhere else it can be seen in the surroundings. Despite its gestalt from afar as an opaque structure, it is actually glazed at ground level, with total

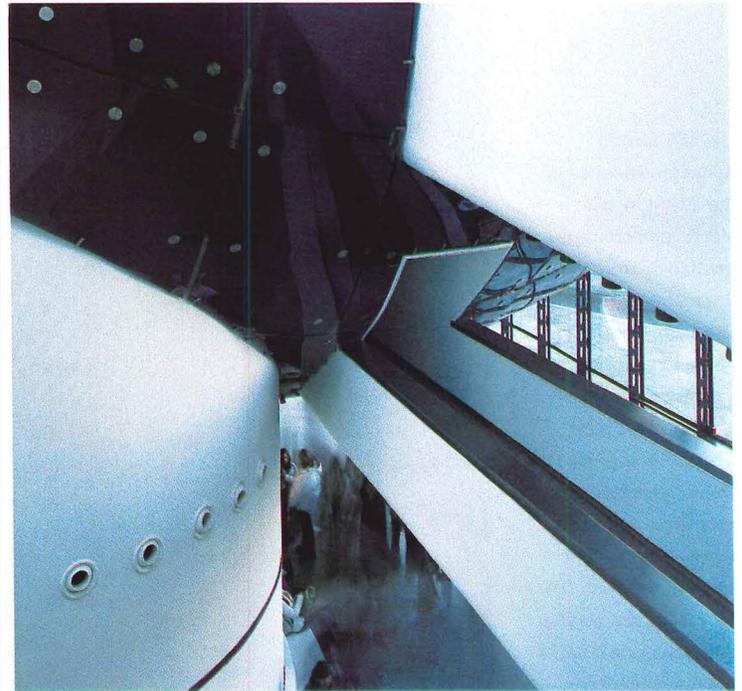
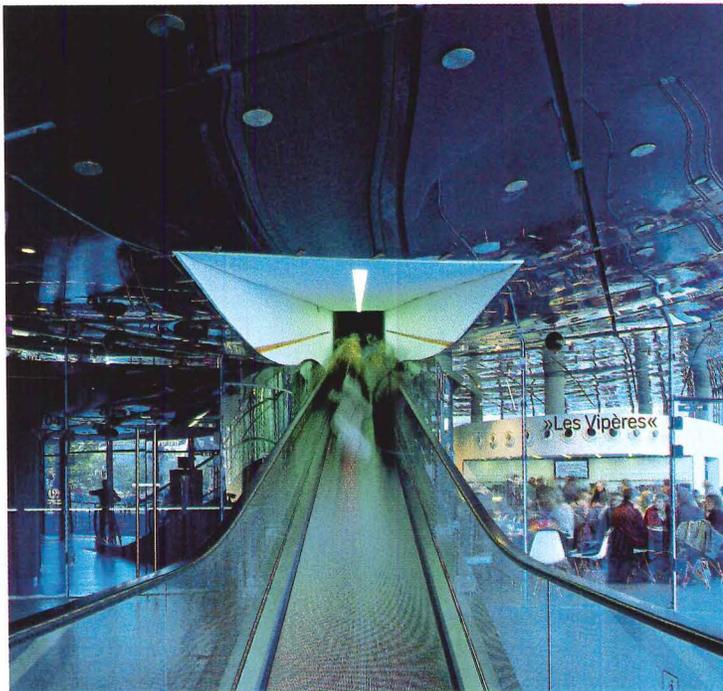


- 1. Entrance foyer
- 2. Media lounge
- 3. Café
- 4. Delivery area

- 5. Multipurpose events
- 6. Medien Kunstlabor (art installations)
- 7. Shop

- 8. Lecture/performance
- 9. Children's area
- 10. Exhibition area
- 11. Administration

- 12. Camera Austria magazine
- 13. "Needle" events space



visual contact between inside and out, and accessible from multiple entrances on both its street sides. For all its apparent zaniness, it is a serious, porous, urbane architectural creature.

Moreover, the Kunsthau, according to Cook, was designed to relate to the specific site, occupied partially by the historic Eisernes Haus. The program called for integrating this 1852 structure—the first cast-iron building imported from Sheffield, England, into Austria—into the museum. In Cook's view, the English derivation makes it extremely germane to his own building—another equally high-tech experiment. Last but not least, it is successful as urban renewal. In what Cook describes as a run-down, red-light district, the Kunsthau has now managed to stimulate the spread of cafés and restaurants.

This building is bound to become a classic, despite the fact that Archigram once tried to subvert the architectural canon. Ironically, it took 40 years for a utopian idea to become reality in architecture. But perhaps the ultimate reason for its appeal is that it comes from a time when a ludic, optimistic mood characterized our culture. Precisely because it is an anachronistic creation of early 1960s' cultural optimism in a world now so terribly different, it is arresting and strangely moving. ■



A travelator virtually sucks visitors up from the street-floor lobby and bar (above left) to the exhibition areas on the upper levels (above). On the street floor of Eisernes Haus (left) is the Medien Kunstlabor space for art installations. Shown here is a piece by Franz Xaver.

Sources

Double-curved acrylic-glass panels: Zeiler GmbH
Steel construction of bubble and metal-and-glass curtain wall: SFL
Steel-framed glazing: SFL;

Morocutti; Heidenbauer

Concrete: Steinerbau

For more information on this project, go to Projects at

www.architecturalrecord.com.



In the KunsthauS's upper levels, the concrete walls of the basic structure are exposed, and the subcutaneous underpinnings of the acrylic-glass skin are unceremoniously visible. The integration of circulation and exhibition spaces allows an overview of the art on display.



The building and sculpture garden stand amid skyscrapers (opposite, top and bottom). The exterior travertine cladding is mottled, evoking an ancient ruin (this page).

Renzo Piano creates an oasis in downtown Dallas, the **NASHER SCULPTURE CENTER**, a building of lapidary precision in a lush garden

By David Dillon

Renzo Piano is holding a creased photograph of an ancient Roman ruin, its stone walls poking through the earth to suggest rooms and public spaces: Here, he explains, lies the conceptual starting point for his Nasher Sculpture Center. “We wanted to make something that’s about the day-to-day life of the city, yet also outside of time. Absurd really, this idea of a noble ruin in the middle of a busy downtown, but that’s what makes it powerful.”

The recently completed Nasher Center covers 2.4 acres in the heart of Dallas’s Arts District, across the street from Edward Larrabee Barnes’s Museum of Art and a block from I.M. Pei’s Meyerson Symphony Center. Within its rough travertine walls resides one of the world’s great private collections of Modern sculpture—more than 350 pieces ranging from a small plaster model of Rodin’s *The Age of Bronze* to monumental steel works by Richard Serra and Mark di Suvero. The collection, valued conservatively at \$500 million, was stalked by a dozen major museums, including the National Gallery of Art, Guggenheim, and Tate, until Raymond Nasher decided to keep it in the city where he’d made his fortune as a shopping center developer—and foot the project’s \$70 million bill himself.

He says he chose Renzo Piano for the architect’s understanding of art, as well as materials and construction. Right on all counts. The center synthesizes art, architecture, and engineering, replacing bold form with the subtler pleasures of light, texture, and proportion. A building of lapidary precision, it represents Piano at his most self-effacing and exacting. Every minute detail, from arcing vaults to stone joints, has been thought through. Only the large gallery windows seem conventional, more akin to a fancy department store than a museum.

The Nasher Center is an essay in what Italians call *sprezzatura*, the art that conceals art. Ducts, cables, and sophisticated electronic gear lie crammed within its thin travertine walls, but nothing shows. The

David Dillon is a contributing editor to ARCHITECTURAL RECORD and the architecture critic for The Dallas Morning News.



as an auditorium opening onto the garden. On the exterior, the travertine looks weathered and mottled, as if it had just come from the quarry, while on the interior, its polished, mitered surfaces, reminiscent of fine cabinetry, quietly complement the art. White oak floors, creamy travertine, silvery aluminum, and “extra-white” glass form the entire palette: No bright colors,

aluminum sunscreens are technical tours de force with the simplicity of egg cartons. The granite benches in the garden conceal pumps and electrical boxes; even the loading dock is tucked out of sight, as if trash collection were a purely hypothetical activity.

The plan of the building, a 55,000-square-foot pavilion, is simplicity itself: five vaulted bays, three housing art and one each for a restaurant and museum shop. The lower level contains a library and additional galleries, as well

Project: Nasher Sculpture Center, Dallas, Texas

Architect: Renzo Piano Building Workshop—R. Piano, E. Baglietto, B. Terpeluk, S. Ishida, B. Bauer, L. Pelleriti, S. Scarabichchi, A. Symietz, E. Trezzani, G. Langasco, Y. Kashiwagi; F. Capellini,

S. Rossi, project team

Associate architects: Beck Architecture; Interloop A/D

Engineers: Arup (design of structural and m/e/p); Halff (civil); Datum (structural); Arjol (m/e/p)

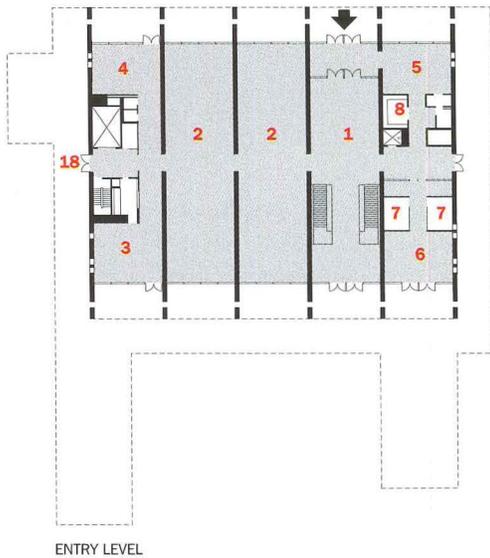
Landscape architect: Peter Walker



Though the building's scale is relatively modest, the sculpture garden (this page and opposite) occupies much of the 2.4-acre site, allowing for gracious allées with lawns, fountains, reflecting pools, and space to pause between sculptures. The world-class collection of Modern works belonged to Raymond Nasher and his late wife, Patsy.

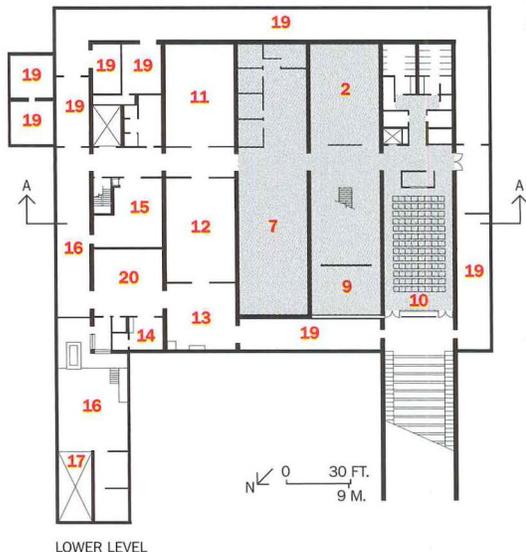






ENTRY LEVEL

1. Main entry hall
2. Art gallery
3. Café
4. Multipurpose
5. Gift shop
6. Boardroom
7. Offices
8. Coats
9. Classroom
10. Auditorium
11. General storage
12. Art storage
13. Conservation
14. Workshop
15. Kitchen
16. Loading
17. Truck lift
18. Secondary entrance
19. Mechanical
20. Staging



LOWER LEVEL

The roof has 256 panels of extra-white glass and 44 steel panels. Aluminum sunscreens face due north, shading all direct rays (below).



SECTION A-A



sharp contrasts, or, conversely, bland uniformity.

Light is the Nasher's soul, and the aluminum sunscreens designed with Arup, its technological high point. The client challenged his architects to come up with new ways of bringing daylight into the galleries without resorting to the massive concrete louvers that Piano had used at the Menil Collection or the intricately layered sunscreens of his Cy Twombly Gallery, both in Houston, and his Beyeler Foundation in Basel, Switzerland. At the Nasher, cast-aluminum sunscreens cut into 4-foot-by-6-inch lengths with roughly 500,000 oval scoops rest on a curved glass roof. Oriented due north, the scoops eliminate direct rays and harsh shadows. From one direction, all you see is sky; from another, a finely textured metal surface. Steel cables of nautical delicacy suspend the bowed glazing overhead. Design and fabrication took three years and were clearly worth it.

From the beginning, Mr. Nasher insisted the landscape was as important as the building. He got what he wanted. As refined as the pavilion, the 1.5-acre garden by landscape architect Peter Walker extends its thin travertine walls amid soldierly rows of native live oaks and cedar elms, terminating in James Turrell's *Tending Blue* light installation (housed in a structure by Interloop A/D). Oaks at the lawn's center will gradually create canopies over the walkways. Deciduous cedar elms will eventually soar to 60 or 70 feet, screening the garden edges while letting in low winter rays.

Like everything else at the Nasher Center, the garden underwent numerous revisions. It started out as a Romantic, somewhat English space with grassy mounds, shady groves, and loose serpentine edges—similar to the landscape at Mr. Nasher's North Dallas home. But once he decided to move his collection downtown, the garden became more open and rectilinear—better suited to Piano's understated building and its tight urban site. By all accounts, the collaboration between Walker and Piano was rocky. By the end, they weren't allowed on the site at the same time.

But ultimately, simplicity and compromise won. A gently sloping path leads from the terrace, through an enfilade of trees, to pools and fountains at the foot of the garden. As in the galleries, the color range here is extremely limited: Nothing grand or showy to compete with the sculpture. The long vistas from the pavilion are straight and unobstructed, but the side-to-side views become mysterious and surprising. Here, trees and hedges partially obscure the artworks—sometimes you see, say, only the top of a Di Suvero or a corner of a Lichtenstein. Yet unlike such recent sculpture gardens as the National Gallery's in D.C., the Nasher is not jam-packed like a supermarket. Its architects left plenty of room to pause and reflect.

The Nasher Sculpture Center has raised hopes of finally landing Dallas on the international cultural map. Gehry's Guggenheim did it for Bilbao, and Louis Kahn's great Kimbell Art Museum more modestly transformed Fort Worth (Dallas's neighbor). It's always a long shot. In the meantime, the locals, many of whom had given up on finding anything exciting downtown, are flocking to the Nasher. From one perspective, it provides a refuge from the city, a green space apart, where the air seems fresher and the roar of traffic momentarily silenced. From another, it represents a heightening and intensification of urban life. The garden walls frame the downtown skyline, making it look recomposed—better than it really is. The garden elements and the museum itself do what architecture is supposed to do—change our perceptions of place and space, forcing us to take a second look. ■

Sources

Roof glazing systems: Sunglass

Aluminum sunscreens: La Societa Sider

Structural steel: Gipponi

For more information on this project, go to Projects at www.architecturalrecord.com.



The glass roof and aluminum screens provide for a luminous, evenly lit interior. Whereas the exterior travertine appears rough, the interior stone cladding is polished and smooth, deferring to the artworks (this page).



Like a glass hinge,
the entry cone (this
page and opposite)
connects with and
sets itself apart from
the other components
of the Roppongi Hills
complex.



Gluckman Mayner connects high culture with commercial development at the new **MORI ART CENTER** in Tokyo

By Clifford A. Pearson

How do you create a distinct identity for a museum tucked inside a 54-story office tower? How do you even call attention to such a cultural facility when it is but one small piece of a \$2.5 billion development that includes 220 shops, 840 units of housing, a nine-screen multiplex cinema, a 380-room luxury hotel, a Japanese garden, and an 800,000-square-foot broadcasting center, in addition to the 4-million-square-foot office tower in which it resides? Those were two of the challenges facing Richard Gluckman, FAIA, as he designed the 100,000-square-foot Mori Art Center at Roppongi Hills in Tokyo.

Like a diminutive cherry sitting atop a high-calorie architectural sundae, the museum occupies the 52nd and 53rd floors of Roppongi Hills' bulging office tower, the centerpiece of a 28-acre development whipped up by an eclectic band of design chefs—Kohn Pedersen Fox (KPF) (master plan and office tower), Jon Jerde (retail complex), Terence Conran (apartment towers), and Fumihiko Maki (broadcast center). Some observers have criticized Roppongi Hills for being too big—even for Tokyo's dense and chaotic urban fabric—but it has been a smashing success with the public. According to the Mori Building Company, the project's developer, 26 million people visited the mixed-use complex in the six-month period after it opened last May. In comparison, Tokyo Disneyland will attract about 25 million for the entire year.

"We needed an iconic element to identify the cultural component of the plan," states Gluckman. So his team at Gluckman Mayner Architects worked with structural engineers Yoshinori Nito + Dewhurst Macfarlane and Partners to design a 100-foot-high entry pavilion at the base of the office tower that grabs attention with a 60-foot-tall, shingled-glass cone. The pavilion takes visitors from the vehicular drop-off and shopping-plaza levels at the base of the complex, up three-to-five floors to a 70-foot-long bridge that leads into the Mori office tower. Once inside the office building, visitors can get information about the museum, then catch express elevators to the 52nd floor, where the museum proper begins. Dedicated to Modern art starting from the mid-20th century, the museum has an international focus and a special emphasis on the work of Asian artists.

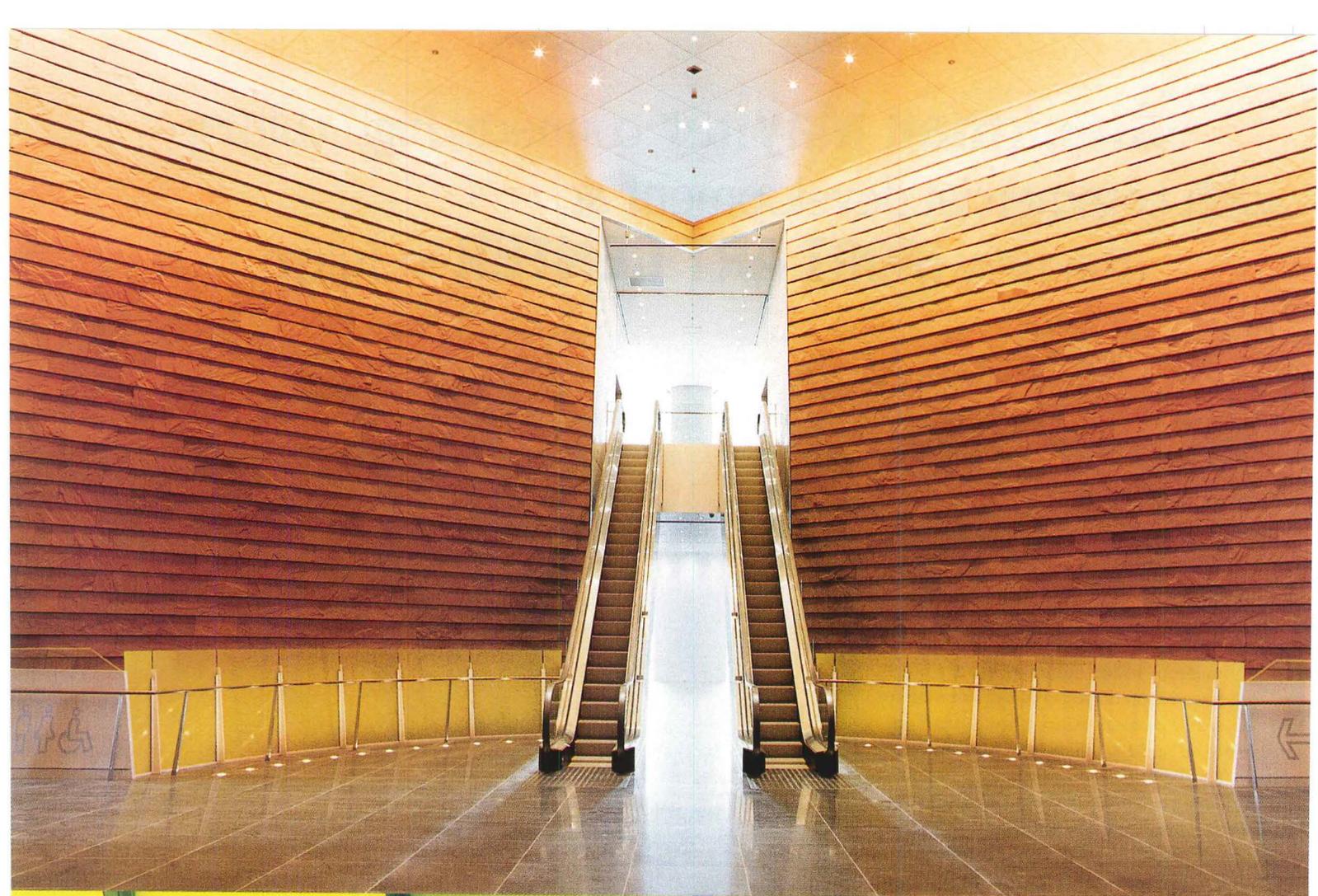
Emerging from Jerde's stone-clad shopping center and sitting in



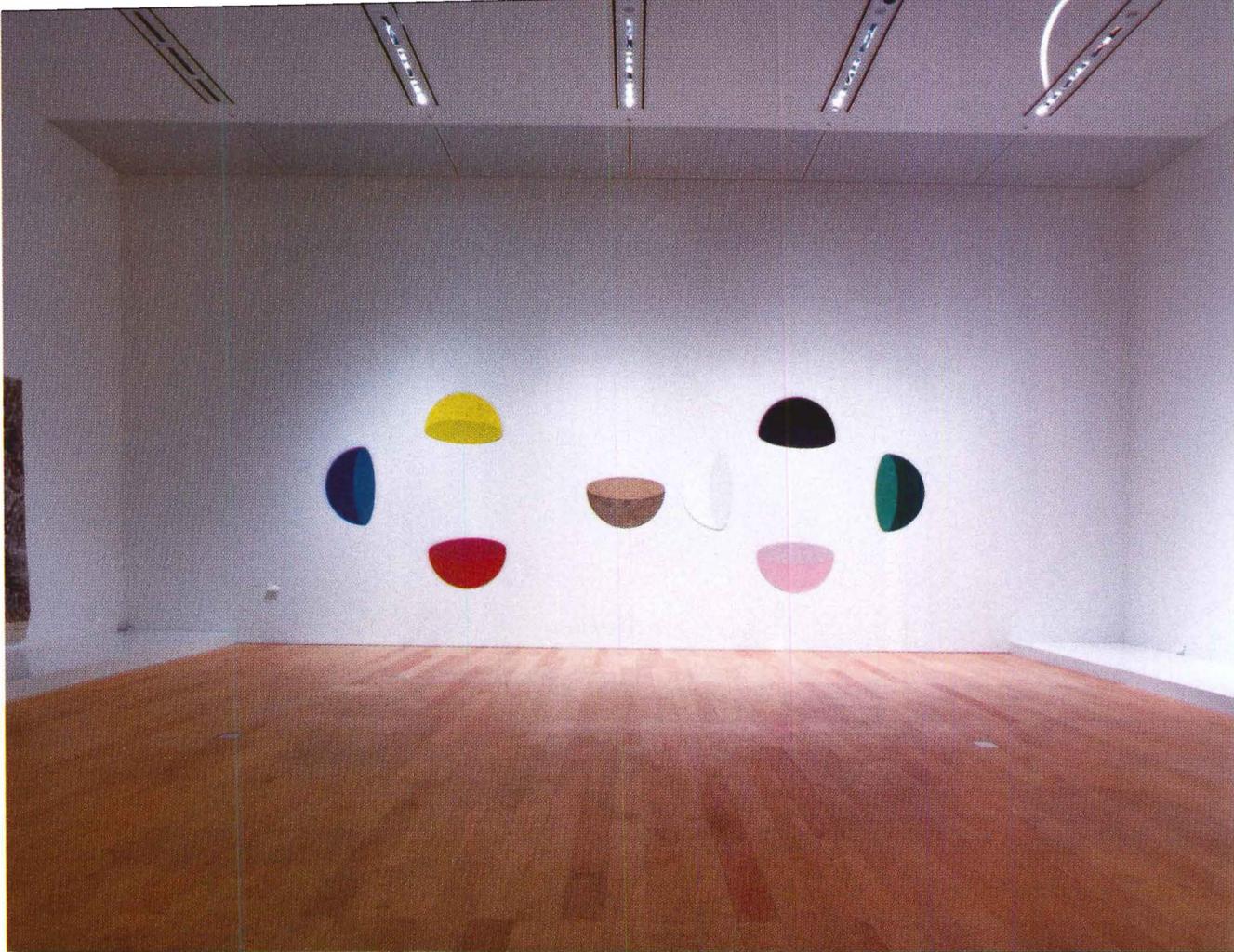
front of KPF's steel-frame office building, Gluckman's glass cone asserts its own style: crisply tailored Modernism with touches of technological daring. During the day, it offers views of the 17th-century-style Japanese garden just to the east, and at night it glows like a lantern. In its center, a concrete-clad funnel structure contains elevators and provides the building's main vertical support. Canted glass rectangles swirling around the core, however, deliver the necessary razzle-dazzle. Like a giant hoopskirt, the lightweight glass-and-steel facade is held in place by a diagonal net of three-quarter-inch cables that suspend and stabilize nine-tenth-inch

Project: Mori Arts Center, Tokyo
Architect: Gluckman Mayner Architects—Richard Gluckman, FAIA, principal in charge; Sam Brown, Dana Tang, project architects; Anya Bokov, Eric Chang, Celia Chiang, Mark Fiedler, Carolyn Foug, Bobby Han, Alex Hurst, Julie Moskovitz, Taro Narahara, Jasmit Rangr, Kaori Sato, Suzanne Song, Esther Tsoi, project team
Local architect: Irie Miyake Architects & Engineers

Engineers: Yoshinori Nito, Yumi Fujikawa + Dewhurst Macfarlane and Partners, Kozo Keikaku (structural); Altieri Sebor Wieber, Kenchiku Setsubi (mechanical)
Consultants: Shozo Toyohisa and Kilt Planning (lighting); 2x4 (graphics)
General contractor: Obayashi, Kajima (joint venture)
Prime contractor (glass cone): Asahi Glass Building Component Engineering Company



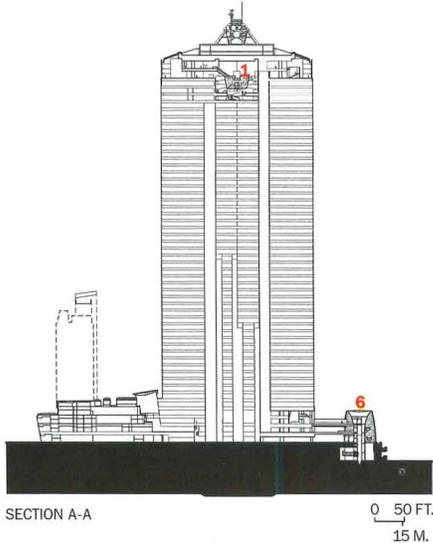
A central atrium connects the two museum floors (opposite, top) and a floor below that houses a membership club (opposite, bottom). The museum exhibits Modern art in 32,000 square feet of galleries (this page, top and bottom). Gluckman used quiet materials such as light maple flooring and painted gypsum board in the galleries so the setting wouldn't overpower the art.



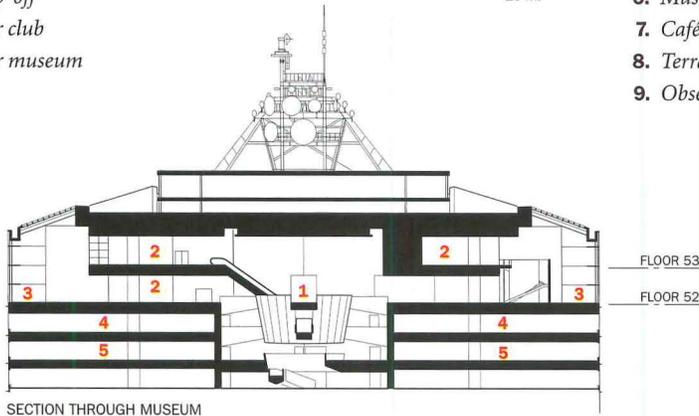
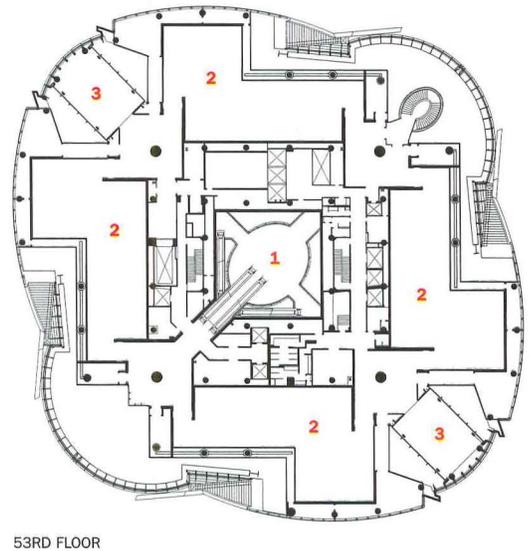
Gluckman worked with KPF to redesign the office tower's curtain wall on the top floors, reducing the size of the mullions while expanding the glass panes (this page)



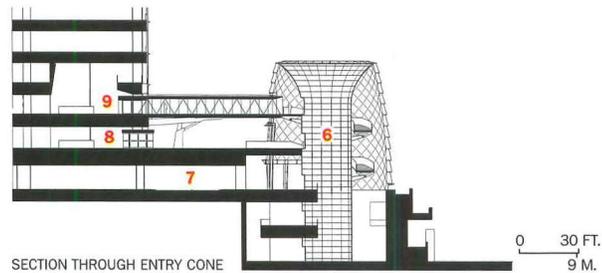
1. Atrium
2. Gallery
3. Observation
4. Membership club
5. Offices
6. Entry cone
7. Taxi drop-off
8. Lobby for club
9. Lobby for museum



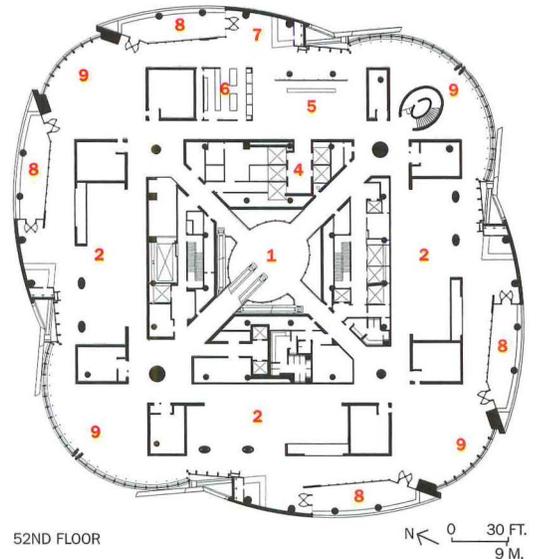
1. Atrium
2. Gallery
3. Art and technology gallery
4. Elevator lobby
5. Arrival lobby
6. Museum shop
7. Café
8. Terrace
9. Observation



SECTION THROUGH MUSEUM



SECTION THROUGH ENTRY CONE



52ND FLOOR

horizontal steel rings. Glass shingles printed with a translucent ceramic frit rest on the elliptical conical structure, overlapping each other and providing an enclosed but not completely sealed environment. A continuous spiral stair animates the space between the core and the facade.

Known originally for the art galleries he sensitively inserted within 19th-century buildings in New York City, Gluckman took a more assertive approach here at the Mori museum. Although the 35,000 square feet of display spaces on two floors occupy clean, orthogonal galleries that don't distract from the art, the museum's public areas use bold colors and striking materials to set themselves apart from the rest of the office tower. For example, a 63-foot-high central atrium stands out with its impressive walls of roughly cut red Indian sandstone, while circulation spaces employ thin planes of brightly colored glass that tease the eye. Such muscular gestures were necessary to help orient large numbers of visitors, many of whom arrive on the 52nd floor looking for Tokyo City View, the observation deck that surrounds the museum on all sides.

Orchestrating the procession of spaces—from entry pavilion through two floors of galleries—was critical to the success of the museum, says Gluckman. After arriving on the 52nd floor, visitors can go to the three side-lit galleries on this level or move up the escalator in the central atrium to the top-lit main galleries on the 53rd floor. While he

designed the L-shaped main galleries as quiet spaces with maple floors, Gluckman also created a pair of translucent glass boxes at opposite corners of the floor—twin spaces for the display of new-media art. These “art and technology galleries” penetrate the two-story-high space of the observation deck, stretching the visual reach of the museum to the surrounding city and providing the opportunity for curators to find innovative ways of projecting new media on the building's curtain wall.

To create the right context for the museum, Gluckman worked with KPF to redesign the office building's curtain wall where it wraps around the observation deck, employing the central atrium to connect with a membership club one floor below. Reaching out while distinguishing itself is part of the high-rise balancing act that this small museum pulls off with style. ■

Sources

Tempered laminated glass

(for cone): Asahi Glass

Steel (for cone): Toa Tekko Construction

Stainless-steel fittings (for cone):

Tripyramid Structures

Lighting (for cone): Yamada Shomei

Back-painted glass wall panels:

Nippon Sheet Glass

Translucent glass: Asahi Glass

Indian sandstone: Ando Marble

For more information on this project, go to Projects at

www.architecturalrecord.com.



A high window wall beckons visitors to the entry pavilion (opposite), which encloses the switch-back ramp (this page) that descends into earth around Barbara Page's *Rocks of Ages Sands of Time*.

Weiss/Manfredi evoked a geology shaped by water to help the **MUSEUM OF THE EARTH** tell the 4.6-billion-year history of the planet



By James S. Russell, AIA

One of the largest fossil collections on earth inspired the Museum of the Earth, but it lacks what packs 'em in: dinosaurs. The museum does have a passion to teach, however, embodied in the energy of its youthful director, Warren Allmon. The fossil record, he says—as he pulls open drawer after drawer, each revealing a panorama of ancient life forms frozen in stone—can be used to teach both the history of earth and the history of life on earth.

The Paleontological Research Institute (PRI), which built and runs the museum, possesses one of the largest such collections on earth. While its presence in tiny Ithaca, New York, is largely accidental, it grew, in part, because central New York State is such a geologically rich region. Ithaca sits at the base of Cayuga Lake, one of 10 aptly named Finger Lakes, which were carved out as massive ice sheets receded 20,000 years ago. Since then, streams have gouged the ridges surrounding the lakes into spectacular waterfall-veiled gorges that reveal millions of years of geological history and expose such a wealth of fossils that even schoolchildren can readily find them.

As the institute, affiliated with nearby Cornell University, contemplated expanding its small exhibition program into a full-fledged

museum, Allmon found himself confounded by the task of telling 4.6 billion years of Earth's history in a few thousand square feet. "Finding the message was the hardest thing," he says.

The architect PRI had hired for the project, Weiss/Manfredi, of New York City, looked at bubble diagrams prepared by exhibition experts with quiet dismay. "They assumed a flat, introverted site with a black box sitting on a parking lot," said Michael Manfredi, AIA. He and his partner, Marion Weiss, saw much richer potential in the site, the institute's 6 acres, high on a hill sloping downward toward the lake. "This was a landscape shaped by water, radically in terms of glaciation," explained Weiss on a

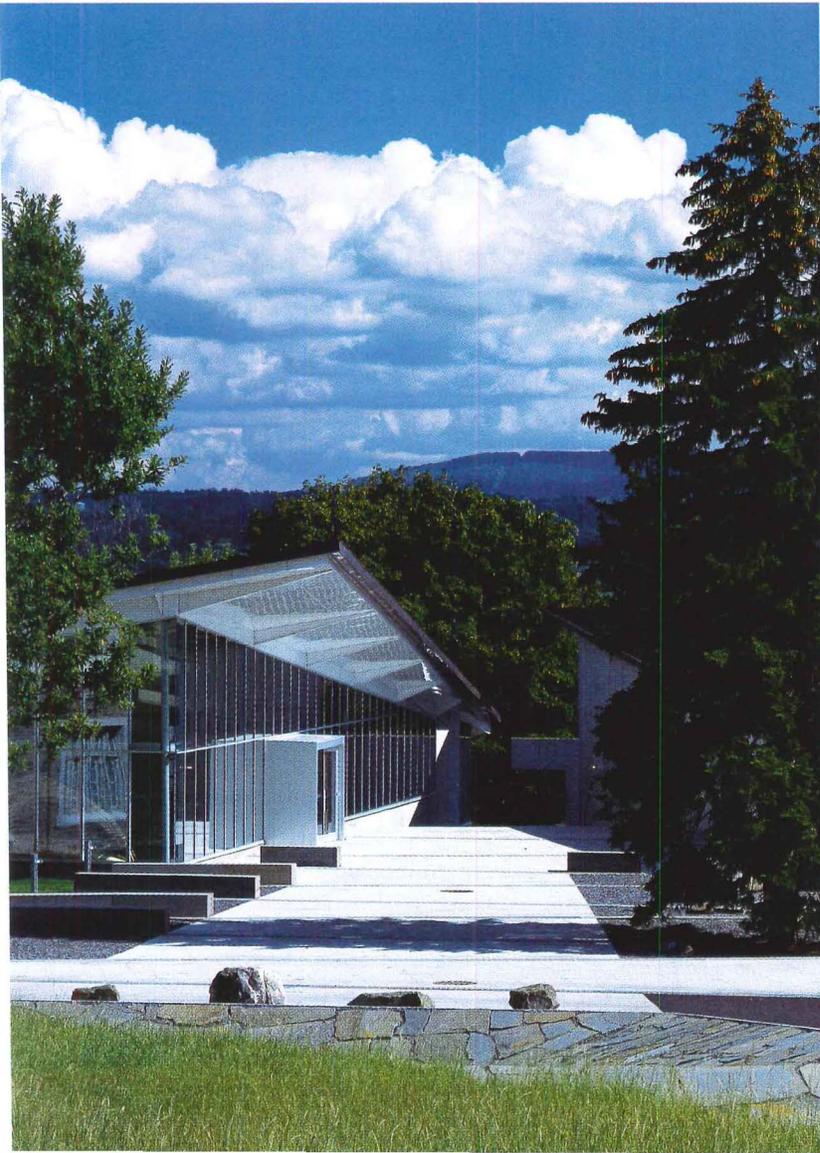
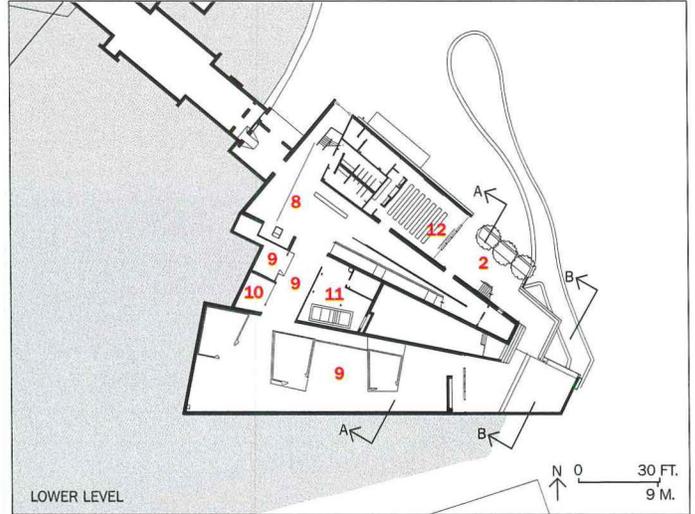
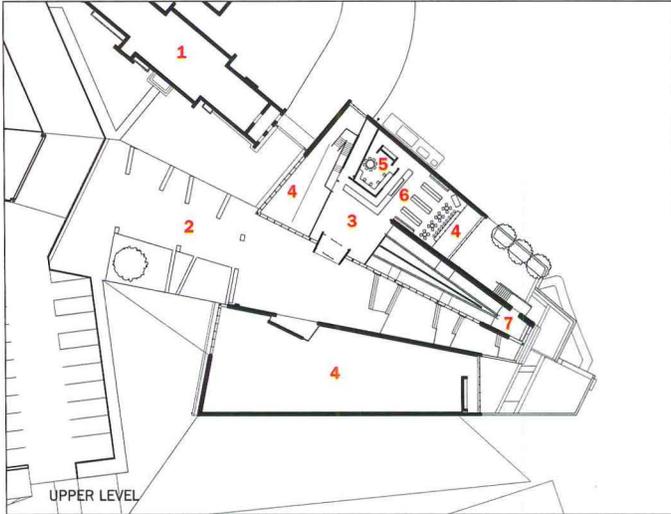
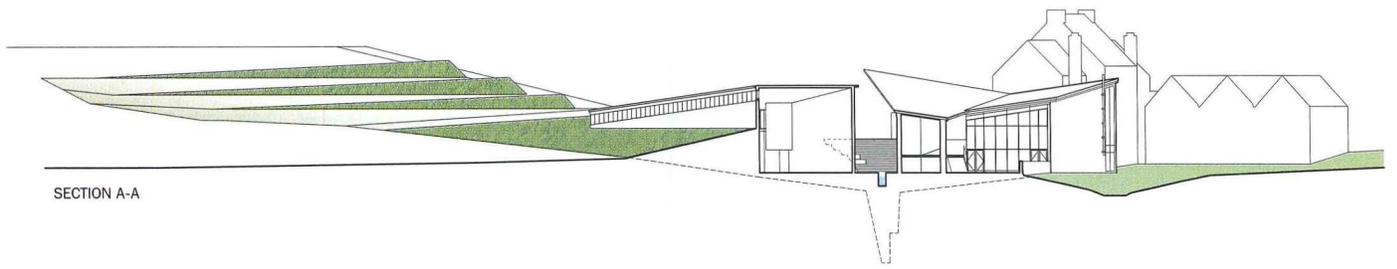
Project: *Museum of the Earth, Ithaca, New York*

Architect: *Weiss/Manfredi Architects—Marion Weiss, Michael A. Manfredi, AIA, design partners; Christopher Ballentine, Armando Petrucci, Lauren Crahan, Michael Blasberg, Giselle Sperbe, Christopher*

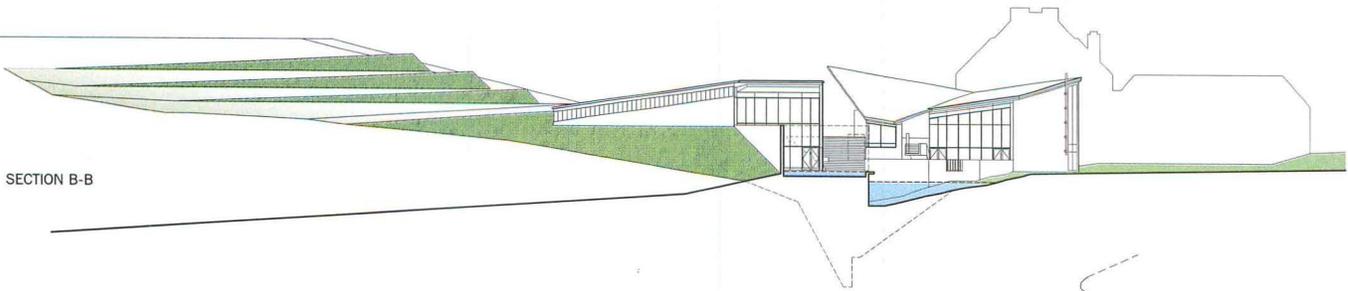
Kimball, design team

Consultants: *Weidlinger Associates (structural); T.G. Miller (civil); MG Engineering (mechanical/electrical); Jeff Kennedy Associates (exhibition design)*

Contractor: *Hueber Breuer Construction*



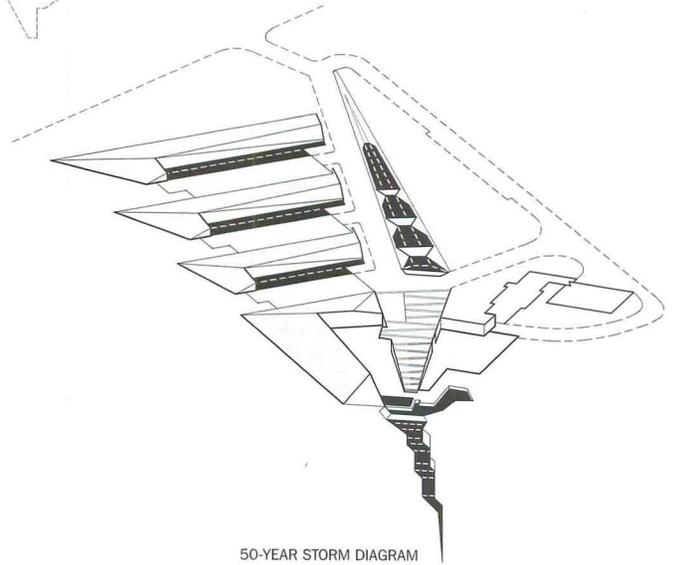
SECTION B-B



- Existing institute*
- Entry plaza*
- Lobby*
- Open to below*
- Office*
- Gift shop*
- Ramp gallery*
- Changing exhibitions*
- Exhibition*
- Fossil prep*
- Displayed geothermal*
- mechanical*
- Multipurpose*

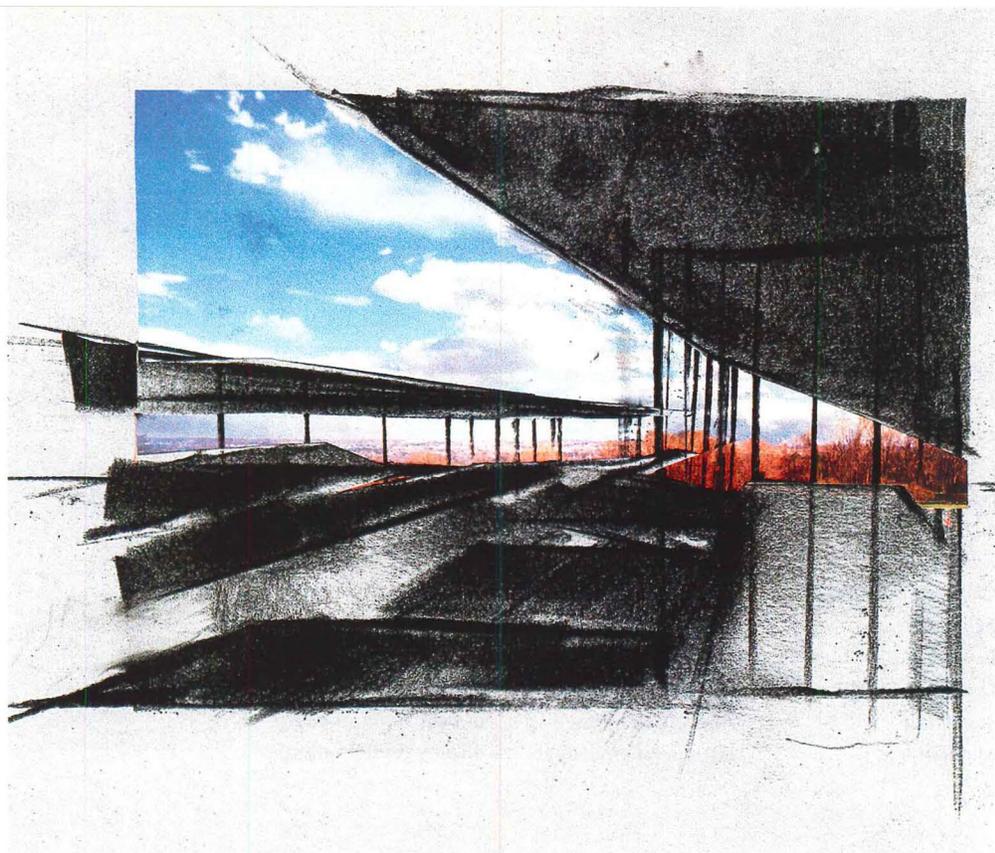
Weiss/Manfredi tilted parking terraces into berms that convey runoff into a terraced, open culvert (diagrams, above and opposite), where gravel and plants filter and slowly release it. (The berms also screen cars from view.) The entrance terrace (photos, oppo-

site) cascades between the two pavilions as an embodiment of the path of water, opening to a planned vista to Lake Cayuga. Water reappears in a small pool (below left). A weir spills into another set of ponds—or puts winter ice on display (bottom right).

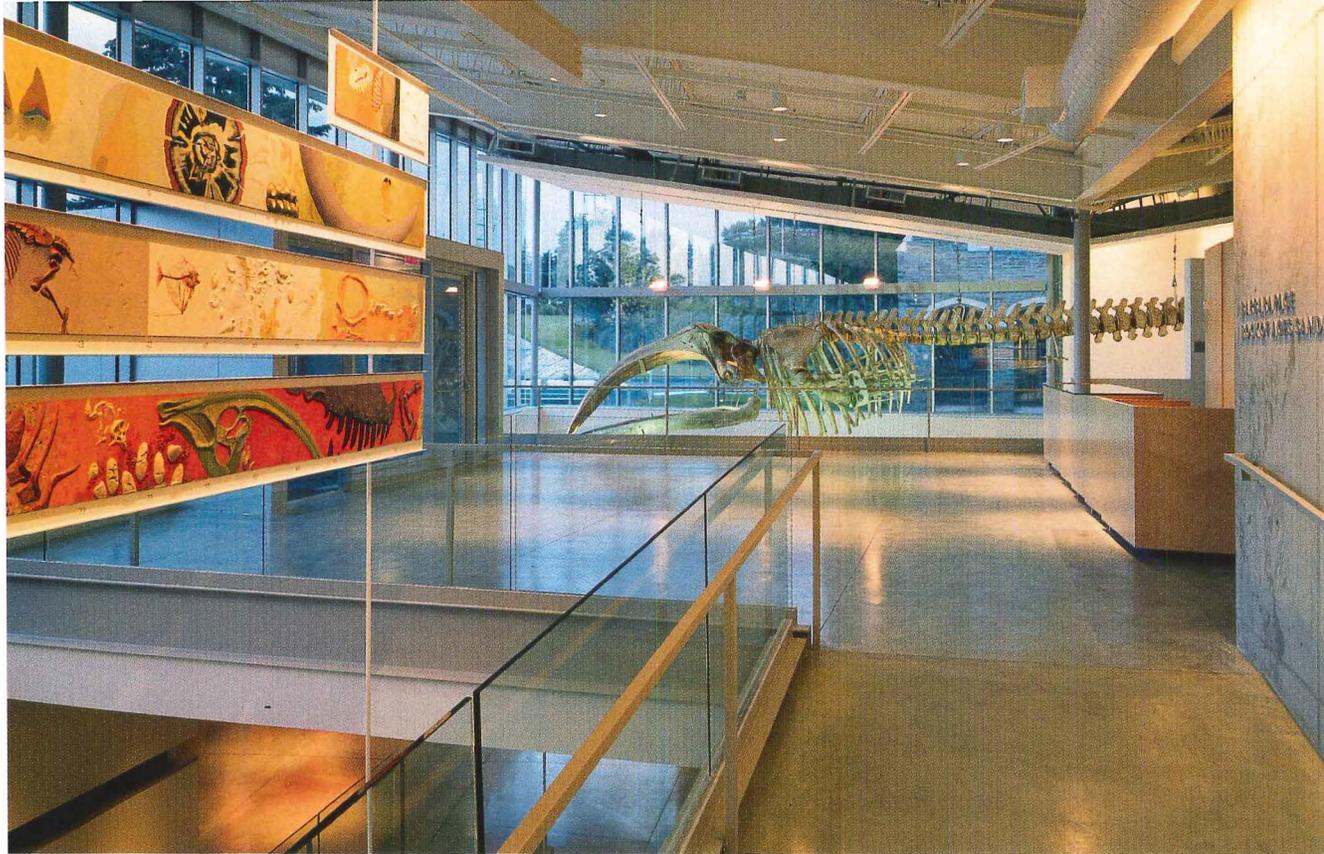


50-YEAR STORM DIAGRAM





Although the museum is united at the lower level, visitors first see two pavilions (entry exterior and sketch, opposite, top). The suspended skeleton of a rare whale orients visitors in the northern pavilion, at the beginning of their journey down the ramp (right and opposite, bottom) to the main exhibitions (below) in the southern pavilion.



recent visit. “Giving this idea form, helping to make it visible, seemed a way to make the design intrinsically powerful.” From the bermed-up parking terraces (following spread) to the “erupting” sunken roof forms, the architectural strategy puts visitors in touch with the physical reality of geology, preparing them for the vast abstraction of geological history.

It was not easy reconciling this ambitious architectural idea with Allmon’s equally ambitious aspirations for the exhibitions. Oh, and \$5.8 million for reinforced poured-in-place concrete and steel structures plus sitework was a stretch, as was the \$3 million ultimately spent for exhibitions. While the fossil collection was the basis, Allmon did not feel constrained by it. The whale skeleton that greets visitors at the entrance (above) happened through just the kind of difficult conversation that frequently took place during the design process. “Many of Marion’s sentences began with ‘you can’t afford ...’” said Allmon. “But she told us we needed an artifact that made a big splash at the entrance—something to draw people in.” That something turned out to be a rare right whale, which beached itself and died in New Jersey. At a day’s notice, staff rushed to claim the

whale, removing its flesh to preserve the skeleton. All in a director’s day’s work, Allmon shrugs. “What’s a whale doing in a paleontology museum?” he asks rhetorically. “This whale was tracked for a long time, and scientists knew a great deal about it. And it gives us a chance to talk about the environment and conservation.”

Allmon also asked the architects to incorporate artwork by Barbara Page, a local artist. Inspired by the institute’s collection, she painted a record of geological time. Weiss and Manfredi incorporated it into the circulation strategy, devising a ramp that wraps Page’s *Rocks of Ages Sands of Time*. Each panel depicts one million years of geological time (above). The architects mounted each row of panels according to distinct geological eras.

Within the 7,000-square-foot envelope of the exhibition hall, Jeff Kennedy Associates’ exhibition design traces geological history through a combination of artifact displays (including 665 from PRI’s collection), hands-on “Discovery Stations,” and small A/V-heavy enclosed theaters. Clerestories bring in light, but hanging metal blades keep sunlight from reducing exhibition readability. Visitors can end their tour outside, where the terrace offers more display space for weather-tolerant specimens.

“We’ve worked to make the museum accessible at many levels,” adds Allmon, “for the Ph.D.s in dreadlocks and the rural families who live 5 miles away but think of Ithaca as the big city.” And it has worked, not just in expanding attendance toward a goal of 50,000 to 60,000 annually: The temporary-exhibitions area below the whale skeleton has become unexpectedly popular for weddings and parties (which also help augment the museum’s finances). “It’s the architecture that attracts them,” says Allmon. “It’s where everyone wants to be.” ■



Sources

Curtain wall: *Vistawall*

Standing-seam copper roof: *Revere*

Self-cleaning glass: *Pilkington*

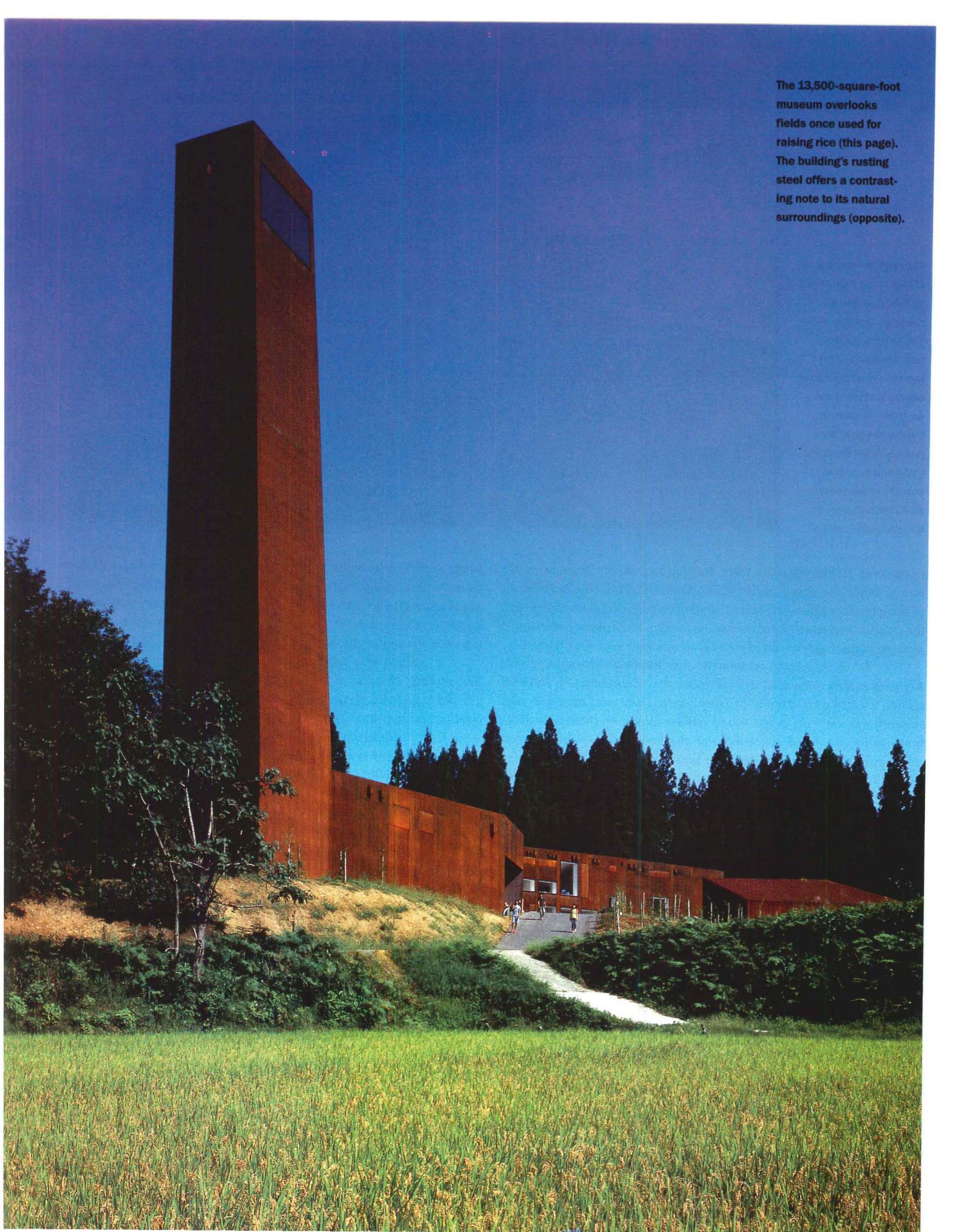
Exterior stone: *Finger Lakes Stone, “Lenroc”*

Geothermal heating/cooling: *Tag Mechanical System*

For more information on this project, go to Projects at

www.architecturalrecord.com.

The 13,500-square-foot museum overlooks fields once used for raising rice (this page). The building's rusting steel offers a contrasting note to its natural surroundings (opposite).



Takaharu and Yui Tezuka inserted a sleek exhibition tube within the rugged steel armature at the new **MATSUNOYAMA SCIENCE MUSEUM**

By Naomi R. Pollock, AIA

Japan's Niigata Prefecture isn't called "snow country" for nothing. The region gets an astounding 95 feet of snow annually—enough to blanket land, trees, and buildings with a 16-foot-deep layer of icy precipitation from December to April. Resisting this enormous load drove both the design and construction of Takaharu and Yui Tezuka's scheme for the Echigo-Matsunoyama Natural Science Museum, done in collaboration with architect and engineer Masahiro Ikeda. Commissioned for the 2003 Echigo-Tsumari Art Triennial, a regional event that included public sculpture and new buildings by the Dutch firm MVRDV and the Tokyo-based Hiroshi Hara + Atelier, the project occupies a beautiful site 145 miles north of Tokyo where mountains meet fields once cultivated for rice. Like a submarine built to withstand massive snow loads, the Cor-ten steel structure hugs the ground, then turns vertical with a 112-foot-high tower reminiscent of a giant periscope. Taller than the deepest drifts, the tower's observatory is an ideal spot to survey the rolling, wooded landscape—even in the dead of winter.

A clear departure from the glass-and-steel structures typical of many Japanese architects today, the heavily armored museum looks more like an industrial relic than a brand-new cultural facility. The building's irregular form, variegated surface, and absence of highly articulated details all contribute to its unique appearance. "I wanted to make a building that looks like a ruin," explains Takaharu Tezuka. The museum also represents a new direction in materials and forms for the husband-and-wife team best known for their experimental houses that integrate inside and out [RECORD, December 2002, page 98].

The nearly windowless tower marks one end of the building, while a café occupies the other. Visitors enter through a door recessed near the middle of the building, then walk either in one direction to exhibition areas, or the other, past offices, meeting rooms, laboratory, function

Naomi R. Pollock, AIA, RECORD's special international correspondent, writes about architecture and design from Tokyo.

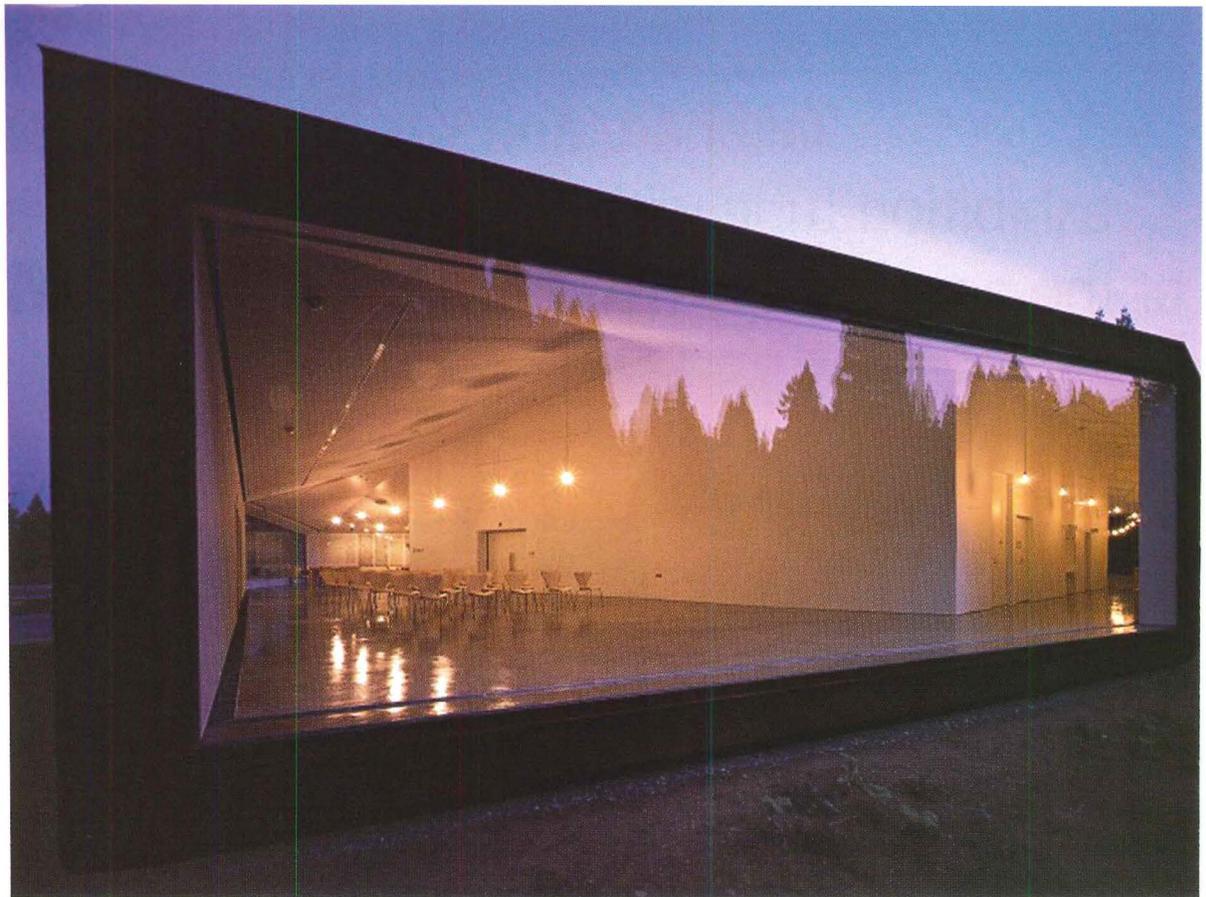


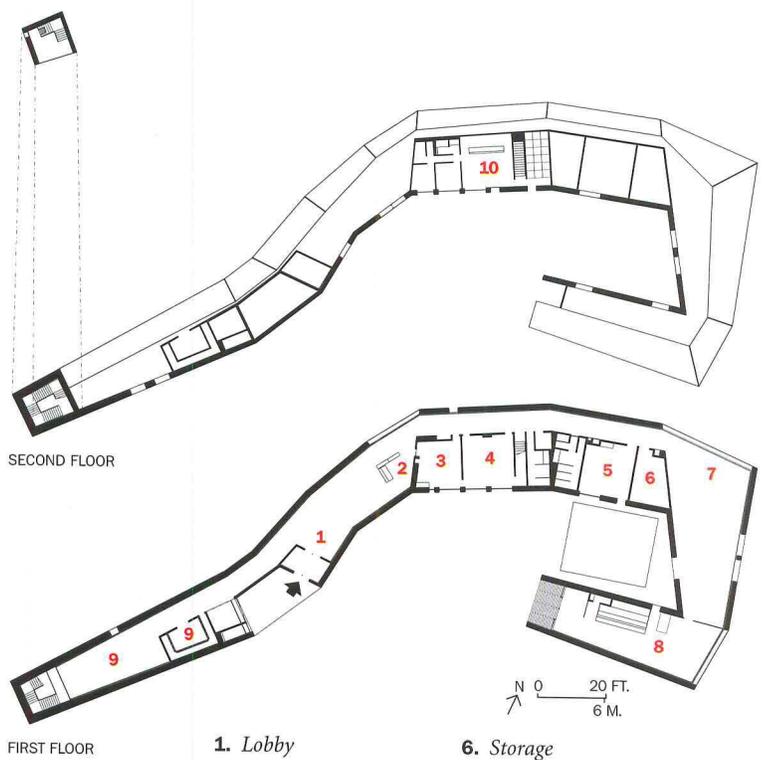
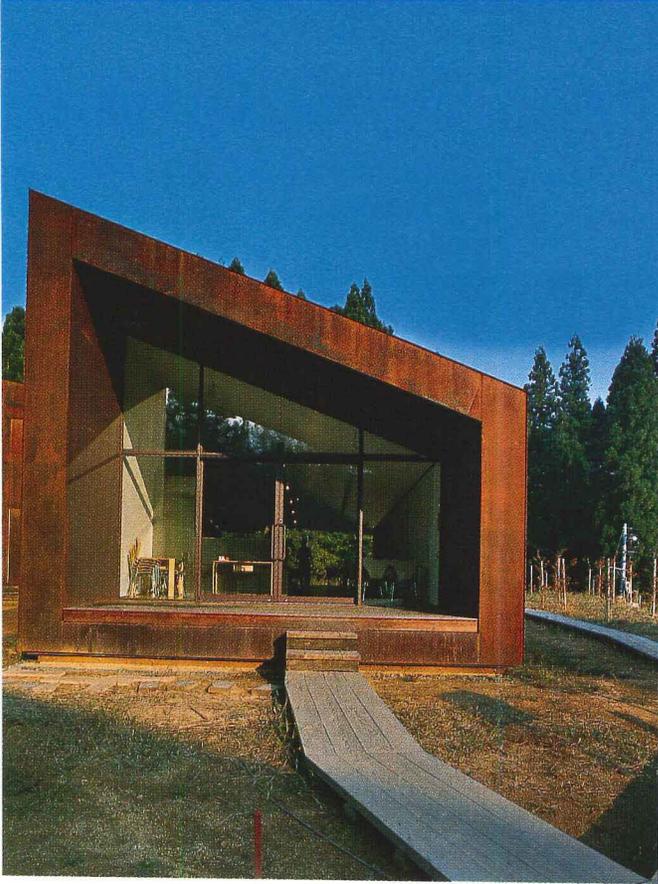
hall, and the café. Support facilities for researchers studying local flora and fauna are squirreled away on the second floor. The architects turned the tower into an unusual sensory experience, keeping the 160-step ascent in semidarkness and punctuating it with an artist-designed light-and-sound installation activated by a solar-energy sensor on the roof. At the top, climbers are rewarded with a flood of daylight and a dazzling, panoramic

Project: Echigo-Matsunoyama Museum of Natural Science, Matsunoyama, Japan
Architect: Takaharu & Yui Tezuka Architecture/MIAS (Masahiro Ikeda Architecture Studio)—Takaharu Tezuka, Yui Tezuka, Masahiro Ikeda, Miyoko Fujita, Ryuya Maio, Mayumi Miura, Taro Suwa, Takahiro Nakano, Toshio Nishi, Tomohiro Sato, Makoto Takei, Hiroshi Tomikawa, Masafumi

Harada, Hirofumi Ohno, project team
Engineers: MIAS (structural); Eiji Sato, Hisakatsu Hemmi/ES Associates (mechanical); Shigetoshi Kibayashi/Kankyo Total Systems (electrical)
Consultants: Shunsuke Hirose/Fudokeisei (landscape); Masahide Kakudate (lighting); Akira Ono/Nagata Acoustics (acoustics)
General contractor: Takahashi-Gumi

Floor-to-ceiling windows (right and below) employ the same thick acrylic as aquariums. A pitched end elevation echoes the shape of local sheds (opposite, top). Local species of trees have been planted to restore the site (opposite, bottom).



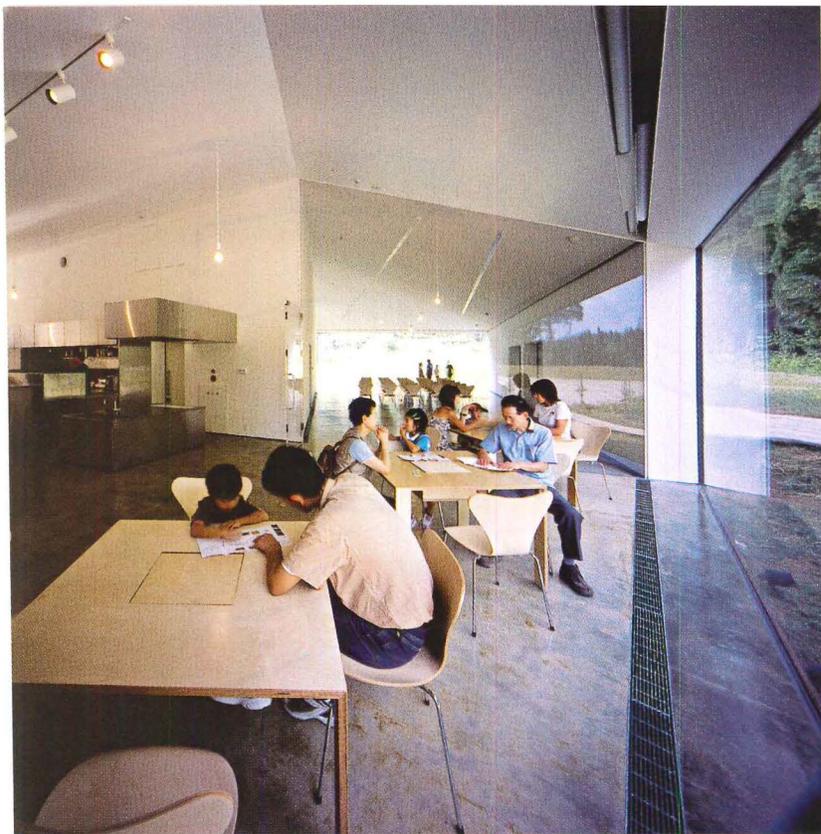


SECOND FLOOR

FIRST FLOOR

- | | |
|---------------|------------------------|
| 1. Lobby | 6. Storage |
| 2. Reception | 7. Function hall |
| 3. Office | 8. Café |
| 4. Conference | 9. Exhibition |
| 5. Laboratory | 10. Naturalists lounge |





view of the hilly landscape and indigenous buna trees that lie down under the weight of the snow each winter and pop back up each spring.

Though the building's pitched short elevation derives from the profile of the simple sheds that protect local roads from the snow, its plan traces an abandoned path that once linked stepped rice paddies nearby. The building not only replicates the old path; conceptually, it is a path. Encased within the museum's rusting-steel armature, a stark white tube runs the length of the building, narrowing where people walk and widening where they pause to look. Instead of separate galleries, the museum has one long corridor lined with display panels, tanks, and terrariums, and some large images of regional plants and animals projected directly onto the walls. The only discrete gallery contains a donated collection of butterflies mounted in cases stacked from floor to ceiling.

At the same time, the building serves as a place to observe and reflect on the surrounding environment. Framed like pieces of art, floor-to-ceiling views out to the woods, fields, and distant mountains are as important as the artifacts inside. "If you are walking in a forest, you stop and look at many things," says Takaharu Tezuka. "I wanted to make a building where you can stop and look out."

The architects inserted the great picture windows where the building bends, so they could open up sectional views in wintertime of compacted snow and any forms of life suspended within it. While designing the museum, they envisioned daylight filtering through loose snow at the top of great snow drifts and seeping inside the museum. Because of the snow load and the tremendous openings—the largest one is 39 by 13 feet—the windows had to be made of 3-inch-thick acrylic, the same material used at aquariums. But acrylic is also three times clearer than glass, which takes on a greenish cast as it gets thicker. The equivalent of triple glazing, the transparent sheets are good insulators whose visibility is not clouded by condensation buildup.

The windows, however, were not the only reason the Tezukas had to look beyond the scope of standard construction technology. Made of steel plates varying from 0.2 to 0.3 inches in thickness, the building's Cor-ten body required the expertise of shipbuilders to weld it together on-site.

To withstand snow loads of 1.5 tons/square meter, a structural steel frame concealed between exterior and interior walls backs up the outer steel shell.

Like a thermos, the building takes advantage of a double skin—in this case, separated by a 22-inch slot of air space where the mechanical system circulates hot air in winter and cool air in summer. A land of climatic extremes, Niigata Prefecture is a place where rugged winters lead to blistering summers, when temperatures can soar to 110 degrees Fahrenheit. "The outside of the building gets so hot you could fry an egg on it," chuckles Takaharu. Because the building is made of steel, it expands and contracts 8 inches in length each year when the temperatures hit their highs and lows. Instead of connecting columns directly to the foundation, the architects inserted stainless-steel panels between the structural frame and the concrete base, enabling the walls to slide along the length of the building. In addition, grooves—not holes—in the stainless-steel panels allow the bolts securing the columns to glide back and forth. But because it had to be anchored firmly in three places, the building actually changes shape, then snaps back into place.

While man-made interventions were necessary to keep the interior comfortable year-round, the Tezukas are happy to let natural forces have their way outside. In fact, the building's exterior has already begun to take on the yellowish-red hue of the iron-rich soil. The architects hope that in 30 years the land will return to its unaltered state. To jump-start that process, they enlisted the aid of an ecologist and local volunteers who gathered and transplanted indigenous saplings and seeds to the site. "Our intention was not to make a beautiful landscape, but to restore it," says Tezuka. Offering dramatic vantage points for visitors to appreciate the snow and scenery, the Matsunoyama Museum underscores that beauty. ■

Sources

Cor-ten steel panels: Yamaki Kogyo

Acrylic windows: Ryoko

Finnish birch furniture: Okamura Seisakusho

CAD system: Micro Station

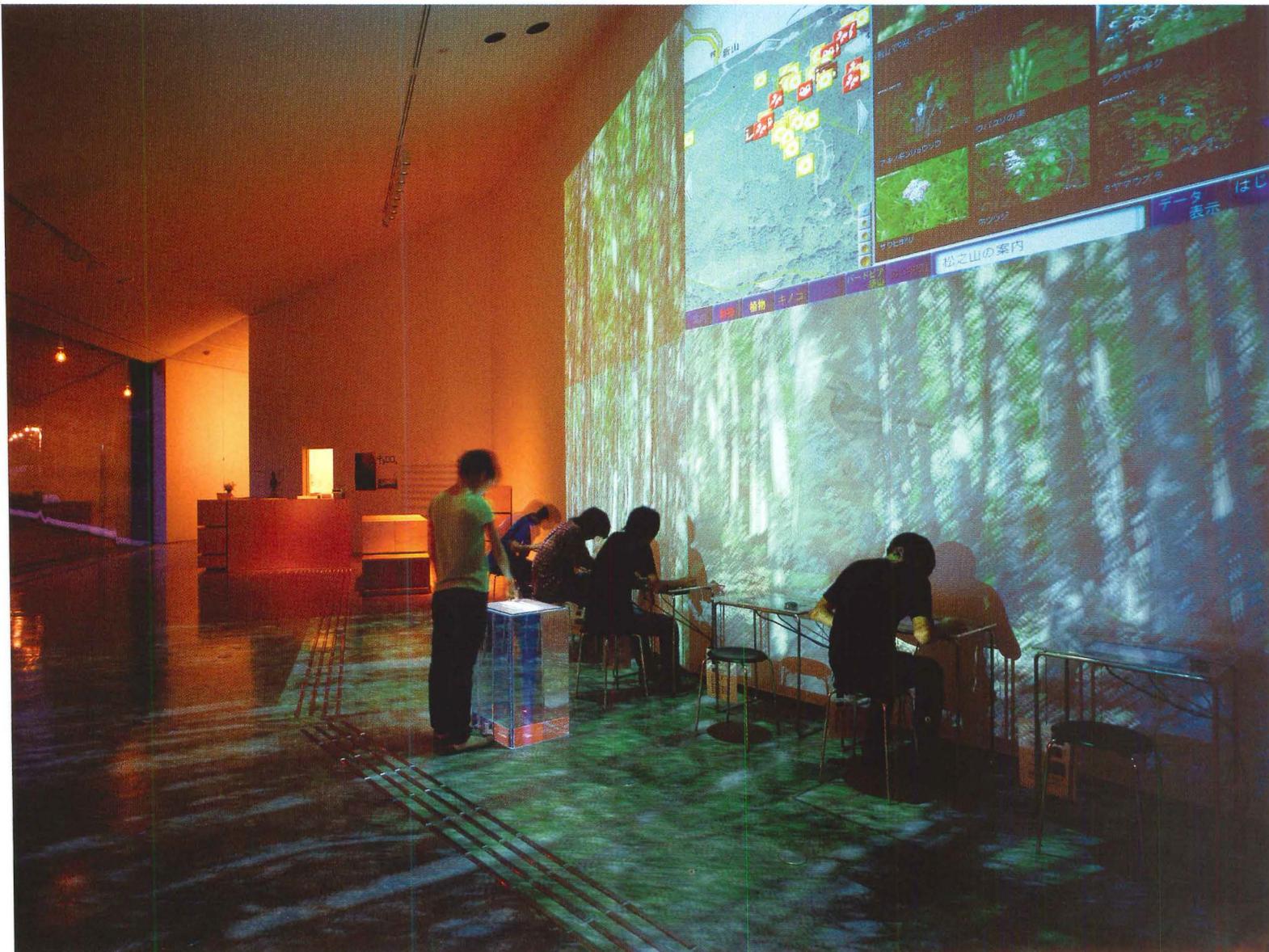
Clear concrete-floor coating:

Atomix

For more information on this project, go to Projects at

www.architecturalrecord.com.

The architects designed the interiors as a series of unfolding spaces, from the lobby (opposite, right) and exhibition areas (below) to a multifunctional hall (right) and a café (opposite, left). Some displays are projected directly onto walls and can be changed easily, while others are fixed.





The Contemporary shares its site with Ando's Pulitzer (right in photo opposite) at the edge of the Grand Center arts district. At its entrance (this page), cantilevered panels frame the sky.

In Allied Works' CONTEMPORARY ART MUSEUM ST. LOUIS, architecture is understated by design, heightening the viewer's experience

By James S. Russell, AIA

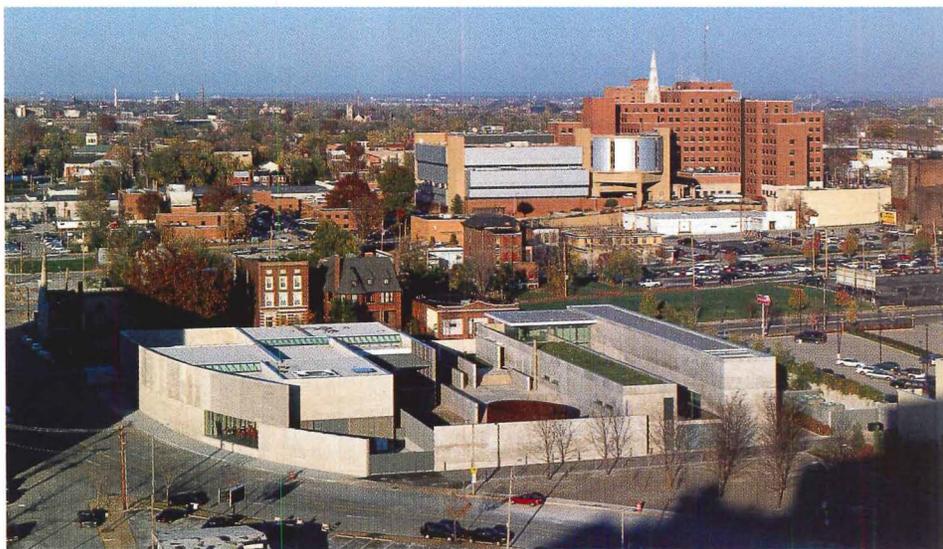
A great many Modern-art spaces are contained in highly expressive Modern architecture. So why, Brad Cloepfil, AIA, asked himself, “was the romantic notion that contemporary art can only be inspired by—and presented in—found space so resilient?” His own dissatisfaction, which parallels that of many artists, is that too much museum architecture “intends to be the subject” of the experience, “and keeps reiterating its own ideas at every level and at every moment.” For the young, scrappy Contemporary Art Museum St. Louis, he chose what could be a more daring course by designing less a building than a “vessel”—one that “prepares the ground” for the experience of art.

Cloepfil, the principal of Allied Works, of Portland, Oregon, does not know precisely what he is preparing the visitor for. The St. Louis Contemporary, like a number of such institutions, doesn't have a collection and doesn't intend to obtain one. Similarly, its director, Paul Ha, has a good idea of the kinds of artists and trends he wants to showcase, but much of what he most wants to exhibit “has not even been made yet.”

Such a strategy does not make the architect's job easy. “We didn't want a precious-object place,” explained Betsy Millard, Ha's predecessor, who was director during design and much of construction of the new building. “We talked a lot about warehouse space with Sheetrock. We know that works. But will the art of today look good in another kind of space?”

Actually, the 27,000-square-foot project's \$6.5 million construction budget did not permit much that was precious at all. But it's a big step up from the leftover spaces that the Contemporary has occupied since its founding in 1981. As long as seven years ago, the institution began planning for a permanent home. It had forged ties with the Pulitzer Foundation, whose leader, Emily Pulitzer, had enlisted Tadao Ando to erect a combination of think-tank place and exhibition space for the foundation in the Grand Center cultural district. Pulitzer donated land next to the Ando building for the Contemporary. The combined institutions help to forge a cultural critical mass in a city with too little art, she says. “The combination is one plus one equals five.”

Explaining his design approach, Cloepfil says, “I wanted a space that is energized on its own terms but also would be inspirational for artists. In a noncollecting context, you hope that artists are intensely motivated to generate work for the space.” He divided the floor area with 12-foot-high concrete panels running east to west (some clad in drywall,



others left unfinished), and ran similar panels overhead in spans as long as 70 feet north to south. (A small, upper-level mezzanine, with offices and an education space, can be appropriated for additional displays.)

The “upper order” of panels, clad in glistening stainless-steel metal mesh, creates a powerful architectural definition of volume but leaves the “lower order” woven underneath unencumbered for the mounting of art. Cloepfil changed ceiling heights between the panels, slotting the gaps with clerestories. The floor areas also shift gently through ramps and shallow stairs, thereby defining three large exhibition areas primarily by differences in height (13, 20, and 26 feet) and quality of light. With floor space freed of columns (see plan, page 128), the arrangement permits curators to further subdivide at will.

More concrete panels unfurl along the curving sidewalk front and project beyond the building's volume—in a long, daring cantilever—to frame a dramatic rectangle of sky over the entrance. The sandblasted surface and more sunlight-refracting mesh present a tough exterior, but one which subtly contrasts with the crisp severity of Ando's building next door. This Minimalist alternation of materials, pattern, and texture represents a reconciliation of opposite impulses. He needed a largely closed exterior to provide

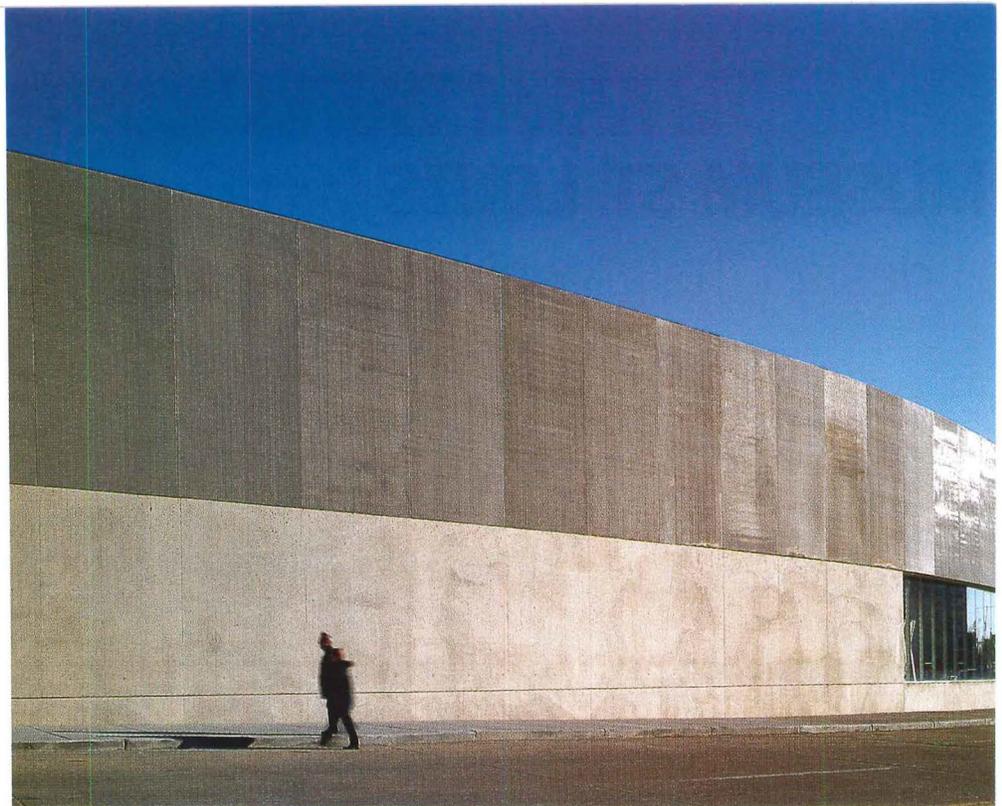
Project: Contemporary Art Museum St. Louis, Missouri

Architect: Allied Works Architecture—Brad Cloepfil, AIA (principal); John Weil, project manager; Kyle Lommen, project architect; Chris Bixby, Nathan Roelofs, Andrew Kudless, Chelsea Grassinger, team

Engineers: KPFF (structural); Arup (m/e/p, fire protection)

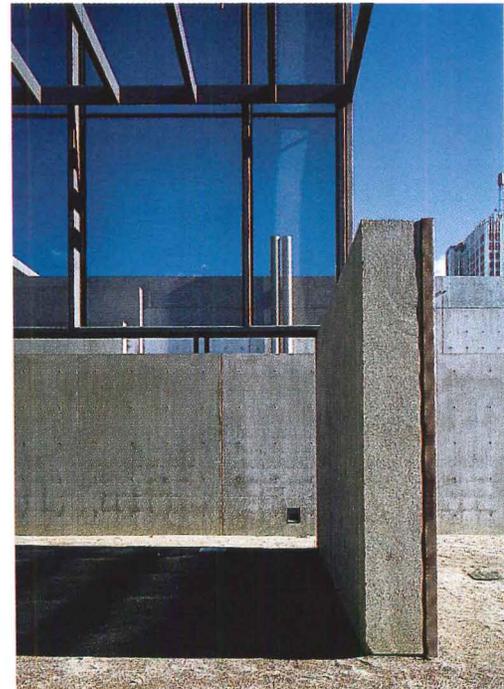
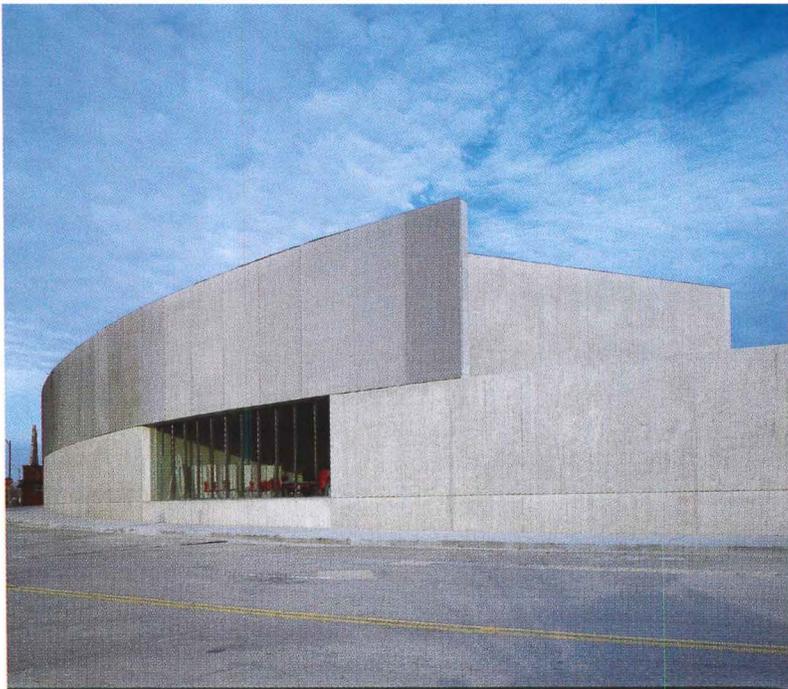
Consultants: Horton Lees Brogden (lighting); Architectural Concrete Associates (concrete); Shannon and Wilson (geotechnical); Kuhlmann Design Corporation (civil)

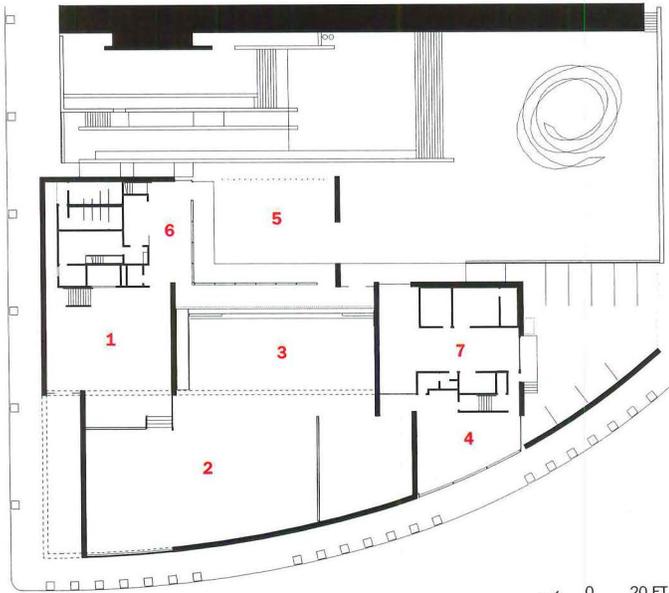
Contractor: Tarlton Corporation



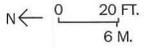


Stainless-steel mesh clads the upper-level band of concrete (opposite, top right and this page, near right). Upper-level rooms appear behind the veil of mesh in low light (opposite, bottom). Elsewhere, glazing opens a classroom to the view (near right), or provides a transition to the outdoors (far right). A courtyard, shared with the Pulitzer Foundation, focuses on Richard Serra's *foe* (above, far right, and opposite top left).



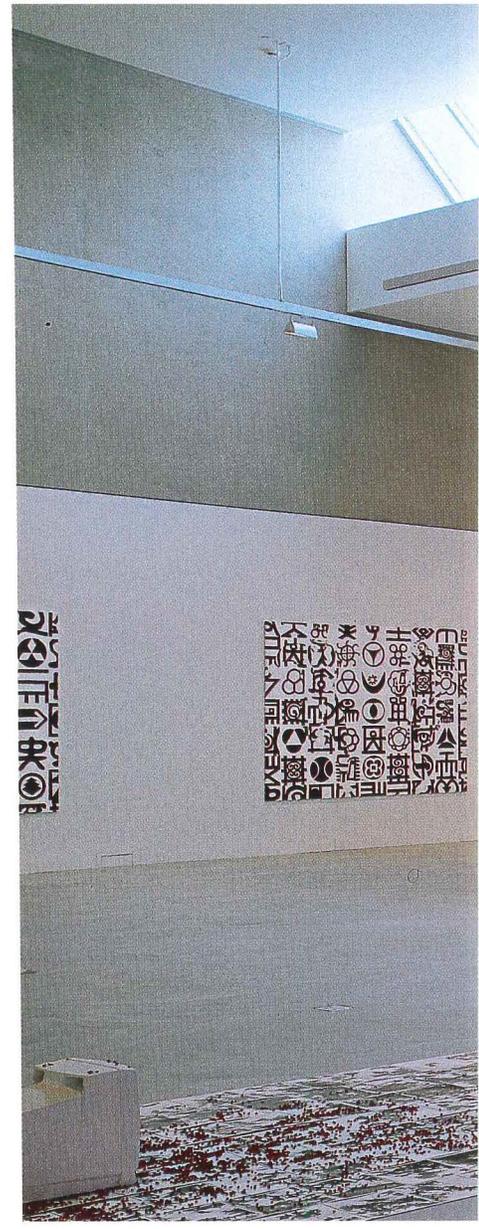
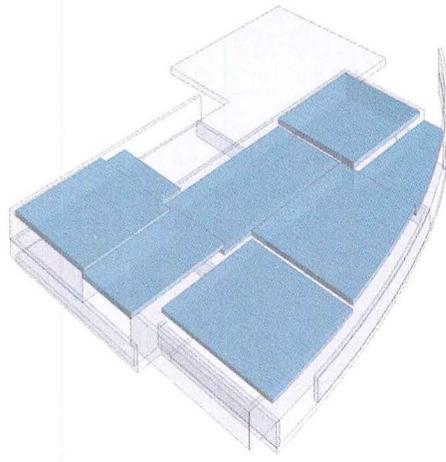
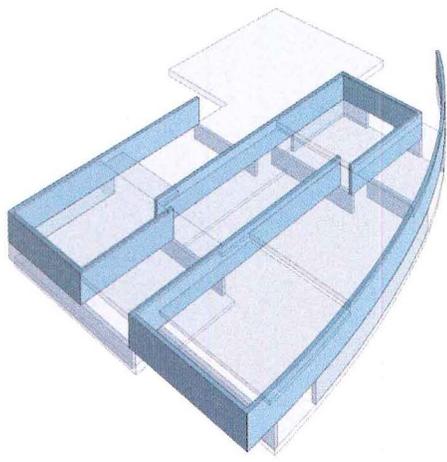


GROUND FLOOR



1. Lobby
2. Exhibition
3. Performance
4. Education
5. Courtyard
6. Café
7. Loading

The gallery space is structured by criss-crossing concrete panels (diagrams below). Clerestories spread light between shifted ceiling planes (right and bottom right). A partition separates the entry (right in left photo below) from the exhibition spaces.





ample art-hanging space. (“I fought those windows!” Millard admits.) And he adds, “the building should establish a boundary as it merges with the city.”

Throughout, Cloepfil strove for a delicate balance. “There’s as much ‘architecture’ as possible—in its power to evoke—and as little of the visible hand of the designer as possible,” he explained by telephone from Portland. This results in a certain ambiguity. The exterior is so understated that it barely identifies itself as a museum. Local architects criticize it as too fortified-looking for an emptied-out city where too few institutions are inviting. The visitor can’t miss the assertive architectural structuring of the interior, but the space itself feels amorphous. This underdefined nature, however, may aid the institution in its mission. “He gave us a clean box to work in,” says director Ha. “It’s grand and impressive but not daunting,” a boon for the emerging artists he wants to show. He expects artists to attach works to every surface, even drill through the floor. (The windows have become fair game for artist Mary Evans in the initial exhibition, *A Fiction of Authenticity: Contemporary Africa Abroad*). Cloepfil cringes a bit when he hears this, but he did intend that the art should come forward, even if it dangles sloppily from that tidy Swiss exterior. The design may act as the perfect foil to the hanging exploded pianos, lurid performance pieces, and mud-splattered walls that are the bread and butter of contemporary art exhibitions these days.

Ha’s task to build attendance from a modest 10,000 annually won’t

be easy. No lively art and gallery scene exists to nurture (and be nurtured by) the Contemporary Art Museum St. Louis. “We have to overcome the stigma that we are a museum about contemporary art,” he says. In a program called New Art in the Neighborhood, he uses his classroom—which, with Cloepfil’s glass wall, becomes a kind of invitation to passersby—to help young artists develop portfolios suitable for college admissions. Cloepfil created a stepped “performance space” that is implied rather than permanently enclosed by walls, which means Ha can introduce readings or dance within spaces occupied by art. Even the natural light, which many curators seek to shut out, makes a difference. “It’s nice to look up and out and remind yourself that you are part of a community,” Ha observes. “High school kids stare in as they go past. I like that.” In a city where much of the population doesn’t feel invited by museums, he adds, “the openness bridges the gap.” ■

Sources

Glass: Oldcastle Glass

Skylights: Super Sky Products

Wire-mesh panels: A. Zahner

Steel fences: Kupferer Brothers

Doors: Steward Steel; Tublite; Curries Hollow Metal (door systems)

Conveyance: ThyssenKrupp Elevator

Lighting: Lighting Services (exhibition); Focal Point (office); Hydrel, BK Lighting, Hess America (exterior)
Bookstore shelving: Vulcan Metals

For more information on this project, go to Projects at

www.architecturalrecord.com.



The windmills museum (opposite), minus the original sails and conical roof, is entered from a plaza next to the new kiosk. Inside, walls and vaults are built of marés, a local sandstone (this page). Cement surfaces and concrete architectural display elements and light wells (this page) alternate with teak.

Ricardo Flores and Eva Prats craft stone and wood elements in converting a windmill to the MILLS MUSEUM OF THE BALEARIC ISLANDS

By David Cohn

In adapting a 17th-century flour windmill for use as the Mills Museum of the Balearic Islands, Barcelona-based architects Ricardo Flores and Eva Prats have drawn out and elaborated upon the modest features of the historic building. In so doing, they have created an intimate itinerary through its interior, which features exhibits on the history of this centuries-old structure integral to the Majorcan landscape.

The former windmill overlooks the waterfront of Palma, the capital of Majorca, and had appeared on a 1644 plan, one of seven such mills lining the escarpment of Es Jonquet. This old fishermen's neighborhood to the west of the medieval city has long been a pocket of poverty despite its prime location, and the 7,534 square-foot, \$493,497 Mills Museum and plaza are part of a city effort to renew the area.

Flores and Prats did not seek to return the windmill to some hypothetical pristine state. Their approach, plus their intuitive and formal vocabulary, had its origins in the work of the late Barcelona architect Enric Miralles, in whose studio the two met while working there in the early 1990s. Accordingly, their orientation to the windmill reuse was a more archaeological one, exposing the cumulative marks of time on the structure: They preserved the uneven, stained patina of the blocks of marés, the local sandstone, on the windmill's cylindrical tower, and the chipped profiles of window lintels. Inside, the stone vaults and walls retain the scars of former partitions and soot stains from demolished chimneys.

The architects have also added new elements of poured-in-place concrete, teak, and marés stone in the same spirit. Outside, the architects placed the ticketing, bar, and bathrooms in a separate kiosk carved from a vaulted secondary structure on the site, and designed a curving concrete bench in front of it to define a small entry plaza of concrete and red ceramic tile. The most notable interventions introduce natural light into the cavelike space of the windmill's base through new or modified openings that are concentrated around existing wall openings. Although the apertures are generally small in response to the powerful Mediterranean sun, Flores and Prats found it necessary to control the haphazard effects caused by their disordered placement and varied sizes. This led to a strat-



egy in which, as Flores explains, “the windows are treated like pieces of furniture that modify the light, focusing it on exhibits and displays.”

For small, high openings, the architects carved light chutes out of the thick, 31-inch walls to redirect light into lower openings, which become display cases in their own right. Large openings are partially enclosed in wood and elements made of marés stone. Light spills down chutes, splashes out of framed stone boxes, and cascades from small new skylights down the curving exposed top of the thin stone vaults, changing color and intensity as it does. In addition, fixtures for indirect artificial lighting are integrated into these elements of “light furniture.” Nevertheless, in sculpturally modeling the interior volume with natural light, Flores and Prats have kept the primitive, shadowy quality of its cavernlike vaults—a “vague penumbra,” in the architects’ words.

The horizontal space of the museum is interrupted by the dra-

Project: Mills Museum of the Balearic Islands, Palma, Majorca, Spain

Owner: Patronat Municipal de l’Habitatge; Asociación Amigos de los Molinos, leasee

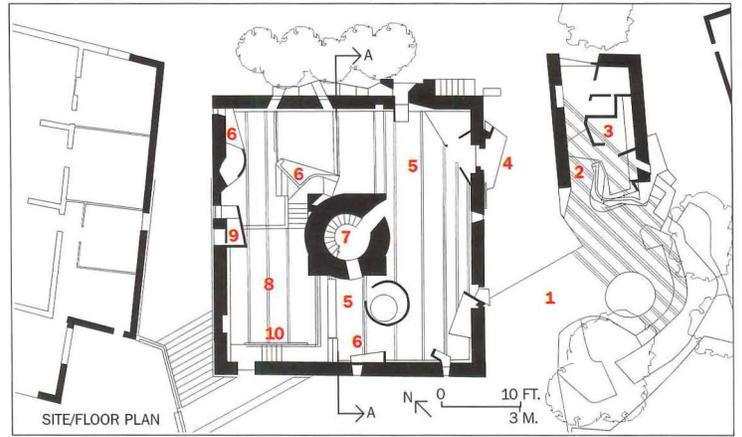
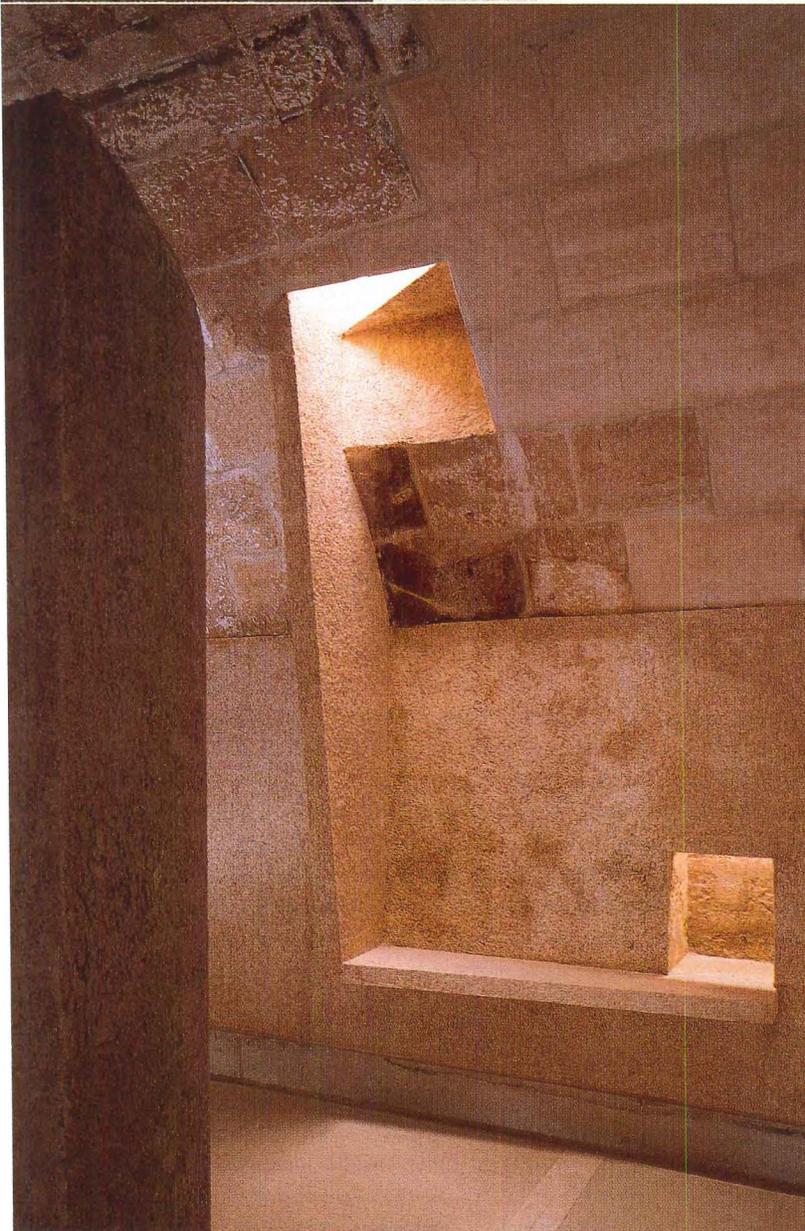
Architect: Flores + Prats

Architects—Richard Flores and Eva

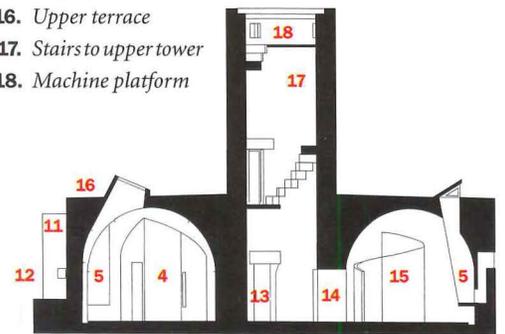
Prats, principals; Maria J. Duch, Francisco Pizá, Paola Vallini, Frank Stahl, Erica Checucci, Sole Revuelto, Armin Schmidt, Merlin Ellis, Ankur Jain, Michella Mezzavilla and Cristian Zanoni, design team

Engineer: Manuel Arguijo Vila

David Cohn is RECORD’s Madrid-based international correspondent.



- | | |
|-------------------------|----------------------------|
| 1. Access plaza | 10. Projector screen |
| 2. Kiosk | 11. Stairs to roof terrace |
| 3. Office/storage | 12. Upper street |
| 4. Main entrance | 13. Existing tower door |
| 5. Exhibition | 14. New tower door |
| 6. Exhibition pedestals | 15. Display chamber |
| 7. Tower | 16. Upper terrace |
| 8. Auditorium | 17. Stairs to upper tower |
| 9. Speaker podium | 18. Machine platform |



SECTION A-A

matic vertical shaft of the tower, where visitors can look up and see the cantilevered stone blocks of the old stair spiraling above them. A small auditorium nearby is defined by a drop in the floor, creating a double-height space presided over by a speaker's podium.

The rather radical idea of a museum cast into semidarkness requires a special sensibility that the museum's managers, the local Association of the Friends of Windmills, do not seem to share with Flores and Prats. Consequently, the association has added powerful artificial lighting and organized the exhibition in conventional wall-mounted panels, apparently making little effort to work with the architects and their proposed integrated display system. This lack of dialogue or compromise is a pity. It trades the unique and moving spatial experience the architects have created for the kind of mundane institutional installation for which the windmill is completely unsuited. ■



Sources

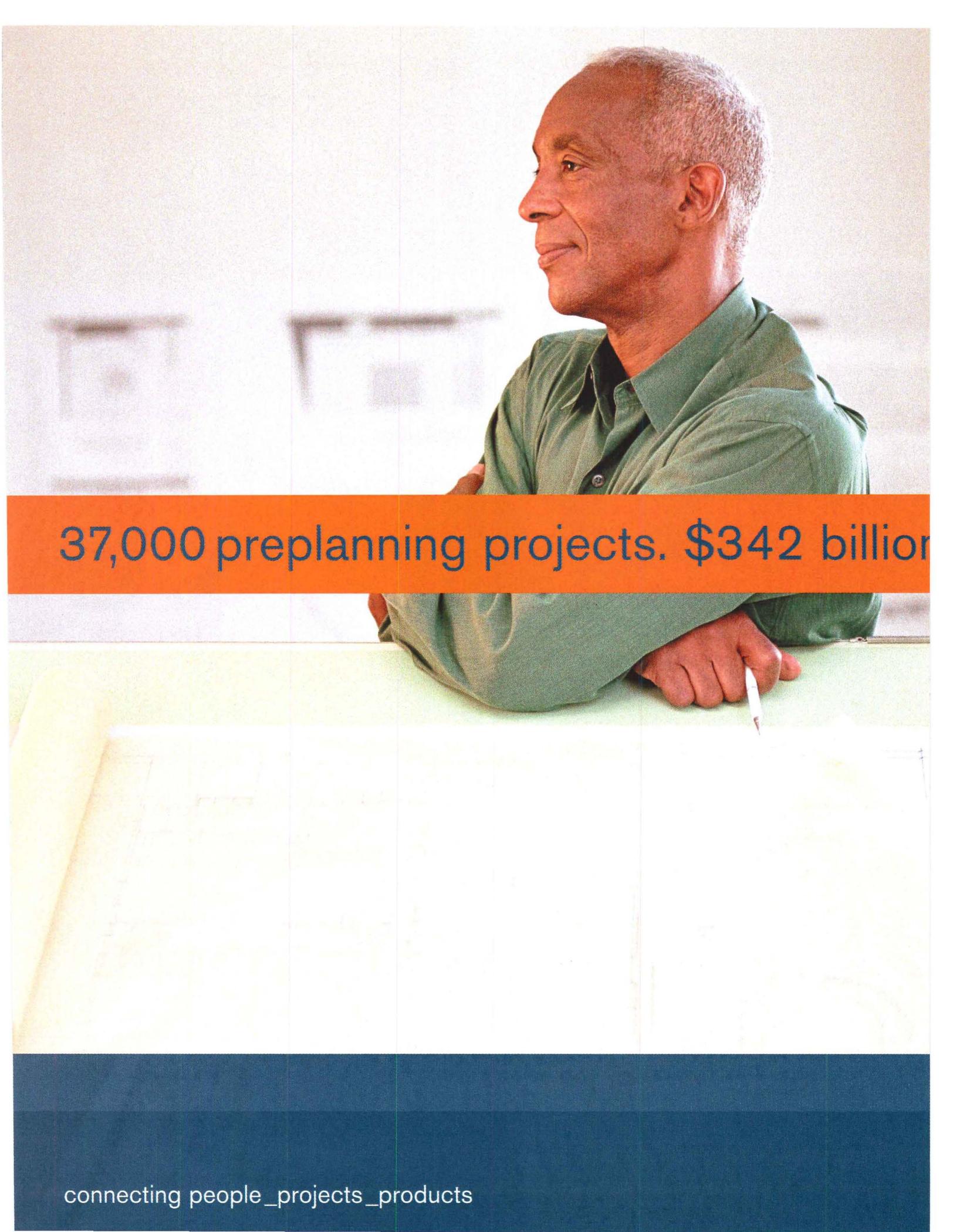
Teak and glass windows: Poliformas
Metalwork Cerrajería Marcos Perez
Custom bar, fixed seating, tables
(concrete, teak, marés stone): Juan

Cifre SA—Rafael Colom, supervisor

For more information on this project, go to Projects at www.architecturalrecord.com.

The 2,422-square-foot interior includes a small auditorium (this page). The built-in furnishings, including the auditorium pulpit and light well, plus the display niches (opposite, bottom left and top right), are impeccably crafted of reinforced concrete, cement, marés stone, and teak. Visitors to the exhibition (opposite, right) can enter the tower and see the old stone spiral stair above (opposite, top left).



A photograph of an older man with short, graying hair, wearing a green button-down shirt. He is sitting at a table, looking off to the side with a thoughtful expression. His right hand is resting on the table, holding a white pen. In front of him is a large sheet of paper with faint architectural drawings. The background is a bright, slightly blurred office or studio setting with framed pictures on the wall.

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Accessibility Regulations and a Universal Design Philosophy Inspire the Design Process

INSTEAD OF STIFLING CREATIVITY, A CLIMATE OF ACCESS PUSHES ARCHITECTS TO BE INVENTIVE

By Barbara Knecht

Accessibility is a mandate; universal design is a movement. Accessible, adaptable, and visitable environments are covered in the codes, standards, and regulations. Beginning with the Architectural Barriers Act in 1968 and culminating with the Americans with Disabilities Act (ADA) of 1990, the federal government has enacted four major laws that require public places and publicly funded projects to provide physical and programmatic accessibility to people with disabilities. Standards that meet the physical requirements of the laws are spelled out in guidelines. Model building codes and local codes have been modified to meet and, in some cases, exceed the federal requirements. Universal design is a worldwide movement that approaches the design of the environment, products, and communications with the widest range of users in mind. It is known elsewhere in the world as design for all, life-span design, and inclusive design. The U.S. origins of its philosophy date back three decades to the disability-rights movement, but the seven governing principles (sidebar, page 147), which call for designed environments that are equitable, flexible, intuitive, perceptible, safe, easy, and accommodating, were crafted in the past decade.

Civil rights is the rationale for accessibility. The accessibility laws focus on people within a narrow range of specific disabilities, such as those who use wheelchairs or have visual or hearing impairments. They ensure access to designated types of buildings based on assumptions about particular barriers in the environment—for example, they stipulate that there must be one level entry into public buildings for someone who

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CONTINUING EDUCATION



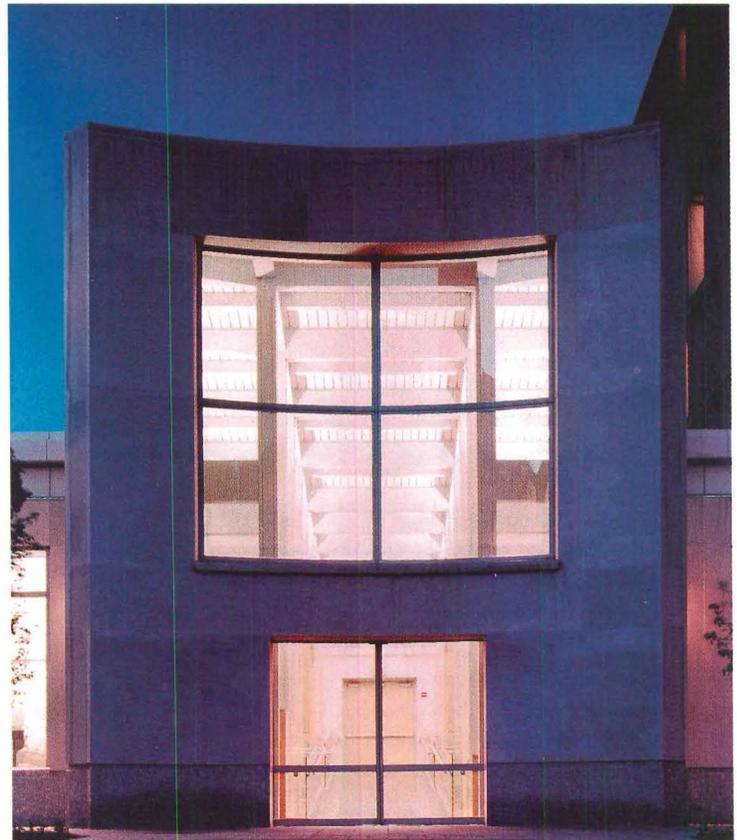
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LEARNING OBJECTIVES

After reading this article, you should be able to:

1. Explain the difference between accessible design and universal design.
2. Describe the benefits of universal design.
3. Discuss examples of universal design in recent architectural projects.

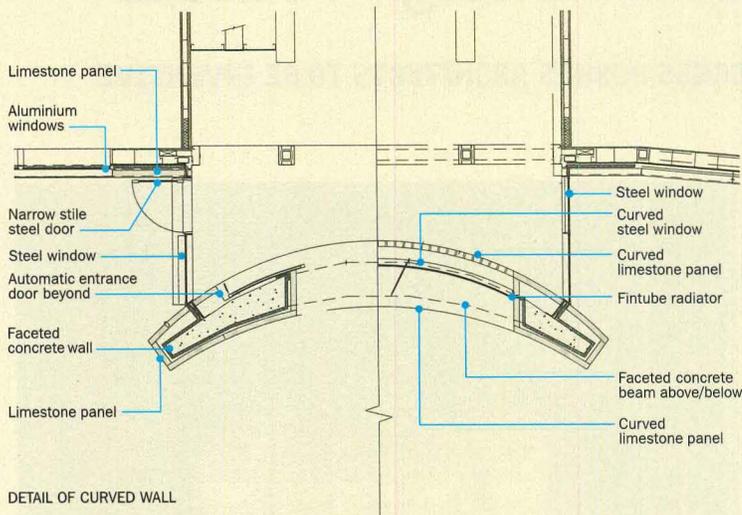
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Payette Associates used the Charles H. Giancarlo Engineering Laboratories at Brown University to create a visual signpost for the entire complex.

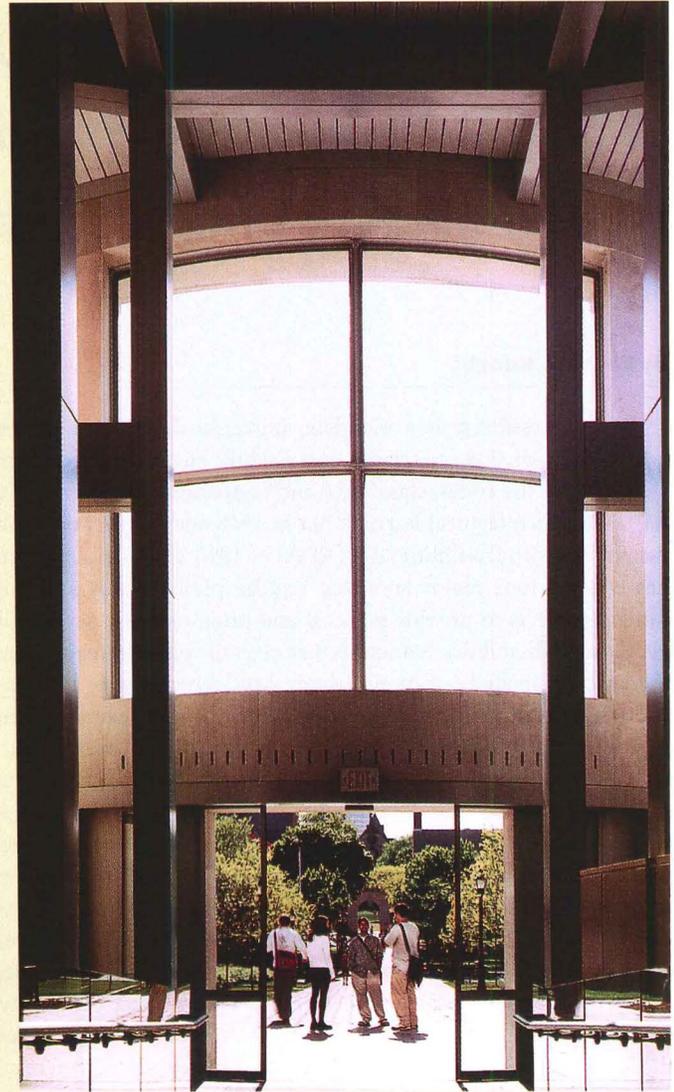
uses a wheelchair, and that a person who doesn't see should have audio signals and braille signs in an elevator.

Universal design comes from incorporating these guiding principles into underlying design thinking. There are no specific goals to reach; there is instead a framework for creating solutions. Universal design asks designers to rethink some fundamental formal architectural concepts, to contemplate environmental equity for all kinds of users, and to consider a variety of ways the environment can be designed or adapted to accommodate people's changing needs, such as those of the aging or of people who don't speak the dominant language. Providing an accessible environment often means adding a few special features designated as accessible. Providing a universal environment means creating a space that doesn't segregate some and prevent others from using it independently, but does benefit many whose needs have not traditionally been considered. The largest cohort that universal design in Europe and America seeks to include are aging baby boomers, who will soon begin to find the world more difficult to navigate. Proponents insist that universal design meets the highest aesthetic standards and contest the stereotype of accessibility that creates places that are segregating, costly, and ugly.



Charles H. Giancarlo Engineering Labs, Brown University

An entry pavilion (right two) provides a visual focal point and organizing element for a large science complex. Payette Associates detailed the entrance so that everyone comes in through a curved, automatic, sliding door (this page, far right). A ramp (opposite) leads to new rooms, and natural light floods the concourse and penetrates the basement level.



Making accessibility invisible

It's possible to illustrate the seven principles of universal design with architectural examples. However, outstanding examples of universal design are so seamlessly integrated into the architectural solution that they are rarely noticed for their common characteristics. "The best projects are those where you don't notice the design challenge, be it a steep slope or accessibility," says James H. Collins, Jr., president of Boston-based Payette Associates. "If you approach something as a [design] 'problem' that you have to get around, then the resulting design highlights the problem and shows the solution. It says, look how clever the designer was to solve this difficult problem."

Payette Associates completed an addition to the Barus and Holley engineering complex at Brown University in 2001. The small project (18,000 square feet) provides for state-of-the-art engineering laboratories and classrooms. The new Charles H. Giancarlo Engineering Laboratories has produced a dramatic transformation of the complex. While the addition meets program requirements, it also rationalizes level changes between existing buildings and creates both a terminus and a connection to the campus pedestrian spine.

A 10-foot grade difference between the engineering complex,

the campus walk, and an existing parking lot had resulted in a parking lot on the campus side of the building, a wide stairway to a blank wall, and an entrance on the side opposite the campus. The previous circulation through the complex was accessible via a ramp and elevator; the new solution qualifies as universal, because all users enter and move among the buildings using the same circulation system.

The pavilion is entered from a grade-level plaza through a grand curved facade, the new terminus of Manning Walk, which is the ceremonial and functional campus axis. The elegance of the curved facade is repeated in a curved automatic sliding door, an example of universal design. With a full 8-foot opening, it requires no "dance" at a swinging door as people decide who opens it or who goes first. Conversations continue uninterrupted; opposing traffic doesn't have to stop to allow others to pass first; heavy wind pressure doesn't require extra strength to control the doors, and no special opening devices are needed for accessibility. Four hundred people pass seamlessly through the complex every day. The door simply whooshes open as people approach and closes behind them, reminding us that good technology supports universally designed solutions.

Once inside the pavilion, all the new rooms are organized of the circulation ramp that bisects the new building and connects with



The Seven Principles of Universal Design

The Principles of Universal Design were developed and copyrighted in 1997 by the Center for Universal Design at North Carolina State University in collaboration with a consortium of universal design researchers and practitioners. Funding for the project was provided by the U.S. Department of Education's National Institute on Disability and Rehabilitation Research.

Equitable Use: The design is useful and marketable to people with diverse abilities. Provides the same means of use for all users: identical whenever possible, equivalent when not; avoids segregating or stigmatizing any user; makes provisions for privacy, security, and safety equally available to all users; makes the design appealing to all users.

Flexibility in Use: The design accommodates a wide range of individual preferences and abilities. Provides choice in methods of use; accommodates left- or right-handed access and use; facilitates the user's accuracy and precision; provides adaptability to the user's pace.

Simple and Intuitive: The use of the design is easy to understand, regardless of the user's experience, knowledge, language skills, or current concentration level. Eliminates unnecessary complexity; is consistent with the user's expectations and intuition; accommodates a wide range of literacy and language skills; arranges information consistent with its importance; provides effective prompting and feedback during and after task completion.

Perceptible Information: The design communicates necessary information effectively to the user, regardless of ambient conditions or the user's sensory abilities. Uses different modes for redundant presentation of essential information; maximizes legibility of essential information; differentiates elements in ways that can be described; provides compatibility with a variety of techniques or devices used by people with sensory limitation.

Tolerance for Errors: The design minimizes hazards and the adverse consequences of accidental or unintended actions. Arranges elements to minimize hazards and errors: The most used elements are the most accessible; hazardous elements are eliminated, isolated or shielded; provides warnings of hazards and errors; provides fail-safe features; discourages unconscious action in tasks that require vigilance.

Low Physical Effort: The design can be used efficiently and comfortably and with a minimum of fatigue; allows the user to maintain a neutral body position; uses reasonable operating forces; minimizes repetitive actions; minimizes sustained physical effort.

Size and Space for Approach and Use: Appropriate size and space is provided for approach, reach, manipulation, and use; provides a clear line of sight to important elements for any seated or standing user; makes the reach to all components comfortable for any seated or standing user; accommodates variations in hand and grip size; provides adequate space for the use of assistive devices or personal assistance.

the older buildings at four different levels. Windows into the new spaces and glass sides on the ramp open light and views horizontally. Spaces adjacent to the ramp permit light and views to penetrate vertically all the way from the clerestories at the top of the circulation "concourse" to the basement below it. The plaza at the entrance to the building, the action in the labs, and the newly rational circulation have made a great new place that, in Jim Collins's words, is "equally accessible to the poetry major and the math major."

Something for everyone

"We never used the term 'universal design' during the design process," comments Janeann Upp, executive director of the Tacoma Art Museum (TAM) in Washington [RECORD, August 2003, page 111], designed by Antoine Predock with Olson Sundberg Kundig Allen. "However, way-finding was a major consideration throughout our discussions, along with Predock's vision that the building retain some mystery as it unfolds." She continues, "I came from museums where people were always lost. You will notice that we have virtually no signage, yet people return their museum maps unused."

TAM is a small building that features a grand processional

ramp, inspired by nearby Mt. Ranier, as the major circulation spine. It wraps around an open-air stone garden, and the galleries wrap around the ramp. In the usual sequential course of viewing the galleries, one will naturally return to the central ramp and the garden to pass to the next gallery. There is also a diminutive stair along the exterior wall. It is tucked almost invisibly within the depth of the wall separating two galleries, in a clever reversal of the usual primacy of stairs. By featuring the ramp, there is an equality of movement through the galleries. "The only place that doesn't work that well is the last bit leading to the education wing," comments Upp. "People don't seem to know they can continue up there. We are working on using some art or perhaps some signage to draw them on."

To wander through a building with so little signage is a welcome relief. Museums are filled with first-time visitors, and the TAM administration has tested and monitored how the building has performed for them. Signage will remain in our lives, but in a truly universally designed world, millions of those little blue "handicap accessible" signs could be eliminated.

Airports face an even more complex challenge to move occasional users to their destinations easily. The consequences of being lost in a



Tacoma Art Museum, Washington

Without drawing attention to its universal design solutions, the museum features universal way-finding along a centrally located ramp (left). Galleries wrap around the ramp, relieving visitor dependence on maps and signage. Staircases (below left and right) are situated so as to play a minor role in the circulation scheme. Natural light pours in through large windows to illuminate the ramp and reveal the galleries below grade.



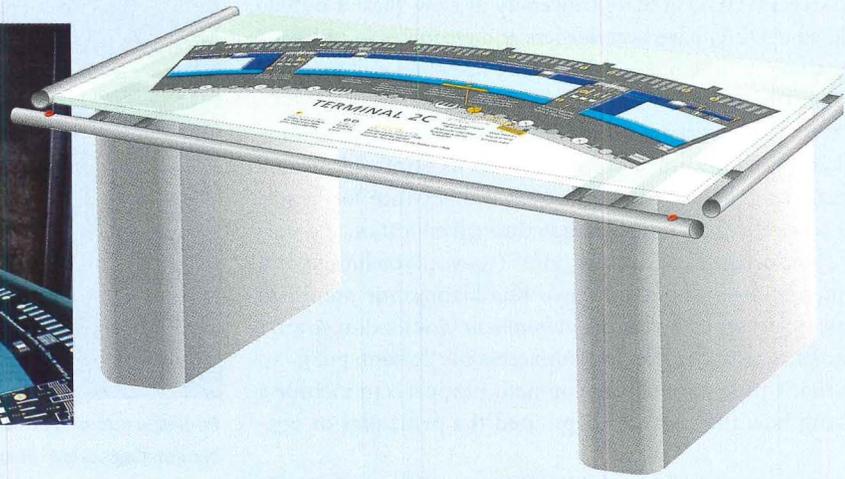
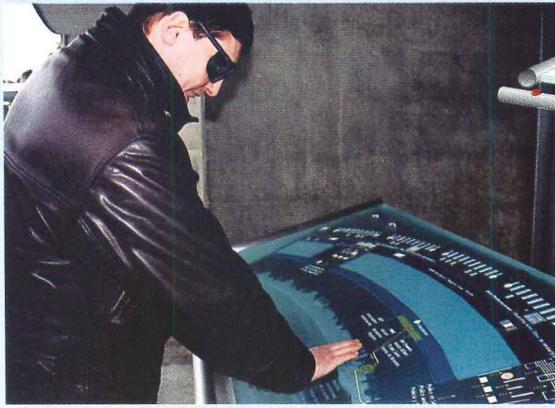
museum are minor; being lost and confused in an airport is another matter. Boston-based Coco Raynes Associates has developed a way-finding system for the Charles de Gaulle Airport's Terminal 2C. The terminal installation was completed in 2002, using products designed more than 10 years ago by Coco Raynes, the firm's principal. The beauty of Raynes's solution is that it has many applications: It can be adapted for existing non-universally designed environments. "Gérard Besson, chief architect of the airport, chose our system because it could be retrofitted into existing construction as well as used in new construction," explained Raynes.

The problem to solve was, in fact, specifically related to accessibility, but the solution is an invention that plays to a broad section of users. Passengers are dropped off at one location at the terminal. Those who need help with checking in and boarding must find their way from this drop-off to a cantankerous revolving door and through the terminal to a reception area where they can request an escort.

Raynes's solution begins with a tactile, audio, and visual map at the drop-off point. It offers detailed instructions in all three means (tactile, aural, and visual) and three languages for users to find their way along the airport sidewalk—explaining how to manipulate the speed of the door, if necessary—and tells them where they will find the next information station along the route to their destination.

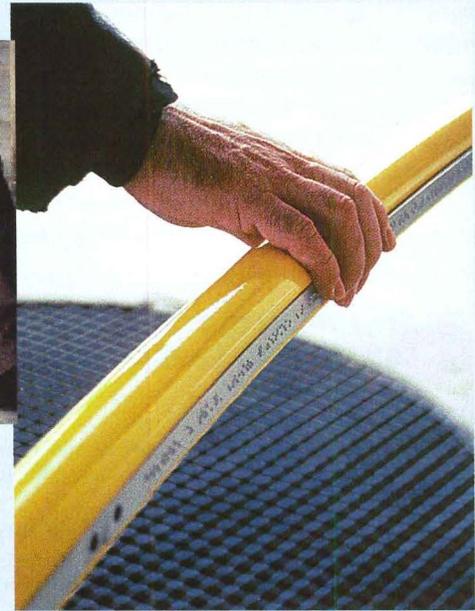
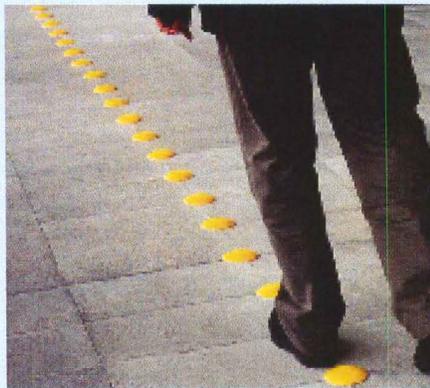
The map is a 6½-foot glass panel mounted horizontally at a slight angle and a height that is comfortable for viewing and touching. The panel shows the whole building, including services and amenities, in a diagram so that people can orient themselves within the terminal. Its messages are reinforced specifically for people with low vision by a bright yellow rail, the Raynes Rail. This protects the map and provides a place to lean, has instructions in braille along its edge and photosensors that activate the audio instructions. The same rail can be placed at strategic points along a route to provide additional information or to reinforce a pathway with visual, audio, and tactile information. Originally conceived for transportation systems, the rail has been used in museums in France and Colombia to explain exhibitions and direct movement. In Charles de Gaulle, way-finding is further enhanced by bright yellow "tac dots" embedded in the floor surface to help direct the passengers to their destinations.

The system has obvious advantages for people who don't speak the host country language or for any infrequent and first-time users. By providing an orientation at the airport entry, all passengers can quickly familiarize themselves with the layout before entering the terminal. The desired sequence to check in, visit amenities and services, pass through security, and reach gates can be planned without repeated help from airport



Charles de Gaulle Airport, Paris

Boston-based **Coco Raynes Associates** proved that even one of the most complex building types, airports, can be designed to accommodate all visitors equally. A glass panel at the entrance (top left and right) provides information in tactile, aural, and visual formats. Yellow “tac dots” (right) guide visitors inside the terminal. A bright yellow rail (far right) provides instructions in braille and photosensors to trigger audio information.



personnel and confusing signs. The pathways and destinations can be checked and reinforced with the system, which is being designed into the new Terminal E at de Gaulle. According to Raynes, “The new system will follow the same pattern as the glass panel map at the drop-off. The railing segments will be used to direct passengers to restaurants and restrooms. The floor markings in the new terminal will be granite, however, in keeping with the architecture of the building.” It’s a modest system, capable of being implemented incrementally, with grand effect for many types of users.

Play therapy

Maneuvering through and using buildings is a primary focus for universal design, but the landscaped and urban environments are equally important. The Children’s Play Garden at the New York University Howard A. Rusk Institute for Rehabilitation Medicine in New York City provides the neighborhood kids, as well as the ones living at the hospital, with an incredible variety of activities crammed into a tiny urban space. Children living in a rehabilitation hospital may seem unlikely candidates for an adventure-filled playground. The purpose of the garden is to be a place that inspires kids with disabilities to engage in activities that challenge them physically.

Sonja Johansson (formerly of Johansson and Walcavage), a landscape architect in Lincoln, Massachusetts, created the play garden for

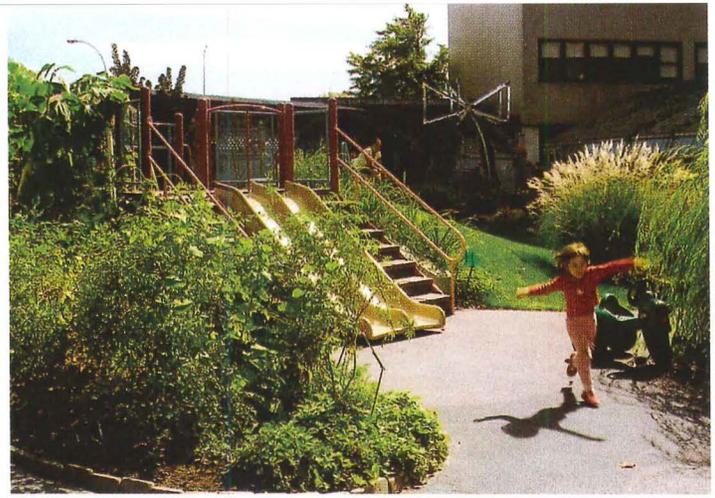
the Rusk children. “Indoors, even in bright and cheerful therapy rooms, exercises are part of treatment,” explains Johansson. “By moving outdoors with grass and plants and the sky overhead, exercises that are ‘therapy’ when performed under direction within the hospital walls become ‘play,’ and the children will naturally do them again and again.” Nature-oriented and interactive design may be therapeutic, but it is also complicated and enticing. The neighborhood kids flock to the garden because it has features that appeal to all levels of abilities: textures that are hard to walk over, four ways to climb to the top of the slide, water to play in, stones to move around, three kinds of swings to choose from, window boxes to plant, a grassy hill to roll down, a playhouse with chinning bars, structures that make noise, others that shine and catch sunlight. The hospital greenhouse program spills over to the children’s garden by teaching them plant names and about growing plants and how to make and use compost. The variety keeps kids of all ages and abilities engaged. The universal appeal is obvious, and the benefit for all kids playing together and being challenged by the same environment is equally evident.

Universal design appears in many forms and any type of design situation, in small gestures and large ones. Academic-based institutes such as the Center for Universal Design at North Carolina State University (www.design.ncsu.edu/cud) and the Center for Inclusive Design and

Environmental Access (IDEA) at State University of New York at Buffalo (www.ap.buffalo.edu/IDEA) have been leaders and resources in universal design for a long time. Several municipalities have taken the lead to incorporate universal design into public and private design.

New York City, working with IDEA, developed a handbook (www.ap.buffalo.edu/IDEA/publications/publications.html) illustrated with specific examples. The City of Chicago's Mayor's Office for People with Disabilities advocates for universal design through education and outreach and by sponsoring two competitions (www.cityofchicago.org/Disabilities/). Internationally, London Mayor Ken Livingstone published *Accessible London: Achieving an Inclusive Environment* (www.london.gov.uk/mayor/strategies/sds/spg_accessible_london/accessible_london.pdf), an exhaustive plan that will require all development proposals to include a statement showing how they have incorporated the principles of universal design.

Raynes, Payette, and Johansson are all 2003 recipients of awards from the first competition for universal design sponsored by Adaptive Environments (www.adaptiveenvironments.org), an international advocacy organization that is actively promoting universal design through education, technical assistance, and conferences. "Our goal is to draw attention to the principles of universal design in order to influence the performance of design for a wide range of users," explained Valerie Fletcher, the executive director. "This sort of thing can't be legislated. Design is influenced by trends that have nothing to do with laws. We want to draw attention to excellence and beauty in universal design and let that lead to



Pediatric patients at the Rusk Institute's Children's Play Garden enjoy a challenging variety of activities.

shifts in design. It was important to us to limit our competition to built projects in order to showcase existing models."

Architects have practiced "sustainable" and "universal" design since long before they became Sustainable Design and Universal Design. Energy efficiency and accessibility have made their way into the codes. There will always be architects who doggedly meet the minimum prescribed standards, but the best examples of both will continue to come from those who embrace the concepts, push the technology, and use them as a platform for invention. ■



AIA/ARCHITECTURAL RECORD CONTINUING EDUCATION

INSTRUCTIONS

- ◆ Read the article "Accessibility Regulations and a Universal Design Philosophy Inspire the Design Process" using the learning objectives provided.
- ◆ Complete the questions below, then fill in your answers (page 196).
- ◆ Fill out and submit the AIA/CES education reporting form (page 196) or download the form at www.architecturalrecord.com to receive one AIA learning unit.

QUESTIONS

1. Accessibility laws ensure access to designated buildings for all except which group?
 - a. People in wheelchairs
 - b. People who do not speak English
 - c. People with visual impairments
 - d. People with hearing impairments
2. Universal design approaches the design of the built environment with which group of people in mind?
 - a. All people
 - b. People with disabilities
 - c. Elderly people
 - d. People with visual and hearing impairments
3. Universal design, as opposed to basic accessibility compliance, is best described by which of the following?
 - a. A model building code
 - b. A mandate
 - c. Adaptable design
 - d. A worldwide movement
4. How many major laws has the federal government enacted that require public places to provide access to people with disabilities?
 - a. One
 - b. Two
 - c. Three
 - d. Four
5. Outstanding examples of universal design in architecture achieve accessibility in which way?
 - a. Segregating the accessible path from the main path
 - b. Highlighting the design challenge and solution
 - c. Seamlessly integrating universal design principles into the building
 - d. Using blue "handicap accessible" signs
6. A circulation path qualifies as universal when which occurs?
 - a. Wheelchair users have an appropriate ramp close to the stairs
 - b. All users enter and move along the same path
 - c. Both elevators and escalators are provided
 - d. The entrance door is a revolving door
7. Adaptive environment advocacy organization promotes universal design through all except which?
 - a. Education
 - b. Conferences and awards
 - c. Technical assistance
 - d. Promoting minimum code requirements
8. Why is a play garden good for a children's rehabilitation hospital?
 - a. Exercise therapy becomes play in the garden
 - b. The garden inspires patients to engage in play
 - c. The variety of activities in the garden challenges the children
 - d. All of the above
9. In the Tacoma Art Museum in Washington, very little signage is needed for what reason?
 - a. A rail provides all the necessary information
 - b. The stairway is the central feature
 - c. Galleries are located off the circulation ramp
 - d. Maps are provided for visitors
10. In the Charles de Gaulle Airport terminal, visitors can find their way using all the methods except which?
 - a. A bright yellow rail
 - b. A rail with instructions in braille
 - c. Tac dots embedded in the floor
 - d. A grand processional ramp

Digital Architect

In museums, no stodginess on display

By Alan Joch

Once upon a time, the design of a museum or exhibition took a backseat to its content. Today, design is content, particularly when a museum's mission is to convey information, rather than show objects. "There is a blurring of distinction between object, experience, and story. Visitors are interacting with ideas that have no physical presence," says Deborah Sussman, principal of Sussman/Prejza & Company, exhibition consultants for the planned Museum of the African Diaspora in San Francisco, which will trace the dispersal of African peoples from the continent to other parts of the world.

For these projects, display technology has come to play a central role, and it has evolved to the point where its hardware can recede into the background so that visitors are not only immersed in content but can interact with it, as well. Two recent projects in Los Angeles and New York demonstrate different ways that designers are experimenting with these capabilities.

Small thinking, big ideas

The Los Angeles County Museum of Art (LACMA) taps the energy of artists to create experimental exhibitions in its Boone Children's Gallery. The latest effort, a 10-

Alan Joch is a technology and business writer based in New England. Contact him at ajoch@monad.net.

For more information on technology for architects, including reviews, vendor lists, and links, go to Digital Architect at www.architecturalrecord.com.

month exhibition called *nano* that opened in December, highlights the work of scientists who explore the world at the submicron level. "Our challenge was to convey the nano-scaled world without creating a corny version of *Honey, I Shrunk the Kids*," says Bob Sain, director of the LACMA Lab, the research and development arm of the museum.

Although the subject is at the cutting edge of scientific research, the museum wanted the exhibition's technological underpinnings hidden from view. "The whole idea was to not have any keyboards or monitors that were visible," says Victoria Vesna, a media artist who chairs the department of design's media arts program at UCLA, and who led the creation of the show's installations. "Instead, through a series of projectors and embedded sensors, the exhibits would come alive as people moved through the spaces."

In conceiving *nano*, a core group of artists, architects, and nano scientists achieved a level of collaboration that "blurred, blended, and swirled together" their talents, Sain says. The architect, Johnston Marklee & Associates in Los Angeles, participated in the show's first development meetings. "This gave us insight into how to conceptualize a very complex subject," recalls firm principal Sharon Johnston, AIA. Her partner, Mark Lee, adds, "Rather than just listening to a client's set of demands, we found we had to be quite assertive architecturally. We started presenting tangible ideas that the artists and the client could respond to," he says.

Johnston and Lee say the

amorphous nature of the project was sometimes frustrating, but a breakthrough came when team members discovered a shared interest in Buckminster Fuller, particularly his spherical domes, epitomized by his Dymaxion House (now restored at the Henry Ford Museum in Dearborn, Michigan) and by the geodesic dome that came to symbolize Montreal's Expo 67. "We discovered a wonderful synthesis of architecture, media art, and science," Vesna says. "The exhibition became a kind of sculpture," she adds, in which physical space and content were so well integrated as to be inseparable.

While the architects responded to the symmetry and geometry of the dymaxion structures, the scientists were drawn to the relationships

among the triangles, Lee says. "That's very different from the architectural standpoint, and it opened our eyes up in terms of how this all came together," he says.

The 10,000-square-foot exhibition space is housed in a former department store erected in 1929. Instead of open interior spaces, Johnston and Lee were faced with concrete support columns scattered throughout the floor. "We had to try to make this forest of columns disappear," Johnston says. The design evolved into a 1,000-square-foot central "cell" with a series of smaller cells connected to it. "We kept going back to this dymaxion concept as a structural idea," Johnston says. "We ended up with a double-walled cylinder of sorts that gave us a series of spaces where things could be hid-



The revamped Sony Wonder Technology Lab features a display wall (right in photo) that refracts and reflects light outside the lab so that it's visible to people in the adjacent atrium.

Digital Architect

den. At the end of the day, you don't see any computers," and few columns.

The central cell includes four projectors, suspended from the ceiling, that project images of the carbon molecule C₆₀, a denizen of the nano world that its discoverers dubbed the Buckyball because of its structural similarities to Fuller's designs. As visitors pass between the projectors and the floor, their movements reshape the digital Buckyball images to simulate the physical interactions that take place in the nano space.

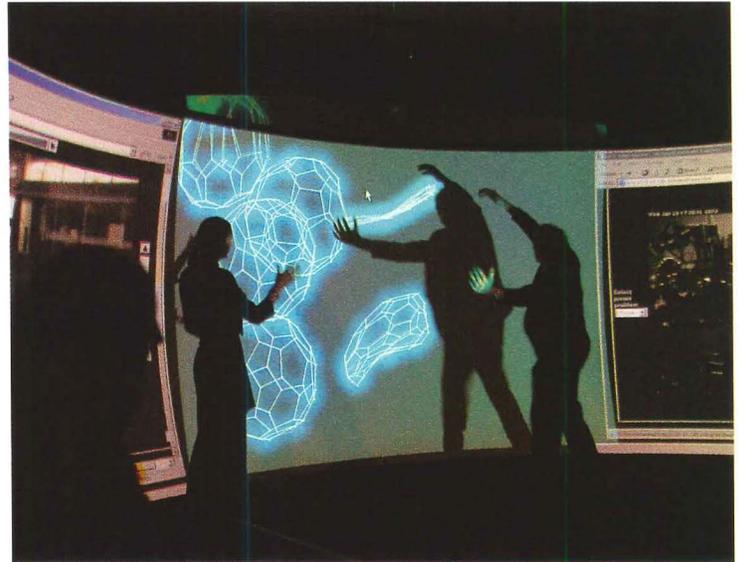
Johnston and Lee believe the experience of designing this show will change their work in the future. "This project was very challenging,

an epoch ago measured in high-tech time. "We wanted to move from analog facility to digital facility," says Ann Morfogen, a Sony senior vice president. Sony also wanted to differentiate the renovation from a design perspective. "When the lab first opened, people were wowed by the physical language of technology—the wires, connections, and hardware," notes the project's architect, Lee H. Skolnick, FAIA, principal of Lee H. Skolnick Architecture + Design Partnership in New York. "It was a case of wearing technology on your sleeve."

In the renovation, which opened in October, the emphasis is instead on integrating technology into the physical design. "We wanted a look that was modern, cool, comfortable—and to forget about the hardware," Skolnick says. A team from Sony joined forces with Skolnick's group and an A/V systems integrator for six months of "creative interaction," Morfogen says. Josh Weisberg, principal of the systems integrator, Scharff Weisberg of Queens, joined the team early because the underlying A/V needs would be key to bringing the creative ideas to life. "We couldn't

simply use consumer devices—we had to take the technology to the next level with sophisticated computer systems to handle all of this processing," Skolnick says. The majority of the computers run in a behind-the-scenes, 8-by-12-foot room where custom-designed controls automatically run digital-video servers and the lighting system.

Because it wanted to emphasize the "magic" of technology, the design group eschewed monitors and keyboards in favor of wall-size video projections, vibrating floors, and sensor-activated instruments



Visitors to LACMA's nano play with supersize images of molecules called Buckyballs, named for their resemblance to Buckminster Fuller's domes.

that place visitors within the exhibits, Weisberg says.

For example, the games exhibit isn't merely an arcade to display the latest and greatest video systems—instead, visitors find themselves immersed in a game thanks to A/V technology such as directional sound and large-screen monitors. A related exhibit lets visitors create a racetrack and cars for their own auto racing game. This "activated

tured for toys and advertising trinkets. "Using the material on this scale, as an environmental element, was a new thing," Skolnick says.

Another challenge was how to use the open, skylit atrium space adjacent to the lab to attract attention. "We wanted people in the atrium to see how visitors in the lab were empowered to do exciting things," says Skolnick. The design team created a video montage,

FOR MUSEUMS THAT FOCUS ON CONTENT, DISPLAY TECHNOLOGY HELPS THEIR EXHIBITIONS STAY FRESH.

environment," Skolnick says, relies on modulated lighting and video images that move across the floors. A curved wall stretches throughout the renovated second-floor space to act as a common design element, tying the exhibits together. Made of a custom lenticular material, the wall's surface ridges are molded at various angles that refract the changing color patterns shining through from behind the wall. "As you move through the lab, the visuals on the wall change," Skolnick explains. "We developed a color palette for the entire space, and you see all of those colors on the wall." Skolnick worked with a British supplier to produce the material in large, wall-size sheets, rather than the small panels typically manufac-

using real-time, live-action scenes from inside the lab, and a bay window in the atrium as a large projection screen. To cut down on glare and reflections, they treated the window with a self-adhesive, high-gain acrylic film that provides a surface opaque enough to display the images, but translucent enough to let light pass through.

For Skolnick, whose company has been designing interactive exhibits for 20 years, the lesson of this project is that design and technology will continue to become ever more intertwined. "It's not about people just pushing buttons, but rather, it's creating more natural interfaces to bridge architecture and technology and make them one." ■



Gaming terminals in Sony's Wonder Technology Lab have sophisticated lighting, sound, and floor-vibration systems that respond to players' actions.

even frustrating at times, but it gave us confidence that this way of working is possible," Lee says. "It generated a lot of ideas that we may not have conceived otherwise."

Moving into the new century

What does an electronics company do when its showpiece technology lab starts to show its age? For Sony Corporation, the answer was to renovate, to the tune of \$4 million and months of brainstorming. Sony's four-story Wonder Technology Lab, designed by Ed Schlossberg, opened in New York City in 1994—

Residential

Lofts: The home of choice reaches new heights in New York City's urban landscape

BRIEFS

Farnsworth House saved

Thanks to a last-minute whirl of fund-raising, preservation groups purchased Mies van der Rohe's legendary Farnsworth House on Friday, December 12, 2003, at a Sotheby's auction in New York City, saving the house from possible relocation. The purchasing group, which included the National Trust for Historic Preservation, the Landmarks Preservation Council of Illinois, and the Friends of the Farnsworth House, paid \$7.5 million for the rectangular glass house, located in Plano, Illinois, and regarded as one of the masterpieces of Modernism. The groups had feared potential buyers might change the house, close it to visitors, or even move it. Two days before the auction, the group had raised only \$3.6 million, but a feverish round of appeals for support more than doubled that total by auction time. Says Richard Moe, president of the National Trust, "We are thrilled that it will be protected forever and made available to the public, particularly to architects and students of architecture." *Sam Lubell*

Live/work takes a front seat on Front Street

The live/work trend has come full circle at Front Street, a Ladera Ranch, California, neighborhood, where home-based businesses have become the basis for design. Bassenian/Lagoni Architects designed this 4,000-acre community to accommodate at-home businesses that couple easily with residential living. Work zones are separate from housing zones, so that privacy remains a key priority and owners observe mutually agreed upon bylaws for their businesses.

First step housing reaches out to the homeless

A New York City design competition hosted by Common Ground and the Architectural League announced five winners out of 180 submissions from 13 countries. "In this competition, architects reinvent the traditional lodging house, designing private, safe, clean, and affordable transitional accommodations to those in need," says Common Ground president Rosanne Haggerty. For more information, visit www.commonground.org.

Shipping containers conceived as basic building unit

Using the abundant supply of empty shipping containers for the built environment is not a new idea; indeed, LOT/EK [RECORD, September 2003, page 131], the Office of Mobile Design [RECORD, October 2001, page 71], and others have done it. However, Fox & Fowle, New York City, developed a design for an industrial site in central Gloucester, Massachusetts, on a scale unprecedented until now. About 3,000 containers were proposed in the design, which includes 351 duplex loft housing units consisting of four containers each, a hotel, a civic/cultural center, and parking.

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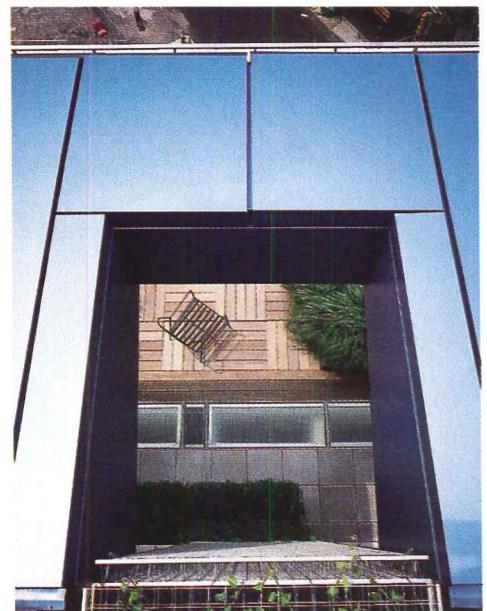
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181 Residential Products

CEDIA Review, by Rebecca Day

New York City has the lion's share of loft living spaces. Some have soaring Italianate windows and cast-iron detailing. Others look like warehouses with loading docks, freight elevators, exposed functional elements, and graffiti-stained front doors. Loft living is less bohemian, more bourgeois than it once was, and increasingly difficult to stereotype. Loft buildings can be new as well as retrofits. They feature flexible spaces, open-plan configurations, and often working studios. In short, they offer a blank tablet for occupants to inscribe with their own ideal of residential comfort. Even the National Association of Home Builders is featuring the loft as the "new American Home of 2004" at its annual convention, the largest gathering of home builders in the U.S., this month. We are pleased, since lofts provide an endlessly variable opportunity for design. Here are a few examples to whet your appetite. *Jane F. Kolleeny*



Daylight enters the space in rich and varied ways, here including through a southward interior window onto the kitchen.



Setting a rooftop pavilion in a field of beach grass, Rogers Marvel creates its duplex **Penthouse Loft**

By Sarah Amelar



A desire to break out of the confines of the space” sparked the design of the Penthouse Loft, recalls its project architect Alissa Bucher, an associate at Rogers Marvel Architects in New York City. Even from the street, six stories below, the duplex aerie appears busting out of its early-20th-century shell. The apartment’s canted glass-and-steel facade ruptures the sober vertical planes of its tawny brick, downtown Manhattan building, a structure originally erected for light industry. In approaching the design, says Bucher, “We needed to find ways to experience the amazing view—not just from beside a window.”

And a spectacular view it is, right on axis with a pier that juts into the Hudson River, curving toward a panoramic New Jersey skyline across the water. A landscaped park, slated for the triangular lot between the building and river, assures that these sight lines will remain unobstructed.

But the loft’s original proportions were hardly worthy of such urban grandeur. With oppressively low ceilings and a multitude of structural columns, the raw space tended to feel cramped and dark, rather than

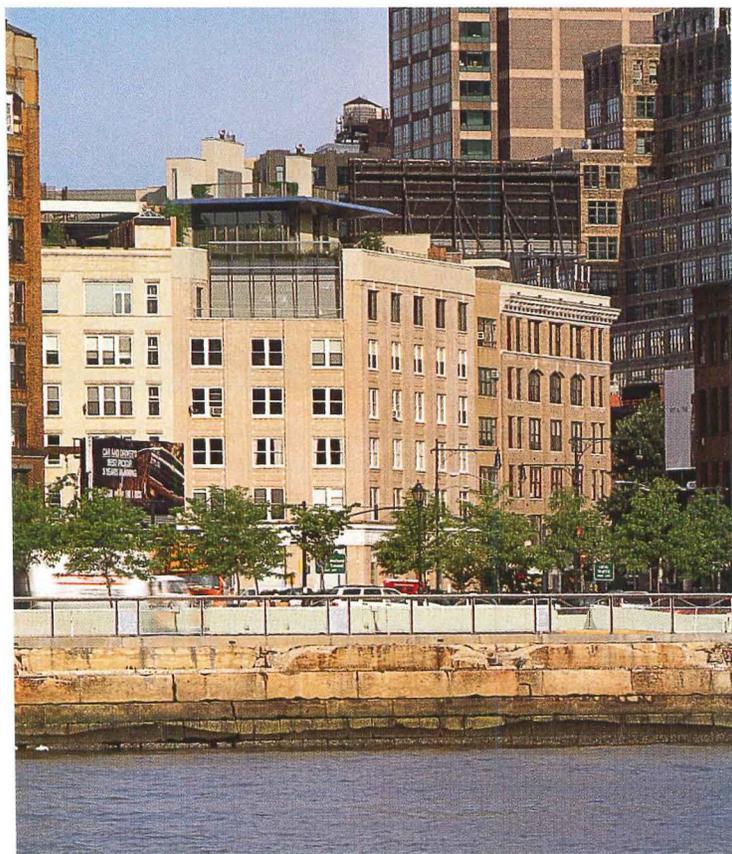
For the main living space, the architects removed two columns, raised the roof, and created a recessed perimeter skylight (top).

Because the building wasn’t landmarked, they could excise a piece of the facade and insert a canted glass section (left).

expansive and luminous. Nonetheless, the potential of creating a large downtown penthouse with river views inspired the client to purchase the property—and ultimately take the radical steps of raising the roof, removing two central columns, and adding an upper story with decks. The 5,500-square-foot flat with no exterior space would become a 6,800-square-foot duplex with terraces totaling an additional 3,350 square feet on three floors (including the rooftop).

This unusually ambitious transformation was clearly the project of an equally unusual client. Roger Hollander, a single Minnesotan in his 60s, approached the endeavor with an understanding of art and architecture, as well as an adventuresome spirit and the necessary funds. He’d studied architecture in college and “already spoke our language,” says Bucher. “Here was a client seriously interested in doing a project *about* architecture—he really challenged us to do the unexpected.”

After selling a family business in the Midwest, Hollander has focused on collecting antique Silk Road trading textiles and mid-20th-century Modernist furniture. The objects influenced Rogers Marvel as much as the views. “The collection is full of individual, eclectic, colorful



Project: *Penthouse Loft, N.Y.C.*

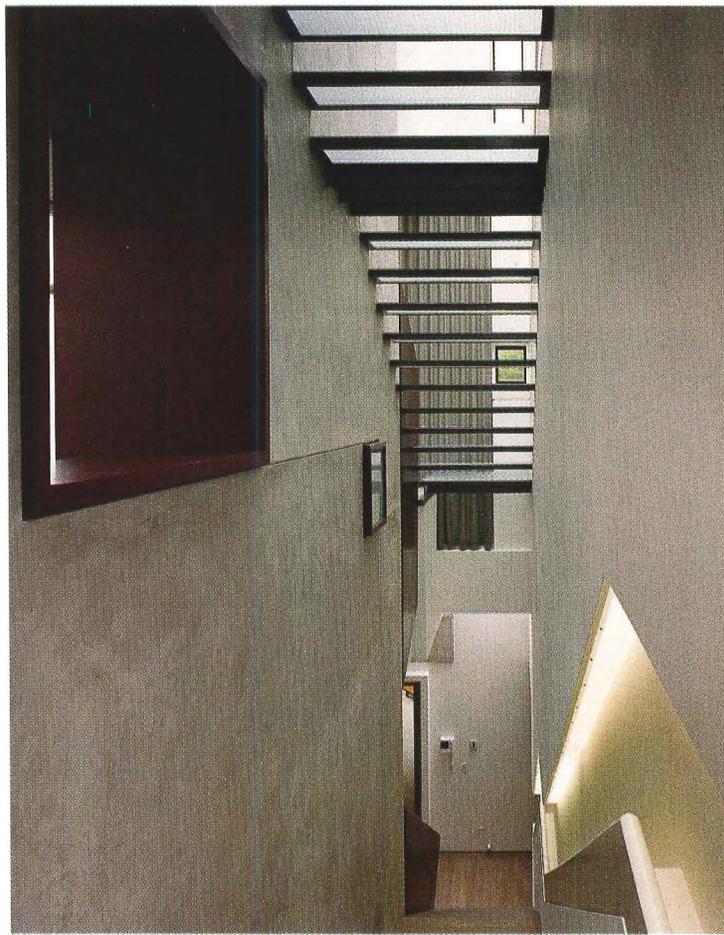
Architect: *Rogers Marvel Architects—Rob Rogers, AIA, Jonathan Marvel, AIA, partners in charge; Alissa Bucher, AIA, project architect; Mark Nye, Emma Morris, Mike Jacobs, Aaron Young, project team*

Architect of record: *Alexandr Neratoff*

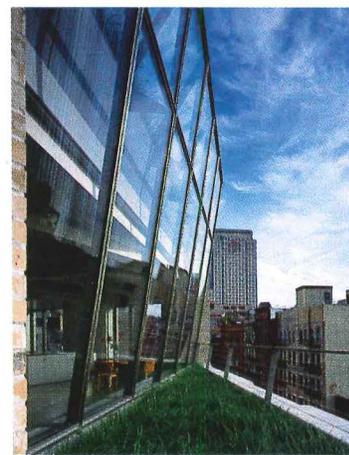
Engineers: *Ross Dalland (structural); P.A. Collins (mechanical)*

Landscape architects: *Dirtworks*

General contractor: *James Lee Construction; Higher Ground (landscape)*



The solid ipe wood stair rises (top left) to open, translucent glass treads (top right). The kitchen and living areas share river views through a facade of canted glass (left). Just outside this glazing (right) grows a triangular “field” of beach grass.



pieces that don’t necessarily go together,” explains Bucher. “So we tried to accommodate the variety, rather than impose controls.” The strategy was to create a relatively neutral backdrop of earth tones—concrete ceilings and gray plaster walls—along with simple, warm white walls. Equally important was the modulation of daylight—key to reconciling the needs of delicate, sun-sensitive textiles with the desire to open the loft to the outside and enhance its visual connection with the river.

Now the interior leans out toward the water literally and figuratively. The canted, steel-mullioned plane of glass that is visible from the street below has replaced much of the loft’s original west wall. Just outside the glazing, a patch of seemingly wild beach grass, set in a triangular planting bed, mediates between foreground and distance—as if the loft were nestled in a dune overlooking the water. Rugged salt-and-sea metaphors continue on the upper level with outdoor decks of seasoned ipe wood and several varieties of tall grasses. The architects have ushered in sunlight from the west (but even here, only through triple-layered, UV-filtering panes), while also providing

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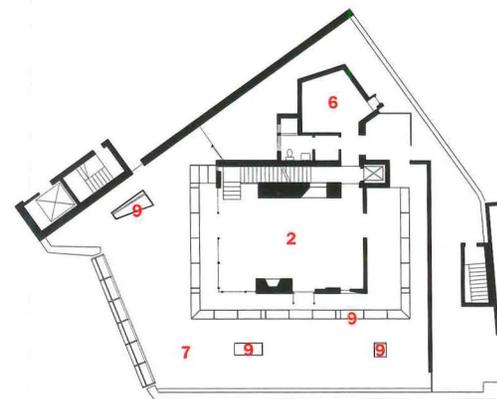
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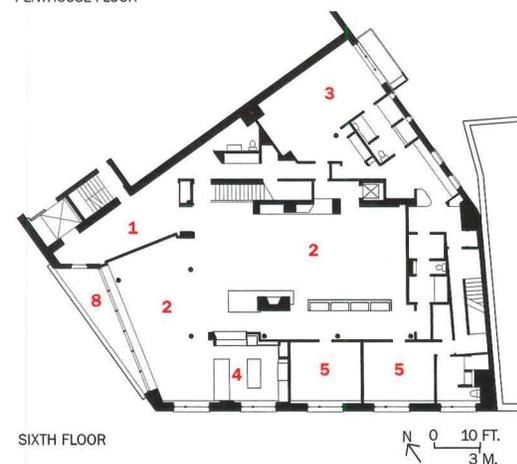


Sheer curtains filter out glare while leaving the glassy penthouse pavilion (left) open to spectacular urban views. A deep overhang shades the glass from the exterior.

1. Foyer
2. Living/gallery
3. Master suite
4. Kitchen
5. Bedroom
6. Study
7. Terrace
8. Planter
9. Skylight



PENTHOUSE FLOOR



SIXTH FLOOR

for areas of gentler illumination. Overcoming the typical loft problem of a daylight-deficient core, Rogers Marvel not only removed the two structural columns but also created a recessed perimeter skylight that hovers like a softly glowing halo over the main living space, on the loft's original level. This translucent, laminated-glass perimeter strip marks the edge where Rogers Marvel excised a 1,344-square-foot section of the existing concrete roof slab and replaced it with a new slab, raised more than 4 feet (and supported on new steel transfer beams). Amid the "dunes" and "meadows" of the decks above, this flat skylight does double duty as pavers, and three more lanternlike pop-ups from this floor appear as landscape elements.

From the main living areas and master suite on the loft's entry level, stairs and a private elevator rise to a glazed, jewel-like penthouse pavilion, housing a second living room or den with an adjacent study and, one flight up, to a roof terrace with a wet bar. The stair morphs as it ascends, with solid ipe giving way to open, translucent glass treads, glowing beneath a linear skylight. Just as the stair dematerializes visually toward the top, the glassy pavilion, surrounded by outdoor decks, reverses the figure-ground relationship of the floor beneath it.

At the pavilion-level terrace, the canted glass facade rises to

become a parapet and railing. Reminiscent of an air-traffic controller's perch, this angled glass expands the cone of vision, yielding dramatic almost dizzying views down to heavily trafficked streets and the river. But from other vantage points, the decks take on a floating quality that virtually obliterates the gritty middle ground, flirting with the pure illusion of a sunny, windswept beachscape.

Collaborating with Dirtworks landscape architects, Rogers Marvel created and seized a rare opportunity to integrate an urban interior with localized landscape and a larger panorama. Here, the swatches of meadow are both metaphorical and skillfully man-made. Concurrent with this project, however, the architects took on nearly the reverse exercise for the same client: building a house in central Wyoming, where truly untamed terrain was the starting point. ■

Sources

Curtain wall: Proclad

Exterior finish, insulation: Dryvit

Skylight, pavers: Figla USA

Lighting: LiteLab; Lightolier; Lutron

Paint: Benjamin Moore

Hardware: Stanley; Rixson; Colonial Omnia

For more information on this project, go to Projects at

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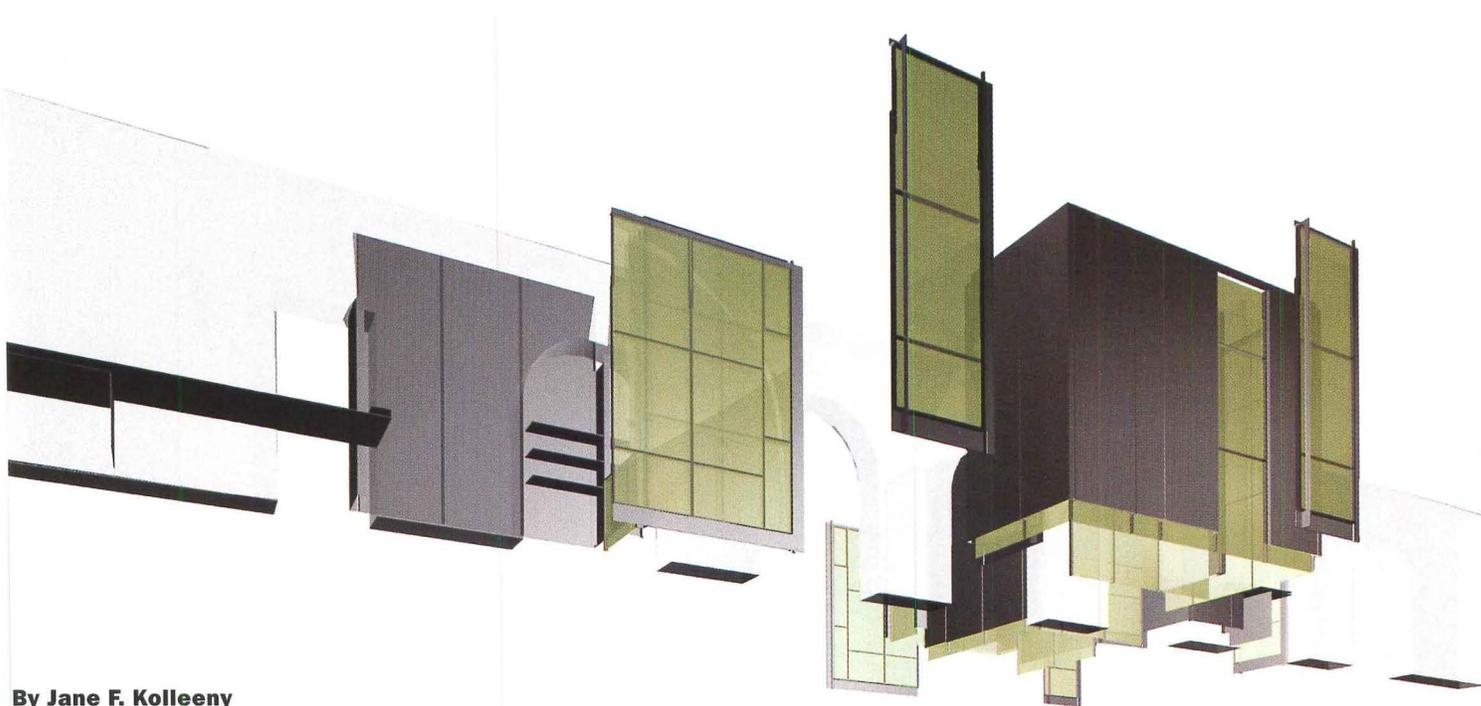
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Green fiberglass with milled fiberglass battens lines the hanging dark steel panels that create walls to contain the open spaces.



Dean/Wolf Architects blends one owner's love of stuff with the other's need for space in the **Double-Weave Loft**



By Jane F. Kolleeny

In Tribeca, a neighborhood in Lower Manhattan sprinkled with art galleries, industrial buildings, and trendy restaurants, a third-floor live/work loft sprang out of a prewar building's industrial trappings. Most of the area's lots and loft buildings from this period were designed to be 25 feet wide; this loft was double the size, with a rough and earthy redbrick bearing wall slicing it down the middle. This wall, pierced by round arches, serves as the central spine of the space and a perfect focal point for combining the opposing tastes of the owners. It also joins the two sides of the interior programmatically and aesthetically.

Before design, architect Kathryn Dean had given her new clients a homework assignment: Find pictures showing the environment they would love to live in. This artist and musician duo (who have a teenage son) responded with distinct and dissimilar images; his pictures featured clutter and collections of knickknacks, hers were austere and full of voids. Thus began the perfect start to a harmony of opposites. "Her 'too monastic taste' and his 'too low-brow taste' needed a reciprocal reconciliation," says Dean. Fortunately, the owners both agreed to keeping the original molded-tin ceiling, now painted a light gray-green.

Sometimes, the balance of opposites results in more than the sum of its parts. Here, the design celebrates point/counterpoint, as materials and programmatic elements resulted in a series of planes that intersect and play off the center wall. Called Double-Weave Loft, its name is derived from the central spine of brick arches serving as a loom for two lines of partition walls that weave together to create the labyrinthine spaces and define the individual areas within (see drawing above). The first material line is composed of formed steel panels on one side, with fiberglass on the other side, which are suspended from the original warehouse structure. The second material plane comprises cement boards

The plan above shows the two interwoven partition walls in relation to the arched brick wall, which define the various spaces of the loft.

standing on steel tees and lined with maple plywood cabinets that "contain multiple cubbyholes or pockets for displaying the myriad objects of a lifetime of collecting," remarks the architect. The partitions interweave around the central defining brick wall, creating a master bedroom, a bedroom and a separate playroom for the owners' son, two studios, a large living room/dining room, a kitchen, two baths, and ample storage areas. They fold and unfold together and away from each other, articulating these interior spaces. Conceived as a spatial democracy, this loft treats everyone in the family equally—each has work or play areas of their own. The over-size doors open and close like switches, allowing the interior to be reconfigured and privatized, changing its tone and sometimes creating views extending the length of the loft.

Details in the loft blend seamlessly into the overall aesthetic. The ceiling grid established by the exposed sprinklers and pipes provided Dean with a natural matrix on which to weave the circuitry of a suspended lighting system. Utilitarian steel gears bought from funky Canal Street stores became light switches on dimmers. Ample custom built-in cabinets in the bedrooms, bathrooms, and storage areas that are irregular in volume and size provoke interest. The hefty horizontal radiator pipes

Project: Double-Weave Loft

Location: Tribeca, N.Y.C.

Architect: Dean/Wolf Architects—Kathryn Dean and Charles Wolf, partners in charge; Karel Klein,

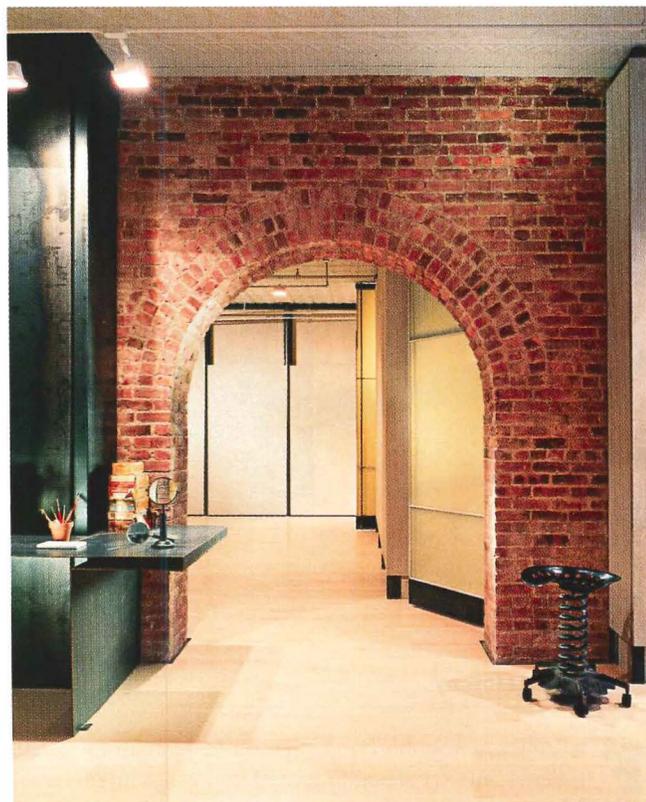
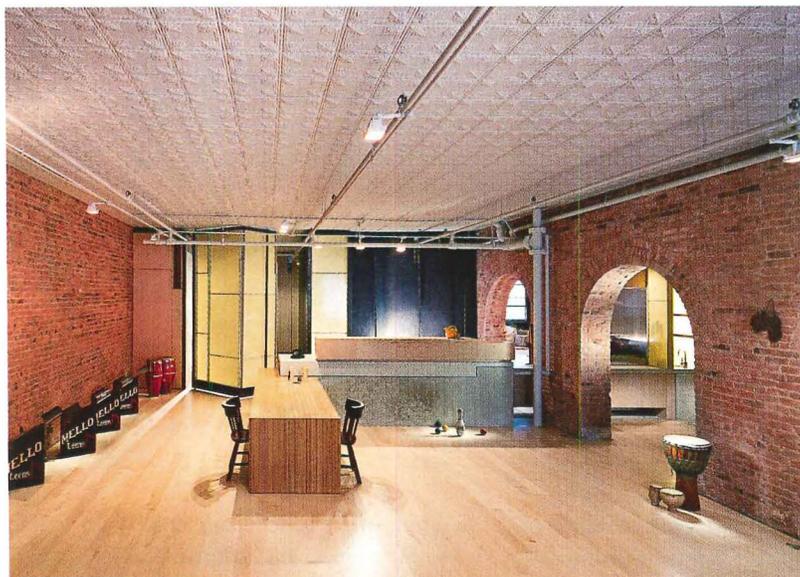
project architect; Mike Jacobs, construction supervision and presentation drawings

General contractor: Bando Construction

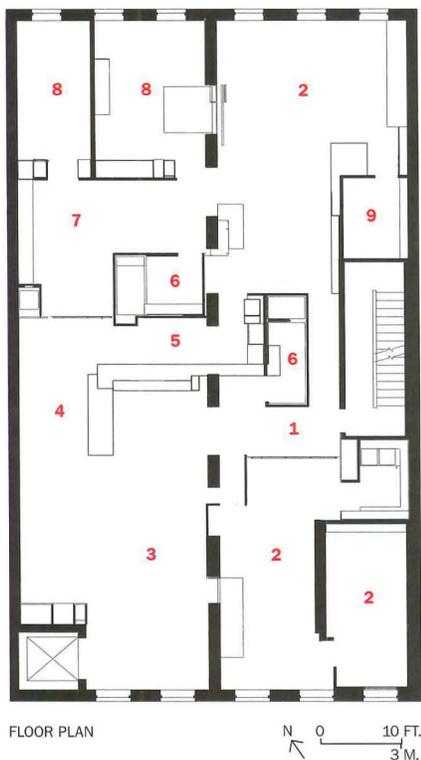


The building is two lots wide separated by the arched bearing wall (below). The large living room/dining room is austere in its sim-

plicity (top left). The kitchen rests like a cozy hearth tucked inside one of the brick arches (background, below left).



1. Entry
2. Studio
3. Living room
4. Dining room
5. Kitchen
6. Bath
7. Playroom
8. Bedroom
9. Storage



have been stripped of 50 years of accumulated paint layers down to the original dark steel. Nearby window frames are also finished in steel and blend nicely. Much of the brick bearing wall was cleaned of plaster and paint to reveal the original rough material underneath. With such labor-intensive efforts and custom work, it is hard to believe this loft was designed for a mere \$80 per square foot, especially in New York.

The cozy hearth of the kitchen is tucked masterfully into a pocket created within the brick arches. The maple cabinetry and precast-concrete countertop of the kitchen define its edge. A plywood laminated dining table extends into the public living/dining room, the largest area in the loft, which represents “the center of family life,” says Dean. Here, the owners casually display some of their unusual and interesting “found” art. The overall feel of the loft resounds with symmetry and asymmetry. The yin and the yang of the owners’ diverse sensibilities come together in materials and program, producing a perfect haven for creativity and contemplation. ■

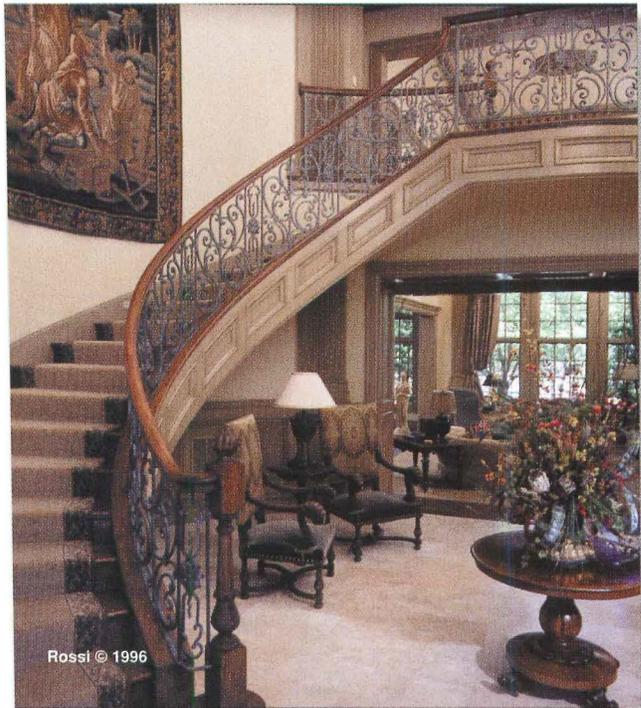
Sources

- Concrete bath fixtures:** Get Real
- Fiberglass panels and splines:** Ryertex
- Metal wall panels:** Bando Construction
- Cabinetry:** Bando Construction
- Cast-in-place concrete floor and**

- knee wall:** Bando Construction
- Glass tile inserts:** Bisazzo Tile
- Lights:** Rab Fixtures
- Faucets:** Dornbracht Faucets

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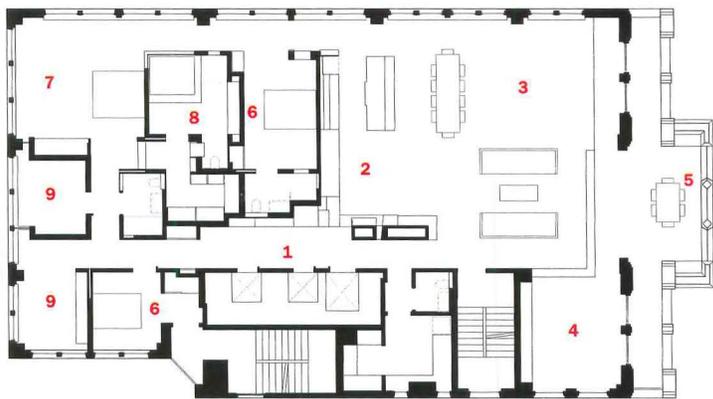


Custom doors slide and fold back to open the loft to a refurbished terrace (above and opposite). The living/dining area comprises one third of the apartment's footprint (below and plan, opposite). New floors are sapele.



With views in four directions, a Fifth Avenue Loft keeps the perimeter free for circulation around a central core

By William Weathersby, Jr.



FLOOR PLAN

- | | |
|------------------|--------------------|
| 1. Entry | 6. Bedroom |
| 2. Kitchen | 7. Master bedroom |
| 3. Living/dining | 8. Master bathroom |
| 4. Sitting room | 9. Study |
| 5. Terrace | |

A 4,000-square-foot penthouse apartment on lower Fifth Avenue with views in four directions, including a terrace overlooking the Empire State Building, certainly qualifies as prime Manhattan real estate. But achieving an open, loftlike space while accommodating a fully loaded program of three bedrooms, three baths, and two studies took considerable vision on the part of the clients, a young professional couple, and Murphy Burnham & Buttrick architects. Occupying the 15th floor of a 1920s industrial building that rises above most neighboring structures in the district near Madison Square Park, the space was previously a cluttered, compartmentalized music-recording studio devoid of architectural details.

“The interiors of the recording studio worked in opposition to the views,” recalls architect Mary Burnham, “with a warren of rooms covered by sound-barrier insulation more than a foot thick in places. It was a very inward-looking environment, because of the intimate nature of the business.” As they peered out the partially obstructed windows on the first day they toured the space, however, the owners knew they had discovered a diamond in the rough as a cooperative apartment.

Once interior partitions and dropped ceilings were demolished, the resulting space was nearly column-free, with large windows on all sides letting in daylight. A new dark-stained sapele floor was added, and plaster walls were patched but left with the patina of age to establish a neutral envelope. New HVAC was contained in streamlined soffits, yielding ceiling heights of 9 to 10 feet featuring recessed and track lighting.

In response to the views—from Midtown skyscrapers to rooftop gardens and water tanks—the architects decided to place all new interior walls away from the perimeter of the footprint to allow for open sight lines and ease of circulation. Approximately 1,100 square feet of space was left unobstructed as a combined living and dining area set between the open kitchen and the terrace at the north end.

Most storage and utility functions, including kitchen and bathroom plumbing and electrical, are concentrated in a central cube. Occupying about a third of the loft’s footprint, “the cube functions as a highly defined and detailed box,” Burnham says. “We could have eaten up more space with the program, but we wanted to fit the service elements together like pieces of a tight puzzle.”

Clad with white-painted wood panels, the cube is exploded and stretched in plan and elevation to further define space. Elements such as library shelves, art display niches, a stone whirlpool tub, and custom storage units pinwheel out from the structure’s center point. A bar, kitchen



Project: Fifth Avenue Loft, New York City

Architect: Murphy Burnham & Buttrick—Mary Burnham, AIA, partner in charge; Bogue, Trondowski, project architect; Rachel Lehn, Amy

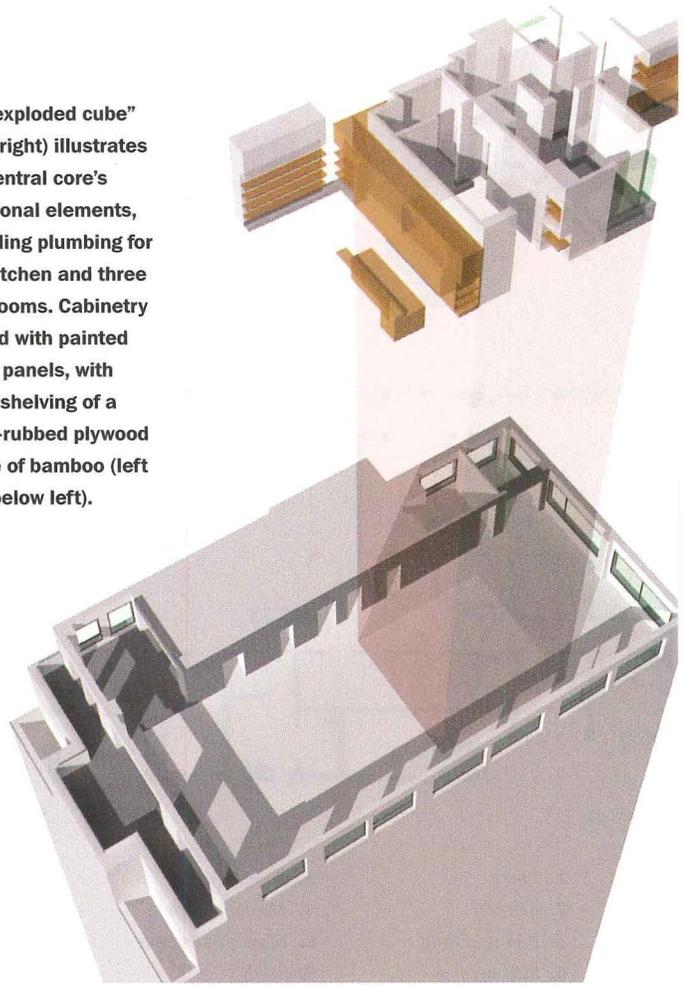
Nicholson, project team

Engineer: Hage Engineering (structural); D’Antonio Consulting Engineers (mechanical)

General contractor: Sweeney + Conroy



The “exploded cube” view (right) illustrates the central core’s functional elements, including plumbing for the kitchen and three bathrooms. Cabinetry is clad with painted wood panels, with open shelving of a hand-rubbed plywood made of bamboo (left and below left).



pantry, and an audiovisual center are among the many custom-fitted elements tucked behind the panels. Niches and corners of the white core are pulled away to reveal shelving and a pull-down desk constructed of hand-rubbed plyboo, a plywood made of bamboo. Closets and drawers slide open to display detailing with the same wood. “The material palette of the cube was limited to the painted panels or plyboo to enhance its sculptural quality,” Burnham notes. (A planned enhancement calls for replacing the painted panels with milky translucent Plexiglas.) “Conceptually, we wanted to deconstruct the cube to reveal parts of its interior functions.”

Glass-sheathed perforations and clerestories punched into the perimeter of the cube allow light into interior enclosures such as bathrooms, while adding a degree of transparency. In one guest bathroom, the upper part of a shower is framed by glass, exposing a sliver of its blue cladding to a hallway. A corner of the soaking tub in the master bathroom is also enclosed by glass to offer views across the adjoining master bedroom and the windows beyond. (Shades allow privacy.) A vertical gap between sections of the entry shelving creates a similar juxtaposition between interior and exterior, framing a glimpse of the living room.

Avid travelers, the clients wanted to showcase their collections of objects and books, so the longest legs of the central core are reserved for display. On the east side of the cube facing the entry, a wall of shelves and niches houses artifacts collected in countries such as Tibet and Morocco. A carved Moroccan door at the endpoint of the passageway pivots to reveal a private study, while a nearby illuminated niche frames a fish fossil thousands of years old. In the bathrooms, handmade Japanese ceramic bowls the clients acquired on a trip serve as sinks atop custom mahogany pedestals.

The clients encouraged Burnham to explore unexpected mate-



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The master bathroom tub is framed by glass to access views from the bedroom windows (above left). The tub and sink (above right) are made of Pietro Cardosa stone. A guest bathroom features back-painted glass panels (below left).

rials “to create a canvas of texture and color meant to capitalize on the play of shadow and light,” the architect says. In the three bathrooms, for example, colorful walls are abstract collages of back-painted glass panels: blue, green, and yellow, respectively. The kitchen backsplash is enlivened with a similar treatment in fiery red. The double sink in the master bath is constructed of slabs of overlapping Pietro Cardosa

stone, the same variegated material used for the tub. Bathroom floors are Sadler tile, a ground masonry material similar to precast stone, while kitchen floors and countertops are fabricated of smoky schist.

The floor plane of the outdoor terrace was brought into the apartment’s main volume to blur the edge between interior and exterior. A floating step of wood ascends to a platform of stone along the northern and eastern edges of the living room that meld into the exterior pavers. A rock garden, narrow reflecting pool, and graduated railing with new wood supports enhance this front-row perch for peering at landmark skyscrapers all around town. ■

Sources

Windows: ABCO; Windovations

Custom doors: Chandler Lewis; Windovations

Custom plasterwork: Hatton Berry

Hardware: FSB; G+V; Soss

Glass tiles: Zecca Glass

Plumbing fixtures: Duravit; Vola

Appliances: Miele; Wolf

Lighting: Color Kinetics; Lightolier; LSI

For more information on this project, go to Projects at

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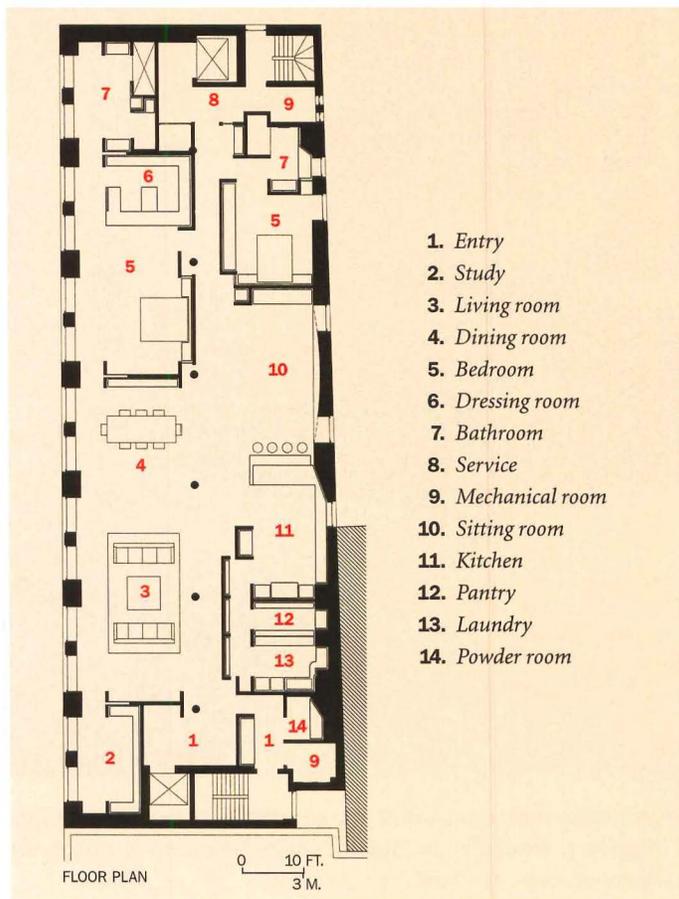
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Sunlight from south-facing windows warms the alley from the study to the master bedroom and bathroom (this page). The vestibule (opposite) provides a glimpse of the columns down the loft's center; behind the rectangular volume is the pantry.

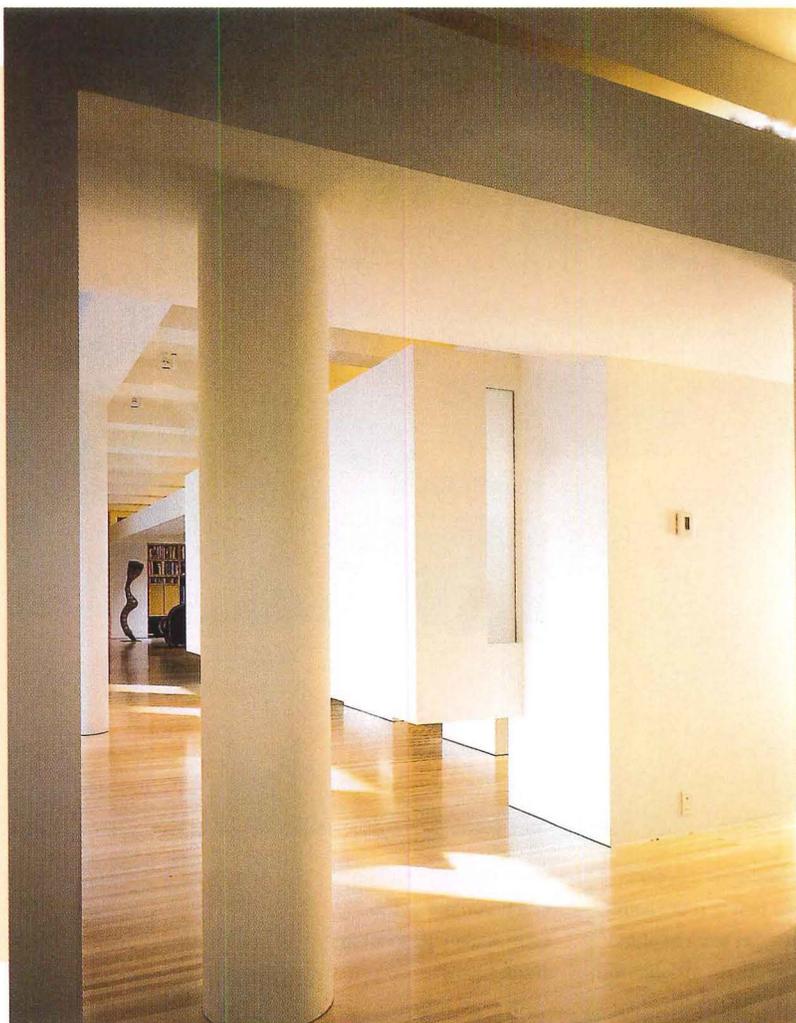


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For Chelsea's **Steel Loft**, Gwathmey Siegel carves into a generous, daylit volume to craft an urban oasis



1. Entry
2. Study
3. Living room
4. Dining room
5. Bedroom
6. Dressing room
7. Bathroom
8. Service
9. Mechanical room
10. Sitting room
11. Kitchen
12. Pantry
13. Laundry
14. Powder room



By Deborah Snoonian, P.E.

New Yorkers who reside within sight of Lower Manhattan must contend with both the quotidian challenges of city life and the visual reminders of the tragedy of 9/11. This downtown-facing loft in Chelsea offers just what such denizens need—a sanctuary from the complexity and velocity of the modern urban condition. Its designers, Gwathmey Siegel & Associates Architects of New York, avoided the common pitfalls of residential loft makeovers, namely unimagined spareness and oversculpted, florid excesses, and instead transformed the space into an oasis of warmth and elegant proportions.

The project can be termed a labor of love. The loft's owner, freelance writer and producer Eric Steel, is the stepson of its designer, Charles Gwathmey, FAIA. Gwathmey and his wife found the 7th-floor loft for Steel not long after dissuading him from buying a move-in-ready loft in Tribeca. The existing buildout was, in Steel's words, "the kind of disaster that only an architect, and maybe his son, could love," featuring ersatz Greek and Italianate motifs. Gwathmey saw beneath a skin of trumped-up columns and Rococo-style murals to the space's skeleton: a rectangular volume 110 feet long and 40 feet wide, with a ceiling slab just shy of 10 feet high and a row of columns parallel to the centerline of the loft's long

axis. The south wall has a grand array of fourteen windows (seven groups of two) that admit the sun's rays all day, thanks to low-rise buildings to the south. Transforming this light-filled orthogonal space was a project any architect would be eager to tackle.

Surprisingly, New Yorker Gwathmey had never designed a loft before. He describes the process as "a reductive exercise, like sculpture or an excavation, resulting in a system of solids and voids that has a hierarchy, yet still feels like a single volume." Adhering to a less-is-more rubric, he stripped the space to its essence, using the columns to define the main circulation through the loft's center, and the south-facing wall as a secondary circulation aisle. Instead of creating separate rooms, he sec-

Project: *Steel Loft*
Location: *Chelsea*
Owner: *Eric Steel*
Architect: *Gwathmey Siegel & Associates Architects—Charles Gwathmey, FAIA, partner in charge; Kang H. Chang, project architect;*

Tim Butler, design team
Structural engineer: *Severud Associates*
Mechanical engineer: *Thomas Polise*
Lighting: *Hillmann DiBernardo*
General contractor: *B + F Building*



Gwathmey designed the dining room furniture (at back in photo above). An air duct with

vents on top is hidden in a beam along the central alley (top left in photo below).



tioned off orthogonal spaces within the larger volume that offer varying levels of privacy, depending on their function. He's fond of calling the result a three-dimensional Mondrian painting.

The atmosphere is one of enveloping calm. When the elevator door slides open, a visitor walks into the vestibule, a simple table and piece of artwork announcing the entry without fanfare. Turning right and then left offers a glimpse down the columned central alley; to its left are a large living and dining room, to the right is the kitchen and beyond that a sitting room. Overhead, ceiling beams radiate perpendicularly from a primary beam supported by the columns, creating the illusion of an abstracted, geometric arboretum, with perfectly rounded tree trunks and squared-off beams as branches. This was a cunning design maneuver: "I wanted to create a canopy effect to make the ceiling seem higher than 10 feet," Gwathmey says.

Gwathmey furthered the illusion of height by conceiving of a system of cantilevered walls and partitions of varying thicknesses and heights to define the loft's "rooms." These elements touch neither ceiling nor floor, providing several horizontal reference points to give the loft a sense of depth and a scale that feels homey rather than industrial. The reveals at the floor set off the partitions as sculptural elements in their own right, but they're far from merely decorative—Gwathmey placed HVAC equipment, vents, storage spaces, and lighting within them.

The window-lined alley provides access to Steel's study and master bedroom suite, which includes a separate dressing room and master bathroom. All these areas can be closed off by means of sliding doors.

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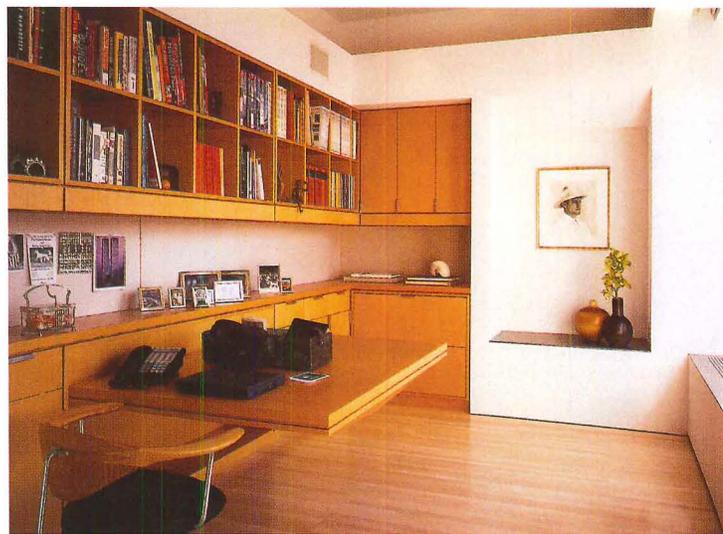
The master bedroom (above) and study (below) can be closed off with sliding steel-and-glass doors. Warm materials and a neutral palette create tranquillity within.

of steel and patterned glass. Clerestories of highly transparent glass fill the spaces between the cantilevered walls and the ceiling of both the master and guest bedrooms for acoustic privacy. The guest bedroom and bath are tucked away in the loft's northwest corner.

A color scheme of all-white walls and neutral-toned furnishings, combined with a palette of only five materials—maple flooring, anigre wood cabinetry, Spanish limestone, powder-coated steel, and stainless steel—lends his home a serenity that Steel is loath to clutter, even though he's a self-admitted pack rat. His favorite view of the apartment is from

the entrance to guest bedroom, looking down the central alley toward the front entry. "The apartment is completely white from that vantage, and there's a strange layering of shades of white, especially at certain times of the day and year. It's incredibly graphic and peaceful."

Gwathmey saw the loft as a singular opportunity for a father-son collaboration. "He was willing to take risks with me," he says of Steel. Was this difficult for Steel? "The relationship between architect and client is much more intimate than anyone ever imagines," he allows. "And when it's your own father—well, now there are things he knows about me things I might not normally tell my parents. But working on the project really cemented our relationship. It's like a culmination, a sign that we've gone the distance in building a sort of intimacy. And there isn't one light switch or wall socket I'd change." ■



Sources

Aluminum, glass: Skyline Windows

Steel and patterned-glass doors:

Kern Rockenfield (custom)

Hardware, hinges: E.R. Butler

Pulls: FSB (Bauhaus handles)

Cabinetwork, custom woodwork:

Rimi Woodcraft

Ambient lighting: Edison Price

Task lighting: Alco; Louis Poulsen

Dining table, chairs: Pollaro Custom Furniture (Charles Gwathmey)

Plumbing fixtures: Concinnity

Paints and stains: Benjamin Moore

For more information on this project, go to Projects at

www.architecturalrecord.com.

Residential Products CEDIA Review

Each September, the custom electronics industry convenes at the Custom Electronic Design & Installation Association show (CEDIA) to get a peek at the high-end tech products that will hit the luxury market the following year. This year, CEDIA was decidedly flat—with flat TVs, flat speakers, and other thin solutions intended to ride the coattails of the surging plasma and LCD TV market. Other products in the spotlight illustrate the importance of controlled lighting and the Internet's growing role in home control products and appliances. Below are some of the most intriguing items on display this year. *Rebecca Day*

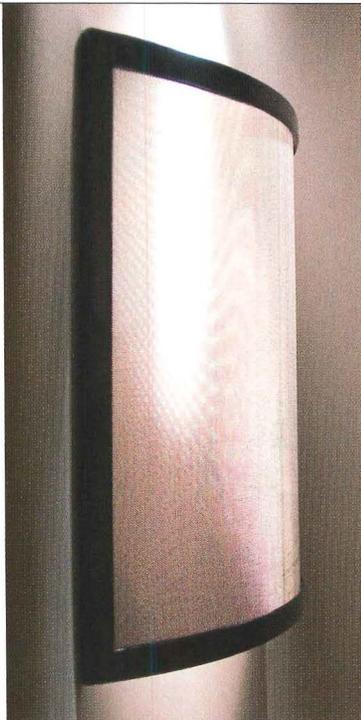


▲ An artistic canvas for blank screens

A plasma TV is a home owner's dream, but it can be a design nightmare when the TV is off. Solar Shading Systems solves the blank canvas problem with VisionArt, a motorized shade printed with fine-art images. VisionArt offers 100 limited-edition fine-art prints in eight frame styles and 32 original works of art and photography. The company uses the high-resolution giclee ink-jet process to reproduce images, which the company claims are indistinguishable from the original. The motorized shade can be operated by a home-theater remote control. VisionArt, A Division of Solar Shading Systems, Newport Beach, Calif. www.solarshadingsystems.com **CIRCLE 201**

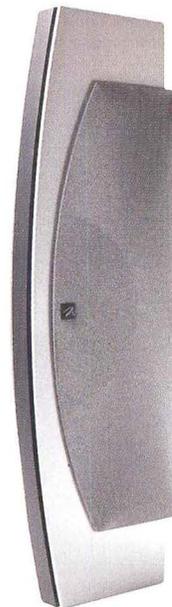
► Home-theater lighting

Known for its lighting and grip products for the movie industry, Matthews Studio Equipment has expanded to the residential home-theater market with a new line of lighting fixtures. Models include the Cameo spotlight, Eclipse wall sconce, Cape wraparound light (shown), and Torchière floor lamp. Optional finishes include bronze, pewter, antique brass, matte black nickel, brushed nickel, and chrome. Custom finishes are also available. Matthews Studio Equipment, Mission Viejo, Calif. www.artcoustic.com **CIRCLE 202**



► Digital artwork

Consumers who spend a lot for a high-definition TV expect it to be more than just a boob tube, and the digital media experts at Roku agree. When the company's HD1000 Digital Media Player connects to an HDTV, it can play music, display art from the masters, or feature a slide show of family photos. Roku sells digital art packs, including collections of digitized masterpieces by Van Gogh, Monet, and Ingres, and nature works comprising landscape photography and motion video. Roku, Palo Alto, Calif. www.rokulabs.com **CIRCLE 200**

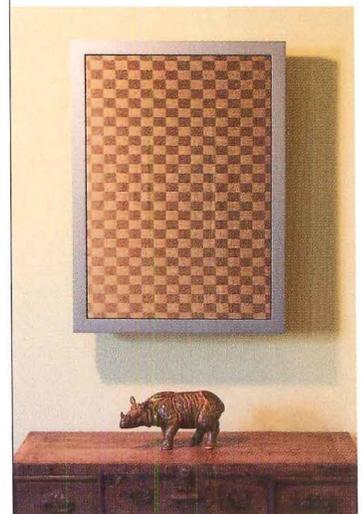


▲ Plasma monitor speaker

MartinLogan's Fresco speaker makes a gracefully bold design statement next to a plasma monitor. Measuring 6" from the wall, the curved enclosure features an interchangeable faceplate and a palette of optional grille colors. Vertical or horizontal positioning enables Fresco to serve as a front, center, or surround-sound speaker. MartinLogan, Lawrence, Kansas. www.martinlogan.com **CIRCLE 204**

▼ Artistic speakers

A loudspeaker doesn't have to look bad to sound good. Artcoustic, founded by former Bang & Olufsen designers, uses acoustically transparent speaker grilles as a canvas for artwork or patterned fabrics that blend with the decor. Artcoustic speakers vary in size but are all less than 6" deep. Screen fabrics are available in designer styles or custom artwork. Artcoustic USA, Mission Viejo, Calif. www.artcoustic.com **CIRCLE 203**



Residential Products CEDIA Review



▲ As big as it gets, for now

Samsung's 63" plasma TV is the industry's largest—for the moment. The built-in analog tuner enables users to view standard TV, while the set also includes the connectors required for a digital cable or satellite box. The 3" deep display features Samsung's fanless design for quiet operation. The Dolby Virtual Surround System delivers a surround-sound effect from two speakers. Samsung Electronics, Ridgefield Park, N.J. www.samsungusa.com **CIRCLE 205**

► A fitting subwoofer

Every home theater lover wants room-shaking bass, but finding space for a bulky subwoofer can be a vexing exercise for architects and designers. NHT's clever solution is the iW1 in-wall 14" x 36" sub that measures less than 3.5" deep—a neat fit in a standard residential wall. The outboard electronics and amplifier stack with the A/V gear. NHT, Benicia, Calif.

www.nhthifi.com **CIRCLE 206**



▲ Home control panel by day, internet portal by night

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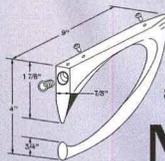
SH13—perforated pattern in 2 sizes; 7/8" or 1 1/4"



SH2—"Bird's Foot" design; 2 1/2" protrusion



SH8—massive bracket protruding 5 1/8"



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▼ Wireless LCD TV

Sharp Electronics offers the first battery-powered LCD TV for the U.S. market. The 15" television is an integrated unit, complete with speakers, stand, and a handle. The rechargeable battery operates for three hours off a single charge. When networked with a home PC, the LC-15L1U can show a DVD movie without a wired connection. Sharp Electronics, Mahwah, N.J. www.sharpelectronics.com

CIRCLE 207



▲ Scan your dinner

Beyond's Westinghouse microwave oven comes with a database of 4,000 products tested in cooking labs pre-

cisely for the appliance. The oven's bar-code scanner is able to scan UPCs to see if they are available in the database, which is continually updated and available over the Internet via the Beyond network. The oven links to a

Beyond hub over a power-line carrier network. Beyond/Salton, Seattle. www.beyondconnectedhome.com

CIRCLE 209

► Quieter shading control

Lighting control isn't just about bulbs and switches. Lutron Electronics believes room shading is as important to a sophisticated lighting system as programmed dimming scenes. A noisy motor ruins the subtle effect of motorized shades, but Lutron's new Sivoia QED intelligent drive system for roller shades, Roman shades, and draperies boasts virtually silent operation. The system integrates with Lutron lighting-control keypads. Lutron Electronics, Coopersburg, Pa. www.lutron.com CIRCLE 210



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Products

Heating & Heat Control

This month's focus is on products that either **provide a source of heat or control excess heat**. Heat sources as varied as fireplaces and radiant-heated glass can work in harmony with the latest **sunshades or reflective coatings** to create energy-efficient, well-designed, and comfortable interior environments. *Rita F. Catinella*

Flaming steel sculpture heats up the lobby of a hotel in the wine country

The San Francisco design firm Sand Studios was commissioned by David Baker and Partners Architects to design and fabricate a fireplace that would complement the contemporary, yet organic feel of the Hotel Healdsburg, located in the wine country of Northern California. Inspired by the flaming twigs of campfires, the hotel lobby's fireplace sculpture is precisely machined and fabricated from steel tubing and finished in heat-resistant paint. Similar pieces are now custom fabricated by Sand Studios to fit unique site conditions and work with both natural gas and propane.

The Sand Studios staff, includ-

ing Larissa Sand and Oblio Jenkins, have designed and fabricated several different gas fireplace inserts, whole fireplaces, and fireplace surrounds in the past, and currently have plans for different versions of the sculpture based on the same construction. Although the piece is not UL-listed, the firm would consider such a process if a large enough order was needed.

The fire sculpture is just one of a growing list of products the firm has designed and fabricated, including lighting, furnishings, and custom pieces, such as a reception desk and chandelier. Sand Studios, San Francisco. www.sandstudios.com

CIRCLE 211



The sculpture serves as a conversation piece and a source of light and heat.

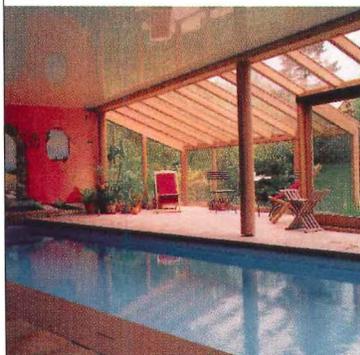


University facade keeps school cool

Grand Valley State University's new Cook-DeVos Center for Health Sciences, located in Grand Rapids, Michigan, features a 90' tall, energy-efficient unitized curtain wall and interlocking sunshade system from Wausau. The high-performance glass and airfoil-shaped sunshades serve to significantly reduce heat gain in the building while allowing students and staff to feel connected to the downtown community. Wausau Window and Wall Systems, Wausau, Wis. www.wausauwindows.com CIRCLE 212

Radiant heat window system now available in the U.S.

Now available in North America for both residential and commercial projects, IQ Glas is a heated-glass window system that has been available in Europe for more than 17 years. IQ Glas features a double-pane structure that allows radiant heat to warm sunrooms, conservatories, indoor swimming pools, and other rooms that are difficult to heat efficiently with traditional convection heating. The inner



pane has a thin metal-oxide coating that helps disperse heat equally, while the outer pane has a special coating that keeps heat inside while repelling cold air. Between the two panes, an inert gas enables the system to achieve high levels of thermal insulation (.14 U-Value), even though the temperature of the

windowpane never exceeds body temperature. IQ Glas manufacturer Glass Consult claims the main advantage of the product over traditional heating methods is the ability to keep dust circulation to a minimum, ideal for anyone suffering from asthma or allergies. In addition, IQ Glas can be combined with any



IQ Glas helps keep indoor pools, sunrooms, and other challenging spaces warm year-round.

type of antitheft device or alarm, can be applied with built-in blinds between the panes, and conceals all cables and wires in the window frames. For indoor swimming pool applications, IQ Glas stays condensation-free even with a relative humidity of 70 percent and extremely low temperatures outside. Glass Consult, Raleigh, N.C. www.iqglas.com

CIRCLE 213

Products Heating & Heat Control

◀ Sun and moisture protection

Constructed of premium-grade teak, eastern hard rock maple, or vertical grain fir, all Giati market umbrellas are custom hand-crafted. The wooden, non-teak components receive six coats of hand-applied, marine-grade varnish that protects against moisture and the drying effects of ultraviolet rays. The Next Century Market umbrella (shown) is one of two new designs from Giati constructed to withstand damage from wind, water, and sun. Giati Designs, Santa Barbara, Calif. www.giati.com **CIRCLE 214**

▶ Reflective roof coating

Excessive heat absorption by roofing materials requires more energy to keep interior spaces cool and comfortable. Custom-Bilt Metals' Ultra-Cool coatings increase the reflectivity of a standing-seam roof to 38.3 percent, compared to identical colors with conventional coatings that achieve only a 25.2 percent level. Each additional percentage point of reflectivity reduces metal temperature by 1 degree, allowing for a significant difference, especially in medium to darker colors. Custom-Bilt Metals, El Monte, Calif. www.custombiltmetals.com **CIRCLE 216**



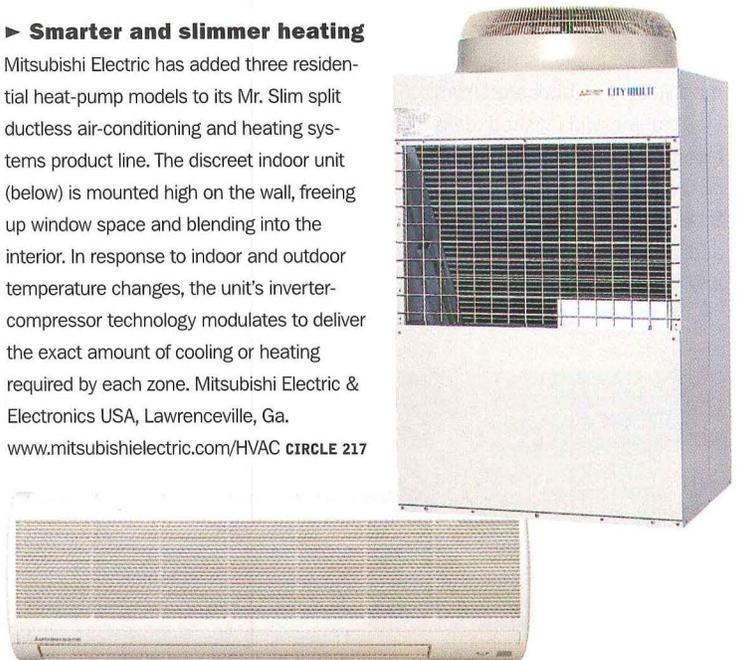
▼ Solar-powered attic ventilator

CertainTeed's Solar Powered Roof Vent is an energy-efficient alternative to traditional residential power attic ventilators. The vent utilizes a Siemens solar panel to collect and deliver power directly from the sun to a 24-volt DC motor inside the power vent. Because the tempered solar-glass panel is separate from the low-profile, galvanized-steel dome, it can be positioned anywhere on the roof for optimal energy collection. CertainTeed, Valley Forge, Pa. www.certainteet.com **CIRCLE 215**



▶ Smarter and slimmer heating

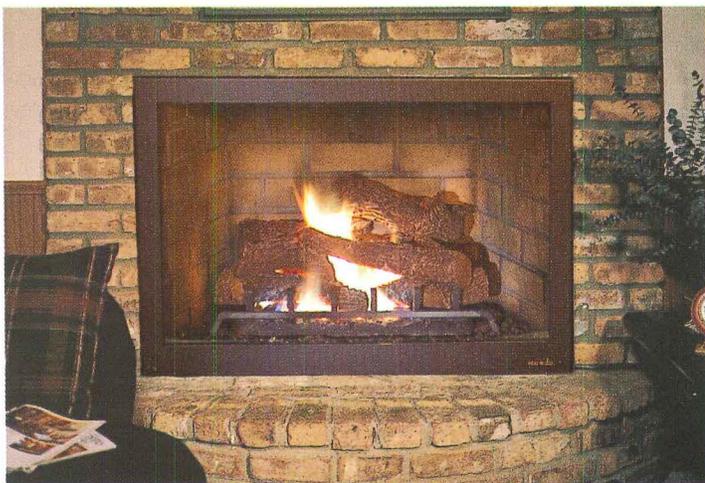
Mitsubishi Electric has added three residential heat-pump models to its Mr. Slim split ductless air-conditioning and heating systems product line. The discreet indoor unit (below) is mounted high on the wall, freeing up window space and blending into the interior. In response to indoor and outdoor temperature changes, the unit's inverter-compressor technology modulates to deliver the exact amount of cooling or heating required by each zone. Mitsubishi Electric & Electronics USA, Lawrenceville, Ga. www.mitsubishielectric.com/HVAC **CIRCLE 217**



▼ Advanced ventilation

Panasonic's WhisperLite Advanced Ventilation Fans are super quiet, energy efficient, fan/light combinations designed for longer run times or continuous operation for better indoor air quality. WhisperLite Ventilation Fans utilize two Panasonic Quick Start (flicker-free) 13-watt compact

fluorescent lamps for warm color-corrected lighting. The fan is easy to install, Energy Star-approved, and HVI (Home Ventilating Institute) certified. Panasonic/Enterprise Sales Group, Secaucus, N.J. www.panasonic.com/building **CIRCLE 219**



▲ A cleaner gas fireplace design

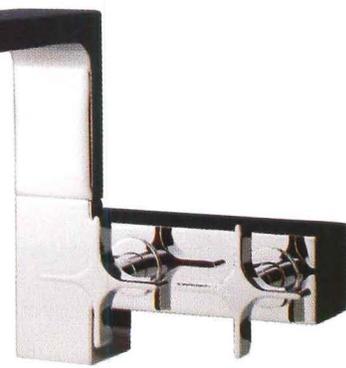
The Infinity fireplace's clean face design allows finishing materials to be brought right up to the fireplace opening, eliminating louvers and grilles traditionally found on gas fireplaces, and emulating the look of a wood-burning unit. The Infinity utilizes a Draft Assist program that allows venting up to 90'—five times longer than most gas fireplaces—and enables installation in difficult settings. Heat-N-Glo, Lakeville, Minn. www.heatnglo.com **CIRCLE 218**

Product Briefs



▲ Blades of water

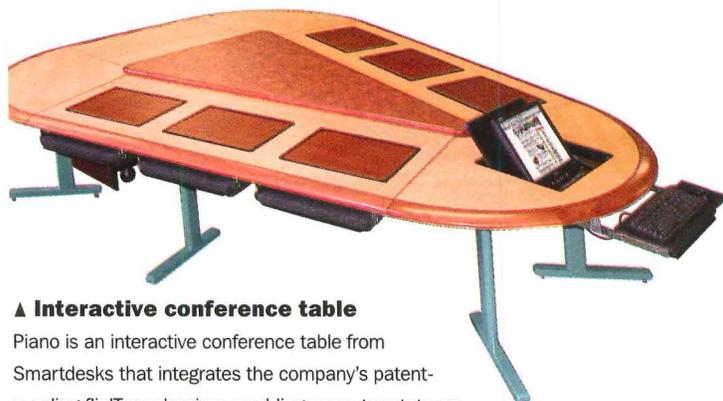
Waterblade is a new line of bath fittings introduced by Rubinetterie Ritmonio at the most recent Cersaie, the annual tile and bath-fittings trade show held in Bologna, Italy. Waterblade features a



basic rectangular shape that works as part of a modular system of built-in shelving in three lengths and a shower-head and taps for the basin and bidet that release water in a waterfall effect. All of the elements are manufactured in stainless steel with a polished chrome finish. Rubinetterie Ritmonio, Varallo, Italy. www.ritmonio.it **CIRCLE 220**

► Tempered channel glass

Westcrowns introduced Pilkington's Proflit Lineal glazing in its annealed glass form to the U.S. market in 1999. Pilkington now offers Proflit T, a tempered channel glass made in the U.S., shown here in a community-center application. The standard glass channel is formed with a cast outer surface, which diffuses incoming light, creating a sharp green tint to the glass. Westcrowns, Shallotte, N.C. www.westcrowns.com **CIRCLE 222**



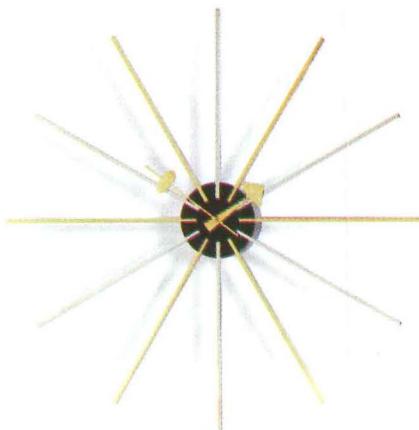
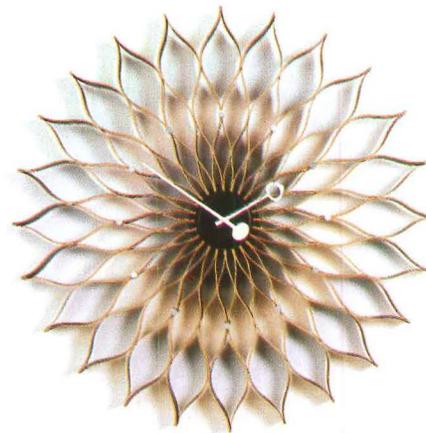
▲ Interactive conference table

Piano is an interactive conference table from Smartdesks that integrates the company's patent-pending flipIT mechanism, enabling users to rotate an LCD flat-panel monitor from under the tabletop into an ergonomic, semirecessed position while providing a clear top surface when not in use. Smartdesks, Lutherville, Md. www.smartdesks.com **CIRCLE 223**



Product of the Month **MEDS Flooring Program**

MEDS is a new program created by Armstrong to meet the current and future design needs of the health-care market. **MEDS**, which stands for **Medical Environment Design Solutions**, combines an extensive product portfolio with a team of health-care specialists, flooring stylists, customer-service representatives, and technical experts to deliver flooring solutions based on the unique space requirements of hospitals and hospital systems, clinics, medical office buildings, and long-term-care communities. As part of the **MEDS** program, Armstrong will continue to produce health-care-focused flooring products, which feature targeted colors and patterns that connect within the product line, integrate with other Armstrong flooring products, and coordinate with other commercial interior finishes to help facilitate the design process. Among the new **MEDS** featured flooring products are Arteffects commercial tile, Medinpoint homogeneous vinyl sheet (shown), and Timberline heterogeneous vinyl sheet, now with a protective urethane finish. Armstrong World Industries, Lancaster, Pa. www.armstrong.com **CIRCLE 221**



◀ Going back in time

Due to a great demand for the wall clock designs of George Nelson, the Vitra Design Museum has introduced another series based on original models and technical drawings from the George Nelson Archive that is part of the museum's collection. Vitra has added four designs from the oversize clock collection and is expanding color options of the existing models. The Turbine Clock, Sunflower Clock (top), Eye Clock, and Star Clock (bottom) from 1955 and 1958 are larger and more extravagant than Nelson's earlier designs from 1948-52, which include the Ball, Block, Sunburst, and Asterisk, which were reintroduced in 1999. These later designs also employ different materials, such as walnut, brass, and chrome. Vitra, New York City. www.vitra.com **CIRCLE 224**

Product Briefs

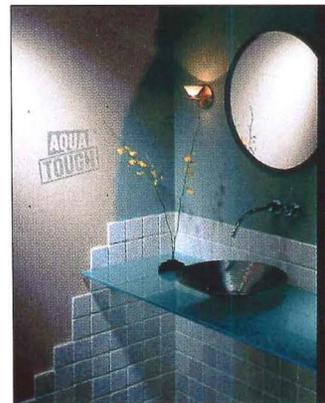


◀ The top chairs at Promosedia

Gaia, Baba, and Twist are three of the Top Ten chairs that were exhibited last September at Promosedia, the annual international seating exhibition in Udine, Italy. Gaia (far left), made of two tapered pieces of chrome metal with a seat of synthetic leather, was designed by Robby Cantarutti for Airnova. Designer Adriano Tolomei's Baba (left), for Sintesi 2, is of polypropylene resin on a steel or aluminum base. Its height can be altered using the built-in gas pump. La Sedia's Twist chair (above) is an ultra-compact folding chair designed by Enrico Picciani. Its four-fulcrum frame is made of steel and aluminum alloy, with a back and seat of oak plywood and thermoformed plastic. Promosedia, Udine, Italy. www.promosedia.it **CIRCLE 225**

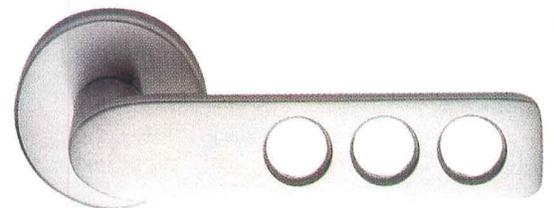
▼ Miles away from beige, boring floors

Designer Jamie Drake, whose recent project work includes the renovation and restoration of Gracie Mansion, New York City's official mayoral residence, has introduced his first collection of rugs at the L'Art du Temps showroom in the New York Design Center. Hand-knotted in China of wool and silk, the floor coverings capture Drake's colorful, yet refined design sensibility. The collection includes Summer (left), an evocation of lush growing grass, and Pulsating Pinstripes (right), a pattern of black dashes pulsing through a sea of color. L'Art du Temps, New York City. www.newyorkdesigncenter.com **CIRCLE 226**



◀ One tough wall panel

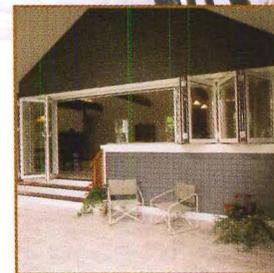
Approved for use in wet areas, including tub surrounds, USG's Fiberock Brand Aqua-Tough Interior Panels are engineered to provide increased resistance to abuse while outperforming paper-faced or glass-mat-faced panels. Designed to be installed and finished like traditional wall-board, the new panels feature a smooth surface that can either be painted or finished with ceramic tile. USG, Chicago. www.usg.com **CIRCLE 228**



▲ Plan a well-designed entrance

Valli & Valli has introduced a new door lever and complementary hardware designed by architects and partners Massimiliano and Doriana Fuksas. The door lever is crafted of solid brass and is available in chrome and satin-chrome finishes. The lever's clean design rises from a circular rosette into a straight handle with curved edges that is distinguished by three cutout holes. Valli & Valli, New York City. www.vallievalli.com **CIRCLE 227**

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Product Briefs

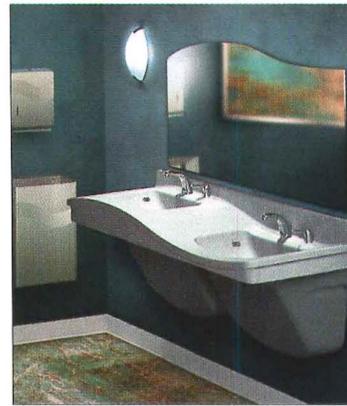
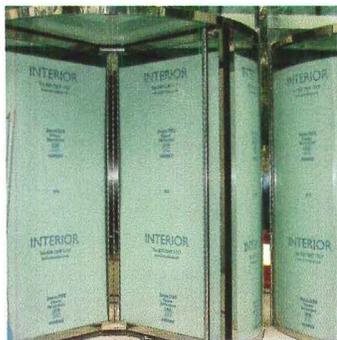
▼ Low-iron float glass

Responding to market demand for increased clarity and color neutrality in glass, Guardian scientists reduced the iron content and added key ingredients to its clear float glass to create the company's newest product offering. Ultrawhite is a clear, low-iron, high-transmission glass product that can be used virtually anywhere regular float glass is used. Guardian Industries, Auburn Hills, Mich. www.guardian.com **CIRCLE 229**



► Translucent protection

Cordek, a cost-effective surface protection product that has been the industry standard for protecting interior and exterior surfaces during construction projects in Europe and Asia, is now available in the U.S. The translucent, fluted polypropylene sheet is available in thicknesses ranging from 3 mm to 10 mm and in a variety of colors. The standard sheet size is 8' x 4'. Cordek, Houston. www.cordekusa.com **CIRCLE 230**

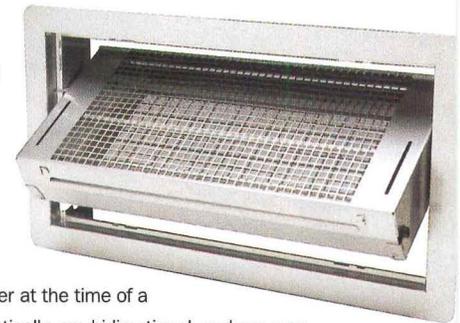


◀ One system, two heights

The Frequency lavatory system features an unconventional wave design that combines a lower ADA-compliant sink with a higher sink, making it ideal for washrooms in upscale retail centers, restaurants, offices, hotel lobbies, and fitness centers. The system is made of Terreon solid-surface material and is available in one-, two-, and three-station options. Bradley, Menomonee Falls, Wis. www.bradleycorp.com **CIRCLE 232**

► Certified flood vents

Smart Vent and Flood Vent automatic foundation flood vents are certified by the ICC Evaluation Service as an approved method of releasing the hydrostatic pressure exerted on foundations by water at the time of a flood event. They open automatically, are bidirectional, and are manufactured of stainless steel to meet IRC and IBC building code requirements. One 8" x 16" vent protects 200 square feet of enclosed area below the base flood elevation. Smart Vent, Glassboro, N.J. www.smartvent.com **CIRCLE 231**



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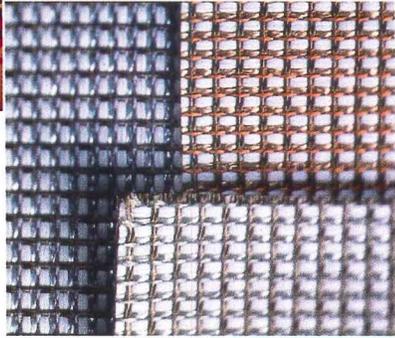
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▲► Rock star fashions for classic furnishings

The graffiti stylings of Stephen Sprouse, a member New York's fashion, art, and music worlds since the 1980s, helped make Louis Vuitton's Fall 2001/2002

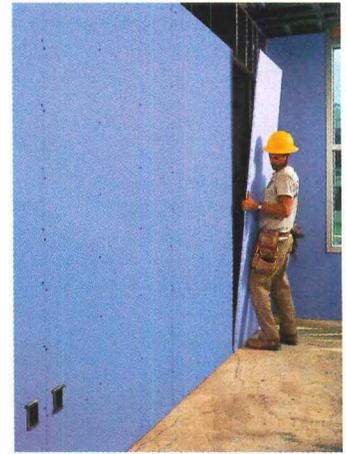
handbag and luggage collection a huge success. Sprouse has recently put his tag on a collection of textiles and upholstery from KnollTextiles, where he pays homage to Knoll's Modernist roots, with a twist. At last year's Neocon, Knoll showcased the company's classic furnishings upholstered in radical textiles, including Graffiti Camo (top), a durable upholstery/drapery featuring words of the Declaration of Independence drawn across a camouflage background, and Techno Tweed (bottom), a fluorescent neon, tone-on-tone elastic tape and polyester mixture. KnollTextiles, Greenville, Pa. www.knoll.com **CIRCLE 233**



▼ Acoustics + accessibility

The Respond Access Ceiling is a custom downward-accessible, torsion-spring ceiling system ideal for schools, hospitals, office buildings, or retail spaces. The aluminum-framed panels feature a premium 1" glass fiber core to minimize ambient sound and are available with either a textured paint or fabric-wrapped finish. Panel edges are fully finished and slightly beveled to create a monolithic look. Owens Corning, Toledo.

www.owenscorning.com **CIRCLE 234**



▲ Fire- and mildew-resistant

National Gypsum Company has developed Gold Bond Brand XP wallboard to meet the increasing demand for mold- and mildew-resistant wallboard products. The panels consist of a fire-resistant, moisture-resistant gypsum core encased in heavy moisture-, mold-, and mildew-resistant 100 percent recycled purple paper on the face and back sides. National Gypsum, Charlotte, N.C.

www.nationalgypsum.com **CIRCLE 235**

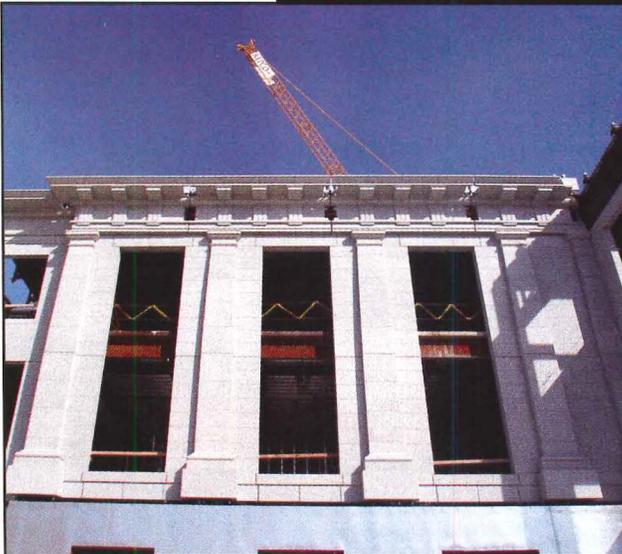


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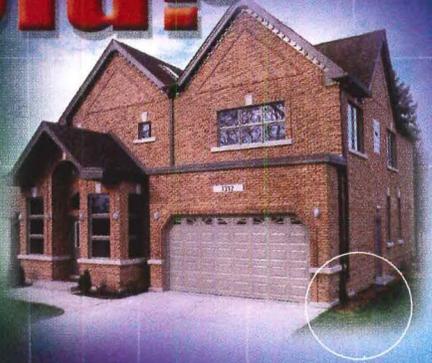
Classic Details

modern installation

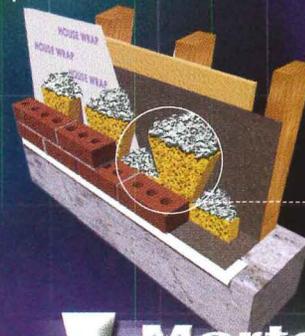
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Mold?

Properly constructed cavity walls are one way to ensure that your masonry home is dry and free from water damage and mold. During construction, mortar droppings can block weep holes trapping water inside the cavity, creating long-term moisture problems.



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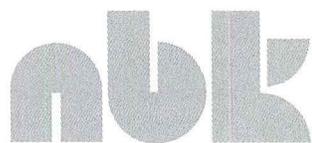
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ARCHITECTURAL TERRACOTTA



Kendall Square, Boston, USA.
Architect: Steven Ehrlich, Colver City, USA.

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Product Literature

Industrial coating color guide

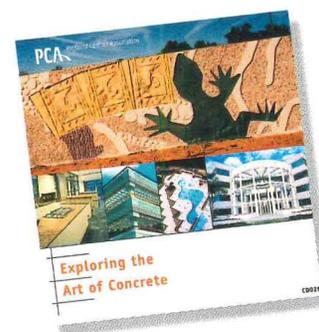
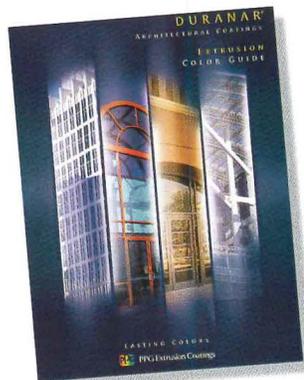
The Coil and Extrusion Coatings Group of PPG Industries now offers three new color selection guides for Megaflon Coatings, Durafon Coil Coatings, and Duranar Extrusion Coatings. The guides were redesigned to give the family of products a look that displays their affiliation and the variance of color choices for each coating. PPG Industries, Springdale, Pa.
www.industrial-coatings.com CIRCLE 236

Concrete CD resource

Exploring the Art of Concrete, available on CD from the Portland Cement Association, provides a compilation of resources on the production, application, and advantages of architectural and decorative concrete. The CD includes a technical manual in English, Spanish, and French on white cement and an image library highlighting imaginative applications. Portland Cement Association, Skokie, Ill. www.cement.org/cd028
CIRCLE 237

MRI planning guide

ETS-Lindgren has introduced a new MRI site-planning CD-ROM for those involved in designing, renovating, or building a new MRI site. The CD-ROM offers complete product information on individual



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NEW SITES FOR CYBERSURFING

Online specs for stainless-steel and rod-tensioning systems www.rontan.com



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Lighting designed in the Murano glass tradition www.foscarini.com

Playful virtual furniture showroom www.key-london.com

Online tile options www.vitrakaro.com

shielded room components, as well as details on accessories, testing, and services. ETS-Lindgren, St. Louis.
www.ets-lindgren.com CIRCLE 238

Screen design software

Da-Lite Screen Company has released the second version of its Screen Design Software. New enhancements include an aspect ratio calculator and complete measurement information for each screen case or frame. Da-Lite Screen, Warsaw, Ind. www.da-lite.com CIRCLE 239

Product Literature

Carpet/textile directory

The *HALI Carpet & Textile Directory* is a comprehensive listing of contacts and information for the international carpet and textile market. The directory presents more than 600 antique carpet and textile dealers from around the world, including decorative carpet showrooms, antique oriental carpet retailers, and high-end textile art galleries. It also lists more than 100 museums with carpet, textile, and related art collections, and a calendar of regular worldwide events in the field. The directory will be updated and published every two years. Hali Publications, London. www.hali.com **CIRCLE 240**

Updated stone-design manual

The Marble Institute of America offers the revised and expanded *Dimension Stone Design Manual, Version VI*. In addition to technical data, installation guidelines, and maintenance recommendations for all types of stone, the 350-page manual features new chapters on serpentine, travertine, restoration and refinishing, and standards and specifications for stone products. An appendix with reference charts, suggested warranty contracts, an expanded glossary of industry terms, and a comprehensive

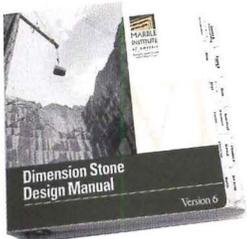
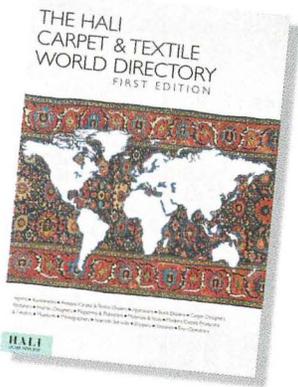
index for quick reference have also been added. The Marble Institute of America, Westlake, Ohio. www.marble-institute.com **CIRCLE 241**

Roofing system manual

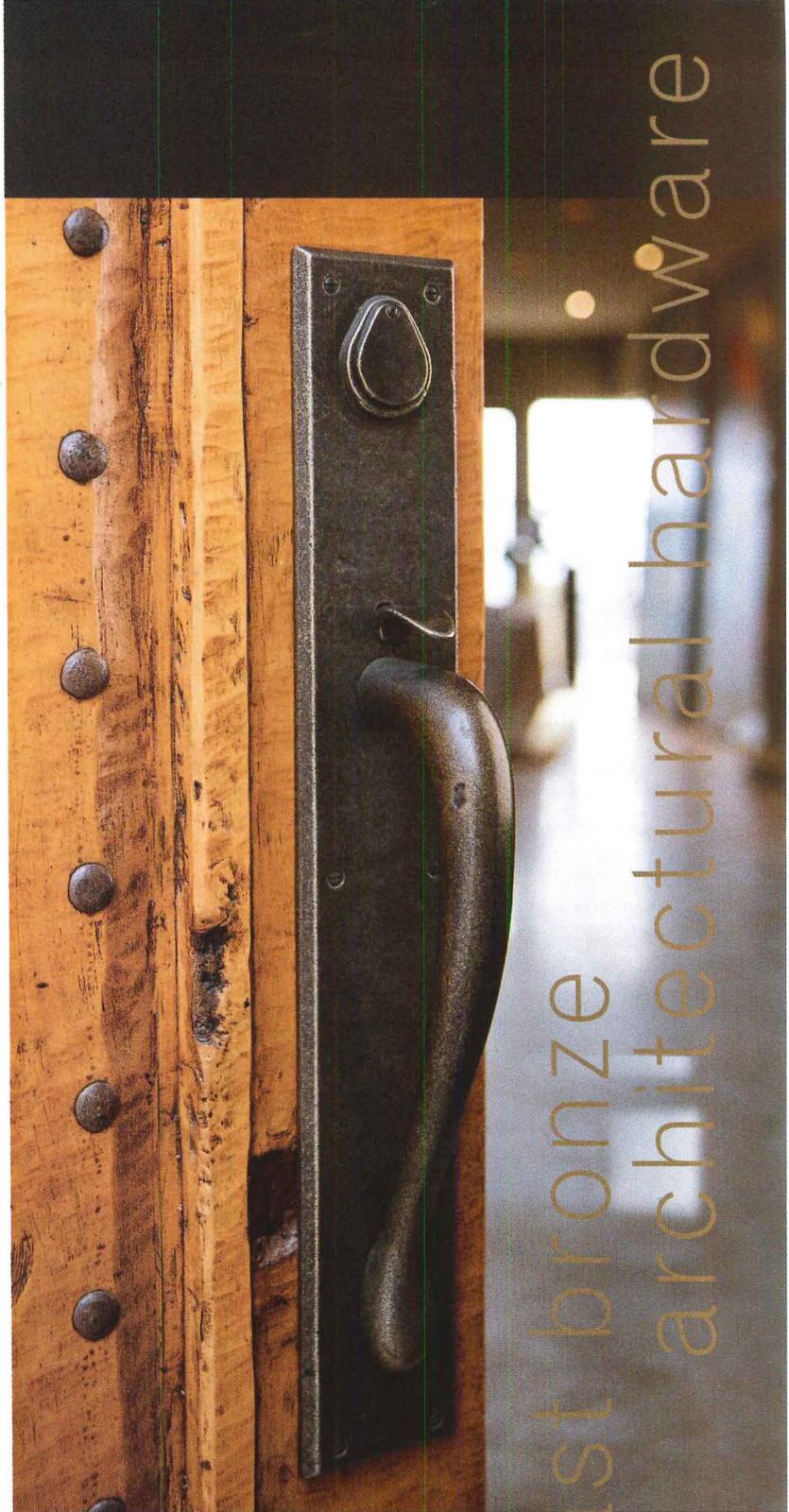
The Firestone Technical Specification Manual is available in a print binder, online via Firestone's Web site, or as an interactive CD. The manual includes a variety of information such as code approvals, details drawings, and warranty guidelines for the company's full line of single-ply and asphalt-based roofing systems. Design criteria, application illustrations, physical property charts, and specification tables for all of the systems are also provided. Firestone Building Products, Carmel, Ind. www.firestonebpco.com **CIRCLE 242**

Health-care storage solutions

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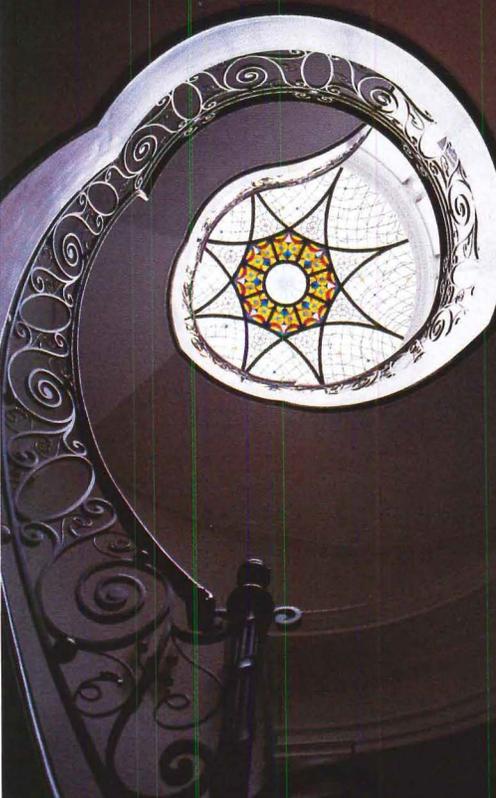
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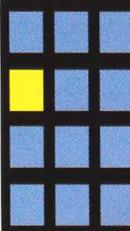
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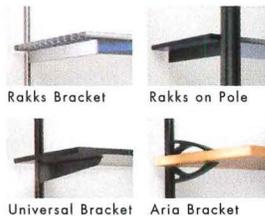
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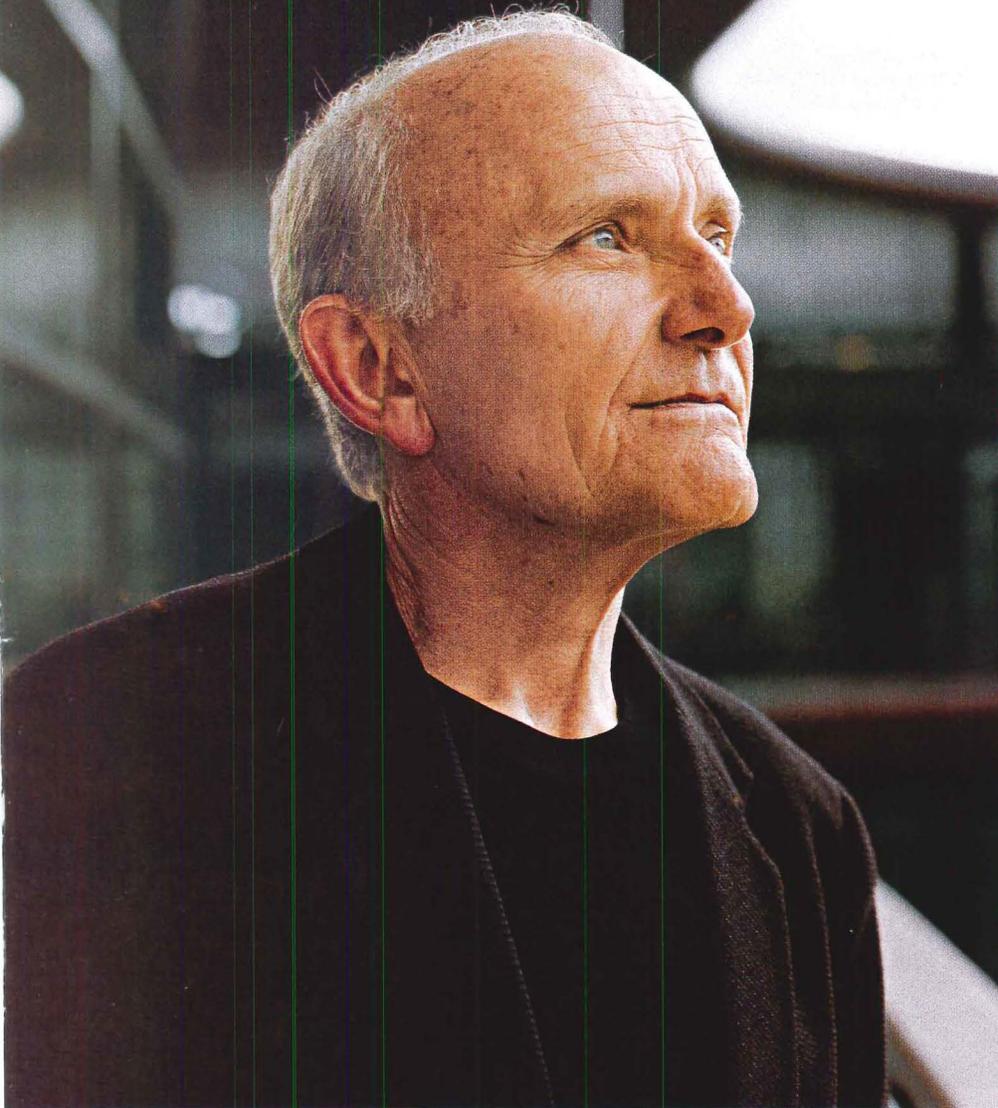


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David Neuman: planning utopias where campus is king

Interviewed by Andrew Blum

Architects have been trying to impress David Neuman for years. As University Architect at Stanford since 1989, and at the University of California, Irvine before that, Neuman has overseen more than 5 billion dollars in campus construction, collaborating with the likes of Norman Foster, Frank Gehry, Robert Stern, Antoine Predock, and Ricardo Legorreta, all the while keeping a close eye on the university's historic fabric and an ear to its contemporary politics. This month, Neuman moves to the University of Virginia, where in addition to facilities planning and new design projects, he takes on responsibility for that ultimate slice of American campus—Thomas Jefferson's Academical Village.

Q: *You've been doing this for 25 years. How have you come to see the role of a campus architect?*
I'm constantly absorbing the nature of the university itself—not simply its mission, but its qualities and its characteristics, and its emphases at a given time—and interpreting those into a variety of physical plans and projects. Because in my mind every project has a responsibility for creating a campus, just as I think in good urban planning every project has to do with making a better city. I've always said, we are building a campus, but every building is campus-building—with *building* as a verb. I subscribe to what [architectural historian and Stanford professor Paul V.] Turner said in this whole dialogue of “what is the campus?”: It's a confined green space, a planned landscape that's utopian, that has some sort of unique quality that's ideal.

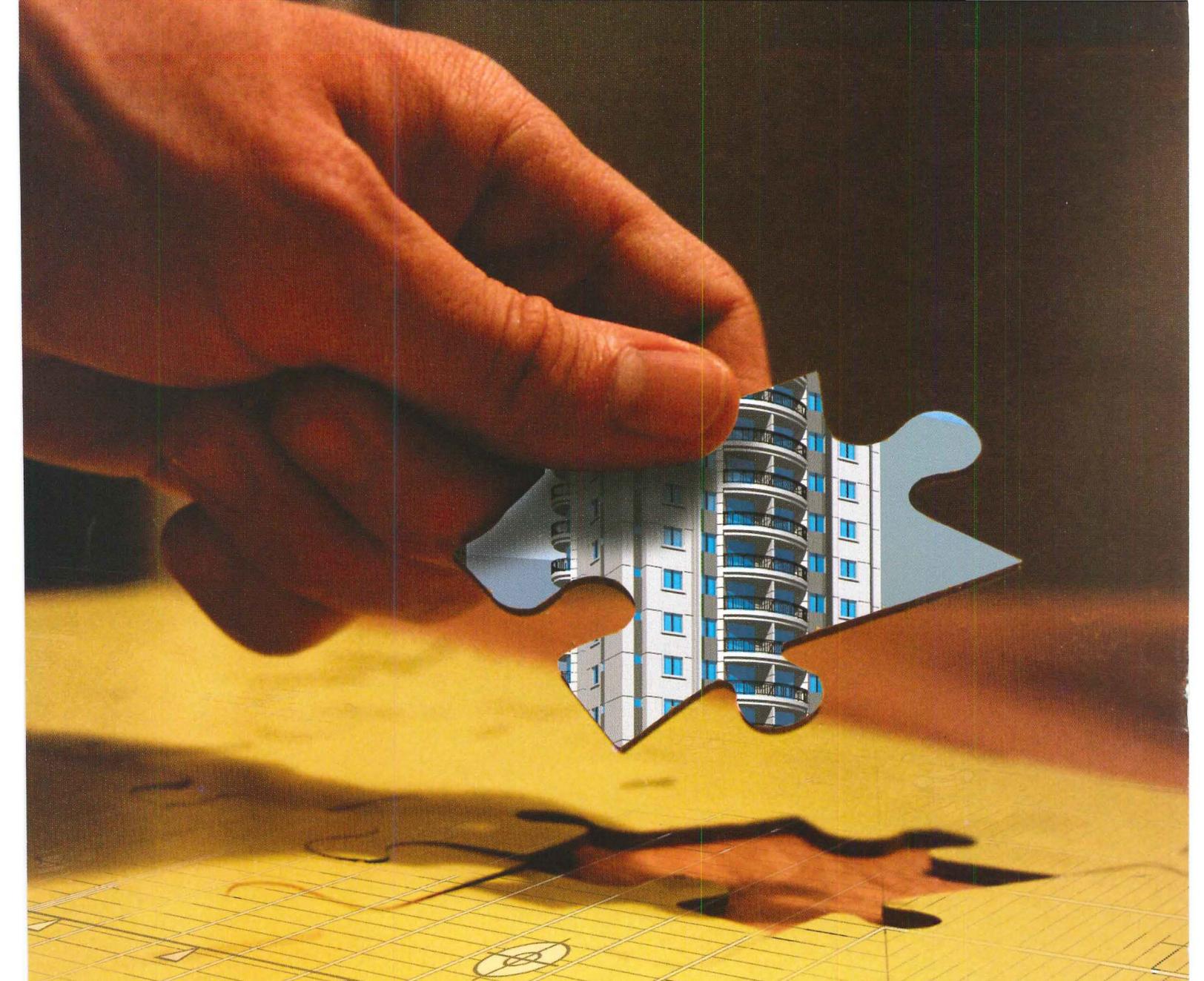
So even when you're thinking about commissioning individual buildings, like the recently completed Clark Center by Norman Foster, the campus as a whole has to be more than an architectural petting zoo?

Oh yeah, it has to, because collecting individual icons isn't campus-building. The Clark center to me is such an incredible building because it recognizes plan and landscape at least as much as the architecture. That said, certain buildings, like the main quad at Stanford or Memorial Church, take on an iconographic role. Even university planning journals are using the term “branding” all over the place. But I think it's the spaces and the plan and the relationship that create something like an urban fabric, where you can put in and take out pieces and change them around, but the overall sense of the place will stay the same because the landscape and the plan—the ordering, if you will—will be here.

Has your notion of what's appropriate to the campus's historic fabric changed over the years?

The biggest shift in my mind—and this has something to do with Stanford, but obviously it has to do with the world environment—is that things are much more transitory, even in the campus. We used to have this expression, “We're building for the next century.” It's been replaced with, “We're building for 30 to 50 years.” Because, really, it's the plan and the landscape that are going to be here a lot longer in terms of ordering whatever will come—although the architecture is what people talk about.

Photographed by Edén Batki at Stanford University



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