

architecture®

September 1998

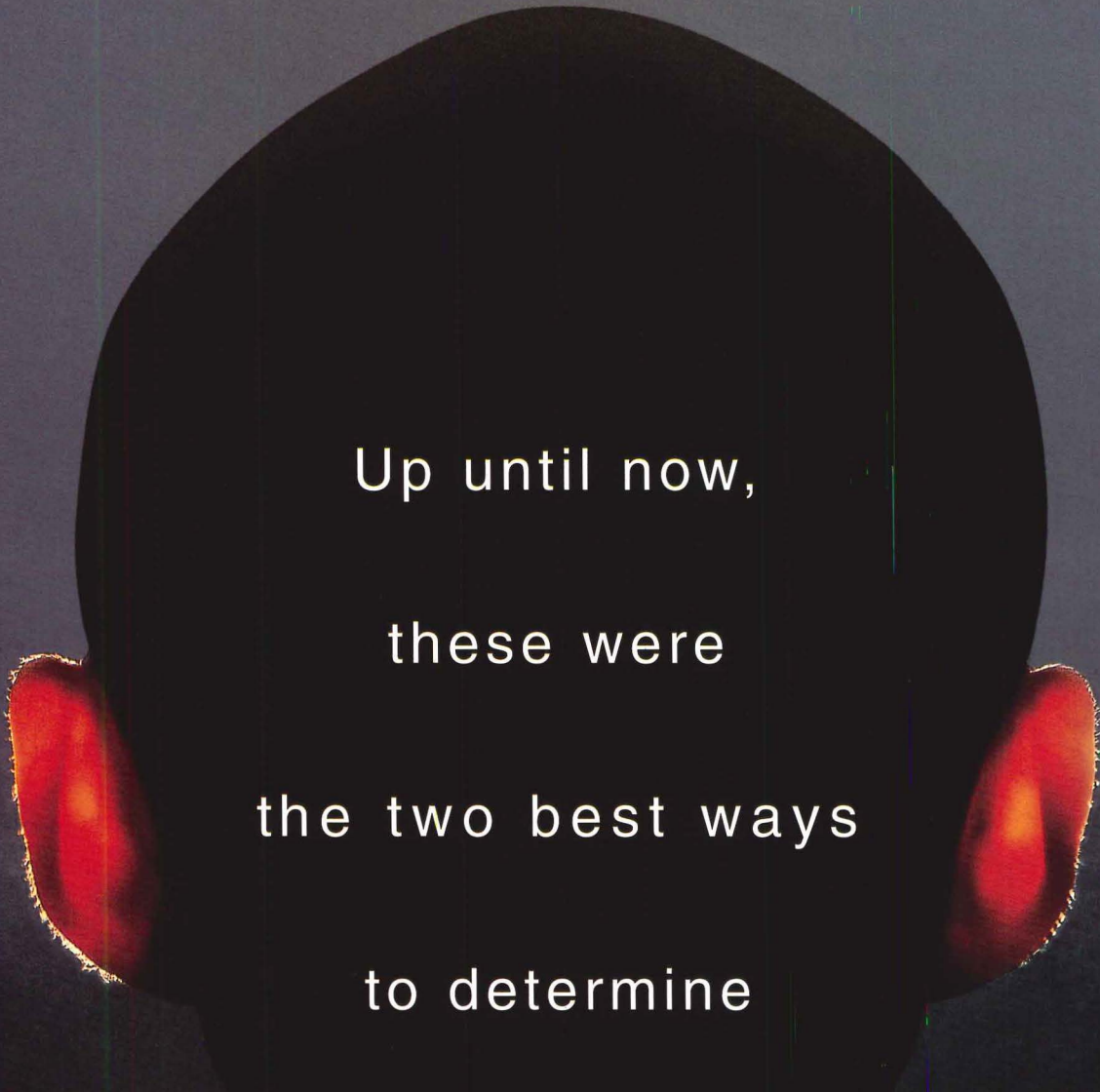
\$8.95 usa \$11.00 canada

# architecture™

ing History On The Hudson  
ning Über Alles: A New Berlin  
Spells Trouble

THE PRESENCE OF LIBESKIND  
BUILDS AN ABSENCE





Up until now,  
these were  
the two best ways  
to determine  
noise reduction.



In mid-July, First Lady Hillary Rodham Clinton toured Newburgh, New York, to kick off the Millenium Council, a White House initiative aimed at increasing public awareness of American heritage—especially its historic architecture—at the end of the 20th century (this issue, page 162). Since one of the Council's many goals is the stimulation of conservation, Mrs. Clinton surveyed the historic core of this Hudson River Valley town, which is home to one of the nation's largest historic districts. Among the district's 3,600 historic structures are George Washington's army headquarters, buildings by Alexander Jackson Davis, and a Frederick Law Olmstead-designed park.

Unfortunately, economic dislocation, social deterioration, and urban renewal have all taken their toll on the town, much

If the Millenium Council can't save Newburgh, however, the place is not lost. It already has a patron saint in Drew Kartiganer, a native son and architect who has taken on the town's restoration as a personal and professional crusade. Drawing on state and federal historic rehabilitation and low income housing credits, Mr. Kartiganer—acting as both architect and developer—has been buying and renovating groups of contiguous, mostly residential buildings in Newburgh's historic core. The multibuilding strategy provides economies of scale and enables Kartiganer to rehabilitate entire blocks at a time, thus reviving neighborhoods, rather than individual buildings.

Kartiganer rents his popular properties exclusively to low-income residents: He is doing well by doing good, and his success

# Preservation Pays

**Newburgh, New York, offers compelling evidence that historic rehabilitation is the right—and profitable—thing to do.**

of which now lies in ruins. Restoring Newburgh is a daunting task, and Mrs. Clinton's visit at least brought valuable media attention to their perils. With any luck, the Millenium program's public-private initiative, called the Committee to Save America's Treasures (jointly sponsored by the National Trust for Historic Preservation), will take an interest in Newburgh and raise money for projects there, just as they convinced General Electric to underwrite a \$5 million restoration of Thomas Edison's original laboratories in Edison, New Jersey.

The Millenium Council itself is unlikely to ride to the financial rescue, as the \$50 million President Clinton budgeted for its grant program is still bottled up in Congress. Even if the funding is ultimately approved, only \$22 million is earmarked for distribution among the 59 states and territories (\$25 million will go to federal projects, and \$3 million to Native American initiatives). With less than \$400,000 allotted per state or territory, there's not enough money available to make much of a difference in Newburgh.

is inspiring other developers. Kartiganer has also established a workable model of practice for architects in any city with depressed neighborhoods—which includes most of America's urban centers. Further, Kartiganer's program marries historic rehabilitation and federal housing subsidies in a noble crusade: saving architecture to save people, neighborhoods, and cities.

Mr. Kartiganer's strategy effectively marshals the disparate private and public resources available for preservation in this country. He demonstrates that even under the most inhospitable circumstances, rehabilitation is not only the right strategy, it can be a profitable one. Perhaps that is a message the Republican Congress can understand. After all, \$50 million is a bargain for saving our architectural heritage: about 20 cents per citizen. Congress also needs to expand the federal rehabilitation tax credits to include deserving owner-occupied homes. This money isn't a subsidy, it's an investment—one that pays cultural as well as financial dividends, as Drew Kartiganer has proved.

*Reed Kroloff*





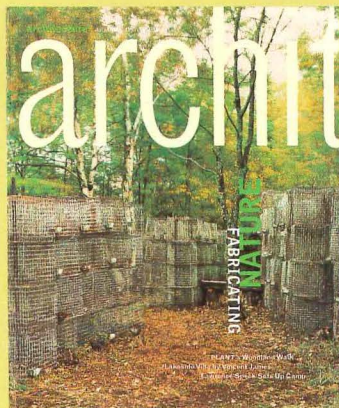
How much faster can you build with R-Control<sup>®</sup> insulated panels? Find out. [C](#)



## Cagey cover

It's not architecture or art you put on your July 1998 cover, but torture chambers for small animals. It looks like a concentration camp. If this is your vision of "Fabricating Nature," it makes me sick.

Barbara B. Corwin  
Cornwall-on-Hudson, New York



July's cover was infuriating. Come on! A stack of chicken cages in the woods? What's next? A pile of tires down by the river? Is this the best cover material you can come up with? Does this reflect the state of architecture today?

Todd Hotchkiss  
Des Moines, Iowa

## Monumental design

The design competition for the World War II Memorial on Washington, D.C.'s National Mall (*Architecture*, June 1998, page 26) was far from secretive, as author Bradford McKee suggests. Friedrich St. Florian's final design concept was selected from more than 400 blind submissions in a well-publicized nationwide competition. Subsequently, numerous hearings and media coverage kept the approval process publicly visible. The design process could hardly be more transparent.

F. Haydn Williams  
American Battle  
Monuments Commission  
Arlington, Virginia

## Fisky business

In response to your interview with Pliny Fisk III (*Architecture*, June 1998, pages 55-61), Dominique de Menil never granted "seed money" to Fisk's Center for Maximum

Potential Building Systems, nor did she approve of him after the unhappy outcome of a house he designed for her assistant Kathy Davidson. I brought Fisk to the Menil Foundation's attention, and, as executive vice president at the time, I invested in his cylindrical solar collectors. This is no doubt what Fisk calls his "seed money." De Menil, who he refers to as Dominique, never met Fisk.

Simone Swan  
Southold, New York

## Museum match

I encourage debate in a project of the MoMA addition's stature, but "Fisticuffs on 53rd Street" (*Architecture*, June 1998, pages 104-107) seemed staged. Critic Joseph Giovannini was so outmatched by Curator Terence Riley it's a wonder they were put in the same ring. Perhaps Giovannini was attempting humor with phrases like "JCPenney's on a bad escalator day," but the effect was unconvincing. In contrast, Riley's responses were fresh and well-thought out. Round one goes to Yoshio Taniguchi's addition. In the second round, I hope we'll see a better spokesperson for the opposition.

Tyler Brown  
Chicago

There is no law that says a building that celebrates Modern art must be Modern in principle. Pablo Picasso's *Le Femmes d'Alger* (1907) will be as shattering in Yoshio Taniguchi's MoMA addition (*Architecture*, June 1998, pages 104-107) as it would be in a Frank Gehry addition. If Terence Riley and his colleagues treasure their new plans, let them be, but let us not mistake the space for Modern. Taniguchi's design is as redolent of an exhausted historical model as Daniel Burnham's work at the 1896 Chicago Exposition that Frank Lloyd Wright claimed set architecture back 100 years.

Jim Blake  
San Jose, California

## San Diego charges

Very few airport terminals can claim originality. Recent ones reflect the late Modernist form and detail that Norman Foster applied in the 1970s and 1980s. San Diego's (*Architecture*, June 1998, page 67)

draws on another tradition—one that has more to do with CIAM [International Congress of Modern Architecture]-influenced work in 1960s California. I think Washington, D.C.'s Dulles Airport was a transition for architect Eero Saarinen between the Modernism of GM's Technical Center in Warren, Michigan, and the Expressionism of TWA's Kennedy Airport terminal in New York City.

The San Diego terminal is a major public building and a smooth-running addition to a busy airport. We designed its main facade to reinforce the building's civic presence as well as make the city's remarkable setting part of the passenger experience. One may like or dislike the result, but to call us copy cats and decorators is a hatchet job, not serious criticism. We deserve better, and so do your readers.  
Edward C. Friedrichs  
President, Gensler  
Santa Monica, California

## Where credit is due

In response to your editorial titled "Educational Conventions" (*Architecture*, June 1998, page 11), I am appalled at your notion that the AIA's continuing education efforts need revamping. Members have many opportunities to fulfill their continuing education requirement. Many credible programs are even offered free of charge. There will always be people trying to buck the system; however, most AIA members want continuing education.

There should be a strict set of standards for keeping your AIA membership. Suspending members [for failing to earn continuing education credits] wouldn't be financially disastrous because the caliber of the remaining members would increase. The AIA would be forced to streamline their budget—a winning formula for all AIA members.

Peter K. Vahala  
Newark, New Jersey

## WE WANT TO HEAR FROM YOU!

Please mail your letters to the editor to: Letters, *Architecture*, 1515 Broadway, New York, NY 10036. Or fax to: 212/382-6016. Or e-mail us at: [info@architecturemag.com](mailto:info@architecturemag.com). Please include your name, address, and daytime telephone number. Letters may be edited for clarity or length.



ALWAYS EXTRAORDINARY



Central Bank, West Monroe Financial Center; West Monroe, Louisiana  
**Architect:** T.W. Stodghill, Jr., Architect-A.I.A.  
**Design Assistant:** Guy W. Carwile, Architect

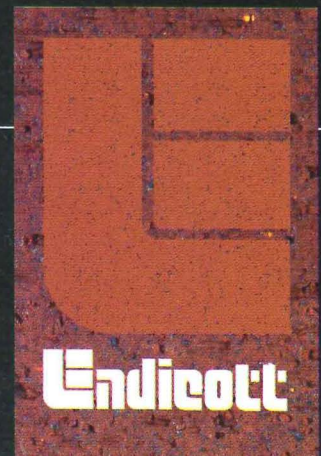
*Every day, imaginative people everywhere specify Endicott face or thin brick, pavers, tile, special shapes, even murals.*

*The myriad colors, textures and dimensions of these integral components inspire ideas. Enliven creativity. Challenge convention.*

*Never ordinary. Always extraordinary. Contact Endicott Clay Products Co., or visit [www.endicott.com](http://www.endicott.com) for samples and the name of your nearest distributor.*

**Endicott Clay Products Co.**

Post Office Box 17  
Fairbury, Nebraska 68352  
402/729-3315 FAX: 402/729-5804  
email: [endicott@endicott.com](mailto:endicott@endicott.com)  
Web: [www.endicott.com](http://www.endicott.com)  
Circle 16 on information card

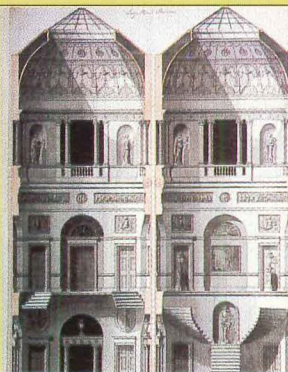




## exhibitions

city	dates	exhibition	contact
London	September 19-20	<b>London Open House</b> offers free admission to more than 450 of the city's buildings	www.londonopenhouse.demon.co.uk
New York City	through October 25	<b>Under the Sun: An Outdoor Exhibition of Light</b> at the Cooper-Hewitt, National Design Museum	(212) 849-8400
Northampton, Massachusetts	September 24-December 13	<b>Equal Partners: Men and Women Principals in Architectural Practice</b> at the Smith College Museum of Art	(413) 585-3124
Seattle	through January 24, 1999	<b>The Paving of Paradise: A Century of Photographs of the Western Landscape</b> at the Seattle Art Museum	(206) 654-3100
Washington, D.C.	through January 3, 1999	<b>Robert Adam: The Creative Mind From the Sketch to the Finished Drawing</b> at the Octagon	(202) 879-7766

Washington, D.C.'s Octagon Museum is showing Robert Adam's sketches, including Section Through Home House, London (c.1775).



STEVE HALL / HEDRICH BLESSING

# Success Story.

It's always the same story – traditional butt hinges cause doors to sag or to bind and eventually to fail. PemkoHinge™ continuous geared hinges replace this problem with a guaranteed successful solution:

The architect of this new high school chose PemkoHinge™ for its quality, clean aesthetics, and smooth-acting functionality.

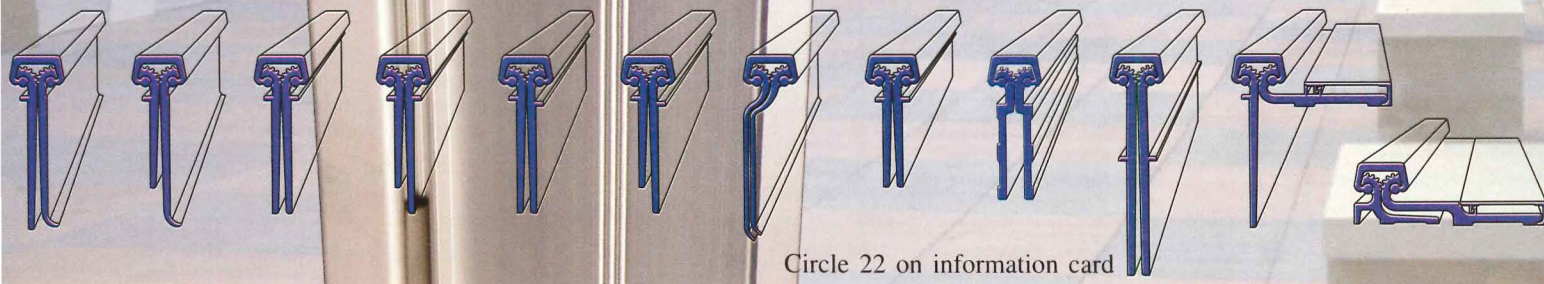
The contractor loves the ease of installation and the "Life of the Opening" guarantee.

The school district and facility manager appreciate the durability, safety, privacy and security provided by PemkoHinge™.

ASK FOR IT BY NAME.



P.O. Box 18966, Memphis, TN 38181  
Ph: (901) 365-2160 or (800) 824-3018  
Fax: (901) 365-1354 or (800) 243-3656  
P.O. Box 3780, Ventura, CA 93006  
Ph: (805) 642-2600 or (800) 283-9988  
Fax: (805) 642-4109 or (800) 283-4050



Circle 22 on information card



# conferences

city	dates	conference	contact
Austin, Texas	October 8-11	<b>Landscape as Mentor</b> , cosponsored by The Charles W. Moore Foundation, The Lady Bird Johnson Wildflower Center, and The University of Texas School of Architecture	(512) 477-4557
Las Vegas, Nevada	January 18-22, 1999	<b>World of Concrete USA '99</b>	(630) 705-2578
New York City	October 28-30	<b>design.y.c.</b> incorporates Interplan, The Design Show, the Designer's Saturday gala, the ASID Design Power conference, and Batimat Design-Build	(800) 950-1314
Oak Park, Illinois	October 15-17	<b>The Prairie School and Early Modernism: Frank Lloyd Wright and his Midwest Contemporaries, 1898-1909</b> at the Frank Lloyd Wright home and Studio Foundation	(708) 848-1976
Washington, D.C.	January 28-30, 1999	<b>Restoration &amp; Renovation 1999</b>	(978) 664-6455

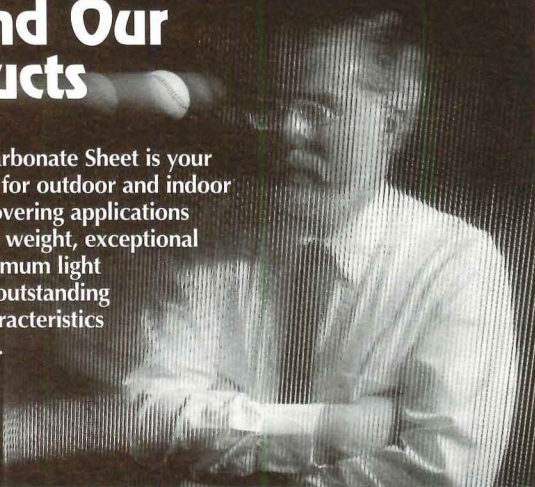
Landscape as Mentor conference honors William Turnbull. Shown is outdoor bathing pavilion at Turnbull's Calistoga, California, home.



MARK DARLEY / ESTO

## We Stand Behind Our Products

Polygal Polycarbonate Sheet is your logical choice for outdoor and indoor glazing and covering applications requiring light weight, exceptional strength, maximum light transmission, outstanding insulation characteristics and fire safety.



We offer the widest range of thicknesses, colors and multi-wall construction styles in the industry, along with a proprietary line of custom profiles to join, cap and trim panels . . . *all backed by a 10 year non-prorated warranty!*\*

For more information, see your POLYGAL Distributor, call 1-800-537-0095, or visit us on the web at [www.polygalusa.com](http://www.polygalusa.com)

\*Warranty details available upon request



**The Leading Supplier of Quality Glazing Alternatives Since 1983**

# We've made a name for ourselves.

On September 1, 1998,

■ DLR • Lescher and Mahoney

and

■ DLR • John Graham Associates

will officially shorten their names to

■ **DLR Group**

Our name unites a nation of talented professionals dedicated to our clients. As the third generation, our continuing commitment is to provide quality architecture, engineering and design.

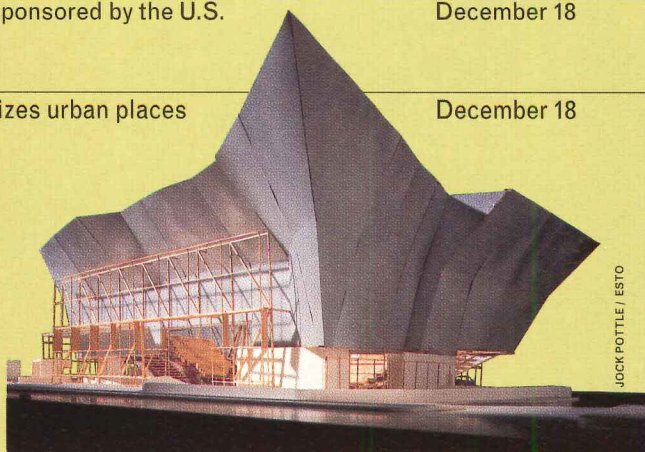
DLR Group has 17 offices nationwide.



# competitions

competition	deadline	contact
<b>Accent on Architecture Grants</b> , sponsored by the American Architectural Foundation	October 9	(202) 626-7420 fax
<b>Canadian Centre for Architecture Visiting Scholars Program</b>	November 1	(514) 939-7000
<b>Awards for Architectural Research</b> , cosponsored by <i>Architecture</i> and the Initiative for Architectural Research	December 1	(212) 536-6221
<b>46th Annual P/A Awards</b> , sponsored by <i>Architecture</i>	December 1	(212) 536-6221
<b>Preservation Technology and Training Grants</b> , sponsored by the U.S. Department of the Interior	December 18	(318) 357-3214
<b>Rudy Bruner Award for Urban Excellence</b> recognizes urban places that integrate good design	December 18	(617) 492-8401 ext. 184

Karen Bausman and Associates' Performance Theatre 1999 in Los Angeles won 1998 P/A Award.



JOCK POTTLE/ESTO

M O R E I S L E S S

**More options. More colors.  
More service. Less money.**

At Charleston Industries, Inc. we strive to offer a more versatile signage system to provide greater design flexibility. More standard components to mix and match, a larger color palette to choose from, and the ability to custom produce just about anything you can create on paper—all of this with aesthetic quality and economy at the top of the list.

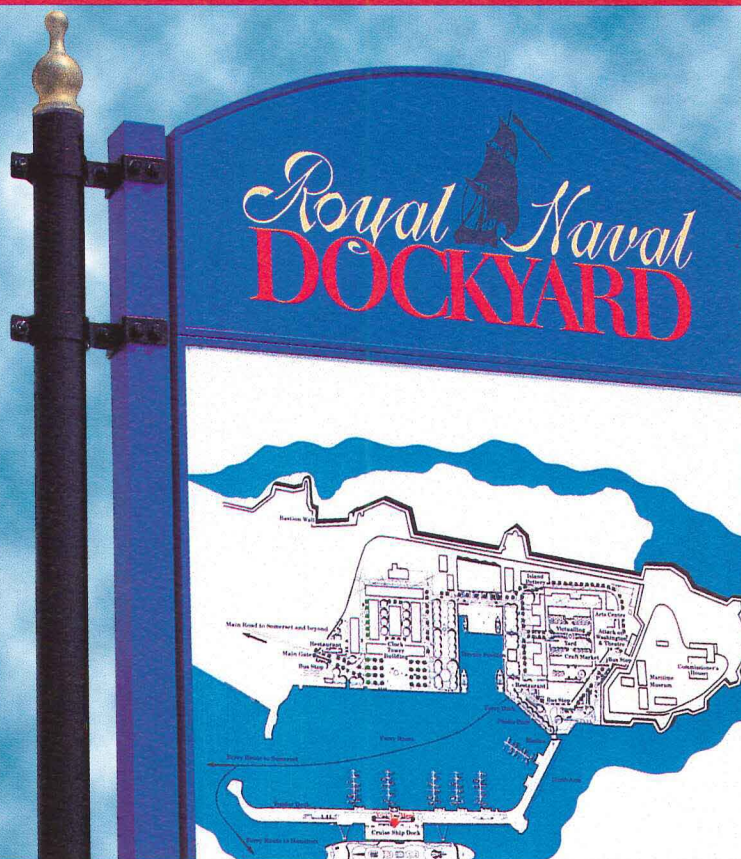
Please call 1-800-722-0209 for assistance with your next project or visit our web site @ <http://www.cisigns.com>

**CHARLESTON INDUSTRIES, INC.**

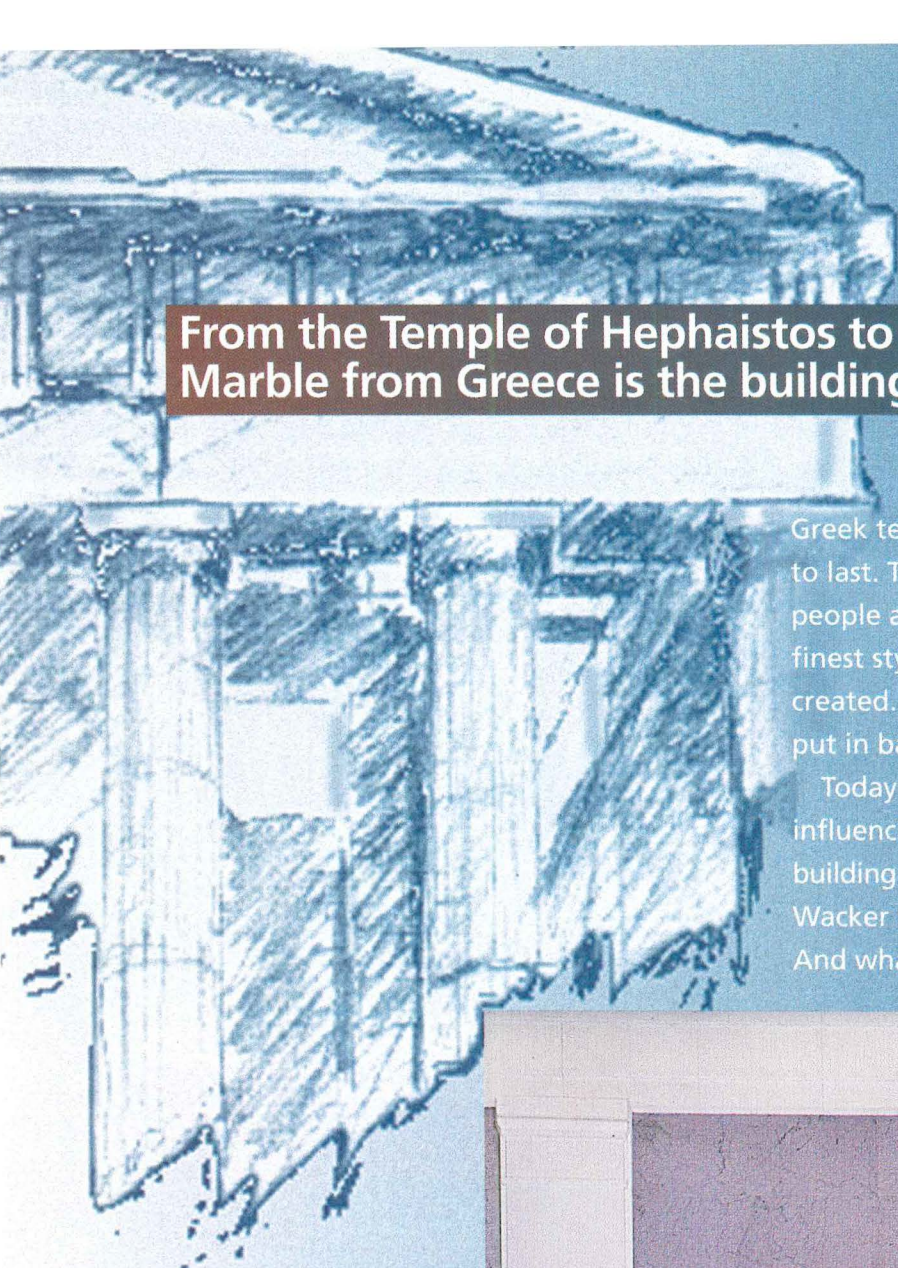
Architectural Signage Systems

1005 Tonne Road  
Elk Grove Village, IL 60007  
1-800-722-0209  
FAX: 1-800-722-4211

101 Industrial Drive  
Charleston, MS 38921  
1-800-647-2384  
FAX: 1-601-647-3604







**From the Temple of Hephaistos to the halls of corporate America, Marble from Greece is the building material of choice.**

Greek temples were built to last. They served the people and offered up the finest styling man had created. Form and function put in balance.

Today this styling is again influencing American office building design, like 77 West Wacker Drive in Chicago. And what classic building

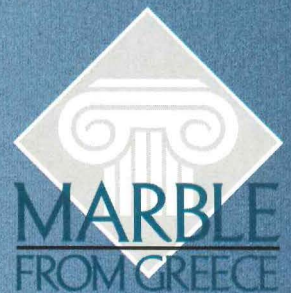
material did they specify? The same that was used at the Hephaisteion, Marble from Greece.

With over 60 distinct colors and patterns, several shown here, Marble from Greece offers one of the widest ranges available anywhere. The great Greek classic greens and whites as well as designer-demanded neutrals are available to ship now or are already here in the U. S.

Call 312.332.1716 or FAX: 312.236.5127 for product and distributor information.



Marco Lorenzetti © Korab Heilich Blessing



GREEK TRADE COMMISSION  
Washington, D.C. • New York • Chicago • Los Angeles  
Montreal • Toronto

Circle 30 on information card



# The Crowning Glory

It's all in the presentation. The selection of an exquisite frame to glorify a work of art...a lady's Crowning Glory...a crescendo in the Mother Art. The feeling of celebration of the final aesthetic statement in the completion of a home. This is what we think we have accomplished in the development of our line of premium laminated shakes. The husky thickness and shadow effect of cedar shakes, without the cost or inherent drawbacks when Mother Nature goes on a rampage. They are tested to withstand damaging brute-force winds and have a Class "A" rating for fire and

wind resistance. They carry a 5 or 10 year HomeGuard™ warranty against manufacturing defects. And 25 years to lifetime warranties, plus the Good Housekeeping Seal, Celotex® Premium Laminated Shakes meet the criteria for a celebratory roof that stands up to abusive weather and are the perfect option to keep costs in line. For more information on a glorious new solution, call 1-800-CELOTEX for a presentation of Celotex® Premium Laminated Shakes. A presentation which can be your Crowning Glory.



**America's Premium Laminated Shakes**  
Call 1-800-CELOTEX or visit us at our Website [www.celotex.com](http://www.celotex.com)

AMBASSADOR SHAKE™  
World's first Tri-Laminate!

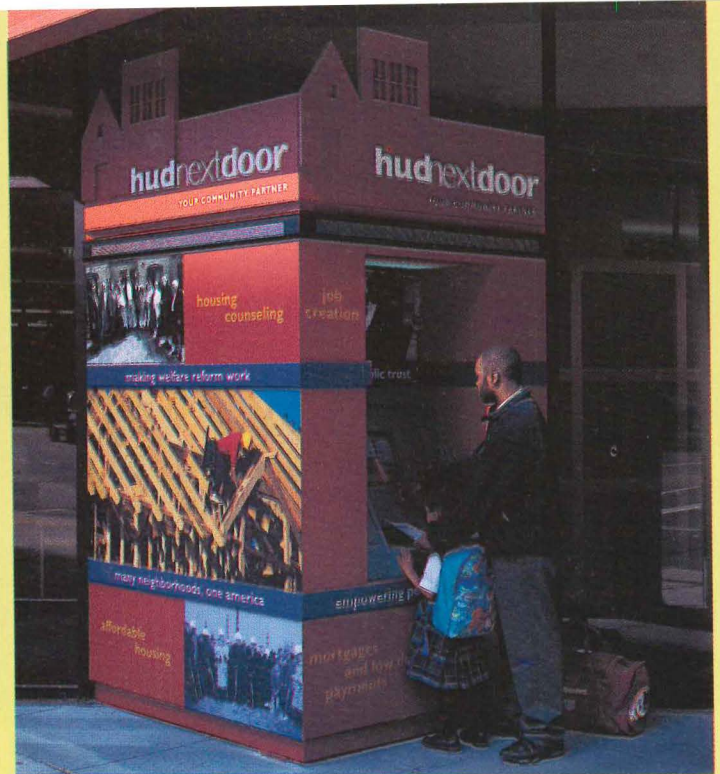


## New York City Ups and Downs

Fifteen years of squabbling over the fate of the Coliseum site on New York City's Columbus Circle—the bleak traffic roundabout where Broadway meets Central Park's southwest corner—has concluded with the announcement in July of developer The Related Companies' \$345 million purchase of the property from the Metropolitan Transportation Authority. The Related Companies propose twin 750-foot-tall towers, incorporating a jazz hall at the base for nearby Lincoln Center. David Childs of Skidmore, Owings & Merrill designed the 2.1 million-square-foot mixed-use complex, which echoes an earlier, failed Columbus Circle scheme the firm prepared for developer and publisher Mortimer Zuckerman. Further south on Broadway, in Times Square, the July 21 collapse of a construction elevator at Fox & Fowle Architects' rising Condé Nast Building left one person dead and surrounding streets closed for days. *Ned Cramer*



SOM's Coliseum proposal includes office mixed-use towers and jazz theater.



Bold graphics advertise 24-hour HUD information kiosk on D.C.'s Capitol Hill.

## Your Friendly Neighborhood HUD Office

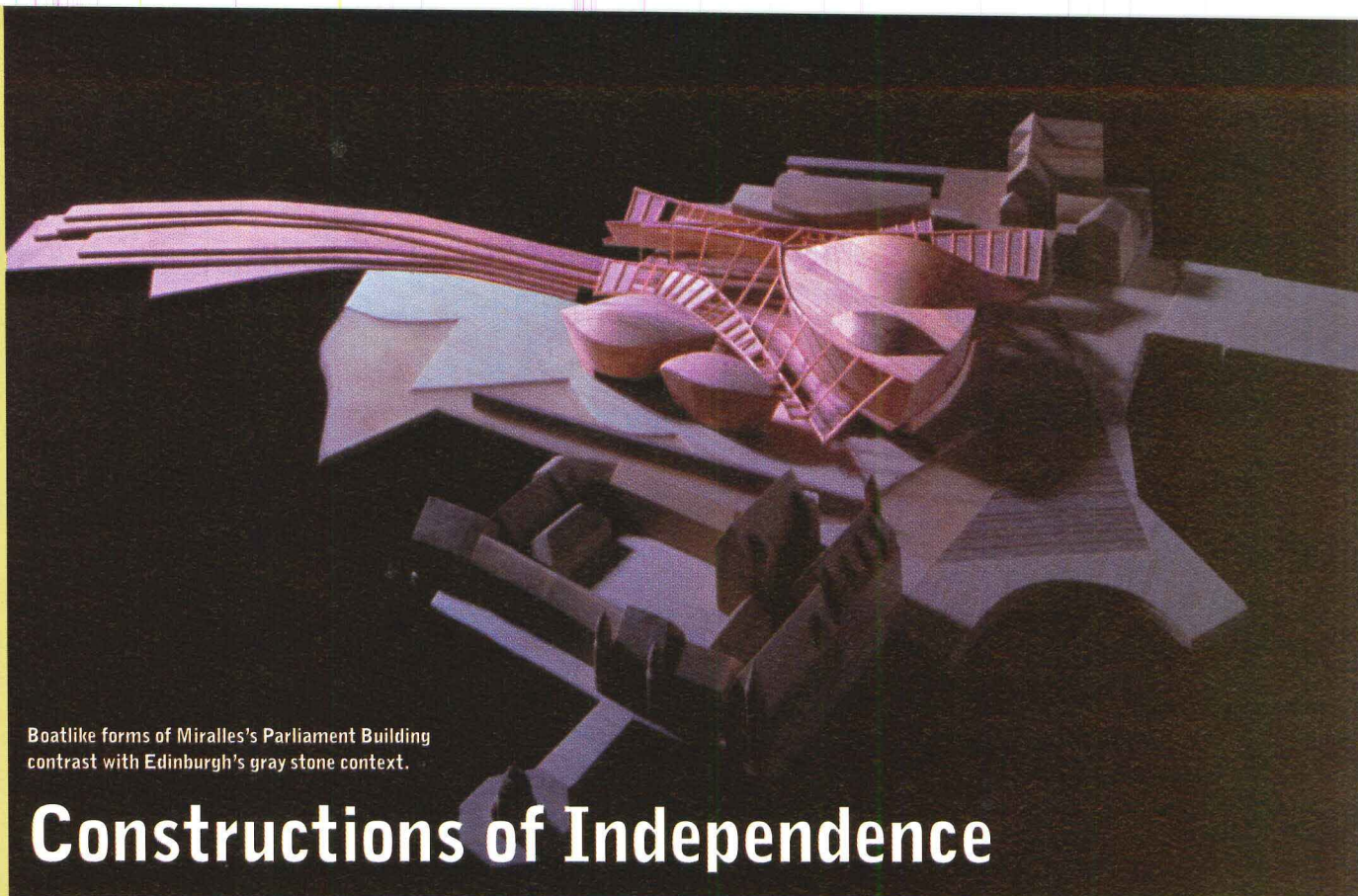
Gensler's Washington, D.C., office has conceived a neighborhood service center prototype for the U.S. Department of Housing and Urban Development (HUD) dubbed HUD Next Door. In an effort to counter the unfriendly image of government offices, the 6,000-square-foot flagship, located blocks from the U.S. Capitol, combines principles of retail and commercial office design to create a welcoming environment for visitors seeking information about HUD's housing assistance programs. A staff of 20 "community builders" offer counseling from comfortable overstuffed chairs; outside, a 24-hour information kiosk advertises the department's mission with bold graphics and computer technology. HUD plans to build eight additional locations in Albuquerque, New Mexico; Buffalo, New York; Baltimore; Sacramento, California; Reno, Nevada; Grand Rapids, Michigan; Casper, Wyoming; and Helena, Montana this year. *M.J.O.*

## architecture ANNOUNCES JURIES FOR ITS AWARDS COMPETITIONS

The 46th Annual P/A Awards jury is: Thomas Fisher, dean of the University of Minnesota's College of Architecture and Landscape Architecture and former editorial director of *Progressive Architecture*; London-based architect Eva Jiricna; Rodolfo Machado, principal of Boston-based Machado and Silvetti Associates; Billie Tsien, principal of Tod Williams Billie Tsien and Associates of New York City; and Mehrdad Yazdani, director of design of L.A.'s Dworsky Associates. Entries are due December 1. (See page 33 for entry form.)

The Awards for Architectural Research will be judged by: Robert Berkebile, principal of Kansas City, Missouri-based Berkebile Nelson Immenschuh McDowell Architects; Richard Eribes, dean of the College of Architecture at the University of Arizona; and Janet White, vice president for professional development at the American Institute of Architects. Entries are due December 1. (See page 147 for entry form.)





Boatlike forms of Miralles's Parliament Building contrast with Edinburgh's gray stone context.

## Constructions of Independence

After centuries of sending delegates to Britain's Houses of Parliament in London, both Scotland and Wales voted last year for home rule, which allows the countries to form their own domestic policies. With that comes the logical decision to create buildings for their new governing bodies.

On July 6, Barcelona's Enric Miralles and Edinburgh-based RMJM Architects won an open competition to design Scotland's Parliament Building on a 4-acre urban site between Edinburgh's Holyrood Palace (where Queen Elizabeth II stays when she's in town) and the Royal Park. Irregularly vaulted roofs that crown the main debating chamber and two lesser committee spaces evoke the workaday form of an upside-down boat (a sight common on Scotland's coast). The building's 20,000 square meters will also house offices for the future first minister and 129 members of Scottish Parliament, as well as 10 departmental ministries. Scottish officials hope to complete the building by the fall of 2001 for Scotland's first parliamentary session.

Last month, Welsh officials announced the shortlist for the National Assembly for Wales building, to be built on a 1.3-acre site in a commercial district in Cardiff. Londoners Benson + Forsyth, Richard Rogers Partnership, MacCormac Jamieson Prichard, and Eric Parry Architects; Tokyo-based Itsuko Hasegawa Atelier with Kajima Design Europe of London; and Norwegian firm Niels Torp Architecture with Cardiff-based Stride Treglown Davies will compete to design the 15,000-square-foot facility. Welsh officials plan to announce the winner in October. Michael J. O'Connor



BIG project includes rest room pavilion (at left) and oceanfront promenade.

## BIG Project in Santa Monica

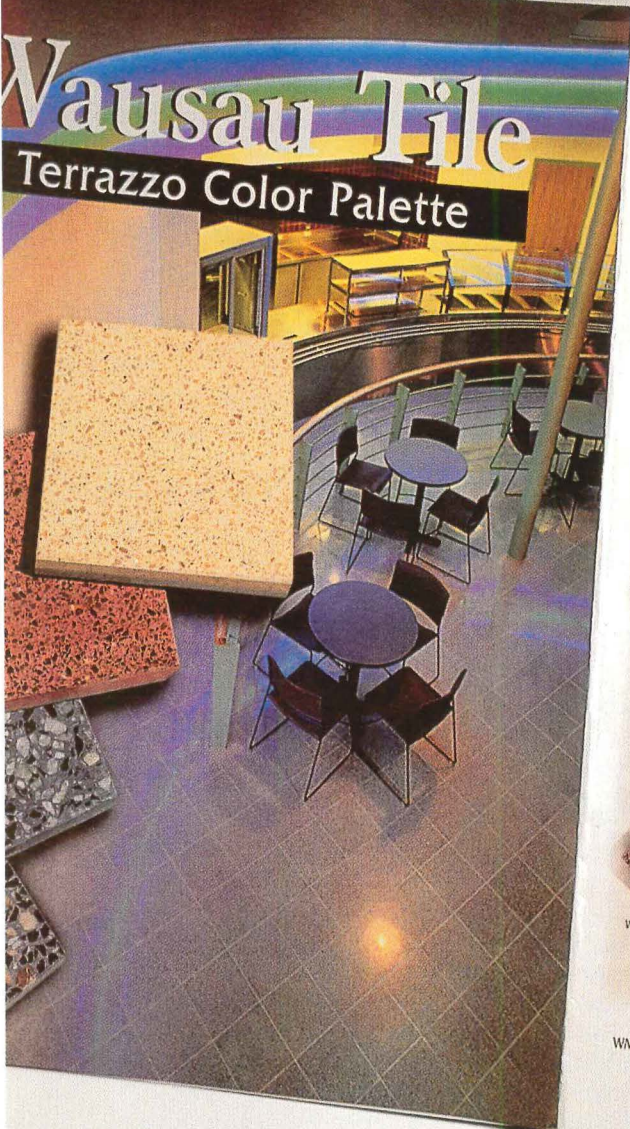
Although tourism has steadily increased along the Santa Monica, California, coastline since the 1960s, the area's infrastructure has hardly aged gracefully. Now, with the help of city, county, and federal Intermodal Surface Transportation Efficiency Act (ISTEA) funds, the Santa Monica Cultural Affairs Division has launched the BIG (Beach Improvement Group) project. BIG encompasses a 3-mile stretch of beachfront and targets five locations—Palisades Park, South Beach, the Coastal Corridor Gateway, the Santa Monica Pier, and a roadway interchange known as the California Incline.

The project team, led by environmental artist Jody Pinto, landscape architect Wallace Roberts & Todd, and architect Maris Peika, has conceived several new public art installations, jaunty rest room pavilions, and a drought-resistant landscape design that accommodates the demands of the fickle Southern Californian climate. The city celebrated BIG's groundbreaking on Independence Day and hopes to complete the beachfront improvements by Memorial Day 1999. *M.J.O.*



# The New Terrazzo Color Specifier

## Wausau Tile Terrazzo Color Palette



WM Micro is available in 16 standard colors. The Micro Style uses 3/16 minus aggregate, the matrix becomes predominant making the overall color of the aggregate. Custom colors are available. Prices quoted upon request.

### All Terrazzo Tile & Precast Terrazzo are available in the new color palette.

40 New Wausau Tile Traditional Style Colors.

16 New Wausau Tile Micro Style Colors.

8 New Wausau Tile Accent Style Colors.

Request your free Terrazzo Color Palette catalog

Write or call 1-800-388-8728

## WAUSAU TILE

Terra-Paving Division

P.O. Box 1520 Wausau, WI 54402

1-800-388-8728 FAX 715-359-7456

[www.wausautile.com](http://www.wausautile.com)

Circle 34 on information card

## Buzz

Britain's famously Neotraditional Prince Charles has purchased an old fur warehouse in London to house **The Foundation for Architecture and the Urban Environment**, a new venture that consolidates the Prince's many architectural endeavors. The foundation will encourage traditional building techniques, but will also endorse high technology. His Royal Highness describes the effort as "modern, but not Modernist."

After 14 years at *Architectural Record*—most recently as managing senior editor—**Karen Stein** will join London-headquartered Phaidon Press's newly opened New York City office as its editorial director of architecture. **Susan Henshaw Jones** has rescinded her resignation as president of the National Building Museum in Washington, D.C.

## They'll Take Guadalajara

Enrique Norten, principal of Mexico City-based **TEN Architects**, has assembled a star-studded project team for a 750-acre cultural and business center in Guadalajara, Mexico, for which he and Rem Koolhaas have completed a master plan. The patron of this ambitious undertaking, Guadalajara-based nutritional supplement conglomerate **Omnilife Group**, has anted up the acreage and the cash.

Last month, 12 of the world's best-known designers convened in Guadalajara to divvy up the building assignments. **Toyo Ito** will design an art museum; **TEN**, a convention center; **Frank O. Gehry & Associates**, a performing arts center; **Koolhaas**, an entertainment venue; **Carme Pinós**, fairgrounds; **Thom Mayne** of **Morphosis**, a small cockfighting arena; **Tod Williams Billie Tsien and Associates**, an amphitheater; **Steven Holl Architects**, a hotel and housing; **Daniel Libeskind**, an educational facility; **Wolf Prix** of **Coop Himmelblau**, a theater multiplex; and **Jean Nouvel**, a corporate office center.

Infrastructural work will begin in the fall; **Omnilife** hopes to complete the complex by 2003. **Michael J. O'Connor**



Former University of Virginia historian **Carroll William Westfall** will succeed **Thomas Gordon Smith** as chair of the University of Notre Dame's School of Architecture. Paris-based **Massimiliano Fuksas** will direct the architecture portion of the next two Venice Biennials.

The American Academy's 1998-1999 fellows include three architects: **Richard Rosa II**, a former Harvard lecturer; **Paul Lewis**, principal of Lewis.Tsurumaki.Lewis and Columbia University professor; and **Michael B. Cadwell**, associate professor at Ohio State University and principal of Cadwell & Murphy Architects. Winners of Academy fellowships receive a stipend and spend six months to a year studying at the academy's villa in Rome.

**Herzog & de Meuron** has won a competition for a harborside development in the Canary Islands. **Moshe Safdie** will design a new 45,000-square-foot gallery building for the Telfair Museum of

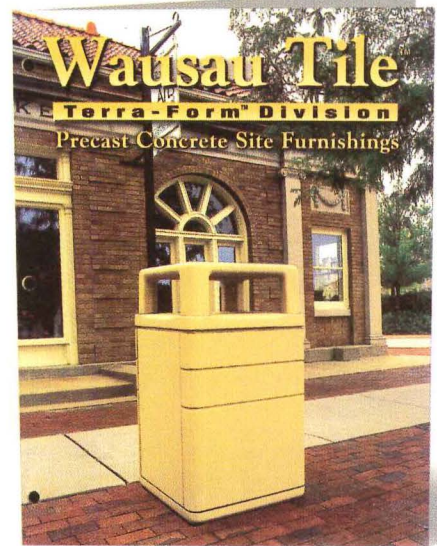
Art in Savannah, Georgia. The Kidspace Museum has selected Gehry pupil **Michael Maltzan** to design its new 40,000-square-foot facility in Pasadena, California. New York City's **Lee H. Skolnick Architecture + Design Partnership** is designing the Muhammad Ali Center in Louisville, Kentucky, which will honor the boxing champion and humanitarian.

A consortium that includes **The Hillier Group**, **Berkebile Nelson Immenschuh McDowell**, **Devine deFlon Yaeger Architects**, and **Rafael Architects** is designing a 3.9 million-square-foot world headquarters for telecommunications giant Sprint on 200 acres in Overland Park, Kansas. The self-described "largest ongoing construction project in the U.S." will open to 14,500 employees in 2001.

**OBITUARY:** **Alfred Caldwell**, 95, landscape architect, Illinois Institute of Technology professor, and former colleague of **Ludwig Mies van der Rohe** and **Jens Jensen**.

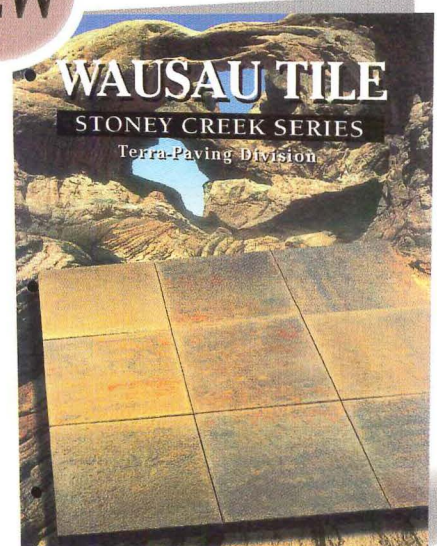
## Mouse Boat

On July 28, the Walt Disney Company unveiled the latest addition to its empire, a \$350 million, 964-foot-long, 83,000-ton ocean liner called the **Disney Magic**, which will sail from Port Canaveral, Florida. The ship's design is nostalgic: Twin funnels, a clipper bow, and a black, white, and red color scheme recall 1930s and 1940s floating palaces. Interiors are more whimsical: At the rockwellgroup's restaurant, **Animator's Palette**, black-and-white sketch motifs on the walls and ceilings gradually transform into color cartoon animation before diners' eyes. **Reed Kroloff**



**Wausau Tile Terra-Form**  
Complete line of  
precast concrete  
site furnishings  
Circle 36 on information card

NEW



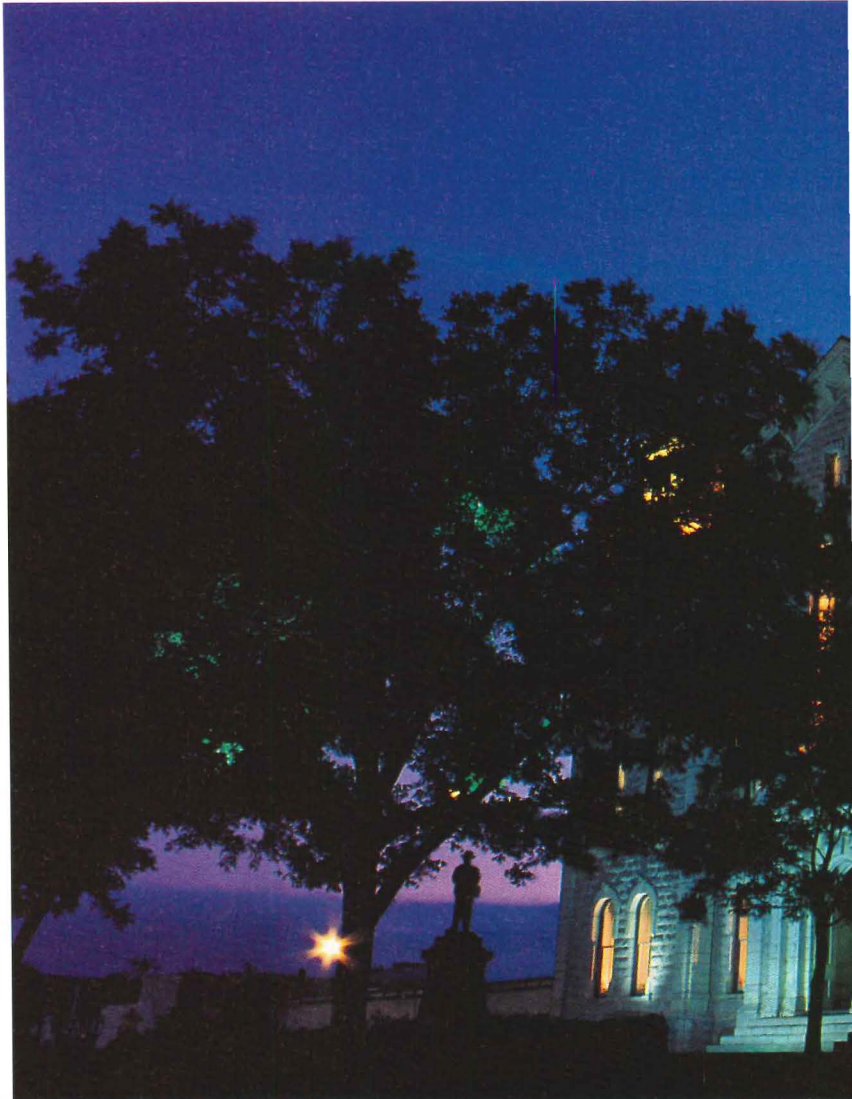
**Stoney Creek Series**  
Concrete pavers are of a natural stone  
texture with beautiful color ranges to  
match or blend with most types of stone.  
Request our new catalog  
for more information.  
Circle 38 on information card

**WAUSAU TILE**

(800) 388-8728



# WHEN IT CAME TO RENOVATING THIS HISTORIC COURTHOUSE, EVEN THE



In 1964, The Parker County Courthouse in Weatherford, Texas was designated a Texas Historic Landmark. And thus began the slow, methodical process of restoring it. First to receive attention was the structure's limestone stonework. Later, the roof was replaced. Then came the windows, which proved to be one of the most challenging aspects of the project.

The Historical Survey Committee mandates that if nothing remains of a historic building's original windows, the new ones must be faithful reproductions, right down to the last detail. Since the courthouse's original wood windows had been replaced by aluminum ones some years back, that meant that all 105 of the new windows had to be virtually identical to those made and installed over a century ago.

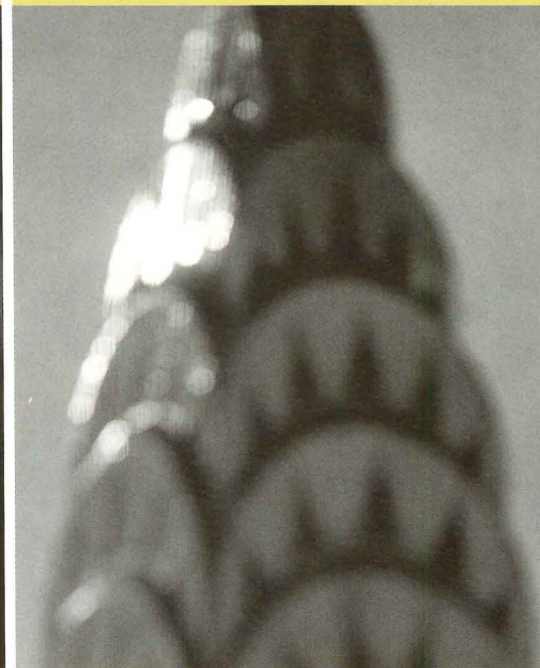
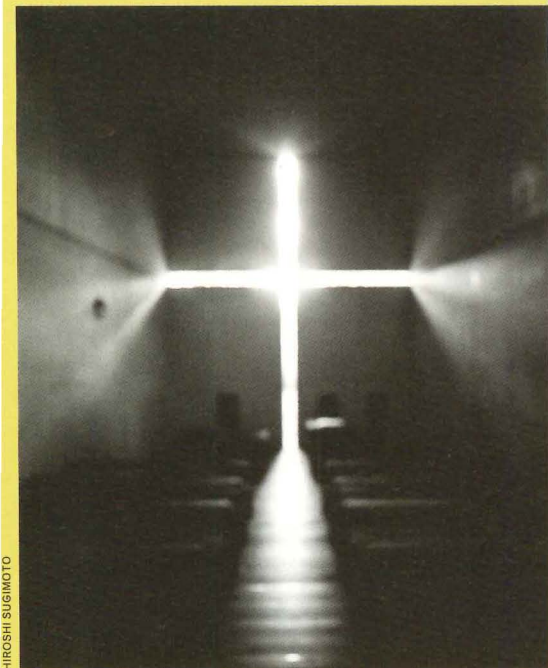
Bids were sought, but only two manufacturers felt qualified to respond. One of them, Marvin Windows & Doors, had actually been recommended by a company that was asked to bid but declined.

Though underbid by the other finalist, Marvin's figures were based on building the largest windows with structural muntin bars to withstand the winds that buffeted the building's hilltop site. Intrigued, the architect asked each company to build a sample window. One look at the prototypes and the job was immediately awarded to Marvin.

For the next several weeks, Marvin's architectural department busied itself recreating the past. Working from turn-of-the-century photographs







# Summing Up

**A traveling exhibition that surveys 20th-century architecture labors under the enormity of its topic.**

Attempting to summarize this century's architectural achievements in a single exhibition might be considered ambitious, even audacious. Yet the Los Angeles Museum of Contemporary Art (LAMOCA) and its departing director, Richard Koshalek, has endeavored to do exactly that in *At the End of the Century: One Hundred Years of Architecture*. On view at the Museum of Contemporary Art in Tokyo until September 6, the show will travel to Mexico City; Cologne, Germany; São Paulo, Brazil; and Los Angeles before finally greeting the new millennium at New York City's Solomon R. Guggenheim Museum.

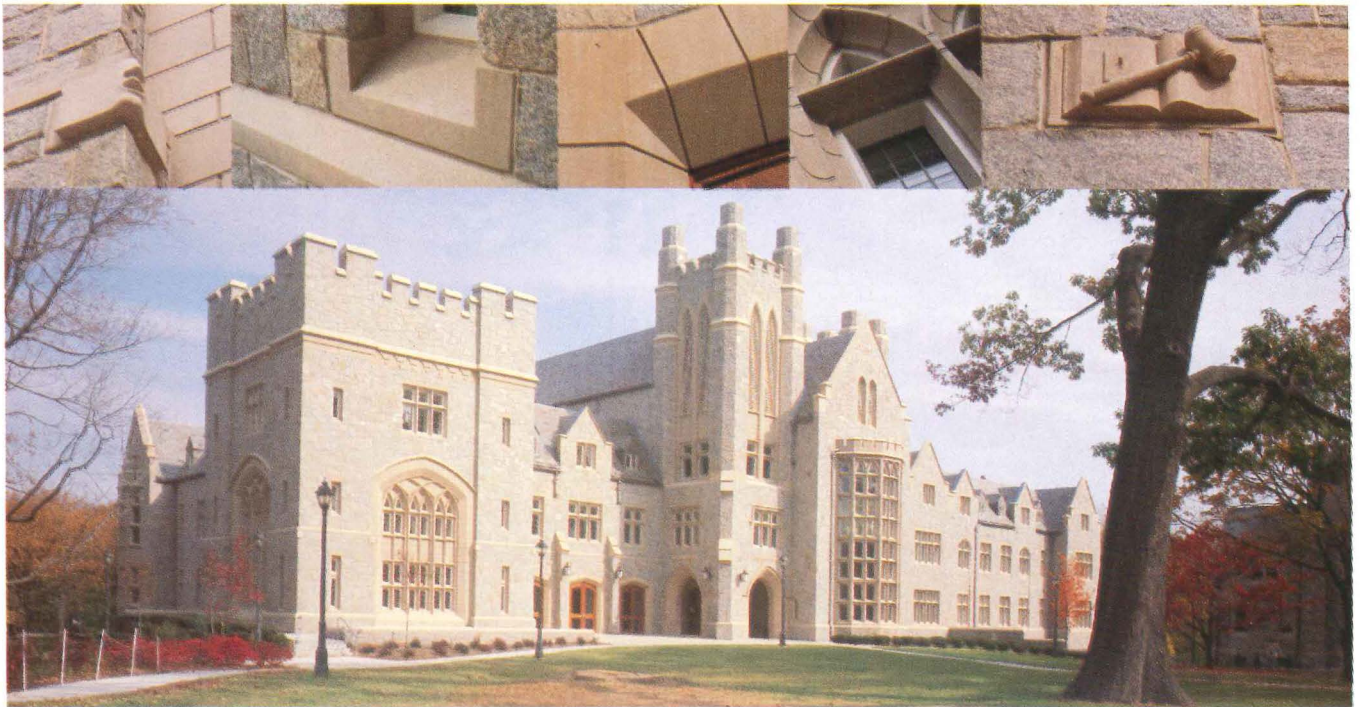
While the efforts to produce this show were Herculean, some issues still seem unresolved. LAMOCA assembled 1,200 objects from around the world, from mahogany and particleboard models of Chandigarh to Jules Guerin's sumptuous watercolors of Daniel Burnham's Plan of Chicago. Computer simulations bring to life such pivotal unbuilt projects as Giuseppe Terragni's Danteum. However, impressionistic photographs by Hiroshi Sugimoto regrettably did not appear in Tokyo, but will introduce the show elsewhere. And while Frank Gehry and Hajime Yatsuka designed parts of the installation, only some of Gehry's installation can be seen in Tokyo, and Yatsuka's won't travel outside Japan.

There are other notable problems with *At the End of the Century*. The organizers wanted to avoid reflecting a single perspective,

Luminous photographs by Hiroshi Sugimoto (top from left to right) interpret such iconic buildings as Tadao Ando's Church of the Light (1989), William van Alen's Chrysler Building (1930), and Frank Lloyd Wright's Guggenheim Museum (1959).



# WE PUT THE CLASS IN CLASSROOM



Long gone are little wooden schoolhouses. The best of today's schools, from kindergartens to universities, are built of masonry. And the very best of those are built by union masonry contractors and craftworkers. Why? Because masonry materials, in all colors, textures, shapes and sizes, offer designers unlimited flexibility. And the training, skill and experience of union masonry contractors and craftworkers ensure on-time, on-budget delivery of any project, public and private. The Law Library at the University of Connecticut, Hartman-Cox Architects, Design Architect; S/L/A/M Collaborative, Architect of Record, is just one example of what masonry can do for higher education. And, speaking of education, IMI has quite a lot to offer anyone involved in designing, building or restoring schools. Call 1-800-IMI-0988 to consult our technical staff on masonry design and construction, or on the Web at [www.imiweb.org](http://www.imiweb.org)



*The International Masonry Institute*



*The International Masonry Institute — a labor/management partnership of the International Union of Bricklayers and Allied Craftworkers and the contractors who employ its members.*



simply add to an already overwhelming amount of material.

Both Koshalek and Smith note that *At the End of the Century* targets the general public. Thus, the work exhibited is warmly familiar, drawn mostly from the architectural canon. Even so, there are surprising oversights, such as Neotraditional or romantic architects like Charles Moore. Despite an effort to be multifaceted, the show does portray a gradual stripping away of the scrim of traditional styling, ultimately arriving at esthetic Modernism.

According to Smith, the current structure is "particular to the context of Tokyo." Similarly, Koshalek suggests that the exhibition will be very different by the time it arrives in the United States, emphasizing that their "research continues." In the meantime, the show is worth seeing, but wear your walking shoes. *Dana Buntrock*

*Dana Buntrock teaches architecture at the University of Illinois at Chicago.*

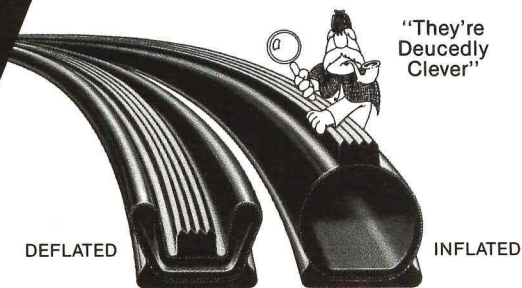


TEAM UNBUILT, MIT SCHOOL OF ARCHITECTURE AND PLANNING

Takehiko Nagakura's computer rendering portrays Russian Constructivist Vladimir Tatlin's Monument to the Third International (1920) as it would have been built in St. Petersburg.

# CLOSE THE GAP!

## SEAL MASTER INFLATABLE SEALS



"They're Deucedly Clever"

### OVERCOME TROUBLESOME DESIGN PROBLEMS

- WEATHER
- HEAT/COLD
- CHEMICALS
- WATER
- LIGHT/DARK
- CONTAMINANTS
- NOISE
- PRESSURE/VACUUM
- RADIATION

Inflatable seals in a wide range of sizes and configurations are used anywhere a positive seal is needed between opposing surfaces. It's the innovative solution for many difficult applications. Design assistance available.

## SEAL MASTER CORPORATION

INFLATABLE SEALS AND OTHER CUSTOM RUBBER PRODUCTS  
 368 MARTINEL DRIVE • KENT, OH 44240-4368 USA  
 (330) 673-8410 • FAX (330) 673-8242  
 E-Mail: info@sealmaster.com • www.sealmaster.com

## 1999 CALL FOR ENTRIES



The *Rudy Bruner Award for Urban Excellence* celebrates significant urban places integrating effective processes, meaningful values, and good design.

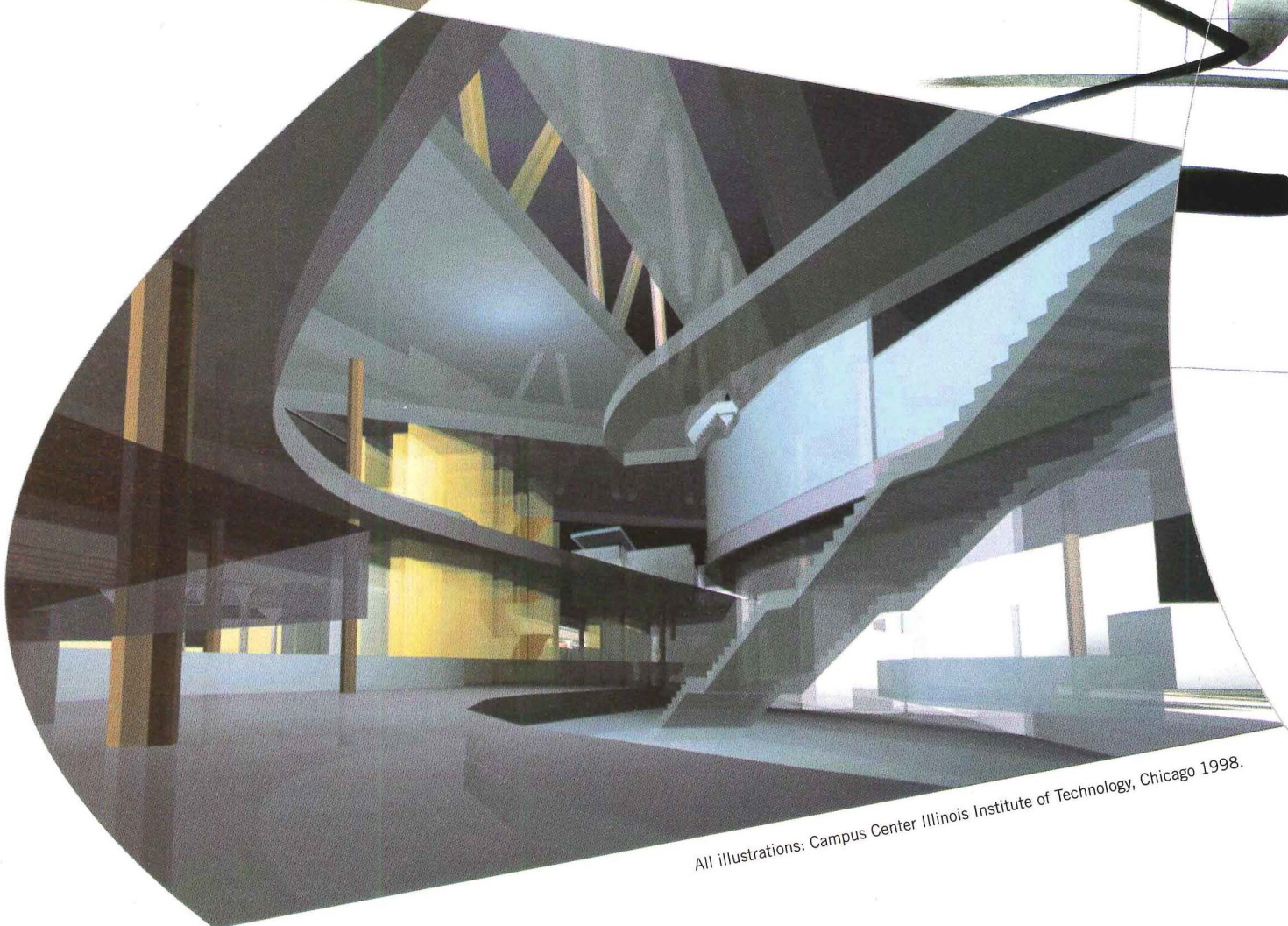
Gold Medal: \$50,000  
 Silver Medalists: \$10,000

Applications available beginning September 1, 1998, from:  
 Bruner Foundation, Inc.  
 130 Prospect Street  
 Cambridge, Massachusetts 02139  
 Phone: 617.492.8404 :: Fax: 617.876.4002  
 e-mail: info@brunerfoundation.org



Autodesk

DESIGN YOUR  
WORLD



All illustrations: Campus Center Illinois Institute of Technology, Chicago 1998.

**Zaha Hadid** "Interactive experimentation is a key element of the creative process. That's why we have chosen the TDZ 2000 ViZual Workstations from Intergraph Computer Systems. The TDZ 2000s deliver the best graphics performance and fastest response as we investigate design alternatives. That helps us optimize the design and its presentation more quickly and efficiently."

Intergraph's award winning workstations incorporate leading-edge technologies and features for the world's fastest system and graphics performance. And with exceptional price/performance value, you can match a TDZ 2000 to your design challenge as well as your budget. If you're looking for a graphics workstation that's nothing short of awesome, the TDZ 2000 is the ultimate machine for 3D Studio VIZ.

**INTERGRAPH**  
COMPUTER SYSTEMS



*ViZual Workstations for VIZionaries*

To find out more visit <http://www.intergraph.com/ics/kinetix> or call 1.800.763.0242





# VIZionary

Introducing 3D Studio VIZ™ R2  
from Autodesk®  
The groundbreaking 3D design  
and presentation tool.

**Zaha Hadid**, *Architectural Designer*  
*Zaha M. Hadid, London*

"In our work, we are especially concerned with manipulating 3D and perspective drawings, while investigating volume, color and light. With VIZ R2 we can advance our AutoCAD® drawings in ways we never could before. We can also explore the illusion of movement and spatial dynamics using VIZ animation.

"Many of our architects had previously resisted learning a new architectural application. But with its elegant interface and learning tools we've incorporated VIZ R2 into our design process quite easily. It helps us work more efficiently."

To find out more visit <http://www.ktx.com>



**KINETIX**™

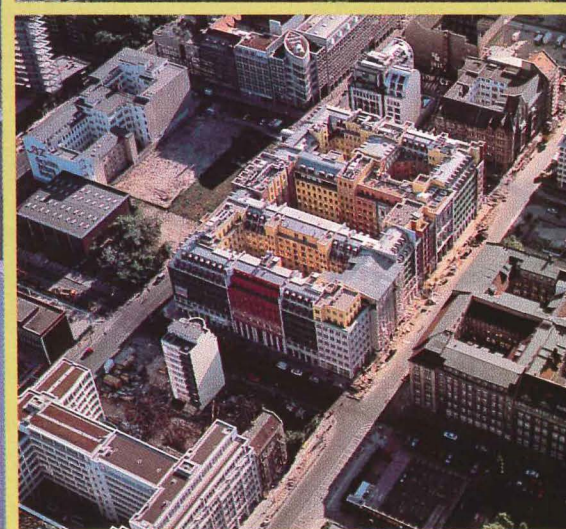
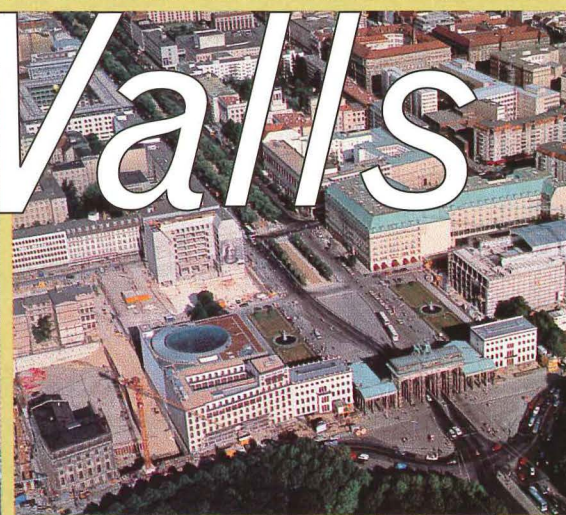
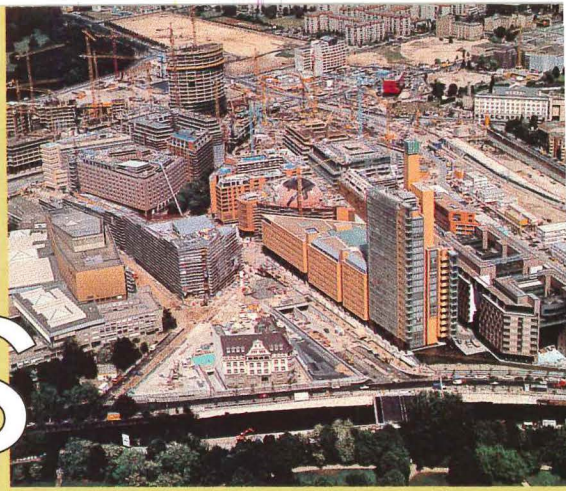
A DIVISION OF AUTODESK

Circle 50 on information card

Kinetix is a division of Autodesk, Inc. Autodesk, AutoCAD, and Kinetix are registered trademarks, and the Kinetix logo, Design Your World, and 3D Studio VIZ are trademarks of Autodesk, Inc. in the USA and/or other countries. Intergraph and the Intergraph logo are registered trademarks and TDZ is a trademark of Intergraph Corporation. Windows NT is a registered trademark of Microsoft Corporation. All other brand names, product names, or trademarks belong to their respective holders. © Copyright 1998, Autodesk, Inc. All rights reserved. Portrait of Zaha Hadid: Matthias Cremer. Campus Center Illinois Institute of Technology, Chicago architectural design: Zaha



# Berlin's New Walls



**Neotraditional design covenants are straitjacketing the star architects hired to remake reunified Berlin's commercial infrastructure.**



The devastating impact of World War II on Berlin was followed by often questionable postwar socialist urban planning in East Berlin and the no less distortional, shop-till-you-drop commercial development of West Berlin. Each phenomenon inflicted its own kind of damage, and the task after reunification was to heal the wounds of a city that had been bombed, razed, divided, and socially engineered to accommodate the reigning “-isms.” Berlin became the victim of showcase urbanism: On both sides of the Wall, entire quarters were devoid of street life and urbanity.

Since reunification, the German government’s architectural guidelines for private development—occurring largely in the bleak area on either side of the former Wall, between Checkpoint Charlie and the Brandenburg Gate—have been geared toward creating a city modeled after the prewar original. The apparently plausible idea of a Berlin that looked like “Berlin” would be implemented by an equally plausible process: A building-by-building, block-by-block reclamation of the city that uses as its point of departure the existing structures and monuments, the old street plan, and the attendant transportation infrastructure. Hans Stimmann, municipal building director from 1991 to 1996, calls this approach, “the European way of making cities.”

An important strategy in designing the new capital was to tap into architecture’s star system. The best and brightest—or at least the most famous—would add diversity and internationalize the whole project. Could so many stars be wrong? The architects who survived lists compiled by developers were generally a conservative group, who could work within the highly restrictive design parameters the city prepared: This stripped-down traditionalist esthetic sets building heights, volumes, and even the ratio of stone to glass in buildings preordained to look like masonry structures—as though this city, of all cities, had learned nothing, or too much, from a half century of urbanist ventures.

Several years ago, Rem Koolhaas wrote an open letter, published in the *Frankfurter Allgemeine Zeitung*, protesting the reactionary provincialism of the process. Stuttgart architect Günter Behnisch also

**Block-long buildings, such as Jean Nouvel’s curved glass Galeries Lafayette department store, are common in new Berlin (facing page, left). Massive commercial development is reshaping Potsdamer Platz (facing page, top), Pariser Platz around Brandenburg Gate (facing page, center), and Friedrichstraße (facing page, below).**

openly challenged the assumptions, arguing for open, glass facades and greater architectural expression, and against the position of the “Berlin mafia,” an ingrown group that includes Josef Kleihues, Hans Kollhoff, and Cologne-based architect Mathias Ungers (all beneficiaries of major commissions). The process polarized architectural debate in Germany, and in Berlin created a climate of practice inhospitable, if not hostile, to architects unwilling to toe the official esthetic line.

Even the stylistically flexible (and newly minted Deconstructivist) Philip Johnson ran into a stone wall in his commission for an office building on Friedrichstraße near Checkpoint Charlie. “What you need is a symbol,” said Johnson. “We need volumes, not symbols,” responded Stimmann, who believed the city’s historic monuments required background architecture, not competition. The regulations also muzzled Frank Gehry, who has authored a deferential building, now under construction on Pariser Platz, in the shadow of the Brandenburg Gate. His breakout piece—a conference room, whose form was snatched from a model of Gehry’s unbuilt Lewis House—is hidden inside the building’s atrium. The position of the piece is emblematic of the city’s cautious attitude to architectural freedom: It has to be caged. Berlin’s planners wanted, and got, anonymous architecture by signature designers.

Stimmann’s interpretation of prewar Berlin was misguided in the first place, and his formula for a corrective urbanism—simplistic. Friedrichstraße, for example—was never so uniform as the planner envisioned. Before World War II, it was a rollicking promenade of structures whose awnings, bays, doorways, statuary, cupolas, and cornices were riotous architectural testaments to the cultural aspirations and entrepreneurial spirit of its owners. The big city blocks were not consolidated under the ownership of a single entity, as many are now, but subdivided into parcels, creating a mix of facades. The typology, often with many successive courts, was not simply an

expedient morphology to bring light and air into interior spaces; it effectively mixed functions along the grand boulevards. Small courtyards within long, narrow parcels also guaranteed fine-grained urbanism and spatial intimacy: These spaces housed artisans and merchants with an ease that also tolerated children and laundry lines. The mixed zoning allowed what economists call an informal economy in what were highly flexible, mixed-use, 24-hour buildings.

Consolidating entire blocks for development by a single owner and single architect has triggered an entirely different character. The fully fleshed diversity of Friedrichstraße and the nearby avenue, Unter den Linden, has unfortunately succumbed to homogeneity. The new commercial buildings do have courtyards, but most are light wells or unprogrammed void spaces in otherwise sealed buildings, and their frigid character is a product of both the implacably regular architecture and the tenants’ corporate culture. These maxed-out buildings are not likely to host jazz bistros, mom-and-pop shops, or off-the-record factories.

Aldo Rossi is perhaps the only architect to have designed his block with a succession of deliberately disjunctive facades to imply party-wall buildings assembled over time. His courtyards, however, are cold and monolithic, revealing the underlying homogeneity of what has become a corporatist environment.

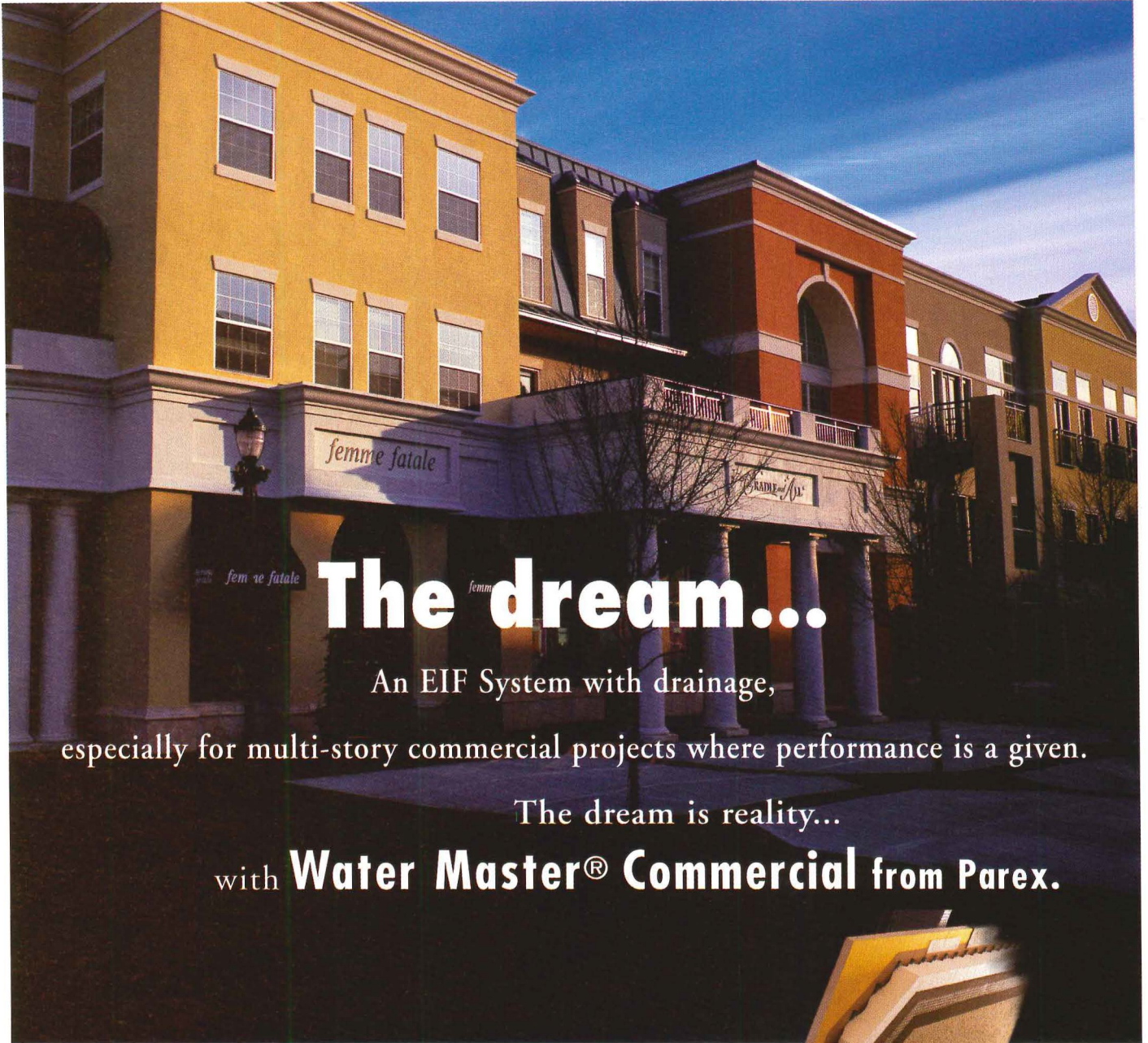
The famous names have sugarcoated a restrictive, even intolerant, planning process. The regulations may be a simple cover for an esthetic line—“the New Simplicity,” as it has been called by a former director of Frankfurt’s Architecture Museum, Vittorio Lampugnani. Heinrich Klotz, another former director of the museum, ominously labeled it an agenda for “the New Teutonia.”

Johnson today virtually dismisses his own effort, which resulted in the kind of Postmodernist confection he might have produced a decade before. New York’s Henry Cobb tried desperately to break out



# PAREX EIFS

EXTERIOR INSULATION AND FINISH SYSTEM



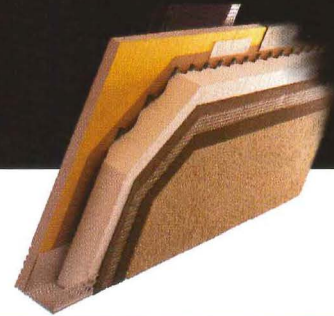
The dream...

An EIF System with drainage,  
especially for multi-story commercial projects where performance is a given.

The dream is reality...

with **Water Master® Commercial** from Parex.

100%  
ACRYLIC  
POLYMERS



**PAREX®**

**800-537-2739** PAREX Inc. Headquarters: 1870 Stone Mountain-Lithonia Rd, Redan, GA 30074

**800-780-6953** Western Region: 11290 South Vallejo Court, French Camp, CA 95231

Look for us on the Internet at:  
<http://www.parex.com>

Circle 52 on information card

**WATER MASTER® COMMERCIAL**

MEMBER OF







of the straitjacket, succeeding only in creating a built record of the struggle, with a nervously angled facade. Jean Nouvel was allowed to do the all-glass Galeries Lafayette because the design was apparently approved before guidelines were formalized.

The sum total of all these overregulated designers has had a chilling collective effect on the urban ensemble. Friedrichstraße is now a parade of begridded conformity. The rules have overridden the individual talents, homogenizing what could have been far livelier. The urban mix is compromised in favor of corporate tenants rather than the loose mixture that enables hybrid urban vitality. Though there are residential buildings scattered in the neighborhood, they are, as a minority, insufficient to catalyze a lively district after shopping hours. The planners have succeeded in creating an architectural density without social density. Their victory is Pyrrhic.

There are one or two exceptional designs, by contrast, that prove the disappointing rule. Berlin architect Gerhard Spangenberg, with Brigitte Steinkilberg, seems to have pulled the glazing patterns out of an old classicized structure built for a newspaper on Kochstraße to form the basis of a mostly glass extension that is a playful mix, in steel, of symmetry and asymmetry. The materials, their ratio, the volume's breakage, all violate the regulations, thanks to its peripheral site, yet the building respects its traditional neighbor and the street. Another high-energy building on Kochstraße, by Berlin architects Sauerbruch Hutton, survived seven years of disputes, and went ahead only after Stimmann left his position.

The massive new district known as Daimler-Benz in Potsdamer Platz, just west of Checkpoint Charlie, seems to be less dour as an urban ensemble than the

Architects who designed massive office blocks along Friedrichstraße include O.M. Ungers (top, foreground) and Pei Cobb Freed & Partners (top, background). Ungers' block serves as background to early 18th-century Deutscher Dom (center). Planners loosened design constraints for buildings around Potsdamer Platz, such as Renzo Piano's office tower (left).

## Beautifully Tooled Aluminum Light Poles

FOR  
YOUR  
NEXT  
LAND-  
SCAPING  
PROJECT,  
HAPCO  
PRESENTS  
THE  
WIDEST  
RANGE OF  
DECORATIVE  
ALUMINUM  
LIGHT  
POLES AVAIL-  
ABLE IN  
AMERICA.  
ALUMINUM  
PROMISES  
LONG LIFE  
WITHOUT THE  
FREQUENT PAINT-  
ING REQUIRE-  
MENT OF  
STEEL OR  
FIBERGLASS.  
CALL 1-800-  
368-7171 FOR  
DETAILS OR  
VISIT US ON THE  
INTERNET.

[www.hapcopoles.com](http://www.hapcopoles.com)

**hapco**

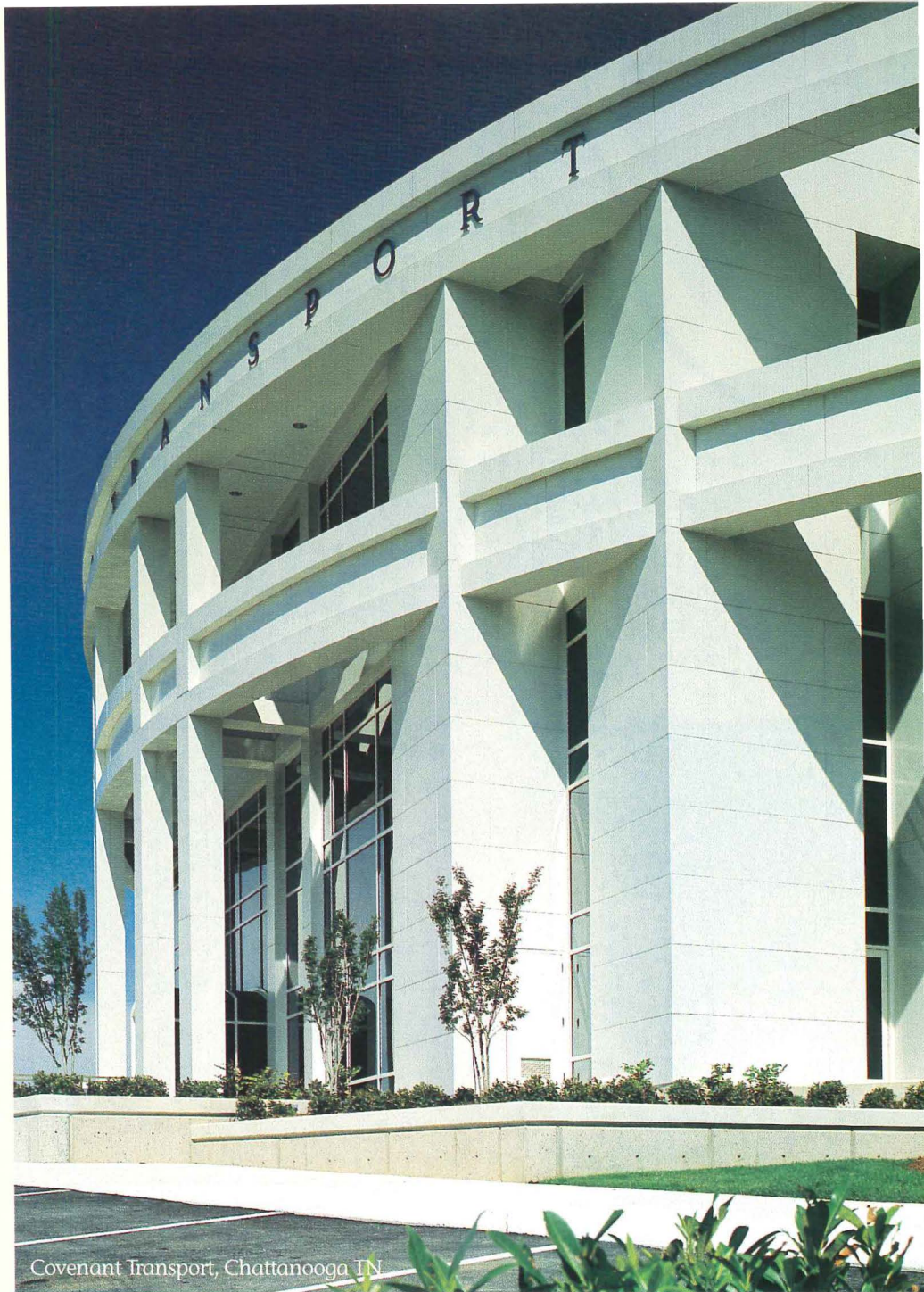
26252 Hillman Highway  
Abingdon, VA 24212





# "You Really Can Afford To Be Versatile."

Alan Derthick, Architect



Covenant Transport, Chattanooga TN



So says architect Alan Derthick of Derthick, Henley & Wilkerson talking about his choice of Alucobond® Material for the Covenant Transport building just outside of Chattanooga, Tennessee.

"The building really stands out. And the things we did with Alucobond Material would be extremely difficult to do with anything else. It gave us the ability to create a curving facade with lots of 3-D. It's the one material that lets you shape to fit your needs. Plus, we did it on a very tight time schedule."

Alan was surprised by Alucobond Material's affordable price, too. In fact, average installed costs have been coming in around \$15-\$25 per square foot. "It's perceived to be high-priced but the final cost actually came in far less than we were expecting. So you see, you really can afford to be versatile."

Find out for yourself. Call 1-800-382-6445 to learn more.



Always The Affordable Solution.

Circle 56 on information card



Alusuisse Composites, Inc.

P.O. Box 507 • 208 W. 5th Street • Benton, KY 42025-0507  
800-382-6445 • 502-527-4200 • Fax 502-527-1552  
www.alusuisse-comp.com





neighborhood around Friedrichstraße, perhaps because the office market softened in the mid-1990s, opening up the area to a greater mix of uses, including entertainment. Historically, the zone, formerly in West Berlin, has been a Modernist enclave. "Our proposal was to work with different parts of history," says Stimmann, "and we conceived this area à la [Hans] Scharoun [the architect of the expressive Philharmonic] as part of a new Acropolis in the New Berlin, with an open, not a dense, landscape." The Italian architect Renzo Piano directed a half-dozen teams of star architects in remaking the district, including Arata Isozaki, Richard Rogers, Rafael Moneo, and Kollhoff & Timmermann.

Piano's own structure, now finished and occupied, is a handsome composite of tower and block, subdivided into parts. The high-rise, an office building, is one of the few permitted in Berlin (it complements three other towers at the other end of the site), and its filigree of windows and terra-cotta *brises-soleil* give the edifice a delicacy, scale, and texture missing in many new projects in the Baroque city. The huge, long atrium, however, unfortunately internalizes urban energy that would have been



Aldo Rossi building's multiple facade treatments ape site's prewar condition.

better exercised in the surrounding streets. Isozaki's is a more conventional office block, with an elegant skin designed in an illusory puzzle pattern.

Stimmann may think this is an open cityscape, but the massiveness of some of the building volumes turns streets into alleys. Some of the architects, including Rogers and Lauber & Wöhr of

Munich have carved into the volumes, mediating the oppressive density. The towers at either end of the site by Piano, Kollhoff, and Christoph Kohlbecker help open the enclave by relieving density: There should have been more. Piano's entertainment complex, back-to-back with Scharoun's great State Library, takes its massing cues from the dynamic structure, and looks very promising as a form and catalyst of public space.

Though the Potsdamer area exhibits some architectural libido, it is tightly controlled, even quarantined. Generally, the city's allergy to risk, both urban and architectural, has generated a numbing sameness. The carpet homogeneity is, nonetheless, basically continuous—planners are tying together sections of Berlin once separated by gaping holes. The urban politics of density, with a traditional street pattern that is manageable and pedestrian, work as a piece of knitting. But all at the price of what Vitruvius called delight. Instead of great successes and interesting failures, the city got a serviceable, well-constructed urban fabric.

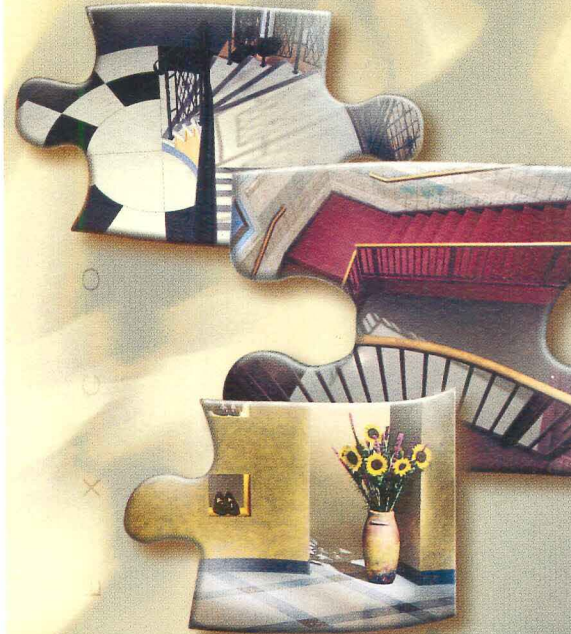
So much money, so little architecture. Why the city that outlasted the oppression that the Wall represented should then capitulate to its own self-repression is a conundrum impossible to unravel, but when the planners made their escape from the evils of architectural Fascism and Socialism, and the anti-historical postures of Modernism, they did so via a self-defensive overregulation that has resulted in a largely dull, if correct, city. The private-sector redevelopment rivals the airless urbanism of Washington, D.C.

It is not that any one of the buildings is bad. It is that in this overcontrolled design environment, regulations have brainwashed architects and planners into a monolithic way of thinking that allows very few exceptions. Rossi's colorful design, which stands out with such wit in this desiccated context, is an implicit critique of an approach that his analysis of the city, with its emphasis on memory, originally inspired. There are many kinds of European cities—even within the same city—not just one. *Joseph Giovannini*

integrated  
performance

*The Perfect Fit*

"I need quality flooring with unlimited design possibilities."



[We heard you.]

Introducing the Marley Flexco complete line of resilient flooring systems with hundreds of durable options including Custom Design Flooring Service—*at Marley Flexco we don't make flooring, we create ideas!*

Vinyl System

Rubber System

**MARLEY**  
**FLEXCO**  
a member of the Marley Group of companies

1 (800) 633-3151 • (256) 381-0322 fax  
Post Office Box 553 • Tusculumbia, AL 35674  
www.marleyflexco.com

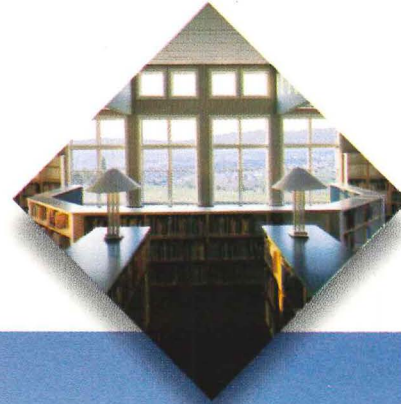
Come visit us @ Neocon '98.  
We're in booth #H320.

Circle 58 on information card

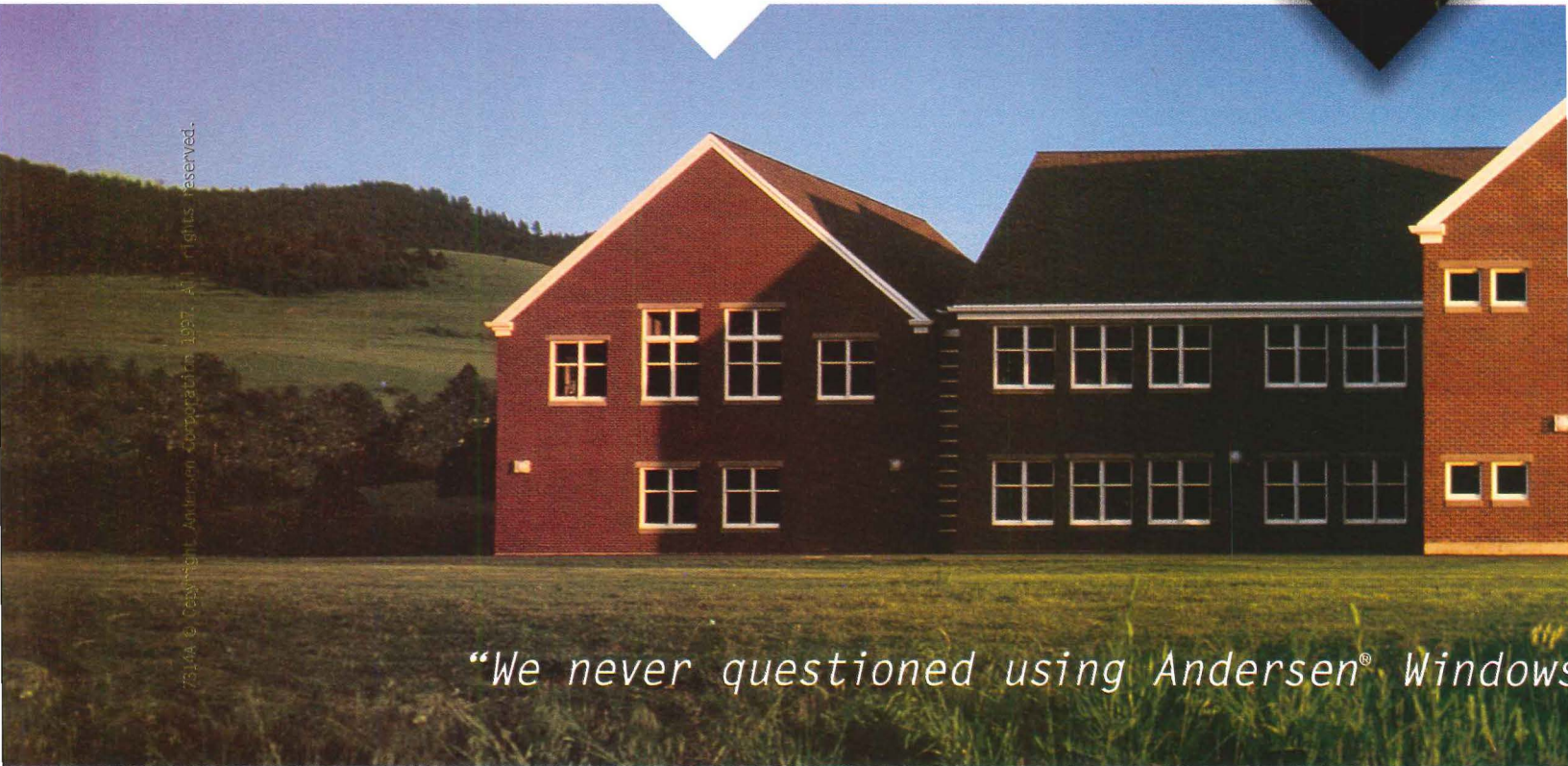


*P r o j e c t O u t l i n e*

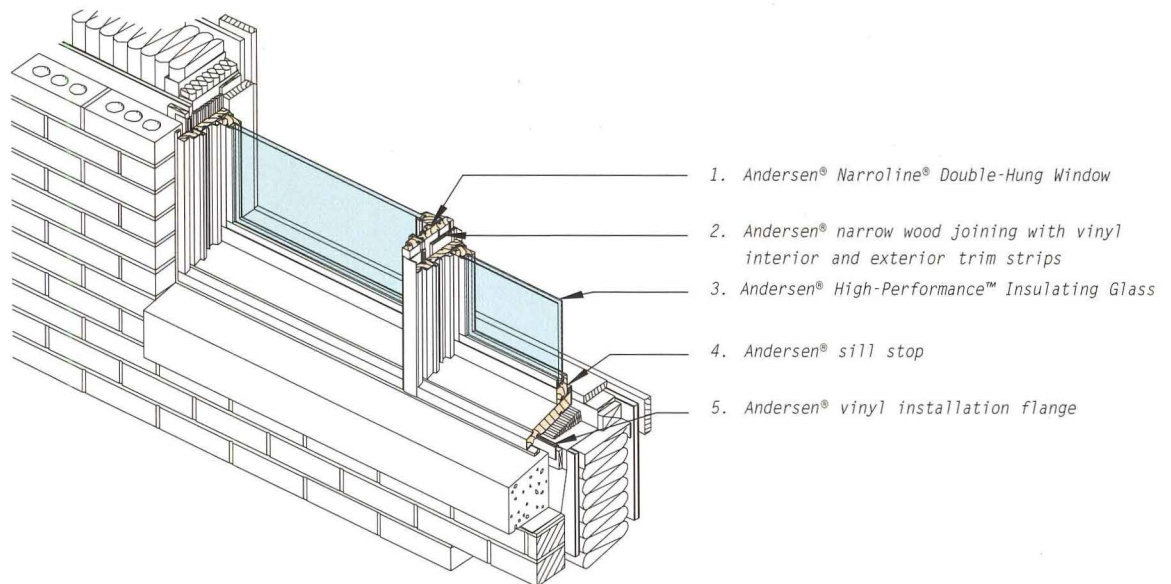
DESIGN A BUILDING THAT CHILDREN IMMEDIATELY IDENTIFY AS A SCHOOL, AS A PLACE TO LEARN. FIRST, THE FACILITY SHOULD HAVE A WARM AND INVITING ATMOSPHERE. IN ADDITION, IT MUST BE ENERGY EFFICIENT AS WELL AS EASY AND ECONOMICAL FOR SCHOOL OFFICIALS TO MAINTAIN.



© 1997 Andersen Corporation. All rights reserved.



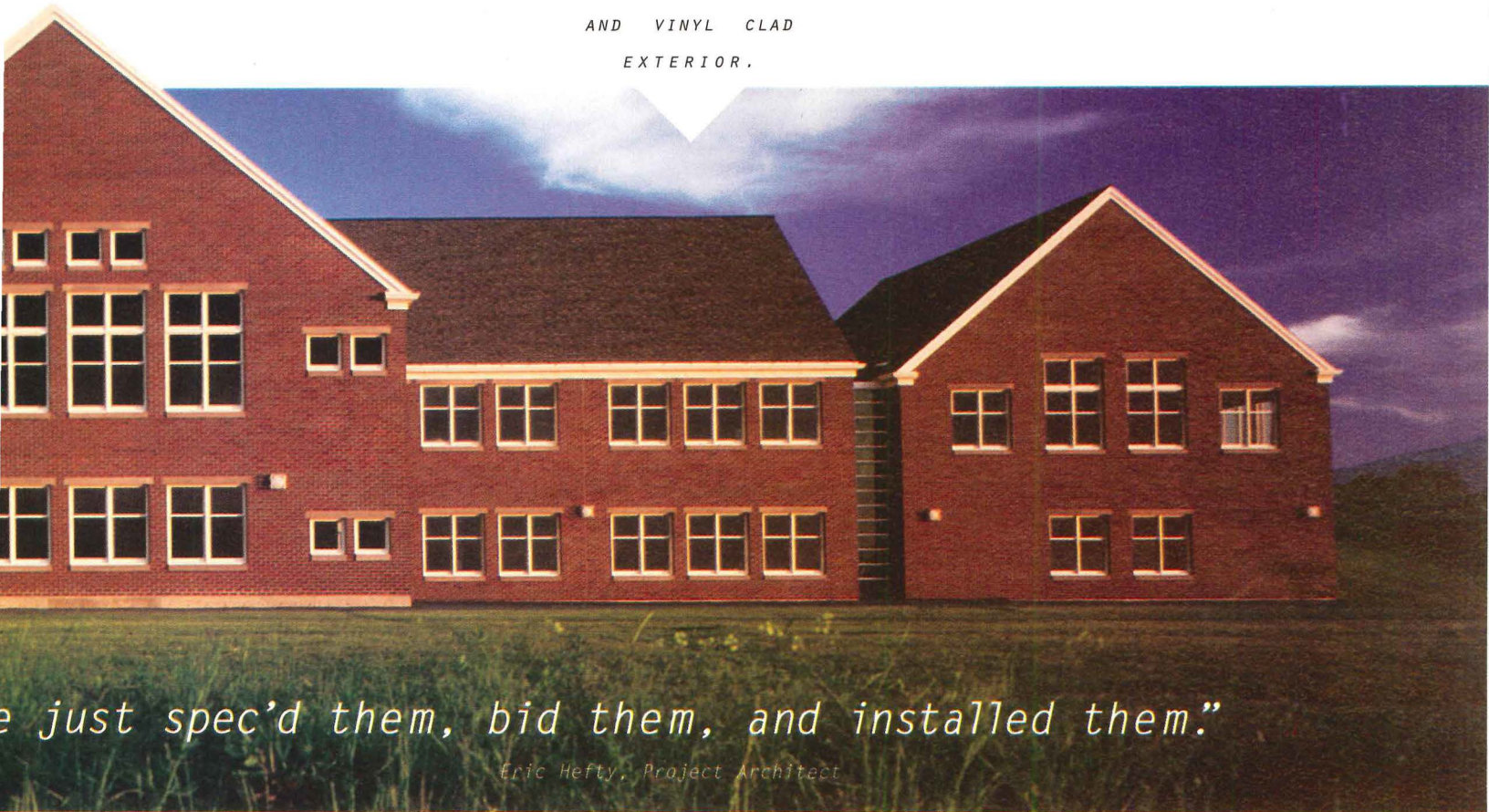
*"We never questioned using Andersen® Windows"*





# *D e s i g n   S o l u t i o n*

INSTALL MORE THAN 300 ANDERSEN® WINDOWS TO BRING AN ABUN-  
DANCE OF NATURAL LIGHT INTO THE SCHOOL, ESPECIALLY THE  
CLASSROOMS AND LIBRARY. EACH WINDOW FEAT-  
URES ANDERSEN® HIGH-PERFORMANCE™  
INSULATING GLASS, A DURABLE FACTORY  
APPLIED INTERIOR FINISH  
AND VINYL CLAD  
EXTERIOR.



*"We just spec'd them, bid them, and installed them."*

*Eric Hefty, Project Architect*

Chief Charlo Elementary School, Missoula, Montana

Architects: Eric Hefty & Associates, Missoula, Montana

Project Architect: Eric Hefty, AIA

Contractor: Swank Enterprises, Valier, Montana

**ANDERSEN COMMERCIAL GROUP™**



FOR A PROJECT PORTFOLIO CD-ROM FEATURING CHIEF CHARLO ELEMENTARY SCHOOL  
AND 149 OTHER PROJECTS, CALL 1-800-426-7691, EXT. 2561. ALSO ASK FOR OUR CATALOG  
OR VISIT [WWW.ANDERSENWINDOWS.COM](http://WWW.ANDERSENWINDOWS.COM)

Circle 1 on information card

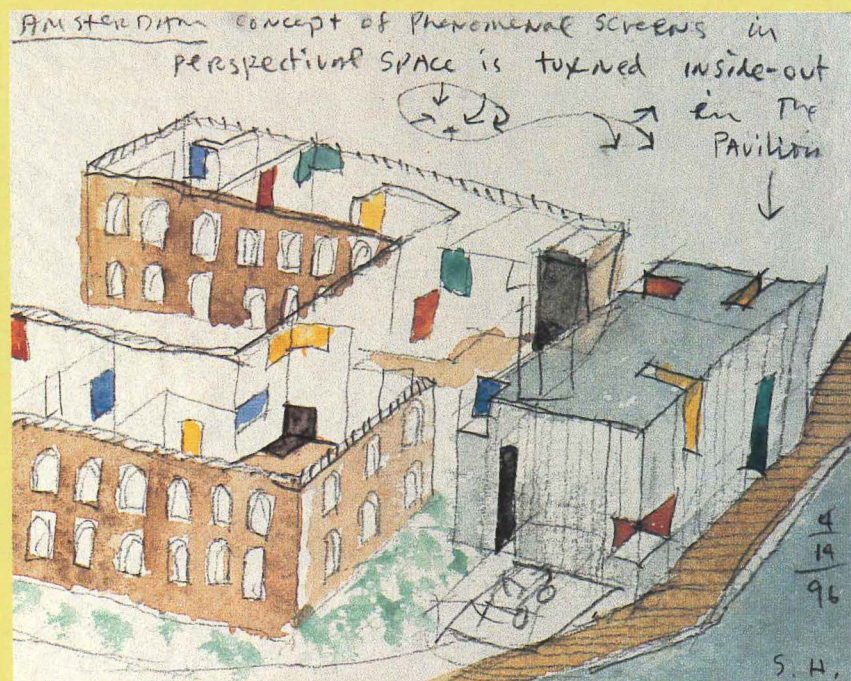
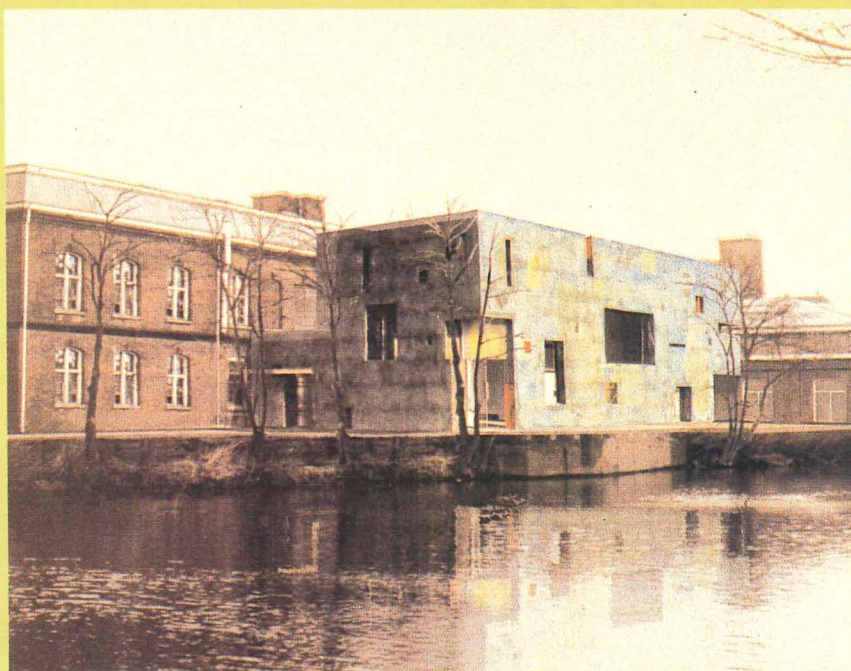


## Office Building Amsterdam, The Netherlands Steven Holl Architects

A complex mathematical concept called a "Menger's Sponge" lends the parti for Steven Holl's conversion of a canal-side Amsterdam warehouse into an office building. The geometric model entails removing successive segments of a cube—a process that can be infinitely repeated until the cube has virtually no volume. Accordingly, Holl creates large rectilinear openings in a new, 3,500-square-foot conference room pavilion that abuts the existing 50,000-square-foot block. Holl also carries the Menger's Sponge concept through to the old warehouse's interior. (The exterior will be restored). Perforated plywood panels will surround the HVAC system, shelving, and other services, which are scattered throughout the offices, replicating in positive form the segments removed from a Menger's Sponge.

Linking the project with Holl's ongoing investigations of light and color, an exterior layer of perforated copper and an interior layer of perforated plywood encase concrete masonry unit walls. Daylight enters through the facade openings, then reflects off separate, concealed painted surfaces in the gaps between these layers, causing tinted light to emanate through the holes in the copper and plywood. Holl calls the illuminatory effect "patterns in a chromatic field." The same reflective system also occurs on the old warehouse's interior, where lighting sits behind the hole-punched panels that enclose services. Holl employed a similar lighting technique in his Chapel of St. Ignatius in Seattle, as well as in earlier projects.

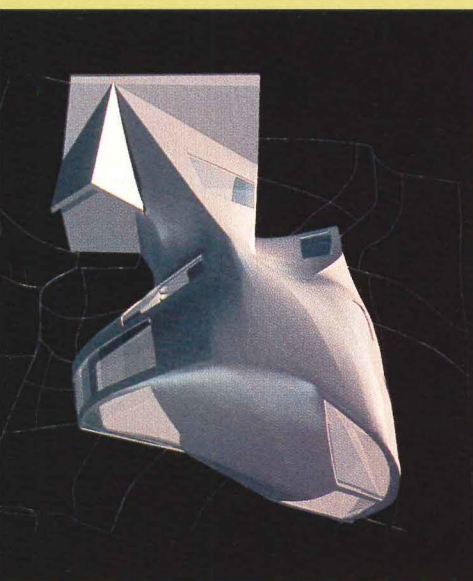
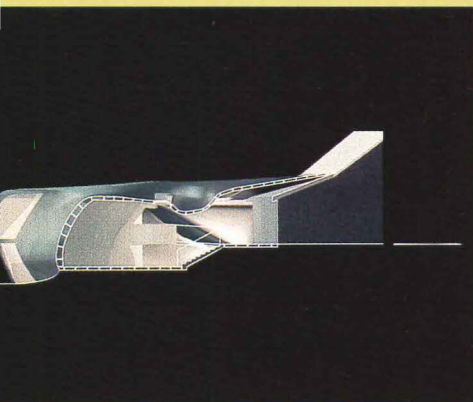
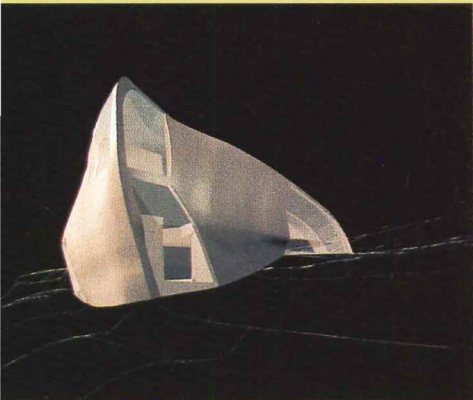
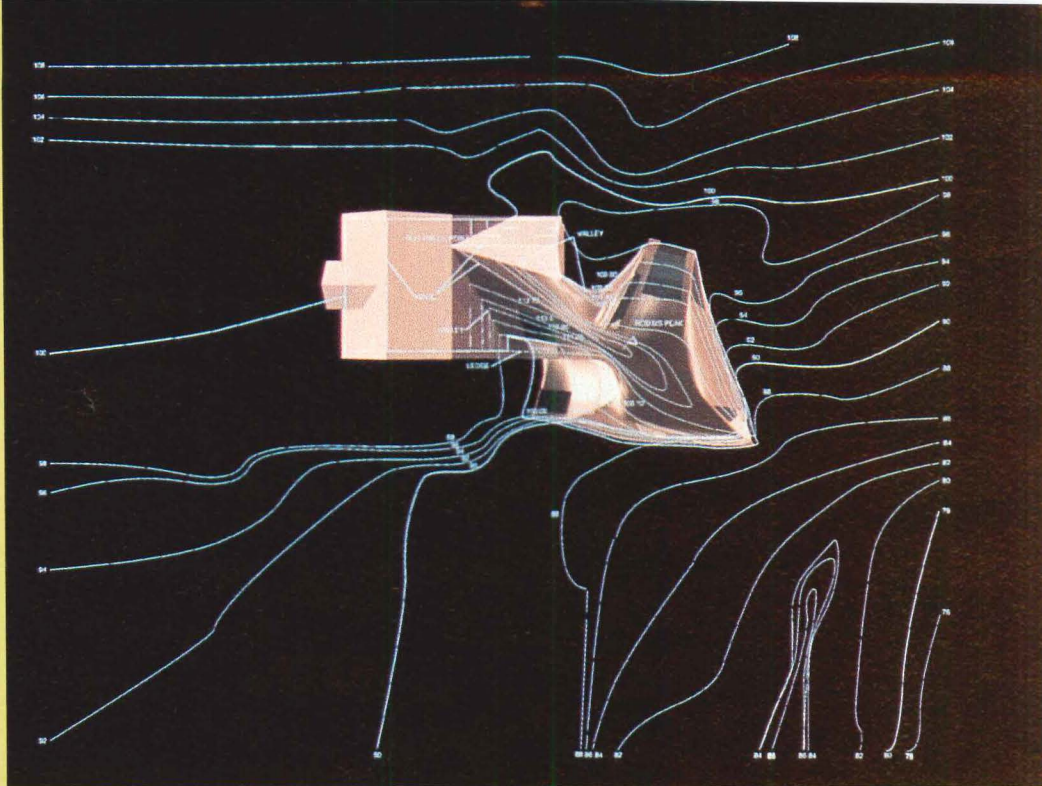
The new pavilion replaces one of two outbuildings along the canal. The other will be restored, and a new boardwalk, planted with cypress trees, will be constructed on the water's edge. The building is scheduled to open next summer. *Ned Cramer*



Copper-clad canal-side pavilion (top) will house conference room. Existing warehouse will be converted into offices. Holl's sketch (above) demonstrates reflected light patterns that animate interiors and pavilion exterior.



Site plan (right) shows topographic contours of existing house, amorphous addition, and surrounding landscape. Addition merges forms of house (bottom) and landscape (below). Stair connects addition to existing house (below center).



## “R” House Sherman, Connecticut Kolatan/MacDonald Studio

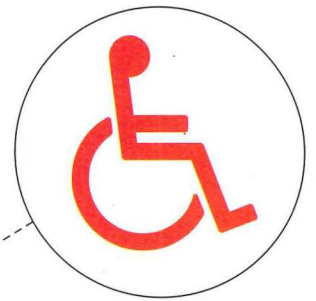
Cross an existing two-bedroom clapboard house with its rocky, 5.5-acre site in Sherman, Connecticut, and what do you get? If you're progressive New York City architects Sulan Kolatan and Bill MacDonald, the result is a third thing altogether—an amorphous, 1,500-square-foot addition with conceptual roots in information networking and biology.

One of the analogies the partners use to explain their design process is the chimera, a genetically mutated or grafted organism, whose name refers to a mythological beast combining the body parts of a lion, goat, and serpent. Kolatan and MacDonald created a chimeric form by plugging geometries of the existing landscape and house into a computer. They then added program to the mix—including two stacked bed- and bathroom suites, a split-level living room, and stairs—which distorted the form even further. The computer coordinates resulting from this process will be used to cut a framework of irregularly curved plywood ribs, which will be erected 2 feet apart in a parallel sequence. Over this structure, fabricators will spray synthetic hardcoat and insert custom windows.

Kolatan and MacDonald compare the addition's interior to their O.K. Apartments in New York City (*Architecture*, September 1997, pages 114-119), that featured merging floors, furniture, and other surfaces, made with such synthetic materials as fiberglass and epoxy coatings.

The addition, which is scheduled for completion next spring, is the first in a series of projects Kolatan and MacDonald are designing for the property; landscaping, a barn renovation, an entrance bridge and pavilion, and a pool house are also in the works. *Ned Cramer*





## LCN IS AUTOMATIC

A decade or more before ADA was enacted, LCN was developing power operators for entrances used by people who were physically challenged. Today, LCN has a complete line of electric and pneumatic power operators, all the accessories required for a complete system plus support from one of the most experienced engineering teams in the industry. LCN power operators are making true access a realization in thousands of institutional and commercial buildings.



**THE BEST CLOSERS. THE BEST VALUE. WORLDWIDE.**

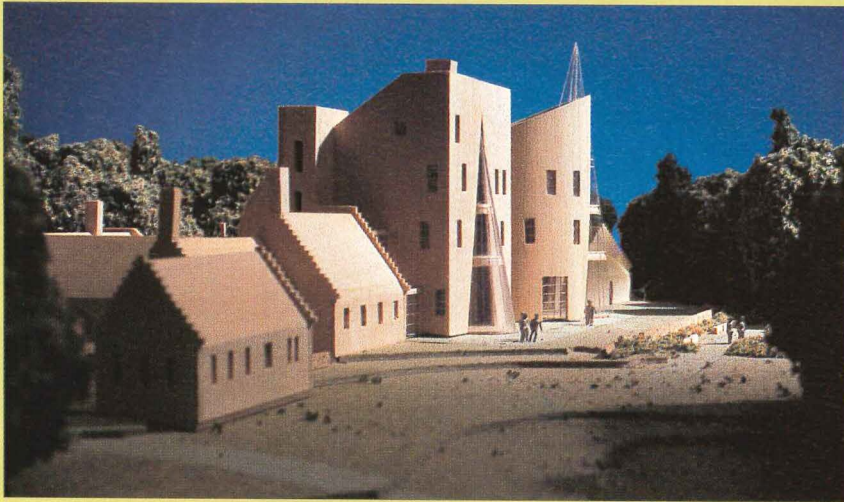
**INGERSOLL-RAND**  
ARCHITECTURAL HARDWARE

LCN Division, P.O. Box 100, Princeton, IL 61356-0100 Phone: 800/526-2400 Fax: 800/248-1460 Website: <http://www.lcnclosers.com>

Circle 60 on information card

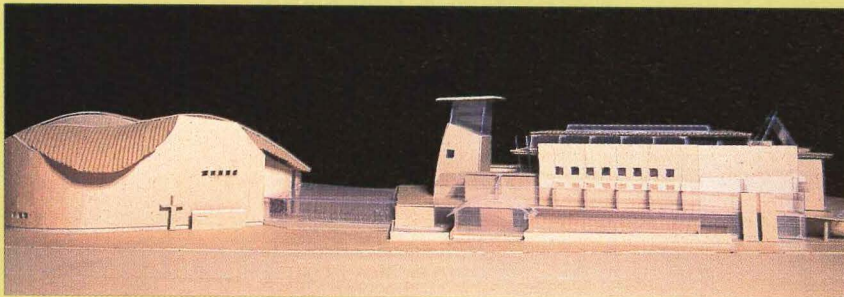
**LCN**





**Corrou Estate Lodge  
Loch Ossian, Scotland  
Moshe Safdie and Associates**

The British country house may seem a thing of the past, but Moshe Safdie and Associates of Boston recently completed designs for a 17,500-square-foot hunting lodge at the edge of Scotland's Loch Ossian. The private house, which the owner intends to lease to tourists and for conferences while not in residence, replaces a Victorian manor that burned down in 1940. Surviving granite outbuildings, enclosing a courtyard, house kitchens, hunt rooms, and groundskeepers' quarters. Eight bedrooms occupy two new granite-clad towers—one cylindrical, one rectilinear—that abut a new vaulted great hall. These basic geometric forms are intended to "honor the austerity of the Highlands," according to Project Architect Celine Larkin. *Ned Cramer*



**Bronx Seventh-Day Adventist Church  
Bronx, New York  
Jack Travis Architect**

New York City-based architect Jack Travis has created a two-building complex in the South Bronx for the predominantly African-American Seventh-Day Adventist (SDA) Church. The architect pairs an elliptical 48,000-square-foot sanctuary with a rectilinear 42,000-square-foot recreation center on a narrow urban infill site, with an outdoor room between them. The steel-framed recreation center houses an 850-seat auditorium, a 10,000-square-foot skylit gymnasium, religious education classrooms, a library, offices, and a cafeteria. SDA officials hope to begin construction on the church complex in January 1999 and complete it in time for Christmas services in 2000. *Michael J. O'Connor*

*What's in a name?*  
**NAAMM**

NAAMM is the benchmark against which architects and other specifiers confidently measure their own plans and obtain precise information on the design, manufacture and installation of superior products. The Association offers the most comprehensive guide specifications in the industry. Today's architects, engineers, other designers and contractors look to NAAMM to ensure the highest standards and quality.

NAAMM makes it easy for you to get this information by providing a series of targeted manuals, with all the codes, facts and specifications you need, including:

**Architectural Metal Products**

- Metal Stairs and Railings
- Metal Finishes
- Metal Flagpoles

**Hollow Metal Doors and Frames**

**Aluminum and Steel**

**Bar Grating**

**Steel Framing Systems/  
Metal Lathing and Furring**

**Steel Cell Systems**

**Expanded Metal**

Consider taking advantage of all the benefits in our name.

*Contact your one-stop resource for specification and technical information about:*

**Architectural Metal Products** 62      **Metal Bar Grating** 68

**Hollow Metal Doors/Frames** 64      **Metal Lath/Steel Framing** 70

**Expanded Metal Products** 66      **Steel Cell Systems** 72

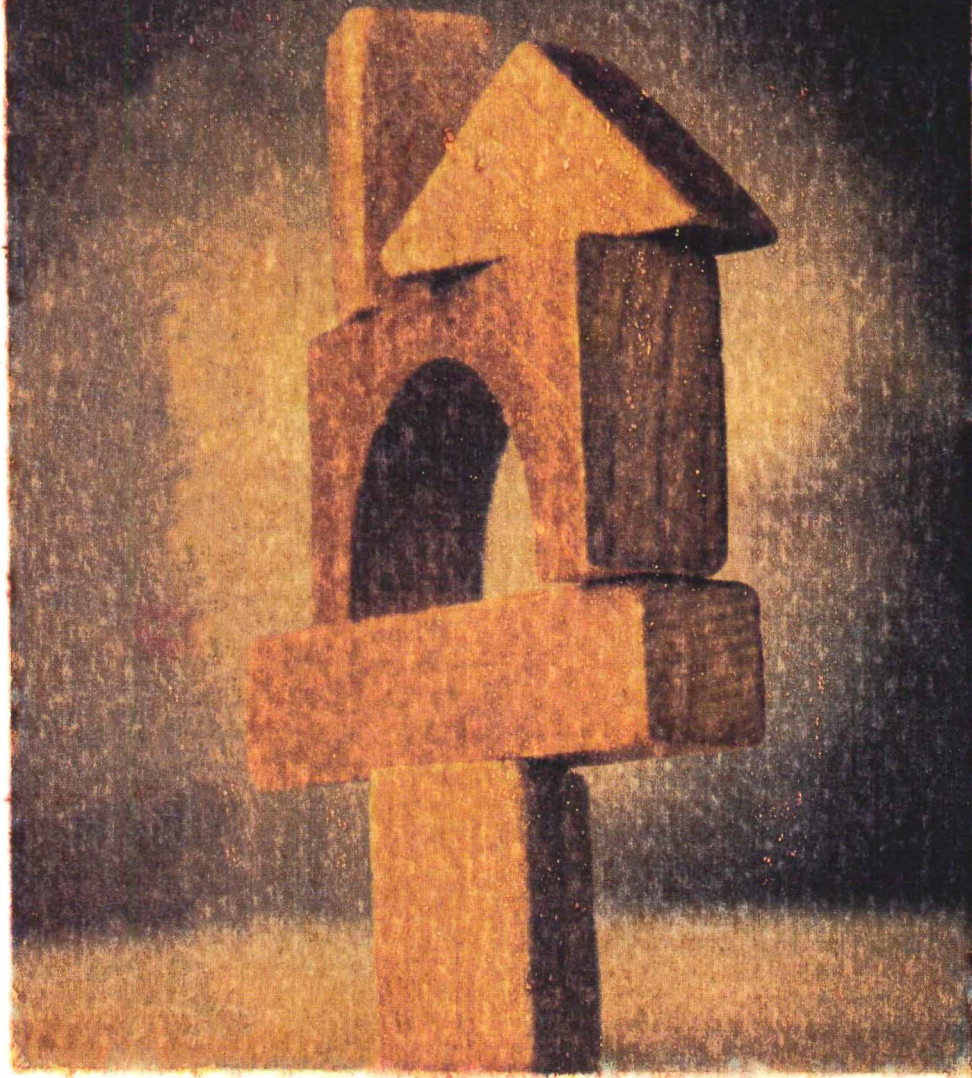


National Association of  
Architectural Metal Manufacturers

8 South Michigan Avenue  
Suite 1000  
Chicago, IL 60603  
312/332-0405  
FAX: 312/332-0706  
E-mail: [naamm@gss.net](mailto:naamm@gss.net)  
<http://www.gss.net/naamm>



Remember when  
*imagination*  
was all you needed to  
express yourself?



The all-new ArchiDesign Interactive Design and Modeling Software from BAGH gives you the freedom you need to express yourself like never before...not since you were a kid anyway. ArchiDesign lets you explore and refine whatever designs come to mind in a truly interactive 3D environment and then use the resulting model not only for presentation purposes, but also as a base for all CAD production drawings.

ArchiDesign was developed specifically to meet the needs of today's AEC professionals. So you can count on powerful modeling tools, like intelligent architectural objects, true solids and NURBS-based complex surfaces, that are a snap to use. You'll also enjoy super-fast

interactive visualization to better evaluate any possible "what if" scenarios, along with interactive 3D editing, including BAGH's revolutionary Design-Track technology to ensure that the design constraints you establish are maintained whenever your model is modified.

And last, but not least, ArchiDesign makes it easier than ever to make that winning presentation with advanced rendering and animation. Not to mention drawing extraction that lets you automatically extract CAD-accurate and fully coordinated base drawings from your model and export them to AutoCad™ or any other CAD software.



(514) 285-1717  
1-800-561-0522  
info@bagh.com  
www.bagh.com



EXPRESS YOURSELF

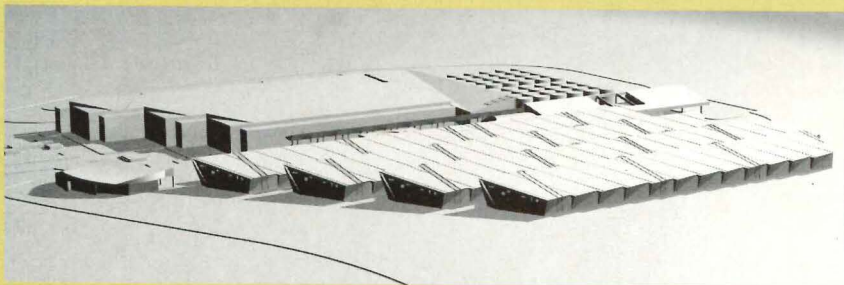
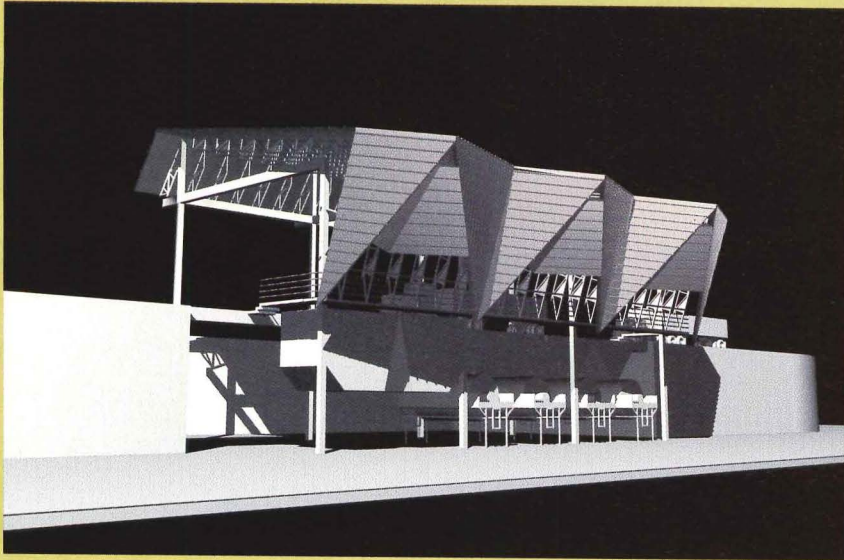


SiliconGraphics  
Computer Systems

©1997 BAGH Technologies Inc. All rights reserved. ArchiDesign and the ArchiDesign logo are registered trademarks of BAGH Technologies Inc. AutoCad and DWG are registered trademarks of Autodesk Inc. All other brands and product names are the property of their respective holders.

Circle 74 on information card





## Robert Mondavi Coastal Winery Monterey County, California Johnson Fain Partners

Los Angeles architect Johnson Fain Partners' single-story, 350,000-square-foot winemaking facility for the Robert Mondavi Coastal Winery in Monterey County, California, is no nostalgic re-creation of Bordeaux or Tuscany. Instead, Design Partner Scott Johnson has created a low, tight grouping of stainless steel-clad sheds that abstracts and fractalizes the forms of the surrounding Gabilan mountain range.

Incorporating the 376-acre site's existing north-south slope, Johnson aligned the building's winemaking functions to capitalize on what winemakers call "gravity flow." From the crushing stations at the slope's apex, the grapes travel downhill for stainless steel tank storage, then further down to barrel aging and the bottling plant. Although most stages of wine-making require dark, cool spaces, Johnson separates the cavernous tank, barrel, and bottle storage areas with glazed interstices, linking the science of modern-day viticulture with its natural origins.

A hedgerow labyrinth at the complex's western end leads into a linear core of administrative offices at the facility's center. Until the second phase of construction is completed, which comprises a freestanding welcome pavilion, this core will also serve as the vineyard's visitor center.

Visitor tours—practically invented by Mondavi in the 1960s—will let the uninitiated follow the production cycle from vine to wine. The first phase of the building will finish in 2000; the second phase has not yet been scheduled. *Michael J. O'Connor*

Trucks deposit grapes on upper level of crushing stations (top). Fermentation process begins in rectilinear stainless-steel "tank farm" (above, at left); slope-roofed sheds (at right) below hold oak barrels for aging.

Ceiling  
system  
solutions  
from the  
experts.

TechnLine™

### ACOUSTICS

How can we ensure the ceiling system we specify will deliver the acoustical absorption value we need to reduce noise levels?

All ceiling manufacturers publish acoustical performance values. However, some ceilings do not measure up to their published values. Look for acoustical products that carry the Underwriters Laboratories (UL) mark for acoustical performance, which is new in the ceilings products industry.

Consider these facts:

- UL acoustical classification assures that every carton of a ceiling product will meet its published values and applies to all critical measures of a ceiling's acoustical performance — sound absorption (Noise Reduction Coefficient and Articulation Class) and the ability to block sound between spaces (Ceiling Attenuation Class).
- With a manufacturer's guarantee, the onus of proving product performance is on the architect or owner. However, the UL classification puts the onus on the manufacturer, so it's hassle-free to you.
- The UL acoustical classification indicates that the manufacturer has documented production processes that consistently deliver published results.

Get expert solutions to your questions about ceiling systems. Our technical staff is standing by from 8 a.m. to 7 p.m. (EST).

1-888-CEILINGS (option 3)  
(1 888 234-5464)

[www.ceiling.com](http://www.ceiling.com).

Email: [techline@armstrong.com](mailto:techline@armstrong.com)

**Armstrong**

CEILINGS, SUSPENSION SYSTEMS & ACOUSTICAL WALLS

The solutions you need, the performance you can trust™

©1998 Armstrong World Industries, Inc.

Circle 76 on information card





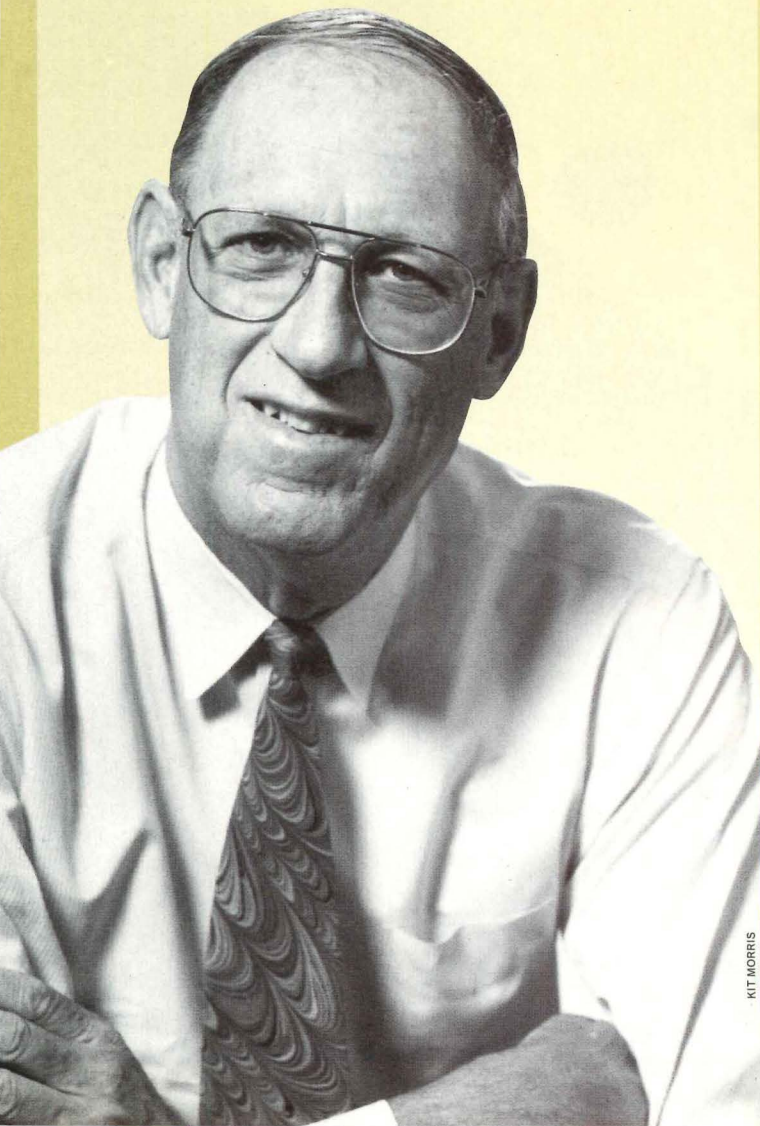
# THE CONCERT'S A RIO



**Entrepreneur Arthur Gensler discusses the strategies that keep his firm at the forefront of corporate practice.**

*Arthur Gensler founded his eponymous design firm in 1966, with \$200 and one employee. Today the \$182 million company enjoys a high-powered client roster that includes Bank of America, General Motors, Warner Bros., and Dell Computers, making it the envy of the corporate architecture world. But the firm's rapid rise has also generated detractors, who claim that business acumen overwhelms design integrity. The 63-year-old architect explains how his firm has grown into the world's largest, and how he intends to keep it that way.*

# The Secret of Success



KIT MORRIS

**ARCHITECTURE: How did you start Gensler?**

**ARTHUR GENSLER:** A college classmate of mine needed somebody to do tenant development work, and a friend was developing another project. From those two clients we developed roots for almost every other project we've done. Each one of our offices has been driven by clients and real estate people who've heard about us. Now we're nearly 1,500 people with 16 offices.

**That's enormous.**

Every office has been opened and staffed by Gensler people. Then we've hired locally. We don't believe in merging.

Most of the work comes from repeat clients. We're not chasing projects; we're building long-term relationships. If the chairman wants a new ashtray, we buy it. If somebody wants a million-square-foot building, we do that, and everything in between.

We're providing consistent service to many large companies. Of the top 10 law firms, nine are our clients. Of the top 10 banks, eight are clients. Those are the niches we play in. People in those industries move around and we follow them. But we hope to stay with the original client too. We're not entertainers; we don't wine and dine and buy ball tickets.

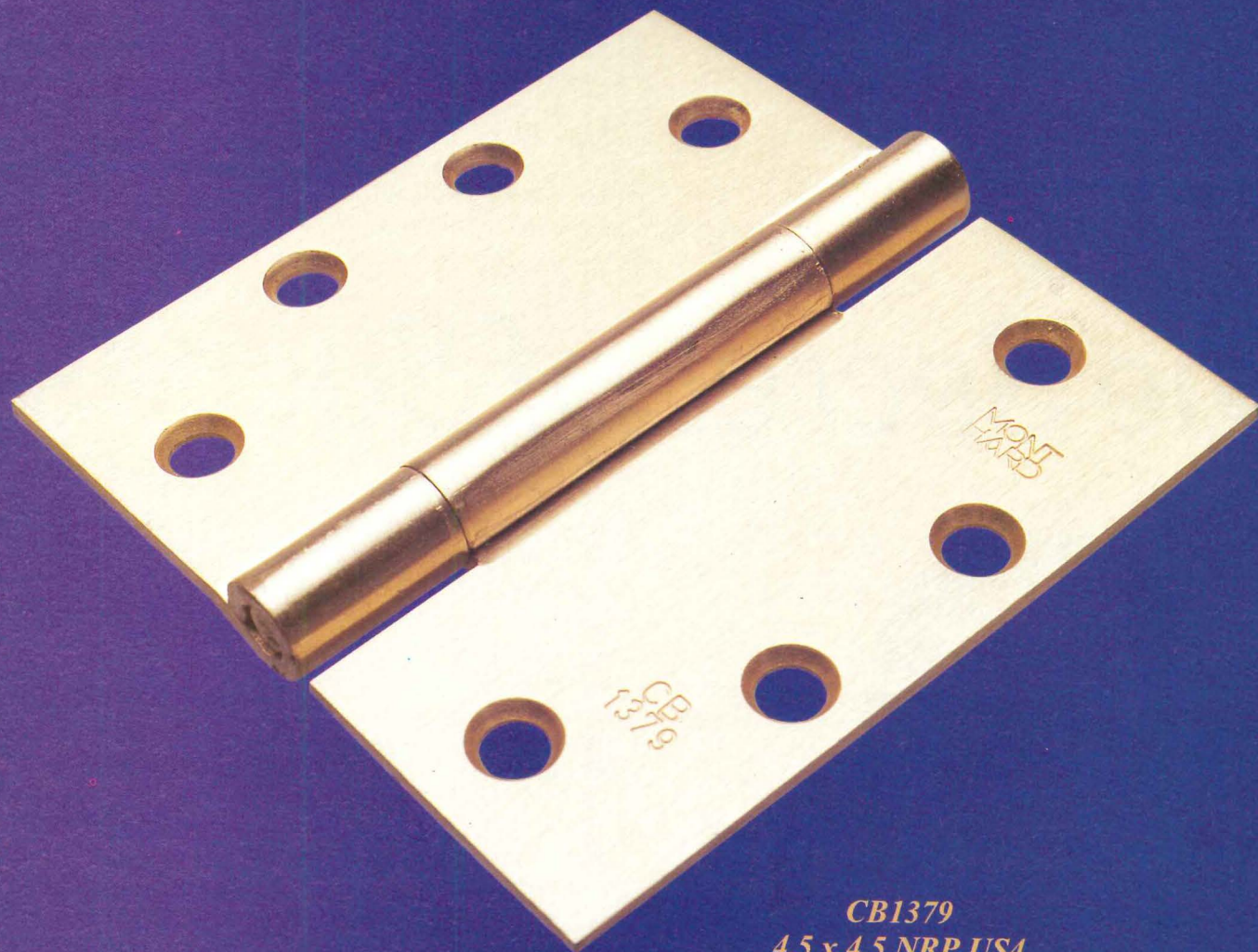
I'll give you an example: I got a call from a person at 20th-Century Fox, who said, "I've seen you in magazines; you do a lot of law firms. We have a legal department and we've got to make them more like a law firm." So we did the legal department and a few other things, and then that person moved to Warner Bros. So we started working with Warner Bros. but still kept working with Fox. Then some people went over to Disney and Universal.

**How do you move from market to market?**

We started by doing tenant work, and then we were asked to analyze the buildings of well-known architects in the profession.



**THE EXTRA TOUCH  
THAT...ADDS SO MUCH !**



*CB1379  
4.5 x 4.5 NRP USA*

**MONT  
HARD®**

*The intelligent choice.*

*U.S.A.  
Contact: Jesse Noriega  
Tel: 800 892-7902  
Fax: 800 892-7916*

*MEXICO  
Contact: Ramón Martínez  
Tel: 01 800 830 5300  
Fax: 01 800 711 8627*

*CANADA  
Contact: Andre Lopez  
Tel: 800 363-6120  
Fax: 514 641-4290*

*Circle 82 on information card*



# the Designer is in



Neil Frankel  
Carpet and Rug  
Industry Master  
Designer and  
President of the  
International  
Interior Design  
Association  
(IIDA)

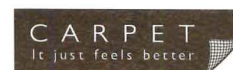
*Architecture* is pleased to feature "The Designer Is In," a column on the latest design trends, written by Carpet and Rug Industry Master Designer Neil Frankel. Frankel is president of the International Interior Design Association.

In addition to sharing his design advice, Frankel invites you to submit your own questions, which may appear in a future column.

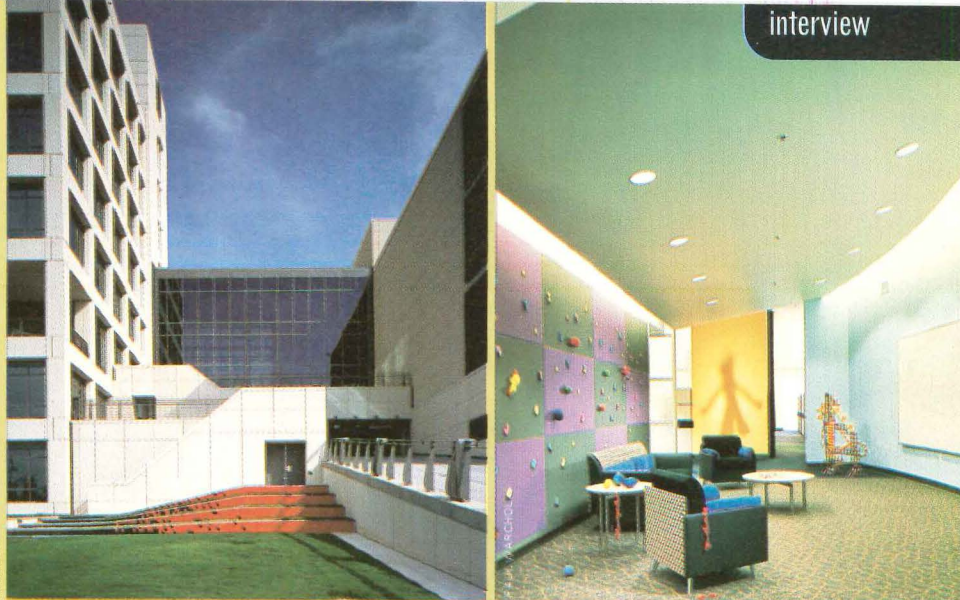
**Q: Why do you specify carpet for so many of your design applications?**

**A:** Carpet offers a freedom of expression that makes it the obvious floor covering choice for a lot of my projects. Designers have long embraced carpet for its warmth and comfort, and for its wide range of colors and textures. Today, we are accomplishing dimension with carpet designs that were once outside the realm of the workplace setting, enabling us to offer a higher level of interpretation. Custom orders also are much more realistic due to innovations in manufacturing. It's not surprising that many designers are taking advantage of carpet's ability to effectively express personality, longevity and individuality.

To submit questions, please write to:  
"The Designer Is In" - Dept. A  
1355 Peachtree Street, NE  
Suite 700, South Tower  
Atlanta, GA 30309



www.carpet-rug.com  
800-882-8846



Recent Gensler projects include Auto Zone (above left) in Memphis, Tennessee, as well as offices for Netscape Communications (above right) in Mountain View, California.

We earned a wonderful reputation for building-design consultation. After a while, people started saying, "You can do the whole thing." Then we got into strategic planning, and facilities—what you do with the space after you move in and how you integrate technology. We put a whole program together, Gensler Information Solutions (GIS)—graphical databases for companies that help them manage their real estate. Then we started doing graphics and branding. Then we got into product design and other things. So we're a design firm, not just an architectural firm. We use design as a tool to create all sorts of things.

**Do you think that architecture will become a service profession?**

No. I think there are going to be large firms, like ourselves, who are able to provide services for domestic and global clients. Boutique firms will be specialists. The firms that are going to have trouble are going to be mid-sized firms that aren't big enough to offer the technology and volume of people, yet have too much of an infrastructure to be a boutique firm. And firms that build on an individual, the star system, are seldom built to last. They're built for those individuals. We've tried to create a firm that could go on for a thousand years.

**Some large firms have made a conscious decision to hire stars.**

The beauty of business is that everybody has a different strategy. Our strategy is that the client gets Gensler, not an individual. That isn't to say that we haven't got talented people. But design is only one piece of the equation. In a business like this, you have to have somebody to bring in the business, negotiate a profitable fee, program, plan, and manage the project, design, document, and get it built, close it out, and collect the fees. If one of those doesn't work, the project isn't a success.

The registration laws say that every member of the firm should be a registered architect. What a nonsensical idea. I have a partner who's an accountant. I've got people who run millions of dollars worth of technology. We've got people that keep the client happy. They've got to be partners and owners. They don't have an architectural license but they're important to Gensler.

**Gensler is known as a well-managed firm.**

Thank you. This is a bonus- and profit-sharing driven firm. The





If you can imagine the shape, you can build it with ...

**form•Z**



form•Z is the most versatile solid and surface modeler that gives you unlimited control over the creative process. You can design directly in 3D or in 2D, using numeric or graphic input, slipping effortlessly back and forth between drafting and modeling. form•Z's Boolean operations offer powerful sculpting capabilities and its metaformz™ allow unprecedented modeling flexibility. Many additional operations such as resize, stretch, extrude, lathe, sweep, project, unfold, deform, round, displace, skin, and NURBS make form•Z "the most comprehensive modeler."

RenderZone adds photorealism, and RadioZity provides the most accurate simulation of light effects. Includes 20+ export/import format translators and much more.



**autodesys**

Tel: (614) 488-8838 Fax: (614) 488-0848

Download a free demo from our web site:  
[www.formz.com](http://www.formz.com)  
 Circle 86 on information card





employees own 30% of this firm, the value's going to go up 25% this year, and the value of the profit-sharing's going to go up 35% this year. The profit sharing plan is worth \$43.5 million.

One of the reasons we're successful is that we listen to our clients and learn why they're successful. I don't believe it when some architects say, "I could do really good work if I didn't have to waste time with a client." I have learned from some of the brightest businesses in this country. I spend an enormous amount of time asking how they run their business. As a result, we do better work for them, and they help us improve.

There's nothing wrong with an architect making money. It just shows you're well-organized and focused. Most clients, believe it or not, think architects are stupid because they charge so little. Clients value what they pay for.

#### How do you continue to grow a firm that has 1,500 people?

As long as I can hire people I respect and trust, I don't know if there's an upper limit. We've been growing about 25 percent a year in revenue. I'm comfortable because we have diversified projects. We have the country's powerhouse clients who aren't going to stop business. And we have geographic and product-type diversity. We don't work with primary businesses that are cyclical, like housing, health care, and education.

#### Does it trouble you that Gensler doesn't earn more positive critical attention?

It does make me mad. But it used to hurt a lot more. I get involved with interesting projects and neat clients. The fact that we don't get on magazine covers hurts, because I think it's unfair to our people. They are doing innovative and brilliant work. But I'm not interested in avant-garde work that isn't responsible. Architecture is serious to me—not an academic seriousness, but a responsibility seriousness. The world has enough "look-at-me" buildings. There is a responsibility to do quiet buildings that enhance a community. I'm just as proud of those buildings as I am of the ones that are cutting edge.

#### What do you think the profession needs in the future?

We're selling ourselves short. We're attracting introverts into the profession, people who are afraid to communicate well. The successful architects are great communicators: I.M. Pei, Cesar Pelli, Gene Kohn, Philip Johnson, Frank Gehry. We're not attracting leaders into the profession. We have to go back to the elementary and high schools and encourage leaders to consider our profession. That's something I want to personally spend more time on.

There's a wonderful opportunity for architects to expand into other unique areas of the design business. There's ways within this technological revolution for design to play a major role, but it's definitely not going to be quite so "bricks and mortar." Academics need to understand that it may be better to work for a firm like Gensler—do things other than the traditional garage remodelings and grow from there; do your parents' house and then hope that you win a competition.

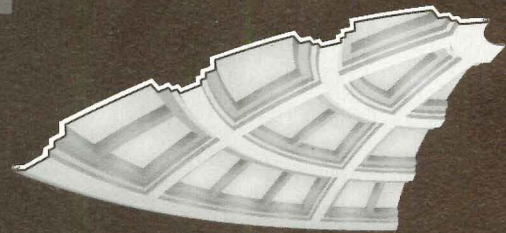
My wife and I had \$200 when we started this firm, and we've never borrowed any money. You don't have to have a silver spoon in your mouth, you just have to have a passion for what you do.

# Design Catalog

60 PAGES OF INTERIOR COMPONENTS

• COLUMNS • PILASTERS • MOULDINGS  
• VAULTS • DOMES • LIGHTCOVES  
IN

• FORMGLAS® G.R.G (GYPSUM)  
• QUARRYCAST® (MOLDED STONE)  
• METALCAST® (CAST METAL POWDERS)



MAX  
12'-0"  
3558

+ 13" @ 44

6 1/4  
@  
159

#44006

(A)

+ 12" @ 304

6 1/2  
@  
163

#63409

## Formglas

Formglas Inc.  
20 Toro Road, North York, ON  
CANADA M3J 2A7  
Tel: (416) 635-8030  
Fax: (416) 635-6588  
Web Site: <http://www.formglas.com>



# The Platinum Visa Card Designed For Architecture Access



# 4.9%

Fixed Introductory APR\*  
No Annual Fee  
Credit Line Up To \$100,000

As an Architect, you have experienced many personal rewards for your investment of time, effort and dedication. We'd like to offer you one more.

The Architecture Access Platinum Visa card.

With this special card, you will save money and have the financial flexibility you deserve. You can maximize your savings by consolidating outstanding balances from other credit cards to your new Visa card.

Look at these outstanding benefits:

- No annual fee
- A low 4.9% fixed introductory annual percentage rate (APR) for your first 5 months\*
- After that a low 13.99% fixed APR
- Credit lines up to \$100,000
- Balance Transfer Savings Option
- Dedicated Cardmember Service
- Portfolio of Valuable Platinum Services

As you carry your Architecture Access Platinum Visa card, you'll not only display a custom-designed card for your profession, you'll also enjoy the financial benefit of lower fixed interest rates, plus the strong reputation of the Visa network.

The Architecture Access Visa card. It's everywhere you want to be.

Brought to you by *Architecture.*

## To Apply, Just Call 1-800-FIRST-USA Today.

(Ask for priority code AAP for platinum, AAC for classic)

The introductory APR is effective for the first five (5) billing cycles following the opening of your account (the "Introductory Period"); 13.99% rate thereafter. If payment is received late once during the introductory period, the rate will adjust to 13.99%. If, at any time, payment is received late twice in any six month period, the rate will adjust to 19.99%. The annual fee, NONE. A minimum monthly Finance Charge of \$.50 is payable if any Finance Charge is due. There is a cash advance Finance Charge equal to the greater of 2% of the cash advance or \$10.00 for each cash advance you obtain. There is a Transaction Fee for the purchase of money orders, wire transfers, ATM, use of convenience checks and bank cash advances equal to the greater of 2% of the base amount or \$10.00 for each purchase, cash advance or use. Your account will be issued by First USA Bank, P.O. Box 8658, Wilmington, Delaware 19899-8658. You should contact First USA Bank to obtain information on any changes after the printing date by calling toll-free 1-800-537-6954.





The history of San Juan's La Concha Hotel is like that of many Modern treasures—loved when new, scorned 50 years later. Designed by two of Puerto Rico's leading 20th-century architects, Osvaldo Toro and Miguel Ferrer, La Concha was a benchmark of International Style chic when the Puerto Rican government opened it in 1958. La Concha helped transform San Juan's oceanfront Condado district into a sophisticated tropical resort. And it did so with architectural panache and urbanistic sensitivity, something most of its later neighbors overlooked.

Almost half a century after its christening, La Concha's star has faded—and could be snuffed completely. The government-run Puerto Rico Tourism Company, who owns the property, now wants to tear down the hotel (which it shuttered in 1997) to build a monstrous \$200 million resort. The proposed complex would replace La Concha's streamlined blocks and its namesake concrete shell-shaped supper club, designed by famed engineer

# Shell Game

**A proposed hotel in Puerto Rico threatens to replace a Modern icon with pastiche.**

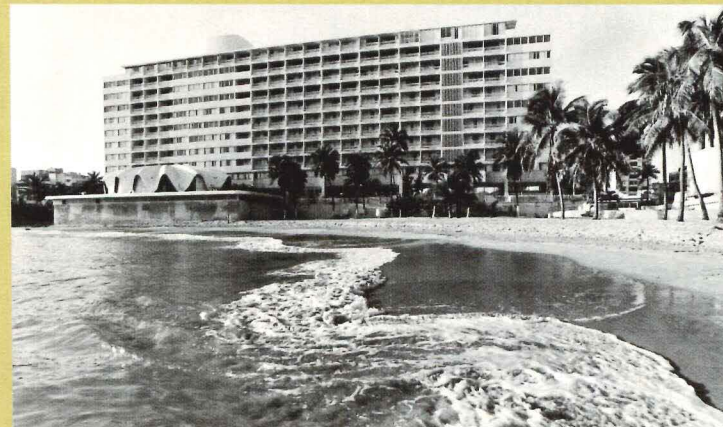


Mario Salvadori, with a Disneyesque miasma of gabled towers and red tile roofs, designed by Honolulu architects Wimberly Allison Tong & Goo (WAT&G).

The proposed demolition has touched off a firestorm of controversy in Puerto Rico, with passionate, acrimonious debate reminiscent of the early days of the preservation movement in the United States. The island's College of Architects tried to save the building from the wrecking ball by designating it an historic landmark, but San Juan's planning board shot down the measure in May, claiming that the hotel did not meet landmark status criteria. The college is now suing the planning board, claiming that the building did, in fact, meet the proper criteria.

Not only is the government's plan to tear down La Concha shortsighted, the imagery of the proposed complex is an insult to Puerto Rico's architectural past. According to promotional literature, WAT&G's new complex would reflect "Puerto Rico's Spanish heritage and a character reminiscent of Old San Juan." In reality, the language has nothing to do with the austere 16th-century townhouses and churches of Old San Juan. When the government originally commissioned La Concha, they asked for a decidedly contemporary architectural statement tailored to its tropical context—and Toro and Ferrer delivered. Why does the government now want to adopt a sentimental, retrospective architectural style?

On the U.S. mainland, maverick mid-century Modernists such as Morris Lapidus, Wallace K. Harrison, and their contemporaries are finally receiving recognition, and their buildings are being preserved alongside older landmarks. Puerto Rico should recognize that its energetic Modern era is just as important to its history as its distant colonial past. *Raul A. Barreneche*



**Overblown, faux-Colonial towers (top) would obliterate streamlined mass of 1950s hotel (above), including scallop-shaped supper club (center).**



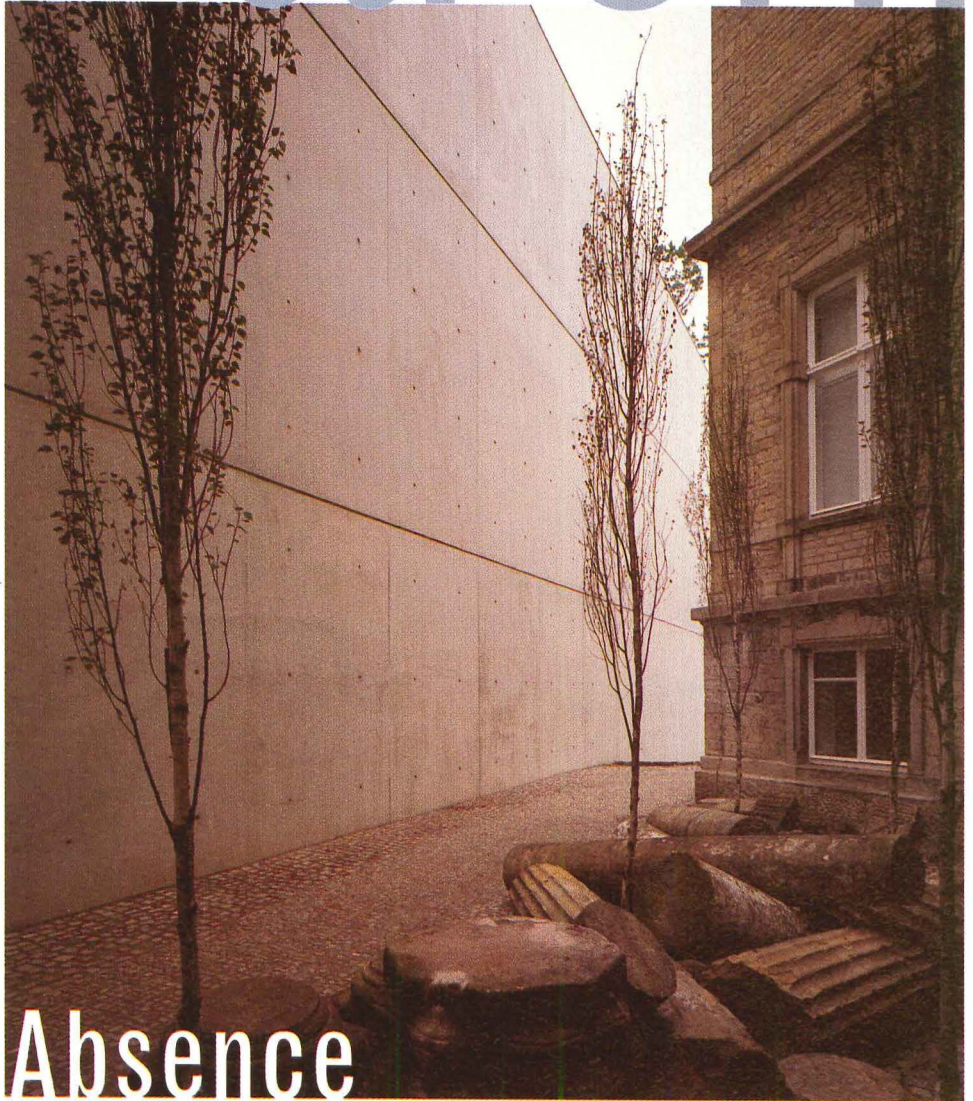
# WHY

TCS<sup>®</sup> – terne-coated stainless steel, introduced by Follansbee in 1967, has established itself as a premier roofing metal, evidenced by its specification on countless residential and non-residential structures. Its exceptional performance has been due in large part to its *sulphur-reactive* coating which is dependent upon atmospheric sulfides to develop an aesthetically pleasing, corrosion resistant, gray patina.

Because of our nation's efforts to create a cleaner environment, the sulphur content of the atmosphere in urban areas has been reduced significantly. In rural and coastal areas, it is virtually non-existent. Recognizing these changing conditions, Follansbee has created an improved TCS, stainless steel coated with a new, proprietary coating (*ZT<sup>®</sup>*) which is *oxygen-reactive*. Its performance and resistance to corrosion is enhanced,



# archi



## Absence

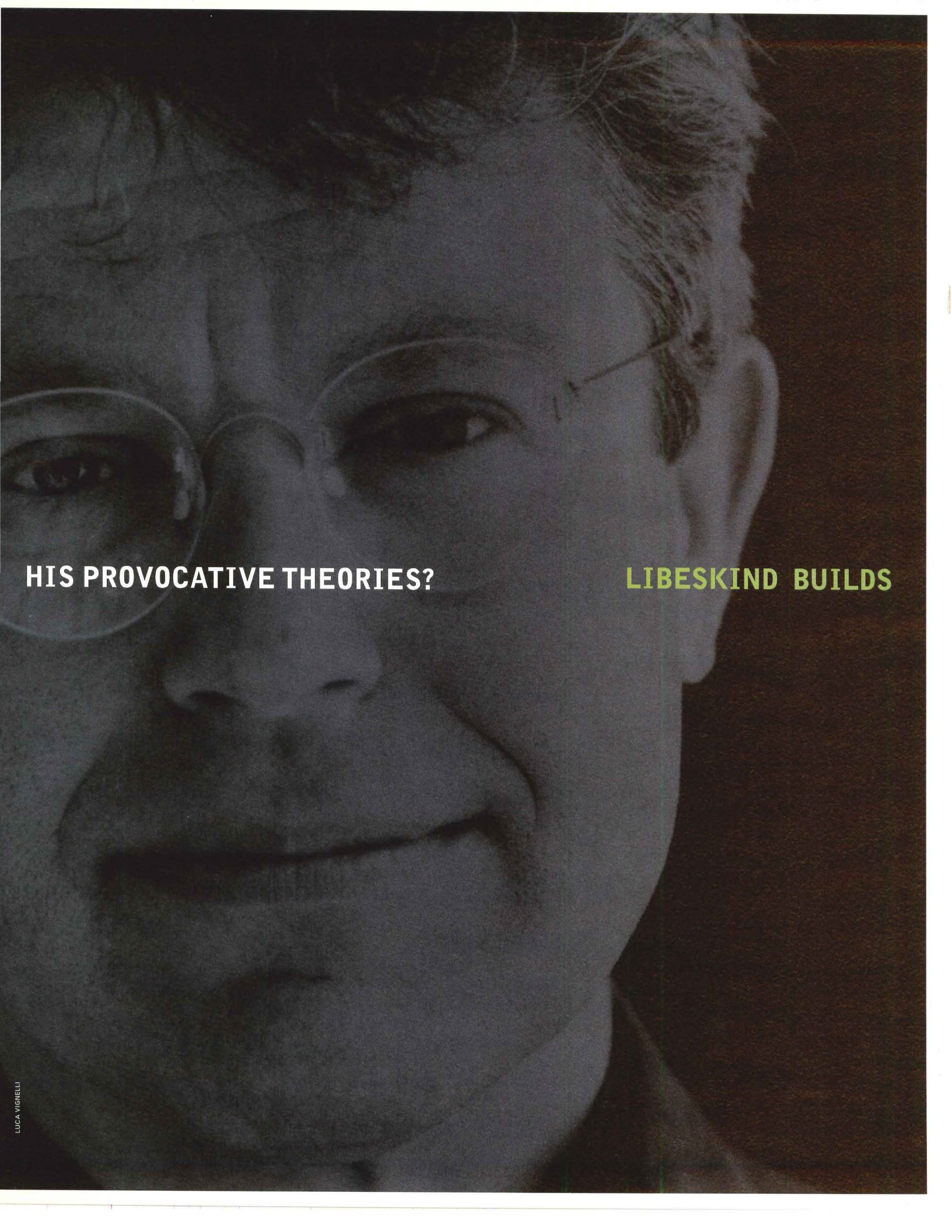
is a paradoxical way to enhance the presence of architecture. Yet that's precisely how Daniel Libeskind gives his stark, tortured buildings an ineffable strength. His museums unravel themselves around voids that cannot be entered; monumental galleries become focal points despite their utter emptiness. He reduces architecture and space to their bare minimum to reap maximum expressiveness. If, for Mies, "less" was more, for Libeskind, "nothing" holds even greater power.





CAN DANIEL LIBESKIND'S FIRST BUILDINGS KEEP PACE WITH





**HIS PROVOCATIVE THEORIES?**

**LIBESKIND BUILDS**



By Aaron Betsky

What happens when paper architecture gets built? In the case of Daniel Libeskind's work, we are beginning to find out. "A critic looked at my buildings and claimed it was all there in the Chamberworks," says the architect, referring to one of his maddeningly dense theoretical projects of 1983. "But I don't see my buildings as substitutes for theories, or a way of realizing my drawings." What they're about and how the 52-year-old Libeskind has suddenly made the transition from the dean of experimental architecture to author of major buildings currently under construction on two continents remains an open question. Can Libeskind convey the same enigmatic power in his buildings as he does in his drawings and lectures? Does he want to? Is there still such a thing as a theoretical or experimental architecture in an age where even Daniel Libeskind designs major monuments?

Libeskind's path toward this position has been a long and unusual one. Born in Poland, and educated in music in Israel, he became a concert pianist and played Carnegie Hall to great acclaim. Then he switched to architecture, which he studied at New York City's Cooper Union. He next studied history and philosophy at the University of Essex in England, before becoming head of the architecture department at the Cranbrook Academy in Bloomfield, Michigan. There, he established a name for himself by explaining his enigmatic drawings with multiple allusions to questions of ethics, morality, and philosophy.

In the early 1980s, Libeskind began entering architectural competitions—mainly in Europe—and moved to Milan, Italy, and then Berlin, where he still lives. In 1989, he won the Jewish Museum commission (an extension of the Berlin Museum), and the winning entries just kept coming. In a sense, the zigzag line running through many of his projects represents Libeskind's twisting path; meanwhile, he presents himself as a straightforward architect.

Thus, Libeskind now tries to explain the relationship between theory and practice simply. Architecture, he believes, quite literally makes a difference: "A wall marks a difference between inside and outside." By creating an inside, dedicated to one purpose, and an outside bounded by the new erection, the act of building has a direct, sustained, and significant effect on people's experience of their environment. It reserves space for certain functions, with a character defined by a client and an architect. Libeskind asks: Who gives them the right to do this? What do they do with that power?

Libeskind refers to "the act of construction" to indicate that every building changes the place in which it is built—not just in the present, but for the foreseeable future. Something that was there before is now gone, and whatever takes its place enforces order, form, and presence on generations to come. "When we build, we have a responsibility not just to ourselves and our clients, but to those who came before and those who will come after," Libeskind says. His architecture is one of both remembrance and projection.

The Architect employs zigzags, spirals, and sails as thematic elements in his buildings. These motifs give the work a certain coherence—perhaps even

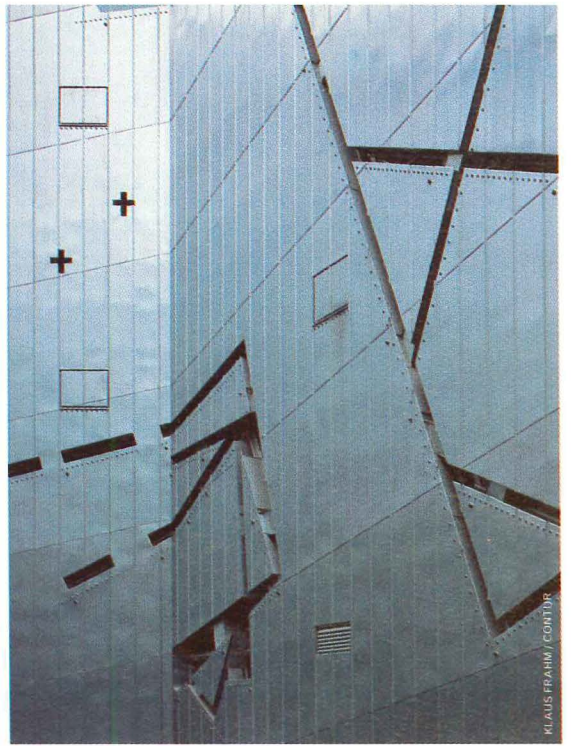
a look—that he maintains across projects. Libeskind uses recognizable forms because he believes that "architecture transcends local issues. Questions of space, light, and material, what makes a great building, are separate from client and site. Yet they are realized in a specific way, according to a genius loci."

In Libeskind's work in the past year, the most evident motif is the zigzag. It started as a line on paper, endlessly folding and unfolding itself, and then appeared in his Berlin City Edge (1987) project, which connected various pregnant points in that city's past: a Ludwig Mies van der Rohe office building (1921) and one of Albert Speer's axes for Hitler's new Reich capitol (1941), for instance. When some of Libeskind's models burned in a warehouse fire, he commemorated the loss with the Line of Fire (1988), a red, zigzagging installation piece that snaked its way through the Contemporary Art Center in Ghent, Belgium. In the plans for the Jewish Museum in Berlin, the line appears as a part of an unfolding Star of David laid on the ground.

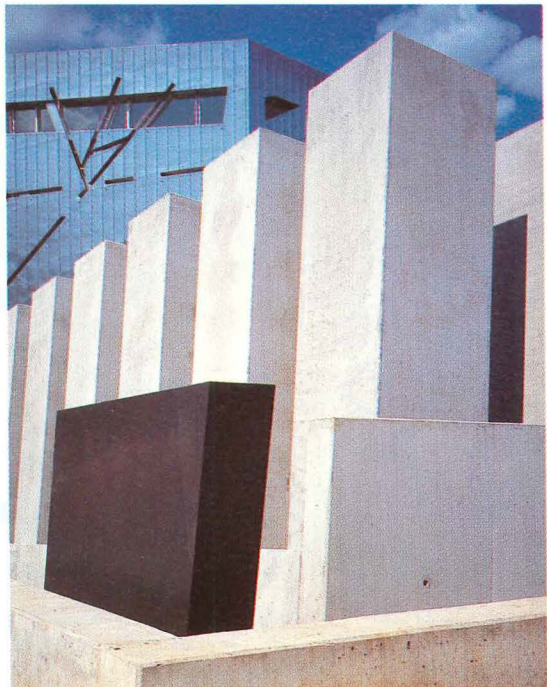
That museum is now largely built, marking the realization of the line as more than just a mark on a page: It has now become an internal street. As such, it has the quality of the 19th-century passage or shopping alley that opened up new spaces in the dense industrial metropolis. It is also the space of the marché, the progression from one significant place to another in Beaux-Arts planning. The marché and the passage in our contemporary architectural heritage have combined in the endless corridors and shopping mall plans of the age. Libeskind twists this element to the point where it is no longer merely functional, but, in its insistent and complex form, regains its sense of being a way for us to experience the new world that a building creates.

The heart of Libeskind's buildings is similarly an anti- or counteratrium. Instead of





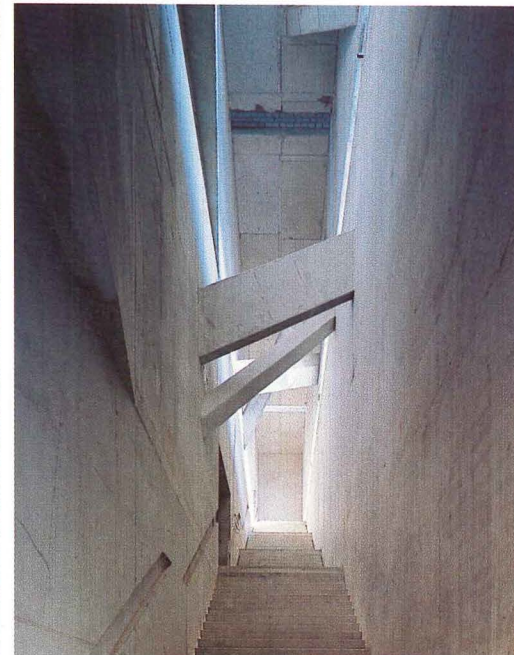
KLAUS FRANK / CONTRA



BITTER BREDDT PHOTOGRAPHY

Diagonal incisions in facade (top left and right) correspond with museum's fragmented site plan: Angles derive from matrix of squared triangles that reference distorted star. In aerial view, (above right), Jewish Museum zigzags from red roof of Berlin Museum past tilted plane of E.T.A. Hoffmann Garden (foreground). Hanging vegetation will eventually cover 48 earth-filled columns (above left).





Jewish Museum facades (above left) wrap irregularly shaped courtyard. Interiors are equally stark: Cantilevered beams (top and above right) cross multistory skylit passages, accentuating their emptiness.



the gathering points we expect of public buildings, Libeskind creates an inaccessible void in the Jewish Museum—a “hall of remembrance” visitors cannot physically enter. This space has a direct antecedent in the work of two of Libeskind’s mentors, Peter Eisenman and John Hejduk. For Eisenman, it is “the presence of absence,” something that makes us realize the impossibility of building a structure that mirrors our humanity: Both the architect who designed it and the viewer are, in fact, absent from any building. In its abstraction and emptiness, the central void is meant to remind us that a building is wholly unlike the human body. To Hejduk, the void is that space that we remember, but can’t quite put our finger on. It is bounded by the images of our past, our environment, and our imagination—images we never define except in our dreams or our poetry. To Libeskind, the void is the space between musical notes. It allows one to grasp music as structure, not merely the progression of melody. In Berlin, it represents the space of exile inhabited by the wandering Jew. It is our absence from God, and His absence from the world, that we can bridge only through faith.

In more recent designs, Libeskind has turned the line and the void in on itself, creating the spiral that is the signature of his proposed Victoria & Albert Museum addition in London (*Architecture*, August 1996, page 41). The spiral is the form of the labyrinth, which draws us ever further into a mysterious confrontation with our fears and potential. It is also a way of making the void more accessible without losing its aura: The line turns into the vertical dimension, motioning to the sky and carrying us with it. The sky, as well as the spaces above the programmatically defined areas, become the void.

On a pragmatic level, the spiral is an efficient way to house many different activities in a small amount of space in a way that gives coherence to the whole. This efficiency continues in the structural systems of Libeskind’s buildings, allowing him to create spaces that are flexible without being characterless, and to integrate cladding systems as a structural skin. Thus, the spiral of the Victoria & Albert addition stands up because of the intertwining strength of its linked metal panel skin. These panels support each other in three dimensions. Libeskind’s architecture turns in on itself not to become more enigmatic, but to become more efficient and effective without losing its power to make us wonder and wander.

The very fact that one can judge his forms in terms of how they act in the landscape and on the viewer’s body marks a major transition for Libeskind’s work. Frank Gehry, the reigning king of sculptural form, saw the Berlin Museum and pronounced Libeskind one of the greatest practitioners of that craft: “He really knows how to make space,” Gehry marveled. This is indeed a change from the ethereal and intellectual image Libeskind once promoted. Where an explanation of his buildings five years ago involved a long disquisition on poetry, philosophy, ethics, and music, now Libeskind waxes poetic about cost containment, buildability, and community relations.

The question remains whether we can still read the poetry of his architecture in the prose of his building. A cynic might say that Libeskind, Eisenman, Hejduk, and other titans of theoretical architecture made careers out of proposing buildings that could not be built. They did this either because it was all they were capable of—whether because of economic conditions or their own lack of talent and experience—or because it was a good way to make hay in a system dominated by academies and (paper) journals. In today’s economic boom, nearly everybody can build. Computers, moreover, allow anyone to draw almost anything, then use modems and laser-cutting tools to build those dreams. Finally, the center of philosophical inquiry has shifted from concerns about language to the nature of the brain itself and the (dubious) separation of consciousness from physical processes. Thus, the integration of theory and practice would seem like a foregone conclusion.

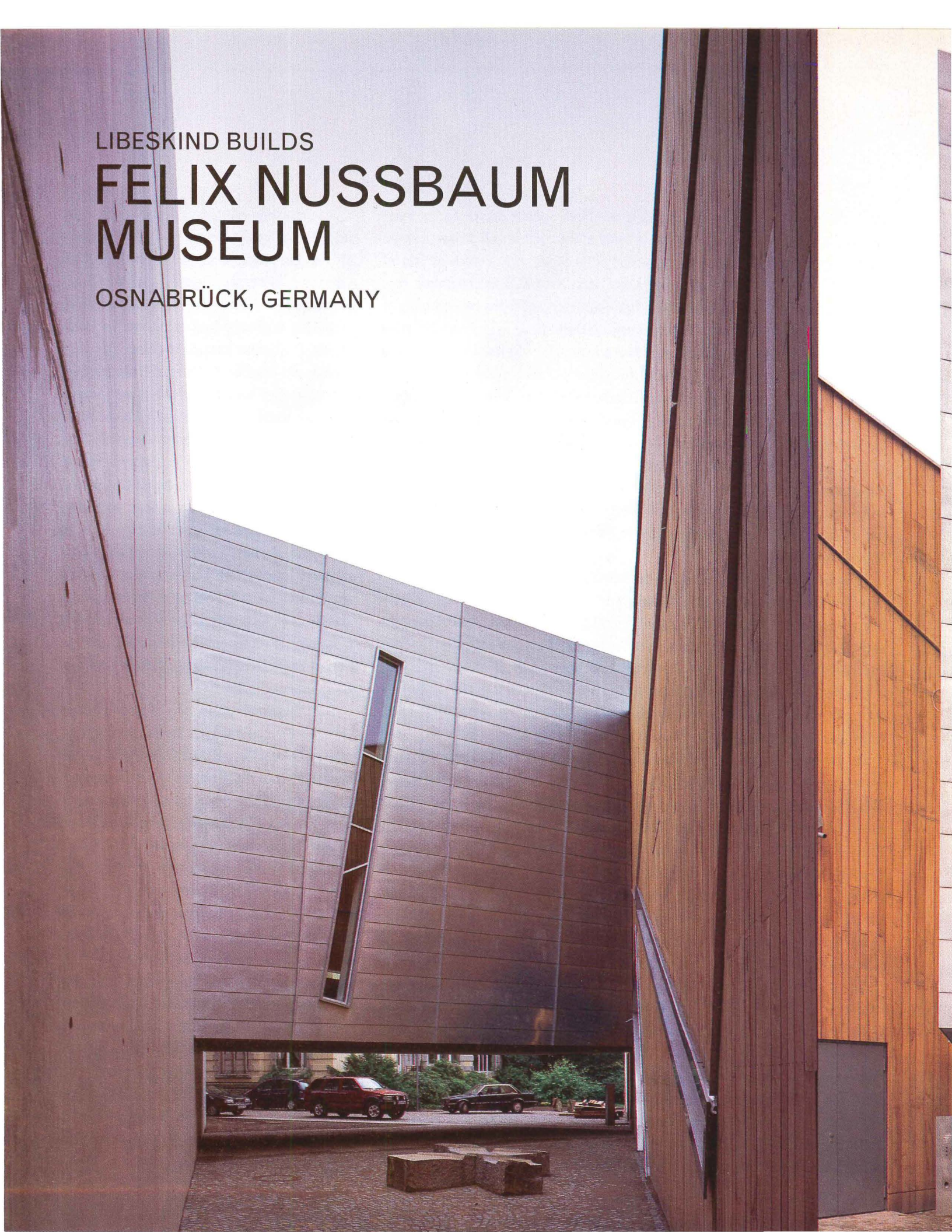
So Libeskind builds, and we can experience his work on the same terms as those of a corporate practice. We can analyze his work on the basis of its thematic development and argue about which material is most appropriate when you want to build a line, a void, or a spiral. Within that context of real building, Libeskind is working hard to maintain the space of difference. He attempts to preserve the line between what we already know or remember or dream and the spiral that leads us toward the unknown within the yards of concrete he is currently pouring all over Europe and the United States. The question still remains whether the wider issues will become buried there, only to be unearthed by the archaeologists of architectural theory, or whether the presence of the void will impress itself upon us with all the power of poetry that disappears into the air as soon as it is uttered, and yet remains.



LIBESKIND BUILDS

# FELIX NUSSBAUM MUSEUM

OSNABRÜCK, GERMANY









## By Richard Ingersoll

**Daniel Libeskind** is one of those rare protagonists of architectural culture whose fame as a graphic master has played a critical role in stretching the architectural imagination—a bit like Giovanni Battista Piranesi during the mid-18th century or the Russian Iacov Chernihkov during the 1920s. At age 52, Libeskind has just completed his first building, the Felix Nussbaum Museum in Osnabrück, Germany.

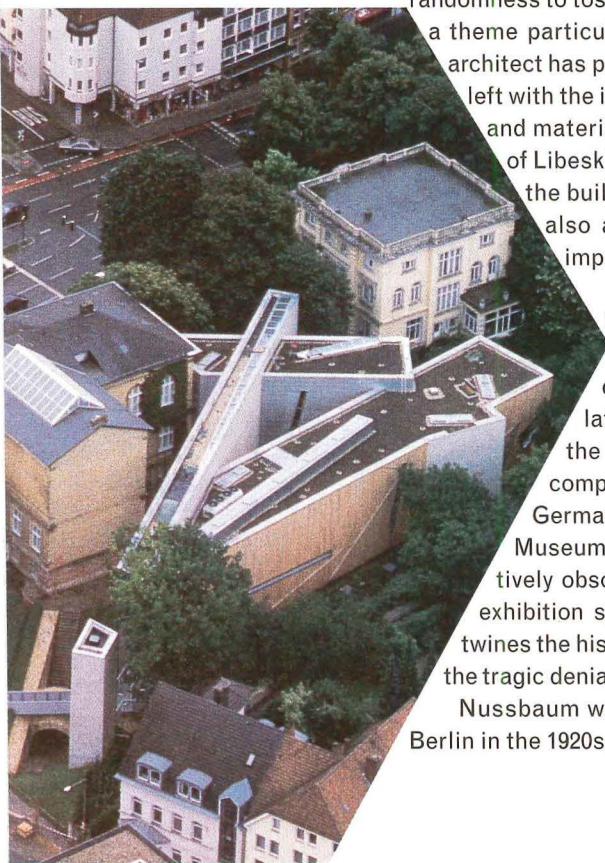
With that achievement comes a certain loss of innocence: The formal vitality of Libeskind's graphic output of the last 20 years—similar in its geometric complexity and apparent randomness to tossing *I Ching* sticks—relies on the challenge of representing absence, a theme particularly relevant to the history of the Jewish people. Now that the architect has proven that his acrobatic compositions can be constructed, we are left with the inevitable confrontation with the realities of program, structure, and materiality. The Felix Nussbaum Museum is a triumph of the beauty of Libeskind's criss-cross style, evident in the canted intersection of the building's volumes, oblique slots, and scored elevations; it is also an indictment of Libeskind's mastery of the technical imperatives of building.

Both as a program and a formal solution, the Nussbaum Museum seems like a younger sibling to the Jewish section of the Berlin Museum, which Libeskind designed three years earlier; it is scheduled to open late this year (exhibits will be installed in 2000). He won the Nussbaum commission in 1995 through an international competition entered by 297 architects, most of whom were German. The brief required an addition to Osnabrück's Neoclassical Museum of Cultural History to house the collected works of the relatively obscure German painter Felix Nussbaum and to provide temporary exhibition space. Libeskind invested his project with a narrative that intertwines the history of this northwestern German city with the artist's biography and the tragic denial of Jewish presence in German culture.

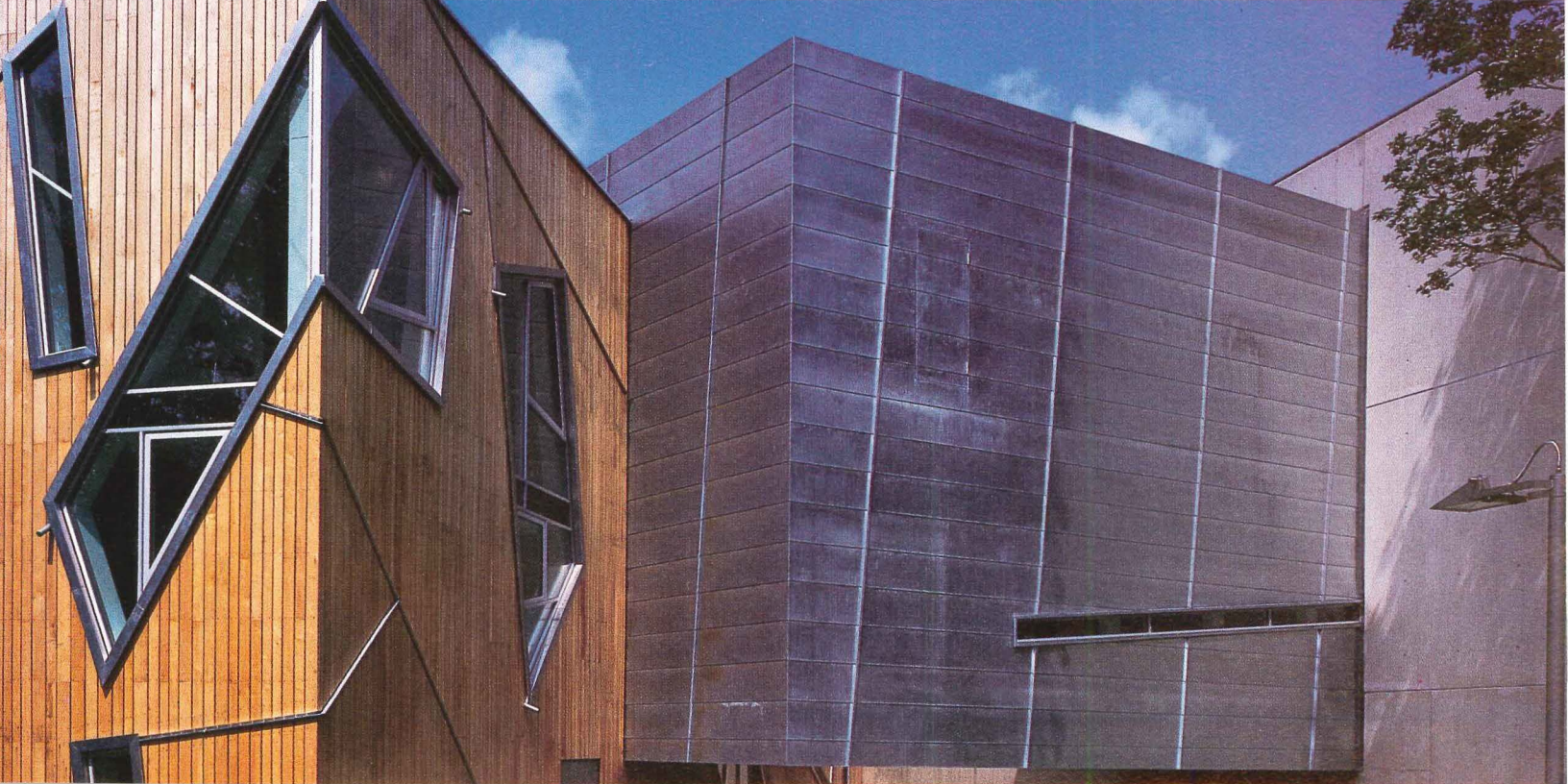
Nussbaum was born into an assimilated Jewish family in Osnabrück, trained in Berlin in the 1920s, spent several years at the German Academy in Rome in the early 1930s, and then emigrated to Belgium after the Nazi rise to power. In 1940, he was sent to a detainment camp in southern France from which he escaped after six months; after several years of hiding in Brussels, he was finally apprehended and murdered at Auschwitz in 1944 at the age of 40. Before his imprisonment and tragic end, Nussbaum produced in his paintings one of the most profound expressions of human suffering in this century.

Libeskind's claustrophobic concept of a "museum without exit" was intended to inspire the feeling of being trapped by history and to engage the visitor with the mind of an artist who used painting

Three volumes, finished in concrete, zinc, and oak, define stark triangular courtyard at center of Nussbaum Museum. Zinc-clad bridge volume compresses approach to courtyard (previous pages). Museum sharply contrasts with Osnabrück's vernacular (below left). Cobblestone walk (facing page, top) leads visitors past concrete "Nussbaum Passage," divided by zinc bridge. Oak box (facing page, bottom) houses museum's primary exhibition space; skewed fenestration enlivens lecture hall, offices, and library.







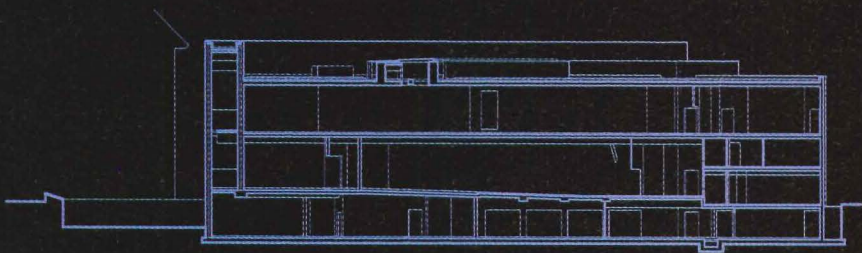
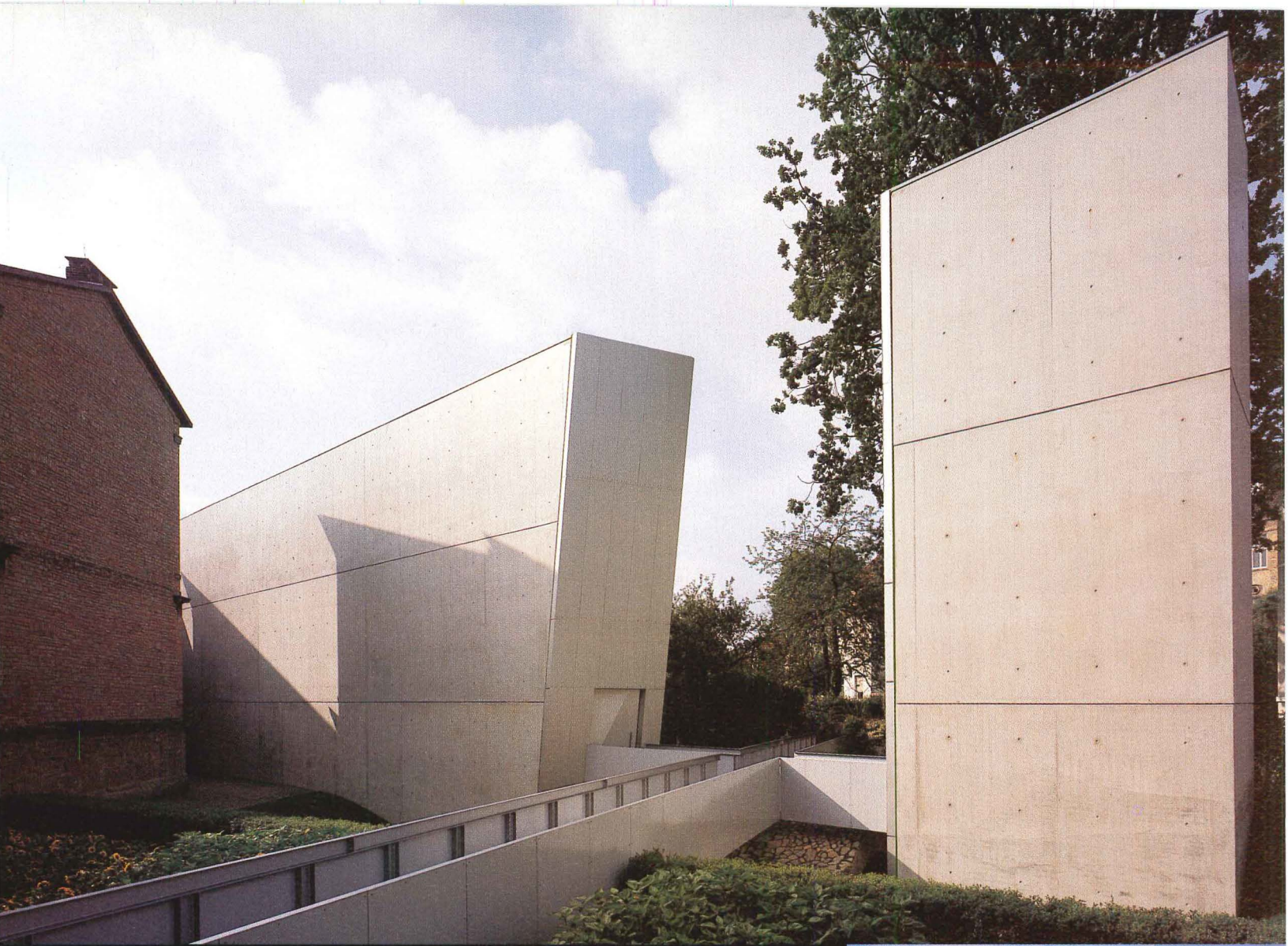




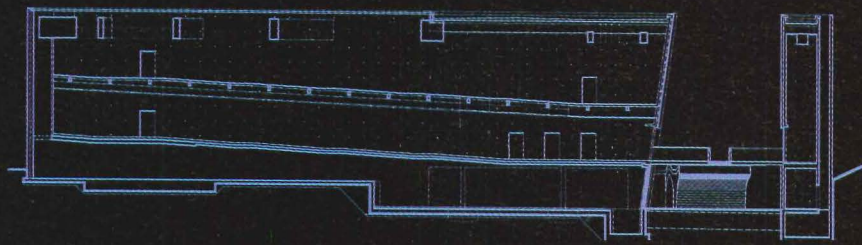
Intentional misalignments mark junction of zinc-clad bridge (left) and 19th-century Museum of Cultural History. Cruciform walkway (below) terminates in memorial stone wall (foreground), which parallels oak-clad exhibition space. Walkway (facing page, top) splits Nussbaum Passage and leads visitors to steel door, museum's primary entrance. Masonry arch (facing page, bottom), surmounted by walkway, spans approach to stair flanking Nussbaum Passage.





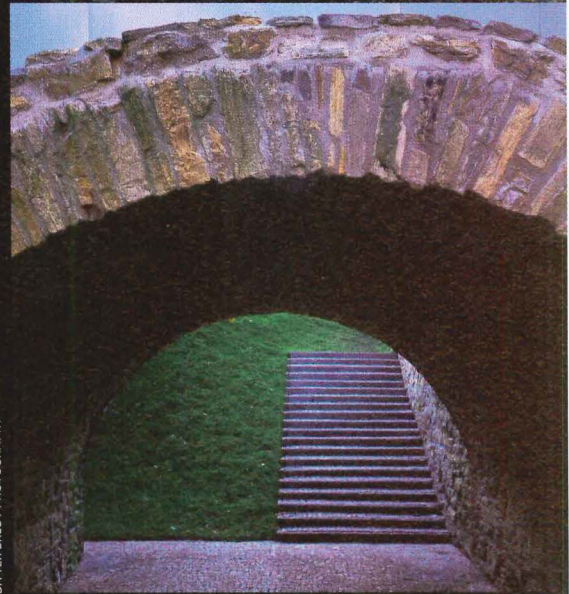


Northeast-southeast section (A-A)



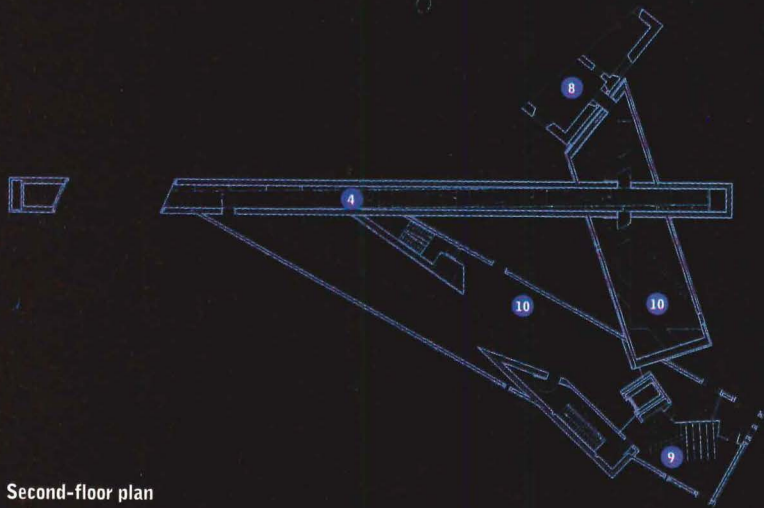
North-south section (B-B)

25' (7.5m)

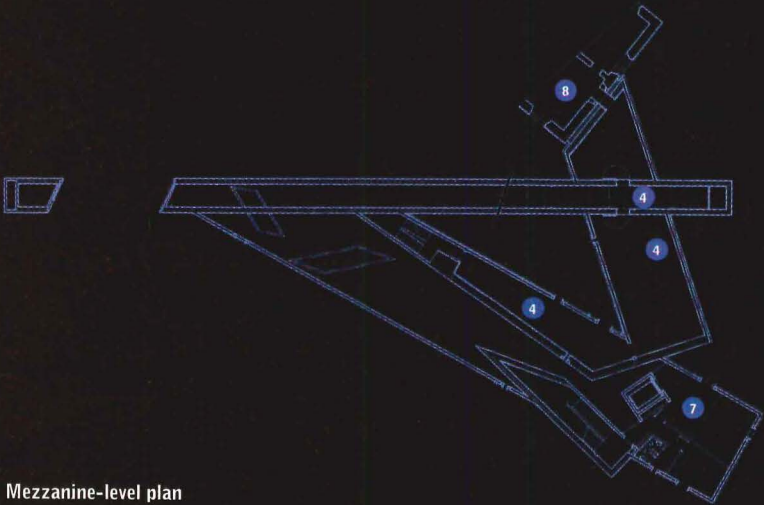


BITTER BREDT PHOTOGRAPHY

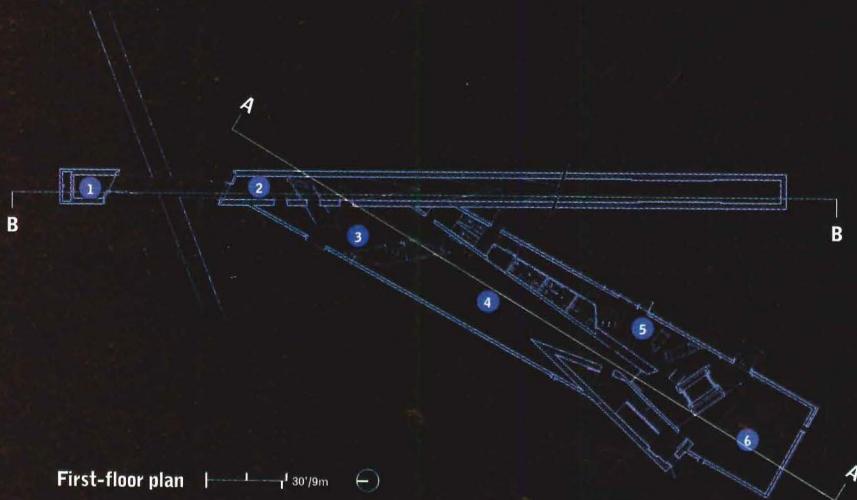




Second-floor plan

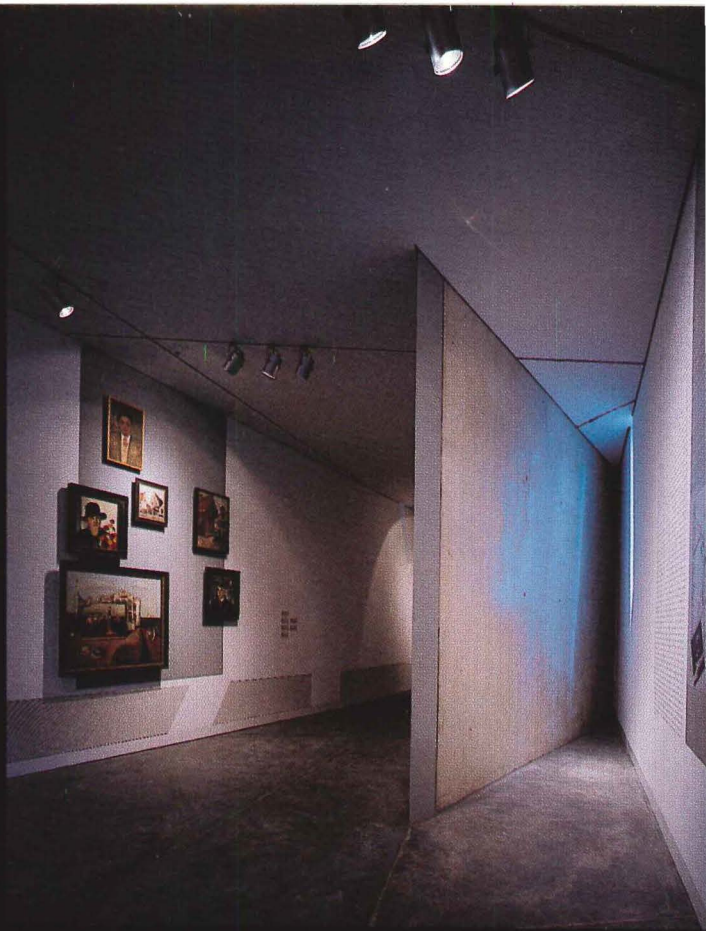


Mezzanine-level plan



First-floor plan

- 1 vertical museum
- 2 entrance
- 3 foyer
- 4 Nussbaum collection
- 5 cafe
- 6 lecture hall
- 7 administration
- 8 Museum of Cultural History
- 9 library
- 10 temporary exhibitions





as a means of both communicating and transcending a hopeless destiny. Similar to the scenography of Expressionist films like *The Cabinet of Dr. Caligari*, disorienting effects riddle the new museum's interior spaces:

Floors are subtly raked, corners are pushed to acute wedges, walls are tilted, and none of the rooms have conventional orthogonal coordinates. The sense of angst is augmented by narrow glazed slots that obliquely pierce the ceilings and walls but rarely allow views out. Open steel grates between floors occasionally permit views to spaces below or above, to which one is not certain how to gain access.

The central figure in Libeskind's composition of three intersecting volumes is a two-level monolithic concrete shaft known as the "Nussbaum Passage," which is approached indirectly by a cruciform bridge behind the old museum and entered through a gigantic stainless steel portal on one of its narrow sides. Measuring 150 feet long by 10 feet wide, this space is too narrow to function well as a picture gallery and not particularly well-suited as a circulation spine between the other two volumes; it is difficult to reach them from the passage. This dreary, prison block-like chasm with ramping floors lit from overhead skylights is a willfully dysfunctional space. But it also captures the shortcomings of Libeskind's execution. Before the museum was erected, he said that "the unpainted paintings of Felix Nussbaum deserve nothing less than to become visible to the contemplating eye." While the concrete passage effectively conveys the architect's fearsome conceit of a shrine to the premature end of a creative life, it proves no more esthetically interesting than a fire exit or a service corridor.

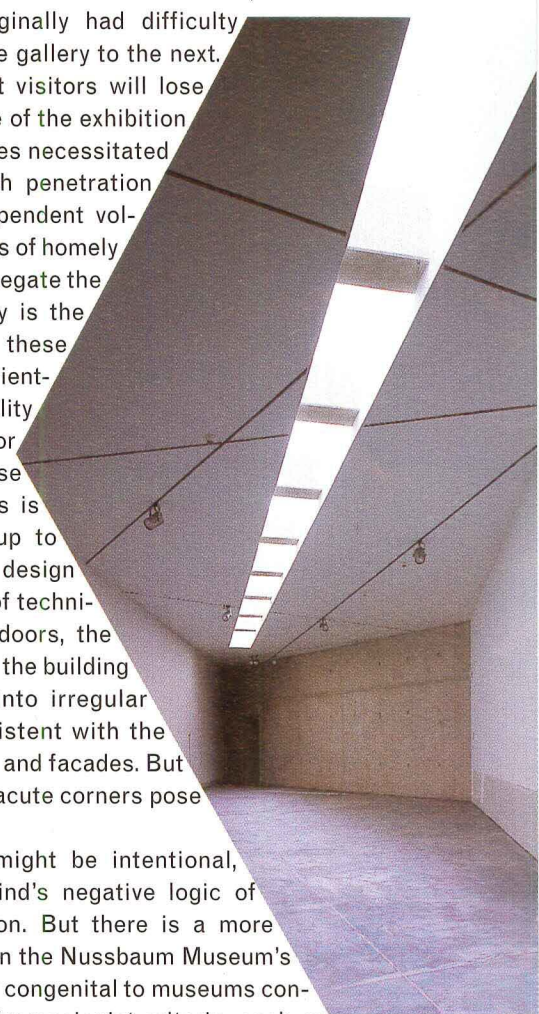
This difficult attempt to signify absence may serve more as a lesson that such spaces can look better in the model form than in full scale.

Each of Libeskind's three volumes has its own exterior cladding: a two-level zinc "bridge" that obliquely connects the new museum to the old; the aforementioned concrete passage; and an oak box that contains most of the gallery and work space.

Libeskind's concrete work is highly sophisticated, rendered by carefully sealed polyurethane-lined steel forms in the manner of the work of Louis Kahn. However, some of the museum's exterior details are surprisingly crude, such as the sloppily cut steel plates that meet at oblique angles at the entrance, or the hundreds of exposed stainless steel screws that fasten vertical oak panels to battens on a concrete substructure, which will certainly cause weathering streaks.

Circulation among the three figures is so arcane that even the museum's director, Thorsten Rodiek, originally had difficulty finding his way from one gallery to the next. It is quite probable that visitors will lose their way and miss some of the exhibition spaces. German fire codes necessitated heavy fire doors at each penetration point between the independent volumes, resulting in a series of homely steel partitions that segregate the gallery spaces. Not only is the constant encounter of these doors annoying and disorienting, but their conventionality seems inappropriate for spaces that are otherwise exceptional in plan. This is where reality catches up to fantasy; one longs for a design with better integration of technical details. Unlike the doors, the few operable windows in the building have been custom-fit into irregular triangles that are consistent with the slanting lines of the plan and facades. But when open, their sharp, acute corners pose a real safety threat.

These conditions might be intentional, according to Libeskind's negative logic of willful disorientation. But there is a more serious problem in the Nussbaum Museum's galleries, a flaw congenital to museums conceived with Expressionist criteria, such as Frank Lloyd Wright's Solomon R. Guggenheim Museum (1959), or Hans Hollein's Museum of Modern Art in Frankfurt (1991). Libeskind's constantly shifting, sloped floors, slanted



In first-floor gallery of oak-clad volume (facing page), Nussbaum's paintings juxtapose with wedge enclosing Libeskind's stair hall. Acute angles in plan (above) characterize skylit second-floor temporary exhibitions gallery.



On second floor of Nussbaum Passage (facing page), inclined floor, diagonal beams, and splayed skylight heighten tension of compressed space, intentionally left empty.

cracked-open ceilings create a charged spatiality that antagonizes the viewing of conventionally sized paintings. Nussbaum was an intimist, and his canvases never exceeded 3 or 4 feet in either dimension. The trappings of Libeskind's unstable spaces tend to overwhelm Nussbaum's works, suggesting the risk of a second historical denial, where the artist becomes a mere excuse for the architect's work.

Looking at Libeskind's exquisite drawings for this project, his City Edge project for Berlin (1987), and other earlier projects, he clearly privileges plans and schematic models but devotes scant attention to sections. This may explain why the Nussbaum Museum's exterior is much more satisfying than the interior.

Libeskind's museum could be considered an intriguing folly that infiltrates the old museum's rear garden, offering extraordinary visual connections to historical and natural sites. During excavation for the new building's foundations, a subterranean layer of Osnabrück's history was discovered: the vaults of an 18th-century bridge leading to the fortified ravelin that protected the Heger Tor city gate. Libeskind changed his plans to accommodate the ruin, which has been left exposed and spanned by a raised walkway to the new museum's principal entrance. This walkway slices through the concrete monolith of the Nussbaum Passage, leaving a slender tower opposite the steel entrance portal for temporary installations.

The paths that cross the garden rebound off the volumes' triangular intersection; they lead through a greatly varied public garden that subtly restores Osnabrück's historical memory. The concrete volume, a vessel of Nussbaum's denied place in art history, is astutely aimed at the 19th-century villa that borders the site, known as the "Brown House" when it was the local Nazi headquarters, an allusion to Nussbaum's fate in the Holocaust. The path leading to the rear of the garden joins a restored back lane that was once known as the Old Synagogue Way, a walk destroyed under the Nazis 50 years ago. Libeskind has transformed the rear of the old museum into a fascinating landscape, penetrable at a variety of levels and capable of multiple interpretations.

Here in the garden, the powerful exteriors, rife with historical connotations, elicit the creative potential that was denied Nussbaum: They revive a Jewish presence in the city's fabric.





**FELIX NUSSBAUM MUSEUM  
OSNABRÜCK, GERMANY**

**CLIENT:** City of Osnabrück, Germany  
**ARCHITECT:** Daniel Libeskind Architect, Berlin—Daniel Libeskind (principal), Markus Aerni, Barbara Holzer (architects-in-charge), Anne Marie O'Connor (project architect), Lars Graebner, Ariel Huber, Claire Karsenty (project team), Damon Caldwell, Robert Claiborne, Sonia Dinnebier, Elizabeth Govan, Bernd Lederle, Sang Lee, Dietmar Leyk, Stephanie Reich (competition team)  
**LANDSCAPE ARCHITECTS:** Lützw 7; Cornelia Müller, Jan Wehberg + Partner  
**ENGINEER:** Watermann (structural)  
**CONSULTANTS:** Reinders + Partner (cost and site control), Jan Dinnebier Lighting (lighting)  
**COST:** \$8.2 million  
**PHOTOGRAPHER:** Christian Richters, except as noted



# LIBESKIND BUILDS OUTSIDE LINE

## UOZU, JAPAN

By Dana Buntrock

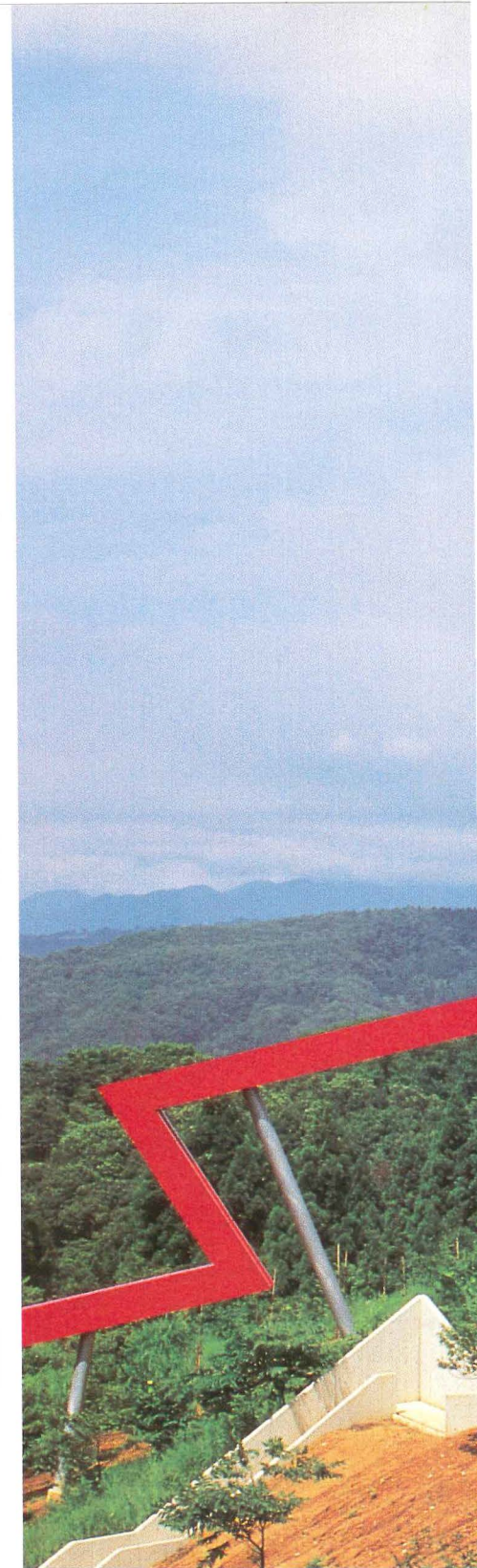
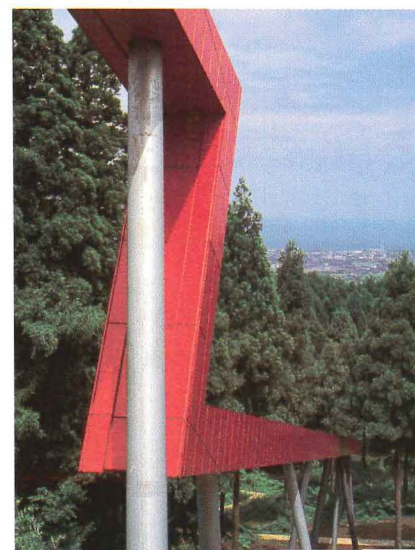
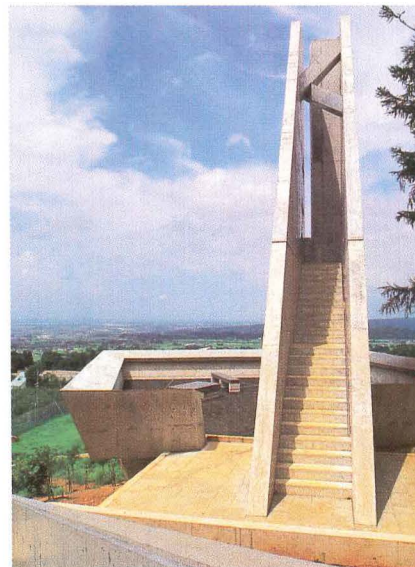
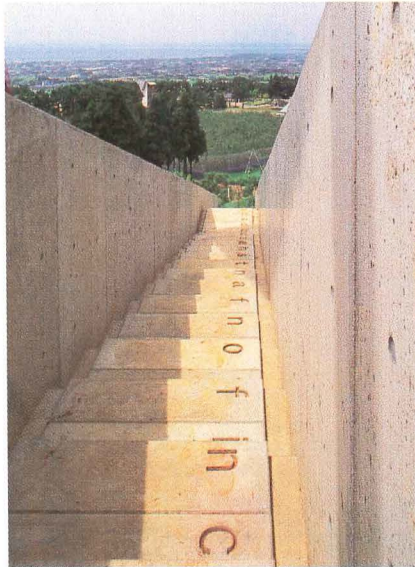
Japan's Toyama Prefecture, shielded by a craggy mountain range, remains isolated from the cultural and economic influences of the world beyond. So it's surprising that Daniel Libeskind has prominently stitched another of his elegant sculptural lines on a Toyama hillside outside the town of Uozu.

Completed in October 1997, Outside Line is a galvanized steel line wrapped in red laminated aluminum and perched on skewed columns. There is a small concrete observation deck and tower next to the line and an unprepossessing concrete path beneath it, but these act as little more than foils. Libeskind responded to the region's topography with what he calls "a graphic, spatial, and architectural condensation of roots, mountains, and sea."

While the observatory reveals itself only from limited locations, the red line remains visible throughout Uozu as it coaxingly peeks above the trees. As Libeskind's line breaks free of the forest, it snakes wildly, then takes a final leap as it reaches a ridge. It streaks jaggedly 44 feet up the hillside, looking like Japan's 1980s stock market chart, with a wiggle at the top that suggests a precipitous change in course.

The observatory's narrow stairs emphasize its formwork-imbedded walls; a slot divides the walls' planes. The stair's erosion- and runoff-stained treads, incised with a nonsensical poem from James Joyce's *Ulysses*, hark back to Libeskind's first projects and his earlier philosophical studies. Libeskind says these texts, which are not in Japanese script, "provide heuristic clues for the interpretation of the surrounding environment."

Libeskind's architecture attempts to address both space, framed by slots drawn between the planes of walls, and the compositional richness of architecture as pure art. When pressed to make a choice, Libeskind chose the symbolic over the spatial.



Text-inscribed stairs (top left) lead from viewing deck to observation tower (above left). Supported on tubular metal struts, aluminum-finished form bolts down hillside (left). Concrete walkway (above) winds beneath sculptural line.





**OUTSIDE LINE, UOZU, JAPAN**

**CLIENT:** City of Uozu, Japan **ARCHITECT:** Daniel Libeskind, Berlin—Daniel Libeskind (principal), Florian Köhl (project architect), Robert Slinger (project assistant), Jim Goodspeed, Matthew Johnson, Thomas Schröpfer (competition team) **ASSOCIATE ARCHITECT:** Laboratory of Architectural Science **GENERAL CONTRACTOR:** Asano Kougyou Company **COST:** \$926,000 **PHOTOGRAPHER:** Dana Buntrock



LIBESKIND BUILDS

# GARDEN OF LOVE AND FIRE

ALMERE, THE NETHERLANDS





## By Catherine Slessor

**Just east of Amsterdam** lies the province of Flevoland, a polder area—low land reclaimed from the sea. Amid this starkly geometric terrain of flat fields, low trees, and new towns, Daniel Libeskind has designed a public garden as part of a program of landscape and sculpture installations initiated by the provincial government. Compared with Libeskind's major commissions, the garden is modest in scale. Yet it retains his characteristic abstract forms, calibrated to suggest rich historical allusions. Provocatively titled the Garden of Love and Fire, the project is inspired by an installation Libeskind created in 1992 in Amsterdam's 17th-century *Nieuw Kerk*, or New Church, to celebrate the 16th-century Carmelite mystic and poet St. John of the Cross. As punishment for establishing a reformed order of Carmelites, St. John was imprisoned and tortured by members of the original order; the garden is an allusion to the intensity of his life.

Set outside the town of Almere on the southwestern edge of Flevoland, Libeskind's garden is based on a series of lines and fissures etched into the vast polder landscape. The fissures became canals, axes overlaid onto the garden to link Amsterdam, the site of Libeskind's original St. John installation, with Berlin (where Libeskind currently lives), and Salamanca, Spain, where St. John spent much of his life. For Libeskind, the act of creating a line has metaphysical resonance; it can be a figure of inquiry and transformation with historical and kinetic qualities.

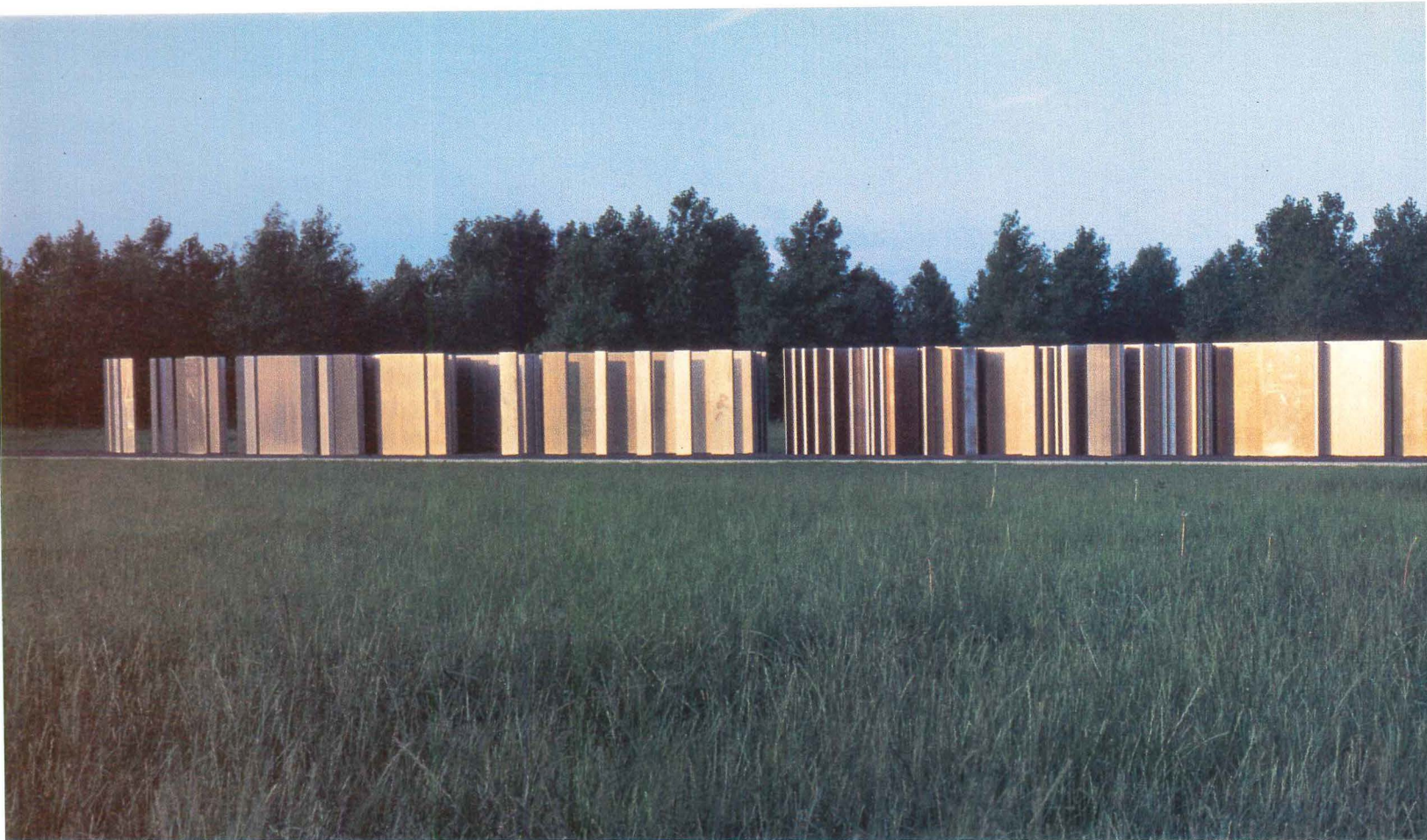
The polder's man-made tabula rasa provides an ideal canvas for Libeskind's experimental landscape. The garden is set in a flat, grassy clearing, surrounded by regimented rows of young deciduous trees. Two of Libeskind's canals intersect with the garden's primary



Libeskind's Garden of Love and Fire focuses on aluminum parallel walls (above) that rise from gravel base.

Gravel intersects two canals marking axes between Amsterdam, Berlin, and Salamanca (facing page).



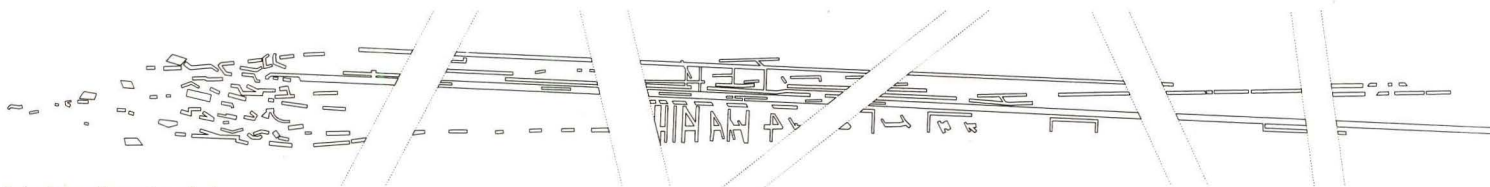


**GARDEN OF LOVE AND FIRE, ALMERE, THE NETHERLANDS**

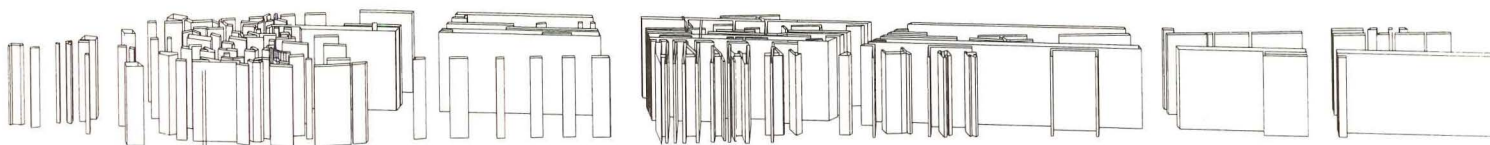
**CLIENT:** Almere Center of Modern Art **ARCHITECT:** Daniel Libeskind, Berlin—Daniel Libeskind (principal), Stephen Gerrard, Blake Shaumann (design team), Jan Dinnebier, Chris Duisberg, Jason King, Kelly Rattigan (building team) **LANDSCAPE ARCHITECT:** Hein van Delft **ENGINEER:** Grontmij Flevoland (structural) **GENERAL CONTRACTOR:** Jürgen Hägele **COST:** \$141,000 **PHOTOGRAPHER:** Bitter Bredt Photography



Conceptual plan

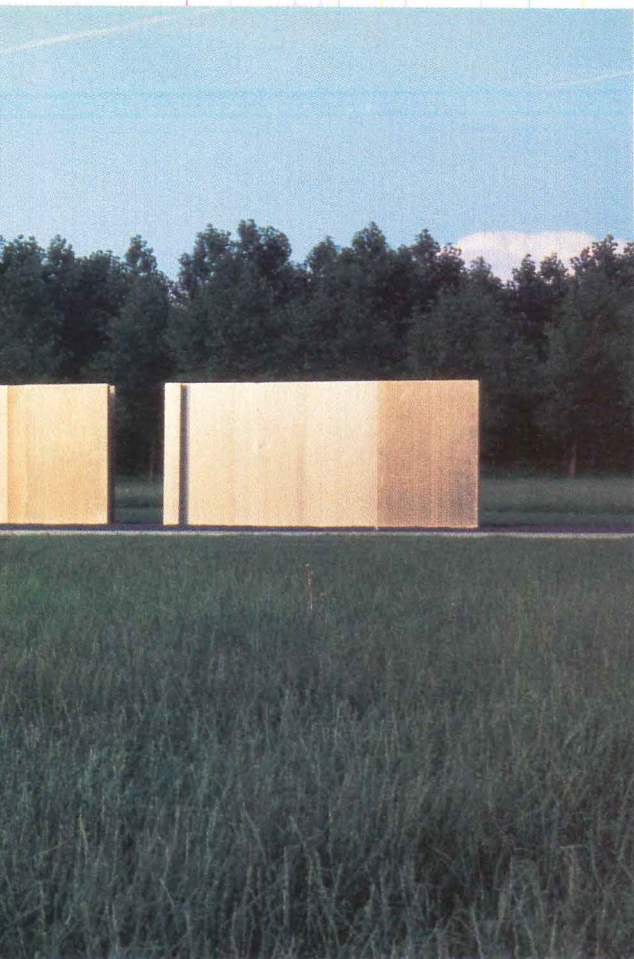


Interim wall spacing study

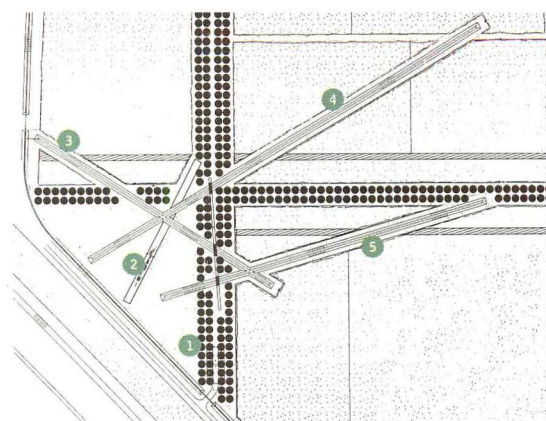


Axonometric

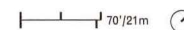




- ① trees
- ② aluminum sculpture
- ③ Amsterdam-Berlin canal
- ④ Salamanca-Amsterdam canal
- ⑤ Salamanca-Berlin canal



Site plan



set piece, a long, eye-catching strip of charcoal gray gravel cut with surgical precision through the clearing. Positioned at one end of the gravel runway is a fragmented, linear cluster of 8-foot-high, thin, aluminum walls—purified in fire, a possible allusion to the garden's name. Although the density and arrangement of the planes varies considerably, the structure maintains a constant horizontal datum.

Part sculpture, part industrial relic, the multilayered mass is an enigmatic presence in the landscape. Closer inspection reveals an abstruse system of mazelike walls and dense, impenetrable spaces. As visitors move around the structure, the convoluted arrangement of planes alternately frames and obscures the surrounding landscape, producing an effect of compression and release. Light animates the gleaming aluminum surface, yet the structure remains curiously unsettling: a Modern folly in an artificial landscape, a design far removed from orthodox notions of horticulture. Transgressing conventional boundaries of landscape architecture, Libeskind proves to be a gardener of complex, confounding extremes.

*Catherine Slessor is deputy editor of The Architectural Review in London.*



**Rectilinear profile of aluminum walls (facing page) complements grass and trees of landscape. Shadows accentuate rhythmic progression in sculpture's plan. Oblique view (above) demonstrates sculpture's brooding presence in landscape.**





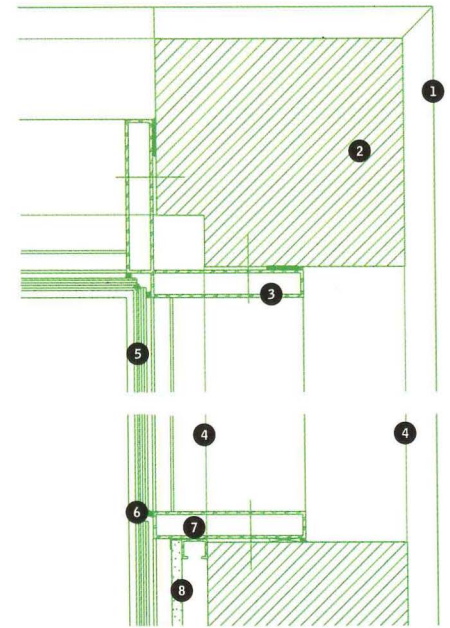
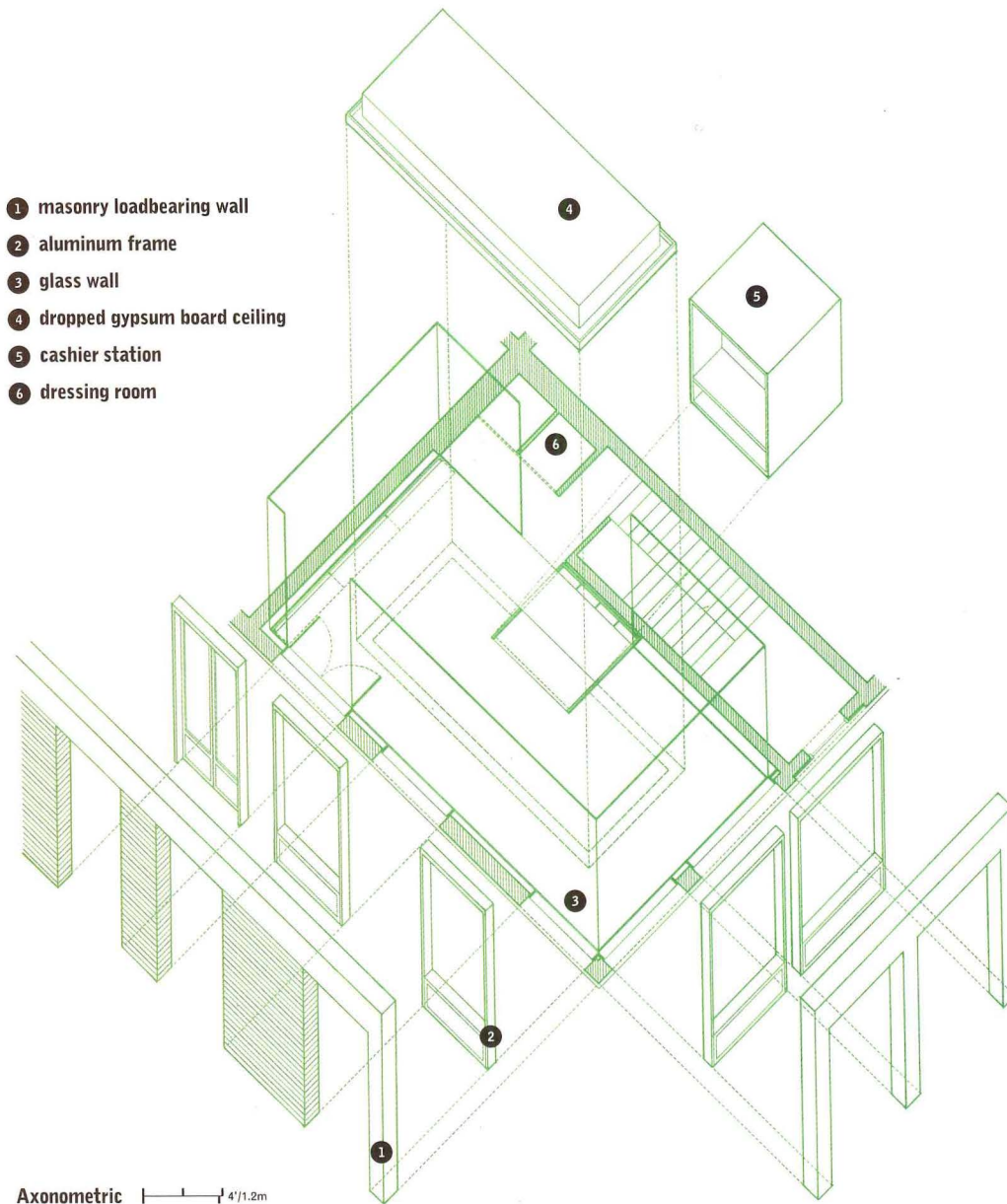




A new boutique  
for Issey Miyake  
translates his  
signature pleats  
into architecture.  
By Kira Gould

# VEILED ILLUSIONS





Corner wall section

5"/12.5cm

- 1 milled aluminum cover
- 2 existing masonry pier
- 3 aluminum frame
- 4 masonry lintel above
- 5 1/2"-thick laminated glass
- 6 clear silicone sealant
- 7 1 5/8" stud
- 8 5/8"-thick gypsum wallboard

**By tucking a colorful**, contemporary clothing store—Issey Miyake's Pleats Please boutique in New York City—into a 150-year-old building in a historic district, New York City architect Toshiko Mori and Tokyo- and Paris-based designer Gwenael Nicolas have not only kept preservationists happy, they have also created a contradictory masterpiece in miniature. A large measure of its success is counterintuitive: The store seeks to lure people in from the street, but its film-coated windows conceal what's inside.

Yet it works. Fitted with adhesive polymer film-coated glass that acts like a vertical microblind, the store's "veiled" windows draw SoHo shoppers into what Mori calls "a game of hide-and-seek." Gaze straight through the window, and it appears transparent. Peer in at an angle, and the glass becomes a translucent green. For passersby, the effect is dramatic: The windows respond to motion. "There's a sense of curiosity and continuous discovery," Nicolas observes. Mori suggests that it defies conventional wisdom. "You'd think you would want total visibility, but this is mysterious and playful; it garners all sorts of attention. People can't resist another pass to observe the mutation."

There's more here than trick-the-eye glazing. Mori and Nicolas have inverted the conventional relation of glass to wall; in typical buildings, the smooth glass surface is outside and the wall's thickness becomes apparent inside. Here, the windows seen from the sidewalk are set in deeply recessed wells and rise from painted aluminum bulkheads. Inside, floor-to-ceiling glass panels that clad the interior wall surfaces form a luminous "liner" that makes the 600-square-foot space seem to have much larger windows than it does. This clever solution also left

Polymer-coated glazing effects an interior of painterly illusion (previous pages): Oblique view blurs mannequin and enclosing walls; space seems deeper and areas of color appear to float. Green cashier station (facing page), hangs from dropped gypsum board ceiling; color is surprisingly neutral element in boutique.









the historic shell intact; New York's Landmarks Preservation Commission praised the designers' sensitivity. A large green box—a check-out area where the cash register, phone, and other retail tools reside—hangs from the ceiling. This might have looked heavy and clunky in the small space, but suspended 20 inches above the floor, it serves as a much-needed visual anchor. Mori also dropped the center of the ceiling 14 inches. It hovers within a ring of light that makes the space seem more generous. The 1850s facade, its masonry restored, features the new window wells and bulkheads; the combination is consistent with its SoHo neighbors. "We wanted to look forward—it's a very contemporary shop—but also preserve the building's history without replication or retrogression," Mori says.

Nicolas calls the interior "a glass box inserted into a very old building" and says it is "designed to be independent from the building's structure, to ensure the interior volume's simplicity." The glass panels sit 1 inch in front of pale green painted walls in recessed channels in the ceiling and floor; clear silicone keeps butt joints in place at the corners. The glass box "dematerializes the space by capitalizing on the glass properties itself—transparency, translucency, and reflectivity," Mori observes. Blurring the space's edges creates an illusion of depth; perception of the space itself becomes more ambiguous. Only where the glass meets the floor can you read the distance between the painted walls and the panels. The ostensibly two-dimensional glass walls seem to have depth and texture. The result is a space more complex and satisfying than the diminutive quarters of a boutique might suggest.

View toward street (above) shows floor-to-ceiling glass walls attached to pale green gypsum wallboard. At dusk, masonry pier (facing page, top) becomes monolithic counterpart to smooth and brilliant interior. Seen from a distance, boutique (facing page, bottom) is abstract composition of white and muted green, framed by 19th-century facade.

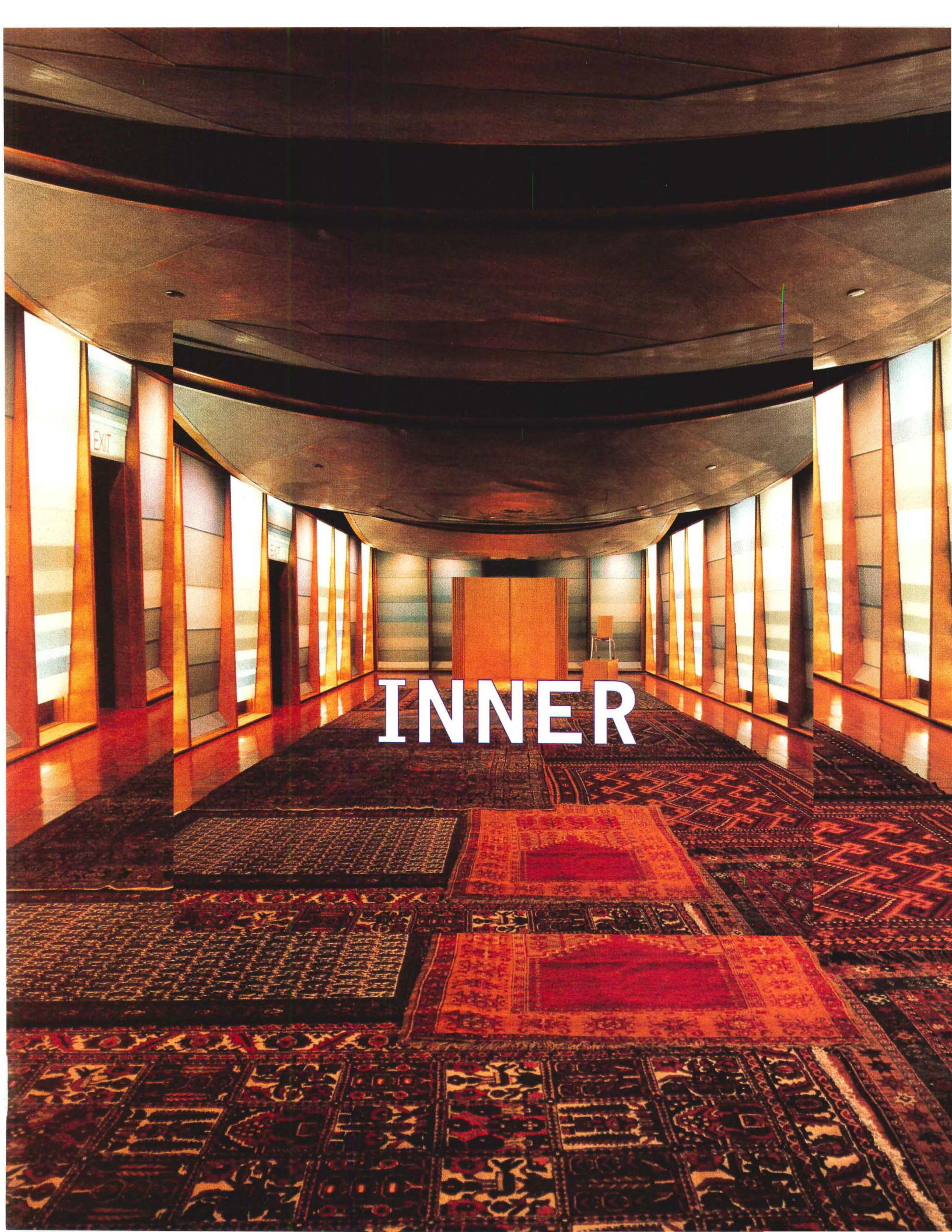




**ISSEY MIYAKE PLEATS PLEASE, NEW YORK CITY**

**CLIENT:** Issey Miyake USA Corporation **ARCHITECT:** Toshiko Mori Architects, New York City—Toshiko Mori (principal), Sheila Choi (project architect); Gwenael Nicolas, Tokyo (concept design) **ENGINEERS:** Lilker Associates; Luke Licalzi Consulting Engineers (structural) **CONSULTANTS:** Tanteri & Associates (lighting) **GENERAL CONTRACTOR:** Triplet Construction Corporation **COST:** Withheld at owner's request **PHOTOGRAPHER:** Paul Warchol





INNER



A photograph of a modern, circular interior space, likely a sanctuary or a high-end office lobby. The room features a highly reflective, polished wooden floor that mirrors the surrounding environment. The walls are curved and composed of vertical panels, some of which are illuminated from within, creating a warm, golden glow. The ceiling is also curved and has a textured, metallic appearance. In the center of the room, there is a large, rectangular wooden structure, possibly a desk or a partition. The overall atmosphere is one of elegance and modernity.

# SANCTUM



**Boston architects** Nader Tehrani and Monica Ponce de Leon have garnered three P/A Awards since 1991; last year, they built a steel sculpture for the Museum of Modern Art's *Fabrications* exhibition. But built spaces had eluded the young architects until this June, when their design for the Multifaith Spiritual Center at Northeastern University in Boston opened. The results are otherworldly.

Sacred space would seem anathema to the Functionalist, anonymous spaces of the white-brick, concrete-frame buildings that typify Northeastern's campus. A windowless area of the Eli Student Center contained the campus chapel in the middle of a generic floor plate with irregular bays. Pews, a Western altar, and stained glass prejudiced the supposedly interdenominational room in favor of Christian services. The clients asked the architects, whose practice is known as

"We used the existing space's irregularity as an excuse to map a variety of lighting conditions," suggests Ponce de Leon. "When columns behind the glass did not allow backlighting, we lit from the front." Frosted glass and cove lighting create a mysterious glow and a sense of spatial indeterminacy.

The architects devised three shallow, inverted domes, surfaced in small perforated metal sheets, to mask HVAC ducts that compromised the 11-foot-high space. Hung from the ceiling, the inverted domes act as plenums; air filters through the perforations. The undulated section alternately compresses and expands the space. The domes can be lighted to suit a variety of services: The orientation can migrate from one end to the other, or to the center. "We were interested in a perceptual inversion," Tehrani explains, "like making the flat wall look deep and the low ceiling look high."

## A LUMINOUS INTERFAITH CHAPEL MARKS OFFICE dA'S DEBUT. BY JOSEPH GIOVANNINI

Office dA, to replace the chapel with a more spiritually generous space. "There had been an attempt at neutrality that had not taken into account how space is used by different faith groups," says Ponce de Leon, who is from Venezuela. "What is spiritually uplifting for one group is not for another," notes the Iraqi-born Tehrani.

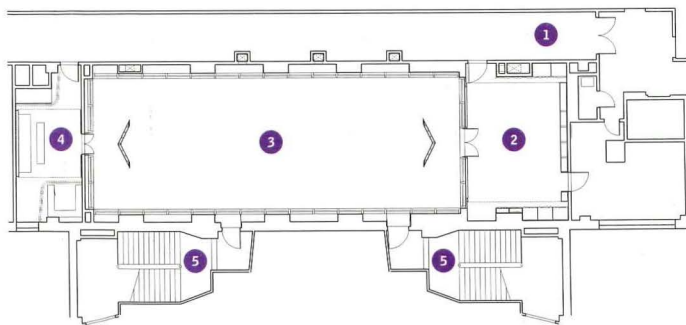
The pair employed light as an abstract but expressive medium, allowing them to sidestep conflicts about religious iconography. Because they could not change the building's structure, the architects developed the idea of liners, or coverings, on the walls, floor, and ceiling, in order to transform the space. Office dA's originality resides in its investigations into the properties of materials, namely wood, plywood, and terra-cotta (*Architecture*, April 1998, pages 66-69). Here, Tehrani and Ponce de Leon turned walls into sheets of light by devising a floor-to-ceiling glazing system: They inset back- and front-lit glass panels, lapped like clapboard in stacks, and framed by a birch veneer plywood 14 layers thick.

Office dA reduced the number of trades (and costs) by substituting plywood for metal in the glass wall assembly. They also worked directly with subcontractors and executed their own shop drawings to demystify the construction procedure. The architects even took construction into their own hands: Faced with an imminent opening date and incomplete domes, they laminated the perforated metal under the support structure themselves. A day before opening, Ponce de Leon could be found on her hands and knees polishing the concrete floor.

The precedent for the Multifaith Spiritual Center is not so much a Modernist glass box as it is a Gothic chapel without the iconography. In a feat of architectural alchemy, Office dA etherealized space, making the obvious sublime and the banal sacred. Students now step out of harsh, fluorescent corridors into a world of hypnotic immateriality. The architects rendered the anonymous, universal space of the modern office slab universally religious.

Northeastern University's Multifaith Spiritual Center (previous pages) is simple in plan and intricate in section: Umbra of illuminated glass surrounds three inverted domes that hang from concrete ceiling. Non-referential enclosure accommodates Eastern and Western faiths. Perforated aluminum sheets (facing page), whose thin profile underscores dome's nonstructural role, encircle lamp at center.





Plan

15/4.5m

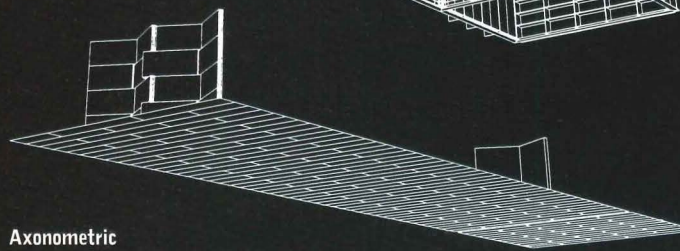
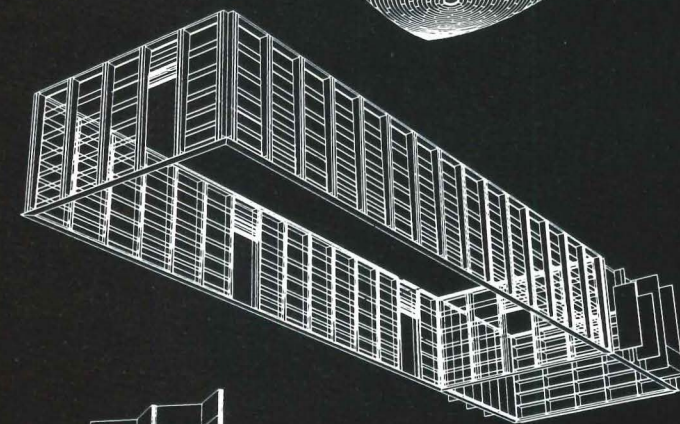
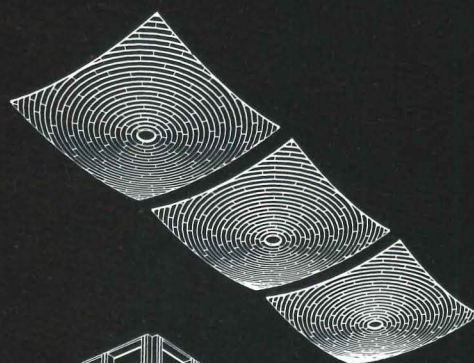
- 1 entrance corridor
- 2 meeting room
- 3 worship space
- 4 ablution room
- 5 fire stair



Ablution room beyond laminated screen wall at west end of worship space (below) accommodates Muslims with stainless steel basin (bottom) for washing feet before prayer. Canted, frosted glass and tapered plywood "columns" (facing page) make space seem wider and taller.



- 1 inverted domes
- 2 glazed walls
- 3 wood floor

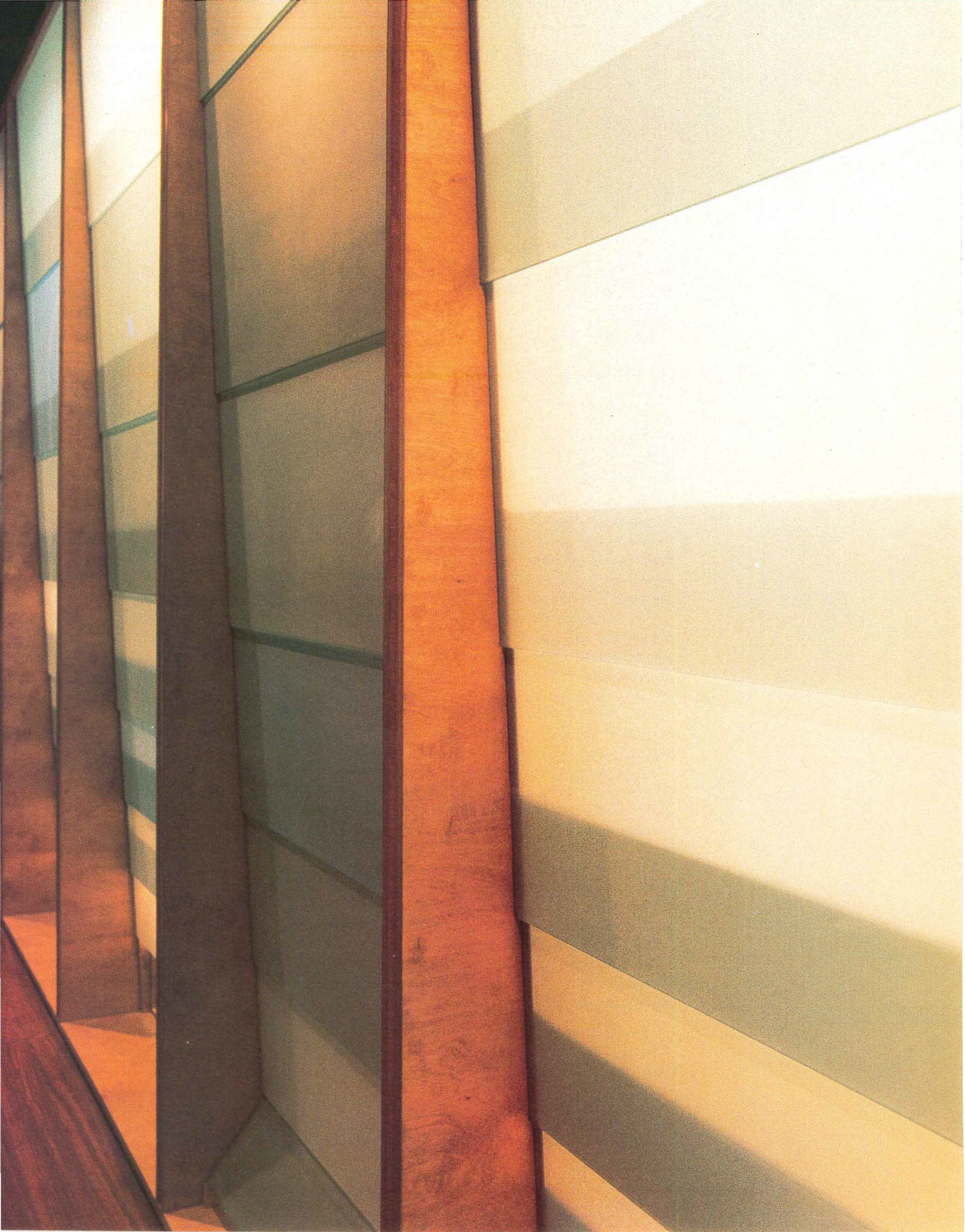


Axonometric

**NORTHEASTERN UNIVERSITY MULTIFAITH SPIRITUAL CENTER, BOSTON**

**CLIENT:** Northeastern University Spiritual Life Center—Sister Rosemary Mulvihill (committee head), Sally Keeler (project manager) **DESIGNER:** Office dA, Boston—Monica Ponce de Leon, Nader Tehrani (principals), Richard Lee (project coordinator), Jeffrey Asanza, Patricia Chen, Timothy Clark, Erik Egbertson, Ben Karty, David Kunzig, Yeong La, Dana Manoliu, Jill Porter, Salvatore Rafone, Phillip Smith, Tamarit Suchart, Rusty Walker (design team) **ARCHITECT OF RECORD:** SmartArchitecture, Cambridge, Massachusetts—Margaret Smart Booz, George Thrush (principals) **ENGINEERS:** Le Messurier Consultants (structural); Cosentini Associates (mechanical, electrical, plumbing) **CONSULTANTS:** Lam Partners (lighting); Acentech (acoustics); Brad Johnson (architectural) **GENERAL CONTRACTORS:** Tom Fitzgerald; Michael Perra Incorporated, Garnett Construction Company (wood); Native Sun (glass); Michael Colombo (domes); Milgo Bufkin (metal) **COST:** Withheld at owner's request **PHOTOGRAPHER:** Dan Bibb









Sculptor James Carpenter  
hangs a glass lantern in Hong Kong.  
By Philip Arcidi

# Suspended Emanation

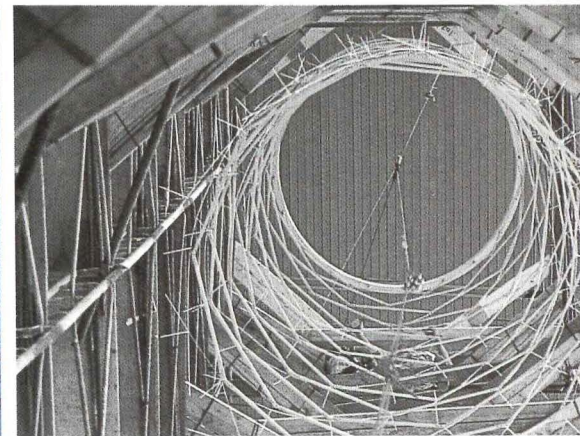
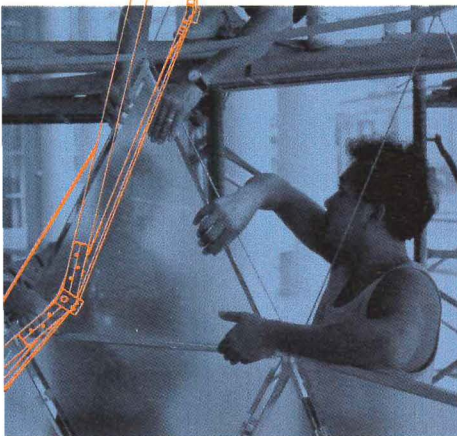
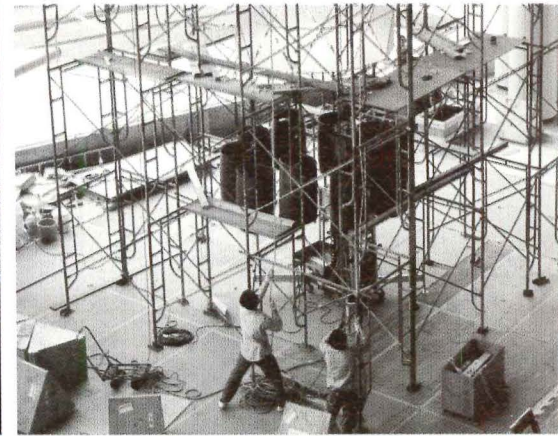
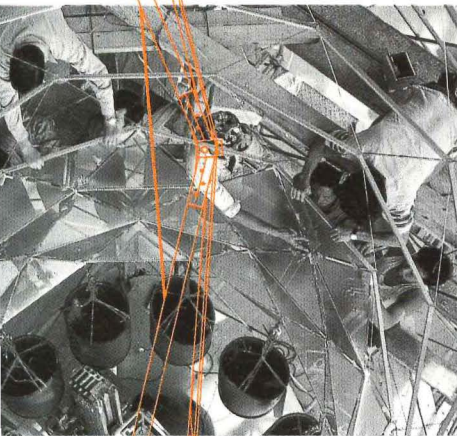
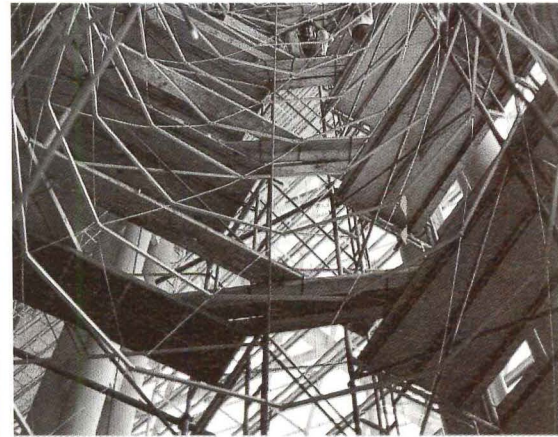
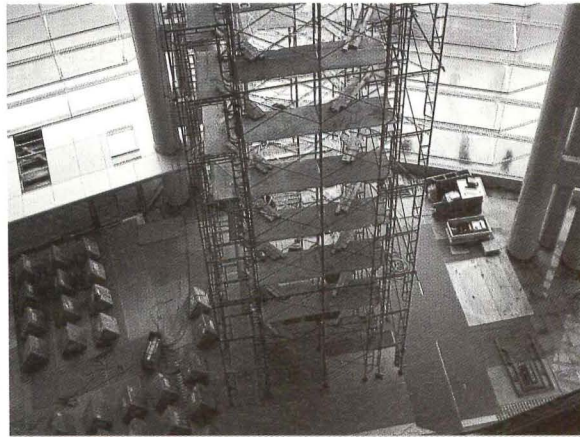
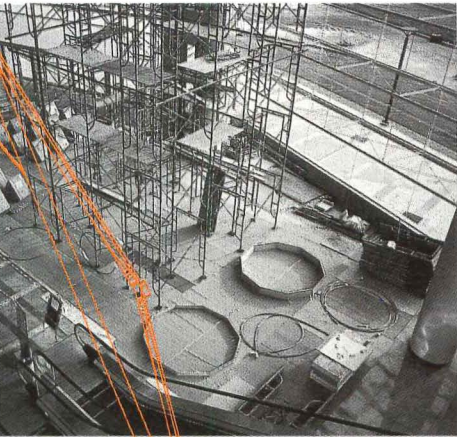
A column of glass hung from the ceiling might seem to be a high-tech folly, a trope on steel cables. But James Carpenter, whose New York City-based firm designed a 56-foot-tall suspended tower in Hong Kong's new convention center, considers it a building prototype. This tube of 520 glass panels is a hefty experiment in structure: Though it does not support anything but itself, its glazing is not merely cladding. The glass is in compression, its load and detailing integral to the cylinder's structural integrity.

This glass shell structure (one of the few anyone has built, according to Carpenter) is an antiprism, the geometrical term for a cylinder of rotationally shifted layers: Each layer comprises 20 triangular glass panels that form a folded, structurally enhanced surface. Aluminum rings separate each layer of glass triangles, half of which are fixed to rings with brackets, detailed to distribute the compressive load laterally. Steel cables,  $\frac{1}{8}$  inch in diameter, form a double helix along the outer surface of the glass. These cables are in tension, stretched from a ring beam suspended from eight tie-outs anchored to the ceiling. The rigid structure and weight of the glass have seismic dividends: In an earthquake, the suspended cylinder should shudder, not sway.

Few architects work as closely with engineers as Carpenter. After proposing the tower's concept, Carpenter scheduled a two-day workshop with Tony Broomhead of Arup Associates, Tim Eliassen of TriPyramid Structures, and Carpenter's project designer, Richard Kress. They made the components interdependent: The steel cables stabilize the aluminum rings. Tensile and compressive forces are mutually resolved; the tower is an integrated structure, perhaps a forerunner for inhabitable structures.

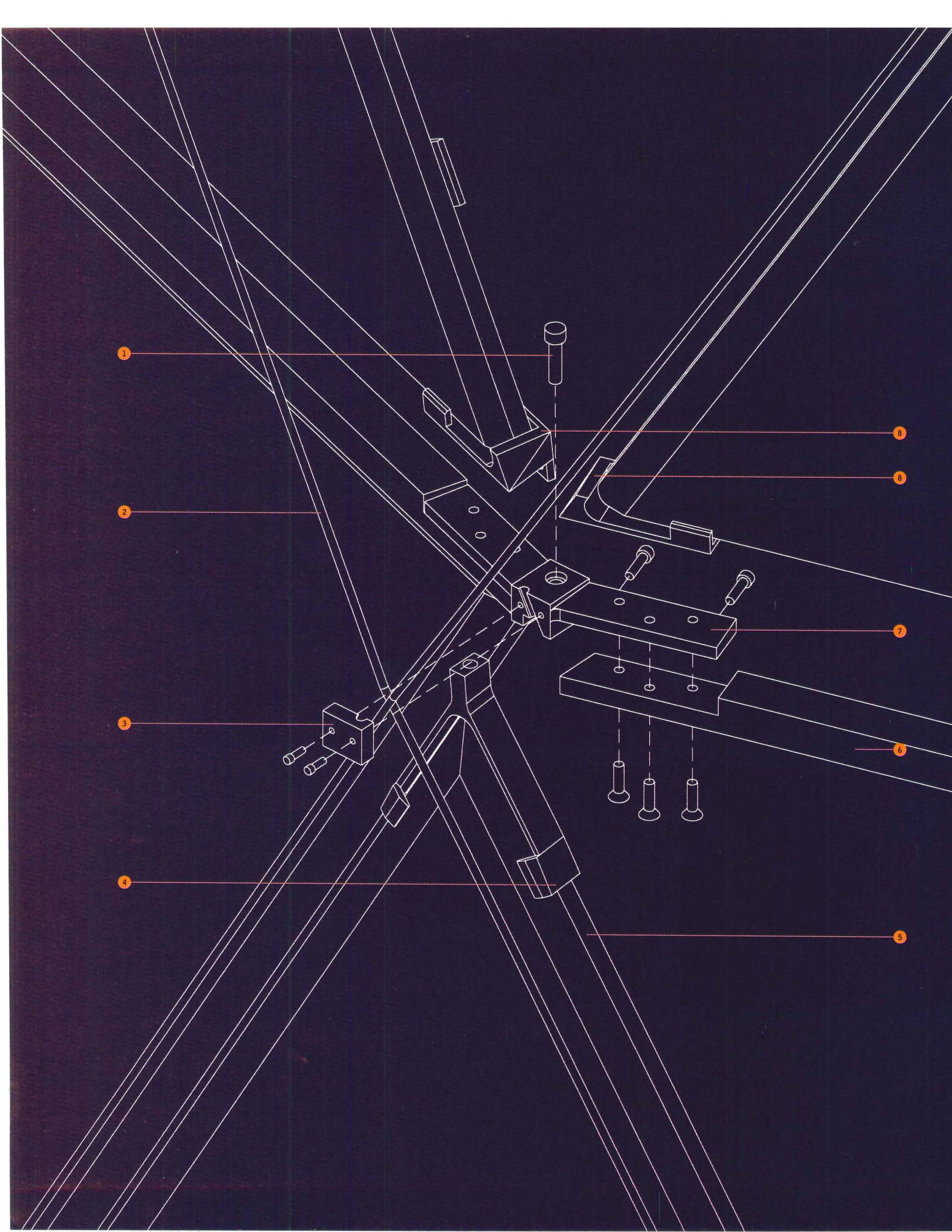
Carpenter says that a larger version of the tower could be a building enclosure; another could be laid on its side, so that roof and wall comprise a contiguous shell. While his design firm is noted for its innovative glass sculpture (*Architecture*, December 1996, pages 107-115), Carpenter says his focus on glazing is more than an esthetic pursuit. Limiting the range of materials compels him to manipulate them more analytically; visual effects are the consequence, not the impetus of his efforts. He advises that "the principles of how something behaves come before drawing it." Graphic dexterity can blind an architect to possibilities latent in building materials. The narrower the design options, the more comprehensive the solution can be. Consider this tower a case in point.





Suspended glass tower components await construction (top left); scaffolding (top center and right) enables contractors to rig steel cable between aluminum rings. Water-filled buckets (above left) stretch helical frame for installation of semitransparent triangular glass panels; workers remove buckets as number of panels increases (above center and right). Panels (far left) are alternately fitted with aluminum brackets and polycarbonate spacers. Each steel cable (left) is 64 feet long with minuscule tolerance to ensure that tower hangs in perfect balance.





1

2

3

4

8

8

7

6

5





Contractors on staging at top of 56-foot-tall tower (above) make adjustments to frame. Tower (right) floats 13 feet above floor of harborside lobby at Skidmore, Owings & Merrill's new Hong Kong Convention Center. Ambient light enlivens the tower by day; at night, it becomes a glowing lantern for Victoria Harbour ferry commuters.

#### Assembly detail

- 1 stainless steel pin
- 2 1/8"-diameter stainless steel rod
- 3 aluminum clamp
- 4 aluminum apex glass holder
- 5 beveled and laminated glass panel
- 6 aluminum strut
- 7 aluminum butterfly fitting
- 8 aluminum bottom glass holder

#### SUSPENDED GLASS TOWER, HONG KONG

**CLIENT:** Hong Kong Trade Development Council  
**DESIGNER:** James Carpenter Design Associates, New York City—James Carpenter (principal), Richard Kress (project designer), Brian Gulick, Greg Morrell (installation team), Luke Lowings, Rebecca Uss (design team) **ASSOCIATE ARCHITECTS:** Skidmore, Owings & Merrill; Wong & Ouyang **ENGINEERS:** Arup Associates; TriPyramid Structures (structural) **CONSULTANT:** Tanteri Associates (lighting) **COST:** \$400,000  
**PHOTOGRAPHER:** Brian Gulick







**BRIAN HEALY AND MICHAEL RYAN STAKE OUT A MODERN**



A coastal landscape featuring a wooden fence in the foreground, tall grasses, and a blue ocean under a clear sky.

# COASTAL COLLAGE

BEACHHEAD AT THE JERSEY SHORE. BY RAUL A. BARRENECHE





**1993** Peron House in Beach Haven exemplifies Healy and Ryan's urban sensitivities.



**1995** Angular forms define Healy and Ryan's Deixler House in Barnegat Light.

**New Jersey's beach towns** are a strange phenomenon in placemaking. With the exception of Victorian Cape May at the southern tip of the state, few Jersey Shore towns boast a strong architectural character, like the weathered clapboard cottages of Cape Cod or the Shingle Style manses of the Hamptons. The look is more of transplanted suburban homes with few concessions to their seaside surroundings. There's a strange, unsettling density to these towns—they're not quite urban, not quite suburban, but definitely not rural.

For the past eight years, Boston architect Brian Healy and Loveladies, New Jersey-based partner Michael Ryan have tried to transcend the area's haphazard architectural legacy with sophisticated summer houses. Healy and Ryan's latest house in the town of Loveladies on Long Beach Island continues the architects' formal explorations of clean, Modern forms and the relationship between

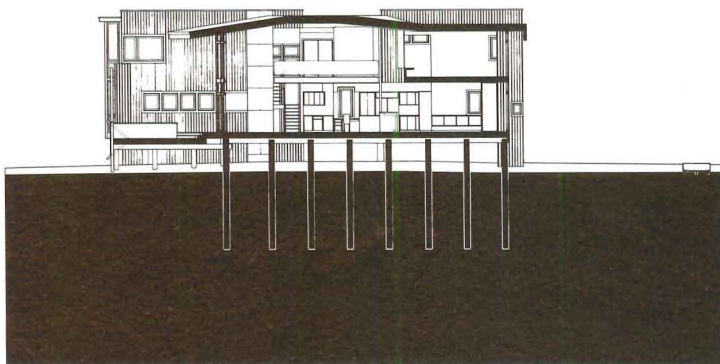
the buildings' natural and man-made surroundings.

The 4,200-square-foot house sits nestled behind tall, grassy dunes at the end of a small dirt access road. Three distinct volumes elevated a full story above ground level comprise the four-bedroom house: On the west side, a solid wing clad in stained cedar siding contains two floors of guest bedrooms and baths and a music room. Adjacent to this block is another boxy volume, wrapped in a grid of fiber-reinforced cement panels, that encloses a kitchen on the second floor and main bathroom above. To the east, facing the ocean, these opaque boxes give way to a double-height glass container screened by a simple veil of wooden louvers. This light, airy volume houses a soaring double-height living room, with an adjacent dining room located beneath the main bedroom. Across the eastern face, floor-to-ceiling glass opens up broad vistas of the ocean and dunes, like an enormous back porch.

The building's open-and-closed nature reflects Healy and Ryan's appreciation of the fundamental differences between the two kinds of context surrounding the house. "There's a slightly urban quality to East Coast beach towns so there's a stronger relationship between houses and the street," explains Healy. "Our challenge was to make the building relate to both the town and the ocean. We wondered could a pavilion on the beach also engage the street?"

The house responds well to its disparate surroundings, not simply because the architects backed its solid facades to the neighborhood and faced the beach with an open, glassy expanse. The solid wings feel almost urban in their scale and disposition, like conjoined townhouses fronting a fenced-in driveway, which Healy and Ryan treat as a forecourt or piazza. The massing of the blocks responds to the density and the semi-regular grid of neighboring houses, echoing their heights and reinforcing the edges of adjoining pedestrian lanes and streets.

The house's exterior detailing also ties the building to its site



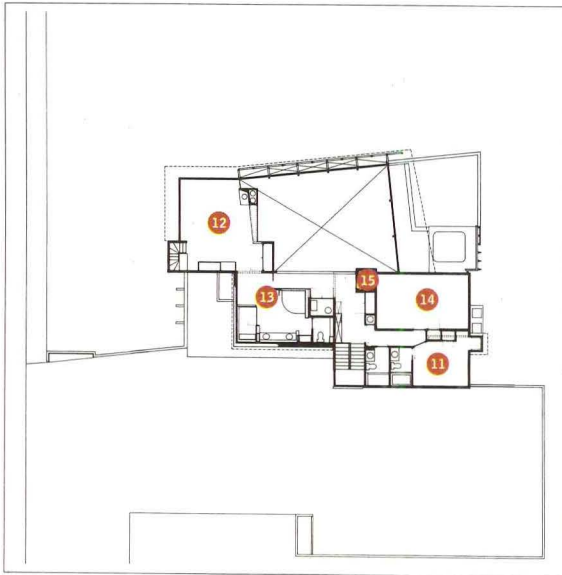
North-south section



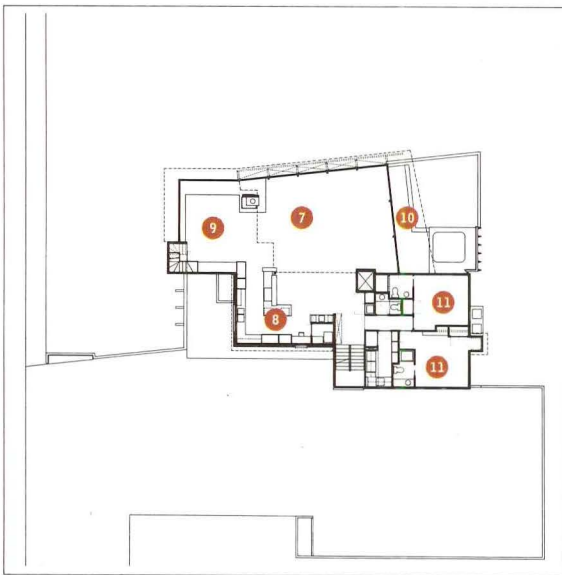


**Fiber-reinforced cement panel-clad kitchen and stained cedar-clad bedroom block (top left) step back from driveway at northwest corner. Glassy east facade of living room (top right), screened by grid of wooden louvers, faces beach. Stair tower on north facade (above) mediates between glazed living room and angular box containing kitchen.**

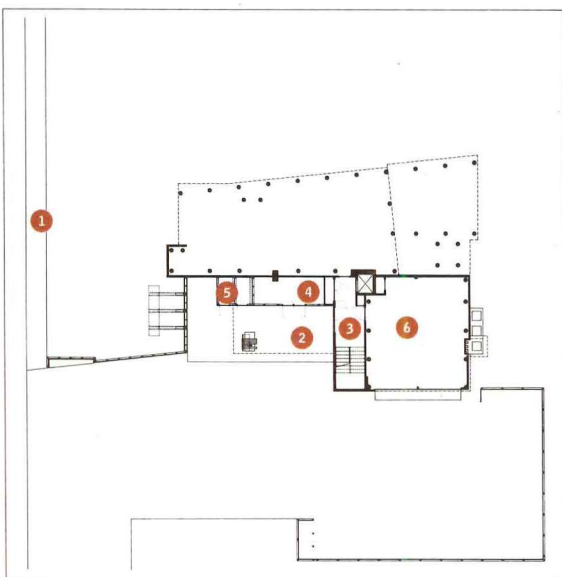




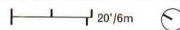
Upper-level plan



Main-level plan



Entrance-level plan



- 1 walkway to beach
- 2 entrance court
- 3 entrance
- 4 storage
- 5 outdoor showers
- 6 garage
- 7 living room
- 8 kitchen
- 9 dining room
- 10 deck
- 11 guest bedroom
- 12 main bedroom
- 13 main bathroom
- 14 music room
- 15 elevator



**BEACH HOUSE, LONG BEACH ISLAND, NEW JERSEY**

**ARCHITECTS:** Brian Healy Architects, Boston—Brian Healy (principal), Maiya Dos, Craig Scott (design team); Michael Ryan Architects, Loveladies, New Jersey—Michael Ryan (principal), Chris Jeffrey, Michael Meggitt, Andrew Wilkinson (design team) **ENGINEER:** Harrifson Hamnett (structural) **CONSULTANT:** Randeel Spelkoman (interiors) **GENERAL CONTRACTOR:** Harry Wilson Builders **COST:** Withheld at owner's request **PHOTOGRAPHER:** Paul Warchol, except as noted



Slatted wooden screen wrapping steel column (facing page) creates oversized bench at entrance. Corridor leading to main bedroom suite overlooks living room (below left). Double-height living room (below right) offers views of beach through steel-framed window wall. Main bedroom sits atop dining area, located behind chunky square fireplace.



Healy and Ryan ingeniously extrapolate the proportions of the thin, wooden fences protecting the dunes into wooden screens shielding the house's south elevation. The thin vertical panels play against wider, horizontal planks comprising a wooden deck enclosure and a lighter horizontal sunscreen that shades the east face of the house.

The house's refined yet breezy style takes obvious cues from the early beach houses of Paul Rudolph and his Sarasota school colleagues, as well as works by Marcel Breuer. In fact, the beachfront facade of Healy and Ryan's house is a dead-ringer for Breuer's McMullen House (1960) in nearby Mantoloking. Both are essentially glass boxes perched on *pilotis*, which share strikingly similar proportions and a grid of louvered wood screens positioned left-of-center. However, Healy and Ryan's house cuts loose from Breuer's rigid box with a single gesture that changes its entire character: a peaked fiberglass roof that wraps the top of the glass facade. With a simple

point and flip of the roof, a static though elegant exercise in rationalism is energized and given a sculptural twist.

The interiors of the house are polished and exactly detailed, finished in marble, granite, and Angeline wood counters and walls and mahogany floors. Although some furnishings are made more casual for seaside living—for instance, a Le Corbusier chaise longue is finished in canvas instead of leather—the interior material palette seems too formal for a vacation home.

Healy and Ryan's house isn't simply a challenge to the stylistic status quo of the Jersey Shore. In fact, the house is so abstract, it suggests the opposite: The architects aren't prescribing a new identity for a place without an architectural soul. They've dug deeper to anchor the house to its site, making sure it doesn't ignore its neighbors or stare blankly at the sea. Though it looks like a strange newcomer, the house fits in seamlessly with its awkward environment.





SLOAN®

Welcome to Our Domain

[www.sloanvalve.com/a](http://www.sloanvalve.com/a)

Circle 112 on information card



# ecture

Technology+Practice



150

Technology

Shattering Expectations

154

Computers

The Global Glitch

158

Preservation

Riverside Rebirth

164

Products

New Beginnings



# Technology Shattering Expectations

Safer, stronger laminated glass protects people and prompts bigger, bolder designs.



*By Sara Hart*

The most vulnerable part of a building is often its glazing. In recent years, this vulnerability has contributed to personal injury and property damage associated with numerous natural and man-made disasters. In fact, most earthquake and hurricane casualties result from collapsing buildings and flying glass and debris, as do about 75 percent of bomb blast injuries, according to bomb defense engineers.

An increase in terrorism and severe storms has motivated architects, engineers, manufacturers, insurers, and government agencies to reduce this vulnerability. The Federal Emergency Management Agency (FEMA) describes its efforts in this area as breaking "the disaster-rebuild-disaster cycle" in the U.S. One of the most promising areas for mitigation is the research and development of stronger, safer laminated glass. Although the glass breaks when struck by flying debris or a blast, it tends to remain adhered to the polyvinyl butyral (PVB) interlayer instead of breaking into shards and flying out of the frame. The safety benefits are enormous and have become an important part of building code revisions.

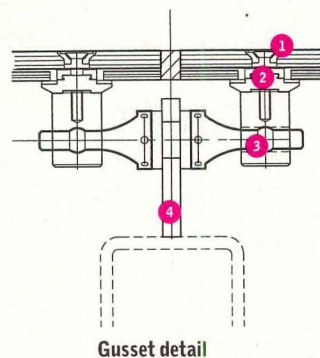
## **Blown away**

Hurricanes cause the severest damage to a structure when the storm penetrates its envelope. The most likely place for this to occur is at a glazed opening, especially those constructed of unprotected annealed glass. Storm forces over 120 miles per hour turn debris into missiles that crash through windows and rupture the building envelope's protective seal. Wind then enters and greatly increases the internal pressure,



**Bomb demonstration in Quantico, Virginia (top), revealed that ordinary annealed glass (at left) shattered, scattering large shards. Single-laminated glass (at center) shattered, but shards remained adhered to PVB interlayer. Laminated insulated glass (at right) also maintained window closure. Laminated glass doors of blown-out front of Birmingham, Alabama, women's health clinic (above) remained in frame during explosion and prevented nail penetration. Annealed glass windows shattered, allowing nails and glass shards to enter building.**





- 1 3/4" laminated glass lite
- 2 countersunk grommet
- 3 3/16" seismic fitting
- 4 steel gusset

Cast-in-place, laminated glass canopies (left) protect passengers at a MUNI station in San Francisco.

effectively doubling the force acting to lift the roof and push the walls outward. Rain and flying glass shards cause even more damage.

In 1992, Hurricane Andrew caused insured losses of over \$25 billion when it hammered Florida and south-central Louisiana, making it the most expensive natural disaster in U.S. history. Andrew destroyed over 25,000 homes and damaged 100,000 others. The scope of the damage prompted Dade and Broward counties in south Florida to revise their building codes and require certification of doors, shutters, and windows on all commercial and residential buildings. The American Society for Testing Materials (ASTM) and the Southern Building Code Congress International (SBCCI) have developed tests and standards for building code officials nationwide to adopt where applicable. Four Florida counties now require new buildings and major renovations to test doors, windows, and curtain walls. Similar code revisions will go into effect this month in 14 Texas counties located within 25 miles of the Gulf of Mexico.

Product testing includes a missile-impact test performed by independent firms. An air cannon

fires a 9-pound, 2-inch-by-4-inch wood stud twice at 34 miles per hour at a window unit (glass and frame), once in the center and again in a corner. If the unit passes the first test, it is then subjected to a simulation of the push-pull forces created in the eye of a hurricane. Every one to three seconds over a period of time, the window unit is subjected to 9,000 inward and outward wind pressure cycles. Pressure intensity depends on the building's design and height, from 60 pounds per square inch to 180 pounds per square inch. The unit must pass both tests to receive

### Stricter codes and increasing safety concerns are driving glass product research and development.

certification from the testing firm.

Not all disasters are natural or predictable. On April 19, 1995, terrorists bombed the Alfred P. Murrah Federal Building in Oklahoma City, killing 168 people. Another 500 people in the surrounding area were injured, 200 by flying or falling glass. Dr. H. Scott Norville, director of the Glass Research and Testing Laboratory at Texas Tech University in Lubbock, inspected the scene and noted that within a 700-foot radius of the building, most monolithic (not

laminated) window configurations failed. Norville speculates, "If laminated glass had been used exclusively, up to 75 percent of the glass would have stayed intact, and the number of injuries would have been greatly reduced."

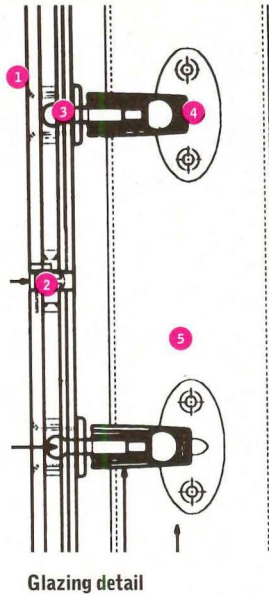
A women's clinic in Birmingham, Alabama, that was bombed earlier this year provides a dramatic example of the dissimilar reactions of different types of glass in an explosion. A small pipe bomb loaded with nails exploded near the entrance, killing one person and injuring another. The laminated-glass front doors remained in their

frames and prevented the nails from entering the building. Adjacent windows of ordinary, annealed glass with a polyethylene terephthalate (PET) film shattered, allowing glass shards and nails to enter. Glass coated with PET is considered safety glass, but Norville believes that it is inferior to laminated glass, a claim that seems to be supported by the damage to the clinic.

"PET films reduce the number of



- 1 tempered lite with mirror matrix
- 2 silicone mastic barrier joint
- 3 through-bolts
- 4 stainless steel anchors
- 5 2"x 5" elliptical stainless steel posts



GEORGES FESSY, PHOTOS

At Palais de Beaux-Arts extension in Lille, France, each facade panel (above) attaches to elliptical stainless steel tubes by four cast stainless-steel brackets, which support articulated bolts within glass unit. Layered glazing of north facade (facing page) reflects an impressionistic image of the 19th-century museum's south facade.

shards, but they don't keep blast pressures out of a building," explains Norville. "Furthermore, they're susceptible to UV degradation and, after a few years, lose their effectiveness entirely. The upfront cost is cheaper than laminated glass, but the life-cycle cost is considerably more." PET films are most often used to retrofit a building because they can be applied directly to existing glass. However, when applied only to the visible area of the glass, they can't keep the lites in the frame when impacted.

In the wake of these and other terrorist attacks, the U.S. General Services Administration (GSA), which manages all federally owned and leased properties, has issued new criteria for glazing protection of its buildings based on a formal assessment process. The GSA guidelines are general, and the architect or engineer is expected to present a building security design to the Federal Protective Service (FPS) for approval at the conceptual and design development stages.

"Stricter codes and increasing safety concerns are driving glass product research and development," confirms Steve Wetzel, marketing director of the glass fabrication company Viracon. New products include interlayers of polycarbonate that are thicker than PVB and rigid. The Southeast Georgia Regional Medical Center in Brunswick, currently under construction, is being built not only to survive a hurricane but to continue in full operation during and after one. "The windows are operable, meeting hospital requirements. The 1<sup>1</sup>/<sub>16</sub>-inch-thick laminated units comprise six layers: 1/4-inch-thick exterior lite, a layer of urethane bonding, a polycarbonate interlayer, another layer of urethane, and a 1/4-inch-thick interior lite with a DuPont SentryGlas film to prevent spalling," explains Project Architect Jeffrey L. Tyner of the Atlanta office of Perkins & Will. "This assembly is tougher than a typical double-insulated assembly with PVB between 1/4-inch-thick glass lites. First of all, the

polycarbonate interlayer performed better in the missile-impact test than PVB. The unit is also much lighter and thinner and, therefore, works better in operable windows," Tyner continues.

### Bad vibrations

Seismic effects don't seem to be attracting the same regulatory and research attention that severe weather and bomb blasts have, although the results of earthquakes are just as tragic. The magnitude-7.1 Loma Prieta earthquake rattled the Santa Cruz Mountains in central California in October 1989, resulting in 60 deaths and \$6 billion in property damages. In January 1994, a magnitude-6.8 quake in the Los Angeles suburb of Northridge killed 59 people and caused \$20 billion in damages. Although in the U.S. such dramatic seismic episodes seem confined to California, the risk is not. According to FEMA, 40 of the 50 states are at risk from earthquakes.

"Moderate seismic risk regions that historically have not had a high level of activity could be areas with the highest seismic risk," explains Dr. Richard A. Behr, head of the Department of Architectural Engineering at Pennsylvania State University in University Park. Underestimating the risk can be devastating, as evidenced in Japan's magnitude-6.8 Kobe-Osaka earthquake in 1995. More than 5,000 people were killed, another 26,000 injured, and over 300,000 left homeless. The area was considered to be at relatively low risk for a major earthquake; therefore, buildings and bridges were not designed to the high seismic standards of higher risk areas such as Tokyo. Many U.S. engineers believe that the central and eastern regions of the U.S. face the comparable risk and could suffer similar devastation as Kobe and Osaka if subjected to an earthquake of similar magnitude.

Behr is concerned that building codes in most states, including California, do not adequately



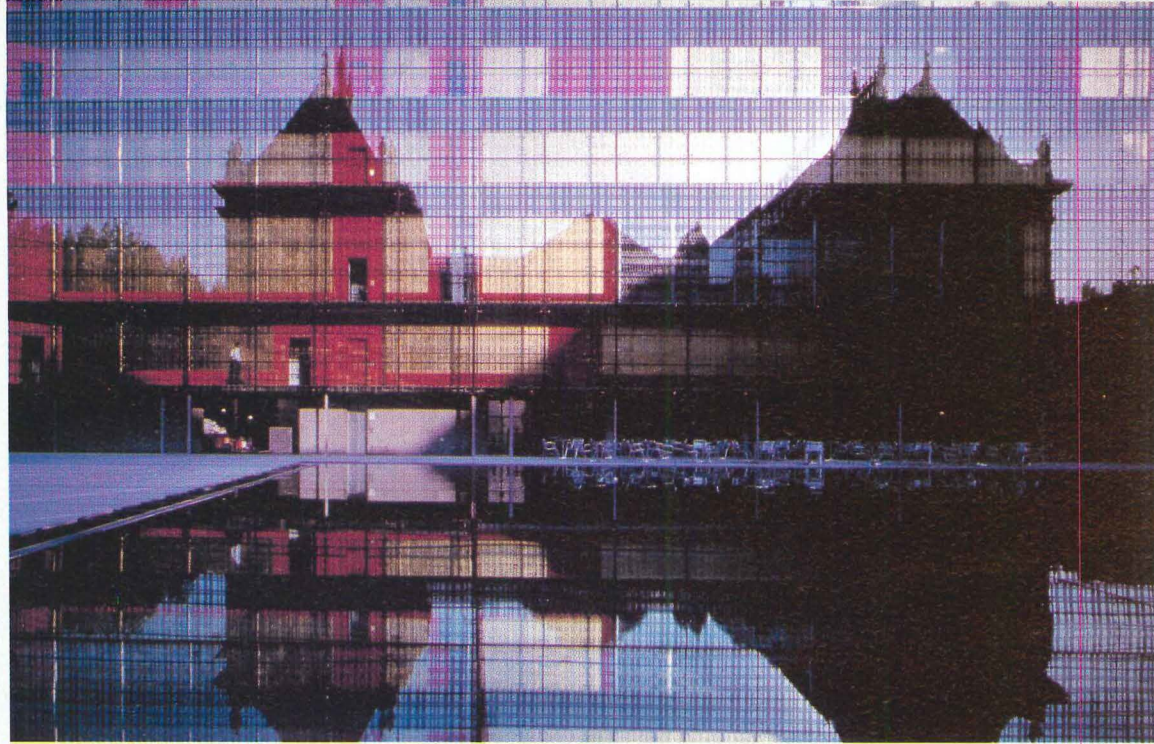
address the seismic design of architectural glass. "Building codes only address the seismic design of architectural glass indirectly through interstory drift [lateral racking] limits on the primary building structure. Seismic design forces for nonstructural elements, such as glass, are covered in the codes to some extent, but these provisions are inappropriate for the seismic design of architectural glass, which fails in complex ways," he explains.

Behr and his colleagues have tried to fill the information void by testing different glass and curtain wall systems under simulated earthquake conditions at the Building Envelope Research Laboratory (BERL) at Penn State. Their goal is to create design guidelines for cost-effective, safe glazing for buildings in earthquake-prone areas. "In terms of what I know now, I would recommend either laminated glass units of annealed or heat-strengthened plies for multistory wall-system design. Structural silicone glazing systems also appear to have seismic performance advantages over dry glazing systems, all other things being equal," Behr explains.

#### Form follows code

Innovations in lamination have yielded not only more protection but also more design freedom. Last year, San Francisco's Municipal Railway System (MUNI) designed and constructed 11 streetcar shelters. "The design criteria required that the structures be either transparent or translucent, depending on placement," explains MUNI Project Architect Miguel Tello, who managed the in-house design and oversaw fabrication and installation.

MUNI chose a different lamination technique for the undulated horizontal glazing, which consisted of 22-inch-by-8-foot modules. Instead of using typical PVB lamination, the glass lites were sealed with cast-in-place (CIP) cold liquid acrylic resin, developed by the British company Pilkington. This hardened sealant is impervious to the elements, allowing the option of



leaving panel edges exposed. In contrast, PVB interlayers are susceptible to erosion so panels laminated with this material are usually placed in a protective frame.

CIP expands design potential in another way. Unlike PVB applications, designs can be silk-screened onto the lites' laminated sides. The liquid resin seeps around any raised areas, creating a continuous bond. Also, different thicknesses and types of glass can be laminated together, which is not advisable with PVB, according to James McCann of Pilkington's London-area office.

CIP lamination has passed the missile-impact test for certification in Florida and complies with California's seismic criteria. Ronald Haber, president of W&W Glass in Nanuet, New York, who fabricated MUNI's shelters, claims: "The fittings have ball connections that rattle and roll during an earthquake, diverting shockwaves from the panels."

Advances in laminated glass illustrate the important relationship between material performance and beauty. The renovation and extension to the Palais des Beaux-

Arts in Lille, France, designed by Parisian architects Jean-Marc Ibos and Myrto Vitart, won the 1998 DuPont Benedictus Award for Innovation in Architectural Laminated Glass.

The addition faces the 1892 original structure across a plaza. The new facade is glazed with 416 laminated and insulated units, supported by elliptical, stainless steel tubes. These panels are constructed with layers of different glass. The exterior lite is clear, tempered, float glass printed on the interior face with a mirrored matrix pattern. "A mirror manufacturer applied the matrix and the pattern creates an impressionistic image of the museum," explains Project Architect Pierre Cantacuzène. "The panels hang from polished, stainless steel tubes. Their smallness and elliptical shape make them invisible behind the layered panels." Through-bolts attach the panels to the supporting tubes, allowing the silicone mastic barrier to be thin and unobtrusive.

These two projects illustrate how advancements in glass engineering have expanded design opportunities in conspicuous and dramatic directions, while quietly creating a deceptively strong shield against all types of dangers.



On Monday, January 3, 2000, many architects and engineers will go back to the drawing boards—literally.

By Paul Doherty

On the first day of the year 2000, expect to come to work and dust off your drafting equipment. If the digital gremlin known as Y2K has its way, you might need it.

Often called the Millennium Bug, Y2K (short for Year 2000) is preparing to wreak havoc on computers worldwide. Architecture firms, of course, are susceptible to the bug and need to move quickly to prevent a crisis, as well as assess what steps their clients, consultants, and vendors are taking.

For those who haven't heard the story, the Y2K problem is rooted in the way dates were recorded and calculated in most early computer software—going back to the 1960s. To save operating space, computers were programmed to recognize only the last two digits of any year and assume that the first two would be one and nine. Unfortunately, that convention persisted to the degree that millions of electronic devices, ranging from mainframe computers to tiny microchips embedded in machinery, will be unable to distinguish the year 2000 from 1900, or 2001 from 1901.

Although misinformation, hype, and exaggeration have distorted the facts about the Y2K crisis—such as Y2K triggering a worldwide recession and nuclear missiles being launched by mistake—it may be the biggest global business crisis to date due to the sheer number of affected businesses. Astoundingly, a recent Wells Fargo Bank survey suggests that 40 percent of the country's 23 million small to mid-size companies are ignoring the problem.

If your firm is among them, it's going to be difficult to neutralize the bug before the year 2000. As a result, architects—unless they have newer Y2K-compliant PCs—will probably see their desktop machines crash because of system-clock failures or faulty software calculations. But in spite of these likelihoods, you still should develop a Y2K contingency plan—one that addresses potential consequences rather than solves the problem—that will sustain you past the critical date so you can continue to function with clients, suppliers, vendors, and consultants. Once that plan is in place, then focus on a compliance plan to correct the bug.

#### **Y2K team**

Y2K should be approached in the same manner as any design commission—that is, with a project leader, a design team, and consultants with specific expertise. Ideally, the team should consist of an information technology (IT) director, legal counsel, insurance agent, financial expert, human resources expert, specifications leader, one project manager, and at least one firm principal. Unfortunately, few firms are developing such teams.

A July 1998 report in *Design Intelligence* indicated that no national U.S. architecture firm has a business disaster recovery program. Of these national firms surveyed, only one, Seattle-based NBBJ, has implemented a Y2K contingency and compliance plan. "While it is good practice to designate one Y2K leader, such as a firm's business manager, it's equally important to build a knowledgeable Y2K team to address the problem in a most efficient manner," confirms NBBJ Partner James Jonassen.

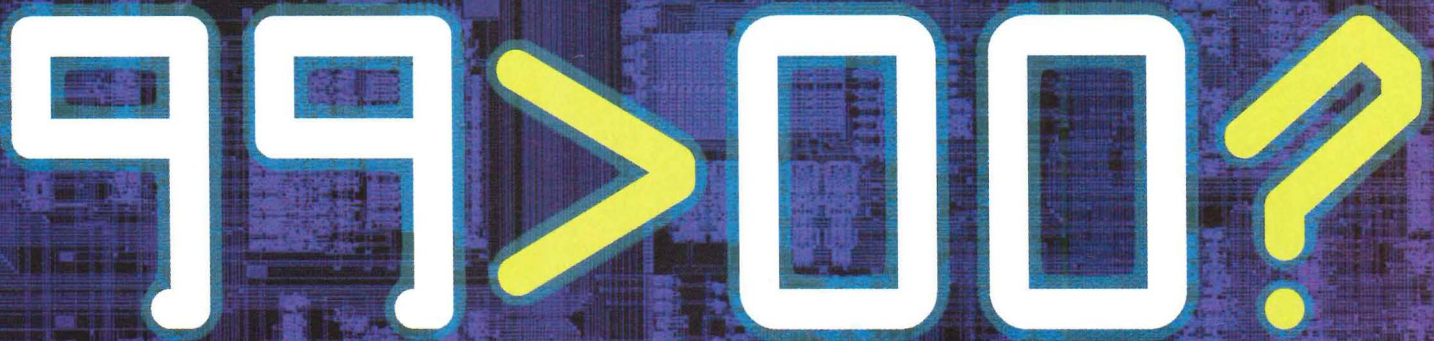
Viewing Y2K as a manageable problem will likely help architecture firms begin to address it, and perhaps even profit from it. Russell Olson, technology manager at New York City-based HLW Resources, a division of architecture firm HLW International, is beginning the process, and adds that Y2K compliance could very well be employed in marketing efforts. "Clients may choose one firm over another if they know that a firm is Y2K compliant and will be in business on January 3, 2000," Olson suggests. "We view Y2K contingency and compliance as a competitive advantage in the marketplace."

#### **Contingency planning**

When developing a contingency plan focus on business survival, not IT survival. Announcing that your firm is taking the initiative of preparing for Y2K is a good first step in the contingency plan. It will reassure clients, both current and potential, that you are taking the problem seriously. The next step should be documenting the regular flow of your firm's operations so you can develop alternative work procedures—in many cases this may involve creating a paper-based system—or reconfigure workflows to bypass potential problem areas:

- Project architects should make sure that their consultants, vendors, and utility suppliers can generate and work with hard-copy transactions and record-keeping, even if they're Y2K compliant.
- Every project team should be prepared to draft manually and use a manual or electric typewriter.





- Firm accountants or bookkeepers should make arrangements with banks to handle payroll, bill paying, and other transactions with paper forms in multiple copies.

- Those who use e-mail or Web sites to place change orders or communicate with contractors should prepare to have personnel at the construction site working with phones and fax machines.

- Consult insurance carriers and attorneys to plan coverage specifically for Y2K-related business interruption and professional liability due to noncompliance.

### Compliance planning

Y2K compliance will assure your clients that you will be operational on Monday, January 3, 2000, and that you have successfully tested your business processes, facilities, and IT tools for the transition to the year 2000. (Though it is late in the game, it is still possible to make the deadline. If you don't, you still need to comply—the problem only begins in the year 2000.)

Viewing Y2K as a manageable problem will likely help architecture firms begin to address it, and perhaps even profit from it.

The testing of hardware and software for architecture firms usually begins with checking computers' internal clocks and the accuracy and integrity of data in software applications. If you find a problem, it becomes your decision—and consulting with your IT staff person or consultant is recommended—to renovate the computer or application through upgrading or software patches, or retire and replace the computer or application. There are five phases—shown here with deadlines that will help bring about compliance before the end of next year—that a firm must go through to comply:

*Awareness.* (October 1998)

Provide public and in-house announcements that contingency plans are underway. Regular progress reports will reassure clients, as negative media hype escalates during 1999.

*Assessment.* (December 1998)

Examine the most critical items in

your computer inventory to assess how severe and widespread the problem is in your business. Determine which software, servers, workstations, laptops, modems, printers, and plotters are date-sensitive—meaning they manipulate or work with dates in some way, such as forecasting software, or retrieve records based on a date—and if they will fail when the century changes.

One way to assess a system is to run it as if it were already the year 2000, which may require resetting the system date. There are risks involved in this however, and firms should evaluate the impact of resetting system dates before testing them. For some specialized systems, such as building or manufacturing control systems, or systems with embedded microchips, you may need to have a vendor work with your staff to test and assess the system.



*Renovation.* (February 1999) Prioritize the assessment list, then repair, replace, or retire. CAD workstations and software should be a priority in any renovation plan. Unfortunately, there is no single software solution for solving all of your Y2K problems. But there are many individual solutions that will assist you in determining whether your computer system's hardware and software components are compliant. Some of these solutions are free and can be found on Web sites such as CNET or the Year 2000 Information Center. Also, back up your systems!

If you find that your hardware is not compliant, you should contact your hardware vendor for a software kit that can correct the problem—or replace the system entirely. If you find your software is corrupt, most software vendor's Web sites have

free upgrades, called patches, that can help correct the problem.

If you decide to repair a system, there are two possible strategies your IT staff person or consultant might consider: windowing or date expansion. Date expansion involves expanding all two-digit year fields in your system's data files and in the programs that process those files so that they hold the century as well as

### Final checks

Checking and then rechecking every technological component in your firm is a tedious process. Most firms don't have the resources to perform simulated environments so take extreme care when testing your computers and complete one renovation successfully before renovating the entire firm.

Keep in mind that a business

**If you find your software is corrupt, most software vendor's Web sites have free upgrades, called patches, that can help correct the problem.**

the two-digit year. The windowing approach involves inserting logic into your programs that interprets year fields to determine what century the year falls into before the date field is used in calculations, comparisons, or sorting. If the year is between 00 and 49, for example, the century is 20. Otherwise, the century is 19. This is called the 50-year window. There are other windows, so you must determine which is appropriate for your system. But whatever windowing logic is selected, consistency throughout your organization is essential to avoid later errors and confusion.

If, on the other hand, your strategy is to replace a nonready system, you can build the replacement in-house (or hire consultants to work with your staff to build it); you can purchase a replacement system from a vendor; or you can outsource that particular line of business to a service bureau or other outside service provider.

*Validation.* (May 1999) Apply forward and backward time-testing to the simulated environment by setting computer clocks to critical Y2K dates and reporting what this does to the data.

*Implementation.* (July 1999) After repair or replacement, a full rollout should be monitored for contamination from non-Y2K-compliant data, such as CAD files, spreadsheet files, and financial data.

system that operates in isolation is very rare. Most interface with other business systems to exchange data, and some interface with systems outside their organization. Your strategy to replace or repair nonready systems should take this into account. Consult with these groups to develop strategies for dealing with compliance variations.

The Y2K problem will not end at January 1, 2000. Its life cycle is estimated to last until 2005. Because this problem is unprecedented, estimating costs or predicting an accurate return on investment is difficult. However, with careful contingency and compliance planning, along with support and financial commitment from firm principals, architects can prepare and protect themselves from this unusual business challenge.

*Paul Doherty is principal of The Digit Group and author of Cyberplaces: The Internet Guide for Architects, Engineers, and Contractors (www.cyberplaces.com).*

## Resources

**Year 2000 Information Center**  
[www.year2000.com](http://www.year2000.com)

**Cyberplaces**  
[www.cyberplaces.com/workshop](http://www.cyberplaces.com/workshop)

**CNET**  
[www.cnet.com/Content/Reports/Special/Y2K](http://www.cnet.com/Content/Reports/Special/Y2K)

**Microsoft**  
[www.microsoft.com/ithome/topics/year2k/default.htm](http://www.microsoft.com/ithome/topics/year2k/default.htm)

**BOMA**  
[www.boma.org/year2000](http://www.boma.org/year2000)

**CIO Magazine**  
[www.cio.com/forums/y2k](http://www.cio.com/forums/y2k)

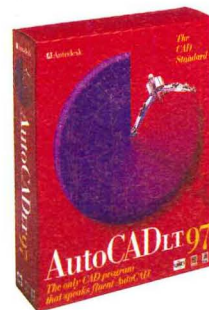
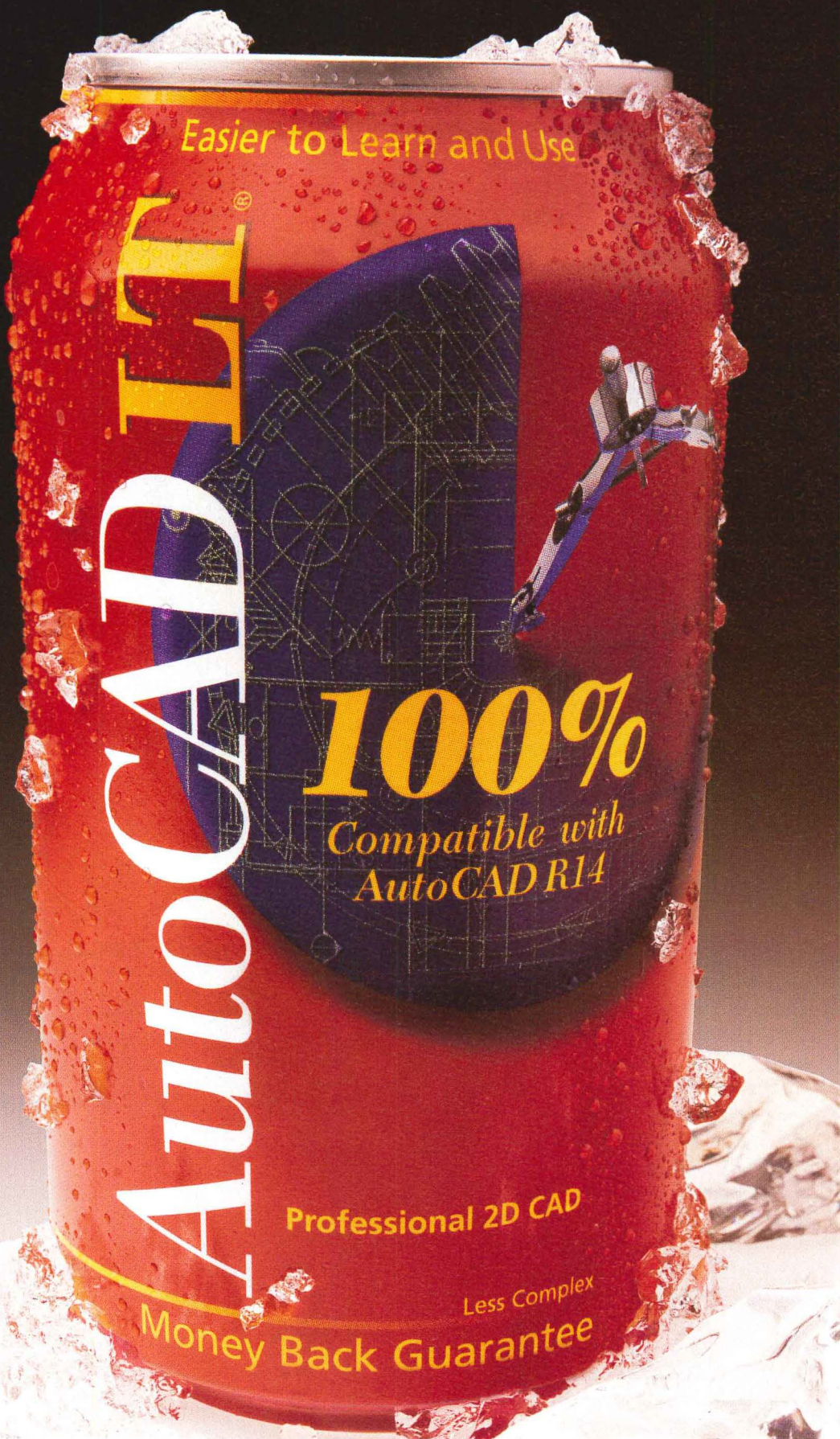
**Small Business Administration**  
[www.sba.gov/y2k](http://www.sba.gov/y2k)

**CNA**  
[www.cna.com/cna/html/y2k1.html](http://www.cna.com/cna/html/y2k1.html)

**Design Professionals Insurance Company (DPIC)**  
[www.dpic.com/y2k.htm](http://www.dpic.com/y2k.htm)



AutoCAD. Now in an easier-to-use size.



If you know AutoCAD LT<sup>®</sup>97 software, you

know it's the easier to learn & use sibling of full-blown AutoCAD<sup>®</sup> software. AutoCAD LT is the low-cost professional CAD package for production drawings or less complex CAD needs like viewing and light editing. There's less to learn, but AutoCAD LT is easier to use too, with our Content Explorer<sup>™</sup> that lets you drag & drop symbols and blocks directly into your drawings. It's 100% DWG compatible for full data integrity and visual fidelity. In fact, it's



more like AutoCAD than any other low-cost CAD package because *it is AutoCAD*, only lighter. We're so sure you'll like it, AutoCAD LT is guaranteed, money back. \$489 suggested retail price. See your local software retailer or authorized Autodesk reseller. For more information, visit [www.autodesk.com/autocadlt](http://www.autodesk.com/autocadlt) or call 1-800-225-1076.

 Autodesk<sup>®</sup>

DESIGN YOUR  
WORLD<sup>™</sup>



## Preservation **Riverside Rebirth**



PETER MAUSS / ESTO PHOTOS

Historic Newburgh, New York, is withering in the face of poverty, neglect, and citywide decay. But as the city turns to rehabilitation en masse, the architecture that helped create this Hudson Valley jewel could very well save it.

*By Eric Adams*

Historic preservation in Newburgh, New York, has little to do with elegant mansions, extravagant concert halls, or proud university libraries. There are no corporate sponsors investing in theater renovations and no benefactors heaving multimillion-dollar grants at fading individual landmarks—of which Newburgh has plenty.

Instead, historic preservation in Newburgh revolves around the harsh realities of poverty-level economics and citywide structural decay. While some buildings in this history- and

architecture-rich, working-class city of 26,000 hold up well and even shine, others sit vacant and rotting. Floors and roofs in buildings around town have collapsed or burned out.

“In some of these places, you can stand in the basement and see the sky,” says Newburgh architect and developer Drew Kartiganer, a concerned native who, through his renovations of historic properties in large groups, is leading efforts to turn the city around.

In building after building, Kartiganer points out, squatters’ nests are regular sights, crack vials pepper the debris, and vandals ceased their work long ago. Entire city blocks contain more boarded-up

**Newburgh’s Broadway (above) is all that remains of town’s original commercial district, which once included more than 700 additional properties adjacent to Hudson River.**

**Nineteenth-century Liberty Street School and A. J. Davis-designed Dutch Reform Church (facing page, left and right) are among Newburgh’s top rehabilitation priorities.**





windows than glass ones. In many of Newburgh's buildings, there is little left to preserve.

Yet somehow, residents in this Hudson Valley city—perched midway between a picturesque curve that marks the river's entry into a mountain valley and the beginning of its descent into New York City 60 miles south—are starting to work with what they have. Led by developers such as Kartiganer and a supportive, if cash-strapped, city government, historic preservation and renovation are becoming carefully wielded weapons against the urban decay, unemployment, substandard housing, and crime that plague Newburgh's diverse (about 40 percent black, 40 percent white, and 20 percent Hispanic) neighborhoods. Recent victories include key rehabilitations of municipal buildings, long-abandoned apartment buildings, and retail space.

Although the city is far from claiming victory—the economy is still struggling, and the process of rehabilitation is really just beginning—there is hope among residents that this wave of effort will succeed where previous efforts failed. The city is tackling problems building by building and block by block, and enthusiasm is mounting.

"Newburgh has had a devastated urban center for long a time, as well as devastated socioeconomic and political scenes," Kartiganer says. "But Newburgh will be a good place to live again because people are sick and tired of these conditions."

### Urban renewal

The close proximity of good and bad in Newburgh is startling: The decrepit shells that characterize much of the town sit within or near still-active neighborhoods, and children play among ruins around the corner from meticulously maintained Victorian houses. One of the ironies of Newburgh's condition is that the worst spots exist within one of the nation's largest historic districts, containing some 3,700 houses and hundreds of commercial properties. Newburgh is proud of its rich collection of 18th- to 20th-century architecture, which includes work by Greek Revivalist Alexander Jackson Davis. Also here are a park by Frederick Law Olmstead and the building George Washington used as headquarters for almost two years, which was the first property in the United States ever designated a public historic site.

Many of Newburgh's current problems can be traced to three events, all in the 1960s: the closing of Stewart Air Force Base nearby, the diversion of traffic out of town after



construction of a nearby bridge closed the city's ferry service, and urban renewal efforts that followed as the downtown area's economy withered. In particular, the city razed virtually the entire commercial district—containing some 700 properties—because it was deemed unsafe. Residents who lived there, most of whom were low-income or impoverished African-Americans, were promised new places to live, and while many got them, many others ended up either being housed in low-quality apartments on the edge of town or moving away entirely.

The city never rebuilt the commercial district—money and circumstances never came together—and the former downtown area is today empty, except for a roadway, grass, and some urban renewal-era housing. The waterfront contains only a restaurant, a few businesses, and boat docks. "Urban renewal was more severe here because it demolished what was the heart of the city," explains Newburgh Director of Housing and Community Renewal Robert McKenna, who points out that the current main street, Broadway, wasn't the city's primary commercial district. "There





PETER MAUSS / ESTO PHOTOS

was a lot of abandonment and poverty downtown, and not much prospect for redevelopment. People were looking for newer, bigger, better, and getting rid of the commercial district probably seemed like a good idea at the time."

As a result, recovery has been and remains challenging on economic, social, and political levels. Even the best-intentioned efforts can be a hard sell. "Here in Newburgh, promises were broken and people were stashed off at the edge of the city," says Newburgh architect Peter Smith. "Poor people are wary of the concept of preservation because they see it as a step toward gentrification, which they see as pricing them out."

#### **New efforts**

Like many other American cities that suffer from the lingering effects of failed urban renewal efforts, Newburgh remains in serious

**Historic preservation and rehabilitation is possible in Newburgh only through complex financial arrangements, primarily because the cost of acquisition and rehabilitation is far greater than the properties' market value.**

condition. But in the early 1990s, new redevelopment efforts—spurred by the city's 1996 designation as a Federal Enterprise Community, as well as the involvement of the National Trust for Historic Preservation as a link to federal funding—began appearing around town. While developers have come and gone over the years, usually unable to make their projects work in this economically difficult environment, some have been able to successfully affect the city through persistence and careful financial structuring. Gerardo Sanchez, who is known for his Art Deco restoration efforts in Miami's South Beach, successfully restored two buildings in the last three years and has plans for at least nine more.

Last year, architect and developer Drew Kartiganer employed grants, loans, and tax credits to rehabilitate Johnston Street townhouses (c. 1880, above) for \$670,000. Kartiganer's next

project, funded by \$2 million from similar sources, will include rehabilitation of five abandoned buildings, including one that contains little more than four walls (facing page).



Developer Vinny Clavio is planning a \$4 million waterfront restaurant complex. Other key projects include the recent rehabilitations of City Hall, the Armory (both on Broadway), an old hotel, and several town houses near the city's hospital.

But because redevelopment in Newburgh involves so much rehabilitation and comparatively low operating incomes, the efforts that produce the greatest neighborhood impact and are the most economically feasible for developers usually involve buying and rehabilitating entire groups of buildings. These strategies take advantage of historic and low-income housing tax credits, government grants, and bank loans, and rely on economies of scale.

Kartiganer's first project as both an architect and developer was the 1991 renovation of an 1880s apartment building into units for two families. Since then, Kartiganer has renewed dozens of apartments and town houses—all for low-income families—as well as numerous commercial properties.

Kartiganer is committed to reviving the city, and he says a lack of commitment has hurt previous developers. "Others have tried, but they don't understand how much work is involved here, how hard it is to get the money to do these projects. This is not a place to just walk in and get something done," Kartiganer says. He adds that that commitment must extend to individual blocks to have any effect. "If you do just one project on a street and then leave, it'll go back to hell. But clean up a whole block, and the crime will leave," he says.

New York City investment banker and real estate developer Arnold Moss is taking a similar tack. Working in partnership with the New York City-based tax credit syndicator The Enterprise Foundation and Rochester, New York-based nonprofit Rural Opportunities, a counseling service provider, Moss



is currently restoring a block of town houses for 64 low-income families. The buildings are on Lander Street in Newburgh's East End Historic District, among the city's worst areas. "I looked at different properties and identified Lander Street as a project with a scope and neighborhood impact we would want to see," Moss says.

For its part, Newburgh's city council, led by Mayor Audrey Carey, New York State's first female African-American mayor, is supporting Kartiganer and Moss's efforts and focusing on services, utility upgrades, safety, crime, and updating codes. "We're trying to overcome bad decision-making in years past," says City Manager Harold Porr III, "such as allowing beautiful Victorian homes to be chopped up into too many multifamily units. Right now, we're re-zoning the entire city to prevent it."

#### **Making them work**

Historic preservation and rehabilitation is possible in Newburgh only through complex financial arrangements, primarily because the cost of acquisition and rehabilitation is far greater than the properties' market values.

To finance his Lander Street redevelopment, for example, Moss had to juggle a lot of funding sources. He explains that if, for

example, it costs \$100,000 per apartment to renovate a building, and you finance it through conventional loans, individual apartment rents would have to range from \$1,500 to \$2,000 per month. "This is just to break even," Moss says. "If you look at a neighborhood like Lander Street, people can't afford it. They can afford maybe \$600 to \$700 per unit. The question, then, is how to make it affordable."

The most likely answer is to apply for federal low-income housing tax credits and, when applicable, historic rehabilitation tax credits. Combined, these credits can generate up to 75 percent of the financing required for a project. Additional funding comes from conventional bank loans and government subsidies, but in the end, the developer only has to pay back the conventional loan. "By combining these programs," Moss says, "I can build the projects and charge lower rents to tenants."

Kartiganer, who owns and manages the properties he has renovated, works similarly and draws on his skills as an architect to develop precise cost analyses, to help secure financing. "The power of an architect's stamp is amazing leverage," he says. Kartiganer also works with the state historic



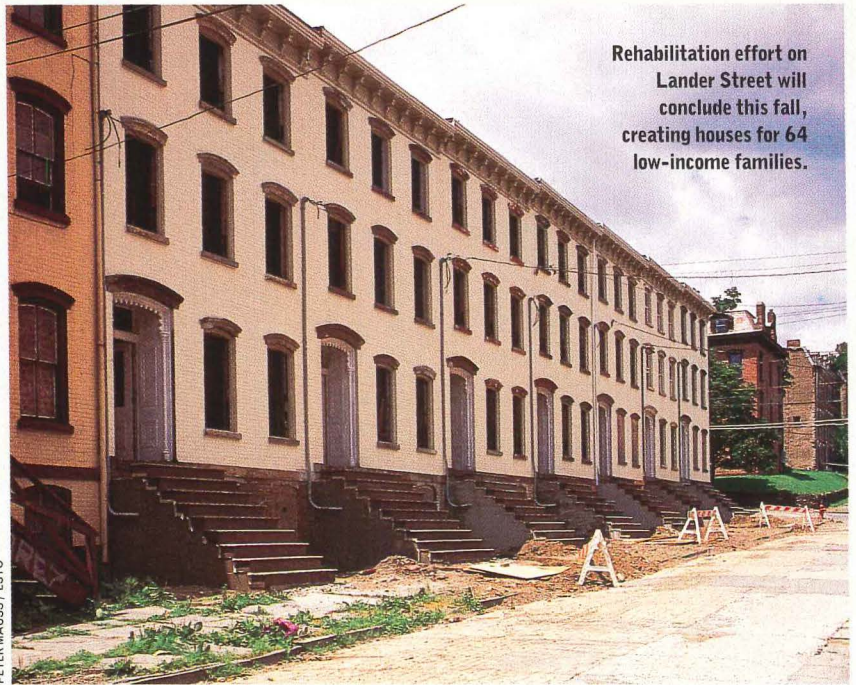
## FIRST LADY VISITS NEWBURGH

The beleaguered residents of Newburgh recently received an inspiring pep talk from First Lady Hillary Rodham Clinton, who visited the city in July during a tour of historic sites throughout the Northeast. During her visit, which marked the inauguration of the White House's culture- and history-oriented Millennium Council, Clinton toured George Washington's headquarters, the Dutch Reform Church, and the Lander Street housing project.

"Within these city limits, we see so much American history," Clinton pointed out in her remarks to the community. She said that buildings often embody history and culture, which must be preserved. "But what does it really mean to save a building?" she asked. "There are a lot of other important things to worry about in our country. Yet there is a very practical answer: When a town like Newburgh, with such a long history, is able to revitalize that history, it becomes a beacon for development."

Subtitled "Save America's Treasures," the Millennium Council's program will highlight American accomplishments of this century, recognize and initiate new projects, and encourage Americans to convey their heritage to future generations.

The First Lady concluded her visit by promising to return. "I want to come back in a few years and see people living in the Lander Street development," Clinton concluded. "I want to see boarded-up businesses opened, and I want to see these architectural treasures reopened for the common good."



Rehabilitation effort on Lander Street will conclude this fall, creating houses for 64 low-income families.

preservation office to ensure that his projects retain as much of the building's original design and fabric as possible, enabling them to take advantage of the historic tax credits.

Once the financing is arranged, making the buildings work both structurally and as operating properties becomes the challenge. Moss worked with architect Peter Smith to develop designs that took advantage of buildings' remains and created sound, attractive—but basic—houses. The town houses are lease-to-own, so when the terms of the low-income housing tax credit program are satisfied in 15 years, residents will have the option of buying their houses for the remainder of the mortgage service—probably below \$10,000.

### A new Newburgh

Increased community pride and neighborhood "ownership" seem to be consistent dividends of the redevelopment. At the site of one of his recent townhouse restorations, a building that for 20 years had been an abandoned, graffiti-filled shell, Kartiganer points to a bare, stucco exterior wall that has been untouched by vandals. "There's not a mark on it," he notes. "People treat it with respect."

Newburgh residents have a lot of plans for projects that they hope

will engender similar respect.

The city is anxious to bring back the prominently located A.J. Davis-designed Dutch Reform Church (c.1835) and Liberty Street School (c.1830), both long-abandoned and in dramatically deteriorated condition. The town is also trying to draw restaurants, recreational facilities, medical and other professional services, and more employment for working-class residents. A new hotel is planned for the waterfront, as is a new trolley system and ferry service across the river to the town of Beacon and possibly even to New York City.

McKenna says that a barrier to further progress is the town's image. "What the city suffers from most is its reputation. A lot of that has to do with crime and substandard properties," he explains. "There are two things we can do: encourage development that creates jobs and redevelop neighborhoods so residents control them."

Newburgh still has far to go, but locals feel that revitalization can be achieved. The derelict buildings brought back to life in recent years are significant steps away from a precipice over which the city once seemed doomed to fall.





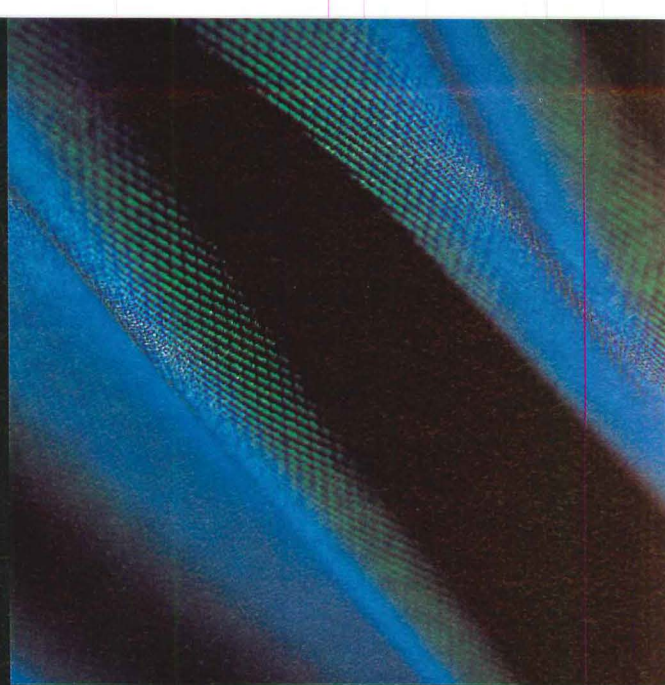
5

#### 5 Functional Wave

Form follows function in The Burdick Group's new modular version of the Wave chair.

Made from tubular steel and recyclable plastics, the seat can be linked in double or triple units to create a larger seating area. The addition of armrests is optional.

Circle 298 on information card.



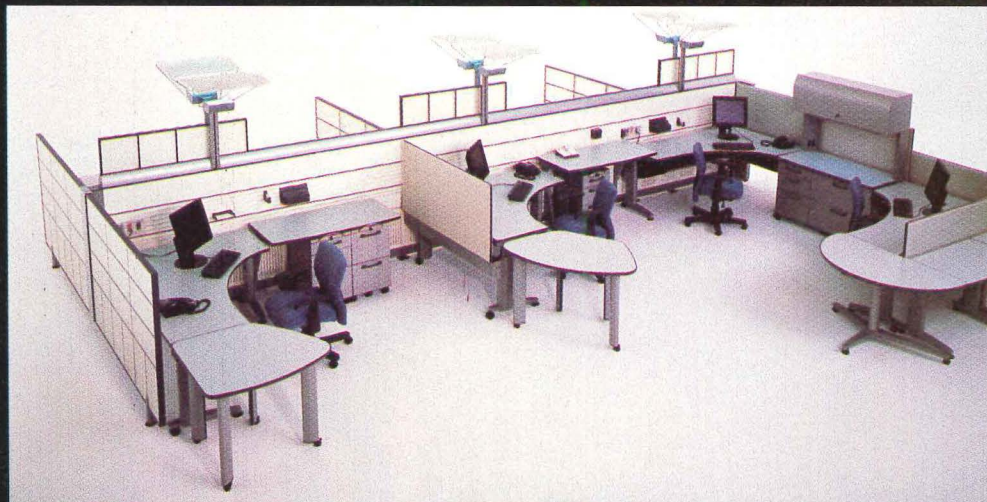
6

#### 6 Two-Toned Fabrics

KnollTextiles is adding a new collection of panel and upholstery fabrics to their Integrated Interior line. The panel fabrics are made from polyesters recycled from soda bottles. Synthesis (top), designed by New York City-based Suzanne Tick, displays a two-color iridescence created by the weave of two fabrics.

Available in 14 colors, the combination of nylon and polyester makes these fabrics durable enough for task seating.

Circle 299 on information card.



7

#### 7 Flexible Office System

Released after three years of field research, Currents is Knoll's answer to today's need for flexible office systems.

An adaptable technical wall, similar in construction to a stud wall, features structural beams at the top and bottom, and offers continual access to power outlets and data wiring. The base supports allow portable shelves and storage cabinets to be installed anywhere along the panel. Freestanding furniture facilitates easy work space reconfiguration.

Circle 300 on information card.



Architecture  
Magazine  
presents  
the second  
annual  
ranking of  
the top  
architectural  
firms in  
the global  
market.

October 1998  
Closing September 1

Second Annual Survey

top **50**  
multinational  
architectural  
**firms**

For more information, contact  
Stephen B. Donohue, Publisher,  
at (212) 536-5041.



## CONSTRUCTION COST COMPARISONS PER SQUARE FOOT • SEPTEMBER 1998

	<b>CHURCH</b> Face brick with concrete block back-up with wood arch		<b>COUNTRY CLUB</b> Stone ashlar veneer on concrete block with wood truss		<b>JAIL</b> Face brick with concrete block back-up with steel frame	
	3rd Q 1998	3rd Q 1997	3rd Q 1998	3rd Q 1997	3rd Q 1998	3rd Q 1997
Atlanta	\$ 91.84	90.74	103.67	102.37	148.83	145.46
Boston	121.26	121.23	136.87	136.76	196.50	194.33
Chicago	115.21	114.97	130.05	129.70	186.70	184.30
Dallas	90.10	89.82	101.70	101.33	146.00	143.98
Kansas City	100.45	99.16	113.39	111.86	162.78	158.96
Los Angeles	115.52	115.48	130.39	130.28	186.03	185.12
New York City	139.47	139.40	157.35	157.26	225.23	223.46
Phoenix	93.69	93.10	105.75	105.03	151.82	149.25
St. Louis	106.60	106.24	120.33	119.85	172.74	170.31
San Francisco	129.31	129.24	145.90	145.79	208.95	207.17
Seattle	109.57	109.53	123.68	123.56	176.07	175.57
Washington, D.C.	99.63	99.16	112.46	111.86	161.45	158.96

Each month Architecture takes a snapshot of U.S. construction – looking at average costs and upcoming projects for different building types. News on projects is provided by Construction Market Data and cost information by R.S. Means – both CMD Group companies.

NOTE: Cost comparisons shown here are for the basic building without sitework, development, land, specialty finishes or equipment. Actual square foot costs vary significantly from project to project based on quality, complexity and local economy.

©1998, R.S. Means, a CMD Group company. For more cost information on Means cost estimating, software and services call 800.448.8182 or visit [www.rsmeans.com](http://www.rsmeans.com).

### UPCOMING PROJECTS

#### Saddleback Valley Comm Church Campus

**Location:** Lake Forest, Orange County, CA  
**Project Value:** \$10 million

**Size:** 120,000 sq ft, 2 floors above grade, 3 structures

**Contract Type:** Invited Bidders

**Current Project Stage:** Planning; Preliminary Plans

**Status:** Preliminary Plans in Progress; Bid Schedule Not Set

**Project Scope:** 50,000 sq ft Administration Building, 70,000 sq ft Education Center, Parking Structure, 4,800 Seat Sanctuary

**Owner:** Saddleback Community Church; Karen Kelly; 24194 Alicia Parkway, Suite M; Mission Viejo, CA 92691

**Phone:** 714.581.5683

**Architect:** Leason Pomeroy Associates; David Gillmore; 17848 Skypark Circle; Irvine, CA 92614

**Phone:** 714.261.1001; **Fax:** 714.260.1190

#### Turner Chapel AME Church

**Location:** North Marietta Parkway, Marietta, Cobb County, GA

**Project Value:** \$17 million

**Size:** 150,000 sq ft, 2 floors above grade, 3 structures

**Contract Type:** Open Bidding

**Current Project Stage:** Planning; Schematics  
**Status:** Schematics in Progress; Bid Schedule Not Set

**Project Scope:** 3,000 Seat Sanctuary, Classrooms, Recreation Center, Fellowship Center

#### Rockbarn Country Club

**Location:** Rockbarn Road, Conover, Catawba County, NC

**Project Value:** \$3 million

**Size:** 20,000 sq ft, 1 floor above grade, 1 structure

**Contract Type:** Invited Bidders

**Current Project Stage:** Planning; Working Drawings

**Status:** Working Drawings in Progress; Bid Schedule Not Set

**Project Scope:** Clubhouse: Bars, Banquet Room, Kitchen, Elevator, Load-Bearing Steel & Masonry Frame, Masonry Exterior Walls, Architectural Shingle Roofing on Wood Truss, All Steel Superstructure, Laminate Arches

**Owner's Representative & Architect:**

CBSA Architects; Ernie Sills; PO Box 1239, 226 Second Street NW; Hickory, NC 28603

**Phone:** 704.322.3403; **Fax:** 704.322.1802

#### Island Green Country Club

**Location:** Amenia, Dutchess County, NY

**Project Value:** \$20 - \$24 million

**Contract Type:** Invited Bidders

**Current Project Stage:** Planning;

Preliminary Plans

**Status:** Preliminary Plans in Progress; Bid Schedule Not Set

**Start Date:** 11/1/98

**Developer:** PKF Mark III Inc.; 170 Pheasant Run, PO Box 390; Newtown, PA 18940

**Phone:** 215.968.5031; **Fax:** 215.968.3829

**Architect:** Liscum McCormack VanVoorhies; 4100 Rte. 108, Suite 200, Denville, NJ 07834

#### Juvenile Justice Complex

**Location:** 3000 West 93rd Avenue, Crown Point, Lake County, IN

**Project Value:** \$19.8 million

**Size:** 33 acres, 2 structures

**Contract Type:** Open Bidding

**Current Project Stage:** Schematic Design

**Project Scope:** Construction of New Juvenile Court Facility, Expansion & Renovation of Existing Detention Center, 64-Bed Unit Addition

**Owner:** Lake County Offices; Frances DuPey; 2293 N. Main Street; Crown Point, IN 46307

**Phone:** 219.738.2020

**Associate Owner:** Gary Board of Works; Gwen Malone; 401 Broadway, Suite 304; Gary, IN 46402

**Phone:** 219.881.1319

**Architect:** HNTB Corp.; Tomm Cloud; 111 Monument Circle, 12th Floor; Indianapolis, IN 46204-5178

**Phone:** 317.636.4682; **Fax:** 317.633.0505

#### Lawrence County Correctional Center

**Location:** County Line Road & Route 50, Unincorporated Lawrence County, Lawrence County, IL

**Project Value:** \$58 million

**Contract Type:** Prequalified Bidders

**Current Project Stage:** Planning; Working Drawings

**Status:** Working Drawings Available 8/2/98; Mandatory Pre-bid Meeting 9/3/98; Bid Date Set: General Bids Due 10/1/98; Prime Bids Due 9/23/98

**Owner:** Lawrence County Board of Supervisors; 100 N. Main Street; Lawrenceville, IL 62450



Words praising freedom are carved everywhere in the Chicago Tribune Tower: Under the buttresses, one finds Lincoln's Gettysburg Address and kitschy patriotic poems; in the center lobby, above a circle of Gothic-lettered musings by John Ruskin, one can read the thoughts of James Madison. Daniel Burnham urges us to "make no little plans: They have no magic to stir man's blood."

The Tribune Company certainly intends grandeur: It is a multimedia corporation, and their latest headquarters renovation exemplifies this. Below the lobby's Gothic windows are interactive TV screens that say "Touch Me." One then learns that on June 23,

Great Wall of China, the Taj Mahal, and the Berlin Wall. However, in a twist of logic, NASA has thus far refused to hand over a piece of the moon. Colonel McCormick must be turning in his grave. If his building is as good as the Great Pyramid, which pays tribute to it with one of its rocks, why doesn't the moon? The *American* moon! The Colonel's claim to aristocratic valor cries from these stones, as do the words carved within.

Buildings have multiple, borrowed souls that change with time, distance, and the observer. Today, the Tribune Tower's soul is diffused in the many buildings around it, leaving it looking more like a department store than a cathedral—a lot like freedom

# Stereopticon

**Chicago's Tribune Tower pays tribute to an architectural and journalistic era gone by.**

Tribune stock closed at 66 1/2. The 52-week high was 71 3/4 and the 52-week low, 46. Now those are numbers, as well as words, to live by.

Colonel Robert R. McCormick, publisher of the *Chicago Tribune* in 1922, announced a competition for architects to design him "the most beautiful office building in the world." The Colonel meant to pay homage to an American God, free speech—and get a fine high-rise in the bargain. The \$100,000 prize attracted 285 entries from 23 countries.

The jury, headed by architect Alfred Granger, opted for a rendition by New York City architects Raymond Hood and John Mead Howells of the Gothic Butter Tower of France's Rouen Cathedral. They might have chosen any of the serious-minded proposals, some of which brimmed over with social zeal and missionary fervor.

But freedom of the press, which the *Chicago Tribune* exercised with honor when it backed Lincoln, evolved into ugliness in the 1930s when the paper campaigned against America's entry into World War II, a mouthpiece for the Colonel's proto-Fascist leanings. A Futurist or Constructivist building might have exacerbated the Colonel's ideology.

What originally piqued my interest in the Tribune Tower were the stones embedded in the building's sides. *Chicago Tribune* foreign correspondents brought stone chunks from 136 *über*-monuments around the globe, including Jesus' birthplace in Bethlehem, the

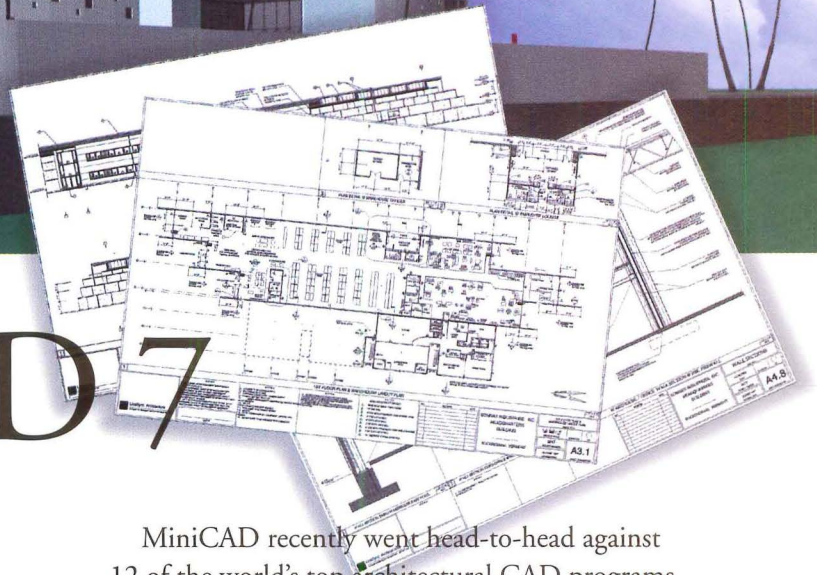


WA/NE ANDREWS/ESTO

of the press in the age of corporate media. The setbacks of Skidmore, Owings & Merrill's nearby NBC Tower (1989) give the old man a feeble nod, but most of the new buildings look away. The powerful rivers of commodities that power America's heartland have carved a new landscape and stripped away the Tower's quasi-mystical conceits. Chicago buildings, unlike their counterparts in New York City, can be seen and admired. Open space is the salient fact of the Midwest and, in this sense, America begins here, freedom of (slow) speech in tow. *Andrei Codrescu*

*Andrei Codrescu is a New Orleans-based poet and essayist. His commentary is featured regularly on National Public Radio's All Things Considered.*





# MiniCAD 7

## a better way to design

*But don't take our word for it...*

MiniCAD recently went head-to-head against 12 of the world's top architectural CAD programs and won. A panel of 12 CAD industry experts and more than 400 design professionals in attendance at the annual Designers CADD Shootout voted MiniCAD the "Best Overall Architectural CADD Software". MiniCAD's ease-of-use, sophisticated 2D drafting tools, powerful 3D modeling tools and affordable price made it the clear winner.

Architects are often surprised to learn how affordable MiniCAD is—especially when they see the complete suite of architectural tools that are built right into the core program. Without purchasing a single add-on, this professional CAD program lets you create everything from precise working drawings to 3D client presentations and comprehensive materials lists. In fact, no other CAD program offers so much for so little.

**Save \$200 by buying MiniCAD direct from Diehl Graphsoft for \$595. Includes 18-months FREE Tech Support and a 90-Day**



**Diehl Graphsoft Inc**

Software for Today's Professional

[www.diehlgraphsoft.com](http://www.diehlgraphsoft.com)

1-888-MINICAD



Overall Shootout Standings:

- |                              |                            |
|------------------------------|----------------------------|
| #1 MiniCAD7 . . . \$795      | #7 DenebaCAD . . . \$799   |
| #2 AllPlan . . . . . \$4995  | #8 Architron . . . \$4000  |
| #3 Triforma . . . . . \$5325 | #9 Architech.PC . . \$3500 |
| #4 ArchiCAD . . . \$4995     | #10 Arc+/Virtus . . \$1595 |
| #5 AutoCAD . . . \$4250      | #11 Buildcam-CAD . \$1995  |

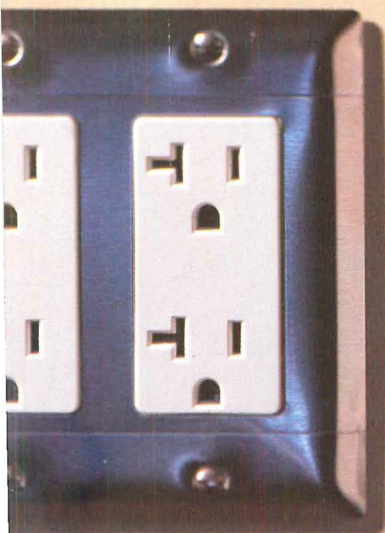




The paperless surface provides outstanding abrasion resistance but finishes like drywall.

FIBEROCK Brand VHI panels are a combination of gypsum, fiber and fiberglass mesh for enhanced abuse resistance.

## How can wallboard about as thick as this magazine replace a masonry wall?



FIBEROCK Brand VHI panels install over conventional framing, allowing easier electrical and plumbing installation than masonry.

FIBEROCK Brand VHI panels allow quicker building occupancy, greater design flexibility and improved life-cycle performance.

Introducing USG® FIBEROCK™ Brand VHI (Very High Impact) Gypsum Fiber Panels. A revolutionary blend of gypsum and wood fiber – with an added layer of reinforcing mesh – that meets the rigorous abuse- and fire-resistance specifications for hospital and institutional construction.

FIBEROCK Brand VHI panels are engineered to provide increased resistance to abrasion, indentation and penetration for interior walls and ceilings in demanding applications. While offering the convenience and design flexibility of drywall.

To learn more about the less costly, easy-to-install alternative to expensive masonry construction, call 1-800-USG-4YOU today. We'll send you the wall-to-wall facts about new FIBEROCK Brand fiber-reinforced wallboard panels.

