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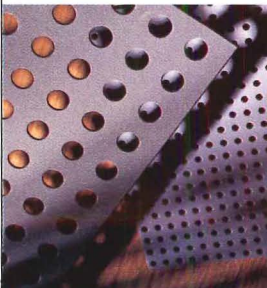
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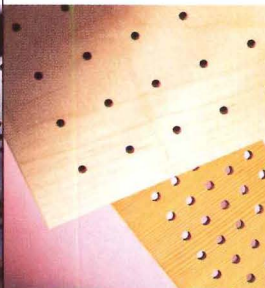
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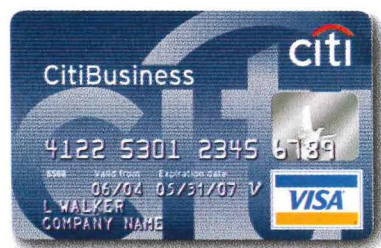
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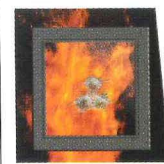
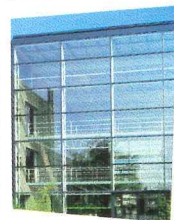
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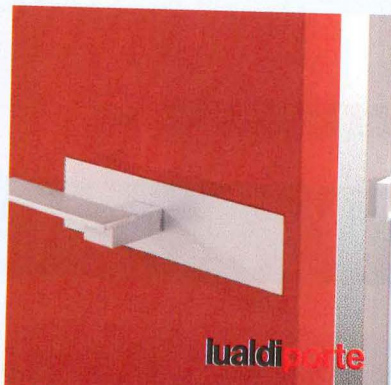
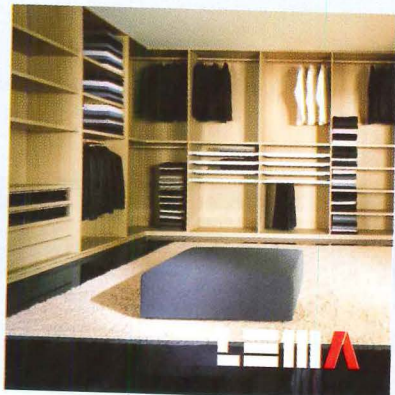
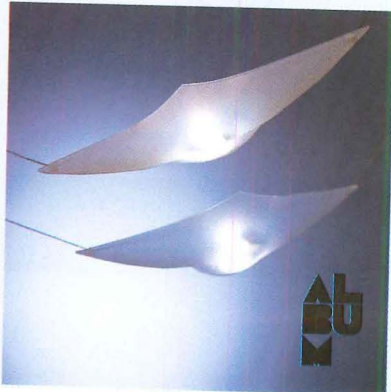
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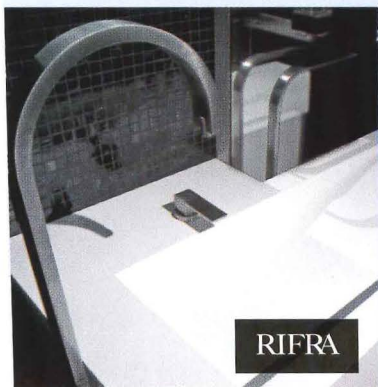
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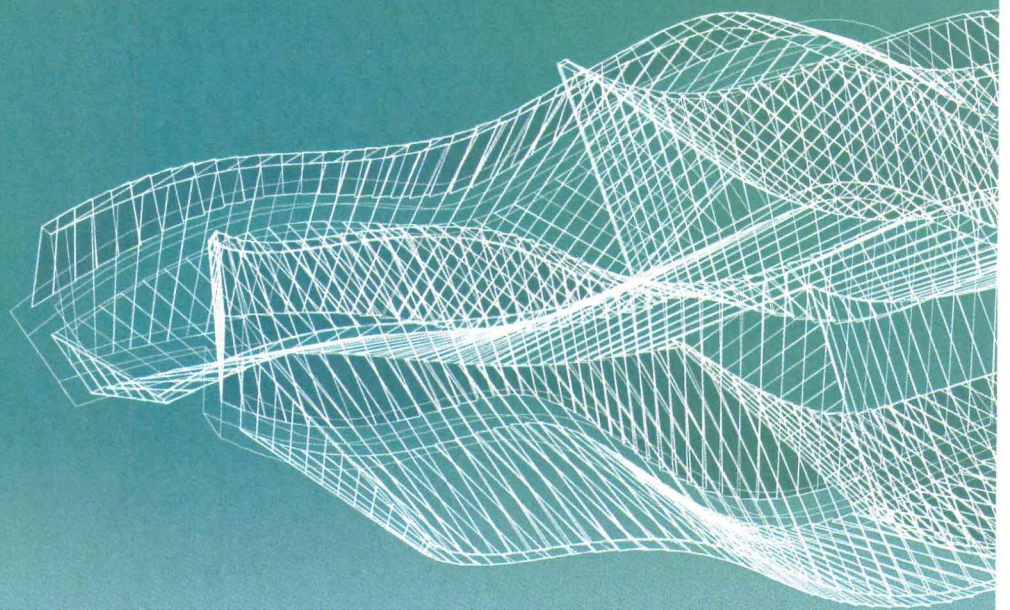
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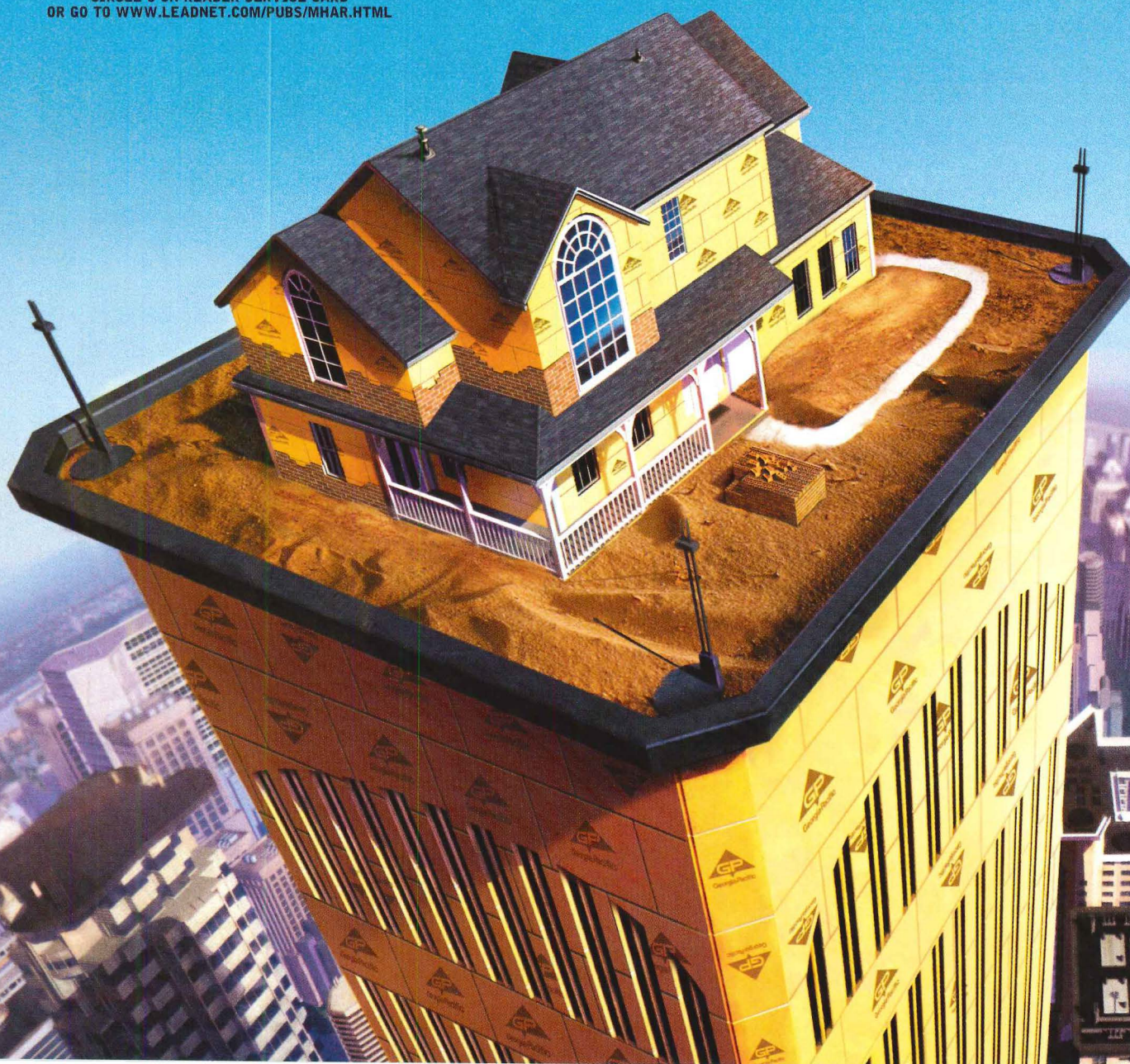
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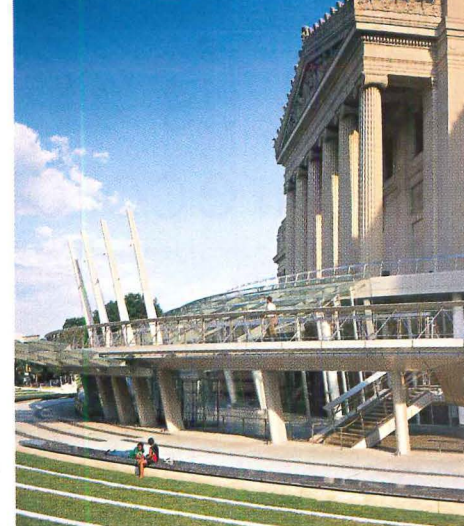
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On the Cover: Danish Jewish Museum, by Studio Daniel Libeskind.

Photograph by Bitter Bredt

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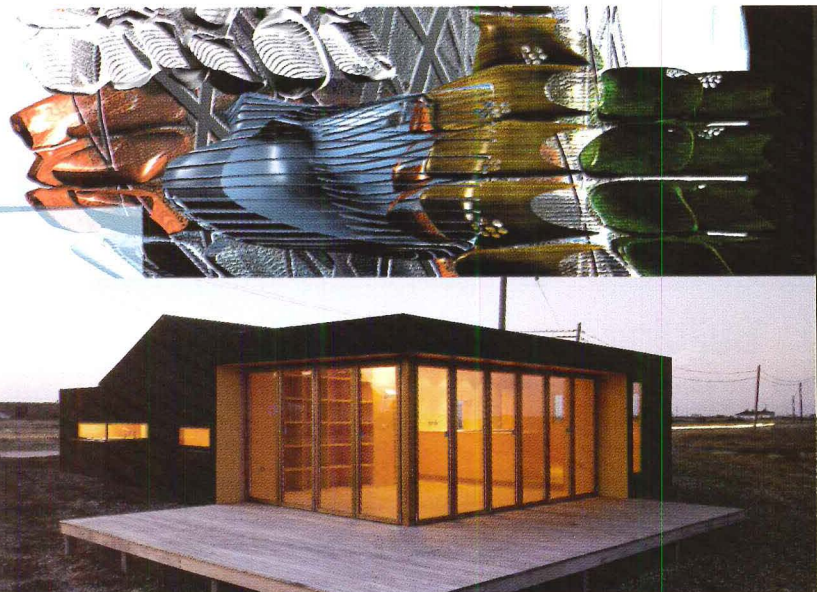
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Continuing-Education Opportunity is "Designing for Disassembly and Deconstruction" (page 181). To find out about other Continuing Education opportunities in this issue, go to the box on page 181.

* 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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October 2004



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

Get the latest scoop from the world of architecture.

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



Gregorio Marañón Maternity and Pediatrics Hospital
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Building Types Study

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Montreal Cultural and Administrative Complex, 2003
Image: Courtesy NOMADE

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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; Axiom River Market Tower, Little Rock
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Products

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A Man Called Fay

Editorial

By Robert Ivy, FAIA

In an architectural world freaked out on speed and hype, Fay Jones stood apart. His residences, chapels, and pavilions form a discernible body of work as singular and distinctive as their maker. In a sense, Jones ennobled and quickened Arkansas, an emerging region near America's core, and the place shifted from near-frontier to the kingdom of Thorncrown, a wonderland of natural gifts and shifting light. We saw this focused world anew through his eyes.

The press has eulogized his personal qualities, including his forthright, democratic manner, his dignity, his energetic awareness, his role as an inspiring teacher, and his professional alliances with great minds, including Frank Lloyd Wright and Bruce Goff. (Who else worked with and learned from both?) Jones's greatest lesson for subsequent generations, however, lies outside the so-called "Ozark style," characterized by wood and stone; instead, his real legacy lies within his work and its relationship to language. Fay Jones thought and spoke most eloquently in three dimensions, a lesson at the core of architectural meaning. Few have mastered it more completely.

In fact, he bristled at the world "style." "I never sought to ring the universal bell," he said, eschewing trendy developments. He felt that the word style conveyed too much of superficial, temporal fashion, when his goal was the development of a body of thought, conveyed through drawings, models, and completed buildings. He never acknowledged this notion of architectural language as articulation, if he ever consciously held it. However, the work proclaims it as physical proof. He dreamed and made a world using a consistent architectural syntax, spending a lifetime pursuing its realization.

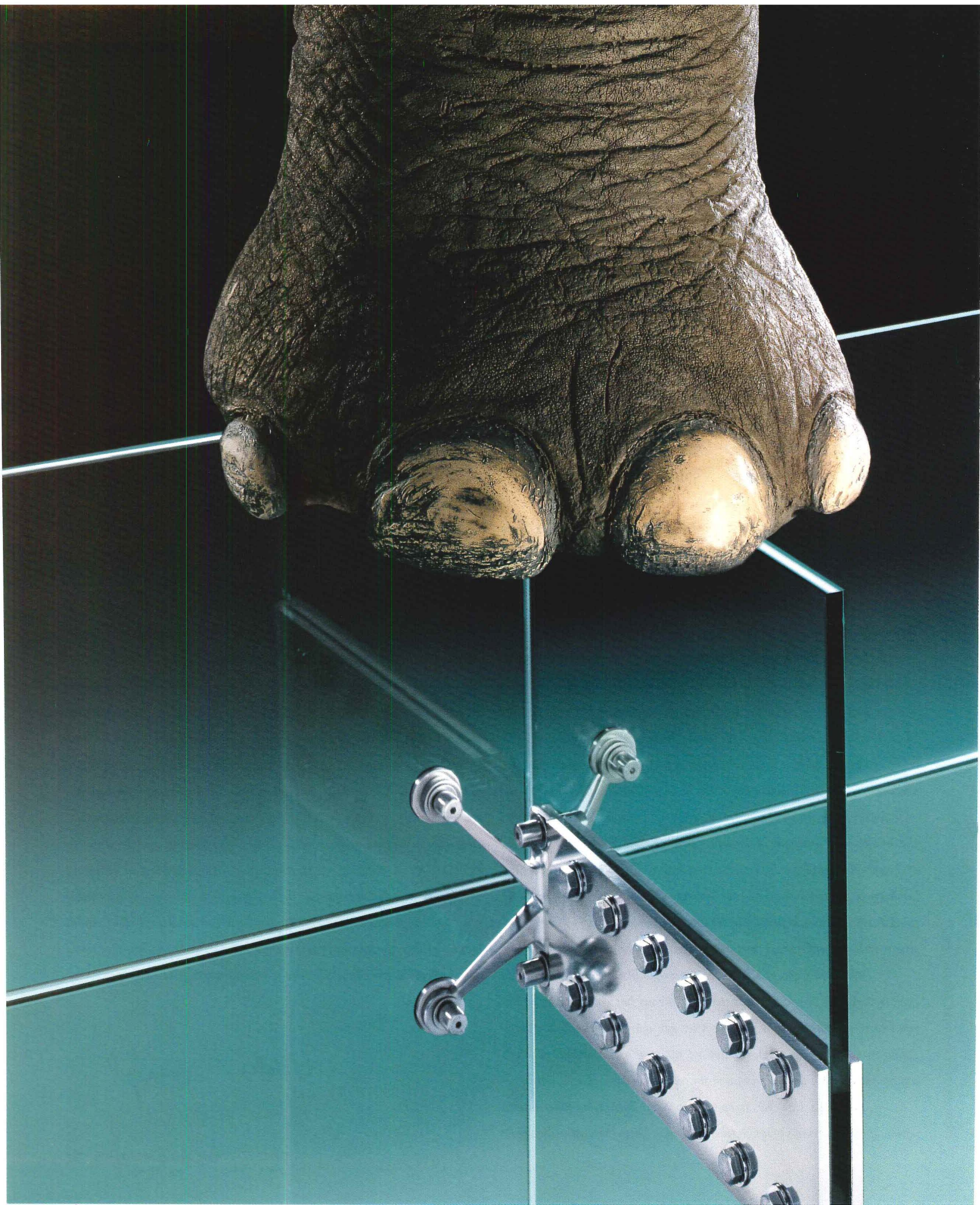
With some exceptions for the chameleonlike Wright, who lived to explore a variety of media, consistency of means has characterized other great careers. Consider how the late Mies van der Rohe (steel) or today's Tadao Ando (concrete) deploy a limited range of architectural materials complementary to their individual visions. In the predigital age, that is.

In Jones's case, he accepted the Wrightian, even Emersonian, notion of the relatedness of language at all scales. Thus, famously, "the whole

is to the part as the part is to the whole." The truth (for there was a sort of truth) of the architecture lay in its relationship to the natural world, to its immediate surroundings and topography, to the materials and systems that it comprises, and to the details that constitute its fundamental spirit. Details, in this cosmology, take on tremendous weight, for in them we can see, as Blake proposes, "a World in a grain of sand." The senses drink it all in.

With typical economy of expression, Jones would have scoffed at the term "theory." Yet he explored ideas. While consciously drawing meaning from history, Jones was working out a personal worldview that drew on wellsprings within his own psyche, in which rational and intuitive elements are conjoined. Characteristically, he called such motives "caves and tree houses." Thus, wet stone walls, curving and womblike, form the bases of early works, which simultaneously rise high into the tree line, admitting light and air.

At its highest expression, at Thorncrown Chapel or Pinecote Pavilion, his work coalesces into an architecture that fully expresses complex thought, blinding our attention to the pieces and parts. At the critical moment in both instances, the literal linchpin has been replaced with a steel void, an oculus he called the "operative opposite." Light pours through this structural ring, forming a perspective that snaps these highly engineered constructions into focus, at once blurring our understanding and dazzling our sight. Do we see building or art, a real place or another realm? Using the simplest things, whether humble materials, pattern, or light, Jones synthesized the components into a coherent, expressive architectural idiom. In his lifetime, Fay Jones did what other architects have tried to do, but they could only jabber: He spoke most effectively without uttering a single word.



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Letters

Ode to Fay

At the beginning of the 1980s, I was an architecture student fortunate enough to start my professional career in Fay Jones's five-person office [News, "Architect Fay Jones Dies," *archrecord.com*]. Fay's strongest belief was that great architecture was usually a result of a firm set of architectural principles. To that he would add: "Don't be timid." Simple comments, but profound to the ears of a young architect struggling to understand the Postmodernism of the day.

Fay Jones, and Samuel Mockbee as well, are viewed partially through the veil of being southern, rural, soft-spoken, and likable. Let's also honor the underlying struggles it took, personally and professionally, for their bodies

of work to become a valuable part of the American landscape. *Gregory Uekman, AIA
Uekman/Architects
Bethesda, Md.*

College education

Nancy Levinson's article "Campus Planning Is Breaking New Ground" [August 2004, page 86] was well constructed, with input from many informed sources around the country. However, several of the featured projects that followed the story blatantly disregard this latest thinking in college campus development.

How, for instance, does Frank Gehry's Stata Center at MIT, which looks as if it has already been severely damaged by an earthquake, show "a vision that integrates the physical campus

with the identity of the institution"? Certainly, Will Alsop's Sharp Centre in Toronto (a ridiculous "pencil box" supported by a dozen of its contents) is evidence of Vassar president Frances Daly Fergusson's assertion in Levinson's article that "even the most beautifully situated campus can be ruined by poorly located buildings and bad open space." And how on earth does Jensen & Macy's CCA Graduate Center in San Francisco, a common warehouse that was turned into a bland warehouse, display an "interplay between memorable architecture and distinctive landscape that makes a good campus"?

Of all the campus buildings being constructed "at a prodigious pace and impressive scale," you

have selected examples for their shock value rather than for the manner in which they respect the serious planning and thought explicit in Levinson's piece. What an opportunity missed!

*David A. Lunde
Retired Director of Campus Planning,
University of Georgia
Athens, Ga.*

Architects at arms

American embassies [Commentary, July 2004, page 67] have been forced to move from architects' preferred emphasis on openness to the overpowering priority of security because of failed American foreign policy. The government's current attempt to dominate global politics and the world economy fuels anger and

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Letters

resentment against us, as does its transparent double standard on human rights used to evaluate allies versus opponents in the so-called "War on Terror."

As the new Standard Embassy Design will do little to reverse these trends, and as architects seem to be increasingly shut out of advising the government, perhaps architects should find ways to be more active in advocating for a new foreign policy that will allow us to practice the best in embassy design again.

Raphael Sperry
San Francisco

Girl from Curitiba

As a Brazilian architect living and working in North America since 2000, I'm always looking for Brazilian or South American news in your magazine. When I picked up the July issue, I was

excited to see news about one of my heroes: Oscar Niemeyer. Even better, my hometown—Curitiba—was mentioned [News, page 38]. I hope you keep writing all the great articles you do, and thanks for more Brazilian architecture on your Web site in August.

Leticia Amaral
Via e-mail

Represent, don't invent

In the week after the new Seattle Central Library opened on May 23, I spent hours in the building, exploring every floor and making use of every function. That said, I hope some day to visit the building photographed by Timothy Hursley in the July issue [page 88]. No one who has used the library can fail to see that Hursley's photographs reveal an ignorance of how the building actually works.

OMA/LMN's building is cer-

tainly among the most eloquent of libraries, one that's more than able to speak for itself. Hursley fails to recognize this, however, and presumes to supplant the building's narrative with his own, inventing when he should strive to represent. With a few noteworthy exceptions, his images do the building a considerable disservice, creating angles where there are none, engineering views that do not exist, and reimagining spaces that need not be reimagined.

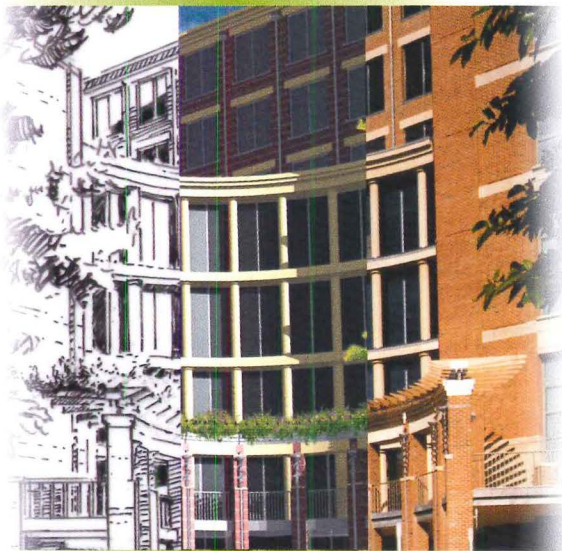
Every good photographer necessarily leaves a particular imprint on his or her work, but Hursley goes to extremes. It seems sometimes as though he has designed a building of his own and then set out to photograph it. While Hursley's photographs are often dizzying and occasionally beautiful, they rarely reflect the building Seattle is coming to know and love.

Jacob Brogan
Seattle, Wash.

Corrections

The August news item [page 23] on the new Hollywood Bowl by Hodgetts + Fung Design and Architecture (with executive architect Gruen Associates) suggests that the structure was renovated and altered; in fact, it is completely new, built from the ground up. A July News item [page 38] misspelled the name of the Brazilian town where the Oscar Niemeyer Museum is located—it is spelled Curitiba. The curtain-wall contractor was incorrectly listed in a July story on Baltimore's Brown Center [page 127]. The contractor is Harmon. A September News Brief [page 42] incorrectly identified Suzanne Stephens's role in the book *Imagining Ground Zero*. She is the lead author. The same item misidentified the publisher of Paul Goldberger's book *Up From Zero: Politics, Architecture, and the Rebuilding of New York*. It is Random House.

Write to rivy@mcgraw-hill.com.



Illustrations courtesy of Lord, Aeck & Sargent

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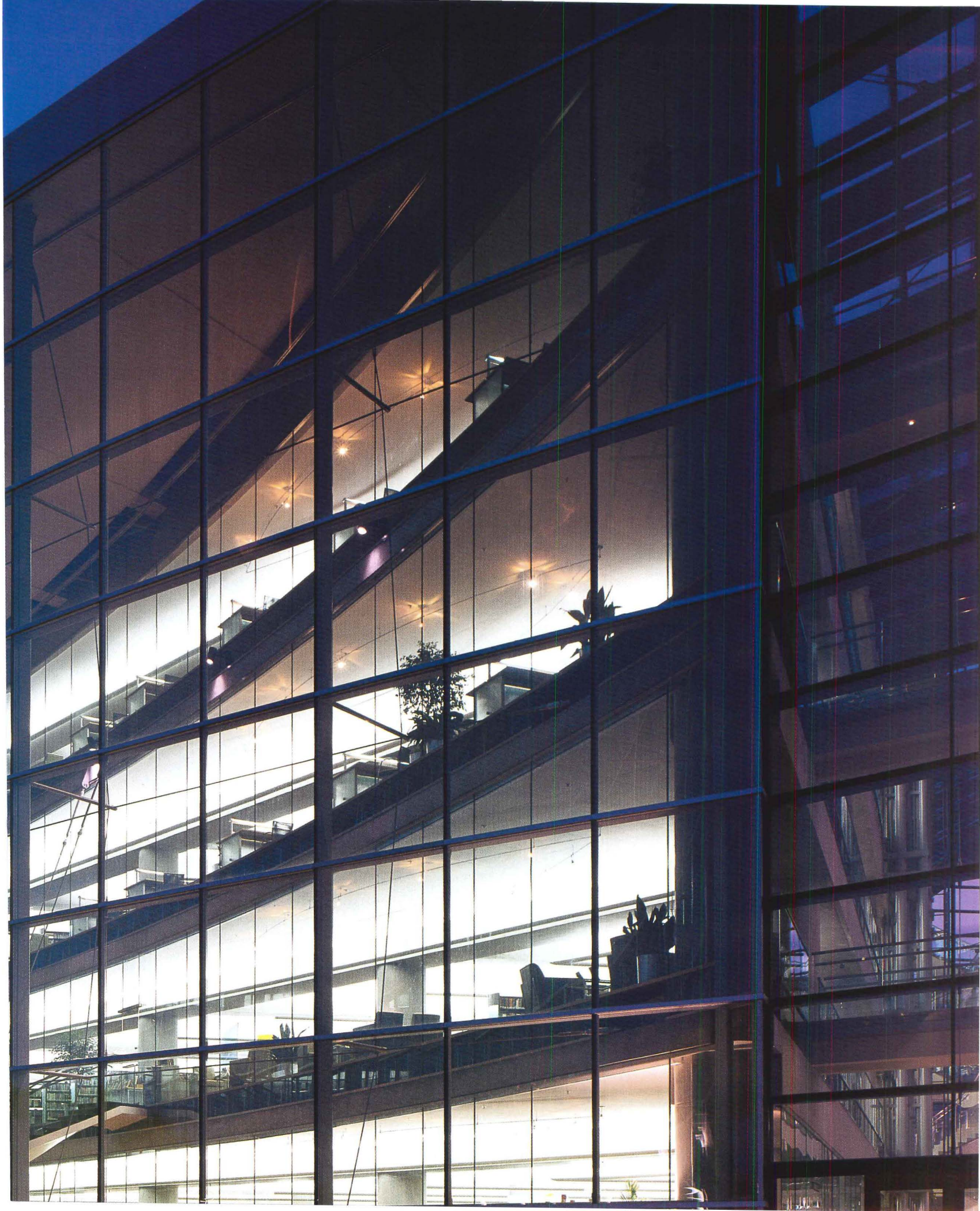
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White Temple, near Kyoto, Japan.
Architects: © Takashi Yamaguchi & Associates.

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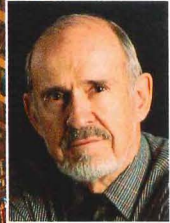
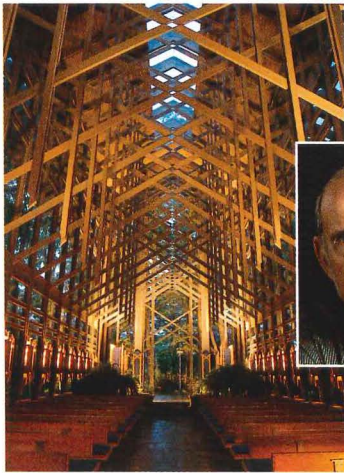


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Fay Jones Dies; architecture says goodbye to several notables



Thorncrown Chapel by Jones (right).

E. Fay Jones, FAIA, whose houses and chapels won architecture's highest honors and international acclaim, died August 30 at his home in Fayetteville, Arkansas. He was 83.

Jones was perhaps the best

known of the students of Frank Lloyd Wright. Relying on precepts traced through Wright to Louis Sullivan, Jones produced a large body of work tied to the concept of organic architecture. His designs, which typically use cedar, stone, glass, and creative lighting, can be seen from the Atlantic to the Pacific. Most are in the Arkansas Ozarks. He won numerous awards, including the Gold Medal of the American Institute of Architects in 1990.

His most famous building is Thorncrown Chapel in the small Ozarks town of Eureka Springs, Arkansas, which is nestled in the woods and supported by an intricate, rhythmical overhead cross-lattice system. In 2000, the AIA voted the chapel the fourth-best building of the

20th century. In 1991, the AIA ranked Jones among the 10 most influential architects of the time.

His career spanned more than half a century, beginning in 1953 with summers at Wright's Taliesin teaching compounds in Wisconsin and Arizona. A comment by Les Krantz in his book *American Architects* is typical of the praise Jones inspired: "His work expresses the natural process of 'organic unfolding, or blossoming,' as he puts it, and encourages us to explore and meditate upon man's relationship with nature."

Jones designed 135 residences and 15 chapels and churches in 20 states. Other projects included fountains, gardens, pavilions, and commercial buildings.

Euine Fay Jones was born January 31, 1921, at Pine Bluff, Arkansas, and he grew up in El

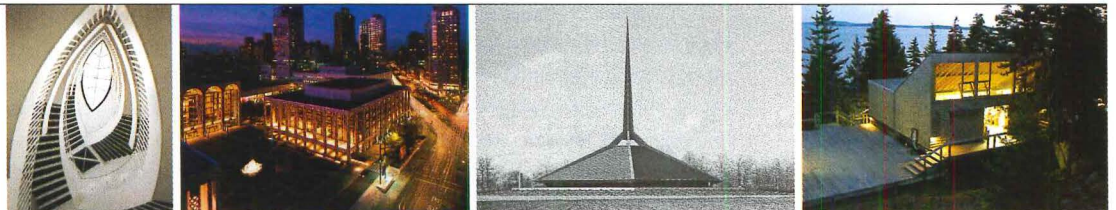
Dorado, Arkansas. He studied engineering at the University of Arkansas, then earned a degree in the university's architecture program in 1950. He received a master's degree in 1951 at Rice University in Houston.

Jones taught architecture at the University of Oklahoma from 1951 to 1953. He then taught for 35 years at the University of Arkansas, and became its architecture school's first dean.

Jones had little of the flamboyance of his mentor, Wright, practically refusing to utter the first-person pronoun when discussing his designs. But his views could be expressed firmly. He once told an interviewer, "When someone off the street with no architectural background walks into a structure and is captured by a sense of awe, that's architecture with a capital A." *Roy Reed*

In Memoriam

Josef Paul Kleihues, renowned German architect and educator, died on August 13. He was 71. He taught architecture and urban planning in Germany at the University of Dortmund and the Academy of Arts in Dusseldorf, and at New York's Cooper Union. Kleihues's theory of "poetic rationalism" sought to enliven the functionalist aesthetic of Modernism, and he helped champion Berlin's "critical reconstruction," filling in the gaps left by wartime destruction with buildings that followed scale but used new construction methods. A notable Berlin work was the elegant and historicist Hamburger Bahnhof rail station, now a museum. His first and only American commission was Chicago's Museum of Contemporary Art, which opened in 1996. *Tony Illia*



Chicago Museum of Contemporary Art; Avery Fisher Hall; Columbus's St. Peter's Lutheran Church; Barnes's Haystack.

Max Abramowitz, FAIA, architect of many of New York City's most iconic midcentury Modernist buildings, died September 12 at the age of 96. A partner of Wallace K. Harrison, Abramowitz designed the Philharmonic Hall, later renamed Avery Fisher Hall, which opened in 1962 as part of Lincoln Center. With Harrison, he also designed the last Rockefeller Center skyscrapers, including the Time-Life and McGraw-Hill buildings. Harrison and Abramowitz oversaw the United Nations project in New York from

1945 to 1952. **John E. Czarnecki J. Irwin Miller**, who helped transform Columbus, Indiana, into a modern design capitol, died on August 16. He was 95. Miller led the Cummins Engine Company to prominence, and in 1954 he started a foundation to subsidize architecture in Columbus. It has since paid \$13.7 million in design fees for 42 projects, including an I.M. Pei library, a Kevin Roche post office, and a Cesar Pelli shopping center. Columbus now ranks with New York and Chicago as a U.S. center for

design innovation. *T.I.*

Edward Larrabee Barnes, FAIA, the New York architect known for his clear, original designs, died on September 21. He was 89. His 1962 Haystack Mountain School of Crafts on Deer Island, Maine, a villagelike collection of simple shapes that broke from Modernism's increasingly sculptural forms, won the AIA's 25-Year Award in 1994. His firm won the 1980 AIA Firm Award and designed the I.B.M. headquarters in New York, Dallas Art Museum, and Walker Art Museum in Minneapolis. *S.L.*

PHOTOGRAPHY: COURTESY THORNCROWN CHAPEL (TOP); UNIVERSITY OF ARKANSAS (TOP INSET); CHICAGO MUSEUM OF CONTEMPORARY ART (BOTTOM LEFT); LINCOLN CENTER FOR THE PERFORMING ARTS/AVI MB (BOTTOM CENTER LEFT); © CORBIS (BOTTOM CENTER RIGHT); COURTESY HAYSTACK MOUNTAIN SCHOOL OF CRAFTS (BOTTOM FAR RIGHT)

Record News

OFF THE RECORD

The Institute of Classical Architecture & Classical America is opening a new national headquarters office at 20 West 44th Street in Manhattan.

G. Holmes Perkins, founder of the Graduate School of Fine Arts at the University of Pennsylvania, died on August 25.

The National Parks Service is accepting proposals for a **Flight 93 Memorial**, to honor those who died in the plane crash in Shanksville, Pa., on 9/11.

New York-based **Asymptote**, founded by Hani Rashid and Lise Anne Couture, has received the fourth Austrian Frederick Kiesler Prize for Architecture and the Arts, a biannual award.

London's **Victoria and Albert Museum** (V&A) and the Royal Institute of British Architects (RIBA) have announced they are joining forces to open a new Architecture Gallery at the museum in November 2004.

Finalists for London's **Stirling Prize** include 30 St. Mary Axe by Foster and Partners, the Imperial War Museum North by Studio Daniel Libeskind, the Kunsthhaus Graz by Peter Cook and Colin Fournier, the Phoenix Initiative by MacCormac Jamieson Prichard, the Spire of Dublin by Ian Ritchie and Associates, and the Business Academy of Bexley by Foster and Partners.

Architect **Peter Eisenman, FAIA**, received the Venice Biennale's Golden Lion for Lifetime Achievement Award at a ceremony that took place on September 10.

Stantec, an Edmonton, Canada-based engineering firm, is acquiring Dunlop Architects, one of the Canada's top design firms.

New York-based **Gruzen Samton Architects** is opening a new office in Newark, New Jersey.

Documenting recovery, one day at a time

Six months after the fall of the World Trade Center towers, a documentary filmmaker began filming time-lapse movies of the site from 35-millimeter cameras placed atop buildings around the area. There are now six of them, each shooting one frame every 5 minutes. When they have been filming for 10 years, the length of the

Ron Howard.

The six cameras are contained in specially designed boxes that protect them from the weather and from tampering. One sits at ground level, directed at the site across the cemetery at St. Paul's Chapel. Another camera is located in the American Express building, which was damaged when the towers fell. The floor where the camera sits was undergoing renovations when it was installed. Whitaker notes, "Tom Lappin, our director of photography, installed the camera when the floor was an open-air platform in the sky. When he

site provides an interactive timeline, interviews with important figures in the rebuilding process, and information about the architecture, urban planning, and engineering that is going into the rebuilding.

The site also contains a history of the World Trade Center, but according to Joan Ockman, the site's architecture editor, history is not the real intent of the program. "The 'Rebuild' portion of the site is a behind-the-scenes lens to the ongoing process, not the past," she says, referring to one of the site's four main sections.

For example, under the heading "Architecture," the site introduces the WTC team, and includes entries on SOM, Michael Arad, Santiago Calatrava, the master plan, 7 World Trade Center, the Freedom Tower, and other individual projects. The interview section began recently with a talk with Kevin Rampe, the president of the Lower Manhattan Development Corporation.

"I don't think the lay public or the architectural community has even been allowed into a building project this closely and on this scale," says Ockman. "I'm trained as an architect, but even for me, becoming this aware of every minute of the development has been quite a revelation."

Kevin Lerner



Project Rebirth uses time-lapse photography to capture the rebuilding of the World Trade Center. The site went from a hole (top left) to a construction zone (bottom right).

project, the resulting images will be compiled into a 20-minute film.

The project is called Project Rebirth, and the documentary filmmaker behind it is Jim Whitaker, who is also the president of Imagine Entertainment, the film production company started by Brian Grazer and

returned to check the camera, he had trouble finding the closet amid all the finished office space."

In September, Project Rebirth launched its own Web site, www.projectrebirth.org, which is a project in its own right in several ways. In addition to information about the film, the

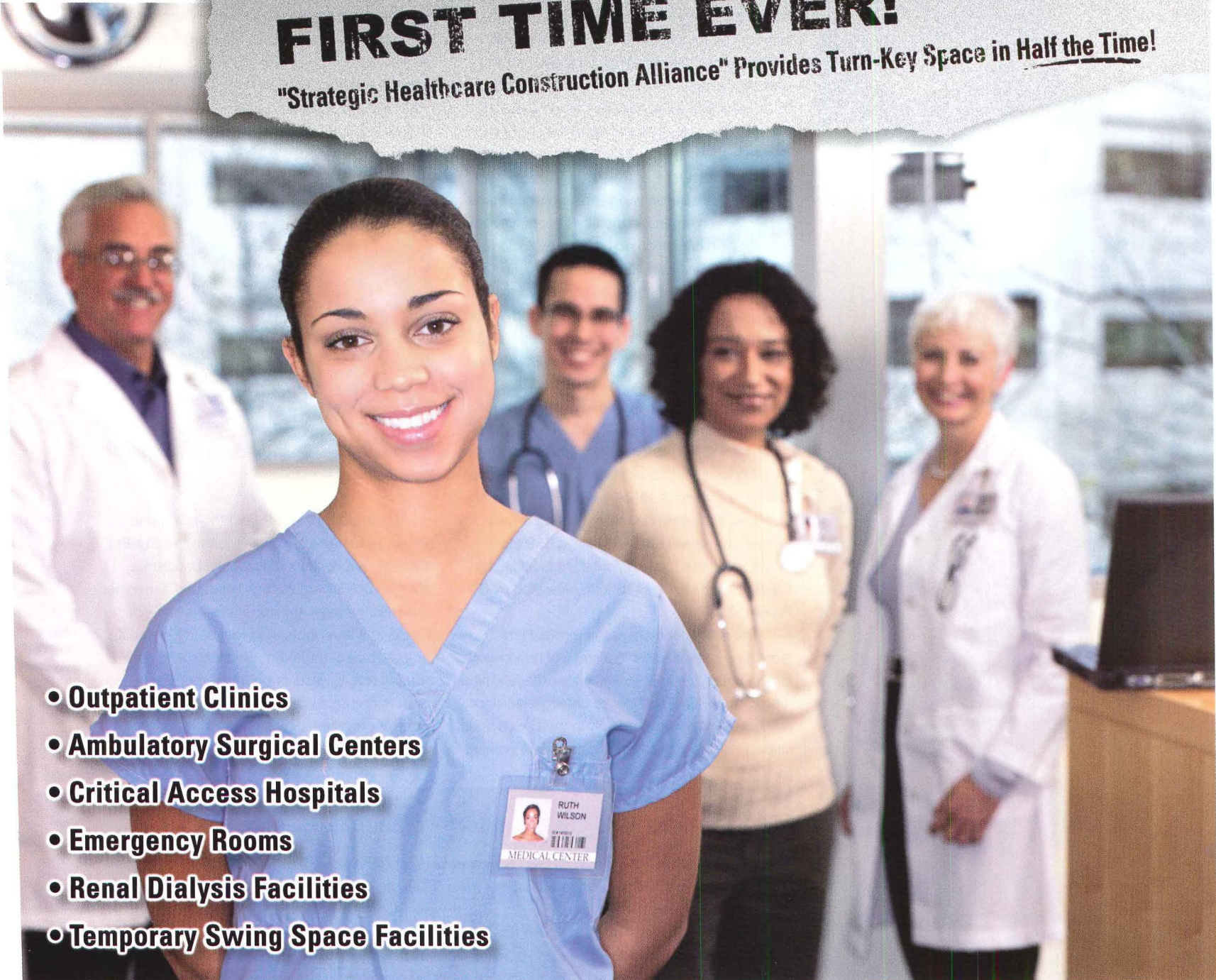
Massachusetts school: Design committee or competition?

The Boston suburb of Newton is wrestling with how to choose an architect for its new \$100 million Newton North High School: either open the project to a design competition or stick with the city's existing system, under which the mayor chooses from a shortlist of firms culled by a designer-selection committee. A group led by local architect Anatol Zuckerman is pushing for a design competition open to all Massachusetts-registered architects, arguing that it would yield a more creative design and save money. Separately, the Newton Board of Aldermen is considering an ordinance to mandate a design competition for projects valued at more than \$90 million. If the city opts against a competition, advocates will aim for a referendum in November, according to Zuckerman. The vast majority of public school architects in the U.S. are chosen through selection committees, according to Jim Dyck, chair of the AIA Committee on Architecture for Education. "I think there's an economic case to be made for competitions," he says. "Given the tiny percentage of first costs, what you spend to get the best person to do the job has a significant effect on the life of the building." Newton director of communications Jeremy Solomon says a design competition might not tap an architect familiar with the community or allow for adequate citizen input, but added that the mayor was "committed to keeping our lines of communication open." The school is expected to be complete by the end of 2008, says Solomon. *Ted Bowen*

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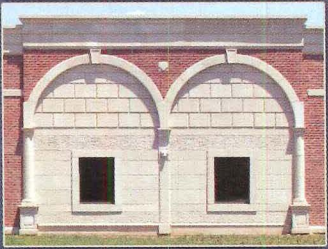
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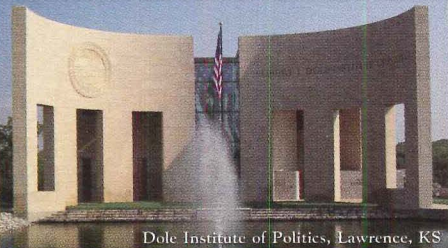
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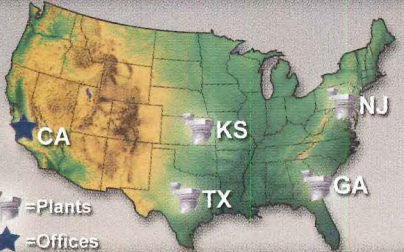



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Record News

Libeskind, Hadid, Isozaki designing towers in a growing Milan

At the beginning of August, the city of Milan announced the selection of an international architectural "dream team" to redevelop the soon-to-be-abandoned exhibition fairgrounds in the city. The team includes Daniel Libeskind, Zaha Hadid, and Arata Isozaki, each of whom will design a skyscraper on the plot. They are joined by Italian architect Pier Paolo Maggiora, of Turin.

The story began two years ago when Fiera Milano, which organizes the city's seemingly limitless rotation of fashion and design exhibitions, announced that it would relocate the exhibitions outside of the city, to an area under design by Massimiliano Fuksas. To assuage criticism that it was abandoning the city, Fiera promised that it would also redevelop the old fairgrounds. Instead, with the blessing of the city, it has sold the space for \$608 million to an insurance consortium under the banner of City Life. The City Life proposal, with a master plan by Libeskind, will encompass about 15 city blocks. Initial plans call for significant green space surrounding three skyscrapers, each designed by a different architect. Isozaki's tower will be the tallest at 689 feet, dwarfing Milan's (and Italy's) tallest building, the concrete Pirelli tower (415 feet), designed by Gio Ponti in 1967.

The redevelopment of the former Fiera grounds is just the latest in a string of new projects getting under way in Milan, which is experiencing a renewal in building confidence unparalleled since political scandals wracked Italy in the 1980s and all but halted large-scale real estate development.

Besides Fuksas's new, \$910 million Fiera fairgrounds, to be completed in April 2005, a master plan by Cesar Pelli for a "city of fashion" was just approved. In April, Pei Cobb Freed and Partners, with Italian Paolo Caputo, was selected to build a new seat for the Lombardy regional government. The project will include a 525-foot skyscraper.



The proposed Milan towers.

Milan's city boosters laud the fairground project as bringing a global vision to the city. But not everyone concurs. Says Giulio Barazzetta, principal of SBG Architetti in Milan and a member of the Ordine degli Architetti della Provincia di Milano (the local architect's league), "It's global for global sake: three-star architects who are working side-by-side, but not together. Each tower is fine as a work of architecture, but in terms of providing a space that works for the city, I don't think it does that." *Paul Bennett*

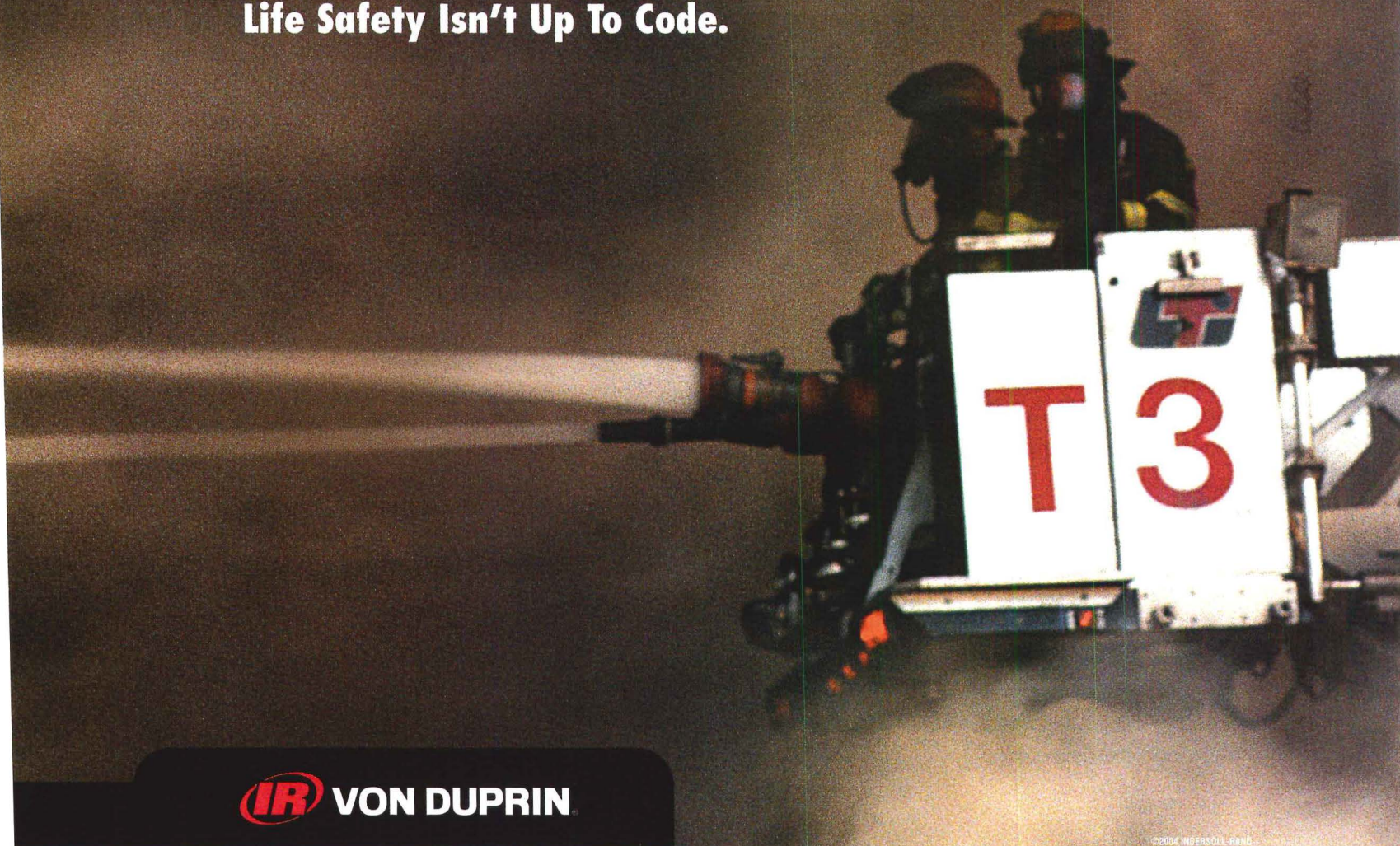
Decker resigns as chief curator of National Building Museum

Howard Decker has left his post as chief curator at the National Building Museum in Washington, D.C. The museum abruptly announced Decker's resignation in early September; his final day was September 3.

Museum director Chase Rynd, who has been with the museum for about a year, says he encouraged the resignation because he wants to replace the chief curator role with a format in which various curators report directly to him. "The position is not necessary right now," says Rynd. The resignation, notes Rynd, is part of museumwide changes to restructure management and encourage growth. The museum's board passed an ambitious new strategic plan this summer. Rynd says that the museum will now begin a search for an experienced curator specializing in architecture and design.

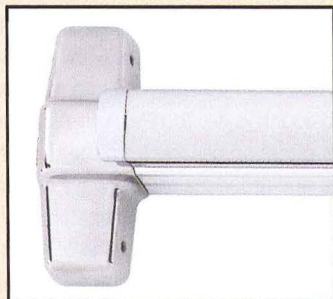
While he acknowledged that the move came quickly, Decker professed no hard feelings, pointing to Rynd's and the museum's desire to move in a new direction. "This gives them an opportunity to reallocate resources at the museum," he says. Decker had been chief curator for the past four years, arranging about 40 exhibitions and publishing five books. Prior to joining the museum, he was a founding principal at DLK Architecture in Chicago. Now, he says, he hopes to "catch my breath and see what challenges lay ahead." The new path will likely be in the design field, he adds. *Sam Lubell*

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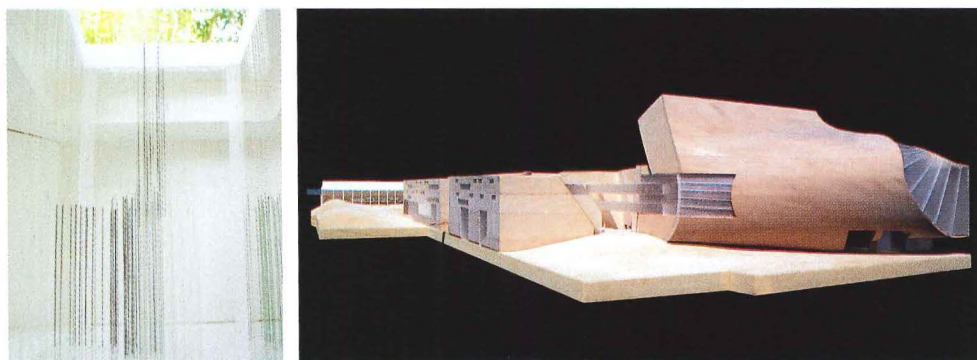
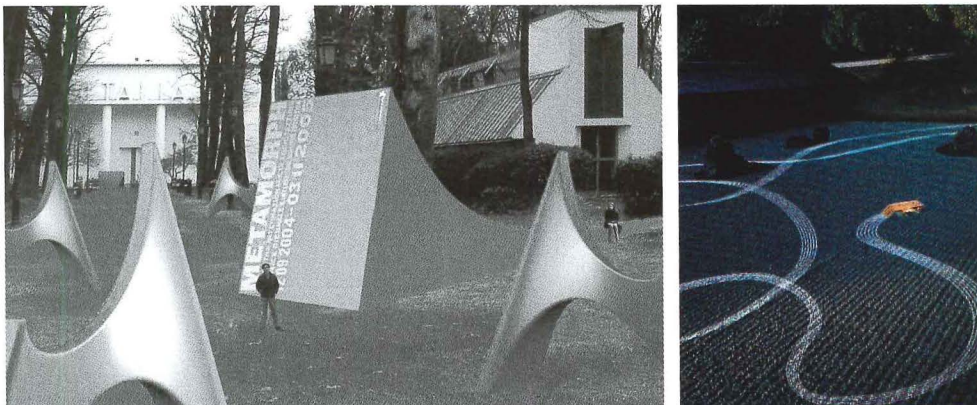
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Record News



Reality catches up with technology at the Venice Biennale

More than 80 years ago, in his book *Alpine Architecture*, Bruno Taut proposed buildings inspired by the crystalline structure of mountains, while Russian Constructivists sought to escape the tug of gravity. Those dreams are beginning to take concrete form in *Metamorph*, the title Kurt W. Forster gave to the exhibition of revolutionary buildings and projects he assembled in Venice as the centerpiece of this year's Architecture Biennale. Forster has chosen a specific future: a world of dynamic complexity, fusing figure and ground, and creating or responding to topography. New York firm Asymptote has installed the models on boatlike whiteboard platforms, their ends tilted up at different angles along the Corderia, the basilicalike space in the Arsenale. Texts, plans, and pictures are displayed on vertical panels to either side. Here, in a space that evokes past glories, a brave new world is taking shape.

It's hard not to be stirred by the energy and originality of the best of these projects, though most are displayed as sculptural objects, unrelated to the context. Other exhibitions—there are more than a dozen national pavilions—seek to overcome this limitation by emphasizing the urban or natural setting. Beyond the Corderia, in the basin of the Arsenale, is a floating pavilion that shows how cities around the world are reinventing their waterfronts,

switching from industry to leisure, from shipping to housing. A major exhibition in the Italian Pavilion explores some of the best new concert halls—notably Plot's project for Stavanger in Norway, where two auditoriums bracket an amphitheater that flows organically out of their walls.

More than a dozen national pavilions expand on the core exhibitions. In the U.S. Pavilion, six emerging firms have each explored the potential of a common building type, from the highway interchange to the shopping center. The Dutch provide a historic overview of how their land has been transformed into a fusion of city and countryside. *Too Perfect: Nine New Denmarks* offers an escape from the trap of good taste and proposes radical ways of rebranding the country—one of which is to ship fresh water from Greenland to Africa. One of the more delightful surprises is an exhibition from Estonia of creative rural outhouses, one of which is shaped like a horse, with its tail serving as handrail to the access ramp. The Biennale remains on view through November 7.

Michael Webb

Projects for the Biennale by (clockwise, from top left) Asymptote, Kengo Kuma & Michitaka Hirose Niwa, Eric Owen Moss, and Predock_Frane.

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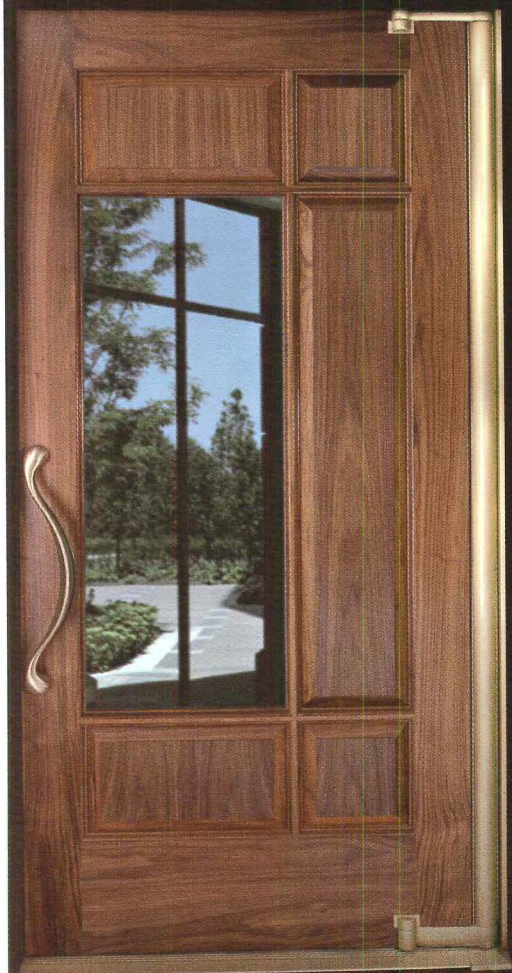
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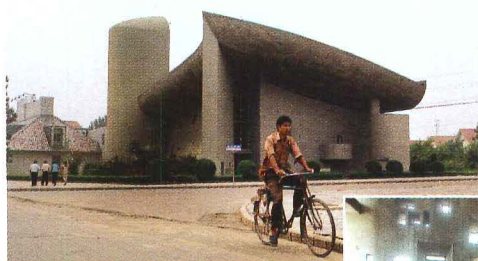
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Record News

Chinese “architectural village” remakes masterpieces



A remake of Le Corbusier's Ronchamp houses squatters.



They like to copy things in China. Walk down the streets in any city and there are fake things everywhere: DVDs, Prada bags, Nike shoes, and even a Greek temple every so often. In Zhengzhou, the dusty capital of China's interior Henan province, one can run across Le Corbusier's Notre Dame du Haut chapel. The original stands in Ronchamp, a small town in eastern France. Somehow, an exact replica found its way here.

The reconstructed chapel, which is empty inside, forms part of a street of reproductions of notable works in Western architecture. Termed an “architectural village,” the thoroughfare lies within a special economic zone of Zhengzhou. The zone's coordination committee commissioned the street about 10 years ago in the hope that it would be a tourist attraction for the large, but largely anonymous, city. The church—built by the Zhengzhou Institute of Planning and Design—has been standing in obscurity for most of the past decade.

The majority of the replica buildings here lie idle, though a few now serve as theme hotels. The poorly reconstructed structures reflect a particular emphasis on Italian, French, and Japanese architecture. A miniature of the Campanile at Venice's Piazza San Marco (pictured, center) and a distorted version of the Acropolis's Erechtheion, for example, neighbor Zhengzhou's Ronchamp. Surrounding the “architectural village” are Stalinist apartment and office blocks, creating a juxtaposition that is both lively and risible. “Most of the street is deserted, and there is no one in

charge of it now,” says an official at the coordination committee of Zhengzhou's Special Economic Zone, who refused to give her name. “They've forgotten about it.”

A small group of migrant workers live inside Zhengzhou's Ronchamp, explains Lao Wang, one of the building's residents. Wang is currently looking

for work. Aside from serving as the backdrop for a CCTV (Chinese State TV) documentary, the building has received scant coverage in the Chinese press. But the whole scheme has been a subject of controversy on Chinese architecture

Web sites, one of the few venues here where dissatisfaction is voiced. “Only the church is worth looking at,” assures a Chinese architecture blogger, who visited the site while it was under construction.

For those familiar with architecture in today's China, the idea of a fake Corbusier alongside a reproduced Piazza San Marco is not all that surprising. The combination of China's building craze, rapid economic growth, and a national obsession with being of “international standard” is producing an architecture with very familiar results. In Beijing, Shanghai, and Shenzhen, for example,

large-scale residential subdivisions are springing up that look eerily like suburban Florida; these subdivisions often have names like Yosemite, MOMA, or DBC (Dreaming Bright California). So, it was only a matter of time before a street like Zengzhou's appeared in the trenches of China's relentless development. Thanks to poor building materials and planning, these structures often fall into disrepair and become blights on the built landscape. But that doesn't seem to be stopping the wave of developments that



Is this Venice? Vegas? No, China.

mimic Western architectural styles, both traditional and modern, which often replace traditional vernacular Chinese buildings.

Many wonder whether copying foreign architecture is wise. In an architectural Web discussion, one aficionado used an old Chinese proverb to caution his countrymen: “If you try to draw a tiger, you will get a dog,” he warns.

Daniel Elsea

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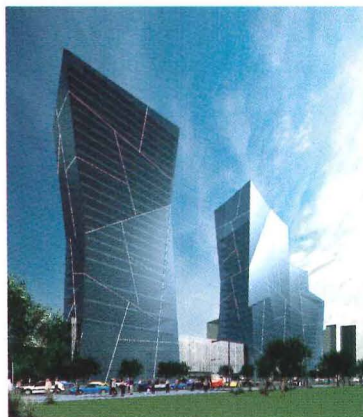
LAB Architecture to design \$1 billion Beijing project

Lab Architecture Studio of Melbourne, Australia, will design a new, 1.8-million-square-foot office, apartment, and retail development at the western edge of Beijing's Central Business District. The new development, called SOHO Shang Du, will be adjacent to Beijing's famed Landau Department Store, and will cost an estimated \$1 billion.

SOHO Shang Du will comprise three towers built on neighboring city blocks. Two taller towers are on one block, while a smaller one is across an adjacent busy city street. The two elements are connected to the rest of the complex by a large, oblique bridge. The main towers will house loftlike office space and will be held together at their base by a commercial arcade; the third tower will be a retail Galleria. The proposed design has a faceted image, with forms inspired by crystals. Peter Davidson, a director at Lab and SOHO Shang Du's lead architect, explained that the building's design was influenced by the radicals of fractal geometry. "Architecture is about geometry and life," says

Davidson, who hopes SOHO Shang Du will be a new urban icon for Beijing.

The project's developers are SOHO China, led by husband-and-wife team Shiyi Pan and Xin Zhang, whose projects include work by Shigeru Ban and Hong Kong's Rocco Yim. Their most recent development, Jianwai SOHO [RECORD, March 2004, page 90], has become one of Beijing's most sought-after properties. Pan and Zhang—who have emerged as patrons of high-quality architecture in an environment where developers often pay scant attention to building design—are working with Zaha Hadid to develop a large residential subdivision in Beijing.



Towers inspired by fractal geometry.

"My mission is to find beautiful things and bring them to China," says Zhang, who was initially drawn to Lab because of its design of Federation Square in Melbourne, which is also clad in labyrinthine geometric facades.

Despite a recent downturn in China's overheated construction market, construction is set to begin in October and end by late 2006. D.E.

Will number crunching fix architecture's diversity crisis?

Ted Landsmark, AIA, chair of the AIA Diversity Committee, is—like most in architecture—miffed at why long-employed methods aimed to address the profession's notoriously low minority and female participation, such as internships and scholarships, have had so little impact over the past 30 years.

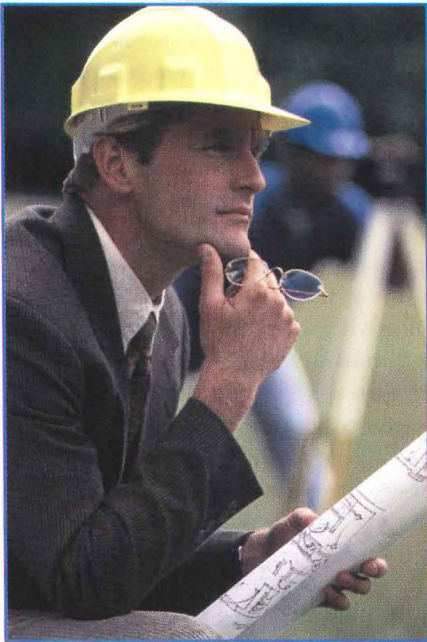
"Before we pour significant resources into these programs, we have to know what works," says Landsmark. "Otherwise, we're just promoting programs that make us feel good, without effectively changing the demographics of the profession. We can do better than that."

To help turn things around, Landsmark contributed to a resolution, ratified by the AIA board in September, to spur diversity in the profession. The resolution takes a new approach: number crunching. The AIA (with the help of a to-be-hired consultant) plans to obtain extensive figures about minority and female access to the profession, helping paint a clearer picture of why so few of these groups enter and stay in architecture, and laying the groundwork for future changes.

"We need to find out what these problems are," says Elisabeth Casqueiro, managing director of Alliances at the AIA, who points to low salaries and long-standing biases as reasons for architecture's diversity gap, but concedes causes for the issue remain largely a mystery. Outside of cursory data obtained from its Firm Survey—which shows 1 percent minority membership and 11 percent female membership—the AIA's data on minority representation is "disconnected and incomplete," says Landsmark.

The consulting firm will also carry out focus groups, explore models in other professions, such as law and medicine, and compare data with architectural organizations such as the American Collegiate Schools of Architecture (ACSA), the National Collegiate Accreditation Board (NCARB), the National Accreditation Board (NAB), and the National Organization of Minority Architects (NOMA). S.L.

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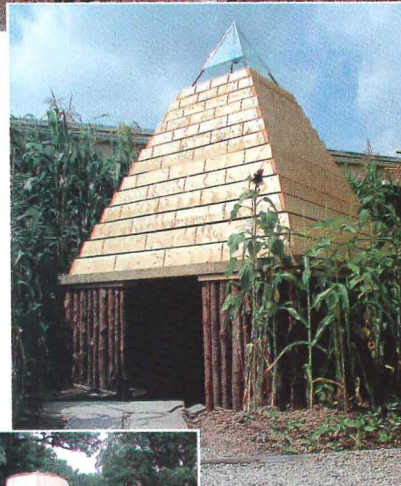
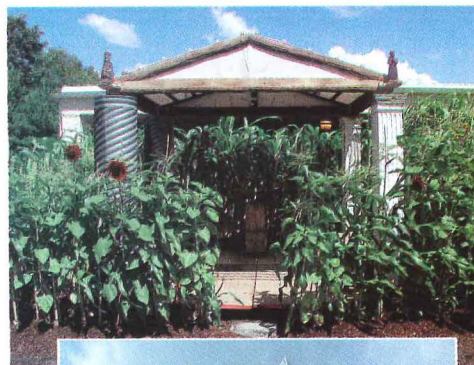
Writers serve as muses for architects' projects in Princeton

Architects are not known for their writing expertise. But no one said they couldn't be inspired by great writing. Such is the impetus for a Princeton, New Jersey, project called "Writers Block," in which architects and builders have created small pavilions dedicated to the works and spirit of some of the many writing luminaries in the area, including Joyce Carol Oates, Cornel West, Peter Benchley, and Fran Lebowitz.

Established by Princeton-based landscaper and self-professed "pseudo academic" Peter Soderman, with local architect Kevin Wilkes, AIA, the project includes 10 architect/builder teams and 10 pavilions, or "follies," as the two call them. What is a folly? "A garden element somewhere between whimsical and impractical," explains Wilkes.

The projects—unrefined works in a very refined town—are settled in a 15,000-square-foot, bucolic landscape of newly planted corn stalks, sunflowers, and zinnias on what used to be a temporary parking lot. The goal, says Soderman, is to find new forms, provide places for contemplation, and encourage writers to give readings inside. Few have made the trip so far, except Oates, who visited her folly in August. It is a jumble of spruce beams with a tin roof created by local architect Gil Rampy, who was moved by Oates's direct insights into life's often "unvarnished" difficulties, and her claim that she is inspired by running, when "imagination is set into motion."

The teams, which immersed themselves in the subjects' books (or lectures, in Rampy's case) for ideas, designed the structures in May, began building in late June, and finished in late August. The results are an interesting experiment in design inspiration, says Wilkes. "Most of us architects are interested in novelty, and it becomes harder and harder to find," he notes. His own folly, built for Princeton Civil War historian James McPherson, includes two fluted tuscan wood columns from a home Wilkes renovated, representing the patrician South, and two columns made of galvanized metal culvert pipes from an old solar house, representing the industrial North. The two opposing sides support the structure, to signify unity. Wilkes, who was raised in New York by a mother from Georgia, says the experience helped him begin to come to terms with his upbringing, in which North and South played often competing roles. "I was able to look at the war from a new perspective and let some personal issues sit in the structure rather than in my mind," he says.



A folly for James McPherson by Kevin Wilkes, AIA (top); a pyramid-shaped folly for Paul Krugman, by Gil Rampy (center); and one for Cornel West, by Jon Nastasi and Sharon McHugh (left).

Other follies include a cedar and oak pyramid with a glass eye on top, mimicking the back of a dollar bill, for left-leaning writer Paul Krugman, and a parabolic form for writer Cornel West by architects John Nastasi and Sharon McHugh, made of synthetic, expanded honeycomb material. The flexible structure's geometry both distorts and projects peoples' images, which Nastasi points out "is all about breaking through barriers," like those of race.

When the program ends in late October, the follies will be auctioned off to help recoup construction costs, and the space will be used by a local developer to build condominiums. But Soderman hopes to begin a tradition. "Hopefully, this will become part of this town's culture." He adds, "In a culture of homogeneity, people are clinging to real, concrete things." S.L.

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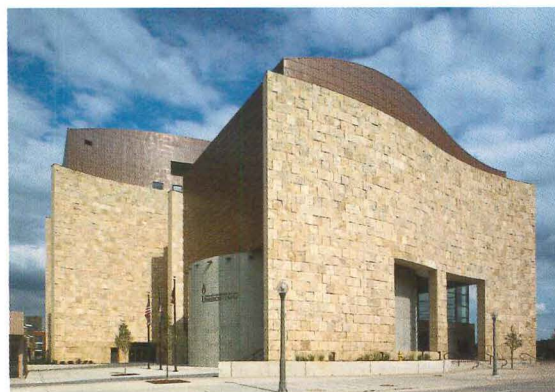


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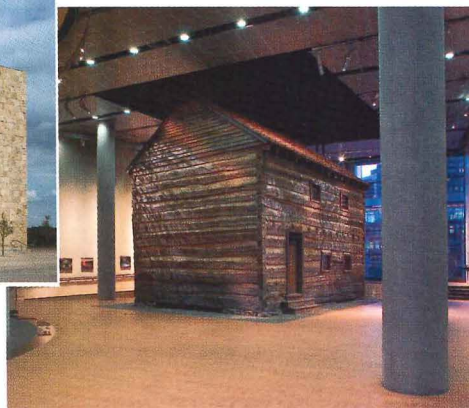
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Record News



The Underground Railroad Freedom Center features undulating forms (left) and a reconstructed slave pen (below).



Freedom Center headlines growing list of African-American cultural centers

The story of the culture and history of African-Americans is now finding a home in more than 25 museum buildings either newly constructed or planned in the United States. The most recent is the centerpiece of Cincinnati's billion-dollar waterfront redevelopment, the National Underground Railroad Freedom Center, which opened in late August on the shores of the Ohio River—the symbolic dividing point between the South and the North. Designed by Blackburn Architects of Indianapolis, lead architects with design consultants BOORA Architects of Portland, Oregon, the \$110 million museum powerfully portrays the slaves' struggles for freedom.

Clad mainly in copper and travertine, the museum is composed of three sculptural pavilions housing a lobby and welcome hall; a large, multiuse theater; and exhibition space. The museum also

includes smaller theaters, educational facilities, a research institute, and public roof garden. Curving pathways between the pavilions symbolize the slaves' circuitous routes to the north. Inside, a reconstructed wooden slave pen serves as a focal point in the exhibition area.

The design team was selected in the late 1990s. According to his widow, Alpha Blackburn, who is now the C.E.O. of Blackburn Architects, the design reflects the vision of the firm's founder, Walter Blackburn, an African-American architect who died in 2000. "We knew this building could transform people's opinions," she told RECORD.

Other upcoming African-American cultural buildings include the California African American Museum in Los Angeles (Huff + Gooden Architects), the Martin Luther King, Jr. National Memorial in Washington, D.C. (ROMA Design Group), the African-American Cultural Center of Greater Pittsburgh (Ai), and the National Slavery Museum in Fredericksburg, Virginia (Pei Partnership).

The Freelon Group of Raleigh-Durham, North Carolina, is designing several such projects to be completed in 2005, including the Museum of the African Diaspora in San Francisco, the Reginald F. Lewis Museum of Maryland African-American History and Culture, in Baltimore (with RTKL), and the International Civil Rights Center & Museum in Greensboro, North Carolina. The increased number of such projects is in part due to "the baby boom generation looking back and contemplating our history and wanting to see that expressed in tangible ways," notes firm president Philip Freelon, FAIA. J.E.C.



Ai's African-American Cultural Center of Greater Pittsburgh (above), and Freelon's Museum of the African Diaspora in San Francisco (right).



IMAGES: COURTESY BLACKBURN ARCHITECTS (TOP TWO); AI ARCHITECTS (LOWER LEFT); THE FREELON GROUP (BOTTOM)



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Record News On the Boards: Museums

University of Michigan museum turned inside out

On the heels of its recently completed Contemporary Art Museum in St. Louis, Oregon-based Allied Works Architecture has designed a \$35 million, 57,000-square-foot addition and renovation to the University of Michigan Museum of Art.

A critical factor in the design, which will double the museum's current space, is its connection to the university and to Ann Arbor, Michigan, says museum director James Steward. "One of our central goals has been to turn the museum inside out, to make it dramatically more accessible to our students and the broad community," says Steward. Allied Works' design achieves this interplay through strategically placed transparent facades that allow for controlled views in and out of gallery spaces and public areas. At night, light emanating from the glass will make



the addition a recognizable beacon. "The expansion will serve as a catalyst for new activities and experiences," says firm principal Brad Cloepfil, AIA.

The materials and scale will be sympathetic to the Beaux-Arts Alumni Memorial Hall, the museum's existing facility, slated to receive systems upgrades and restoration. The proposal will add gallery space, public gathering areas, an auditorium, and an outdoor gallery, among other elements. Ground will be broken in 2006, with an expected completion date of 2008. *Audrey Beaton*

San Diego Railway baggage building to become new galleries

San Diego's historic central train station will soon house an interesting new element: a museum. New York-based Gluckman Mayner is converting the Mission Style station's former baggage building into the San Diego Museum of Contemporary Art.

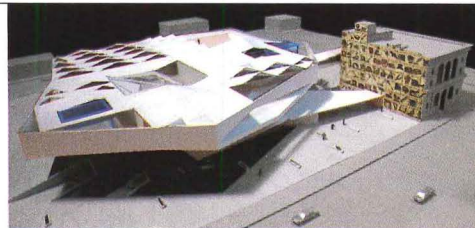
The 13,000-square-foot building will contain large-scale installations, a black-box area, and a small-scale exhibition space, says principal Richard Gluckman, FAIA. Its rooms, he adds, will be highly flexible and will sit under lofty, 38-foot-high ceilings lit dramatically with clerestory windows.

The station's former Railway Express

Agency, located adjacent to the museum, will be the site of a roughly 15,000-square-foot support space housing offices, meeting rooms, and

educational facilities. The red building, called the "caboose" for its location and color, will maintain a contemporary style, thanks in part to simple geometries and vertical bands of channeled glass.

Local firm Heritage Architecture and Planning is performing the seismic upgrading of the baggage building's shell and its exterior renovation. The product is scheduled for a 2006 completion. *S.L.*



Maltzan's "floating spaceship" design for Fresno

Michael Maltzan's design for a Fresno Metropolitan Museum addition has received board approval. The octagonal-shaped, 75,820-square-foot building, which resembles a low, hovering spaceship, will be perched 30 feet

above the ground atop a grid of two-way steel trusses and a network of scaffolds.

The design cantilevers nearly 100 feet over a plaza and has extensive glazing, three double-height floors, and an articulated wave roofline that features an outdoor auditorium. It will house 30,000 square feet of art and science galleries, a media center, learning labs, offices, an observatory, café, and store.

The museum is now housed in a 71-year-old Beaux-Arts building in the city's arts district that is the former home of *The Fresno Bee* newspaper. After capital fund-raising is complete, renovation of the Bee Building is scheduled to finish in 2005, followed by the new building in fall of 2007. *T.I.*

IMAGES: COURTESY ALLIED WORKS (TOP); GLUCKMAN MAYNER ARCHITECTS (CENTER); FRESNO METROPOLITAN MUSEUM (BOTTOM)

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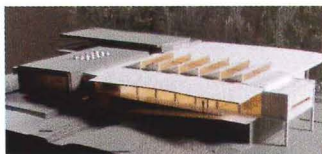
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Record News On the Boards: Museums

Rose Museum addition focuses on transparency

Shigeru Ban, in association with Dean Maltz Architect, recently won the competition for the expansion of the Rose Art Museum at Brandeis University. The pair approached the project through the concepts of flexibility, transparency, access, and views. "The nature of museums has changed," explains Maltz. "They are kind of like warehouses for art."

Conceptually, Ban and Maltz bring a new image to the museum but maintain its initial concept. The new space is constructed of a structural-glass facade on top of the existing brick wall. White pan-



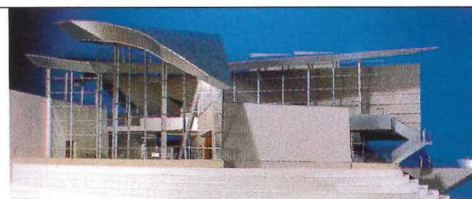
els of either metal or stucco mark the west and north elevations. The design adds a new administrative space, shipping and receiving area, art storage and workroom, workshop, and mechanical room, all planned for ease of movement and flexibility.

The architects capitalized on an opportunity to convert the upper level of the museum into a reception hall, as originally envisioned by Max Abramovitz (see News, page 31) in 1961, by relocating and combining existing galleries with the new spaces. The expected completion date is 2007. *Audrey Beaton*

Hunter addition emulates its natural surroundings

Construction began in march on a \$19.5 million expansion and renovation project for the Hunter Museum of American Art in Chattanooga, Tennessee. Los Angeles-based Randall Stout Architects designed the 29,000-square-foot project. Their plan attempts to bring cohesiveness to the 1904 historic mansion and 1970s East and North Wing additions that make up the existing museum.

The addition adds a Temporary Exhibitions gallery, an atriumlike lobby, auditorium, café, gift shop, and outdoor sculpture terrace. Visually, the addition reflects its surroundings. It is clad in oxidized zinc panels that resemble the 80-foot limestone bluff on which it sits, and its curving



stainless-steel roof emulates the neighboring Tennessee River and nearby rock formations.

"I want the addition to connect with the heart and soul of Chattanooga," says Stout. "The building forms are, from every city vantage point, reaching out to welcome you." The new addition will eventually be connected to Chattanooga's downtown by a pedestrian bridge, also designed by Randall Stout Architects with Derthick Henley Wilkerson Architects. The addition will be completed in late spring of 2005. *A.B.*

Graves's Minneapolis addition: classic or cliché?

The design for Michael Graves & Associates' classically inspired addition for the Minneapolis Institute of Arts is raising debate among local architects. With the 117,000-square-foot expansion, the



firm will attempt to add its signature to the original 1915 McKim, Mead and White Neoclassical structure of light gray granite, and to Kenzo Tange's white brick Minimalist facade of 1974.

Graves's design, charged with bringing the museum into the 21st century, tries to respect both styles. Recessed stone panels continue the rhythm of the Classical windows, while the new wing sleekly wraps the end of the building in a Modern pavilion.

Inside, a solid dome caps a three-story atrium, echoing the museum's original oculus. Causing debate is the light buff color of the German Jurastone chosen by the Graves team and associate

architects RSP. Robert Jacobsen, the museum's associate director for exhibitions and collections, asserts, "Michael's design for us is a happy kind of marriage, a reinterpretation of a glorious space." However, a group of Minnesota Modernists insist it appears Postmodern. One architect comments, "The addition is simply another big box of museum space pushed awkwardly against the existing structure." *Bette Hammel*

IMAGES: COURTESY SHIGERU BAN ARCHITECTS (TOP); HUNTER MUSEUM OF AMERICAN ART (CENTER); MICHAEL GRAVES AND PARTNERS (BOTTOM)

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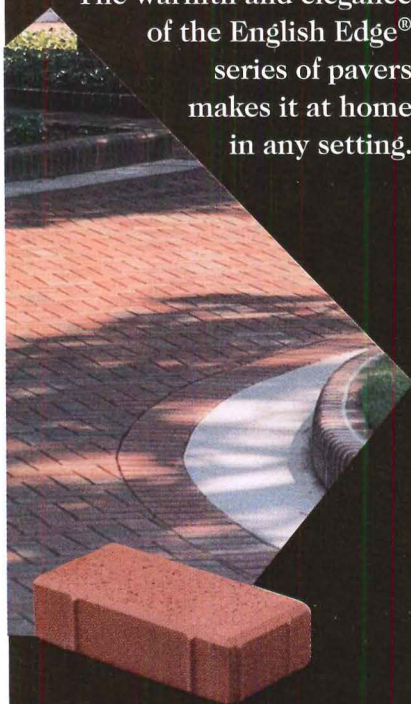
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News Briefs



An artwork encourages visitors to take the mike.

Freedom of information Just in time for election season, architect Laurie Hawkinson has collaborated with several New York artists to create a public artwork dedicated to free speech called *Freedom of Expression National Monument*. The red steel structure, whose design was inspired by Russian Constructivism, includes a massive megaphone, through which people can shout their opinions on world matters, or anything else. The work will sit in Foley Square in Manhattan through November 13. The first version of the sculpture stood in the Battery Park City Landfill in 1984. S.L.

Steve Jobs v. historic preservationists

Apple and Pixar chief executive Steve Jobs is seeking permission to demolish his 1926 Spanish Colonial Revival home, which he deems an "abomination." In a public meeting, Jobs said that he planned to build a smaller home on the wooded site that would be better suited for his family.

But local preservationists are resisting the request, claiming that the Daniel C. Jackling estate qualifies for the California Register of Historic Resources and thus merits protection under the California Environmental Quality Act. The 17,000-square-foot, 14-bedroom mansion was designed for Jackling by George Washington Smith, a Santa Barbara architect who is considered the leading exponent of the Hispanic and Mediterranean revival of the 1920s. In 1924, Smith was commended by the Architectural League of New York for achieving "an effect that is at once original, personal, and distinctly American." Allison Millionis

Brooklyn Navy Yard to get overhaul

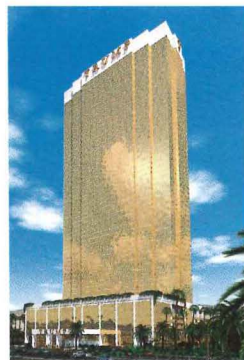
The Brooklyn Navy Yard, a former shipbuilding yard turned industrial park in New York City, will

undergo a massive revitalization in the next few years to help stimulate the city's fading manufacturing economy. In addition to adding new facilities and infrastructure, the Brooklyn Navy Yard Development Corporation (BNYDC) plans to create as much as 500,000 square feet of additional space to the existing 300-acre swath of land that is now home to a robust industrial community. The BNYDC would not disclose what it plans to spend on the project, but the city has said it is kicking in \$71 million from its capital budget to improve infrastructure such as roads, sewage, and electricity over the next five years. Christina Rogers

Nest magazine closes

Nest, the interior design world's most eccentric magazine, is to cease publication after its fall 2004 issue. During its seven-year run, *Nest* won two National Magazine awards and had a cultlike readership. Architect Robert Venturi, novelist John Banville, photographer Nan Goldin, and other prominent arts figures contributed. But despite *Nest's* striking design and its high-profile talent, the magazine reportedly was a money-hemorrhaging formula. It primarily owed its survival to the financial resources of its visionary publisher and editor in chief, Joseph Holtzman. However, despite the magazine's relatively poor commercial prospects, *Nest's* literary editor, Matthew Stadler, insists that the real reason for ending publication is that

the magazine has run its course. "We were interested in stopping before it became boring," says Stadler. "It wasn't the lack of profit that killed it, it was an aesthetic choice. Joseph Holtzman funded the magazine all the way through, and if it continued to be interesting, he would have happily funded it forever." Alex Ulam



Trump's planned tower.

Trump's newest tower New York developer Donald Trump recently unveiled plans for a new, \$300 million, 64-story hotel/apartment tower on the Las Vegas Strip. Designed by local firm Bergman, Walls & Associates, the 645-foot glass tower will be the city's tallest building. The 1.6-million-square-foot building will include more than 1,000 hotel-style units ranging from 636 square feet to 1,057 square feet, plus such luxury amenities as a spa, salon, and restaurants. The new "Trump Tower Las Vegas" is expected to break ground by early next year. Tony Illia

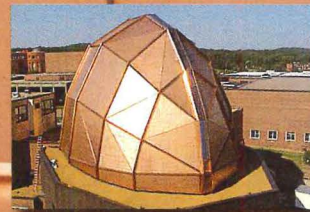
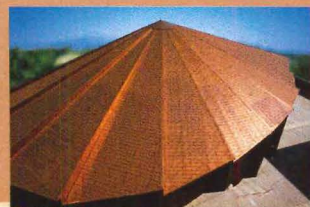
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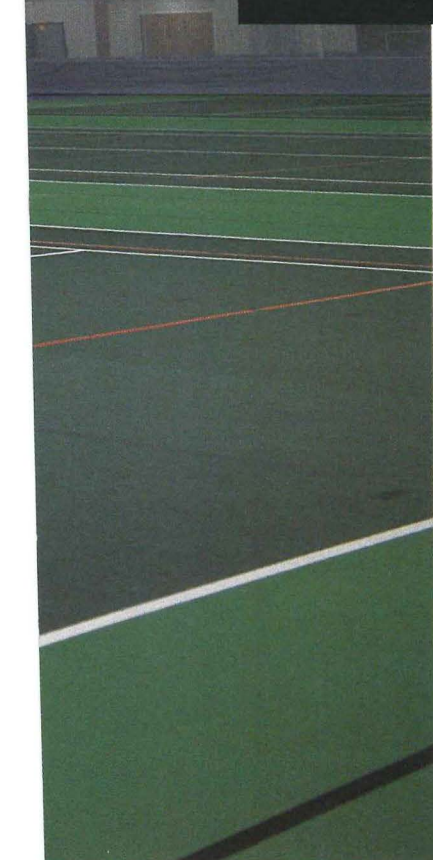


Vulcraft 176-foot longspan double-pitched steel joists with arched bottom chords and 3" acoustical deck span the Carleton College Recreation Center.

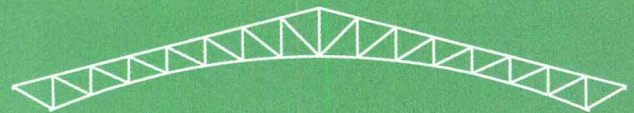


The Carleton College Recreation Center in Northfield, Minnesota is a sports lover's place. The large column-free fieldhouse includes a six-lane running track; enclosing four courts for basketball, volleyball or tennis. Batting cages, long jump and pole vault pits, and a putting green round out the athletic offering.

Flexibility was a key component of this project. To accommodate the indoor track, the fieldhouse had to be uninhibited by support columns, braced frames and shear walls, or other obstructions. Aesthetics and economy were also major considerations.



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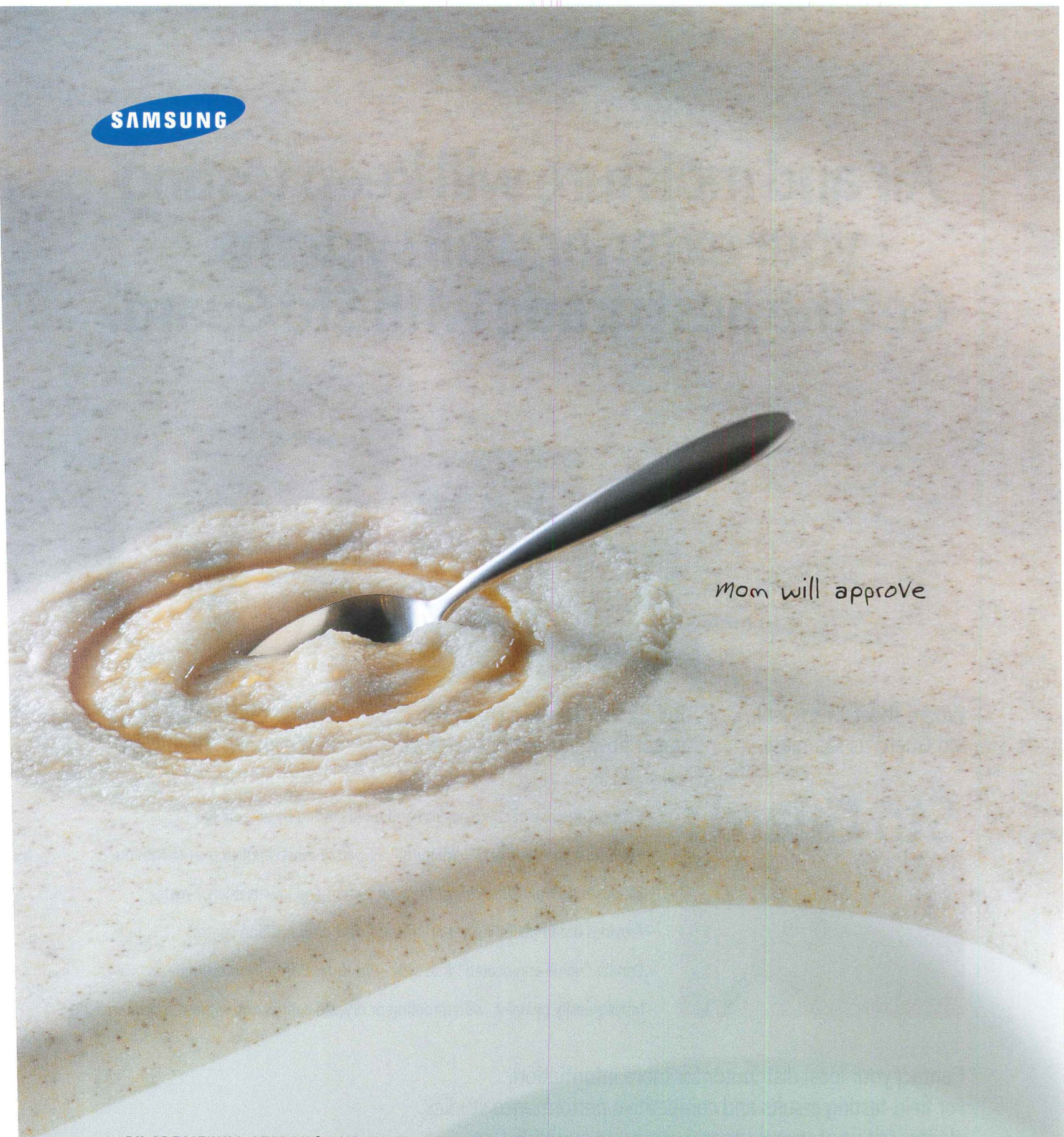
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Vapor Permeable	<i>F</i>
Ease of Proper Application	<i>D</i>
Cost	<i>F</i>

Exterior Wall Performance
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Dates & Events

New and Upcoming Exhibitions

Bob the Roman: Heroic Antiquity & The Architecture of Robert Adam New York City

October 1–December 4, 2004

An exhibition originated by the Sir John Sloane's Museum in London, it includes 70 drawings and focuses on the three years Robert Adam spent in Rome when he engaged both Charles-Louis Clersseu and Giovanni Battista Piranesi to teach him to draw. In the Gallery at the New York School of Interior Design. Call 212/472-1500 or visit www.nysid.edu.

Second Annual Architecture Month Fort Worth

October 2004

AIA Fort Worth will be educating, exploring, and celebrating architecture as art, not only with fellow architects, but with the broader community as well. Events will include exhibitions by local firms, competitions, lectures, and an architecture bicycle tour. Visit www.aiafortworth.org for further information.

Tactile Architecture 2004 Houston

November 4–7, 2004

As a special feature at the 30th annual International Quilt Festival, this annual juried exhibition challenges today's quilt makers to continue creating original works based on architectural themes and inspirations. At the George R. Brown Convention Center. Call 713/781-6864 or visit www.quilts.com.

Nine Museums by Yoshio Taniguchi New York City

November 20, 2004–

January 31, 2005

This opening exhibition will present the new Museum of Modern Art in the context of the other extraordinary art museums that Taniguchi has designed over the past 25 years and will address four integral themes in the architect's work: materials, proportion, natural light, and movement. At the Museum of Modern Art in Manhattan. For information, call 212/708-9400 or visit www.moma.org.

Huyghe + Corbusier: Harvard Project Cambridge, Mass.

November 18, 2004–April 17, 2005

Pierre Huyghe celebrates the Carpenter Center in conjunction with the 40th anniversary of Le Corbusier's only North American building. The multimedia project will explore Le Corbusier's vision for the Carpenter Center, including multiple components that respond to the design history and its relationship to Harvard. At the Carpenter Center. Call 617/495-9400 or visit www.artmuseums.harvard.edu.

Van Gogh to Mondrian: Modern Art from the Kroeller-Mueller Museum Atlanta

Opening October 19, 2004

An exhibition including architectural designs and models of the Kroeller-Mueller Museum produced by Hendrick Petrus Berlage, Henry van de Velde, and Ludwig Mies van der Rohe, as well as furniture commissioned by the Kroeller-Muellers from Berlage. At the High Museum of Art. Call 404/733-4400 or visit www.high.org.

Modern House Day Tour & Symposium New Canaan, Conn.

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Washington: Symbol and City Washington, D.C.

Opening October 9, 2004

The exhibition will examine the nation's capital from its earliest city plans and sometimes haphazard development to the origins of its distinctive monuments and the emergence of vibrant neighborhoods beyond the National Mall. Featuring large-scale touchable models of five of the capital city's architectural icons—the White House, the Capitol, the Washington Monument, and the Lincoln and Jefferson Memorials—the exhibition will also display maps, drawings, artifacts, videos, and photographs. At the National Building Museum. Call 202/272-2448 or visit www.nbm.org.

Ongoing Exhibitions

Building Revolution: Architecture in Cuba, 1959–1969 New York City

Through October 30, 2004

This exhibition features 200 archival images documenting over 70 architectural projects built by the Cuban government, reflecting specific social initiatives adopted immediately following the revolution. At Storefront for Architecture. Call 212/431-5795 or visit www.storefrontnews.org.

Mid-Century Modern Revisited: Design 1943–1953 Houston

Through November 28, 2004

This exhibition offers viewers a unique and wide-ranging introduction to one of the most creative and influential decades in the history of contemporary design. At

Brazos Projects. For further information, visit www.brazosprojects.org.

Corvettes to Cuisinarts: Six Decades of Diversity in Industrial Design Brooklyn

Through October 15, 2004

A celebration of the work of creative visionaries and designers who over the past 60 years studied and honed their craft at Pratt Institute. In the Rubelle and Norman Schafner Gallery. For information, visit www.pratt.edu/exhibition.

Sergio Rodrigues: Sultan in the Studio New York City

Through November 17, 2004

Rodrigues is revered in his native Brazil as the country's first truly Modern designer and author of an authentically "Brazilian" style of furniture and objects. The first major American retrospective of his work will be on view at R 20th Century. Call 212/343-7979 or visit www.r20thcentury.com.

Civic Spirit: Changing the Course of Federal Design New York City

Through November 10, 2004

An exhibition showcasing 19 projects, both completed and in progress, that have been commenced over the past decade under the Design Excellence Program of the United States General Services Administration. At the Center for Architecture. Visit www.aiany.org/civicspirit.

Symphony in Steel: Ironworkers and the Walt Disney Concert Hall Washington, D.C.

Through November 28, 2004

An extensive series of photographs that simultaneously convey the danger of the ironworkers' jobs

Dates & Events

while revealing the nascent sculptural form of Gehry's newest masterwork. At the National Building Museum. Call 202/272-2448 or visit www.nbm.org.

Lebbeus Woods: Experimental Architecture Pittsburgh

Through January 16, 2005

One of the most innovative experimental architects working today, Lebbeus Woods combines an extraordinary mastery of drawing with a penetrating analysis of architectural and urban form, and social and political conditions, that is nourished by his wide knowledge of fields ranging from philosophy to cybernetics. At the Heinz Architectural Center. Call 412/622-3131 or visit www.cmoa.org.

Lectures, Conferences and Symposia

41st IMCL Conference Call for Papers Carmel, Calif.

February 17-21, 2005

*Deadline for submission of proposals:
October 15, 2004*

Those interested in presenting a paper or exhibiting work relevant to the International Making Cities Livable Conference (IMCL), "True Urbanism and the Healthy City," should send a 200-250 word abstract to the program committee chair. For more information, visit www.livablecities.org.

Dialogues with Design Legends: Jens Risom and Jeffrey Bennett New York City

October 12, 2004

Carl Magnusson, executive vice president of design for Knoll, will moderate a dialogue between Danish-born Jens Risom, who has developed furniture product lines for Knoll and Jensen as well as his own Jens Risom Design, and Jeffrey Bennett, whose multifaceted design firm, studio B, specializes in interior architecture, transportation architecture, furniture, fashion accessories, household products, design communication, and strategic planning. At MAKOR, the 92nd Street Y West Side location. Call 212/415-5500 or visit www.92Y.org.

Dialogues with Design Legends: Hamilton Smith and LOT-EK New York City

October 26, 2004

Rosalie Genevro, moderator, is the director of the Architecture League. Hamilton Smith is responsible for many of the public buildings designed by Marcel Breuer's firm, including the Whitney Museum of American Art. LOT-EK, founded by Ada Tolla and Giuseppe Lignano, focuses on residential and commercial projects. At MAKOR, the 92nd Street Y West Side location. Call 212/415-5500 or visit www.92Y.org.

Dialogues with Design Legends— Textiles: In Search of the Red Thread New York City

November 9, 2004

With Sheila Hicks, textile designer; Hiroko Takeda, specializing in hand-woven designs; and moderated by Cara McCarty, curator of Decorative Arts and Design at the Saint Louis Art Museum. This series pairs major and emerging figures in the design field. At MAKOR, the 92nd Street Y West Side location. Call 212/415-5500 or visit www.92Y.org.

Construction Watch Tour: Elevation 314 Washington, D.C.

October 9, 2004

Architect/owner Russell Katz will lead a tour of this environmentally friendly apartment and retail building in northwest Washington. The sustainable design features of the building include a green roof and geothermal heating and cooling. At the National Building Museum. Call 202/272-2448 or visit www.nbm.org.

Hariri & Hariri – Architecture Washington, D.C.

October 12, 2004

The New York-based firm explores today's dynamic, speed-oriented, globally connected, contemporary culture. Toward this goal, the firm has developed a revolutionary material called "The Digital-Block" to be used in the construction of transparent walls capable of transmitting and receiving information. Principal Gisue Hariri will discuss the firm's innovative work, which includes Sagaponac House-#43, and a proposal for the Museum of the 21st Century. At the National Building Museum. Call 202/272-2448 or visit www.nbm.org.

Toward the Sustainable City: Developing Green Urbanism Washington, D.C.

October 14, 2004

Timothy Beatley of the University of Virginia studies ways to create more sustainable urban environ-

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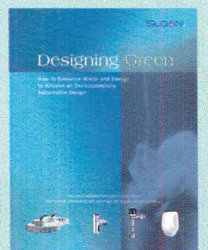
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Dates & Events

ments. He will highlight creative strategies by which both American and European cities and towns have fundamentally reduced their ecological "footprints" while becoming more livable and equitable places. At the National Building Museum. Call 202/272-2448 or visit www.nbm.org.

Jones & Jones Washington, D.C.

October 14, 2004

The design firm Jones & Jones Architects and Landscape Architects received the 2003 Firm Award from the American Society of Landscape Architects. Founding principals Grant Jones, FASLA, and Ilze Jones, AIA, FASLA, will discuss the Seattle-based firm's culturally and ecologically integrated work, including the Cedar River Watershed Education Center in Cedar Falls, Washington, and the Smithsonian's National Museum of the American Indian. At the National Building Museum. Call 202/272-2448 or visit www.nbm.org.

Is Washington Ripe for Smart Growth? Washington, D.C.

October 25, 2004

Bruce Katz, founding director of the Center on Urban Metropolitan Policy at the Brookings Institute, will discuss the Washington metropolitan area and the unique challenges it poses to incorporate Smart Growth principles effectively. He will be joined by Christopher G. Miller, president of the Piedmont Environmental Council, who will discuss how these challenges relate to other metropolitan areas in the United States. At the National Building Museum. Call 202/272-2448 or visit www.nbm.org.

Reflections on Cultural Diplomacy at Home and Abroad Washington, D.C.

October 26, 2004

Author and photographer Elizabeth Gill Lui documented America's embassies around the world in her book *Building Diplomacy: The Architecture of American Embassies*. She will share her convictions about the role that cultural diplomacy can play in the shaping of America's image in the world. At the National Building Museum. Call 202/272-2448 or visit www.nbm.org.

Berlin: Architektur, Politik und Kultur Houston

October 6, 13, 20, and 27, 2004

This series of lectures will examine Berlin's archi-

tectural evolution. It will identify important episodes in Berlin's consequential and troubled history to show how architecture and urbanism have altered the city in response to major historical movements, and how the resulting buildings and their architects changed the course of architectural history. At Brown Auditorium, The Museum of Fine Arts. Call 713/348-4876 or visit www.rda.rice.edu.

Ron Witte
San Francisco

October 18, 2004

Ron Witte is associate professor of architecture at the Harvard Graduate School of Design. He will speak in Timken Lecture Hall, California College of the Arts. Call 415/703-9562.

Reinhold Martin
San Francisco

October 25, 2004

Reinhold Martin, assistant professor of architecture at Columbia University, will lecture in Timken Lecture Hall, California College of the Arts. Call 415/703-9562.

Dialogues on Design
New York City

October 6, 13, 20, and 27, 2004

A series with distinguished design journalist, Louis Oliver Gropp, in which he interviews leading interior designers and architects on their views on design and the design process. Jeffrey Billhuber, Rose Tarlow, and Cathy Whitlock, as well as architect Hugh Hardy, FAIA, founding partner of Hardy Holzman Pfeiffer Associates, are all scheduled at the New York School of Interior Design. Call 212/472-1500 or visit www.nysid.edu.

National Bridge Conference
Atlanta

October 17-20, 2004

A conference running concurrently with the Precast/Prestressed Concrete Institute's (PCI) Annual Convention/Exhibition, "Bridges for Life" will recognize industry leaders and innovators of the past 50 years, while focusing on the future, the industry's next 50 years. At the Hyatt Regency. Call 312/786-0300 or visit www.pci.org.

Of Its Time: Changing Attitudes in Historic Preservation

New York City

October 16, 2004

The one-day conference will address issues challenging historic preservation, architectural practice, and urban planning through exploration of design theory. Hosted by the Institute of Classical Architecture & Classical America. Call 212/924-9686 or visit www.classicist.org.

Architecture Week: Celebrating Design Collaboration
New York City

October 2-10, 2004

Events include a conference bringing together architects from around the world to speak about the challenges and opportunities of international collaboration, the AIA New York Chapter Design Awards Program Exhibition, a Design-In Marathon, Play By Design for K-12 students, and the Heritage Ball. For more details, visit www.aia.org/international and www.aiany.org/architectureweek/design.html.

The Interdisciplinary Health-Care Enterprise: Weaving Design Through the Fabric of Research, Education, and Patient Care
Washington, D.C.

October 27-30, 2004

The Academy of Architecture for Health (AAH) annual fall conference will focus on the intersection of architecture with clinical care, medical education, and scientific research. At the Omni Shoreham Hotel. For more information, visit www.aia.org/ev_aah_fall04-conf.

METALCON International
Las Vegas

October 20-22, 2004

The annual conference and exhibition includes new product exhibits, a comprehensive educational program, and live-action demonstrations of the latest field techniques, as well as a session with an overview of the U.S. Green Building Council's LEED (Leadership in Energy and Environmental Design) Green Building Rating System. At the Las Vegas Convention Center. Call 800/537-7765 or visit www.metalcon.com.

The International Concrete Repair Institute 2004 Fall Convention

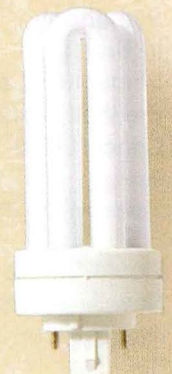
San Francisco

October 20-22, 2004

The theme of the convention is Structural Enhancements, and it will consist of technical presentations, committee meetings, tabletop exhibits, networking opportunities, and special

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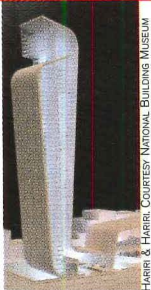
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NATIONAL BUILDING MUSEUM
AT NBM

Lectures

October 6
Diamond + Schmitt Architects
Jack Diamond, FRAIC, FAIA, principal of Diamond + Schmitt Architects



HARRI & HARRI, COURTESY NATIONAL BUILDING MUSEUM

October 12
Hariri & Hariri - Architecture
Gisue Hariri, principal of Hariri & Hariri - Architecture

October 14
Jones & Jones
Grants Jones, FASLA, and Ilze Jones, AIA, FASLA, founding principals of Jones & Jones Architects and Landscape Architects

October 18
Patkau Architects
John Patkau, FRAIC, partner in Patkau Architects

Exhibitions

Symphony in Steel: Ironworkers and the Walt Disney Concert Hall
through
November 28, 2004



LIQUID STONE. COURTESY OF LITEXCON. © GMBH

Liquid Stone: New Architecture in Concrete
through January 23, 2005

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Dates & Events

events. At the Hilton San Francisco. Visit www.icri.org for more information.

The SMACNA 61st Annual Convention Maui, Hawaii

October 24-28, 2004

The Sheet Metal and Air Conditioning Contractors' National Association is holding a wide variety of educational and self-development sessions presented by industry experts to provide solutions tailor-made to meet the technical and business management needs of sheet-metal and air-conditioning contractors. At the Grand Wailea Resort. Call 703/803-2998 or visit www.smacna.org.

The NFPA Fall Education Conference Miami Beach

November 14-17, 2004

The National Fire Protection Association conference will provide professional development opportunities for fire and life safety specialists. At the Fontainebleau Hilton. For further information, visit www.nfpa.org/meetings.

Solar Power 2004 Conference and Trade Show San Francisco

October 18-21, 2004

Solar Power 2004 will bring together top executives, utility representatives, policymakers, builders, contractors, engineers, and solar enthusiasts. At the Hyatt Regency San Francisco. Visit www.solarpower2004.com.

Architecture Exchange East Richmond

November 10-12, 2004

The region's largest building and design conference, featuring more than 60 educational sessions for architects, planners, engineers, interior designers, contractors, and landscape architects. Paul Goldberger, Pulitzer Prize-winning architecture critic and *New Yorker* staff writer, will present the keynote address. At the Greater Richmond Convention Center. Call 804/644-3041 or visit www.aiava.org.

Signature Urban Objects— Designing the Civic Identity Philadelphia

October 15-16, 2004

A conference on how the objects in the street have a vastly underutilized power to create place identity. Every trash bin, kiosk, and lamppost is

an opportunity to "brand" a locality. At the University of the Arts. Call 215/717-6120 or visit www.signatureurbanobjects.org.

Taliesin West: Building in Harmony With Nature Scottsdale, Ariz.

October 21-23, 2004

The Scottsdale site will host tours, presentations, and dinners honoring Frank Lloyd Wright's sensitivity to fragile lands. The conference will explore several of the design concepts that dominated Wright's 70-year career. For further information, call 480/627-5373 or visit www.franklloydwright.org.

CSI's 6th Annual Product Representative Academy Denver

October 27-29, 2004

The Construction Specifications Institute's 6th annual conference will be held in the Denver City Center Marriott. Call 800/689-2900 or visit www.csinet.org/prainfo.

Build Boston's 1st Annual Spring Residential Design Convention and Tradeshow Boston

April 6-7, 2005

This residential offspring of Build Boston will include two days of intense professional development opportunities and workshops for design and construction professionals, along with an exhibition hall filled with the latest building products and materials. At the Seaport World Trade Center. Call 800/544-1898 or visit www.architects.org.

The International Facility Management Association's (IFMA) World Workplace 2004

Salt Lake City

October 17-19, 2004

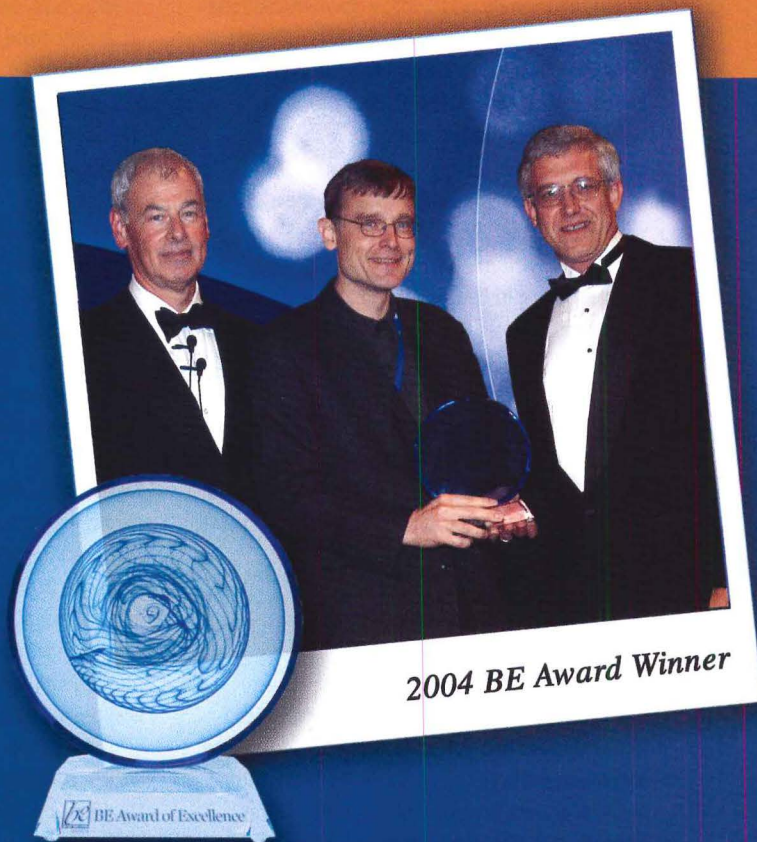
An Expo featuring products and services in the following areas: building products, carpeting, energy management, FM outsourcing, FM software and automation, furniture, maintenance and services, office environments, security, sustainability, and more. For further information, visit www.worldworkplace.org.

Competitions

2005 Rudy Bruner Award

Deadline: December 13, 2004

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Dates & Events

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Flight 93 National Memorial Design Competition

Deadline: January 2005

The response to the violent acts in the skies over Southwestern Pennsylvania on September 11, 2001, will be a National Memorial to the people who died in what has become known as the first civilian act of defense in the war on terrorism. The design competition welcomes all submissions of ideas that will commemorate the 40 heroes of Flight 93. For more information, visit www.flight93memorialproject.org.

McCormick Tribune Foundation Icon/Centerpiece Competition

December 17, 2004

Architects, designers, and artists are invited to participate in a juried competition to create a defining work of art to serve as the centerpiece of a new museum dedicated to First Amendment rights and corresponding responsibilities. For more information, visit www.mccormickmuseum.org.

INawards

Deadline: October 12, 2004

As an opportunity to introduce innovative new designs from the Pacific Northwest to an international audience of peers and trade professionals, the International Interior Design Association (IIDA) Northern Pacific Chapter welcomes architects, interior designers, and industrial designers to submit entries of interior spaces and interior products completed after January 2002. Call 206/762-6471 or visit www.iida-northernpacific.org.

20th Anniversary Architecture in Perspective Competition

Deadline: December 3, 2004

The American Society of Architectural Illustrators' international competition honors the finest works of architectural illustration, both hand and digital. Call 614/552-3729 or visit www.asai.org for submission guidelines.

Construction: 12th Annual NYC Design/Build Competition

Deadline: October 15, 2004

Teams of New York City architects, engineers, contractors, designers, and students of schools of architecture, engineering, and design are welcome to design and build structures made entirely of canned foods to benefit the Food Bank for New York City. Call 212/792-4666 or visit www.canstruction.org.

Knokke Casino Architectural Competition

Deadline: November 15, 2004

The competition is an open invitation to architects from around the world to engage in the creative design of unique architecture for a new casino. For more information, visit www.knokke-heist.be.

Rome Prize 2005

Deadline: November 1, 2004

The American Academy in Rome fellowships are awarded in several fields, including architecture, design, historic preservation and conservation, as well as landscape architecture. For further information, call 212/751-7200x47 or visit www.aarome.org.

2005 Barrier-Free America Award

Deadline: November 5, 2004

With this national award, the Paralyzed Veterans of America (PVA) honors an individual for his or her sensitivity to the importance of accessible design, as well as the difference they have made through a particular project in achieving a barrier-free environment. Submissions welcome from individuals working in architecture, landscape architecture, construction, engineering, facilities management, building development, and public education. Call 202/416-7644 or visit www.accessibledesign.org.

Ceramic Tiles of Italy Design Competition

Deadline: January 30, 2005

North American architects and interior designers are invited to submit residential, commercial, or institutional projects featuring Italian ceramic tile, completed between January 2000 and January 2005. Visit www.italiatile.com or www.italytile.com for details.

E-mail events and competitions information two months ahead of event or submission deadline to elisabeth_broome@mcgraw-hill.com.



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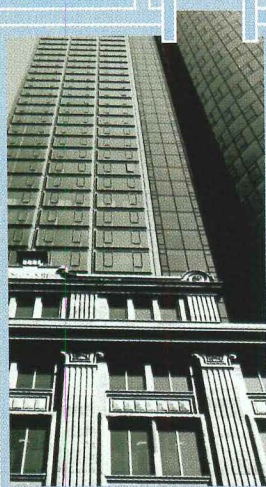
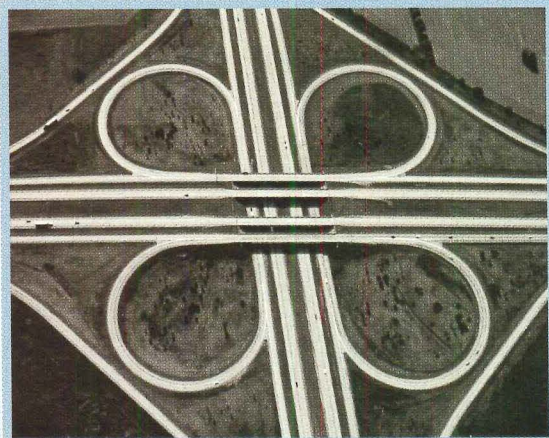
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FOR THE EMERGING ARCHITECT

DEPARTMENTS

A young firm in Montreal, NOMADE, is winning one large project after another. The partners have a multidisciplinary approach to designing architecture and are making a name for themselves through an intentional lack of formula or signature style. Find out more in **Design** and on our Web site. In **Work**, we examine the program New York Designs, which helps young designers gain a foothold in the business.

DESIGN

Integrating ideas in urban design

Although the three founding partners of Montreal-based NOMADE Architecture each received their degrees from the University of Montreal around the same time, it wasn't until working on cooperative projects while employed in different firms that Michel Lauzon, Martin Leblanc, and Jean Pelland (pictured, left to right) had the opportunity to meet. Leblanc explains, "After some discussion, we



realized that we had the same ideas of how architecture should be and where it should go." They saw the glaring

absence of a creative, multidisciplinary approach to the projects they were involved in. The trio also believes that their locale was a catalyst to opening their own firm. "One look at the architecture around Montreal, or lack thereof," states Pelland, "prompted us to create a firm that could differentiate itself from what was going on here." They founded NOMADE in 1999.

Based on their previous experience, each partner brings a specialized skill set to their work beyond basic architectural qualifications—Pelland, a knowledge of construction; Leblanc, expertise in technology; and Luzon, a background in project management and marketing. The anonymous moniker of the firm provides the first clue into NOMADE's driving force. Leblanc says, "Architecture should be a result of collective ideas. It should integrate the perspective of the client, the developers, the stockholders, and others who have a stake in the project." Many of NOMADE's large-scale projects, including Le Quartier des Spectacles—the entertainment district of Montreal—and the headquarters of Quebecor, incorporate the ideas of many outside of the architecture field as well as those within it, so it was decided that the firm's name should characterize a group where individual identity would not take precedence. "For us, it's more important to create an architecture relevant to each project rather than have a signature style," explains Lauzon.

Like many young firms, the three partners found themselves immersed in



Le Quartier des Spectacles, Montreal, Canada

The redesign of the entertainment district involves transforming vacant lots into urban, cultural, and economic elements—doubling the current residential units and creating parks, plazas, and retail spaces.



Quebecor Headquarters, Montreal, Canada

As the project and design architect on this renovation, NOMADE's task was to take the outdated building and create relevant architecture that accords with the media corporation's brand and the urban character of the area.



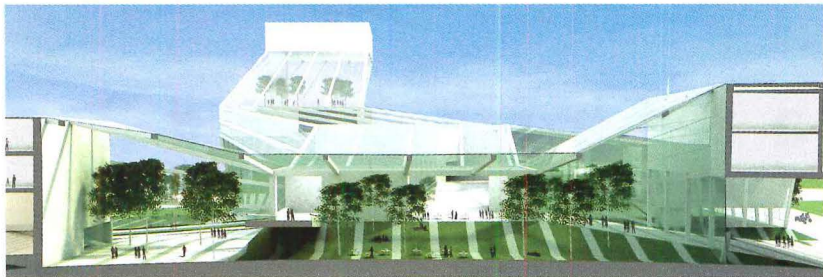
IMAGES: COURTESY NOMADE

archrecord.construction.com/archrecord2/

Canadian Museum for Human Rights, 2003

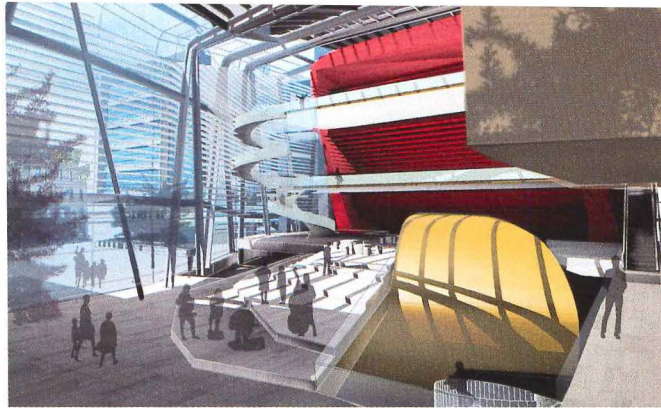
In this invited international competition, NOMADE teamed up with

SOM to design a new museum in Winnipeg, Manitoba. The program included exhibition halls, a training center, and a concert hall.



architectural competitions (more than 20 in the past five years) while working on smaller projects. They treat competitions as efforts of separate design studios, using them as an opportunity to envision large-scale projects not usually presented to fledgling firms, while also enabling them to collaborate with other architects. In a recent competition to design the Canadian Museum for Human Rights, they teamed up with SOM and were short-listed with higher-profile firms.

Perhaps not as common for other young architectural practices, the team's competition entries have garnered them new commissions, even when their design wasn't ultimately chosen as the winner. Upon seeing the firm's previous competition entries, the City of Montreal picked NOMADE for the enormous task of renovating the city's entertainment district. Recently, the partners were invited to China to partake in the first Architectural Biennial of



Montreal Cultural and Administrative Complex, 2003

The multiuse design competition required new space for the Montreal Symphony Orchestra,

the Montreal Conservatory of Dramatic Arts, the Conservatory of Music, and head offices for the Quebec government.

Beijing and to speak on the state of architecture in Canada. The firm has also been hired as the lead consultant for a multiuse residential project in China.

These architects admit they haven't built much—but instead of seeing that as a handicap, they use it to their advantage. "Without a doubt, experience is important, but sometimes it can be an obstacle to creativity. We're at a stage now where we're flexible in our approach, and potential clients come to us if they're searching for unique answers," states Lauzon. Judging from their recent commissions, they should be providing answers for years to come. *Randi Greenberg*

For more projects and competition entries by NOMADE, go to archrecord.construction.com/archrecord2/

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WORK

Space and cultivation for designers

Designers fresh out of school may have the drive to create, but chances are they lack business or marketing know-how. This lack of training has made it all but impossible for start-up design firms to begin their practice with a boom. However, with major contributions from New York State, HUD, and the Economic Development Administration totaling more than \$6 million dollars for a new program called New York Designs, such firms now have a greater chance for early success in an incredibly competitive market.

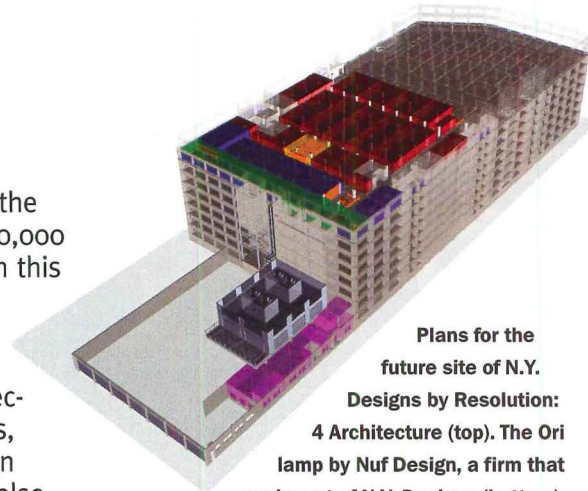
New York Designs is an "incubator" located on the Long Island City campus of City University of New York's LaGuardia Community College.

Currently, the test program is housed in a 4,000-square-foot unused loading dock of the International Design Center of New York warehouse, but it will soon

be moving to the eighth floor of the same building, with more than 40,000 square feet at its disposal. Within this space, several business-growth services tailored for designers will be available.

Natalia Arguello, creative director of New York Designs, explains, "We'll be able to house 20 design firms at reduced rents, but we'll also be helping nontenant designers. The current plans for our new space will include a fully equipped workshop with state-of-the-art prototype machinery, conference rooms, a design library, and a gallery."

New York Designs also addresses the need these burgeoning designers have for all-important business skills. Both business counseling and classes are offered, and the design community is responding. Class attendance, for sub-



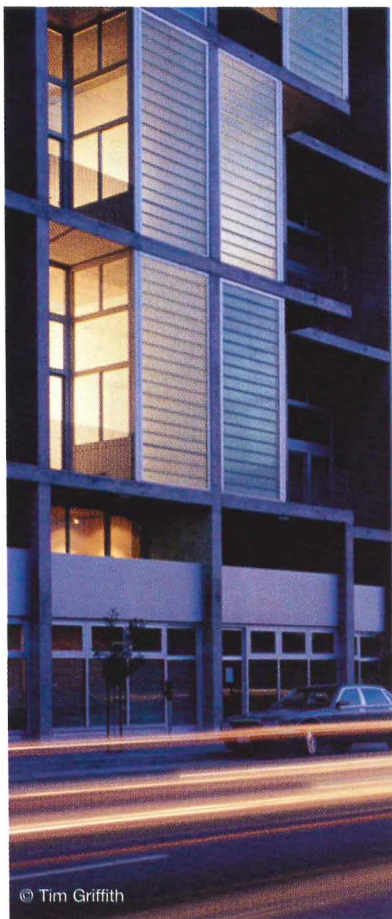
Plans for the future site of N.Y. Designs by Resolution: 4 Architecture (top). The Ori lamp by Nuf Design, a firm that works out of N.Y. Designs (bottom).

jects that have varied from model making to marketing, have tripled in just two semesters.

Arguello, who admits to her own lack of business savvy when she completed design school, knows firsthand how helpful this program can be to a designer. "Essentially, we're going to be a one-stop design center where the designer has everything they need under one roof," states Arguello. R.G.

For more information on N.Y. Designs, go to archrecord.construction.com/archrecord2/

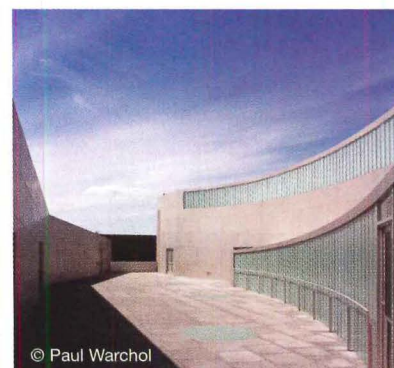
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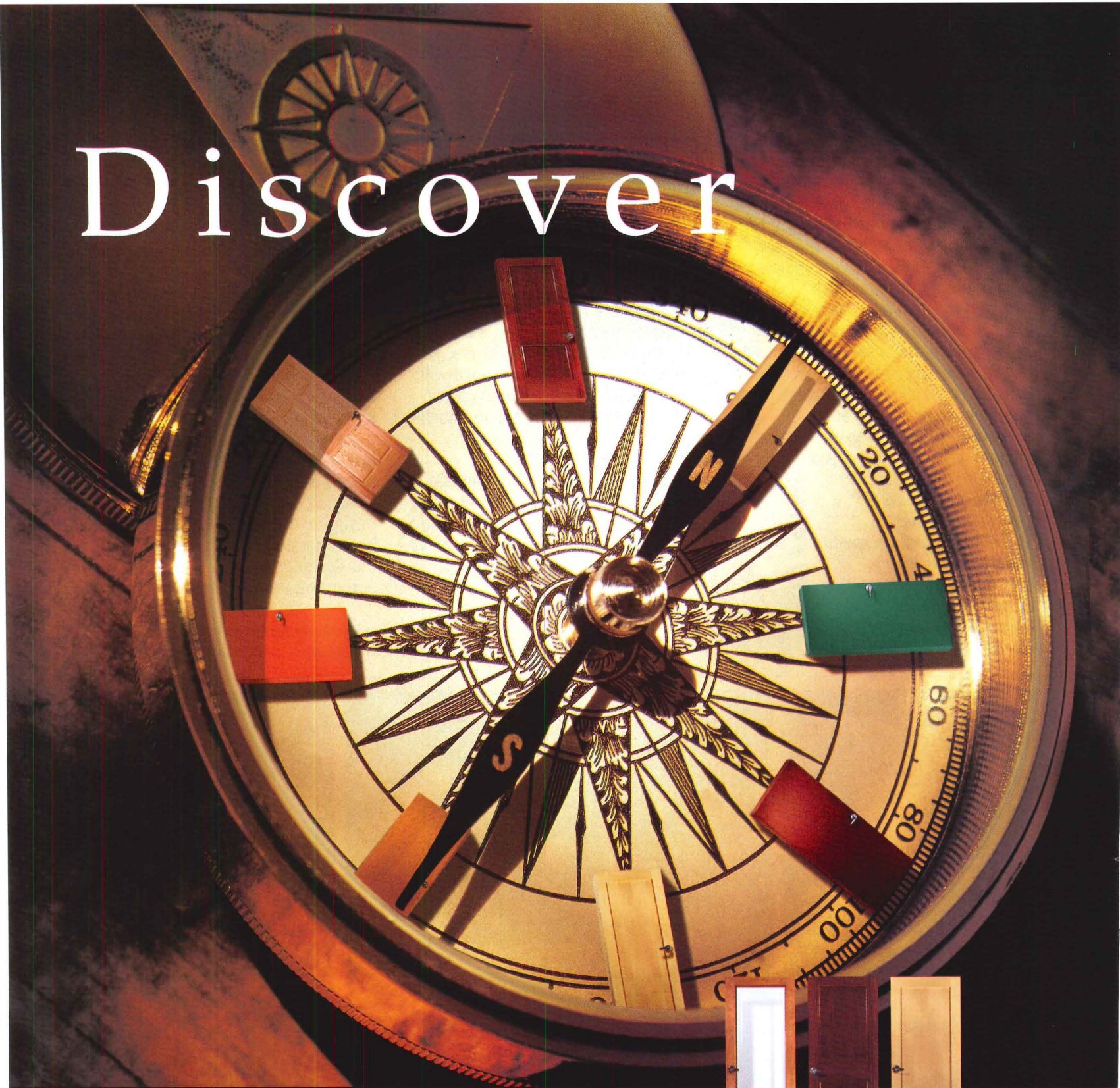
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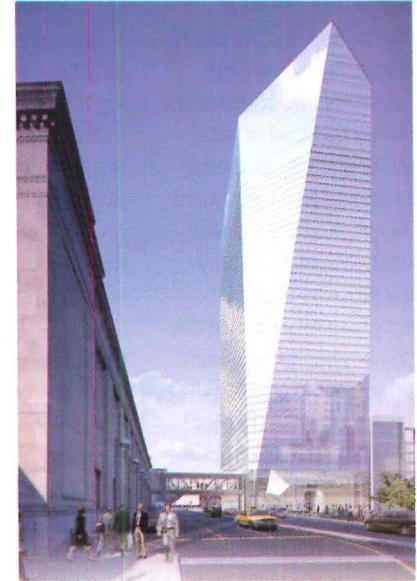
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Philadelphia sets a path toward revitalization through a redefined government role

Correspondent's File

By Joseph Kelly II



IMAGES: COURTESY GREATER PHILADELPHIA TOURISM MARKETING CORPORATION (TOP LEFT); CESAR PELLI & ASSOCIATES (TOP RIGHT); NEIGHBORHOOD TRANSFORMATION INITIATIVE (BOTTOM TWO)

In the past four years, the City of Brotherly Love has become a hotbed of urban development and revitalization. In almost all of the nearly 70 neighborhoods in this 135-square-mile city, the sights, sounds, and signs of construction form part of the everyday pedestrian experience. The majority of the city's efforts are focused on transforming its infamously blighted neighborhoods into dynamic residential districts through the city's Neighborhood Transformation Initiative (NTI) and putting forward development projects that are reshaping the city's predominantly 18th- and 19th-century built envi-

Joseph Kelly II writes for RECORD, Architectural Lighting, Architecture, Metropolis, I.D., and ICON. He is currently working on a book on the redevelopment and revitalization of Philadelphia.

ronment into a dynamic setting relevant for sophisticated contemporary urban living. Presently, more than 4,000 new condo units, several cultural buildings, and nearly a dozen downtown towers are in design or under construction. Other major projects, such as Robert A.M. Stern's master plan to transform the city's former Navy Yard, will—once completed—establish Philadelphia as a major global urban center.

How has this happened so quickly? Much stems from a city government that appears—at least on the surface—to have transformed itself from an overbearing, inefficient machine into a transparent promoter of development and a successful arbiter of change. The new approach has spurred major public and private investment in large civic, commercial, and residential projects. Hence, by becoming more transparent and turning to



Philadelphia's skyline (top left); Pelli's Circa Center (top right). A before (left) and after (below) scenario from the Neighborhood Transformation Initiative, which fights blight.

Correspondent's File

community and civic groups for the help it needs in devising civic change (partly because this financially strapped city lacks the funds to realize change), the city's approach is epitomized by the crop of modern buildings now or soon to be lining its streets.

Problems of the past

For as long as anyone can remember, Philadelphia has played a notorious behind-the-scenes pay-to-play political game of governing: Political supporters and bureaucratic friends, whether qualified or not, have often received city contracts in return for campaign contributions and other favors, and city leaders have had unchallenged authority over building projects. Edmund Bacon, head of the Philadelphia City Planning Commission (PCPC) from the 1950s through the 1970s, held sole authority to select architects for Philadelphia's previous urban renewal effort. The face of the city arguably changed from a more structurally diverse and cosmopolitan character into a sterile downtown dominated by bland architecture. Bacon also selected designers who delivered schemes that accorded only with his ideas, focusing on Center City and ignoring the neighborhoods, which at that time were showing initial signs of decay following the first migration of city residents to the suburbs.

Perhaps more crippling to the city has been the astonishingly high

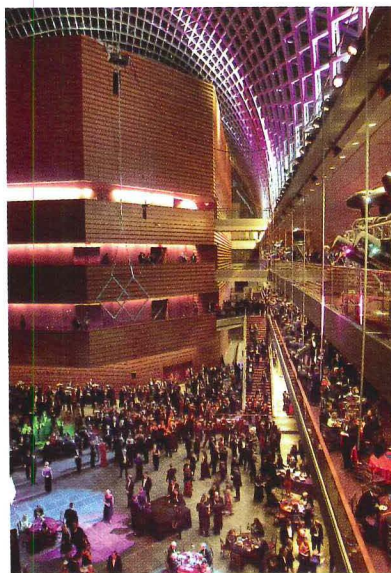
wage tax, which was introduced in 1939 as a temporary solution to combat the effects of the Depression. Philadelphia continues to inflict this tax on residents to generate over half its annual revenue. (According to the Pennsylvania Economy League, the city's percentage of wage-tax dependence, 56, is the highest in the nation; Detroit is second with a 41 percent dependency.) As a result, businesses and residents have long fled to the suburbs, bleeding the urban center of its industrial core, jobs, population, and revenue sources. In the aftermath, entire once-thriving middle-class neighborhoods now stand as heavily blighted inner-city ghettos.

Fostering change

A key to decentralizing Philadelphia's authority has been its network of community-development corporations and quasi-government authorities, which are helping redevelop the city through a more public process. These include the nationally recognized Center City District, which recently completed a community-based effort to relight the Benjamin Franklin Parkway. Other organizations include the University City District (UCD) and Old City District (OCD), which are transforming important underdeveloped or underrealized spaces, such as the Delaware and Schuylkill River



Moshe Safdie's planned addition to the public library (above); and Rafael Viñoly's completed Kimmel Center for the Performing Arts (left).



issues. Residents and the local press are better versed in the economics and the politics of urban renewal than ever before, and they are better able to discuss current revitalization and engage in public forums on design change, held by local organizations like the Design Advocacy Group, a coalition of architects and planners that advocates for design change through lobbying, forums, and regular newspaper columns.

Additionally, after years of pressure from the local business community to make the city more competitive, Mayor John Street is finally addressing ways to lower the wage tax, conveying a new understanding of openness in municipal politics. The current administration has also established incentives to encourage large and small development via a 10-year tax abatement for new residential construction and mortgage-assistance programs for low-income individuals.

waterfronts and the neighborhoods surrounding Center City, into thriving communities. Meanwhile, NTI has used a \$300 million municipal bond to clean and clear large tracts of land, offering these lots to private developers at a minimal cost and spurring revitalization of heavily blighted neighborhoods.

Topping this activity is a heightened level of public discourse involving design and redevelopment

Some of the major architects working in Philadelphia

Tadao Ando: \$50 million Calder Museum is set to open in 2006.

Richard Gluckman: \$70 million expansion of the Philadelphia Museum of Art's administrative office and gallery complex.

Robert A.M. Stern: Master plan for residential and commercial district at the former Navy Yard; \$140 million, 33-story residential high-rise; \$500 million, 70-story downtown Comcast office tower.

Cesar Pelli: 35-story, \$130 million Cira Center office tower.

SHoP: Four new downtown condominium projects.

Rafael Viñoly: \$265 million Kimmel Center For Performing Arts.

Moshe Safdie: \$110 million expansion to and renovation of the Central Branch of the Free Library of Philadelphia.

Pei Cobb Freed & Partners: \$138 million National Constitution Center.

Kieran Timberlake: The Wharton School's Levine Hall, and future project to transform Philadelphia's main USPS complex into university offices.

NBBJ: \$520 million Lincoln Financial Field (football).

HOK: \$350 million Citizen's Bank Park (baseball).

KPF: \$500 million International Terminal at Phila. International Airport.

Michael Graves: \$150 million Philadelphia Eagles NovaCare Complex.

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Correspondent's File

The results

The private-development focus, public input, and government transparency has in only three years inspired a proliferation of recently completed, or planned, housing, commercial, office, and community-development projects—many with price tags in the hundreds of millions. Many carry such designer name tags as Rafael Viñoly, FAIA, Michael Graves, FAIA, Robert A.M. Stern, FAIA, Cesar Pelli, FAIA, the firms of KPF, NBBJ, HOK, SHoP, Grimshaw, The Olin Partnership, Richard Gluckman, FAIA, Moshe Safdie, FAIA, and Tadao Ando, among others.

Funding from Philadelphia's major private foundations, such as The William Penn Foundation and the Pew Charitable Trusts, is aiding redevelopment along such areas as the Benjamin Franklin Parkway (the city's focal cultural corridor), which will

soon contain Gluckman's \$70 million redesign of the Philadelphia Museum of Art's new administrative and gallery complex; Safdie's \$110 million redesign of the Central Branch of the Free Library of Philadelphia; Ando's subterranean design for the new \$50 million Calder Museum; and the proposed move of the famed Barnes Foundation from its home in suburban Philadelphia.

The scope of private residential, commercial, and office projects can take your breath away: Pelli is designing Cira Center, a 35-story, \$130 million office tower near the city's central train station, while Stern's reimagining of the city's old Navy Yard will provide a major mixed-use development and an entire new neighborhood. New York-based SHoP is designing four condominium complexes, including Old City 108, a 12-story luxury condo in the heart of the historic



A massive swath of land is set aside for a new community, part of the Neighborhood Transformation Initiative.

district. Wallace Roberts & Todd is designing a \$280 million, five-tower gated condo complex called Waterfront Square on the North Delaware River waterfront, which includes its own marina. Situated near this complex will stand the new \$700 million, four-tower World Trade Center of Greater Philadelphia.

NTI's success has also been impressive. During the past three

years, it has cleaned up more than 31,000 vacant lots, demolished 4,100 of the most dangerous of Philadelphia's 30,000 abandoned buildings, and removed 185,000 abandoned vehicles and 15,081 dangerous trees. NTI also encouraged the development of 5,128 affordable housing units, 5,000 market-rate housing units, and 2,100 housing units in large devel-

PHOTOGRAPHY: COURTESY NEIGHBORHOOD TRANSFORMATION INITIATIVE

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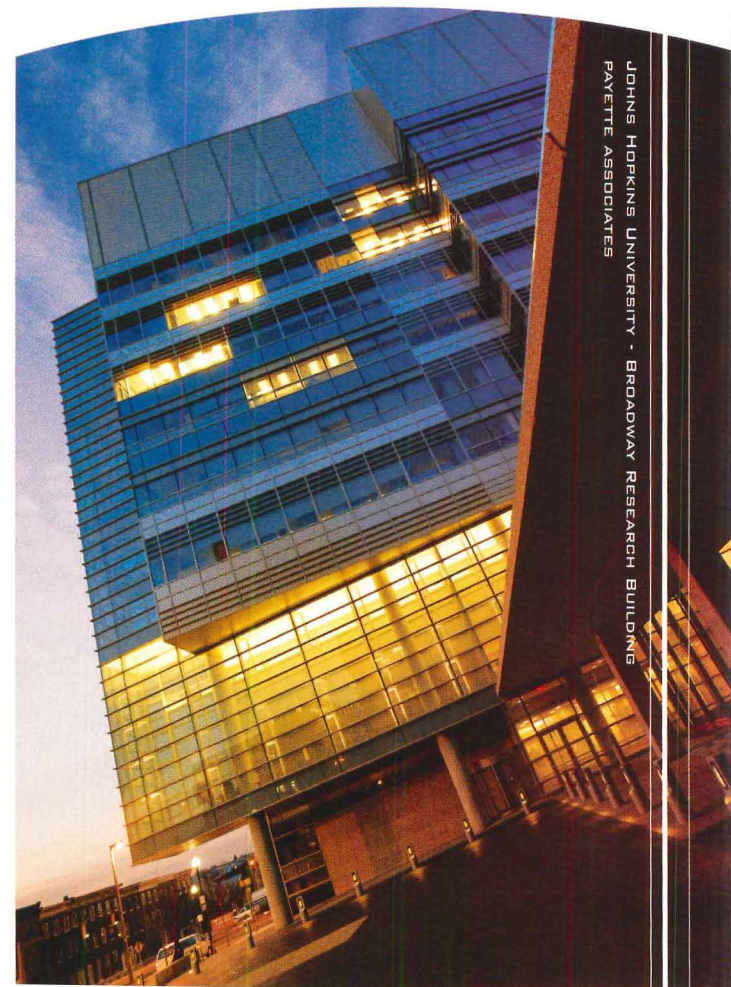
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Correspondent's File

opments, as well as fostering the rehabilitation of 11,673 homes in the city.

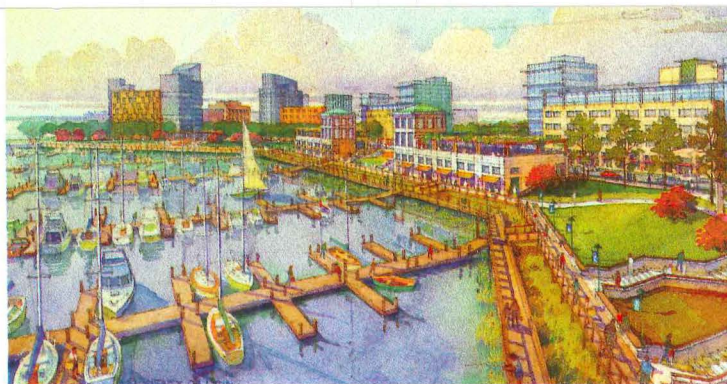
Criticisms and responses

But John Gallery, executive director of the Preservation Alliance for Greater Philadelphia, believes unplanned and decentralized development fails to appropriately consider community resources, such as schools and medical and community-support facilities, and fails to articulate a vision for growth throughout the city and in the neighborhoods. He also worries that the NTI program does not adequately prepare for the future. "[The city] lacks vision about what might happen to the so-called transforming neighborhoods after all of this [NTI] demolition occurs," says Gallery, who worked for the PCPC during the 1960s under Bacon and later headed the city's Office of Housing

and Community Development.

In contrast, NTI director Patricia Smith believes that putting together a master plan would be unproductive. Such a plan, she explains, would likely be outdated when complete because of the extraordinary level of development activity throughout the city. PCPC executive director Maxine Griffith sides with Smith, explaining that the most important activity is working with neighborhood groups to give them recommendations for developing their communities.

And though Mayor John Street is now practicing a more open, democratic form of governing, efforts haven't always reflected a community-minded approach. When Indianapolis-based developer Simon Group in 2002 dropped out of its commitment to realize an entertainment complex on the city's underused 13-acre Penn's Landing



Robert A.M. Stern's revitalized vision for the old Philadelphia Navy Yard.

site along the Delaware River, local groups like DAG and the University of Pennsylvania's Penn PRAXIS organized public forums and charrettes to address possible development. Yet Street moved ahead with his own plans to hire a developer. Later, it was revealed that the mayor, among others, was implicated in an F.B.I. corruption investigation, as was Penn's Landing Corporation, the quasi-government entity that runs Penn's Landing. Since then, the project has dropped from the public's consciousness and no one knows if it will reemerge.

Meanwhile, local design profes-

sionals' efforts to reform how the government builds (including a movement to update outdated zoning) cannot resolve the one issue that obstructs Philadelphia's emergence as an international metropolis: its provincial mentality, which often overlooks the city's role as the hub of the nation's sixth-largest region (which includes Southeastern Pennsylvania and Southern New Jersey). Philadelphia must work together with its surrounding communities to take advantage of its resources and establish a cohesive identity for the area, which it currently lacks. ■

IMAGE: COURTESY ROBERT A.M. STERN ARCHITECTS

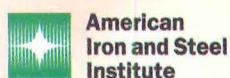
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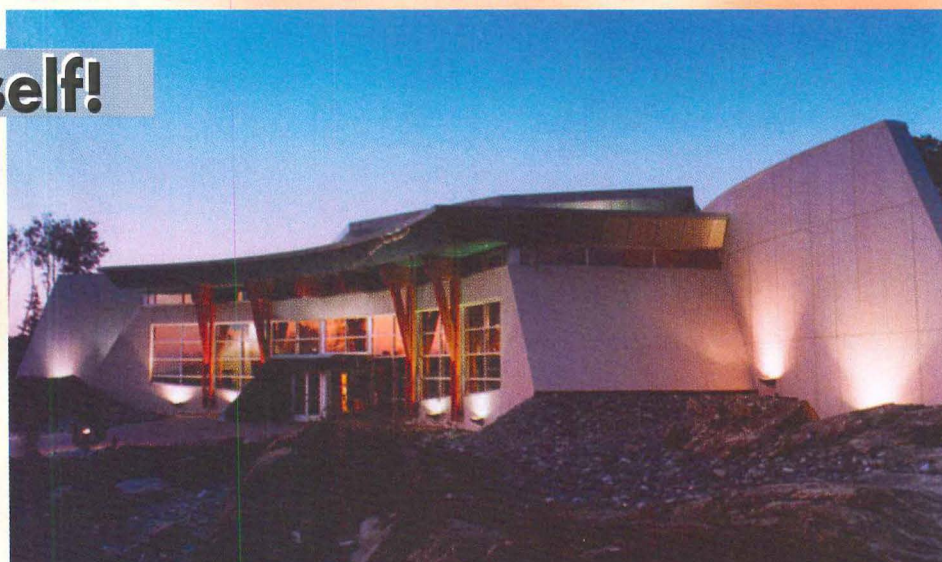
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Exhibitions

By Liane Lefaivre

Geoffrey Bawa: The Genius of the Place. Curated by David Robson. At the Deutsches Architektur Museum, Frankfurt, Germany, through October 17.

Geoffrey Bawa's architecture was always a response to site. Living in a tropical paradise like Sri Lanka certainly put Bawa in touch with his surroundings. How could he go wrong with palm fronds swaying in the breeze, waves rolling onto endless white beaches, and a great tradition of classical Sinhalese Buddhist, Portuguese, Dutch, and English architecture enriching towns and countryside alike? But many others have gone wrong and continue to do so. Contemporary architecture in Sri Lanka (formerly Ceylon) can be as bad as anywhere else. What is surprising is how Bawa, who was born in Sri Lanka in 1919 and died there on May 27, 2003, succeeded in balancing Modern and traditional, global and regional.

The exhibition now at the Deutsches Architektur Museum in Frankfurt presents a complete and fascinating view of Bawa's world. Photographs, particularly those by Helene Binet and Christian Richters, capture Bawa's sense of place, as do five remarkable models built by the Delft-trained Dutch architect Robert Verrijt and his collaborators.

Curated by David Robson, who

Liane Lefaivre is the coauthor, with Alexander Tzonis, of Tropical Architecture (Wiley, 2000) and Critical Regionalism (Prestel, 2003).



Natural ventilation cooled all of Bawa's buildings, including the Steel Corporation headquarters in Orawela (left), the Ena de Silva House in Colombo (below left), and the State Mortgage Bank in Colombo (below right).



is also the author of an indispensable monograph on Bawa, this is a very personal exhibition. With the help of Channa Deswatte, who has inherited Bawa's practice, Robson has included original sculptures by Laki Senanayake and original batik banners by Ena de Silva that were part of real projects designed by Bawa. Senanayake and de Silva were close friends and collaborators of Bawa and helped comprise, along with Bawa, a true Sinhalese cultural renaissance in the wake of national independence in 1949. De Silva,

who is now 83, made the journey to the opening, with many of Bawa's younger collaborators. It was a love-in that was keenly felt, as Bawa died of a stroke just over a year ago.

Originally trained as a lawyer at Cambridge in England, Bawa came to architecture as an adult in the 1950s, after buying a country house in Lunuganga, an hour outside of Colombo, Sri Lanka's capital. As he fixed up the house and its property, he became hooked on architecture. What grabbed him was the relationship between buildings and nature,



the man-made and its surroundings. The house in Lunuganga became the love of his life.

Soon he dropped his law career, returned to England, and at age 35, enrolled at the Architectural Association in London. Robson points out that although Bawa came into contact with the Modernist legacy of Mies and Le Corbusier at

PHOTOGRAPHY: © DAVID ROBSON (LEFT TWO); HARRY SOWDEN (RIGHT)

DEPARTMENTS

Exhibitions

the AA, he developed a special affinity to Frank Lloyd Wright.

In some regards, Bawa was more Wrightian than even Wright. He is probably the only architect in the 20th century who had the luxury of designing buildings literally on-site, rather than in his office. Bawa's drawings, as presented in this exhibition, are awkward, like

We tend to think of Bawa above all as a supremely elegant designer, a fashioner of paradisiacal homes and hotels. It would, indeed, be hard to come by an architect who designed as many photogenic buildings as he. But what emerges from the exhibition and catalog is an understanding that elegance was just part of Bawa's significance. His

BAWA'S ARCHITECTURE WENT BEYOND THE PICTURESQUE AND CAME CLOSE TO A MUMFORDIAN CRITICAL TROPICALISM.

those of a child. For him, the real piece of paper on which to work was the ground itself. Construction workers were his pencils. While working on Ruhunu University (1980-88) on a beach on the Indian Ocean in Matara, he went so far as to have the laborers tear down one building they had just erected and rebuild it a short distance away.

first masterpiece was a house built for Ena de Silva in Colombo in 1960. De Silva hated colonial design as much as she did air-conditioning and demanded a house that would incorporate traditional vernacular Kandyan features, such as an enclosing perimeter wall for the whole compound, a pitched tile roof, open-sided rooms, verandas, court-

yards, and a shrine room, along with modern spaces like an office for her husband, a studio for her son, and a wing for visitors. Bawa designed a plan that is an introspective pattern of interlocked pavilions and courtyards revolving around a large central court (or *meda midula*) and not one pane of glass to impede natural ventilation.

Bawa's architecture went beyond the picturesque, and came very close to a Mumfordian critical tropicalism. His buildings were all bioclimatically responsive, incorporating natural ventilation, even in his luxurious houses and hotels. This is as true of his first house at Lunuganga (started in 1953) as it is of his last project, the Pradeep Jayewardene House (completed in 1998).

The real revelations in the exhibition are Bawa's office buildings, in particular his Steel Corporation Offices (1966-69) in Orawela, Sri Lanka. The project adopts a simple rectangular form but with an outward cantilevering section (inspired by temple buildings in Kerala, India,

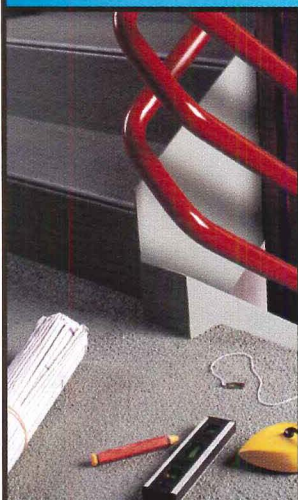
and Nepal) that provides protection from the overhead sun and monsoon rains while permitting the use of a breathing wall. The State Mortgage Bank in Colombo (1976-78) is even more ingenious—a 12-story building that Malaysian architect and author Ken Yeang has called the "best example of a bioclimatically responsive tall building to be found anywhere in the world." The building, like the site, is a lozenge-shaped wedge, which Bawa capped with a raised concrete canopy that helps protect the offices below from the direct impact of the sun and allows them to be naturally lit and ventilated. The main elevations face north and south in order to reduce solar gain and catch the main breezes. Windows are set back from deep spandrel panels designed as air-intake louvers.

The exhibition is an eye-opener. Western architects can learn a lot from Bawa, who showed how Modernism could adapt to a tropical climate. ■



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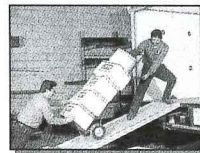
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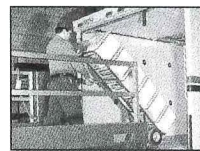
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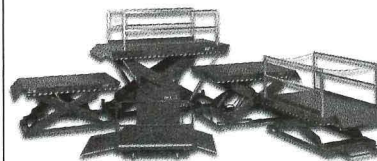
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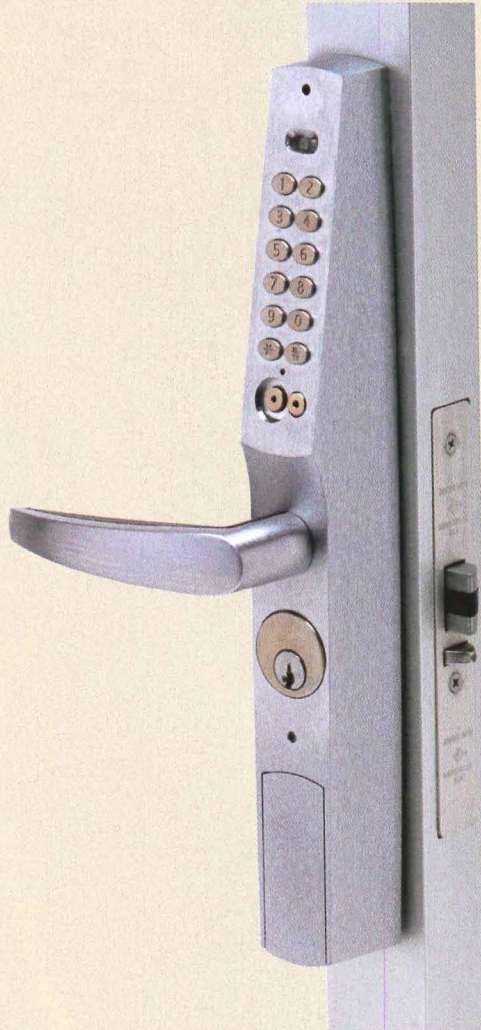


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Finding an open space for the exercise of democracy in New York's dense urban fabric

Critique

By Michael Sorkin

One of the basic rights enshrined in the First Amendment to the Constitution is that of "the people to freely assemble." Free assembly is the primary expression of democracy in space, the physical embodiment of liberty. This relationship far predates the American experience. Cities, in particular, have long been seen as especially conducive to freedom, as exemplified in the famous motto of the Hanseatic League: "City air makes you free."

The just city is one where citizens move unimpeded and gather in many different ways for self-expression. In modern times, social progress has been directly linked to the variety of rallies, demonstrations, marches, and insurrections that have had as their arena the streets and squares of the city. From women's suffrage to civil rights to union organizing to antiwar protests, the power of bodies together in space has been crucial to the defense of our rights. In real democracy, the streets belong to the people.

In city after city, certain places have become linked to these gatherings, institutionalized by repeated use. While the street is the bedrock of the popular "right to the city"—the conduit of association—it is only part of the necessary infrastructure of assembly that includes both privatized spaces such as bars, cafés, lecture halls, stadia, and stoops, as well as bigger public spaces: the

Michael Sorkin practices architecture in New York and is the director of the graduate urban design program at City College of New York.

parks, plazas, and town squares that remain fundamental to sound urbanism. Whether the Zocalo in Mexico City, the Mall in Washington, or Tiananmen Square in Beijing, these great sites are zones of focus, the common property of those dedicated to the struggle for free association. Indeed, the right of the public to gather in these places continues to be defended in blood.

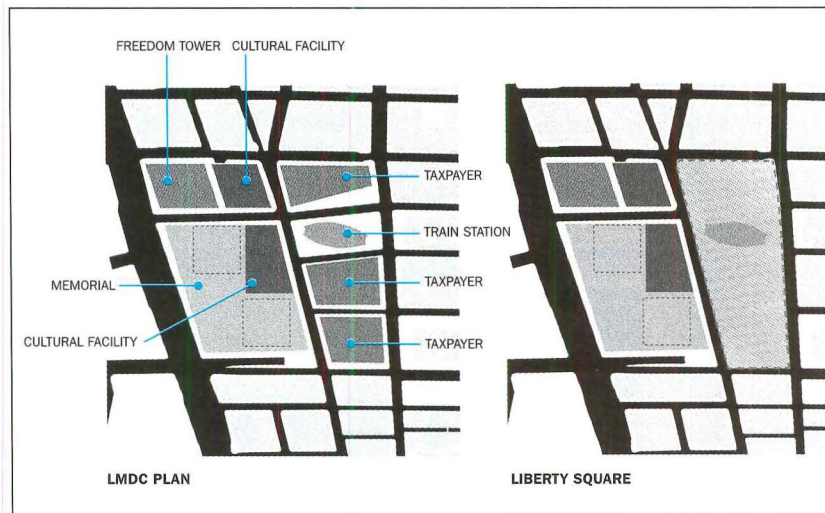
Such matters have been much in the news in the current political season. The protest cage at the Democratic Convention in Boston—a prisonlike enclosure surrounded by razor wire—suggests a sinister elision of the war on terror with the control of popular assembly. The frustrations of those seeking to demonstrate against the Republicans in New York City have also provided ample evidence of the constraints on the popular right to make use of its own spaces. It also points up something else: the lack of enough suitable places for mass political rallies. Our main rallying spots in New York—whether Central Park, Times Square, or Fifth Avenue—all depend on the disruption of some other activity, whether traffic or recreation, and are thus subject to negotiation with the authorities, who, as recent events have so vividly shown, can be recalcitrant. Other venues—like Union Square, with its rich historic association with protest—are too small. Still others, including City Hall Park, have been fenced and "improved"

to prevent gatherings.

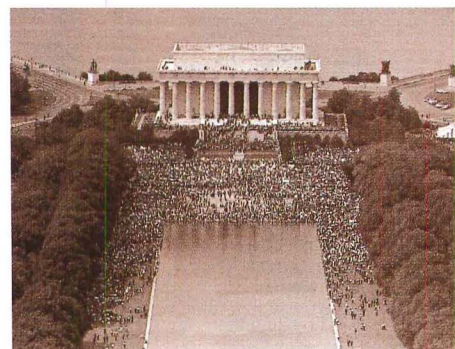
The organizers of the largest New York demonstration, a group called United for Peace and Justice, originally applied for a permit to gather on the Great Lawn in Central Park. This was denied on the basis

Garden. Such insubordinate assembly is part of the animating tension of democratic discourse and suggests that the character, location, and political valence of a space is crucial to its suitability for succinct public expression. Speech demands

DEPARTMENTS



Instead of erecting temporary "taxpayer" buildings at Ground Zero (above), the LMDC could create a venue for public gathering like Washington's Mall (below).



of the alleged fragility of the grass. The city offered as an alternative the West Side Highway, which the demonstrators refused, electing instead to march more visibly in the streets near Madison Square

its audience.

This problematic lack of suitable space comes at a critical moment as the nation rushes breakneck to restrict freedom of movement under the guise of fighting terror. While vigilance is necessary, these restrictions also represent a victory for the enemies of freedom, both at home and abroad. The attacks of 9/11—the initiating event in this cycle—were both an act of murder and an assault on our freedom to assemble. The World Trade Center replacement project, however, contains remarkably little nonprogrammed gathering

Critique

space. The major component, of course, is a memorial that is parklike and solemn, not the spot for mass rallies. Remaining spaces of nominal assembly—such as the Wedge of Light—are residual, scarcely more than enlarged sidewalks. The proposed cultural facilities may be public, but they are decidedly not political or about large gatherings.

THE GROUND ZERO PLAN IS BUSINESS AS USUAL, VALIDATED AS APPROPRIATE BY A LAYING ON OF SACRAL ICONOGRAPHY.

Ironically, the WTC contained a larger plaza than anything currently proposed. It was, however, so inhospitable and its associated meanings so commercial that it never functioned as a place of assembly, simply as a windswept expanse to be crossed or avoided.

Instead of useful forms of assembly, the Ground Zero plan

substitutes an iconography of freedom that slights its actual expression. For example, the "Freedom Tower" is simply an office building, doubtless one in which free access will be heavily circumscribed by security demands and sky-high rents. It limply signifies liberty via a vague asymmetry meant to evoke the Statue of Liberty, a devoluted icon

for an icon, abstracted beyond recognition. The memorial is centered on the symbolism of the Trade Center footprints, which are to be water-filled and uncrossable. The Wedge of Light—should it actually be realized—calls for passive solemnity. The yet-to-be-conceived Museum of Freedom, however important it might become, will be


a largely individual experience.

What has happened downtown is the creation of a plan that is essentially about business as usual, validated as appropriate by a laying on of sacral iconography. Everything receives its label—Freedom Tower, Wedge of Light, Park of Heroes, and so on—in order to create an aura of rhetorical piety to redeem activities that are anything but. If anything points up the fast-and-loose style of reverence of the rebuilders, it is the recent announcement by the Lower Manhattan Development Corporation and Larry Silverstein that—given the flat office market and the failure to obtain a double payout from Swiss Re—they are likely to build "taxpayers" on the eastern portion of the site, an area (on either side of Santiago Calatrava's fine transit station) that amounts to more than three city blocks. These proposed low-rise commercial buildings would be intended as placeholders for future office towers, which might not be constructed for decades. If this goes ahead, a shopping center would line the rebuilt

Greenwich Street, facing the memorial and the two cultural buildings the LMDC is developing.


Clearly, this is not the highest-and-best use for New York's most significant urban project. However, it does present a remarkable opportunity. These blocks might become the great public plaza that the city lacks. Surrounded by a strong edge of buildings, highly accessible, and located on a site of remarkable resonance, the space might become not simply a symbol but the scene of liberty in action, a zone of free assembly and free speech. It is also in the heart of things, at the center of our institutions of governance and commerce, an apt and visible site for public expression. And instead of managing remembrance through a series of themed activities that offer little opportunity for spontaneity or collectivity, it would truly belong to the people, an embodiment of our nation's greatest ethical and political power.

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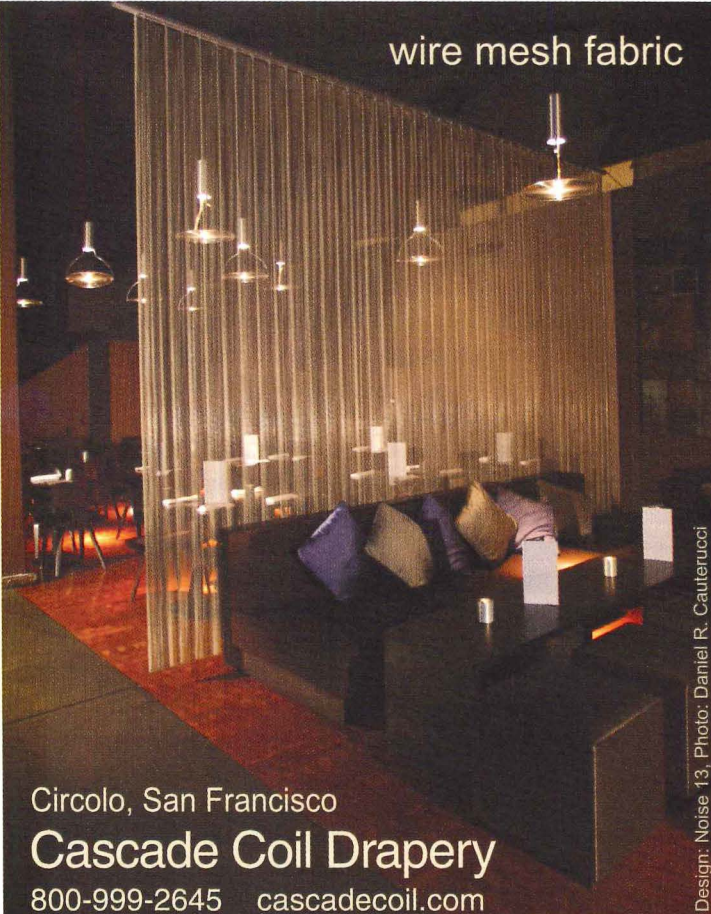
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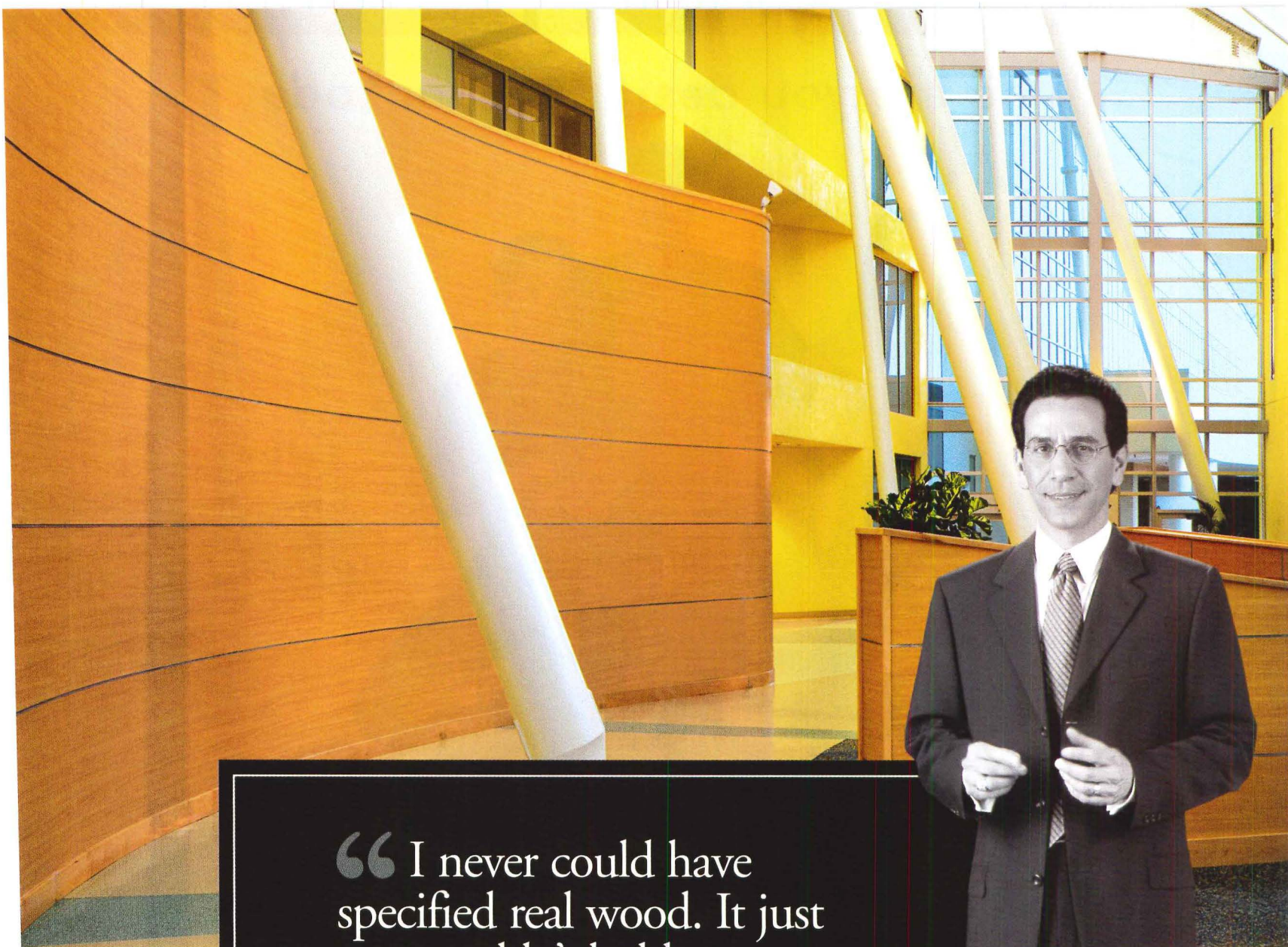
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Cross-border explorations: Two thinkers who span disciplines and a place on the Silk Road

Books

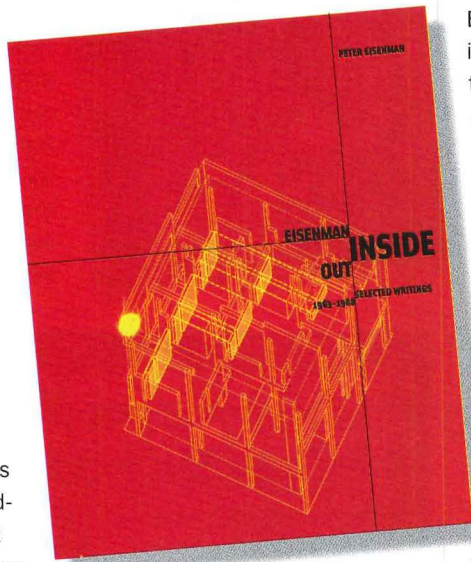
Eisenman Inside Out, Selected Writings, 1963–1988, by Peter Eisenman. New Haven: Yale University Press, 2004, 264 pages, \$30.

Having reached his early 70s, Peter Eisenman—architect, theorist, professor, publisher, editor, historian, administrator, impresario—has lately been doing a lot of building and publishing. His monumental and detailed analysis of two buildings by Giuseppe Terragni came out last year, and he has now delivered a collection of early essays. Mature architects will remember many of the articles in this volume, and it is rewarding to have them back in print and in one place. As we see from the bibliography at the back of the book, these essays were culled from a much longer list.

In the introduction, Eisenman describes his lifelong quest to understand what he calls the “interiority” of architecture: that elusive spirit of architecture’s core of being, not what he calls a “mere” formal, compositional, structural, or functional quality, but something more basic and inchoate. To this end, he has periodically enlisted assistance from other disciplines, most noticeably semiotics, linguistics, and deconstructionism.

In the first essay, which was written in 1963, Eisenman—still under the influence of his Cambridge University mentor, Colin Rowe—attempted to supersede

contemporary norms of criticism by arguing that functional expression has both an instrumental and a symbolic quality and that pure functionalism is,



therefore, impossible. It is a convincing piece. The essay predates the influences of (among others) Christian Norberg-Schulz, Noam Chomsky, semiotics, and Jacques Derrida’s deconstructionism.

The book then skips to the 1970s, and we pick up Eisenman’s interest in architecture as it relates to linguistic expression. By then he was trying to make buildings that were “meaning-less,” architecture with neither denotative nor connotative significance, possessing only what he later would call *interiority*. An early essay on this aspect of architectural theory, “Cardboard Architecture” (1971), describes the design process and desired outcome of his first built works, Houses I and II. Eisenman once again maintains that

he has surpassed previous theories to formulate an unprecedented way of both looking at and making architecture. But just how revolutionary are his buildings and theories? Based on the essays in this volume, it is still an open question. Take this excerpt from “Cardboard Architecture” concerning House I: “All of the apparent structural apparatus—the exposed beams, the freestanding columns—are in fact nonstructural. When this is understood, a first step has been taken to unload, albeit in a very primitive way, their structural meaning. While the apparent physical fact is the same whether they are load bearing or not, their meaning has changed because they are in fact not load bearing, and thus the intention implied in their use in a particular location must now be considered in a different way.”

The same could be said about Filippo Brunelleschi’s 15th-century church of San Lorenzo in Florence. In San Lorenzo, we see an array of members that look structural but aren’t, a grid of abstract planes and lines that define a three-dimensional matrix and the conceptual index to an ideology. Many architects and scholars have noted this.

But unlike at San Lorenzo, where pilasters and moldings on the walls are easily understood as representations of structure, the “nonstructural structure” of House I is freestanding. Until Eisenman tells us that what looks structural is not structure, we have no way of knowing it. This is indeed one of his

stated intentions; it makes his ostensible structure opaque as non-structure. This is the obverse of the truss that supports what looks like a dome at the U.S. Capitol. While the architect of the Capitol most certainly wanted us to believe it is a dome, and kept the information from us (save those privy to a section through the dome), Eisenman gives us the “knowing wink” via his essay. As footnotes for his buildings, these essays are a bit like the notes provided by T.S. Eliot for poems such as *The Wasteland*. They promote a richer understanding of the poem, but without the footnotes we may miss some of Eliot’s deeper meanings and allusions. Without Eisenman’s footnotes, the meaning is merely reversed, but we don’t really know if that means it has been deepened. Does this matter? Apparently not to him.

In essays of the 1980s, he elaborates and refines his theories, but these writings, it seems to me, do not support his claims to unparalleled theoretical innovation. Without these recurrent claims, the articles would be more enjoyable.

Many architects tend to dismiss this sort of writing out of hand, without giving it a thorough reading. This is a mistake. Eisenman always questions the status quo, always presents potentially plausible interpretations of architecture, and at times shows brilliance. The essays are interesting, his writings about other architects’ works are perceptive, and much of the descriptive material on his own work is worthwhile. I have in the past found his

Books

articles on the Smithsons, Michael Graves, John Hejduk, and James Stirling first-rate and engaging. An essay on Philip Johnson, overtly supportive but subtly (indeed, covertly) critical, is worth the price of the book. I may not agree with all of Eisenman's ideas, but I always enjoy reading them.

Will the next volume of Eisenman's essays shed more light on interiority, and give us a truly transparent view of it? Architects are notoriously bad at explaining their own works. Most of them (except maybe Rem Koolhaas and Leon Krier) should leave that to others. *Thomas Schumacher*

Understanding Me: Lectures and Interviews, by Marshall McLuhan, Stephanie McLuhan, David Staines, and Tom Wolfe. Cambridge: MIT Press, 2003, 317 pages, \$28.

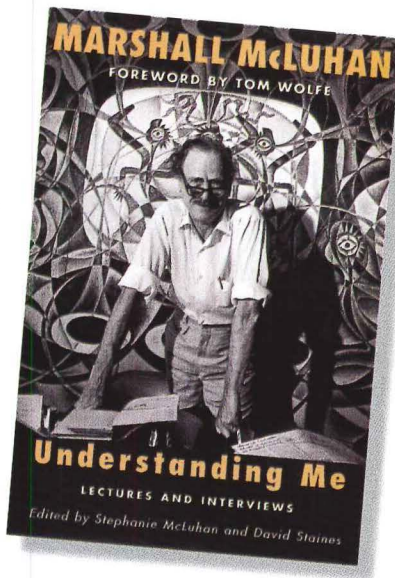
Marshall McLuhan, the communications theorist who focused on the media's psychic and social consequences, invented, among many other things, the idea of the global village. In *War and Peace in the Global Village* (1968), he presciently wrote that the global village could easily produce bloodbaths. His 1967 book, *The Medium Is the Message*, elucidated what is now a cliché. *Understanding Me* is a pun on his *Understanding Media: The Extensions of Man* (1964), the book that first brought McLuhan to international attention.

In *Understanding Me*, McLuhan, ever coining terms and turning phrases, writes, "The medium is the message, not the message ... it really takes hold and massages the population in a savage way." Ironically, it was the media that turned McLuhan into a cultural icon. A San Francisco

advertising man, Howard Gossage, took it upon himself to introduce the Canadian theorist to the U.S. press and advertising industry, at his own expense. By the mid-1960s, major magazines and newspapers were comparing McLuhan's insights to those of Darwin and Freud. But by the time of McLuhan's death in 1980, his critics, chiefly New York intellectuals, had dismissed him as

unserious and old hat. He had become best known for one-liner aphorisms, many of which turned common sense on its head. "All forms of violence are quests for identity," he wrote, and "Charisma means looking like a lot of other people." If the last seems especially counterintuitive, think Bush and Kerry. Aristocratic scions both, each is trying to prove he has charisma by denying he is exceptional. Bush has gone so far as to turn himself into a good old boy.

When the Internet burst onto the scene in the '90s, it seemed to fulfill prophecies McLuhan had made 30 years earlier. Again he was lionized, this time by turn-of-the-21st-century techies, for whom he became a sort of patron saint. *Understanding Media* had predicted the type of "interactive" communication that the Internet made possible, but what really grabbed young techies was McLuhan's belief that the new media were spreading a seamless web over the earth and becoming an extension of

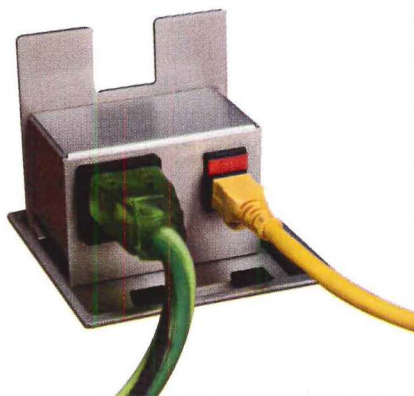


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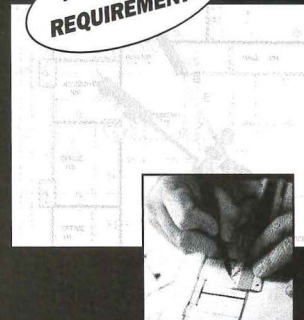
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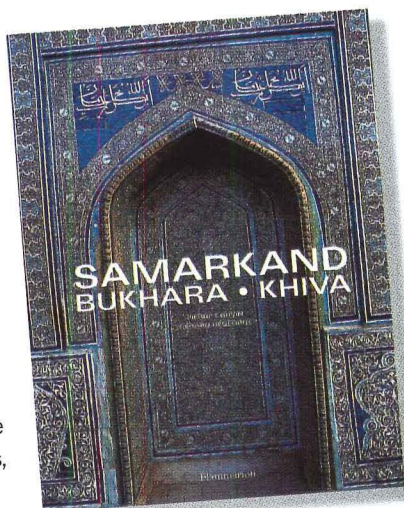
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Books

humankind, capable of altering the human mind and history itself. He came to this conclusion without knowledge of galvanic skin responses to technology, terminal node controllers, or the Apple Newton. *Wired* magazine, the most prominent of the dot-com journals, ran his picture near the masthead in every issue.

In the foreword to *Understanding Me*, Tom Wolfe, the pop-culture critic and author, writes, "I can't think of another figure who so dominated an entire field of study in the second half of the 20th century." The book is a transcription of two dozen tapes of McLuhan's television interviews and lectures, spanning the years 1959–79. They were collected by McLuhan's daughter Stephanie, a New York television producer. She correctly notes that the lectures comprise a biography or



autobiography "enabling you to read McLuhan in the original, where you will find a more accessible, even unmediated, encounter than is possible through his books."

Andrea Oppenheimer Dean

Samarkand, Bukhara, Khiva,
photographs by Gérard Degeorge,

text by Pierre Chuvin. Paris: Editions Flammarion, 2003, 232 pages, \$60.

Where can I find that Pakistani guy with the drums and the howling chorus? That Puerto Rican dance band my friend played for me? In most outlets, you head for "World Music," where the sacred and profane of other continents rub elbows, often quite incongruously.

Samarkand, Bukhara, Khiva is the kind of book that's likely to fall into architecture's "World Music" bin. The work of two Frenchmen, a photographer and a writer, who spent five years in the region of three famous oasis towns along Central Asia's Silk Road, it documents their monuments—mosques, shrines, and mausoleums—and a few of the old houses.

The text spends more time describing what the photos clearly show than explaining how and why the buildings got that way. As a visual record of these remarkable, and for us pretty inaccessible,

towns, the book does a good job. The photos are striking, and the buildings are often beautiful in form and ornamentation.

The text provides a running commentary on the history of each town and, in particular, of the people with whom its monuments are associated—tyrants, sheikhs, imams, and the occasional wet-nurse. This history is heavily lifted from other sources, all properly attributed. Missing, though, are the pleasures of a first-person account, which is surprising considering how long the authors stayed in the area.

That these stopovers along the Silk Road revealed architecture of this quality speaks to the importance of these communities as centers of philosophy and culture—oases and crossroads in another sense. They also figure heavily in Sufism, Islam's mystical wing. It's frustrating, then, to not find more here about what we're seeing. The cathedrals of Europe also had their patrons, but knowing their personal histories is not why we buy books about them. *John Parman*

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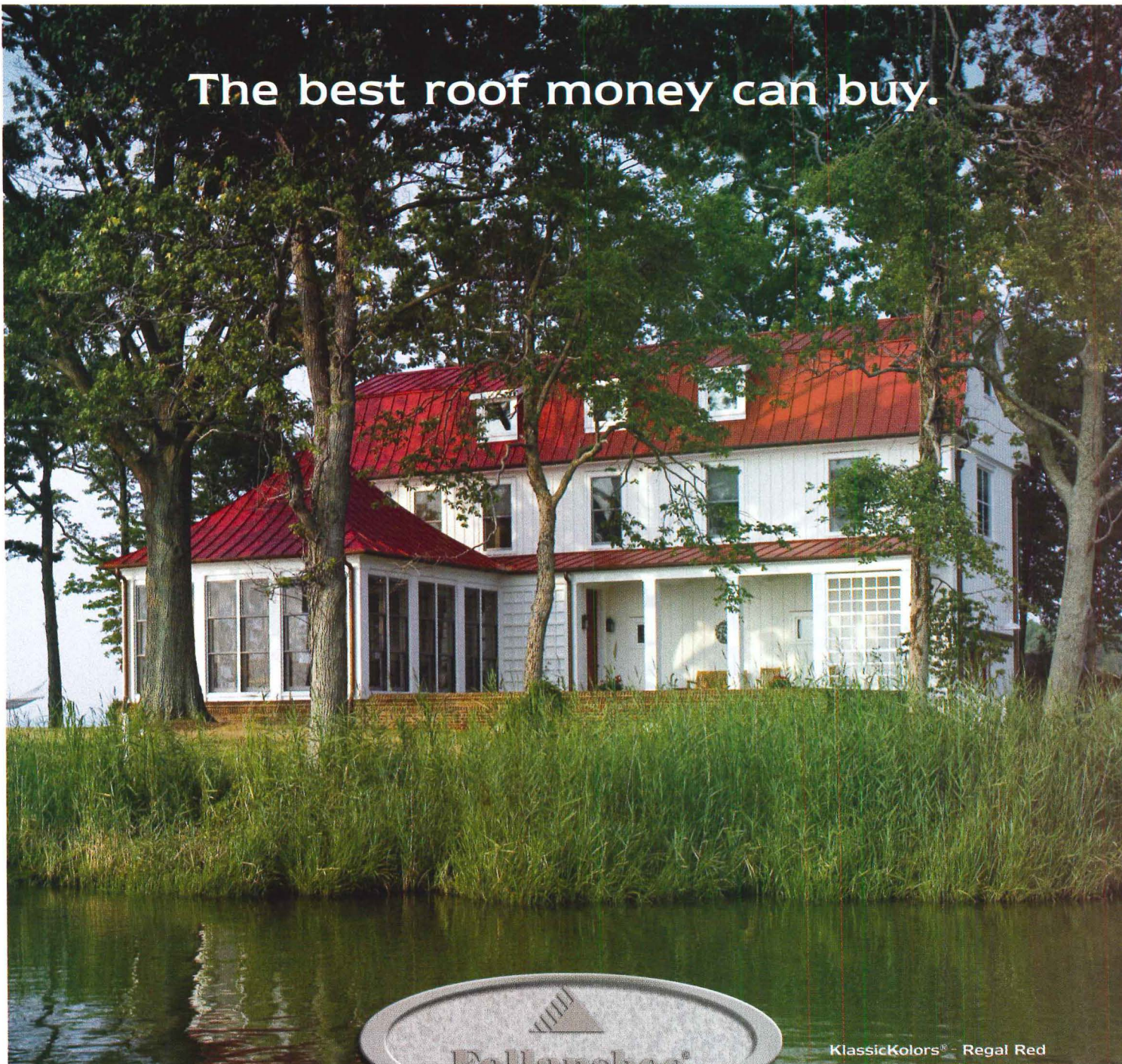
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Snapshot



By Robert Such

Nicknamed for the James Bond film *Octopussy* and for its resemblance in plan to the shape of a spider, the Octospider workers' cafeteria stands 26 feet above a lake on an expanding campus of factories, warehouses, and workers' housing on the outskirts of Ratchaburi, west of Bangkok.

The Ian Fleming story that was immortalized by Roger Moore in 1983 "reflects the essence of the building," says Oliviero Godi, who along with Dorit Mizrahi is a principal of Exposure Architects, the Italian practice behind the cafeteria design. Like *Octopussy*, says Godi, Octospider is "an improbable [creative work] sprung out of a fervent imagination." Indeed, the building brings to mind the fantastic headquarters of some of 007's arch rivals.

Designed for the Satin Textiles Company, the cafeteria, which can serve some 300 workers, embodies the ideals of Satin Textile managing director Schle Wood, who, says Godi, "insisted on providing his employees with a better working environment as a fundamental part of his vision for a modern industrial operation."

An improbable cafeteria provides lunchtime escape



PHOTOGRAPHY: © ROBERT SUCH

Snapshot

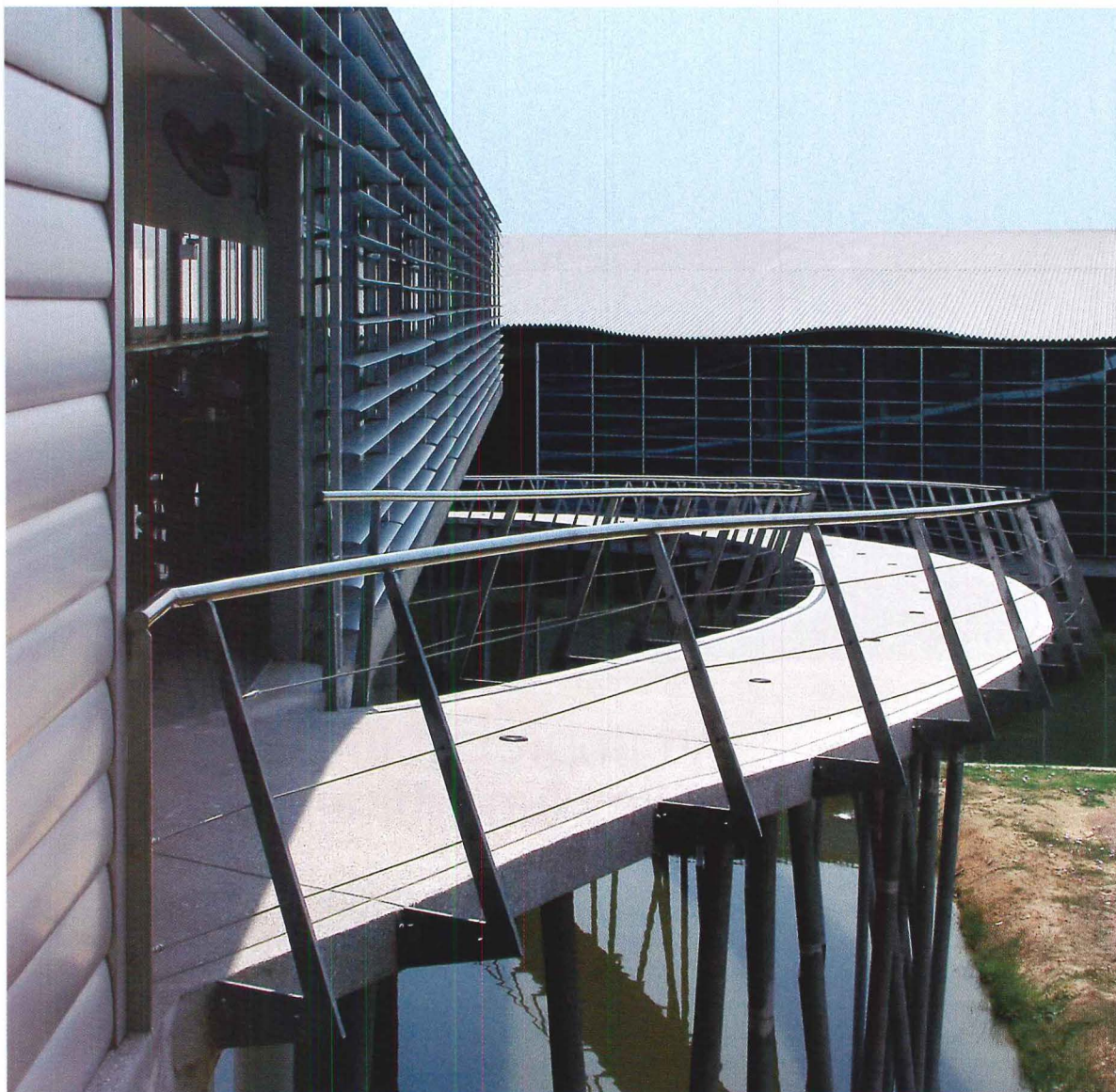
Supported by concrete pillars, three pierlike dining areas extend out over the lake. Access to the cafeteria and the kitchen is provided by a shallow ramp that arcs across the water and then flattens out as it passes through the building. The sense of lightness found in traditional rural architecture—canopied structures that provide shade from the beating sun and shelter from heavy rains—influenced Octospider's architecture, which also incorporates louvered walls to allow cross ventilation. And the slanted piles that support the crescent-shaped walkway mimic bamboo, enabling the ramp to blend in with its surroundings.

The extended walkway and elevated structure were conceived "to provide workers with a unique environment, where they do not feel as though they are inside the factory for the brief time they spend eating," explains Godi. And as diners enjoy this privileged vantage point, rising above the reality of the factory below and looking out across the landscape, they are also being observed by the workers on the ground.

Exposure Architects' building demonstrates the firm's sensitivity to Thai architecture and landscape. At the same time, it serves as a stagelike venue where taking time out to eat provides escape from the daily work routine and becomes an enjoyable actor-spectator experience. ■



A gently sloping ramp arcs over the lake and transports factory workers up to the Octospider cafeteria where, soaring above the fray, they find a welcome respite in the middle of a long day.





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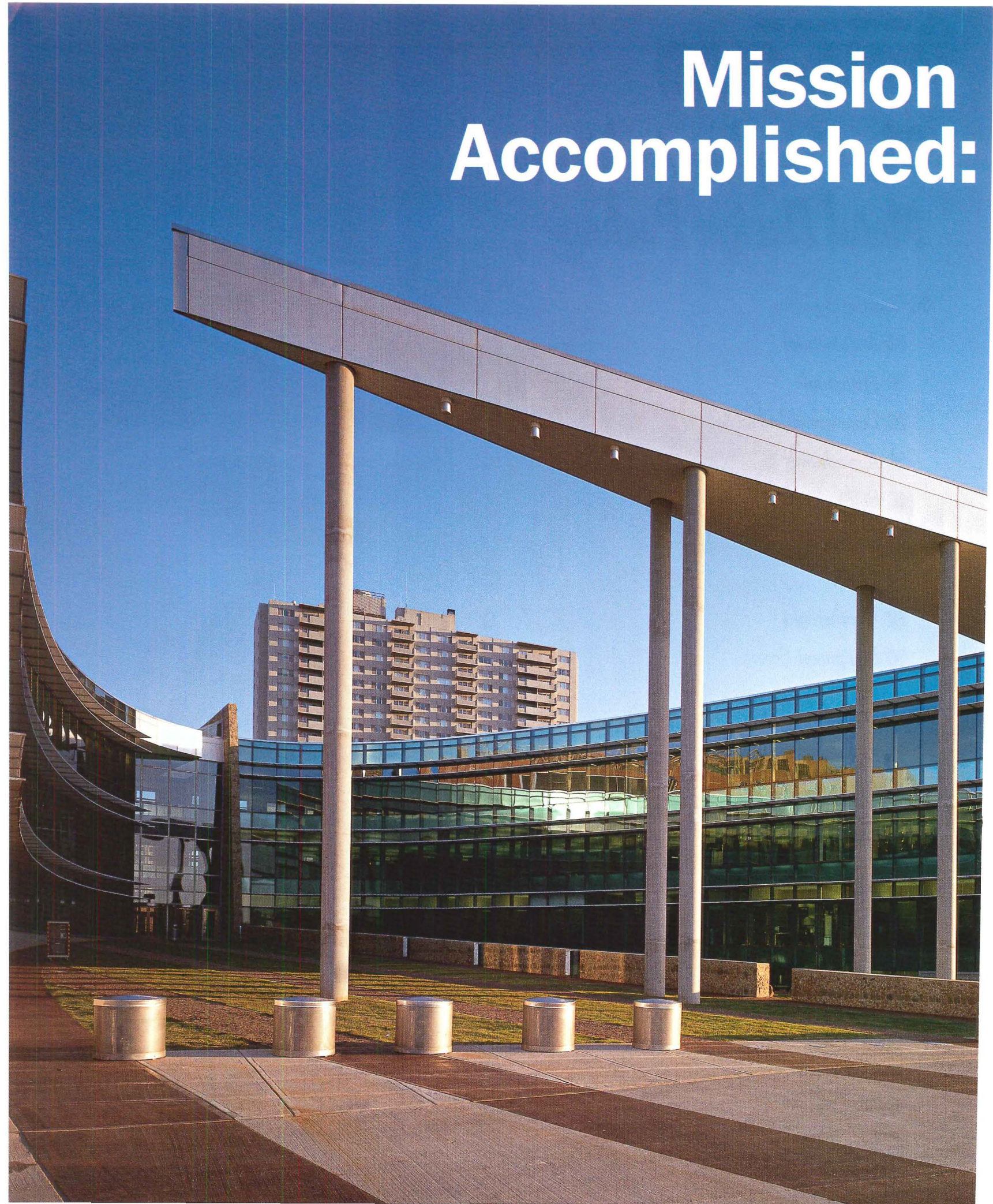


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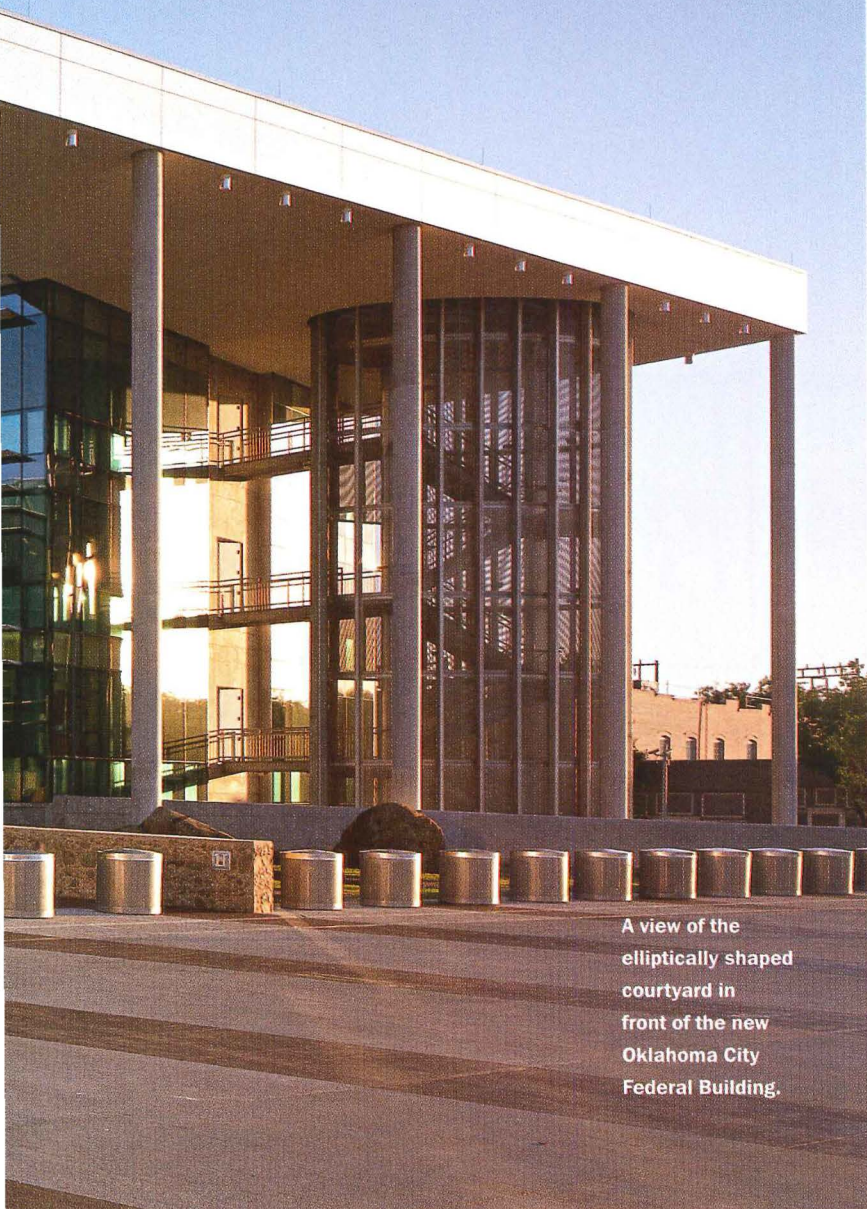
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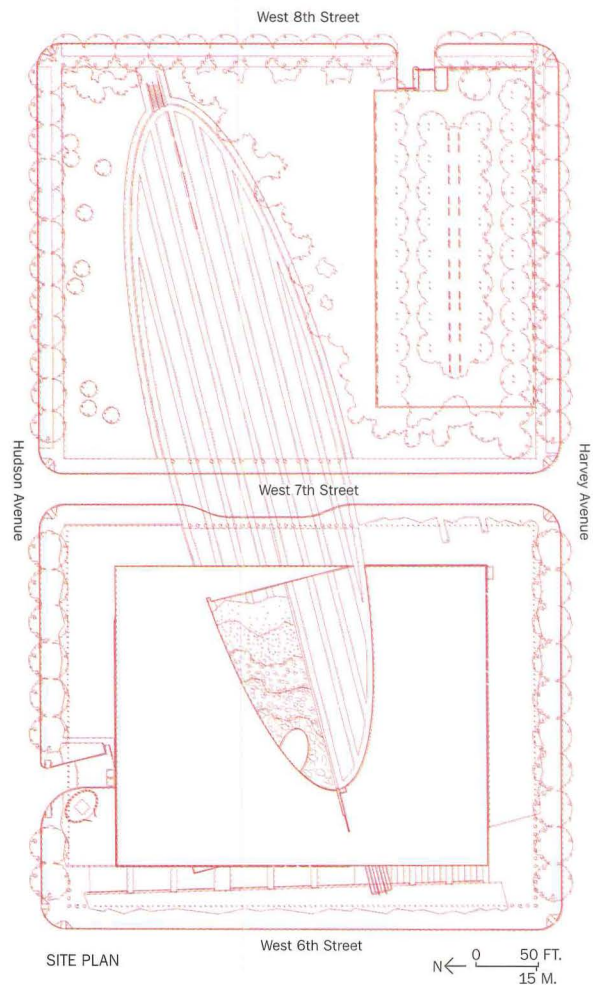


Oklahoma City's new Federal Building

combines security
and openness
in a superior way



A view of the elliptically shaped courtyard in front of the new Oklahoma City Federal Building.



By Jane C. Loeffler

The Oklahoma City Federal Building makes a strong and welcome statement of federal purpose in a place that will always figure in our collective memory. It replaces the nine-story Alfred P. Murrah Federal Building that collapsed in a terrorist bombing on April 19, 1995. Aimed at the federal government, that attack killed 168 people and was the worst such incident on U.S. soil when it occurred. We are just beginning to see the impact of that blast and that of the more recent 9/11 attacks on the civic landscape. In that context, the federal building is significant as a major public project that manages to combine necessary security with design excellence.

Given the fear that gripped federal workers in the aftermath of the bombing, and the realization that the unhardened design of the previous building had left occupants at risk, security imperatives easily could have overwhelmed the design of any replacement building. They did not because the U.S. General Services Administration (GSA), which oversees all federal-government construction projects, had determined that the new building would not be a memorial but a fully functioning state-of-the-art building. (A poignant memorial, designed by Hans and Torrey Butzer and Sven Berg [ARCHITECTURAL RECORD,

Jane C. Loeffler is an architectural historian in Washington, D.C., who writes frequently on embassy design and public policy.





The building occupies the southern end of the site (this page, above), nearest downtown. Artist Brad Goldberg's boulder-strewn water sculpture takes up one half of the courtyard (opposite, bottom). A public park is located on the block to the north of the building (opposite, top).

July 2000, page 28], was dedicated on April 19, 2000, on the site where the Murrah Building fell.) When the GSA awarded the high-profile commission to Ross Barney + Jankowski Architects of Chicago through its Design Excellence Program, the intent was to make the building forward-looking, but not fortresslike.

When the GSA's chief architect Ed Feiner describes the new building as "a commitment building," he's referring to the fact that the GSA could have permanently moved workers to another area, or leased space somewhere, rather than replacing Murrah with a new government-owned building here. In the aftermath of the bombing, Ron Norick, who was then Oklahoma City's mayor, headed to Washington to meet with President Clinton at the White House. There, he stressed that "it was vital to keep the federal presence in the downtown area."

A replacement for the Murrah Building was deemed essential as a way of jump-starting redevelopment in the area of the blast, and a means to keep scores of federal jobs in the city, argued Norick. "I knew if they didn't build the building, they'd be moving many or most of the jobs to Dallas or Kansas City or someplace else," he declared. Norick's mayoral successor Kirk Humphreys reiterated this, adding, "The federal government had no clear identity without a building." In a remarkable display of bipartisan unity, led by staunch Republicans, who ironically represent a constituency that harbors strong antigovernment sentiments, Oklahoma's elected officials backed a new federal building as a much-needed symbol.

Any new workplace really had to lure back reluctant workers after the bombing. According to Norick, tenants who survived the attack "just wanted to get out of town."

HUD workers, for example, who relocated to an old shopping center, liked it there and wanted to stay in the convenient, inconspicuous structure, which had free parking. To win back the confidence of former tenants, GSA decided to exclude law-enforcement agencies from the new building. Coupled with the evident security engineered into the structure, these decisions convinced most (if not all) tenants to return to the city-center site.

According to Leonard C. Murphy, who supervised the \$40 million project for GSA, "We knew we didn't want to build a bunker, and also that we wanted a building that invited the public." For architect Carol Ross Barney, FAIA, this challenge meant finding a design solution that would look, feel, and be secure, but one that would also welcome visitors and encourage engagement with the larger community. Because former Murrah tenants did not want anything tall, she started out thinking in terms of a campuslike arrangement of low structures. Unfortunately, as one block of the planned-upon three-block parcel was unavailable, she decided on a single, three-story structure paired with a pub-

A NEW BUILDING WAS ESSENTIAL TO JUMP-STARTING REDEVELOPMENT IN THE BLAST AREA.

lic park on two blocks. Instead of pushing the building to the far end of the site, where it would have seemed more imposing and remote, she pulled it as close as possible to the south end, near downtown. That means it is clearly visible from the memorial, but it does not upstage it in any way.

It also means that the memorial, a shallow reflecting pool and a field of 168 empty chairs, is visible from the building—a potentially uncomfortable reminder to federal

workers. That prompted the installation of floor-to-ceiling window coverings in all of the offices. But workers say this concern turned out to be unfounded, as no one at the new building is closing the blinds to block the view of the memorial. Even in the offices and conference rooms occupied by HUD, the agency most affected by the Murrah attack, workers prefer to keep the shades open—evidence, they say, of their comfort level in the new building.

To augment openness, Ross Barney gave the 181,000-square-foot, U-shaped building two equally accessible “fronts,” each with its own personality. Facing south to the downtown (and also the memorial), the building takes a formal stance. A soaring colonnade and concrete walls punched with windows line up with city streets—homage to the grid on which Oklahoma City was laid out in the land rush of 1889. Facing north, however, to a less densely settled and newer part of town that promises to see rapid development over the next decade, a visual drama unfolds. Here the building opens up completely to reveal a stunning

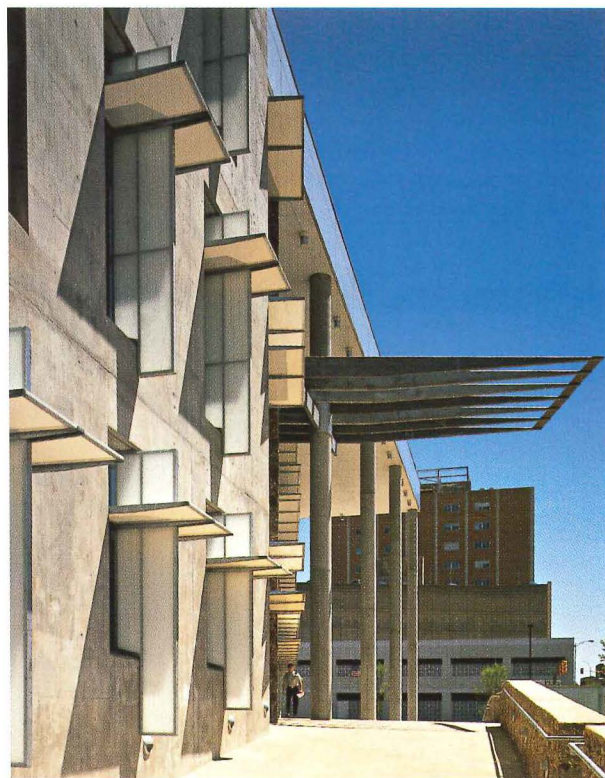
SITE FEATURES HERE EXPRESS ROSS BARNEY'S BELIEF THAT “BUILDINGS ARE ROOTED IN THEIR PLACE.”

courtyard featuring a glass curtain wall that partially encircles an installation of cascading red granite boulders. The rocks, gathered from a bison farm in the hills of western Oklahoma, were selected and arranged by landscape sculptor Brad Goldberg as part of GSA's Art in Architecture Program. Coming upon the courtyard is like opening a jewel box and finding an unexpected gem.

Beyond the courtyard is a park planted with trees on one side to evoke the Oklahoma woodlands and with native grasses and wildflowers on the other to evoke the prairie. A surface lot that keeps unscreened parked cars at least 100 feet from the building—a security requirement—lies beyond the park, in the northeast corner of the site. Ross Barney inscribed an elongated ellipse in the landscape, a dramatic device that ties together the two-block site. She extended its geometry into the building, integrating the park seamlessly with the architecture. From the air, the ellipse, with its alternating stripes of crushed red stone and green grass, makes the new landmark easy to spot. Others can debate whether or not that is a good idea, but for a visitor approaching on foot, the stripes simply lead the eye to the most striking portion of the building.

Describing her fascination with everything from the texture of local rocks (incorporated into a remarkable wall veneer that resembles an archaeological excavation) to the elliptical shape of ceremonial grounds used by Native American Indians (the inspiration for the ellipse), Ross Barney emphasizes her belief that “buildings are rooted in their place.” Stuart O. Dawson of Sasaki Associates; artist Douglas Hollis's 46 star-shaped, stainless-steel benches symbolizing Oklahoma's entry into the Union as its 46th state; and artist Goldberg's sculpture, whose boulders seem to have arrived self-propelled from the Washita Mountains, aid her ably in connecting the architecture to its locale.

Light shelves and sunshades protect windows on the south elevation (right). Lobby walls are covered with a veneer of local creek stone (below).



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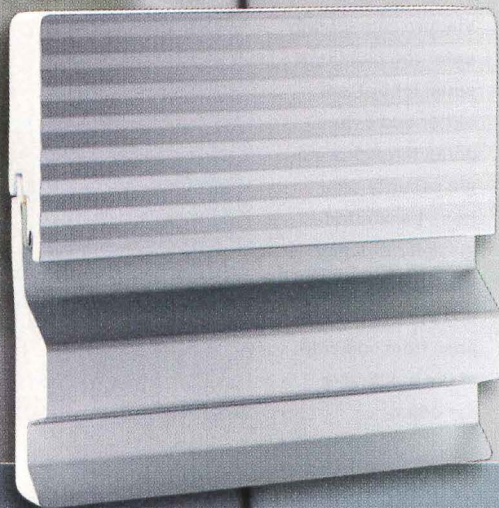
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What also ties the site together are the steel bollards, some illuminated at night, that ring the perimeter and separate the building from vehicular traffic. Compared to the massive Jersey barriers that surround public buildings elsewhere, these are not intrusive, and most are likely to be at least partially obscured by the native grasses that have yet to establish themselves on the site. (The landscape architect, though, says the intent was never to hide them.) Video cameras mounted on poles near the perimeter provide the building's first line of defense.

Blast-resistant design by Weidlinger Associates and a structural system engineered by The Benham Companies of Oklahoma City provide a second line of defense. Given GSA's stringent force-protection requirements, Jim Reynolds, who served as project architect for Benham, is understandably proud of "the concrete two-way slabs that permit the high ceilings and open, unobstructed interiors"; the "wall columns" that permit the large windows; and the stone veneer, devised in collaboration with Ross Barney so that individual stones will not become projectiles in the event of an explosion. To minimize further risk of injury in the event of a blast, the architects selected panels of insulated laminated glass bonded to steel frames with structural silicone. The window units are manufactured by the same company that fabricated replacement windows for the Pentagon.

Undoubtedly, one of the most welcoming features of the building is the entry arrangement that allows people to walk into the small lobby atrium from either the north or south "front" entrance without having to pass through security. By having both entrances feed into one lobby, Ross Barney allowed the same guards to monitor both doors. And she created an inviting lobby open to the public, where colored light pours through a skylight of dichroic glass, then through glass bridges connecting the floors above. Security

PEOPLE CAN ENTER THE BUILDING'S LOBBY WITHOUT HAVING FIRST TO PASS THROUGH SECURITY GATES.

screening occurs in adjacent areas where the walls are made of polished steel for strength, and to set them apart as transition zones between the lobby and offices beyond.

A daylighting system will make interior electric lights unnecessary much of the time. Features include sunshades or shelves (made of fabric and framed in aluminum) that allow the building to screen out sun and glare and "harvest daylight," as Ross Barney puts it. Heat and air-conditioned air are distributed using an under-floor distribution system that enables planning flexibility.

Unlike John Johansen's Mummers Theater (1970), an Oklahoma City landmark that always pleased architectural cognoscenti elsewhere but never won local acclaim, the new federal building is already recognized as an asset. Downtown OKC Inc. lists it along with the other urban redevelopment projects, including the popular Bricktown, that have totally transformed the southwest capital since the early 1990s—a sign that a grateful city has already embraced it as part of its future. ■



Visitors can actually enter the building's small lobby from either end before going through a single security area (top). Laminated-glass footbridges (right) allow people on upper floors to pass from one side of the building to the other.

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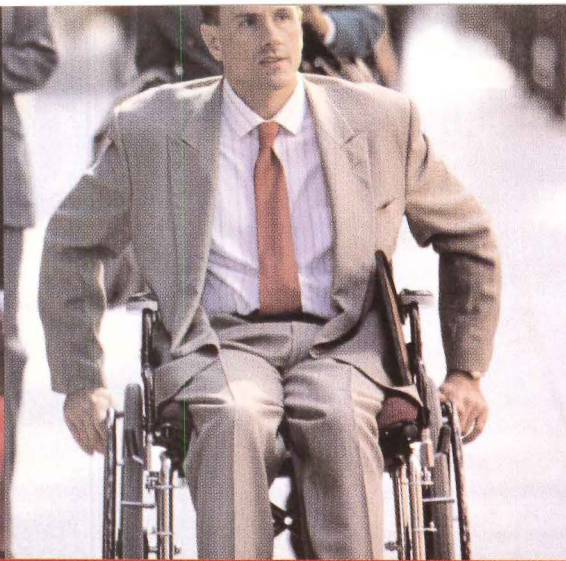
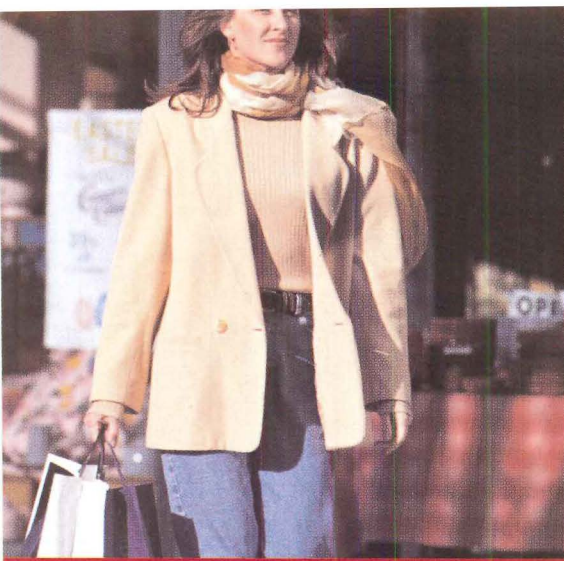
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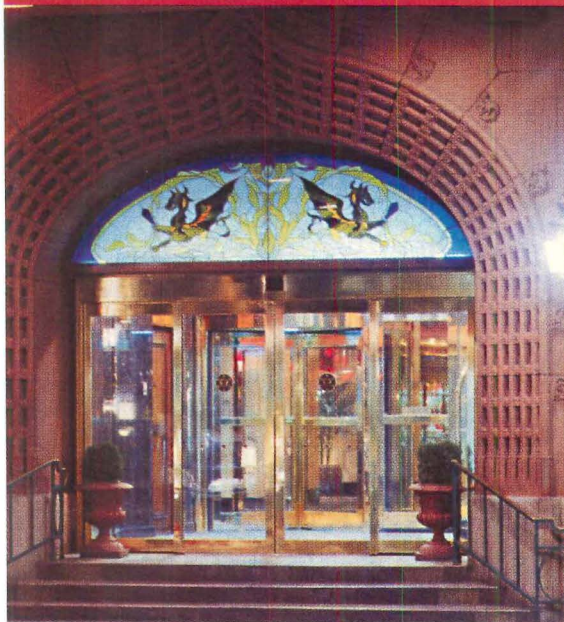
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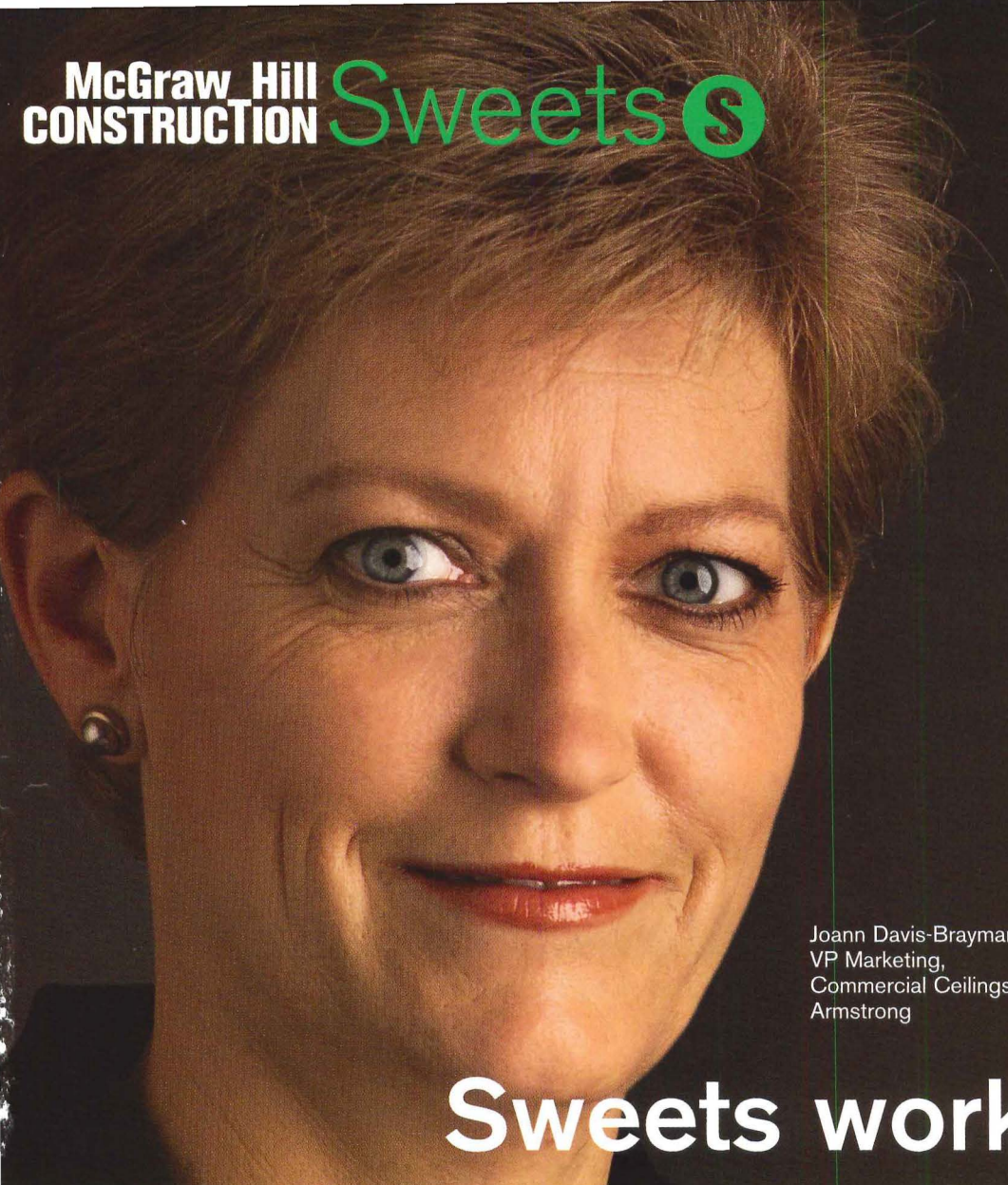
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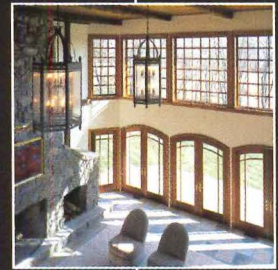
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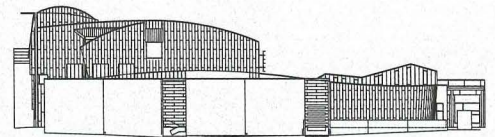


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Museum Quartet

Four designs bring a new voice to the debate over what a museum should be

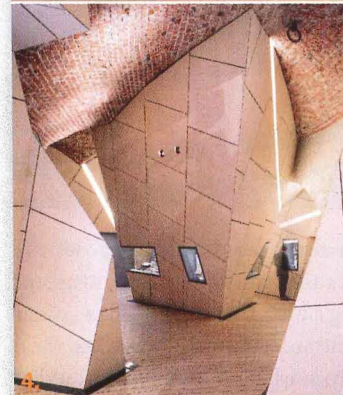
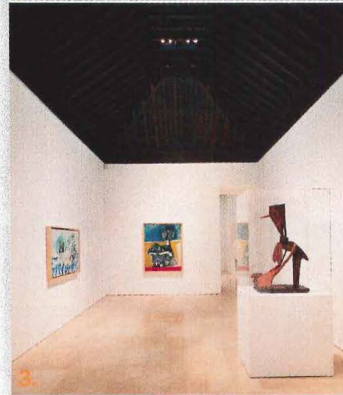
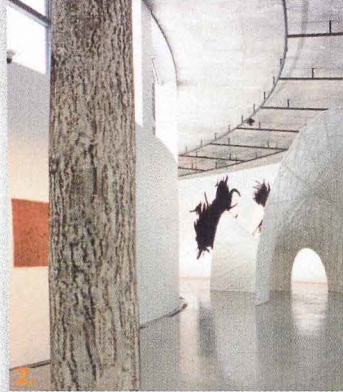
By Robert Ivy

Given the large number of pages devoted to contemporary museum design by the architectural press, you might wonder why ARCHITECTURAL RECORD is devoting more attention to the subject. Haven't we seen enough? Yet museums continue to proliferate across the international landscape, leading to the conclusion that, post-Bilbao, every municipality seems to want a smash.

Once clearly designated by function, primarily as repositories of discrete objects, museums are no longer constrained by familiar labels, allowing them to continually cross the line between traditional disciplines: The art museum doubles as civic emblem and as front porch, and the museum of history serves as interpretive center. Museums carry unstated semiotic messages, whether of politics or ethnic heritage. These formerly all-public institutions now actively court private partnerships. Purists may fume at a perceived weakening of standards, while museum directors eagerly seek new ways to attract the public, and mayors dream of potent new urban symbols.

Today, the museum-world debate centers on the institution's posture toward contents: Should the physical envelope provide a passive background for the ideas or artwork within, or should a museum (and its architect) emote or speak in its own architectural language? Directors, patrons, and architectural professionals are continually experimenting with a range of expressions.

Like other human institutions, museums are evolving. In a recent conversation with RECORD, the architect Daniel Libeskind asserted that museums are growing toward an important, as-yet-undefined new purpose, engaging a broader public and finding a new voice. The projects that follow demonstrate the ability of museums to reinvigorate existing structures and the surrounding landscape with new meaning. We will be covering other major examples in the months ahead, in a trend that continues to surprise.



1. Brooklyn Museum
Polshke Partnership
2. Aomori Contemporary Art Center
Tadao Ando Architect
3. Museo Picasso Malaga
Gluckman Mayner
4. Danish Jewish Museum
Studio Daniel Libeskind

PHOTOGRAPHY: © RICHARD BARNES (1); MITSUO MATSUOKA (2); DAVID HEALD (3); BITTER BREDD (4)

A new entrance by the **Polshek Partnership** opens the treasures of the **BROOKLYN MUSEUM** to a new generation of viewers

By James S. Russell, AIA

PROJECTS

For most museums, a new entrance is no big deal. But the 5,000-square-foot crystal arc that's just been added to the Brooklyn Museum is much more than a doorway: "This openness and transparency is about getting people to feel that they belong," said Arnold Lehman, the museum's director, in an interview.

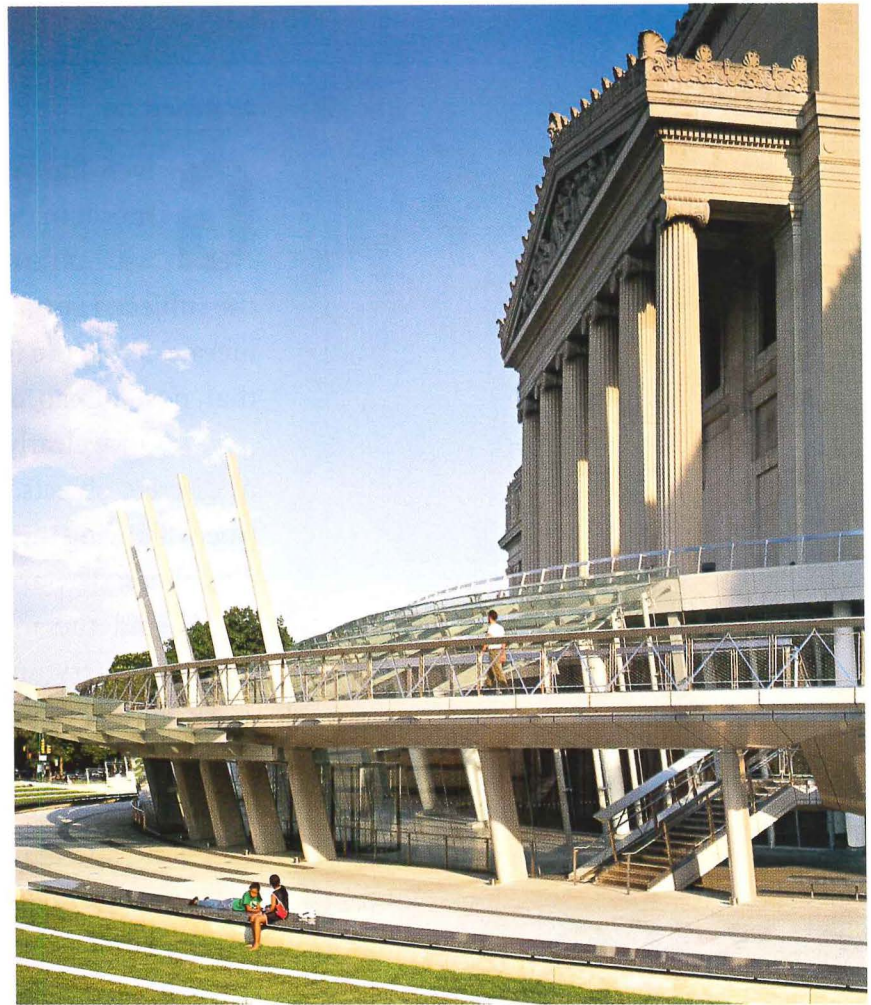
Not long after he joined the museum seven years ago, he brought his wife, who took one look at the building's magnificent but fortresslike facade and declared it "like a ministry on a ring road in Moscow." The towering, 260-foot-long granite and limestone facade represented the apogee of the borough's gilded-age urban ambition (page 119). Over time, Brooklyn grew more industrial, more ethnically diverse, then poorer. Many of the great collectors moved on; visitors felt dwarfed in the vast, echoing spaces.

Lehman's ambition is to reflect the borough's vibrancy within these massive walls. He is trying to draw in its staggeringly diverse communities, especially those brimming with people who have never considered museumgoing a habit worth developing. "For generations, this building has signaled that it is about a specific group of people who know how to navigate it, who know how to interpret things."

Marrying the 19th century with the 21st

For James Stewart Polshek, the creation of an inviting entrance went beyond rectifying the crude removal, in 1934, of the museum's original entrance stair. It meant that the massive facade had to open up, admit light, and make passersby curious about what lies within. "And yet I couldn't ignore or make a mockery of what was there," he said. "We had to match in a 21st-century way the 19th-century excellence of the McKim, Mead and White design."

The transparent entry-pavilion design, with its stepped roof a "ghost" of a vanished grand stair, drew skeptics. Wouldn't the design simply create a bigger hole in a facade that needed stitching together, not additional amputation? Some historic preservationists lobbied for restoration of the old stairway. Lehman and Polshek rejected that option. "The original stairs were double the height of the staircase at the Metropolitan Museum," Polshek explained. "It's much higher than we could expect people to comfortably climb. And you couldn't easily create



access with dignity for older people or those with disabilities." Added Lehman, "We don't think you should have to ascend to art."

In drawing a broad arc in plan, then crossing it with a radial oriented to a subway entrance, the architect shifted the old frontal doorway to face the direction from which most people would enter (plan, page 122). The Museum and Polshek persuaded the transit authority to swivel the subway stair to face the museum. Polshek added benches and shade trees that attract mothers with toddlers and teenagers seeking a quiet place to

Project: Brooklyn Museum Entrance Pavilion and Plaza, Brooklyn, N.Y.

Architect: Polshek Partnership—James S. Polshek, FAIA, Duncan R. Hazard, AIA, Don Weinreich, AIA, Robert D. Young, AIA, David E.

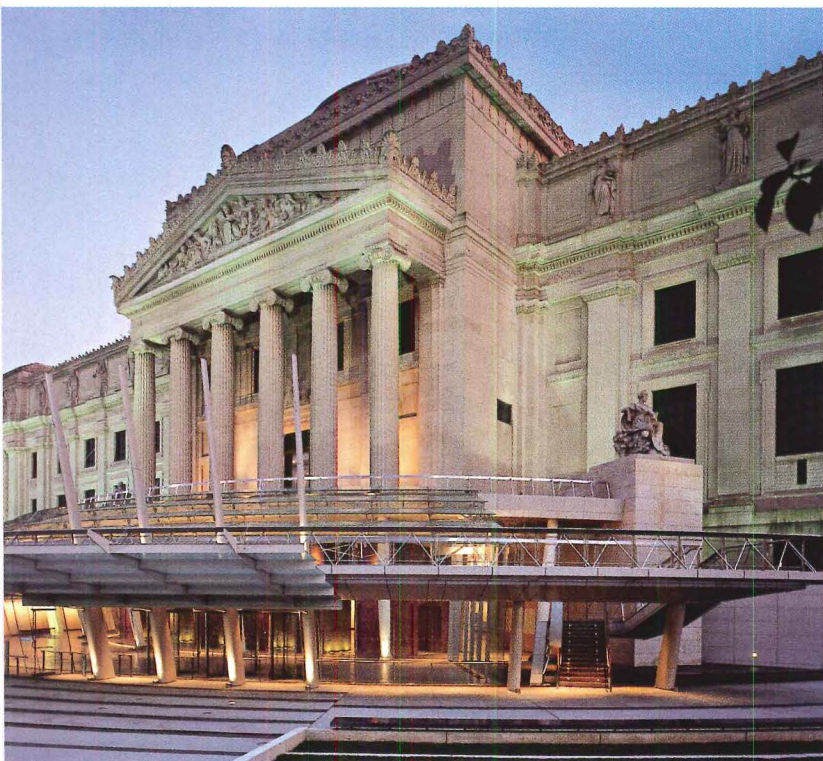
Tepper, R. Craig Mutter, AIA, Robert S. Condon, AIA

Consultants: Robert Silman Associates (structural); Jaros Baum & Bolles (m/e/p);

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Masts suspending a canopy (opposite) signal the entry into the Brooklyn Museum's new light-flooded lobby (this page).



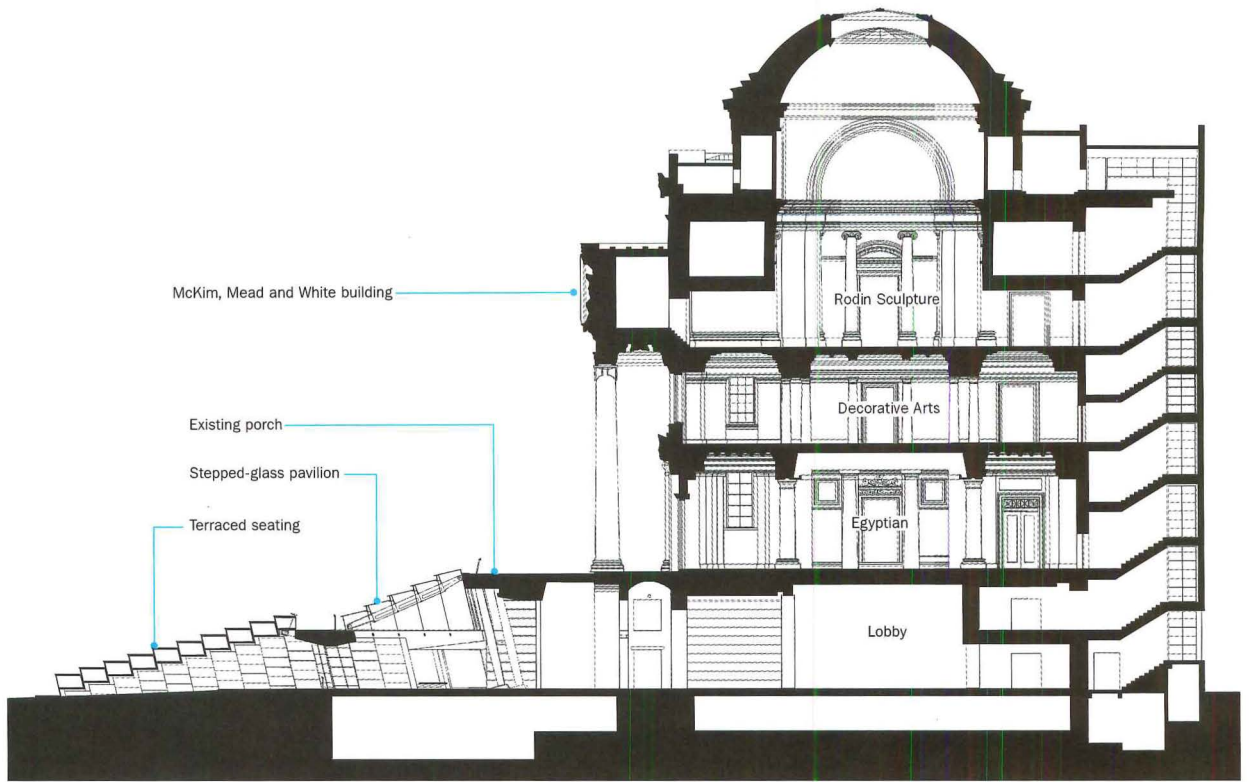
read. An amphitheater ascends the northeast quadrant of the arc, beckoning passersby from the opposite direction to take in the theater of the street with its sun-bathed steps and the impish fountain by WET Design. “Arnold asked for a great public space,” explained Duncan Hazard, Polshek’s managing partner. “This is the museum’s gift to the city.”

As built, the entrance could never be thought the empty void the critics feared. The “water white” glass of the curving wall under the roof cants outward to make the facade reflection-free, inviting people to check out the activity within. At the top of the amphitheater, a walkway over the entrance—the architects call it a *passerelle* (footbridge)—begs to be explored. From the walkway, people peer inside, their reflections bobbing along the vertical strips of glass in the roof. Those within stare back, or follow the roof walkers’ reflections, which multiply, flutter, and evaporate. This quiet bustle doesn’t mean the grand old building gets lost. As you enter, your gaze is actually drawn upward to the massive pilasters and entablature of the old facade. The museum no longer acts as if it has permanently hauled up its drawbridge.

Advertising Brooklyn’s new vibrancy

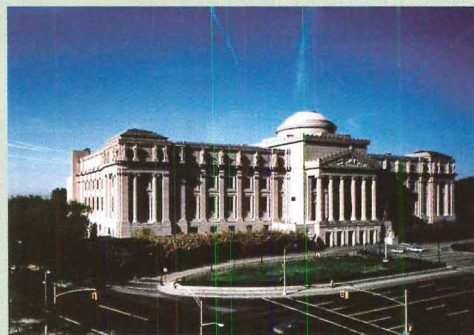
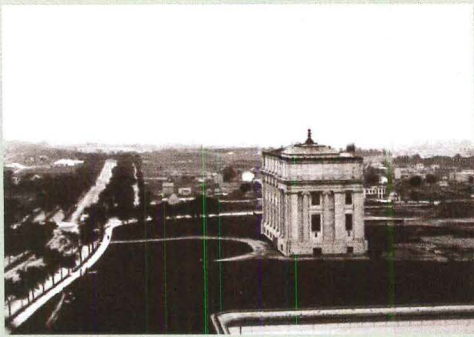
Within the light-filled lobby, Polshek’s team displayed the brick piers that support the massive portico above. Visitors feel this evocation of ancient Roman monumentality as they make their way through the narrow passages between the piers to the spacious, double-height lobby. “We contrasted the basic primitive mass of the brick piers with the technical

The great porch (below) is not open to the public, but it has been preserved. Behind the "two-story" facade lies five intricately worked levels (section, right). The pavilion occupies what was once a driveway fringed with scrubby grass. Polshek has added a wood-clad stepped amphitheater (opposite, top). Near the door, shaded benches welcome passersby. The low, curved planters leave a clear vista into the glass pavilion (opposite, bottom).



SECTION LOOKING EAST





FROM GRAND CIVIC PALACE TO GILDED-AGE SURVIVOR

Brooklyn may have looked bucolic as the first wing of what was then called the Brooklyn Academy of Arts and Sciences rose in 1898 (top). Its gigantic portico and mighty dome promised the likes of the Louvre, the British Museum, the Hermitage—in short, a grand civic palace. But Brooklyn, instead, became gritty Flatbush Avenue and industrial Red Hook, famous for the Dodgers and Coney Island rather than Degas and Corot. Only a sixth of the museum's Beaux Arts plan, by McKim, Mead and White, was realized, from 1897 to 1915 (middle). The range of galleries running along the long main facade is backed by only one of four planned gallery-wrapped courtyards.

When constructed, three massive tiers of steps rose an intimidating 28 feet to the portico. Severely deteriorated by the 1930s, they were removed in 1934 and a new street-level entrance was punched through the portico base (bottom). Not only did it mar the facade, it delivered patrons into a dimly lit no-man's-land: "What used to be the back of the auditorium," said Lehman. *J.S.R.*

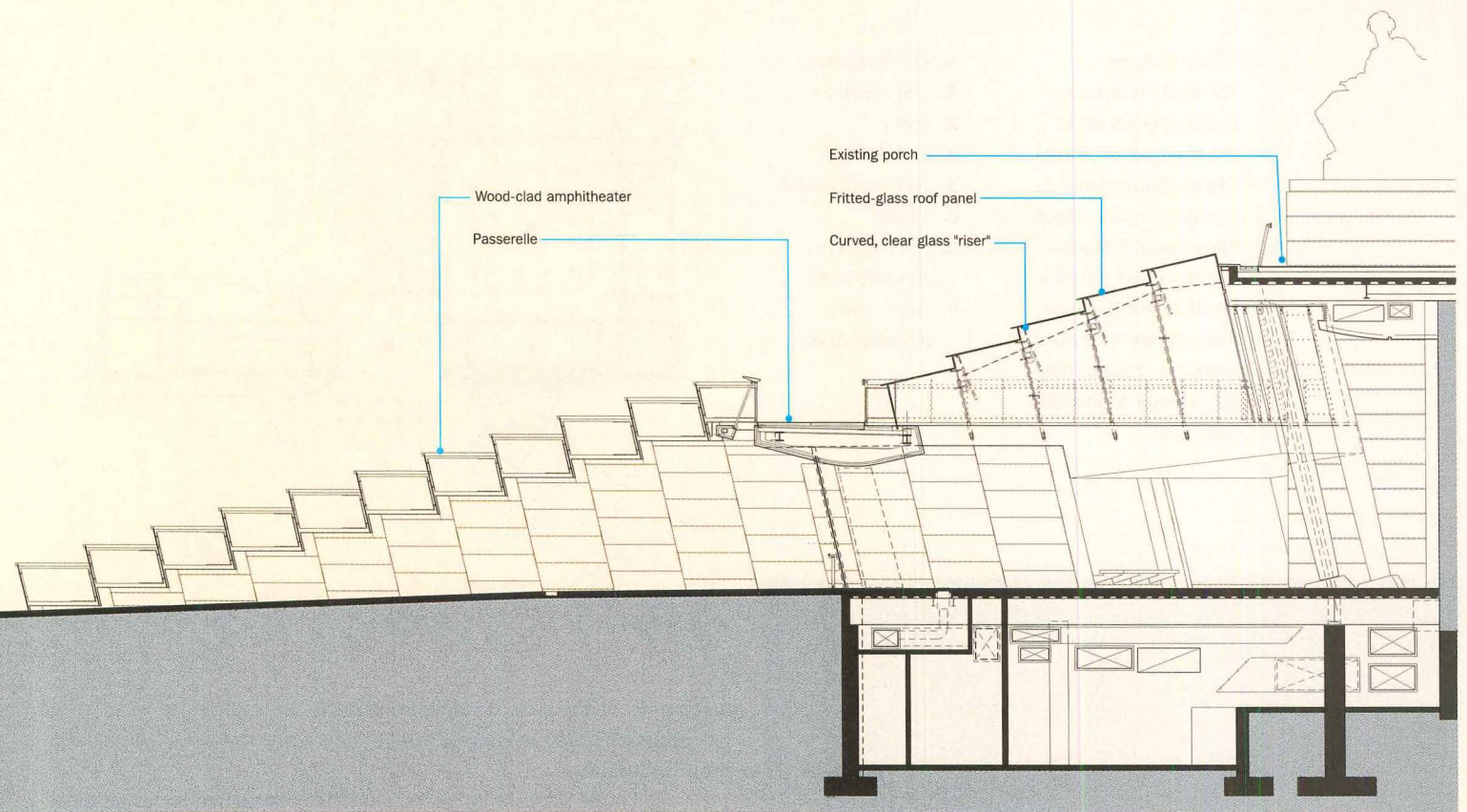
It took "about a zillion" tries to detail a "jewel-like necklace"

How to make an entrance that is transparent yet substantial enough to hold its own against the original building's grandeur? The inspiration came, said Duncan Hazard, Polshek's managing partner, from Pennsylvania Station, a demolished masterpiece by McKim, Mead and White, the museum's original architects. "The glass-and-steel train shed wedded to the great Roman temple in front was a wonderful combination," he explained.

Polshek collaborated with Dewhurst MacFarlane, engineers specializing in glass construction. "Though they would have liked nothing better than to build the whole structure out of glass," explained David Tepper, a project architect at Polshek, "we preferred a combination of steel and glass because it made a richer reference to the Beaux Arts tradition." No obvious solutions presented themselves, however. "The hybrid nature of this structure was its biggest challenge," adds Tepper. "It was difficult to quantify and difficult to analyze." Asked how many iterations were studied, Hazard replied, "About a zillion."

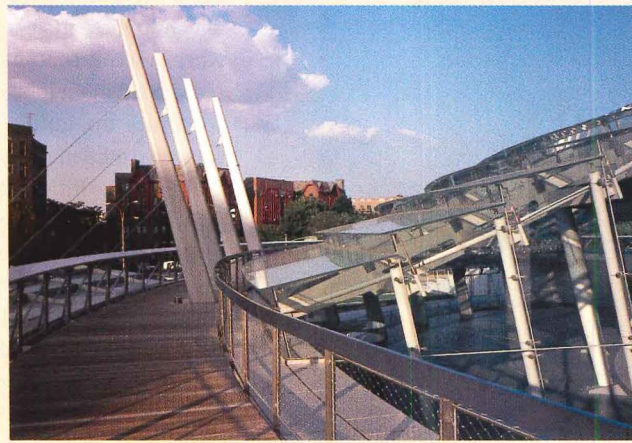
As built, thin steel rafters radiate from the existing building and support the fritted-glass roof panels. Curved 1-foot-high transparent glass panels act structurally as beams and visually as the roof steps. TriPyramid Systems, a company that has turned yacht-hardware expertise to the design of elegant glass-wall supports, devised the fretwork of cables, fittings, and stainless-steel king posts that tensions the flangeless metal rafters. At the sides of the glass shed, the designers introduced horizontal trusses into the roof-support system, laterally "suspending" the tensioned beams in between. Polshek compares the entry's "jewel-like" construction to a necklace. *J.S.R.*



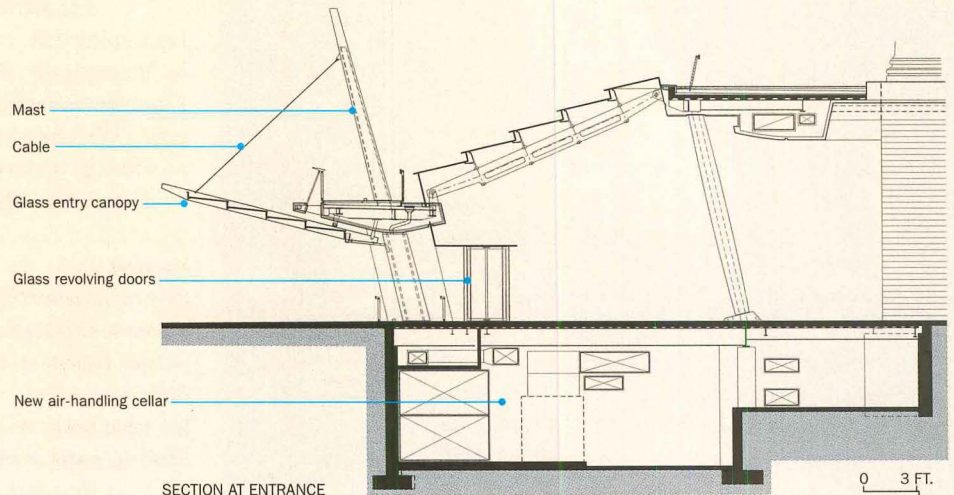
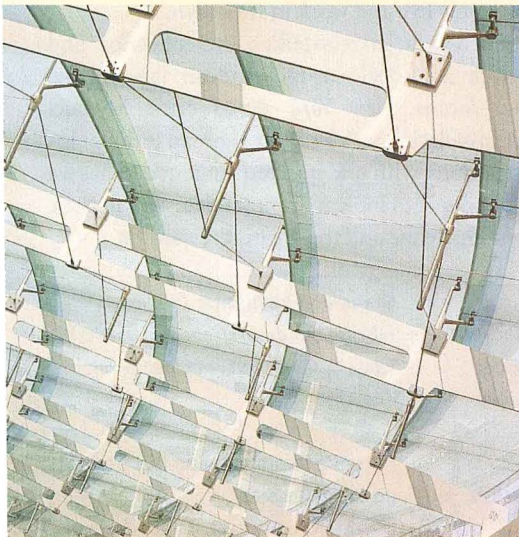


SECTION AT AMPHITHEATER

0 3 FT.
1 M.



Fritted glass clads the pavilion's stepped shed (opposite, right). The risers' curved, clear glass reflects those strolling the passerelle (near left). It invites visitors from the amphitheater (drawing, above). Masts suspend the entrance canopy via cables (drawing, below). Under the glass, stainless-steel cables and rods stiffen gray-painted metal rafters (bottom left). A horizontal arch anchors the glass-support assembly at each end (far left).

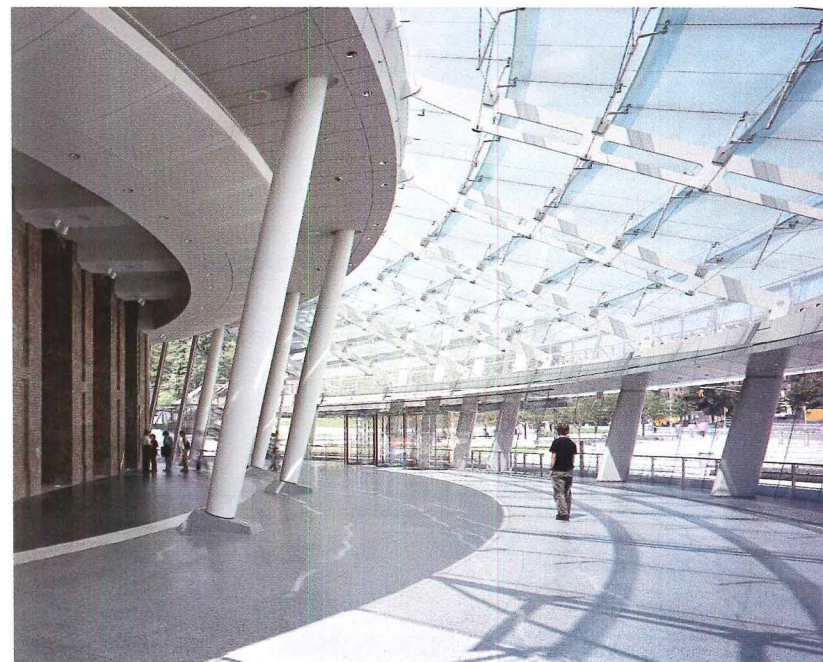
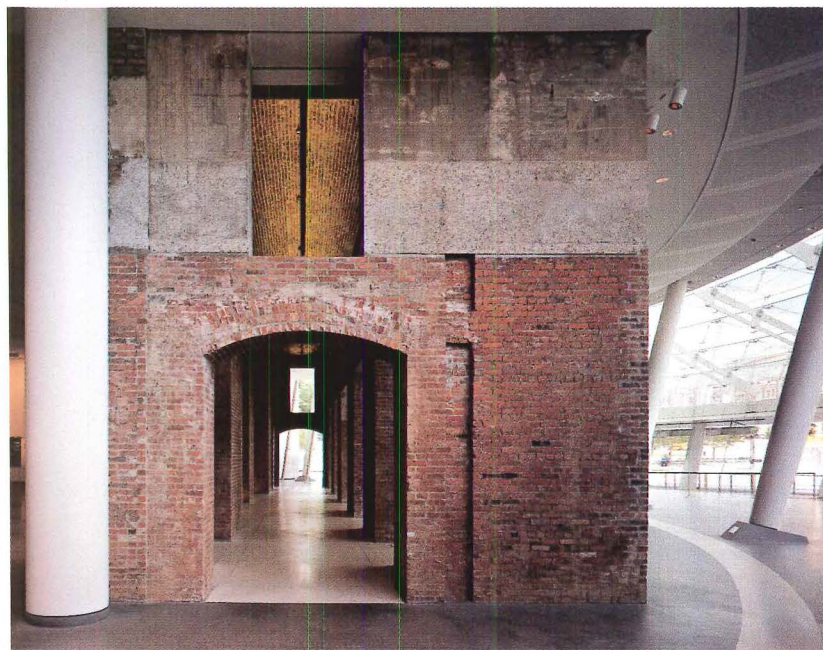
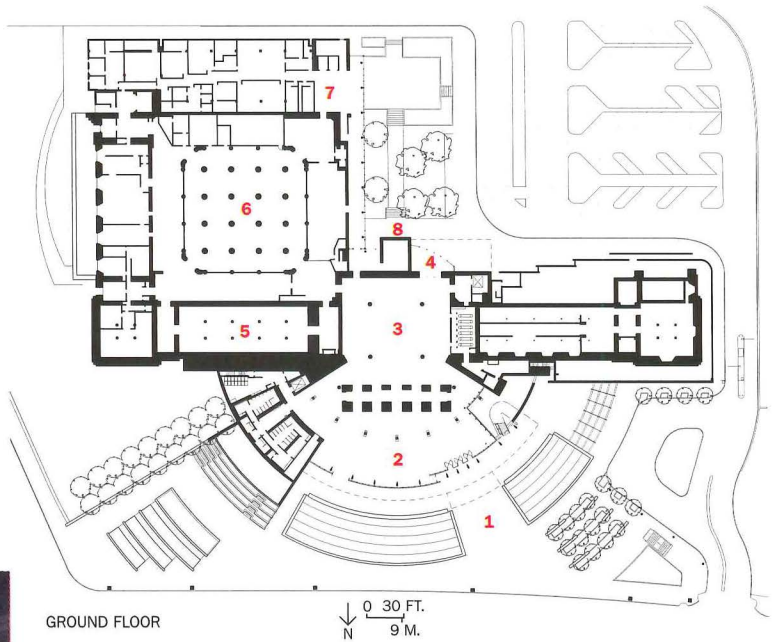


SECTION AT ENTRANCE

0 3 FT.
1 M.

Polshek's team revealed the massive masonry piers under the great porch (below). The pavilion's expansive interior fills during the museum's popular First Saturday (of each month) festivities (bottom). As well as inviting people in, it opens the the museum to the city (opposite).

1. Entrance plaza
2. Entry pavilion
3. Lobby
4. Parking entry
5. Temporary exhibit
6. Exhibit
7. Existing main elevators/stairs
8. Future main elevators/stairs



derring-do of the glass,” explained Hazard. The angled end walls of the pavilion slice into this lobby behind the masonry, drawing daylight deep into the building.

The \$63 million project included much unglamorous remediation. Yet-to-be-funded air handlers will fill space carved out under the entry pavilion. They will supply museum-quality climate control to the many galleries that are not yet air-conditioned. To separate pedestrian and auto movements, parking and drop-off areas were routed to the rear, where a second entrance was relocated so that all patrons will arrive in the remodeled main lobby. Nearing completion at press time, the lobby itself continues the public “invitation” that the entry promises by offering extensive guidance—both human and electronically interactive.

The Brooklyn Museum has much left to do. Realizing the potential of its extraordinary collections and its magnificent building will take more patience. (Polshek has been working there since 1986, when he and Arata Isozaki won a competition for a master plan.) But Brooklyn itself is changing rapidly, and Lehman sees the entrance as the most tangible advertisement of his agenda to link the museum’s treasures with the life of the city. The inaugural exhibition for the new entrance, *Open House: Working in Brooklyn*, “celebrated the borough as a focal point for contemporary art in U.S.,” explained Lehman. After all, he added, “The majority of New York artists now live and work in Brooklyn.”

Lehman’s team has also been reinstalling the collection and regrouping key works—such as 1,300-year-old Andean tapestries—in thematically decorated rooms. *New York Times* critic Michael Kimmelman found this art installation tasteless, but Lehman is unapologetic. “We have a huge opportunity with underserved audiences. That we provide the opportunity for people to look at art and relate to it in their own way is both the greatest challenge and the greatest reward.” ■

Sources

Pavers: Hanover; Liberty Marble
Stone: Branco Quartzo Granite; Indiana Limestone; Mesabi Black Granite

Ipe wood deck: Pau Lope

Roofing, waterproofing: Carlisle (built-up, elastomeric)

Glass and skylights:

Pilkington (skylight and storefront glass); *W&W Glass Systems* (curved glass, revolving doors)

For more information on this project, go to Projects at

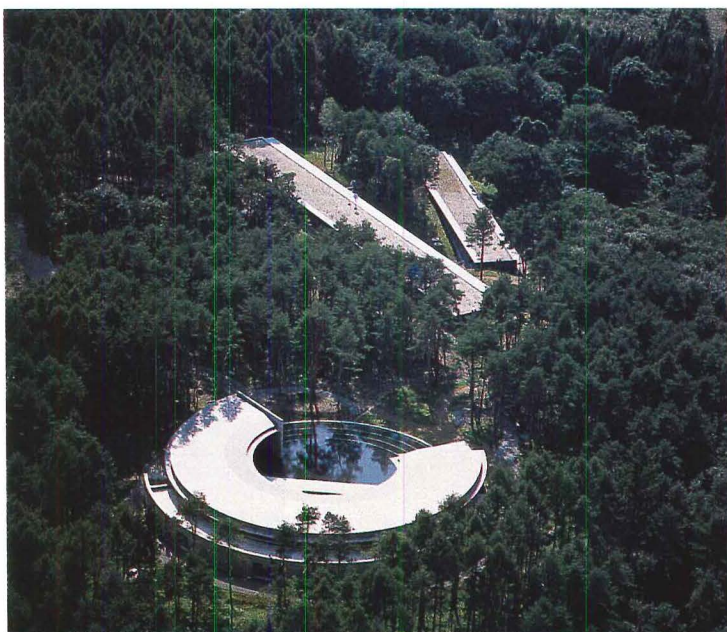
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By Naomi R. Pollock, AIA

Filling the northern tip of Japan's Honshu Island, Aomori Prefecture is better known for apples than architecture. But the completion of Tadao Ando's Aomori Contemporary Art Center (ACAC) has helped to put the agricultural outpost on the proverbial architectural map. The country's first artist-in-residence facility, the ACAC is a serene haven where potters, printmakers, and other talented people come to hone their craft surrounded by nature.

While the ACAC needed an institutional presence, its built form had to be a blank canvas on which the artists could work and a benign intrusion that could meld with the landscape. To Ando, achieving these divergent goals called for an "invisible architecture" made of "pure geometric forms that are without a trace of arbitrariness." True to Ando's words, each of the three programmatic pieces—places for artists to work, display their art, and live—is housed in its own building, whose simple shape is neither jarring to the eye nor entirely inconspicuous. As a whole, the buildings' clean lines and quiet materials are at peace with their setting and underscore the natural beauty all around them.



Located on the outskirts of Aomori City, adjacent to the Aomori Public College, the ACAC occupies a secluded, hilly parcel surrounded by forest. From November to March, the site is blanketed with snow, but in summer it blossoms with flowers and trees. Leaving behind the sight and sound of cars, a trellised arcade guides pedestrians from the road to the heart of the complex: a two-story, circular building that holds the gallery, amphitheater, and administrative offices. From there, the land slopes downward to the bar-shaped studio and the dormitory buildings.

Naomi R. Pollock is *RECORD's* special international correspondent in Japan and the coauthor of *Japan 2000: Architecture and Design for the Japanese Public*.

Project: Aomori Contemporary Art Center, Aomori, Japan

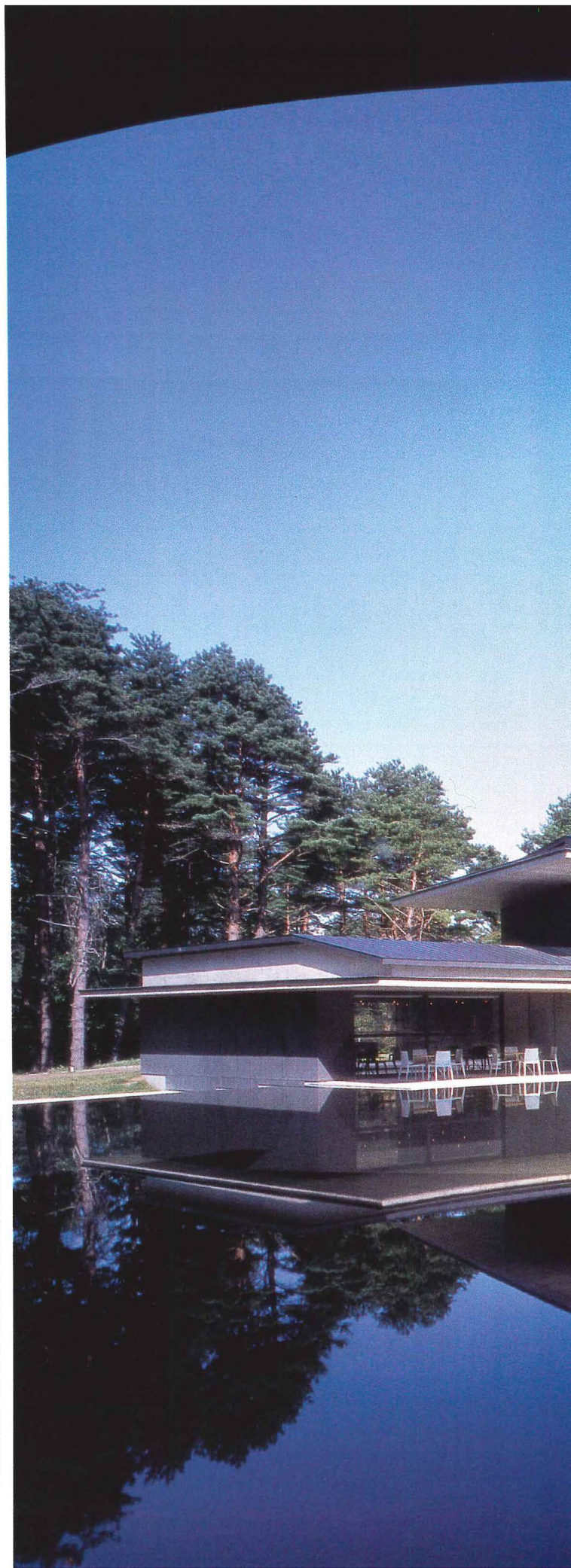
Client: Aomori City

Architect: Tadao Ando Architect & Associates—Tadao Ando, principal; Hironobu Wakayama, design team

Engineers: Kanebako Structural

Engineers (structural); P.T. Morimura & Associates (mechanical/electrical)

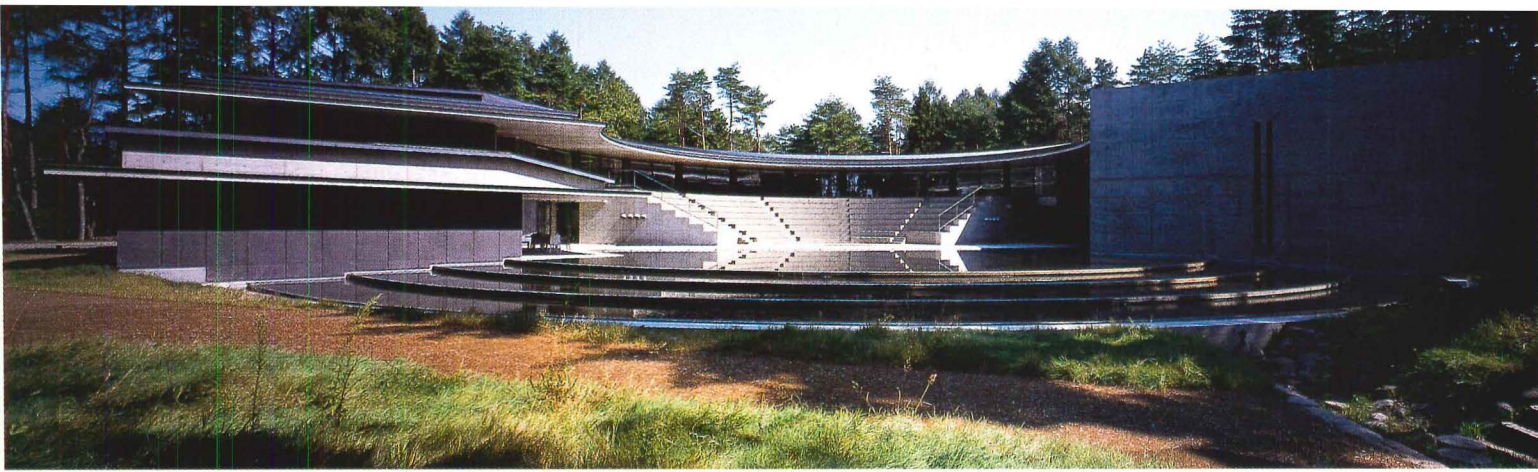
General contractor: Takenaka Corporation, Marukisaitogumi Company, and Yamaguchi Corporation Construction joint venture



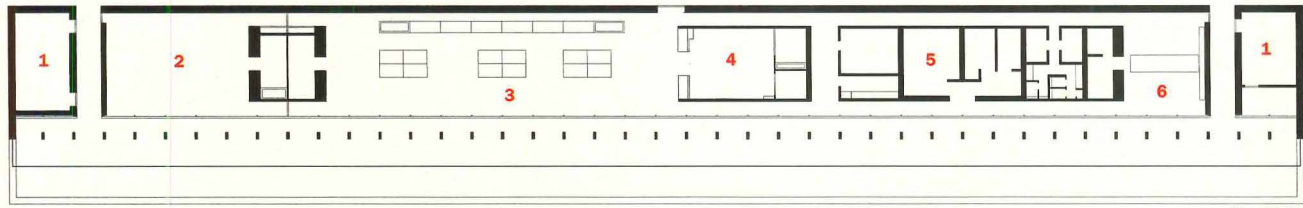
Tadao **Ando** bridges nature and structure at
the **AOMORI CONTEMPORARY ART CENTER**
in the wooded hills of northern Japan



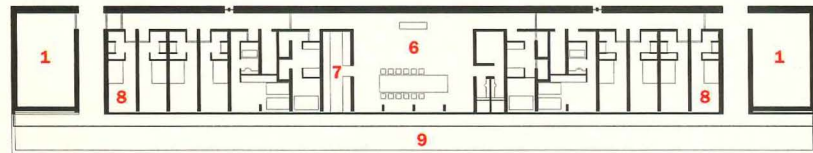
The three-building complex nestles in a forest at the base of the Hakkodasan Mountains (opposite). Ando kept the circle of the amphitheater (above) incomplete, so its space would flow out toward the hills.



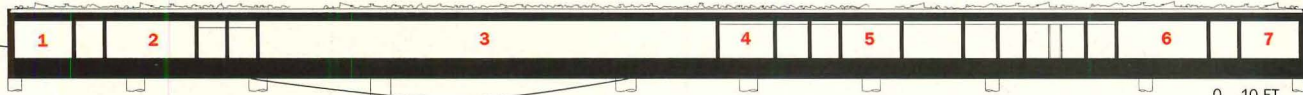
- 1. Machine
- 2. Woodworking
- 3. Workshop
- 4. Printing
- 5. Editing
- 6. Dining
- 7. Kitchen
- 8. Bedroom
- 9. Terrace



CREATIVE HALL

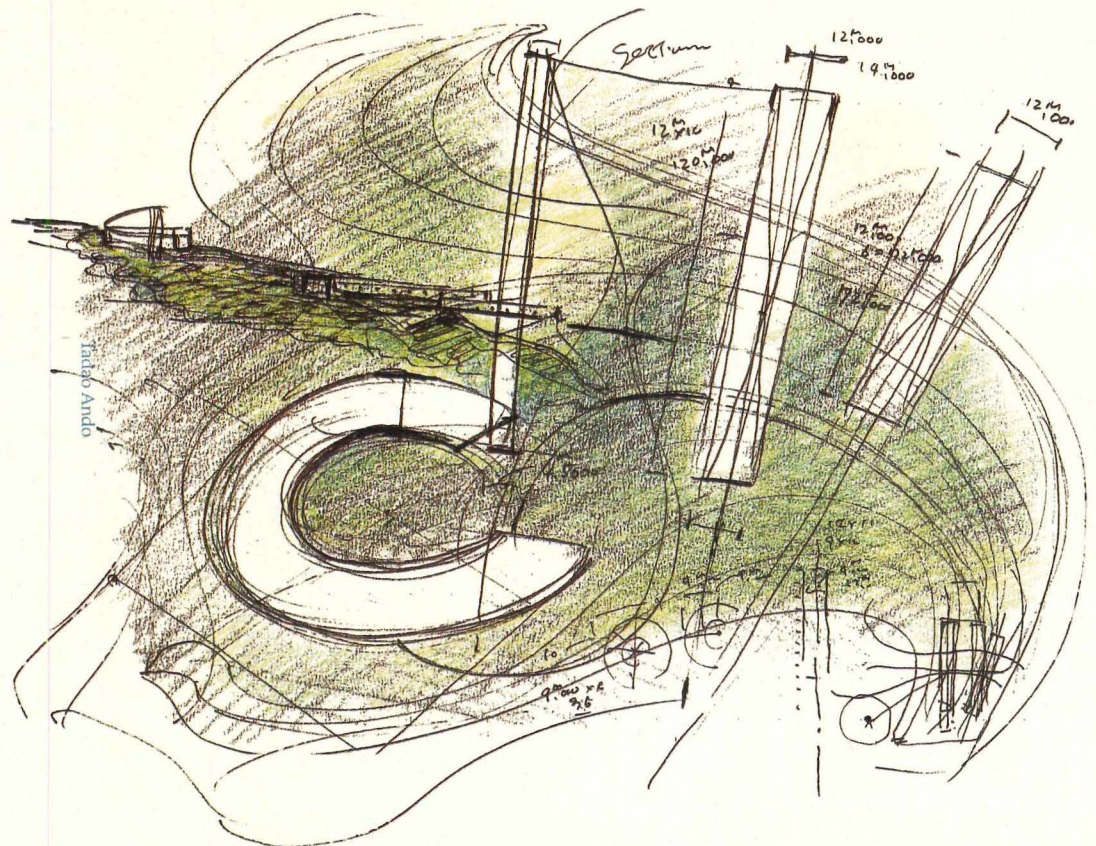


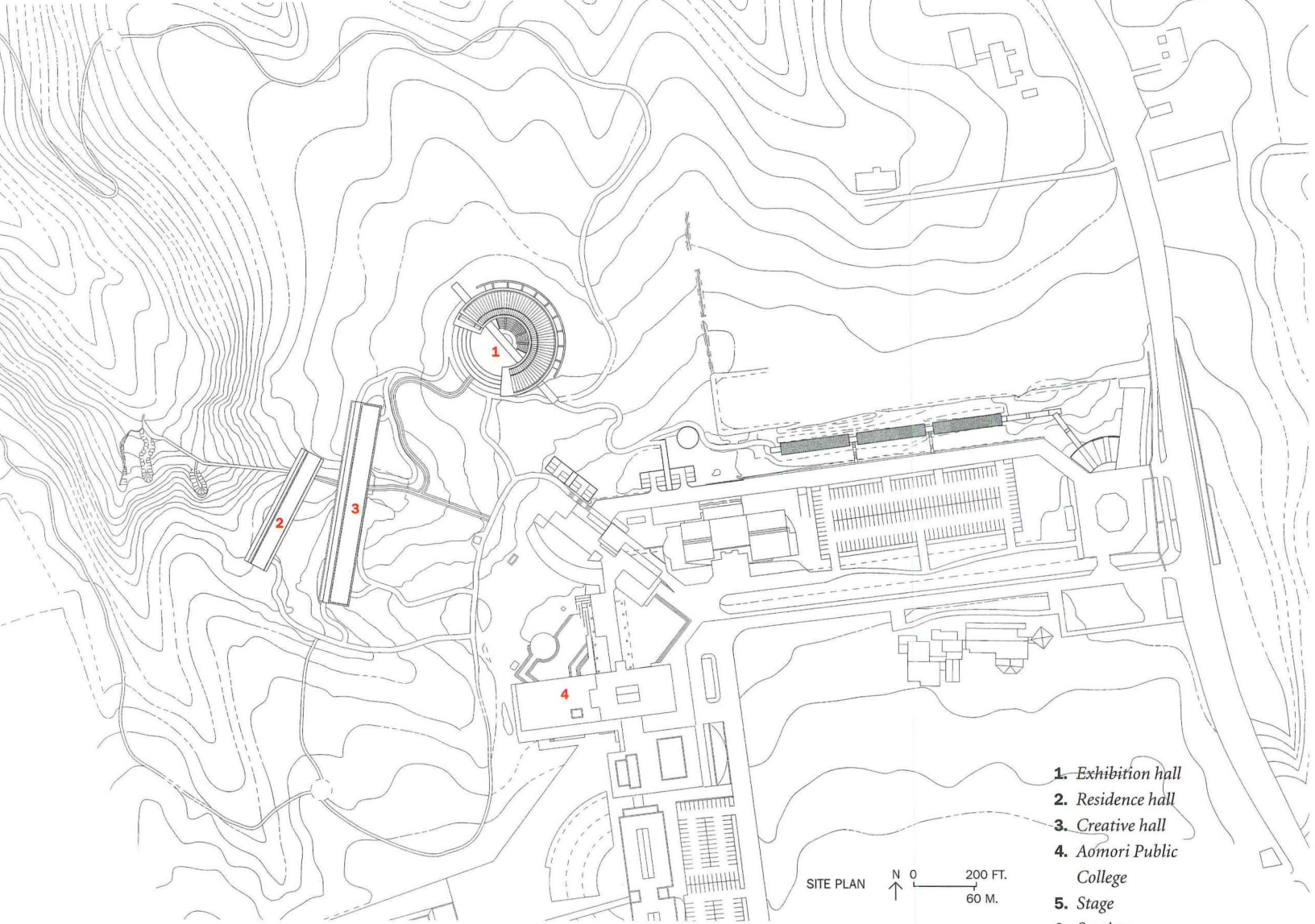
RESIDENCE HALL



CREATIVE HALL SECTION

The three buildings of the complex (sketch, right) offer 43,360 square feet of space indoors and another 3,000 square feet outdoors in the amphitheater and terraces. Both the creative hall (plan and section, above) and the residence hall (plan, above) have long balconies that refer to traditional Japanese *engawas*, or verandas.



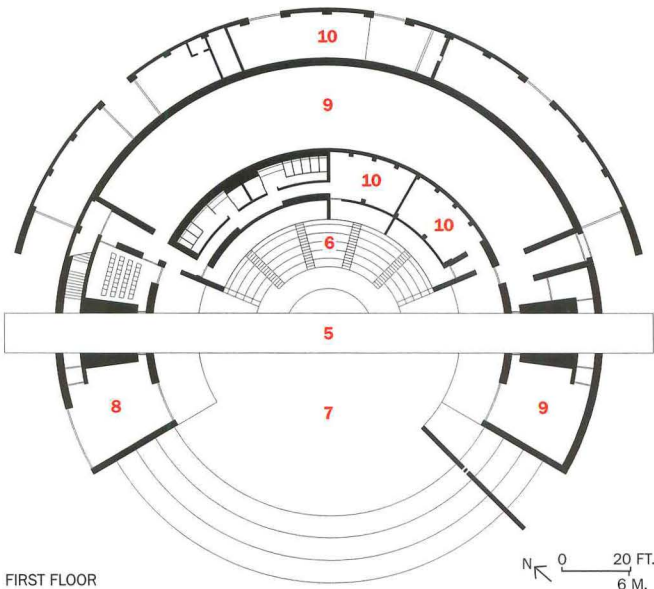


- 1. Exhibition hall
- 2. Residence hall
- 3. Creative hall
- 4. Aomori Public College
- 5. Stage
- 6. Seating
- 7. Terrace
- 8. Library/tearoom
- 9. Exhibition gallery
- 10. Storage
- 11. Staff office

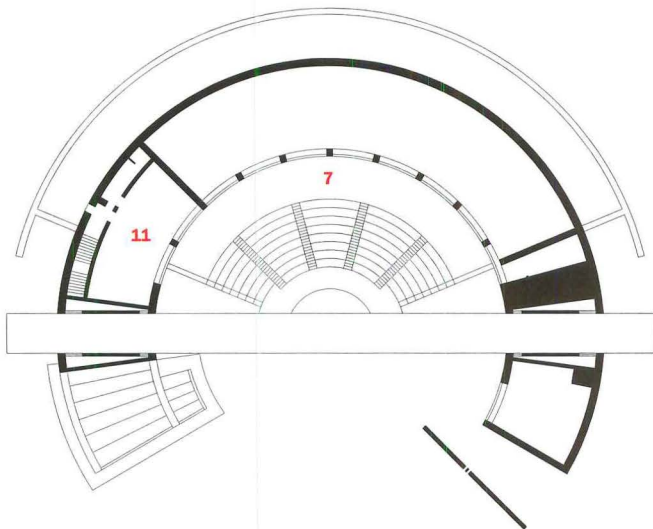
Ando used the natural topography of the art center's rolling 65-acre wooded site to embrace the three

buildings and root them in the landscape (site plan, above). A shallow pool in the center of the

gallery/amphitheater building also helps connect the realm of architecture with that of nature.



FIRST FLOOR



SECOND FLOOR



Arched trellises protect walkways and allow plants to become part of the architecture (left and middle). Water, in the form of a natural stream (bottom) and an artificial pool (opposite) are essential to Ando's design.



Although Aomori City's mayor originally had his heart set on building an art museum, budget constraints made that impossible. So he consulted with Goji Hamada, an internationally known performance artist and the current director of the ACAC, who suggested making an artist-in-residence center instead. Because it would not require a permanent collection, such a center would be cheaper in the long run and enable local citizens to interact directly not just with art but with artists. "If an artist comes here, his influence will continue to propagate like a pebble in a pond," explains Hamada. The mayor agreed and initiated an invited competition, which resulted in Ando's selection.

While Ando was in charge of the architecture, Hamada authored the program. He envisioned a place where up to eight artists from all over the world could live and work for three-month stints. In exchange for room, board, studio space, and supplies, the visitors present their projects to the public via exhibitions, performances, lectures, and workshops.

During their tenure at the ACAC, artists are free to make and display their pieces anywhere on-site, providing there are no permanent changes to the property; trees, terraces, and rooftops are all fair game. Many artists show their work in the crescent-shaped exhibition hall, whose concrete surfaces can accommodate everything from ceiling-suspended sculptures to floor-based installations.

Other participants choose the amphitheater. An outdoor room, it is clearly defined by tiered wooden seats and the two-story building embracing it on either side. At the same time, it is completely open to the sky. Juxtaposing the natural and the man-made, the would-be stage is actually a shallow, stone-covered pool that fans out toward the trees. Terraced like a rice paddy, the shimmering surface cascades over the edge. While the water is continually recycled, the image of flowing liquid metaphorically turns into sloping land. Artists who do not want to get their feet wet can perform on the narrow concrete strip hovering above the water. Cutting across the circular plan's diameter, it doubles as the circulation spine for the building as a whole.

Taking the water motif one step further, the studio and dormitory are both bridge buildings spanning small streams. While the





The circular exhibition hall has clerestory-lit gallery space (this page and opposite) for temporary displays of art. Ando hopes artists will use both indoor and outdoor spaces for exhibiting their work.

dormitory comprises blocks of bedrooms at either end and a communal dining area in the middle, the 430-foot-long “creative hall” is essentially one big atelier that contains an open work area anchored by a wood shop at one end and an informal lecture hall at the other. Specialized rooms for photo processing, printmaking, paint mixing, and sound recording round out the program. “If we don’t have what the artists need, we get it,” sums up Hamada.

Echoing the traditional Japanese *engawa*, or veranda, a covered, exterior porch runs the length of the building. Open on one side and enclosed with glass on the other, the porch is also the primary lighting source. “Natural light varies according to season and time,” says Ando. “This too can stimulate artists.”

Designed to minimize its impact on the soil, the studio’s poured-in-place concrete structure follows the example of highway construction, using as few foundations as possible. Another technical innovation was using snow—the area gets 23 feet annually—to cool the building. At the end of the winter, snow is piled up in a large storeroom behind the gallery, where it gradually melts during the summer. Mechanical blowers then distribute the storeroom’s cooled air throughout the building.

Just as Ando has carefully blended building and site, Hamada has bonded the ACAC with its community. Unlike many of the cultural centers built in Japan in the 1990s, which were strong on architecture but weak on programmatic follow-through, the ACAC lures local citizens to sketch the buildings, see exhibitions, and enjoy the scenery. Ando’s architecture fosters these activities and should keep people coming back again and again. ■

Materials

Exterior walls: Exposed concrete with fluorine resin paint; steel panels; phosphating galvanized steel sash

Exterior paving: Cinder concrete with trowel finish

Exterior ceilings: Concrete with fluorine resin paint

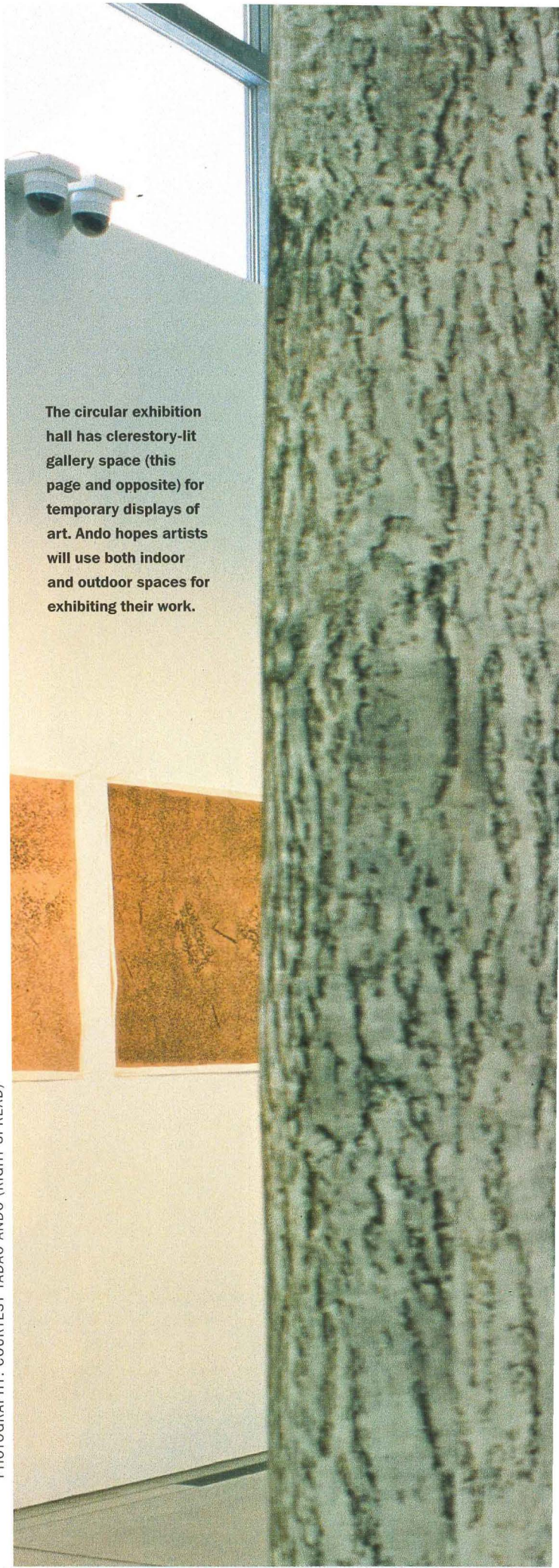
Interior flooring: Cinder concrete with trowel finish; wood boards

Interior walls: Exposed concrete; plasterboard

For more information on this project, go to Projects at

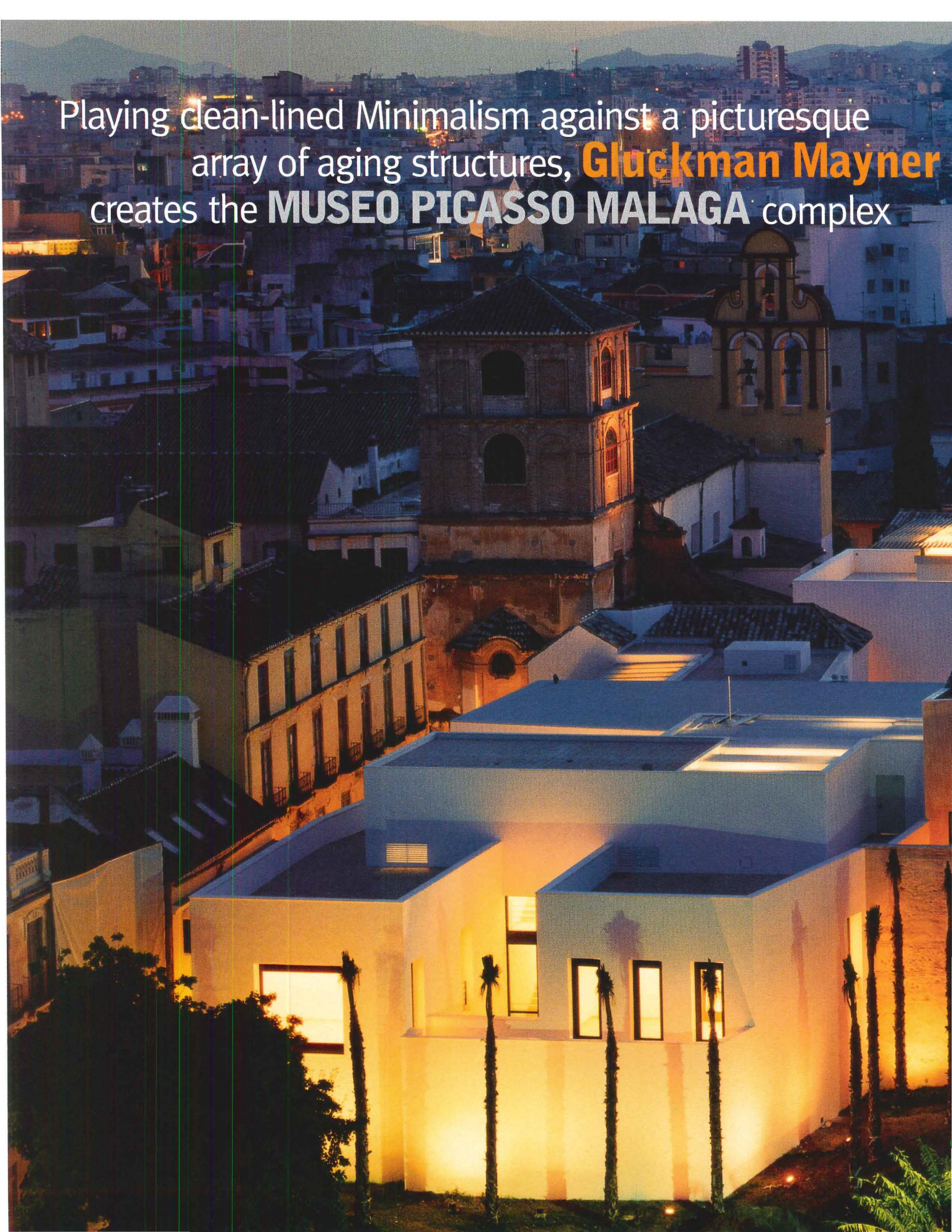
www.architecturalrecord.com.

PHOTOGRAPHY: COURTESY TADA0 ANDO (RIGHT SPREAD)





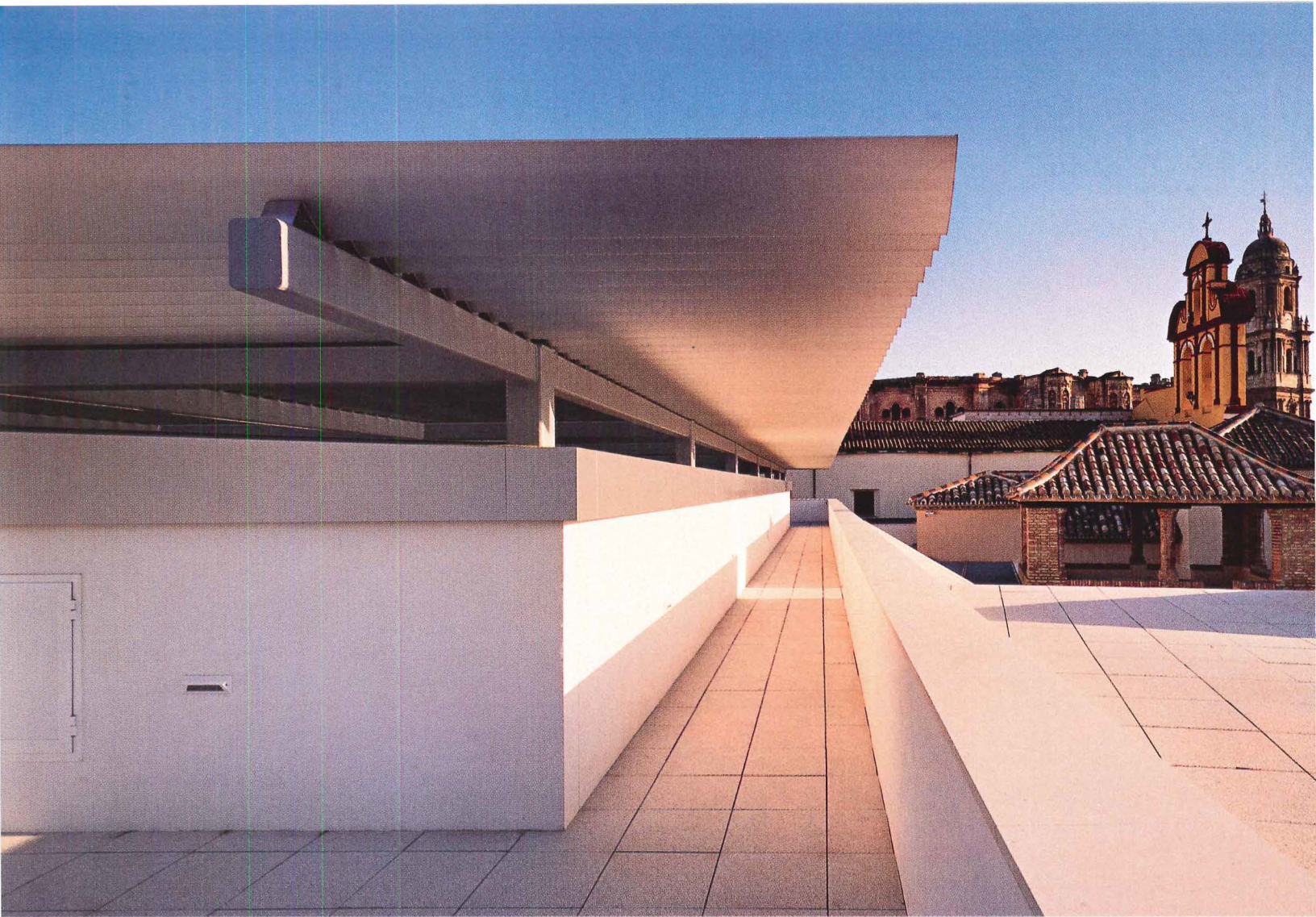
Playing clean-lined Minimalism against a picturesque array of aging structures, **Gluckman Mayner** creates the **MUSEO PICASSO MALAGA** complex





The museum's context is low-rise and dense, incised by narrow streets veering off at oblique angles. Punctuated by occasional towers, the urban

fabric evolved loosely over time. Gluckman preserved his site's piecemeal sensibility, while juxtaposing Minimalist precision with older forms.



By David Cohn

PROJECTS

Can an architect Richard Gluckman apply to 16th-century European palaces the methods he developed for transforming obsolete New York City industrial buildings into spaces for art? The seasoned gallery designer put this question to the test when he, along with local architects Isabel Cámara and Rafael Martín, won the commission to adapt the Buenavista Palace into the Picasso Museum in Malaga, Spain.

Picasso was born in Malaga, and the idea of bringing his art here inspired his daughter-in-law, Christine Ruiz-Picasso, and her son Bernard to donate a large part of their personal collections to the city. Their decision culminated a long courtship led by Carmen Giménez, the museum's first director and overseer of this architectural conversion. Ruiz-Picasso selected the structure herself, mainly for its location in the city's oldest area, between Picasso's birthplace and the cathedral, and for the intimacy of its interior. At the time, the badly deteriorated building contained the Museum of Fine Arts. (Its collections now lie in storage, pending relocation.)

At first, the architect's intervention involved renovating the 24,000-square-foot palace and, on the site of a 1950s patio, creating a two-story, 19,000-square-foot wing for temporary exhibitions. As the project evolved, however, Giménez acquired several unrelated buildings to the east of the palace, all in poor condition. Here, the architects cobbled together a pictur-

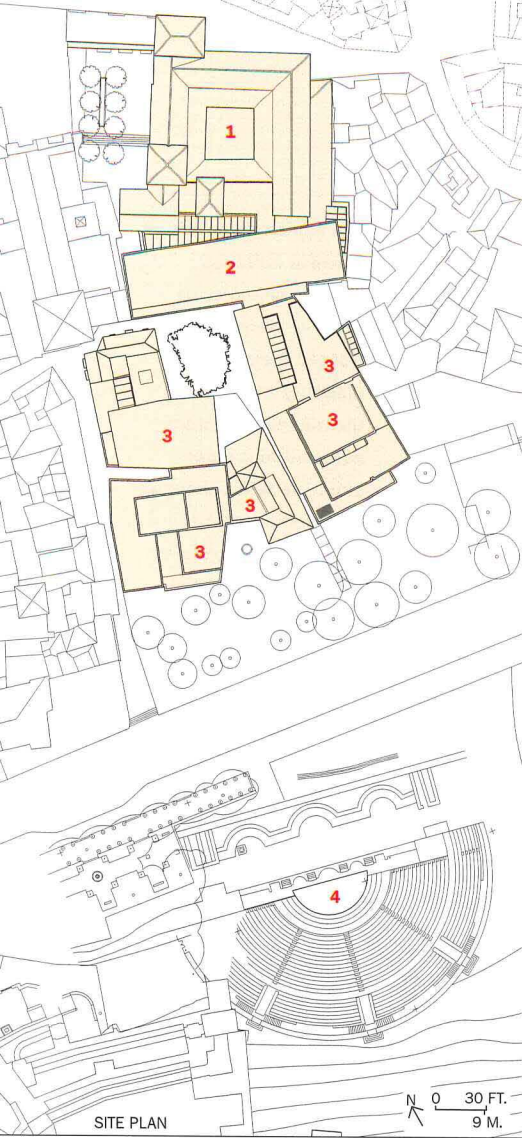
esque, 37,000-square-foot collection of structures—some new and others heavily restored or gutted—preserving original facades and massing wherever possible. This cluster, now housing galleries, an auditorium, offices, educational facilities, a library, and a shop, surrounds a court (centered on an ancient fig tree) that connects the ancillary buildings to the palace. During construction of this complex, archaeologists uncovered in the palace cellar rare in situ remains of the ancient Phoenician city wall, circa 700 B.C., as well as Roman and Muslim structures, which are all now open to visitors.

The Buenavista Palace's checkered history gave the architects a surprisingly free hand in its restoration. Though the 1530 stone facade—combining primitive Renaissance details with a Mudejar, or Moorish-style, tower—has survived, the palace suffered many uses and abuses over the years. In the 1950s, the building, then a near ruin, underwent drastic alterations during its first conversion into a museum. With the exception of the

Project: Museo Picasso Malaga, Spain
Architects: Gluckman Mayner Architects—Richard Gluckman, FAIA, principal; Martin Marciano, project architect; Elena Cannon, Celia Chiang, Srdjan Jovanovic-Weiss, Taro Narahara, Ruso Panduro, Amina

Razvi, Joao Regal, Elizabeth Rexrode, Kaori Sato, Nina Seirafi, Tameki Uchikawa, Thomas Zoli, project team
Associate architects: Camara/Martin Delgado Arquitectos
Engineer: Arup
Landscape: Maria Medina

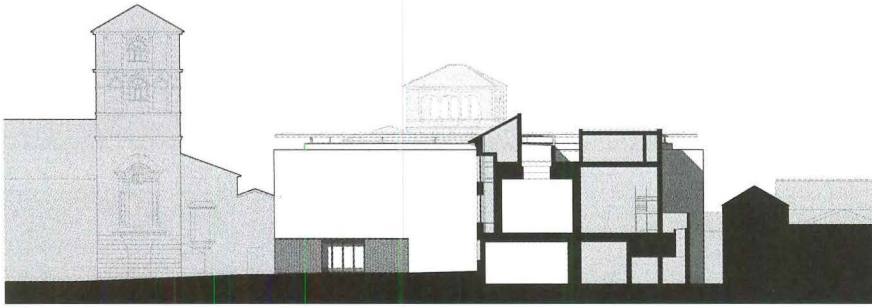
David Cohn is RECORD's correspondent in Spain.



- 1. Existing palace
- 2. New wing: temporary exhibitions
- 3. Incorporated ancillary buildings
- 4. Roman amphitheater

Fixed anodized-aluminum louvers provide sun protection over the skylight and roof of the museum's temporary-exhibitions wing (opposite and this page, bottom). The roof deck will likely provide a venue for catered public receptions. Expansive views from this perch take in the scenic jumble of surrounding rooftops, as well as the cathedral's dome and spire (top).

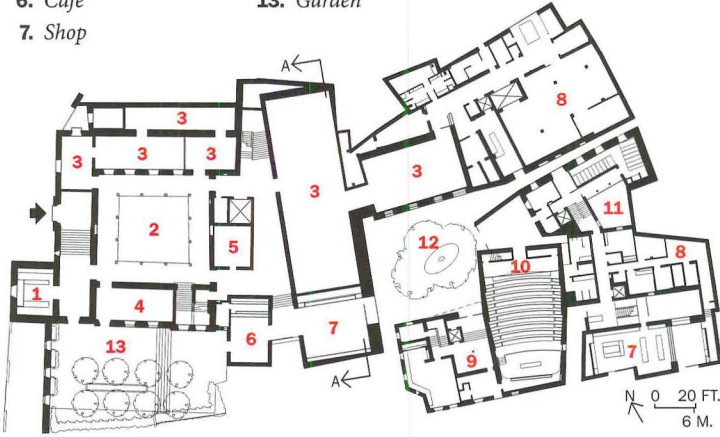




SECTION A-A

0 20 FT.
6 M.

- | | |
|-------------------|---------------------------|
| 1. Ticket counter | 8. Storage |
| 2. Patio | 9. Education |
| 3. Exhibition | 10. Theater |
| 4. Reading room | 11. Library |
| 5. Video | 12. Court (with fig tree) |
| 6. Café | 13. Garden |
| 7. Shop | |



FLOOR PLAN

N 0 20 FT.
6 M.

The museum's administrative building, clad in white stucco (below), stands in contrast to the rougher masonry exterior of the museum's library, adjacent to it (opposite). The patio, though modified over time, occupies its original 16th-century location in the palace (bottom).





handsome original patio—featuring marble columns with exquisite Ionic capitals from 16th-century Italy—and impressive wooden ceilings with elaborate Mudejar joinery, most of the remaining interior details and finishes were of recent vintage and poor quality, according to the architects. Such elements included the floors, moldings, and much of the woodwork.

Peeling back the 1950s ornament and finishes, Gluckman approached the restoration, he says, with an intent to “quiet down” the spaces and draw out their most favorable proportions to create a neutral setting for displaying art. At times, however, he may have taken this approach too far, trying to smooth out, perfect, and otherwise adjust the palace, rather than acknowledge the idiosyncrasies that distinguish it. From the patio, he removed a modern fountain—with the potential for gurgling and animated reflections of water—and modeled the court’s spare restoration on a similar Andalusian example in New York City’s Metropolitan Museum of Art. Though unassailable as a historic source, the form is now quite removed from the traditional spatial connections and characteristics of such patios in southern Spain. The surrounding galleries, now home to the permanent collection, had opened onto the central space, but Gluckman has linked them in an independent circuit for reasons of climate control and circulation.

In the interests of proportion and axial alignments, the architect says, he adjusted other openings and demolished some interior walls. After stripping the gallery walls to the masonry, he refinished them in plaster without moldings, and separated them from the floors with his signature reveals.

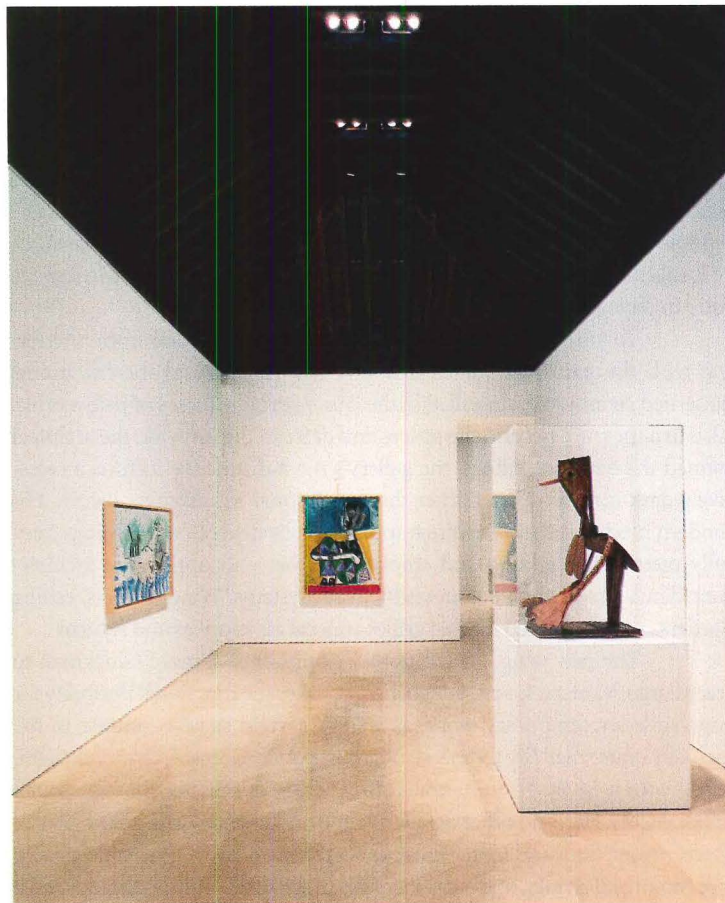
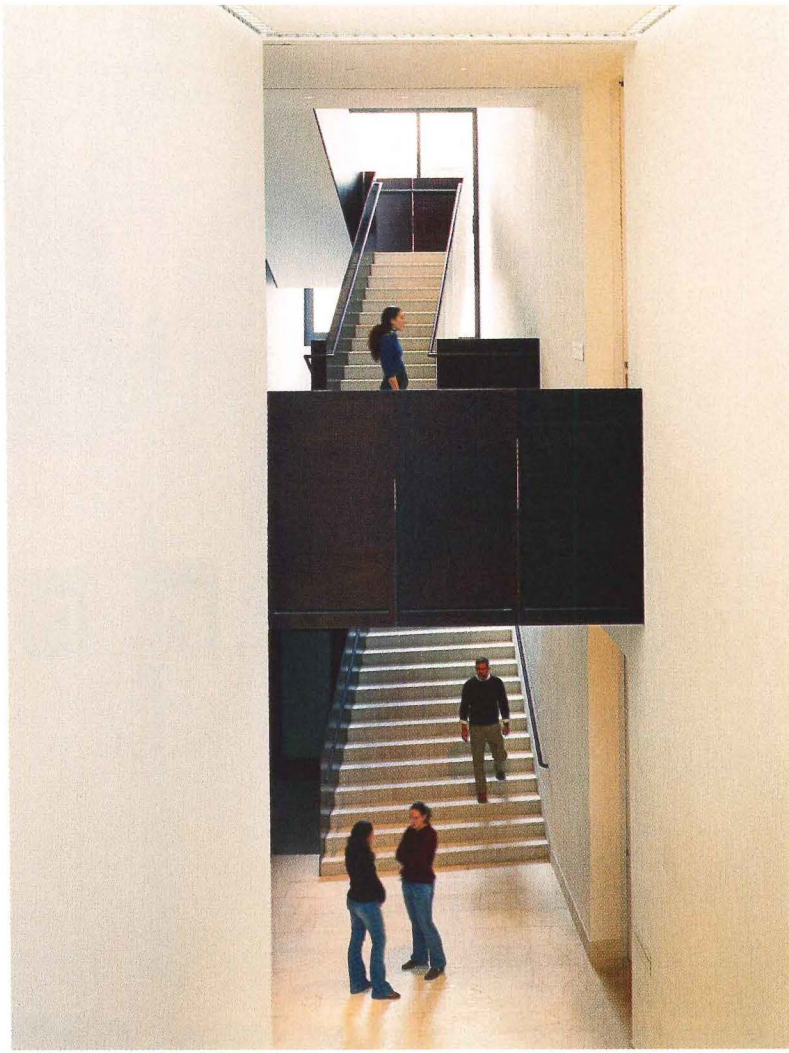
Certain original doors remain, but the fenestration all had to be replaced with wooden replicas to accommodate double glazing. One of the palace’s various window configurations served as the prototype. In a welcome touch of local color, woven hemp mats, or *esterones*, hang outside the windows to filter in daylight.

To tone down the floor and prevent reflected color from interfering with the paintings, Gluckman explains, he replaced the traditional patterned ceramic tiles, installed in the ’50s, with large pieces of pale marble. Also in a measure to calm the spaces and defer to the artwork, the architect stained the beamed ceilings, the gallery’s most distinctive feature, a recessively dark brown—even darker than traditional Spanish woodwork. His modern mechanical interventions appear equally discreet, with ceilings carefully pierced for lighting and smoke detectors—an option the architect considered less obtrusive than visible track systems. Window seats, ceiling borders, and perforated marble grilles conceal air supplies and returns.

The new wing, for temporary exhibitions, allowed Gluckman to create large, Modern spaces, which, he says, offer the functional flexibility for large-scale contemporary work, as well as a vivid spatial contrast to the “actually quite small (by today’s standards)” palace rooms. A central skylight, veiled with a 16-by-96-foot, taut cotton scrim, dominates the high, open upper gallery. Here, no other details intrude on the grand Minimalist play of space, proportion, and light. Above the scrim, two layers of double glazing and motorized shades, and a crown of fixed, anodized-aluminum louvers—

Views from the interstitial space between the palace and new construction reveal a stair with steel-plate rails (right) and stretched-cotton gallery ceilings

(below), installed beneath the skylights by sailmaker Farley Fontenot. In the palace, centuries-old wood ceilings (bottom and opposite) remain.



an assemblage consciously inspired by Renzo Piano's Cy Twombly Gallery in Houston—temper the Mediterranean rays. A double-height, skylit atrium, separating these galleries from the palace, gives access to a café, a garden by Maria Medina, and the fig-tree court.

Gluckman relishes the contrast between the large, new galleries and the intimacy of the original palace, but this contrast can sometimes seem rather aggressive. While the architect, in the curatorial interests of showing art in a neutral setting, went to considerable trouble to quiet the character of the palace galleries, the dramatic scale shift to the new spaces claims a great deal of attention in its own right.

The paintings and sculptures in the permanent collection are largely family pieces, portraits and domestic scenes that Christine Ruiz-Picasso selected for herself from the master's legacy, with dogs, cats, and other charming details, and they are dimensioned for a conventional home, so the palace's galleries suit them well. But this visitor, at least, missed a bit of the rooms' own warmth and color—the sounds of a fountain in the patio perhaps, or a few of the curious details, misalignments, and inconveniences that the architects so carefully corrected. Clearly, the 1950s interventions, with their abundance of ill-conceived details, did a disservice to the palace's authentic character. And Gluckman cleaned up those intrusions with high-quality materials and careful detailing. But the aim of eliminating distractions in the service of art, if too zealously applied, can also damage our experience of historic spaces. ■

Sources

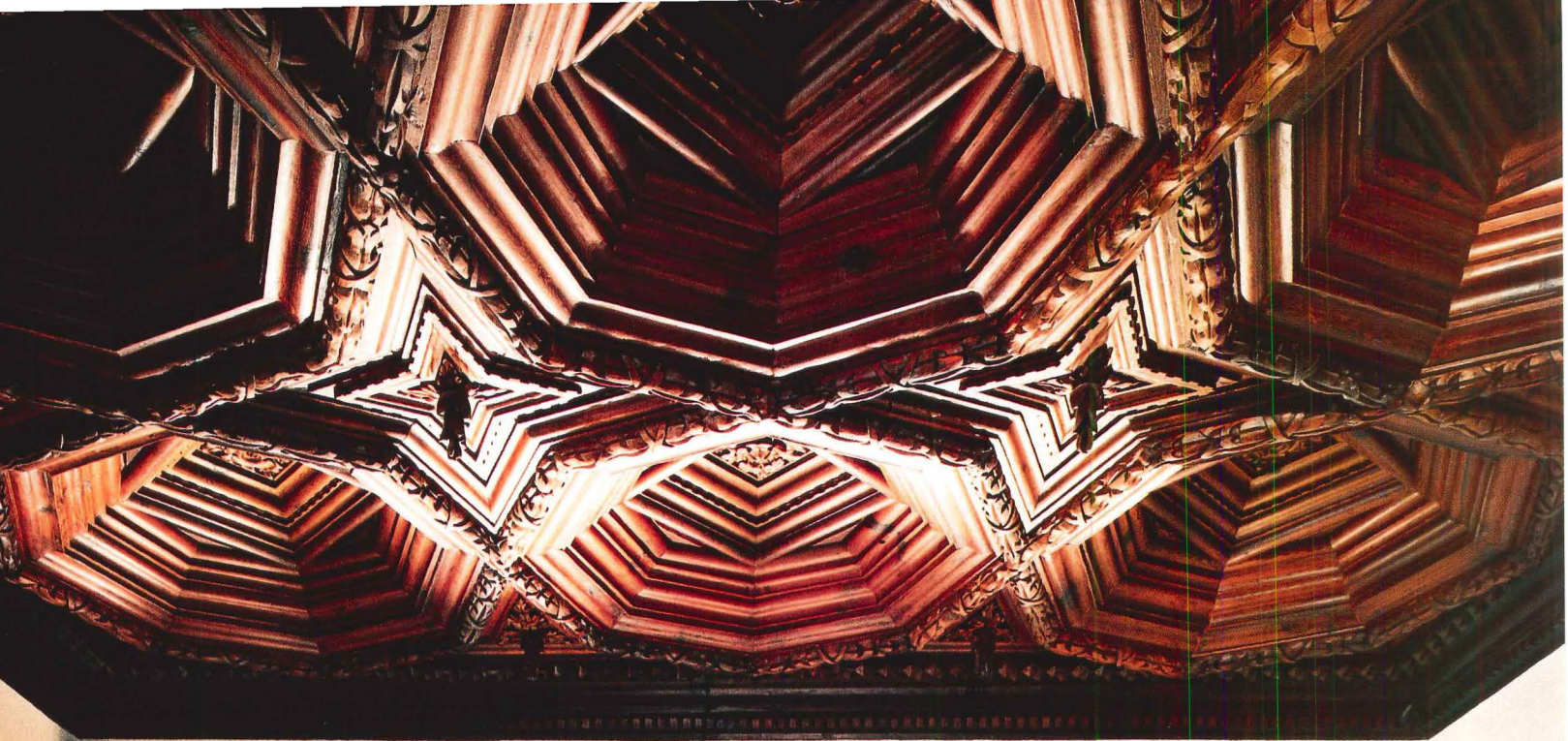
Windows: *La Navarra Tallar (custom)*

Glass: *Saint Gobain; Okalux*

Lighting: *Erco; Ignuzzi; Isometrix*

For more information on this project, go to Projects at

www.architecturalrecord.com.



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(GRUPO DE MÁS DE 20 PERSONAS/PROMOCIÓN)

ENTRADA GRATUITA:
MÁS DE 18 AÑOS (SE COMPRAN POR UN ADULTO)
MAYOR DE 65 AÑOS

船票如頭水

 **INFORMACION**



The museum occupies the renovated Royal Boathouse built by King Christian IV in the early 17th century (opposite). Brick vaults (right) rise dramatically above the skewed walls of birch panels and slanting oak floors of the new museum space.



Studio Daniel Libeskind skews walls and slants floors in a former boathouse to heighten the experience of the **DANISH JEWISH MUSEUM** in Copenhagen

By Nicholas Adams

Lucky is the wanderer who finds the gate into the garden of the Royal Library in Copenhagen. Shielded behind high brick walls is one of the great oases of downtown Europe. Cool, wet weather gives the trees that extra shot of green. The traffic is sufficiently distant so that the gentle splash of water from a fountain dominates any urban noise. Nearby, a large bronze statue of the great Danish philosopher Søren Kierkegaard sits in (uncharacteristically) peaceful meditation. *Rus in urbe*—the countryside in town.

Along one side of this garden oasis, Studio Daniel Libeskind has shoehorned a small new museum into the brick Royal Boathouse built in the early 17th century. Originally part of the old Arsenal adjacent to the Royal Palace, the new Danish Jewish Museum barely ripples the tranquillity of the south side of the garden. Only six granite blocks splayed across a slanted apron with white strips along the pavement, plus a simple signpost and a massive bronze door inscribed with the word *Mitzvah*, mark the entrance.

Mitzvah means “a good deed” or “the duty to do the right thing” in Hebrew, and it is a surprising theme for a museum dedicated to the long and relatively peaceful history of the Jews in Denmark. Whose good deed and what right thing, one wonders? The reference is specifically to the events of October 1943, when thousands of Danish Jews crossed the narrow straits of the Oresund separating Denmark from Sweden to escape the Nazis. (Among those who fled were the young Arne Jacobsen, a Jew, and Jørn Utzon, who had Jewish family members.) Aided by local resistance leaders, alerted and protected in some cases by their Christian neighbors, this rescue represented the only instance in World War II when a national population collaborated systematically to help Jews escape. And, as Hannah Arendt famously noted in *Eichmann in Jerusalem* (1963), this was the only instance in which a Jewish population acted to save itself. More than 7,000 Danish Jews survived the war, more than 90 percent of the country’s Jewish population. The *mitzvah* of the Danes in 1943 provided Daniel Libeskind with the thematic heart of the museum: The letters of the word not only

Nicholas Adams is professor of architectural history at Vassar College. He is writing a book about Gunnar Asplund’s Law Courts in Gothenburg, Sweden.



form the logo at the door, but their jagged shapes interlace abstractly to generate the cranked corridors and exhibition spaces within.

The ground floor of the old boathouse approximates a square, measuring 80 by 80 feet, with a rectangular bite taken out for bathrooms, which leaves a stumpy L-shape for display. (Storage and administrative facilities are off-site.) Iron rings attached to the old brick groin vaults indicate that the space may have been intended for boat storage. Nevertheless, round holes at the crowns of the vaults for the escape of smoke attest to its sub-

sequent use as a workshop as well.

This is not a museum of conventional galleries. Visitors enter the building as a Dane might have entered a boat in 1943 to make the dangerous trip across the waters to Sweden. They are greeted by a prowlike ticket booth and are then directed past a cloakroom to a small video room. Once museumgoers have viewed the videos, they pass into the twisted hallways and passages. The spaces foster movement and transit, without creating a frantic quality. For *Space and Spaciousness: An Exhibition About Jews in Denmark*, on view for the next year or so, visitors walk through five areas defined by thematic content. The displays in the vitrines are accompanied by text/image touch screens.

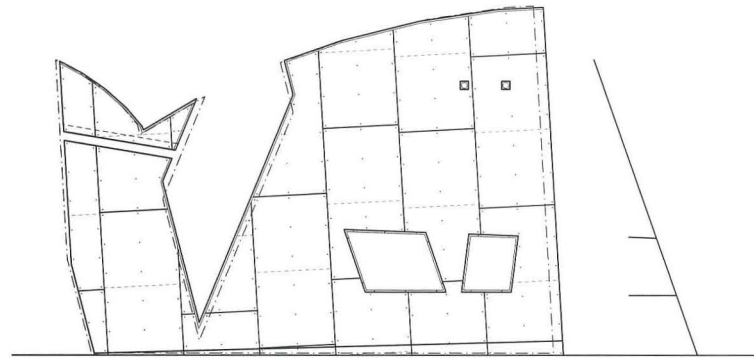
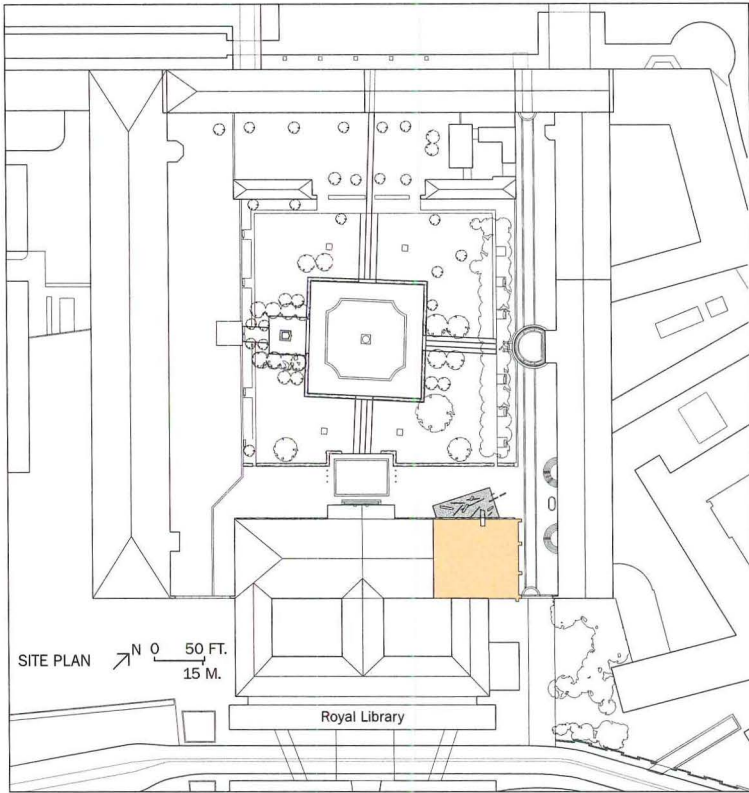
Libeskind stripped the interior down to the bare brick walls and then clad the walls of the gallery spaces in light brown Norwegian birch panels, which in turn are attached to black chipboard and supported by metal stud walls. Rising to different heights, the canted and pitched walls give the visitor a sense of being enclosed by the abstracted forms of the

Project: Danish Jewish Museum, Copenhagen, Denmark

Architect: Studio Daniel Libeskind—Daniel Libeskind, principal; Susanne Milne, project architect; Juan Arana, Guadalupe Cantu, Tate Conrad, Shawn Duffy, Miguel Plata, Robert Hirschfeld, Jens Hoffmann, Nadine Jerchau, Sven Pfeiffer, Jason Scroggin, design team

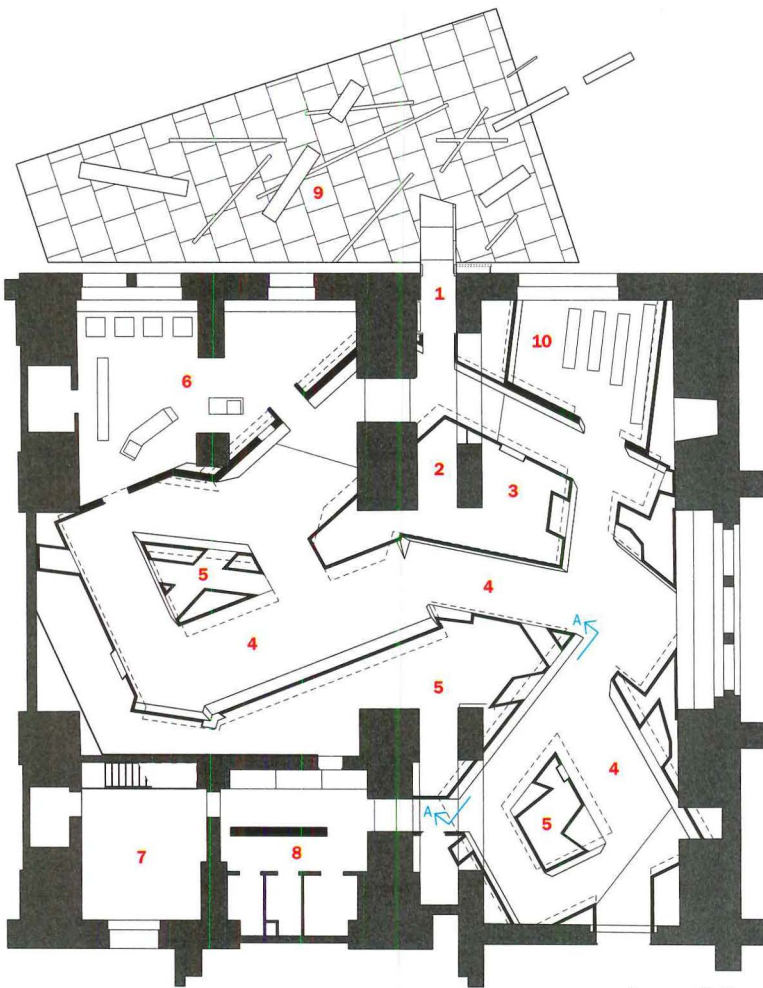
Renovation architects: Fogh and Følner

Owner: Danish Jewish Museum
Consultants: Hansen and Henneberg (lighting, safety, m/e engineers); Moe and Brødsgaard (structural, m/e engineers); Kvorning Design & Kommunikation (exhibition, graphics); GHB Landskab (landscape)



TRUE ELEVATION OF VITRINE OBJECT A-A

1. Entrance
2. Tickets
3. Coatroom
4. Main exhibition
5. Vitrine objects
6. Museum shop
7. Office
8. Restrooms
9. Terrace
10. Cinema



FLOOR PLAN

0 10 FT.
3 M.

A colorful desk (opposite, left) directs visitors to the bookstore near the entrance to the museum. Nearby, the gallery walls billow up forcefully along the brick vaults of the former boathouse (opposite, right). Black chipboard seams and slashes of recessed lighting accentuate the geometry of the birch panels, which are mounted on a metal stud-wall structure.



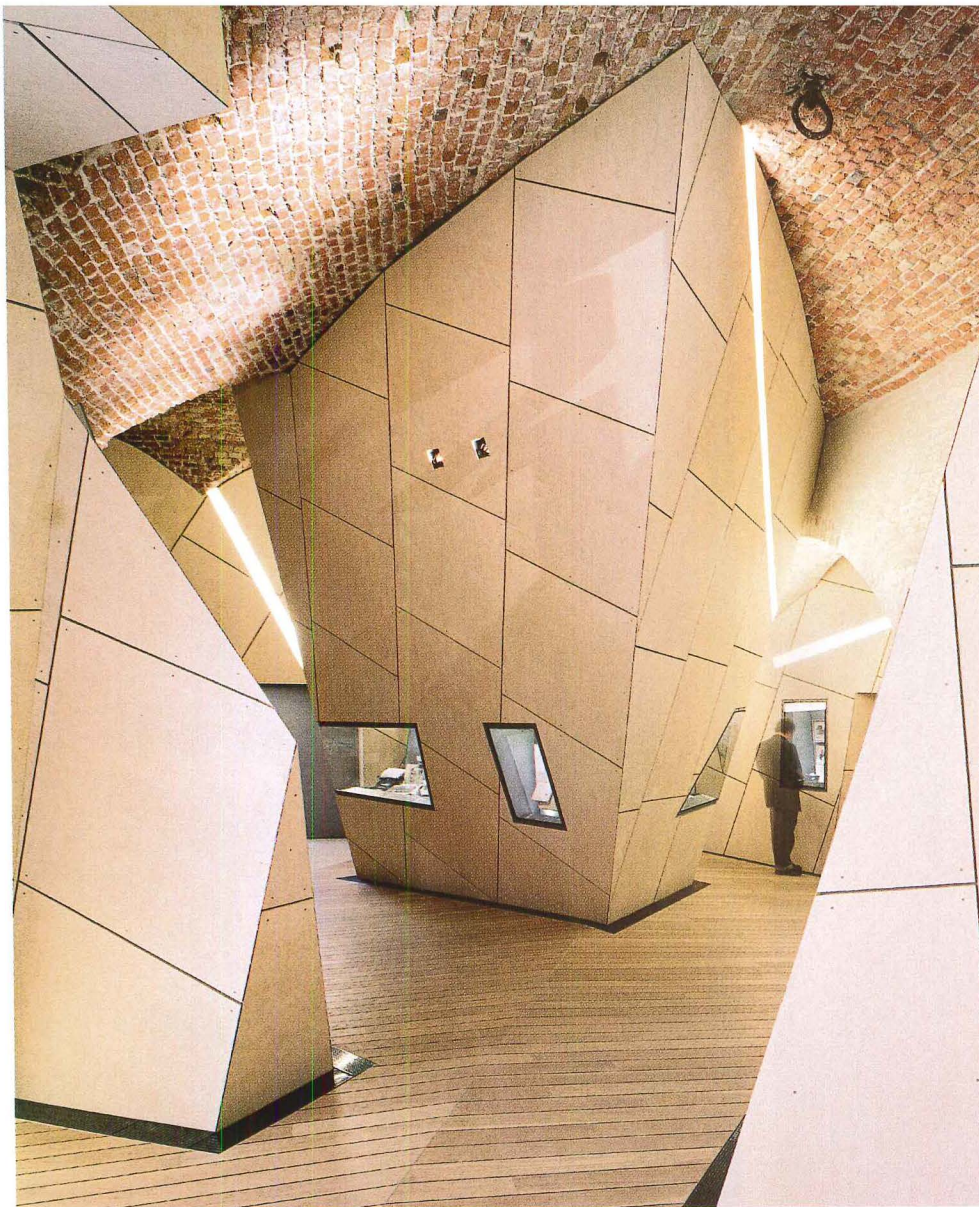
ship's hull. The floor slants, as well, in two somewhat alarming, camber-like waves as the "boat" heels and yaws. Slashes for light fixtures embedded in the walls suggest searchlights. We are, evidently, at sea. This is only the first reading. Perception is quickly modified by the way in which the black seams between the panels and the light slashes create forward and reverse perspectives. A fascinating tension between the wall mass and the perspective lines set up by the panel seams emerges: What is up close slides away quickly; what is far away seems to move precipitously closer.

Parallelogram-shaped glass vitrines placed in the birch walls and, in some instances, around corners, establish their own tangents. The result owes as much to the computer age as to the Expressionist film *The Cabinet of Dr. Caligari*. Indeed, the push-me-pull-you perspective of seams, slashing lights, and vitrines calls to mind Baroque architects such as Guarino Guarini or the trompe l'oeil perspectives of the Renaissance architect Philibert de l'Orme. A trick perspective door stands at the far end of the gallery space; the wood panels seem to sneak their way up, like smoke or clouds, into the holes in the crown of the vaults—another Baroque effect.

Libeskind has explored this repertory of visual effects before, and the relationship of Copenhagen to his earlier museums such as the Jewish Museum in Berlin [RECORD, January 1999, page 90] or the Imperial War Museum North in Manchester, England [RECORD, October 2002, page 124], comes immediately to mind. Of course, the modest \$4 million

budget and the 4,844-square-foot size alone would defy too close a comparison. Libeskind's museum in Copenhagen occupies an already constructed building, unchanged on the outside in order to blend with the other buildings around the Library Garden. Additionally, not all the intentions for the building have been carried out. A look at the models on display at the Danish Architectural Center reveals that certain elements around the entrance, as well as some light patterns inside, were eliminated.

Nevertheless, economy works to the Danish Jewish Museum's advantage. Using only the limited range of color provided by the birch panels—an appropriately Scandinavian reference—produces a sufficiently lush, tonal variety. The Imperial War Museum in Manchester, by contrast, appears diagrammatic and its forms simplified, while the Jewish Museum in Berlin has a didactic monumentality. And there are moments in Copenhagen when the tradition of the wood ship blends naturally with the sprayed zigzags of computer technology: You are at sea in 1943, and you are also clearly here in the present—in an early-17th-century boat-house near the Danish Royal Palace in spaces that are possible only today. The blending of past and present, of near and far, of imagined and real, was one of the great achievements of the Berlin Museum when empty. On a smaller scale, and with more limited means and ambitions, Copenhagen manages similar effects very well. The vitrines are sealed: From an architectural point of view, the museum is the equivalent of the Berlin museum



Glazed vitrines project forward from free-standing objects (below), including ones shaped like the hull of a boat (left). The sloping oak-plank floor seems to float between the ventilation scuppers (opposite) and is carried by joists over a concrete slab.



empty, rather than full.

But will visitors accustomed to think of the museum as a container for the objects on display know all this? At Berlin, a six-pointed star connected to significant sites of Jewish history acted as the defining thematic motif. At Manchester, the shardlike imagery is meant to evoke the “contemporary world shattered into fragments by conflict,” in Libeskind’s words. Neither effect is easily understood. In Copenhagen, the metaphor is decidedly literal (and partially explained in a pair of introductory videos), yet some visitors are clearly mystified by the pitching and heaving of the floor. And there are other problems, possibly more profound, with Libeskind’s interpretation of the program.

In its inaugural publication, the museum made it clear that this is not meant to be a Holocaust museum. Indeed, the events of October 1943 are represented elsewhere in Copenhagen, and the mission of the Danish Jewish Museum was to reflect the entire history of the Jews in Denmark, from their invitation in 1622 by the king to come to Denmark (ostensibly to act as merchants) to the present. Focusing on the dramatic crossing of the Oresund in October 1943 reduces the long history of progressive assimilation and relatively tranquil coexistence between Danish Christians and Jews to a single moment. And how much should be made of the country’s role in 1943? Yes, many were saved, but Denmark’s pro-Nazi sympathies were not inconsiderable, and some now still feel that the

country could have done more to help Jewish refugees in flight from Germany. Emphasis on October 1943 makes it hard to see the variegated nature of the rest of the Jewish experience in Denmark.

And Libeskind has not made it easy on the viewer. One vitrine, which explains how the Jews came to Denmark, is so low that visitors either pass it by or must scrunch down to see it. Sloping floors and walls sometimes meet vitrines that are themselves angled, so that the labels (and objects) slide away from the viewer. Some visitors lean hard into the walls to support themselves while they peer into the vitrines.

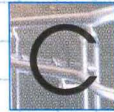
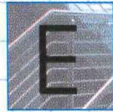
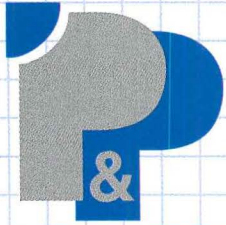
Libeskind deserves enormous credit for leading with the best narrative line to striking effect. But the question remains about making a Holocaust museum for a collection of objects that is not about the Holocaust: Is creating a baby Bilbao worth this distortion of the historical narrative? When we highlight the heroism and bravery of some Danes over several months of 1943, we lose touch with the texture of Jewish life in Denmark over the 300 years that the museum is meant to explore. In the one museum in Denmark devoted to a minority, that seems like a significant loss. ■

Sources

Birch plywood cladding: *Finnforest*
Glazing: *Scanglas*

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





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Function



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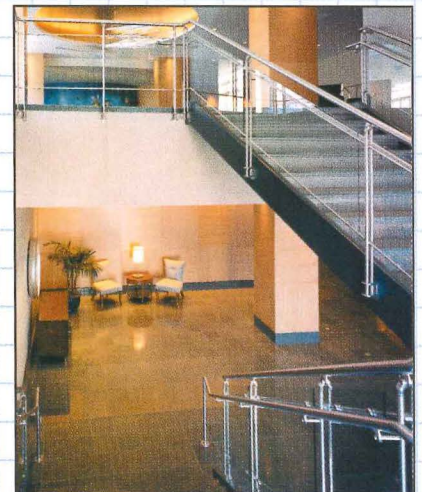
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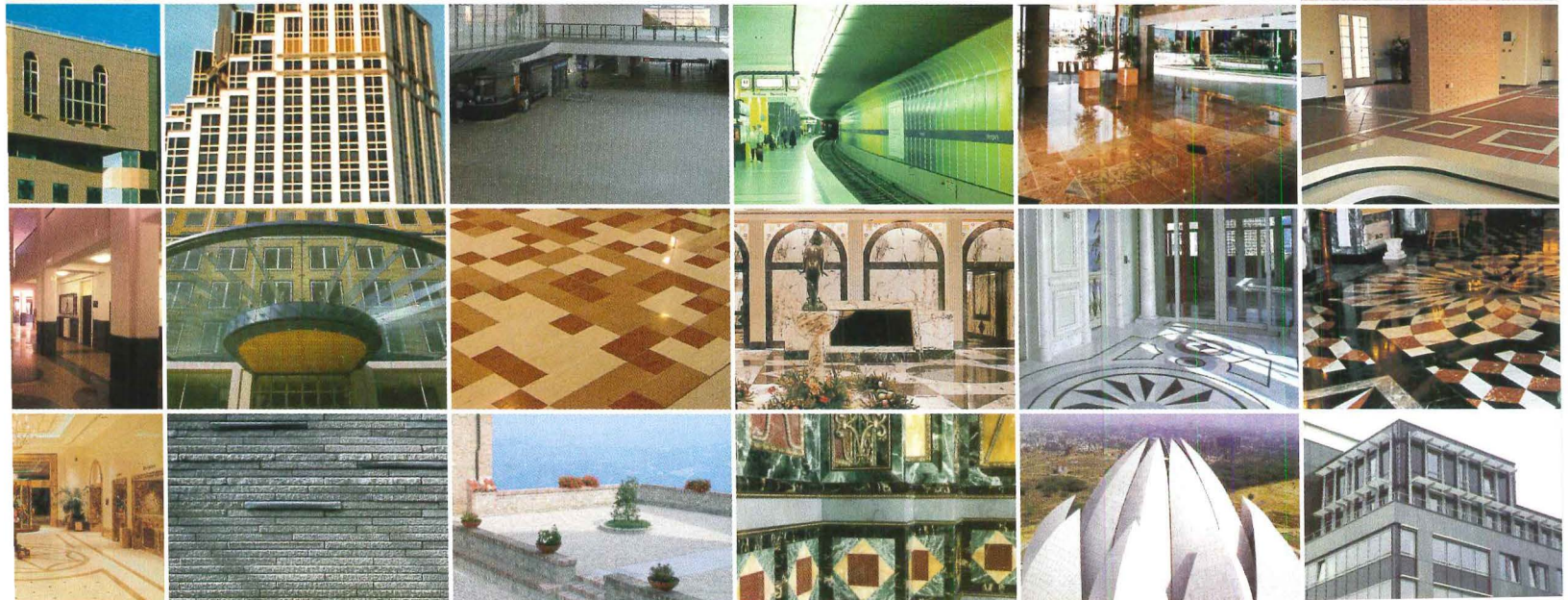


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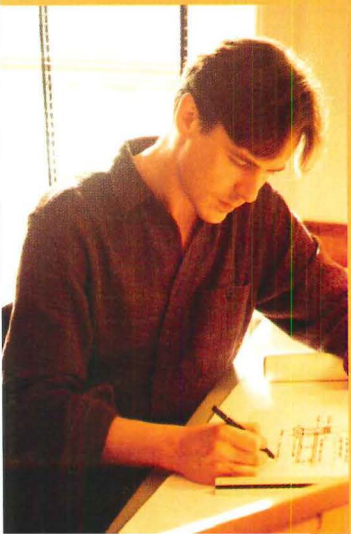
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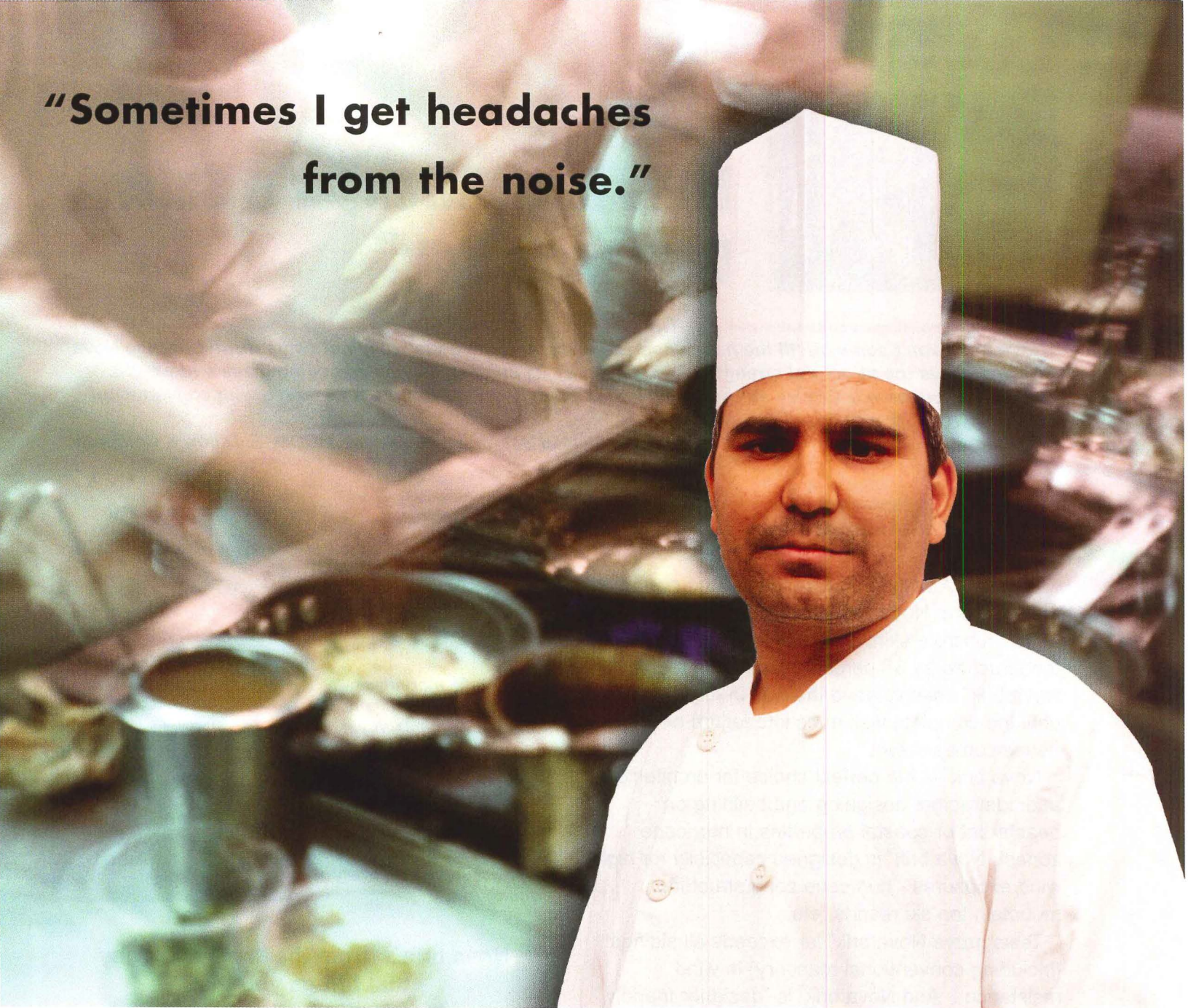
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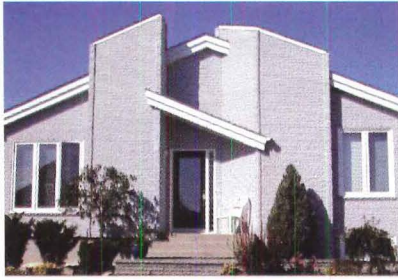
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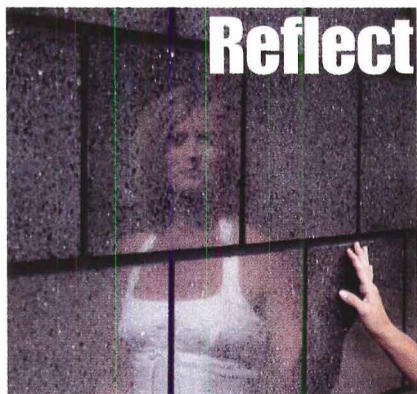
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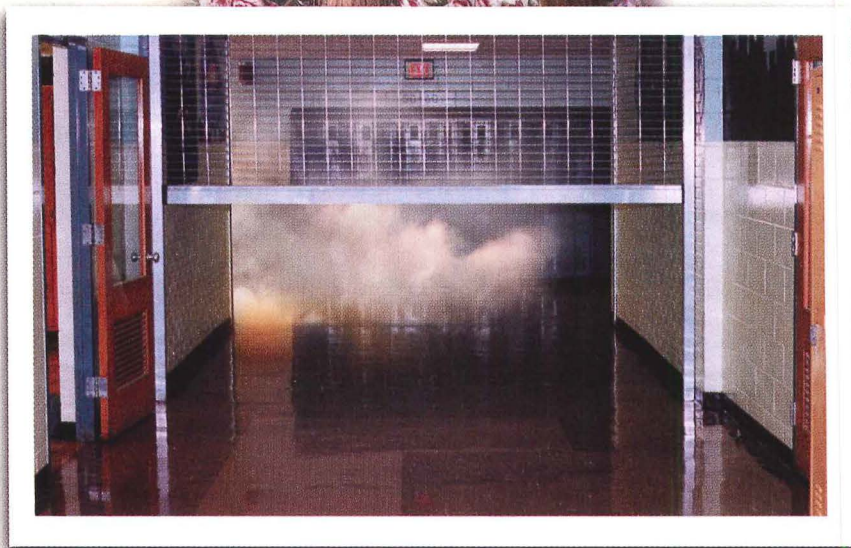
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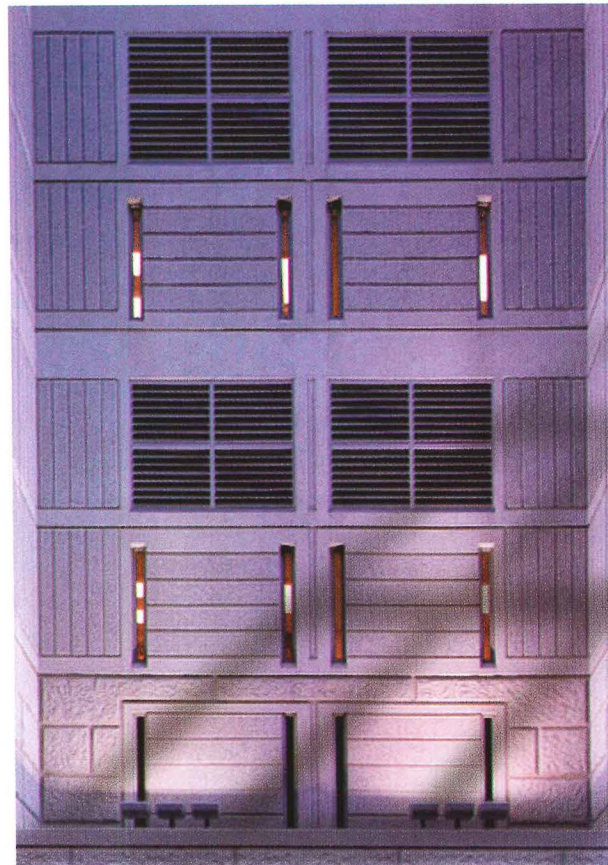
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HEALTH CARE

Fixing an Oxymoron

HOSPITABLE HOSPITALS SOUNDS LIKE A CONTRADICTION, BUT ARCHITECTS ARE LEARNING TO DESIGN HEALTH-CARE FACILITIES THAT ALLEVIATE STRESS FOR PATIENTS, FAMILIES, AND STAFF.

By Nancy B. Solomon, AIA

1.

Madrid

Rafael Moneo's surgically precise women and children's hospital shines brightly in its gritty urban setting.



2.

Vancouver, British Columbia

Henriquez Partners and the IBI Group fashion a children's clinic of concrete, glass, and colorful interiors.



3.

Graz, Austria

Domenig/Eisenkock/Gruber allow patients at a new hospital to enjoy glimpses of surrounding fields.



4.

Bremerton, Washington

NBBJ welcomes bayside views and evokes nautical themes in an addition to a naval hospital.



Construction activity in the health-care sector is alive and well. According to F.W. Dodge, \$16 billion was spent on health-care facilities in 2002, making the sector the fourth-largest market by dollar value of nonresidential construction, and the figure is expected to rise to \$19.59 billion by 2009. Aging facilities are one of the reasons this market has stayed robust. "A lot of hospitals were built around World War II and will therefore have to be renovated or rebuilt soon," says Stacy Malkan of Health Care Without Harm (www.noharm.org), in Washington, D.C., a coalition of health-care facilities and medical professionals that strives to make the industry environmentally friendly. In some cases, legislation and growth drive the trend. In California, where the population is expected to grow by 9.3 percent between 2002 and 2008, Senate Bill 1953 has mandated that all health-care facilities comply with stricter seismic requirements by 2030, setting in motion a huge overhaul of hospitals throughout the state.

Increasingly, the forms of new facilities reflect not only the science but also the art of the healing professions. Hospital design, like medicine, has been in a state of evolution over the past few decades. "Medical science was grossly inadequate before 1900," says Roger S. Ulrich, a professor of architecture at Texas A&M University. If the infirm made it to a hospital, "the odds of getting better were lower than the odds of getting worse," he explains. Instead of medicine, the ill relied on "mind-body interventions"—family, spiritual support, views of nature and art—to distract them from pain and to limit stress while their bodies struggled to heal.

The odds for patients began to improve in the early 1900s. Penicillin was isolated in 1928 and widely used by the 1940s; this so-called "wonder drug" finally gave the medical profession a dependable weapon with which to fight many illnesses. Diagnostic equipment multiplied, and surgical procedures became more and more sophisticated by the mid-20th century, at which time hospitals became essentially platforms for numerous space-consuming tools. Infection reduction and procedural efficiency were now the controlling factors in health-care design, leading to stark, artificially lit, institutional structures filled with high-tech machinery and organized according to critical adjacencies. Natural light, which was an anathema to many of the new tools and procedures, was severely limited, and as a consequence, so were views to the outdoors.

Nancy B. Solomon, AIA, writes frequently about architectural technology. This past August, RECORD ran her story about environmentally friendly health-care facilities.

For more information on these projects, go to Projects at www.architecturalrecord.com.

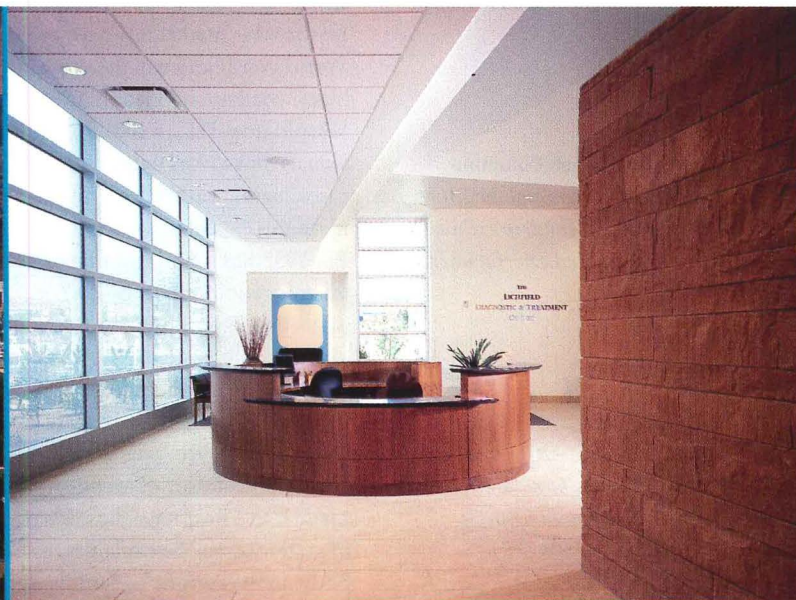
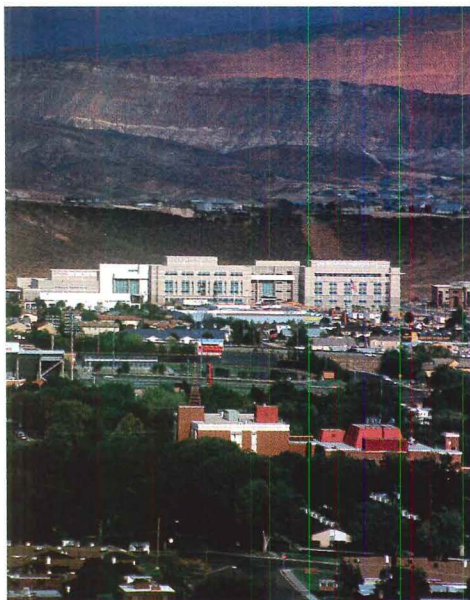
While reliance on critical diagnostic and treatment methods has never waned, another sensibility began to emerge in the late 1970s and early 1980s. Rosalyn Cama, an interior designer in New Haven, Connecticut, and chair of the board of directors for The Center for Health Design, a nonprofit group based in Concord, California (see below), in part credits expectant mothers who demanded homelike, less-clinical settings for labor and delivery. Hospitals, which were entering a more competitive period financially, responded by building birthing centers with residential-style furnishings and accommodations for family members. This new business atmosphere gave rise to what Cama calls “the hotel look” in hospitals: Administrators reasoned that if potential patients preferred well-appointed maternity wings, it would be worthwhile to spiff up their lobbies as well.

It was around this time that the nonprofit group Planetree (www.planetree.org) was founded in Derby, Connecticut. Named after the type of tree beneath which Hippocrates is said to have taught his students, Planetree promotes humane medical experiences that empower patients and their families through education, partnership with health-care providers, and nurturing environments. Similarly, The Center for Health Design (www.healthdesign.org), founded several years after Planetree, has a mission to improve the quality of medical care through evidence-based design research, which aims to determine how the built

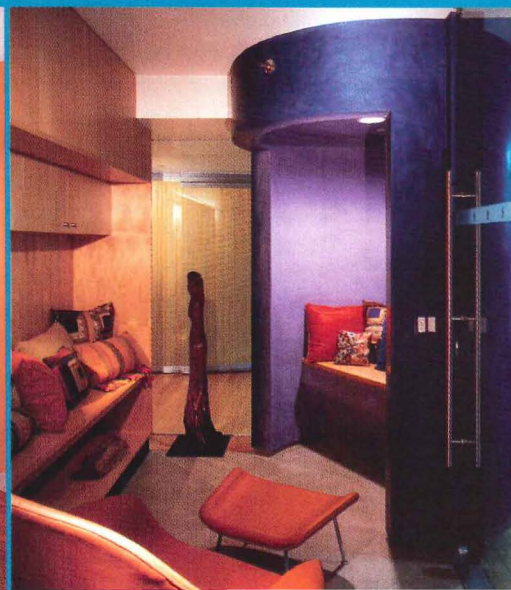
environment influences inhabitant behavior, psychosocial characteristics, and in the case of health care, therapeutic outcomes.

Since the mid-1980s, evidence-based research has consistently demonstrated that facility design can indeed affect the healing process. In 1984, A&M’s Ulrich undertook a study in which patients in rooms with views of nature recuperated faster and reported feeling better than those whose windows looked onto the brick walls of an adjacent building. More recent clinical studies by Ulrich, as well as other research teams at hospitals in the U.S. and abroad, indicate that stress can be significantly and quickly reduced if patients look at scenes of nature and certain types of visual art. In a matter of minutes, if not seconds, positive emotions increase and key stress indicators such as blood pressure, heart rate, and respiration rate decrease. And scores of medical studies indicate that lower stress levels are associated with both enhanced immune function and less incidence of pain.

If these data weren’t enough to encourage health-care administrators to pay attention to hospital designs, three other forces have strengthened their resolve. First, a growing shortage of medical professionals has motivated hospitals to overhaul their facilities as a method of attracting and retaining top-notch staff. Second, a greater sensitivity to the needs of local communities, from which hospitals draw much of their clientele and support, has made them reexamine their physical presence.

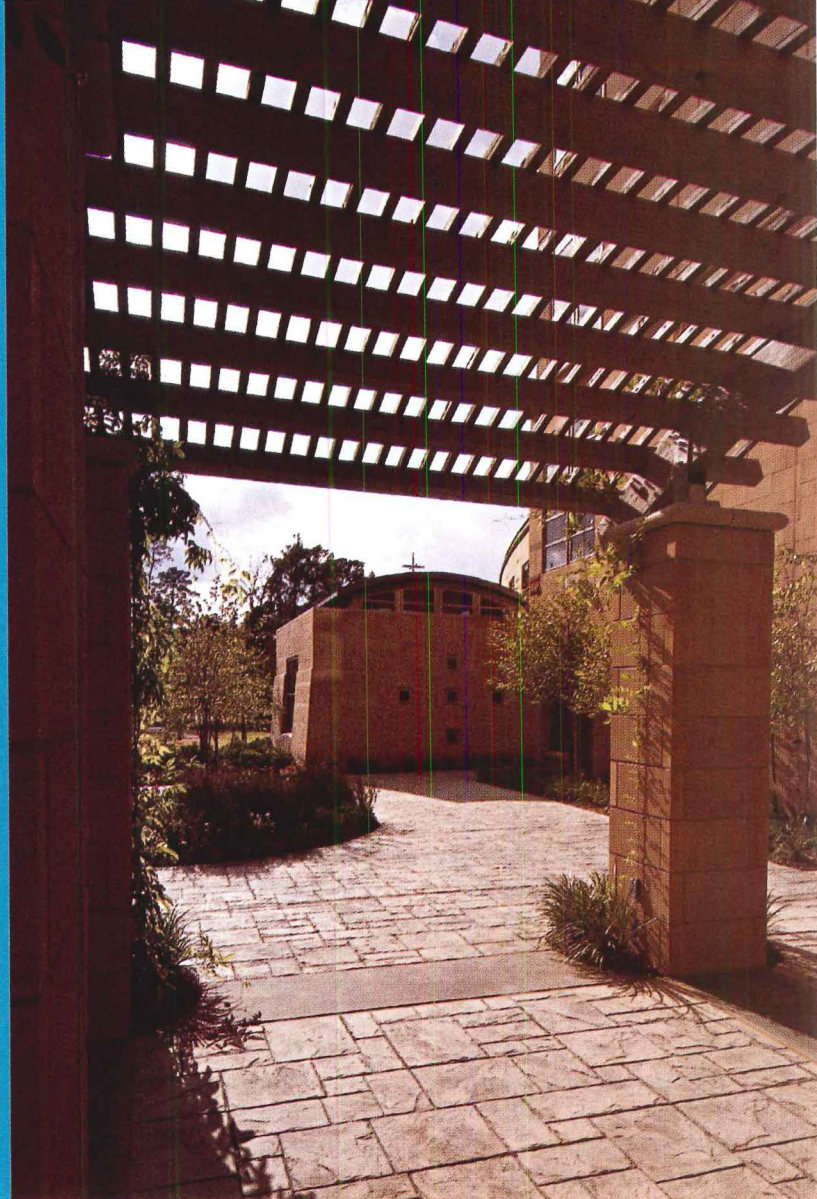


Anshen + Allen’s Dixie Regional Medical Center in St. George, Utah (top two), features an entry warmed by southwestern light, and materials such as wood and local stone, to create a more welcoming atmosphere for patients than the sterile hospital ward of yore. Guenther 5 Architects has also given hospital interiors a residential feel at the Continuum Center for Health and Healing (bottom left) and the Beatrice Renfield Center for Nurses (bottom right), both at Beth Israel Medical Center in New York City.





A prominent entry with generous glazing, as well as an interior healing garden, are standout features of the new campus for the Bronson Methodist Hospital in Kalamazoo, Michigan, designed by Shepley Bulfinch Richardson & Abbott (left two). At St. Luke's Community Medical Center in The Woodlands, Texas (right), by HGA, an outdoor healing garden and landscaped terraces allow patients and families to enjoy natural surroundings or simply a breath of fresh air.



Finally, growing interest in a health-driven understanding of sustainable design [RECORD, August 2004, page 179] has emboldened clients, architects, and product manufacturers to search for ways to introduce natural light and alternative materials into the hospital setting, not only to save energy and reduce toxic emissions but also to revitalize occupants.

There are many contemporary examples of the convergence of these trends. Kaiser Permanente, the largest health-care provider in California, recently enlisted the two-firm team Chong/SmithGroup to develop a “template” for its hospitals in the state; they asked the architects to emphasize patient-friendly details such as extensive glazing and inviting, open entries and circulation spaces. Healing gardens, a natural escape from the often-harsh realities of hospital wards, have also gained popularity. Artist and garden designer Topher Delaney, principal of Seam Studios in San Francisco, has been credited with pioneering this trend; it began when she was diagnosed with breast cancer in 1988 and sought a place of solace at the hospital where she’d received the news.

Designers have also begun working hand-in-hand with medical researchers to determine how their buildings affect health and well-being. In 2000, for example, The Center for Health Design began teaming up with health-care providers in an effort called the Pebble Project. The scope of the project varies with each provider, ranging from medical outcomes and length of stay to employee turnover, but the aim is to

document examples of health-care facilities “whose design has made a difference in the quality of care and financial performance of the institution.” And the Academy of Neuroscience for Architecture was established by the AIA’s San Diego chapter at the institute’s national convention in 2003, at which time it received a \$100,000 Latrobe Fellowship to study the relationship between the brain and the built environment.

So we’ve managed to spiral upward, coming full circle on a higher plane. With more sophisticated equipment and knowledge, scientists suggest that the mind-body interventions of an earlier age still play an important role in medicine today. While the conventional concerns of infection control and functional efficiency must still be addressed, designers must pay attention to the psychological and emotional needs of not only patients but also families and staff members, who can provide better care if they have opportunities to nourish themselves as well.

The four projects included in this month’s Building Types Study illustrate this trend toward hospitable hospitals. They lighten the spirit with joyful, life-affirming gestures such as generous daylight, bright color, playful forms, elegant detailing, artwork, and access or views to nature. Architects would do well by examining these efforts and taking heed of the growing movement toward patient-focused care. Based on current forecasts, this sector will be offering significant opportunities for design professionals in the foreseeable future. ■

Maternity and Pediatrics Hospital Madrid

1

RAFAEL MONEO COMBINES TWO HEALTH-CARE FACILITIES UNDER ONE ROOF, CRAFTING AN URBAN OASIS OF CRISP, SHIMMERING VOLUMES.

By David Cohn

Architect: Rafael Moneo—Rafael Moneo, principal; José María de la Mata, collaborator; Belén Hermida, project architect; Oliver Bieniussa, Rafael Beneytez, Carmen Díez Medina, Jacobo García-Germán, José María Hurtado de Mendoza, Fernando Iznaola, Francisco Padilla, Borja Peña, Sandra Pérez-Nievas, Pablo Perlado, Juan Rodríguez Villa, Christoph Schmid, Tara Solomon, Veronika Weisner, project team

Client: Leases and Developments of the Community of Madrid

Owner: Public Health Administration, Regional Government of Madrid

Engineers: Jesús Jiménez Cañas and Eduardo Gimeno Fungairiño (structural); Rafael Úrculo Aramburu (mechanical)

Consultants: Carmen del Pino (graphic design)

Size: 500,000 square feet

Cost: \$153.3 million

Completion date: September 2003

Sources

Glass facade: Saint Gobain

Curtain wall: Folcrá

Cast aluminum: Fundiciones Ros

Aluminum screen: Llambi

Granite: Granil Ouro

Marble: Luis Sánchez Díaz

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

According to Rafael Moneo, who designed the Gregorio Marañón Maternity and Pediatrics Hospital in Madrid with specialist José María de la Mata, a hospital “should be clear, clean, and luminous. It should have the logic one expects from science for those who, in sickness, seek its aid. It should offer patients and their families every convenience. It should create an atmosphere of calm, tranquillity, and rest. And it should reflect in all its elements the value of hygiene for health.” To achieve these goals, Moneo and De la Mata’s design relies on the logic of a gridded circulation plan and the calming, cleansing effect of natural light, which descends from eight courtyards into all the rooms and corridors, and which is reflected from its pearly glass facades.

Program

The building is part of the multi-block campus of Gregorio Marañón, a major public teaching hospital in central Madrid. Moneo was brought into the project to help renovate the aging complex, an accumulation of buildings dating from the early 20th century to the 1980s. The 500,000-square-foot, seven-story facility, developed in close collaboration with doctors and staff, replaces the obsolete maternity hospital on the same site. It combines the func-

David Cohn is a RECORD contributing editor based in Spain.



tions of two independent but related institutions. Each has its own entrance, emergency room, operating rooms, outpatient facilities, and beds; only diagnostic facilities and general services are shared.

Solution

The design for the building springs from its urban situation. Its site was part of a superblock that Moneo broke up to facilitate circulation through the complex, restoring two suppressed streets. Obsolete buildings will be cleared from the center of these blocks to create a central plaza with a parking garage below, flanked on its two long sides by restored brick pavilions from the 1920s. The Maternity and Pediatrics Hospital occupies an entire block at the southern end of this plaza.

Taking advantage of a 10-foot difference in grade, Moneo created two “ground floor” entries for maternity and pediatrics, the latter one story above the former, on opposing diagonal corners. Ramps on a third corner bring ambulances to a below-grade court serving pediatrics and maternity emergency areas. Outpatient services are located on each of the ground floors; operating rooms, birthing rooms, and prenatal units on the floor above them; and X-rays, labs, and diagnostic services on the lower “emergency” level.

The courtyard plan was developed to isolate patients and users from what Moneo terms the “hard and aggressive” urban surroundings. Through the careful positioning of the lobbies and the elevator banks

Prominent signage at the opposite-corner entries (opposite and this page), amplified by strong massing and cleanly lined materials, lends the hospital an engaging street presence.





SECOND LEVEL



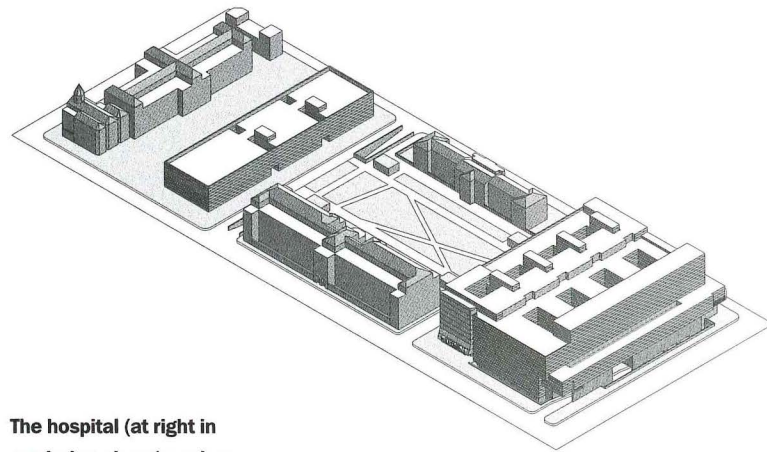
GROUND LEVEL



BASEMENT

0 20 FT.
6 M.
N ←

- | | |
|------------------------|------------------------------|
| 1. Entry | 14. Staff cafeteria |
| 2. Waiting room | 15. Chapel |
| 3. Admissions | 16. Lecture hall |
| 4. Emergency treatment | 17. Classrooms |
| 5. Nurses' station | 18. Outpatient surgery |
| 6. Medical unit office | 19. Fertility laboratory |
| 7. Laboratory | 20. Consultation |
| 8. MRI room | 21. Delivery room |
| 9. Kitchen | 22. Neonatal unit |
| 10. Security | 23. Neonatal intensive care |
| 11. Administration | 24. Pediatric intensive care |
| 12. Blood testing | 25. Pediatric surgery |
| 13. Public cafeteria | 26. Ob/gyn surgery |



The hospital (at right in rendering above) anchors a tightly bound urban superblock. Glazed corridors look onto an interior courtyard (below).



Orthogonal volumes pulled from the main structure, along with the horizontal mullions, break up the building's large mass and help integrate it into its urban surroundings.



on each of the four corners, the apparently open grid of corridors has been calibrated to segregate public and staff, who access patient rooms from two opposing perimeter corridors. Transverse corridors feed between these perimeter accesses to the nurses' stations and patient rooms, which are grouped around the courtyards in the building's center. Patient rooms line only two sides of each court, so they can overlook the activity of the corridors on the opposite sides.

Patient rooms feature planes of vivid color, custom-designed furniture, and interior maple shutters that offer privacy and a domestic air. Maternity rooms include a rocking chair for mother and baby. Like the furniture in the waiting areas, Moneo's design of chrome tubing and white upholstery has the ele-





Sunlight brightens an interior of clean, calming whites and neutrals (this page). The interior courtyards permit glimpses throughout the building, creating a sense of community despite the hospital's size (opposite).



gant beauty of classic Bauhaus pieces. Corridor floors and wainscoting are of white marble, with recessed strip lighting and metallic acoustical tile for the ceilings.

Moneo developed the building's spectacular glass skin from the tilted glass prisms of his Center Kursaal in San Sebastián, Spain [RECORD, May 2000, page 212]. The glass forms the outer layer of a ventilated cavity wall and is supported by horizontal aluminum mullions. Its soft, creamy surface is created by an inner layer of sandblasted, mirror-backed glass. The glass doesn't reach the ground; a wainscoting of cast aluminum panels clads the retrenched lower floors, while perimeter light courts for the basement levels are clad in granite. The glass and aluminum make the hospital's crisply

modeled volumes glow and sparkle amid the grim brick buildings that surround it, giving it, as Moneo comments, the air of lightness, precision, and hygiene one expects of a medical instrument.

Commentary

As in many of his buildings, Moneo's design goes beyond functional and formal issues to identify more fundamental and elusive concerns—in this case, how the building can help spiritually as well as practically in the work of caring for patients. He conceived the hospital, like the monasteries that the courtyard typology derives from, as an all-embracing environment, withdrawn from the outside world and focused around its courts and corridors: an autonomous, protected community of order and light. ■



Children's Hospital, Ambulatory Care Building Vancouver, British Columbia, Canada

2

HENRIQUEZ PARTNERS AND THE IBI GROUP MITIGATE CONCRETE'S TOUGH SIDE WITH BRIGHT COLOR AND WARM MATERIALS FOR A CHILDREN'S CLINIC.

By Rhys Phillips

Architect: Henriquez Partners/IBI Group (design architects)—Richard Henriquez, partner in charge, design; David Thom, partner in charge, management; Ivo Taller, project architect; Ron Eagleston, Yijin Wen, Frank Stebner, Raj Nath, Julianne Kennedy, Jaime Dejo, Marc Bouille, Peter Willemse, design team; Karlsberger Associates (associate architect)—Mike Tyne, AIA, Ken Redmond, AIA, Jane Holden, AIA, design team

Client/owner: Children's and Women's Health Centre of British Columbia

Engineers: Read Jones Christoffersen (structural); Stantec Consulting (m/e/p)

Consultants: Juli Hodgson Design (interiors); Durante & Kreuk (landscape)

General contractor: PCL Constructors Canada

Size: 115,000 square feet (new); 6,500 (renovation)

Cost: \$17 million

Completion date: January 2002

Sources

Concrete: Ocean Concrete

Built-up roofing: Soprema

Steel: Eagle Iron

Glass: Midway Glass and Aluminum

Painting: M&L Painting

For more information on this project, go to Projects at

www.architecturalrecord.com.

Squeezed between snow-capped mountains, Juan de Fuca Strait, and the Fraser River delta, Vancouver has one of the world's premier urban settings. While it boasts a mild, largely benign climate, it can be plagued by long periods of cloudy, wet weather. This suggests a climate ill-suited to the raw concrete architecture of Brutalism. Over the past decade, however, the work of Henriquez Partners has presented a strong argument for the appropriateness of bold concrete forms in urban Vancouver, with projects like the Coal Harbour Community Centre and two recent award-winning social housing projects. The firm's Ambulatory Care Building (ACB) on the British Columbia Children's Hospital campus (a joint effort with IBI Group and Karlsberger Associates as associate architects) succeeds on a tight budget in creating a bold but welcoming facility for young patients.

Program

ACB replaces the demolished north wing of the Children's and Women's Hospital, a sprawling single-building complex with mazelike interior spaces that render its wayfinding, fresh air, and sunlight features "not very good" according to partner in

Rhys Phillips has been writing about Canadian architecture for the past two decades. In 2003, he was inducted into the Royal Architectural Society of Canada as an Honorary Fellow.

charge Richard Henriquez. The hospital's long-term program calls for smaller buildings, assembled with other nearby medical facilities into a campuslike setting using streets and landscaped quadrangles. A primary objective for the new, 115,000-square-foot facility, which provides outpatient pediatric services for 66,000 visitors annually, was to create a bright, welcoming environment for children and their parents. With more than 50 clinics required for nearly 30 specialties, treatment and procedure rooms had to be flexible enough for different disciplines to utilize them at different times of the week.

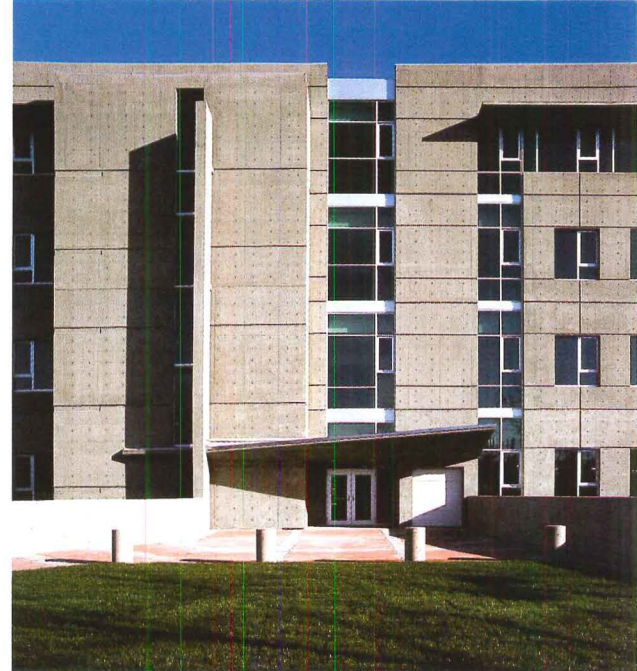
Solution

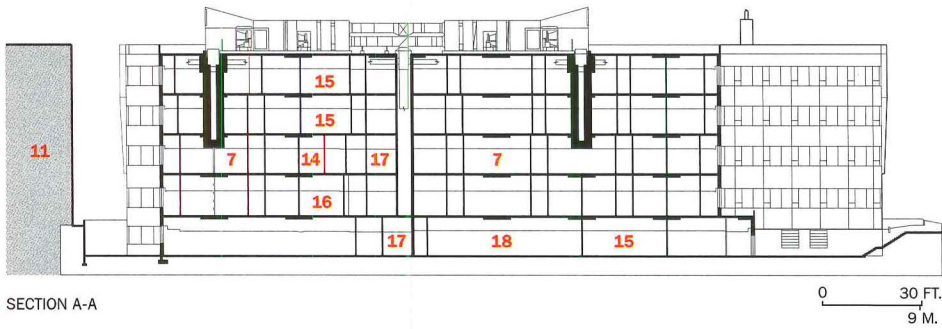
ACB is a modestly scaled building connected to the main complex by a glazed bridge on the second level. Henriquez stretched the four-story structure along a pleasant new street lined with trees, lanterns, and outdoor seating. Its animated south-facing public facade emphasizes transparency with a double-height, glass-fronted concourse shielded by an impressive concrete canopy that minimizes solar gain. "The relatively narrow floor plate made up of two rectangles of different lengths maximizes the penetration of natural light from Vancouver's fickle sunshine," says Henriquez.

Functionally, the floor plate is programmed into three horizontal and two vertical zones. On the first



A glazed walkway (near right) connects ACB to the existing hospital (lower left in photo below). Canopies over entries and windows prevent heat gain (far right). The concourse (below) is pushed forward from the main volume, its columns extruded upward to create flying-buttrlesslike arches that obviate the need to introduce additional columns on the main floor.





SECTION A-A

- | | | | |
|--------------|--------------------|---------------------------------|----------------------|
| 1. Entry | 6. Pharmacy | 11. Future phase | 15. Conference room |
| 2. Concourse | 7. Clinical office | 12. Bridge to existing hospital | 16. Examination room |
| 3. Reception | 8. Dentistry | 13. Public corridor | 17. Restroom |
| 4. Day care | 9. Service core | 14. Patient library | 18. Server room |
| 5. Gift shop | 10. Access ramp | | |



SECOND LEVEL



GROUND LEVEL

two levels, the bright, open concourse serves as the patient reception zone. The clinic zone, stretched along the center of the floors and organized as a series of three “pods” on each floor, is immediately visible and color-coded to ensure quick orientation. A third, private zone occupies the north side of the building and contains case preparation rooms. Patient files are stored in this zone, transferred each morning from doctors’ offices located on the third and fourth floors. These narrow upper floors boast extensive north- and south-facing glazing. Additional overhangs, along with tinted, slightly reflective glass and operable windows, help the non-air-conditioned building achieve an estimated 50 percent energy savings over similar conventional buildings.

In keeping with current hospital design practice, according to project architect Ivo Taler, the treatment rooms were kept generic and unprogrammed. “Each one contains digital imaging equipment, a pedestal sink with sensor-operated faucets, and a standard examining table—but they’re intended to be multifunctional so they can be in constant use,” he says.

Despite a modest budget, Henriquez says, “We wanted to up the architectural quality of the typical hospital, and we found it cheaper to build in concrete, where the structure and the cladding are the same.” A special seal was used on the concrete to prevent it from turning dark and streaky when wet, not a small matter in a city where it rains 197 days a year.

Commentary

ACB’s south elevation, with its tension between competing vertical and horizontal forms and structures as well as between concrete solids and glazed voids, provides a robust and transparent public facade. Inside, public areas are spacious, uncluttered, and filled with natural light—all helped along by crisp detailing in metal, glass, and wood, and softened by touches of bright color. ■

An open stair of glass, metal, and wood (near right) provides access from the ground floor to clinical offices on the second level. Color coding of the clinic spaces (far right and below) simplifies wayfinding in a facility housing a wide variety of specialists.



Provincial Hospital Graz-West Graz, Austria

3

DOMENIG/EISENKÖCK/GRUBER WELCOME DAYLIGHT AND FRESH AIR INTO A PUBLIC HOSPITAL WITH AN UPSCALE FEEL IN A SPECTACULAR LANDSCAPE.

By Liane Lefavre

Architect: Domenig/Eisenköck/Gruber—Günther Domenig, Hermann Eisenköck, Rupert Gruber, design principals; Johannes Dullnigg, project manager

Client/owner: Steiermärkische Krankenanstalten Gesellschaft

Engineer: Fritsch, Chiari & Partner

Consultants: Land in Sicht (landscape); Gerhard Düh (fire protection); Erwin Wagner (building services)

Size: 335,800 square feet

Cost: \$99 million

Completion date: August 2002

Sources

Structural system: Steiner Bau
Metal/glass curtain wall: Morocutti Stahlbau; Metallbau Heidenbauer

Concrete: Andreas Sauritschnig

Aluminum: Schüco International

Insulated panels: Eckelt Glas

Fire doors: TorTec Brandschutztor

Acoustical ceilings: Lindner

Cabinetwork/custom woodwork: Stoisser Objektmöbelproduktion

Elevators/escalators: Kogler

Interior ambient lighting: Kreon

Josef Hoffmann's Pruckersdorf Sanatorium of 1904 was a functional and aesthetic masterpiece that might have set a precedent for hospitals in Austria—but didn't. Throughout the 20th century, Austrian hospitals fared perfectly well without architects' architects. Today, the country not only has the most hospitals per capita in the European Union, it also boasts the highest international ratings, along with France, in health-care quality. Recently, however, the climate for public hospital construction has shifted. State facilities are now competing for patients who have opted for new, private supplementary insurance, and simultaneously, the national hospital service hired a slew of project managers tasked with keeping construction strictly on budget. The grand new public building at Provincial Hospital Graz-West, designed by Domenig/Eisenköck/Gruber, should convince both patients and administrators that the public system in Austria is entirely capable of delivering top-notch hospitals cost-effectively.

Program

As part of an effort to provide smaller, decentralized health-care facilities throughout the region, the

Liane Lefavre is the chair of the History and Theory of Architecture Department at the University of Applied Arts in Vienna.



For more information on this project, go to Projects at

www.architecturalrecord.com.

The architects conceived the wings as low volumes of steel, glass, and concrete, scaled to harmonize with surrounding fields and distant hills. Separate components of the facade, clad in differing materials, push and pull against one another, creating an impression of quiet drama (right and below).





In a nod to nature's healing powers, the architects placed patient rooms along the perimeters of each wing (top); some even have balconies (bottom). Brushed metallic louvers (at right in bottom photo) prevent excess heat gain and minimize the need for air-conditioning.

program called for outsourcing short-stay, basic-care services—such as emergency surgery, physiotherapy, radiology, internal medicine, same-day surgery, and lung disease treatment—away from the larger University Hospital in Graz, located in the eastern part of the city. The new building's site in Graz's western outskirts consists of wheat and corn fields, with a few rustic buildings in the distance and hills as a backdrop, all set against a vista of open skies.

Solution

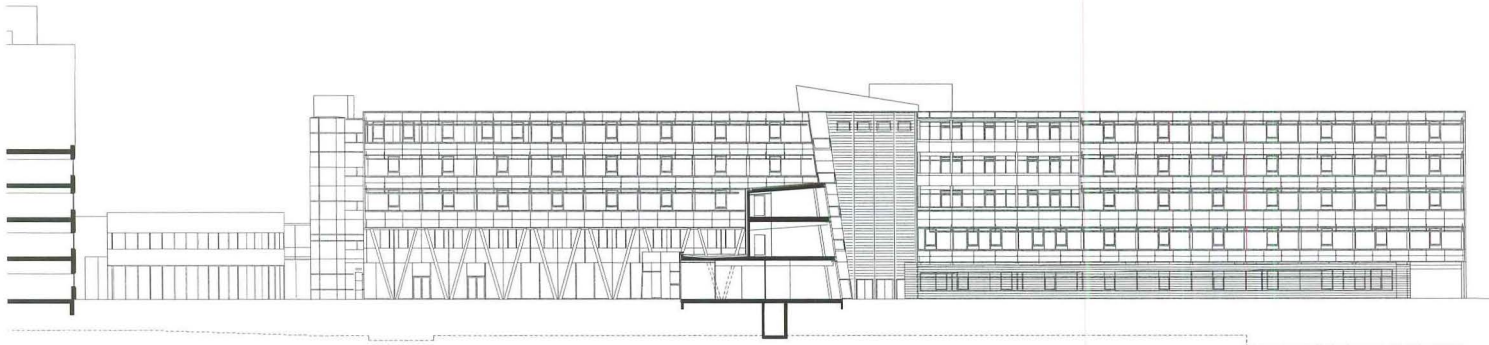
The three-story, 260-bed hospital smacks of luxury. Approaching it, a visitor can't help thinking it's not a hospital, but rather a home-furnishings shopper's paradise, recalling Ben Thompson's famed Design Research Building in Cambridge, Massachusetts. Nighttime heightens this impression, thanks to the brilliant (literally and figuratively) use of artificial lighting, both inside and out. The facades of buffed, meshed, and ribbed stainless steel, as well as concrete structural elements and finishing, are impeccably crafted and detailed, giving an impression of state-of-the-art technology within.

Roughly cross-shaped in plan with a hub-and-spoke logic, the hospital comprises a centrally located lobby, three patient wings, and a fourth wing that houses operating and recovery rooms, along with the emergency services area, radiology department, and parking garage.

Inside, visitors enjoy a sense of abundant air, space, and light. The spacious quadruple-height lobby has a coolly luminous northeastern orientation. Hans Kupelwieser's bright red plastic sculptures (all public facilities in Austria have an art budget) boost its upscale design patina.

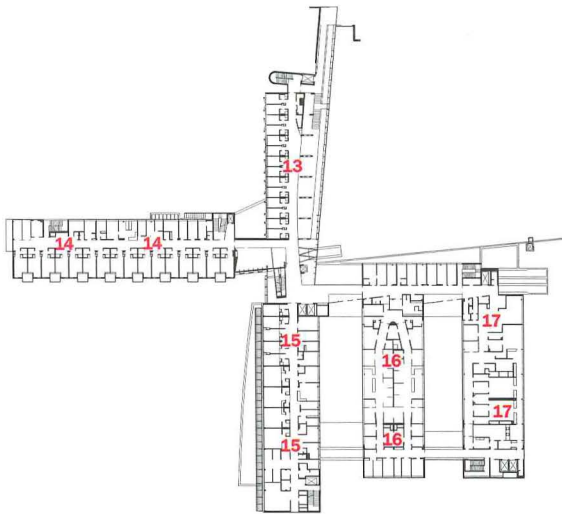


PHOTOGRAPHY: © PAUL OTT, EXCEPT GÜNTHER LINSHALM (PREVIOUS SPREAD, BOTTOM)

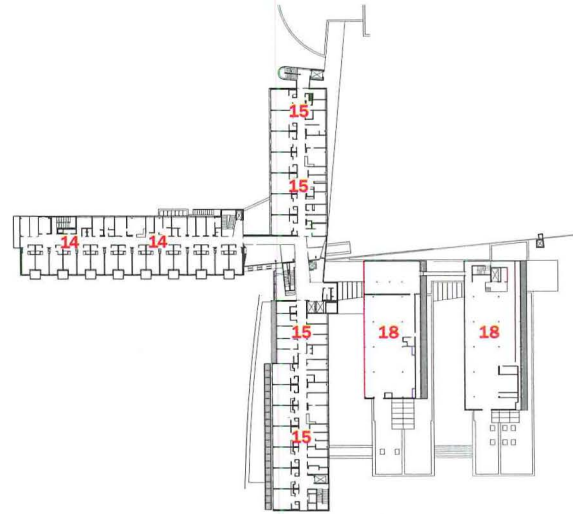


SOUTHWEST ELEVATION

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15 M.

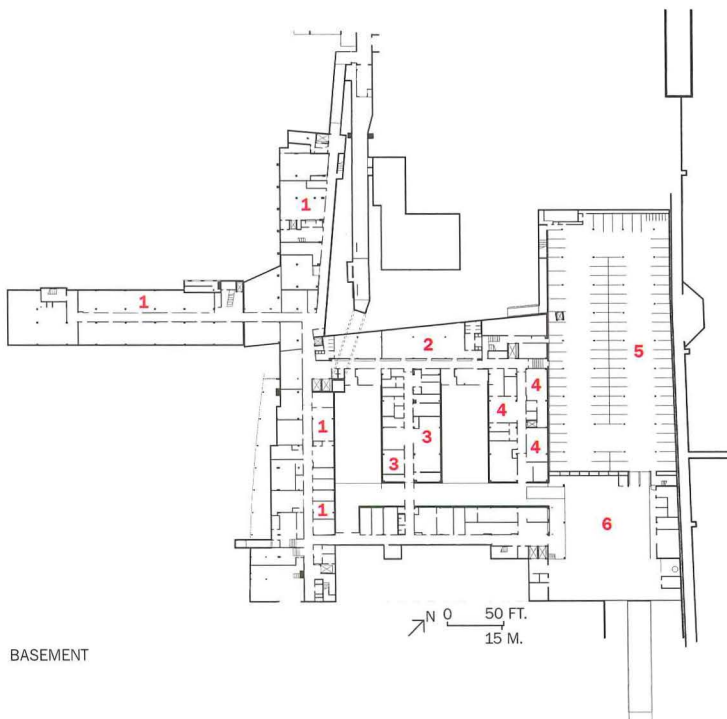


FIRST FLOOR

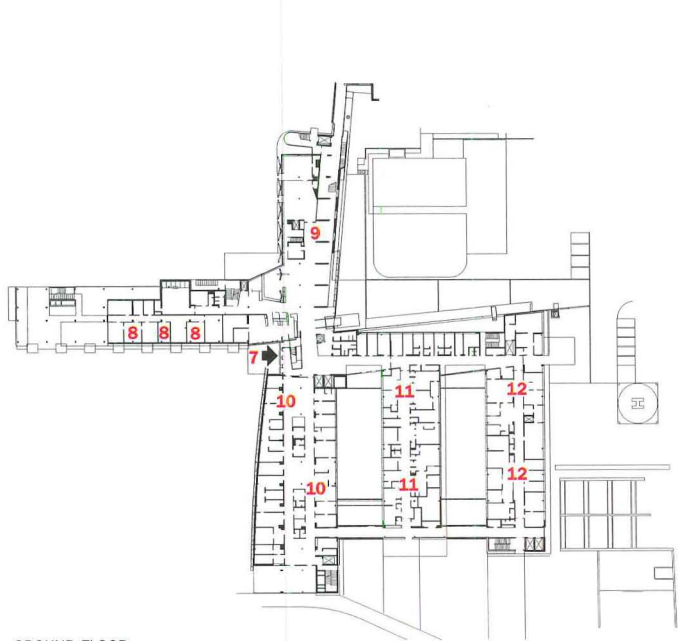


SECOND FLOOR

- | | | | |
|-------------------------------|--------------------------------|-----------------------------------|--------------------------------|
| 1. <i>Equipment/stockroom</i> | 6. <i>Delivery area</i> | 11. <i>Radiology</i> | 16. <i>Intensive care unit</i> |
| 2. <i>Laundry/wardrobe</i> | 7. <i>Main entry</i> | 12. <i>Pathology</i> | 17. <i>Operating rooms</i> |
| 3. <i>Pharmacy</i> | 8. <i>Administration</i> | 13. <i>Readiness rooms</i> | 18. <i>Equipment area</i> |
| 4. <i>Stockroom</i> | 9. <i>Dining hall</i> | 14. <i>Patient wing (private)</i> | |
| 5. <i>Parking</i> | 10. <i>Outpatient services</i> | 15. <i>Patient wing (public)</i> | |



BASEMENT



GROUND FLOOR

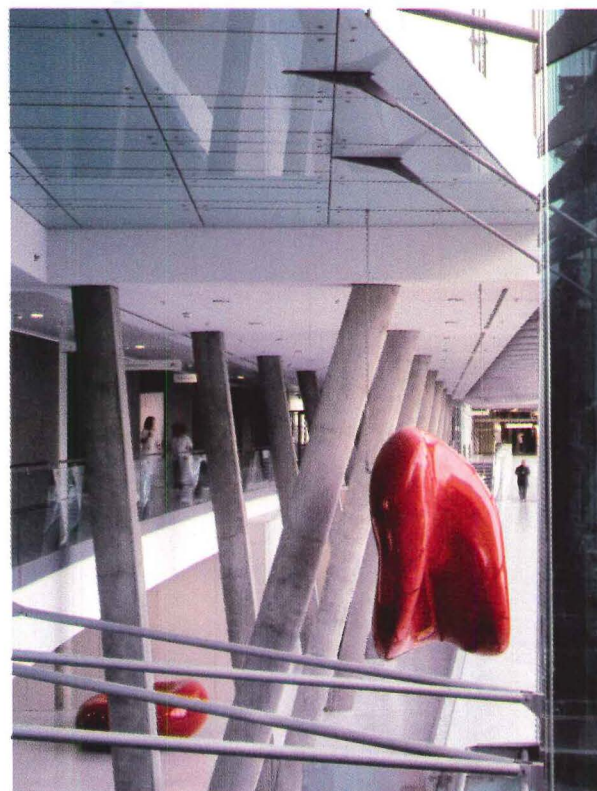


Partitions in the reception area, including the elevator shafts, are made of glass, whether clear, tinted, or frosted. Even the ends of the corridors parallel to the long axes of each wing are glazed, so that neither patients nor staff ever lose sight of the bucolic outdoors. The architects used metallic louvers outside and oriented the building to minimize the need for air-conditioning. Natural cross ventilation in the patient wings adds to the delight of abundant natural lighting.

Spaces for medical staff and services are located on the street side of the hospital, reserving the superior outdoor views for patients. Rooms in the public-sector wings accommodate four patients each and are equipped with refrigerators, cloaked in sleek, pear-wood veneer consoles, as well as bathrooms with glazed partitions and fixtures worthy of high-end Milan apartment buildings. The shorter wing for patients with private insurance, which extends perpendicularly toward the back of the building, is even more sumptuous. Rooms are generally single or double occupancy, with outdoor balconies big enough for a few chairs. Visitors and patients can relax in visiting rooms at the far end of the corridor, which boast designer furniture and sweeping views of the fields and hills.



Designer furnishings lend an upscale aura to a simple waiting area (above). Sculptures adorning the entry (right) were modeled on red blood cells. Generous glazing brings daylight into visitor rooms and public seating areas (opposite and this page, top).



Commentary

Hospital administrators report that the new building is highly functional. Moreover, the director remarks that, in spite of its well-appointed appearance, the project didn't exceed its budget by one euro cent. Its cost-effectiveness, combined with abundant natural light and ventilation, luxurious materials, and site friendliness, make this no ordinary hospital. Domenig/Eisenköck/Gruber had already proved its credentials with the public hospital in Bruck an der Mur (1987–94), but this project has raised the bar further, setting new functional and aesthetic standards for patient well-being. ■



Naval Hospital Bremerton, Washington

4

NBBJ EVOKES THE FORM OF A NAUTICAL QUARTERDECK FOR AN ATRIUM THAT CONNECTS A NEW FAMILY-CARE WING WITH AN EXISTING HOSPITAL.

By John Pastier

Architect: NBBJ—John Pangrazio, FAIA, partner in charge; Richard Dallam, AIA, design principal; Charles Kolb, project manager; Jerry Yin, Wayne Hiranaka, Robert Dooley, Cam Allen, Andris Lapins, Angel Fernandez, Duane Jonlin, Gretchen Harriott, Michael Gale, Amy Baker, Catherine Farrington, Thomas Bender, Don Schuman, Kimball Bergerud, Jay Halleran, Laurel Rech, Taylor Simpson, Brodie Bain, Carl Tully, Stephen Bettge, Ross Leventhal, Noel Whorton, project team

Client: U.S. Navy

Consultants: Magnusson Klemencic Associates (structural/civil engineer); Notkin (mechanical engineer); Sparling (electrical engineer, lighting); Anderson & Ray with Kathryn Gustafson (landscape)

Size: 126,800 square feet

Cost: \$24,885,220

Completion date: October 2001

Sources

Curtain wall: EFCO

Glazing: Hartung Glass Industries

Doors: RACO; VT Industries; WON Door; Total Door

Hardware: Falcon; Norton; Monarch

Acoustical ceilings: USG

Resilient flooring: Armstrong; Mannington

For more information on this project, go to Projects at

www.architecturalrecord.com.

As it is in the civilian world, health care in the military is a growing enterprise that requires facility expansion to keep pace with demand. The armed services clientele doesn't differ much from the larger population, since spouses, children, and retirees are provided with care. Similarly, military facilities are incorporating the amenities and consumer values found in the larger universe of American health care. NBBJ's addition to the Bremerton Naval Hospital, in Washington, one of about 20 U.S. Navy hospitals around the world, embodies these values and is a model for future planning. It consists of a new family-care outpatient clinic attached to an older, more traditionally conceived hospital. Located in a nearly rural zone on the western fringe of metropolitan Seattle, the hospital serves 60,000 military families in Washington and Oregon.

Program

The 63,200-square-foot addition expands a 250,000-square-foot naval hospital built in 1980, which occupies a gently sloping wooded site on Washington's Kitsap peninsula, overlooking Puget Sound's Ostrich Bay. The new building contains family-care clinics comprising 66 exam rooms, seven procedure rooms, and 32 medical offices; a

John Pastier is a Seattle-based architectural writer whose work has been published in the U.S. and abroad.



pharmacy; three large waiting areas; and a new entry joining the old and new buildings. Support functions include medical-records storage, a wellness center, staff lounges, and an allergy/immunization clinic. NBBJ also partially renovated the older hospital. Among the project's goals were creating a patient-focused healing environment, a pleasant work space, clarity of circulation, integra-

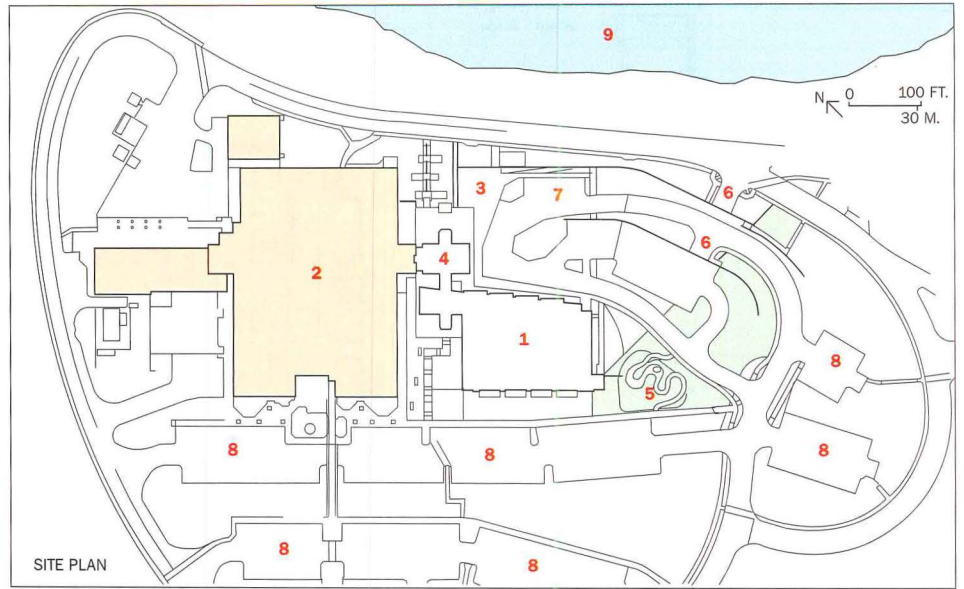
tion with the natural context, expression of naval motifs and traditions, and sustainability within a tight budget of \$200 per square foot.

Solution

Early in the design process, NBBJ persuaded the Navy to modify its existing campus master plan to enable expansion parallel to the shoreline, rather than in an inland direction, to

A glass-walled atrium (below) connects the new wing (opposite) with a partially renovated 1980s hospital. A "healing garden" conceived by landscape designer Kathryn Gustafson meanders through part of the forested site to the south of the clinic (plan, right).

1. New clinic
2. Existing hospital
3. Entry plaza
4. Quarterdeck
5. Healing garden
6. Parking entry
7. Underground parking
8. Existing parking
9. Ostrich Bay





FIRST LEVEL



SECOND LEVEL

- | | | | |
|--------------------------------|------------------------|------------------------|------------------|
| 1. Main entry | 4. Quarterdeck | 8. Pharmacy | 12. Clinic rooms |
| 2. Secondary entry | 5. Waiting room | 9. Patient records | 13. Staff lounge |
| 3. Access to existing hospital | 6. Resource center | 10. Offices | 14. Bridge |
| | 7. Classroom/education | 11. Mechanical/service | |

preserve a wooded hillside and afford the new building views of the bay. Helping to preserve the site further, a multilevel underground garage provides protection from the elements in the rainy climate and can also serve as an emergency shelter.

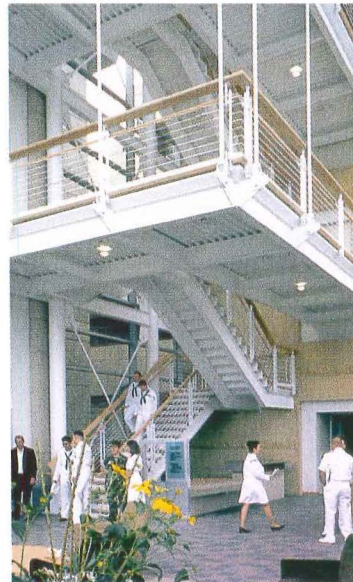
The key visual motif of the complex is a glass-walled atrium, dubbed the “quarterdeck”—a Navy term for the main entry area of a ship or a command, usually decorated with flags and serving ceremonial as well as circulatory functions. Here, the quarterdeck acts as a “knuckle” joining the old hospital with the new clinic by means of freestanding, intricately detailed steel stairs and second- and third-story bridges that float within a spacious three-story volume.

“Externally, this concept grew out of the form of an aircraft-carrier control tower—‘the island’, in Navy parlance,” says NBBJ project designer Jerry Yin. “Internally, the bridges and stairs are like a ship’s catwalks.”

The clinic wing is organized on a 30-foot-by-30-foot planning module and displays an impressive clarity, considering the more than 200 cubicles and functional subdivisions required by the program. The linear waiting areas, extending the full length of each floor, have generous northeast-facing window walls yielding natural light and sweeping water views, and form spines to which five cross-corridors connect on each upper floor. The latter are glazed at each end, providing orientation cues as well as visual relief and a link to the outdoors.

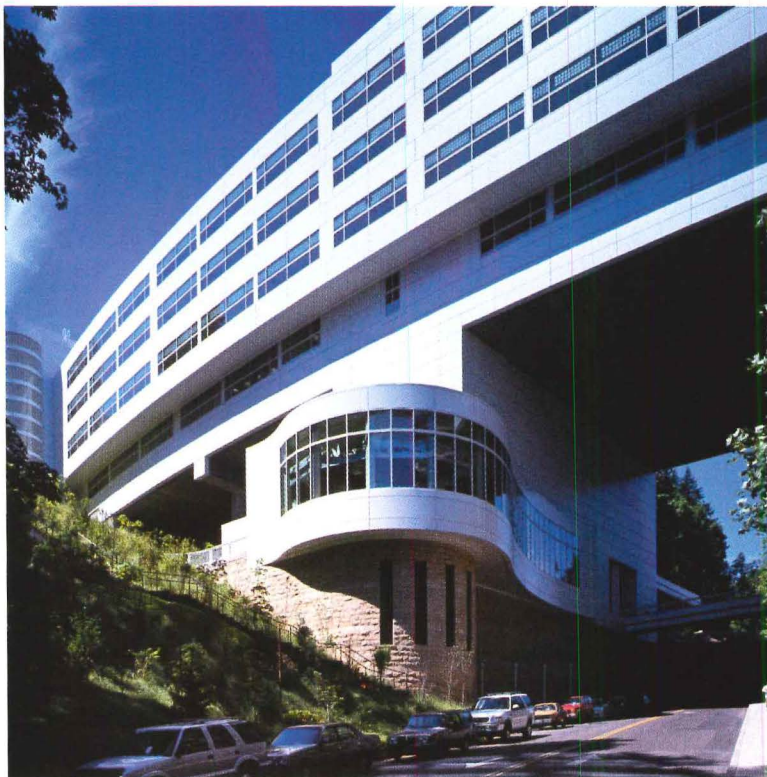
Commentary

Relating the addition to the existing seven-story concrete monolithic hospital was a challenge, given its heavy expression and a volume four times as large as the new wing. The new quarterdeck provides a welcome light touch at the center of the complex, and buffers the clinic building from its bulky sibling. Its bright, airy main-circulation and waiting-room spine is a big improvement over the original building’s darker internal corridors. NBBJ’s expansion is humane and enlightened, bringing natural light and inspiring water views to everyone. ■



The maple flooring of atrium bridges and stairs recalls ship decking and is painted white to pay homage to Navy whites, the service’s dress uniform (above). Towering curtain walls offer light and views to clients waiting in the new family clinic wing (left).

“



”

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Designing for Disassembly and Deconstruction

INNOVATION, FUELED BY ECONOMIC INCENTIVES AND SUSTAINABILITY GOALS, HAVE INSPIRED THE BUILDING INDUSTRY TO REDUCE CONSTRUCTION WASTE

By Barbara Knecht

It's the right thing to do. Recycle, reuse, reduce. Experts and advocates spout convincing statistics about how construction waste and demolition debris (C&D) chokes our landfills and harms the environment. In the U.S. and Western Europe, a half ton of construction waste and demolition debris is produced per capita annually. The fact that the U.S. demolition industry takes down 200,000 buildings every year explains why activities related to the built environment generate 30 to 40 percent of all waste.

Experts also say that instead of demolishing a building and dumping the remains in landfills, we should reuse and recycle old building materials. This practice has a long history. Roman and Greek columns and capitals showed up in buildings built by successors all over ancient Europe, North Africa, and the Middle East. Today, houses throughout the U.S. contain the recycled lumber of dismantled structures. It is only in the last half century that this country abandoned the art of recovery and reuse for the expediency, predictability, and standardization resulting from complete demolition and new construction.

Does it make economic sense? There is a lot conspiring against it. Building components are difficult to separate without damaging them;

Barbara Knecht is an architect and journalist based in New York and Boston. She contributes regularly on technology issues.



At the Phoenix C&D Recycling Facility in Des Moines, demolition waste is loaded on the screening deck and conveyor. Sorters inspect their picks and drop them into nearby bins.


salvaged materials have low value; buildings are rife with hazardous materials; and equipment, transportation, and disassembly time and labor are costly.

Bob Brickner, senior vice president at Gershman, Brickner & Bratton (GBB), a solid-waste management company in Fairfax, Virginia, dates the increased attention on C&D waste back about 15 years. His company wrote an Environmental Protection Agency (EPA)-funded manual on recycling and diversion of C&D waste in 1993 (www.swana.org).

Demolition contractors have always been salvagers to the degree that it does not interfere with clearing a site as fast as possible. Thus, they prioritize big, bulky, and valuable items, such as structural steel, followed by materials that are easily recovered, such as glass and concrete. Demolition contractors have knowledge of the market and the value of salvaged materials but have never been in the position to influence an energy-efficient demolition process. Their charge has been to get it off the site and out of sight.

In the last decade, however, new incentives have emerged to divert more types of materials from demolition into the reuse-and-recycling market. Existing landfills have reached capacity, and new ones are hard to locate and permit. Tipping fees have risen, especially for hazardous materials, and the LEED scoring system encourages waste diversion. "These factors have boosted the market for materials separation and, in turn, the growing market has brought the entrepreneurs and equipment engineers to increase receiving markets and develop better handling methods, both of which improve cost-effectiveness," says Brickner.

CONTINUING EDUCATION

 Use the following learning objectives to focus your study while reading this month's ARCHITECTURAL RECORD/AIA Continuing Education article. To receive credit, turn to page 188 and follow the instructions. Other opportunities to receive Continuing Education credits in this issue include the following sponsored section: "First Impressions: Knowing Your Options Makes It Easy to Create Magnificent Openings," sponsored by JELD-WEN, page 192.

LEARNING OBJECTIVES

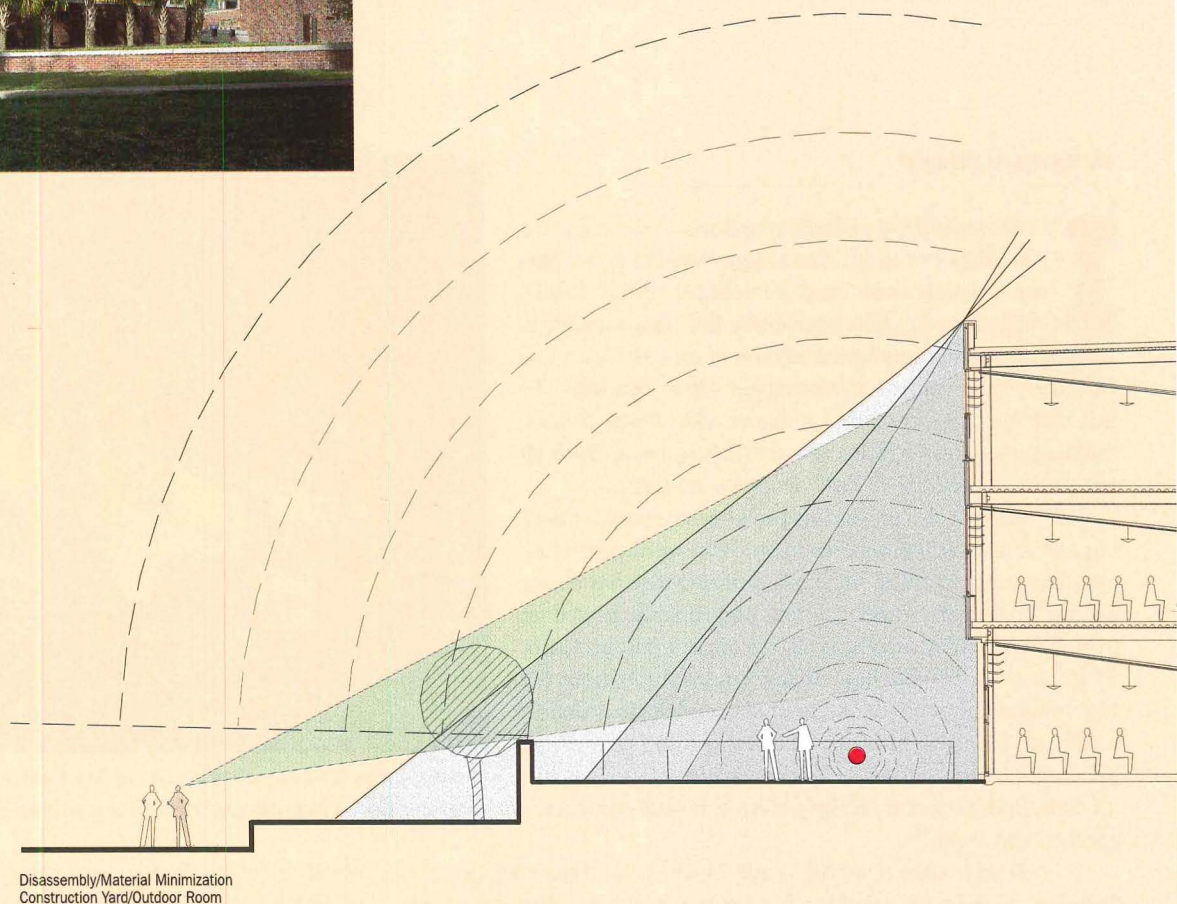
After reading this article, you should be able to:

1. List problems associated with disassembling buildings.
2. Discuss current and future incentives for reusing and recycling building materials.
3. Describe benefits of designing for disassembly and deconstruction.

For this story and more continuing education, as well as links to sources, white papers, and products, go to www.architecturalrecord.com.



At Rinker Hall at the University of Florida (above), the Croxton Collaborative designed for disassembly by eliminating multiple layers of material and leaving structure exposed when possible (opposite two). The architects created an outdoor room (right) for construction-related activities that takes advantage of climate, building effect, topography, and organization.



Controlled demolition

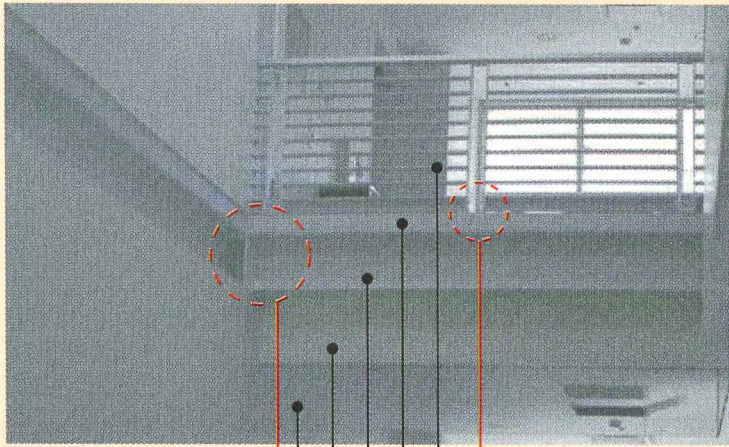
A dismantling and demolition project starts with an assessment of the construction methods and materials. Items of value, and those that are reusable and recyclable, are all identified. An analysis of hazardous material content will reveal limitations on materials reuse and disposal, and then a judgment is made on the extent of demolition. GBB recently completed a waste diversion and demolition at the Nashville, Tennessee, Thermal Waste-to-Energy Plant. Brickner describes the key elements of the Nashville process: "The first action was an auction of all the old equipment and spare parts. The auction raised \$983,000, and purchasers were required to remove items at their cost. The primary construction materials on-site were concrete and steel, including the 200-foot-high smokestack that was taken down by controlled demolition. Overall, we charted a course for the demolition contractor that recycled 90 percent of the materials. We had the benefit of time to run the auction. Because of that, the demolition phase was considerably shorter than if the whole site had been crushed, and we added the benefit of generating nearly a million dollars for the owner."

GBB required the contractor to produce a weekly report of all the value and weights of materials that they pulled from the site, their destination, and their sales price. This data complements a directory that GBB compiled for the metropolitan Nashville government of construction mate-

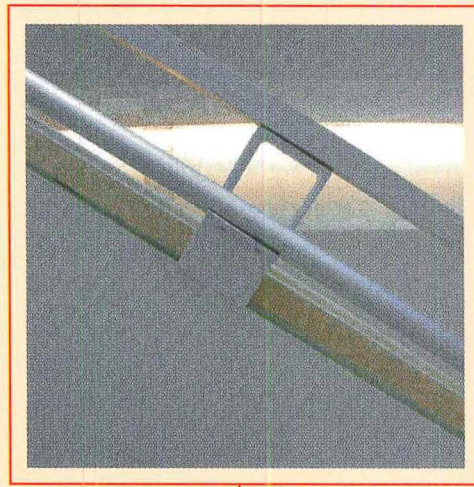
rials, and the local and regional materials markets for reuse and recycling.

Cost-effective materials disposition depends on local and regional disposition of materials to ready markets. Contractor costs go up if materials need to be transported some distance to find their markets, or if they need to be stored for any length of time before reuse. The U.S. lags behind Europe and Canada, which have a much larger and more well-developed network of materials handlers and brokers. In Europe, forces encourage separation of materials and reuse. The land is scarcer, the value of materials higher, the availability of raw materials more restricted, and the regulations tighter. In the Netherlands, there is no such thing as demolition debris; it all has to be reused, and they have a robust "downcycling" market for materials to be reused in lower value applications. Brickner and GBB, in their training function, constantly promote the need for awareness of material markets and opportunities for reuse.

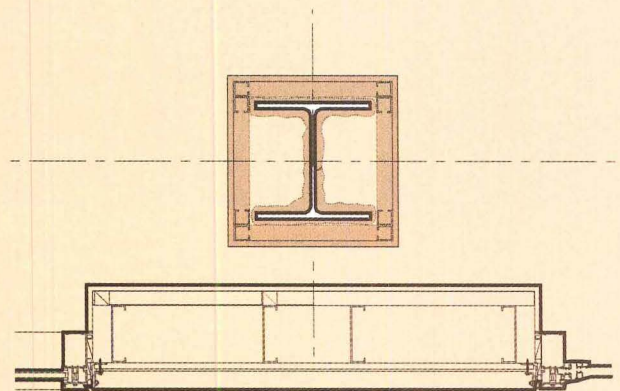
European environmental legislation also requires producer responsibility for collecting, sorting, and recycling of discarded products at the end of their service life. Manufacturers work with recycling companies and their own supply chains to manage the reuse and recycling of their products to control the life-cycle costs. While the U.S. operates far below this standard, American product companies increasingly see that it is sound business practice to take back and reprocess their own construction



- Exposed assembly
- Glass smoke dam
- Gypsum board plenum
- Steel structure
- Concrete edge of slab
- Steel guardrail



These details (right) show the traditional method of fireproofing (spray, steel studs, drywall, cornerbeads, spackle, paint), which inhibits disassembly. The architects substituted a sprinkler system in order to leave the materials exposed.



Disassembly/Material Minimization
Rinker Hall : Eliminated
"Layers"/Expose Structure

waste. Developing routine methods for reuse is part of developing a truly "closed-loop" environmental system—one where every material has an ongoing useful life, and waste is diverted from landfills.

Designing for deconstruction

According to Charles Kibert, founder and director of the Powell Center for Construction and the Environment at the University of Florida in Gainesville, "We are starting to do a good job of diverting construction waste, but we are not yet very good at preventing waste in the first place." Kibert points out that the LEED system, which has proved to be a huge catalyst for diversion of waste materials during construction, has been in place considerably less than a decade, but we have hardly begun to address the companion movement—Design for Deconstruction or Disassembly (used interchangeably)—that integrates waste prevention into the design process. Together they approach the problem from material and design decisions. First, individual building products should produce little waste in their use and installation and have high value for reuse and recycling; and second, the building itself should be designed with its disassembly or deconstruction in mind. As Kibert points out, we don't yet have an integrated system to deal with all aspects of construction waste prevention and recycling, but it isn't for lack of talent dedicated to providing solutions.

Kibert was the owner's representative, and the Croxton Collaborative/Gould Evans was the architect for Rinker Hall, home of the M.E. Rinker, Sr. School of Building Construction at the University of Florida. It was an opportunity for both Kibert and Croxton to explore Design for Deconstruction ideas. Randy Croxton, principal of the Croxton Collaborative, advocates an approach that he calls "materials minimization." In Croxton's words, "There are three aspects to our design philosophy. The first is that we look for ways not to build; that is, we explore solutions to programmatic requirements that don't create fully enclosed, energy-consuming space. The second is that we minimize in design and detail by avoiding glued and composite systems and by using assemblies of resources that can be retrieved and reused at the highest value. And finally, we facilitate disassembly by avoiding situations that require destructive demolition."

At Rinker Hall, the philosophy led to the selection of steel over concrete, while avoiding layers of fireproofing, Sheetrock, and other finishes. Floor slabs are concrete, but sealed and left exposed or covered only with resilient floor tiles rather than layers of carpets and pads. Partitions do not engage columns, anticipating and facilitating change and reuse. One of the hallmarks of Design for Deconstruction or Disassembly is a respect for change over the lifetime of a building.

Renovation and remodeling make up the lion's share of that



The 200-foot-tall smokestack at the Nashville Thermal Transfer Corporation facility was brought down using controlled



demolition. Electrical equipment from other parts was auctioned off as part of the demolition and dismantling of the entire complex.



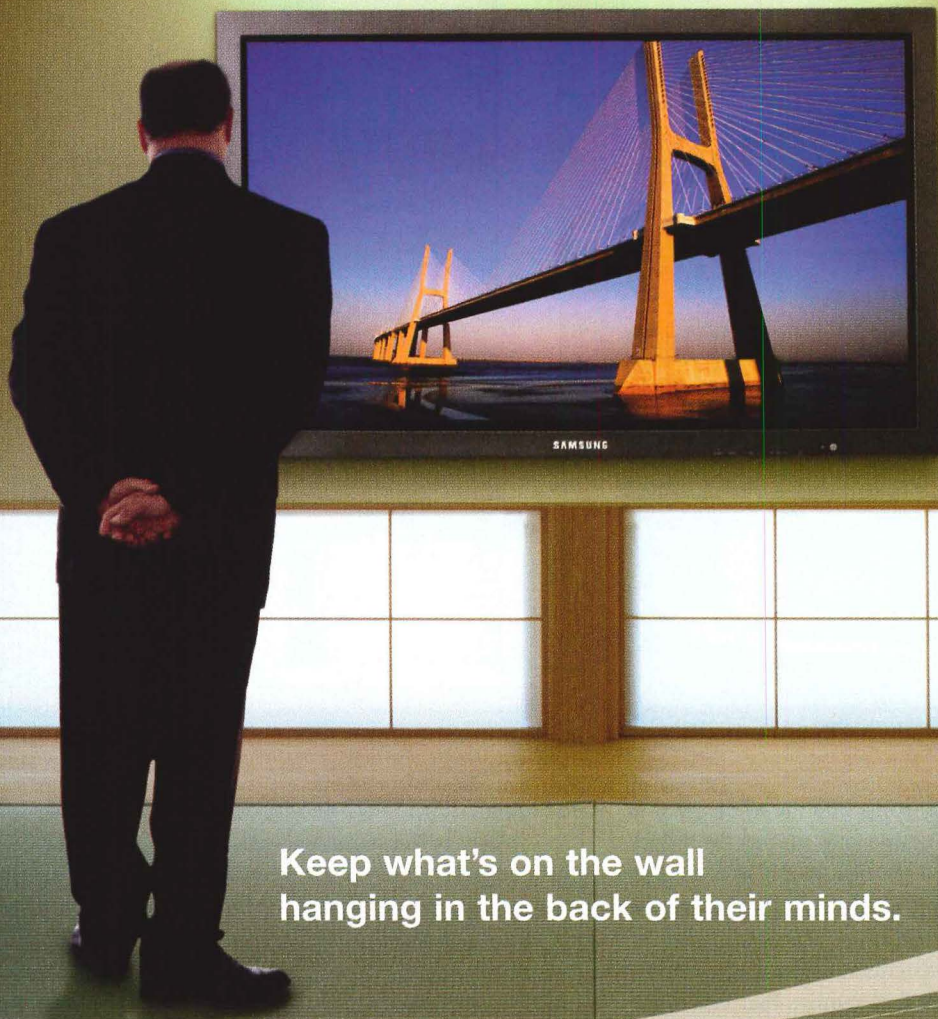
huge volume of C&D waste. According to some EPA statistics from 1996, demolition and renovation constitute 92 percent of construction waste. That is a tangible incentive to increase the life of the building and its materials by designing a building that can respond to changing programmatic needs. According to Croxton, "If a building doesn't support change and reuse, you have only an illusion of sustainability. You may have excellent building orientation and other energy-saving systems, but the building must also be able to be flexible to meet a change in curriculum." Indeed, building types that were once thought of as fixed, from research labs to university classrooms, have become examples of the imperative of flexible planning [see *RECORD*, August 2003, page 147].

Mechanical systems that typically run in false ceilings or are otherwise bound to the structure complicate disassembly and may necessitate destructive demolition for renovations. At Rinker, the Croxton Collaborative created a "highway" for the mechanical runs and placed them overhead, but they are masked from sight by manipulations of architectural elements such as the roof slope. Open and accessible to facilitate nondestructive changes, they are also generously sized to provide maneuvering room for unanticipated technologies. The resulting spaces are open and flexible to meet with a strong connection to the external environment and the changing patterns of light and shade through large windows and facade screens. Open, flexible spaces that are readily adaptable coincide with the goals of the internationally emerging Universal Design movement [discussed in *RECORD*, January 2004, page 145].

Planning ahead

Another university-practitioner partnership is creating a school designed for dyslexic children in California. Bradley Guy from the Penn State University Hamer Center for Community Design in Philadelphia and Scott Shell of EHDD Architecture in San Francisco are using a grant from the EPA to explore strategies and details for Design for Disassembly at the Chartwell School in Seaside (Monterey County), California. The exploration began with a matrix (see chart on page 188) of likely and typical construction materials and components, an analysis of their characteristics that rates ease of recovery and value after recovery. The chart of variables was a guide for material selection in the design of the building. Wood was selected for the structural framing. It is widely used in California and has a high economic value, but typical wood construction can be labor intensive to salvage and reuse. Design for Deconstruction suggests that connections should be simple, and fasteners should enable disassembly. One of the explorations at the Chartwell School that Shell and Guy have undertaken is how to keep to that principle and meet the requirements for building in earthquake zones.

Shell's earlier experience in school modernization sparked a particular interest in solving the problem of periodic window replacements. Typically, the cement plaster that encases the windows has to be destroyed, along with their weather tightness, to remove them. A simple window replacement for a large school would routinely grow into a major construction project that could not be completed during a summer break.



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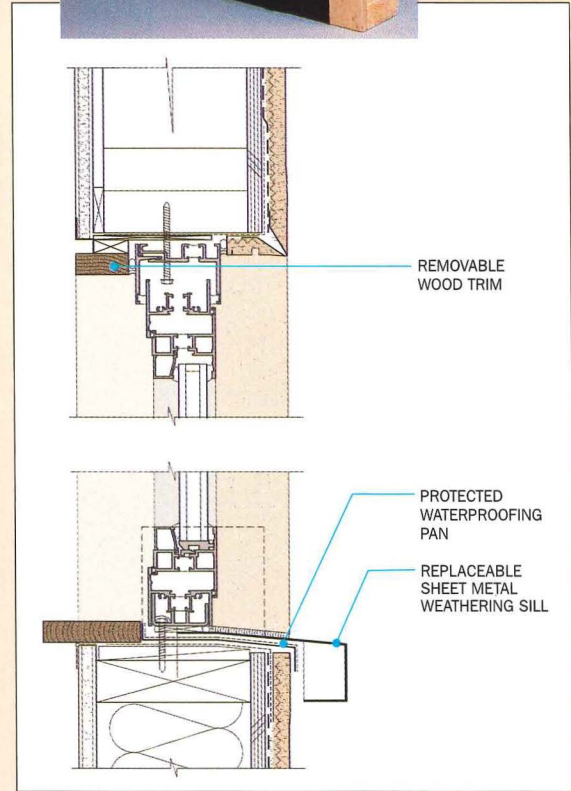
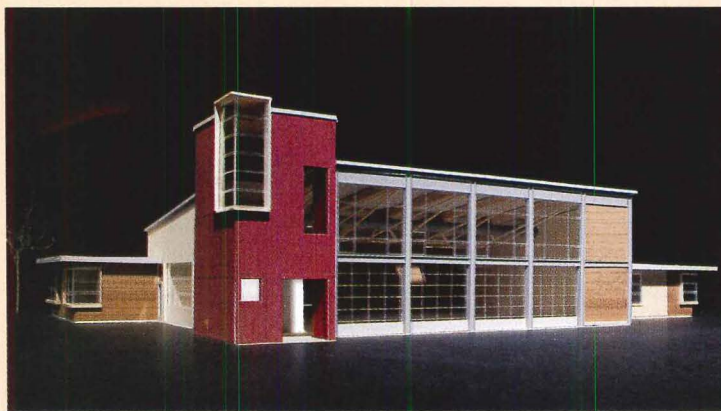
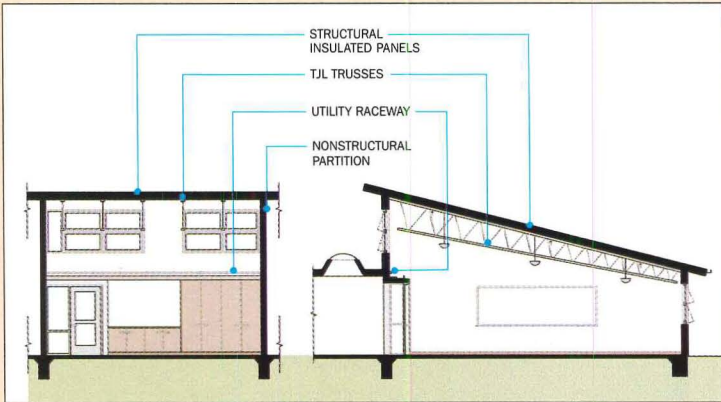


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The Chartwell School (bottom) received an EPA grant to research Design for Disassembly strategies. As shown in the section (below), utilities are segregated

from wood framing to allow for easier disassembly and to reduce holes in the framing, thereby increasing future salvage value. The Design for Disassembly window

detail (right and diagram, below right) allows the window to be replaced by simply removing the wood trim, and without disturbing the adjacent finishes.



Students would be moved to portable classrooms, and the whole process was a classic example of wasted materials, time, and money. To reduce time, the windows at Chartwell are detailed for disassembly with a minimum of waste. Similarly, the wood siding is fastened with clips that are screwed into the backing for ease of disassembly.

According to Guy, in separating systems and unlayering materials in a building, there are circumstances that require that either the design be rethought or a higher tolerance for deterioration be accepted. "If the building isn't caulked or painted at every conceivable place, for example, I might rethink how an area is protected by an overhang or some other building element. Or I may tolerate some wear or deterioration because I have created a system in which I can replace materials or components as needed without destroying the zone around it."

One area where there is no tolerance is worker safety. Dismantling buildings can be extremely hazardous, and it doesn't take much experience to understand that they are not designed to be taken apart. Besides toxic materials, assemblies give way suddenly, and infrastructure that is deeply integrated with structure is difficult to extract. When materials must be destroyed to be dismantled, workers are endangered by the released pollutants and dust. Dismantling roofs or other high building sections is much safer if they can be removed in large sections

and brought down intact for disassembly.

Guy is researching generic methods and guidelines for disassembly. Separating infrastructure from large components and roofs is one goal. Wood-frame construction is typically riddled with holes drilled for utility lines, making disassembly painstaking handwork that would never permit a roof to be removed easily for dismantling. At Chartwell, as at Rinker, the structure and the systems are separated and exposed. Utility lines are run in a raceway located just inside the classrooms above the casework, where it is available but not generally visible. Buildings are an assemblage of systems that create an integrated whole, which will be more efficient if it is designed for a life cycle of construction, repair, maintenance, and adaptation of its components.

The difficulty of end-of-life disassembly of current buildings makes it obvious that better material choices need to be made in future buildings. Design for Disassembly experts add another voice to the growing chorus of architects who encourage the profession to take a leading role in determining the materials that will be used in buildings. Michael Stacey [see *RECORD*, July 2004, page 153], Croxton, or Shell might choose different materials, but they would all be likely to agree that the selection and employment of materials must be specific to programmatic and construction requirements and closely tied to manufacturing processes.



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DISASSEMBLY MATRIX FOR THE CHARTWELL SCHOOL

Spec section	Component	Expected life span in years	Ease of recovery detailed*	Recovered for salvage or recycling?	Value after recovery	Quantity of materials	Weight	Weight of materials	Embodied CO ₂ /Ton	Total Embodied CO ₂	Salvaged materials available?
3300	Concrete	100	easy	recycling	low	536 cubic yards	2.025 tons/cu. yd.	1,085 tons	0.3/cu. yd.	160.8 tons	yes (aggregate and fly ash)
5100	Reinforcing steel	100	easy	recycling	medium	24,443 linear feet	.88 lbs/sq. ft. of concrete	9.5 tons	1.05/cu. yd.	10 tons	no
6120	Agriboard	100	easy	salvage	medium	16,372 square ft.	13 lbs/sq. ft. (8" panel)	106 tons	0 **	0	no
6170	Wood—wall studs	100	medium	salvage	medium	21,000 l. ft.	27 lbs/cu. ft.	23.6 tons	0	0	yes
6200	Wood—siding	50	easy	salvage	high	241.5 cu. ft.	26 lbs/cu. ft. (Fir)	3.14 tons	0	0	yes
7210	Batt insulation	50	medium	recycling	low	15,000 sq. ft. (wall) 4,500 sq. ft. (roof)	28 lbs/cu. ft. (R-19)	3.1 tons	1.5/cu. yd.	18.9 tons	no
7412	Metal roofing	25	easy	recycling	medium	11,660 sq. ft. 8745 l. ft.	2.2 lbs/l. ft.	9.6 tons	1.05/cu. yd.	10.1 tons	no
8212	Flush wood doors	50	easy	salvage	low	12 doors (3'x7') 252 sq. ft.	5.3 lbs/sq. ft.	.67 tons	0	0	yes
8520	Glass	50	medium	recycling	low	8,250 sq. ft.	3.28 lbs/sq. ft.	13.5 tons	1.3/cu. yd.	17.6 tons	no
9250	Gypsum board	50	medium	recycling	low	38,500 sq. ft.	2 lbs/sq. ft.	38.5 tons	0.2/cu. yd.	7.7 tons	no
9550	Bamboo flooring	50	medium	salvage	high	4,609 sq. ft.	2.04 lbs/sq. ft.	4.7 tons	0	0	no

* assuming adequate maintenance of weather envelope

** wood and other agricultural products sequester carbon

EHDD Architecture prepared this matrix as a means to analyze the value and recovery feasibility of materials and components prior to design.

Guy notes that we have had two significant and plaguing problems in 20th-century materials— asbestos and lead. Their toxicity has made building disassembly and materials reuse expensive, and sometimes impossible. Techniques for stripping lead paint from wood exist, but it can only be cost-effective if the wood has a high value architectural reuse: It is not cost-effective to strip wood for framing studs. Lack of standards for how to reuse some recovered materials is another barrier to achieving a closed-loop system. Wood grading and stamps have existed only since World War II, so structural integrity, moisture content, and species can only be surmised in materials pulled from older buildings.

Ultimately, it is what we build with now that will expedite future deconstruction. Some proponents would banish drywall, a composite of

low-value materials that are completely destroyed in disassembly. Guy would argue that the closer a material is to its natural state, the higher its potential for reuse, and he advocates for simpler materials.

The entire industry will need to participate as we move toward zero-waste building construction. Perhaps in the future, architects will also produce deconstruction drawings and conduct deconstructability reviews. Materials will arrive at the site either ready to use, and therefore leaving either no waste or recyclable waste, or they will be packed in materials that can be returned to the product manufacturer for reuse or recycling. Building components will be labeled or bar-coded with disassembly instructions and constituent materials. Costs for demolition and deconstruction will plummet as waste disappears. ■



AIA/ARCHITECTURAL RECORD CONTINUING EDUCATION

INSTRUCTIONS

- ◆ Read the article “Designing for Disassembly and Deconstruction” using the learning objectives provided.
- ◆ Complete the questions below, then fill in your answers (page 244).
- ◆ Fill out and submit the AIA/CES education reporting form (page 244) or download the form at www.architecturalrecord.com to receive one AIA learning unit.

QUESTIONS

1. Why did the U.S. abandon the art of recovery and reuse?
 - a. there were tax benefits for demolishing old structures
 - b. it is less expensive to buy new materials
 - c. to gain the predictability of new materials
 - d. there was a shortage of available reusable materials
2. Construction activities generate what percentage of waste?
 - a. 5–10 percent
 - b. 10–20 percent
 - c. 20–30 percent
 - d. 30–40 percent
3. Which statement is true regarding the economic value of disassembly?
 - a. building components are easy to separate
 - b. buildings contain few hazardous materials
 - c. salvaged materials have a high value
 - d. disassembly time and labor are costly
4. Reasons to reuse or recycle demolition include all but which?
 - a. landfills have reached capacity
 - b. fees for disposing hazardous materials have risen
 - c. the LEED system encourages new products
 - d. it is hard to get a permit to create a new landfill
5. Which factor encourages more material reuse in Europe than the U.S.?
 - a. the availability of raw materials is more restricted
 - b. regulations are looser
 - c. land is plentiful
 - d. the value of reused materials is lower
6. Which is a description of a closed-loop environmental system?
 - a. waste is diverted to landfills
 - b. each material has a finite life
 - c. a manufacturer reprocesses its own construction waste
 - d. products are discarded at the end of their service life
7. Materials minimization advocates all except which?
 - a. do not build fully enclosed spaces
 - b. avoid assemblies that can be reused
 - c. avoid situations that require destructive demolition
 - d. avoid glued and composite systems
8. EPA statistics show that demolition constitutes which percentage of waste?
 - a. 30 percent
 - b. 50 percent
 - c. 72 percent
 - d. 92 percent
9. Design for Demolition suggests doing what to facilitate wood reuse?
 - a. painting it
 - b. using fasteners for connections
 - c. not using wood
 - d. caulking it at joints
10. What endangers workers during demolition?
 - a. falling hammers
 - b. pollutants and dust
 - c. angry bats
 - d. electrical malfunctions



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From balloon frame to CAD-tailored: Japanese precut framing technology comes to the U.S.

Advances in manufacturing technology are bringing mass customization closer to reality for home building. For a number of years, building suppliers have manufactured made-to-order components with a high degree of automation. Now, a supplier called MF Technologies is using a CAD-driven system called MasterFit, developed in Japan, to churn out custom-cut, engineered wood frames for single- and multi-family houses.

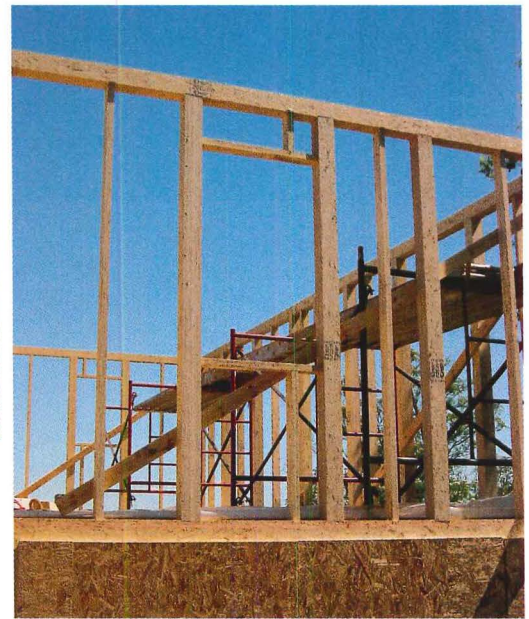
The Minneapolis-based company opened its first fully automated U.S. plant in June 2004. Company officials tout the system's frugal use of materials, which makes for less factory waste, as well as its ability to produce tighter frames and shells, reduce production and assembly time, and simplify labor requirements.

The MasterFit system consists of a proprietary CAD tool (an AutoCAD add-on) to which data from standard CAD files, hard-copy drawings, or sketches are added. The tool then lays out the frame and cuts studs, joists, rafters, and trusses from engineered wood using a computer numeric control (CNC) system. Frame components are labeled and shipped to building sites as a kit of parts. Because they are assembled with interlocking metal pegs and plates, the frames can be erected by construction teams with minimal training, rather than skilled laborers. (Prefabricated building panels used with the frames must be attached with nails or screws, however.)

The Albert Lea, Minnesota, factory can turn around an order in about two weeks. Once components are on-site, the shell of a 1,500-square-foot house can be erected and enclosed within three days, according to MF Technologies president Santos Martin.



MasterFit Frames (right) are shipped to a site and assembled with joinery included in the kit. The house above was built by seven women enrolled in a carpentry-training program in Duluth, Minnesota, who had only one week of experience.



Selling points, future efforts

The company emphasizes engineered lumber's sustainability and strength. "When I saw MasterFit's system in Japan, I was struck by its structural efficiency," said James Brew, an architect with LHB in Minneapolis and a consultant to MF Technologies. "A four-by-eight beam can span twice the distance and carry up to twice the load of conventional lumber." Despite these advantages, the growth of this market has been slow. While the number of engineered wood plants in the U.S. has about doubled since 1989, engineered wood still represents only 5 to 6 percent of the North American structural framing material market, according to the Engineered Wood Association.

Sustainability may end up being the system's strongest selling point. "We're using about 2 to 5 percent less lumber than typical stick-frame houses, and making the frames from trees that grow back quickly," says Martin. "And you can get a better R-value with the same insulation," he added, because the frames are tighter than stick frames. Houses built with the system also

lend themselves more easily to deconstruction and disassembly for reuse, according to LHB's Brew.

Although the process has been used mostly for single-family homes and multifamily town houses, Martin is thinking of going after the light commercial building market. "Because it's an engineered product, we can eliminate on-site errors and speed enclosure," he said.

Kicking the tires

Some who have studied mass customization point out limitations of the MasterFit system. Kent Larson, professor of architecture at MIT and director of its research program House_n, says that it lacks well-conceived pathways for utilities such as pipes and wires and doesn't address the integration of structure with interior, non-load-bearing infill partitions and cabinetry. "A process for making high-quality, mass-customized homes requires considering the whole system, from flashing to how air moves indoors." Daniel Schodek, a professor of architecture at Harvard's GSD, says, "It's a highly developed approach, but likely

unadaptable to late changes that invariably occur during custom building." (LHB's Brew disputes this, saying the kits can be field-modified by the same techniques used for stick-frame construction.)

Mass production and customization for homes has long been a source of study and interest within the architectural community. Current efforts include MIT's Open Source Building Alliance, which is carrying out a research initiative into standardized, component-based designs for homes that calls for matching automated design tools with efficient fabrication, delivery, and installation methods using nonproprietary digital systems. "That is the only way we will get the economies of scale and competition necessary to change a dysfunctional industry," says MIT's Larson.

Judging from previous standards-development efforts in the computer and building industries, progress is likely to be slow and uneven. In the meantime, a system like MasterFit offers a measure of mass customization for willing designers. *Ted Smalley Bowen*

the only
characteristic
of wood we
couldn't *imitate*.



THE IWP® AURORA™ COLLECTION | Every IWP Aurora custom composite door is designed to emulate real wood doors (minus the fresh forest scent). These doors look and feel like wood, yet they offer low-maintenance performance that genuine wood just can't match. In fact, IWP Aurora doors are engineered to withstand harsh weather and extreme temperatures for years. These benefits, as well as a host of designs and options, are sure to enhance any home. To learn more about reliable JELD-WEN® doors, visit www.jeld-wen.com/auradoors2.
Shown: IWP Aurora A1202 in Knotty Alder Woodgrain with a Bordeaux Speakeasy Grille; Inset, IWP Aurora A252 in Mahogany Woodgrain

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JELD-WEN PRESENTS

First impressions: Knowing your options makes it easy to create magnificent openings

Every designer wants to make a statement, whether the project is a \$200,000 tract home or \$13 million custom home. Now, you can do that, regardless of the price range of your project.

This continuing education unit is an A-to-Z guide to the options available to architects in selecting appealing, trouble-free doors. It will discuss not only door design but also materials, appropriate environment, hardware, glass and coming options, finishing and customization of both exterior and interior doors. The discussion will include garage doors, which are now becoming a design consideration for many architects and homeowners.

Any discussion must begin with the materials and their distinctive characteristics. Exterior door materials require careful analysis. Today, there are a great number of alternative door types available, and each must be considered within the context of the environment in which they will be installed.

Wood is the traditional choice. Wood is beloved for its character, warmth and style. A variety of quality hardwoods are available to suit varying architecture and styles.

Architecturally significant entry systems have historically begun with components of one of the following hardwoods:

Alder is a versatile wood that accepts stain very well and, thus, has a greater color range than many other species. Stain colors used on alder can range from a light blonde to deeply colored merlot or gunstock with varying degrees of red in the center of the range.

Alder features a fairly straight grain with areas of burl clusters and a few small knots, which add character and will show some darker textures and shades when finished. Alder is the lightest and least

CONTINUING EDUCATION

Use the learning objectives below to focus your study as you read **First impressions: Knowing your options makes it easy to create magnificent openings**. To earn one AIA/CES Learning Unit, including one hour of health safety welfare credit, answer the questions on page 197, then follow the reporting instructions on page 246 or go to the Continuing Education section on archrecord.construction.com and follow the reporting instructions.

LEARNING OBJECTIVES

After reading this article, you should be able to:

- Explain the available options for exterior and interior doors
- Select the proper exterior door for any exposure
- Understand new technologies in door manufacturing

dense of the hardwoods generally used by manufacturers but may be stained to look like its more expensive hardwood cousins, including cherry.

Historically viewed as an overabundant weed tree, Western red alder now sustains a major hardwood industry, centered on the Northern Pacific Coast. Red alder has become the most abundant broadleaf tree in the Pacific Northwest. It now accounts for seven percent of the total timber inventory and 61 percent of the hardwood inventory in western Oregon, Washington and British Columbia.

American Black Cherry, from forests in the Northern United States, varies in coloration from rich red to reddish brown in color. It is occasionally found with thin gum pockets and small clusters of pin knots and random streaks of blonde-colored sap wood, which give this hardwood a distinctive appearance. Cherry is a strong, stiff wood with a fine, straight, close grain and smooth texture. It stains easily and smoothly.

Northern Red Oak, from U.S. sources, is a high grade and exhibits consistent color and grain patterns. It is a widely utilized and immediately recognizable hardwood. Northern Red Oak is known for its dramatically pronounced grain pattern and offers a wide color range, making it similar to alder in its versatility. The species ranges in color from light straw to honey with a light pink tint, and it accepts stain very well.

Honduras Mahogany, now generally imported from Central and South America, is the most stable of the hardwoods, with less expansion, contraction and moisture absorption than any other species. Mahogany varies in color from several shades of reddish brown, to deep, rich red. It stains well for an excellent finish. The grain can vary, ranging from straight to interlocked, and it shows a prominent growth ring figure.

For years, mahogany has been the number one cabinet wood of the western world due to its stability and appearance. This reddish heartwood deepens with age to rich reddish-brown. It is often fine-textured although somewhat variable, and it often has ribbon striping that is sometimes curly or wavy. It is excellent for lumber and veneers. Mahogany finishes very well and is moderately resistant to termites.

Walnut is a durable wood harvested from the Eastern United States. It is traditionally used for fine furniture, gunstocks, musical instruments and boatbuilding and is becoming popular for doors. It features a color range from rich dark brown to purplish black with highly attractive blonde streaks of sapwood within the darker

tones. This wood normally has a straight grain, and occasional waves or curls are sometimes present. Knotty walnut is also available with its distinctive features.

Hard Maple is often the choice to lighten a room. It has a predominantly creamy white color, a fine grain texture and is hard enough to resist abrasions and wear.

Few woods have the distinct character of maple. It is bold, handsome, unique and is marked by dramatic variations in grain pattern and wood color, often within an individual door, drawer front or frame component. Maple is increasing in popularity for home interiors.

Hickory is a strong and varied-grain wood. In a natural or light finish, its color can change wildly, from white to dark, even chocolate brown. Random knots, worm holes and mineral streaks add even more character and boldness to hickory's natural beauty.

The sapwood of hickory is white, tinged with brown, while the heartwood is pale to reddish brown. The wood is known for its strength and shock resistance.

Appropriate exposure: A critical consideration

A critical consideration in choosing an appropriate entry door or "entry system," a package that includes a transom and sidelights, must be the exposure of the entryway to the elements.

Despite the architectural appeal of hardwood entry systems, there are situations where exposure is too extreme for hardwood. For those situations, there are a number of alternatives. "Composite," fiberglass or steel doors are specifically designed to withstand even the harshest of elements in the most extreme conditions.

It is prudent to ask the following questions to determine whether you have special performance needs:

- Are you designing for a climate with extreme temperatures?
- Are there seasonal high winds or hurricanes?
- Are exposures northern, southern, eastern or western?
- Is controlling noise levels outside the home an issue?
- Does the front entrance have an overhang?
- Have you thought about fire ratings?
- Is energy efficiency a priority?

Technically advanced, low-maintenance exterior doors in fiberglass, steel and composite are also engineered and constructed to resist buckling, chalking and peeling, all common problems historically with steel and fiberglass doors.

Fiberglass, steel and composite doors may begin with a polystyrene core (an alternative to polyethylene, which was found to lose its thermal resistance over time). Polystyrene core doors are ENERGY-STAR-rated and may prove as much as 40 percent more efficient than other door types in resisting thermal conduction.

As is the case with hardwood doors, steel, fiberglass and composite doors may be enhanced with either transoms or sidelights to create entries that have the same dramatic effect as hardwood entryways.

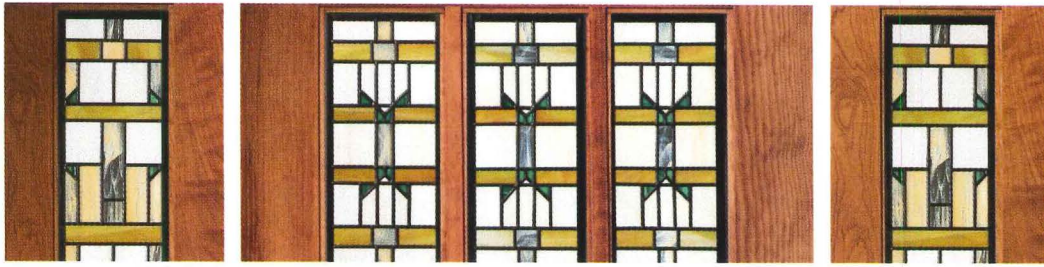
Fiberglass exterior doors are more weather resistant than hardwood doors, and are less expensive. Because of their popularity, they are being manufactured in a growing number of designs that conform to a range of architectural styles.

The degree of absorption of ultraviolet rays is a factor to consider in selecting engineered entry systems. Because the degree of absorption varies according to color, it is critical that designers know that painted steel doors can be affected by heat. In 110-degree ambient heat, the temperature of a white steel door rises 10 to 15 degrees; a dark green door of the same material will experience a temperature rise of roughly 70 degrees.

A combination of storm doors and exterior doors will work fine in winter, but heat build-up between the doors in summer can cause distortion of the steel surfaces. The steel may expand with heat, and oil-canning or warping may occur.

Steel-edged doors offer increased safety and security by adding strength and a fire rating factor (for true protection, these doors must be used in combination with certified frames and hardware). Polystyrene-core steel edge doors are also hurricane-rated, assuming they accompany the other elements of a door system which includes (besides door slab) frame, hardware and other elements which meet the specific building code requirements for the county. Hurricane rating assures the doors will not be blown out of casings or allow an unreasonable amount of water to infiltrate.





Craftsman glass detail



Round clavos



Corner strap



Rustic grille

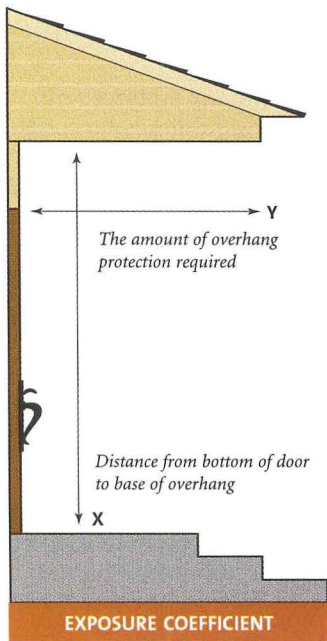


Entry system with sidelights and transom

Wood composite doors offer the beauty of wood but are a low-maintenance alternative that performs well in varying climates. The wood-like surface is made to resist dents and along with advanced lumber stiles and composite rails will not rot. They are designed to perform well under pressure, some meeting the strict building codes of Dade County, Florida (see door system components above). They come in a variety of panel profiles and textures, and may include glass inserts and heights up to 8'0."

Custom composite doors move wood-alternative options into the area of high-end elegance and extreme durability. These doors, while emulating the rich appealing look and feel of solid wood doors, are engineered to withstand the rigors of nearly any environment. Also now available in French doors, this technology allows for a door nearly indistinguishable from real wood, yet equally at home in the desert or in the midst of constant coastal extremes.

If your choice is hardwood, the placement of the door will be a major factor in its maintenance and longevity. To adequately protect a hardwood door and extend its life, the designer of the entry system must do some factoring. The architect must first factor climate, then the compass direction the door will face. These will determine, for the most part, the amount of overhang necessary to protect the door from weather.



To calculate a correct overhang for moderate climatic conditions, a simple formula is " $Y=1/2X$," in which "Y" is the length of the overhang and "X" is the height from the base of the door to the bottom of the overhang (see chart at left).

Where decay or termites are of concern, another option to consider are "treated" products, manufactured through trademarked processes that insure 100 percent penetration of cut-stock to create worry-free, reliable wood doors that are protected from decay, termites and water damage.

In a newly patented treatment process, water has replaced petroleum-based solvents as the carrier for the active ingredients—tebuconazole as the fungicide, imidicloprid as the insecticide—reducing environmentally damaging VOCs (volatile organic compounds) by up to 97 percent.

Interior doors for every practical consideration

Interior doors may be made of hardwood, veneered plywood with pre-finished hardwood appearances, molded wood fiber or medium density fiberboard (MDF), which offers the polished appearance of natural wood.

Other interior options include mirrored doors that reflect natural light throughout the room and French doors.

Veneered plywood and molded wood fiber doors are available with solid cores for areas of the house where you need to deaden sound. Solid-core interior doors reduce sound transmission by as much as 50 percent.

In the manufacture of molded wood fiber doors, sawmill waste is reduced to woodchips, screened for size uniformity, softened by steam in what is called a "digester," and further reduced to fibers. After these fibers are dried, they are mixed with resin and wax and formed into sheets. Sheets are molded into designs by compressing the sheets at high temperature and trimmed to size.

Router-carved MDF doors, until recently, were available in a limited number of styles. They are now available in more than 70 standard designs. As an alternative option, designers may create their own custom MDF doors.

"Any design you can imagine, we can now create," says Chris King, product manager for a West Coast manufacturer. "The design can literally be drawn on a cocktail napkin, brought into the dealer, designed and then created. We can now provide options to fit any decor."

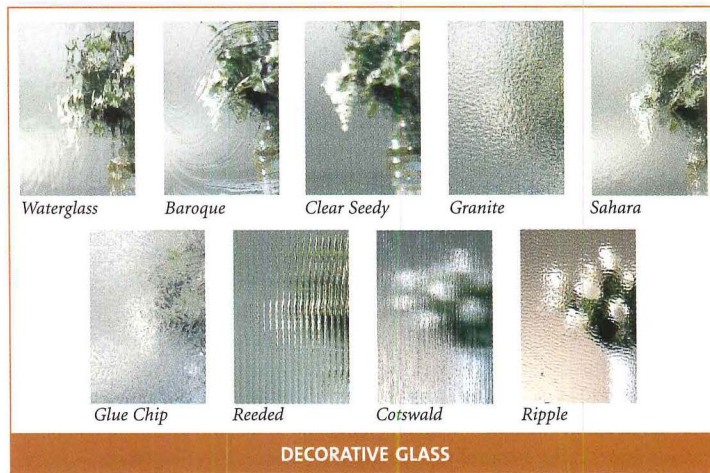
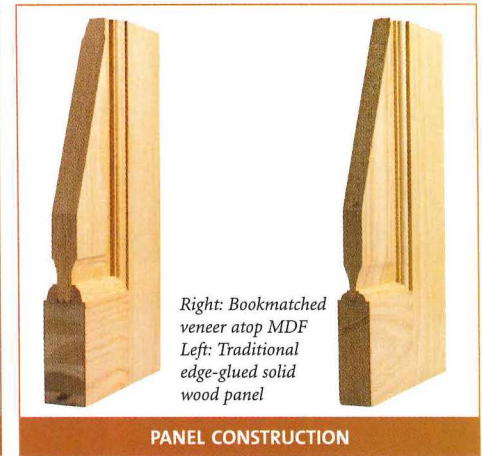
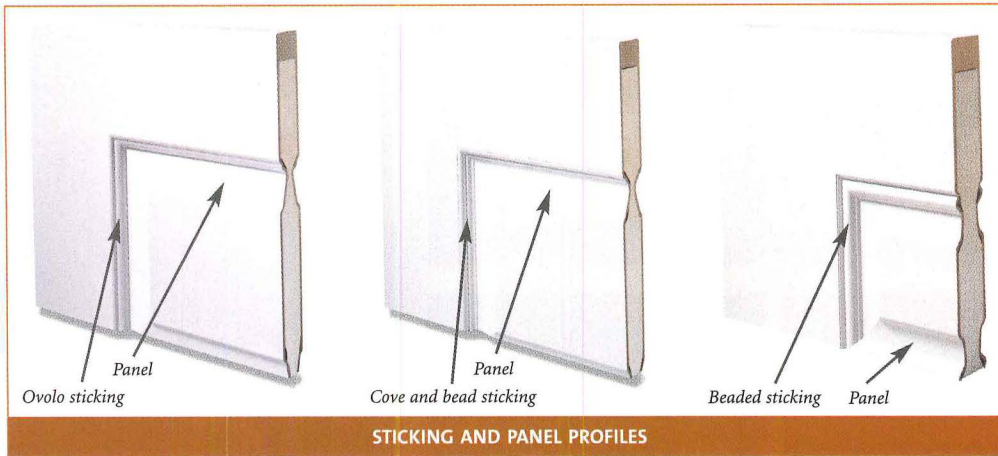
Router-carved interior doors can be designed to carry an architectural theme throughout the home, or to make a specific room stand out from the rest. The skin of interior router-carved doors are created from a single sheet of MDF. MDF doors have a detailed and polished appearance very similar to that of genuine wood.

The core is polystyrene, making the router-carved products one-third lighter than other MDF doors and increasing the STC (sound) rating of the door to 31, giving them the highest sound resistance of any residential door on the market.

"With computerized router technology, we make door customization easy," says King. "And we do it without the cost and long lead-times of traditional custom door manufacturing."

Enhancing the wood look, custom MDF doors are available with options like sticking profiles and raised moulding, for a classic wood door look unlike anything else on the market.

All-wood edges provide superior screw holding, and the polystyrene core makes new MDF products up to 50 percent quieter than standard hollow-core doors.



Eye-catching glass accents add a sophisticated touch to both exterior and interior doors

In addition to a broad range of stained glass options, including multiple glazing for protection and energy efficiency, manufacturers now offer a variety of decorative glass textures, patterns and colors.

Among the options:

- **Waterglass:** A fairly obscure glass, with a texture resembling subtle waves.
- **Baroque:** A unique, slightly distorting glass in a number of colors, including gray.
- **Clear Seedy:** An obscure glass in which tiny bubbles create a lively texture and natural sparkle.
- **Granite:** An obscuring glass with a surface resembling a fine rock-like surface.
- **Sahara:** A very obscure glass with the rippled texture of desert sand.
- **Glue Chip:** Another very obscure glass with a feathery, frost-like texture.
- **Reeded:** English glass roll-formed into a strong linear pattern.
- **Cotswald:** An obscure glass with a vertical pattern resembling running water.
- **Ripple:** Obscure, with a surface like wind-blown water.

Any of the stylized glasses may be installed to fill an entire lite or may be incorporated in a variety of intricate glass designs for either exterior or interior use. They are available with brass, polished zinc, satin nickel or patina (black) coming.

Panel options and sticking patterns multiply design possibilities

Every door design is defined by its panel configuration and sticking profiles along with material. Panel options and sticking profiles determine whether the door will read as traditional or contemporary, Craftsman or Mission, elegant or old-world.

Exterior panel construction options include traditional edge-glued solid wood panels, with precise detail and deep shadow lines; or bookmatched veneer placed atop medium density fiberboard (MDF), which offers enhanced strength and stability.

Panel profiles may be hip-raised or double-hip raised, flat or scooped, depending upon the degree of relief desired. The “double-hip” reveals two beveled edges for a visual alternative.

Sticking profiles, at the edges that join the panel to stiles and rails, allow for a wide variety of design options. Beaded sticking adds a strong three-dimensional look to traditional panel design. Ovolo sticking offers a classic rounded design, and modified cove and bead sticking is a detailed relief. For a Craftsman or contemporary look, non-profiled or square sticking with flat panels gives a clean look. The door can be further enhanced by the addition of a shelf to complete the Craftsman look.

Panels can include hand-carving for a strong statement of elegance; they can also include glass insets from a large variety of decorative glass options. Traditional Craftsman-style glass includes geometrically-patterned designs in earth tones such as green, blue, gold and rust. Customization of stained glass also includes choice of coming in patina, brass and satin-nickel for a touch of architectural elegance. Beveled, grooved and sculpted glass panel options are a popular choice for almost any style of home or application within the home, such as French doors.

Panel options can also include louvered panels on either the top or bottom or both panels. These are used for laundry rooms and closets for air circulation. Staved panels allow for a planked look in the door. These can either be actual planks formed to make the panel or a planked look using grooves into a door surface. Both provide for a more informal look, and if painted are used in many cottage, Cape Cod or beach-front style homes.

Sidelights and transoms that either match or complement the door may be configured with all the same options to enhance architectural style.

Architectural hardware adds drama with rustic charm

Entry locksets along with a wide variety of metal accents now strengthen the architectural statement of old-world styled doors with their rustic, hand-forged charm. Offered in a wide variety of styles, speakeasy grilles, clavos, straps and door knockers add a distinct element of drama to wood or custom composite entryways. Hardware is available for both door and sidelights.

“No-dent” composite garage doors match any architecture

Wood composite garage doors, in a surprising range of architectural styles, provide an answer for the residential architect looking for the elegance of wood—without the maintenance; the strength of steel—without the potential for denting or rusting; and the durability of fiberglass—without the cost.

Deep relief panels, clavos or a variety of decorative hardware are now standard items in some product lines. The new door lines can turn architectural eyesores into handsome architectural statements.

High-technology garage doors begin, as do many of the new engineered exterior and interior doors, with a CFC-free, polystyrene core for heightened R-values and stability over the life of the door.

Thermal-set melamine resins are combined with refined cellulose fibers to create an exterior door skin that is resistant to moisture, cracking, rotting, sub-zero freezing, desert heat and the damaging effect of the sun’s ultraviolet rays.

Advanced polymer skin and trim boards won’t crack, separate, rust or dent. Also, wood-grain composite exterior skins are indistinguishable in appearance from wood.

Layered LVL (laminated veneer lumber) support rails make engineered garage doors structurally advanced, compared to even the best-made traditional wood doors. ■

CLICK FOR ADDITIONAL REQUIRED READING

The article continues online at: archrecord.construction.com/resources/conteduc/archives/0410jeldwen-1.asp

To receive AIA/CES credit, you are required to read this additional text. For a faxed copy of the material, contact Mary Anderson at JELD-WEN, (541) 850-2606 or email MaryAn@jeld-wen.com. The following quiz questions include information from this material.

 **AIA/ARCHITECTURAL RECORD
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LEARNING OBJECTIVES

- Explain the available options for exterior and interior doors
- Select the proper exterior door for any exposure
- Understand new technologies in door manufacturing

INSTRUCTIONS

Refer to the learning objectives above. Complete the questions below. Go to the self-report form on page 246. Follow the reporting instructions, answer the test questions and submit the form. Or use the Continuing Education self-report form on *Record's* website—archrecord.construction.com—to receive one AIA/CES Learning Unit including one hour of health safety welfare credit.

QUESTIONS

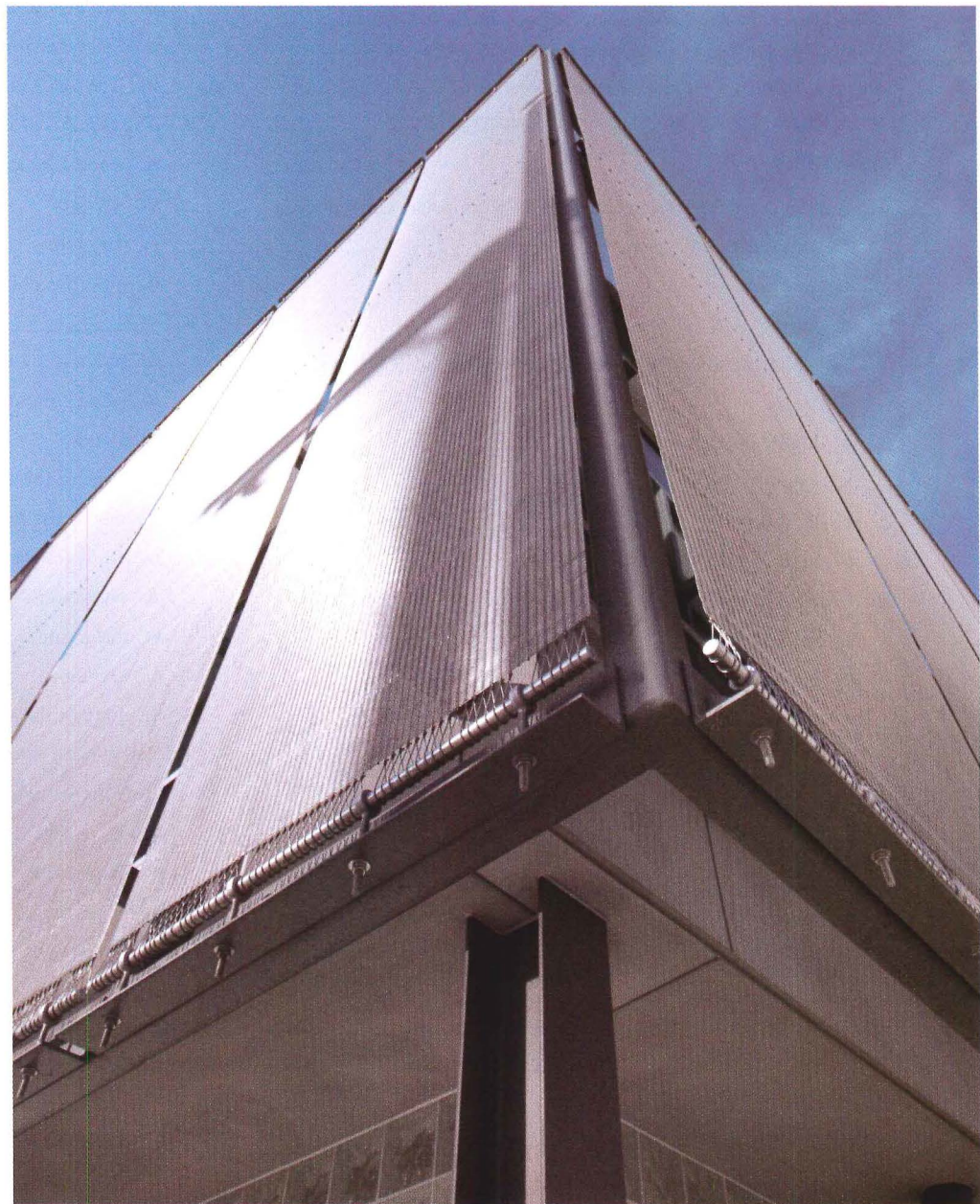
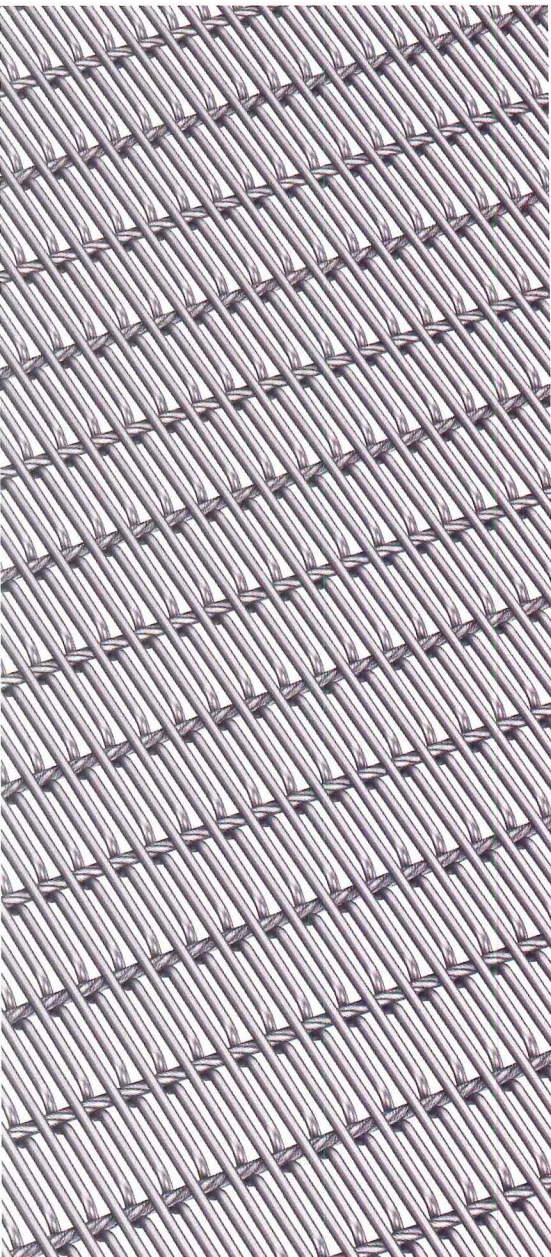
1. A main consideration in choosing an appropriate entry door is the exposure.
 - a. true
 - b. false
2. Which of the following is not a characteristic of polystyrene cores? They are:
 - a. highly insulative
 - b. sound resistant
 - c. lightweight
 - d. fire resistant
3. Glass panel options include:
 - a. beveled
 - b. grooved
 - c. sculpted
 - d. all of the above
4. Router-carved interior doors are made of:
 - a. MDF
 - b. IWP
 - c. LVL
 - d. melamine
5. In 110-degree ambient heat, the temperature of a white door will gain 10 to 15 degrees; a dark green door of the same material __ degrees.
 - a. 30
 - b. 40
 - c. 50
 - d. 70
6. Which of the following is not a performance consideration in choosing a door:
 - a. Are you designing for a climate with extreme temperatures?
 - b. Are exposures northern, southern, eastern or western?
 - c. Does the front entrance have an overhang?
 - d. Is the architectural style traditional, contemporary or old world?
7. The benefits of wood composites are:
 - a. wood-like appearance
 - b. strength
 - c. durability
 - d. all of the above
8. _____ doors are hurricane-rated.
 - a. polystyrene-core steel doors
 - b. wood composite doors
 - c. a and b
 - d. none of the above
9. Melmac is the trade name for what component of UV and moisture-resistant garage doors?
 - a. polystyrene
 - b. melamine
 - c. urethane
 - d. none of the above
10. New treated wood products offer decay, termite and water-damage protection at what penetration of cutstock?
 - a. 50 percent
 - b. 70 percent
 - c. 97 percent
 - d. 100 percent

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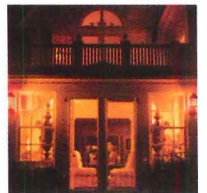
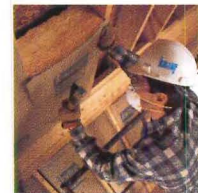
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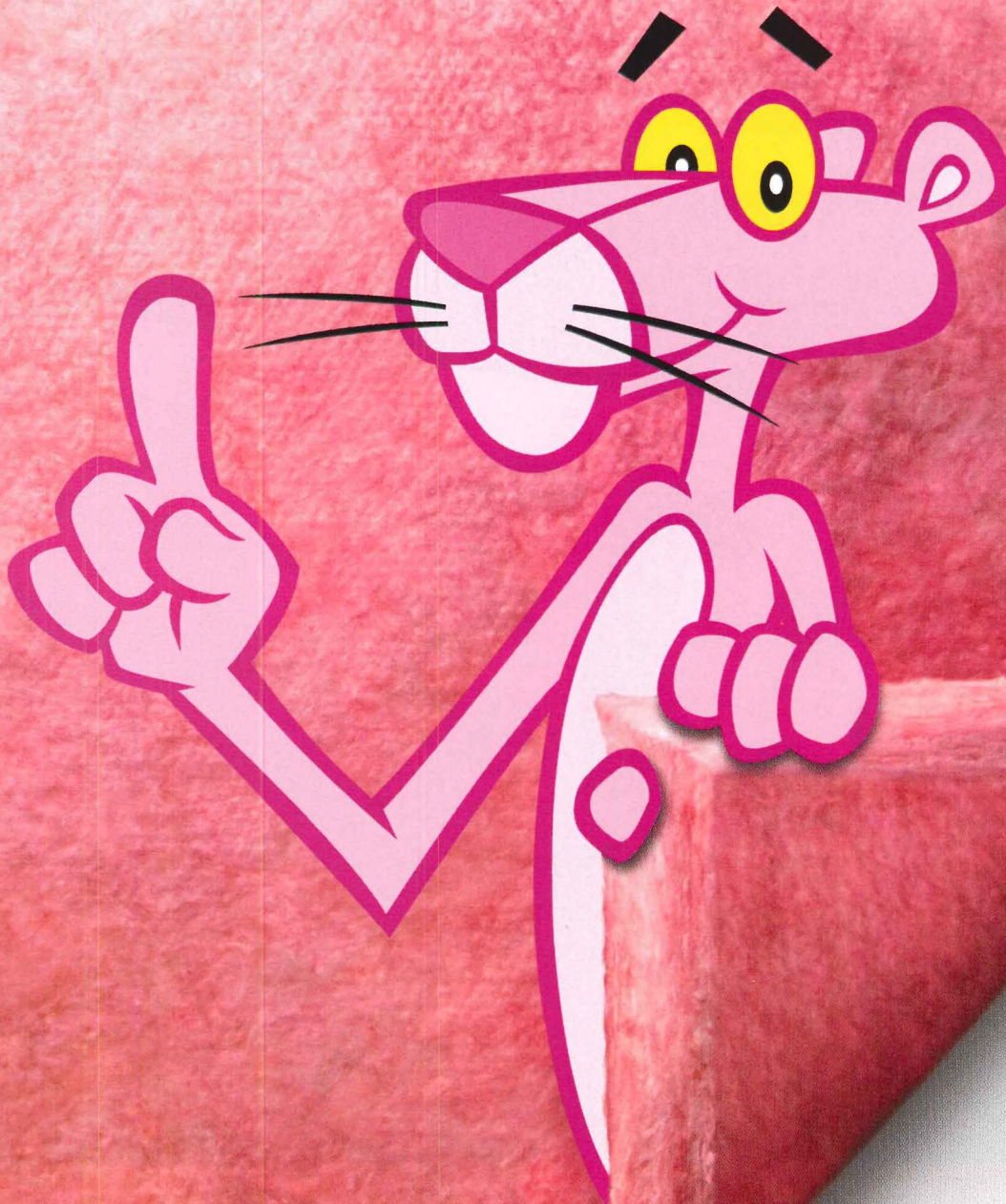
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BRIEFS

A Constructive Madness For more than a decade, Frank Gehry worked on the design of the Lewis House, whose bold forms and materiality rival the signature houses of Frank Lloyd Wright and Ludwig Mies van der Rohe. When the estimated cost of the house hit \$82 million, however, owner and long-time Gehry supporter, Peter B. Lewis, pulled the plug. The design process is documented in *A Constructive Madness*, a film written by Jeffrey Kipnis, curator of architecture and design at the Wexner Center in Ohio. Information at www.aconstructivemadness.com.

New zero-energy houses fight pollution The Department of Energy seeks to help solve pollution problems with houses that have zero electricity requirements. Last month, it partnered with Habitat for Humanity to build a fourth near-zero-energy house for less than \$100,000. The average daily energy consumption cost is 82 cents, as opposed to the typical \$4 to \$5. More information can be found at www.energy.gov.

Design-build in Kansas City

Modular House One in Kansas City is the latest project of Dan Rockhill, a professor and practicing architect, and Studio 804. The design-build program at the University of Kansas, founded by Rockhill in 1995, allows students to apply classroom learning to real life. The studio focuses on innovative, affordable housing. Twenty students constructed Modular House One in 18 weeks for roughly \$130,000. The prefabricated house is finished in a deep Brazilian redwood. To learn more, go to www.studio804.com.

Residential architects join together Noting that most Americans live in poorly designed and constructed homes, many of which are hazardous to health, this summer the Congress of Residential Architects convened to provide a forum to enhance residential architecture in the U.S. by sharing knowledge among constituents, increasing awareness of good residential design, and providing advocacy to designers. The group will host a discussion entitled "The State of Residential Architecture" in L.A. this December. Visit www.reinvention2004.com for more information.

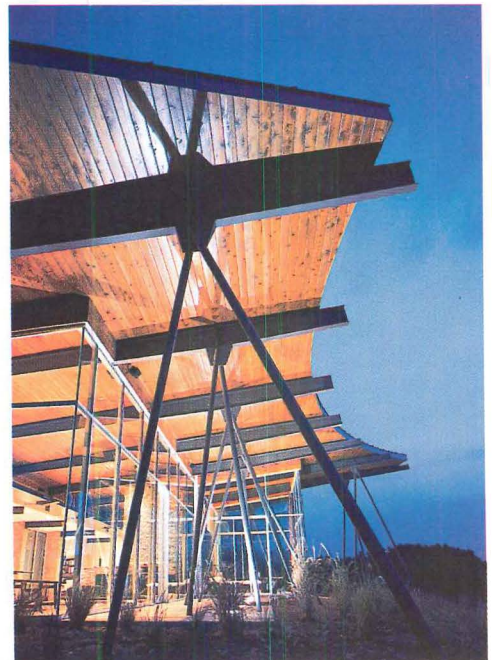
Utopian living flourishes in Moscow

Erick van Egeraat and Zaha Hadid plan residential complexes in Moscow in the coming years. Egeraat's design includes five apartment towers, each inspired by the work of an avant-garde Russian artist. Hadid's project will sit on an embankment and is slated to cost \$180 million. The Capital Group of Russia sponsors both projects. For further information, visit www.capitalgroup.ru/eng. *Audrey Beaton*

Houses sited off the beaten track share an obligation to provide a setting conducive to serenity and solitude. Leaving civilization behind involves a gradual shedding of pavement, signage, telephone poles, and crowds. Along with these signs of modernity, speed and strife dissolve in nature's timeless, quiet rhythms. The architectural strategies used to successfully mingle design with nature vary, but the houses discussed here have common threads. Framed and extended views of the outdoors bring the pleasures of life outside deep within. Employing indigenous natural materials and existing landscape and topography in the design, either symbolically or literally, is another way these projects incorporate nature. Whether located in the desert highlands of Texas, on a remote island off Finland's southern coast, at Wisconsin's northernmost tip, or on a rugged beach in the southeast of England—each of these houses displays a vernacular architecture that profoundly connects with its surroundings. *Jane F. Kolleeny*

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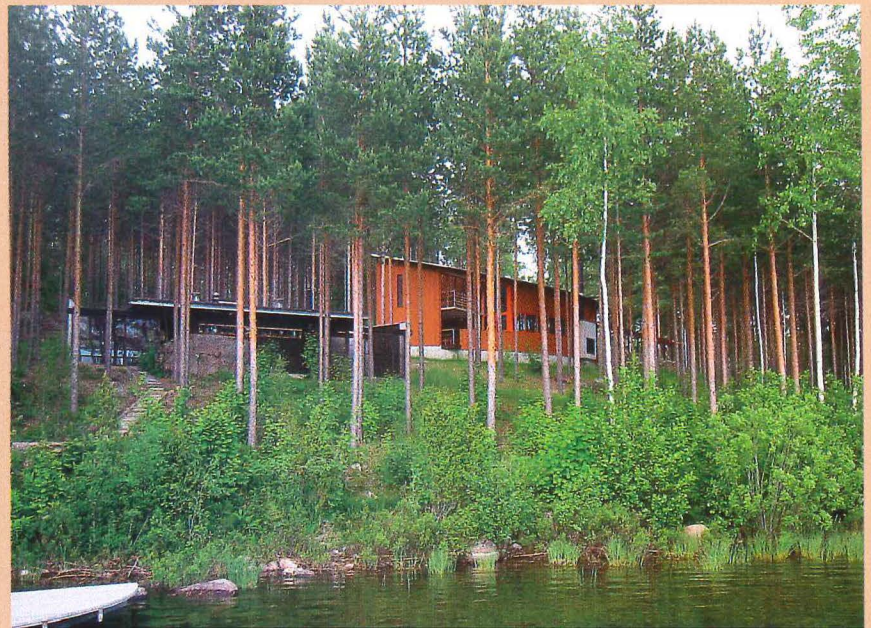
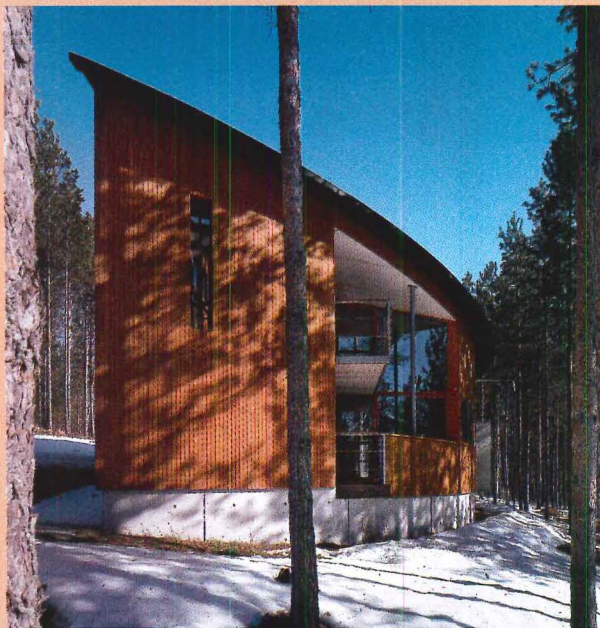


Sited in a pine and birch forest, the house has framed views extending out through

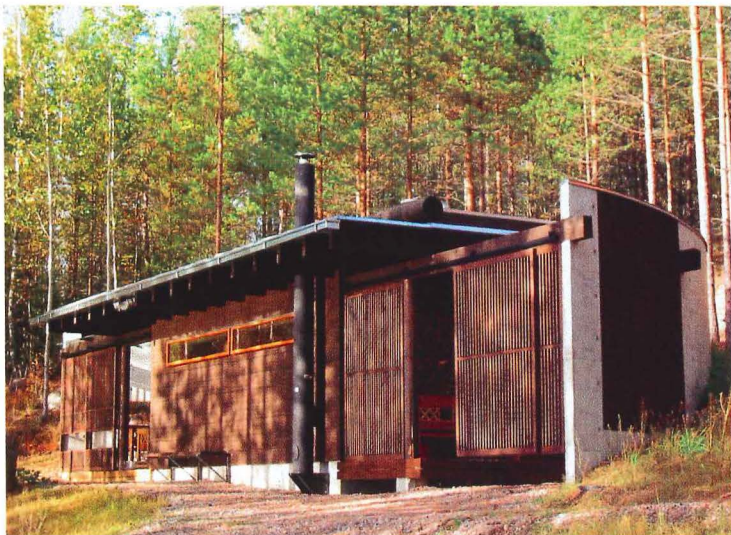
the tree trunks, across the broad expanse of Siikanjärvi to a narrow sound and beyond.

Pallasmaa likens the pine-boarded building, with its long, curved shape, to a boat, pro-

viding protection from the elements and navigating the rise and fall of the rough terrain.



The angled roofline of Juhani Pallasmaa Architects' House of Silence smiles as sublimely as a cheshire cat



By Peter MacKeith

We make our houses in our own image," Finnish architect Juhani Pallasmaa is fond of saying. This quiet ambition echoes admirably throughout the design of the House of Silence. The house embodies the shared values of the architect and client—restraint of expression, integrity, and an appreciation of the natural world. In addition, the interplay of landscape and architecture aims at a still and contemplative state of being for its occupants.

To sit and slowly breathe inside the house's moist, warm, smoke-scented sauna—feet propped up on a rail of aspen, gaze directed to the south through a horizontal slot window—makes palpable the intended stillness of the design. Overlooking the pine-and-birch-forested landscape along southeastern Finland's Siikanjärvi (Whitefish Lake), the framed view extends out through the tree trunks, across the lake's surface, and through a narrow sound to a larger lake. The resulting expansiveness of the view collapses foreground, middle ground, and distant horizon into a focus on the infinite sky.

The 2,000-square-foot, orange-stained wooden villa is combined with a modest-size, tar-blackened sauna building and several even smaller outbuildings. This grouping constitutes the House of Silence and is, in fact, the result of Pallasmaa's lifetime of research into intimate scales of design, even as he oversees construction of his master plan for the largest urban design project in Helsinki's history, a centrally located residential, commercial, and market-square district, rising above the capital's

Peter MacKeith, a permanent resident of Finland, is associate dean of the School of Architecture and associate director of the Sam Fox Arts Center, Washington University in St. Louis.

former long-distance-bus plazas. Pallasmaa's more recent house designs, including this one, have all addressed the conditions of terrain and orientation through pronounced arced forms: sliced segments of a circular geometry in plan, two levels under a mono-pitched roof in section.

The topography of the site slopes gradually southwest to the lakeshore, interrupted by immense granite boulders within the forest, still lying now as they were when strewn by the retreat of the glacier 10,000 years ago. Traversing this slope, the arcing double-height southern wall of the villa sweeps toward the lake in order to follow the daily course of the sun, while closer to the lakeshore, a counter move of the curved concrete wall of the sauna structure cuts into the granite bedrock, providing protection and privacy to those within. Pallasmaa likens the long, curved, pine-boarded shapes of the house and sauna to boats, as if the structures provide not only protection from the elements, but perhaps more important, navigate the rise and fall of the rough, granite terrain through form, materiality, and orientation.

Conceived of as both a retreat (for its owner) and a guesthouse (available for rental by the traveler), the buildings possess a desired informality in their siting and in the openness of the public spaces. Counterbalancing that quality are more formal tactics: the strong geometry of the plan, the elevational compositions of the front and back, and the spatial hierarchies of public and private activity areas. The tapered hull-like shape of the house, supported by steel columns within overall

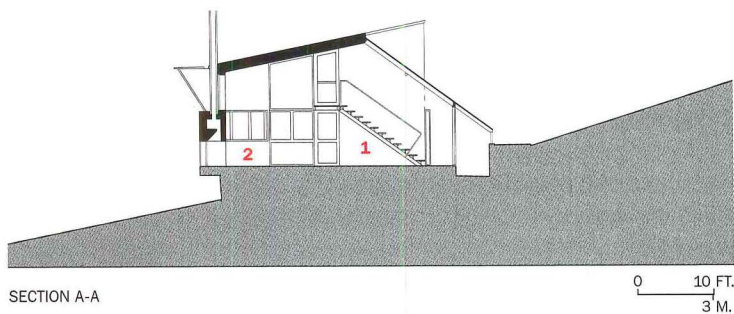
Project: House of Silence, Siikanjärvi (Whitefish Lake), Finland
Architect: Juhani Pallasmaa Architects—Juhani Pallasmaa, Hon.

FAIA; Jukka Liikanen (design assistant)
Consultants: Pauli Wetterstrand (structural); Jukka Sainio (mechanical); Pasi Hakala-Rahko (electrical)

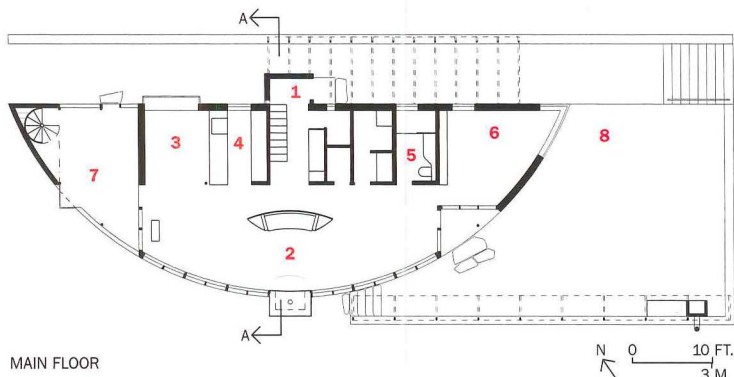


The main level of the house contains an ample living room centered around a fireplace and hearth, with a horizontal expanse of windows facing south (left). A kitchen/dining area sits under a suspended mezzanine overlooking the living room (below).

- | | |
|-------------|--------------|
| 1. Entrance | 5. Bathroom |
| 2. Living | 6. Library |
| 3. Dining | 7. Terrace |
| 4. Kitchen | 8. Courtyard |



SECTION A-A



MAIN FLOOR



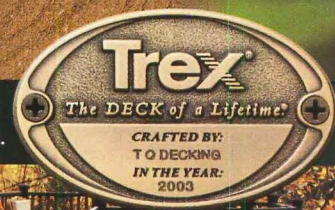
wood framing, creates a luxurious length along the long axis—emphasizing movement and expanse—and a feeling of intimacy and immediacy by virtue of the short cross axis. On its main level, the house contains an amply sized living room, centered around an iconic fireplace and hearth; a double-height library; a kitchen/dining area; and a full bathroom. Three bedrooms upstairs align along a suspended mezzanine overlooking the living area. The mezzanine terminates in a screened and skylit porch above the main level's enclosed terrace.

The interiors are modest in their specific furnishings but refined in their finishes and details: stained pine boarding inside and out, ceramic tiling for the main level's floor, mahogany throughout the bathroom, and alderwood for the sauna's interior. The house condenses and displays Pallasmaa's interpretation of building elements and details—what he often refers to as the existential, even sensuous, “encounters” of architectural experience. These include such activities as

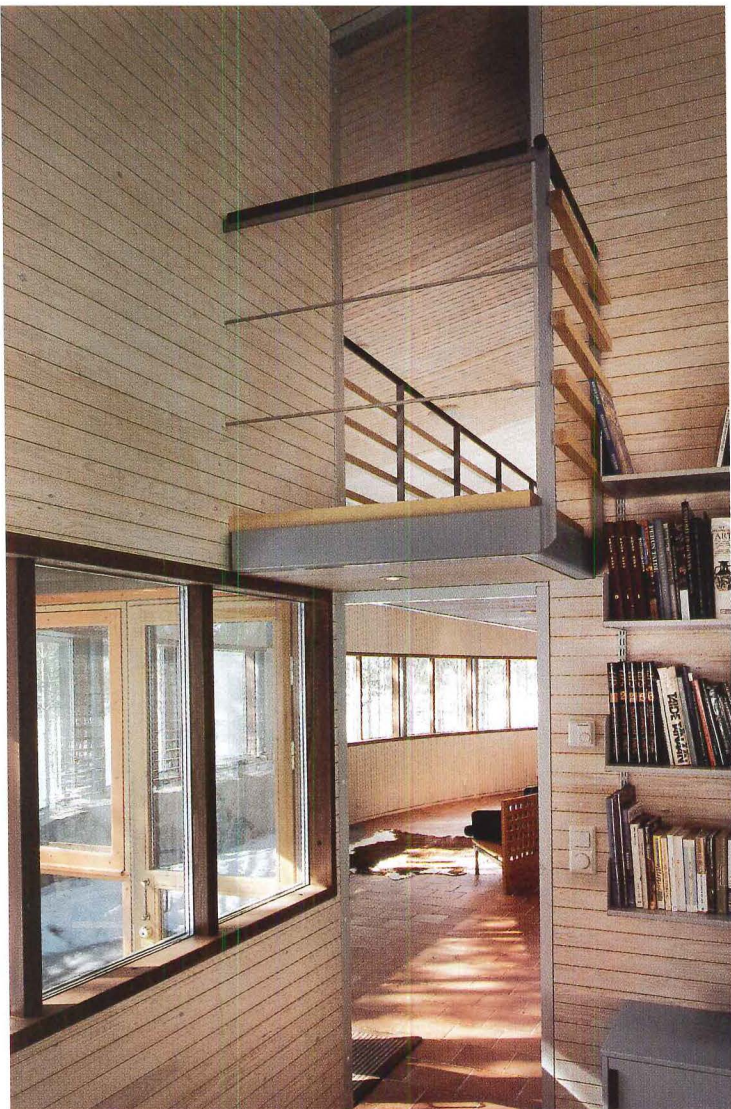
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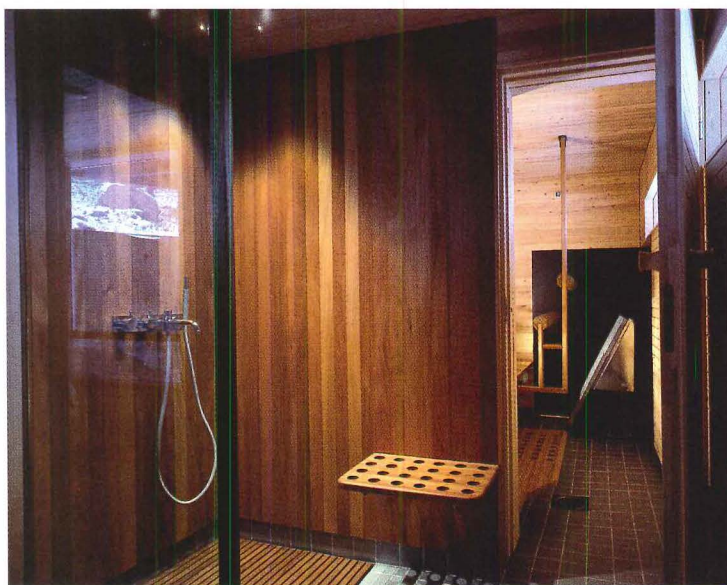


Apertures abound throughout the house, “orchestrating views and light in the manner of a cinematic montage,” says Pallasmaa (top two). Along with several

smaller outbuildings, an alderwood sauna features a horizontal slot window where views to the south make palpable the intended stillness of the design (below).

ascend and descent (the stair); warmth and illumination (the fireplace and hearth); dining and familial life (the table); water, bathing, and hygiene (the bath); entrance, reception, view, and illumination (the door and the window).

Apertures abound throughout the house and are used to accentuate both specific places and particular activities. “The openings are conceived to orchestrate views and light in the manner of a cinematic montage,” says Pallasmaa, who has written extensively on architecture and film, “sometimes with surprising cuts.” Whether reclining on the curved settee in front of the hearth, contemplating the flames in the glass-backed fireplace, or gazing at the play of water and light beyond the horizontal expanse of windows girding the southern facade, the visitor reaches a place both protected and receptive. Drowsing while immersed in the Japanese soaking bath, eyes focused on the lake’s distant horizon, or falling asleep upstairs behind a sliding door and under a sliding roof-window—as the late summer breezes sway the treetops, the visitor finds harmony and quietude. ■



Sources

Wood finishes: *Siekkelin Puutyö*

Glazing: *Valkealan Lasi*

Kitchen equipment: *Miele*

Sauna roofing: *Pintakate*

Japanese bath: *Messurakenne* (mahogany); *Suomen Metallisilta* (stainless steel)

Heat pumps: *Carrier*

Light controls: *Lexel*

Art: *Art Center Salmela*

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

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Perched in a meadow like small islands are two low, black rectangular structures whose horizontality mimics

that of the lake they overlook. Separating them is a patio aligned with a channel in the distance (top spread and bottom).





Salmela Architects' Two Black Sheds scrap log cabin nostalgia for a commonsense Modernist approach

By Camille LeFevre

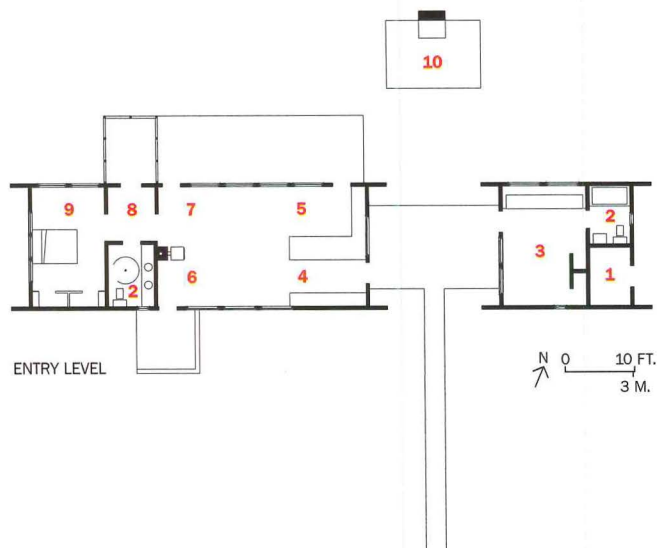
Off Wisconsin's northernmost tip in the chilly clear waters of Lake Superior lie the rugged, forested Apostle Islands. Of the 22-island archipelago, only Madeline Island was substantially settled, first by the Native American Ojibwa, then French fur traders, followed by missionaries who used it as an outpost. Today the island boasts an eclectic mix of 200 year-round residents and a summer population of about 2,000. Most of the year, ferries run between its only town, La Pointe, and Bayfield, Wisconsin, allowing residents and tourists to come and go, bringing in a steady stream of visitors from the mainland. Enjoyed by yuppies and hippies alike, the island's amenities range from pricey shoreline restaurants to Tom's Burned Down Café, from quaint bed-and-breakfasts to scenic campgrounds. For Bruce Golob, a retired schoolteacher, and his wife, Jean Freeman, a marketing consultant, who have a town house in Minneapolis, Madeline Island was the place for their primary home because

Camille LeFevre writes about architecture and the performing arts for a variety of national publications.

"once you step off the ferry," Golob says, "the world just sort of stops." Similarly, a new visitor can't help but suddenly stop, with a sense of stunned appreciation, at the first glimpse of the couple's "cabin," Two Black Sheds.

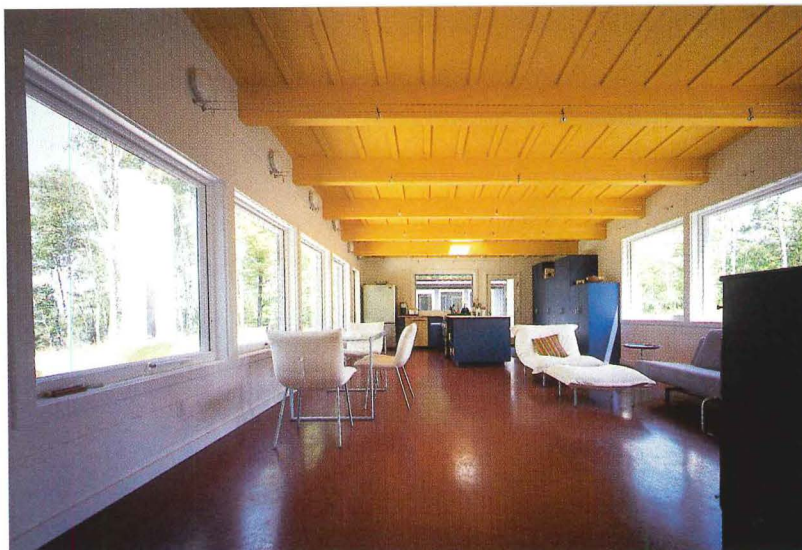
Perched in a meadow like small islands are two low, black rectangular structures whose horizontality mimics that of the lake they overlook. Separating the structures, like a caesura, is a patio aligned with a channel between two nearby islands visible in the distance; the patio is vertically punctuated by an open, white-brick chimney, which stands tall and etched with black smoke in imitation of the surrounding birch trees. On the chimney's plinth sits a Philippe Starck–designed plastic couch, in the lime green of newly unfurled spring leaves—the finishing touch to this incongruously delightful outdoor room.

Dramatic but not ostentatious, unconventional and yet unpretentious, Two Black Sheds takes "a very commonsense, Modern approach to present-day problems," says David Salmela, FAIA. It is "just what we needed and nothing more," Golob says. The couple also wanted to feel outside when they were inside; and they wanted accommodations for guests



- | | |
|--------------------|---------------------|
| 1. Mechanical room | 6. Living |
| 2. Bathroom | 7. Dining |
| 3. Bedroom/office | 8. Screen porch |
| 4. Entry | 9. Master bedroom |
| 5. Kitchen | 10. The "unchimney" |

The ceiling in the main building is mustard yellow, the casework Parma violet, and the concrete floor a deep earthy red that recalls the red rock cliffs found along the island's shoreline.



and a structure that was economical to build and easy to maintain. The materials needed to be readily accessible and transportable on the ferries.

Salmela says the dramatic elements of site, lake, and his now-signature "unchimney," as he calls it, implied that "the buildings should be abstractly simple." Their high side walls hide a wide gabled roof, angled to disperse snow and rain while creating "an appealing flat-roof element." Conversely, the screen porch features an inverted-gable roof, also to spill off the elements. Painting the sheds black (the ends are Parma violet) was an intuitive choice that turns upside down the usual expectations about Modernist buildings being white, Salmela adds.

Clad in one-by-four cedar lap siding, the 900-square-foot main building comprises a kitchen/dining/living area separated from the bathroom and bedroom by privacy walls topped with glass "to give the perception of one room, while ensuring light and privacy," Salmela says. The 360-square-foot guest cottage has a bedroom, bathroom, and storage area, and offers guests both privacy and access to the main building. While the interior walls of both buildings are one-by-six flush-tongue-and-groove pine painted white, the main building's open ceiling is a mustard yellow, the casework Parma violet, and the concrete floor an earthy red copied from Freeman's purse that also recalls the red rock cliffs along the island's shoreline.

Light is balanced throughout the 18-foot-wide main cabin via skylights and large windows to the southeast and the lakeside northwest. Because of such openness, Golob says, "when we're inside, our access to

the outside is immediate and constant." And while there is a wood stove within the house, having the hearth outdoors reiterates the blending of inside and out.

A stair at one end of the 4.5-acre site leads down to Lake Superior, where the couple keeps a dock and kayaks. On the way back up, for a moment only the unchimney is in view, an arresting image suggesting the remains of a burned-down house. Next in view is the outdoor couch, which refers to a northwoods custom of retrieving discarded sofas from ditches and using them for outdoor seating, Salmela says, which "goes to show you that Modernism has a sense of humor."

As do the islanders. "On the island, anything goes. It would be inappropriate to be too predictable or conservative," says Salmela of Two Black Sheds. Adds Golob, "As David said, and we agree, the island can handle it because it's such a weird place anyway." ■

Project: *Two Black Sheds, La Pointe, Madeline Island, Lake Superior, Wis.*
Architect: *Salmela Architects—David Salmela, FAIA; Souliyah Keobounpheng; Tia Salmela Keobounpheng*

Consultants: *Bruno Franck (structural); Coen + Partners (landscape)*
General contractors: *Northwood Construction*

Sources
Windows and doors: *Loewen*
Glazing: *Velux Skylights*
Paint: *Benjamin Moore*

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



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The house is low and massive in front, with concrete piers that rise up to support a floating wood and metal roof.



The Trahan Residence conceived by Tighe Architecture perches with dignity in the Texas Hill Country

By David Dillon

Wimberley is all about views—of low rolling hills and rocky outcroppings, of creeks, orchards, fields of buffalo grass, and clumps of live oak trees. It sits in the heart of LBJ country, a gentler and more intimate landscape than most of Texas, yet still sufficiently grand to bring out the worst in many architects. Ten-thousand-square-foot limestone houses with gratuitous forms and self-propagating roofs abound, as though the prevailing typology were the country club. Sometimes it takes an outsider to see what really matters.

Patrick Tighe grew up in Massachusetts, and after seven years with Morphosis opened his own office in Santa Monica, California. A mutual friend introduced him to John Trahan, a bachelor banker from Houston, and before long he was designing a comparatively modest (3,200 square feet) house for him in Wimberley, on the fringe of Austin. His approach to the local vernacular was appropriately skeptical and cautious.

“I loved all the stone and the standing-seam metal roofs,” he recalls, “but I also felt they were so overused that they had become ordinary rather than special. So I tried to underplay those elements and

introduce other materials that could be used anywhere.”

The result is a spare and abstracted Hill Country house that uses local limestone, but only in the fireplace, and that features a standing-seam metal roof, but with only one plane. Elsewhere, steel, glass, stucco, and wood transform the house into something light and contemporary.

The design is as much about siting and views as form. The architect tucked the house into the side of a hill instead of plopping it on top like a hood ornament. It reads immediately as part of the landscape, with a curving anticipatory approach that implies more than it reveals. Tighe describes the result as “a series of contradictions,” but “counterpoints” is more like it. Heavy plays against light, open against closed, solid against transparent, past against present. From the front, it is low and massive, with rugged concrete piers rising from the earth to support a

Project: Trahan Residence, Wimberley, Tex.

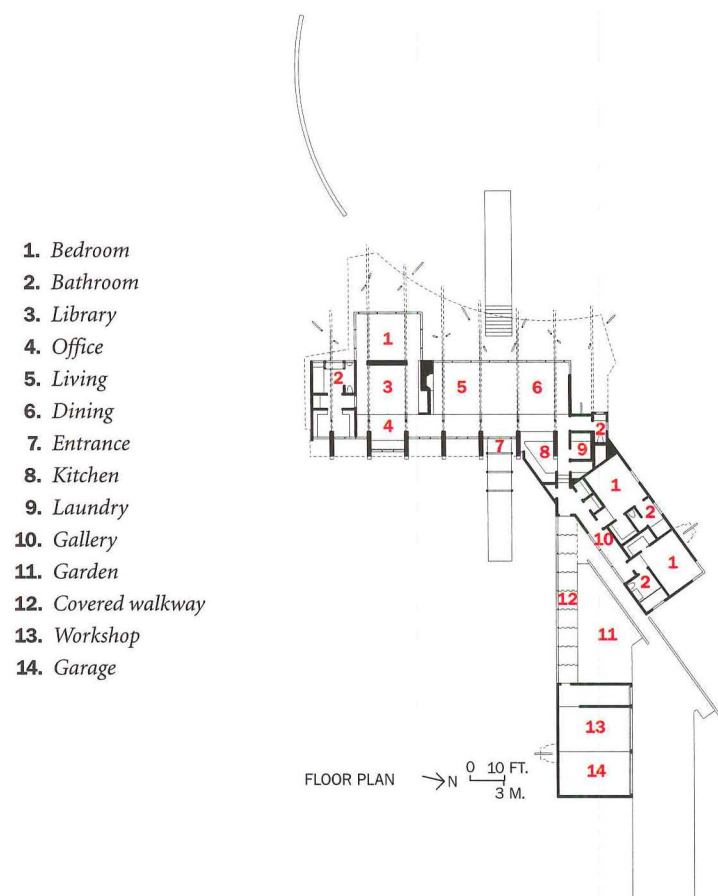
Architect: Tighe Architecture—Patrick J. Tighe, AIA, principal; Jason Yeager, Mike Yee, Jeff Buck, Rene Tribble, Joe Dangaran, team;

Joel Miller, interior design

Consultants: Joseph Perazzelli, (structural); Sia Garestani, Massoud Narimir (m/e/p)

General contractor: Dunn & Burnette

Contributing editor David Dillon is the architecture critic for The Dallas Morning News.



floating wood and metal roof. It seems grounded, archaeological almost, with only a narrow clerestory to hint at something different beyond.

The interior, on the other hand, is as open and fluid as the exterior is dense and rooted—a 260-degree sweep of glass overlooking 14 acres of buffalo grass and live oak trees, with a small creek at the bottom. Here is the prototypical Hill Country landscape edited for maximum visual impact.

A spacious living and dining area occupies the center of the house, separated from the master suite by a monumental stone fireplace. The kitchen and guest wing veer off in the opposite direction, framing a small outdoor garden. The kitchen is intentionally small—“a one-butt space,” says the owner—and the master bath won’t float a Pontiac. “This house was

THE MASTER BATH WON’T FLOAT A PONTIAC. “THIS HOUSE WAS DESIGNED FOR ME AND MY LIFESTYLE,” SAYS THE OWNER.

designed for me and my lifestyle, not for the resale market,” he says. “I assume I’ll be able to find someone like myself if I ever decide to move.”

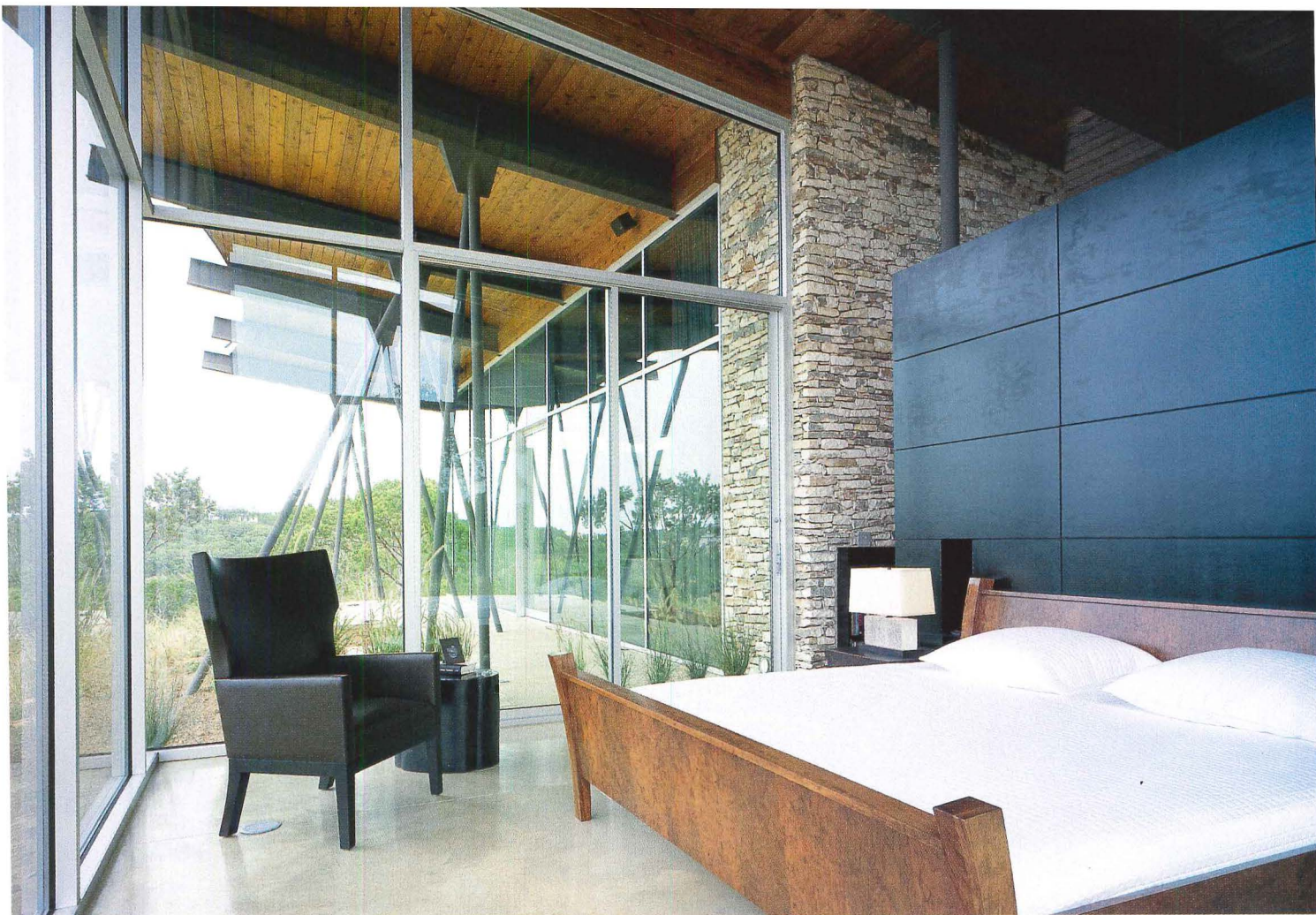
Glass was the biggest item in the construction budget, huge expanses of it framing the living spaces and wrapping the master bedroom, a pristine glass cube that creates the feeling of sleeping outdoors without the heat and the bugs—a Texas sleeping porch as Mies might have designed it. These spaces all face due west, generally an economically reckless move in Texas, but one that in this case seems to work because of a deep 20-foot protective overhang. The roof is supported by splayed pipe columns that provide a balletic counterpart to the concrete piers on the opposite side of the house.

The domestic centerpiece is a massive fireplace of Wrightian grav-

Steel, glass, stucco, and wood transform the house into something light and contemporary (opposite). A spacious living and dining area

occupies the center of the house (this page), separated from the master suite by a monumental stone fireplace.





The master bedroom is a Miesian glass cube that creates the feeling of sleeping outdoors (above). The kitchen (right) is intentionally small—sufficient for the needs of the owner.

ity made of limestone collected on-site and meticulously chipped and set by local craftsmen. The owner insisted on using his own stone, his father having been a master mason, and the architect eagerly complied. As both artifact and metaphor, it works beautifully.

Not everything rises to this level. The forest of steel columns on the west seems somewhat busy and distracting, especially when viewed from below. And the guest wing, foursquare and finished in tan stucco, looks a bit bland and awkward. While the desire for a simpler and less acrobatic complement to the main house makes sense, the execution is ordinary at best.

What works consistently is the way the house connects to its surroundings and combines traditional materials and building styles with contemporary ones to acknowledge vernacular precedents without lapsing into mindless mimicry. Historic Hill Country buildings, the ones that O'Neil Ford and others rediscovered and celebrated, were clean, solid, straight to the point, and strikingly modern. The Trahan House is light, open and expansive, of its place, and very much of its time. ■



Sources

Window system: Binswanger Glass

Roofing: Desotex

Bath tiles: Ann Sacks

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



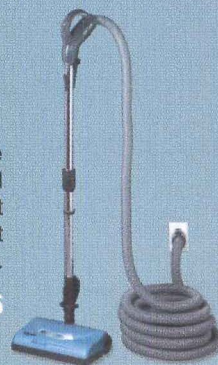
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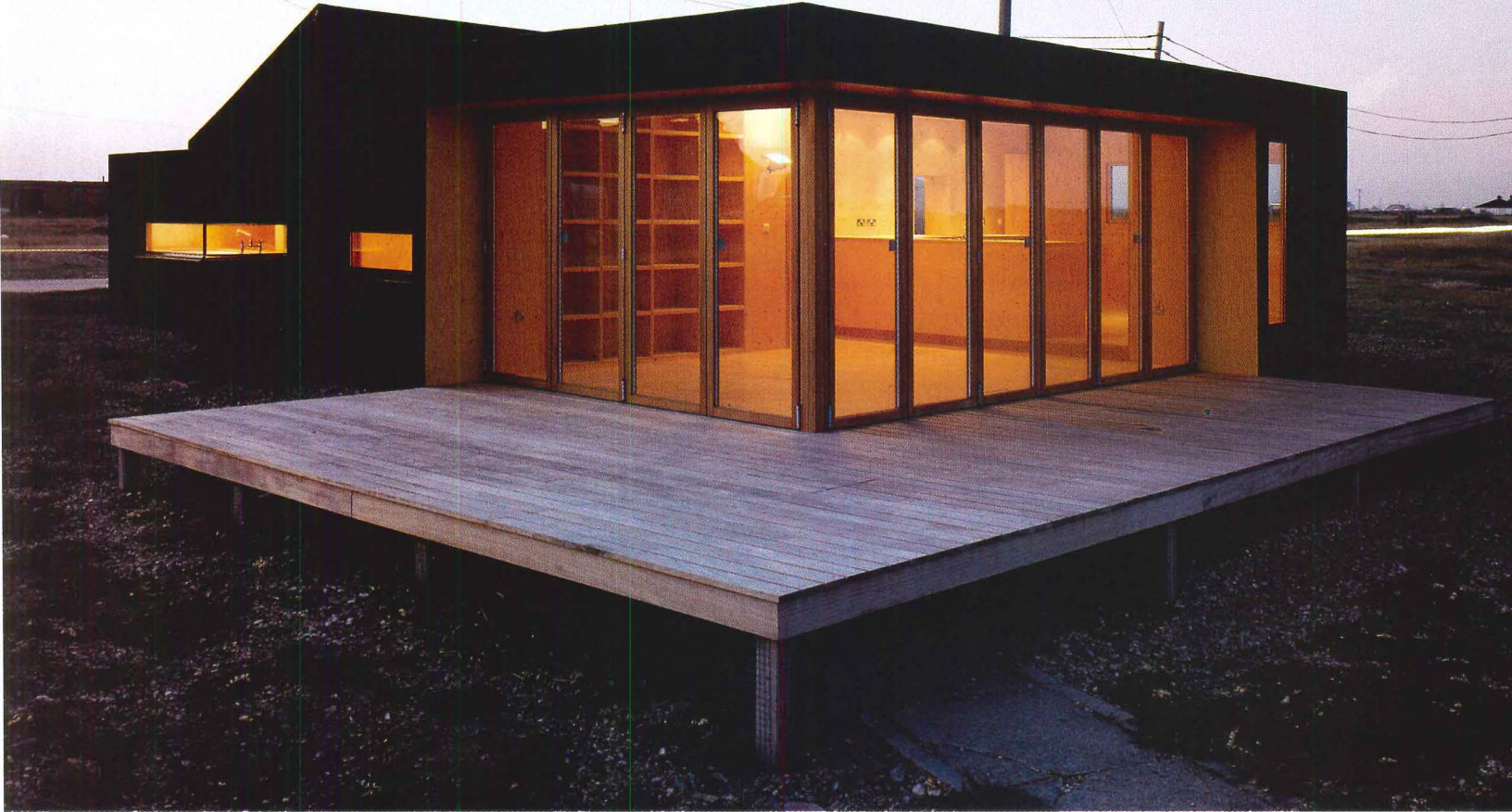
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Sliding glass doors unite the interior with an outdoor sun deck along the sea-facing length of the house (top and bottom right). A view

from the deck reveals the rugged desolation of the surroundings (opposite). A nearby antenna inspired the architect's design (bottom left).



Simon Condor Associates sculpted **Vista House** as a direct response to its rugged, windswept surroundings

By **Lucy Bullivant**

A committed community of fishermen and families live in a variety of cottage types (some made from old railway carriages) in Dungeness Beach, a locale with a raw climate and constant wind on the southernmost point of Kent in southeast England. Here, a masterful conversion of a fisherman's hut called Vista demonstrates how the careful choice of materials combined with the innovative use of new products can create domestic architecture of high quality at low cost (in this case, approximately \$210,000). London-based architect Simon Condor designed the house with materials available from the local "DIY" (do it yourself) store in the manner of other nearby homeowners. The result fuses the language of neo-vernacular with a modestly Modernist bent.

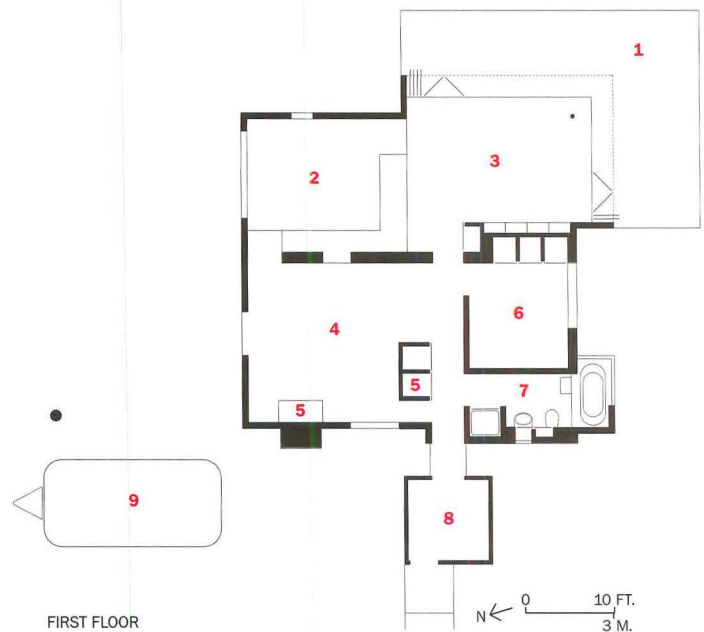
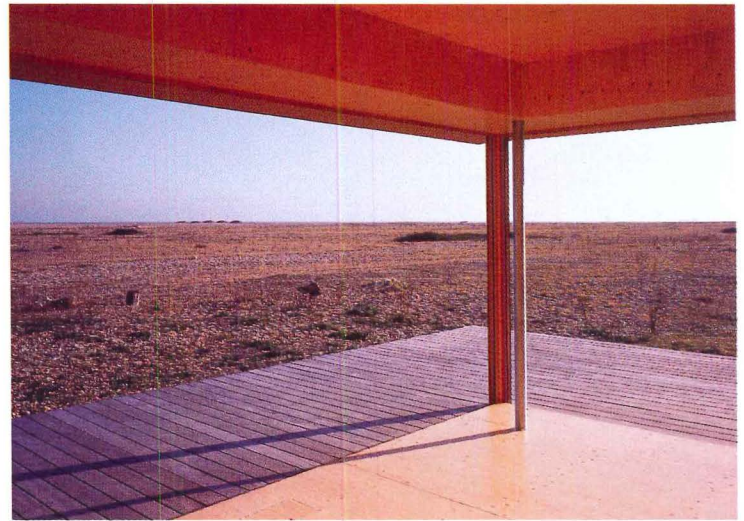
Condor, whose practice has never exceeded four people, has designed some exceptional residences and workplaces in England, the U.S., Germany, and Japan. In his reinterpretations of Modernist traditions, he is deeply influenced by the simplicity of local traditional architecture. The rationale behind Vista echoes the pragmatism of his other low-cost rural buildings. This includes the headquarters of the textile designer Georgina von Etzdorf in Wiltshire, an industrial shed clad in steel with an internal plywood structure; and the steel-framed, farmlike units of the Suffolk workshops in Stradbroke, East Anglia. Both Vista and these projects feature shedlike structures relating comfortably to the landscape.

When the clients bought the house two years ago—a basic bungalow sitting on a wide pebble beach—it had no windows on the east side to permit views of the beach and sea. The project began as a renovation, but by the time it was finished, 75 percent of the building was replaced with new timber, due to the fragility of the original structure. While its footprint remained intact, all other aspects of the house changed. Internally, priority was given to maximizing the public areas, which are clad in a modestly priced Finnish spruce plywood that is knottier than birch but that Condor made sure was fitted to the highest standards. Its consistent use throughout the house provides a sense of warmth and comfort, along with the impression of spaciousness in the living areas.

Constructed from the original shed, a new entryway retains the slight odor of old tar-slicked timber. It leads through to a glazed hallway and the first of two living rooms (called the "snug"), made cozy with a wood-burning stove. A new bathroom resides to the right, in keeping with Condor's adherence to a relative absence of windows except on the

Lucy Bullivant is an architectural critic, author, and curator. She is the editor of the forthcoming book 4dspace: Interactive Architecture (January 2005).

Project: Vista House, Dungeness, Kent, England
Architect: Simon Condor Associates—Simon Condor, Chris Neve
Consultants: KLC Consulting
Engineers (structural): General contractor: Charlier Construction; AAC Waterproofing and M R Anderson Roofing (subcontractor)



1. Deck
2. Dining/kitchen
3. Living
4. Snug
5. Storage
6. Bedroom
7. Bathroom
8. Shed/entry
9. Airstream caravan



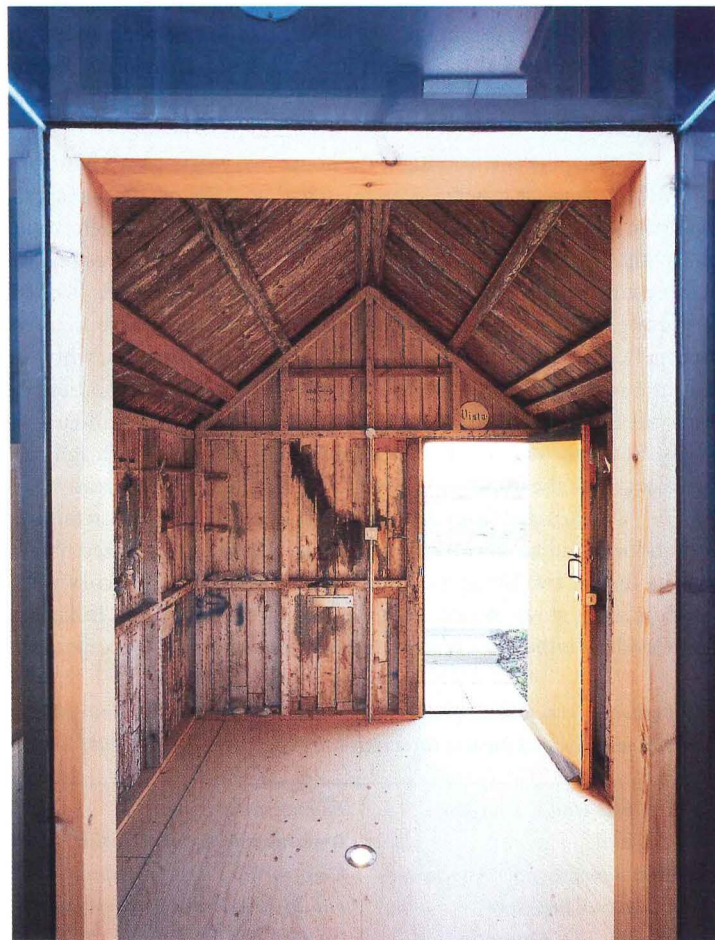
The silver aluminum shell of the adjacent 1954 Airstream (above) makes a striking contrast to the black

house. Constructed from the original shed, an entryway retains the odor of old tar-slicked timber (right).

oceanside. Inside, he has fitted the tub itself into a box cantilevered out over the pebble beach so bathers can be at one with the surroundings.

Leading off the “snug” are the bathroom, dining room/kitchen, and a living room with sliding glazed doors uniting the indoors with an outdoor sun deck running the sea-facing length of the house. A striking soot-black Vulcanite rubber usually employed to waterproof roofs is used here unconventionally to cover two walls and the roof. Although local cottages are frequently covered in roofing felt with a coat of tar, Condor’s more sophisticated contemporary use expands this idea. Here, the plywood elevations are covered in rubber with sheets that are cut to size and glued to fit each facade. The sheets were prepared in a factory in Belgium, with cutouts made for doors and windows, and delivered to the site “a bit like a child’s building set,” he explains. The roofing subcontractor then glued them to the plywood walls with contact adhesive. “I believe it’s the first time the rubber was used to clad an entire building in this way,” Condor continues. Known as EDPM (for ethylene propylene diene monomer), the material has the advantage of being fireproof, water-resistant, vapor permeable, resistant to ozone and UV, and nondegradable over time. It is considered a “green” material, as is the spruce cladding on both the interior and the exterior timber frame, chosen specifically because it came from managed forests in Finland.

If it were located in a strictly urban context, Vista would be an eye-catching scheme that achieves an innovative solution at low cost.





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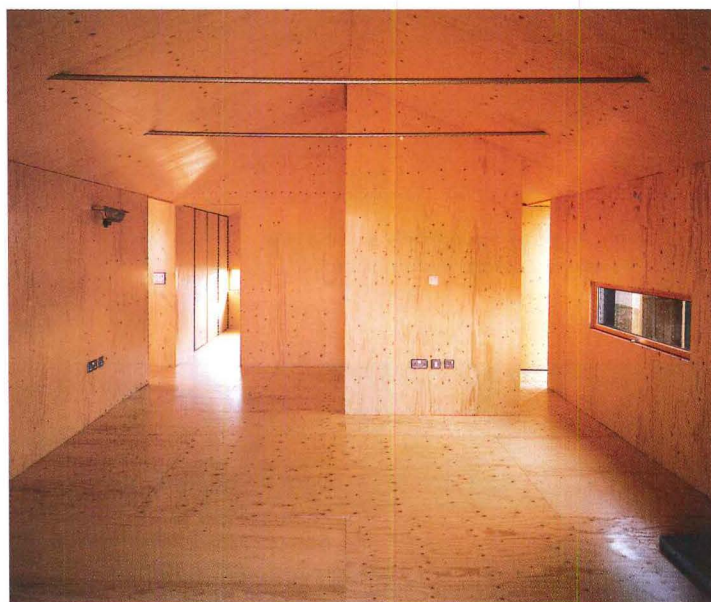


Public areas are clad in a modestly priced Finnish spruce plywood (this page). Its consistent use throughout the

house provides warmth and snugness while conveying the impression of spaciousness in the living areas.

Because the design was developed in this unique, desolate environment, it has even greater singularity. Condor feels strongly that “the context is part of the story.” A beach with no boundary lines is a classic “no-plan” environment where house construction is typically improvised or “bodged” (made or repaired clumsily). One reason Vista fits in and works so beautifully here is that it balances the contrasting qualities of domestic intimacy with the openness of the house to its environment in a coherent manner.

No wholly new building was allowed on the beach, so to extend their living spaces, the owners, inspired by an Airstream caravan situated in an equally barren environment near architect Josh Schweitzer’s house at Joshua Tree in California, put guests up in their own 1954 Airstream. The silver of its aluminum shell makes a striking visual contrast to the tactile black-rubber-clad house. The Vista House is ideally integrated into this special context, since it so effortlessly makes a virtue out of the unconventional. ■



Sources

Exterior and interior wood:

UPM-Kymmene Wood

EPDM black rubber membrane:

AAC Waterproofing

Timber windows and sliding doors:

Scandinavian Window Systems

Lighting: *SKK and Louis Poulsen*

Faucets: *Die-Pat Divisions*

Steel bath and show tray: *Kaldewei*

Wood-burning stove: *Rais*

For more information on this project, go to Projects at

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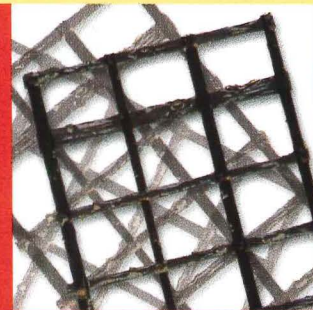
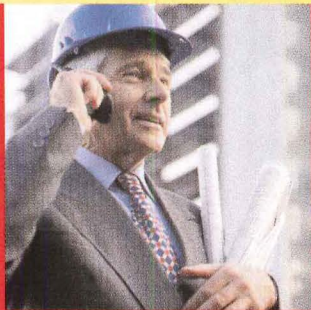
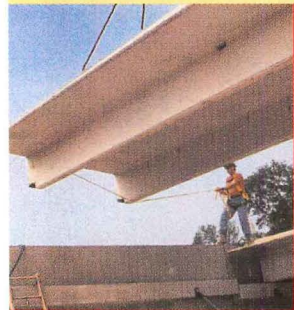
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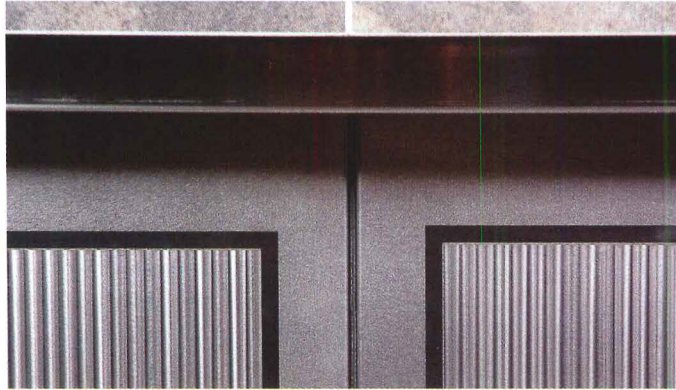
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Products **Metal Cladding & Treatments**

The following **metal-clad products** include elevator doors, roofs, column covers, and wall panels realized in bronze, stainless steel, copper, aluminum, and zinc. Also featured are **special treatments**, including coatings that enhance color retention and durability or even create an antique look. *Rita F. Catinella*



Feathers pattern shown in six separate panels (above). Engine Stripe pattern (right).



Predecorated/preformed stainless-steel elevator doors available in six patterns

Eco-Nor, a product from Northern Engraving Corporation, offers six distinctive, predecorated and preformed elevator-door facings in 18-gauge stainless steel. The competitively

priced doors are ideal for remodeling or budget-sensitive projects. The finishes of all designs complement existing or new #4 stainless-steel frames. A standard size for 42" x 84" clear center openings is available, and the facings are preformed with

L or J breaks on request. No prior specification is necessary for prompt lead times, according to the manufacturer.

To order, specifiers need to choose a model number, quantity, and edge configuration. The six Eco-Nor patterns include EC 001, a Feathers pattern in a 1/2" #4 satin full frame with nondirectional borders; EC 002, an Engine Stripe pattern in a 1/2" satin full frame with nondirectional borders; EC 003, a combination 1/2" and 2" Engine Stripe with nondirectional vertical borders; EC 005, an alternating 3/8" #4 satin and nondirectional stripes with nondirectional vertical borders; and EC 006, a Feathers pattern in three separate panels with 1/2" #4 satin frames and nondirectional borders.

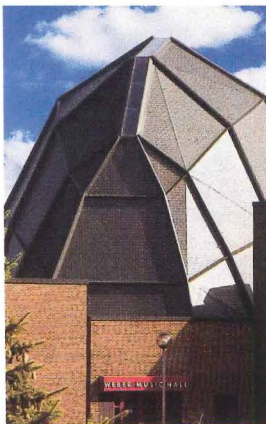
Eco-Nor, Sparta, Wis. www.eco-nor.com **CIRCLE 212**

An unusual roof of Italian copper-clad tiles

Tegola Canadese copper-clad tiles from Treviso, Italy, distributed in the U.S. by Petersen Aluminum, are part of an unusual roof for the University of Minnesota Weber Music Hall in Duluth, Minnesota. The 22,000-square-foot facility accommodates an audience of 350 plus a 70-member orchestra and 75-member chorus.

Designed by Cesar Pelli & Associates of New Haven, the focal point of the facility is an angular dome covered with 12,000 square feet of the copper-clad tiles. According to Pelli's design team, the acoustical requirements of the

orchestra dictated the architectural shaping. Although the angular dome has a large number of facets with coping assemblies forming complex triangular sections, the tiles can be installed quickly and easily using traditional roofing tools.



The Weber Music Hall's roof.

The Tegola Canadese tiles feature a 99.7 percent pure copper foil coating and are constructed of eight layers of different materials, including impregnated fiberglass and natural bitumen. Over time, they will develop a protective green patina. Petersen Aluminum, Elk Grove Village, Ill. www.pac-clad.com **CIRCLE 213**



Metal wall panel profiles offer more design choice

Until recently, preformed metal wall panels offered designers a choice of only corrugated or ribbed profiles. The Concept Series is a new collection of concealed-fastener exterior metal wall panel profiles from Centria that gives specifiers more design flexibility.

The panels feature a complementary asymmetrical geometry and identical side joinery permitting integration of multiple profiles within a single elevation for horizontal and vertical application. Available in 12" and 16" widths, the panels come in G-90 galvanized steel, aluminum, stainless steel, and Centria's Durallure finish system. Profile options consist of narrow ribs, medium-width ribs, and wide flat surfaces that can be used to create a single repetitive appearance or to generate a pattern or feature on a wall elevation.

Concept Series panels can be installed as part of a field-assembled wall system with liner panels or as the exterior component of an insulated wall design with a vapor-permeable air and water backup system. Centria, Moon Township, Pa. www.centria.com **CIRCLE 214**

Products Metal Cladding & Treatments

▼ They've got aluminum surfaces covered

Gooding Aluminum offers an extensive range of aluminum materials, surface finishes, and products—including balustrade panels, ceilings, canopies, flooring, wall paneling, door cladding, and lighting—for interior spaces. Gooding Aluminum's extensive range of cladding panels were specified to create a dramatic effect at the ME2 nightclub in Omagh, Northern Ireland (below). The manufacturer's Impressional and Perforated decorative cladding panels were used on bars, columns, and the DJ podium within the space. Gooding Aluminum, London. www.goodingalum.com **CIRCLE 215**



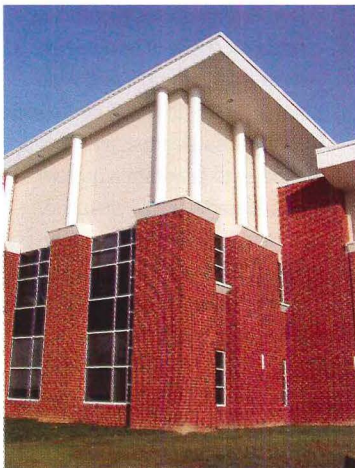
► Protecting a landmark

New York City's landmark George Fuller Building features Art Deco metal figures and decorative features in bronze and cast iron designed by Walker and Gillette in 1929. Building Conservation Associates (BCA) was hired to clean and repaint the figures. BCA specified Series 90-97 Tneme-Zinc urethane primer, Series 73 Endura-Shield aliphatic acrylic polyurethane for the intermediate coat, Series 1078 Fluoronar Metallic for the metallic gold coat, and Series 1076 Fluoronar Clear topcoat for color retention. Themec Company, Kansas City, Mo. www.themec.com **CIRCLE 217**



◀ Aluminum composite

Moseley Architects of Richmond were commissioned to design Deep Run High School in Glen Allen, Virginia, in the style of a nearby office park. The firm was also required to incorporate sloped metal roofs on the gables of the building. The team paired brick with Reynobond aluminum composite material (ACM) installed above the windows on the second floor. Over 48,000 square feet of ACM were used as fascia/soffit and column covers and over 49,000 square feet for vertical wall panels. Alcoa Architectural Products, Pittsburgh. www.alcoa.com **CIRCLE 219**



▲ Improving upon the original

Historic terne metal, used extensively throughout colonial America, inspired a Leesburg, Virginia, homeowner to design a classic colonial farmhouse with an "old tin roof" using Follansbee's Terne II. Terne II is coated with Follansbee's patented zinc/tin alloy, which acts as a barrier and helps to reduce oxidation of the surface before painting. Follansbee's Rapidri acrylic paint offers enhanced durability and color retention. Follansbee Steel, Follansbee, W.V. www.follansbeeroofing.com **CIRCLE 216**

► Antiquing concentrate

Birchwood Casey's M25 Antique Black antiquing concentrate can blacken and brown metals such as copper, brass, and bronze alloys, as well as zinc die castings and zinc-plated surfaces. The concentrate works on both solid and electroplated surfaces, including door and window components. The concentrate is mixed with water at 10–20 percent for blackening or browning copper and brass alloys, and at 5–10 percent for blackening zinc. Birchwood Casey, Eden Prairie, Minn. www.birchwoodcasey.com **CIRCLE 218**



▲ High-tech cladding

Approximately 30,000 square feet of Alucobond aluminum-composite material was chosen to reflect a high-tech

image for the 12-story Axiom River Market Tower in Little Rock. Alucobond is made of two sheets of .02" aluminum bonded to a lightweight, thermo-plastic core.

Paired with precast concrete, the Alucobond material was used as part of a glass curtain-wall system, with the exterior including spandrels of various sizes. Interior applications include

column covers and a balcony wrap in the lobby areas. Alcan Composites USA, Benton, Kentucky. www.alucobond.com **CIRCLE 220**



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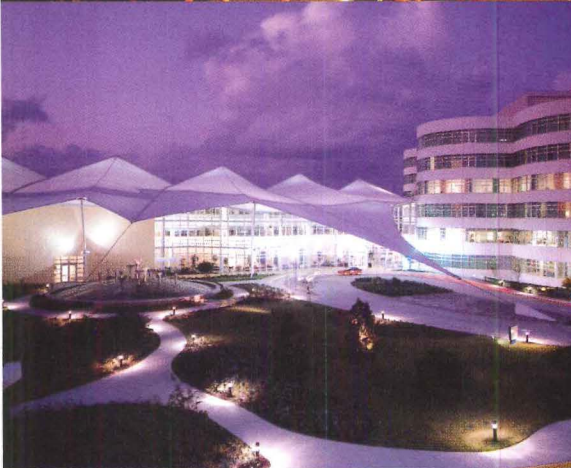
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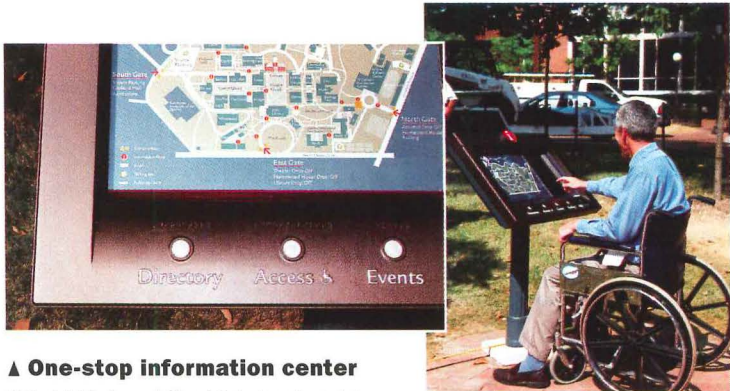
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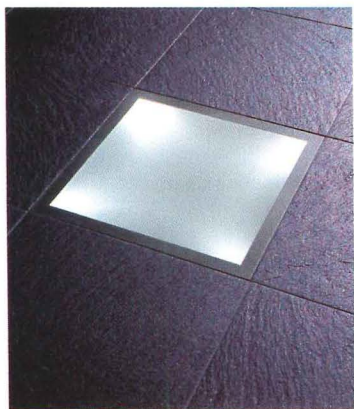


▲ One-stop information center

Philadelphia-based Cloud Gehshan Associates specializes in developing brand identities, research-based signage, and wayfinding systems for its clients. This weatherproof, computerized kiosk was created by the firm to be a one-stop wayfinding and information center for visitors at Johns Hopkins University. The touch of a finger on the aluminum map activates the LCD screen, which presents a building photo, customized map, and directions. Buttons with tactile letters and Braille aid visually impaired users, and concealed microphones and speakers connect visitors to a 24/7 help desk. Cloud Gehshan Associates, Philadelphia. www.cloudgehshan.com **CIRCLE 221**

► Modern fountain designs

While designing outdoor spaces against the Modernist backdrop of Los Angeles, Studio Four grew frustrated with the selection of outdoor furnishings on the market. The team's exploration of materials led to the design of the Serenity line of planters and fountains. Today, Studio Four designs and fabricates Modern outdoor elements as well as interior and exterior finishes. The Water Line of indoor/outdoor fountains, created by partner Khoi Vo, is available in concrete and aluminum in five distinct designs. Studio Four, Los Angeles. www.studio04la.com **CIRCLE 223**



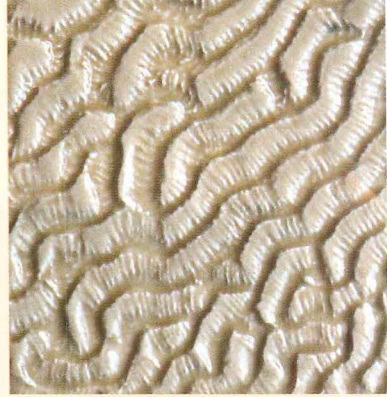
◀ Luminous panels

GranitiFiandre has expanded its tile and stone product range to include Geologica luminous panels. The panels are designed for installation on floor, wall, or ceiling surfaces. A stainless-steel frame surrounds the structure, which is created with opalescent, tempered glass that can withstand foot traffic. Color options include amber, white, and blue in 12"- or 16"-square panels. The thin panels use four high-intensity LEDs. GranitiFiandre, Itasca, Ill. www.granitifiandre.com **CIRCLE 224**

Product of the Month Bas-relief Tiles

Utilizing their patent-pending Photo-Cast process, Photo-Form can create bas-relief tiles from any type of two-dimensional image. The process begins when the specifier submits a digital picture or photograph to the studio. Within three weeks time, Photo-Form creates a series of sample tiles in assorted glazes (for ceramic tiles) or finishes (for metal tiles) according to specifications. Upon approval of the prototype, Photo-Form begins production. All tiles are handmade, and a typical order will be delivered in four to six weeks.

Photo-Form is currently offering the ceramic tiles in 4" x 4", 6" x 6", and 8" x 8" formats. Custom sizes are available with a set-up charge. Gypsum-based tiles can be manufactured in dimensions ranging from 4" x 4" to 8" x 8" with an aspect ratio specified. The gypsum-based tiles must be sealed with a suitable sealer for outdoor use; for indoor applications, the tile should be sealed with wax or a clear acrylic spray to prevent oxidation. While the tiles are for wall applications only, floor tiles will be made available in the future. In addition to ceramic, metal, and gypsum-based tiles, the company works in a range of materials, including rubber, plastic, and clear acrylic. Photo-Form, Scottsdale, Ariz. www.photo-form.com **CIRCLE 222**



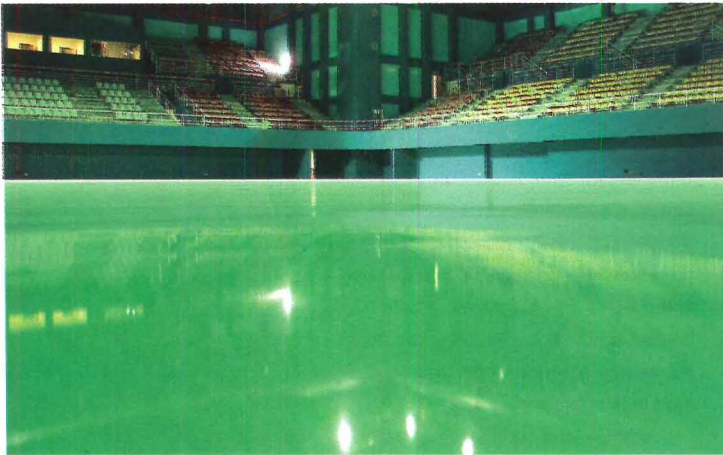
◀ Airplane-inspired airport seating

The Bernú public seating collection takes its name from Daniel Bernoulli, an 18th-century Swiss scientist who discovered the Bernoulli principle, which students of physics and aerodynamics learn is the reason airplanes fly. Constructed of cast aluminum and steel components, its engineering is based on a "peg" system that simplifies assembly and results in a completely modular system. In addition to the usual straight row units, Bernú will be available in curved configurations (left). The closed loop arm is in the shape of an airplane wing in cross section. Upholstery options include vinyl, faux leather, leather, and woven textiles. Arconas, Ontario.

www.arconas.com **CIRCLE 225**



Product Briefs



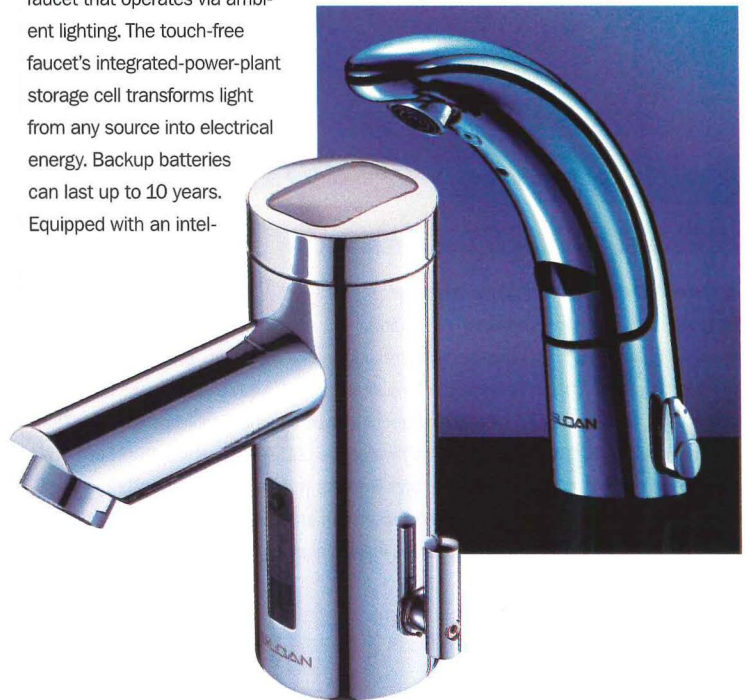
▲ Beating the clock

Flowcrete was challenged to install a 7,546-square-foot, high-performance floor for the Nilai Stadium in Malaysia in just 10 days. To start, the team used the semidry cementitious K-Screed to minimize the moisture content of the base. In order to speed things up further, they applied Flowcem, a cementitious, modified epoxy damp proof membrane (DPM) system. This system enabled the topcoat of Flowshield, a self-leveling epoxy resin, to be installed immediately. Available in gloss or matte finish, Flowshield is hard-wearing, abrasion-resistant, and easy to clean. Flowcrete North America, Houston. www.flowcrete.com **CIRCLE 226**

▼ Smarter faucets

Sloan Valve has added two new "smart" faucets to the market: the Solis solar-powered faucet (below left) and the Optima i.q. sensor-operated faucet (below right). Solis is an electronic solar-powered faucet that operates via ambient lighting. The touch-free faucet's integrated-power-plant storage cell transforms light from any source into electrical energy. Backup batteries can last up to 10 years. Equipped with an intel-

ligent sensor, the Optima i.q. faucet uses up to 70 percent less water than manual-type fixtures and is available with a select-temperature-control adjusting lever. Sloan Valve, Palatine, Ill. www.sloanvalve.com **CIRCLE 227**

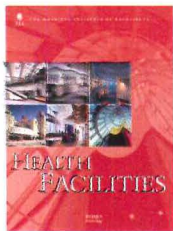


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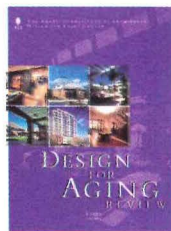
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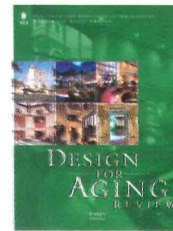


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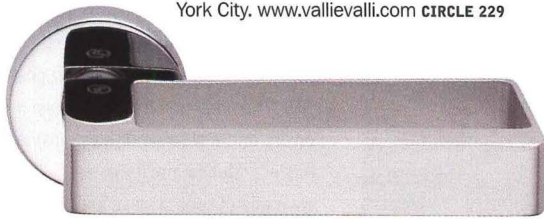
► **Another day at the beach**

In response to requests for tiles that convey the feeling of a pristine beach environment, Imagine Tile has added the Beach Series to its line of ceramic wall and floor tiles. Accent shells can be used to highlight a room feature or guide foot traffic. Intended primarily as a floor tile, the collection can also be used on walls and countertops for commercial or residential projects. Imagine Tile, Bloomfield, N.J. www.imagnetile.com **CIRCLE 228**



▼ **Design studio door handle**

The Cerri #H350 handle is one of the latest door hardware designs in Valli & Valli's Fusital collection. Created by the Italian design studio Cerri & Associates, the handle is available in satin-chrome and polished-chrome finishes and measures approximately 5" long x 2" wide. It will be available in late fall/winter 2004. Valli & Valli, New York City. www.vallievalli.com **CIRCLE 229**



▼ **Luxurious alpaca rugs**

Textile designer Rosemary Hallgarten collaborated with Peruvian artisans to produce a collection of floor coverings in alpaca. The collection includes hand-tufted and hand-knotted designs. Roman mosaic tiles washed up on the beaches of Beirut were the inspiration for the Mosaic hand-tufted rug below. Rosemary Hallgarten, Corte Madera, Calif. www.rosemaryhallgarten.com **CIRCLE 230**



▲ **Colored and etched glass**

Skyline Design's Vitracolor is opaque colored glass for both interior and exterior wall cladding available in 30 standard colors. Recommended for both vertical and horizontal applications, Vitracolor is available in sizes up to 72" x 144" and thicknesses of 1/4", 3/8", and 1/2". Fotoglas is a proprietary process that etches large photographic images into the surface of the glass. Glass choices include plate, tempered, laminated, and insulated glass. The floral design above combines the two technologies. Skyline Design, Chicago. www.skydesign.com **CIRCLE 231**

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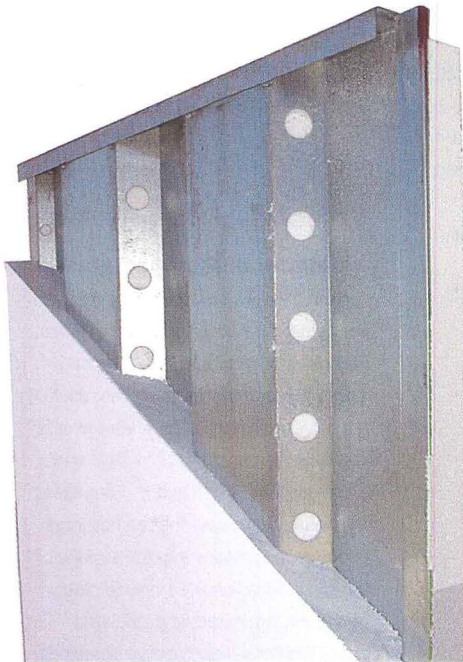
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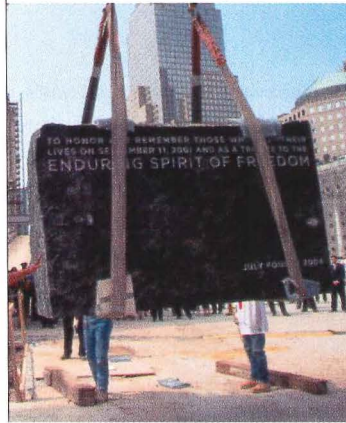


◀ Energy-efficient wall-panel system

R Steel is a structural, non-cavity wall-panel system that performs as a substrate for interior and exterior finishing. The energy-efficient, 6" and 8" wall-panel system replaces metal studs, insulation, and exterior sheathing. Exterior materials including brick veneer, stucco, stone, or metal are easily applied. R Steel's Perform Guard EPS insulation, molded to a steel core, is EPA-registered, mold-resistant, noncorrosive, and nontoxic. Butler Manufacturing, Kansas City. www.butlermfg.com **CIRCLE 232**

▼ Cornerstone donation

On July 4th, Innovative Stone's 20-ton granite cornerstone marked the start of construction for the new Freedom Tower at the World Trade Center site in Manhattan. Innovative Stone was chosen to source, cut, polish, and engrave the new cornerstone, which the firm donated to the project. Flecked throughout with crystals of garnet, the official gemstone of New York State, the stone measures 9' long x 5' high x 4' wide. Innovative Marble and Tile, Hauppauge, N.Y. www.innovativestone.com **CIRCLE 233**



▲ Lightweight stacker

Weighing in at 14½ pounds, Nimble is lightweight and can stack up to 36-chairs-high on a cart and 12-high on the floor. Ideal for applications including cafeterias, meeting rooms, libraries, the 100 percent recyclable polypropylene shell is contoured to fit the body, and the back flexes responsively to shifts in seating posture. The chair comes in four solid colors and a chrome or black frame. Allsteel, Muscatine, Iowa. www.allsteel.com **CIRCLE 234**

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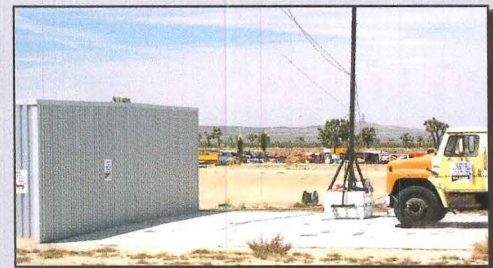
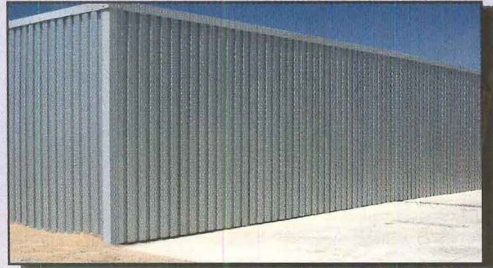
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Product Briefs

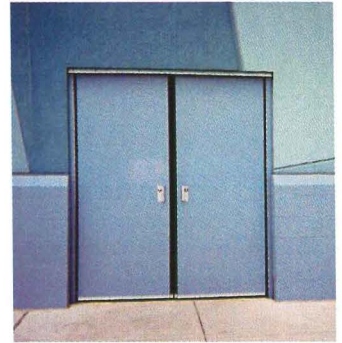


▲ Kinetic sculptures for public and private spaces

Ralfonso (Ralf Gschwend) designs indoor and outdoor 3D kinetic sculptures that move in the wind, water, and by motor for public and commercial buildings and private collections. He also designs sound sculptures, suspended mobiles, and fountains. ExoCentric Spirits (above) is an indoor, suspended mobile featuring colorful disc modules in five different sizes and colors that have color-matched translucent gel lenses. Light from above casts moving color compositions on the floor, as well as colored reflections on the ceiling. RALFONSO.com, West Palm Beach, Fla. www.ralfonso.com **CIRCLE 235**

► Miami-Dade-approved doors

Total Door's Storm Sentry hurricane-rated door system recently passed extensive hurricane testing protocols designed by Miami-Dade County. Total Door claims Storm Sentry is the most cost-effective hurricane door solution on the market. The door is based on a standard full-height, semiconcealed hinge and full-height locking channel designed for superior strength and flexibility. Total Door, Pontiac, Mich. www.totaldoor.com **CIRCLE 236**



▲ Tornado-tough panels

When a deadly tornado tore through northern Indiana, Busk Brothers Furniture was in its direct path. Pre-engineered

steel and masonry buildings on both sides were severely damaged or destroyed, but Busk sustained only minor cosmetic damage. The store was built with Fabcon's VersaCore precast-concrete panels, which continuously bond together the tensile strength of steel and the compressive strength of

concrete. In addition to being strong, the panels guard against fire without an additional sprinkler system. Fabcon, Savage, Minn. www.fabcon-usa.com **CIRCLE 237**

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Product Literature

Wire-mesh manual

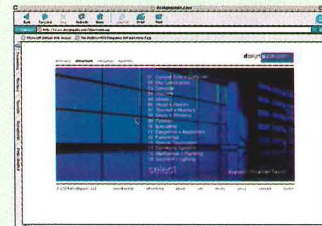
The *GKD Wire Mesh Atlas* is a technical manual in CD format that explains the range of wire-mesh products available from GKD; their specific properties; and the possibilities for processing, installation, and handling of the mesh. The CD provides 10 construction examples, material-specific solutions for planning with wire mesh, more than 90 detailed drawings, 140 photos, and technical data for planning. GKD, Dueren, Germany. www.creativeweave.de **CIRCLE 238**

Italian furnishings catalogs

Four new catalogs from Italian furnishings manufacturer B&B Italia include photos, descriptions, and technical drawings of all the products in the collection. *One Book* includes sofas and armchairs; *Two Book* features furniture systems, living area, and wardrobes; and *Three Book* includes tables, chairs, small armchairs, small tables, and complements. The fourth catalog covers the company's Maxalto division and its Simplice and AC collection of products designed by Antonio Citterio. B&B Italia USA, New York City. www.bebitalia.it **CIRCLE 239**

NEW SITES FOR CYBERSURFING

Online showroom features products and materials for residential and commercial markets. www.designguide.com



The Metal Construction Association has added an *Ask the Industry Professionals* feature to their site.

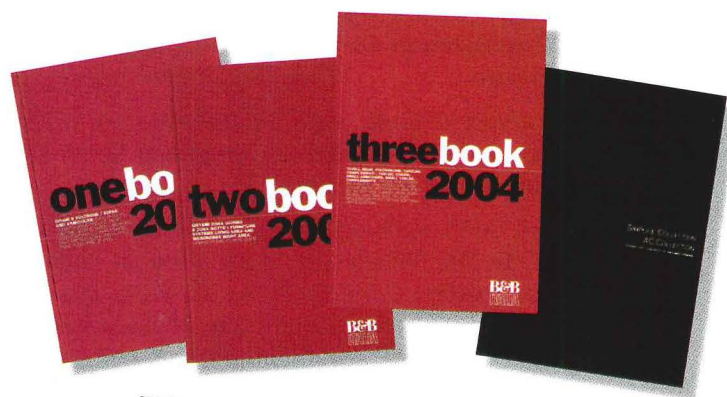
www.metalconstruction.org

Visitors can design their own virtual restroom. www.bradleycorp.com


Redesigned workplace-furnishings site. www.allsteeloffice.com

Code update newsletter

Simpson Strong-Tie has launched a new structural-systems and building-safety newsletter entitled *Structural Report*. The purpose of the quarterly newsletter is to provide key customers, including architects, engineers, and code officials, with relevant technical and code updates, quality and safety information, product and industry news, and training opportunities. Simpson Strong-Tie, Dublin, Calif. www.strongtie.com **CIRCLE 240**



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Product Literature

Contemporary lighting line

To help launch a new collection of American-made contemporary and transitional lighting, Meyda Lighting is introducing a catalog featuring the all-new Metro Line. Also included is a product chart that offers more than 15,000 custom-crafted lighting designs. All products in the line are handcrafted in handsome metal finishes of Brushed Nickel, Craftsman Brown, and Vintage Copper. Made in the U.S., the line includes pendants, torchères, table lamps, and wall sconces. Meyda Tiffany, Yorkville, N.Y. www.meyda.com **CIRCLE 241**

LEED potential

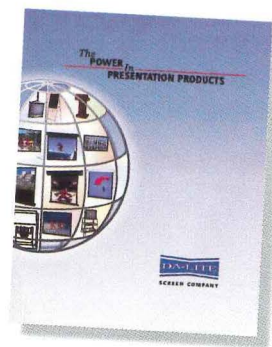
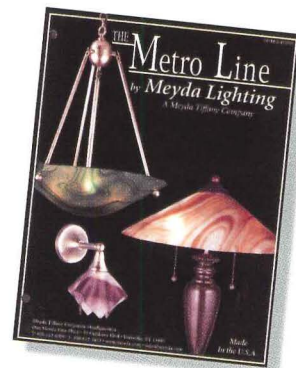
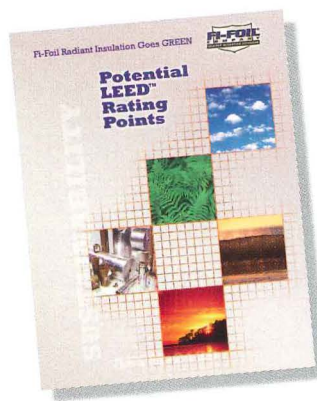
Fi-Foil's new brochure highlights the advantages of using reflective insulation in sustainable construction for both commercial and residential structures and addresses Fi-Foil's potential contribution to LEED-certified projects. Fi-Foil's reflective insulation products boost energy efficiency in masonry walls, vertical wall cavities, roofs, and floors in both new and existing buildings. This is achieved by a reduction of heat flow and significant reduction in the transmission of radiant heat flow. Fi-Foil Company, Auburndale, Fla. www.fifoil.com **CIRCLE 243**

Presentation product catalog

Da-Lite Screen Company has announced the release of its latest products catalog, *The Power in Presentation Products*. This 154-page catalog contains a comprehensive line of presentation products that have been divided into 12 sections. Each section contains detailed information on a specific presentation product line as well as educational information on selecting the correct projection screen for every environment. Da-Lite Screen Company, Warsaw, Ind. www.da-lite.com **CIRCLE 242**

Plywood standard changes

The Hardwood Plywood and Veneer Association (HPVA) has released an updated version of the *American Standard for Hardwood and Decorative Plywood* that contains a number of significant changes since the standard was last updated in 2000. The new standard includes the addition of completely new and separate tables of grade requirements for door faces and adds, revises, or clarifies the definitions of a number of terms related to hardwood plywood panels. HPVA, Reston, Va. www.hpva.org **CIRCLE 244**



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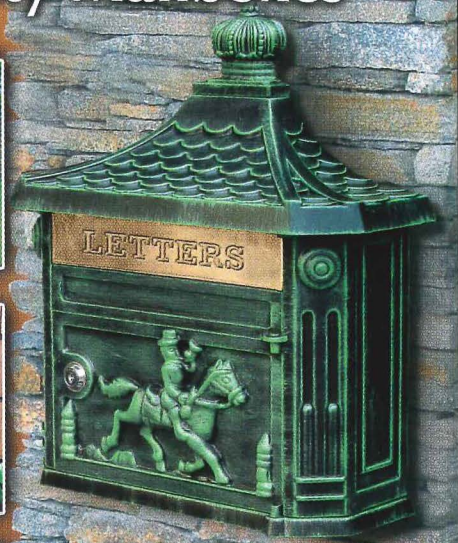
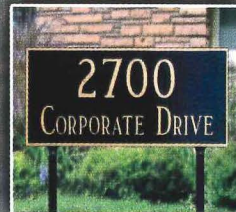
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Official and Unofficial Proposals
for the World Trade Center Site

Suzanne Stephens
with Ian Luna and Ron Broadhurst
Foreword by Robert A. Ivy

The comprehensive roundup of the inspiring visions for the World Trade Center Site

September 11, 2001 changed the public perception of architecture and urban design.

Published jointly by *Architectural Record* and *Rizzoli*, **Imagining Ground Zero: Official and Unofficial Proposals for the World Trade Center Site** documents not only the master plan competition for lower Manhattan, won by Studio Daniel Libeskind and sponsored by the Lower Manhattan Development Corporation, but also proposals submitted by invitation of and published by *New York* magazine and *The New York Times Magazine*, as well as proposals from the exhibition at Max Protetch Gallery. Also included is a selection from the more than 5,000 schemes submitted to the competition for the World Trade Center Memorial.

This remarkable and authoritative survey features in depth the official scheme for the site, designed by David Childs of Skidmore, Owings & Merrill with the collaboration of Daniel Libeskind of Studio Daniel Libeskind; *Reflecting Absence*, the winning scheme for the memorial, designed by Michael Arad and Peter Walker; and the World Trade Center Transportation Hub, designed by Santiago Calatrava, DMJM + Harris, and STV Group.

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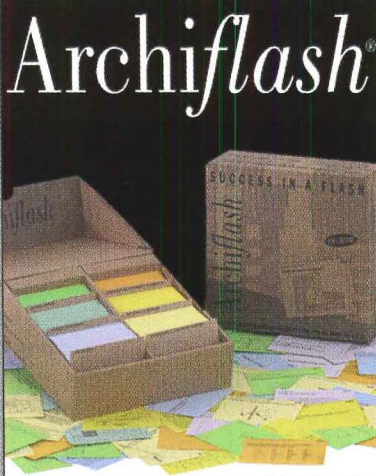

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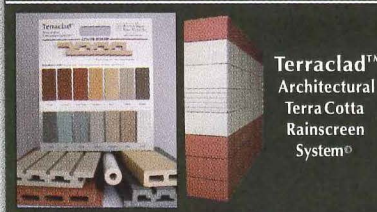

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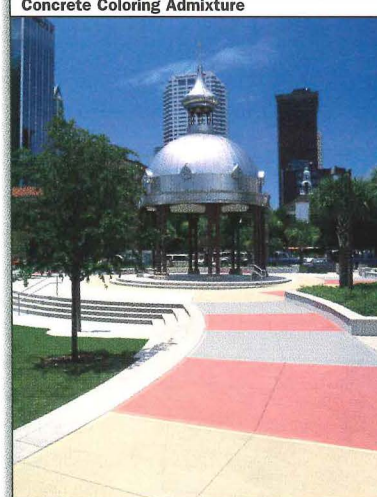

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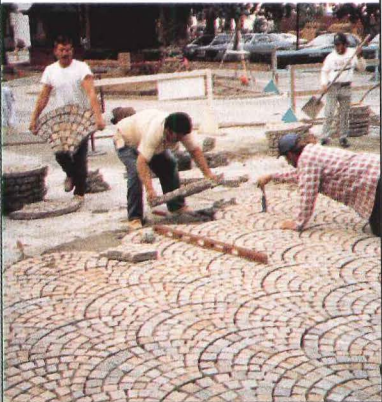
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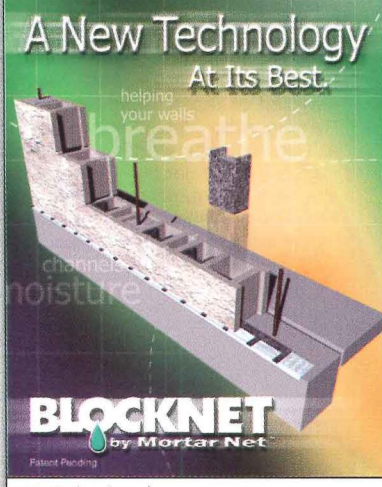
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	<p>3 Concrete</p> <p>CHROMIX® Admixtures for Color-Conditioned™ Concrete: Award-winning projects begin with award-winning materials. CHROMIX Admixtures for Color-Conditioned Concrete are colored, water-reducing, set-controlling admixtures for ready mixed architectural concrete. Coloring concrete integrally, they produce rich hardscapes and pre-cast, tilt-up, or cast-in-place buildings of enduring beauty. CHROMIX Admixtures provide permanent, streak-free color conditioning and increased concrete strength at all ages. Call or email to request color cards and specifications. Email info@scofield.com.</p>
	<p>www.scofield.com</p> <p> 155</p>

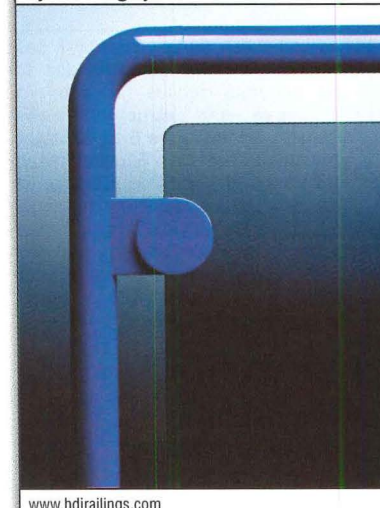
Eurocobble	
Granite Cobblestone	877-877-5012
	<p>4 Masonry</p> <p>An updated catalog features authentic European cobblestone preassembled in modular form. Modules in square, fan, concentric ring, and custom formats arrive at the jobsite ready for a quick and easy installation. Pedestrian or vehicular application. Eurocobble® has supplied the design community with traditional and customized paving solutions for over 20 years. Call toll free or visit the Web site.</p>
www.eurocobble.com	156


Gage Corporation, Intl.	
Cast Metal Wall Surfacing	800-786-4243
	<p>5 Metals</p> <p>Gagecast® is a cast metal wall surfacing material suitable for a variety of interior architectural applications where patterns that feature high luster, relief, durability, and cost effective installation are a requirement. Twenty-eight designs are standard, however, custom collaboration is encouraged. Gagecast is one component of Gage Vertical Surfacing. Contact the factory for product literature and selected samples. Fax number 608-269-7622. Email gage@centurytel.net.</p>
www.gageverticalsurfacing.com	159

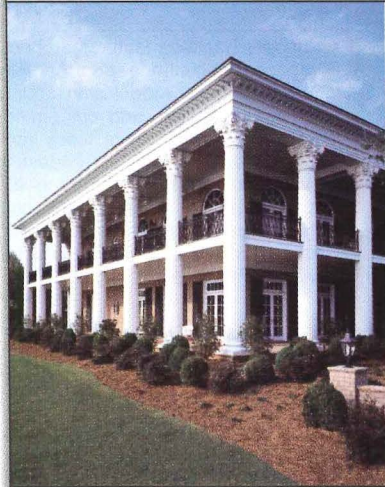
Mortar Net USA, Ltd.	
2004 World Of Concrete's Most Innovative Masonry Product	
	<p>4 Masonry</p> <p>The BlockNet™ System was voted by industry experts as the 2004 World Of Concrete's Most Innovative Masonry Product. Mortar Net introduces the New Single Wythe Block Drainage System. Water infiltration in concrete block can cause extensive damage such as efflorescence, staining or freezing, and thawing. The BlockNet System by Mortar Net USA, Ltd., is a simple solution that solves moisture problems by directing the flow of water. BlockNet is comprised of a specially shaped 3-3/8-in.-deep stainless steel flashing with integrated drip edge and a horizontal mesh element adhered to the top of the stainless steel, plus a separate vertical mesh element.</p>
www.mortarnet.com/ars	157

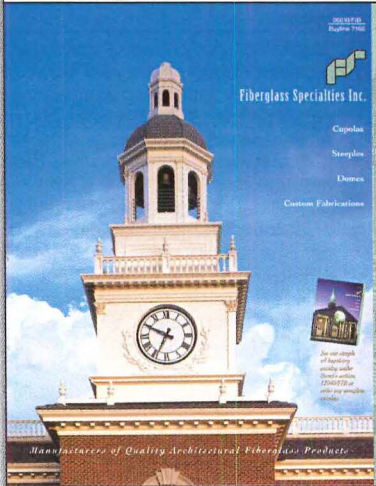
Gage Corporation, Intl.	
Metal Surfacing	800-786-4243
	<p>5 Metals</p> <p>GageMetal. An innovative collection of 18 new designs suitable for walls, elevators, and column covers. Standard sizes 48-in. by 96/120-in. with available thicknesses from .025-in. aluminum to 16-ga. stainless steel. Custom design and collaboration is available. All GageMetal designs are available in sheet form for direct application to the job site substrate. They can also be panelized for demountable use with Z-bar clips or the Gage extrusion system. Fax number 608-269-7622. Email gage@centurytel.net.</p>
www.gageverticalsurfacing.com	160

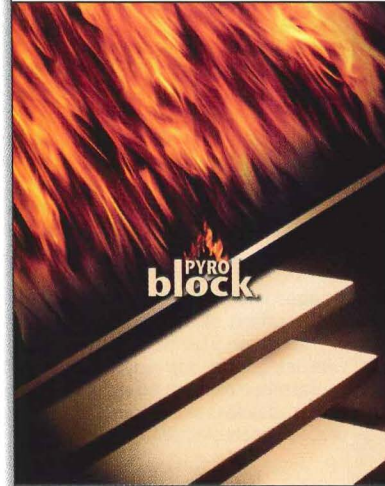
EPIC Metals Corporation	
Roof and Floor Deck Ceiling Systems	877-696-3742
	<p>5 Metals</p> <p>EPIC Metals Skydeck™ option was designed to incorporate natural lighting into structural, long-span roof deck ceiling systems without the need for additional steel framing. By featuring Solatube® technologies, the EPIC Skydeck option provides the brightest, cleanest, and whitest light possible while minimizing solar heat gain and glare. Skydeck supports green building philosophies by reducing the need for electrical lighting and conserving energy costs that contribute to LEED certification. Additionally, Skydeck can be specified with an acoustical option to reduce interior ambient noise levels, can span up to 55-ft., and has a variety of appearance options to complement any architectural design.</p>
www.epicmetals.com	158

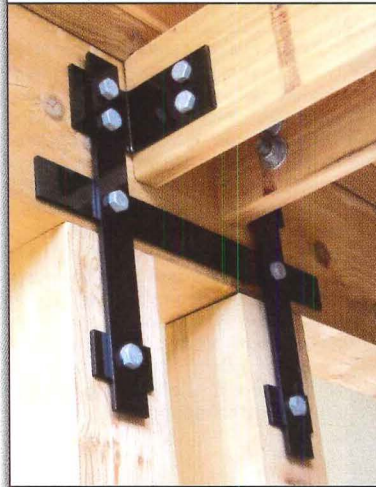
HDI Railing Systems	
Nylon Railing System	717-285-4088
	<p>5 Metals</p> <p>Add color and strength to your project with a nylon guardrail system. Nylon-coated railings come in a range of attractive colors and wood finishes. They provide exceptional structural strength, chemical resistance, hygienic qualities, and are virtually maintenance free. Infill materials are available in tempered glass and perforated metal. Handrails in colored nylon and solid wood. Standard and custom designs are available. Complete supply and installation service is available throughout North America, which includes inox™, CIRCUM™, HEWI® Nylon, and d line™ railing systems. Email info@hdirailings.com.</p>
www.hdirailings.com	161

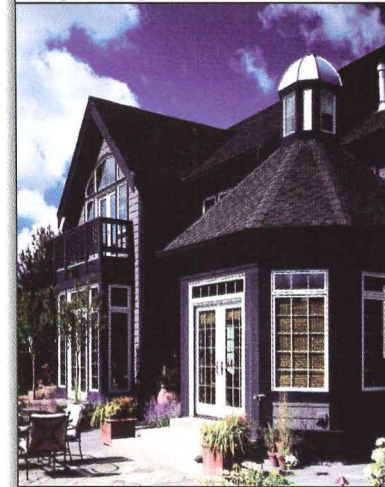
Lapeyre Stair Inc.	
Convenient Conventional Stairs	5 Metals
	In addition to its unique alternating tread safety-stair products, Lapeyre Stair now provides in-house design and fabrication of conventional industrial stairs that are designed and built to order. With proprietary computerized design capabilities and a facility dedicated to stair fabrication, Lapeyre Stair can offer unprecedented one-stop-shopping convenience, low prices, and lead times of three weeks or less. Check the Web site for conventional stair product updates and technical information, plus interactive features related to Lapeyre's Alternating Tread Stair: downloadable CAD files, online pricing, and more. In space-squeezed applications, the Lapeyre Alternating Tread Stair provides safer, easier access than vertical or ship's ladders.
www.lapeyrestair.com	162



Melton Classics, Inc.	
Architectural Products	6 Wood & plastics
	Melton Classics provides the design professional with the most comprehensive selection of quality architectural products in the industry, including architectural columns, balustrades, moldings, cornices, and a wide array of architectural elements. Architectural columns are available plain or fluted, load-bearing or column covers, round or square in fiberglass, fiberglass/marble composite, synthetic stone, cast stone, GFRC, and wood for paint or stain. Melton Classics offers a maintenance free balustrade product ideal for any application. Balustrades are available in four durable materials: MarbleTex™ synthetic stone, poly/marble composite, cast stone, and polyurethane, and can meet any code or radius application.
www.meltonclassics.com	165



Fiberglass Specialties, Inc.	
Custom Fiberglass Products	6 Wood & plastics
	Fiberglass Specialties Inc. manufactures custom architectural products from FRP fiberglass. Custom products are often less than stick-built structures and arrive at the job site pre-ready to install. 2004 projects range from the replication of a 130-ft. historical lighthouse (with a full size cellular tower inside) to a custom cupola with a unique analog wind gage for a residential application. Each custom structure is designed around a tubular steel unitized body with architectural FRP panels affixed. Almost any size, shape, or texture can be replicated. Custom colors are available, and because they use low styrene gel coats, yellowing, fading, and chalking are minimal. In-house architect (AIA) and design engineers are available.
www.fsiweb.com	163

Panel Source International Inc.	
Fire-Retardant Particleboard, MDF & Plywood Panels	877-464-7267
	Pyroblock® Class A fire-retardant particleboard, MDF, and Plywood. Formaldehyde-free, FSC certified, recycled or rapidly renewable fibers. Pyroblock is ideally suited for the AEC community working on LEED™ registered projects. Pyroblock is available in numerous thicknesses and sizes; availability is not a problem when you specify Pyroblock.
www.panelsource.net	166

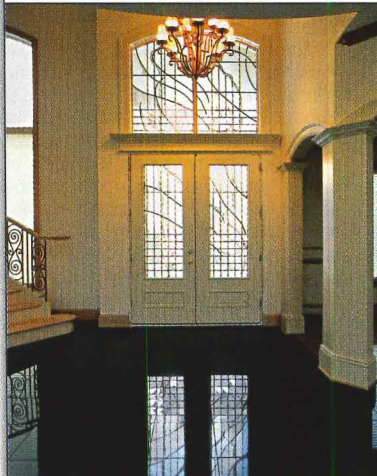

Laser Precision Cutting, Inc.	
Brackets, Plates & Gussets	800-514-8065
	6 Wood & plastics Needed these parts yesterday? Laser Precision Cutting, Inc. provides fast and accurate service for both your decorative and structural needs. Normal lead times are 5 to 10 days. If your needs are fast, E-mail your dxf files to Laser Precision Cutting, Inc. The Web site has many more examples of Laser Precision Cutting, Inc. work. An ISO-9000 registered company. Email lasercutting@mindspring.com. Fax number 828-645-8421.
www.laserprecisioncutting.com	164

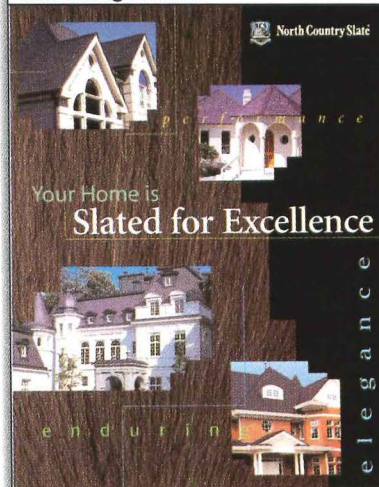

CertainTeed Corporation, Roofing Products Group	
Shingle Roofing	800-233-8990
	7 Thermal & moisture protection Residential TL™, with its sculpted rustic edges, is constructed using three laminated layers of the industry's strongest, most durable materials, making it one of the thickest, toughest and best looking shingles on the market. The beauty of a wood shake with less cost and better performance. Email roofing.ct@saint-gobain.com.
www.certainteeted.com	167

CertainTeed Corporation, Roofing Products Group	
Slate Roofing	800-233-8990
	<p>7 Thermal & moisture protection</p> <p>CertainTeed's Centennial Slate™ replicates the natural color variations of true blended slate at a fraction of the cost. Through a sophisticated, patent-pending production process, CertainTeed precisely applies color to individual tabs to create its distinguished look. Centennial Slate is available in six colors and utilizes CertainTeed's exclusive Super Shingle® construction.</p>
	<p>www.certainteed.com</p> <p> 168</p>



General Glass International	
Fire-Rated Glass	
	<p>8 Doors & windows</p> <p>In response to the changes in the IBC 2003 building codes, General Glass International has introduced Pyroshield Plus™, a laminated, polished-wire glass manufactured by Pilkington Glass UK. This new fire-rated glass product meets CPSC 16 CFR 1201 Category I impact safety standards. Pyroshield Plus uses a plastic fireproof interlayer strong enough to meet Cat I requirements. It achieves a 45-min. plus hosestream rating, along with an 18-in. drop-height performance rating, both from either direction. The overall thickness, 10.5mm, and the stock size, 49-in. by 78-in., allow Pyroshield Plus to be used in most frame systems currently in the market. Pyroshield Plus is a cost-effective alternative to other fire-rated glass options.</p>
	<p>www.generalglass.com</p> <p> 171</p>

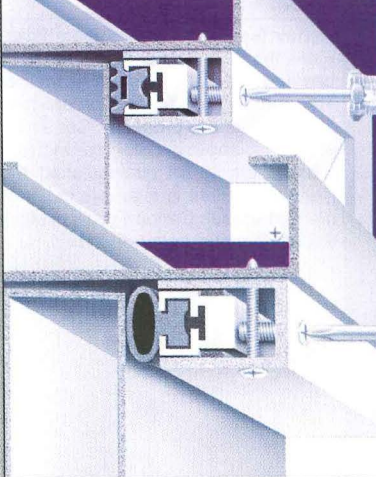
Cornell Corporation	
Performance Roofing Insulation	715-239-6411
	<p>7 Thermal & moisture protection</p> <p>Cornell Corporation introduced the original ventilated roof insulation, Vent-Top Thermacal, in 1987. Today's Vent-Top Thermacal is designed for fast installation and high performance. Panels are fully machined with pre-spaced sheathing and tongue and groove edges for minimal heat loss. Upventing is greater than 92% while leaving 50% open area for lateral ventilation. R-values up to 42 are available. Thermacal non-vented nailbase insulation shares the machined features of our ventilated products with R-values up to 47 available. CVRS (Cornell Ventilated Roof Sheathing) is a ventilated sheathing as a solution for roof venting over existing insulation. Email cornell@centurytel.net.</p>
	<p>www.cornellcorporation.com</p> <p> 169</p>

Jerome R. Durr Studio	
Custom Glass Art	800-552-9836
	<p>8 Doors & windows</p> <p>Jerome R. Durr Studio, providing residential, liturgical, commercial, and public art since 1973.</p>
	<p>www.jeromedurr.com</p> <p> 172</p>

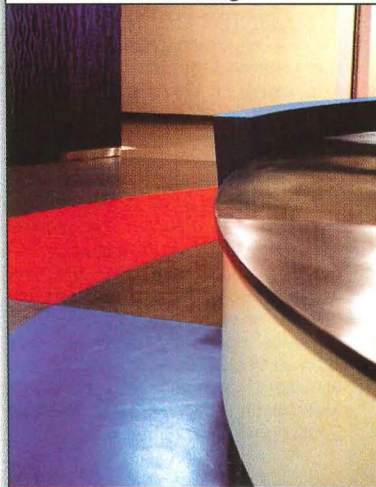
North Country Slate	
Slate Roofing Brochure	800-975-2835
	<p>7 Thermal & moisture protection</p> <p>North Country Slate offers a new brochure explaining the design and performance advantages of their remarkable roofing material to your residential customers. In six glossy pages, "Slated for Excellence" presents all the features and benefits to your client, the homeowner. Make sure you have this brochure on hand for your next discussion on slate roofing. Email info@ncslate.com.</p>
	<p>www.northcountyslate.com</p> <p> 170</p>

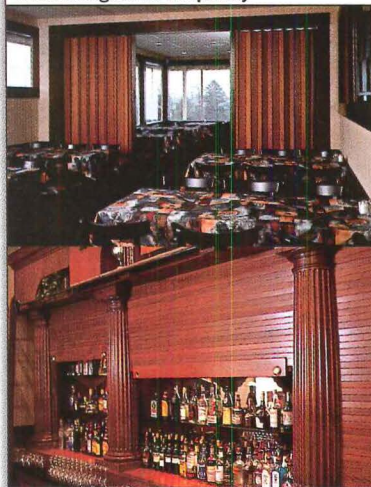
Technical Glass Products	
Fire-Rated Steel Framing	
	<p>8 Doors & windows</p> <p>Technical Glass Products offers the Fireframes™ Curtainwall Series—fire-rated steel framing for large expanses of glass spanning multiple stories. Available for interior or exterior use, the Curtainwall Series carries fire ratings up to two hours. Custom exterior face caps allow a wide variety of appearances, including stainless steel. For more information visit the company's Web site.</p>
	<p>www.fireglass.com</p> <p> 173</p>

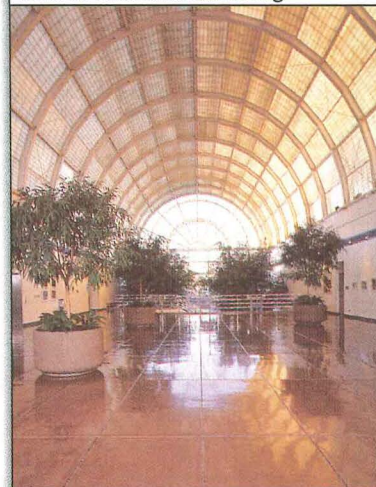
Unicel Architectural Inc.	
Pivoting Blinds	8 Doors & windows
 <p>Now you see it, Now you don't!</p> 	<p>Unicel Architectural Inc. has developed a unique patented glazing product: Vision Control®. With this custom-designed unit, you can finally enjoy total control of light, privacy, and sound without having to worry about the cleaning. Unlike ordinary Venetian blinds installed separately from the glass, Unicel's pivoting blinds made of extruded aluminum are mounted inside a hermetically sealed glass unit offering you 100% dust-free and germ-free louvered glazing. Vision Control blinds are operated using a small hand crank, thumbwheel, motorized switch, or computer: control at your fingertips, cord-free and string free. Ideal in partitions, doors, side-lights, windows, skylights, and more.</p>
www.visioncontrol.qc.ca	174

Zero International, Inc.	
Acoustical Door Seals	8 Doors & windows
	<p>Zero's acoustical door seals and systems are designed with top-quality materials and adjustable features to guarantee easy installation, reliable performance, and sound transmission class ratings up to 51 STC for the most demanding noise-control applications. Engineered to function efficiently through millions of cycles. Vision-light systems available. Zero's adjustable gasketing systems lower noise levels and provide privacy in office buildings, apartment houses, hospitals and doctors offices, churches, and schools. For more information and a copy of Zero's 20-page "Sound Solutions" brochure, contact Zero International.</p>
www.zerointernational.com	177

Weather Shield Windows & Doors	
Wood Interior Windows & Doors	8 Doors & windows
	<p>As the flagship line for upscale homes, Weather Shield is the company's most comprehensive line of windows and doors. Weather Shield windows and doors feature wood interiors and are available with either an extruded aluminum exterior or a wood brick mould exterior. Windows and doors come in ten long lasting Flexicolor exterior finishes, and are available in any of seven different wood species from the Custom Wood Interiors Collection™.</p>
www.weathershield.com	175

Crossfield Products Corp.	
Architectural Floor Surfacing	9 Finishes
	<p>Dex-O-Tex Micro-Topping is a thin-section, seamless polymeric floor surfacing that offers years of durability and low maintenance costs. The protective surfacing is less moisture sensitive than conventional sheet and tile flooring, and provides an attractive, wear-resistant finish. Micro-Topping can be applied over a wide range of surfaces, eliminating the cost of expensive removal. It can be antiqued or chemically stained with many beautiful colors to create a variegated shading of hues and allows the application of stencils and saw-cuts for limitless design options. A wide range of polyurethane sealers with varying degrees of gloss or slip-resistance will stand up to repeated floor cleanings.</p>
	178

Woodfold-Marco Mfg., Inc.	
Doors Designed for Hospitality	503-357-7181
	<p>8 Doors & windows</p> <p>Woodfold's custom made folding and roll-up doors serve multiple functions for hospitality design. With models available for sight, security, and acoustic control, Woodfold's accordion doors effectively divide your space. Its roll-up doors, used in the back bar, allow immediate and secure lock-up at closing time. Complete architectural binders available upon request. Fax number 503-357-7185.</p>
www.woodfold.com	176

L. M. Scofield Company	
Concrete & Cementitious Flooring	800-800-9900
	<p>9 Finishes</p> <p>Stylish Scofield flooring systems: For beauty and durability, concrete and cementitious toppings provide stylish flooring for high traffic areas in offices, lobbies, public spaces, food service, and retail areas. Scofield Systems offer diverse choices—ranging from monochromatic toppings to translucent, antique stains for faux finishes and dramatic graphics. Email info@scofield.com.</p>
www.scofield.com	179

Viva Ceramica

Xilo Flooring



9 Finishes

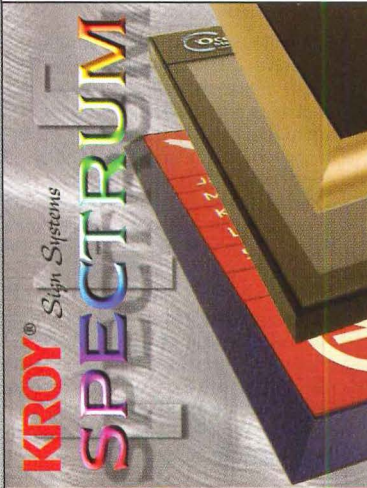
Colors meet the purest clays forged and pre-compacted in a higher than normal thickness (12mm). Complete penetration between body and color grants lasting optical results, maximum ultimate tensile strength, and absolute resistance to acids, scratches, frost, and dirt. This totally environmentally friendly manufacturing process is assured by ISO9001 quality system. Certified plant of E milceramica in Fiorano Modenese; series XILO is guaranteed 20 years for private homes and 10 years for public areas. For further information please consult Viva for updated price list and sales conditions.

www.cerviva.it

180

Kroy Sign Systems

Aluminum Sign Frames



10 Specialties

Kroy Sign Systems, Scottsdale, AZ, is a leading manufacturer of architectural and ADA compliant signs. Specializing in design/build sign fabrication and sign wayfinding systems, Kroy recently introduced SPECTRUM sign frames. Durable aluminum frames are available for interior and exterior sign applications. Kroy's SPECTRUM Sign Series features lightweight, thinline aluminum extrusions in a variety of frame sizes and unlimited colors. Square, radius, and beveled edge profiles are designed to accommodate a host of architectural and ADA sign insert materials. SPECTRUM frames accept photopolymer faceplates, acrylic lenses, and aluminum inserts. Visit the company's Web site for more info.

www.kroysignsystems.com

183

Custom Home Accessories, Inc.

Decorative Cluster Mailboxes



10 Specialties

Tired of the same old ugly gang style mailboxes? Give your community some "curb appeal" with the new Regency decorative cluster mailbox unit. Constructed of cast aluminum and stainless steel, the elegant mail center is designed to last. Existing CBU's can also be easily converted to a Regency. This system comes in a variety of styles, colors, and configurations. Custom Home Accessories, Inc. offers a full line of mailboxes, address plaques, bronze markers, and street signs.

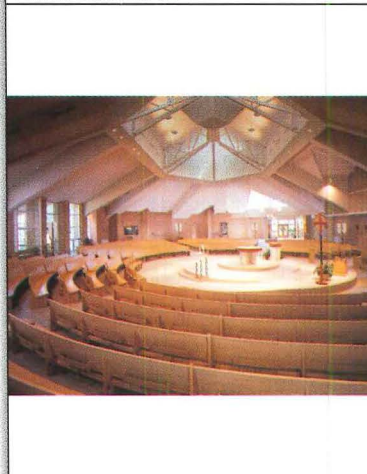
www.customhomeaccessories.com

181

New Holland Church Furniture

Curved Church Pews

800-220-1465



12 Furnishings

Curved pews are "Round For A Reason"™ and are designed and manufactured by New Holland Church Furniture. Curved pews are designed for maximum seating, curved for efficient use of space, designed to enhance worship, created for community, uniting the family of God. New Holland Church Furniture is a certified member of the Architectural Woodwork Institute (AWI), so you can be assured of the very highest quality. Email nhcw@newhollandwood.com.

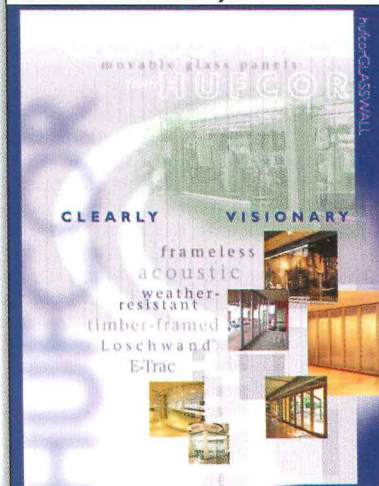
www.newhollandwood.com

184

Hufcor, Inc.

Movable Glass Partition Systems

800-542-2371



10 Specialties

Hufcor introduces a complete new line of movable glass partition systems featured in a new brochure. The line features frameless storefront style panels with patent-pending batwing pass-doors, acoustic and weather resistant glasswalls without floor tracks, wood-clad products, and electrically controlled E-Trac tracking system and Loschwand overhead systems. Call or visit the Web site.

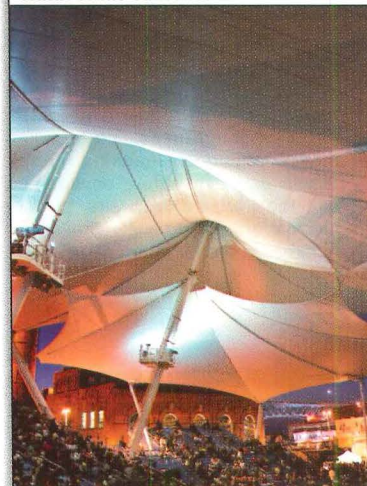
www.hufcor.com

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FabriTec Structures

Tensile Fabric Structures

866-275-9710



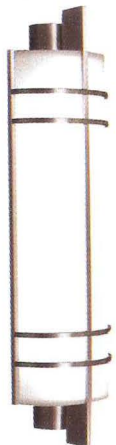
13 Special construction

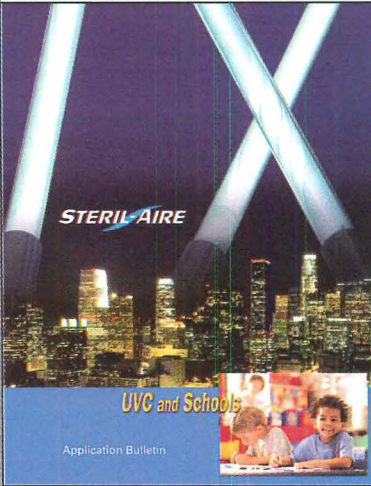
FabriTec Structures introduces a new generation of tensile fabric technology. Its highly specialized fabric structures utilize the most advanced architectural materials available and are non-combustible, both thermal- and UV-resistant, and can offer full weather protection. With virtually unlimited design options and applications, FabriTec's products are both practical and often visually spectacular. Designers can choose fabrics from a wide range of color and translucency and enjoy a cost effective and "fast-track" alternative to conventional building systems. FabriTec Structures provides clients with complete design/build services, including concept development, engineering, fabrication, project management, and installation.


www.fabritecstructures.com


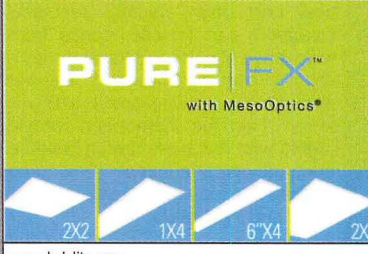
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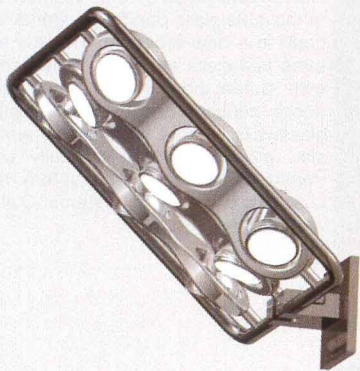
Finlandia Sauna Products, Inc.	
Precut Saunas	800-354-3342
	<p>13 Special construction</p> <p>Finlandia Sauna has manufactured exclusive and authentic saunas since 1964. Finlandia offers precut sauna packages and modular sauna rooms as affordable luxuries that can be included in any remodel or new construction. The company markets four all-clear western softwoods and is the only manufacturer to use 1-in. by 4-in. paneling, instead of the cheaper 1/2-in. by 4-in. material used by others. Finlandia's packages include all room parts, a choice of a Finnish-made electric heater, a prehung door with choice of glass, and all necessary accessories. Finlandia's exciting new heater, the EverReady, is an excellent option for the person always on the go. Fax number 503-684-1120. Email info@finlandiasauna.com.</p>
www.finlandiasauna.com	186

Shaper Lighting / Cooper Lighting	
Custom Lighting Fixtures	16 Electrical
	<p>Shaper's new 674 Wall Luminaire, shown here in solid brushed stainless steel, is also available in natural aluminum, polished brass, satin brass, or hand-oxidized brass. Custom colors and design options, such as perforated stainless or color inserts are also available to compliment any commercial, hospitality, or retail application. Visit their Web site or E-mail talktous@cooperlighting.com.</p>
www.shaperlighting.com	189

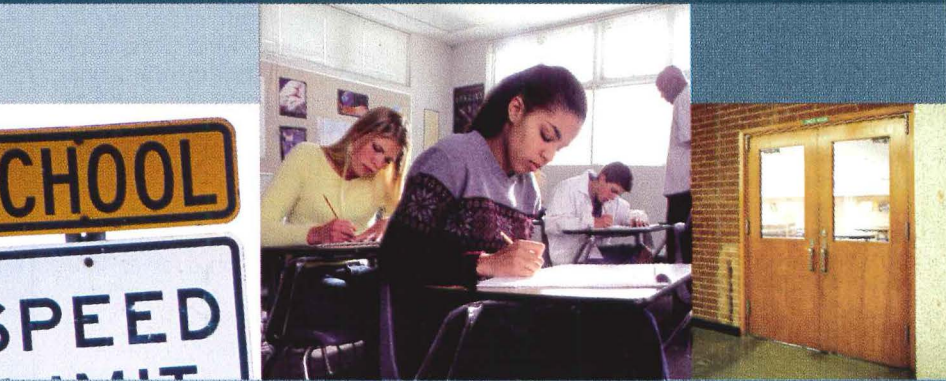
Steril-Aire	
Ventilation Systems	800-2STERIL
	<p>13 Special construction</p> <p>New bulletin showcases Steril-Aire UVC Emitters™ for mold and microbial control in schools. The multi-patented devices reduce spread of infectious diseases by 90% plus for reduced absenteeism. They also stop mold problems and relieve allergy/asthma symptoms triggered by mold spores. In addition, they save 15% or more in energy costs and slash A/C coil cleaning costs. The company offers a full line of UVC products for school installations, ranging from central A/C systems to unit ventilators, fan coils, and other packaged systems. Fax number 562-467-8481. Email sales@steril-aire.com.</p>
www.steril-aire.com	187

G-Squared	
Architectural Ceiling Fans and Lighting	877-858-5333
	<p>16 Electrical</p> <p>Enjoy art... the Cirque ceiling fan, a high performance dynamic sculpture, Good Design Award winner. View silver and mahogany blade versions on their Web site. Includes 50 W dimmable light and touch control system, remote control available. Whisper quiet, powerful, and beautifully made, this timeless design can be used on 8-ft. ceilings or on cathedral ceilings with optional downrods up to 6-ft. long. Suitable for sloped ceilings. Lifetime warranty. To buy high-design architectural fans and lighting, please visit G-Squared's Web site or call between 6 AM and 6 PM PST.</p>
www.g2art.com	190

Ledalite Architectural Products	
Lighting Systems	15 Mechanical
	<p>PureFX™ is a revolutionary recessed lighting system that utilizes Ledalite's MesoOptics® technology to purify and control light. It offers the perfect blend of brightness, control, and energy efficiency—making happier people and a healthier environment. Visit the Ledalite Web site for more information and to view the PureFX multimedia presentation.</p>
	
www.ledalite.com	188

Prima Lighting Corp.	
Light Fixtures	866-885-4915
	<p>16 Electrical</p> <p>The Multi light fixture series gives you complete freedom and control over your light source with high-end, elegant, and intriguing style. Easily direct the light exactly where you want and tailor the power to your needs. Choose a nine, six, four, three, or two light configuration available as a wall (shown), pendant, floor, or table light. Chrome and matte silver finishes. Clean, architectural multipoint canopies are available for the pendants. Please visit Prima Lighting's Web site or call to find out more about its breakthrough OPUS line of contemporary architectural lighting.</p>
www.primalighting.com	191

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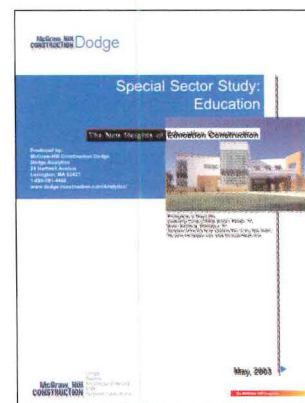
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Chase Rynd: At the helm at the National Building Museum

Interviewed by **Andrea Oppenheimer Dean**

Chase Rynd's knowledge of architecture was negligible in July 2003 when he became president and executive director of Washington, D.C.'s National Building Museum. He says his background as a fine arts museum administrator, promoter, and financial manager decided his selection. Rynd began his career as an investment analyst and portfolio manager in New York City. In 1976, he moved to Seattle, joined an investment firm, and—marrying a love for art with managerial skills—launched the Equivalent Gallery. His work consulting for museums, private collectors, and corporations led to his appointment as chairman of the Seattle Arts Commission and, later, to his position as executive director of the Tacoma Art Museum. Named founding executive director of Nashville's Frist Center for the Visual Arts in 1998, Rynd secured the center's financial health by attracting sponsors, and helped give it cultural credibility by forging partnerships with national and international arts organizations.

Q: *Your experience has been with fine arts museums. What surprises did an architecture museum present? I thought the building arts were about structure and function, with aesthetics slapped on. I spent all my life being blown away by visual artists and didn't know how creative and disciplined you have to be to blend structure, function, and aesthetics. My transition wasn't as easy as I anticipated. At the building museum, we look at all the building arts: engineering, urban planning, and historic preservation—I feel like I'm immersed in intense postgraduate study.*

The museum building, constructed to house the U.S. Pension Bureau in 1887, resembles a rust-red Renaissance palazzo. Does it pose problems as a museum? The building is our toughest challenge. It makes events hard to produce. When you first come into the five-story Great Hall, it's a thrill, but it's also disorienting. You don't know where to go, what to do, what's going on. We want to carve out a space on the main floor for visitor orientation. One goal is to refurbish our auditorium, an embarrassing space. And raising funds for our \$8 million annual budget is never easy.

How do you explain that attendance figures for 2004 exceed last year's by 20 percent? People are venturing back to D.C. after 9/11, and school trips are back. We've gotten enormous attention from the press, which translates into attendance. The redevelopment of downtown Washington has also raised our figures. Now there's a lot to attract people: the Science Museum, the Spy Museum, the MCI Center [sports arena], and a vibrant new neighborhood.

What kinds of exhibitions and programs are most popular? We are a culture of celebrity, and the better known the lecturer, the higher the attendance. But issue-oriented programs are also a big draw. Our affordable-housing exhibition had excellent attendance, as did our show on Washington's Anacostia River and its environs.

And the future? We've done a good job of speaking to the professions; we haven't been as strong addressing a broader audience. We need to gear exhibitions and education to more varied points of view, and I want to develop an interactive gallery where people can learn the vocabulary, issues, and importance of the building arts. Our overarching direction is toward greater national recognition through developing partnerships with other institutions around the country. We're intent on contributing research and original ideas about the built environment, rather than just using other peoples' ideas.

Photograph by Matthew Girard