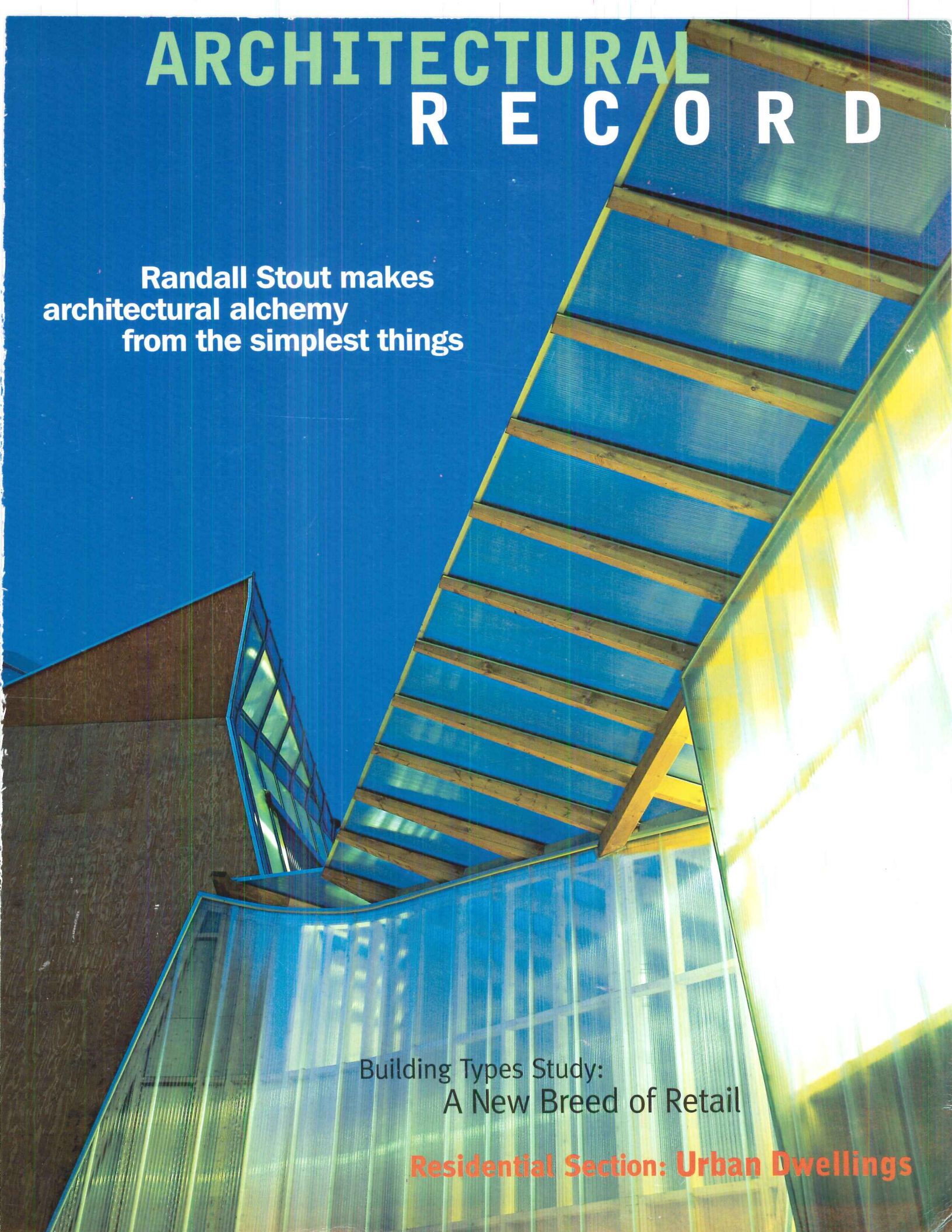


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Cover: Steinhüde Sea Island Recreation Facility, Photograph by Peter Hübbe
Right: Melbourne Museum, Photography by John Grollings



News

- 29 Michael Graves, FAIA, wins 2001 AIA Gold Medal
- 38 GSA hosts Mayors Institute

Departments

- 19 Editorial: From Dawn to Decadence
- 23 Letters*
- 47 Correspondent's File: Istanbul by Bette Hammel
- 51 Critique: Our image culture by Juhani Pallasmaa
- 55 Practice Matters: Civic engagement by Harris M. Steinberg, AIA
- 57 Snapshot: French tollbooths by Ingrid Whitehead
- 196 Profile: John Rahaim by Ingrid Whitehead

Features

- 62 Lighting and Building Technology by Sara Hart
Architecture and lighting design converge in a theatrical and high-tech addition for London's Science Museum.

Projects

- 70 Melbourne Museum, Australia
by Annemarie Kiely*
Denton Corker Marshall
A new institution pushes its building type past traditional form.
- 80 Fabrica/Benetton Communications Research Center, Italy
by Clifford A. Pearson*
Tadao Ando Architect & Associates
Architecture and landscape converge in a corporate campus.
- 88 Old St. Patrick's Church Renovation, Chicago
by Blair Kamin*
Booth Hansen Associates
New tools make old-fashioned craftsmanship feasible again.
- 94 Steinhüde Sea Island Recreation Facility, Germany
by David Hay*
Randall Stout Architects
A bathhouse gets its inspiration from the reclining human form.

Building Types Study 793

- 103 Essay: Retail by William Weathersby, Jr.*
- 104 Nicole Farhi, New York City by William Weathersby, Jr.*
Gabellini Associates
- 108 XXXY, Toronto by Beth Kapusta*
Yabu Pushelberg
- 112 Costume National, Los Angeles by David Hay*
Marmol Radziner + Associates
- 116 Dolce & Gabbana, London by Marcus Fairs*
David Chipperfield Architects

New: For 10 additional retail projects go to Building Types Study at www.architecturalrecord.com. The monthly expanded Web BTS features project descriptions, photographs, drawings, statistics, and links to people and products.

Building Science & Technology

- 121 Photovoltaic Technology Comes of Age 
by Nancy B. Solomon, AIA*
- 131 Tech Briefs
- 133 Digital Architect: CAD pioneer Charles M. Eastman
by Jerry Laiserin, AIA*

Residential

- 139 Introduction
- 141 Residential Briefs
- 142 Greenwich Village Residence by Wendy Moonan
- 148 419 Fulton Street by Lisa Findley
- 154 Premsela-Broeksma House by Tracy Metz
- 161 Residential Products

Products

- 165 Walls and Ceilings
- 169 Product Briefs
- 174 Product Literature
- 7 What's at
architecturalrecord.com
- 184 Reader Service*
- 188 Manufacturers' Spotlight
- 176 Dates/Events*
- 192 Classified Advertising*
- 186 AIA/CES Self-Report Form*



The AIA/ARCHITECTURAL RECORD Continuing-Education Opportunity is "Photovoltaic Technology Comes of Age" [page 121]

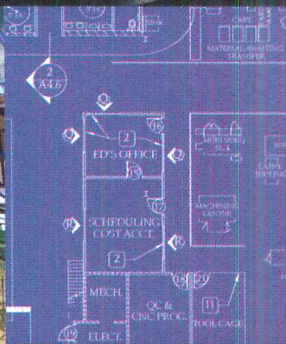
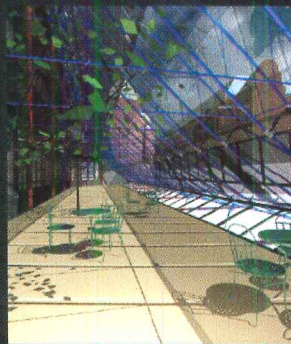
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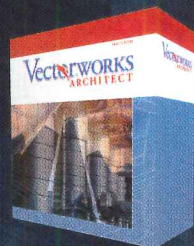
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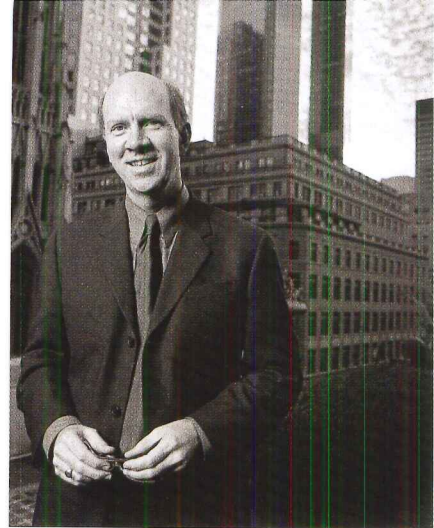
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From Dawn to Decadence

Editorial

By Robert Ivy, FAIA

If your resolutions for the new year include catching up on reading, trying to understand architectural theory by finally reading Derrida, relax. You're a decade too late. In one great ironic swoop, the debate has moved on from conceptually driven architecture to pragmatism and the delights of the marketplace. Sic transit mundi.

Like most architects, however, you may be unaware that pragmatism connotes more than common sense and hard choices: it is, in fact, a philosophical understanding eloquently propounded by thinkers like William James, Henry James' brother, with strong roots in the United States. It has been, in a sense, our national philosophy—now writ large on the world's stage.

Feel lost? For the current generation of architects raised on hype, visually acute but verbally impoverished, more cognizant of Rem than Erasmus of Rotterdam, up on James Turrell's latest installation but ignorant of Descartes' theories of light, excessive contemporary information can lead to despair. Overwhelmed with data and chatter, we can become mired in words and images, transfixed to our computers and journals, subject to the frosty breath of the media, blowing this way and that: philosophy is dead; long live commerce. Armani conquers all!

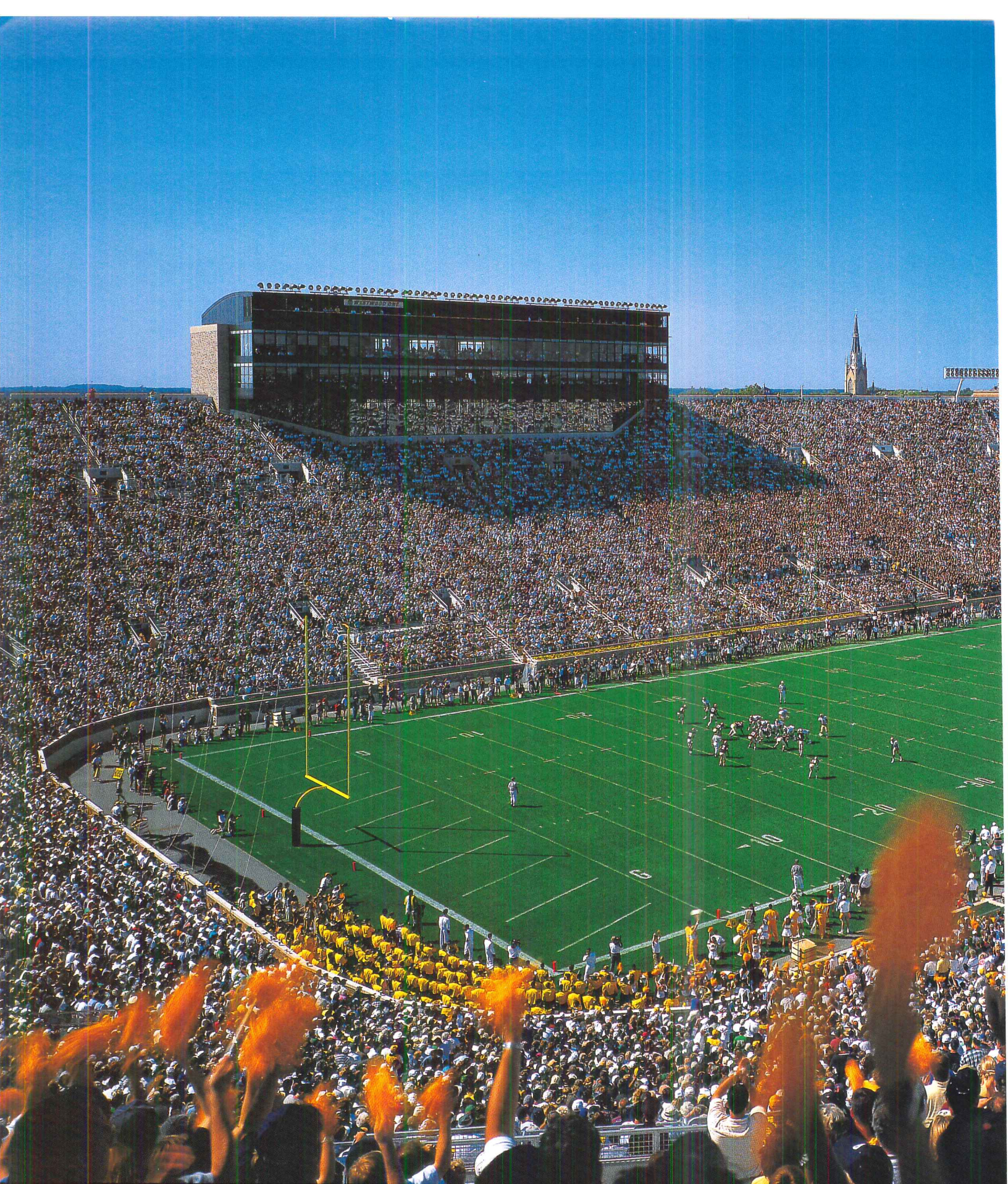
Jacques Barzun offers help. The former Columbia professor and dean has done what no media maven could do: written a learned, masterful book entitled *From Dawn to Decadence: 500 Years of Western Cultural Life*, that explains the intellectual and artistic course of the modern era. Barzun relates the intertwined threads of western culture, not as a recitation of mind-numbing wars or succession of kings, but as personal, synthetic vision of what we have thought and made and dreamed. What was the relationship, he asks, of the rise of the artist with the development of individual consciousness? How did populism and a spreading democratic ethos affect the development of public libraries? His book is the equivalent of the western civilization course you wish that you had taken, offering ready succor to the intellectually hungry.

With lucid prose and spot-on diction, Barzun tours the intellectual landscape of the centuries, heightening your taste for more. Unlike some architectural poseurs who dominate the seminar circuit, he avoids grandiloquent words and phrases, employing economy of means and expression to communicate directly with the reader. For all his accomplishments, however, it's not a perfect book. You might quibble over selective quotations or analysis that occasionally runs the risk of skimming; you may not espouse his world-view.

While the West may not be the whole world, on balance, this ambitious book succeeds, functioning both as summation and as a beginning. In a sense, Barzun provides a road map, not overexposing his subjects, but telling us what other books to explore (to better understand pragmatics, for example). His own analytical method helps clarify without oversimplification. Out of the morass of historical details, he finds larger themes that can be traced throughout five centuries—analysis, abstraction, scientism, self-consciousness, and emancipation, among others.

Along the way, he lingers at critical historical moments, such as Venice in 1650, poised like overripe fruit, or Weimar in 1790. How better to appreciate utopian architecture than to acknowledge its origins, the works of Thomas More, Francis Bacon, or Tommaso Campanella (who wrote *The City of the Sun*), or Chicago's architectural flowering in the 1890s, blessed with great new universities and suffused with imperial American buoyancy.

What application does his work have for architects? Barzun sums up his own purpose: "This book is for people who like to read about art and thought, manners, morals, and religion, and the social setting in which these activities have been and are taking place." He is describing the milieu of art and architecture, the world for which we provide the setting. Peering toward the coming year, this book offers a framework to build on—pragmatically and theoretically.



The expansion of Notre Dame Stadium added 22,000 seats to this famous football venue.

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Letters

The road more traveled

Critics of road building or the “car culture” proffer mass transit as the cure for sprawl and for transportation ills. Alex Marshall [Critique, DECEMBER 2000, page 57] fails to notice that rail-based transit systems serve a tiny minority, while the majority of transportation needs reside elsewhere and depend on the highway system, which is the most accessible and flexible system available.

We need road construction to maintain the highway system, to improve it, and to expand it. The politics of transportation funding will most likely guarantee road building far into the future, allowing the possibility of a suburban lifestyle—cars, parking lots, and all—for those who prefer it because core cities do not exist as magnets for everyone. And the low probability of the public ever embracing mass-transit options reflects not their ignorance, but the nonsense of such systems. The “masses” of “mass” transit, whoever they are, don’t live in clusters, on neat, linear paths corresponding to transit rights-of-way. To suggest that we stop building roads is a mistake, about as meaningful as the suggestion, “stop voting” until maybe there’s a better way to count votes.

—Allen E. Neyman, AIA
NSArchitects
Silver Spring, Md.

Thanks for your continuing interest in and features about urban issues. As an architect and urban planner, I appreciate the effort to keep architects abreast of what is going on in our cities and suburbs, and how it affects our lives and our futures.

Mr. Marshall’s critique [DECEMBER 2000, page 57] is right on the mark. This country was the very first to grow up with the automobile, and the car is still the ubiquitous symbol of social status, independence, and

fantasy in this country. No argument either with his proposed solution (stop building roads). In and of itself, mass transit and technology are no strangers on the list of ways to stop the degradation of our urban lives which was pointed out by Lewis Mumford 40 years ago. Knowing how to make it happen in our political/ economic system is the issue. Winning over the social/economic entrenchment enjoyed by the automobile is daunting. The vested interests in auto manufacturing, distribution, sales, marketing, and maintenance have a hammerlock on Capitol Hill, not to mention state highway departments, the oil business, insurance companies, and on and on. Even GSA won’t commit to integrating structured parking for its beautiful new courts, leaving a visual blight on their surroundings (e.g., Richard Meier’s project).

Shouting the simplistic approach is a good way to get people to think about an idea. Unfortunately, it takes a lot more small, orchestrated political steps to make one idea a reality. There are good minds that want to see Mr. Marshall’s proposal come true. But to make it to the top, they will have to have far more clout than the inventors of Earth Day ever did.

—Ken Austin
Orlando, Fla.

Students speak out

In response to Robert Ivy’s editorial, “The Keys to the Kingdom” [SEPTEMBER 2000, page 17], we, as students in the University of Oregon’s Interior Architecture program, would like to offer a different point of view regarding the interior design profession and licensure. We would like to explain why we are advocates, as well as good candidates, for licensure.

The Interior Architecture program is housed within the University

of Oregon’s Architecture Department. It was officially developed in 1928 as a result of the foresight of the members of the architecture staff regarding the trend of specialization and multidisciplinary teamwork in design. Students graduate after completing a five-year, FIDER-accredited professional curriculum.

Our course subjects cover a range of topics including: building systems, construction, life safety, spatial composition, environmental control systems, and contextual issues such as site analysis and user requirements. We are also trained in electric and day lighting, building codes, materials, surface finishes, furniture design and selection.

Graduates of this program generally go on to practice design and work in close collaboration with architects, engineers, and other designers. These graduates deserve the respect of the building profession and of the public for the extensive level of educational training and professional experience they have received. The advantage of licensure is that it creates a standard. Once this standard is set, it will reduce the misconceptions held by Mr. Ivy and much of the public about the interior design profession.

The licensing of interior designers would not, as Ivy states, “dilute the profession.” Instead, it would distinguish professionals who have received an advanced level of training, from those who have not, but who currently share the title of Interior Designer.

—Therese DuBravac, Elizabeth Goldstein, Greg Johnson, and Ellen Nystrom
Interior Architecture Program
University of Oregon

Perhaps we should preserve

It took some courage on Bob Stern’s

part to want to preserve the threatened Edward Durell Stone Huntington Hartford Museum on Columbus Circle, my least favorite building in New York [Critique, NOVEMBER 2000, page 63]. However, Stern made a convincing case in the argument that this is a historic landmark worthy of consideration.

The Landmarks Preservation Commission should hold hearings for this building and set a new criteria standard: That all New York buildings are historic until proven otherwise.

—John P. Sheehy, FAIA, RIBA
San Francisco

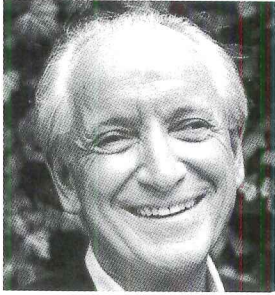
Corrections

In the October issue [PSFS, page 140] PHY was mistakenly identified as the structural engineer for the conversion of the PSFS building. It was the mechanical/electrical engineer. In the November Critique of Portland’s review process, [page 68] by Suzannah Lessard, the caption for the photos of Portland’s Chinese Garden should credit Suzhou Institute of Landscape Architectural Design as part of the design team. In the same story, transposed names should read Nancy Merryman and Candace Robertson. The last name of Ken Freidlein, author of the article on the Catlano house [News, DECEMBER 2000, page 42], was misspelled as Friedlien. The article on the Rauner Special Collections Library at Dartmouth College [OCTOBER 2000, page 158] mistakenly claimed that, aside from Webster Hall, most of the buildings on the campus were designed by Charles Alonzo Rich. His firm, Lamb and Rich, only designed 21 of almost 150 buildings on the campus. Rich did not design Baker Hall, as stated, but rather it was Jens Frederick Larson.

E-mail letters to editor-in-chief
Robert Ivy at rivy@mcgraw-hill.com



Postmodernist Graves named winner of 2001 AIA Gold Medal



Ministry of Health, Welfare, and Sport, in The Hague, by Michael Graves.

Postmodernism is not necessarily in architectural fashion at the start of the 21st century. That's why the selection of Michael Graves, FAIA, as recipient of the 2001 AIA Gold Medal is a surprise.

The American Institute of Architects (AIA) has named Graves, 66, as the 58th recipient of its Gold Medal, the highest honor the AIA confers on an individual. Graves, who is based in Princeton, N.J., will receive the award at the 2001 Accent on

Architecture awards ceremony on February 16 in Washington, D.C. The award recognizes an architect for a significant body of work and a lasting influence on the theory and

practice of architecture. Past recipients include Frank Lloyd Wright, Thomas Jefferson, Le Corbusier, Louis Sullivan, and 2000 winner Ricardo Legorreta.

"To receive an award like this from my peers is most important. That, in and of itself, is extraordinary," Graves told RECORD. "After a number of my buildings were so controversial I thought I'd never win it."

Beginning in the late 1970s and 1980s, Graves' work focused on interpretations of the traditional language of architecture, and he became one of the most celebrated Postmodernists. His buildings incorporate bold color, abstraction of tradition forms, and variations in scale. "I found that the language I was using [as a Modernist in the early 1970s] was private, so I started to find ways to incorporate humanist aspects of architecture that engage a broader audience,"

Graves told RECORD. "After those early projects, I think I've been in a period of refinement."

His recent work includes the Dolphin and Swan Hotels in Orlando, Disney Corporate Headquarters in Burbank, Calif., and scaffolding for the Washington Monument restoration. *John E. Czarnecki, Assoc. AIA*



COPELAND TAKES AIA/ACSA TOPAZ MEDALLION

Architect and educator Lee G. Copeland, FAIA, is the recipient of the 2001 AIA/ACSA Topaz Medallion for Excellence in Architectural Education.

The award, given annually by the American Institute of Architects (AIA) and the Association of Collegiate Schools of Architecture (ACSA), honors an individual who has made outstanding contributions to architectural education for at least 10 years and whose teaching has influenced a broad range of students. Copeland will be honored both at the ACSA convention in Baltimore in March and at the AIA convention in Denver in May.

"Obviously I am thrilled and very humbled by it," Copeland told RECORD. He was the dean at the University of Pennsylvania and University of Washington. **JEC**

2001 AIA Firm Award goes to Des Moines' Herbert Lewis Kruse Blunck Architecture

The American Institute of Architects (AIA) named 44-person Des Moines firm Herbert Lewis Kruse Blunck Architecture (HLKB) recipient of the 2001 AIA Architecture Firm Award. Tigerman McCurry Architects and Arquitectonica were among the firms in the running for the prize.

The annual award, which recognizes a practice that has produced distinguished architecture consistently for at least 10 years, is

the highest honor the AIA confers on an architecture firm. Past winners include Cesar Pelli & Associates, Kohn Pedersen Fox Associates, Skidmore, Owings & Merrill, and Gensler, the 2000 winner. HLKB, established in 1961, will receive the award at the 2001 Accent on Architecture ceremony, to be held on February 16 in Washington, D.C.

"It definitely is a surprise," HLKB partner Kirk V. Blunck, FAIA, told RECORD. "We often take mundane and prosaic projects and make the most out of them. For many of our clients, [the award] is a validation of their support for us." **JEC**



A recent project by HLKB (above) is the Marakon Associates interior (top).

www For more on the AIA Gold Medal, AIA Architecture Firm Award, and Topaz Medallion winners, visit www.architecturalrecord.com

OFF THE RECORD

Smith-Miller + Hawkinson Architects is beginning design for a new visitors' center building at Cornell University.

Moshe Safdie & Associates was selected for the \$300 million Metropolitan Kansas City Performing Arts Center project on December 18. Short-listed firms included Charles T. Young, AIA, with Pei Partnership Architects, Cesar Pelli & Associates, and David M. Schwarz/Architectural Services. The building is scheduled for completion in 2006.

The Denver Museum of Nature and Science has selected Hardy Holzman Pfeiffer Associates in association with HLM Design for a \$45 million science education center.

The *Chicago Tribune* reports that the Pritzker family, which owns the Hyatt Hotel chain, plans to develop a downtown Chicago building that will likely be more than 50 stories tall and include the headquarters of Hyatt Hotels Corp. and the Pritzker Organization. The Pritzkers confirm that discussions with British architect Lord Norman Foster have occurred for the commission.

New York Mayor Rudolph Giuliani threw his support behind a proposed Guggenheim Museum [MAY 2000, page 41] in lower Manhattan, along the East River. The city of New York has committed to funding approximately 10 percent of the \$678 million building by Frank O. Gehry, FAIA.

NBBJ Sports and Entertainment has been hired to design a new Madison Square Garden in New York City.

Eight firms are shortlisted for a \$250 million-plus federal courthouse in Los Angeles: Kohn Pedersen Fox, Skidmore Owings & Merrill, Zimmer Gunsul Frasca, Perkins & Will, Cannon Dworsky, Steven Ehrlich Architects, Rafael Vinoly Architects, and Richard Meier & Partners.

2001 AIA Honor Awards announced for 30 projects

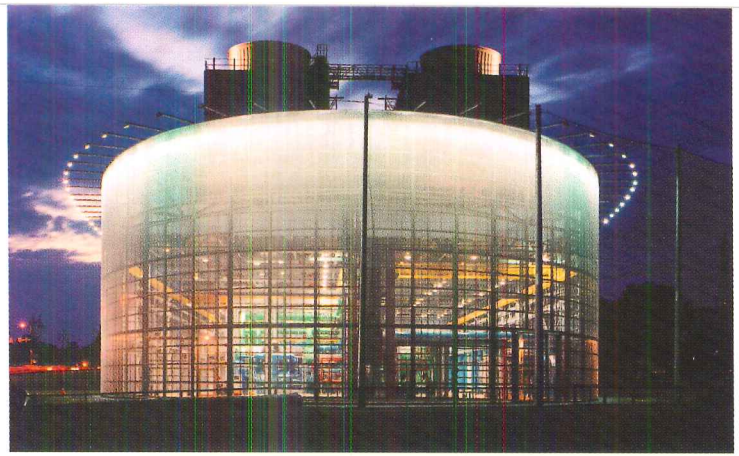
The American Institute of Architects (AIA) announced winners of the 2001 AIA Honor Awards on January 5. Also announced was the winner of the 25-Year Award, which went to the 1971 Weyerhaeuser Headquarters in Tacoma by SOM.

Honor Awards in Architecture

The 14 Honor Awards for Architecture will be awarded to Natatorium at Cranbrook Educational Community, Bloomfield Hills, Mich., by Tod Williams Billie Tsien Associates; Rifkind Residence, Wainscott, N.Y., by Tod Williams Billie Tsien Associates; Conference Barn, Middleburg, Va., by Sant Architects; Benroya Hall, Seattle, by LMN Architects; University of Pennsylvania Modular VII Chiller Plant, Philadelphia, by Leers Weinzapfel Associates; Condé Nast Building, New York City, by Fox & Fowle Architects; 11th Avenue Townhomes, Escondido, Calif., by Studio E Architects; New York Times Printing Plant, Flushing, N.Y., by Polshek Partnership Architects with Parsons Main; College—Conservatory of Music, University of Cincinnati, by Pei Cobb Freed & Partners with NBBJ; Queens Borough Public Library, Flushing, N.Y., by Polshek Partnership Architects; Hyde Park Branch Library, Boston, by Schwartz/Silver Architects; Reliance Building/Hotel Burnham, Chicago, by Antunovich Associates with McClier; McCormick Place South Building, Chicago, by Thompson Ventulett Stainback & Associates with Epstein & Sons International; and Downtown Homeless Drop-in Center, Los Angeles, by Michael B. Lehrer, AIA, and Lehrer Architects with F. Ameen.

Honor Awards in Interiors

The 12 Honor Awards for Interior



AIA Honor Award winners include a chiller plant by Leers Weinzapfel Associates (top), Reactor Films Production Studio by Pugh + Scarpa (middle), and A Civic Vision for Turnpike Air Rights in Boston by Goody Clancy & Associates (above).

Design go to Jacobs Residence Subterranean, Sherman Oaks, Calif., by Patrick J. Tighe, AIA; Alliance Française de Chicago Cultural Center, Chicago, by DeStefano & Partners; Pratt Architecture School, Higgins Hall, Brooklyn, N.Y., by Rogers Marvel Architects with Ehrenkrantz & Eckstut Architects; Lucent Technologies—Government Business Solutions, Washington, D.C., by Group Goetz; Fitch/O'Rourke Residence, Washington, D.C., by Robert N. Gurney, AIA; Herman Miller National Showroom, Chicago, by Krueck & Sexton Architects; Jin Mao Tower, Shanghai, by Skidmore, Owings & Merrill (SOM) with the Shanghai Institute of Architectural Design and Research for the Shanghai Trade Center Company; New York Stock Exchange Trading Floor Expansion by SOM; Radio City

Music Hall Restoration, New York City, by Hardy Holzman Pfeiffer Associates; Soho Loft, New York City, by Architectural Research Office; Reactor Films Production Studio, Santa Monica, Calif., by Pugh + Scarpa; and Detroit Opera House by the Albert Kahn Collaborative with JPRA Architects.

Honor Awards in Urban Design

The four Honor Awards for Regional/Urban Design go to the Racine Downtown Development Project, Racine, Wis., by Crandall Arambula; Flag House Courts Revitalization, Baltimore, by Torti Gallas & Partners CHK; Santa Monica Boulevard master plan, West Hollywood, Calif., by Zimmer Gunsul Frasca Partnership; and A Civic Vision for Turnpike Air Rights, Boston, by Goody Clancy & Associates. JEC

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CIRCLE 15 ON INQUIRY CARD

OFF THE RECORD

The Morgan Library in midtown Manhattan has chosen **Renzo Piano** for an addition and renovation. The library had considered **Hardy Holzman Pfeiffer Associates**, **Steven Holl Architects**, and **Tod Williams Billie Tsien and Associates** for the plum job.

Architectural drawings of the Clinton Presidential Center in Little Rock, by **Polshek Partnership Architects**, were unveiled at the White House in December. **President Clinton** said he had visited or examined images of all 10 existing presidential libraries and "tried to lift some of their best ideas."

Architects are interesting people. Really, they are. At least the editors at *People* magazine believe so: they printed a four-page feature on **Samuel Mockbee, FAIA**, in the December 4, 2000, issue.

To fix the swaying Millennium Bridge [AUGUST 2000, page 28] in London, **Arup** will add dampers at a cost of \$7 million. The bridge is not expected to reopen until summer 2001.

Koning Eizenberg Architecture of Santa Monica, Calif., was selected in a competition to design an expansion to the Pittsburgh Children's Museum—a \$10 million energy-efficient building to connect the neoclassical former Allegheny Post Office Building to the Buhl Planetarium, an Art Moderne structure. **Mack Scogin Merrill Elam Architects** of Atlanta placed second and New York's **Reiser + Umemoto** took third place.

The **American Institute of Architects** is considering Las Vegas, Miami, and Detroit as possible host cities for the 2005 AIA Convention. Futures conventions will be in Denver in 2001, Charlotte in 2002, San Diego in 2003, and Chicago in 2004.

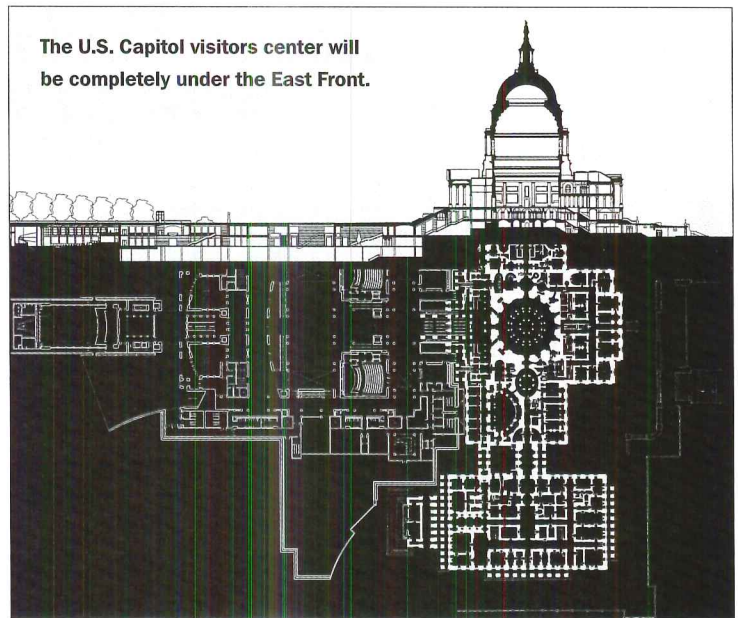
Chicago architect **Stanley Tigerman, FAIA**, has been chosen to design a new Holocaust memorial and education center in the Chicago area.

U.S. Capitol visitors' center gains approval

Visitors' centers are usually highly visible near the attraction. That will not be the case for the United States Capitol visitors' center, which is planned to be completed underground, beneath the East Front of the Capitol. The bipartisan Capitol Preservation Commission unanimously approved the design in October, and construction is expected to begin later this year. Completion is planned for 2005.

The \$265 million visitors' center will have three stories underground, beneath the Capitol parking area and a landscaped area by Frederick Law Olmsted. It will include two orientation theaters, historical displays, a cafeteria, and rest rooms to accommodate the 3 million tourists who visit the Capitol each year.

A great hall, with 30-foot ceilings and walls of sandstone and limestone, will be a welcoming point for visitors who now endure long lines outdoors in sweltering summer



heat. Parts of the facility, particularly a 450-seat auditorium, will be used by Congress. A series of rooms will be designated for members of Congress to meet with constituents and guests. Spaces such as libraries and storage are planned for the future needs of Congress.

The architect of record for the 600,000-square-foot project is the Architect of the Capitol. The associate architect is RTKL Associates, and museum exhibits are designed by Ralph Applebaum Associates.

"The two great roles of the project," according to Bruce Milhans of the office of the Architect of the Capitol, "are accessibility and education. We really want this to be a learning experience for visitors to the building, so they can understand the history of the Capitol and the nation."

A loading dock and truck bays will be located below grade, preserving views of the Capitol while also camouflaging deliveries and enhancing security. *Ellen Sands*

Officials reach agreement on Fan Pier; shortlist announced for ICA

City of Boston and State of Massachusetts officials reached an agreement December 6 to proceed with the Fan Pier development (below), which could be the largest waterfront project in Boston's history. Fan Pier, proposed by Chicago's **Nicholas J. Pritzker**, is planned as a \$1 billion development on the South Boston waterfront, adjacent to the U.S. Courthouse by **Pei Cobb Freed and Partners**. The Pritzker family, owners of the Hyatt hotel chain, assembled the coveted waterfront land over a number of years, and they are planning just under 3 million square feet of development in eight buildings, including offices, retail, approximately 650 condominiums, and two hotels. A new home for Boston's Institute of Contemporary Art (ICA) will be on the Fan Pier waterfront cove.



The master plan was developed by Toronto-based urban design and planning firm **Urban Strategies**, with Boston's **CBT/Childs Bertman Tseckares**. Landscape architect **Michael Van Valkenburgh Associates** will design the parks and streetscapes. **Spaulding & Slye Colliers**, the Pritzkers' Boston partner, is working with **Urban Strategies** on an architect selection process for each building; the only confirmed selection is RTKL for a Grand Hyatt. Construction on the first buildings will likely begin in late 2001 or early 2002, with buildings completed in phases from 2004 to 2007.

The proposed ICA would be the first museum to be built in Boston in nearly a century. On December 12 the ICA announced a shortlist of four architectural firms that will be vying for the museum commission this spring: **Diller + Scofidio** of New York; **Office dA** of Boston; **Studio Granda** of Reykjavik, Iceland; and **Peter Zumthor** of Haldenstein, Switzerland. The 60,000-square-foot, \$35 million museum is scheduled for a 2004 opening. *JEC*

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CIRCLE 16 ON INQUIRY CARD

Austrian Holocaust memorial by British sculptor Rachel Whiteread unveiled in Vienna

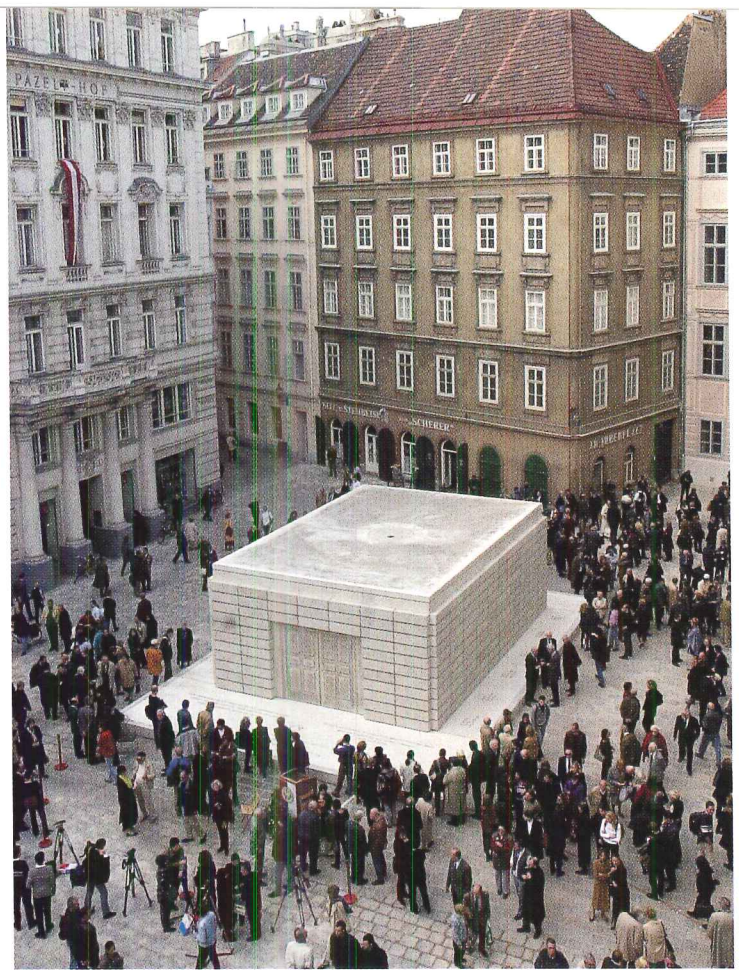
Fifty-five years after the end of the World War II, a memorial to the 65,000 Austrian Jews killed by the Nazis was unveiled this fall in Vienna. Designed by British sculptor Rachel Whiteread, the stark, concrete monument is a ghostly pale symbol of a gruesome past.

Whiteread, 37, won the international competition to design the monument in 1995, two years after she won the Turner Prize for Contemporary Art—the highest award in the British fine-art world—for “House,” a full-scale concrete cast of a two-bedroom home in north London. Although there is clear creative continuity between “House” and the Vienna memorial, that’s where the similarity ends.

The construction of the Holocaust memorial has been plagued by delays and controversy. From Vienna’s chief rabbi to the Austrian president, almost everybody had an opinion about the memorial’s appearance. The result was a five-year struggle from conception to completion.

Located in Judenplatz, the historic square in Vienna’s Old Town where Mozart composed *Così Fan Tutti*, Whiteread’s memorial is a dramatic interruption in the medieval streetscape. Standing 12 feet high, 24 feet wide, and 33 feet long, it takes the form of an inverted library. The doors do not open and the books’ spines face inward on the eggshell-colored minimalist block. Unread book pages represent the countless un-lived lives; the names of Nazi camps are inscribed around the block’s base.

The construction of the memorial took place against a backdrop of far-right politics. Jörg Haider’s Freedom Party has reminded Austria (and the rest of the world) of the threat posed by extreme nationalist politics. The memorial opened amid recriminations and accusations between Austria’s political and religious institutions. One of the issues that Whiteread and the city authorities had to overcome was the question of whether building on top of a former synagogue (excava-



The memorial to Austrian Jews killed in the Holocaust is in Vienna’s Judenplatz.

tions revealed the remains of a medieval synagogue on the site) is against Jewish law.

Speaking after the October opening, Whiteread said, “It has taken five and a half years of sheer

hell to get this done. Would I do it again? I truly don’t know.” Her next project, a transparent cube for a vacant plinth in London’s Trafalgar Square, seems certain to be less traumatic. *Adam Mornement*

Donald Trump plans skyscraper for Berlin’s Alexanderplatz

New York’s best-known citizen—in Germany, at least—is planning a skyscraper for Berlin. Donald Trump is talking to city authorities about a \$400 million mixed-use building in Alexanderplatz, which could include office space, apartments, a hotel,

and a convention center. While an architect has not been chosen and details of the deal have not been finalized, Trump spokesman George Ross said a final decision on development was expected in December.

Among the busiest areas of the city before World War II, Alexanderplatz is one of Berlin’s most famous sites. The area, heavily damaged during the war, was rebuilt by the German Democratic Republic in a mostly stark, brutalist style (left) in the following years.

After reunification, the city’s planning

department organized a 1993 invited competition for a new master plan. The winner of the eight-team competition was Hans Kollhoff, one of Berlin’s leading architects. Kollhoff’s design, which resembles Rockefeller Center, had 12 skyscrapers of equal height with brick curtain walls rising from a base of six-story structures. Construction never started on Kollhoff’s plan due to a difficult market for office space.

The German newspaper *Die Welt* has reported that Hans-Ullrich Gruber, a Trump associate in Germany, claims that Trump has secured American companies as tenants. Because the property is city-owned, Trump is theoretically

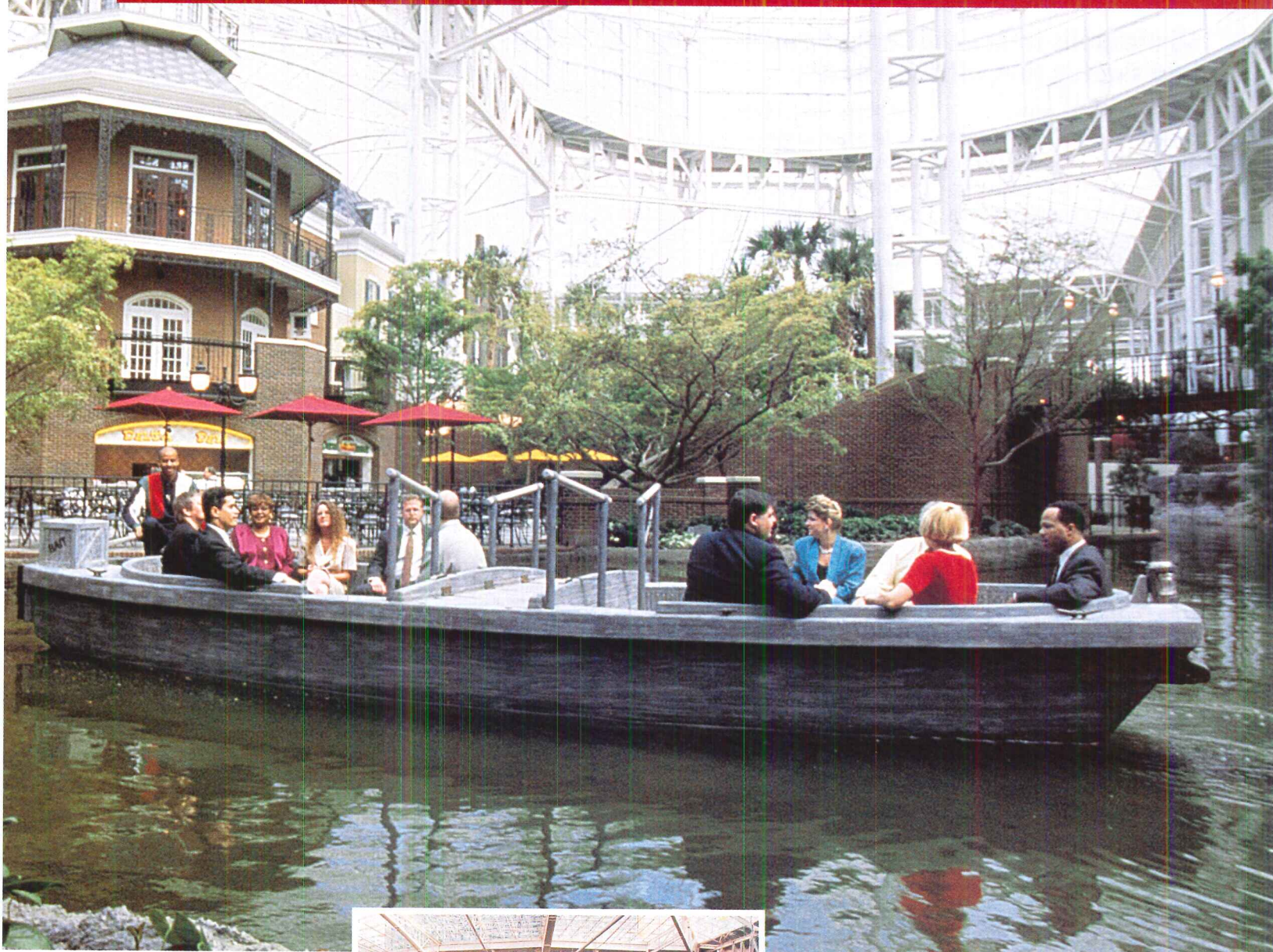
required to give the commission to Kollhoff—or at least to one of the 1993 competition participants. Among them are Daniel Libeskind of New York and Joseph Paul Kleihues, known in the U.S. for his Museum of Contemporary Art in Chicago.

The master plan limits the height of the towers to 450 feet. While tall for Berlin standards, it is short for Trump. Given the lack of developers, the city is inclined to allow Trump to build higher, as long as Trump’s building does not surpass the 1,200-foot broadcasting tower, Alexanderplatz’s postwar iconic landmark. Among local residents, though, there is already strong resistance to the “Manhattanization” of Berlin. *Eva Schweitzer*



A tower by Donald Trump may be built (right in photo, near basketball court) in Alexanderplatz.

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Minneapolis train depot transformed into skating rink with two hotels

Only in the frozen north of Minneapolis could ice skating spark a major historic preservation effort. Now, thanks to a local consulting engineer's idea, a glass-enclosed ice rink opened in December in one of the few surviving long-span, truss-roofed train sheds in the country, Minneapolis' Milwaukee Road Depot. The 16-acre depot complex will soon be completely transformed, adding to the city's riverfront revitalization.

The 1898 depot, a classic Renaissance Revival landmark with clock tower, will be restored and linked to a new Marriott hotel. A second Marriott with indoor water park is also under construction opposite the train sheds. The hotels, by Minneapolis firm Elness Swenson Graham Architects, will be complete in spring 2001.

After Milwaukee Road trains stopped running in 1971, a parade

of developers proposed a variety of grandiose plans for reuse of the complex, including a trade center, agricultural forum, and giant casino. All such schemes failed, but city interests persisted. In 1992 the Minneapolis Community Development Association (MCDA) acquired the property and began cleanup of the polluted site. Shea Architects of Minneapolis was retained in 1995 to refurbish the depot's pink granite facade. Brad Lemberg, an ice rink designer with Independent Consulting Engineers in St. Paul, measured the train sheds and convinced Shea Architects team that glass-enclosed ice rinks could easily fit inside the attached structures. When the pollution cleanup was



A landmark 1898 Milwaukee Road train depot is being transformed into a skating rink (left) with two hotels in downtown Minneapolis.

completed in 1998, Shea and MCDA approached St. Paul-based developer, CSM Corporation, which, having handled many Marriott hotel adaptations, saw potential for connecting the depot with two hotels.

A new standing-seam metal

roof tops the ice rink structure, with lacy steel trusses gleaming once again. Half of the ice rink is home to the Twin Cities Figure Skating Club, and the other half can be rented for special events.

Bette Hammel

Ford Field, new home of Detroit Lions, will have luxury suites in adjacent warehouse building

The architects of Ford Field, future home of the Detroit Lions football team, hope to do for football stadium design what Baltimore's Camden Yards did for baseball stadiums—elevate a once routine building form into something special that engages the nearby downtown.

Design architects Rossetti Architects of Birmingham, Mich., and architects of record the SmithGroup of Detroit fit the oversized stadium sensitive-

ly into the surrounding streetscape. The playing field will be built 45 feet below street level, and most of the 65,000 seats will also be below street level, close to the field. The result is a smaller stadium profile that blends with surrounding buildings.

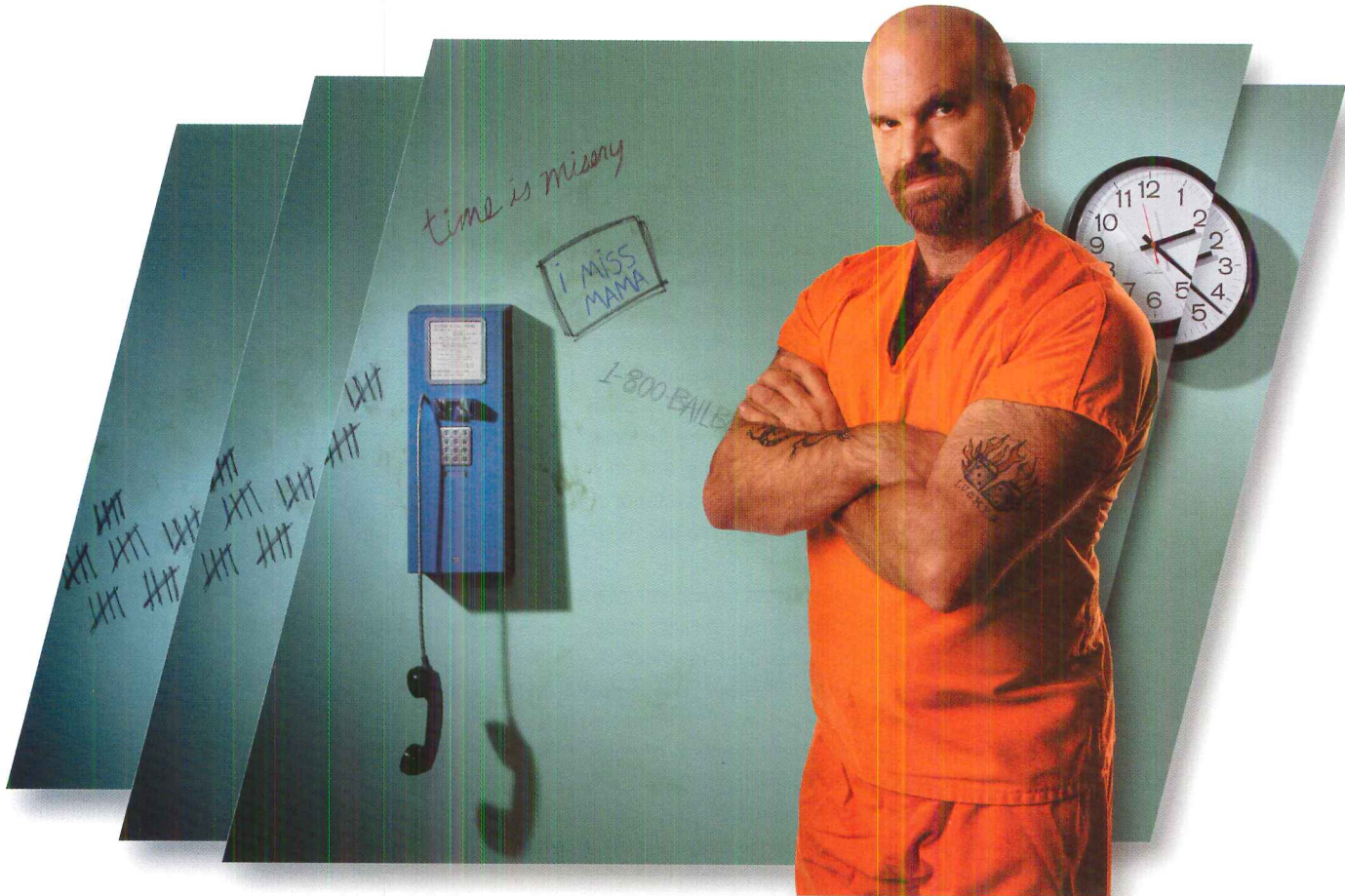
Now under construction next to Comerica Park (the new home of the Detroit Tigers baseball team), Ford Field will be ready for the 2002 football season. Along with the nearby renovated Fox Theatre and the Detroit Opera House, both elegant makeovers of 1920s movie palaces, the \$250 million Ford Field will complete the main elements of Detroit's evolving sports/entertainment district.

Plans show a stadium with a six-story glass atrium, views of the Detroit skyline, luxury suites built into a historic landmark building forming one side of the structure, and an indoor street of restaurants and shops similar to Underground Atlanta.

The stadium's most dramatic feature will be the incorporation of the historic six-story Hudson's Warehouse, once used for department-store storage. Approximately 120 suites will be built into three warehouse levels. Developers have set aside other portions of the warehouse for future amenities, including restaurants, shops, sports bars, and perhaps even a hotel.

John Gallagher





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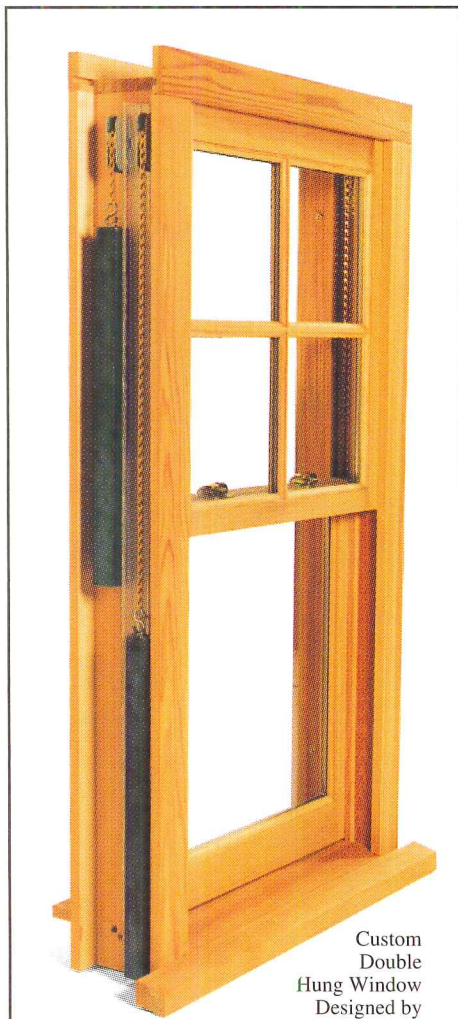
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CIRCLE 19 ON INQUIRY CARD

Record News

Rijksmuseum to select architect for \$180 million renovation

In a cultural project of unprecedented scale in the Netherlands, the national Rijksmuseum in Amsterdam is planning a \$180 million renovation to enhance exhibition space. The museum, which opened in 1800, will restore the 1885 neo-Gothic building by Pierre Cuypers; add new shops, restaurants, and an auditorium; and reopen two interior courtyards, which will serve as public squares.

Seven architects have been invited to complete preliminary designs in a competition. Three of the invited architects are Dutch: Cees Dam of Dam & Partners, Hubert-Jan Henket, and Erik Knippers. The other four are Paul Chemetov of Paris, Heinz Tesar of Vienna and Berlin, Cruz & Ortiz of Seville, and Francesco Venezia of Naples. An architect will be chosen in spring 2001, and renovations will begin in late 2003. The museum's south wing will serve as a sort of mini-Rijksmuseum for the duration of the pro-



A renovation is planned for Rijksmuseum in Amsterdam.

ject. The museum is scheduled to reopen in 2006.

The Rijksmuseum and Amsterdam's Stedelijk Museum for Modern Art, which has longstanding plans for an extension by Portuguese architect Alvaro Siza, may be closed at the same time. However, art lovers in Amsterdam can enjoy the Kisho Kurokawa addition to the Van Gogh Museum, which opened in 1999. *Tracy Metz*

GSA co-hosts Mayors Institute focusing on federal structures

Mayors from five U.S. cities convened at the American Institute of Architects headquarters in Washington, D.C., in December for the 14th annual Mayors Institute on City Design, which focused on how federal buildings are tools for community and economic development. Participants included mayors of Cedar Rapids, Iowa; Gulfport, Miss.; Laredo, Tex.; Rochester, N.Y.; and Springfield, Mass. Conducted as a roundtable discussion and ideas symposium, the institute offered the mayors an opportunity to present a specific design project from their community and solicit input from a resource team of architects, planners, and government representatives.



Mayors Institute participants

The institute is a partnership between the National Endowment for the Arts, the U.S. Conference of Mayors, and the American Architectural Foundation. The U.S. General Services Administration (GSA) co-hosted the event for the first time this year. GSA, which constructs and manages federal government

buildings, has taken on a growing role in urban planning issues and increased its involvement with local communities. "We make real-estate decisions every day that have real impact on

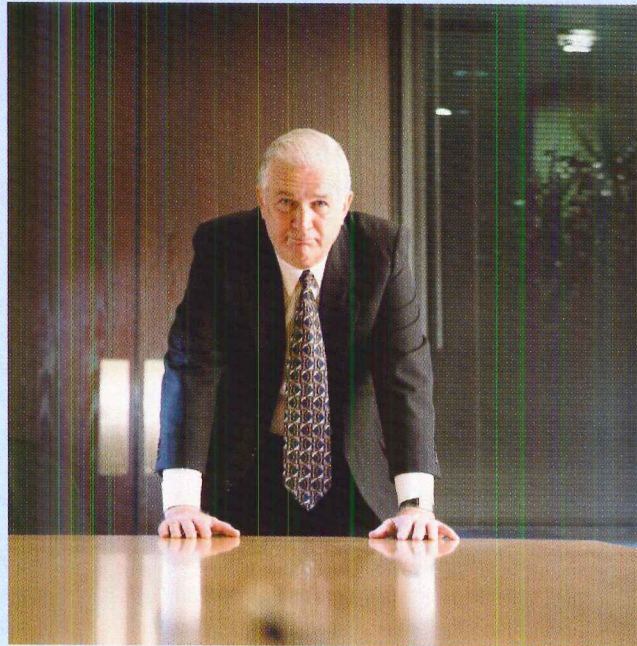
people and their communities," notes Hillary Altman, director of GSA's Center for Urban Development.

The new partnership with GSA is one example of the recent trend in which cities accomplish their longterm planning and development goals by joining with

GSA. "This is what cities are doing today, and it's where the GSA can make a difference in the decision-making process," says Altman.

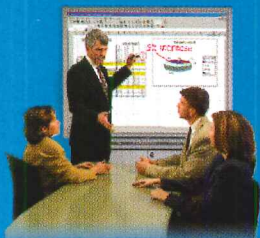
Each mayor presented a project and a list of questions for the resource team. Projects ranged from a new county courthouse in Gulfport, Miss., to a border bridge and resulting revitalization of downtown Laredo, Tex. In each case, the mayor received input from the resource team regarding topics such as economic incentives to spur growth and methods to link pedestrian and vehicular traffic. *Ellen Sands*

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CIRCLE 21 ON INQUIRY CARD

Record News



Neighborhood Transformation Initiative to remedy Philadelphia blight

More than 25,000 residential and commercial structures in the City of Philadelphia are in danger of immediate collapse. After months of working with volunteer task forces from the city's most heavily blighted neighborhoods to resolve the problem, Philadelphia Mayor John F. Street presented a \$250 million Neighborhood Transformation Initiative (NTI) to City Council on November 1, 2000.

Along with mass demolition, this anti-blight plan encourages property redevelopment and neighborhood reinvestment through an early acquisition program that grants property ownership before official ownership is approved. The NTI calls for \$130 million to tear down buildings deemed in danger of immediate collapse, \$40 million to demolish scattered residential buildings, \$20 million to tear down decaying commercial and industrial buildings, \$55 million for home-improvement loans and property acquisitions, and \$5 million for a computerized inventory sys-

tem to track the program. In two months between August 22 and October 21, 2000, more than 200 collapsed properties were demolished, costing the city \$2 million.

"This program is not just about demolishing buildings," says AIA Philadelphia 2001 president Janis Woodcock, AIA. "It is about working beyond the scope of the anti-blight initiative to redevelop the entire city."

NTI Director Patricia Smith agrees. "We are seeking a long-

term redevelopment solution that will redefine Philadelphia's built environment. This is not just a plan to get rid of blight. This is a social, economic, and cultural redevelopment project."

The program, recalling Philadelphia founder William Penn's "green countrie towne" vision, seeks to redesign rowhouse neighborhoods into housing configurations of lower density with more green spaces.

On December 5, 2000, the city announced its first redevelopment project: After winning a Pennsylvania Housing Finance Agency grant under Smith's counsel, the Latino community group Asociación de Puertorriqueños en Marcho (APM) will build 50 three-bedroom houses, complete with private yards and parking, in North Philadelphia. Federal agencies and the Pew Charitable Trusts will provide supplemental funding for this \$3 million project, scheduled to begin in February 2001.

Joseph Dennis Kelly II

Philadelphia Mayor John F. Street has introduced a plan to aid the city's blighted neighborhoods (above and below), where more than 25,000 structures are in danger of immediate collapse.





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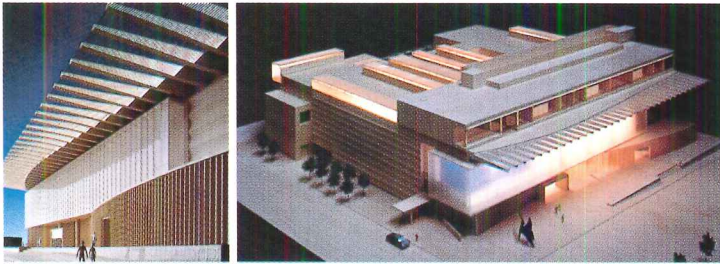


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CIRCLE 22 ON INQUIRY CARD

News Briefs



The Austin Museum of Art's curved wall of glass with aluminum fins (left).

Museum as projection screen

A design for the Austin Museum of Art by Gluckman Mayner Architects has been approved by the museum's board of trustees. Groundbreaking is set for this spring. The 141,000-square-foot building, scheduled to open in 2003, will have 10 galleries, an education complex, and a film center. At the Art & Technology Gallery there will be an exterior wall of translucent glass onto which images can be projected at night. Most of the exterior will be

clad in horizontal scallop-patterned panels of precast concrete. A public roof terrace will run the length of the two-story building and is intended for special events. Galleries will have natural light with a cast-in-place skylight system.

AIA has toll-free number for services

The American Institute of Architects (AIA) has a new toll-free phone number to access fax-on-demand and member-services assistance: 1-800-AIA-3837.

AIA may enter agreement with exhibition company for national convention

The AIA's board of directors, at its December meeting, authorized management to enter into negotiations for the possible sale of a 49 percent interest in the AIA's national convention asset to Reed Exhibition Companies. A governance policy for preserving proceeds from resulting sales will be developed.

Hollywood producer to head Drexel architecture program

Jonathan Estrin, a Hollywood producer, director, and writer, has been named dean of Drexel University's College of Design Arts, which has degree programs in architecture, interior design, graphic design, photography, and fashion design. Drexel will soon have masters programs in architecture and industrial design. Estrin produced 44 episodes of the television



Estrin

show *Cagney & Lacey* and the 1992 mini-series *Danielle Steel's Jewels*, and he has been nominated for Emmy, Golden Globe, People's Choice, and Cable ACE awards.

Foundation established in Hejduk's memory

Soundings: The John Hejduk Foundation for Architectural Research has been established in memory of John Hejduk, former dean of the Irwin S. Chanin School of Architecture at the Cooper Union in New York City. Hejduk died of cancer on July 3 at

age 71. The foundation will award 13 fellowship stipends annually in various disciplines, including architecture and design arts, book arts, writing, history, theory, music composition or sound, and the visual and medial arts. Soundings

will also raise funds to build Wall House 2, designed by Hejduk in the early 1970s. To learn more, visit www.soundingsfoundation.org.

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CIRCLE 23 ON INQUIRY CARD

News Briefs

Harry Weese Associates becomes part of Gensler

Chicago firm Harry Weese Associates is closing its office and joining Chicago's Gensler office, the two companies announced December 5. Two Weese partners, James Torvik, AIA, and David Munson, AIA, will join Gensler, and job offers will be made to the rest of Weese's staff of about 25. Gensler has about 2,500 employees worldwide and had 100 employees in Chicago before the deal. The Weese name will no longer be used by Gensler. Harry Weese designed the original Washington, D.C., Metro subway stations.

AQUA mixes Modern buildings with New Urbanist plan

A number of notable architects have designed buildings for AQUA, a high-end residential community on the southern tip of Allison Island, off

Miami Beach. Duany Plater-Zyberk completed the master plan for the 8.5 acres, which will include 46 island homes, three mid-rise loft and condominium apartment buildings, as well as a day-care center, health club, and offices. Architects designing individual buildings include Hariri and Hariri, Alison Spear, Walter Chatham, Alexander Gorlin, Brown and Demandt, and



AQUA will be a high-end residential island community of modern buildings.

Emanuela Frattini Magnusson.

Although the community is planned by New Urbanists, most of the buildings are intended to be Modern. Construction begins this year and will be complete in 2003.

NAAB to oversee EESA for NCARB

The National Architectural Accrediting Board (NAAB) is the new provider of architectural education evaluation services for the National Council of Architectural Registration Boards (NCARB), as of January 1. The NAAB will oversee Educational Evaluation Services for Architects (EESA), which assists individuals who wish to apply for NCARB certification or for registration by an NCARB member board and who do not have a professional degree in architecture from a NAAB-accredited school of architecture. EESA often works with internationally educated applicants and broadly experienced architects without a professional degree.

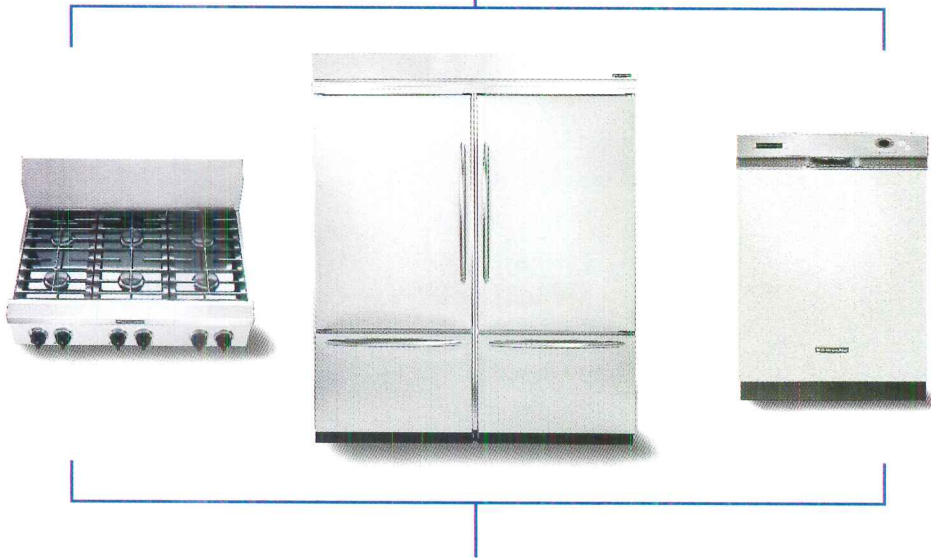
Jáuregui wins Harvard GSD

Green Prize The Harvard University Graduate School of Design awarded the Green Prize to architect Jorge Mario Jáuregui and his firm Jorge Mario Jáuregui



Community building by Jáuregui

Architects in a December 6 ceremony. Jáuregui received the award for his groundbreaking work in revitalizing Rio de Janeiro shantytowns with new public buildings (above), public plazas, and roads. The Green Prize is awarded biannually to recognize excellence in urban design internationally, and it has a cash prize in excess of \$20,000. An exhibit of the work of Jorge Mario Jáuregui Architects continues at GSD through January 12.



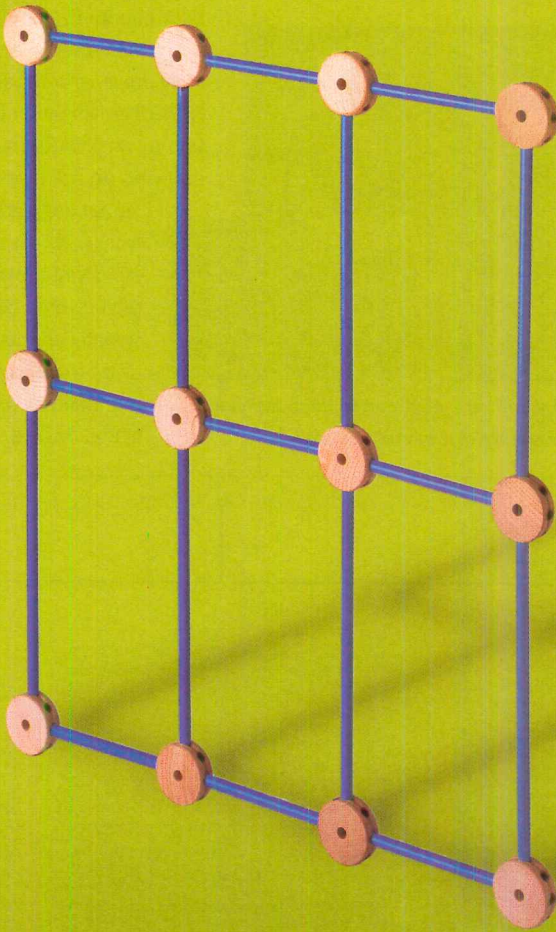
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Istanbul: Where sultans' palaces meet new architecture

Correspondent's File

By Bette Hammel

With its domed mosques, tapering minarets, majestic Ottoman palaces, and magnificent site at the confluence of the Bosphorus Straits, Istanbul became famous through the ages as the crossroads of civilization. Today, its romantic history confronts architects with increasing challenges as they struggle to blend shiny new office towers with historic buildings of the past. Compounding these problems are the ever-growing masses—currently 13 million people live in Istanbul.

"It's not easy to have a master plan when there are 500 people moving in every day," says architect Dogan Hasol, an editor at *Yapı* magazine and vice president of the Istanbul Foundation of Architecture. "We have good architects and bad architecture," asserts Hasol. "The problem is the city is very large and very populated, so we don't have consistent plans and the land is often occupied illegally. This situation causes big problems for good architects."

Hasol says most new buildings should be kept at the edge of the city or built around Istanbul's three zones. Fortunately, in the old city—where the Blue Mosque, Hagia Sophia, and Topkapi Palace still stand as works of centuries-old architecture—a master plan restricts building height. However, no plan exists across the Golden Horn—the old harbor—in the more European district. "We made mistakes

Bette Hammel, a freelance journalist based in Minnesota, specializes in architecture.

in this area, like building high-rises behind palaces. We changed the skyline of Istanbul," laments Hasol.

At Süzer Plaza, he points out the Gokkafes, a 40-story blue glass skyscraper topped with a red house-shaped grid and designed by local architects Doruk Pamir and Ercüment Gumrük. The skyscraper was recently completed on what had been green space behind the 19th-century Dolmabahçe Palace. Istanbul has some examples of good contemporary architecture, but they are spotty.

Skyscraper district

Most of the new towers are now clustered in a skyscraper district located off two major highways and a busy thoroughfare. One complex completed in August, the Is Bank, occupying 2.3 million square feet, stands out for its distinctive Western-style contemporary design. Is Bank is one of Turkey's oldest and largest financial institutions. Designed by the New York firm Swanke Hayden Connell Architects (SHCA), the \$150 million complex consists of three similar towers on a four-story granite base. The tallest tower, at 50 stories, will be the bank's main headquarters. From the 41st floor up, the largest tower steps back in a zigzag sawtooth. One of two matching 34-story towers is owned by a bank holding company, Sise Cam. The third is leased to a number of companies. Constructed of blue insulating glass with aluminum frames and stainless-steel bands at parapet level, the Is Bank complex stands out along Istanbul's skyline.

SHCA principal architect Altan Gursel admitted that while the firm was excited about working with the client, there are difficulties in working in Turkey. Project architect Anadi Dutta, who worked closely with the contractor, the Tepe Group, insisted on using American standards of

trolling structural design, restrictions for building in the earthquake zone were lifted last fall. Hasol says homes were built on loose soil without proper structural knowledge. Now the government is constructing many new houses and opening up a bidding process. People are living in



Istanbul, Turkey, on the Bosphorus, has been the capital of three empires.

construction. Because Istanbul is located in Turkey's earthquake zone, special consideration was given to provide up-to-date seismic design for the tower's structure, curtain wall, and granite applications.

Since the recent catastrophic earthquake in Turkey, which heavily damaged poorly built housing developments on the outskirts of Istanbul, quality housing continues to be a critical architectural issue in burgeoning Istanbul. Following new governmental regulations for con-

temporary housing or tents while architects work furiously on plans for affordable new housing.

Turkish suburbs

A lively economy is boosting construction overall in Istanbul, and a few local architects are designing high-end residential communities. M&N Butler Mimari, which practices in Çengelköy on the Asian side of the Bosphorus, is one firm involved in a large development project aimed squarely at young professionals.

Correspondent's File

Casaba, a development of more than 800 homes, is located on forested lands north of Istanbul on the Asian side. Principal architect Mark Butler says it is one of the area's first large-scale housing development aimed at the upper-income group. More than 200 houses have already been sold. Housing types vary from single-family two-story units to rowhouses and one-story homes. "We tried to get a lot of variation into the project with fairly subtle designs," says Butler. Facades of the houses are basically stucco with some wood

cladding and shingle roofs. In typical American style, Casaba will have a village center with pool, social club, and other amenities. Many other Turkish and foreign consultants, from various design disciplines, are also providing services in the Casaba project.

Turkey has more than 35,000 architects, with nearly 12,000 in Istanbul alone. Those working privately must be members of the Chamber of Architects, while those employed by the government do

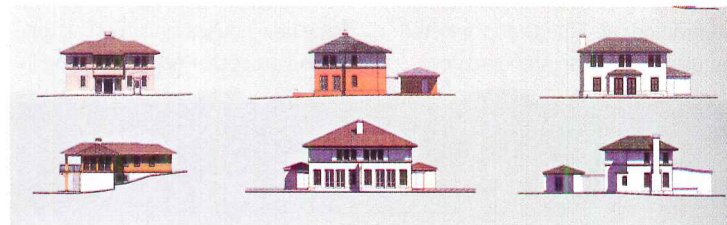
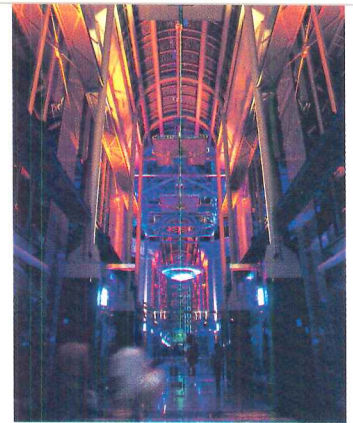
not. The Chamber is primarily a registration office, not a professional organization like the American Institute of Architects (AIA), but through the Istanbul Foundation of Architecture, members are striving to establish an AIA equivalent.

Frasca Partnership of Portland, Ore. ARUP International has a Turkish office and designed the Istanbul Culture and Congress Center currently under construction.

Today Istanbul is a modern city in every way. Like other cities of its size, it is furiously debating the merits of building a subway system, new bridges, and more stadiums. No doubt that the steady stream of high-rise tower construction will continue. The hope is that visionary leaders, architects, and planners will retain and enhance the past of this city while still pursuing the new. ■



Swanke Hayden Connell's Is Bank complex (left) features a colorful lobby.



Turkish dream? Prototypes for a residential community called Casaba.

Americans learn the ropes

Although American architects may find it difficult to carry through their projects in Turkey, offices like SHCA have learned the ropes. The American Consulate currently has plans for a new headquarters building in Istanbul by Zimmer Gunsul

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Our image culture and its misguided ideas about freedom

Critique

By Juhani Pallasmaa

DEPARTMENTS

Today's architectural publications project an air of self-assurance, excitement, and optimism, presenting alluring formal innovations as signature objects of art. Concealed beneath an explosion of architectural imagery, however, is a less encouraging prospect: architecture is becoming an endangered art form. Architecture is threatened by two opposing tendencies of our obsessively materialistic and hedonistic culture: paradoxically, shrewd techno-economic exploitation simultaneously turns buildings into instruments of vulgar utility and objects of calculated visual seduction.

We live in an era of shallow, momentary impressions that emphasize image over essence in everything from individual behavior to fashion and politics. Even buildings compete for attention with consumer lifestyle commodities. But a collection of idiosyncratic buildings does not make for a sane architectural culture. The role of architecture is not to entertain or thrill us but to structure our understanding of the world and of our very existence, to articulate how the world touches us, to use an expression of Maurice Merleau-Ponty. Architecture creates frames for action, thought, and emotion. It gives expression to human institutions and establishes a hierarchy for them. It articulates

*Juhani Pallasmaa, a practicing architect and professor of architecture at the University of Technology in Helsinki, is the author of several books, including *Eyes of the Skin: Architecture and the Senses*.*

the interplay between background and foreground, normality and uniqueness, grayness and color, the commonplace and the celebrated.

Today's architecture, however, seems to have become increasingly detached from its cultural context and collective soil. As a consequence, architecture is losing its authentic existential ground and turning into aesthetized fabrication. Instead of structuring and integrating experience, our buildings frequently contribute to disorientation and meaninglessness.

One reason is that the values and ideals of the architectural profession have become confused. Formalism and whim have replaced a sense of balance, arbitrariness has replaced reason, and arrogance has replaced compassion. True architectural talent is not to be found in the realm of formal or spatial fantasy but in an understanding of the essence and hierarchies of the human landscape and mind. Architecture calls simultaneously for expression and restraint, innovation and a consciousness of history, courage, and modesty.

Disturbing conservatism

A particularly disturbing aspect of today's image culture is an architectural conservatism that wishes to impose classical attributes on modern buildings. An example is the building designed for 21st-century scientific uses but clad in quasi-medieval garb. Architecture is one of our most fundamental existential expressions, and it communicates simultaneously on several levels. We

are usually affected only by the surface message and ignore the unintentional unconscious messages, but they are the most significant ingredient in a work of art. In my view, the message of concealing science and technology behind medieval architectural elements is clear and alarming. It is a rejection of the contemporary world, a reflection of a disoriented, split identity, and an alarming cultural escapism. In 1934, when the world was focused on the rise of Fascism, the American Modernist architect George Nelson interpreted the Third Reich's classicizing stone architecture, whose overt purpose was to evoke authority and awe, as an unconscious tendency toward self-destruction. He recognized that classicism's dark side carried unintended architectural symbolism. Today we need an equally penetrating analysis of the secret architectural expressions of our age. What should we make, for example, of the necrophilia expressed by some of the most technologically advanced buildings in history, some contemporary hospitals and international airports?

Architecture that focuses on aesthetic effects emphasizes the photogenic, instantaneous qualities of visual imagery detached from existential reality. One reason that buildings have lost their tectonic presence and material authority is that our speed- and control-obsessed culture favors an

architecture of the eye that provides instantaneous imagery visible from a distance. A tactile architecture, by contrast, promotes intimacy, appreciated and comprehended gradually like images of the body and the skin. In *Touching: The Human Significance of the Skin* (1971), Ashley Montagu writes, "We in the Western world are beginning to discover our neglected senses. This growing awareness represents something of an overdue insurgency against the painful deprivation of sensory experience we have suffered in our technologised world." Touch, not vision, is the sensory



Calming repetition in the Procuratie Vecchie on St. Mark's Square in Venice.

Critique

mode that integrates our experience of the world and ourselves. It unites even visual perceptions and integrates them into an extension of the self. Tactile experience evokes the experience of a temporal continuum. Vision, by contrast, places us in a continuous present. The flatness of today's architecture extends

imagination may be becoming impoverished.

Beauty is always the result of nonaesthetic, often mundane concerns, such as a quest for precision, truthfulness, sincerity, or simplicity. Beauty that takes a lasting hold of our emotions arises from a full sense of life, with all its complexities and

OUR INNATE CAPACITIES OF IMAGINATION MAY BE BECOMING IMPOVERISHED.

to temporal experience; we live in a world of flattened time.

The prevailing flatness of buildings is reinforced by today's construction processes and a weakening sense of materiality and craft. In addition, computer imaging reduces the plasticity and emotive power of architectural structures to two dimensions. It is disturbing to think that, in the era of the high-tech image, our innate capacities of

contradictions, not from mere visual imagery or sensory pleasure. True artistic beauty, unlike momentary seduction, projects a timeless and unattainable ideal. Buildings are not just visual compositions; they are magical, mediating structures that evoke and enhance images of life.

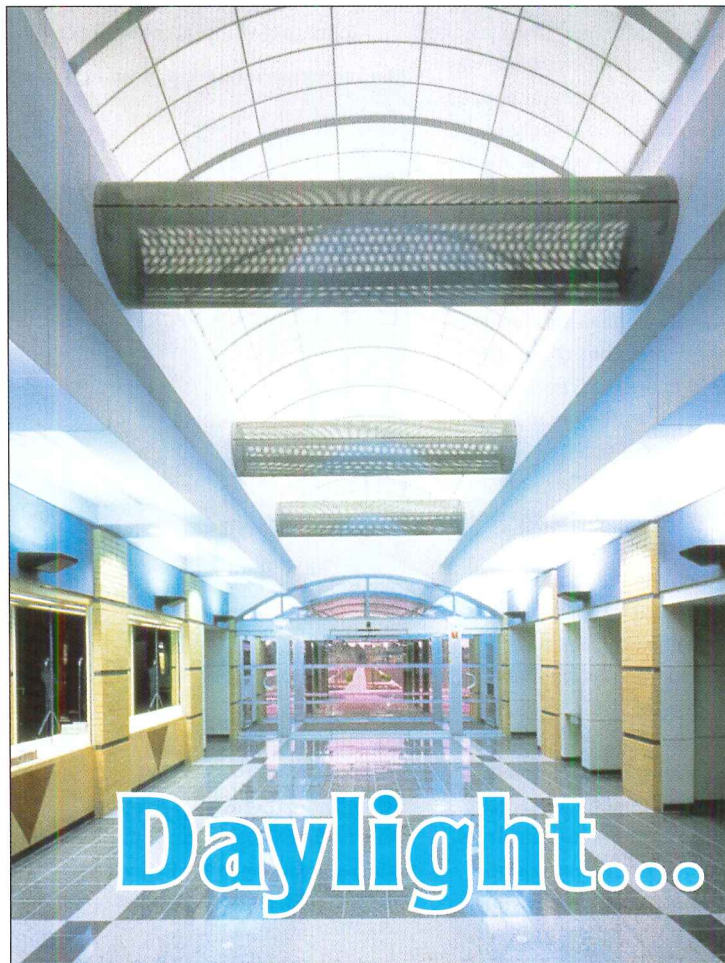
Today the cult of the eye and novelty has led, on one hand, to formal elaboration and articulation and, on the other, to reduction ad

absurdum. But architecture is a discipline of noble restraint and repetitiousness; buildings are made up of repeated structural units and patterns of materials and detailing. One only needs to recall the noble and calming repetitiousness of the Procuratie Vecchie on St. Mark's Square in Venice, or of the buildings of Mies van der Rohe.

A mistaken notion of freedom is partly to blame for architecture's essential losses. Journals and juries praise projects for the "freedom" of their expression. Yet, great creative individuals hardly ever speak of such a shallow notion; they are concerned with the inherent limits and challenges of their discipline and its materials, not with attempting to emancipate themselves from these essential realities. In his seminal book *Escape from Freedom* (1969), Erich Fromm distinguishes between freedom from something and freedom for something. Fromm argues that our pursuit of illusory freedom deprives us of the ability to utilize our actual freedom.

The task of architecture is not to free buildings from anything but to weave them into an existing cultural continuum that has collective significance. A building moves us when it succeeds in reverberating with something concealed in our humanity, and when it echoes images and sentiments stored in our subconscious. Architecture is not a formal game or an exposition of novelties. Architecture is not an art form of pure self-expression. Architectural meaning resides in human experience. It is evoked in the acts of occupying and inhabiting space, in one's experiences of space, matter, gravity, and light.

A significant work of architecture is never the product of a single individual. It is always a collaboration with history and tradition, with the silent wisdom of the discipline of architecture. An architect who understands the essence of his craft accepts his role as a builder of a tradition, and he places his work in the context of this continuum with combined humility and pride. ■



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21st Century

East Columbia Library, Columbia, MD Architects: Grimm & Parker

Civic engagement: The architect as a university leader

Practice Matters

By Harris M. Steinberg, AIA

Architecture is a social art. Indeed, a public trust exists between the profession and society-at-large. In their study *Building Community: A New Future for Architecture Education and Practice*, the late Ernest Boyer and Lee Mitgang argued that the future of the profession depends on our collective ability to advance the knowledge base of the profession, tackle complex social problems, and seek admittance to the highest levels of decision making within the worlds of business and politics.

While architects have traditionally been involved in the social fabric of their communities—serving on planning commissions and design review boards—it has been estimated that up to 50 percent of architects do not enter traditional practice. What happens when the architect steps out of his or her traditional role and enters another profession? Does this person cease to be an “architect”?

James Barker, FAIA, feels that he has never ceased to be an architect, even though he is now president of Clemson University in Clemson, S.C. He earned the president’s chair after having successfully distinguished himself in both the worlds of traditional practice and academia. Barker didn’t set out to become a high-level academic. After receiving his bachelor degree in architecture from Clemson

Harris Steinberg is a founding partner of Steinberg & Stevens Architects. He is actively involved in the revitalization of Germantown Avenue in the Philadelphia neighborhood of Mt. Airy.

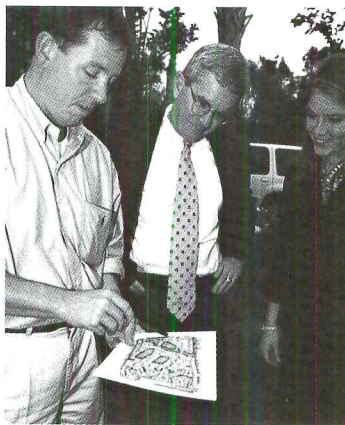
in 1970, he worked in a traditional practice setting before returning to school to obtain a master’s degree in architecture and urban design from Washington University in St. Louis in 1974. After graduate school, Barker began practicing and teaching. He served as dean of the School of Architecture at Mississippi State before returning to Clemson in 1986 as the dean of its College of Architecture.

During that time Barker was given a rare opportunity. Asked to help reorganize the university’s nine colleges into four, he helped create Clemson’s new College of Architecture, Arts, and Humanities.

The college gives students the opportunity to see how the design studio experience applies to many other disciplines. “Suddenly students in the humanities were involved in studioliike experiences,” says Barker. This pedagogical model has since moved to other colleges and disciplines at Clemson, in engineering and the sciences, for example, affording students across disciplines the ability to engage in “project-based teamwork in which students step out of traditional classroom settings and solve real problems.” In 1999 Barker was appointed president of the university.

Energized by the academic cross-pollination that is occurring at Clemson, Barker believes that there is more work to be done. “I think that it’s time for architectural education to move from the intellectual fringe of the campus to its very heart.” The architecture faculty at

Clemson is committed to this new curriculum, which uses the humanities to help its architecture students become more engaged in culture and which requires all architecture majors to have a minor degree. “It’s most likely the minor will be in one of the humanities,” says Barker. “We also require four years of foreign language study. All of this is aimed



As president of Clemson University James Barker, FAIA (center), has shown the studio education experience can apply to other disciplines, like engineering and the humanities.

at saying, ‘If you want people to be at the center of culture and society when they graduate, you must educate them at its center.’ We have to teach architects so that they feel comfortable within the center of culture instead of at its edge.”

“If you let me put the word ‘practice’ in quotes, I am practicing architecture. I am building teams of people to solve problems. I am trying to encourage creativity in members of that team and I am trying to use a nontraditional way of

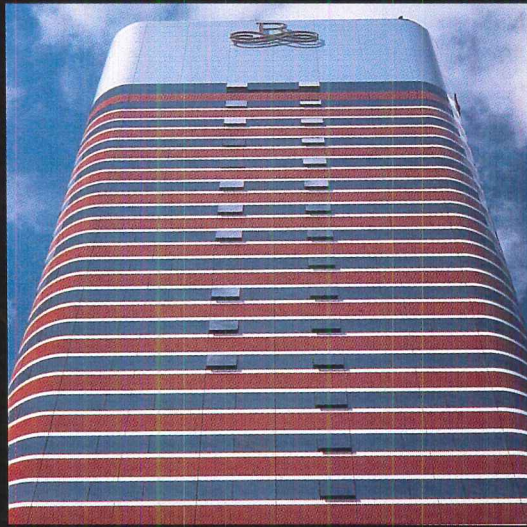
thinking about problems to help solve them.” As an emissary of the architectural profession, Barker uses his position as university president to reach out to architects and encourage professional interaction and dialogue on campus-wide design issues.

“Every once in a while I’ll review a set of drawings and have a presentation,” says Barker. “We set up a series of morning presentations of work that is currently under way on campus. All of the firms that are working on campus arrange their schedules so they can be here and they all sit in on each other’s work. It’s like a jury and it’s fascinating. The architects see what their colleagues are doing and they like the fact that I’ve tried to pull them into the conversation and treat it as a sort of exploration.”

The road from architect to academic leader has been a long one. But what Barker has done is a good example of what Boyer and Mitgang have said that architects can do to assure that the profession will have an important role in determining the future of our profession. “A university president should have vision,” he noted. “It is thinking about things architecturally and with creativity. It is thinking about the future with some degree of creativity and using your imagination and having a balance between rational and intuitive thinking, which architecture certainly prepares you to do. I can’t imagine coming to this job without having had an architectural education.” ■



A Panel Discussion



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CIRCLE 30 ON INQUIRY CARD

Snapshot



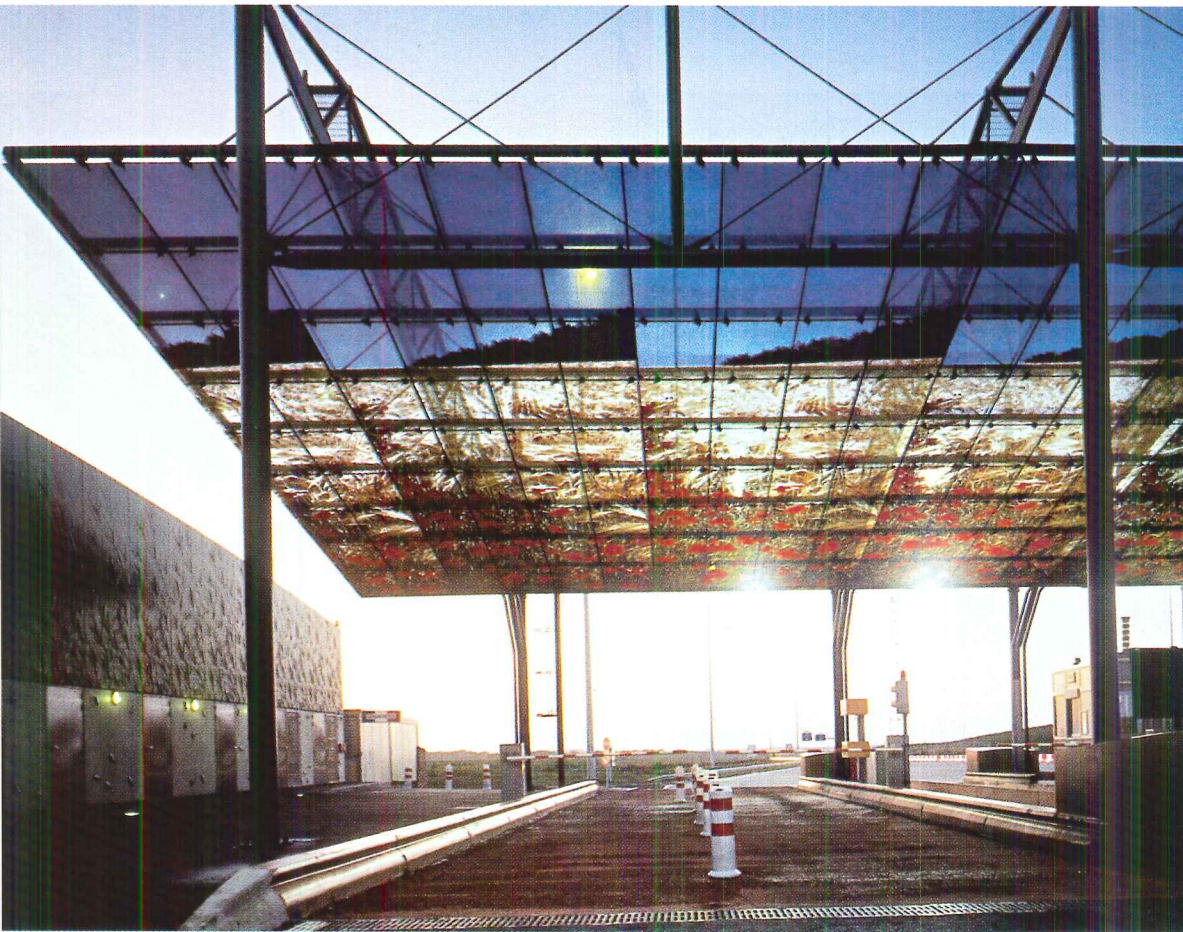
By Ingrid Whitehead

France's Picardy region is known for its spectacular Gothic cathedrals, stately châteaux, World War I battlefields and memorials, as well as the distinctive landscapes of the Nièvre valley and the white-cliffed coastline running from Boulogne to Calais. The ancient and the modern meet up on the road in Picardy, and if you find yourself driving your Citroën (vintage DS21M, 4-speed model, of course) through the region—perhaps from the capital known as “the city of art and architecture,” Amiens, to the channel-port town of Boulogne—you may be pleasantly surprised by the whimsical and modern attractions along the historic route.

Five tollbooth/rest stops designed by French architect Manuelle Gautrand stand out on the A16 motorway. The Society of Freeways of the north and east of France (SANEF) hosted the competition for the toll stations—an attempt to offer motorists an alternative to the usual roadside stops, which were unimaginative structures regarded as unsafe and unclean. Gautrand's design addresses these issues with the use of innovative materials

Five French tollbooths put whimsy on the road

Snapshot



At the Abbeville Nord station in Boulogne (left), the imagery of red poppies luminously glows on the canopies overhead. The photographic images, reflecting the nearby regional landscape, have been enlarged 300 to 400 times. Playful round bathrooms (preceding page) provide a humorous accent to the colorful canopies.

and lighting, and offers motorists a moment of pleasing architecture on their route, whether or not they choose to stop. Like bright little jewels along the unbroken chain of highway, these structures are treats for weary traveler's psyches, as well as their eyes.

Huge serigraph silk screens on glazed canopies dominate the toll stations, with images reflecting the natural landscape. Travel along and you'll encounter: Abbeville Nord station, with imagery of brown and red fields of poppies; Côte Picarde, with greenery inspired by the forest of Crécy; Etaples/Le Touquet, with shades of ocean blue; Neuchâtel/Hardelot, a dark green aerial image; and Boulogne Sud, the end of the line brilliantly announced with bright yellows inspired by fields of oilseed rape. "Each image reflects a key aspect of the surrounding area," says Gautrand, "thus connecting travelers immediately with the region. I was inspired by the Gothic cathedrals, as well as the landscape." All the photographic images are enlarged 300 to 400 times, and whether day-lit or lamp-lit by night, exhibit a colorful luminosity not unlike stained-glass windows.

Other materials include leaf-shaped steel clamps for the glass and painted concrete walls and slabs under the canopies—a different color for each station. Bulbous toilet rooms constructed of bright polyester resin bring a humorous touch to the stops. Sinks are located outside the toilet areas, in traditional French style. The unique rest stops reveal that function and playfulness can meet up in the most unusual places, and provide moments along life's road whether or not your mode of transportation is a vintage French car. ■

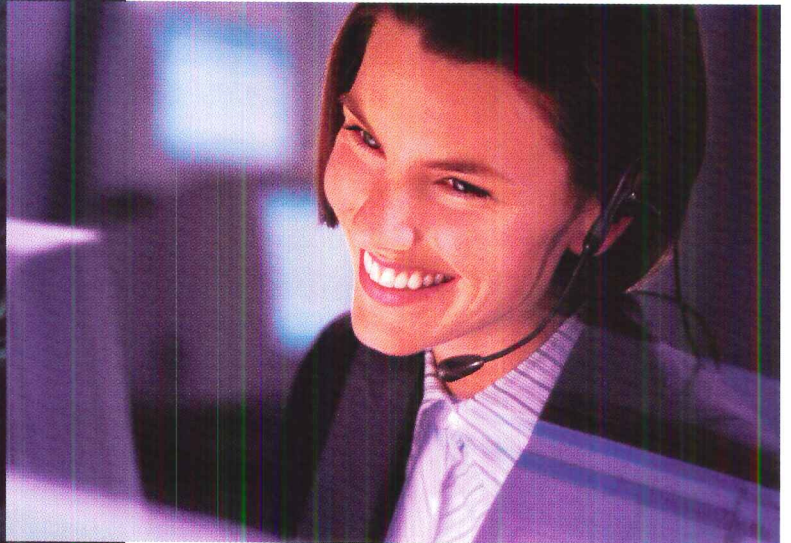




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CIRCLE 32 ON INQUIRY CARD

LIGHTING & BUILDING TECHNOLOGY

This is the first of several features about how architects and technical innovators work together to advance the state of architecture, which RECORD will run periodically throughout 2001.

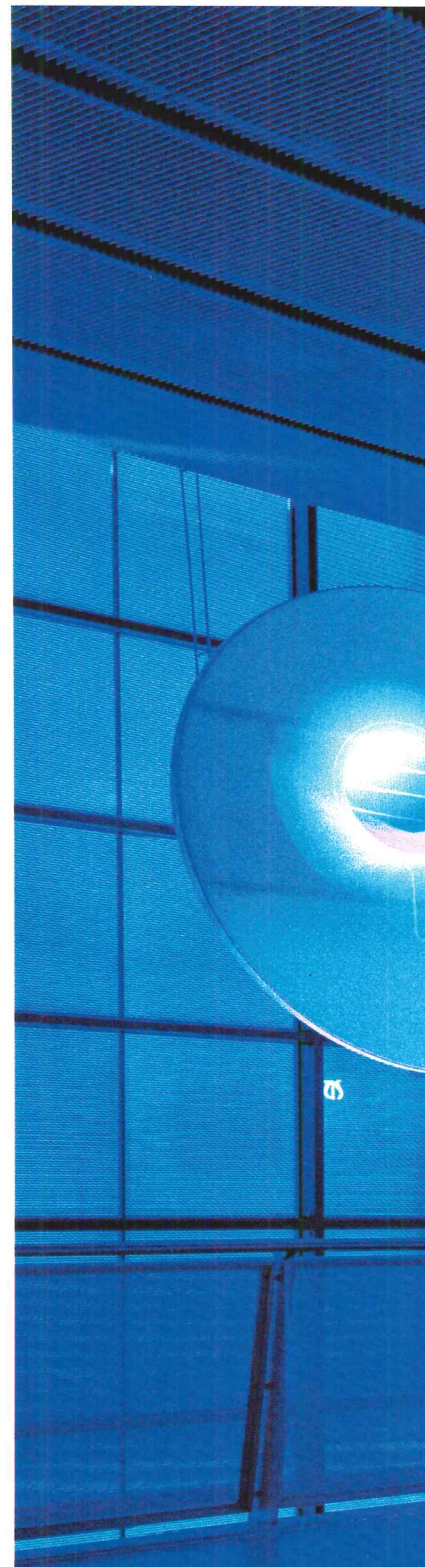
combine to
make a
perfect match

By Sara Hart

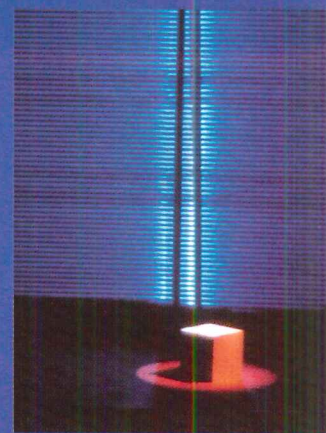
Richard MacCormac faced a daunting program when his London firm, MacCormac Jamieson Prichard (MJP), was awarded a high-profile commission to design the Wellcome Wing, a 118,400-square-foot addition to London's Science Museum, the most visited museum in Great Britain. The trustees wanted the new home for contemporary science and technology exhibitions to be flexible, practical, and efficient, while being theatrical and iconic at the same time.

MacCormac's first sketch was a single volume with floors floating in a field of deep blue. To him, blue is the color of technology, emanating from the ubiquitous monitors that are integral to the Information Age. It's also the color of humankind's first primitive perceptions of water and sky. Furthermore, the architect had been enamored of the deep blues in the light installations of conceptual artist James Turrell. By placing the blue light at the periphery, he could free the interiors for displays. At this point, he turned to the ambiguous interiors of his muse, John Soane, the 18th-century British architect who, MacCormac says, "took the energy out of the center of the space and moved it to the periphery by using light."

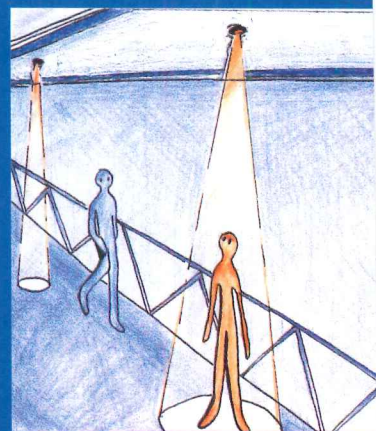
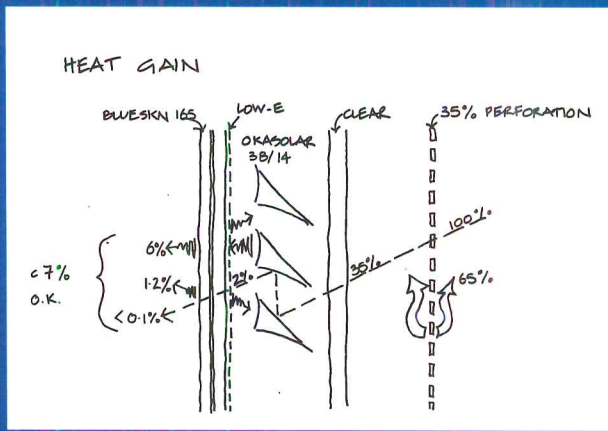
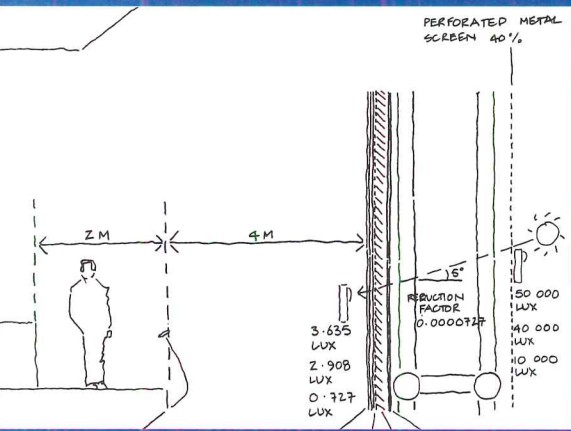
To create powerful optical illusions and avoid a kitschy atmosphere, MacCormac needed a true collaborator rather than a consultant. In Dutch lighting designer Rogier van der Heide, he found a scientist with an artist's insight. By manipulating the physical properties of light and color, the Dutch designer found the right formula, which would allow the architect to achieve his dramatic theater. Rogier van der Heide, principal of Hollands Licht, a lighting design company in Amsterdam, discovered a notice



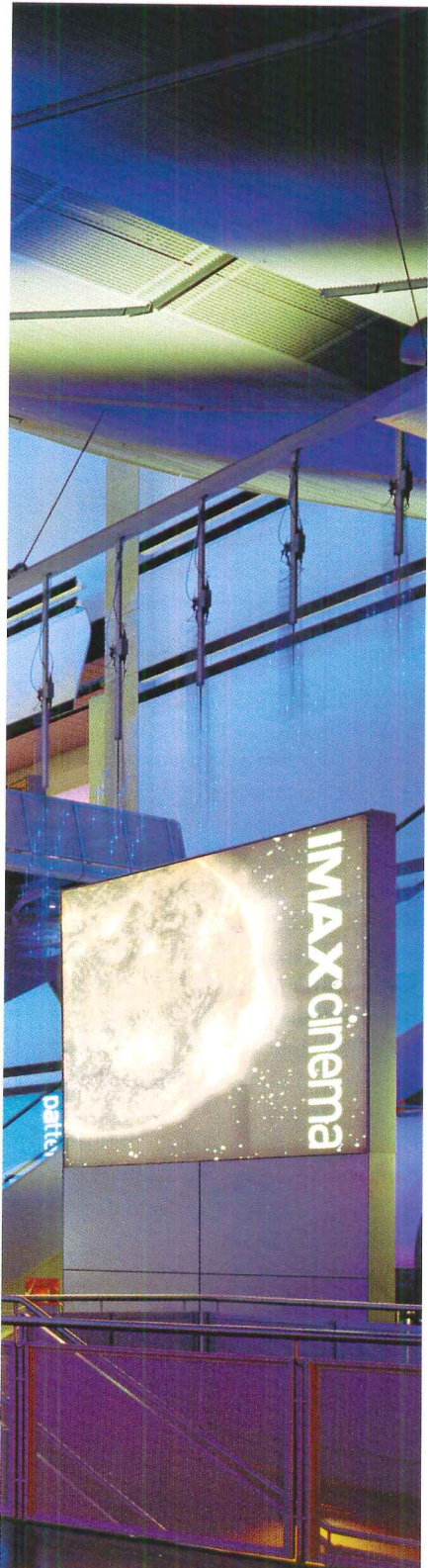
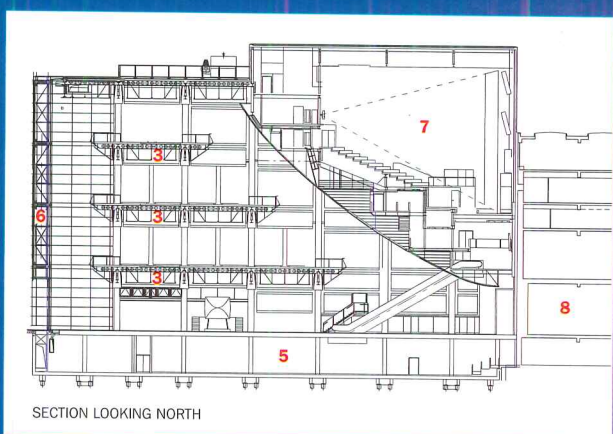
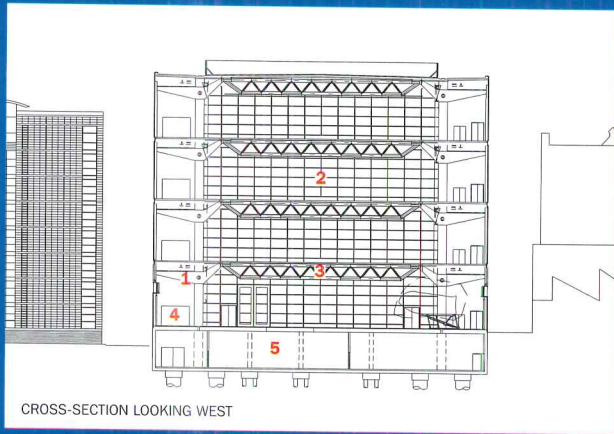
PHOTOGRAPHY: © ROOS ALDERSHOFF



Visitors enter through a tunnel of brilliant orange lightboxes (above, left). "Orange is the opposite of blue," van der Heide says. "The eye's receptors adjust for orange first, so it takes longer for them to adjust to the blue, making the initial experience more dramatic. Van der Heide and MacCormac ensured that the exhibition lighting would not be overwhelmed by blue light flooding in from the windows along the exterior walls (above).



1. "Gerberette" supporting exhibit "trays" (typical)
2. "Blue" wall beyond
3. Exhibition tray (typical)
4. Stairwell
5. Basement
6. "Blue" wall structure
7. Imax theater
8. Existing museum



about the new wing and its architect on the museum's Web site. Intrigued by MacCormac's themes of transparency and illusion, van der Heide called him. "We talked about the use of light in his concept for a museum as theater. The next day I was on a plane to London," recalls van der Heide. In MJP's office, they bonded over the idea of creating a glowing blue space and spent the next two years experimenting with materials and methods to create a theatrical experience congruous with a new generation of museum content.

The approach to the Wellcome Wing takes visitors through "The Making of the Modern World," a chronology of innovations and inventions from the past 200 years—trains, planes, and automobiles, among early X-ray devices and the first computers. It also represents the first generation exhibition design—weighty, stationary objects frozen in a spotlight. MacCormac's vision was an inversion of this traditional practice, since this journey through the past would arrive at the threshold of the future. In contrast to the existing displays, the artifacts in this new arena would be smaller, interactive, and animated, emanating light as often as receiving it.

MACCORMAC TOOK THE ENERGY OUT OF THE CENTER OF THE SPACE AND MOVED IT TO THE PERIPHERY, USING LIGHT.

MacCormac began the building the space by spanning the exhibition floors between large pivoted steel cantilevers, called gerberettes. The gerberettes, in turn, are supported on massive concrete columns at the north and south walls. This accomplished two design goals. It reduced the depth of the floor trusses by reducing the amount of steel needed for the span. By tapering the edges of the floors as they come to rest on the gerberettes, they become lightweight trays, creating the illusion that they are suspended in air.

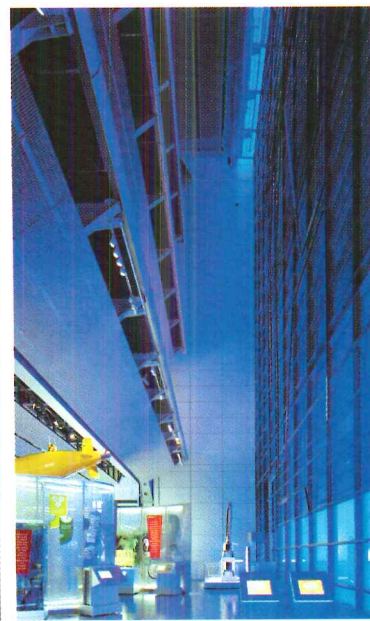
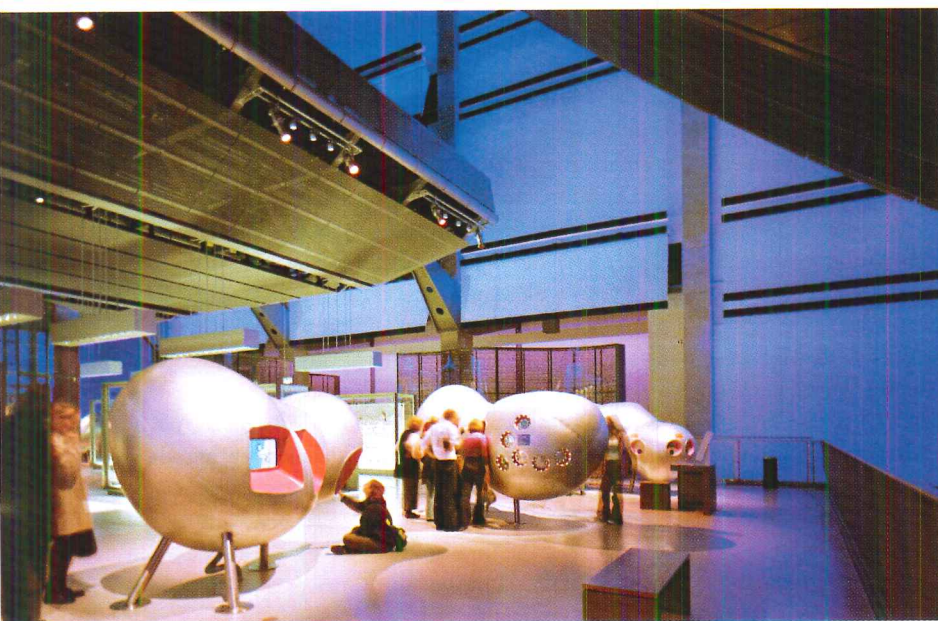
The effect is further magnified by the materials. The deck is a mere six inches of concrete resting on a series of deep trusses that form an accessible catwalk under the deck for maintaining the mechanical and electrical equipment and reconfiguring the exhibition lighting onto the floor below. The bottoms of the trays are clad with industrial steel grillework, which can appear opaque or translucent, depending on the viewer's angle.

MacCormac kept the wing's massive volume open by suspending the IMAX theater from the east end over the entrance. The grille-clad underbelly of the theater slopes

Some of MacCormac and van der Heide's conceptual sketches detail their ideas about the functioning of the blue wall and the interior lighting (opposite left). Trusses form accessible catwalks under each floor deck for maintaining the mechanical and electrical equipment and reconfiguring the exhibition lighting onto the floor below (opposite).



PHOTOGRAPHY: © ROOS ALDERSHOFF



Much of what is ingenious about the collaboration of architect MacCormac and lighting designer van der Heide is the sophistication with which the structural system of the floors, catwalks, and walls have been integrated into blue wall. While the depth of the wall hides massive concrete columns, its luminosity disguises the fact that tremendous loads are being carried within.

upward, dramatizing the height of the space. MacCormac dissolved the concrete north and south walls by hanging fiberglass mesh scrims in front of them. Van der Heide then washed the painted concrete surfaces behind the scrims with a custom luminaire he designed to give an even flood from a short distance.

The 100-by-100-foot wall is constructed of three components, each one essential to the overall performance. The internal component is made of blue glass, a layer of polished aluminum louvers, and an outer layer of clear glass. The exterior component of perforated aluminum

PHYSICAL MODELING IS STILL THE STATE OF THE ART FOR LIGHTING DESIGN, NOT COMPUTER CALCULATIONS.

panels reduces heat gain. The tremendous weight of these components is supported by a structural system five feet deep located between the two. Primary trusses are made of hollow circular steel sections with pairs of bow trusses within the primary ones to resist wind loads. The whole complex wall system is held up by three pairs of V-shaped, high tensile steel bracing rods. Acting in tension, they direct the loads diagonally to two pairs of support points at the top of each end of the curtain wall. The wall hangs like a bridge from the supports, which are connected to brackets cast into concrete shafts at each end.

Although the curtain wall may appear to be over-engineered, its

performance as a theatrical device is more critical than its function as part of the building envelope. Blue has a narrow bandwidth, making it difficult for the human eye to recognize contrasts. "I selected a very narrow bandwidth of deep blue, which makes it difficult for the eye to judge depth of and focus on the blue plane," explains van der Heide.

In an era where engineering is heavily dependent on computer simulation to provide structural, mechanical, and lighting solutions, architect and lighting designer took a more empirical approach using scale models. "Software doesn't understand materials," says van der Heide. "Physical modeling is still state of the art for lighting design, not computer calculations." When potential solutions were narrowed to a manageable set, the design team returned to Hollands Licht scale studio in Amsterdam. There, van der Heide's model makers created large-scale facsimiles of a section of the curtain wall. Using a sulfur fusion lamp, which can simulate the strength of actual sunlight, accurate measurements are taken. "It's inspiring to present to a client a physical model that is so close to the final product," says van der Heide, implying that computer renderings too often present an idealized version.

The collaboration between MacCormac and van der Heide continues. Together they designed the *Ruskin, Turner, and the Pre-Raphaelites* exhibition at the Tate last spring and turned conventional curatorial practice on its head by saturating the walls with intense colors and bold lighting effects. Art and science are fermenting in the studio at this minute. ■

Two hands are held palm up against a dark background. The left hand has the words "RIGHT HAND" written on it in a white, hand-drawn font. The right hand has the words "LEFT HAND" written on it in the same font. Between the two hands, the text "V." is written, completing the phrase "RIGHT HAND V. LEFT HAND".

RIGHT HAND V. LEFT HAND

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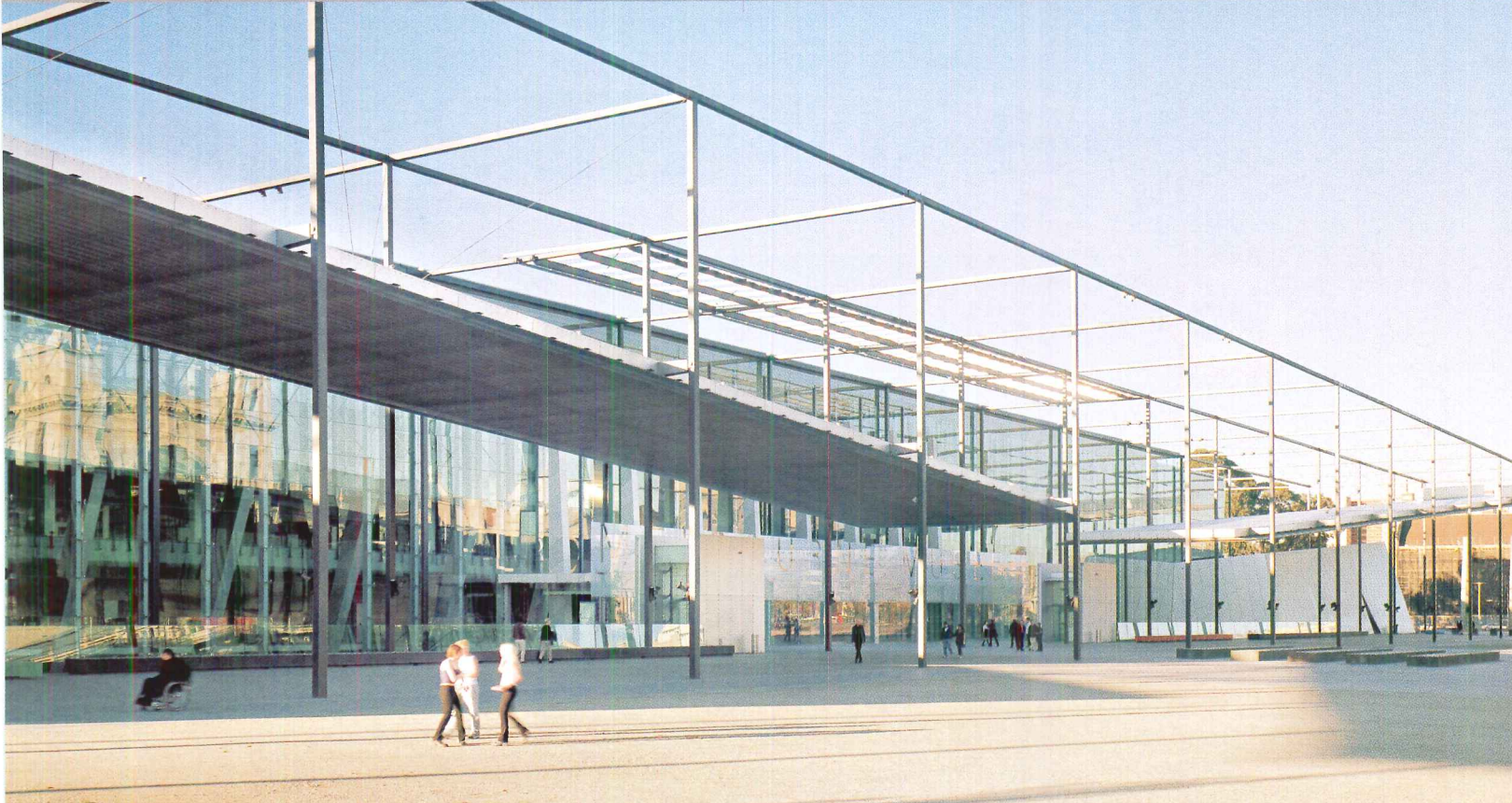
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Soaring canopies on the south side of the building draw visitors from the side streets to an entry plaza between the museum and the Royal Exhibition Building (left in photo, opposite). Parking is below the plaza.



Denton Corker Marshall's design for the new **MELBOURNE MUSEUM** balances the grand gesture with the spontaneous moment, offering a dynamic counterpart to its Victorian neighbor

By Annemarie Kiely

The traditional museum with its often grueling tour of hermetically sealed galleries is becoming a thing of the past. It's not that we've lost our capacity for curiosity—just the willingness to suffer the discomforts of old, overscaled buildings to study collections that, courtesy of the Internet, can now be viewed without leaving home. So museums have had to change to survive, becoming social places where the crowds and the buildings themselves are as important as the objects and artwork displayed inside.

The new Melbourne Museum, which opened late last year and was designed by Denton Corker Marshall (DCM), points to the future by pushing the building type beyond its traditional form and function. This is an institution which acknowledges that as cycles of change get shorter so does our attention span, and that as we become better traveled, we don't need the museum to explain as much as we need it to display and present. It also recognizes that the crowd-pulling power of the curated object is now contingent on the drawing power of the structure that houses it.

Buried in DCM's bold blending of steel blade and glass is the radical notion that museums must be more than just reflective of their culture; they need to be congruent to it. Nowhere is this more profoundly and poetically expressed than in the building's unusual siting. Rather than assuming a prominent street-facing position on the edge of the Beaux-Arts-inspired Carlton Gardens, it turns to the center of its site, presenting its best face to a landmark structure built over 100 years earlier. The museum's plan echoes the cruciform footprint of its neoclassical neighbor, the Royal Exhibition Building, and also mimics its massing of solids. But DCM's contextual response is one of counterpoint rather than compliance. A sparingly detailed glazed entry wall expresses a refined modernity, while cleverly reflecting its old neighbor in its surface. This is an upfront, legible declaration of past reflections and parallel cultures within a new symmetry. It is the built embodiment of modern thinking.

"In today's city, the museum plays a role analogous to that of the

Annemarie Kiely is a journalist in Melbourne, Australia, who writes about architecture and design and is a contributing editor of Belle magazine. She wrote about her own family's house, designed by her husband, architect Sean Godsell, in RECORD's October issue.



cathedral of yesterday—a place we require in order to challenge the hopes and contradictions of our times,” as the Swiss architect Mario Botta said in reference to his San Francisco Museum of Modern Art. It's an analogy that DCM principal John Denton embraces. “There are few buildings today that create the drama of great space, where people are uplifted. In Gothic times, the bigger the church the more successful the city was deemed to be. It's happening again, only this time it's museums putting cities on the map.”

Such was the thinking of Jeff Kennett, the premier of Victoria in the early 1990s and the politician most responsible for the museum that got built. Assuming leadership of the state government in 1992, Kennett scrapped his predecessor's plans to build a new Melbourne

Project: Melbourne Museum, Melbourne, Victoria, Australia

Owner: Museum Victoria

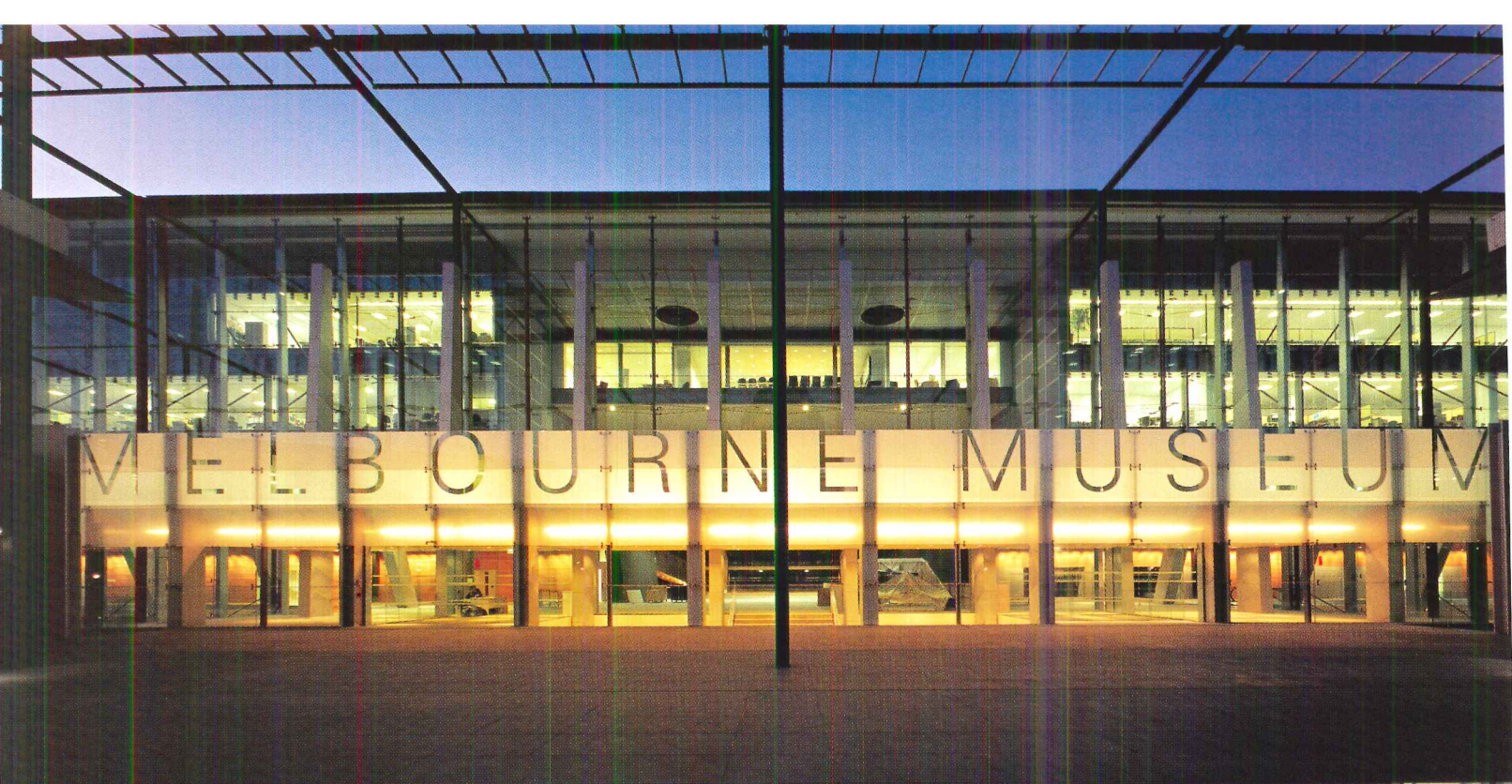
Architect: Denton Corker Marshall Pty Ltd.—John Denton, Bill Corker, Barrie Marshall, principals

Engineers: Ove Arup & Partners (structural and civil); Lincolne Scott Australia Pty Ltd. (services)

Consultants: Visions Lighting Pty Ltd. (lighting); Watson Moss Growcott Pty Ltd. (acoustical); Emery Vincent Design (signage/graphics)

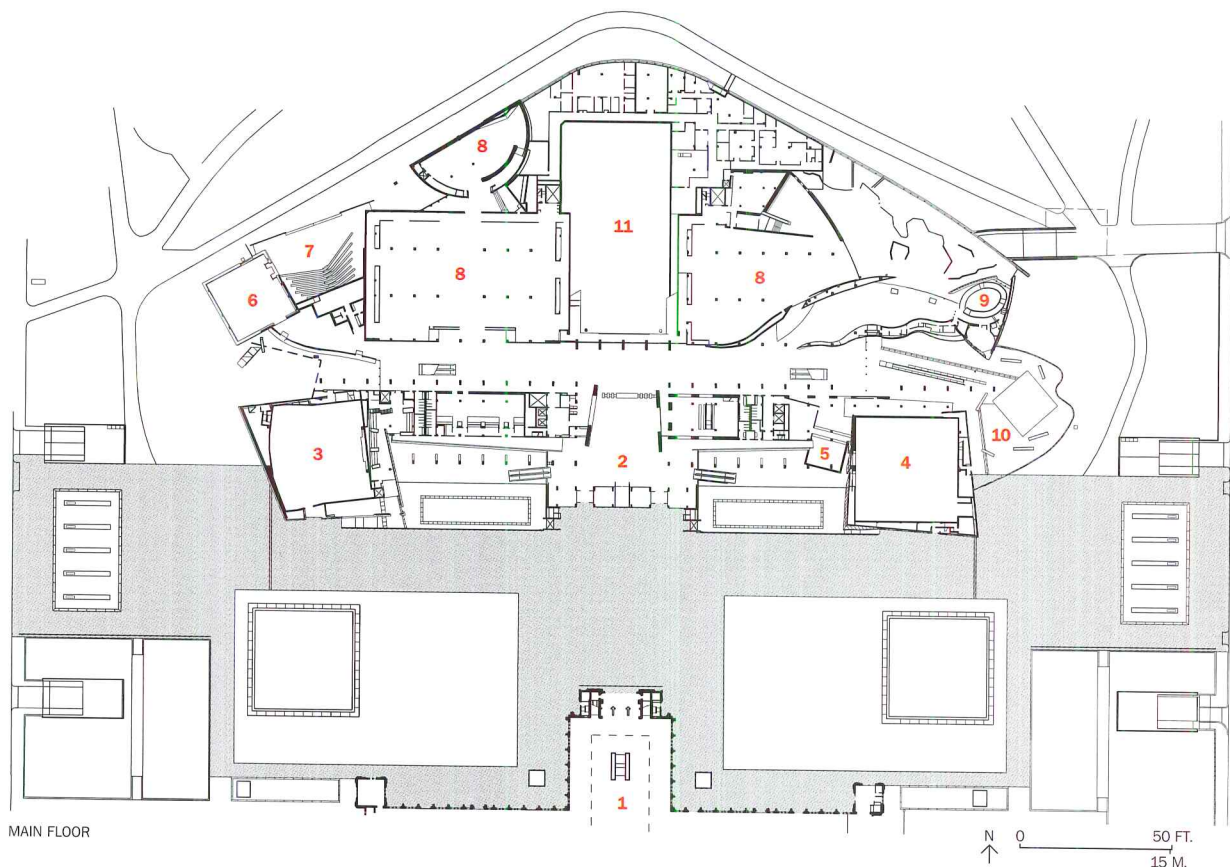
Steel contractor: Alfasi Constructions Pty Ltd.

General contractor: Boulderstone Hornibrook Pty Ltd.



The entry facade of the 865,000-square-foot museum introduces many of the project's architectural themes: transparency, layering, and spontaneity within a controlling grid.

1. Royal Exhibition Hall
2. Main foyer
3. IMAX theater
4. Touring exhibitions
5. Food concessions
6. Children's museum
7. Amphitheater
8. Gallery
9. Aboriginal center
10. Playground
11. Gallery of Life



museum, even though construction had already begun on the project on the south bank of the Yarra River. Kennett tossed out the old design and initiated an international competition for the design of a new museum on a different site closer to some of the city's institutions of higher learning. (The Yarra River site opposite the city's new casino eventually became home to a new convention center, which was designed by DCM, too.) The competition, which was held in 1994, drew 109 entries and led to a second round with five finalists—all Australian and mostly Melbourne-based. The museum's former director, Graham Morris, recalls the premier's reaction to the finalists. "I think Kennett summed it up when he entered the judging room and marched straight over to Denton Corker Marshall's model and said, 'Christ, this is brilliant,' then walked out."

Over the last 25 years, DCM—which has offices in Melbourne, Sydney, Hong Kong, Singapore, Jakarta, Ho Chi Minh City, London, and Warsaw—has earned a reputation as one of Australia's top architecture firms. Projects such as the Melbourne Gateway [MAY 2000, page 83], the Adelphi Hotel in Melbourne, the Museum of Sydney, and Governor Phillip Tower in Sydney are significant presences in their cityscapes. The firm also has designed Australian embassies in Tokyo and Beijing, and still does innovative private houses.

In developing its scheme for the Melbourne Museum, DCM identified a major problem with many traditional museums: confusing plans that don't give visitors a clear idea of where they are relative to the exhibition spaces and the point of entry. So the architects took their cues from Frankfurt's River Main precinct where a series of boutique museums occupies a row of historic houses. Visitors can sample as many of the dedicated spaces as they want, though most take in only one or two and return at a later date to visit others. Such an arrangement gives the precinct a life beyond the single visit. DCM thought this notion of

"sampling" would be useful for the Melbourne Museum, especially in attracting young people with notoriously short attention spans. So the firm conceived of facilities with separate and distinguishable characters and functions, linked in orthogonal plan by parallel "boulevards" of glass.

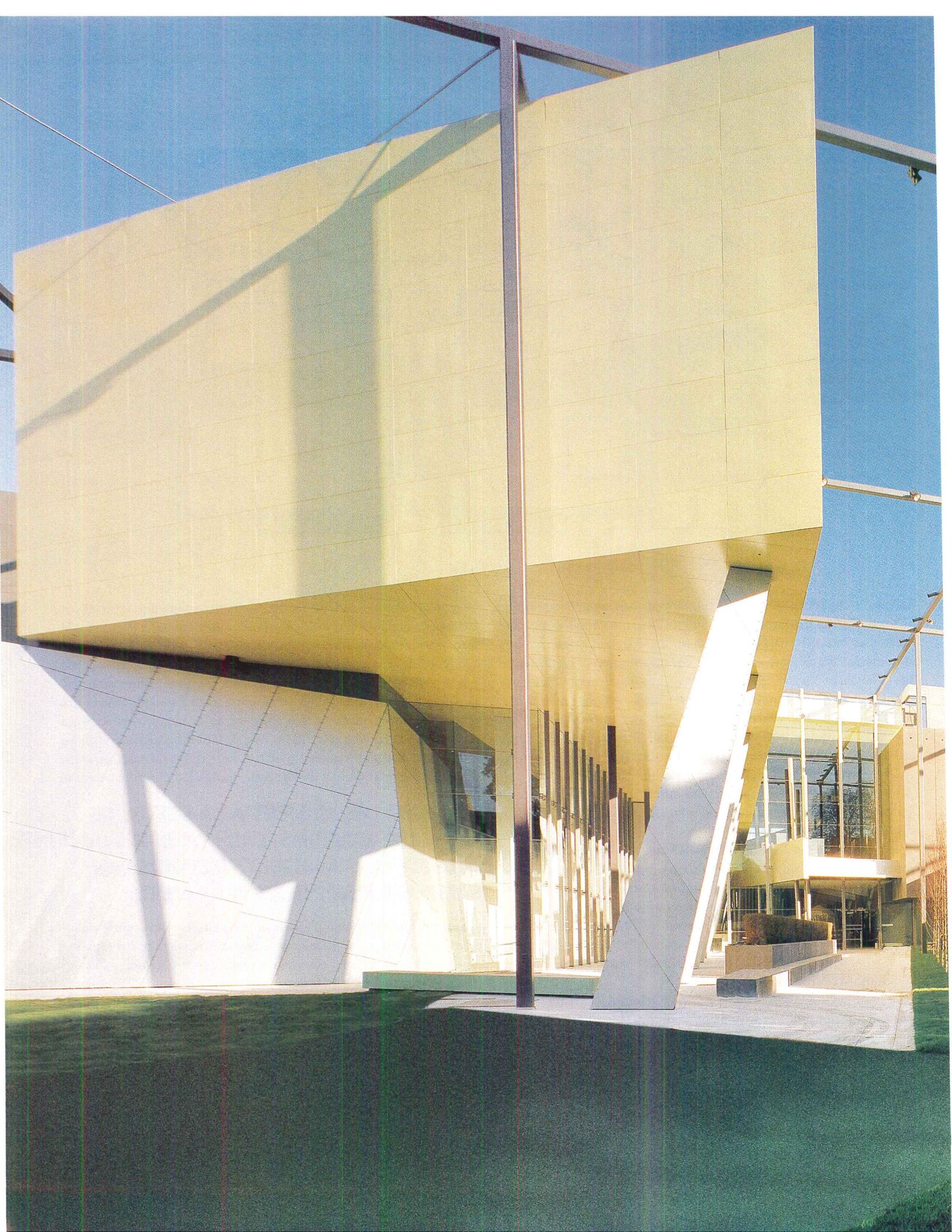
To control all the different pieces in this giant architectural puzzle, the architects enveloped the entire museum in a steel framework that echoes the layout of the city of Melbourne as planned by Surveyor General Robert Hoddle in the 1830s. The rigor of this external grid allows some of the pieces to break free of it; for example, the IMAX cinema and the touring exhibition hall are dynamic, metal-clad boxes that seem to

DCM SAW THE PROJECT AS A SERIES OF BOUTIQUE MUSEUMS, EACH WITH ITS OWN IDENTITY. AS A RESULT, VISITORS CAN SAMPLE A FEW PIECES AT A TIME.

tumble beyond the building's perimeter. Equally eccentric are the children's museum—a multicolored cube that seems to be toppling over—and the Bunjilaka Aboriginal Centre, whose angled panels of rusted steel simulate a bark lean-to.

Also helping to anchor the disparate components of the building's north side is an angled 265-foot-long cantilevered roof that soars above the museum's Gallery of Life, a giant screened-in space that recreates a piece of rain forest with live trees and birds. This impressive blade roof, which was built in sections like a bridge before being suspended from circular steel poles, establishes a parity of height and grandiosity with the neighboring Royal Exhibition Building's neoclassical dome.

For the south side, where visitors enter the museum, DCM designed two sloping canopies with 70-foot-long cantilevers that project



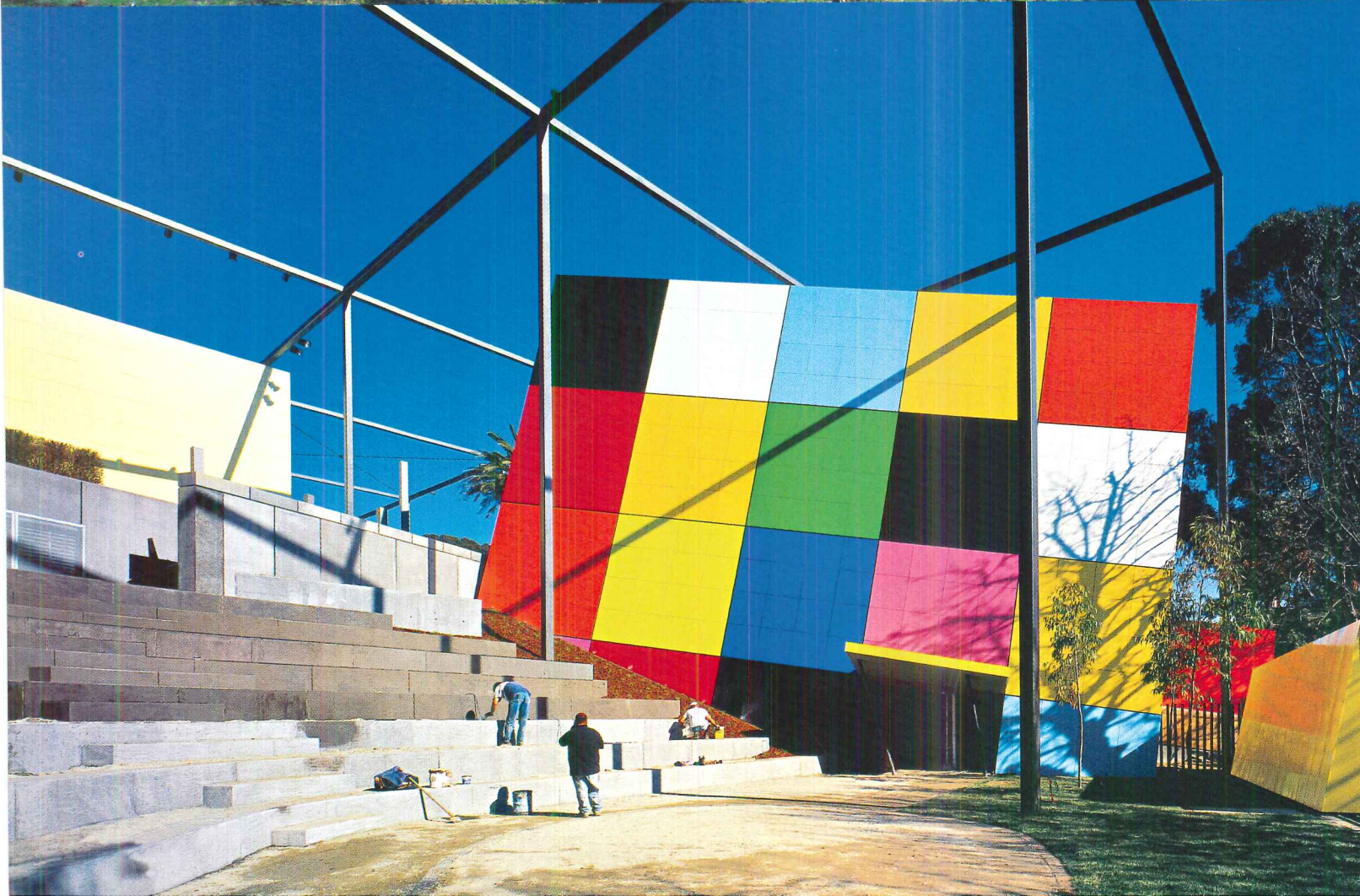
While the museum's entry facade (previous pages) emphasizes the unity of the institution, the other three elevations highlight the individual identities of its various components. At the eastern

end of the complex, the Bunjilaka Aboriginal Centre breaks free of the structure's steel exoskeleton with a riot of dynamic forms, striking colors, and industrial materials.

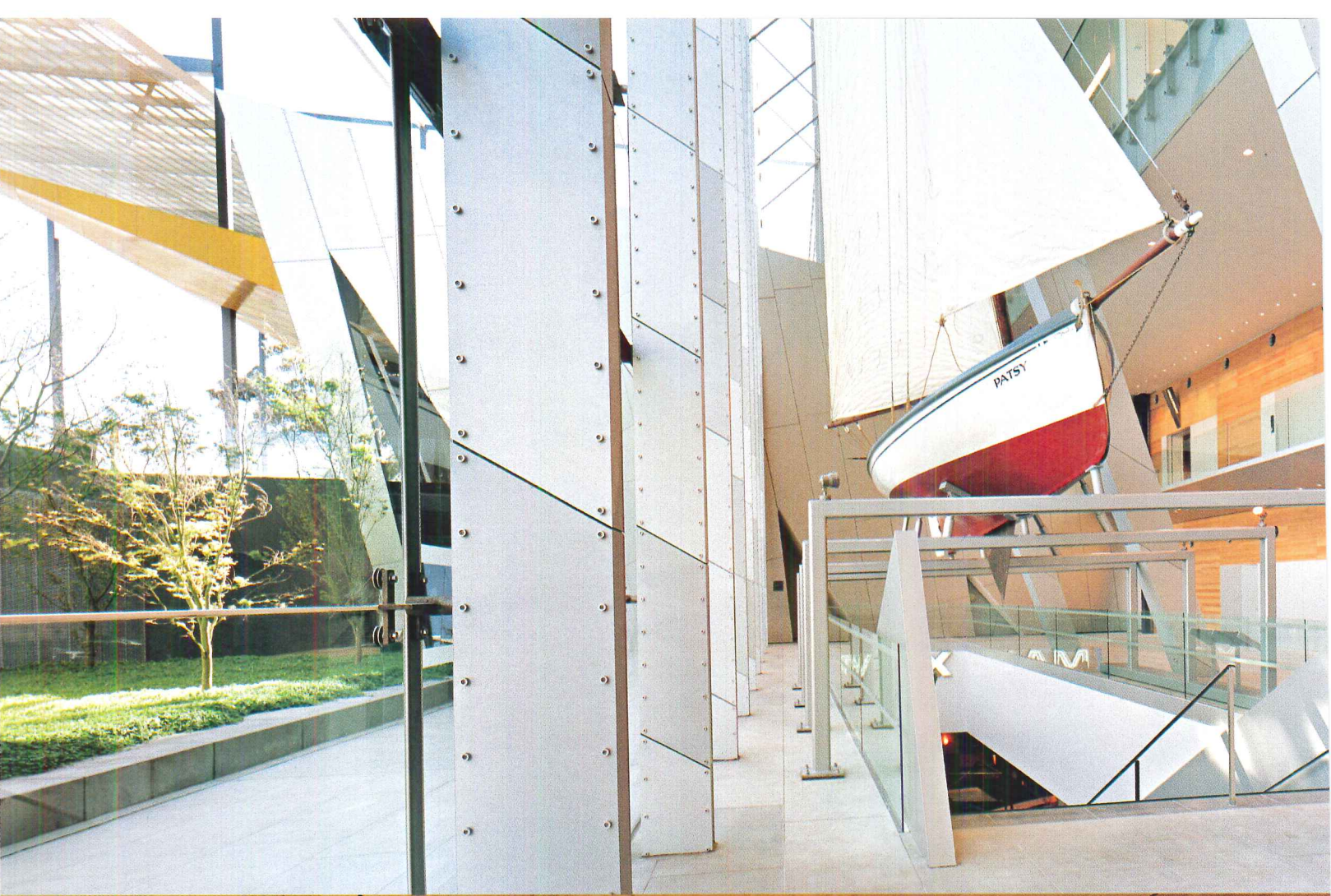




(Clockwise from top left): the 265-foot-long Bunjilaka Aboriginal Centre; and the colorful checkerboard cube of the children's museum.

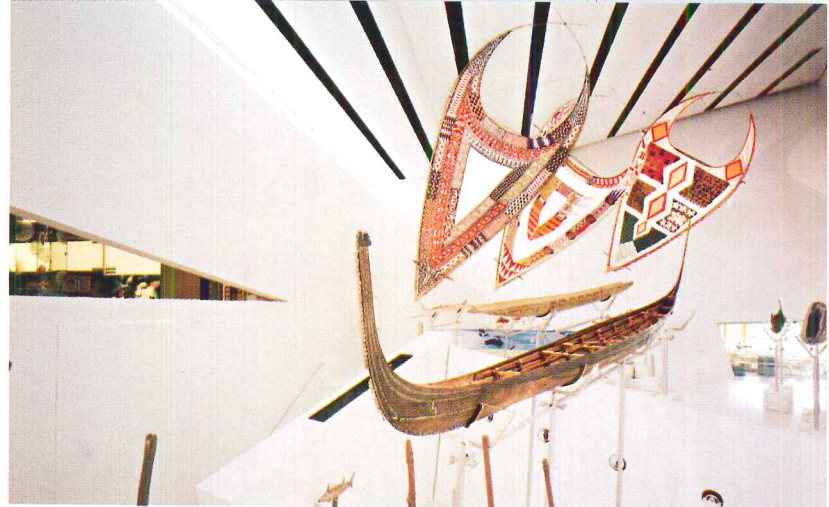








The museum incorporates a range of very different collections, from natural history to native arts to modern painting. Access to individual galleries (above right and below opposite) is from glazed “boulevards,” such as the main axis (right) and one of the front foyers (left).



an optimistic futurism. The canopies beckon visitors from the streets east and west of the museum and direct them along a new 100-foot-wide plaza (the same width Hoddle designated for the main streets of Melbourne) running between the museum and the Royal Exhibition Building. The museum’s glazed entry facade offers views into and from offices for administrative and curatorial staff, initiating a theme of transparency and accessibility that runs throughout the structure.

The same quest for transparency drove DCM to design the

THE NEW MUSEUM ATTRACTED A RECORD 65,000 PEOPLE IN ITS FIRST DAY AND A HALF OF OPERATION.

museum’s two main circulation spines as glazed boulevards running east to west. The first of these internal streets moves through unticketed zones at the front of the museum, while the second spine stretches out on the north side and provides access to a range of exhibition spaces on two levels. Visitors can walk down the light-filled hallway to sample a particular exhibition space, then return to the cafe-lined thoroughfare to regroup, reenergize, and reorient. They can walk from the darkly lit science-and-life gallery, where they might explore biodiversity and digital technologies, and then go to the Bunjilaka Aboriginal Centre, with its undulating 165-foot-long wall of zinc panels etched with Koori imagery. On the upper level they can investigate the Australia Gallery with its hidden histories of Melbourne, then enter the white-washed, sculptural space of the Te Pasifika Gallery. Here visitors can descend a curving ramp—

down and around suspended examples of the crab-claw sails used by the Pacific’s sea-faring cultures—back to ground level. The contrasting experiences of the galleries and the strong orientation of the glazed circulation spines help combat the usual problem of museum fatigue.

After six years of design and construction, the Melbourne Museum opened on October 21, 2000. Union labor problems delayed the project by several months, while soil contamination and a change in the scope of work pushed its cost up to \$177 million, \$15 million over budget. But it’s been a big hit with the public, attracting 65,000 visitors in its first day and a half of operation. Explaining why the museum has been such a crowd pleaser, Director George MacDonald says the architects “made the institution visible and accessible. Eighty percent of the public don’t visit museums. But look around and you see every age, every demographic here.” As if on cue, an excited child runs through the foyer and exclaims to his mother, “This is so much better than a museum.” ■

Sources

CAD software: Bentley (*Microstation*)

Metal roofing: BHP

Glazing: DMS/JML

Acoustical ceilings: Armstrong

Cabinets and custom woodwork:

International Cortaulds

Plastic laminate: CSR *Formica*

Aluminum cladding: *Expoconti*

Exhibition space showcases:

Classic Resources

Interior ambient lighting:

Sunlighting Australasia, Thorn

Lighting, Pier Lite

Exhibition lighting: *Ramco, Kupo*

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The 56,000-square-foot complex includes a renovated neo-Palladian villa and a new 37,000-square-foot building tucked underground and focused

around a large central courtyard. Into one part of the villa Ando inserted a curving concrete auditorium as well as a glass-fronted connector.



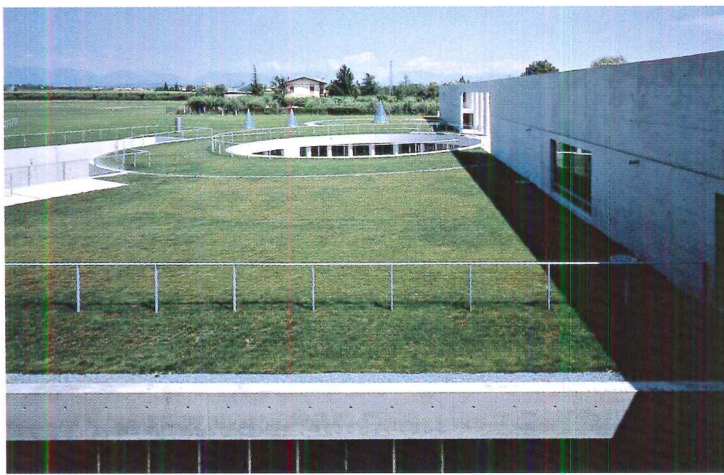
Tadao **Ando** sculpts the Italian landscape
and engages in a dialogue with history
at the new **FABRICA COMPLEX** in Treviso



By Clifford A. Pearson

From his earliest houses with their tight outdoor spaces set within spare concrete walls, Tadao Ando has been obsessed with the relationship between building and nature. Whether surrounded by urban clutter or climbing the side of a mountain, Ando's buildings draw much of their power from inspired contrasts and poignant connections between the natural and the artificial. Vision's of a lotus pond floating above a concrete temple or a perfectly framed view of a single tree come to mind at the mention of his work. In a 1989 article in *Space Design*, he explained, "My goal has not been to commune with nature as it is, but rather to try to change the meaning of nature through architecture. The process has been one of rendering nature abstract through architecture."

Ando's creative engagement with nature continues at the Fabrica Research Center in Treviso, Italy, with the extra twist of history entering the conversation. In Japan, Ando's buildings are mostly timeless sentinels amid urban sprawl or rural isolation. The Fabrica project, on the



other hand, began with a 17th-century Palladian-style villa and a landscape 20 miles north of Venice that has provided the backdrop for hundreds of years of remarkable gardens, courtyards, and piazzas. For the first time in his career, Ando was asked to renovate a historic structure and then add onto it. And for the first time, he was working in Italy.

Fabrica is the communications arm of the clothing and sports-gear company Benetton and encompasses the publishing operations of the magazine *Colors*, as well as cultural activities such as producing films, music, and Web sites. It also includes a fellowship program for 30 young artists who come from around the world to work on projects for Benetton or nonprofit organizations. The name Fabrica comes from the Latin word for workshop and reflects the parent company's vision as a place where people roll up their sleeves and create.

The project began in 1992 when Luciano Benetton, founder of the Benetton Group, asked Ando to visit Treviso, where the company had

Project: *Fabrica/Benetton Communications Research Center*
Treviso, Italy

Owner: *Fabrica SpA (Benetton Group)*

Architect: *Tadao Ando Architect & Associates—Tadao Ando, principal; Masataka Yano, project architect*

Project manager: *Eugenio Tranquilli*

(Benetton Group SpA)

Engineers: *Tecnobrevetti SrL—Giandomenico Cocco, Luigi Cocco (structural); Adriano Lagrecacolonna (mechanical)*

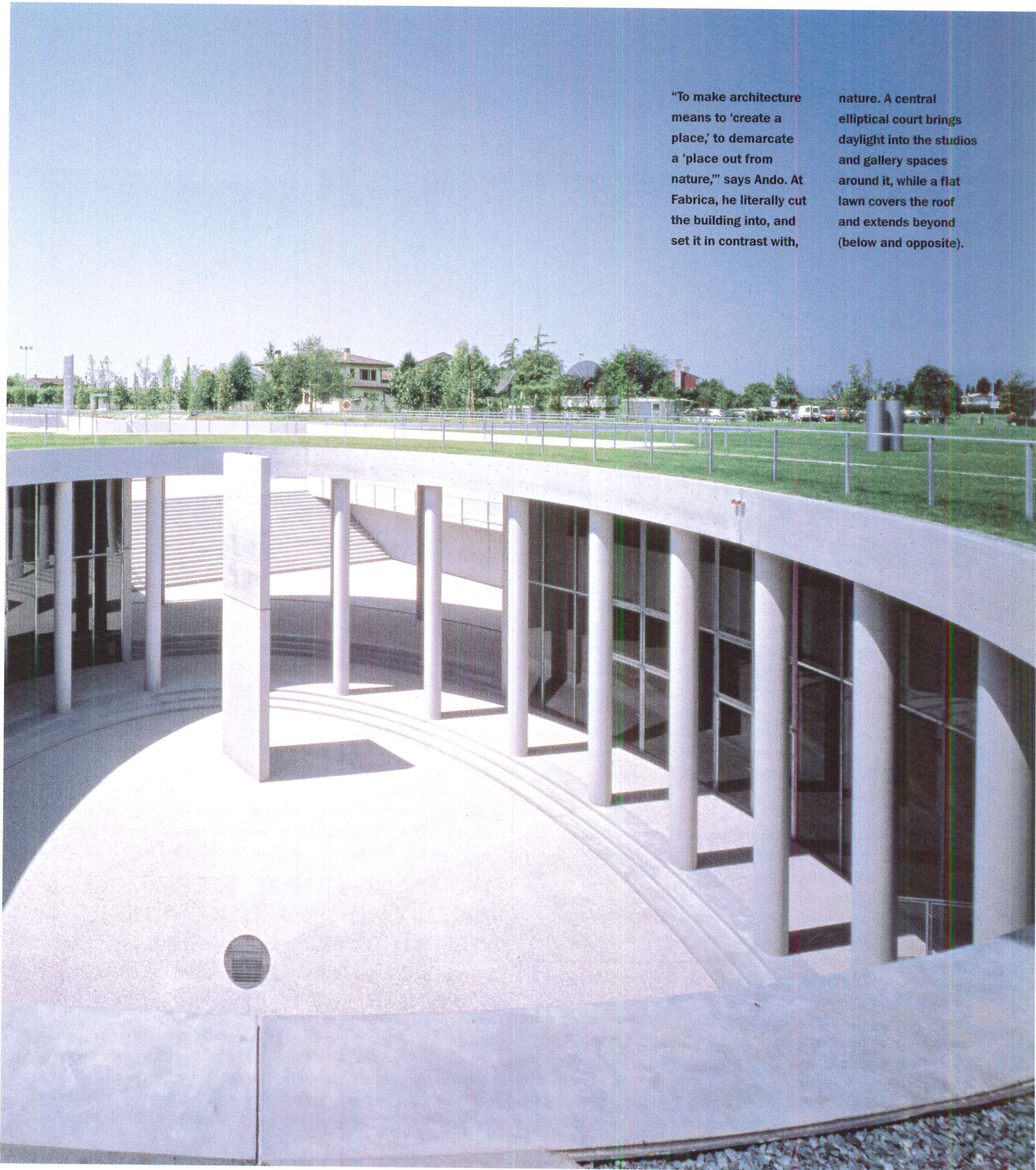
General contractors: *CEV SpA—Valerio Vendramin, Antonello Vendramin (new building); Ivone Garbuio & CRSL (renovation phase)*

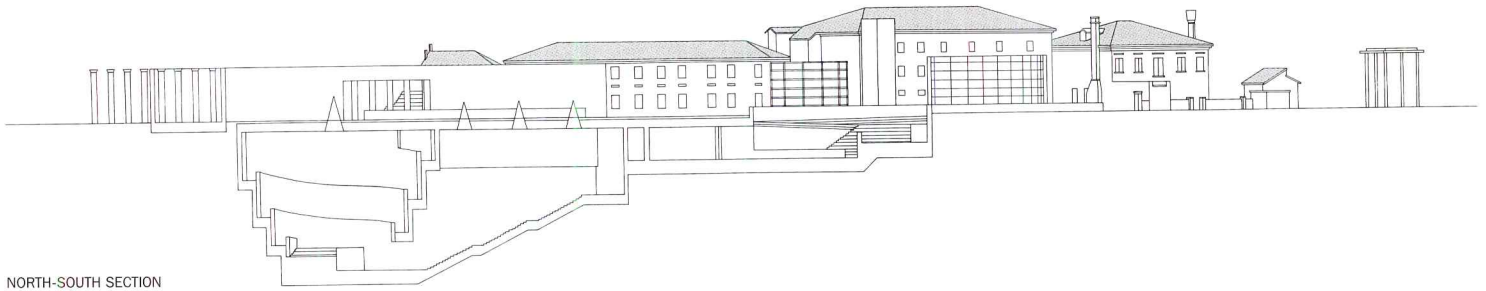


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"To make architecture means to 'create a place,' to demarcate a 'place out from nature,'" says Ando. At Fabrice, he literally cut the building into, and set it in contrast with,

nature. A central elliptical court brings daylight into the studios and gallery spaces around it, while a flat lawn covers the roof and extends beyond (below and opposite).





NORTH-SOUTH SECTION



converted a number of old villas into offices and commissioned Tobia and Afra Scarpa (the son and daughter-in-law of Carlo Scarpa) to design an impressive collection of manufacturing and distribution facilities during the past three decades. Although he says he had some hesitation about the distance separating Italy from Japan, Ando was impressed by Benetton's record of sensitive modern architecture and the program's rich possibilities. He also was inspired by the Palladian architecture of Treviso, with its "aesthetics of absolute symmetry" and its "sense of volumetric space." Ando adds, "I was intrigued by these qualities rarely found in Japanese architecture."

Preserving the past and looking forward

The first phase of the project—which was completed in 1995—involved the renovation of the existing villa and some of its outbuildings, the insertion of a curving concrete auditorium within the old house, and the construction of a new reflecting pool and garden terrace. Then, after several years of getting approvals from the notoriously difficult Italian bureaucracy, construction began on a new 37,000-square-foot studio-and-gallery building attached to the villa. The entire 56,000-square-foot complex opened in September 2000.

"We want Fabrika to be a laboratory for ideas and a research center for communications in the 21st century," states Benetton. "We want it to be an architectural symbol of preserving the past and moving into the future."

From the beginning, Ando envisioned the new building as a concrete structure burrowing into the land and topped with an artificial landscape. Along with the pool terrace behind the old villa, the new facility would provide a series of opportunities to create lawns, gardens, and

courtyards. The picturesque gardens of 19th-century England, which blurred the distinctions between the natural and man-made, would have no place here. Instead, Ando would "create a relationship, a dialogue" between nature and architecture (which he defines as "a place out from nature" and "standing in opposition to nature"). By "making explicit the uniqueness [of architecture] within nature," Ando planned to "bring out the intrinsic power of the place."

The architect took a similar approach to connecting old and new, contrasting the contemporary with the historic while initiating a dialogue to "stimulate energy" between the two. A 23-foot-wide walkway lined on one side with an imposing parade of freestanding columns serves as the key link between the renovated villa and the new building. The walkway begins outdoors, cuts across the reflecting pool, turns into an

THE ARCHITECTURE OF THE PAST AND PRESENT PUT THEIR TRUST IN AND DRAW INSPIRATION FROM EACH OTHER.

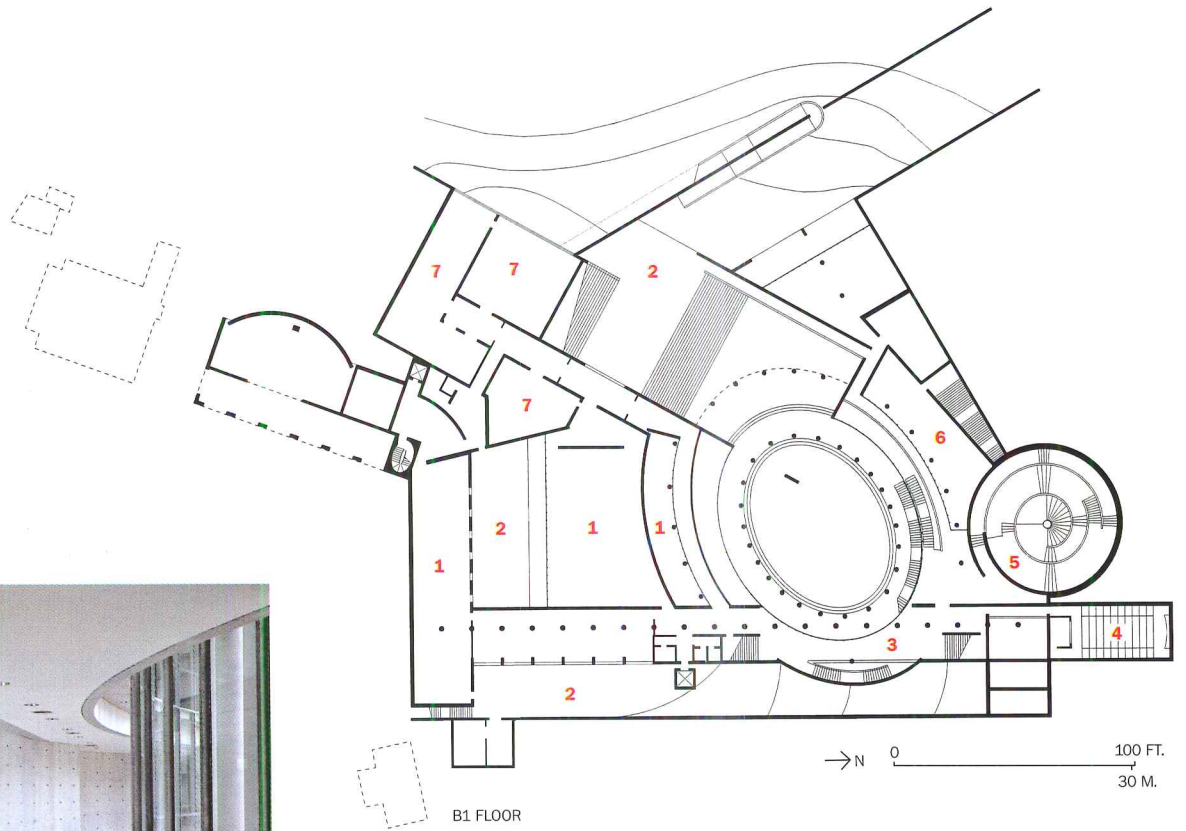
interior gallery in the new building, then emerges outdoors once again as a stepped terrace on the north side of the property. On its own, the walkway in all its permutations is a powerful axis that holds Ando's spiraling plan together and serves as an unmistakable spine for the entire complex. But coupled with its neoclassical colonnade, it becomes a mannerist device for linking old with new. Yes, the columns help visitors orient themselves and show how to get from one side of the complex to another; but they're a heavy-handed device for connecting with Italy's Palladian architectural heritage.

The heart of the new building is an elliptical courtyard, which

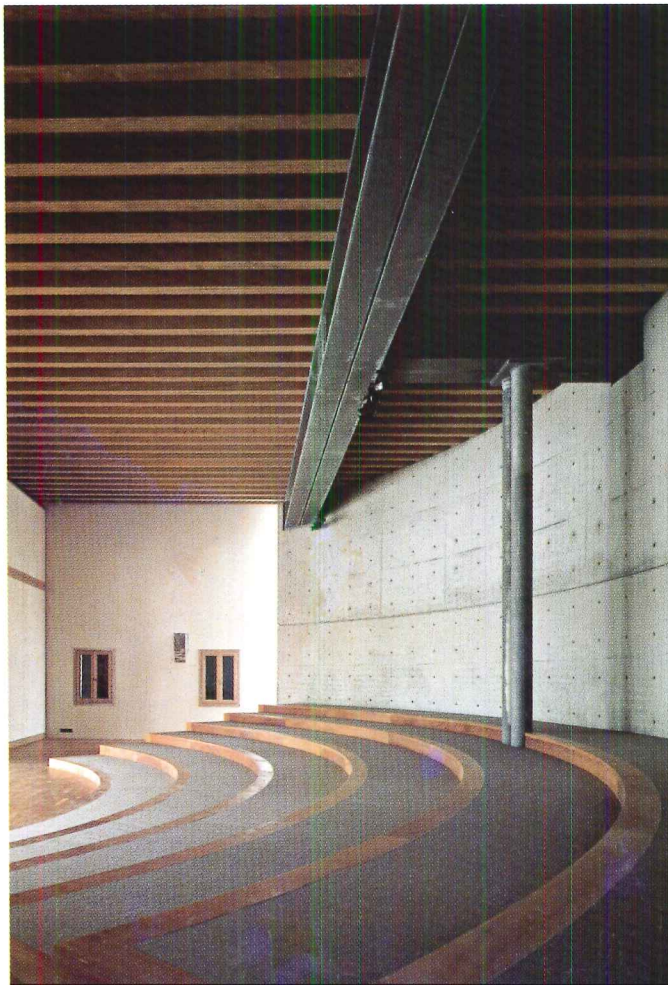
A column-lined walkway runs through the site, cutting across a reflecting pool behind the 17th-century villa (opposite), then it pushes through the old building, turning into a roof terrace overlooking the new courtyard (right). The walkway and the interior corridor directly below serve as the project's main spine.



1. Studio
2. Court
3. Lobby
4. Theater
5. Archive
6. Library
7. Mechanical



Although mostly underground, the interiors of the new building (above) receive daylight from the courtyard and from skylights running above circulation areas. In one of the old buildings on the property, Ando created a bulging concrete auditorium (right) that faces a new reflecting pool and terrace (opposite). A new stair (far right) in the villa recalls the rich colors of Treviso's architectural past.





brings daylight into the design studios and gallery spaces arrayed around it. Like all good piazzas, this court acts as a public stage for planned and impromptu events, as well as a casual place for socializing.

Making a grand entrance

Working with the courtyard, other outdoor spaces and terraces fit between and alongside the buildings, so that the underground structure is activated by the movement of daylight throughout its interiors. The most spectacular of these outdoor elements, the grand stair, cuts through Fabrica's front lawn and down to the elliptical court. As he has done in so many other projects, Ando turns the simple act of entering a building into an architectural pilgrimage—stretching it out so visitors can savor the experience. And by positioning the stair at an angle to the elliptical court, he offers visitors oblique and partial views of the sunken space, which reveals itself only slowly.

The main work areas inside the building are tall loftlike spaces that can be easily partitioned or opened up, depending on Fabrica's staffing. Floors in work areas are linoleum tile, while those in common areas and walkways are poured concrete. A light-filled library and an inward-looking archive with a tight stair spiraling between thick walls anchor the north side of the complex, while studios and open galleries occupy the south side of the building. In addition to the auditorium inserted into the old villa, a small movie theater sits at the end of the long colonnaded axis with a lounge and terrace above it.

"To allow the scenery and the memory of the environment to

continue to flourish," the new building submerges itself in the ground, says Ando. But this is anything but a retiring work of architecture. With its angled concrete walls slashing through the earth and contrasting with the lush green lawns around and above it, the building asserts a bold vision of structure and landscape, glass and grass running together. Ando speaks of "a reciprocal, cathartic relationship between old and new . . . transcending the limits of a specific period." He says that "the architecture of the past and the present here put their trust in and draw inspiration from each other." The same is true of nature and building at Fabrica—two forces that confront and support each other, neither able to overpower the other, each respecting its counterpart. ■

Sources

Curtain wall: *Gino Ceolin & Figli SnC*

Concrete (new building): *CEV SpA*

Paints and stains: *Dottor srl*

Elastomeric roofing for hanging garden: *CEV SpA*

Wood windows on renovated building: *Tonini*

Wood doors on new building: *Quaggiotto Sante*

Office tables and cabinets: *Herman Miller*

Plywood chairs: *Vitra (Jasper*

Morison)

Linoleum tile floors: *Linoleum Moquette Torpetti srl*

Interior ambient lights: *Guzzini General Electric*

Exterior lights: *Bega; Castaldi*

Grass and trees: *Curtolo srl*

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Booth Hansen employed the language of early-20th-century ornamentation in new wall stencils and laser-cut-steel hanging lights.



Booth Hansen uses computers, lasers, and ingenuity to recapture the Celtic Revival spirit of **OLD ST. PATRICK'S CHURCH** in Chicago



The exterior of the 1871 landmark church does not hint at the Celtic Revival exuberance of Thomas O'Shaughnessy's interior decorations of 1912 to 1922.

By Blair Kamin

It is Chicago's oldest public building, a survivor of the Great Fire of 1871 and a landmark of the American immigrant experience. Now, after a \$6.5 million revamp by Laurence Booth, FAIA, of Booth Hansen Associates, St. Patrick's Roman Catholic Church ("Old St. Pat's," to parishioners) is Chicago's—and perhaps the nation's—most spectacular showcase of Celtic Revival ornament.

Located a few blocks west of Sears Tower, the 145-year-old church conveys a strong sense of permanence, yet it is also deceptively plain. Within its weathered walls of Milwaukee common brick is a color symphony of stained glass and stenciling, first orchestrated in the early years of the 20th century by the artist Thomas O'Shaughnessy, then brought to a crescendo by Booth during a three-phase, eight-year building campaign that ended, appropriately, on Christmas Day, 1999.

Timing, in the end, was everything. If this project had been carried out at the height of the Modern movement, it almost surely would have meant painting the church's walls white in order to achieve an "honest" separation of old and new. Instead, Booth merged past and present in a lyrical whole that is architecturally rigorous even as it enriches human experience. He was aided by new, computer-driven fabrication technologies—laser, water jet, and woodworking tools—that make old-fashioned craftsmanship economically feasible.

The project's significance transcends architecture. Old St. Pat's was a polestar for immigrants to the Midwest. For thousands of Irish who journeyed to Chicago to dig canals and work in the stockyards, it was the first stop after disembarking from the train. There, immigrants would receive food and other forms of sustenance. Those who had been persecuted for their beliefs must have seen in Old St. Pat's an affirmation of their culture that they could not have imagined in their homeland.

Any changes to such a landmark had to be done with exquisite

Blair Kamin is the architecture critic of the Chicago Tribune and author of Why Architecture Matters: Lessons from Chicago, to be published later this year.

Project: Old St. Patrick's Church Renovation, Chicago
Architect: Booth Hansen Associates—Laurence Booth, FAIA, principal; Gisèle Taxil, George Halik, AIA, John Forehand, AIA, Margaret

Ketcham, Chris Guido, project team
Structural engineers: Robert Miller; Beer Gorski & Graff
Consultants: Schuler & Shook (lighting); Kirkegaard (acoustical)
General contractor: Turner S.P.D.

care. Before the project could begin, Booth had to persuade Pastor John Wall that alterations to the sanctuary wouldn't spark a revolt among parishioners, who loved the homey feel of the place. Cleverly, then, Booth and Wall advertised the project as a renovation. Yet, as Booth acknowledges, "We weren't going to renovate it; we were going to complete it." The question was, how?

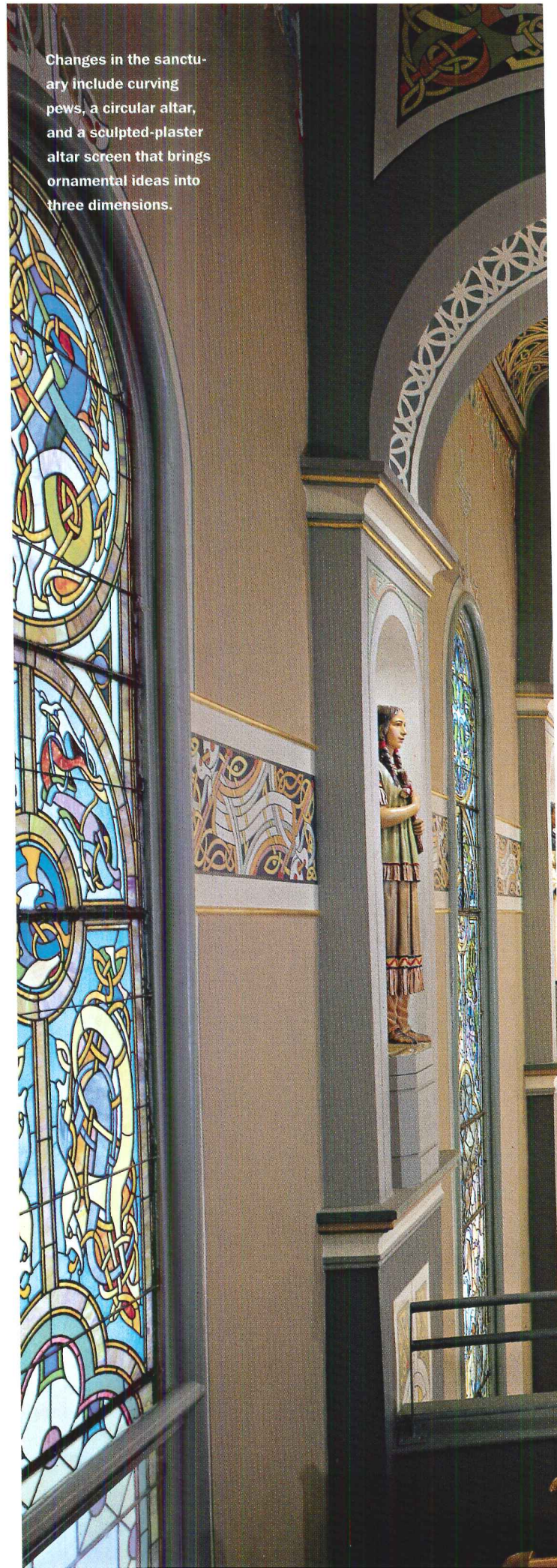
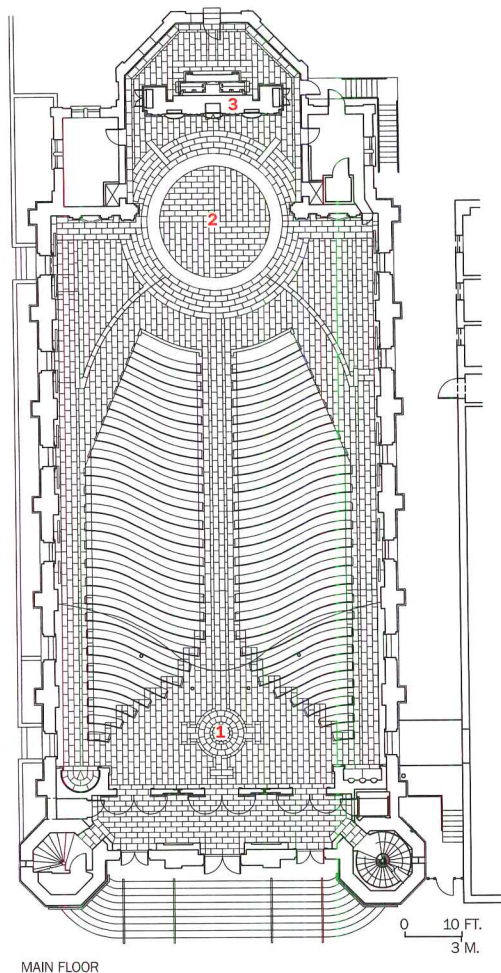
Booth's guiding principle was to remain faithful to the artistic spirit of O'Shaughnessy, who made his mark on Old St. Pat's between the years of 1912 and 1922, when the church was more than half a century old. Based on the late-eighth-century Book of Kells, an illuminated manuscript of the Gospels drawn by Irish monks, O'Shaughnessy's stained-glass windows celebrated Irish saints, kings, and martyrs in bursts of greens, reds, and golds. Snaking stencil patterns, which recall the naturalistic ornament of Louis Sullivan, continued the ornament of the windows onto the walls around them.

But in the postwar years, when such flourishes went out of fashion, the stenciling was painted over and the church turned dowdy, with pink and blue walls surrounding the stained-glass windows. Ramrod straight pews on the main floor were colored green. Then, just as the renovation began in 1992, O'Shaughnessy's stencils were rediscovered—too damaged by neglect and age to be restored, but intact enough to serve as an artistic guide. There were 56 stencil colors, which made Pastor Wall balk about going ahead. Eventually, though, he took the creative leap, allowing Booth to extend O'Shaughnessy's two-dimensional decoration into three dimensions.

Booth's plan subtly reconfigures the main floor of the 876-seat sanctuary, with a new circular altar at one end of the main east-west axis and a new baptismal font at the other. Between them are new double-curving cherry wood pews that echo those originally found in the balcony. The plan reflects the Second Vatican Council's mandate to

Changes in the sanctuary include curving pews, a circular altar, and a sculpted-plaster altar screen that brings ornamental ideas into three dimensions.

1. Baptismal font
2. Altar
3. Altar screen





enhance a sense of community, with the new pews allowing parishioners to see one another, rather than stare straight ahead. The arrangement is humanistic in image as well as reality—the circular altar resembles a head, the pews suggest ribs. Curving walls extend out from the altar like arms, symbolically drawing together clergy and congregation.

An underlying order also is present in the relationship of Old St. Pat's stained-glass windows, stencils, and sculpture—a good thing because otherwise the place would seem visually chaotic. Booth arranged new stenciling so it seamlessly extends the decoration of the stained glass into the walls. The walls' sandy brown background color further reins things in. Even the roof trusses play their part in the decorative scheme.

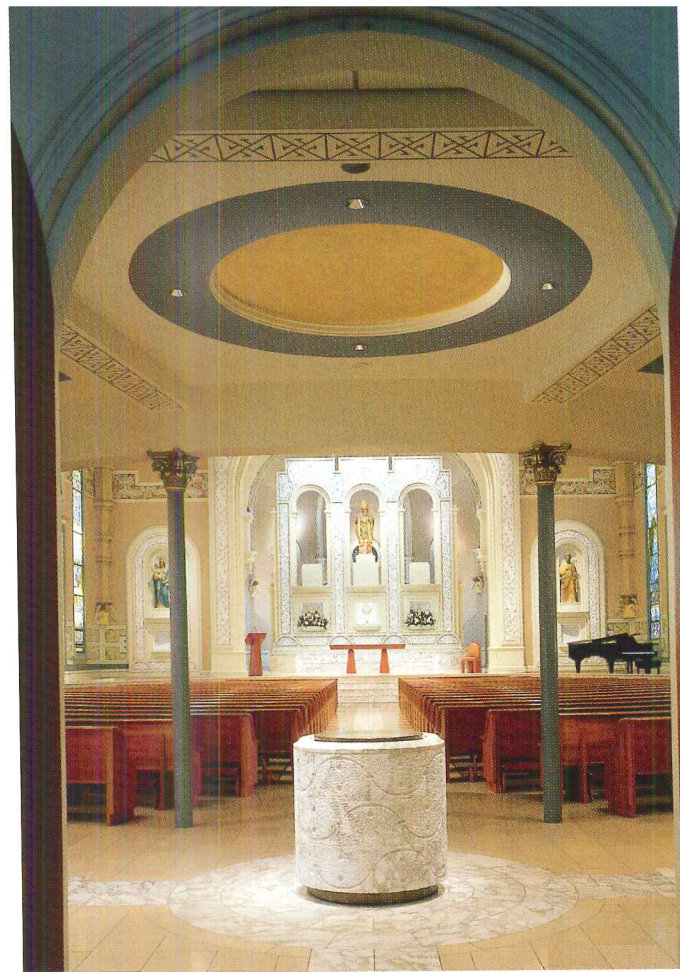
The result is at once joyous and disciplined. While the sanctuary has been compared to the inside of an Easter egg, it is anything but cartoonish. Despite its profusion of decoration, it seems airy and open rather than smothering. It is as if the sun were shining not only through the stained-glass windows but also through the snakelike patterns of Celtic ornament.

Booth's major addition to the sanctuary—a three-arched altar screen that echoes the three doorways of the church—is appropriately respectful, continuing the interlacing ornament of the stencils, but ceding them visual preeminence. Still, the altar screen is a powerful focal point, its sculpted plaster shapes—from earth and water, to plants and fish, animals and angels—symbolizing the Creation story.

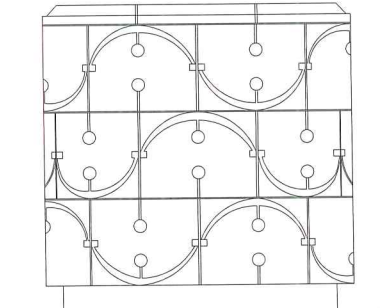
At the other end of the main axis is the new baptismal font clad in chiseled Italian marble; its incised, undulating pattern suggests waves and expresses a sense of eternity. Below the surface of its waters, a bronze labyrinth echoes the interweaving Celtic decoration of the sanctuary. Symbolically, Booth says, the fountain is a “primitive Irish well,” a place from which today's worshippers can draw strength and spirit, much as their 19th-century predecessors did at Old St. Pat's.

While the church's new stencils were done the old-fashioned way—with paint passed through cutout screens—other new features of the church were made possible by computer-assisted technology. A marble inlay pattern on the altar floor, for example, was cut by a machine that uses high-pressure water jets. New lanterns, with simple geometric forms that suggest the Art Nouveau influence in O'Shaughnessy's windows, have laser-cut steel that is appropriately lacy. CAD also facilitated the design of the double-radius cherry wood pews. These technologies confound the conventional wisdom that traditional ornament no longer is possible—or economical. “The lie,” says Booth, “is that all the craftsmen are dead.”

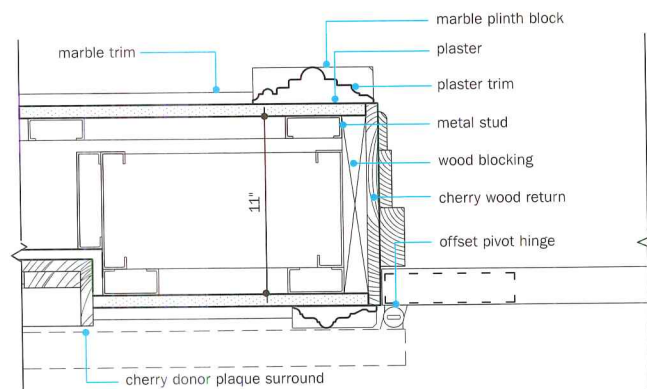
But the broader worth of this project extends far beyond technical achievements. It underscores the continuing power of ornament and narrative in architecture, offering an alternative to reductivist Modernism, on the one hand, and rigidly historic preservation standards, on the other. Rooted in the past without lapsing into nostalgia, it suggests that the experience of the worshiper, rather than some preconceived ideology, should be preeminent in the design of our worship spaces. And who can argue with the result? In ways that Ludwig Mies van der Rohe never would have imagined, but surely would have appreciated, God truly is in these details. ■



A new baptismal font (above and drawing right) anchors one end of the main east-west axis, opposite the new altar. Many of the ornamental details were executed using new technologies such as water jets to cut stone.



FONT DETAIL



VESTIBULE DOOR JAMB

Sources

Wood doors: Parenti & Rafelli

Paints and stains: Glidden, Benjamin Moore

Plaster surfacing: Luczak Brothers

Stonework: Visone & Calcutta

Pews: New Holland

Lighting: New Metal Crafts, Visa, Alta, Lighting Surfaces, Edison

Price, Lightolier, Metalux, Columbia

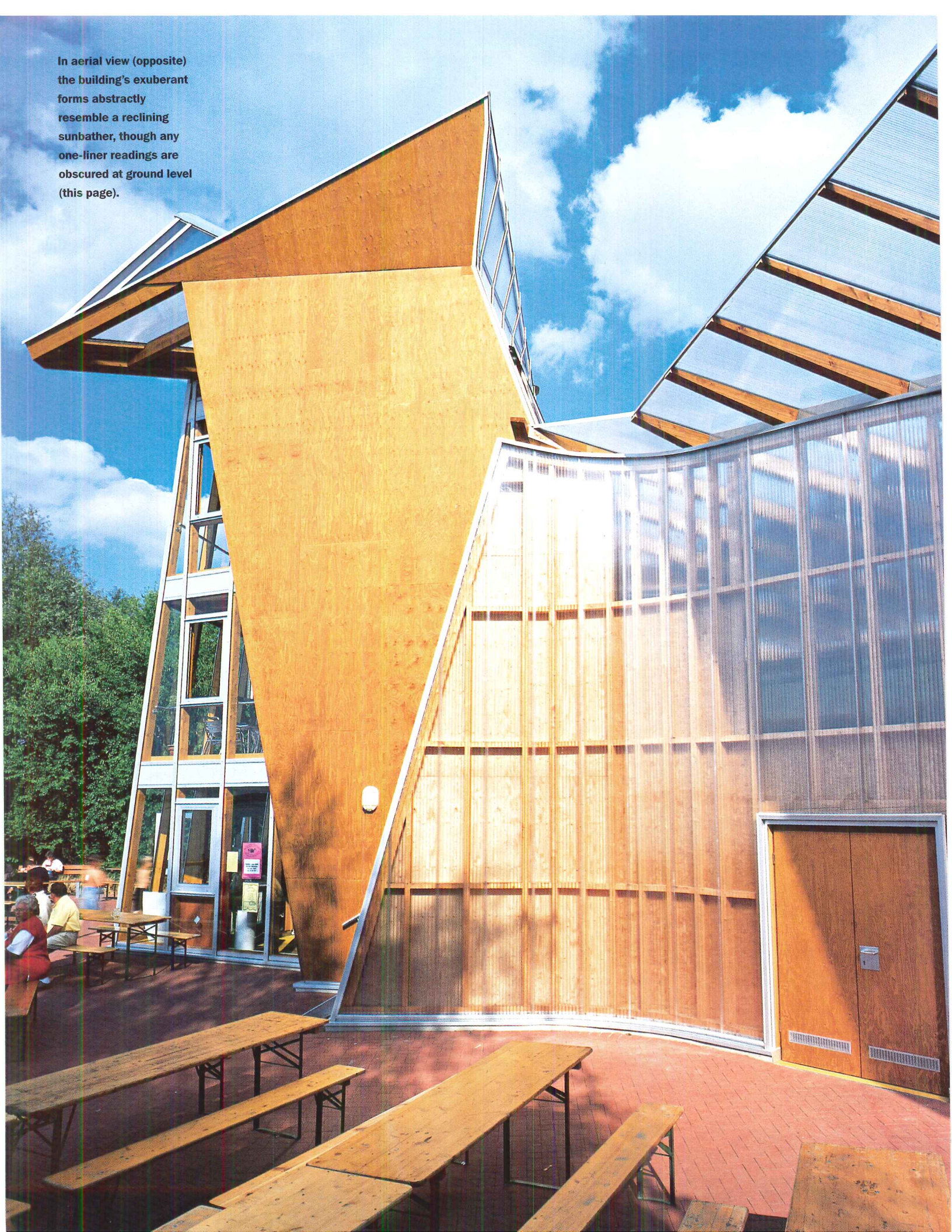
Water-jet stone cutting: Farrodyne

WWW For more information on the people and products involved in this project, go to Projects at www.architecturalrecord.com

A new altar screen echoes the three doorways of the church and continues the interlacing ornament of the wall stencils.



In aerial view (opposite) the building's exuberant forms abstractly resemble a reclining sunbather, though any one-liner readings are obscured at ground level (this page).



Randall Stout brings evocative form and energy-channeling innovation to his **STEINHUDE** pavilion for boaters, bathers, and sunworshippers

By David Hay

When you think about it, die-hard sunbathers never really lie on beaches peacefully. They're always shifting to take advantage of the moving sun. Their body positions, though sometimes awkward, inspired Los Angeles architect Randall Stout while designing the Steinhüde Sea Recreation Facility.

Built on a tiny island on Steinhüde Meer, northern Germany's largest fresh-water lake, this bathhouse looks from above like a figure leaning into the sun. But the form is not merely lyrical: The 4,850-square-foot structure relies on photovoltaic panels, built into a glass roof, for its energy needs.

The architect, who rarely designs forms that can be read as one-liners, was careful to camouflage the metaphor. "Only in aerial photographs do you read the full human figure," notes Stout. Indeed, from the ground, this playful wood-and-glass building hardly resembles a sunworshipper caught in the woods. A berm separates it from a nature preserve, and approached from the rear, the building has a low, curving roofline that anchors it visually to the earth. Such rustic materials as stained marine plywood further link the form to its natural setting, and translucent polycarbonate walls, reminiscent of a greenhouse, reinforce a strong connection between indoors and out.

Viewed from the water—a favored vantage point on warm, breezy summer days—the effect is different again. A 270-degree aluminum-and-glass facade wraps the building's towering front, suggesting an inviting combination of rest stop and lighthouse. At night, says Stout, the beacon effect is even more evident. This vertical element, as he proudly explains, "becomes a glowing object on the landscape."

The genesis of this \$900,000 project was something of an accident. Stout first worked in Germany in the early 1990s as a project architect for Frank Gehry. Since going out on his own in 1996, the younger architect has received seven German commissions, ranging from the North Minden Power Plant to an aquatic center in Melittabad. Over lunch in Wormsdorf in late 1996, Stout was introduced to the town's mayor. At the time, the region's town leaders were soliciting designs for experimental windmills they hoped to display during Expo 2000 in Hanover, 40 miles away. The mayor suggested to Stout the idea of designing a windmill for an 11.4-acre island, barely a mile from Wormsdorf.

David Hay, based in Los Angeles, frequently writes on architecture and the arts.



On his flight back to Los Angeles, the American architect responded with a two-building program: an exotic stainless-steel windmill, which would house an observation deck, and next to it a recreational facility. Green Party members who sat on Wormsdorf's design committee argued that the windmill might entrap birds, and so Stout was asked to incorporate the entire program into one structure. He came up with a model based on the reclining human form, which delighted his clients, representing the town of Wormsdorf.

Stout was assisted in the design process by longtime colleague Hartwig Rüllkotter, an architect based near Hanover. Working in each other's offices and via the Internet, the architects completed a computer-generated model of the scheme. Here, Stout had another lucky break. A German prefabricator, IHV Objektbau, wanted to experiment with new production software that could read Form Z, the very design

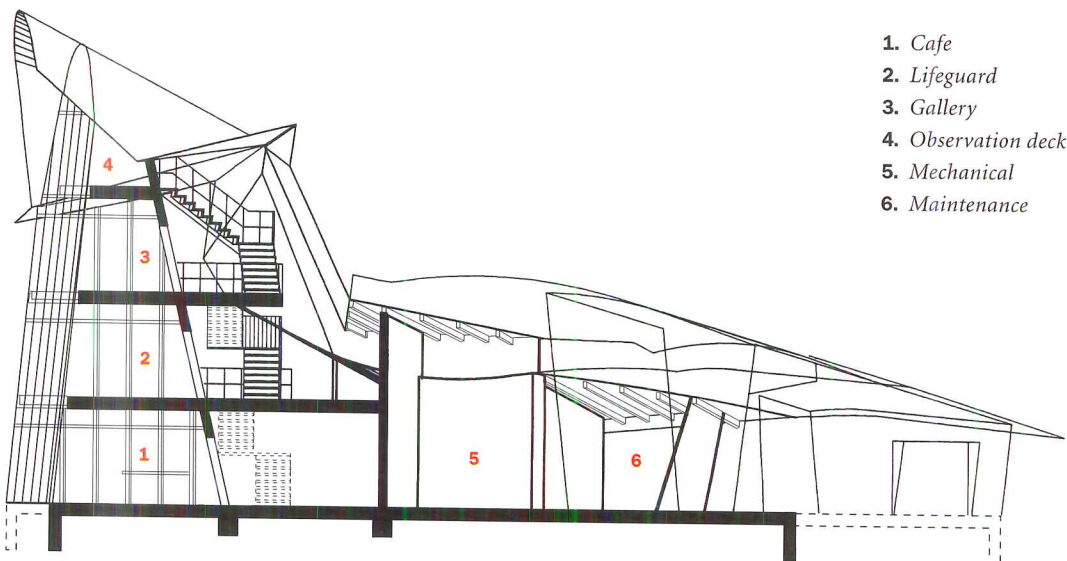
Project: Steinhüde Sea Island Recreation Facility, Badeinsel Steinhüde, Germany
Client: City of Steinhüde (City Works—Recreation Department)
Architects: Randall Stout Architects—Randall Stout, AIA, design principal; Tim Williams, Friedrich Tuzcek, Wes Adachi,

Richard Claridge; Archimedes—Hartwig Rüllkotter, project principal; Corinna Hohkamp
Engineers: IHV Objektbau (structural)
Consultants: UTEG (project management); Jurgen Kotter, Dirk Rabeneck (energy)
General contractor: IHV Objektbau



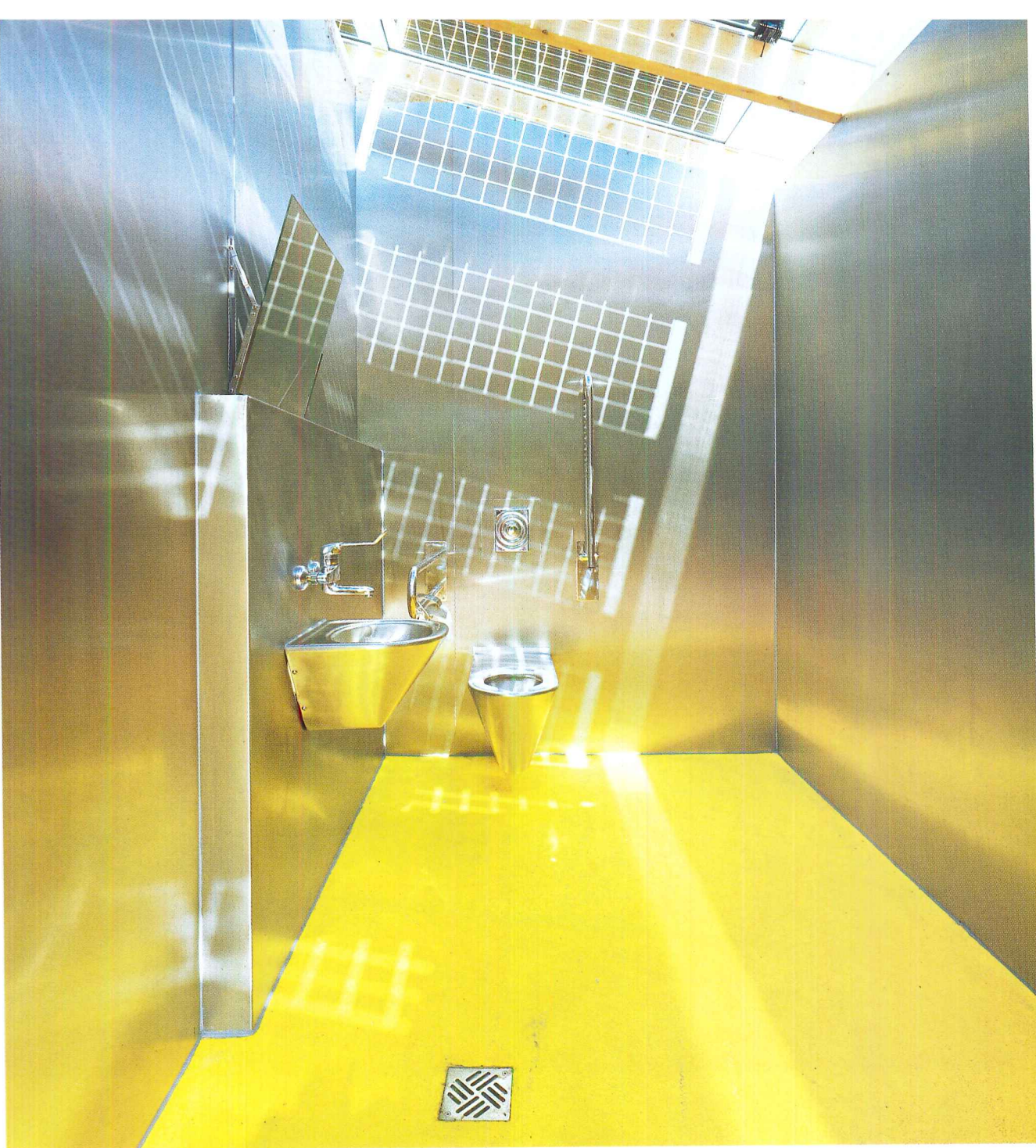


The building's complex roof forms (this page and opposite) are angled to catch the sun's rays. The roof glazing is laminated with photovoltaic cells that provide power for the recreational facility, as well as its small fleet of photovoltaic-operated rental boats. The building's towerlike end faces the lake (opposite, below) and glows like a lighthouse at night.

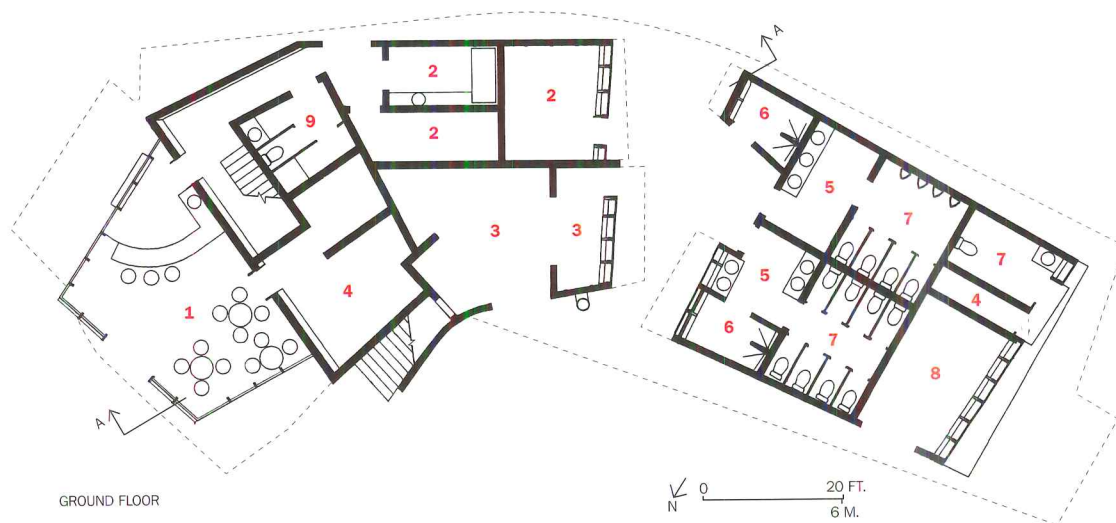


1. Cafe
2. Lifeguard
3. Gallery
4. Observation deck
5. Mechanical
6. Maintenance

SECTION A-A



The glazed and expressively configured roof (opposite) filters light into the interior. Even in a bathroom (this page), the play of light from above becomes compositionally powerful.



1. Cafe
2. Maintenance
3. Mechanical
4. Storage
5. Sinks
6. Shower
7. Toilets
8. Boats
9. Staff



program Stout had used. “So, we handed them a disk and they produced the shop drawings,” says the architect. IHV prefabricated the bathhouse components, an important step since this environmentally delicate island connects to the mainland only by a low-weight-bearing pedestrian bridge. Accordingly, with sensitivity to the existing ecology, the builders carefully hoisted components from a barge with a crane during the three months of construction.

The facility opened on June 1, 2000. Although Stout modestly

“KIDS RUN ALL OVER THE BUILDING,” SAYS STOUT. “THEY TREAT THE OBSERVATION DECK’S STAIR LIKE A TREE HOUSE.”

calls it “just a nice bathhouse for beachgoers,” the building provides more than changing rooms and showers. There are storage areas for lifeguards and offices for the staff of the facility’s small boat dock. The four-story towerlike section at the front houses a ground-floor cafe, a lifeguard station, and an observation deck.

Showcasing his imaginative energy program, Stout prominently installed a rapeseed-oil generator beside the stairs to the tower, that powers the building during the dark winter months. Visitors are thus boldly introduced to the facility’s unusual energy source. In addition,

the building’s on-site batteries store enough power to recharge smaller batteries onboard 12 photovoltaic-powered rental boats docked at the marina.

Like a devout beachgoer, Stout’s building takes full advantage of the summer’s sunniest months: Its glazed roof, laminated with photovoltaic cells, brings abundant light and warmth to the interior. Raised five inches above the exterior walls, the roof also releases any excess heat build-up. The comfortable and energy-efficient performance of these details is very satisfying to Stout. But what thrills him most is the reception from real-life sunbathers. “The kids just run all over this building,” he says with a smile. “They treat the public stair up to the observation deck like a little tree house. All around, the response from this fairly conservative community has been overwhelming.” ■

Sources

Roofs: Solon AG (glass with integral photovoltaic cells)

Plastic panels: Rhom (translucent, exterior)

Framing: IHV Objektbau (wood)

Flooring: Exposed strand board

Curtain wall: Constructed onsite

with standard extruded-aluminum profiles

www For more information on the people and products involved in this project, go to Projects at www.architecturalrecord.com

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Form and Fashion

EMPHASIZING LUXURIOUS MATERIALS AND CUSTOM DETAILING, ARCHITECTS ARE DESIGNING UPSCALE FASHION BOUTIQUES THAT BLUR THE LINE BETWEEN ART, THEATER, AND COMMERCE.



1.

Nicole Farhi, New York City
Gabellini Associates introduces new spatial relationships within a historic building to link clothing displays and a restaurant.



2.

XXXY, Toronto
Designed by Yabu Pushelberg, a big white box outfitted with mobile fixtures and electronic gadgetry captures the youth fashion market.



3.

Costume National, Los Angeles
With canted forms and polished surfaces, Marmol Radziner + Associates transforms a former restaurant space into a fashion flagship.



4.

Dolce & Gabbana, London
David Chipperfield Architects adds two new locations to its global rollout of stores for the Italian designers.

By William Weathersby, Jr.

On view through January 17 at the Guggenheim Museum in New York City, an exhibition surveying the career of fashion designer Giorgio Armani holds up a mirror to the millennial moment. A fascinating convergence of sociology, commerce, and architecture, the retrospective seeks to elevate the examination of clothing design to the level afforded art and other cultural artifacts. Beyond the more than 400 garments on display, it is the design of the exhibition installation that astounds. Theater director and designer Robert Wilson has created a dramatic dialogue between the displays and Frank Lloyd Wright's spiraling volume. Combining floating mannequins, translucent scrim, mudlike floorcovering, and dramatic lighting, the exhibition is a kinetic tour de force that unfolds with each change of scene along the famed ascending ramp.

While such costume shows have become museum blockbusters, the flip side may be found in high-end retail stores worldwide. Here, architects continue to explore a gallerylike aesthetic, with apparel showcased in spare landscapes dotted with dioramas, vitrines, and well-tooled custom fixtures and furnishings. Some sectors of the retail industry may remain in the throes of busily themed environmental design, but purveyors of upscale apparel have embraced museum-infused minimalism as a standard-bearer of space design. "The paring away of pastiche, unwanted detail, and decoration in favor of a mix of contemporary design and handcraft skills adds respect and value to a product [on display]," observes retail designer Rasshied Din in his recent book, *New Retail*. "A pared-down retail space can become a three-dimensional marketing tool," concurs architect Michael Gabellini, AIA. Conveying the aesthetic sensibility and image of a designer acclaimed for refined tailoring, Gabellini's New York flagship for Nicole Farhi is an essay in intersecting planes accented by matte-finished surfaces.

Simple geometrical volumes and a richness of materials characterize additional projects on the following pages. The play of light off canted surfaces at Costume National helps connect the architecture to its Los Angeles milieu. Massive stone staircases and silk-between-glass wall dividers at two Dolce & Gabbana boutiques in London place colorful clothing in bold relief. Taking another approach, the XXXY store in Toronto employs a modern box as a mere starting point; edgy graphics and multimedia installations impart a youthful street edge. Shopping represents an element of entertainment for customers, and some clothing boutiques are touting added attractions, from restaurants to lounges.

In addition to the shops featured in these pages, 10 other retail projects appear on our Web site as part of our expanded Building Types Study, launched this month. The shopping spree begins here!

NEW: For 10 more retail projects go to Building Types Study at www.architecturalrecord.com. The monthly expanded Web BTS features project descriptions, photographs, drawings, statistics, and links to people and products.

Nicole Farhi

New York City



GABELLINI ASSOCIATES TRANSFORMS A FORMER NIGHTCLUB INTO A SERENE LANDSCAPE FOR AN INTERNATIONAL FASHION RETAILER.

By William Weathersby, Jr.

Project: Nicole Farhi, New York City

Architect: Gabellini Associates—Michael Gabellini, AIA, Kimberly Sheppard, principal designers; Daniel Garbowitt, managing principal; Carmen Carrasco, AIA, project manager; Vincent Laino, AIA, project architect; Sarah Cremin, Ben Fuqua, Cathy Jones, Mark Kolodziejczak, Yi-Pei Lin, Nehad Mamon, Lisa Monteleone, Filipe Pereira, Jongku Yee, project team

Engineers: Altieri Sebor Wieber (mechanical); Severud Associates (structural)

Consultants: Ross Muir (lighting); Higgins & Quasebarth (landmarks)

Size: 20,000 square feet

Completion date: Fall 1999

Sources

Masonry: Remco, Academic Stone

Doors, windows: Coordinated Metals

Glazing: National Glass

Cabinetry: Mead & Jospovich

Custom furnishings: George Nakashima

Flooring: Fordham, I.J. Peiser's Sons

Lighting: Lightlab Corporation, LTBN, Kurt Versen, Lutron

Display fixtures: Opus Magnum

WWW

For additional retail projects and more information on the people and products involved in this project, go to Building Types Study at www.architecturalrecord.com

Program

Clothing designed by Nicole Farhi combines refined materials and precise tailoring in a style that could be called luxurious minimalism. When establishing a retail store in New York City, the London-based designer wanted to follow suit with a similarly clean-lined, finely detailed architectural backdrop. Besides areas displaying men's and women's apparel, the program required discrete spaces to house a 130-seat restaurant and a home-furnishings line. To carve a new modern setting within a historic building that had been shuttered for a decade, Farhi collaborated with Gabellini Associates, an architectural firm that has designed retail stores for high-profile clients including Jil Sander and Giorgio Armani.

Located on East 60th Street between Fifth and Madison Avenues, the Farhi flagship occupies the lower two levels of a Beaux-Art-style structure built as a hotel in 1903. From the 1930s through the late 1980s, the site was home to several incarnations of the Copacabana nightclub. The building is not designated a landmark but falls within a landmark district on the Upper East Side, so the facade was restored with new honed Indiana limestone and Deer Isle granite to

RECORD contributing editor William Weathersby, Jr., is a writer based in Westport, Conn.



match the original stonework.

"Inside, the space was absolutely derelict after sitting vacant for 10 years," says principal architect Michael Gabellini, AIA. "Although we knew we would gut the interiors, the challenge was both structural and programmatic: How do you create retail excitement and

a sense of openness in a space that in large part occupies a basement?"

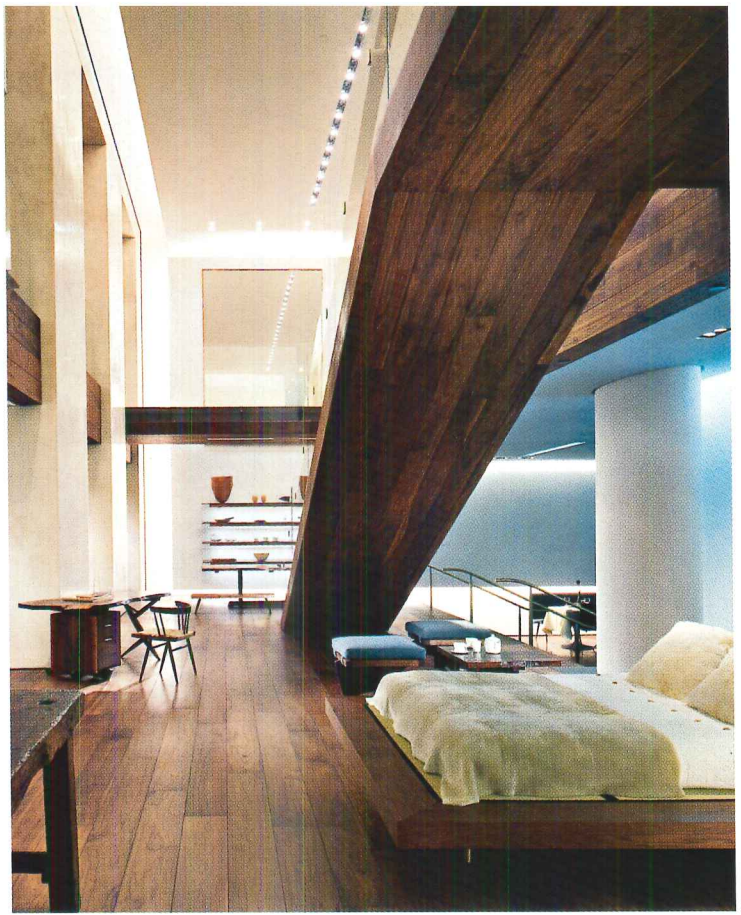
Solution

The new sense of openness is provided by two double-height atria at the front and rear of the plan. The atria flank a 3,500-square-foot main retail space that appears to be



The refurbished facade features enlarged first-floor windows (left). A walnut-clad entry bridge spans a double-height atrium and frames a view of the lower-level restaurant (below and opposite).





suspended within the volume. Entering from the street, customers walk across a walnut-clad bridge that spans the 26-foot-high front atrium to connect with the main sales floor featuring women's apparel. Bracketed by glass side panels, the bridge affords a view of the restaurant below. Access to the women's fitting area is provided by a second bridge spanning the rear atrium, which houses home furnishings below. Men's apparel is showcased at the rear of the lower level. Walnut staircases at either end connect the two floors.

Opening up sightlines was a priority. Transfer beams were inserted to support the weight of the building's 18 floors above the store, allowing the removal of two rows of columns on each Farhi floor. Each floor now is punctuated by four large elliptical columns sheathed in plaster. Enlarged ground-floor windows fill the front volume with daylight and offer passersby a better glimpse inside.

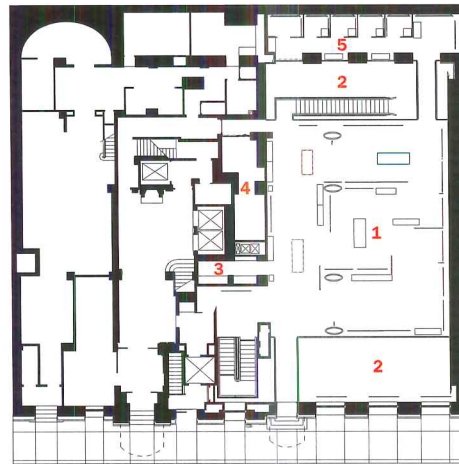
On the main level, a bluestone floor bordered in walnut articulates the floating plane and echoes the tint of the restaurant's plaster ceiling.

An internally illuminated bar table of estremo marble anchors the restaurant (opposite). Connecting the upper floor with the home-furnishings area, a staircase features narrow-profile treads of walnut (above).

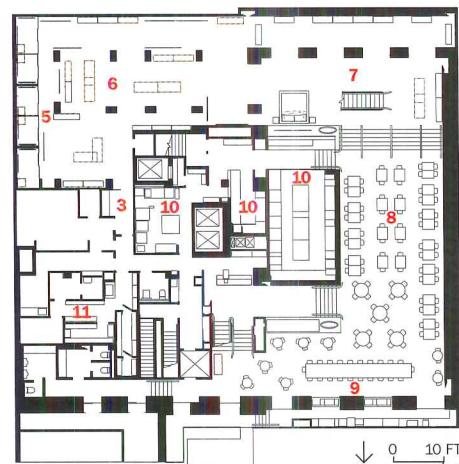
ing. Display racks suspended from the ceiling and cantilevered shelving heighten the sense of lightness. The women's fitting rooms, veiled by walnut and rice-paper shoji screens, are a luminous backdrop. Ambient neon lighting crisply outlines the edges of the architectural envelope.

Commentary

The lower level successfully banishes any basement feeling: a glass-enclosed cube set atop a raised bluestone plinth elegantly houses the open kitchen, while an illuminated marble bar table is a focal point. The narrow space allocated to home furnishings, however, seems attenuated. Benefiting from well-engineered acoustics and food-service ventilation, the restaurant and boutique spaces coexist beautifully. Vista-framing staircases, bridges, and atria handsomely thread together the interior spaces. ■



GROUND FLOOR



LOWER FLOOR

1. Women's clothing
2. Atrium
3. Cash/wrap
4. Storage
5. Fitting rooms
6. Men's clothing
7. Home furnishings
8. Restaurant
9. Bar
10. Kitchen
11. Service area



XXXYY

Toronto

2

YABU PUSHELBERG COMBINES FLEXIBLE FIXTURES AND MULTIMEDIA INSTALLATIONS WITHIN A MOD BOX TO ATTRACT THE YOUTH MARKET.

By Beth Kapusta

Project: XXXY, Toronto

Architect: Yabu Pushelberg—George Yabu, creative director; Glenn Pushelberg, managing partner; Andrew Kimber, Sanjit Manku, design team; Mehari Seare, Alex Edward, Shane Park, technical team

Engineers: LKM Engineers, AIM Engineering (structural)

Consultants: Giancarlo Garofalo Architects

Size: 9,000 square feet

Completion date: November 1999

Sources

Curtain wall, doors: Albion Glass

Signage: Sunset Neon

Floor and wall tile: Forbo Industries

Flooring: Stonehard Canada

Millwork, display cabinets:

Provincial Store Fixtures

Metal: Vogue Display

Lighting: TPL Marketing

Scrims: Metromedia Technologies International

Paints and stains: Sherwin Williams, Sikkens

WWW

For additional retail projects and more information on the people and products involved in this project, go to Building Types Study at www.architecturalrecord.com

Program

XXXYY is an act of architectural jean therapy, an attempt to attract the lucrative youth market of teenagers and early-twentysomethings by creating a dozen or so clothing boutiques-in-a-box, the first such undertaking for the Canadian retailer Thrifty's. In addition to housing easily transformed "boutiques" that display varied individual apparel labels on the ground floor, the 9,000-square-foot store also includes a mid-level lounge and a mezzanine-level clothing boutique and shoe store.

Solutions/Intentions

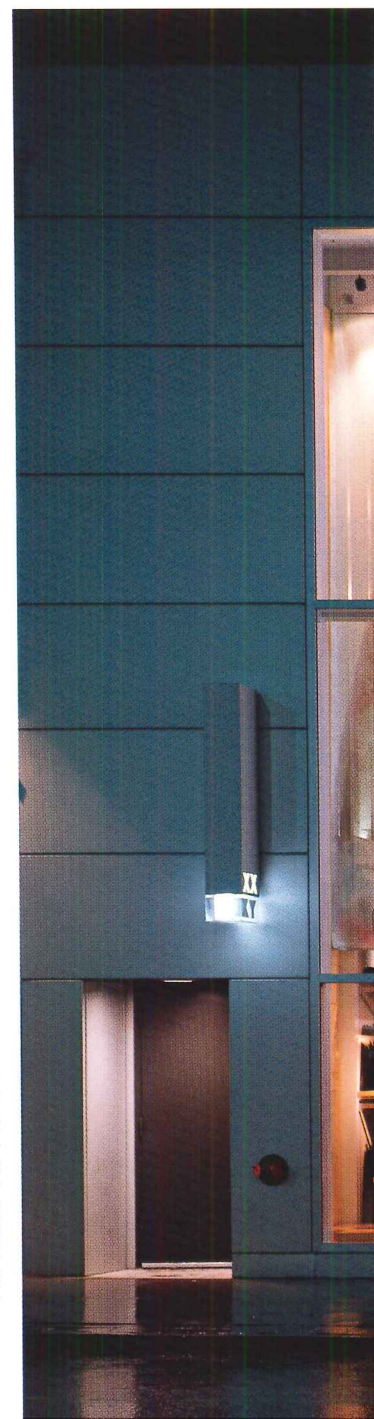
An integrated design and marketing approach developed by partners George Yabu and Glenn Pushelberg caters to the needs of what they call Generation Y, "a market-savvy, culture/fashion-sensitive, and gender-neutral demographic group that is both sophisticated and image-conscious." From a practical point of view, the intention was to create an open and flexible space that could be easily reconfigured as fashion merchandising needs changed from season to season. Aesthetically, the designers wanted the store to establish street credibility with their target consumers, projecting an image that is "fresh, hip, just short of techno but definitely young," says Yabu. To accomplish this, the design

Toronto-based writer Beth Kapusta is a frequent contributor to RECORD.

team developed a big neutral white box that frames an eclectic palette of materials including vinyl, acrylic, translucent fabric, metal, and steel. The open space is animated by an art-installation approach to both displays and activities staged within the store. Virtually all display units rest on casters so that apparel brands can be switched quickly, expanding or contracting according to the ever-changing market. Inspired by the store's name, a tongue-in-cheek DNA motif features references to biology (genes, chromosomes, gender symbols) projected with strong graphics.

The most successful design gesture is the Soho-style opening of an expansive, double-height space to create an inviting presence on what was a rather dead stretch of Yonge Street in downtown Toronto—an area that is currently the locus of urban revitalization attempts. The project is located across from the refurbished Eaton Centre galleria and just south of a new urban square, which are ambitious components of the ongoing gentrification. Massive XXXY signage, which establishes the store's androgynous theme, is illuminated day and night and creates a synthesis of graphics, marketing, and architecture.

To overcome some of the scale issues of the big-box frame's 25-foot ceiling height, the design team introduced several interior solutions. Luring shoppers to the second-floor



PHOTOGRAPHY: © EVAN DION



Plastic scrims, embellished beams, and video monitors give XXXY the look of a conceptual art installation (left and far left). A curtain wall and signage market the store billboard-style (below).



shoe area and mezzanine boutique, an expanded mid-run stair landing supports an orange vinyl-encased lounge with oscilloscopes (machines that provide an analogue analysis of the noise levels in the store). Video monitors amid the shoe displays project images of pedestrian feet walking past the store.

Materials

Light aluminum mullions demarcate the 33-foot-high transparent facade, animated by the presence of huge illuminated letters. Windows are covered with translucent scrims lit by high-pressure sodium fixtures.

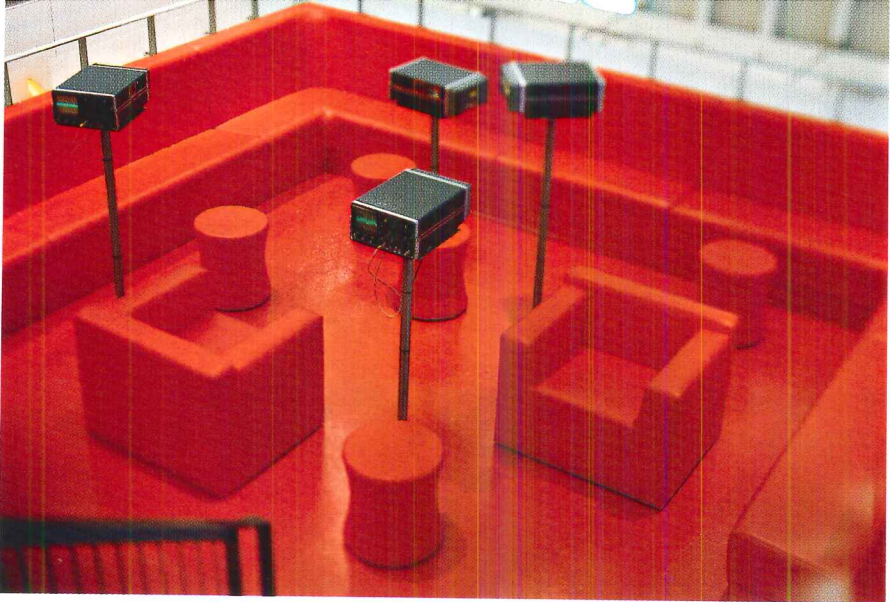
Inside, the “white box” effect is achieved through a monochromatic perimeter treatment combining exposed brick, backlit glass panels, and drywall dressed with built-in fixtures. Lacquered, metallic blue armoires-on-wheels break the perimeter into a series of U-shaped boutiques. Throughout, custom fixtures include mobile cabinets made of sealed particle board and equipped with built-in lighting fixtures. The fire-proofed steel structure of the mezzanine is turned into a fetish rather than hidden: gray furry fireproofing is wrapped with transparent zippered

plastic covers that look like architectural raincoats. The “rubber lounge” upholstered in orange vinyl seems an almost monolithic continuation of the orange epoxy floor.

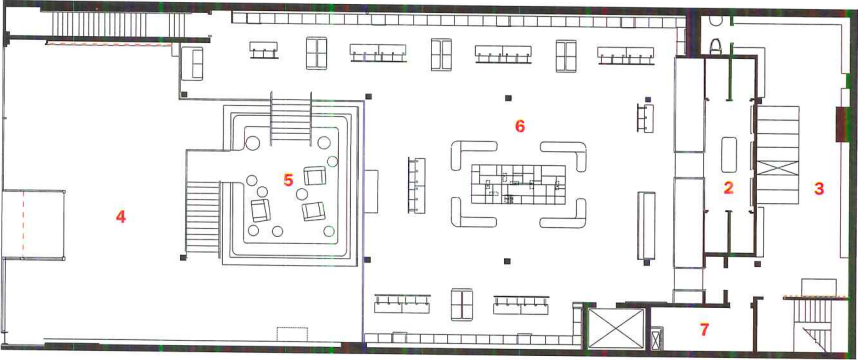
Commentary

The agenda to meld marketing and design at XXXY is somewhat undermined by the obscurity of some gestures. It is the big, urban scale that achieves a significant power, while groovy electronic details are less engaging. This retail space seems to wrestle with something of an identity crisis, perhaps a fitting metaphor for its patrons. ■

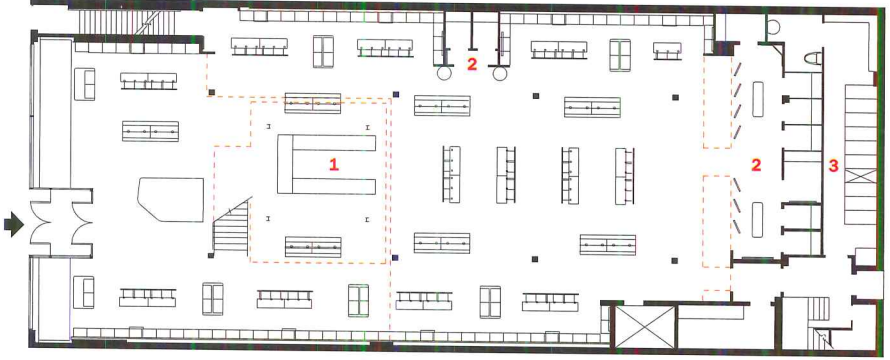




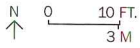
Mobile shelving units with integrated lighting are easily reconfigured (below left). The steel cash/wrap desk is framed by a treelike column sprayed with fireproofing (far left). A stair landing serves as a futuristic lounge (left).



SECOND FLOOR



GROUND FLOOR



- 1. Cash/wrap
- 2. Fitting rooms
- 3. Storage
- 4. Open to below
- 5. Lounge
- 6. Shoe boutique
- 7. Meeting room

Costume National

Los Angeles

3

MARMOL RADZINER + ASSOCIATES ORCHESTRATES A PLAY OF LIGHT WITHIN A SPACE DEFINED BY ANGLED PLANES AND GLISTENING SURFACES.

By David Hay

Project: *Costume National, Los Angeles*

Architect: *Marmol Radziner + Associates—Leo Marmol, AIA, managing principal; Ron Radziner, AIA, design principal; Stephanie Hobbs, project architect; Nicole Starr, Huay Wee, project team*

Engineers: *Niver Engineering*

Consultants: *John Brubaker Architectural Lighting Consultants*

Size: *3,000 square feet*

Completion date: *March 2000*

Sources

Skylights: *Aluminex/Skyview*

Flooring: *Ardex*

Hardware: *FSPB, Baldwin*

Lighting: *Bartco, B-K Lighting, Lightolier*

Furniture fabrication: *Monte Allen*

Fire-control doors, security grilles: *QMI Roll Shutter Supply*

Paints and stains: *Sinclair Paint*

Lighting: *Bartco, B-K Lighting, Lightolier*

WWW

For additional retail projects and more information on the people and products involved in this project, go to Building Types Study at www.architecturalrecord.com

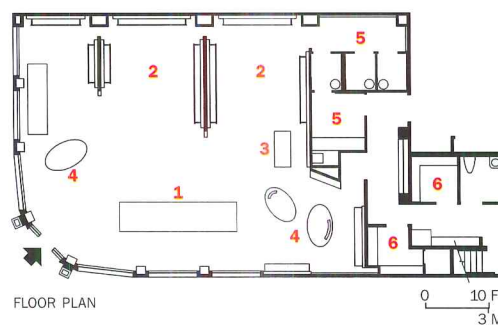
Program

Milan-based fashion designer Ennio Capasa wanted to make a statement when he opened a branch of his Costume National line in Los Angeles. Located on a fashionable stretch of Melrose Avenue in West Hollywood that includes retailers such as Fred Segal and Miu Miu, the 3,000-square-foot store presents a minimalist environment as a foil for upscale fashions. “The store had to show what sort of fashion company Costume National is, yet it had to be done in a way that expresses what Los Angeles is all about,” says principal architect Ron Radziner of Marmol Radziner + Associates.

Solution

The architects distilled the “essential Los Angeles” to a play of light off sleek planes. This approach was a departure for Costume National, which has relied on a stark color palette as the signature element in previous stores; European shops are all white, while the New York branch is defiantly black. Here on the West Coast, Marmol Radziner believed that a deft combination of abundant natural light and artificial illumination would give the space a distinctly Southern Californian feeling, without diminishing the client’s need for a demonstrative showcase for flashily detailed clothing. “We

David Hay is a Los Angeles-based writer on architecture and the arts.



1. Main display
2. Hanging display
3. Cash wrap
4. Seating
5. Fitting rooms
6. Storage

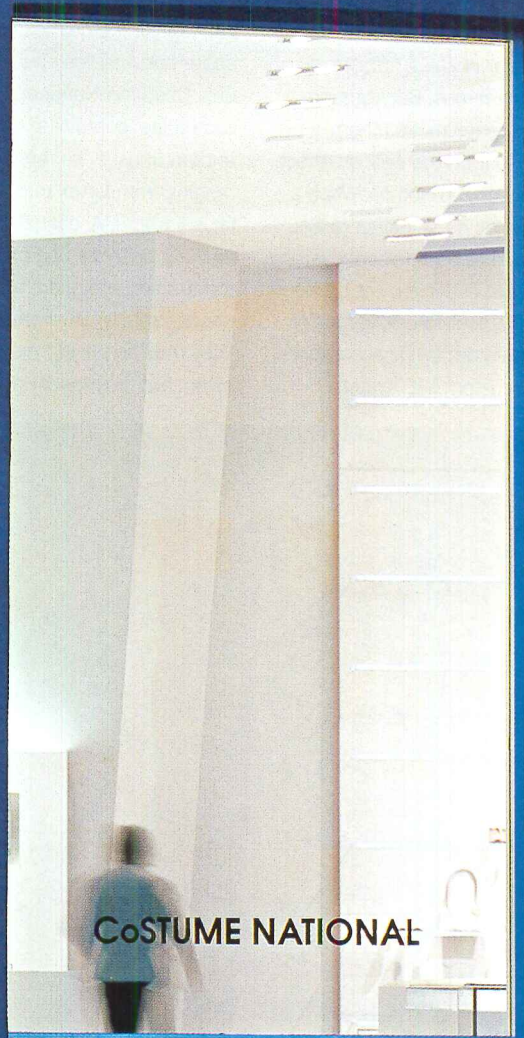
decided we would use light in different ways,” Radziner says, “highlighting the glistening qualities of interior surfaces in some places and creating shadows in others.”

Working within the footprint of a former restaurant space, the design team first increased the amount of available light coming into the store. Six windows lining two perimeter walls of the building were enlarged to almost floor-to-ceiling dimensions, and the existing skylights were refurbished. To help

capture the incoming daylight, existing details such as the sloping roof and a curved corner entrance were retained. The light and airy ambience is reinforced with a pearl-gray waxed concrete floor.

The slanting ceiling, which measures 17.5 feet high at the east side of the store, inspired the use of three canted divider walls that form alcoves where clothing is displayed. The shortest wall, measuring 8.5 feet long, is nearest the front of the store, while the longest, at 20.5 feet,

The windows of the existing building were expanded to nearly floor-to-ceiling height to create a grand scale and open feeling.



is parallel to the rear wall. The dividers create a staggered sightline from front to back along one side of the store, with the remaining interior space on the opposite window walls left open. "When you enter the front door, you can understand the totality of the space in just one glance," Radziner says.

To supplement the play of sunlight in the space, the architects highlighted display areas in the darker, shadowed alcoves with fluorescent and LED illumination.

Taking a cue from display fixture detailing in other Costume National stores, the architects arranged large boxes along the walls to serve as backdrops for clothing hung from stainless-steel rods. Backlighting behind the boxes makes them appear to float off the wall, an effect that extends to the clothes. When a customer picks out a leather jacket, for example, it is as if he or she is plucking it out of thin air. Set between the windows, floor-to-ceiling runs of Lucite shelves displaying accessories are lit by a custom LED system.

Materials/Detailing

The lighting effects would not work successfully without deft material counterpoints. The wall boxes, for example, are painted a high-gloss white lacquer. To confine the sheen to the boxes themselves, the walls behind are painted a contrasting putty shade. The waxed concrete floor provides a further surface glistening with light. Suede and leather-upholstered seats punctuate the austere surfaces.

Commentary

At Costume National, design accomplishes a distinctly contradictory goal: making a quintessentially spare Los Angeles space feel luxurious. Costume National's recent winter line, combining dark hues and an unusual variety of fabrics ranging from Lurex to chiffon, is a far cry from L.A. casual. Yet thanks to the architect's use of light, customers are reminded, almost unconsciously, of where they live. They may be buying the best of Milan, but they feel at home. ■



Partitions staggered along one side of the store accommodate clothing racks, allowing the luxury of the wrap-around windows (left). Apparel is sparsely displayed in museumlike vitrines (above).



Framed by backlit boxes, clothing hung on wall racks appears to float. Daylight plays off the subtle gradations of the neutral palette.

Dolce & Gabbana London

4

DAVID CHIPPERFIELD ARCHITECTS CREATES GALLERYLIKE SPACES AS BACKDROPS TO SHOWCASE ITALIAN FASHIONS IN TWO LONDON SHOPS.

By Marcus Fairs

Projects: *Dolce & Gabbana, London, Old Bond Street and Sloane Street*
Architect: *David Chipperfield Architects—David Chipperfield, design principal; Andy Groarke, project architect; Patrick Campbell, Takeshi Hayatsu, Mansour El-Khawad, Jonathan Wong, design team*
Engineers: *Michael Hadi Associates (structural); BDSP (mechanical/electrical, Old Bond Street); Environmental Engineering Partnership (mechanical/electrical, Sloane Street)*
Consultants: *Metis Lighting*

Size: *8,000 square feet, Old Bond Street; 4,000 square feet, Sloane Street*
Completion date: *November 1999, Old Bond Street; July 2000, Sloane Street*

Sources

Metal/glass curtain wall: *Chimetal*
Hardware: *Allgood*
Seating, cabinetry: *B&B Italia*
Lighting: *Fontana Arte*

Program

When Italian couturiers Domenico Dolce and Stefano Gabbana decided to create a new architectural image for their retail stores worldwide, they commissioned an Englishman with a reputation for crisp modernism. It turned out to be a perfect marriage of two cultures. Dolce & Gabbana required a design treatment that complemented their exuberant clothes without competing with them. David Chipperfield Architects responded by treating the stores almost as galleries in which the clothes, artfully grouped in ever-changing scenographic “families,” instead of hung from rails, become the exhibits.

Chipperfield developed a pared-down palette of luxurious Italian materials and bespoke fittings, annotated in a 180-page construction manual for associate architects around the world. Having perfected the architectural language in flagship

Marcus Fairs is a London-based writer and editor who specializes in design and architecture.

D&G stores in Milan’s Via della Spiga and Sardinia’s Portocervo, Chipperfield made his first foray outside Italy in his home city of London. Dolce & Gabbana is now rolling out 14 additional Chipperfield-designed stores from Moscow to Osaka.

The first of two London D&G locations opened on Old Bond Street. At the heart of the old-money Mayfair district, the street has recently reemerged as the city’s most desirable fashion thoroughfare. The store occupies the ground floor and basement of a 19th-century building close to establishment landmarks such as the Ritz Hotel and the Royal Academy.

Solution

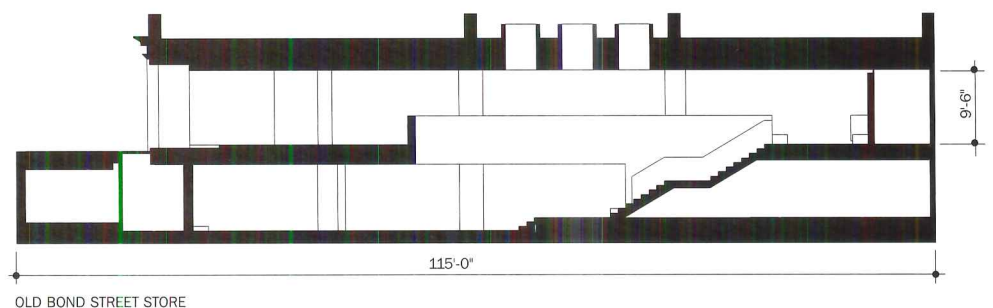
“It was more of an architectural challenge of shaping space than fitting out a retail shop,” says Andy Groarke, Chipperfield project architect. “The space was built to last 15 to 20 years.” After a four-month drawing stage, construction took 22 weeks. The 8,000-square-foot space was stripped to its core and completely reconfigured. A new

limestone fascia matching the original stonework—a solution driven by Old Bond Street’s strict conservation laws—presents a discreetly elegant face to passersby.

Set behind the facade is a laminated glass screen dividing the window display area from the retail floor. Each of the nine-by-four-foot panels features black silk chiffon sandwiched between two sheets of strengthened glass, custom-fabricated in Italy.

The key architectural element, a palatial staircase, links the ground and basement levels. “Originally there was an apology of a staircase at the back of the plan,” says Groarke. “So we knocked out a huge void. Ordinarily it wouldn’t make sense for a retailer to do this because you lose so much floor space, but the client wanted a strong architectural gesture.”

The stairs and balustrades are constructed from 2½-inch-thick basaltina, a silk-smooth, dark gray Italian stone. “The idea was to achieve an almost Sicilian volcanic feel,” explains Groarke. Basaltina is



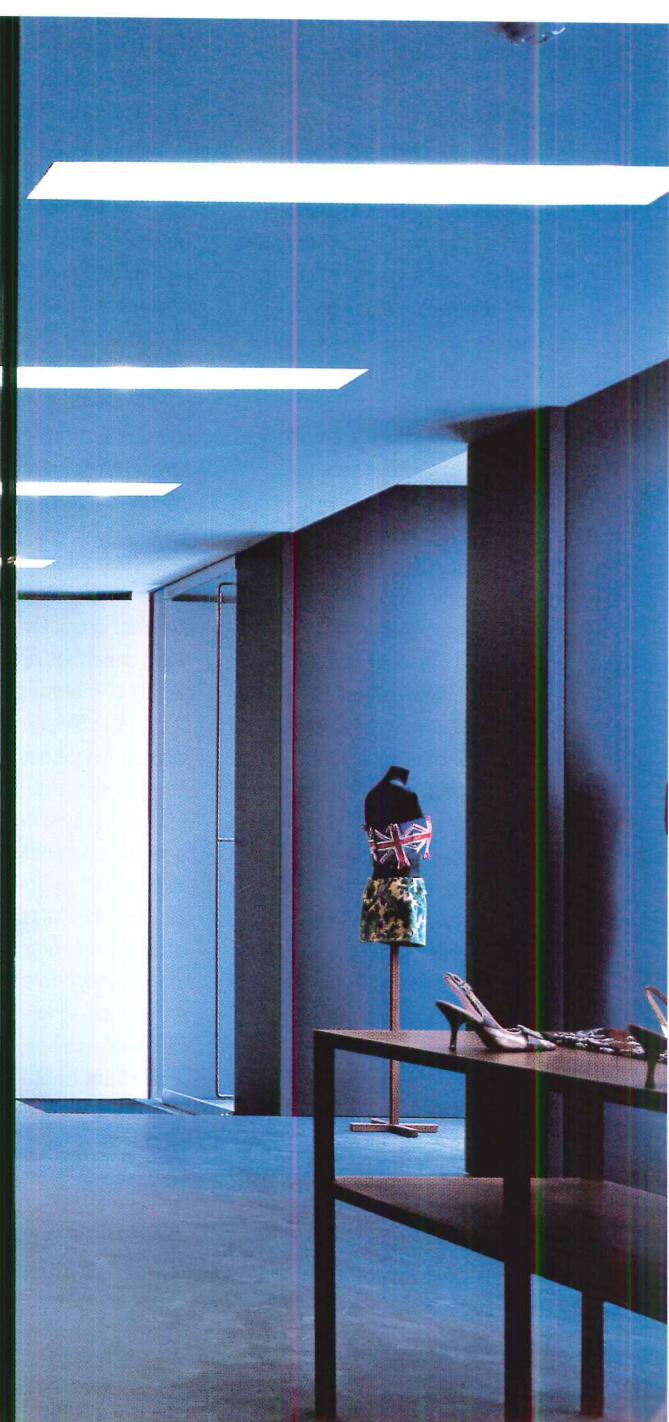
OLD BOND STREET STORE

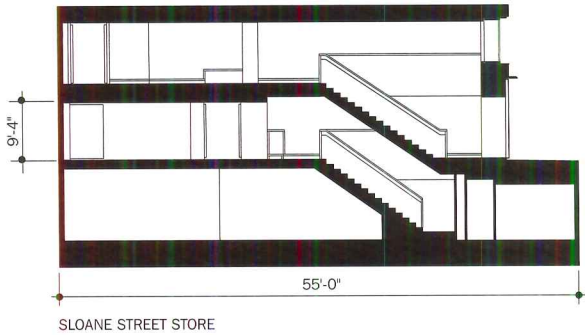
WWW

For additional retail projects and more information on the people and products involved in this project, go to Building Types Study at www.architecturalrecord.com



Laminated glass screens with silk inner layers form a contrast to plaster walls and basaltina stone floors in the Old Bond Street store (left and below). Clothes are displayed on teakwood racks.





also used for the cashier's desk and the stepped display benches that hug the edges of the retail space. More than 500 pieces of stone were used, weighing up to 440 pounds each and cut to a tolerance of .039 inch (1 mm) at a stone yard near Rome.

Commentary

Descending the staircase is a highly theatrical experience. Shoppers are swept from the light and spacious ground level to the boudoirlike lower level, where one's eye is held by a tableau of objects personally selected by Domenico Dolce and Stefano Gabbana: a gilt Baroque throne, giant potted cacti, and zebra-skin rug. Throughout, the architect's technical achievement creates a pristine environment entirely free from visually distracting details such as air-conditioning grilles, light fittings, and ironmongery. The store is lined with false plywood walls hiding what Groarke describes as an "oil-refinery type setup of pipes" that channel chilled air through a narrow shadow gap at ceiling height.

"We lost up to eight inches at the perimeter of the wall, but the idea was to make you feel there was no air conditioning at all," says Groarke. "To get the kind of tolerances we wanted it took an incredibly long time to design it with the mechanical consultants." Smoke tests were conducted on a mock-up of the entire shop in a German factory to ensure the shadow gap functioned effectively.

Custom lighting was designed in collaboration with an Italian firm. Fluorescents and adjustable spotlights are housed in aluminum cases faced with polycarbonate diffusers set flush with the ceiling.

A second London store

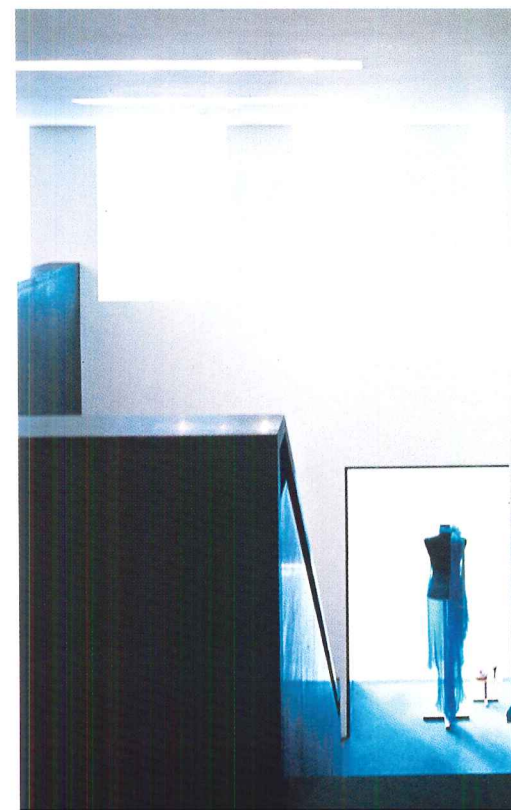
Sloane Street in west London's elite Knightsbridge shopping district presented the architects with a tighter, 4,000-square-foot space spread over three floors of an unremarkable 1970s building. Dolce & Gabbana's existing store at the site closed for demolition the day the Old Bond Street flagship opened, to be converted into a boutique-like store stocking women's apparel only. The tall, narrow space contrasts with the wide, horizontal floor plate at Old Bond Street. The store employs the same palette of materials, but the absence of conservation restraints permitted greater freedom in the treatment of the facade. Graphite-gray sprayed metal panels developed in Tuscany were used to line the windows at Old Bond Street. At Sloane Street, however, the architects opted to clad the entire facade in the same surfacing to create what project architect Jonathan Wong describes as "a monolithic display of materials."

In the Sloane Street store, a basaltina staircase again is the major design statement, a spiraling circulation route connecting the basement, ground-, and first-floor levels. Hand-crafted teak handrails add a sculptural touch. A chunky vertical stripe of teak is also used on the facade to signal the location of the door—the only intervention in the otherwise entirely metal-and-glass street frontage.

The timber flourishes complement teak display furnishings developed with an Italian furniture company, and which outfit all D&G stores worldwide. Glass display cases are lined with black-stained oak drawers. ■



The three floors of the Sloane Street Dolce & Gabbana boutique are linked by a triple-height void formed by the basaltina stone staircase (right). Ceilings remain sculptural and seamless, punctuated only by custom light fittings (above).



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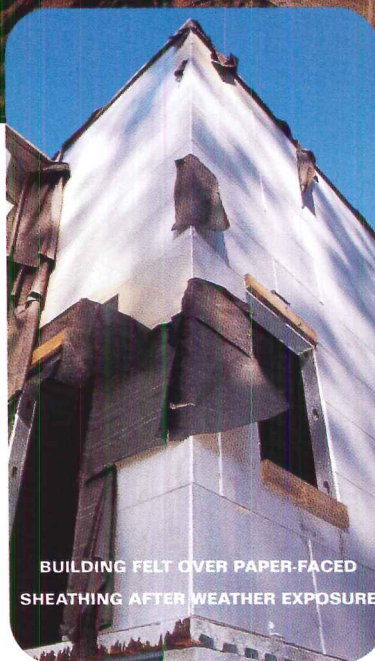
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CIRCLE 39 ON INQUIRY CARD

Photovoltaic technology comes of age

NOW EMBRACED BY TOP DESIGNERS, SOLAR-COLLECTING BUILDING COMPONENTS MAY EVEN INFLUENCE ARCHITECTURAL FORMS.

By Nancy B. Solomon, AIA

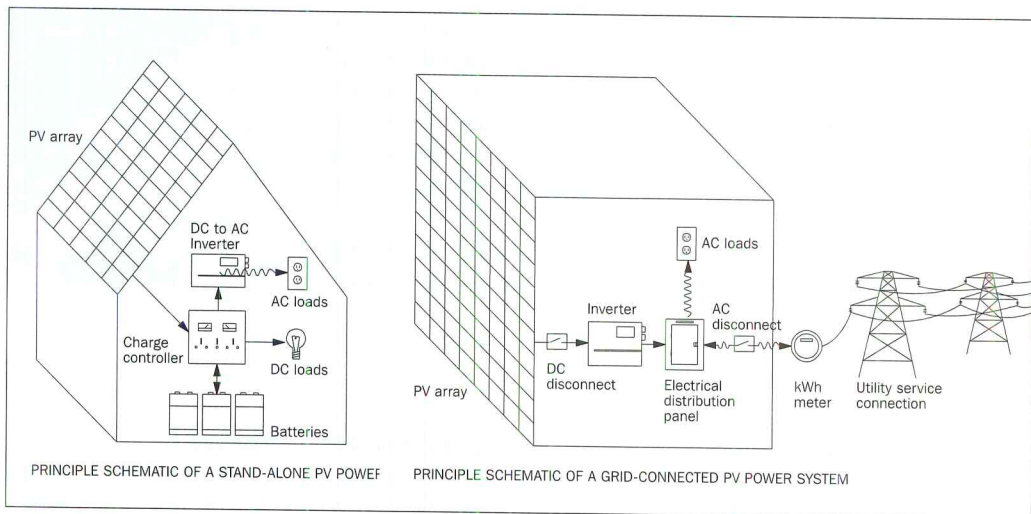
Photovoltaics. For many of us, the term conjures up images of shiny black panels mounted awkwardly and conspicuously on the roofs of remote buildings. Energy-saving, environmentally correct, but not architecturally elegant.

That picture is now changing. The industry has evolved dramatically over the past decade. Photovoltaic panels, which convert sunlight to electricity without consuming fuel or creating pollution, are no longer tacked-on appendages begging to be concealed. Today well-known architectural firms integrate these building components into large commercial buildings, as well as high-rise residential and institutional projects. And instead of being hidden, the photovoltaics are more often celebrated as part of the overall design.

"This is a new architectural material," explains Colin Cathcart of Kiss + Cathcart, Architects, in Brooklyn, N.Y. "Yes, it comes from the high-tech and environmental worlds, but it is ready to be used for any building of any function."

The industry refers to such building-integrated components as

Contributing editor Nancy B. Solomon, AIA, writes about computer, building technology, and practice topics of interest to the architectural community.



In the earliest architectural applications of photovoltaic technologies, standard-sized modules were typically installed on remote residential projects that had no access to utility power (above left). Today, a range of PV products are being integrated into larger projects that are connected to the utility grid (above right).

BIPV systems. These products are designed to replace more traditional building elements, while also producing electricity. Photovoltaic materials are now available for virtually all surfaces of the building envelope. For example, architects can specify photovoltaic shingles, metal standing-seam or exterior insulation systems for the roof. Solar-collecting spandrels, insulated glass units, and sunshade elements are available for curtain-wall systems. And glazing that produces electricity while allowing various degrees of transparency can be ordered for skylights.

Lower prices, higher demand

This evolution of photovoltaic panels into legitimate building products has been the gradual and logical result of a number of converging factors. Government and utility programs have encouraged the development and installation of PV products that are more in tune with the needs of the architect. This support has helped lower the price of BIPV products, making them more competitive with traditional building materials. The reduced price has also made photovoltaic-generated electricity more competitive with traditional energy sources and, therefore, a viable contributor to the electrical utility grid.

In the meantime, many public and corporate clients have come to recognize the positive educational and public-relations benefits that can be reaped from the new technology. Because BIPV products must be part of the building envelope to receive direct sunlight, this energy-efficient strategy is highly visible. More and more clients are willing to pay an additional 1 or 2 percent of total construction costs to have such an enduring symbol of environmental responsibility, says Steven Strong,

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 186 and follow the instructions.

LEARNING OBJECTIVES

After reading this article, you should be able to:

1. Discuss new ways to incorporate photovoltaic materials into buildings.
2. Explain how photovoltaic-generated electricity is used or stored.
3. Describe how panels can be used to maximize their efficiency.

WWW For this story and more continuing education, go to www.architecturalrecord.com

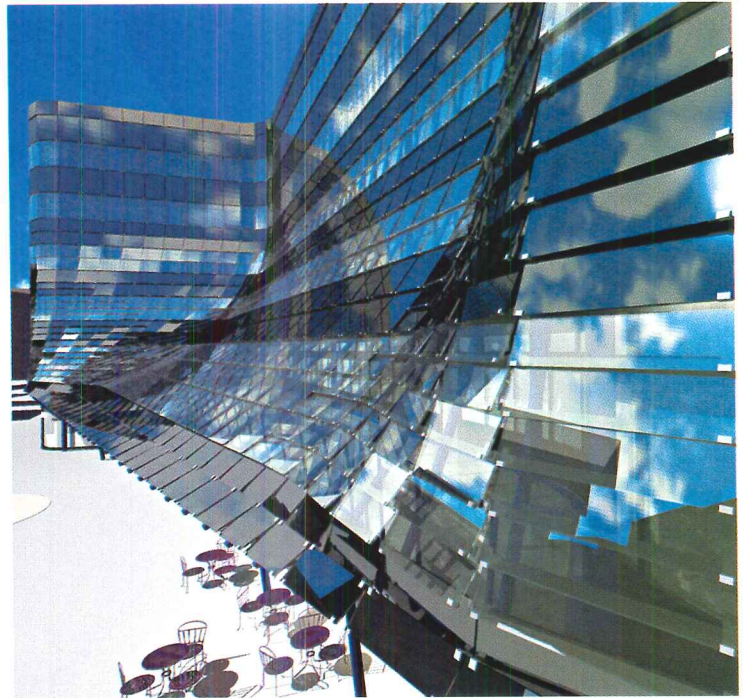
president of Solar Design Associates in Harvard, Mass. “It’s not the torn T-shirt crowd anymore. Turner Broadcast, Lucent Technology, Merrill Lynch are considering it now,” he adds. Even British Petroleum, which now advertises that its acronym, BP, stands for “beyond petroleum,” is starting to build PV canopies above its gas-station pumps worldwide.

Technical details

The photovoltaic effect describes the process by which direct-current (DC) electricity is produced when light strikes a semiconductor such as silicon, cadmium-telluride, or copper indium diselenide (see sidebar). Semiconductors are solid-state materials that are treated to allow current to flow through them under certain circumstances. Photovoltaic systems were developed decades ago for the NASA space program.

Photovoltaic-generated electricity can be used as is, stored in a battery for later consumption, or, in the most common building scenario, converted to alternating current (AC) by an inverter. The AC power is used by the building. Excess solar electricity is “sold” to the utility company. In many states, the “sale” takes place by effectively spinning the electric meter backward, providing the PV owner with full retail value for the solar electricity.

The basic building block in a BIPV system is a PV module, which itself is made of PV cells. Modules are linked together in series with



Defining BIPV products

BIPV products fall into one of two categories: crystalline and thin-film. The crystalline technology relies on silicon as the semiconductor material. It is currently available in three types: single-crystal, polycrystalline, and crystalline ribbon.

Both single-crystal and polycrystalline are essentially produced by creating solid blocks from molten silicon. The resulting ingot is sawed into wafers about 5 inches square and .012 inches thick. In the production of crystalline ribbon, the molten silicon flows through a die to form a faceted pipe or flat ribbon, which is then sliced with a laser into similarly sized wafers.

These wafers are processed into cells, which are soldered together in series to achieve the desired voltage. The series is then laminated onto glass. The laminated cells are covered by a plastic backsheet or another sheet of glass.

Single-crystal cells are usually a flat black; polycrystalline cells are a sparkling shade of blue; and crystalline ribbon cells tend toward purple. Custom colors, though possible, decrease the cells' rate of

efficiency—the percent of incident sunlight converted into electricity.

The typical crystalline PV module is 18 inches by 4 feet with a 4-by-4-inch junction box on the back for electrical connections. This 6-foot-square module holds 36 cells, which is the number necessary to charge the 12-volt storage battery typically used for off-the-grid applications. When photovoltaic panels are connected to the grid, however, the industry is not constrained by battery-charging requirements. Modules of nonstandard sizes, shapes, and features are now available from second-tier fabricators, who purchase the cells from major PV manufacturers.

Working with such fabricators, an architect can tailor the module to suit the design. The transparency can be adjusted by changing the spacing between the opaque cells. The backsheet or interior glass can be tinted to modify the panel's color. A connector can be installed at the edge of the panel in lieu of the junction box to allow for uninterrupted views. And the two-pane glass module can be inserted into an insulated glass unit.

Thin film

In thin-film technology, the photovoltaic material is applied as a thin layer to a superstrate or substrate, typically through a process called vapor deposition. One type of thin film, amorphous silicon, has been commercially available for about 15 years. Two others, cadmium-telluride and copper indium diselenide, are just entering the market.

Thin film is typically coated onto the interior face of a glass sheet. A laser etches a pinstripe pattern of solar cells that are subsequently encapsulated by another sheet of glass. One PV manufacturer vapor-deposits amorphous silicon onto a thin, flexible stainless-steel substrate and then covers it with plastic. Thin film can also be sandwiched between two layers of plastic.

Thin-film modules are dark charcoal to near-black and, from a distance, appear opaque. A computer-guided laser can burn a screen pattern of tiny holes through the material to allow for light and views. The greater the transparency, the greater the manufacturing cost and the lower the electrical output.

Currently, equipment and manufacturing processes limit the dimensions of thin-film products to roughly 8 square feet. Like the crystalline version, the double-glass module can be fabricated into an insulated glass unit.

Efficiency and costs

Generally speaking, single-crystal is the most efficient in terms of electrical output, but it is also the most expensive to manufacture. The sunlight-to-electricity conversion rate is 12 to 15 percent for single-crystal; 11 to 14 percent for both polycrystalline and crystalline ribbon; and 5.5 to 7.5 percent for amorphous silicon. The newer thin-film technologies promise slightly higher efficiencies than amorphous silicon. The average cost for a reasonably sized order of 20 kW (peak) standard factory modules is about \$6.50/watt or \$78/square foot for single-crystal; \$6.25/watt or \$71/square foot for both polycrystalline and crystalline ribbon; and \$5.50/watt or \$28/square foot for amorphous silicon. Actual costs will vary, depending on the module's specific features. *NBS*



**Hamburgische Electricitäts-
Werke AG**

Architect: Kiss + Cathcart, Brooklyn, N.Y.

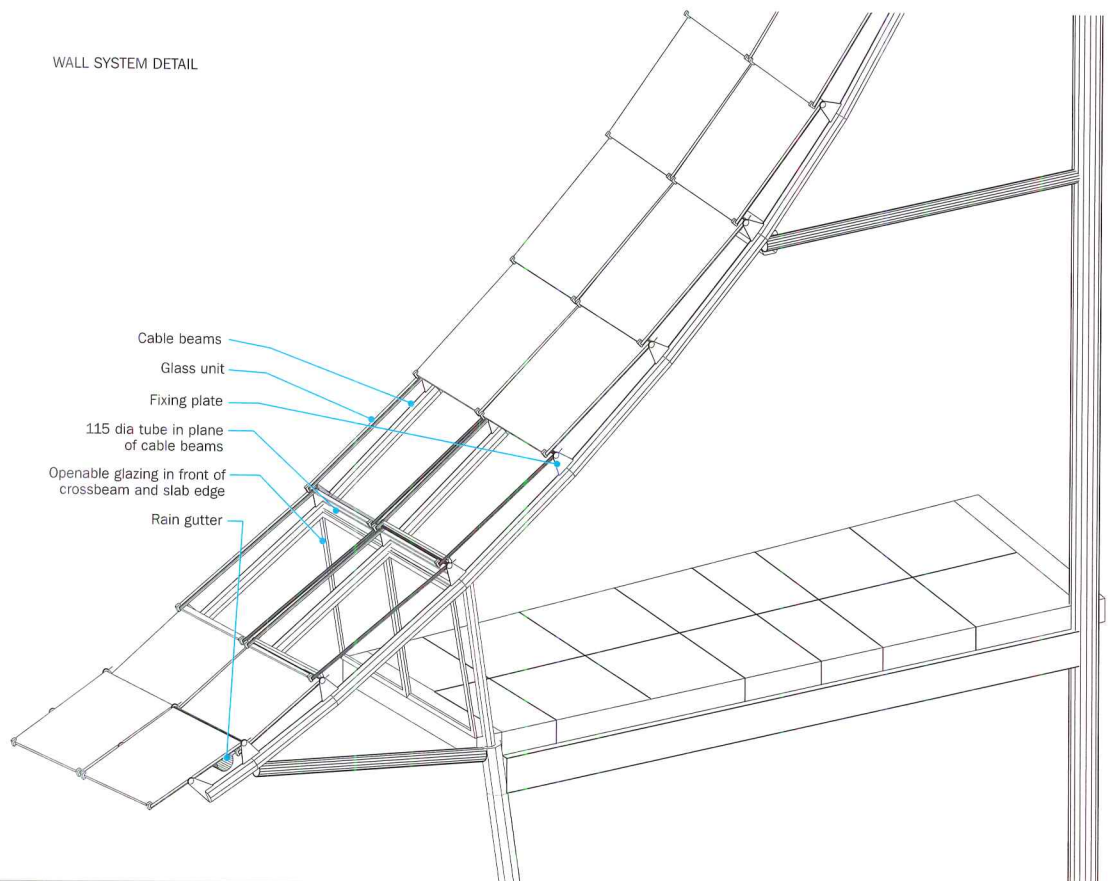
Architect of record: Sommer + Partner, Berlin

Cost: \$3.3 million

Engineer: Ove Arup, N.Y. and Berlin

To stop water and air from infiltrating the customer center of this electrical utility company in Hamburg, Germany, the architects proposed draping a second skin of photovoltaic glass over the original curtain wall (above). The space created between the two would allow for several amenities, including an employee winter garden on the first floor and an outdoor cafe on the ground floor (opposite page). Glass alternates with polycrystalline PV panels in a shinglelike fashion (right).

WALL SYSTEM DETAIL



University of Wisconsin, Green Bay

Architect: Hellmuth, Obata +
Kassabaum, St. Louis

Architect of record: Somerville, Inc.,
Green Bay, Wis.

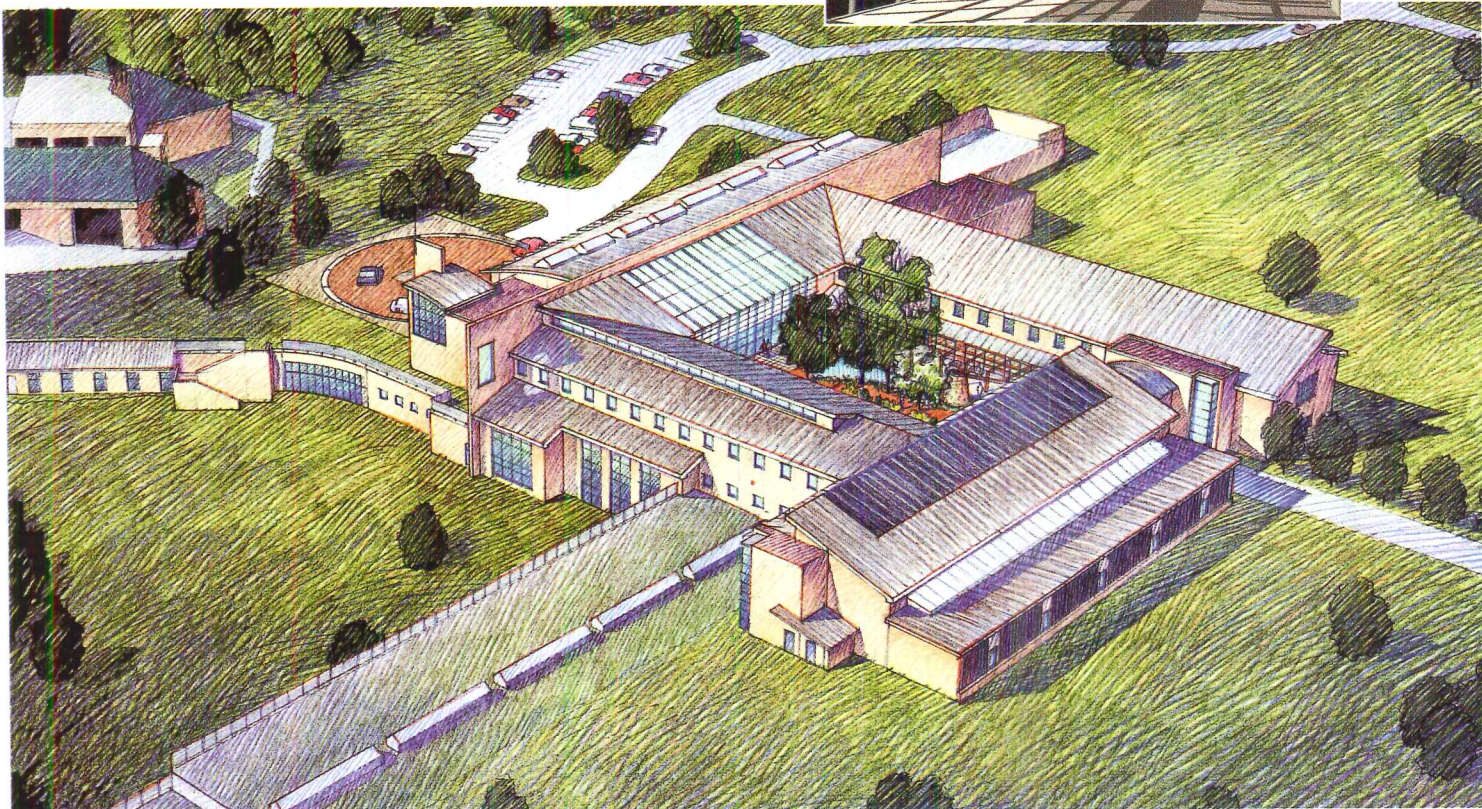
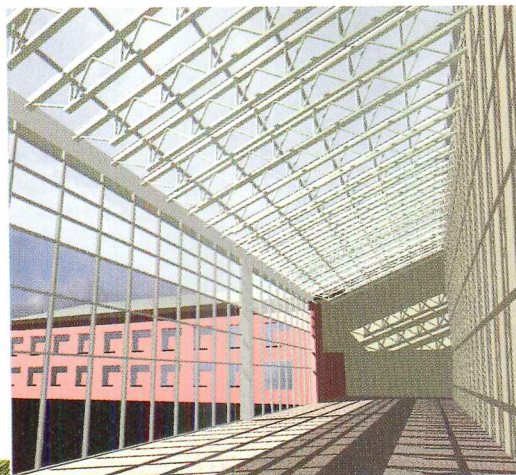
Estimated cost: \$14.5 million (building,
site improvements, and interiors)

Engineer: Design Engineer: William
Tao & Associates, St. Louis; Engineer of
Record: Somerville Inc, Green Bay, Wis.

PV consultants: Solar Design
Associates, Harvard, Mass.

When Wisconsin Public Service heard of the University's plan for a new campus center that would be a model of energy conservation, the local utility offered funding for a BIPV system in order to investigate this technology.

Two types were specified: a PV module laminated on a standing-seam metal roof, and a laser-etched amorphous silicon thin-film glass, to be installed on the sloping roof and upper portion of the south-facing wall of a winter garden (right).



conduit to form a PV array. The structural and electrical interface between the PV module and the building itself—including the structural attachments that hold the modules in place, the wiring that emanates from the module, and the inverter—is referred to as the balance-of-system (BOS) hardware. The entire BIPV system includes the modules themselves plus the BOS hardware.

One of the biggest issues facing the industry today is the lack of uniform interconnection standards—the rules that one has to satisfy to plug a BIPV system into a utility grid. Depending on the region, these standards are established by the utility, the state government, local building codes, or some combination of the three. The standards vary from state to state and from utility to utility. Some are relatively easy to follow; however, others are not: According to Paul Wormser, director of technology at Solar Design Associates, one utility company in Massachusetts has 30 pages of interconnection requirements, while the utility for the neighboring district has only 3.

Some regions, for example, may require a particular type of inverter. Others may have special requirements for accessing and disconnecting the electrical system. Some states allow net-metering while others

do not. And some utilities require proof that the solar-generated power will meet a certain level of quality. Because of the particular interconnection requirements, a system designed for New York City may not work for Los Angeles. “Uniform standards would make a huge difference, but they are not yet on the horizon,” notes Wormser.

When union workers are on a job, their rules will also have to be considered since photovoltaic panels combine components that are often handled by separate trades. Is a curtain-wall PV module, for example, a glass product installed by a glazier or an electrical device handled by an electrician? Although not an insurmountable problem, this question should be resolved early so there are no misunderstandings once construction begins. Typically, the electrician runs conduit and installs junction boxes at the appropriate locations while the glazier sets the glass in place and plugs it in.

Although the photovoltaic panels themselves are known for their durability—they have no moving parts and some have been producing electricity for over 30 years—the architect must ensure that they will be properly maintained. Overgrown trees or accumulated dirt, for example, will block light rays, thereby reducing the panels' output.

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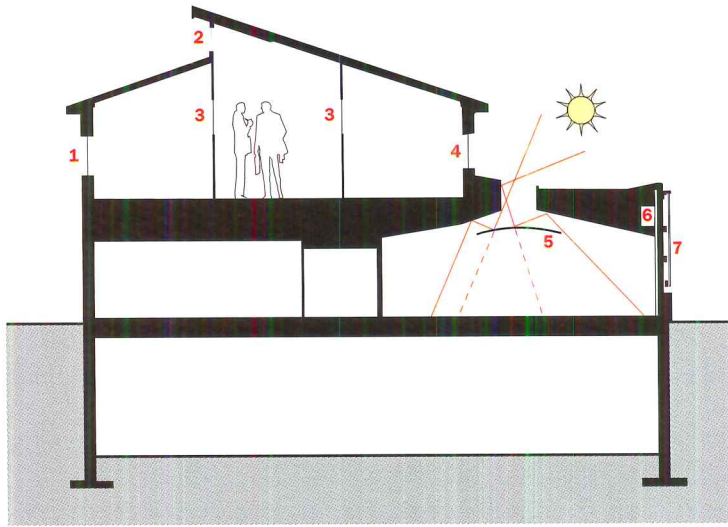
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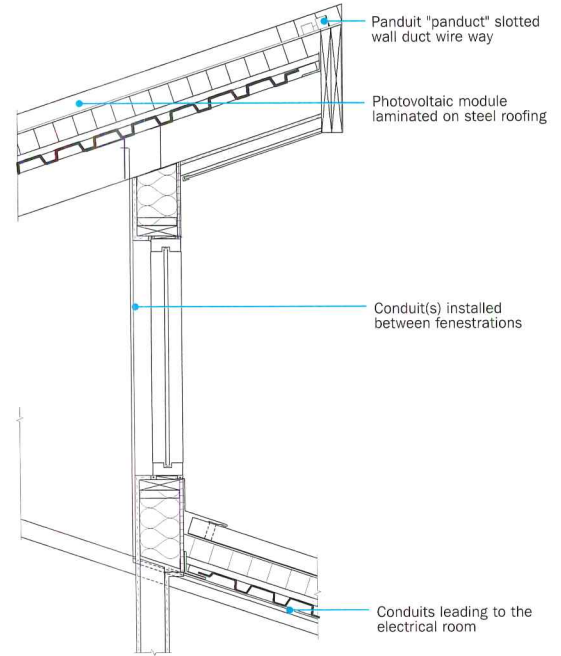


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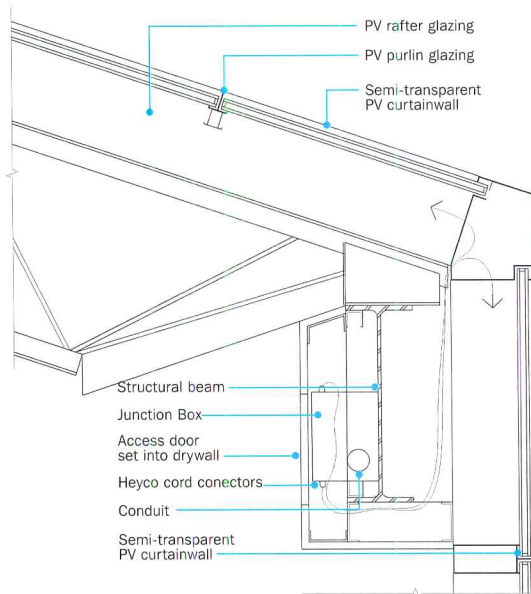


1. North light through window
2. North light through clerestory
3. Daylight sharing through interior glazing
4. South light through window
5. Diffuse light through skylight and deflector
6. Air intake for solar wall system
7. Solar panel wall system



PHOTOVOLTAIC ROOF DETAIL

To make the most of solar-generated electricity, the building should be as energy-efficient as possible. At the University of Wisconsin, the architects relied on skylights and clerestory windows to maximize daylight in the interior spaces (above left). Through various channels and conduits, wires from the PV roof array make their way to the electrical room (above right). At the winter garden, wiring from thin-film PV glazing modules loops around the structural beam to a junction box (left).



PHOTOVOLTAIC GLAZING DETAIL

Maximizing output

The potential amount of electricity produced by a photovoltaic panel is a function of the building location and the panel’s efficiency (see sidebar) and orientation. Different geographic regions receive different amounts of solar radiation, depending on their latitude (the southern half of the United States, of course, receives more sunshine than the northern half) and cloud coverage (North Dakota, for example, is sunnier than New York; Arizona gets more sun than Florida). Such climatic information can be obtained from the Department of Energy’s National Renewable Energy Laboratory in Golden, Colo.

And, of course, energy output will be greatest when the solar panels are oriented to receive the most sunlight. To maximize the annual solar harvest, products installed on buildings north of the equator should face south and be set at a tilt from the horizontal equal to the site latitude less 10 to 15 degrees. Variations from this optimum will reduce the solar harvest by up to 30 percent. The reverse holds true for projects south of the equator.

Such orientations and angles will be modified if the goal of the BIPV system is to maximize electrical output at particular times or seasons. According to Rafael Pelli, AIA, principal at Cesar Pelli & Associates in

New York, the technology works best as a peak-shaving strategy: “The panels should be situated to obtain the most power when the building has the greatest peak loads and, therefore, the owner is paying the most money for electricity.”

Many of the high-profile buildings being designed today with BIPV systems will only reap a small percentage of their total electric requirements from photovoltaic technology. The photovoltaic system that Cesar Pelli & Associates of New York is integrating into a new residential tower in Manhattan’s Battery Park City, for example, will provide 5 percent of that building’s total peak electric load. And a new academic building designed by Hellmuth, Obata + Kassabaum in St. Louis for the University of Wisconsin at Green Bay will receive 8 percent of its power from photovoltaics. But, says Wormser, depending on the massing, location, and photovoltaic design, it is already possible for certain types of buildings to satisfy all their electrical needs from BIPV systems.

Payback

The cost of electricity plays a large role in determining the cost-effectiveness of a particular BIPV system in a particular geographical region.

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CIRCLE 41 ON INQUIRY CARD

According to Richard Perez, a research professor at the Atmospheric Science Research Center in Albany, N.Y., the cost of electricity ranges across the country from 4 cents to 25 cents per kilowatt hour (kWh). In the continental United States, the cost of electrical power is highest in the northeast and in southern California. Hawaii is also extremely expensive.

In addition, certain regions of the country receive the most power from the sun when it is most needed, and therefore most valued. This happens to be true for the big cities in the Northeast, the central plain states, California, and Arizona. New Yorkers, for example, benefit from this coincidence since the sun is strongest midday, when commercial energy loads are highest. But Floridians do not because their demand for electrical power peaks on cold winter mornings.

Even in areas with high utility rates, however, the payback derived from solar-generated electricity accrues very slowly. For example, according to Dan Nall, P.E., AIA, director of advanced technologies at the engineering firm of Flack + Kurtz in New York, a standard PV module installed on a vertical, south-facing wall in New York generates about 1,000 watt hours (1 kWh) per year per watt of rated module power. If 1 kWh is worth 20 cents and the BIPV system costs eight dollars per watt installed, it would take 40 years of electrical output to compensate for the system's first costs, financial incentives aside.

BIPV proponents suggest, however, that other variables should be considered in the payback calculation. BIPV products, for example, typically take on the role of other building products, so construction costs are actually reduced by the elimination of both the materials and installation charges for those other products. And in comparison to very expensive building materials, such as polished Italian marble, PV modules may be less expensive.

In addition, the federal government offers two financial incentives to incorporate BIPV products in a building: a 10 percent investment

tax credit and a five-year accelerated depreciation. And some states offer "buy-down" programs in which they pay some or all of the BIPV costs.

Most significantly, as demand grows, as more projects are built, and as utilities, insurance companies, contractors, and others in the construction field become more familiar with the innovative technology, the costs of BIPV systems are projected to decrease, resulting in a shorter payback period.

Building design

Photovoltaics can be one of the most visible components of an energy-efficient building. It should not, however, be the first—and certainly not the only—energy-savings measure considered during design. "The building needs to be worthy of a solar array," explains Strong. Architects should first optimize the project's site orientation and massing, incorporate passive solar heating and cooling strategies, maximize daylighting opportunities, specify energy-efficient equipment, and consider energy-recovery systems to reduce the building's overall energy needs. The benefits of solar energy will not be fully realized until the building is as energy-efficient as possible.

The advent of cost-effective, building-integrated photovoltaics has, however, made sustainable designers rethink the nature of energy-conscious architecture. In the past, people were taught that boxy buildings—those with relatively small surface areas in comparison to their internal volumes—were the most appropriate because they can conserve the most energy. "But now that buildings can be energy producers," explains Cathcart, "that need not be the paradigm anymore. Instead, buildings with BIPV systems should be slimmer and more elongated to maximize their surface areas. They should reach out to the sun with lots of glassy surfaces, canopies, and pergolas to collect solar energy for electricity." Architectural heliotropism: filled with silicon instead of chlorophyll, buildings mimic plants as they turn and bend toward the light. ■



**AIA/ARCHITECTURAL RECORD
CONTINUING EDUCATION**

INSTRUCTIONS

- ◆ Read the article "Photovoltaic Technology Comes of Age" using the learning objectives provided.
- ◆ Complete the questions below, then check your answers [page 186].
- ◆ Fill out and submit the AIA/CES education reporting form [page 186] or file the form on ARCHITECTURAL RECORD's Web site at www.architecturalrecord.com to receive one AIA learning unit.

QUESTIONS

1. With regard to photovoltaic panels, what changes have taken place in the last decade?

2. What brought about the increased use of photovoltaic panels?

3. How is photovoltaic energy used or stored for future use?

4. How can you maximize the efficiency of photovoltaic panels?

5. How is the cost-effectiveness of BIPV systems determined?

Tech Briefs

A simple, thoughtful design provides comfort and shelter for those in need

Constructed of modest materials, the 52-square-foot shelter prototype for homeless adults in New York's legendary Bowery hardly resembles Mies van der Rohe's 1929 Barcelona Pavilion. And yet the designers were inspired by the pavilion's elegant simplicity, and they borrowed several elements, most significantly the cruciform column and freestanding wall. Called First Step Housing, the shelter is sponsored by Common Ground, a nonprofit housing and job-training agency. It was designed by New York architects Gans & Jelacic and Marguerite McGoldric.

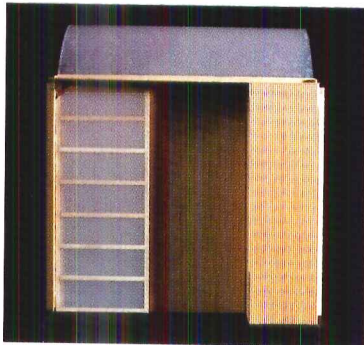
Manhattan's Bowery is still home to flophouses where, for a few dollars a night, people rent cubicles big enough for a bed and some belongings, with chicken wire for a ceiling and a lock on the door. Laid out in rows on large open floors, the cubicles are spare, private, and affordable. First Step Housing is an experiment to improve the quality of these spaces without sacrificing affordability. The form is simple, the structure uncomplicated, the variations unlimited. A post and beam are all that is needed to carry the loads. One module is, after all, only 6 feet, 6 inches by 8 feet by 8 feet high. A single aluminum extrusion is used for both column and beam, cruciform-shaped ($\frac{1}{4}$ inch by $5\frac{1}{4}$ inches) and sized to carry a 300-pound load.

The cruciform was selected, not to imitate Mies, but so that wall panels could be bolted and furniture and doors could be hung from the flanges in any position. At this scale, aluminum is equal in strength to steel, but substantially less expensive, faster to fabricate, and able to be cut and drilled in the field.

For the prototype, the wall is plastic-laminated plywood drilled

and bolted to the flanges. This system provides all the horizontal strength needed, but a continuous aluminum extrusion, resembling a chair rail, carries built-in furniture, such as a plywood desk. On the entrance side, a plywood storage closet extends outside the frame. This provides a place for the door lock and a modicum of privacy and protection at the entrance.

A sliding door hung from the exterior flange locks when the

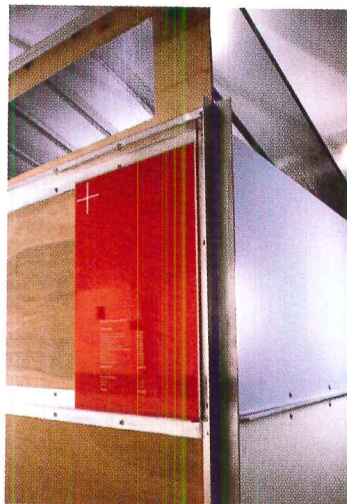


occupant is away and can be replaced with a translucent Kalwall door hung on the interior flange when the occupant is home. Alternatively, for less privacy and more ventilation, the perforated closet door, also hung from the interior flange, slides over the entrance opening. Sliding doors require no framing and meet requirements for handicap accessibility.

The final prototype roof employs the same perforated metal used for the closet door, which can be bent and simply laid in against the flanges of the aluminum beam. Secure enough for this application, the perforated metal allows air and water from the sprinklers to penetrate the space, and expands the perception of space and scale. Electrical service is run along the top beam and surface-mounted to the walls.



Exterior of unit (above) showing entrance door and closet; exterior corner detail (left) of cruciform extrusion and panels; preliminary model of shelter (far left).

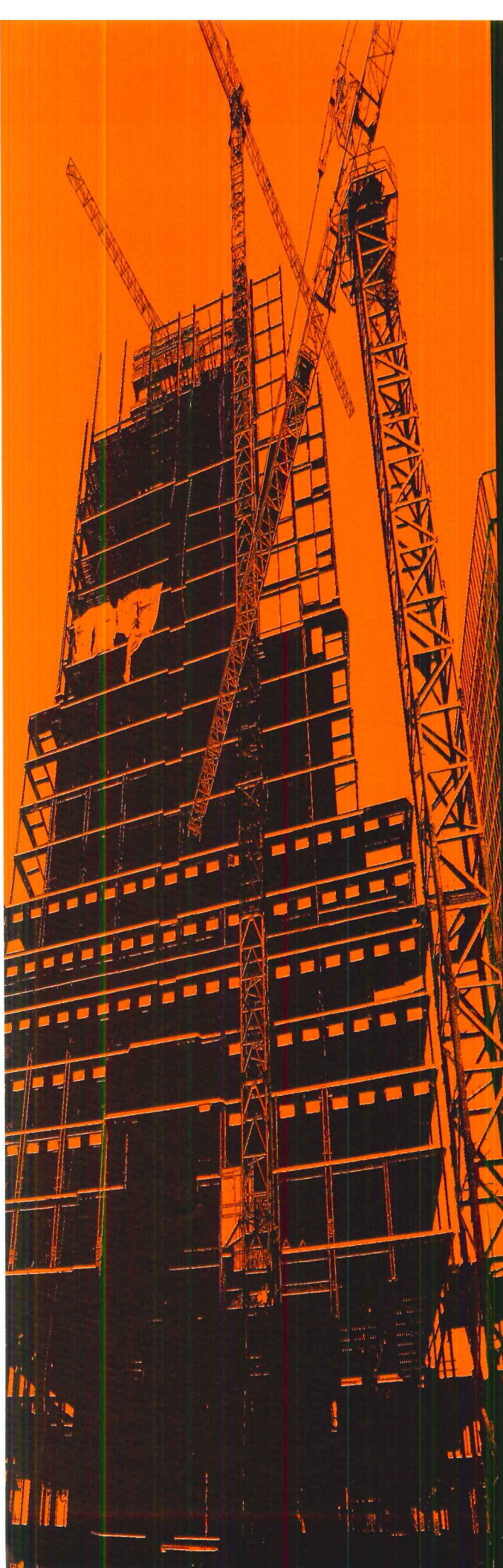


Although the prototype was designed for a specific population and place, the architects considered its adaptability for other uses, including emergency and refugee housing. The modular units can be assembled side-to-side and back-to-back to make double, triple, or quadruple units. The whole system is manufactured and shipped flat as a kit. The columns and panels can be cut and predrilled, and shipped with the hardware, doors, etc. A pair of attached units can be put up or taken down by two people in half a day, but fabrication depends on the circumstances and the materials that are available locally.

The cost is \$5,465 for two

units and another \$1,155 for the furnishings. The cost doesn't include the initial \$875 "fitting up" charge for the cruciform die. And the cost of the aluminum post and beams (\$630 for the two units) is based on a run of 1,000 pounds of aluminum (an 8-foot length weighs about 25 pounds). The per unit cost of the aluminum goes down as the run increases.

This project has ramifications beyond the Bowery. USAID, the principal U.S. government agency extending assistance to countries in need, is currently reviewing the First Step plans and documentation. "Having been one of the selected projects in a competition for Kosovo disaster housing," says Deborah Gans, "we were conscious throughout the design of similar programmatic needs between the two applications." It was for USAID that the architects upgraded the materials and construction process. With speed and simplicity of fabrication, this prototype will translate well to the needs of disaster relief. *Barbara Knecht*



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CIRCLE 43 ON INQUIRY CARD

CAD pioneer reflects on the past and the future

Jerry Laiserin, FAIA

In the words of Charles M. Eastman:

A building can be conceived . . . as a collection of three-dimensional elements arranged in space. Elements might include 2 x 4s, reinforcing bars, precast panels or a room . . . Designing would consist of interactively defining elements, according to their shape and other properties, and arranging them . . . A given arrangement would allow a wide variety of perspective views. . . . It should be possible, then, to derive sections, plans, isometrics, or perspectives from the same description of elements. . . . Approached this way, the range of drawings available would be infinite. . . . Any change of arrangement would have to be made only once for all future drawings to be updated. All drawings derived from the same arrangement of elements would automatically be consistent. . . . Any type of quantitative analysis could be coupled directly to the description. . . . Cost-estimating or material quantities could be easily generated. . . . Sketch solutions will be entered directly to the computer . . . providing a single integrated database for visual and quantitative analyses, for testing spatial conflicts and for drafting. . . . Parts catalogs

Contributing editor Jerry Laiserin, FAIA, provides strategic consulting services to architects and their technology providers.

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

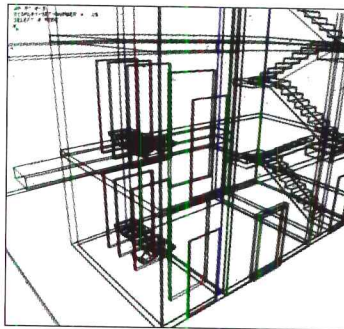
will have to be built up . . . automating the interface between a design representation and what is now Sweets' catalogs. . . . One can conceive of . . . automated building code checking in city hall or the architect's office. Contractors of large projects may find this representation advantageous for scheduling and materials ordering.

These words may seem to have been ripped from a hyperbolic business plan for the latest parametric, interactive, streaming e-commerce baby. Actually, the excerpts come from the stolid and straitlaced *AIA Journal* of March 1975, describing a system that was operational at Carnegie-Mellon University since the previous year under the direction of Prof. Charles M. Eastman.

Educated at UC/Berkeley in the mid-1960s, Chuck Eastman began his pioneering career as a teaching assistant for Christopher Alexander, an English mathematician whose doctoral thesis at Harvard had been published as *Notes on the Synthesis of Form* (excerpted in *RECORD*, April 1965). This experience piqued Eastman's interest in design decision making, which became the subject of his masters' thesis. While lecturing on protocol studies in design at the University of Wisconsin, Eastman attracted the interest of researchers in cognitive processes and artificial intelligence at Carnegie-Mellon University (CMU), where he stayed on for 15 years after joining the CMU faculty in 1967. Eastman's students from this period have had a major impact on architectural design software, education, and practice. The roster

includes: Yehuda Kalay, currently a professor at Berkeley; Doug Stoker, who was one of the SOM technology innovators responsible for programs such as the AES CAD system; and Chris Yessios, Eastman's first Ph.D. student, who taught several more generations of students at Ohio State and who also founded auto*des*sys, maker of the popular form*Z modeling software.

Eastman took leave from CMU in 1982 to start FormTek, an AEC CAD company that he sold to aero-



A computer image from one of the Chuck Eastman's earliest 3-D modeling programs (1976), including building shell, fixtures, and ducting.

space giant Lockheed-Martin in 1987. He then taught and conducted research at UCLA for eight years, and in 1995 moved to the Georgia Institute of Technology, where he heads the Ph.D. program in the College of Architecture, as well as Ph.D. studies in Design Computing; in addition, he holds a joint appointment as professor in the Colleges of Architecture and Computer Science. He remains at the leading edge of research in design data management, serves on the technical advisory committee of the International Alliance for

Interoperability (IAI, "Digital Architect," OCTOBER 2000, page 185), and has recently published an authoritative volume on building product models.

Jerry Laiserin: Are you pleased that concepts you pioneered 25 years ago are now becoming commercial realities?

Charles Eastman: I'm surprised it's taken 25 years to achieve the virtual building. I think the obstacles were psychological issues. Architects claim to work in 3-D, but they really produce in 2-D. There were plenty of systems in existence by the late '70s, especially work in England such as GDS and RUCAPS. These were fully 3-D, with objects, but they did not integrate with the practices in offices at that time. Therefore, electronic drafting is what sold. There was and is a whole infrastructure built around drafting: legal issues; codes and permits; the savings and loan/banking industries; the building-products manufacturers. We didn't realize the power of the cultural inertia in these industries.

Now, this second attempt is more interesting. In part it is motivated by the CAD vendors, who need expanding markets, so they are investing the money in educating the profession about modeling, getting the contractors on board, seeding the schools. Web access opens new opportunities to connect information across different formats and platforms. And architects like Frank Gehry and Greg Lynn are leading the way in blob architecture, which requires modeling rather than drafting.

JL: It sounds like you are optimistic

Digital Architect

about this second attempt.

CE: There is another chance to link 3-D with property information for things such as energy and costing. However, there will never be a single building model with all the data for all the disciplines. Even if you could do it, you wouldn't want to. For example, I'm working with AISC [the American Institute for Steel Construction] on a system called CIS2, which handles design, analysis, fabrication—the full structural life cycle. It has links to all the structural software vendors. But what the vendors and users want is to take out some part of the data from a building model, edit it, and then

check it back in. When organizations look at the management and distribution of data, file-based systems with layers and the like may work at the contractor level where you want to buy things, but not at the design level where you want to be able to change things.

We need design data management down to the object level—much finer control than files and layers. This raises liability issues regarding ownership of data. Not ownership in the contractual, property sense, but in computer terms. Ownership of bits means who has the right to change them. This applies to software objects and to objects on the

Web. If I can change the bits, I can change the design.

JL: So, the ability to share building models and to assign different software ownership rights over different bits within the model to different project team members will finally lead to acceptance of these model-based approaches?

CE: Doing costing and product information in Web commerce is going to require model-based exchange. XML [the eXtensible Markup Language for describing data on the Web] is good for standard products, but how do you use it for engineered products, custom stuff? We need models because models have geometry but XML does not. Model-based data

exchange is an enabling technology. There is a much bigger increment to be gained than just sharing CAD formats. Model-based exchange will change the workflow and shorten the cycle times within the industry. Things like design, bidding, procurement, and fabrication now happen in sequence. But model-based exchange could produce new overlaps, with tremendous compression in time. The potential savings in cost and time are radical.

JL: Won't the same cultural inertia interfere now as it has for the last 25 years?

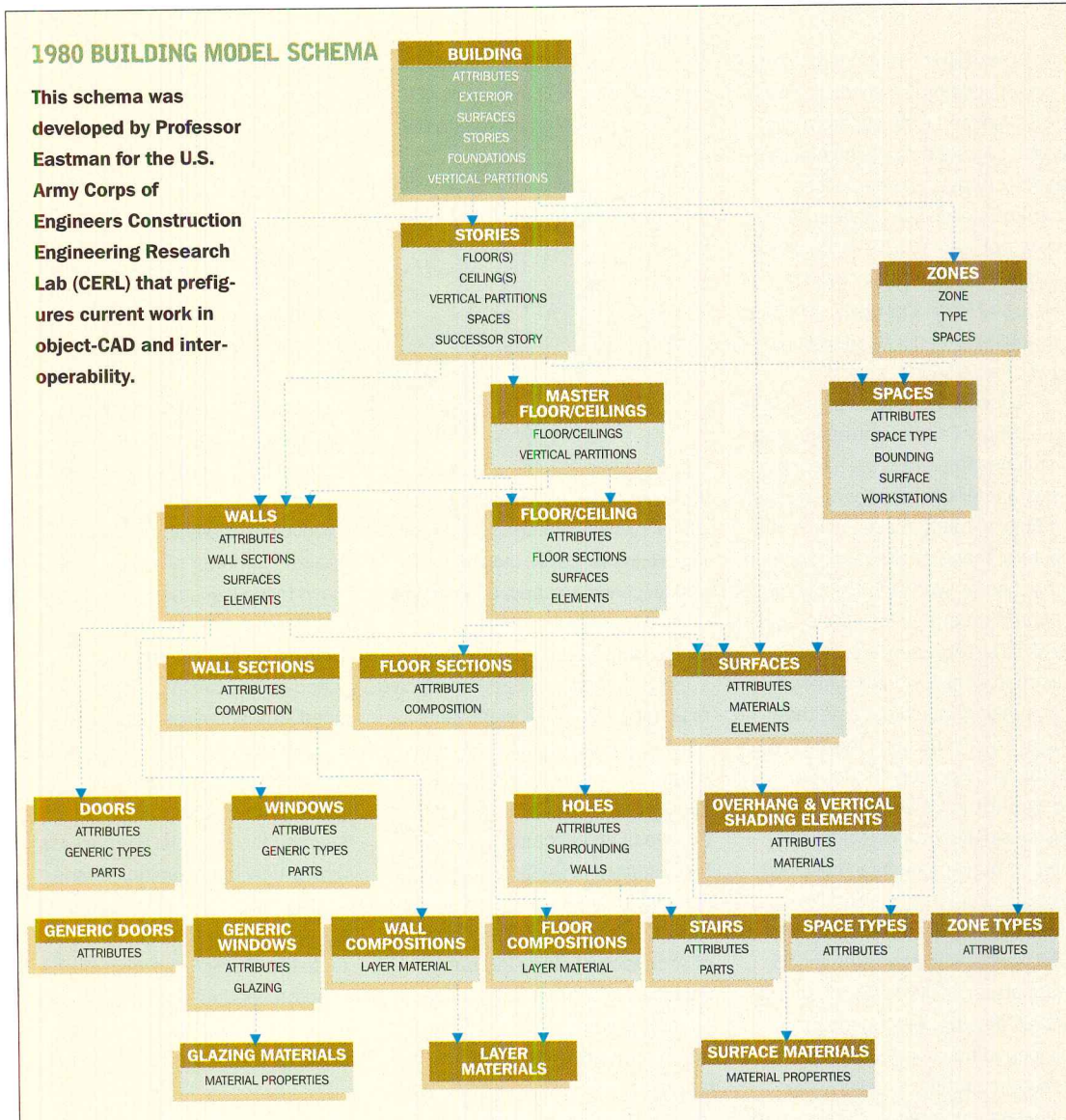
CE: To get there, people will need to feel really confident in the systems and the infrastructure. At the construction level, the industry level, and the educational level, I see the tools and infrastructure coming into place. Buildings are becoming a more industrialized product, made up of more standardized components. We're seeing the possibility for new coalitions and restructurings that change the traditional role of the architect more toward total services, especially in areas such as design-build. The last frontier really is education, where architectural pedagogy is experiencing interesting times.

JL: That sounds like the Chinese curse, "May you live in interesting times."

CE: Well, the schools have just had the transition from paper-based to computer-based design pedagogy, and now they have to move quickly to 3-D modeling. We need to understand the relationship of built form and construction drawings [through the model], but the curricular issues have not been resolved. To learn 3-D form, we used to use drawing, shadow studies, and so forth, with lots of hand-eye motor skills. Now there are new ways to learn form, but these computer methods have not been fully worked through.

JL: You imply that it will take another generation of teachers and students to work this out.

CE: I think the prospects of the 1970s will at last come to fruition in the next 10 to 15 years. ■



RESIDENTIAL

Clean City Living: Modern Houses in Urban Contexts

Ah, the joys of city life: honking taxis, the smell of garbage, crowded mass transportation, and constant noise.

Still, many of us have the city in our blood. An estimated one in seven Americans can trace their lineage back to one city: Brooklyn. And for others, the lures of city life are simply undeniable; great restaurants, diverse neighborhoods, and world-class cultural institutions are beckoning those who once rejected urban centers for the relative peace of suburban life.

relative peace of suburban life.

Just as living in the city has its challenges, so too does making great architecture in an urban context. Rarely are the conditions ideal. In designing an apartment in New York City's Greenwich Village, Rogers Marvel Architects had to combat low ceilings and awkwardly placed structural columns and yet still managed to exploit the stunning views that surround this aerie. In San Francisco, where the go-go high-tech economy has made many a young entrepreneur rich and caused housing prices to skyrocket, Pfau Architecture created a modern take on the industrial loft building, designing a new building that plays nice with its disparate neighbors. And finally in Amsterdam, between highly ornamented 18th- and 19th-century buildings, Tijmen Ploeg shoehorned a spare residential project into a lot five times as long as it is wide.

All of the architects, and their clients, opted for the cleanest possible palettes. Perhaps a calm, quiet home is the perfect antidote to frenetic city life.

Elizabeth Harrison Kubany

141 Residential Briefs

142 Greenwich Village

Apartment

Rogers Marvel Architects

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Pfau Architecture

154 Premsele-Broeksma

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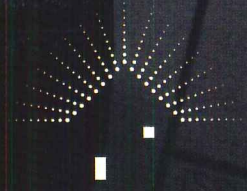


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Residential Briefs



Just what Manhattan needs: Another billboard-sized apartment

It sounds like every New Yorker's dream. Imagine opening the *New York Times*' Real Estate section and finding the following ad: "Loftlike NoHo studio. Excellent location at corner of Lafayette and Bond

Streets. Sunny, airy, clean, fully furnished with the latest Ikea designs, new appliances, terrace with a terrific downtown view. No broker's fee. Rent negotiable."

Working with IKEA, the

Swedish home-furnishings company, Absolut Vodka has created "Absolut New York," a billboard cum life-size studio apartment. Located at the corner of Lafayette and Bond Streets in New York City, the 19-foot-high, 49-foot-long space (larger than some New York City apartments) is completely furnished with genuine, full-sized Ikea furniture designed for the kitchen, living room, bedroom, and bathroom.

The "apartment" is fully detailed. It is completely wired, boasting a working television and computer as well as a stove, refrigerator, and bathtub. No detail was overlooked; from dishes, glassware, and bowls on the kitchen table to throw pillows on the couch to old newspapers, books, and magazines found on

the coffee table, the apartment would actually be completely livable if only it weren't fastened to a billboard! It even has leftover Chinese take-out cartons, a staple of many New Yorkers' diets.

The two Swedish companies created this outdoor spectacle to bring some levity, fun, and wit to a topic that's often sensitive and stressful for many New York City residents. Jim Schleifer, marketing director for Absolut Vodka, says, "We were trying to connect with New Yorkers in a way that shows that the brand truly understands the unique experience of living in Manhattan."

Although "Absolut New York" may look better than many New York City apartments, don't break your current lease yet. Like most other Manhattan apartments, this one is simply not available. And even if it were, you probably couldn't afford it. *EHK*

A developer returns to his urban roots

Think Atlanta and you probably think of urban sprawl. In his book *S,M,L,XL* Rem Koolhaas says, "Atlanta does not have the classical symptoms of city; it's not dense; it is a sparse, thin carpet of habitation, a kind of suprematist composition of little fields." In 1996, as part of a special report entitled "Gridshock: Atlanta's Trouble with Traffic," the *Atlanta Constitution* reported that "Atlanta is probably the fastest-growing of any metropolitan area in the history of the world" and estimated that "the area has grown from 65 miles north to south to 110 miles since 1990." Furthermore, from 1986 to 1996, "metro Atlanta's population grew by 32 percent while land consumed by development grew at nearly twice that rate and the daily mileage driven by vehicles soared by 65 percent."

As Atlanta's biggest apartment developer, John A. Williams helped create this untenable situation. Throughout the 1970s and 1980s, he and his company, Post Properties, turned thousands of acres of suburban forest into vast expanses of garden apartments. Since he began building garden apartments around Atlanta in 1971, his empire has grown to include 35,000 apartment homes in over 100 communities.



Riverside by Post in Atlanta

Today, Mr. Williams has become one of the nation's leading champions of renewed urbanism and smart growth. Even his company's press kit suggests this change of heart. A description of Post Properties reads, "While recognized as a pioneer in branding resortlike suburban apartment communities, Post has ventured aggressively over the last decade into the creation of high-density, mixed-use neighborhoods in urban and infill settings."

Denouncing the suburbs as eyesores and breeding grounds for neurotic youth, he has built projects in recent years that have added apartments, often with stores and offices, to older, urban neighborhoods. He hired

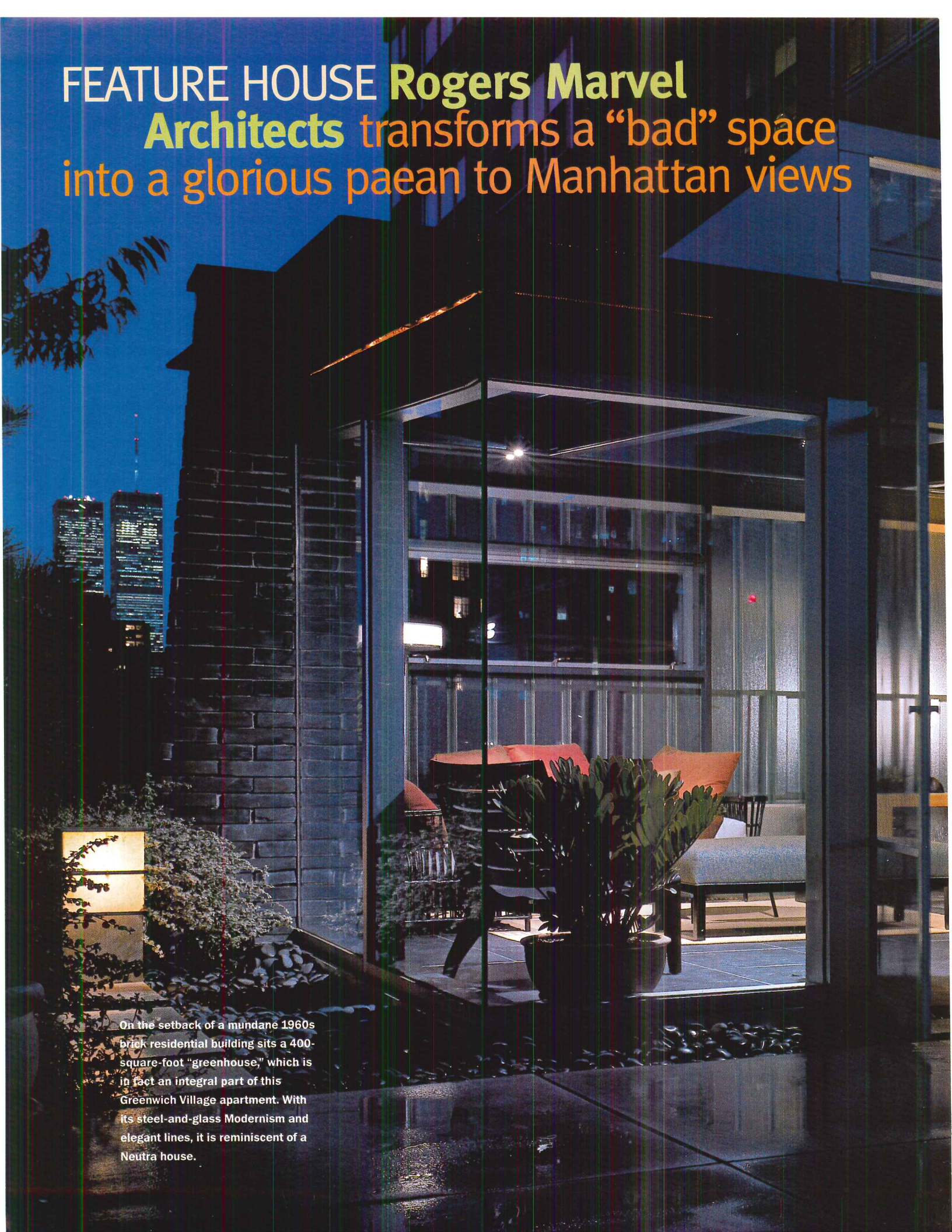


Parkside by Post, also in Atlanta

Miami-based Duany Plater-Zyberk—the architects who essentially invented new urbanism—to design Riverside, the first neo-traditional, mixed-use community in Atlanta. This project has received substantial attention as a template for anti-sprawl development.

For Williams, who grew up in southwest Atlanta, this is a round-trip. "We are trying to build neighborhoods that remind us of where we grew up," he says. *EHK*

FEATURE HOUSE **Rogers Marvel Architects** transforms a “bad” space into a glorious paean to Manhattan views



On the setback of a mundane 1960s brick residential building sits a 400-square-foot “greenhouse,” which is in fact an integral part of this Greenwich Village apartment. With its steel-and-glass Modernism and elegant lines, it is reminiscent of a Neutra house.

By Wendy Moonan

In New York City's currently overheated real-estate market, architects are constantly confronted with the same dilemma. Lacking alternatives, "good" clients purchase "bad" spaces. Fortunately, since its founding in Manhattan in 1991, Rogers Marvel Architects has built a reputation for creative problem solving.

Having completed two projects for one particular couple, the architects were in the enviable position of knowing, and liking, their clients. "They have very good taste and are conceptually literate about architecture," principal Robert Rogers says. In 1998 the couple bought a 2,200-square-foot Greenwich Village apartment—actually two adjoining one-bedroom apartments—on the 14th floor of a nondescript 1960s glazed buff-brick high-rise. It had a 1,400-square-foot terrace and a 400-square-foot greenhouse that were "too good to pass up," in the words of project architect Vince Lee, but the apartment was "a mess, a warren of tiny rooms," Lee recalls. "There was no column grid. And the ceilings were 8' 2"."

Trade it all for the view

The firm embraced the challenge. "We don't want to ignore what's in the city," Rogers says. "We take what the city gives, like low ceilings and odd columns, and find out what's great." In this case, what

Wendy Moonan is the architecture editor of House & Garden and a frequent contributor to RECORD.



was great were the terraces and stunning views of the World Trade Center to the south and the Empire State Building to the north.

The clients' brief was straightforward. The husband, an Austrian banker, and his wife, an American Internet executive, envisaged an open-plan, one-bedroom apartment with a dining area, guest room, and home office/library that could double as a second guest room. They also needed a good, open kitchen because they entertain frequently.

An intellectual approach

At the outset, Rogers devised an intellectual conceit. He organized the spaces along two axes, each offering unobstructed views through the apartment (after the apartment was gutted and most of the doors removed). "There was no vertical axis possible with 8'2" ceilings," Rogers says. "The crossing axes were derived from the forced horizontality of the project." The north-south axis runs 100 feet from the terrace to the north

"We take what the city gives, like low ceilings and odd columns, and find what's great [about a space]," says Rogers.

through the master bedroom to the south. The east-west axis begins at the foyer, moves through the living room, up a step, and out to the greenhouse. Each axis is marked with a thin aluminum strip set into the beech floor. This subtle strip ends, in all four directions, with a lit object. "We used lanterns as markers," Rogers says, "the lanterns mirror the axes. They are powerful sculptures that confound the weakness of the apartment. By stretching out the horizontal lines, we turned the low ceilings into an asset. Now the horizontality works."

The axes cross at the threshold of the living room. "The scheme pinwheels from this point," Lee says. The dining area, office, and kitchen flow to the north; the living room, with two seating areas, and the greenhouse are directly to the east; bedrooms and baths are off to the south. "It's like a house. You can move through the public spaces without retracing your steps," Rogers says. "Because of the variety, your interest is always changing."

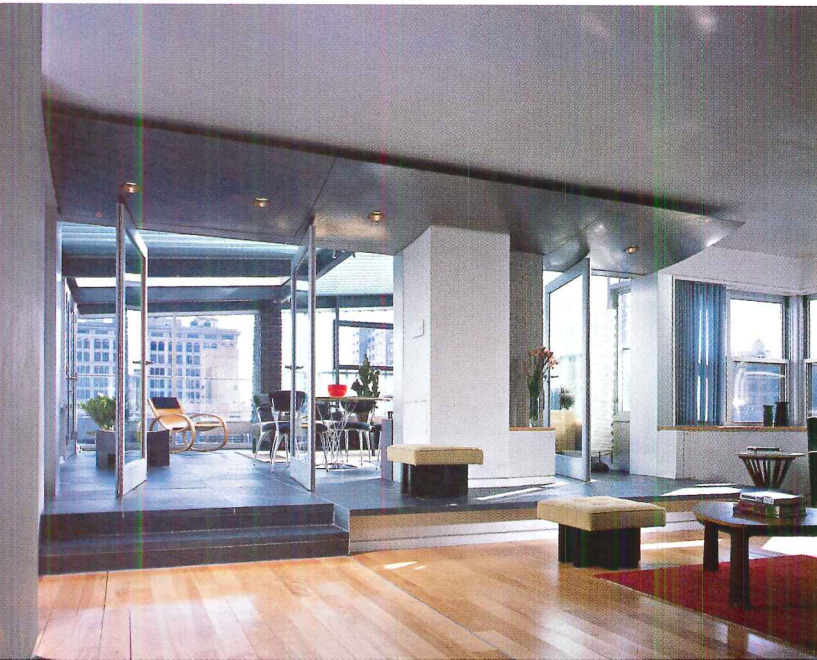
Project: Greenwich Village residence
Owner: Name withheld on request
Architect: Rogers Marvel Architects—
Robert Rogers, Jonathan Marvel,
principals; Vincent Lee, project archi-

tect; Timo Lindman, project team
Engineers: Robert Silman Associates
Consultant: Dirtworks (landscape),
Arc Light Design (lighting)
General contractor: Taocon

To frame the views, Rogers Marvel Architects inserted a clear mitered-glass corner into the translucent glass walls of the greenhouse. The transition between the living room and greenhouse is marked by a swooping aluminum ceiling element (lower left).



PHOTOGRAPHY: © PAUL WARCHOL





A beach house in Manhattan

By removing walls, the architects flooded the apartment with light. There are views of the sky in every direction. You can also see the terraces from the public rooms. As one of the clients says, "It's like a beach house." That sense is enhanced by the quiet palette: white plaster, gray metal, beige paper lanterns, blond and dark wood. Rogers says, "Here, we wanted to concentrate our energies on the light. There's no strong color in the finishes." Rogers specified the "straightforward" materials he prefers: stainless steel, aluminum, untinted imperial plaster, wood, glass, and raw concrete.

The details, however, were done with great finesse, and some of the materials were outright luxurious. Glovelike leather, for example, covers the cabinet doors on one living-room wall. And while the bathrooms have unglazed tiles and concrete, the medicine cabinets and mirrors are all backlit with custom sandblasted glass. In addition, much of the furniture was custom-designed by the architects.

To solve the apartment's biggest problems—low ceilings and irregularly spaced columns—Rogers devised two ingenious solutions. To make the ceilings appear taller in the dining area and living room, paradoxically he added dropped white lacquer panels with lights. "I didn't want to give up any ceiling height but I needed light in the ceiling," he says. "The highly polished lacquer planes contrast with the rough concrete of the surrounding ceiling and seem to raise it. The panels also help you organize the ceiling, the way a rug organizes a room." The irregularly spaced columns were sandblasted to reveal their original gray cement cladding. "The columns define the materiality of the apartment," Rogers says. "The roughness of the concrete makes the other materials seem more finished and elegant."

And, finally, the apartment's tour de force: the greenhouse, which has a modern elegance reminiscent of a Neutra house. Permission to rebuild the existing makeshift greenhouse in the land-

The apartment's tour de force is the greenhouse, which has a modern elegance reminiscent of a Neutra house.

marked Greenwich Village district was granted because it was a preexisting structure. The new walls and pitched roof are constructed with translucent U-shaped glass channels. Rogers inserted a large dormerlike skylight and windows, including one with a mitered glass corner, within the translucent glazing. The transition space between the living room and greenhouse is marked by swooping aluminum ceiling element.

Are the clients pleased with their "beach house"? Yes indeed. In fact, it has become a problem for the wife. "We are in a wonderful neighborhood," she says, "but my husband is so happy here he never wants to go out." ■

Sources

Plaster: Beriah Wall

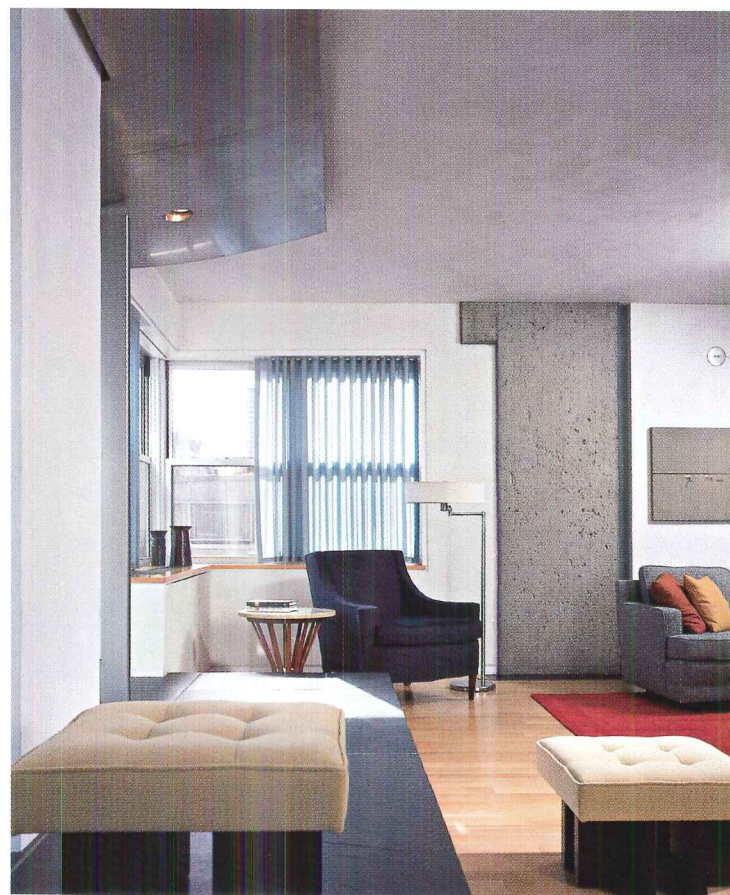
Custom lanterns: Wigmore Lighting Designs

Leather on cabinets: Gaia Flooring

Architectural metalwork: Studio 40, Demogod, SHAdi & Co.

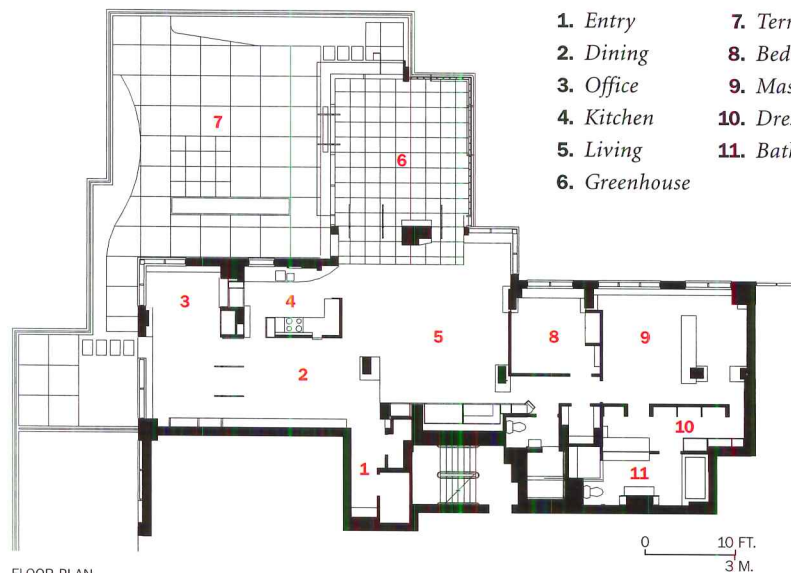
Structural glass: Reglit Profiled Glass Architecture

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By removing as many walls as possible, the architects gave the apartment an open plan (above) and created vistas that carry the eye out to the views. Ebony rectangles at the bases of the irregularly shaped columns square them to the rest of the apartment (above left). Humble materials and a quiet palette appear throughout the apartment; custom-designed furniture adds a touch of luxury (left).



FLOOR PLAN

0 10 FT.
3 M.

Pfau Architecture does a modern take on loft living, San Francisco style

By Lisa Findley

San Francisco is once again a boom town. This time, instead of gold in the Sierra Nevadas, it's the gold mine of Silicon Valley that is drawing prospectors from all over the world. The influx of people and capital has caused prices to skyrocket, particularly in the real-estate market. The old warehouses south of Market that once provided rough functional space for struggling artists now house newly rich high-tech workers in renovated elegance. These spaces, once legitimately called live/work, are now just voluminous lofts setting a trend in housing development. The high ceilings, open plans, mezzanine bedrooms, and large glass exposures of these former warehouses have become the model for hundreds of new residential units being constructed around the city.

The economy has encouraged several young entrepreneurs to wade into loft-housing development for the first time. One of these newcomers, Ulrich Schmid-Maybach, did not know how lucky he was to have hired Pfau Architecture to design his first foray into this relatively new market. Dedicated from the start to a "design premium" for his project, he interviewed 12 architects and hired Peter Pfau, AIA, based on his firm's experience with loft projects and the "cool" look of their work.

A learning process

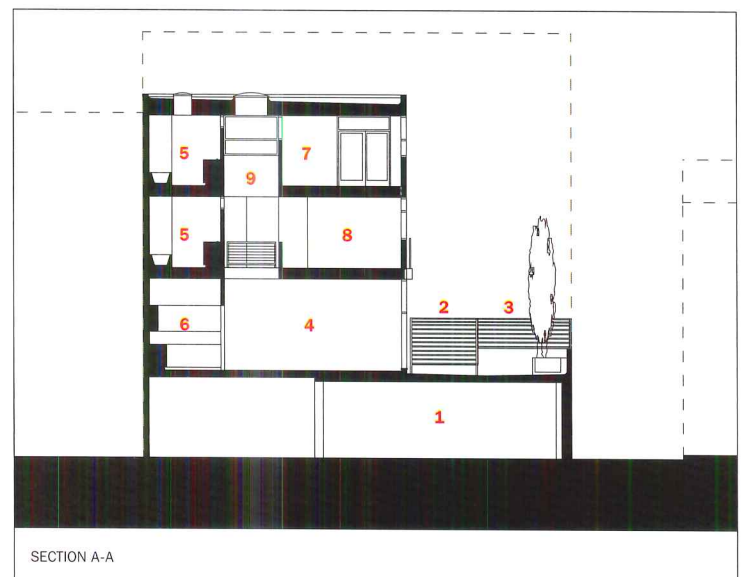
What he did not realize is that Pfau Architecture is known for its experimentation in materials and technologies, as well as its elegant detailing and innovative spatial configurations. Nor did he know how patient Peter Pfau would be. It took two or three rounds of schematic design as Schmid-Maybach learned about the architectural trade-offs necessary to get a developer's pro forma to work. It also took the architects endless negotiating with the lowest-bidding contractor to get the project built the way it was drawn.

To make the project economically feasible, the developer needed a seven-unit condominium project with enclosed parking on the 4,250-square-foot lot. The lot dimensions, 50 by 85 feet, and the configuration of the neighboring building meant that a clever scheme had to be invented to give all units maximum daylight and room to breathe. At the same time, Pfau had to preserve sun access for the side yards of the neighbors to the west.

Contributing editor Lisa Findley lives in Oakland, Calif., and teaches at the California College of Arts and Crafts.

Project: 419 Fulton Street
Owner: Four Nineteen Fulton LLC
Architect: Pfau Architecture Ltd—
 Peter Pfau, AIA, principal-in-charge;
 Casper Mork-Ulnes, project
 designer/manager; Mallory Shure,
 DeWitt Brock, Mike Young,
 Brooks Dunn, Keri Spiller, project

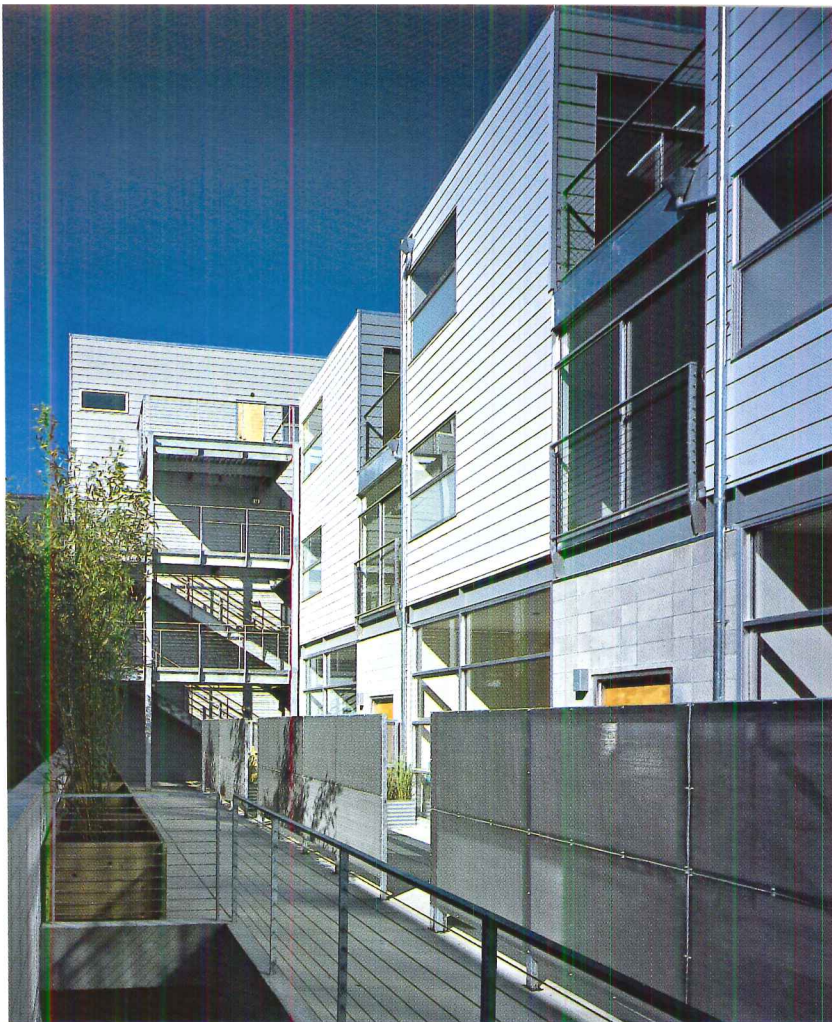
design team.
Engineers: GFDS Engineers (structural); MHC Engineers (MEP)
Consultants: D. Shawn Blundell (landscape); Nigel Breitz Acoustics (acoustical)
General contractor: Gaehwiler Construction



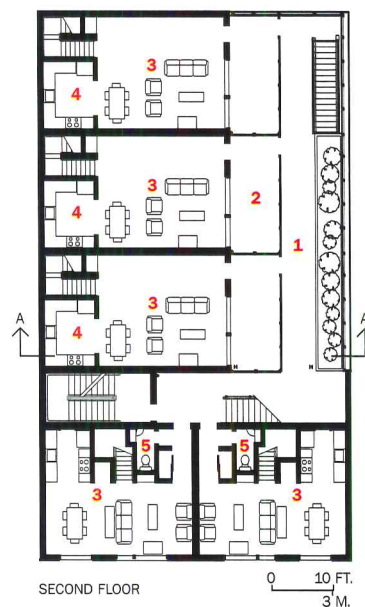
- | | | |
|--------------|------------------|---------------|
| 1. Garage | 4. Living/dining | 7. Bedroom |
| 2. Terrace | 5. Bath | 8. Study |
| 3. Courtyard | 6. Kitchen | 9. Light well |

Set on the seam between a gentrifying area and a still-tough neighborhood, Peter Pfau's modern take on a loft building plays the good neighbor with its clean palette and welcoming facade (below) while steel entrance gates provide security (lower left).





1. Courtyard
2. Terrace
3. Living/dining
4. Kitchen
5. Bath



Moreover, the site for the project was inherently complex, set on the seam between the gentrifying Hayes Valley neighborhood and the still-tough Western Addition. It is just a few blocks from the gilded dome of the newly renovated City Hall but across the street from a large public-housing project.

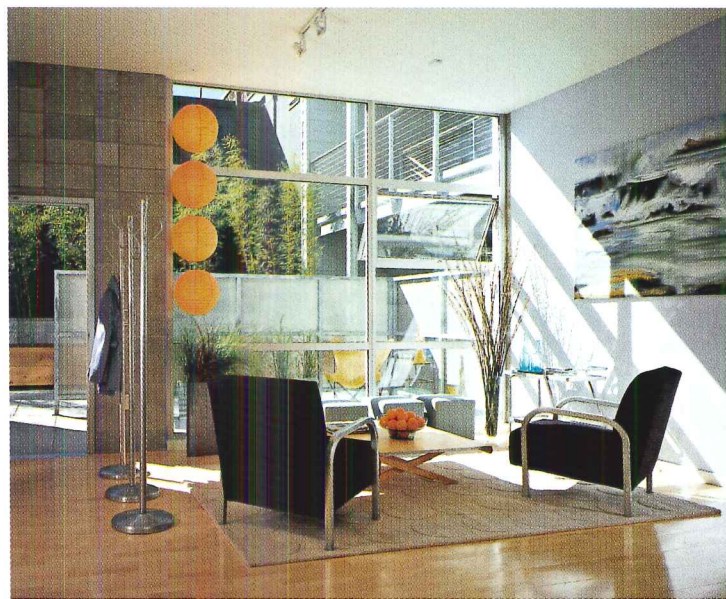
To address these challenges, Pfau raised all the units on a podium containing the parking and entry lobby, and at the first level he created a common entry courtyard landscaped with a row of bamboo. The courtyard is accessed either through the lobby or up an open stair from the parking level. By placing the courtyard along the west lot line, the architect maintained sun access for the neighboring side yards. The

Light, space, and openness are the luxurious trademarks of loft apartments. In the living areas, the ceiling height is a generous 11 feet, and floor-to-ceiling windows allow light to stream in (above left and below). Inexpensive but well-detailed materials define both the interior and exterior: cementitious siding and concrete block outside and Sheetrock on the inside (above).

San Francisco's go-go economy has spawned a breed of first-time developers.

three 1,350-square-foot, three-bedroom units that line the courtyard are entered through private patios enclosed by perforated metal fences, which provide security while still allowing a sense of openness and neighborliness, while four 1,000-square-foot, two-bedroom units are stacked two-by-two to the front of the site. An open stair leads to the upper units.

Inside the efficiently planned units, Pfau gets the most out of the loft model. All of the units use an open plan for the public areas: a single large room with hardwood floors is meant for both living and dining, and the kitchen opens onto this space. These living rooms all have huge windows that run floor to ceiling, allowing light to spill in. In the larger units, the floor-to-ceiling height of the first floor is a generous eleven feet, and a three-story light well brings sunlight into the heart of the unit from a skylight above. Upstairs, hallways and bedrooms overlook the light well.



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In the smaller units, a large portion of the living room is two stories high, with a mezzanine bedroom overlooking the living room.

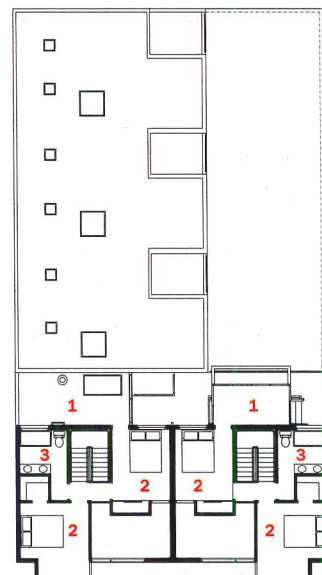
A financial strategy

According to principal Peter Pfau, "The strategy throughout the project was to put money into a few well-detailed moments and use standard, off-the-shelf materials for the rest." Exterior materials are predominately concrete block and cementitious siding, and the bay windows on the Fulton Street side that give a nod to San Francisco residential architecture are sheathed in galvanized sheet metal. While the interior finishes are



In the three-bedroom units, a three-story light well brings sunlight into the heart of the living area through a skylight (above left). The architect splurged on wood cabinetry and stone countertops for the open kitchens (above right). Spare, modern furnishings complement the simple openness of the lofts (below).

1. Deck
2. Bedroom
3. Bathroom



FIFTH FLOOR

The architects spent money on a few well-designed details; standard, off-the-shelf materials were used for the rest.

entirely simple sheetrock, the bathrooms have handsome built-in cabinetry and the kitchen counters are stone. The banisters that run up the stairs of the units are standard, but the guardrails that overlook the living spaces and edge the balconies are custom steel and cable. Large, aluminum-framed windows announce that inside are lofts. Along with the custom security gates on the garages and lobby entries, they give the building a sense of care and extra quality often lacking when a developer is involved.

The developer is delighted with the result—it was delivered exactly on budget, and all but one of the units rented within only three weeks—and is enthusiastic about doing another loft project. "But next time," he says, "I'll listen to Peter and not hire the lowest bidding contractor." He will, however, definitely be hiring Pfau Architecture. ■

Sources

Metal fabrication: Holland Ironworks

Aluminum windows: Blomberg

Skylights: O'Keefe

Entrance doors: Blomberg

Sliding doors: Blomberg

Locksets: Schlage

Cabinet hardware: Hafele

Wood flooring: Harris Tarkett

Bathroom tile: Daltile

Carpet: Shaw Industries

Expressive Designs

Downlights: Nora Lighting

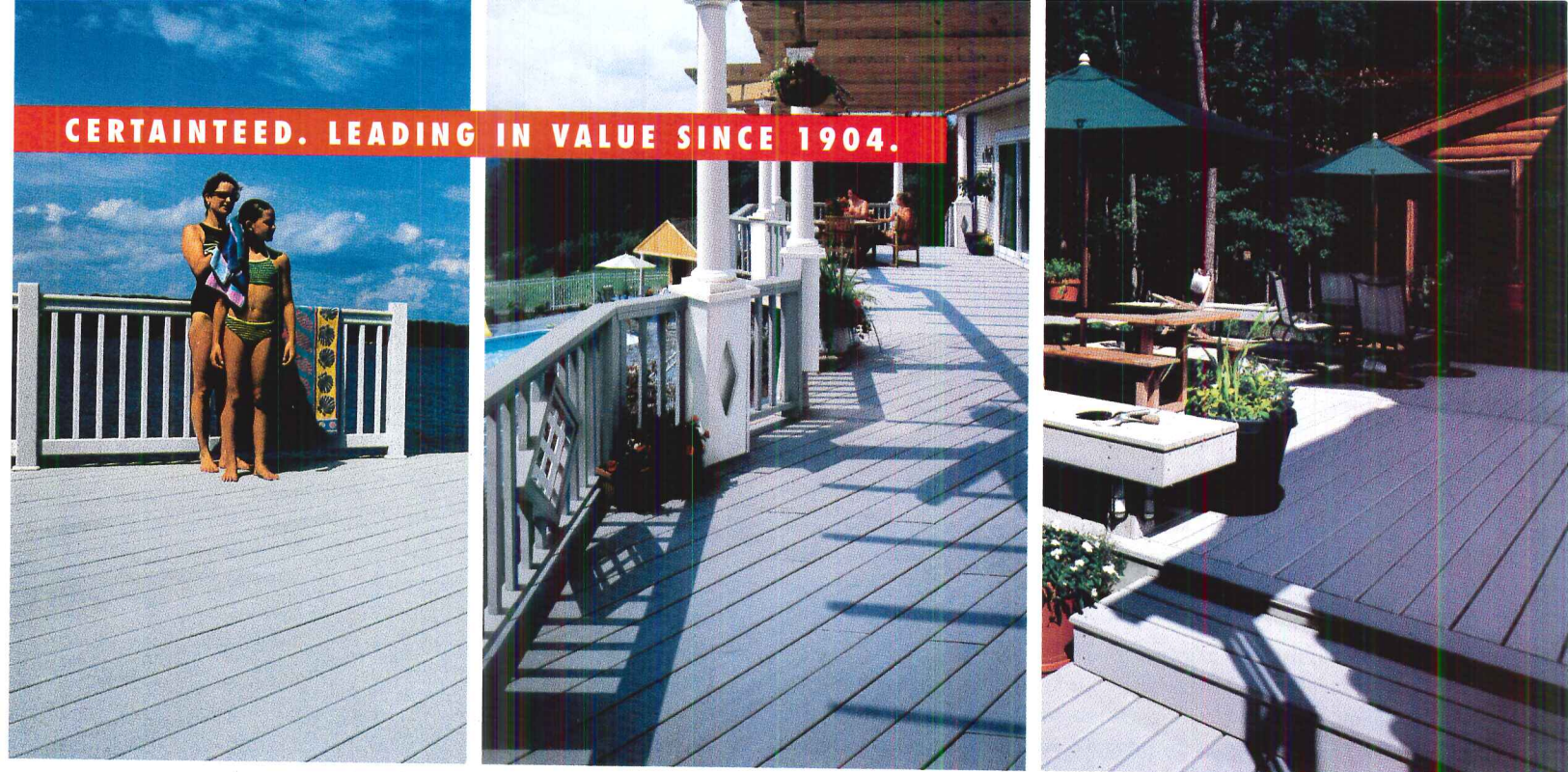
Task lighting: Juno Lighting

Plumbing: American Standard

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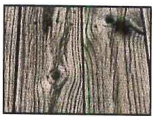
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In Amsterdam, Tijmen Ploeg wedges an unabashedly modern house between historic neighbors

By Tracy Metz

The most extraordinary thing about the house that Tijmen Ploeg designed on Amsterdam's Princes Island must be its footprint. It is seven times longer (112 feet) than it is wide (16 feet) and had to be shoehorned into its lot on a narrow street between two existing buildings. This simple but inexorable fact presented two obvious problems for the architect: how to let enough light in and how to avoid the effect of living in a tunnel.

The fact that this house was built for a private client is unusual in Amsterdam, which has a strong tradition of government housing and where there are very few sites for private commissions. In fact, architect Tijmen Ploeg, who himself lives just around the corner, had already designed a building on this spot for a housing society. When the designer and collector Benno Premsele and the architect Friso Broeksma bought the project, he redesigned it to their needs by reducing the number of apartments from five to three, among other things. "I was already involved in the house, but of course they didn't have to take me as their architect. Fortunately, they liked my design, and we worked together very well," says Ploeg.

Friends living together

Premsele and Broeksma wanted a house where they could comfortably grow old in the company of friends. Part of the ground floor is a fully equipped studio for the potter Alexander Lichtveld; the two upper floors

That this was built for a private client is unusual in Amsterdam, where there are very few sites for private commissions.

are inhabited by potter Babs Haenen and music critic Hans Heg, and the two floors in between are the clients' own living and working space. There are shared amenities in the form of a laundry room, a guest or nurse's room, and a roof terrace. All the halls, doorways, and bathrooms are wheelchair-accessible.

Ploeg found a simple solution to the dearth of daylight: he sunk a light well along the white-plastered southern wall all the way down to the glass ceiling of the ground-floor studio, providing the potter with the



shadowless light artists need. The light well, made of wired glass in galvanized metal frames, is on the "far" side of the stairwell. As a consequence, though the house is narrow, you don't feel robbed of the space that the light well takes up. The stairs and elevator are slightly skewed to enlarge the light well and to articulate the space.

Keeping some perspective

Entering the Premsele-Broeksma house is an experience in itself. Not until construction started did the builders discover that the next-door neighbor had a beautiful old brick wall with the 18th-century cast-iron "anchors" still in place. It now forms the interior wall down one side of the very long entrance hallway and provides a warm, sculptural surface behind white columns placed progressively further apart as you proceed into the house. "The idea behind the spacing of the columns was to create a sense of perspective," Ploeg explains. "When you come in, the hallway looks short; but when you leave it looks long. I thought

Tracy Metz lives in Amsterdam and is the features editor for NRC Handelsblad, a Dutch newspaper. She writes frequently for RECORD about European architecture.

Project: Premsele-Broeksma house

Bouwadviesbureau

Architect: Tijmen Ploeg

General contractor: *Bouwbedrijf*

Architecten—Tijmen Ploeg,

M.J. de Nijs en zonen bv

partner-in-charge; Kurt Boomgaard,
contributor

Gross square footage: 7,150
square feet

Engineers: *Strackee bv*



Tijmen Ploeg solved the problem of how to get light into all the apartments by designing a light well that runs along the side of the building. The house is unabashedly modern, despite its 18th- and 19th-century neighbors (left).



Rather than trying to mask the long, thin nature of the space, Ploeg emphasized it by placing the bathrooms and kitchens in the middle rather than along the walls (above left). Bookshelves line the north wall of all the apartments (above right).

that was a suitable image of hospitality.”

The visitor’s sense of distance in this unusual space is heightened by the lighting, which was designed by Dutch designer Aldo van den Nieuwelaar, who used sensors to turn on individual bright bulbs as

The materials are the same throughout: galvanized steel, an industrially poured gray concrete floor, and black doors.

you move under them and turn them off as you soon as you move away, making the process of entering the house into a procession in which every step is marked.

Even though the house has various inhabitants, the architect was, to his great relief, directed to design it as a whole. The materials are therefore the same throughout: galvanized steel, an industrially poured gray concrete floor, and black doors. The apartments all have sliding

doors that are so well integrated into the architecture that, when closed, they simply look like walls.

At Ploeg’s suggestion, the northern walls in all the apartments are lined with bookshelves (or, in the case of the music critic’s apartment, with shelves for compact disks). Interspersed among the bookshelves are spaces for exhibiting smaller objects from the owners’ extensive art collections. Rather than trying to mask the long, thin nature of the space, Ploeg chose to emphasize it, placing bathrooms, kitchens, and built-in coat racks in the middle, instead of along the walls.

Modern, inside and out

The Premsele-Broeksma house is unabashedly Modernist, the style that has dominated Dutch architecture ever since its ideological heyday in the twenties and thirties. Hasn’t Modernism outlived its social agenda? “This is definitely my style,” declares Ploeg proudly. “I have yet to see a better style take its place. I was raised as an architect in the school that believes that the outside has to be an expression of the inside. Honest Modernism.”





Moreover, he says, the Modernist approach is an integral part of his answer to the question that this specific commission posed. "I wanted the facade to fit modestly into its surroundings. The building to the right is a much busier, with a more ornamented 19th-century brick facade, but they share a number of characteristics. Look at the color of the brick, the horizontal lines, the closed ground floor. And if you have a feeling for proportions you can tell that there is another correlation as well: the long rectangular windows in my design have the same surface area as the three upright windows next door."

Benno Premsele and Friso Broeksma wanted a house in which to age comfortably, but Premsele passed away a mere three years after it was completed. After his partner's death Broeksma paid the architect the ultimate compliment: "It's also a good place to be alone in." ■

A light well that runs along the side of the stair allows light into all the apartments (above left). In the entrance lobby, columns are placed

progressively farther apart to create a forced perspective (above right). A roof garden is one of the building's shared amenities (below).



Sources

Floors: Prefab Beton Veghel B.V.

Structural walls:

Kalkzandsteebfabriek
Roelfsema bv

Structural steel: Kersten bv

Stairs: J.C. Dekker bv

Masonry: Donkervoort

Metal/glass curtain wall: Janssen-Vis

Wood: Meranti

Upswinging garage doors: Hormann

Closers: Ellen-matic

Resilient flooring: Bolidt

Plumbing: Breman Noord-Holland bv

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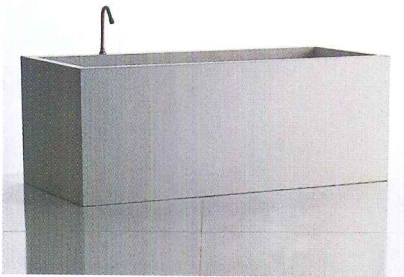
The Varenna collection offers multiple finishes, colors, woods, counters, bases, wall units, sinks, and cooking tops, which allow for the freedom to create a variety of personalized kitchen systems for different lifestyles. Habitat (below) features staved natural cherry doors, suspended elements in glazed glass, and a work top in stainless steel. The line also includes Line, Alba, Norway, Planet, Asia, and the minimal Alea (shown above).



Varenna also offers a wide variety of tables and chairs for the modern kitchen. 877/VARENNA. VarrennaPoliform USA Inc., New York City. **CIRCLE 200**

► Over your head

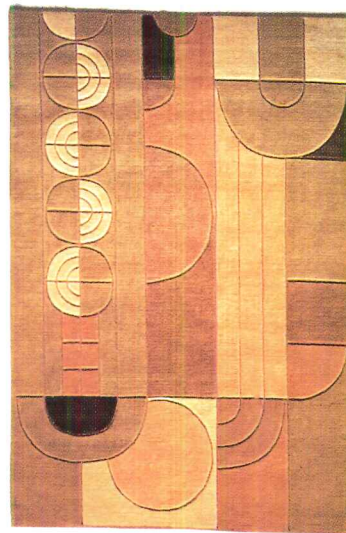
Mood, designed by Marten Claesson, Eero Koivisto, and Ola Rune, is an extra deep bathtub made of DuPont Corian. The tub was originally designed for the renovation of a private townhouse in central Stockholm. Inspired by Japanese baths, which are deep enough to cover the bather's shoulders when sitting upright, the designers devised a proportioned design where one side is precisely double the dimension of the three others. This not only provides the needed space to house the faucet but lends the form asymmetry. 212/431-8282. Boffi New York Inc., New York City. **CIRCLE 203**



▲ Living the life of leisure

Hana, one of four new groups of outdoor furniture from Tropitone, integrates teak arms into an aluminum frame. Hana

features tapered legs, turned teak arms, and teak accents at the ends of aluminum tubes. The five pieces in the collection are a dining chair with a sling bucket, waterfall front edge, a swivel rocker with a choice of Easy-motion or Ultra-action rocker mechanisms, a 48-inch-diameter dining table with teak legs, and a chaise lounge with an adjustable back. 949/951-2010. Tropitone Furniture Co., Irvine, Calif. **CIRCLE 204**



▲ Wright rugs

The new designs in the Frank Lloyd Wright Collection of rugs were translated from original renderings from the Frank Lloyd Wright archive. Adaptation and coloring of these designs were created in collaboration with a division of F. Schumacher & Co. The entire rug collection, manufactured in Nepal, consists of 60-knot, 100-knot, and silk-and-wool handmade Tibetan rugs stocked in 6-by-9-foot, 8-by-10-foot, and 9-by-12-foot sizes. 800/247-7847. Costikyan Carpets, L.I.C., N.Y. **CIRCLE 202**

▼ This table's got it covered

Jefferson Mack's line of metal furniture includes a series of Valve Cover tables featuring a cast-iron top and hand-forged legs. The series currently offers the San Francisco and New Orleans table (shown), but other city covers are planned. Mack cast the San Francisco valve cover in homage to the genuine cover, a smaller, oval shape designed in the 1920s. 415/550-9328. Jefferson Mack Metal, San Francisco.

CIRCLE 201

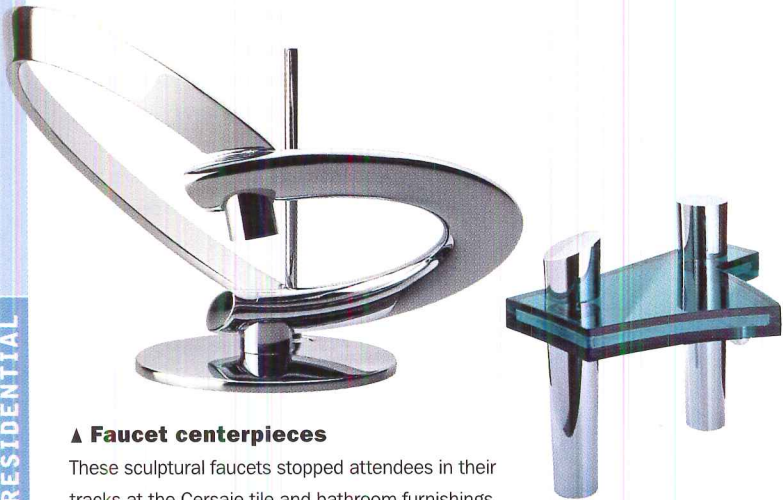


▼ Flexible concrete

For the past five years, Get Real Surfaces has developed methods for casting malleable, solid, yet lightweight concrete to create one-of-a-kind countertops, sinks, bathtubs, fireplace surrounds, tiles, and a variety of poured-in-place items. The Strata series of organic-themed, three-dimensional, tinted concrete tiles (below) can be used alone or as decorative details in conjunction with flat tiles. 212/414-1620. Get Real Surfaces, New York City. **CIRCLE 205**



Residential Products **Urban life**



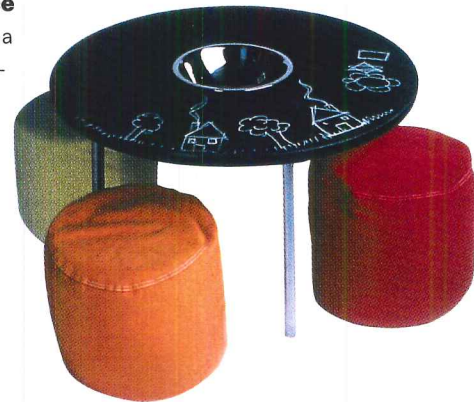
▲ Faucet centerpieces

These sculptural faucets stopped attendees in their tracks at the Cersaie tile and bathroom furnishings show held last October. The heart-shaped Paola e Francesca tap (left), with a curving valve for hot water that meets with one for cold, symbolizes the combination of two people in love (which sometimes runs hot and cold as well). The Narciso tap (right) not only avoids the traditional downflow of water but allows for the momentary view of the water whirling between the clear top before it cascades down. In this faucet, two simple truncated and overturned brass cones are intercepted by a box formed by three sheets of glass. 39/0163/560000. Rubinetterie Ritmonio s.r.l., Varallo, Italy. **CIRCLE 206**

► Chalk it up to experience

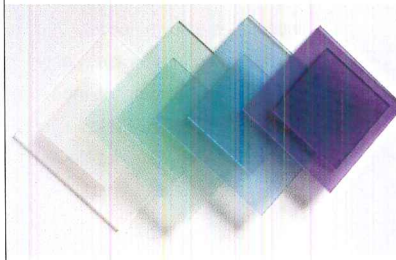
Kids (and parents) stuck inside on a rainy day will appreciate the potential of the Chalkboard Table, available now from Offi & Company through its acquisition of Bravo 20. The 22-inch-high, 36-inch-diameter table is made with a heavy-duty chalkboard surface and a bowl in the center for chalk and erasers. 800/383-OFFI. Offi & Company, Emeryville, Calif.

CIRCLE 207



▼ Chilling trends

Lucite cast acrylic can be used in the bathroom on bathtubs, shower trays, and whirlpools. Lucite, which is 100 percent recyclable, is available in more than 300 colors and a series of special effects. Choices include metallics, pearly pastel luminescents, marble, hard stone, and granite, as well as four semitransparent colors of Lucite Ice (violet, azure blue, green mint, and white, shown here). 44/1254/874000. Ineos Acrylics, Lancashire, England. **CIRCLE 208**



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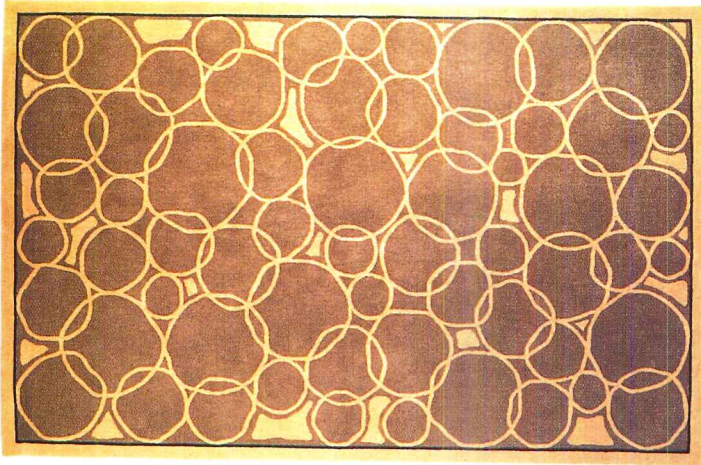
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CIRCLE 53 ON INQUIRY CARD

Residential Products *Urban life*

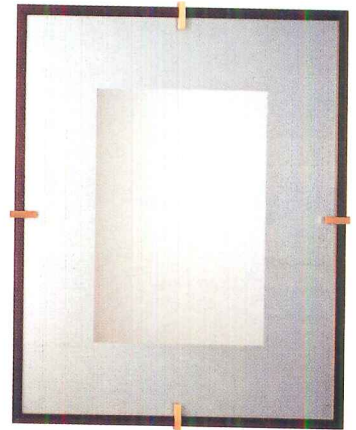


▲ Magic carpets

The design of the Celestial Trellis area rug (shown), from Edward Fields, was inspired by the movement of clouds across the arch of the sky. Interpreted in beige with brown, Celestial Trellis can be custom-made in any size or color combination in 100 percent virgin wool. Ondine, also handcrafted in virgin wool, features a scroll pattern that rims the edge of the rug like a sculptured wave. Inspired by a mystical female water spirit, Ondine can be crafted in any custom size or color. 212/310-0400. Edward Fields, New York City. **CIRCLE 209**

▼ Minimal enclosures

Alumax offers a comprehensive line of bath enclosures featuring framed, frameless, and heavy-glass units in standard or custom sizes and configurations. Other options include numerous glass patterns and 16 custom colors and finishes. The minimal use of metal framing lends a clean, upscale look to Alumax's DesignLine Series. 870/234-4260. Alumax Bath Enclosures, Magnolia, Ariz. **CIRCLE 210**



▲ The fairest of them all

Skyline Design introduces Coda, a line of high-end, decorative mirrors that feature Skyline's etching techniques. Coda's five mirror collections range in size from 10 by 29 inches to a grand leaning mirror on casters that is 56 by 86 inches. The Miso mirror, shown above, features an Asian-inspired design with woven textures and Japanese buttons. 773/278-4660. Coda, Chicago. **CIRCLE 211**



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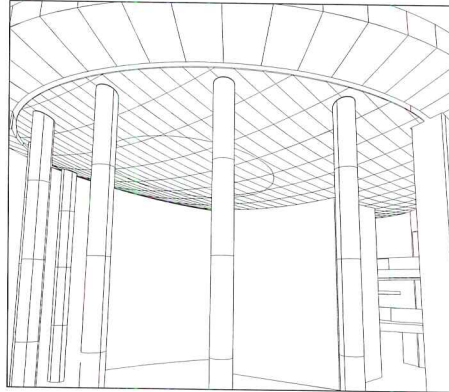
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New Products

When specifying walls or ceilings architects decide either to blend them into the overall design or make them design elements of their own. Affordable, customized systems make it easier for architects to design unusual looking walls and ceilings. Both categories are experimenting with new technologies, especially with metal. *Rita F. Catinella*



The exterior (far left) and interior (middle) view of the rotunda ceiling designed by Gensler for the Nikken Headquarters in Irvine, Calif. Ceilings Plus used a 3-D modeling program (line drawing, left) to create the egg-shaped inverted dome desired by the client.

Custom metal panel system translates client's corporate philosophy

By using advanced computer-aided design and manufacturing techniques, Ceilings Plus has substantially automated the production of customized perforated-metal panels.

"If you can draw it, we can probably fabricate it," says Ceilings Plus president Nancy Mercolino. "Our CAD/CAM systems enable us to translate even the most complex, multi-dimensional architectural shapes into practical, affordable ceiling and panel systems."

The company recently fabricated the planetarium cladding for

the Rose Center for Earth and Space, designed by Polshek Partnership at the American Museum of Natural History in New York [AUGUST 2000, page 98]. The panels on the 57-foot-diameter sphere had to be fabricated to extremely close tolerances, and the locations of over 5.5 million perforations had to be individually calculated and punched.

The rotunda ceiling, designed by Gensler for the Nikken Headquarters in Irvine, Calif., posed an even greater geometric challenge. The shape of the inverted

dome is based on an egg, and the surface is irregular in plan, with different curvatures along its length and width. As a result, every panel has a different shape. In addition, the perforation pattern in the acoustical ceiling had to be altered in order to create the appearance of the egg's yolk. To fabricate the ceiling, explains Ceilings Plus designer Gary Kawamura, "we entered the overall geometry of the ceiling into a three-dimensional modeling program. The program then calculated the panel sizes and shapes,

including allowance for stretch-forming flat sheet metal into the required compound curves." This data was converted into digital code that could be read by the firm's numerically controlled punch presses and brake forms so panels could be produced automatically.

In addition to design flexibility, perforated-metal ceilings are acoustically effective and lightweight. They can be integrated with air distribution and lighting fixtures, require little maintenance, and are 100 percent recyclable. 800/822-3411. Ceilings Plus, Commerce, Calif.

CIRCLE 240

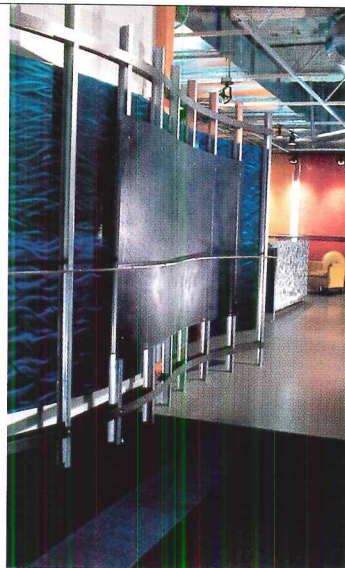
Custom interior aluminum paneling

MÓZ Designs fabricates and designs signature aluminum panels for vertical surface applications in commercial interiors. The company has collaborated with Rockwell Group, Bottom Duvivier, Gensler, and HOK on projects for clients as diverse as Disney Imagineering, Sun Microsystems, Bank of America, and Hewlett Packard.

All metals are available in 4-by-8-foot and 4-by-10-foot sheets, and can be cut to custom width and length requirements. Many styles and perforated patterns are avail-

able in any standard grain or color. Applications include column covers, wall-paneling systems, office reception facades, decorative privacy screens, ceiling pan inserts, canopies, display units, furniture, signage, and more.

The 8-foot-high, 18-foot-long screen for McCann Erickson Advertising in San Francisco (shown) features MÓZ aluminum paneling and perforated aluminum in the Waves pattern in royal blue. 510/444-0853. MÓZ Designs, Oakland, Calif. CIRCLE 241



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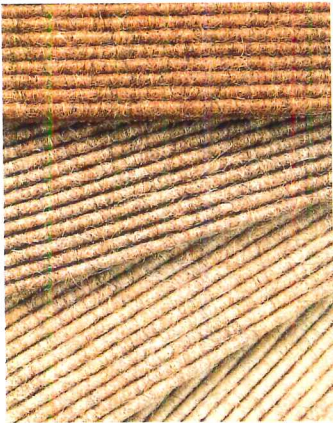
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New Products



▲ More colorful wall carpet

Tretford wall carpet is code-compliant, cuts without raveling, and now comes in an extended palette of 52 heathered colors. Cut and joined to make original designs, it is suitable for wall graphics and creative floor treatments. Tretford has a ribbed texture, absorbs sound, and helps control operating costs. Rolls and cuts may be supplied from inventory within 24 hours of receipt of order. 800/523-0731. Eurotex, Philadelphia.

CIRCLE 242

▲ Not to be seen, or heard

Mars Climaplus acoustical ceiling panels feature a monolithic texture and offer abuse resistance, humidity resistance, and room speech privacy. The panels are also highly scratch-resistant, offer noise reduction up to NRC .75, and have high light reflectance, which helps reduce eye strain. The panels are manufactured from 74 percent recycled content. 800/USG-4YOU. USG Corporation, Chicago. CIRCLE 243

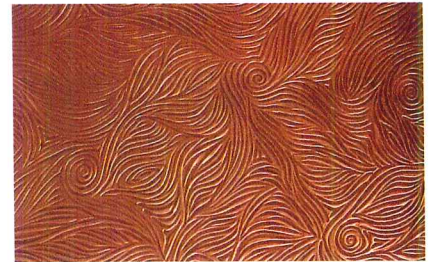


◀ Well researched

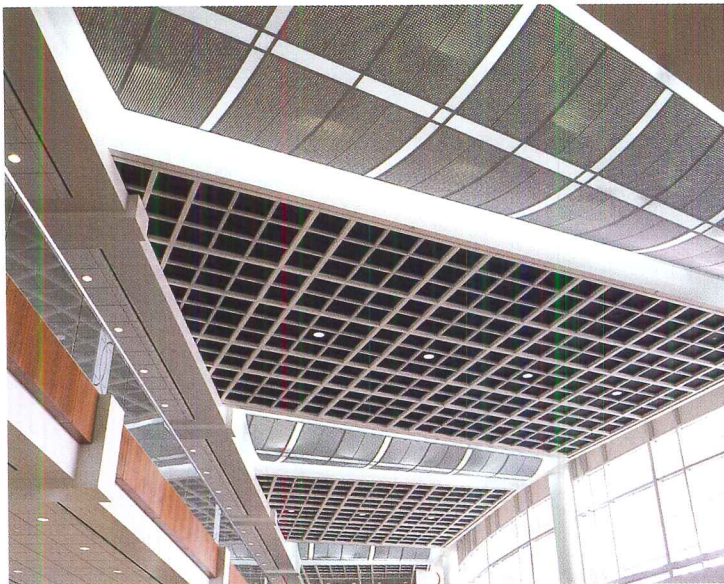
The Luxalon Open Cell ceiling system was selected to create a continuous visual inside the new 85,000-square-foot Jen Library at the Savannah College of Art & Design. It was a challenge since the space has various ceiling heights and was once built as three different buildings, each made from different materials (such as brick, wood, and concrete). The system effectively masks the plenum while also providing easy access for service personnel. 800/366-4327. Hunter Douglas Architectural Products, Norcross, Ga. CIRCLE 245

► Metal wall surfacing

Bonded Metal, originally introduced 30 years ago, is currently available in a diverse array of finishes and patterns. Applications include doors, wall surfacing, elevator entrances and cabs, columns, counter facings, and other decorative



accents. Bronze, brass, copper aluminum, steel, and nickel silver are available in a range of patterns and patinas. The Zinfandel pattern in Bonded Copper is shown here in a light patina. 877/626-7788. Surfaces+, Carpinteria, Calif. CIRCLE 244

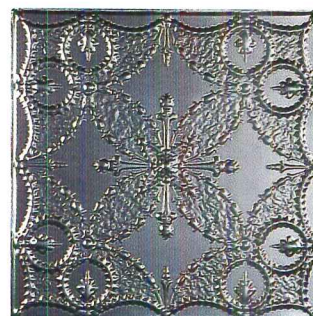


▲ Floating ceiling system

The Interior Specialties Division of Gordon has manufactured a ceiling system located in the world's largest rent-a-car facility in the Dallas/Fort Worth International Airport. Designed by Corgan Associates to be a floating element that defines a large space, this ceiling creates a custom version of Gordon's Aluma Vault system by combining the modular beam grid and perforated-metal panels that are suspended from gypsum board covers above. 800/747-8954. Gordon Inc., Shreveport, La. CIRCLE 246

► Wood and metal finishes

Marlite's Surface Systems product line is now available in a selection of new metal and wood finishes. The wood finishes include exotic names such as Quartered Figured Gaboon and Quartered Fiddleback Makore. The metals offer finishes such as Bramble Aluminum (shown). 330/343-6621. Marlite, Dover, Ohio. CIRCLE 247



◀ Retro styles looking up

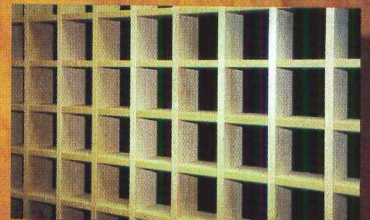
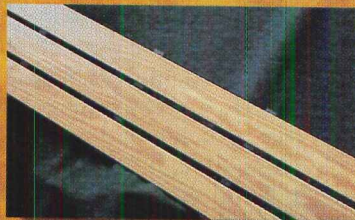
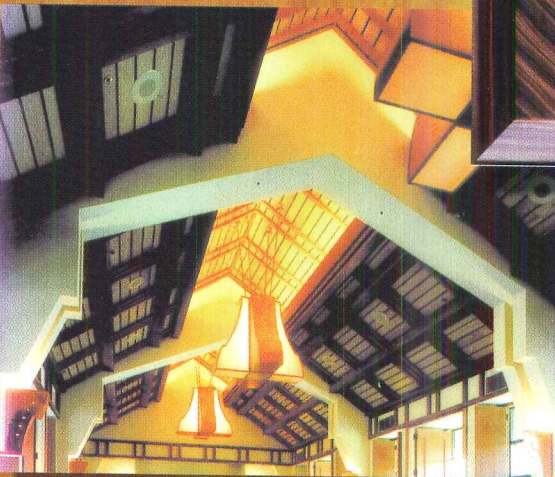
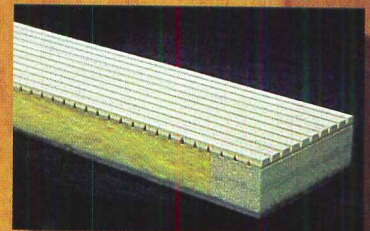
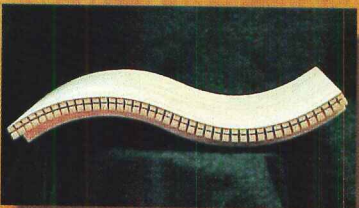
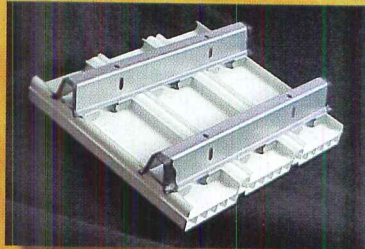
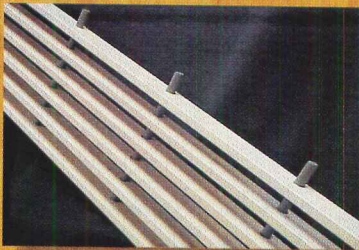
The Traditions line of stamped ceiling and wall panels has been expanded to include additional pattern and product options for both public and residential areas. Perforated panels and insulation pads are available for acoustical performance, along with a variety of decorative cornices, wall angles, and filler panels. 800/323-7164. Chicago Metallic, Chicago. CIRCLE 248

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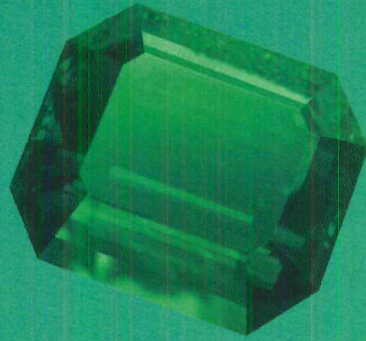


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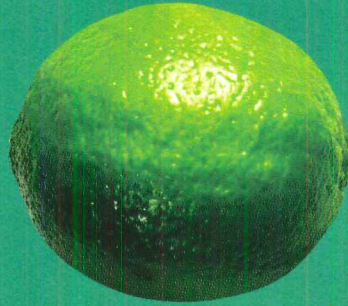
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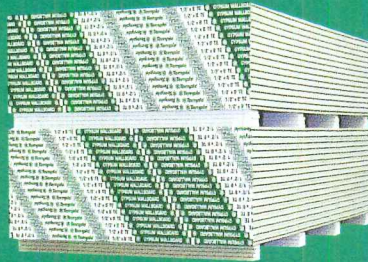
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Product Briefs

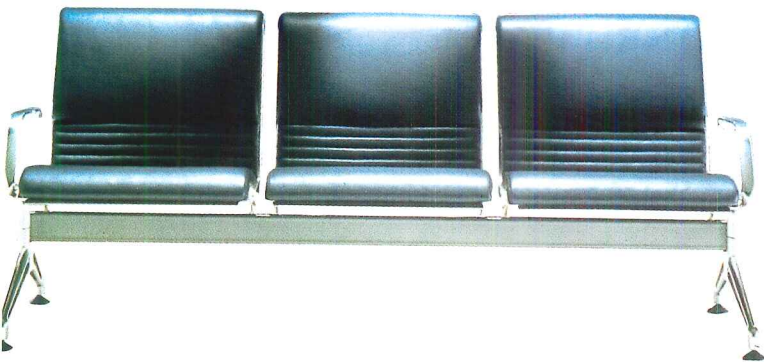
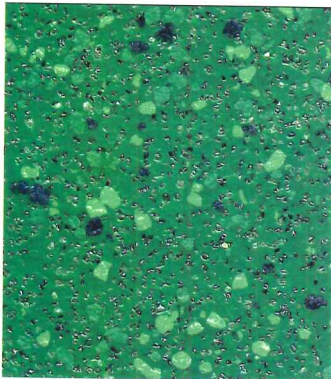
► Graphic laminate

Graphic Standards provides 30 digital and silk-screen laminate designs that are available in Wilsonart's standard 10-day lead time. Patterns like "You Rock" and "Grass" are high-fidelity digital reproductions of natural materials (in this case, river rocks and St. Augustine grass). Eight of the patterns were picked from the Millennium collection, developed by a group of young designers. The designs can be used for a variety of applications, including store fixtures, tabletops, or cabinets. 800/433-3200. Wilsonart Intl., Temple, Texas. **CIRCLE 212**



◀ Stylish safety

The new colors in the Altro Impressionist II safety flooring line have been categorized into four groups: Relax, Energy, Warm, and Cool (Electra from the Energy group shown here). To deliver slip resistance, Impressionist II has aluminum oxide and colored quartz throughout the thickness, with silicon carbide in the surface. 800/565-4658. Altro Floors, Mississauga, Ontario. **CIRCLE 214**



▲ Worth the wait

The Terminal series from Kusch+Co. adds style to any image-conscious lobby, waiting room, airport, bus terminal, train station, reception area, or museum. Terminal is available with or without arms or upholstery, and it is offered in a selection of finishes. The ergonomically shaped seat and back are attached to the crossbeam by formed steel supports, and benches can be connected at any angle from 90 degrees to 270 degrees with a fitted hinge system. 631/589-7337. Kusch+Co., Bohemia, N.Y. **CIRCLE 215**

Product of the Month Herman Miller RED

To meet the needs of fast-growing small businesses and their culture, Herman Miller didn't merely create a new product but an entirely new division. Positioned as a middle point between store-bought, ready-to-assemble furnishings and more expensive contract furniture, Herman Miller RED will be sold over the Internet and can be on the job in about a week. The lunar-inspired Spider table (below), designed by Eric Chan of ECCO Design, and the Rocket (above), designed by Ayse Birsel of Olive 1:1., will come with a variety of accessories to provide cable management, storage, and privacy. 616/654-3000. Herman Miller, Zeeland, Mich.

CIRCLE 213



► Sleek projector mounts

Draper is offering a new line of products that includes tilting wall and ceiling mounts for plasma displays, and adjustable ceiling mounts for LCD/DLP projectors.

Draper's Aero Mount for LCD/DLP projectors features a sleek, contemporary design, and adjustments can be made with the projector still attached. The Aero provides 30-degree roll adjustment,

30-degree pitch, and 360-degree yaw, and it tilts to accommodate a sloped floor. The mounts have built-in cable management and electrical outlets and a "keystone" bracket slide that can be fitted to any plasma display. 765/987-7999. Draper, Inc., Spiceland, Ind. **CIRCLE 216**



Product Briefs

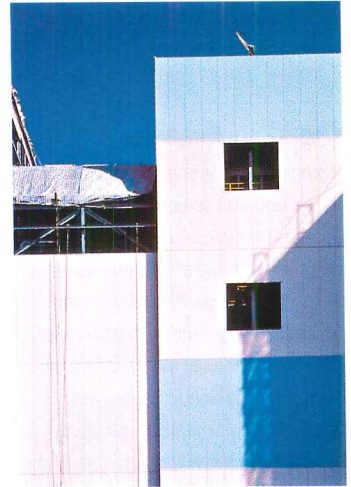


▲ Carbon-fiber furniture

The Talon Chair, designed by Bang Design in Australia, is the first large-scale, affordable use of carbon fiber for furniture. Best known for its application in the body of the Ferrari F50 and the 1994 America's Cup winning yacht, carbon fiber is ultralight and possesses 15 times the strength of steel. It is fireproof, weatherproof, and warm to the touch. Unlike fiberglass, carbon fiber can be economically recycled into other, less complex molded forms. 800/237-1625. ICF, Valley Cottage, N.Y. **CIRCLE 217**

▼ Reptilian, but not slippery

LonDile, a new resilient sheet vinyl flooring option, recalls a variety of surfaces including reptile skin, basket weave, or rough concrete. LonDile's 10 metallic color choices enhance the flooring's 3-D effect. LonDile comes in standard 6-by-60-foot rolls and is designed for retail, hospitality, and entertainment spaces. 800/832-7111. Lonseal, Carson, Calif. **CIRCLE 218**



▲ One tough customer

Builders in Shenzhen, China, needed a reliable product to protect the walls and roof of the Kaohsiung Ren Wu incinerator. Partly because of the 20-year warranty, they clad the walls with 128,400 square feet of coated Centria Formawall steel wall panels. The roof is made from 23,500 square feet of Box Rib panels from Centria coil stock. 412/299-8240. Centria Intl., Moon Township, Pa. **CIRCLE 219**

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Product Briefs

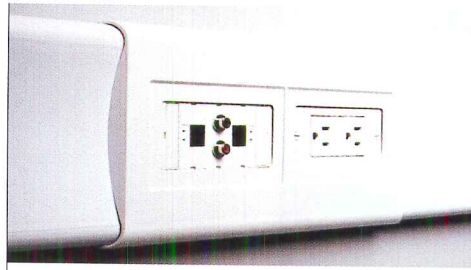
▼ New arrivals for the American office

Steelcase has introduced the International Collection to the North American market. The collection is made up of three design groups called Werndl Emerge, TNT, and Please. Werndl Emerge (shown) is built around the new Emerge desk system, which features adjustable legs, removable casters, mobile work areas, and surfaces available in a variety of materials. Emerge also offers adjustable shelving and a series of fixed and mobile storage units. 616/698-4514. Steelcase, Caledonia, Mich.

CIRCLE 220



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▲ Won't get a second glance

Wiremold's Profile Series Raceway features a curved contour that reduces visual impact and gives the system a

smoother look. The raceway maintains a two-inch cable bend radius without protruding corner bulges, and it has separate channels for power and/or data cabling, including UTP and fiber optics. A corner drop allows cable

to be fed from the ceiling without penetrating partitions. 800/621-0049. The Wiremold Company, West Hartford, Conn. CIRCLE 221

► Mossy membrane

The Roofing Systems Group of Johns Manville donated an UltraGard SR-80 roofing membrane to serve as the base for a "green roof" application at the renovated Earth Conservation Corps Center in Washington, D.C. Green roof technology involves putting a thin soil and vegetation layer over protection board applied to the waterproof membrane, covering the entire roof surface. This reduces storm water run-off and improves energy performance. 303/978-2000. Johns Manville Roofing Systems, Denver. CIRCLE 222



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Product Briefs



▲ Fogging up the windows again

Thermally reversible light scattering, or thermoscat-tering, allows a window to obscure the view when cold (above, right) and become crystal clear when heated (above, left). ThermoSEE glass uses this technology and can be specified for privacy windows, skylights, sunrooms, oven windows, view ports for doors, fireplaces, or decorative mirrors. In addition to the privacy effect, the ThermoSEE glass can enhance the daylighting of a skylight by scattering light so it appears as a bright white light, similar to a fluorescent light. When heated, the glass becomes crystal clear and appears as ordinary glass. 616/738-8540. Pleotint L.L.C., West Olive, Minn. **CIRCLE 223**

► A new renaissance

Moduline Window Systems' Renaissance Option resurrects the neoclassical style of architecture, offering the retro look of wood, steel, and aluminum windows of the past, which were often putty-glazed (a better glazing technology in aluminum windows has eliminated the use of putty glaze).

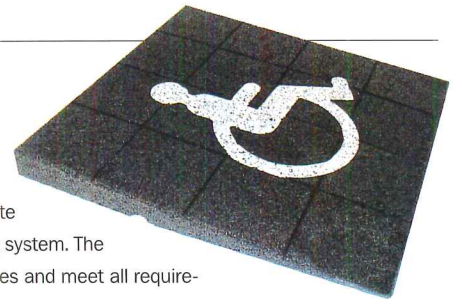
The Renaissance Option is available in any window system or type of muntin and offers added features, such as a mitered frame and a glass edge protector.

800/521-8742. Moduline Window Systems, Wausau, Wis. **CIRCLE 224**



► Even playing field

CSSI's new 1-inch-in-12-inch slope perimeter transition ramps, featuring wheelchair access graphic displays, complete the Playguard resilient surfacing system. The ramps comply with ADA guidelines and meet all requirements established by the U.S. Consumer Products Safety Commission and the ASTM for playground surfacing. CSSI offers a full line of resilient rubber flooring products for playground, fitness, recreational, and architectural uses. 800/851-4746. CSSI Resilient Surfacing Products, Carlisle, Pa. **CIRCLE 225**



For more information, circle item numbers on Reader Service Card or go to www.architecturalrecord.com Advertiser & Product Info

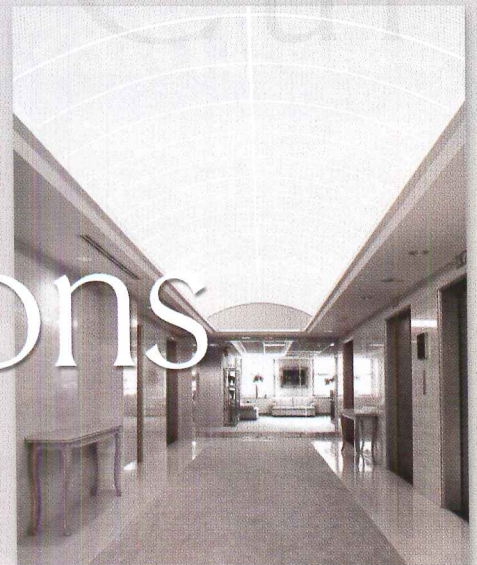
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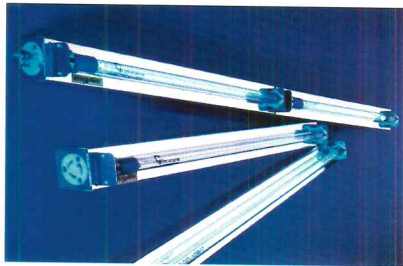
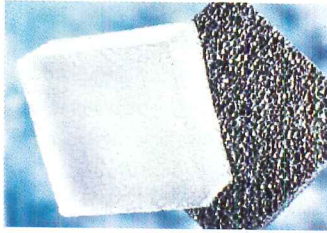
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CIRCLE 60 ON INQUIRY CARD

Product Briefs

► For heated conversations

Quash FR1000 and Quash FR2000 sound-management polyolefin-based foams provide sound absorption while helping to inhibit accidental ignition from high heat or small fire sources. The foams provide an alternative to common materials used in acoustical applications, such as fibers, dry-wall, wood, and cement, and they are well suited for commercial and harsh industrial environments. 800/411-4369. Dow Performance Foams, Midland, Mich. **CIRCLE 226**



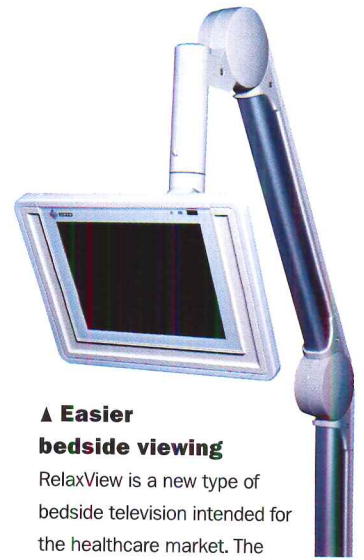
▲ For hard to reach places

The new Twist-Lock UVC emitter is designed for side-access installations in

commercial HVAC systems, where access inside the plenum is difficult or restricted. By using the plug at each fixture end, up to six units can be physically or electrically connected, thus forming a string that slides in and out of an air handler. The emitter's high output in moving and/or cold air prevents microbial growth in HVAC systems. 562/467-8484. Steril-Aire, Cerritos, Calif. **CIRCLE 228**

▼ Sure footing

The Elaminator 300 Series metal roofing insulation system addresses the leading cause of construction fatalities—falls from or through the roof—which accounted for 86 deaths in 1998. Elaminator enhances builder/erector safety, increases installation productivity of the insulation and roofing crews, and meets thermal performance needs of metal buildings. 419/248-8000. Owens Corning World Headquarters, Toledo. **CIRCLE 227**



▲ Easier bedside viewing

RelaxView is a new type of bedside television intended for the healthcare market. The lightweight monitor, designed by Dr. Kazuo Kawasaki, features an active matrix TFT color liquid display, an easily adjustable flexible arm, and an option of video or PC input. The screen is laminated with acrylic, making it easy to clean, and the arm is designed to prevent fingers from getting pinched. RelaxView will be introduced to the U.S. market in the second quarter of 2001. 800/800-5202. Eizo Nanao Technologies, Cypress, Calif. **CIRCLE 229**

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Product Literature

Luxury bath brochure

A new brochure from Porcher displays a variety of bathroom products with a European flair, ranging from slipper tubs and whirlpools to glass above-counter lavatories. 800/524-9797, ext. 199. Porcher, Piscataway, N.J. **CIRCLE 230**

Hospitality environments

USG Corporation has developed a new eight-page brochure that gives hotel and restaurant designers detailed information about specific products that have been designed for the unique needs of hospitality environments. 800/950-3839. USG Corporation, Chicago. **CIRCLE 231**

New resource manual

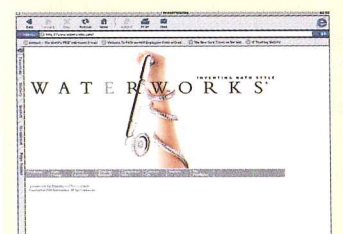
Chicago Metallic has introduced a new architectural resource manual, designed to provide all the information needed to specify its commercial ceiling, wall, and door-frame systems. 800/323-7164. Chicago Metallic, Chicago. **CIRCLE 232**

Exterior/interior door catalog

Simpson Door Company introduces *Design Gallery II*, a new 66-page catalog featuring the Mastermark collection of exterior and interior wood doors. 800/

NEW SITES FOR CYBERSURFING

Searchable database for residential bath products www.waterworks.com



Review the company's complete lighting brochure www.bega-us.com

Downloadable 3-D digital product library www.ReplicaNation.com

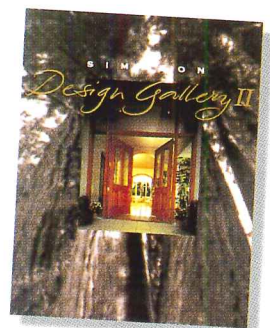
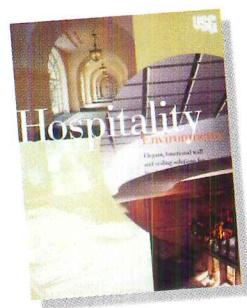
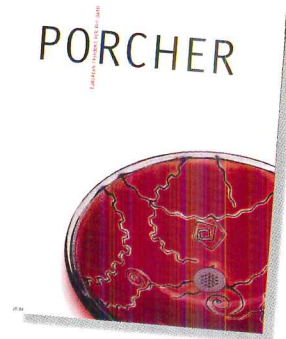
Spanish version of site now available [www.coverings.com](http://www.coverings.com/spanish)

International online marketplace for interior fabrics www.tapestry.com

952-4057. Simpson Door Company, McCleary, Wash. **CIRCLE 233**

Cone-roof shingle bulletin

The Asphalt Roofing Manufacturers Association has introduced *How to Shingle a Cone Roof*, a technical bulletin that discusses the challenges of shingling cone-shaped roofs. The bulletin defines and explains the best roofing procedures for cone roofs with flat sides and round sides. 800/829-3572. Asphalt Roofing Manufacturers Association, Calverston, Md. **CIRCLE 234**



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Product Literature

Computer-based training

The OmniLink Contractor Training Series is a collection of computer-based training courses addressing voice/data/video installations for copper and fiber-optic applications. 901/252-5000. Thomas & Betts Corporation, Memphis. **CIRCLE 235**

From floor to ceiling

Armstrong's new 164-page commercial flooring catalog divides the product line into five major categories: linoleum, vinyl sheet flooring, luxury solid vinyl, vinyl composition tile, and specialty flooring. The catalog also provides a summary of reference information, product attribute information, and a variety of technical data. Also new from Armstrong is *School Zone Ceiling Systems*, a CD-ROM that shows how the proper choice of a ceiling can create more effective facilities for learning. 877/ARMSTRONG. Armstrong World Industries Inc., Lancaster, Pa. **CIRCLE 236**

Take the bite out of wood

The Southern Forest Products Association, on behalf of the Southern Pine Council, recently published a brochure focusing on the many uses of pressure-treated wood, including the

product's inherent protection against Formosan termites. 504/443-4464. **CIRCLE 237**

Energy code CD

A new CD from BOCA provides design professionals and code officials with the most contemporary energy-conservation codes and the U.S. Department of Energy's code-compliant manuals and software. 800/214-4321, ext. 371. Building Officials and Code Administrators International, Country Club Hills, Ill. **CIRCLE 238**

Protective coatings info

The Society for Protective Coatings (SSPC) has acquired resale rights to the recently published *Visual Comparison Manual*, a book and CD-ROM set designed as a guide to the general cause and appearance of common coating failures and application defects on steel, concrete, and other substrates found in industrial, commercial, and marine environments. The society has also published a newly compiled glossary of terms and acronyms associated with the use of protective coatings. 877/281-7772. SSPC, Pittsburgh. **CIRCLE 239**



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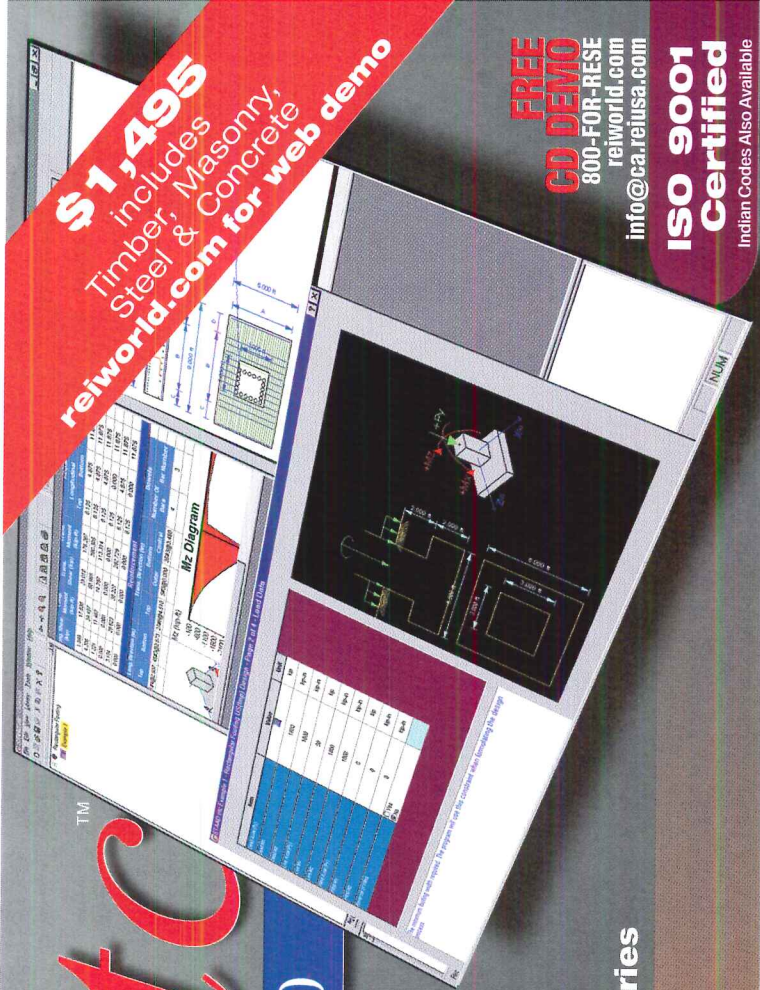
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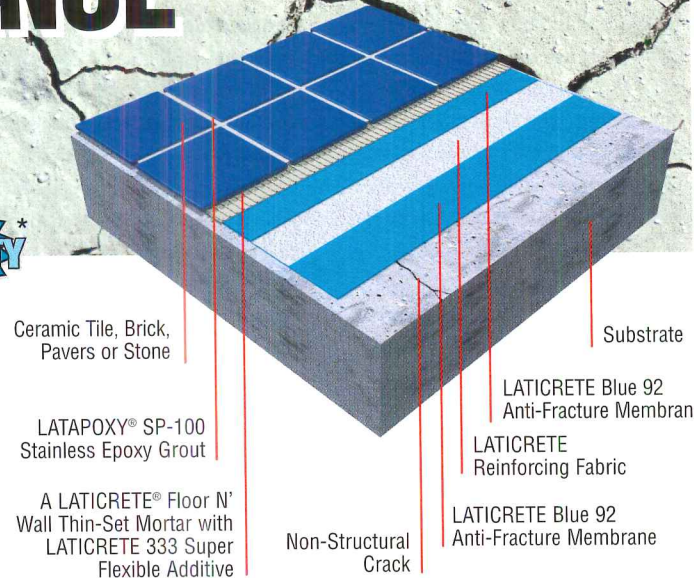
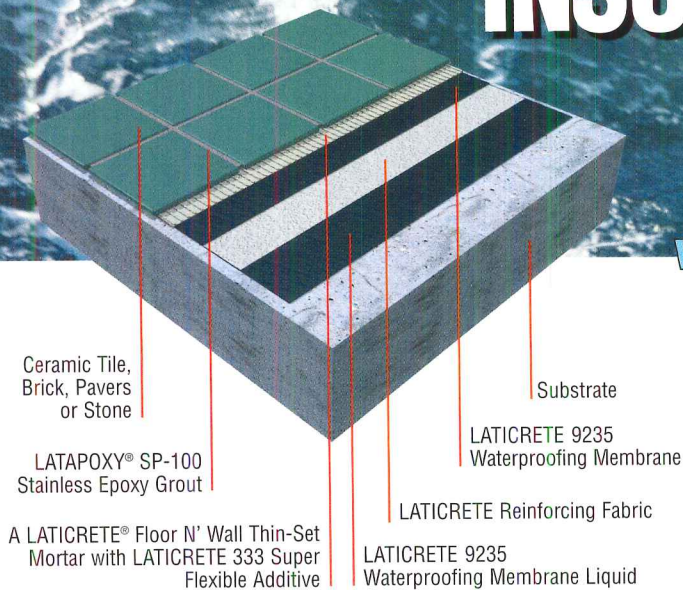


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Dates & Events

Calendar

Skyscrapers: The New Millennium **Chicago**

August 19–January 15, 2001
Sponsored by the Art Institute of Chicago, this exhibit examines more than 70 high-rises either recently completed or in construction. The exhibit includes the Jin Mao Building by SOM, the Sony Center by Helmut Jahn, and some of the latest green skyscrapers by Sir Norman Foster, Ken Yeang, and others. See www.artic.edu.

Wood: An American Tradition **Washington, D.C.**

September 9–April 22, 2001
The National Building Museum is hosting an exhibition exploring the important and varied role of wood in American architecture. For information call 202/272-2448 or see www.nbm.org.

Architect of Form and Spirit: **Eric Mendelsohn in Saint** **Louis**

September 17–March 10, 2001
A major exhibit highlighting the life and work of German architect Eric Mendelsohn, designer of COCA's current home, where the exhibit will be. Call 314/725-6555 or get more information on the Web at www.cocastl.org.

How Architecture of the '70s **Shapes Buildings of Today** **Harvard and Cornell Universities**

October 17–April 24, 2001
This series includes lectures by Rem Koolhaas, Rafael Moneo, Jorge Silvetti, Sara Whiting, Alan Colquhoun, and Felicity Scott. Free of charge. For more information, call 617/495-2337 or see www.gsd.harvard.edu/events.

Light, Life, Libeskind: A Look **at the New Jewish Museum** **San Francisco**

October 26–January 28, 2001
The Jewish Museum of San Francisco is presenting an exhibition of Libeskind's drawings, computer renderings, and models of its new facility. For information call 415/591-8800; or write info@jmsf.org.

Monuments, Mills and **Missile Sites** **Washington, D.C.**

October 26–April 29, 2001
This exhibit explores 30 years of the Historical American Engineering Record (HAER), which documents historically significant engineering and industrial works throughout the United States. At the National Building Museum, call 202/272-2448 or go to www.nbm.org

Flight Patterns **Los Angeles**

November 12–February 11, 2001
This exhibit explores the landscape, urbanism, and relationship of cities to land in geographic areas of the Pacific Rim. At the Geffen Contemporary at MOCA. Contact 213/626-6222 or go to moca.org.

Moguls and Monuments **New York City**

November 14–May 15, 2001
The Municipal Art Society of New York presents this illustrated lecture series on how the superrich built four of New York City's great buildings. Lectures include the Woolworth Building (January 23, 2001), the Chrysler Building (March 13, 2001), and Rockefeller Center (May 15, 2001). For information call 212/840-1840.

Dreams and Disillusion: Karel **Teige and the Czech Avant-** **Garde**

Miami Beach, Fla.

November 15–April 1, 2001
The Wolfsonian-Florida International University presents the first U.S. exhibition on Karel Teige, the graphic designer, architectural theorist, and important proponent of the European avant-garde. For information call 305/531-1001.

Cities in Motion **Montreal**

November 15–April 1, 2001
Three exhibitions united around the theme of cities illustrate how modern transportation systems have changed the fabric and scale of cities over the past century. At the Canadian Centre for Architecture, 514/939-7000; icloutier@cca.qc.ca.

The Big Dig: Reshaping an **American City** **New York City**

December 5–January 17, 2001
An exhibition of photographs by Peter Vanderwarker illustrates the city of Boston's Big Dig project to put its elevated Central Artery underground. The mural-size photos show the enormity and complexity of this immense public-works initiative. At The Urban Center. Call 212/980-3767 or see www.arch-league.org.

Frederick J. Kiesler Endless **Space** **West Hollywood, Calif.**

December 6–February 25, 2001
The exhibition highlights the 1959 Endless House project by Kiesler, who is considered one of this century's most significant nonbuilding architects and whose work has inspired today's experimental architects. At the R. M. Schindler House. Contact 323/651/1510 or see mak-center@earthlink.net

Building Images: Seventy **Years of Hedrich Blessing**

Photography **Chicago**

December 9, 2000–July 8, 2001
An exhibition of the photography of the firm of Hedrich Blessing, which revolutionized the way architecture and design are captured on film. Work includes photos of buildings by Frank Lloyd Wright, Mies van der Rohe, Eiel Saarinen, and others. At the Chicago Historical Society. Contact 312/641-4600.

010101: Art in Technological **Times** **San Francisco**

Web cast begins one minute after midnight on January 1, 2001
The San Francisco Museum of Modern Art will launch a thought-provoking exhibition comprising five Web-based commissions that respond to a world altered by digital media and technology, including work by Asymptote Architecture. A more extensive exhibition of these and other works on this subject will be on view at the SFMOMA *March 3–July 8, 2001*. See www.sfmoma.org/010101 or contact 415/357-4000.

Preserving Corporate **Modernism: Assessing Three** **Landmark Buildings by** **Gordon Bunshaft of** **Skidmore, Owings and Merrill** **New Haven, Conn.**

January 8–March 3, 2001
Focusing on the legacy of postwar corporate architecture patronage, this exhibition showcases three outstanding projects, including New York's Lever House (1952). At the Yale School of Architecture, A&A Gallery. Call 203/432-2296.

The Future of Design **Toronto**

January 18–21, 2001
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Dates & Events

tures, and product launches by 300 stellar designers, manufacturers, and retailers. For more information, 416/599-8885 or see interior-designshow.com.

New New York 2 New York City

January 18–March 14, 2001

The exhibition highlights significant recent architecture commissioned for cultural, and other, facilities in New York City. At the Architectural League of New York. Contact 212/753-1722 or see www.arch-league.org

The National Trust for Historic Preservation 2001 List of America's Most Endangered Historic Places

Nomination deadline:

January 19, 2001.

The National Trust is now accepting nominations for this list; the results

will be announced on *January 25*. Contact 202/588-6141 or see www.nationaltrust.org.

How to Maximize Resources and Efficiency through Internet Applications Scottsdale, Ariz.

January 30–February 1, 2001

Hear the best practice studies on implementing e-business initiatives from some of the leading construction, hardware, software, design, and supply firms. To view agenda or register online, see www.iqpc.com/INHP-TT/construction, call Christiaan Hanson at 312/980-3410, or E-mail christiaan.hanson@iqpc.com.

Cities in the Third Millennium Melbourne, Australia

February 26–March 2, 2001

The Sixth World Congress of the Council on Tall Buildings and Urban

Habitat will feature more than 80 local and international speakers and a large exhibit. Call 613/9682 0244; or see www.icms.com.au/tbuh.

Urban Scan Viewer: The Architectural Visions of LOT/EK

New York City

February 8–March 2, 2001

An exhibition of a viewing apparatus built by the innovative firm of LOT/EK. The scan viewer reveals a melange of urban images and architectural work by LOT/EK. Gallery opening and lecture on *February 8*. At Parsons School of Design, Architecture Department. Contact 212/229-8955.

Competitions

NEA's Grants for New Public Works

Deadline for letters of interest:

January 11, 2001

As part of an effort to invest in

projects that promote livable communities, the NEA will fund a limited number of design competitions to stimulate excellence in design in the public realm. Though NEA is especially interested in landscape design, competitions include architecture, planning, graphics, and industrial design. Call 202/682-5452 or go to www.arts.gov.

The Borromini International Award for Architecture

Deadline: January 20, 2001

Sponsored by the city of Rome, the award is open to architects worldwide whose work has best interpreted the demands of the contemporary world and contributed to cultural growth. For information, see www.premioborromini.org.

Competition for Seaside Landmark

Deadline for entries:

January 23, 2001

The Town of Seaside and the Seaside Institute are sponsoring a competition to design a landmark

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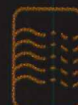
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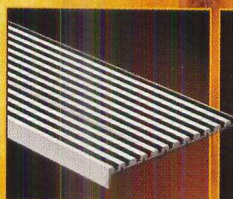
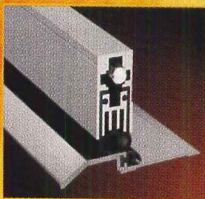
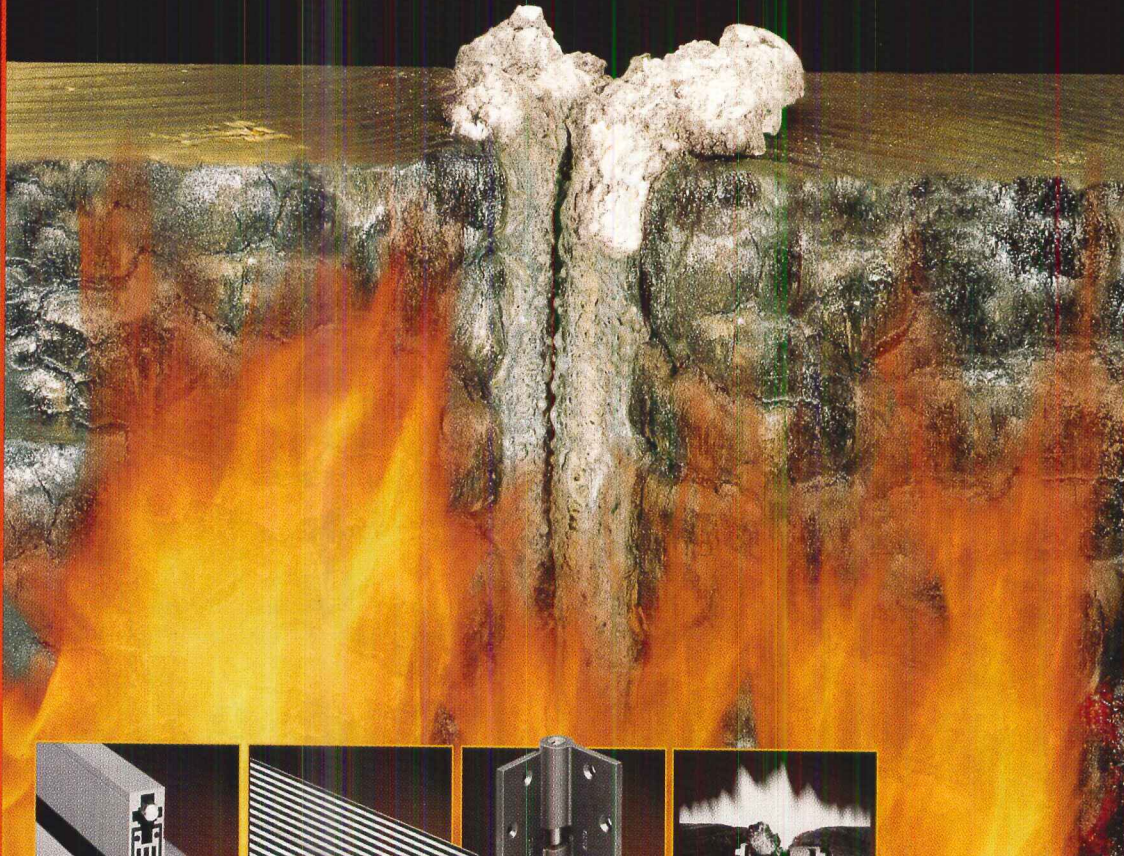
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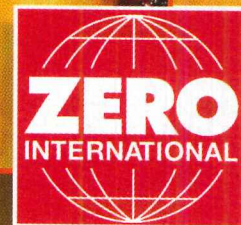
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Dates & Events

to greet visitors and commemorate the 20th anniversary of the community's founding. This idea-based competition is open to architects who have designed buildings at Seaside in the past, talented young architects, students of architecture, and even homeowners and children. For entry forms call 850/231-2226, or see www.seasidefl.com.

The 11th Annual James Beard Foundation Awards

Deadline for restaurant and graphic design entries: January 31, 2001

The award honors culinary-related talent, including restaurant designers of projects in the United States and Canada. Entry forms and rules can be obtained by faxing requests to 212/627-1064 or E-mailing jbfmoller@pipeline.com. Forms can be downloaded from jamesbeard.org.

Dupont Benedictus and ACSA Student Design Competition

Deadline for registration:

February 1, 2001

Deadline for receipt of entries:

March 8, 2001

This year, DuPont and the Association of Collegiate Schools of Architecture (ACSA) present the challenge of designing a multipurpose entertainment retail facility, while exploring the uses of laminated glass. For further information see www.acsa-arch.org, call 202/785-2324, or E-mail hbatli-boi@acsa-arch.org.

The Chicago Athenaeum Fourth Annual American Architecture Awards

Deadline: February 1, 2001

The program considers a wide variety of architectural types of work built or unbuilt in the U.S. or abroad as of January 1, 1999. Contact

Kristin Kaufman at 847/895-3950 or see www.chiathenaeum.org.

The ACSA Wood Products Council Carl E. Darrow Student Design Competition

Deadline for Registration:

February 1, 2001

Open to third-year or higher B.A./B.S. students of architecture, B.Arch. or M.Arch. students, with a faculty sponsor. Submissions are to be principally the product of design studio work emphasizing the expressive use of wood. Call 202/785-2324 or see www.acsa-arch.org.

The Architectural League of New York, City Limits 2000-2001 Young Architects Forum

Deadline: February 14, 2001

Open to designers 10 years or less out of undergraduate or graduate school. Winners receive \$1,000 cash prize, exhibit their work and present lectures during the spring at the League in New York City. For information call 212/753-1722 or see www.archleague.org

SEGD 2001 Design Awards Program

Deadline: January 29, 2001

The Society for Environmental Graphic Design honors signs and graphic design for office/workplace, transportation, urban/cityscape, exhibition design/museum, and other, environments. Contact Ann Makowski at 202/638-5555 or see segdoffice@aol.com.

The Second Annual Dryvit International Competition

Deadline: March 1, 2001

Commercial or residential buildings that feature a Dryvit exterior on a minimum of 75 percent of the project are eligible. The winner will receive a cash prize, and his or her work will be published in the July 2001 issue of RECORD. For information call 800/556-7752 or see www.dryvit.com.

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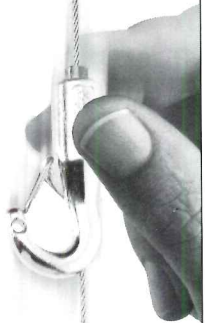
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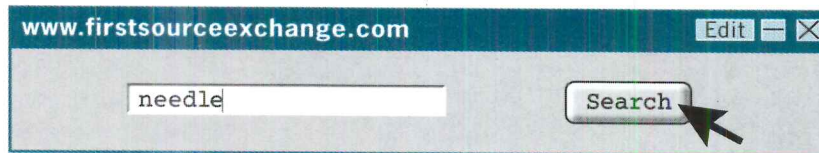


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John Rahaim: Seattle's latest rainmaker

Q: *CityDesign* seems like a unique department of city government—it's not a city planning division, but a real design-oriented wing. How did it come about? The genesis of my office came out of the Design Commission and the local AIA. It's a great statement about Seattle's values. There is a tremendous boom here, along with a huge influx of people to the region. *CityDesign* is a way to provide the city with design review and education, maintain a design vision, and, mostly, get people to convene and discuss. Part of our underlying mission is also to accommodate the growth and still be Seattle. The natural environment here is extraordinary. And it's a humanist place. Walkable. There's a wonderful collection of great urban neighborhoods. We want to keep all that and still grow. Also, to control population growth, Seattle, like Portland, has a growth-management boundary, which means that 93 percent of all construction happens within certain boundaries. So there are many challenges. The mayor, who is also a trained architect, put this department together to make sense of it all and establish relationships and dialogue between the various interested parties. Getting developers, architects, transportation people, utility people, and the community to get together and agree on things isn't easy, but that's what we do. It's a very "proactive" department, to use an overused word.

Gehry's EMP, as well as the library by Koolhaas, has received major media attention. What was the reaction to such big-ticket buildings from the people of Seattle? From local architects? There is tremendous interest in what is being built. When Koolhaas was chosen to design the new library, 1,700 people showed up at a public hearing. There was controversy among the design community about bringing in outside architects for these buildings, but there are many buildings being designed by local architects. It's a mix.

What public buildings are being designed now? Two new stadiums, a new city hall, an exhibition hall, a new symphony, an aquarium. Many neighborhoods are getting revitalized, funding for a new open-space strategy has recently been

acquired, transportation strategies are being realized...it's amazing. *What's on your agenda for the city's growth?* I'm personally concerned with keeping Seattle's "grit." There's a real industrial history here. I want to make sure we keep a working waterfront. It's part of the character of the city. And luckily, people in Seattle have open minds and a real yearning for good design.

Photograph by Benjamin Benschneider

Interviewed by Ingrid Whitehead

Within the last 20 years, Seattle has gone from small town to big city, and its leaders are not taking chances with the future of its urban design. In April 1999, Mayor Paul Schell and the City Council created a government arm called CityDesign—a division of the Department of Design, Construction and Land Use. They brought in John Rahaim, former associate director of Pittsburgh's Department of Design and Development, to serve as executive director. Rahaim also heads the Seattle Design Commission. As the lead design facilitator for the city, Rahaim, a trained architect, holds the keys to a booming and visionary kingdom that deserves to be watched.

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