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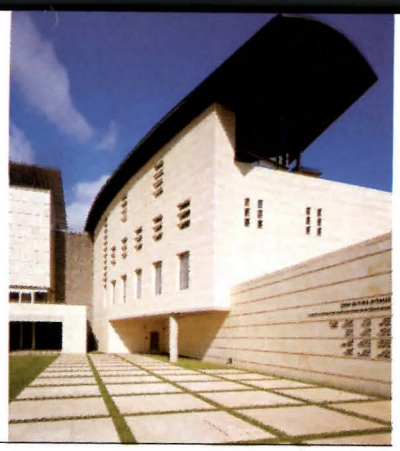

On the Cover: *Federation Square, by Lab Architecture Studio. Photograph by Tim Griffith*
Right: *Israeli Foreign Ministry, by Diamond and Schmitt Architects. Photograph by Tim Griffith*

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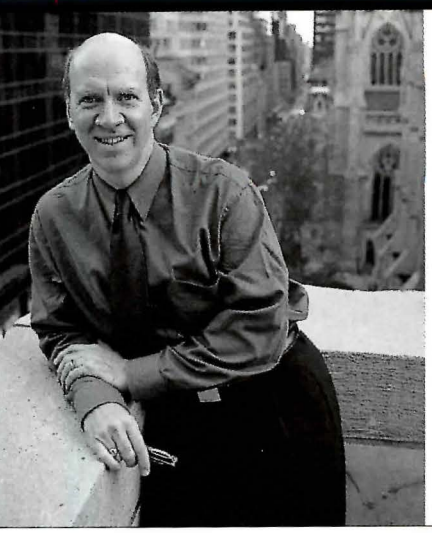


A ballroom, a prize!

Editorial

By Robert Ivy, FAIA

Scene One. Talking to ourselves. Setting, the vaguely pink ballroom of the largest convention hotel, Anywhere U.S.A. The acrylic crystals in the overscaled chandeliers reflect the dimming lights. The last of the overcooked, thin filets are cleared; the coffee and dessert are being jostled onto the tables while the crowd simmers down. Your mate squeezes your hand as you force a smile, stoked by one too many margaritas during the cocktail hour. The honor awards ceremony has begun.

This year it mattered. For once, your work had reached a level of creativity and experience that warranted the extra effort and cost that the state awards program demanded. The clients loved their new project and wanted to see it communicated to others: They said so repeatedly. It mattered to the office—to the project managers and specifiers and night-owl junior designers who perfected the details.

So you sprang for the professional photographer, paid too much for the gorgeous pictures, assembled the boards, wrote the self-congratulatory copy, and now find yourself in this ballroom, with the dean of the state university making jokey comments about his in-crowd designer friends and snide remarks about the projects in general. With clients present. Why should this evening feel like a toothache?

Despite the fact that your project clearly stood out from the pack, when the emcee announced winner number six, suddenly the glaring lights returned and it was clear that somehow, the jury in Los Angeles, those names you admired so much, hadn't picked your work. Was it all a mistake? While the crowds swelled around the lucky few, you took a long walk to the parking lot and had a meaningful talk with your spouse about fickle juries, while your partner dog-cussed the dean. Before falling asleep, you determine that you'll enter again next year and show them all.

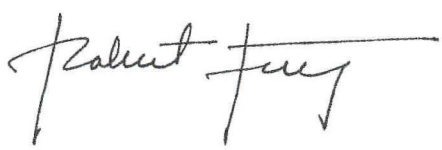
*Scene Two. Talking to others. Setting, the pink-lighted Moderne luxe of the Waldorf-Astoria ballroom, high spring. The last of the cold halibut luncheon plates has been cleared as the crowd simmers down for the National Magazine Awards. Here, our table of 10 represents a small architectural outpost—*ARCHITECTURAL RECORD*, a tiny David in a sea of Goliaths (think* Business Week, Oprah, The Atlantic Monthly, *and* The New Yorker*).*

After the music swells for individual achievements in writing or editing, the category then shifts to General Excellence, the top award. There will be five winners representing the best of the best, sorted by circulation. Amazingly, we find ourselves as finalists in this exalted company, competing in our own heat with Harper's *and* Mother Jones *and* Nylon *and* Preservation, *just as nervous as anyone would be, but honestly satisfied to be included, when—low and behold—the emcee calls out, "Architectural Record."*

Winner! But with a difference. At the luncheon, not only our magazine but all architecture took a small leap forward. For once, we emerged from the pack of professional publications, away from the esoteric or the academic shelves. Finally, we were not only talking to ourselves, but to the world.

Though simplistic as a message, it is true that persistence pays off, for we had tried before. However, on Wednesday, May 8, 2003, ARCHITECTURAL RECORD *and all architecture took center stage at the Waldorf, at a time when our subject has entered the public debate. We did it, the jury said, on the strength of our writing, our design, our photography, and our social concern. The best editors in the country recognized it, and we did it for you.*

While awards events may be tedious for editors as well as architects, they can place our work before a larger audience and propel the discussion outside of our peer group. Who knows? One day you may find yourself bounding onto the stage in another pink ballroom, admitting to yourself what we did: If truth be told, winning feels so sweet.



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Letters

Starting them young
James Russell laments the status of architecture in America ["Where are we now," March 2003, page 88] but fails to indict the major cause. He correctly cites the tendency for developers to seek only cost-effective approaches to building, resulting in the cheapest possible construction. But the real reason that builders fail to incorporate good design is that the architecture profession has failed to educate the public on the value that good architecture contributes to any project. Education is a primary responsibility of every profession. To profess is to teach, as we see in the word "professor." The medical profession fulfills one of its primary missions as it teaches good nutrition and health habits. The dental profession has been successful in virtually eliminating dental decay through research and education.

In contrast, the profession of architecture is almost invisible in our society. In grades K-12, even when art is included in the curriculum, architecture is rarely mentioned. Frank Lloyd Wright correctly called architecture the "mother art," noting that the cave wall was man's first canvas. A school art program that included architecture seems to be a logical choice.

The typical American grows up in houses built with no consideration of the site, the orientation of the sun, or the lifestyle of the occupants. With this type of life experience, it is unlikely that a developer/investor will turn to an architect to design a housing project.

When a significant new building is erected, it should be critically reviewed, just as an artwork is reviewed by an art critic. Citizens are obliged to view a new structure for a generation or longer. They should be protected from visual pollution.

Perhaps it is time for architects to push back from the drafting table and enter into conversation with the public in schools and in the community.
—Robert M. Rubin
Chesapeake, Virginia

A pilot program with the goal of encouraging preschool and early elementary school children to explore their built environment has just been successfully completed by the American Architectural Foundation (AAF) and Learning and Leadership in Families (LLF). Called "Messages of the Built Environment," the program was tested in Title One and Head Start classrooms in Baltimore; Washington, D.C.; Fairfax County, Virginia; and Prince George's County, Maryland. For more information, visit their Web site, www.archfoundation.org/education/.

Bearable lightness of being
The Visiting Artists House [Record Houses, April 2003, page 148] is an achingly intimate space, saved from perfection only by it's very existence.

Thank you Jim Jennings, Steve and Nancy Oliver.
—Olda Zinke
Zinke Design
Lynnwood, Washington

Roots residential
I noticed in April's editorial [A new case, page 23] that the first edition of ARCHITECTURAL RECORD dedicated to houses featured a house designed by Ulrich Franzen. Any chance we could see a few of the photos? I worked with "Rick" Franzen in the late 1980s and greatly appreciated his interest in always having a residential project in his office. This interest allowed employees to explore unique materials and detailing that would have been impossible in more commercial projects. Your magazine provides this service, as well.
—R. Scott Akins, AIA
Naples, Florida

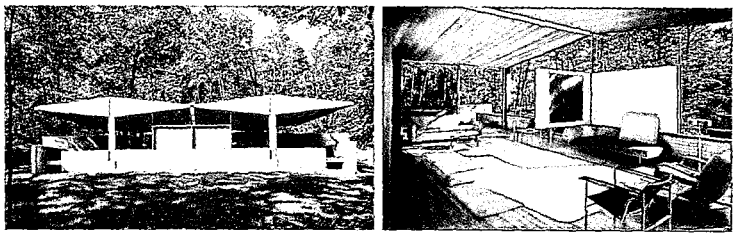
Happy to oblige! See photos below.—The Editors

Keeping the big picture
In March we drove to New York to attend *The State of Architecture at the Beginning of the 21st Century*, a conference at Columbia University. As architecture students from the University of Toronto, it was an exciting opportunity to hear some of the top luminaries of the profession speak. Discussing the conference on the ride home, however, we suddenly realized what we hadn't heard: In two days of intense discussion, there was no mention of social or ecological concerns. In a conference that promised to survey the current state of architecture, discussion was limited to architecture for architecture's sake; there was next to no mention of the broader implications of architecture in a world outside itself. We believe architects have an opportunity (if not a profound responsibility) to address problems in our society and environment. We can only hope this conference does not reflect the state of architecture at the beginning of the 21st century.
—Joy Charbonneau, Coryn Kempster, Noam Lamdan
Toronto

Reuse, renew, preserve
With respect to the AIA/DoE awards for "green projects," I believe the promoters and the juries of these awards should look closely at the "greenest" possible projects all around us—those vintage and historic buildings that are rehabilitated for continuing viability and useful service.

First, there is the obvious energy cost for the materials and labor to construct a replacement building. Next, add the cost in energy required to bake the bricks, fabricate the steel, transport the materials, and perform the labor required to initially create one of those often beautifully crafted vintage structures. Finally, add the unnecessarily wasted energy to demolish them, then transport the mountain of debris into an already choking landfill.

Want to be really green? Get on the preservation bandwagon!
—Robert E. Mackensen,
Consulting Preservation Architect
Yuba City, California



The Franzen House in Rye, N.Y., by Ulrich Franzen. Photos by Elliott Erwin.

Corrections
In the May issue AIA Honor Awards coverage for urban design [page 166], architecture firm Crandall Arambula's name was misspelled, as was that of Torti Gallas and Partners. In the January issue's article about the Brentwood Station project, Busby + Associates would like to clarify that Adam Slawinski was an instrumental part of the team for the conceptual and schematic phase of the design process.

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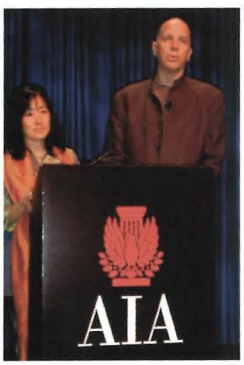
Record News

San Diego draws largest crowd of any AIA convention

The 135th American Institute of Architects (AIA) national convention, with the theme Design Matters!, was held May 8–10 in San Diego and drew the largest crowd of any AIA convention. Approximately 8,000 architects were among the 20,025 who attended, nearly 5,000 more than last year's total. The record crowd was slightly larger than at the 2000 convention in Philadelphia.

After an impassioned presentation of his team's plan for the World Trade Center site, Daniel Libeskind received a sustained standing ovation from approximately 4,000 of his peers at the convention. Libeskind was on a theme presentation panel, moderated by Robert Ivy, FAIA, editor in chief of RECORD, about what Ivy called "the commission of the new century," the development at the World Trade Center site. Other panelists included Stanton Eckstut, FAIA, Frances Halsband, FAIA, and Paul Goldberger, Hon AIA.



Billie Tsien, AIA, and Tod Williams, FAIA

The panelists hailed strong public participation in the still-evolving design process as a positive force. Libeskind said his Memory Foundations plan would reconnect the Lower Manhattan site with the surrounding neighborhood and nearby Hudson River. His description of the replacement rail station, modeled on Grand Central Station, could apply to the whole plan: "Something uplifting, which is also practical."

"I consider my client not one agency, but the people of the world," Libeskind said. Explaining both his optimism and that which built New York City, he added, "Architects depend on the next breath of life."

At a separate theme presentation, New York architects Tod Williams, FAIA, and Billie Tsien, AIA, spoke of the emotion in their work

Tsien, a board member of the Lower Manhattan Development Corporation (LMDC), described her experience with the LMDC as "canoes pedaling in one direction while attached to an aircraft carrier going in another direction." When the nine schemes by architect teams were unveiled in December, Tsien said she "felt proud to be called an architect."

Williams and Tsien showed five of their recent projects. Tsien said they explore "architecture [that] is a slow experience, not immediately apparent but understood as you move through it."

Williams said they enjoy "finding wonder in the common." Tsien added that "the common can be elevated through the beauty of its use."

Steidl named president-elect

Convention delegates elected Douglas L. Steidl, FAIA, as the AIA 2004 first vice president/president-elect and 2005 AIA president. Currently the AIA national treasurer, Steidl is a founding principal of Braun & Steidl, of Akron and Columbus, Ohio.

Paul Davis Boney, FAIA, R.K. Stewart, FAIA, and David H. Watkins, FAIA, were elected as AIA vice presidents for 2004, and James A. Gatsch, FAIA, was elected treasurer for 2004–2005.

The next AIA convention will be in Chicago, June 10–12, 2004.
John E. Czarnecki, Assoc. AIA, with Ann Jarmusch

Moderator Robert Ivy, FAIA (far left), with (from left to right) Paul Goldberger, Hon. AIA, Stanton Eckstut, FAIA, Frances Halsband, FAIA, and Daniel Libeskind.

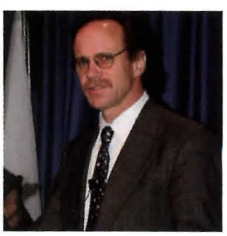
Neuroscientists and architects to study perceptions of place

The American Institute of Architects (AIA) is partnering with neuroscientists in what it hopes will be groundbreaking research on how the brain perceives the built environment. At the AIA convention, the AIA College of Fellows announced that the newly established Academy of Neuroscience for Architecture is the recipient of the biennial $100,000 Latrobe Fellowship grant. Led by John Eberhard, FAIA, a consultant to the AIA who is the institute's director of research planning, the new academy will collect and disseminate data to bridge neuroscience and architecture research.

The upstart academy, which began 18 months ago and was the Legacy Project for the San Diego convention, includes architects and prominent neuroscientists on its advisory board, including Fred Gage, Ph.D., of the Salk Institute for Biological Studies Laboratory of Genetics. Gage, calling for collaboration, gave a theme presentation about his research at the convention.

Visit www.neuroscienceforarchitecture.org for more information on this initiative. *J.E.C.*

John Eberhard, FAIA



Fred Gage, Ph.D.

OFF THE RECORD

Tokyo-based architects Kazuyo Sejima and Ryue Nishizawa of SANAA have won the competition to design a new home on the Bowery for New York City's New Museum of Contemporary Art. Their design for the $35 million building will be unveiled this fall.

Odile Henault resigned at the end of April after only 13 months as executive director of the Association of Collegiate Schools of Architecture. The new executive director of the American Institute of Architecture Students, Michael V. Geary, CAE, began work in May.

Anthropologist and musician Christopher Waterman has been appointed dean of the UCLA School of the Arts and Architecture.

Citing a "dramatic difference between the budget for the project and the estimated cost," Carnegie Museums of Pittsburgh announced in May that French architect Jean Nouvel was being dropped from the commission to design a $90 million expansion of the Carnegie Science Center.

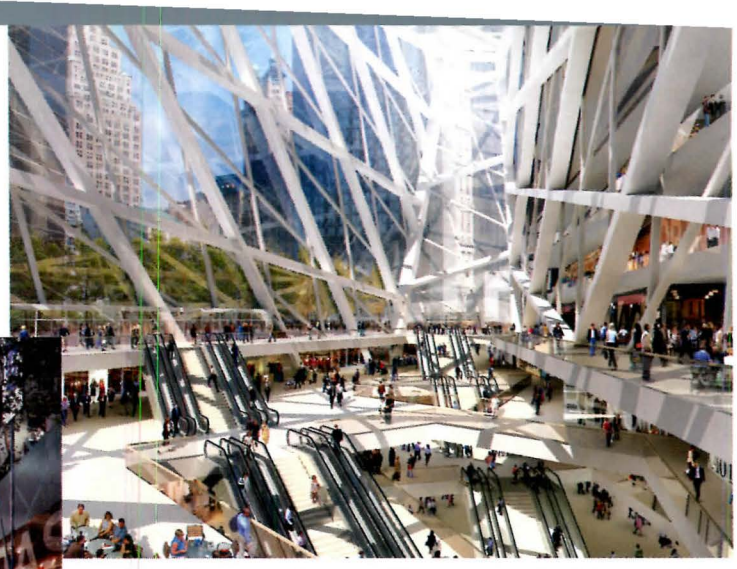
Bernard Zimmerman, FAIA, cofounder of the architecture department at Cal Poly Pomona, has received the USC Architectural Guild Distinguished Alumnus Award.

The Guggenheim Las Vegas, closed since December, is permanently shuttered and will now become a space for stage productions. Designed by Rem Koolhaas, it was open for little more than one year. A smaller Guggenheim Hermitage Museum remains open.

Chuck Davis, FAIA, a founding principal of San Francisco firm Esherick Homsey Dodge and Davis (EHDD Architecture), has won the AIA California Council's Bernard Maybeck Award.

Seattle landscape firm Jones & Jones will receive the inaugural ASLA Firm Award at the ASLA Annual Meeting.

Progress, setbacks at WTC development



Libeskind's Greenwich Street (left) and train station (above) drawings.

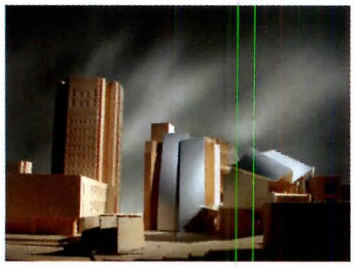
New York Governor George Pataki presented an aggressive timetable in late April for the redevelopment of the World Trade Center (WTC) site. At the same time, though, Alex Garvin, the vice president for planning, design, and development for the Lower Manhattan Development Corporation (LMDC), abruptly resigned. And Larry Silverstein, the leaseholder for the WTC office space, was signaling that he was unsatisfied with the plan by Daniel Libeskind (see new illustrations, above) and that he was refusing to abandon the plan Skidmore, Owings & Merrill developed for him.

Pataki's time frame calls for completion of the permanent PATH commuter train station, Fulton Transit Center, and most of the structure for Libeskind's 1,776-foot tower by 2006. The tower would be completed by 2008. The governor also earmarked $50 million from the LMDC for short-term downtown improvements.

Garvin, the lead planner for the LMDC, resigned after 15 months on the job. *The New York Times* reported that Garvin "clashed" with other rebuilding officials, including Louis Tomson, who was the initial president of the LMDC. With their mentor's departure, two of Garvin's former Yale students moved up in position at the LMDC —Andrew Winters was named vice president and director of planning, design, and development, and Christopher Glaisek is also a vice president for planning, design, and development.

On May 20, the *Daily News* reported that Silverstein proposed adding a fifth tower to Libeskind's plan and narrowing the other buildings. *J.E.C. with David Sokol*

Library by Gehry will be heart of the sciences at Princeton University



Gehry's design for the science library at Princeton will have stainless-steel curving forms.

In what project designer Craig Webb, AIA, calls, "our own version of Collegiate Gothic," Gehry Partners, led by Frank Gehry, FAIA, has designed a new multidisciplinary science library for Princeton University. Supported by a $60 million grant from Princeton alum, trustee, and longtime Gehry patron Paul Lewis, the library will consolidate collections into a 100-foot sweeping tower.

With below-grade access to an existing math and physics library in adjacent Fine Hall and to the labs and classrooms in Gwathmey Seigel's 1998 McDonnel Hall, the 85,000-square-foot science library will be, Webb says, "the heart of the scattered science campus—a new kind of building combining access to information with public space."

The library's two low wings and tower mediate in scale between the 175-foot-tall Fine Hall and adjacent residences. Stainless-steel roof strips fold aside to accommodate glazing on the facade facing those residences. Webb says the references in the roof shapes, the scale of the geometries, and the visual texture of the facades all relate to other campus buildings. Small brick towers and rectilinear elements lock the building into the street grid and relate it to the dark brick that is traditional for many of Princeton's science buildings, particularly neighboring Gillot Hall. Construction is expected to begin in fall 2004, with an opening slated for spring 2007. *Thomas de Monchaux*

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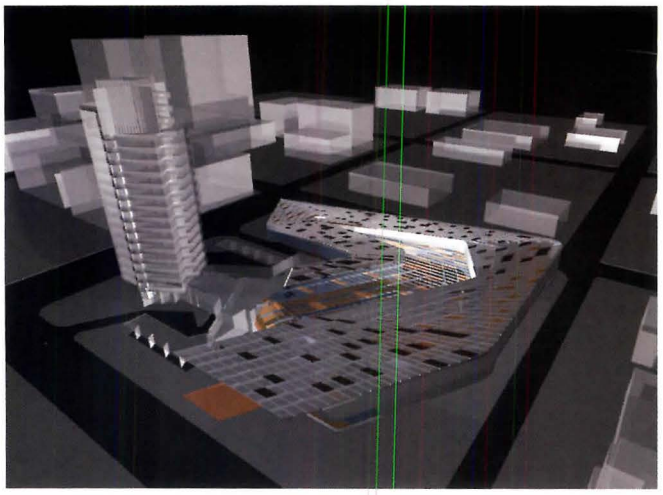
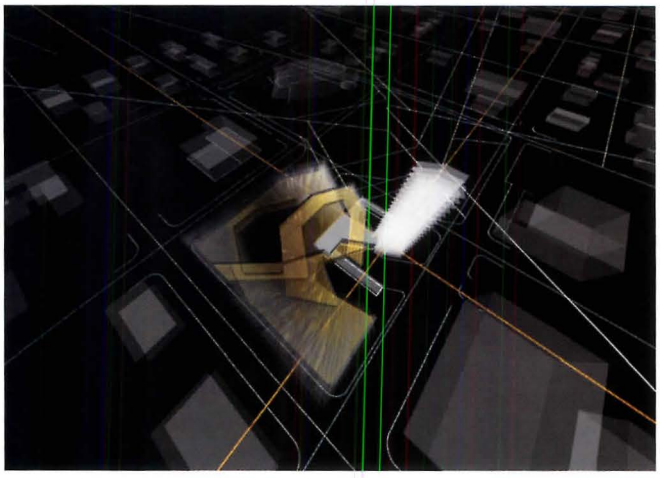
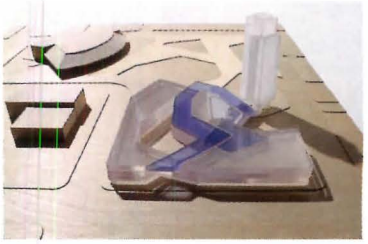




Hadid's design (left, and in model below) for the Price Tower Arts Center is a low-lying "boomerang" shape.

Zaha Hadid develops design for museum adjacent to Wright's Price Tower

Zaha Hadid has unveiled preliminary designs for a new building for the Price Tower Arts Center in Bartlesville, Oklahoma. The arts center, a museum of art, architecture, and design, will abut Frank Lloyd Wright's Price Tower, his tallest completed building. The Price Tower Arts Center, which is currently housed in the 1956 Wright tower, is Hadid's second commission in the United States after the Rosenthal Contemporary Arts Center in Cincinnati, which opened earlier this month.



The new facility will give the museum 58,000 square feet of gallery space and areas for support services. According to Hadid, the center's design was determined in part by the geometry of the Price Tower itself, as well as by downtown Bartlesville's strict street grid and nearby buildings, including a performing arts center and a library. She devised the form by overlaying triangular shapes from the Price Tower, Bartlesville's street grid, and a map of projected pedestrian movement through the site. The low-lying building's shape is described as a "boomerang" that extends to the perimeter of the Price Tower's city block and connects to the tower at its base via an unarticulated rear wall.

The museum will share a new plaza to its south with the performing arts center. The plaza will serve as the pedestrian approach to the museum. In the building's glass-roofed lobby, ramps lead visitors down to a theater, classrooms, and offices, or up to the three gallery spaces. One of two 5,000-square-foot galleries will be devoted to the museum's permanent collection, and the other will house temporary exhibitions. A third 2,000-square-foot gallery will be used for either permanent or temporary exhibitions.

A walkway on the second floor passes over the lobby to the arts center's architectural research facility, which will occupy the area between the boomerang of the new museum and the Price Tower. A window in the study center will look directly into the adjacent double-height gallery of the tower.

Hadid won the commission for the Price Tower Arts Center in an international search conducted in 2001 and 2002. She was selected from a shortlist that also included Rem Koolhaas and Antoine Predock, FAIA. The design is in an exhibition called *Zaha Hadid*, which will run at New York's Artists Space gallery from June 4 to July 26. *Kevin Lerner*

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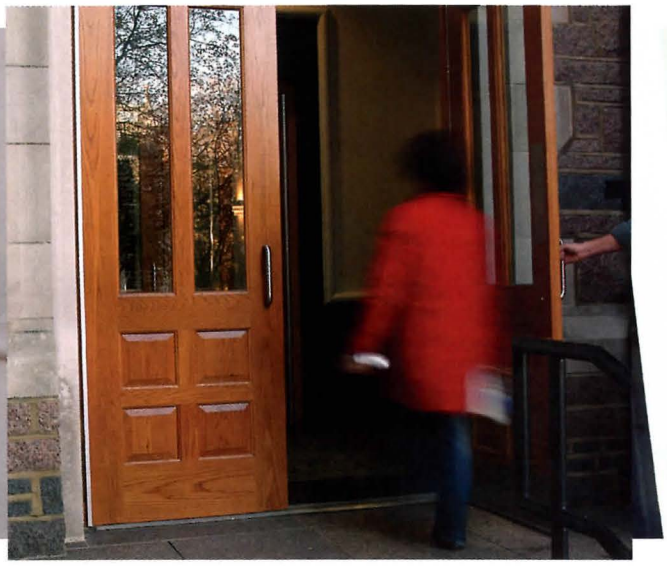

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Garofalo's temporary installation graces Chicago MCA stairs

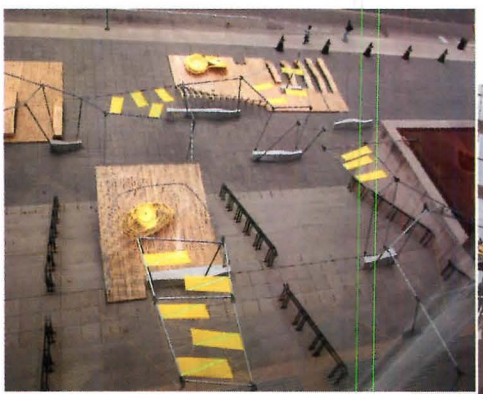
German architect Josef Paul Kleihues made his American debut with the opening of Chicago's Museum of Contemporary Art (MCA) in 1997. Most visitors and critics have found Kleihues's rigidly organized, cast aluminum panel structure a cold and overbearing interpretation of the city's earlier champion of the orthogonal, Mies van der Rohe.

A temporary installation, *Between the Museum and the City*, that uses Kleihues's front plaza as an experimental canvas for architectural investigation opened earlier this month. In the spirit of the annual MoMA/P.S.1 Young Architects Program (see story, page 34), which invites a young architect to design an installation for New York's P.S.1 courtyard, the MCA asked Chicago architect Doug Garofalo, FAIA, to enliven the entrance to its building. The $40,000 installation populates the barren plaza with a series of canted pavilionlike steel structures, curved precast-concrete benches, and four wooden decks.

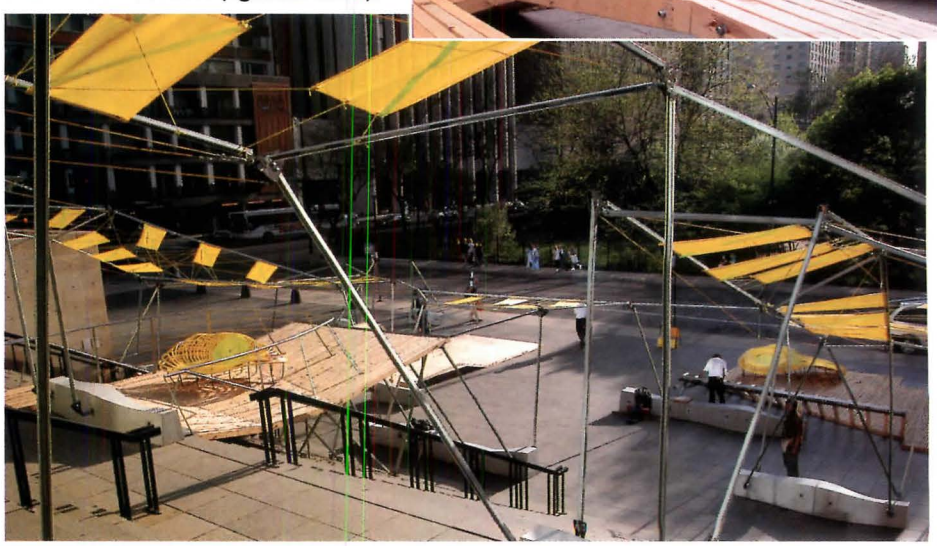
The installation is conceived as a collage of elements suggesting a weaving with Kleihues's rigid grid. Garofalo's geometries are carefully calculated to work with existing diagonal pedestrian patterns across the plaza and will allow a weekly farmer's market to continue. "We animate the space by defining areas through the strategic placement of our elements," Garofalo says.

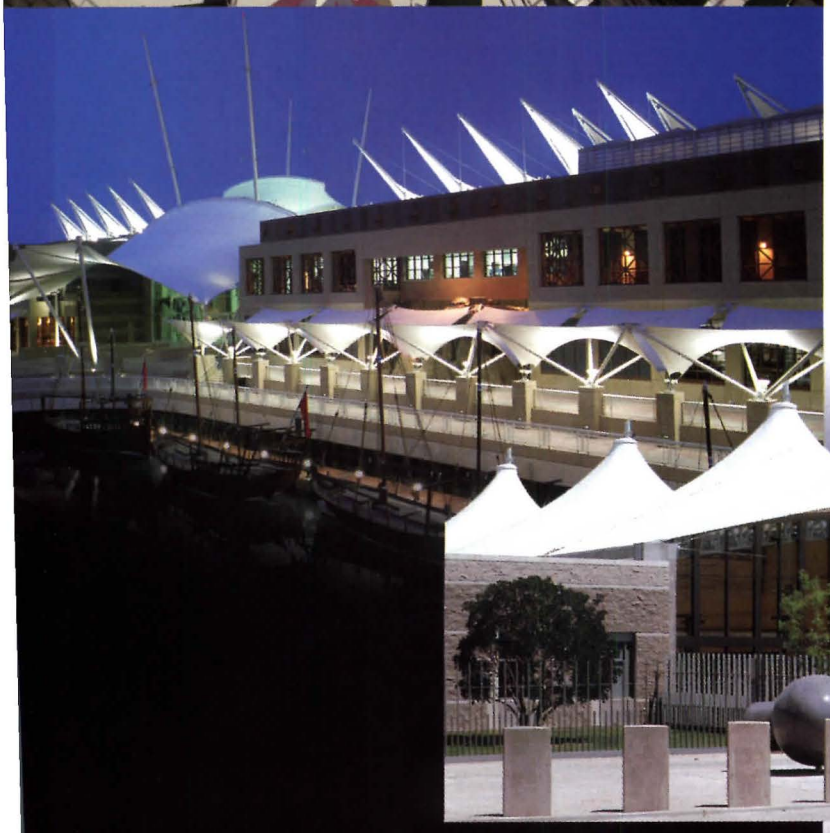
For all its apparent elaborateness, Garofalo has developed a very simple kit of parts. All structural elements are standard galvanized steel uni-strut members connected by two custom fabricated joints that allow for each of the unique angles of the design to be field-installed. The concrete "benches" weigh 3,000 pounds each and permit the entire ensemble to sit on the site without needing any permanent anchors.

Constructed with the help of graduate architecture students from the University of Illinois at Chicago, who also developed details and researched materials, the installation remains in place through October. *Edward Keegan*



The MCA installation includes wooden decks (above) and a series of canted pavilionlike steel structures (right and below).





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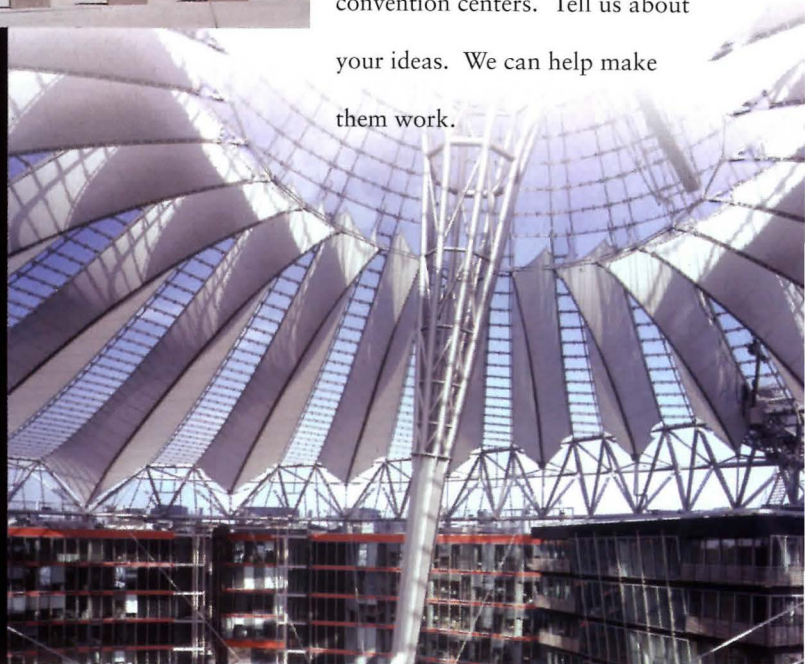

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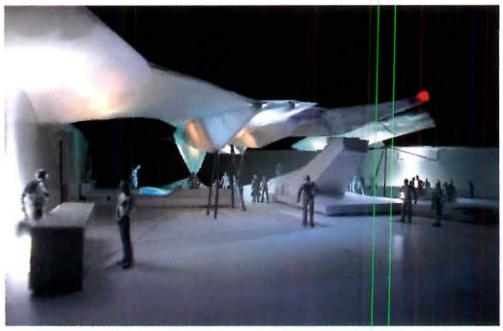


Wiscombe's installation includes membrane roofs connected to metal supports (left and below).

Wiscombe wins MoMA/P.S.1 Young Architects Program

Tom Wiscombe, a Los Angeles and Vienna–based architect, has won the fourth annual MoMA/P.S.1 Young Architects Program. The competition invites architects to design and build an "urban beach" in the courtyard of P.S.1, a museum of contemporary art in Long Island City, New York. The installation will open June 29 and will be dismantled after the conclusion of P.S.1's annual summer concert series.

Wiscombe's design will shade the courtyard during the day with a 2,500-square-foot tensile fabric or membrane roof (the material had not been selected at press time), which will stretch in sections between aluminum and steel supports. "We looked at projects that had been done in previous years," Wiscombe said, "and we thought that there's never been enough shade." Lighting will be installed to make the translucent fabric structure glow in the evening.

A "leisure landscape" made of latex-sealed plywood will offer places to sit or lie down and will also form two long pools of water for wading.

P.S.1 allows a $60,000 construction budget for the project, which Wiscombe and a team of volunteers began building in May. Some of the builders come from the New York area, but Wiscombe also imported some of the crew. "I brought over some people from Europe," he said, "including a couple of Swiss shipbuilders I know."

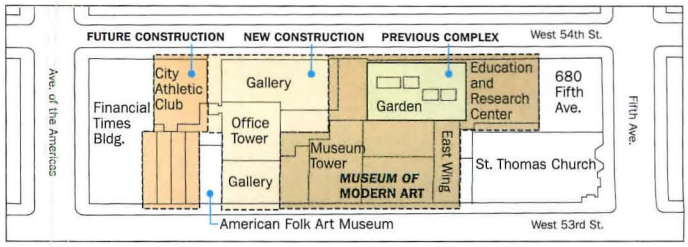
Visit www.archrecord.com/archrecord2 to view Wiscombe's profile in RECORD [May 2002, page 81]. *Kevin Lerner*

MoMA's expansion costs increase as it acquires more land

The New York Times reported in May that the budget for the expansion of New York's Museum of Modern Art (MoMA) by Yoshio Taniguchi has increased beyond its original $806 million estimate to $858 million. MoMA, which has raised approximately $600 million for the project and is closed in Manhattan during the construction process, is scheduled to reopen in late 2004–early 2005.

A spokesperson for MoMA would not itemize the total construction cost but told RECORD that change orders account for little of the overrun. Rather, construction insurance costs have tripled since the terrorist attacks of September 11. Mold prevention has also boosted expenses. Additional heating, at a cost of $4 million, has been implemented to preclude mold from growing in the museum's old buildings.

Land acquisition has contributed to budget overruns. Since site preparation on the expansion began, MoMA purchased a vacant lot immediately west of the American Folk Art Museum on 53rd Street, and the seven-story City Athletic Club on 54th Street. The museum also purchased a 60,000-square-foot vitamin factory adjacent to its Michael Maltzan–designed temporary exhibition facility, MoMA QNS in Queens, New York. The acquired sites, purchased for $23.5 million in total, are reserved for future expansion projects. *David Sokol*



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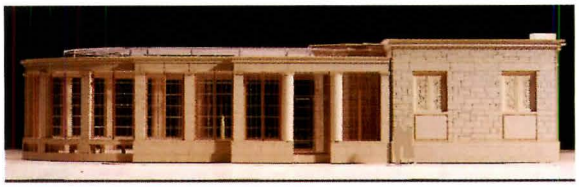
Record News

Washington Monument entrance gets preliminary approval



The planned Washington Monument visitors' lodge addition.

The National Capital Planning Commission (NCPC) has granted preliminary approval for an addition to the Washington Monument visitors' lodge, designed by Hartman-Cox Architects. The addition would house X-ray machines and magnetometers for security screening, replacing a temporary aboveground structure. The NCPC had rejected previous designs as too large.

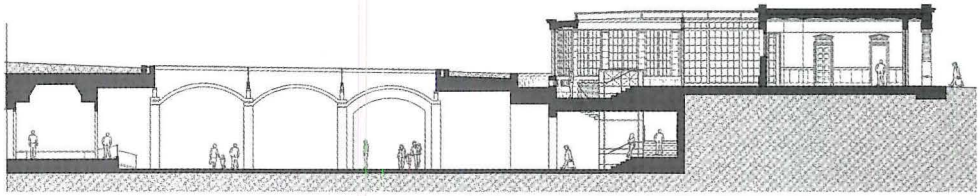
As part of a plan to prevent acts of terrorism against the monument, the addition will also provide the only public access to the monument's interior. Upon passing through the security screening area, visitors would descend to a visitors' center below grade (see section, below) and a skylit underground tunnel to the monument.

Hartman-Cox senior partner Warren Cox, FAIA, says, "The whole thing is set up so that no one who is a threat can get very far—they're encapsulated."

The project faces opposition from Mall advocates who argue that it will prevent visitors from entering the monument at grade, as they have done historically.

Sally Blumenthal, deputy associate regional director of the National Park Service, responds, "We want to protect the monument and make it available to the public. If the only aesthetic and secure way to do it is to enter through a concourse, we believe that's the right thing to do."

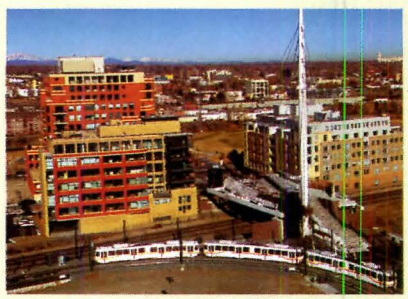
Hartman-Cox was chosen with the Olin Partnership in December 2001 to redesign the Washington Monument to eliminate ad hoc security measures, such as jersey barriers. NCPC executive director Patricia Gallagher calls the scheme "a very subtle approach to incorporating security features." *D.S.*



CNU announces annual Charter Award winners

The Congress for the New Urbanism (CNU) has announced its Charter Award winners for 2003. The Charter Awards celebrate the best in urban design and will be given at the 11th Congress for the New Urbanism conference, to be held in Washington, D.C., June 19 to 22.

Architects or sponsoring agencies for the winning projects are Goody, Clancy & Associates; Glatting Jackson Kercher Anglin Lopez Rhinehart; Design Community & Environment and The Association of Bay Area Governments; Moule & Polyzoides Architects and Urbanists; Civitas; Urban Design Associates; Tunnell-Spangler-Walsh; Looney Ricks Kiss Architects; Design Workshop; Planning & Design Institute; Kelley-Markham Architecture and Planning; Duany Plater-Zyberk & Company; RNL Design; and Stanton Development Group. Design Workshop was honored for The Commons (pictured here) in Denver. Moule & Polyzoides Architects and Urbanists won two awards—for the Del Mar Station Transit Village in Pasadena, California, and the Dona Ana Plaza Revitalization in Dona Ana, New Mexico.



Winners were selected from 169 entries from more than 100 firms. For more information on the winning projects, visit www.cnu.org. *J.E.C.*

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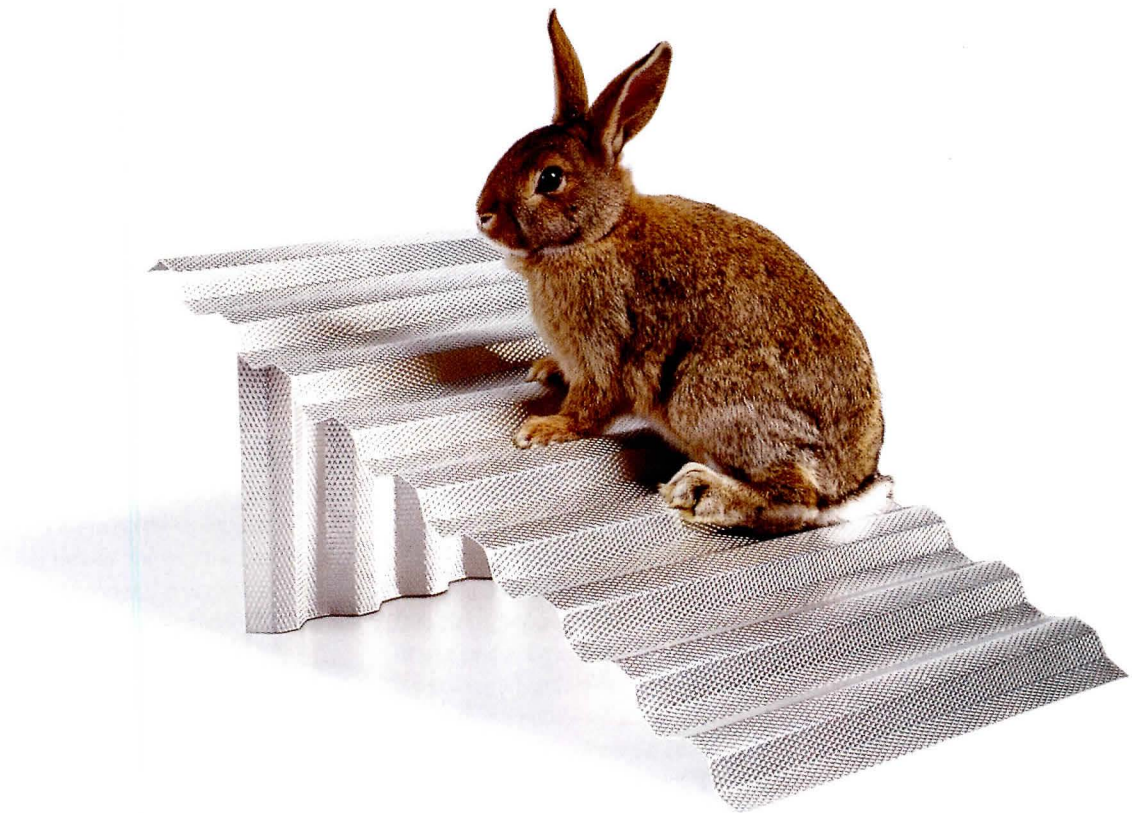

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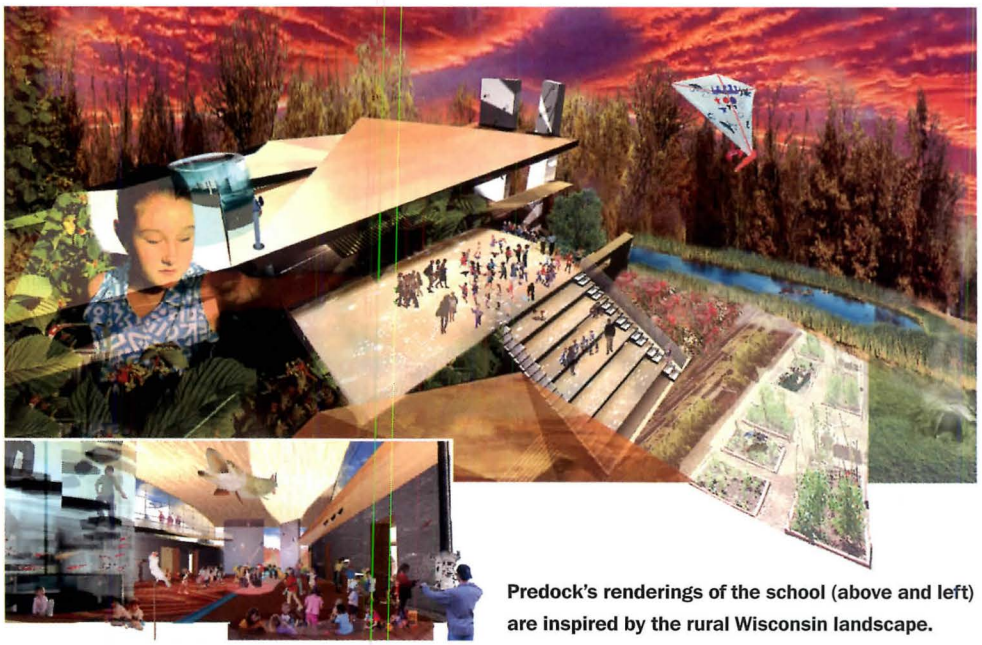
Predock wins competition for Indian school near Milwaukee



Predock's renderings of the school (above and left) are inspired by the rural Wisconsin landscape.

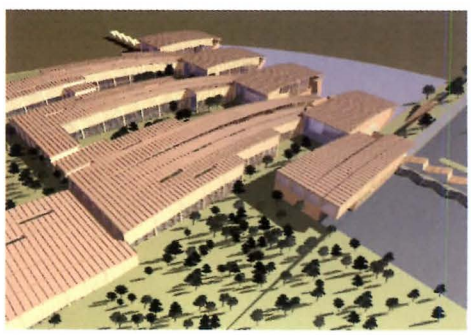
Antoine Predock, FAIA, has been selected in an invited competition to design a new 4K-12 school in suburban Milwaukee for an American Indian community. Predock won the commission against two other finalists: Valerio Dewalt Train of Chicago and Leonard Parker Associates of Minneapolis.

The client, the Indian Community School of Milwaukee, acquired a 142-acre site—a former farm that includes wetlands and small areas of preserved forest—for its new campus and had a unique request for the three invited firms. The architects were asked to develop renderings of eight specific spaces for the 200,000-square-foot school. The eight requested views were: (1) exterior of the building including the main entrance, (2) exterior of the classroom wing(s) or area, (3) interior of the main entrance, (4) interior of a classroom, (5) interior of a primary hallway, (6) interior of the dining hall, (7) interior of the theater, and (8) interior of the boardroom or conference room.

According to Predock's office, the school's board of directors wanted drawings that were highly accessible, showing detail, materials, and atmosphere, because none of the board members are in the design or construction industry. Predock emphasized that the renderings (above) are conceptual and do not necessarily imply what the built structure will ultimately look like.

The school's program and curriculum will differ in many ways from a typical public school. Class sizes will be held to 12 to 15 students, with a teacher and an aid assigned to each classroom. Large public spaces in the school are intended for community use, not just students, with a theater for 800 people and a dining hall that can seat 1,000.

The Milwaukee office of Hammel, Green and Abrahamson, with James Vander Heiden, AIA, as principal in charge, is the executive architect and architect of record working with Predock. *J.E.C.*



Finalist renderings by Valerio Dewalt Train (top) and Leonard Parker Associates (above).

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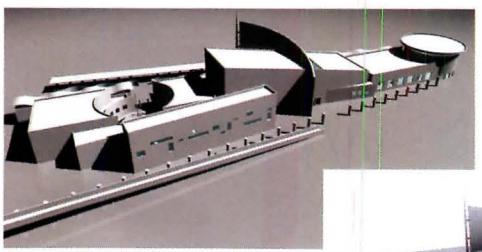
News Briefs

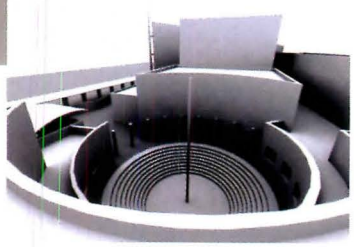
Portland office to aim for LEED Gold rating Portland, Oregon–based BOORA Architects has designed what it claims will be the first speculative office building to earn a Gold LEED rating from the U.S. Green Building Council. Tentatively set for ground breaking later this year, One Waterfront Place is a $36.5 million, 12-story, 235,000-square-foot speculative office. Its north-facing glass facade will have striped aluminum panels, and sunshades will shield the south elevation. Other green features will include daylighting, operable windows, raised access floors, and highly efficient HVAC and lighting systems.

Portland spec office building will apply for LEED Gold.

One Waterfront Place will be adjacent to downtown Portland and the burgeoning Pearl District. According to developer Jim Winkler, the project's green features will attract a premium in Portland's competitive commercial real estate market. *Brian Libby*

Helix Architecture to design theater Helix Architecture has been selected to design the Children's Theater of Salt Lake in Salt Lake City. The 30,000-square-foot building includes a 450-seat auditorium, 100-seat black-box theater, an acting school for 100 students, as well as a 200-seat outdoor amphitheater for city-sponsored summer performances within an enclosed courtyard. Helix project designer Alex Protasevich, AIA, says the theater exterior was conceived as a sequence of unfolding film frames; the building exterior is a series of shifting rectilinear and cylindrical volumes. The Tacoma, Washington–based firm was selected for the project in an invited competition in 2001. Construction, which is expected to cost $5 million, will begin in early 2004.





Children's Theater fans outward toward an enclosed amphitheater.

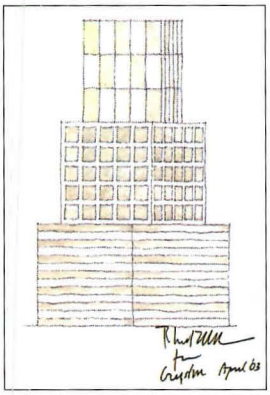
Whitney cancels Koolhaas-designed expansion Just as it had cancelled a 134,000-square-foot, Michael Graves–designed expansion in 1985, in April the Whitney Museum of American Art on Manhattan's Upper East Side announced that it would not build an expansion designed by Rem Koolhaas.

The Whitney hired Koolhaas in February 2001, and the Rotterdam-based architect had presented two schemes for expanding the space-strapped museum. In one proposal, Koolhaas designed an 11-story building to connect to the museum's main building and to adjacent brownstones converted into galleries. A second scheme called for demolishing the brownstones and replacing them with a nine-story building. In both plans, the original museum, designed by Marcel Breuer, would have remained untouched. Sources estimate that the second design, considered to be the less expensive, would have cost as much as $200 million. Maxwell Anderson, a champion of the proposed expansion, resigned in May after five years as Whitney Museum director.

Rome Prize winners named In April, the American Academy in Rome announced the winners of the 2003–2004 Rome Prize Competition. Thirty-one prize recipients represent 11 fields of study. In architecture, winners include J. Yolande Daniels, a partner in SUMO; Polshek Partnership Architects partner Richard M. Olcott, FAIA; and Linda Pollak, principal of Marpillero Pollak Architects. Arizona State University Associate Professor Reed Kroloff and design historian Susan Yelavich are the Rome Prize winners in design. Charles A. Birnbaum, coordinator of the National Park Service's Historic Landscape Initiative, won the Rome Prize for historic preservation and conservation, as did Studio TKM director T.K. McClintock. Landscape architecture winners include designer Cheryl Barton, aerial photographer Alex S. MacLean, and California Polytechnic State University professor Joseph Ragsdale.

News Briefs

University of Arizona holds on to design departments After being threatened with closure in mid-January, the University of Arizona announced in April that it will retain its departments of landscape architecture and planning. The school's president and provost had originally proposed eliminating the two programs due to budget cuts. But a strong, negative public response, as well as lobbying from groups that included the Arizona chapter of the American Society of Landscape Architects, compelled university officials to reverse the decision. Instead, the officials have now chosen to transfer the planning department to the College of Public Health from the College of Architecture, Planning, and Landscape Architecture. *K.L.*

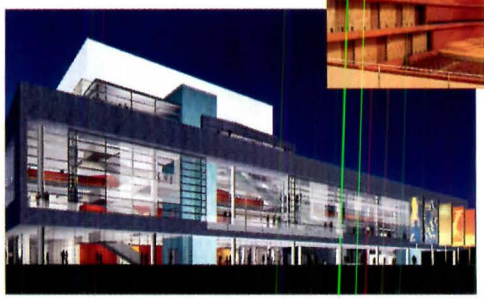


Cake by Robert A.M. Stern.

Omaha Performing Arts Center construction begins To coincide with the April 30 ground breaking for the new Omaha Performing Arts Center, officials from the Omaha Performing Arts Society unveiled the design of the building, now under construction. The $90 million project is scheduled to be completed in fall 2005.

Designed by Polshek Partnership Architects, with Omaha-based architecture and engineering firm HDR, the performing arts center will house a 2,000-seat concert hall, 450-seat chamber music hall, and a semienclosed outdoor performance space and event garden.

The new facility's glazed street-level lobby is built to the edges of the site in order to reinforce pedestrian use between buildings. Inside, visitors ascend a staircase overlooking the terraced outdoor performance space and garden to arrive in a piano nobile main lobby. The exterior of this raised main level is glazed with zinc sheathing. The concert hall, a separate stone-clad volume, is within this volume. The design's elevated lobby as well as the concert hall's clerestory windows directly reference Vienna's Musikverein Hall.



Omaha Performing Arts Center (above and right).

Cakes for a cause At the invitation of Maya Lin, a number of prominent architects are designing cakes for charity. The Greyston Foundation is opening its new Lin-designed bakery this month on a Hudson River–waterfront reclaimed brownfield in Yonkers, New York. The bakery, which produces gourmet cakes and tarts and provides approximately three million pounds of baked ingredients annually to Ben & Jerry's and other large-order customers, trains and provides jobs for formerly homeless people.

Lin, who is also designing a cake, has asked Steven Holl, Richard Meier, David Rockwell, Robert A.M. Stern, Billie Tsien and Tod Williams, Frank Gehry, and Rafael Viñoly to develop cake designs that will be auctioned off and later baked for the winning bidders. Contact the Greyston Foundation, 914/376-3900 x 276, for more information on bidding. *Jane F. Kolleeny*

Experience Music Project welcomes science fiction *Star Trek* paraphernalia and space suits will be just some of the objects on display in *Science Fiction Experience*, a new $20 million exhibition to open in summer 2004 at Seattle's Experience Music Project (EMP). The show is the brainchild of EMP founder and Microsoft cofounder Paul Allen, whose collection of Jimi Hendrix and other rock 'n' roll mementos inspired the creation of EMP.

The new show will occupy 13,000 square feet on three levels of the Frank Gehry–designed museum. A new multipurpose mezzanine, designed expressly for the exhibition, will include performance space that expands the building by 1,000 square feet. EMP has had declining attendance since opening in 2000, and it expects *Science Fiction Experience*, which replaces the *Artist's Journey* exhibition, to attract an additional 150,000 to 200,000 visitors annually. *News Briefs by David Sokol unless otherwise noted.*

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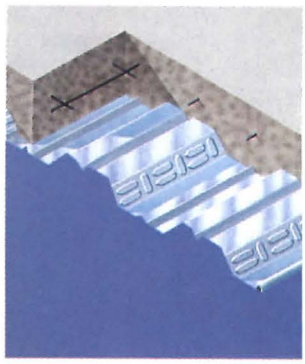

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TRANSAMERICA SQUARE - DEVELOPER: The Harris Group - ARCHITECT: Gantt Huberman Architects - STRUCTURAL ENGINEER: Walter P. Moore & Associates GENERAL CONTRACTOR: Shelco Inc. - STEEL FABRICATOR: Steel Fab, Inc. - STEEL ERECTOR: L. R. Wilson

ODELL BUILDING - DEVELOPER: The Harris Group - ARCHITECT & STRUCTURAL ENGINEER: Odell Associates - GENERAL CONTRACTOR: Shelco Inc. STEEL FABRICATOR: Steel Fab, Inc. - STEEL ERECTOR: Williams Erectors

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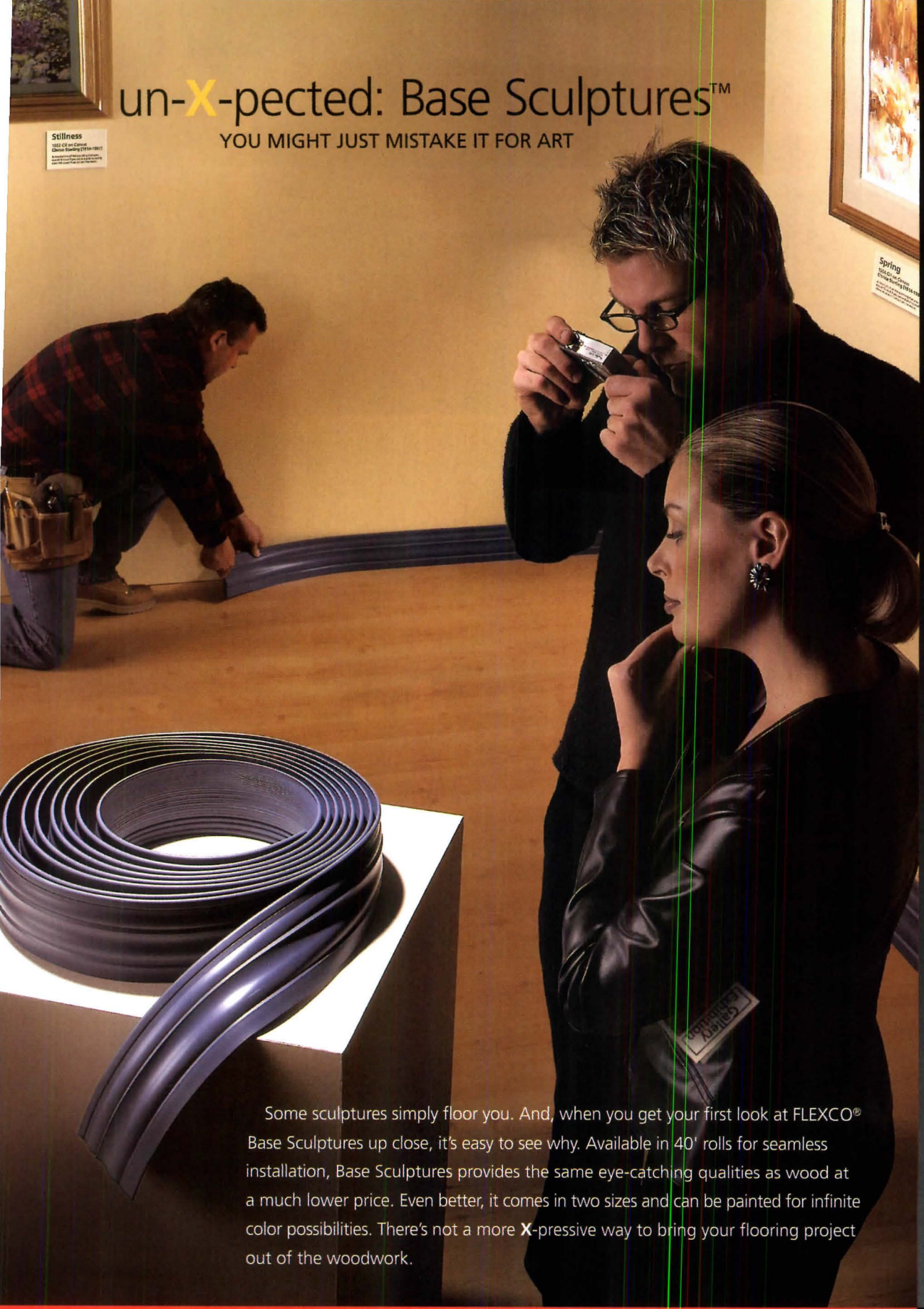

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Dates & Events

New & Upcoming Exhibitions

Leading Architects and Designers Cook Up Cake Renderings to Aid Greyston Foundation
New York City
June 11, 2003
At the invitation of designer Maya Lin, some of the country's most prominent architects, artists, and designers have turned their fine hands to designing cakes. The cake renderings, created by such talented individuals as Frank Gehry, Ed Koren, Tom Otterness, and Rafael Viñoly, will go on view and be auctioned off to benefit the Greyston Bakery and Foundation. At the Jan Abrams Gallery. For more information, call Greyston Foundation at 914/376-3900, x 276.

Starting Places/Architect's Study Models
Dallas
June 13–July 13, 2003
A show of 20 exploratory artifacts by Dallas-area architects will be on view. Operating along the border between imagination and reality, these miniature depictions will represent a spectrum of building types and express the pleasure and importance of making things while thinking. At the McKinney Avenue Contemporary (the MAC). Call 214/953-1212 for more information.

Treasures from the Collection
New York City
October 14, 2003–April 18, 2004
The Nancy and Edwin Marks Collection Gallery will introduce two installations each year featuring a wide range of objects from all historic periods and creating a visual encyclopedia of the collections. International in scope and possessing one of the most diverse and comprehensive collections of design works in existence, the museum's holdings range from the Han Dynasty to the present and total more than 250,000 objects. Call 212/849-8400 or visit www.si.edu/ndm.

Solos: SmartWrap
New York City
August 5–October 10, 2003
The first exhibition in a new series features a pavilion by the Philadelphia architecture firm Kieran Timberlake Associates in the Arthur Ross Terrace and Garden. SmartWrap is a concept for a customizable building material that would incorporate a building's facade as well as emerging technologies in heating, lighting, and solar energy. At Cooper-Hewitt. Call 212/849-8400 or visit www.si.edu/ndm for more information.

Ongoing Exhibitions

Fantastic
North Adams, Mass.
March 8, 2003–Spring 2004
In *Fantastic*, MASS MoCA showcases contemporary artists—Miguel Calderon, Gregory Crewdson, Alicia Framis, Nils Norman, and the artist collective Temporary Services—all of whom embrace

a world of hallucinatory, visionary, utopian, and otherwise "fantastic" ideas. At the Massachusetts Museum of Contemporary Art. Call 413/662-2111 or visit www.massmoca.org.

National Design Triennial 2003: Inside Design Now
New York City
April 22–January 25, 2003
The Triennial is a review of cutting-edge trends and future horizons in the fields of design practice, from architecture, interiors, and landscape design to product design, graphic design, fashion, and new media. The exhibition details the work of emerging designers operating at the most innovative and provocative level in design today, including the work of 80 designers with specially commissioned installations. At the Cooper-Hewitt, National Design Museum. Call 212/849-8400 or visit www.si.edu/ndm.

Design Berlin! New Projects for a Changing City
Berlin
May 2–June 22, 2003
The Vitra Design Museum exhibition introduces the most innovative young designers and architects in Berlin with this presentation of their most important projects, including furniture, product design, and architecture. At the Vitra Design Museum Berlin. Call 49 30 47 37 77 12 or visit www.design-museum-berlin.de.

International Architecture Biennale Rotterdam
Rotterdam, the Netherlands
May 7–July 7, 2003
"Mobility" is the theme of the event, the first architecture biennial exhibition to be held in the Netherlands. Curated by Francine Houben, the exhibition will examine how architects, traffic engineers, city planners, landscape architects, artists, filmmakers, and photographers can provide a new perspective on mobility in relation to everyday human experience. For information, visit www.1ab-rotterdam.nl, call 31 10 4401331, or send e-mail to info@1ab.nl.

Tea and Coffee Towers
New York City
May 8–June 28, 2003
Architects' Tea and Coffee Towers features designs by Will Alsop, Weil Arets, Juan Navarro Baldeweg, Gary Chang, David Chipperfield, Denton Corker Marshall, Deszo Ekler, Massimiliano Fuksas and Doriana O. Mandrelli, Future Systems, Zaha Hadid, Toyo Ito, Tom Kovac, Greg Lynn FORM, Alessandro Mendini, Morphosis, MVRDV, Jean Nouvel, Dominique Perrault, Kazuyo Sejima & Ryue Nishizawa/SANAA, and UN Studio. At Max Protetch Gallery. Call 212/633-6999 or visit www.maxprotetch.com.

The HOME House Project
Winston Salem, N.C.
May 10–July 6, 2003
The multiyear HOME House Project initiative, the future of affordable housing, begins with an exhibition of more than 450 proposals from artists and architects from the U.S., the Netherlands, Spain, England, Russia, Italy, and Canada. These sustainable designs for low- and moderate-income family houses are using Habitat for Humanities basic three- and four-bedroom house as a point of departure. At the Southeastern Center for Contemporary Art. Call 336/725-1904 or visit www.seca.org.

Traces of India: Changing Views of the Monuments of a Subcontinent
Montreal
May 15–September 14, 2003
The exhibition will present more than 200 master

photographs taken by travelers, military surveyors, and professional studios within the context of the British colonial era, exploring some of the greatest architectural sites of the Indian subcontinent. At the Canadian Centre for Architecture. Call 514/939-7000 or visit www.cca.qc.ca for further information.

Luxury Textiles East and West
Los Angeles
Through August 15, 2004
Commemorating the 50th anniversary of LACMA's Department of Costume and Textiles, this exhibition highlights extraordinary examples of the textile arts of America, Asia, and Europe from the department's extensive holdings. At the Los Angeles County Museum of Art. Call 323/857-6000 or visit www.lacma.org for more information.

Pere Noguera: Lands
Barcelona
Through August 31, 2003
A poetic reflection on the design of elements of earth used in architecture, in the home, for domestic utensils, for furniture, decoration, the garden, and everything that surrounds us. At the Ceramics Museum, as part of the Year of Design 2003. Visit www.designyear2003.org for further information.

Conferences, Symposia, Lectures

The 8th Guangzhou International Illumination Exhibition
Guangzhou, China
June 11–14, 2003
This event is held annually and is well known as the largest and most successful lighting fair in China, with 1,000 exhibitors of lighting. At the Chinese Export Commodities Fairground. Call 86-20/825-784-98 or visit www.illuminationchina.com.

37th International Making Cities Livable Conference
Siena, Italy
June 15–19, 2003
Call for papers deadline: April 15
An international conference for architects, urban designers, landscape architects, city officials, planners, historic preservationists, and social scientists, where practitioners and academics from around the world share ideas and establish working relationships. For more information, call 831/626-9080 or visit www.livablecities.org.

Architecture in the Garden
Washington, D.C.
June 16, 2003
James van Sweden, FASLA, principal of Oehme, van Sweden Associates, will show his work and discuss the importance of paths, walls, gates, and fences to the overall success of a well-designed garden. At the National Building Museum. Call 202/272-2448 or visit www.nbm.org.

Strategies for Sustainable Development
Washington, D.C.
June 17, 2003
Proceeding from vernacular traditions to the latest developments in the field, such as the Leadership in Energy and Environment Design (LEED) rating system, Raj Barr-Kumar, FAIA, RIBA, principal of Barr-Kumar Architects Engineers PC and former national president of The American Institute of Architects, maps a strategic approach to sustainable development. At the National Building Museum. Call 202/272-2448 or visit www.nbm.org.

New Arguments for New Urbanism
Washington, D.C.
June 19, 2003

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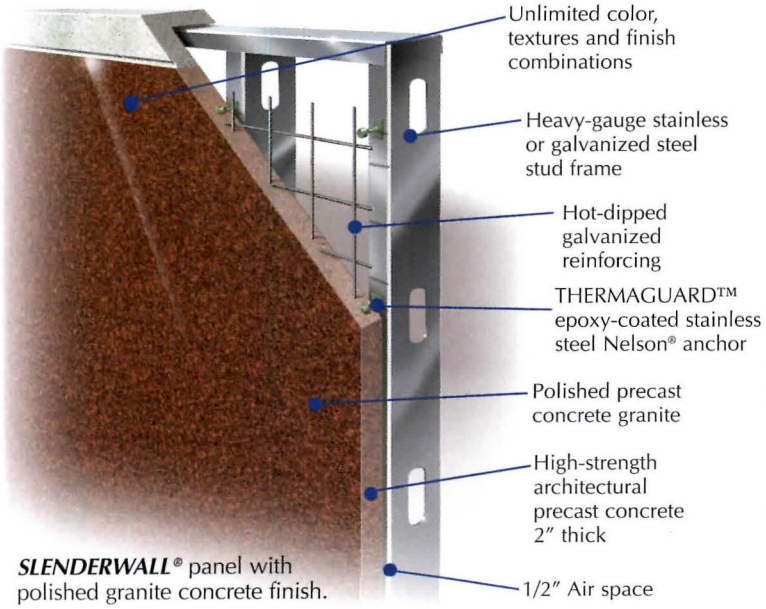

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Dates & Events

Richard J. Jackson, M.D., director of the National Center for Environmental Health at the Centers for Disease Control and Prevention, will present scientific data showing how sprawl impairs physical, mental, and environmental health. At the National Building Museum. Call 202/272-2448 or visit www.nbm.org.

The Congress of International Modern Architects Modern Architecture Walking Tour
New York City
June 22, 2003
CIMA is a not-for-profit organization dedicated to educating new generations about the ever-relevant principles of modern architecture and design. Tour #3 will be led by Arthur Marks, a tour guide in N.Y.C. for over 40 years. He will show Modern Architecture in New York, Midtown south of Central Park. Visit www.cimarchitects.org or call 212/777-7997.

Paving Our Way to Water Shortages
Washington, D.C.
June 25, 2003
A discussion of how sprawl exacerbates water supply problems in many communities. At the National Building Museum. Call 202/272-2448 or visit www.nbm.org.

International Design Conference In Aspen (IDCA)
Aspen, Colo.
August 20–23, 2003
Held each summer since 1951, IDCA presents a vital and authoritative forum on design for professional designers, students, critics, and thinkers. This year's program theme is "Safe: Design Takes On Risk." Visit www.idca.org or call 970/925-2257.

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The National Building Museum solicits entries of well-designed subsidized housing projects for possible inclusion in an exhibition about affordable housing. Call 202/272-2448 or visit www.nbm.org.

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Topeka, Kansas
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The Design Awards Contest recognizes and rewards exceptional sunroom design that enhances the beauty of a home or commercial building while considering the energy efficiencies of the sunroom. For information, call 785/271-0208 or visit www.nationalsunroom.org.

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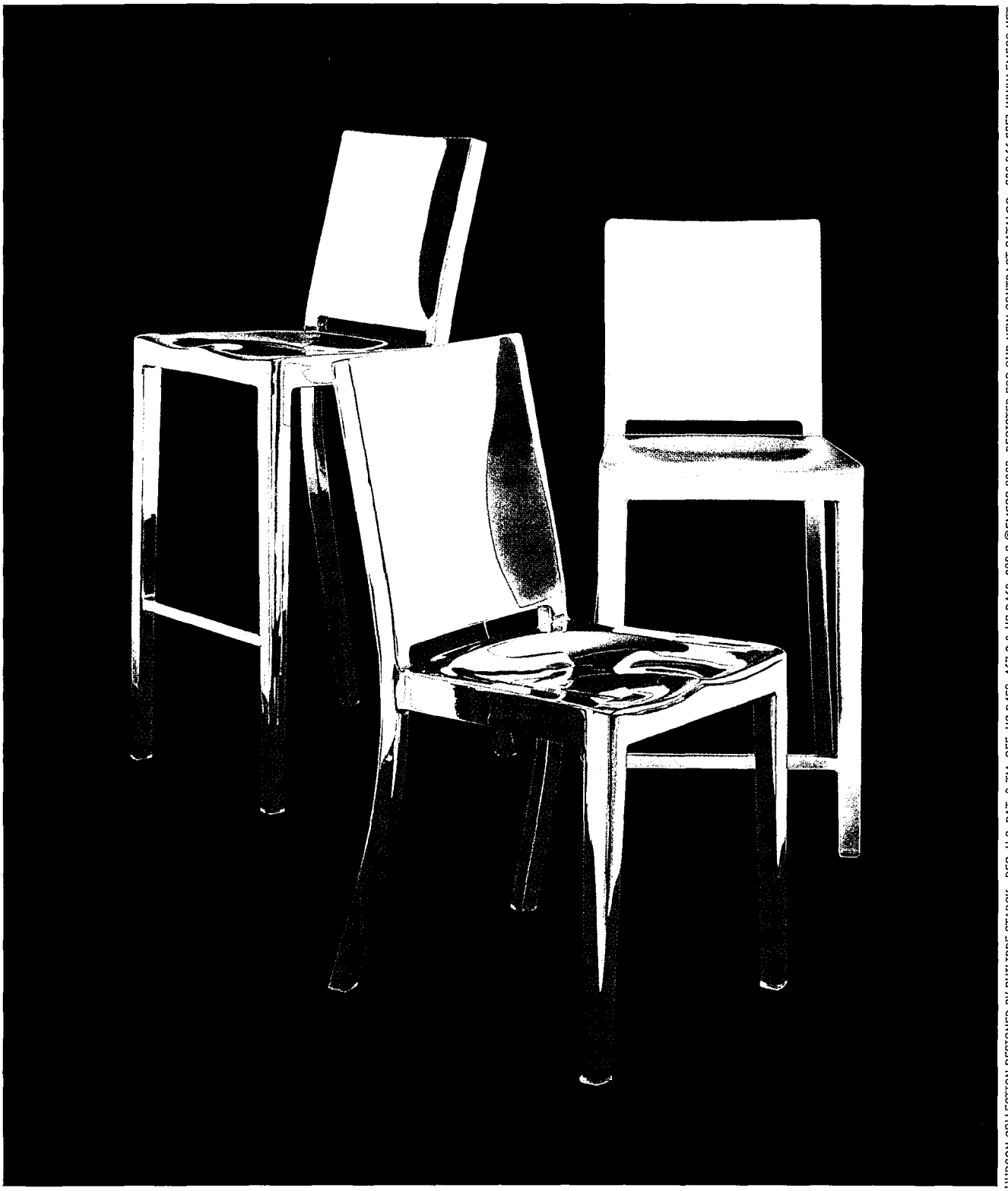
E-mail information about events and competitions two months prior to the event date or deadline to ingrid_whitehead@mcgraw-hill.com.



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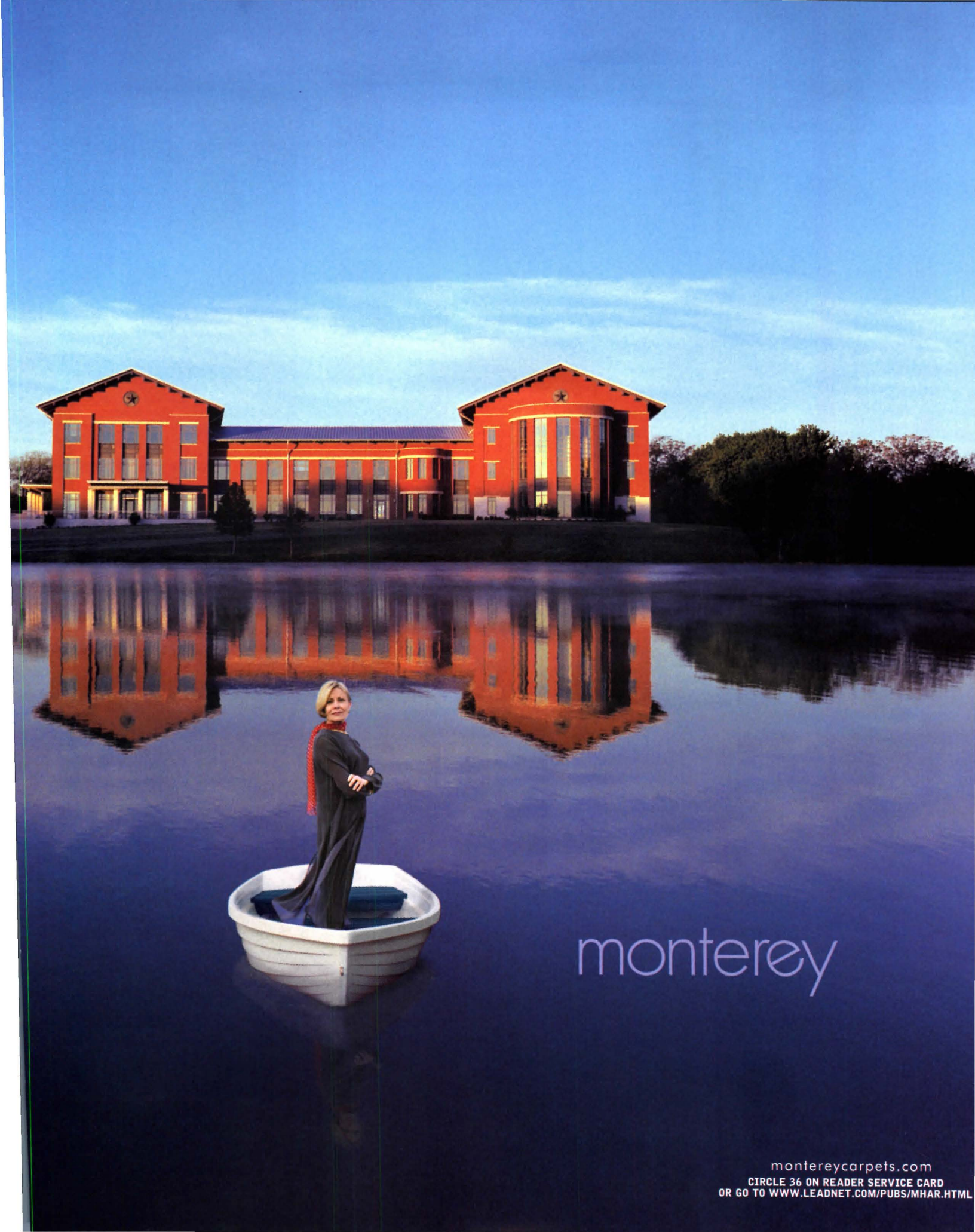

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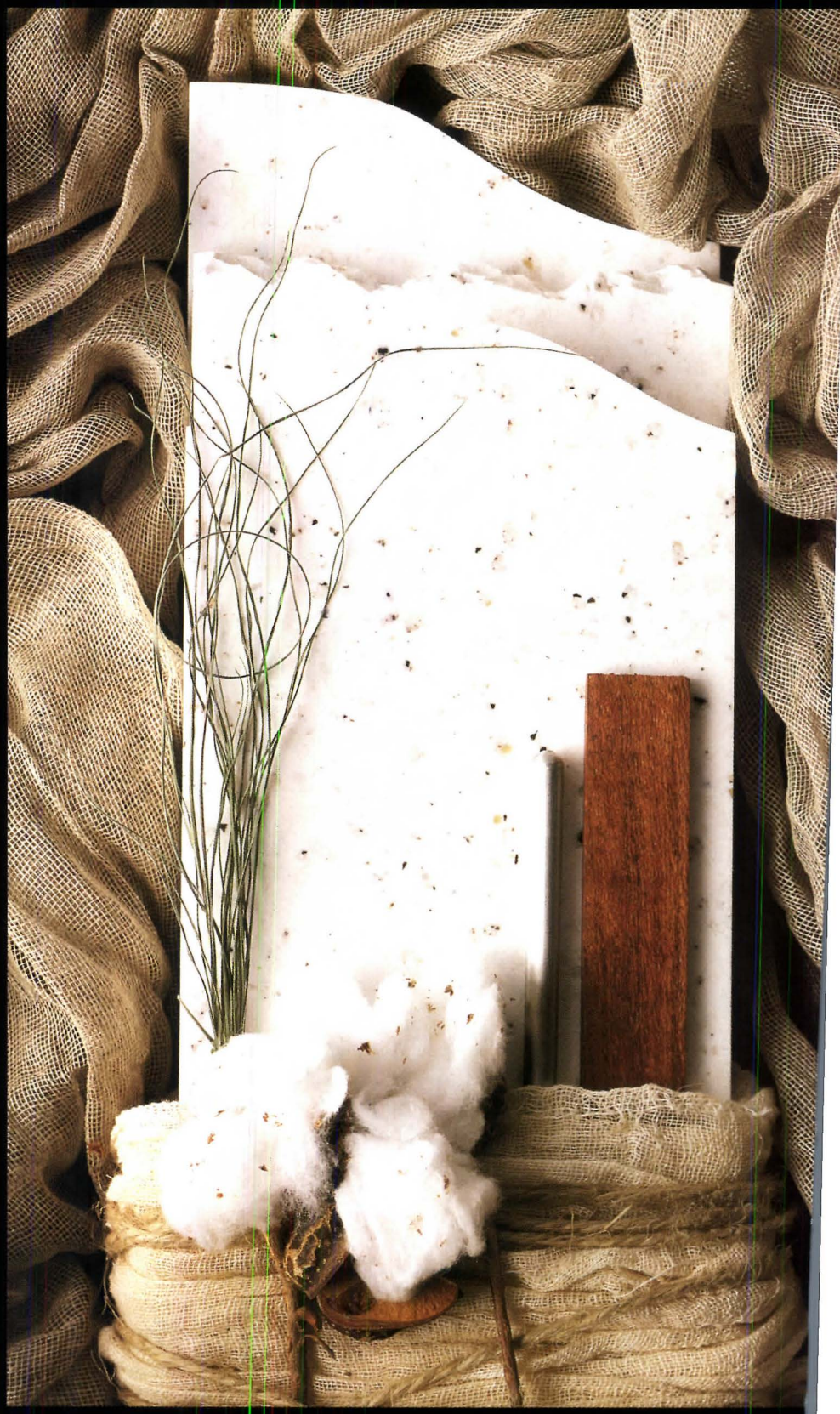

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archrecord2

FOR THE EMERGING ARCHITECT

It seems these days that architecture intersects with the digital world more and more. This month, archrecord2 investigates those intersections in two stories. First, in Design, Eric Liftin of Mesh Architectures attempts to find ways to connect buildings and cyberspace. In Live, Ray Bennett, an architect from Dallas, uses his computer to give visible form to his hobby, music. And, of course, you can go to our Web site later and discuss what you read in the Talk forums.

DESIGN

A man with his head on the Web

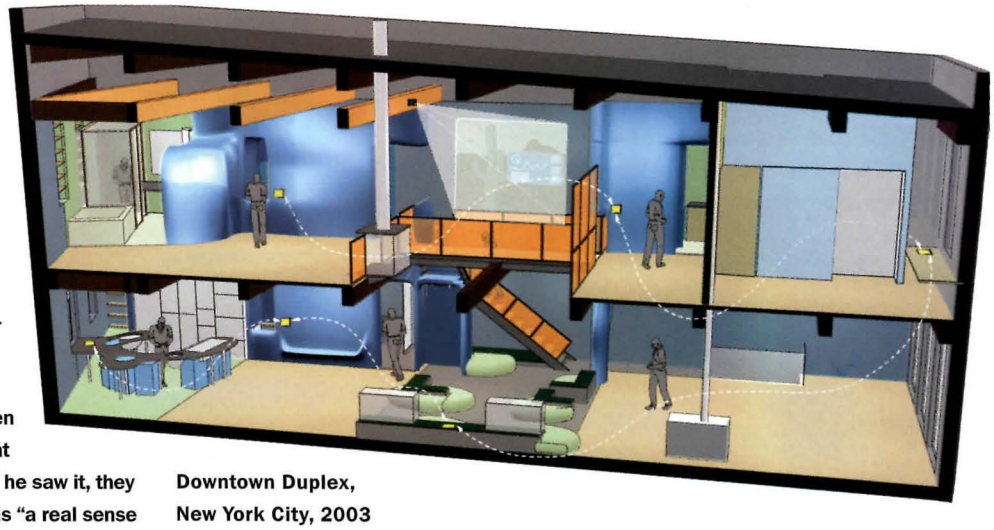
Eric Liftin lives in two worlds—the physical and the virtual—but he's doing his best to prove that those two worlds are the same, or at least that they're compatible, overlapping, and complementary. And as much as possible, Liftin occupies both of them at the same time, rather than flipping back and forth between them. In fact, if you go to the Web site of the firm he founded, Mesh Architectures (www.mesh-arc.com), and he's sitting at his computer, you'll see a Web-cam picture of the top of his head and the office behind him.

Liftin founded Mesh in 1997 to explore connections between architecture and Web design. He had done both and decided that he didn't have to choose between the two disciplines. In fact, as he saw it, they had much in common. He seeks to convey in the sites he designs "a real sense of occupying the site, based on how you manipulate it and on the navigation.

"A lot of Web sites are about graphic design and identity, but I'm much more interested in real spatial experience," he says. "I'm convinced that we're really teaching ourselves how to live in this virtual world—not as you imagine from the movies, where we're little avatars walking around and going into a virtual coffee shop—but more in a sense of being able to project our consciousness onto the screen and imagine that we're somewhere else, even when what's on the screen is fairly crude in its depiction."

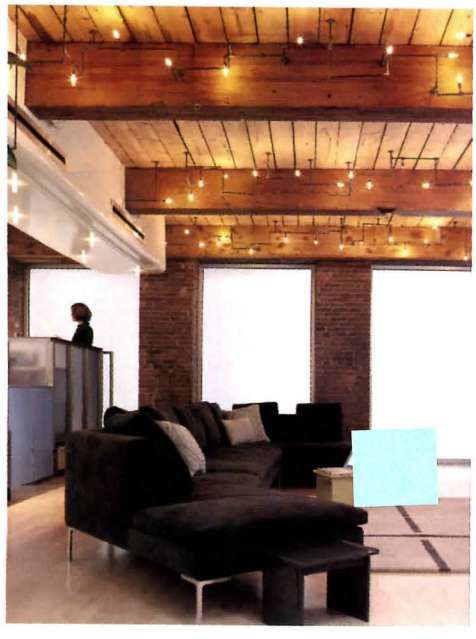
Liftin teaches a course in New York University's Interactive Telecommunications Program that asks students to imagine an online extension to an existing physical space that would both change the space and be changed by it. He uses the example of a "digital front porch." In a small town or a suburb, he says, people can participate in public life by sitting on their front porch, where passersby can walk up and ask them how they are. Liftin's analogue in the city would be a part of an apartment that would have some simple digital tools: a camera and a computer. "When you're in that spot, you're available," Liftin says. "You can be watching TV, reading, whatever, but people know you're there. By designating a spot, you've changed that space.

"A lot of those Jane Jacobs issues that apply to public space apply online," Liftin says. "Online, it becomes an issue of having someone come online to get



Downtown Duplex, New York City, 2003

A green fiberglass wall runs the length of this loft, providing plumbing and other utilities. Small LCD screens around the space allow the owners to access a Web-based home control and communication system.



(continued from previous page) a piece of information and trying to get them to go out of their way to have some other kind of experience that gets in the way of them getting their information. It's like living in a city: Why would you want to have to walk through public space when you can just get in your car, where people won't bother you and you can listen to music?"

In his practice, Liftin has only gotten one real opportunity to combine Web space with physical space: the Oscar Bond Salon and its Web site, which he designed with Jordan Parnass Digital Architecture [RECORD, March 2002]. Most of his commissions are either Web sites or architecture, though he's always looking for more opportunities to explore their overlap.

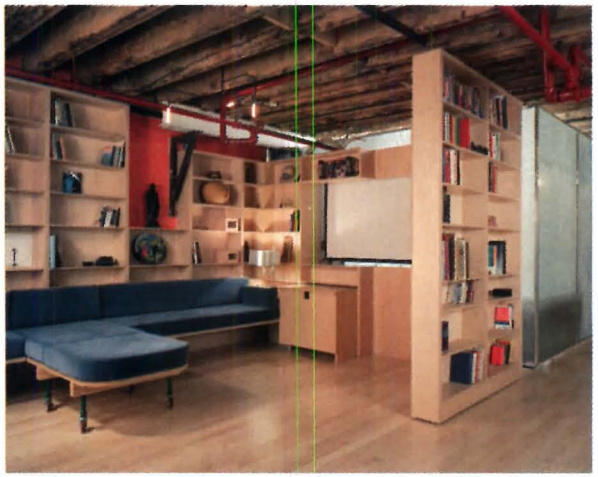
This is not to say that Liftin cares only about theory. He has an impressive portfolio of built work, which is by design. "Even with all of my research interests, I would never want to be in a position where I'm just teaching and doing more conceptual design," he says. "The idea of working with clients is a really important aspect of discovering new ideas about how people live and what they want in their houses.

"I feel like the process of working with a client is very important," he says. "I'm not interested in sitting by myself and just coming up with ideas. You see that a lot, because that's what happens in school, where you're sitting by yourself and listening to yourself think. You always need new input and some kind of resistance to just doing the same thing over and over again."

So Liftin isn't just sitting around with his head in the clouds. Need more proof? Just check his Web cam; you'll see exactly where his head is. *Kevin Lerner*

Go to architecturalrecord.com/archrecord2 for more of Eric Liftin's projects, including links to his Web-site designs.

Milestone Venture Partners, New York City, 2000
Walls clad in fiberglass-reinforced acrylic divide the office, providing storage space for data and power cables. The walls continue into the corridors as ambient light boxes.



Wilsey-Beal Loft, New York City, 2001
A flexible library with movable shelves divides public and private space in this loft. The bathroom hovers behind the library like a glowing translucent cube.

LIVE

Teaching AutoCAD to sing

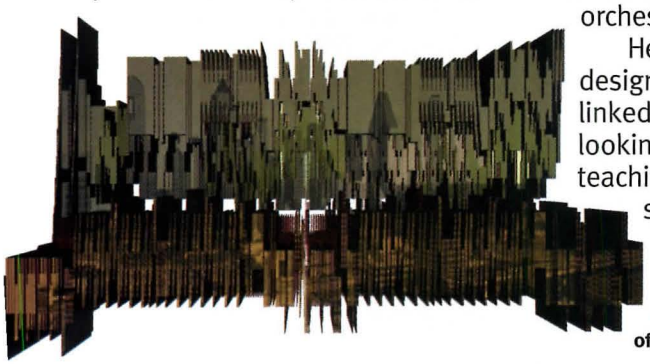
Ray Bennett, an architect at McCarthy Hammers Architects in Dallas, went to architecture school on a music scholarship. And though he was aware of similarities between the two arts, that was the most direct link they had in his mind until he was inspired by a Rem Koolhaas lecture on the topic.

"The lecture was on a Thursday night," he said. "By that Monday, I had the program completed. It didn't take me very long to do, but it took 20 years to come up with the idea."

"The idea" was that he could run the numerical values that his Musical Instrument Digital Interface (MIDI) system assigned to songs through AutoCAD, and see what the songs look like when rendered. The program he wrote to do the conversion, which he calls Alchemist, won a 2002 AutoDesk iDesign award.

"I've got time in the X value, pitch in the Z value, and then pan, where the instrument actually sits in the orchestra, in the Y value," he said.

He can play keyboards; he can design buildings; and now he's linked the two. But Bennett is still looking for new challenges: "I'm teaching myself to play guitar," he said. "It's not going very well at the moment." *Kevin Lerner*



Clockwise from left: AutoCAD renderings of *Grabbag*, *Also Sprach Zarathustra*, and *Theme from 'Dallas.'*

Go to architecturalrecord.com/archrecord2 for even more examples of Ray Bennett's musical renderings.

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Architecture as geology? The latest definition emerges

Critique

By Robert Campbell

I'm sitting in on a student review at an Ivy League school of architecture. Two students are presenting their project for a site in Los Angeles, right across the freeway from Raphael Moneo's new cathedral. It's a mixed-use project, with housing and commercial and cultural and whatever else all mixed closely together—the kind of architectural salad that now goes by the vogue word "hybridization." The goal of the studio is to explore computer imaging as a tool for design and construction.

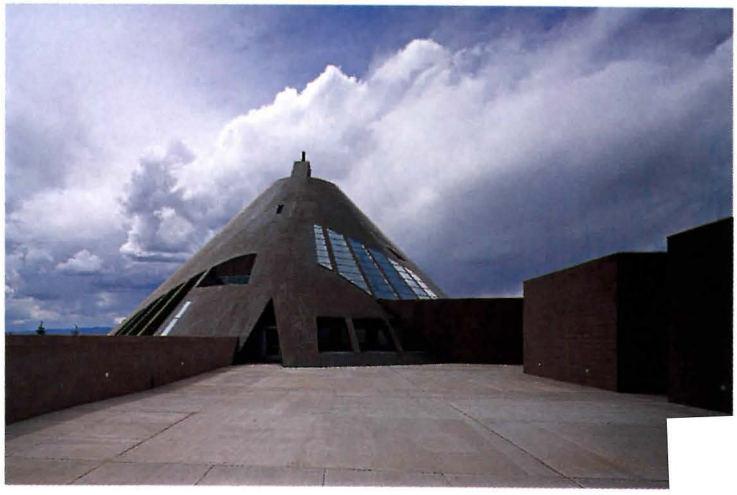
It's a good project. But I find that what fascinates me is listening to the words the students are using to describe their work. The ethnic populations of Los Angeles are described as "shifting tectonic plates." The resulting design proposal is described in those very same words. We also hear about the "folded surfaces" of the project, which the authors compare to mountains.

Contributing editor Robert Campbell is the Pulitzer Prize–winning architecture critic of The Boston Globe.

Am I in an architecture class? Or did I maybe get the room number wrong and instead wander into a seminar in geology?

Architects are forever punning from other fields into architecture. By punning, I mean that we take the forms and patterns from some other discipline and clone them directly into our designs. We usually choose that other discipline pretty arbitrarily, and often we're not even conscious we're doing it. Usually, it's just whatever happens to be the hot science of the moment.

Early in the 20th century, physics was the prestige science we punned from. Architects were forever telling you about their rigorous diagrams and lines of force and stuff like that. My favorite example is the plan of any of the British New Towns, built after World War II. The plan of such a town is an obvious clone of the atom, as the atom was then understood. Neighborhoods, isolated from one another, orbit like electrons around the nucleus of a town center, connected to it by lines of force, that is to say by roads or transit. As was



pointed out long ago by Christopher Alexander in his great essay "A City Is Not a Tree," and later by Jane Jacobs in *Death and Life of Great American Cities*, this is not a good plan for a town. To be vital, towns require confusion and overlap, not a sorting out into neat packages. In recent years, the atom has come to be understood as something more complex, and more indeterminate, than that old Rutherfordian model. And so has the city.

At other times, we've seen biology and linguistics take the stage as the hot sciences to be punned into architecture. Now I guess the fad is geology, no doubt under the influence of Peter Eisenman, with his excavations and layers and folded surfaces. Were the students aware they were the children of Eisenman? I don't know. More important, the question of why geology is an appropriate source for architecture is a question I hoped the students would articulate and examine. They didn't.

I collect definitions of architec-

Buildings at the University of Wyoming (top right) and Arizona State University (above) exemplify Predock's definition of architecture as "landscape in drag."

ture. One of them, at least, seems to justify the students' work. Antoine Predock said it: "Architecture is landscape in drag." Certainly Predock's own work, especially when you find it in the deserts of New Mexico, does look as if it had heaved itself up from the geologic subsurface. Such a building re-presents the landscape as architecture. It frames and abstracts the landscape into a human-made construction, a construction that seeks to be a presentation of the essence of the land.

Frank Lloyd Wright was surely the great architect of landscape in drag. His drafting room at Taliesin East, with its treelike columns and trusses and light filtering down from above as if through leaves, is a re-presentation of the Wisconsin forest. Taliesin West, as is often noted, re-presents the rock forms of the desert, and the drafting room with its translucent roof is a re-presentation of a tent encampment under harsh sunlight.

Of course, architecture can re-present other things besides landscape. It can, for example, re-present its own construction in an abstracted form, as does the facade of the Seagram Building, and as do so many classical buildings with their pilasters and other pseudo-structural motifs.

There are, of course, other definitions of architecture. At a conference at the University of Virginia years ago, someone—I think it was Warren Byrd, the landscape architect—said, "Design is giving form to value." That's another superb definition. Every building is a billboard that shouts the values of those who have created it, whether intentionally or not. The box-shaped, curtain-walled, Modernist office building, for example, which looks like the carton the real building came in, is an eloquent statement. It clearly announces that this is a container of leasable volume and nothing more. What is valued is rent, and design is giving form to rent. A skyline of such flat-topped towers reads like the bar graph of profits on the financial page of the newspaper.

EVERY BUILDING IS A BILLBOARD THAT SHOUTS THE VALUES OF THOSE WHO HAVE CREATED IT, INTENTIONALLY OR NOT.

As the late James Marston Fitch pointed out, the boxy tower's high, vast lobby is also a statement—a statement of wealth. It is the conspicuous consumption of expensive ground-floor real estate for no useful purpose. Wasting empty volume was the only way to make such a statement in an era when architectural taste forbade the display of rich materials and ornate details.

By contrast with the corporate box-top tower, the aspiring, cathedral-like fleches of the towers of the teens and '20s speak of the joy and aspiration of individual entrepreneurship at a time when capitalism in America was a religion. That was the era when Bruce Barton, in his huge 1924 best-seller *The Man Nobody Knows*, announced that Jesus was the greatest businessmen of all time: "He picked up 12 men from the lower ranks of business and forged them into an organization that conquered the world."

Another of my favorite definitions comes from Colin Rowe, the British historian and theorist: "Architecture is pretentious building." Rowe means the word "pretentious" in two senses, one negative and one positive. The work of architecture is self-important as compared to the ordinary building. But it also—like a "pretender to the throne"—seeks a higher truth, a higher meaning and significance.

Rowe liked to quote Gilbert Scott in *The Architecture of Humanism* on the same theme: "If you look at a building and the windows are the right size, it may or may not be architecture. But if the windows are definitely too big or too small, you may be almost certain you are in the presence of a work of architecture." Pretension in both senses, indeed.

My own definition of architecture I arrived at some years ago: "Architecture is the art of making places." Architecture is certainly an art, but it is not principally the art of sculptural form or beautifully proportioned facades. It differs from all other arts in that its subject is places. Places may be rooms and corridors, or streets and squares, or parks and gardens, or towns and cities. Architecture is the art of all places intended for human habitation. One experiences a work of architecture not by looking at it like a painting, or even walking around it like a sculpture, but rather by imaginatively inhabiting it.

Should we add, "Architecture is geology"? Maybe. Am I right in guessing that the student interest in geology is the result of a hunger for something material and physical, in a world (and a studio) where almost everything else that matters takes the form of weightless images on a screen?

In any case, I'd be curious to hear from readers any other favorite definitions of architecture. ■

The planning of Cumbernauld, Scotland, a New Town, is evident from the sky.

Frank Lloyd Wright's Taliesin West in Scottsdale, Arizona.

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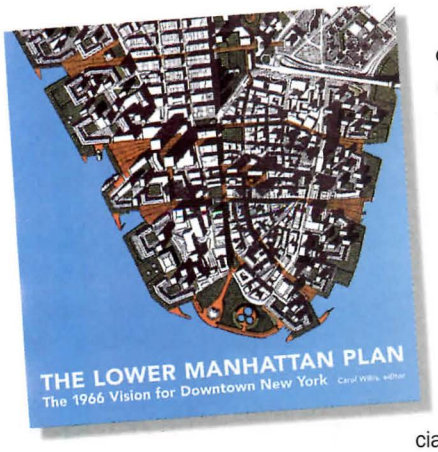
Books on urban planning, from the banks of the Charles River to the streets of Seaside

Books



The Lower Manhattan Plan, *edited by Carol Willis. New York: Princeton Architectural Press, 2002, 368 pages, $25.*

Why should we be interested in a nearly 50-year-old plan for Lower Manhattan, of which only 100 copies were originally printed? The idea to reprint was generated by a 2002 exhibition at the New-York Historical Society, *WTC: Monument*, which explained the towers' conception and construction in the context of 1960s New York. In addition to an introduction by Carol Willis, the new volume offers an essay about the New York waterfront's history and future by Ann Buttenwieser and recollections by Paul Willen and James Rossant, two of the consultants who produced the original plan. Donald Elliott and Elinor Guggenheimer write about the New York City Planning Commission in the 1960s.

In her introduction, Willis reminds us that until the '60s, New York's habit of replacing old with new construction and small with large buildings was equated with progress. Negative reaction to the vast scale of the World Trade Center and its erasure of 12 old blocks changed that. "Today, many consider the bulldozer urbanism that razed districts such as Radio Row and Washington Market to have been a cataclysm by planners," Willis writes. Her book advances an alternative view of the era.

Instead of focusing on what was destroyed, the book stresses that planners, politicians, architects, and engineers transformed an obsolete port and aging office district into a new financial center. The waterfront was decaying, and by 1966 only one third of Lower Manhattan's piers were active. Instead of being overshadowed, Willis writes, Lower Manhattan was "transformed and reinvented" in the '60s and '70s. In addition to adding 30 million square feet of office space, they eventually created 92 acres of residential developments, parks, and recreational space at the river's edge in Battery Park City. This, at a time when corporate headquarters and jobs were moving to Midtown and the suburbs.

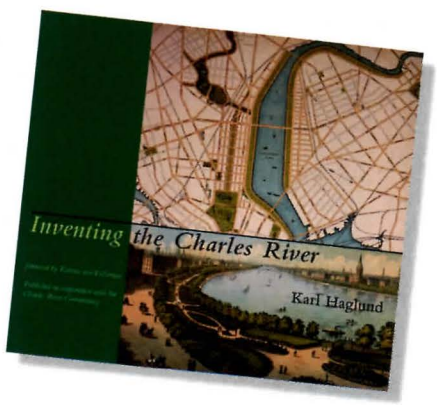
Among the plan's lessons for today, Willis writes, is to think boldly about change. During economically fat times, market forces determine development, but during lean times, such as now, planning can play an important role. The 1966 plan, in fact, predicted, "The future of Lower Manhattan will be determined more by what people want and take collective action to get, than by the unseen market forces" over which communities have little control. Let us hope so. *Andrea Oppenheimer Dean*

Inventing the Charles River, *by Karl Haglund. Cambridge: MIT Press, 2002, 512 pages, $49.95.*

The lower reaches of the Charles River in Watertown, Cambridge, and Boston offer miles of grassy banks, tree-lined paths, and still water. Many park visitors assume that this natural scenery has been there for a very long time. Nothing could be further from the truth. Every inch and ripple of the Charles River Basin, as it is now known, was invented. Around the turn of the 19th century, the Charles River Basin became the centerpiece of one of the most ambitious park systems in the United States and one widely admired both at home and abroad. The ideas that led to that first transformation are still shaping the river today as designers complete plans to link the Charles River Basin to Boston Harbor under the soaring cables of the new Leonard Zakim Bunker Hill Bridge.

This is a river story worth telling, and Karl Haglund has done so with elegant prose and rich illustrations. It took him some 20 years to complete this book, and now we know why: It is not one book, but several. Haglund has fascinating stories to tell about the development of the Boston Common, Back Bay, Mount Auburn Cemetery, Boston railroads, the early Boston park system, college campuses, and the metropolitan highway system, among others. The Charles mirrors a much larger story—the shaping of the Boston Metropolitan District. While casual readers may be frustrated by the meandering themes, serious students of urban development will be engrossed.

The Charles River Basin is a monument to the power of ideas and powerful individuals. In the mid-19th century, Robert Gourlay, an insomniac from Scotland who claimed not to have slept for six years, was the first to imagine the river as a formal basin lined with parkways and urban districts. In 1907, Ralph Adams Cram envisioned an entire island district in the middle of the basin linked to the shore by new bridges. While these and many other proposals were never realized, they shaped perceptions and ultimately influenced the development



of the basin. Haglund focuses particular attention on two seminal periods: the establishment of the Metropolitan Park System between 1890 and 1903 and the planning for the new basin in the context of Boston's Big Dig between 1989 and 1994. The nearly completed Big Dig will bury Boston's central artery and has added a third harbor tunnel. These two periods, a century apart, illustrate a profound shift in the way

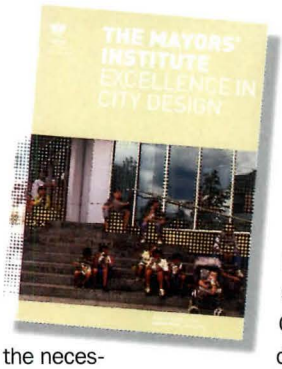
civic leaders, professionals, and the public have interacted to shape the public landscape. A "culture of refinement" and of high-minded discourse among a Boston and Cambridge elite has given way to an era of big government, specialized professions, and citizen advisory committees. Creative and persuasive individuals still make the critical difference, however.

This book about heroic inventions and new beginnings tells a very American story. We have built great civic parks and then seemed to loose interest. The very agency organized a century ago to care for the Charles is threatened with extinction today, and Boston is designing new parks to cover the Big Dig with no clear idea yet of who should maintain them or how. Great parks are not simply invented; they need to be nurtured over generations. *Herbert Nolan, ASLA*

The Mayors' Institute: Excellence in City Design, *edited by James S. Russell. Washington, D.C.: National Endowment for the Arts, 2002, 96 pages, $11.95.*

Over its 17-year history, the Mayors' Institute of Design (MICD) has brought together more than 500 mayors and nearly as many design professionals. Dedicated to improving the design and livability of cities, MICD, a National Endowment for the Arts initiative now administered by the American Architectural Foundation in partnership with the NEA and the U.S. Conference of Mayors, holds two-and-a-half-day symposia in which mayors and designers learn from each other. Mayors present design issues facing their cities; designers then identify issues, offer suggestions, and discuss alternative solutions in understandable terms.

This little book, one in a series by the MICD, serves as a handbook and an education in design basics. It is valuable not only for mayors but for any official—or client—who understands design only vaguely, if at all. Russell, RECORD editor at large, briefly describes the roles of architects, landscape architects, urban planners, urban designers, and artists. He outlines the necessary ingredients of different types of public places: parks, public buildings, libraries, and memorials. And he explains the fundamentals of urban waterfronts and housing and of civil engineering for cities ("until recent decades, public works were deemed worthy of the highest level of design attention."). Alan Jacobs, architect, city planner, and former Berkeley professor, identifies the components of great streets. Donovan D. Rypkema, principal of the Washington, D.C., consulting firm Place Economics, lists the elements of success in downtown revitalization. And Alex Krieger, FAIA, chairman of the GSD's department of urban planning and design, lays down rules for developing cities: beware of homogeneity, believe in mixed use, ban the term "open space." Rosalie Genevro, executive director of the Architectural League of New York, explains design competitions, and Russell describes the uses of community workshops. Each section is illustrated with recently built projects.



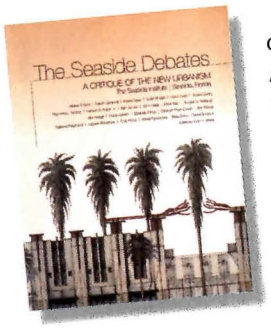
The other books in this series, edited by Mark Robbins, are: *Sprawl and Public Spaces: Redressing the Mall*, edited by David Smiley; *Schools for Cities: Urban Strategies*, edited by Sharon Haar; *Your Town: Mississippi Delta*, edited

by Shelley S. Mastran; and *University/Community Design Partnerships*, by Jason Pearson. *A.O.D.*

The Seaside Debates: A Critique of New Urbanism, *edited by Todd W. Bressi. New York: Rizzoli, 2002, 160 pages, $45.*

This is a curious little book. It is essentially a record of a several-days-long gabfest at Seaside (one of the holy sites of the New Urbanism movement) that took place more than four years ago. All the high priests of the movement were there: Andres Duany, Elizabeth Plater-Zyberk, Robert Davis, and Stefanos Polyzoides, along with Jaquelin Robertson, who occupies the pages of this volume like a benevolent Godfather of the movement. Robertson, you might recall, presided over another conference-cum-Rizzoli book, *The Charlottesville Tapes*, back in the early 1980s. He had hoped it would be an opportunity to discuss broadly the issues of urbanism. It turned out to be more of an architectural Trilateral Commission, which some suspected was a Postmodernist cabal. Remember those days?

The Seaside Debates is odd in that there is very little debate in it. There are several essays by the priests, none of whom question the tenets of New Urbanism orthodoxy. Some of these essays are just plain dull, such as Peter Katz's "Notes on the History of the New Urbanism," which is for the diehards only. Most of the book is taken up with reviewing New Urbanism projects, done by some of the conference participants. A few of these projects are quite good, such as Urban Design Associates' schemes for Crawford Square and Bedford Dwellings, both in Pittsburgh, which piece together new neighborhoods from the fragments of ones that had been obliterated by "urban renewal."



Three projects in California by Dan Solomon are exceptional in their lightness of touch and creation of urban places on the scale of a small multifamily housing development. These projects and others are presented as one would a studio jury: a presentation by the designer and then commentary by the assembled gray eminences. The jury comments, for the most part, are earnest and helpful. The skirmishes here are small potatoes. Lost among the festivities is the late Colin Rowe, whose critiques about lack of geometric purity, as he saw it, seem sadly out of step with the way people actually inhabit and use space.

The lone champion of debate in this book is Alex Krieger of Harvard. "The New Urbanism is an impressive, powerful, growing, and great movement," Krieger addresses the conferees, "but perhaps not quite as great as you, its founders, claim it to be. Lighten up. Enough self-congratulatory testimonials. You are practically the establishment now. One of the few things still missing is some humility, or barring that, a bit less hyperbole, and barring that, at least a sense of humor."

Krieger objects to the movement's taking possession of the term "urbanism," and points out that New Urbanism's aims of more livable communities and reasonable development are things that all of us, architects and nonarchitects alike, want. He suggests that the New Urbanism has created more subdivisions than actual towns; densities too low to support mixed-use development and public transportation; homogenous demographic enclaves instead of rainbow communities; a new form of planned unit development, not yet substantial infill; rose-colored evocations of a golden age of small-town-dominated urbanism; and an increased reliance on private management of communities, not innovative forms

of elected local governance.

Krieger's critique is sound, and his points deserve thoughtful responses. Unfortunately, they are nowhere to be found in *The Seaside Debates*. *Michael J. Crosbie*

Some Assembly Required, *by Michael Sorkin. University of Minnesota Press, 2002, 264 pages, $19.95.*

For an architect, Michael Sorkin isn't particularly interested in buildings, at least tectonically. His agenda is more social and cultural, with buildings providing starting points for reflections on sprawl, globalization, media, ecology, multinational corporations, and other large and important topics. Such a wide-angle, synoptic view is rare among architecture critics, and one of the things that sets Sorkin's work apart.

Some Assembly Required, his third collection of essays, is divided into three sections: "Cities and Places," "Architects and Buildings," and a potpourri of free-floating political and pop-cultural pieces called "Misfits." And like most such collections, it is a mixed bag. Brilliant essays on Gehry and Bilbao ("Animating Space") and the legacy of Archigram are bundled together with old news about Richard Meier ("Come and Getty") and Columbus Circle ("Round and Round") and bits of fluff such as "Upstairs, Downstairs," a riff on Graceland and the White House.

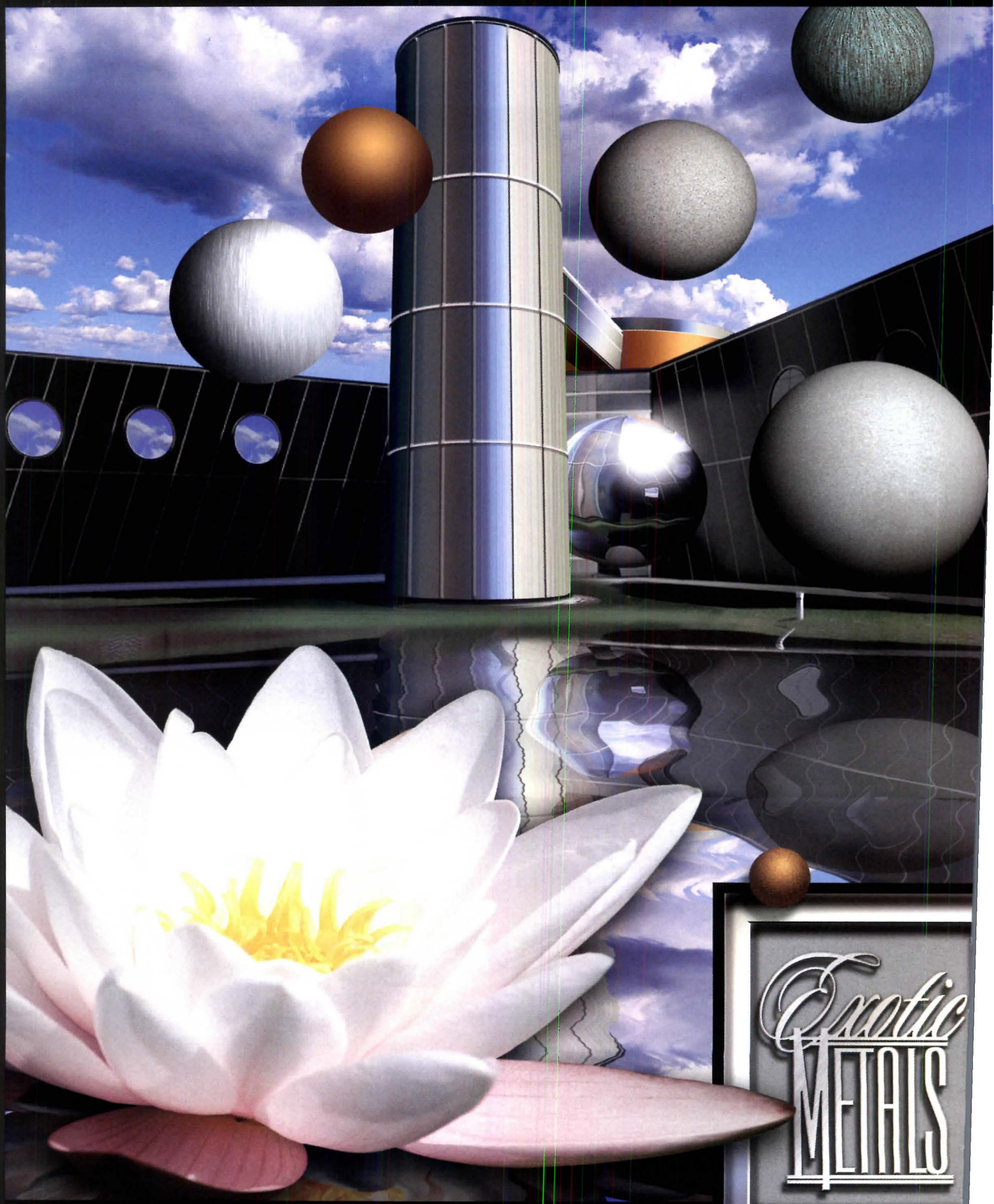
Sorkin is terrific when he's on edge—less so when he's merely playing the bad boy—and at his best as an observer of cities. His essays on Cairo, Chandigarh, and urbanizing China are provocative dispatches from the eternal battle between modernity and tradition, where the mania for growth is rapidly obliterating local culture. One possible remedy, here as well as in the Third World, is a new synthesis of architecture, planning, and urban design through which the lust for building is tempered by a desire for livable cities and a respect for nature and its systems. Sorkin believes we're a long way from that.

"With the world population growing exponentially, billions ill-housed, and an asphyxiating planet," he writes, "mainstream architecture's aggressively narrow interests are simply not helpful." Irrelevant is more like it.

Among his other proposals are serious research, experimentation that is more than stylistic, and the rekindling of a sense of environmental stewardship. He champions the local and the accidental over the universal and prescriptive. He wants small fixes rather than big ones, the gritty indeterminacy of a Greenwich Village or a North End instead of the bland reassurances of Celebration or Las Colinas.

Given his insights, it is unfortunate that Sorkin's prose is often so murky. At least two competing and unreconciled voices play through these essays, one direct, colloquial, and immediately engaging, the other convoluted, jargonized, and tuned to the academy and the coterie that he loves to hate. It is a voice that mystifies rather than clarifies, and for which the antidote is merciless editing.

Still, it is impossible not to admire the breadth of Sorkin's concerns, or the wit and chutzpah with which he skewers such icons as Disney, New Urbanism, the AIA, and the laissez-faire cynicism of Rem Koolhaas. He is challenging and fearless and willing to take tough stands without resorting to the "ism" of the moment. At the end of a Sorkin essay, you don't have to ask what the author thought. *David Dillon*



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REFLECTING THE FUTURE, TO

With flowing tubes of steel, Lebbeus Woods captures moments of flux in the space before collapse

Exhibitions

By Joseph Giovannini

The Fall. *By Lebbeus Woods. Part of the exhibition* Unknown Quantity, *conceived by Paul Virilio, at the Fondation Cartier Pour L'art Contemporain, Paris (ended March 30, 2003).*

Built in the capital of the nation that produced Descartes and the Napoleonic Code, the Minimalist glass box that Jean Nouvel designed for the Fondation Cartier on the Boulevard Raspail is the height of architectural rationality: a shimmering glass curtain wall hanging on a simple steel frame. But this winter, the Fondation hosted a show curated by Paul Virilio, a philosopher and critic of technology, called *Ce qui arrive* (*Unknown Quantity*), and on the ground floor, the exhibition featured, as one of its components, a major installation by Lebbeus Woods, New York's resident architectural visionary. Woods's piece, which questioned the grid and the geometry of control and measure it represents, posited a built critique of reason.

Woods is an architectural prophet, perhaps America's foremost—without manifest honor at home. Seemingly condemned to fame abroad, he occupies a near legendary role as the moral conscience of a field in which buildings play formative social roles. The site of Woods's ruminations is usually a zone of crisis on which he builds (a territory he shares with French catastrophe theorist René Thom).

Joseph Giovannini is a New York City architect and the architecture critic for New York *magazine.*

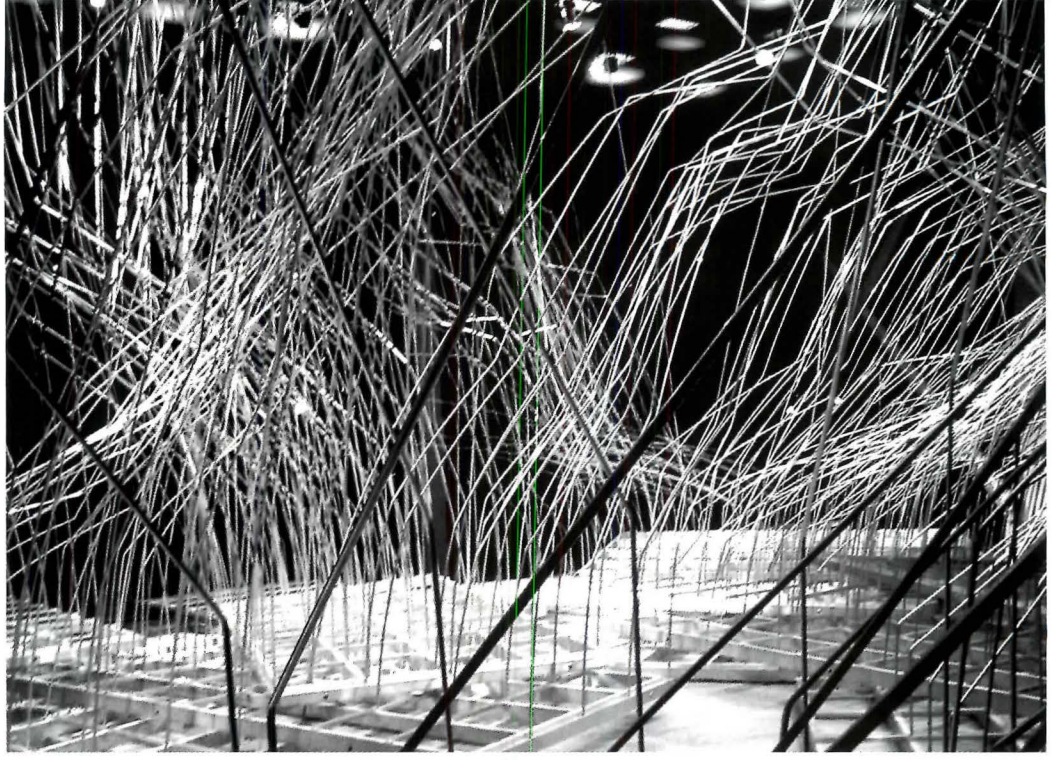
During the recent Balkan wars, he ventured many times into Sarajevo to bear witness, producing and exhibiting visions of buildings spontaneously reimagined and configured from the scavenged parts of destroyed structures. The designs, with exploded innards reframed in dynamic interventions, posited a poetic response to the destruction televised daily around the world to passive viewers. The drawings were inspirational and somehow healing, as though a pacifist Gandhian impulse transformed a destructive act of war into an occupiable gesture of peace. The visions were tough but beautiful in an uncanny way.

Woods, who teaches at New York City's Cooper Union, is the rare architect who draws rather than writes theory, but over the past two years he has actualized his paper drawings as space drawings through exhibition installations. Last year at the Cooper Union gallery, in one of his infrequent shows in the United States, he visualized a force field shooting through space by constructing wires and batons streaming into a midair collision that formed other vectors. Woods has left two-dimensional space to work in the third dimension, depicting vectorial dynamism in flows of continuous change. He understands space as force.

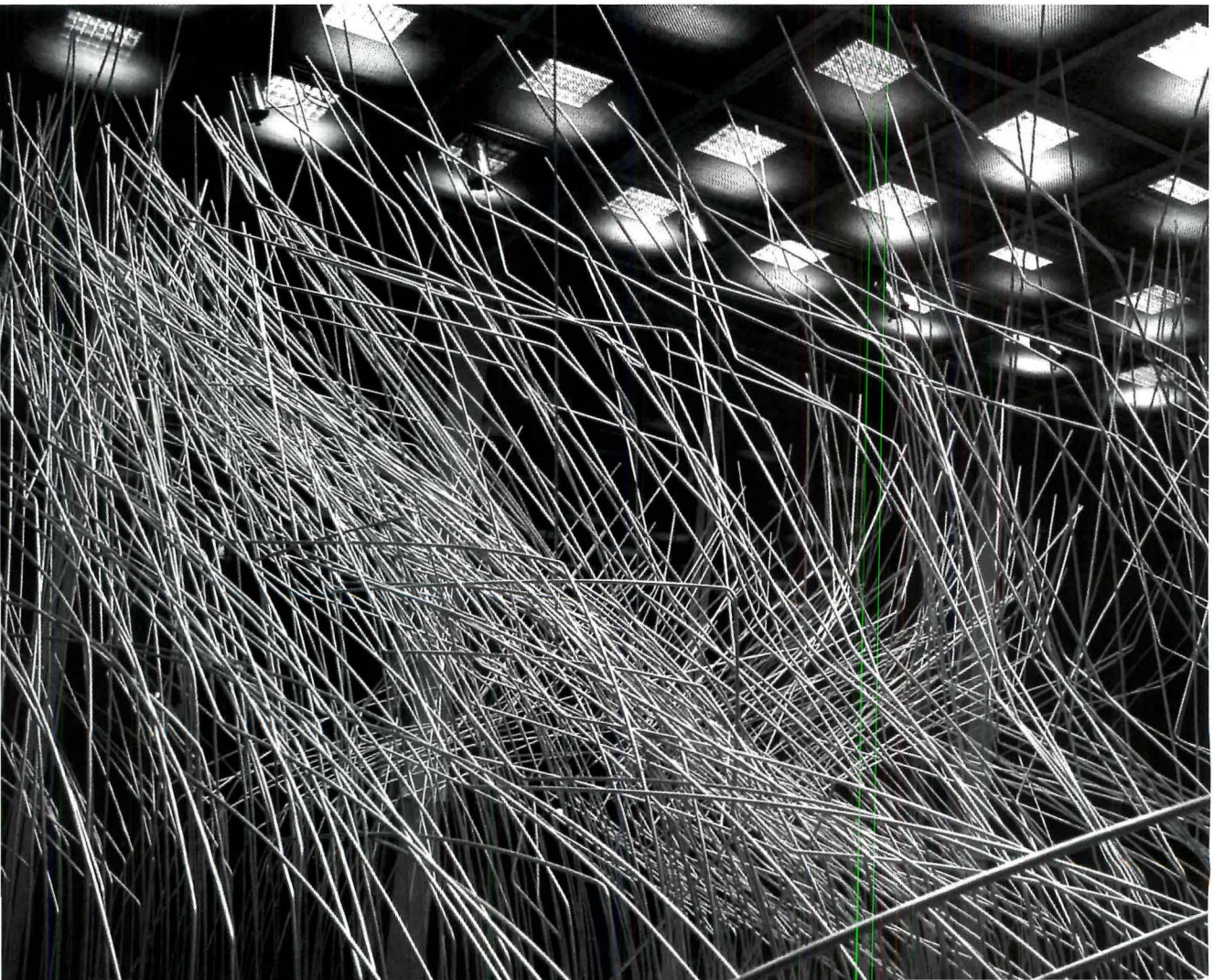
In Paris, Woods—with collaborator Alexis Roch—proposes a similar spatial thesis by planting a field of 23-foot-long aluminum rods in a cube of space 50 by 70 by 25 feet high. Glinting under the lights and in the sun, the rods bend in waves like a field of wheat bowed by the wind. Held in square grids shuffled chaotically on the floor, the rods part to allow irregular inlets of space through the moving thicket. As in the Cooper Union show, Woods's installation represents a vectorial flow, as though reifying invisible forces moving through Nouvel's box.

There are strange attractors in Woods's universe unexplained by the surrounding rationalism.

Virilio pairs Woods's installation with the wreckage of airplane parts assembled by Nancy Rubins, an installation suspended in another cube of Nouvel's glassy space. In the basement galleries, the philosopher runs newsreels of recent and past disasters. The first is a real-time video of the World Trade Center after 9/11, smoldering, as a crane proceeds to assert order in the chaos. Virilio develops the theme of accident and disaster screen after screen with footage of explosions, bombings, and collapses—the atomic mushroom over Bikini (1946), Three Mile Island (1979), Bhopal (1986), Chernobyl (1986), the Challenger (1986), Exxon Valdez (1989), the Kuwait oil fields (1991). Virilio is not morbidly scavenging the wreckages of a spectacularly destructive century but making us face the evidence of what he calls "an unprecedented proliferation of major accidents" in living memory. He believes that this



Woods built his fall in a process calibrated for the unpredictability of a fall, for a system that requires spontaneity.



The Fall is not about destruction or wreckage. It's a representation of "the space of the fall itself."

accumulation denies that the accidents are results of chance, but rather the indirect fallout of technological progress that breeds the probability of disaster: Major accidents are endemic to social systems based on technology. Those disasters that happened early in the 20th century, like the Titanic, tended to be natural and local, but now many are man-made and increasingly globalized in a technological ecosystem linked across oceans and continents. The accidents are in their way constructed: The apparently rational harbors the irrational. Virilio in this show reveals that accidents can no longer be unexpected; he exposes harmful corollaries devolving from the qualitative achievements of an age of discovery.

After the immersion in Virilio's underground séance, visitors reemerge at grade and encounter Woods's flowing tubes with a different mind-set. The vectorial currents are not aesthetically innocent, but charged with a meaning partially explained by Woods's title, *The Fall*. Woods is not representing the disasters projected downstairs in a three-dimensional illustration. He has consistently been interested in precipitate change, whether the result of war, financial collapse, earthquakes, or even weather. In the context of the show, he tried to capture the moment of flux, the space-time between the first shudder of collapse and the eventual heap—what he calls "the space of the fall itself" that might occur in the second or two during the toppling of a building like Nouvel's temple of reason. (In fact, this so-rationalist structure proved underengineered and had to be retrofitted with cross bracing.) "But the installation is not about destruction or wreckage. It's a vector system that finds a certain kind of space produced by radical change," he explains. He intended to shape space with lines rather than masses, forming a three-dimensional field rather than an object.

"IT'S A VECTOR SYSTEM THAT FINDS A CERTAIN KIND OF SPACE PRODUCED BY RADICAL CHANGE," SAYS WOODS.

Woods built his fall in a process calibrated for the unpredictability of a fall, for a system that requires spontaneity. He asked the fabricators in Paris only to make two or three segmented bends in each rod as they saw fit, and then to place each rod in a hole within the metal plates that Woods shuffled across the floor. He purposely set in motion a process that he did not control: The installers placed the rods themselves without instructions in what proved a self-organizing exercise.

Woods's research into spaces of sudden change found an unusually resonant context in Virilio's provocative show. Technologies come with a price, and architecture—for example, the Twin Towers—represents technologies with consequences, whether ecological or sociological or financial. Woods's installation may only be suggestively related to the disasters depicted downstairs, but the show deeply tinges his installation, turning it into a beautiful but cautionary tale. Woods's is a multivalent piece that deals with pure architectural subjects such as vectorial space, but it also helps open the broader discussion of accident. Woods's exhibition physicalizes and spatializes the concept of precipitous change underlying all the films. Visitors could only see the film documentaries downstairs. Upstairs they could walk into a work of great imaginative and conceptual power. ■

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Holland's first Architecture Bienniale explores the spaces that surround our modern life on the road

Exhibitions

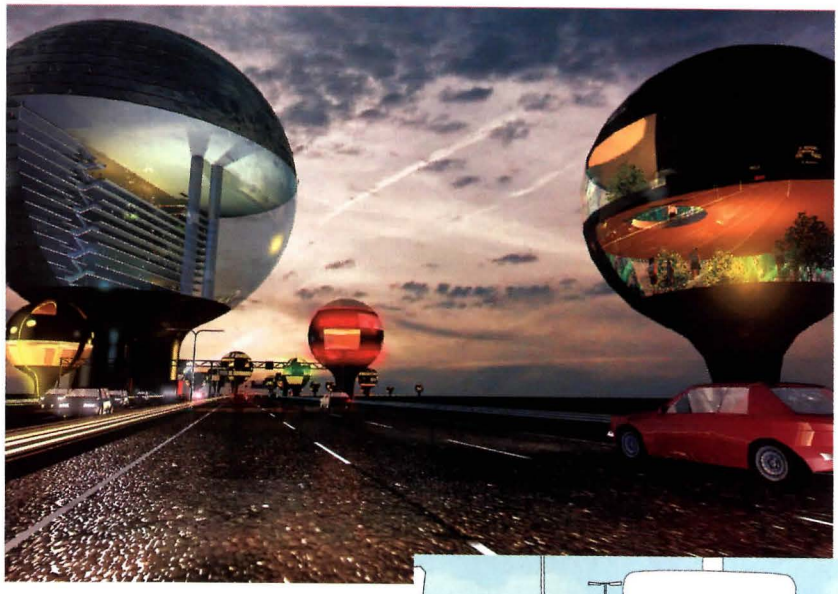
By Tracy Metz

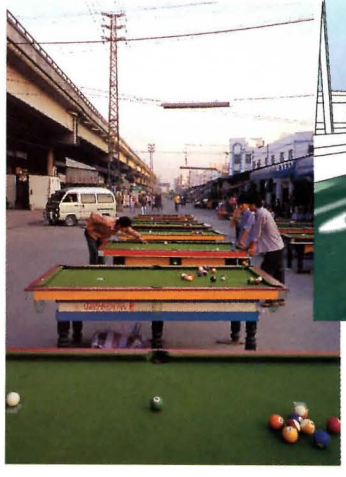
Mobility: A Room with a View. International Architecture Biennale Rotterdam. *Curated by Francine Houben. At the Netherlands Architecture Institute, Las Palmas, and locations around Rotterdam, through July 7, 2003.*

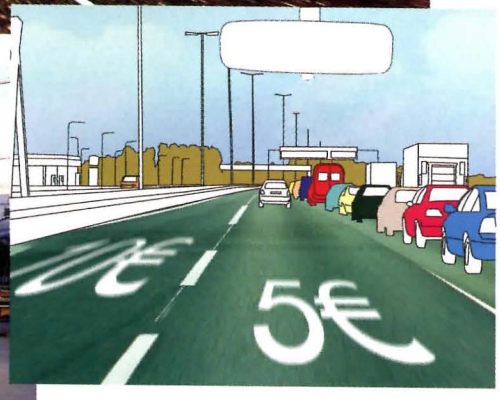
Mobility has changed our landscape forever. Our cities and our daily lives are shaped by our own perpetual need and desire for movement. *Mobility: A Room with a View* is the theme of the Netherlands' first International Architecture Biennale, which is being held in Rotterdam, Holland's architecture capital, between May 7 and July 7. Architects, civil engineers, urban planners, traffic experts, landscape architects, students, filmmakers, and photographers from around the world will spend two months presenting plans and exchanging ideas in the form of exhibitions, lectures, publications, debates, films, and excursions. Coinciding with the opening of the Biennale, the Museum Boijmans Van Beuningen is opening its new extension by the Belgian architects Robbrecht and Daem.

The Biennale is curated by architect Francine Houben, one of the founders of Mecanoo and professor in the aesthetics of mobility at the Technical University of Delft. "Mobility space, that gigantic network of public space in which innumerable people sometimes spend hours each day, has apparently come into being carelessly, as the sum of only technical decisions by traffic experts, engineers, and politicians, in which designers have no part," she says. "The motto 'A Room with a View' is intended to be polemic: A choice for the perspective of the daily traveller." Holland itself, the most densely populated and by far the smallest country in Europe (also with a lot of water), is an interesting case in hand: It has a voluminous and complex infrastructure that to a large extent determines the development of urbanization throughout the country. On the other hand, the roads are relatively safe, and citizens have more choice than in most countries of their modes of transport: Car, public transport, or of course, bicycles.

The program of the Biennale includes lectures, debates, symposia, and exhibitions in the Netherlands Architecture Institute (NAi) and the former warehouse Las Palmas. For the main exhibition, *World Avenue*, Houben invited universities in 10 cities or regions from all over the world—Los Angeles, Tokyo, Peking, Pearl River Delta, Jakarta, Beirut, Budapest, the Ruhr region, Mexico City, and "Randstad Holland," the metropolitan agglomeration of Western Holland, which includes Amsterdam, The Hague, and Rotterdam—to portray a vital mobility route approximately 100 kilometers long according to a fixed research format, so that the results would be comparable, and to put forward innovative design proposals for a 10-kilometer-long stretch. The UCLA team led by Sylvia Lavin, for example, describes the freeway as a fundamental part of life in Los Angeles, and investigates what use designers can make of what they call "K-space"—space as divided up by the reach of the various L.A. radio stations: 54 in English, 27 Spanish, and many other languages, as well—which all have K as their first letter. The freeway experience, states the UCLA team, is also entertainment. Countless cameras are trained on the freeway, both by police and by local news networks,







The exhibition's varied interpretations of mobility posit implementing changes to the way we see and use our roadways.

Tracy Metz is RECORD*'s correspondent in Amsterdam.*

Exhibitions

night and day. After the wild O.J. Simpson chase, the freeway has become a space consumed in both our cars and our homes. "The freeway's great," concludes the UCLA essay. "Wish you were here."

In addition to *World Avenue*, there is also the exhibition *Holland Avenue* in the NAi, with designs by 11 international architecture schools for a segment of the road network traversing the Randstad. And the exhibition *Motopias* discusses a dozen historical objects and concepts, projected on large windshields, that clarify how the swift rise of modern traffic, in particular the car, has drastically changed our thinking about the city and the landscape.

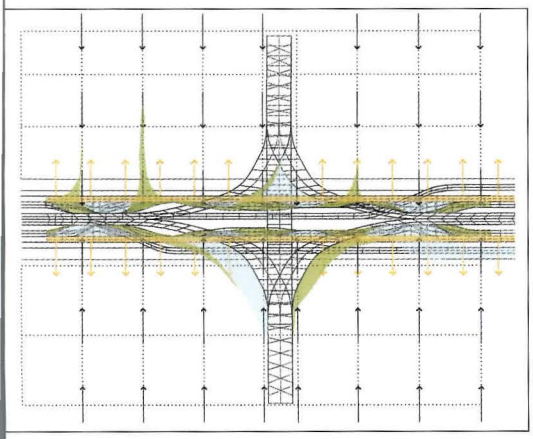


Diagram from "Park City," from the UCLA team's exhibition.

Las Palmas is the venue for the Mobility Laboratory, or MOb_LAb, a selection of 130 proposals from all over the world submitted in response to an open call by "e-mail tom-tom." Here, too, are the international exhibitions, including work by the Civic Alliance to Rebuild Downtown New York. Here, too, you can undergo the *Rotterdam Cakewalk*, an exhibition like a fairground ride on the experience of road users in a modern city. The *Cakewalk* gives views of the city generated by the car, the metro, the pedestrian, the bicycle, the skateboard, the tram, the water taxi, and—an almost exclusively Dutch phenomenon—the scootmobile, an electric cart used by the handicapped. The Biennale regards itself as a focal point for debate, and therefore sees the International Forum for Debate as an important part of the program. The forum includes the Great Biennale Debate, with representatives of government ministries, trade and industry, and consumers. In the NAi, a series of three themed lectures will be held about the influence of speed and mobility on the design of urban space, buildings, and cars. Participants in the "Star Speakers" program (one of the venues for which is Rem Koolhaas's Kunsthal) are, among others, Peter Cook, Greg Lynn, Hani Rashid, Dominique Perrault, Zaha Hadid, Shigeru Ban, and Dutch architects such as Ben van Berkel, Kees Christiaanse, Adriaan Geuze, and Wiel Arets. Museums and galleries all over Rotterdam will make their own contribution to the City Program, such as the National Foto Museum (the future user of Las Palmas), which will be showing panoramic photographs by photographer Siebe Swart of how infrastructure transforms the Dutch landscape, and will also hold the Rotterdam Architecture Film Festival (June 18–22), with the theme "Celluloid Cities." ■

"THE FREEWAY'S GREAT," CONCLUDES THE UCLA ESSAY. "WISH YOU WERE HERE."

For dates and venues, see www.biennalerotterdam.nl and www.1ab.nl. Publications by NAi Publishers include: Mobility: A Room with a View *and* In Transit: Mobility, City Culture and Urban Development in Rotterdam.

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Snapshot

By Naomi Pollock

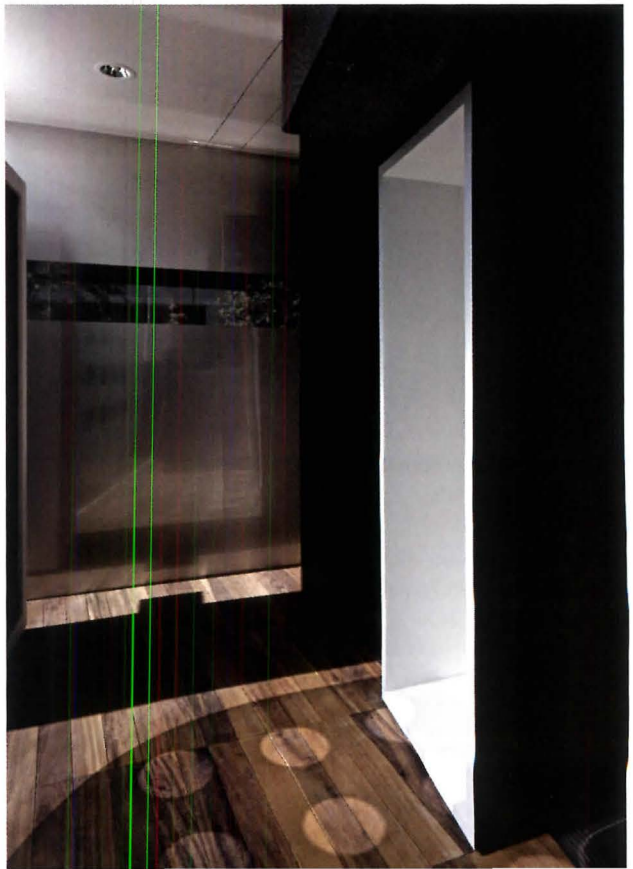
A traditional building type, the teahouse, comes of age

A teahouse with a twist, Fukyo is Fukuoka architect Hiroyuki Arima's take on one of Japan's most rarefied and ritualistic architectural forms. Encased within a parallelogram-shaped wrapper made of glass and steel, Arima's futuristic interpretation bears little resemblance to the rustic hut built out of wood and thatch idealized in the 16th century by Sen no Rikyu, the father of Japan's classical tea ceremony. Yet the delicacy of Fukyo's detailing and its carefully collaged materials are as exquisite as the confections customarily served up with the frothy green brew.

The project was launched when Arima was asked to spruce up the garden attached to a traditional-style inn located 90 minutes from his hometown. "The client didn't ask for a tearoom, but I wanted to make one," says Arima, who was eager to try his hand at modernizing the history-laden building type. More choreographed dance than casual refreshment, the tradi-

Snapshot

Arima used a stainless-steel wall whose mirrored outer surface reflects the surrounding trees (right). Breaking with tradition, both layers introduce an unprecedented degree of openness: The movable walls enable people and light to move easily in and out of the teahouse's inner sanctum, and the transparent enclosure reveals its sequestered inner workings (below right and left, and opposite). "Wouldn't it be interesting to show what goes on behind the scenes?" says Arima.



tional tea ceremony consists of a sequence of highly controlled movements that require, among other things, a tatami mat floor, a tokonoma decorative alcove, and rooms of very specific dimensions. While Arima bowed deeply to many of these requirements, the 183-square-foot Fukyo can also accommodate wedding ceremonies, concerts, and other small gatherings.

Fukyo, whose name means "sitting among the maples," is connected to the hotel's lobby by a narrow path that winds its way through the 2,153-square-foot garden dotted with maple trees Arima had trucked in from nearby Mt. Aso. Perched on a wooden deck amid the greenery is the slanting glass-and-steel shell marking the building's border. Inside, a second set of walls outlines the square ceremonial space: A three-mat tatami room, where tea is prepared and served, and a staging area, where the ingredients and implements are readied. An irregularly shaped circulation space, including a double-height corridor crowned by a skylight, mediates between the two sets of walls.

While the exterior wall is fixed, the interior one is a combination of sliding screens and Arima's signature rotating flaps. Where the two overlap, Arima used a stainless-steel wall whose mirrored outer surface reflects the surrounding trees. The only perforations in the building skin are the four doors encased in steel boxes jutting out from each side. While a slender white box announces the formal entrance, a squat black one conceals the *nijiriguchi*. A direct quotation from the classic teahouse, this tiny opening leads directly into the tatami room but requires crawling on all fours.

An abstract grouping of glass-and-steel boxes, Arima's teahouse hardly looks the part. But looks can be deceiving. Concealed within its contemporary covering is a contemplative chamber that evokes the spirit of its historic precedents. ■

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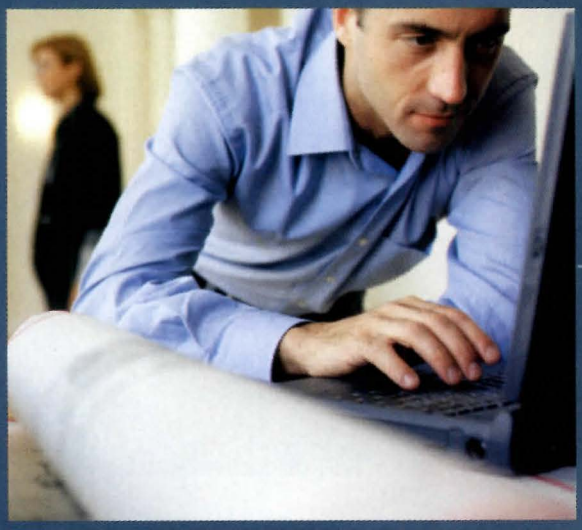

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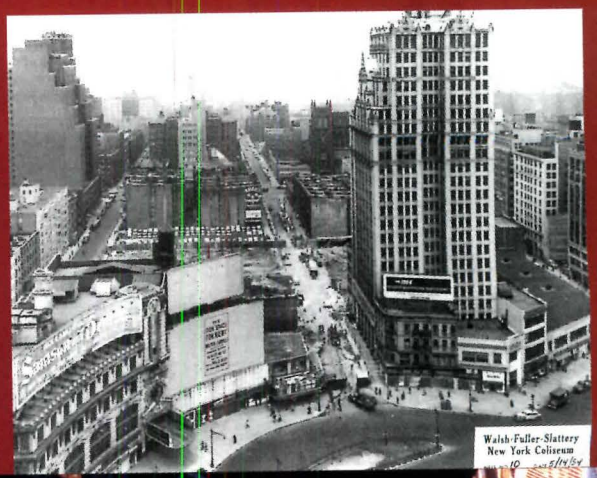
The Making

How economics, politics, ambition, and architecture finally converged at New York's Columbus Circle to create a $2.2 billion building



1950. Robert Moses uses his powers to condemn the Columbus Circle site (left) for housing. In the process, 59th Street (center of photo) is vacated. The price of the land is $9.5 million.

AOL Time Warner Center

By Charles Linn, FAIA, and Alan Joch

While the world's attention was riveted on plans for Ground Zero during the past year and a half, something extraordinary has been happening at Columbus Circle: The largest, most expensive multiuse development to have been constructed in New York City since Rockefeller Center has rapidly taken shape. This story is about architecture, certainly, but more to the point, it is the story of the economic forces behind the design of a building that is certain to permanently alter the face of life in the city.

Although the scale of AOL Time Warner Center dwarfs most projects, this story provides an unparalleled view of the many things that influence the ways in which all kinds of buildings get built. When complete, the complex will include the world headquarters of a major corporation; 211,000 square feet of additional office space; three jazz performance halls; almost 200 luxury condominiums; a high-end retail mall; and a 251-room, five-star hotel. That mix is indicative of the prosperous times in which the building was conceived, the period of heady optimism driven by the fiery New York economy immediately preceding the turn of the millennium, when flush lenders prowled for borrowers and plied them with low-interest financing. Rigorous demands by city government and a public ill at ease with development forced the developer and his architect to take many long- and short-odds risks as they conceived what would be built on the most significant piece of real estate to become available for development here in decades.

In the beginning, there was Moses

Under the 28,000 tons of steel girders and columns that provide the skeleton of these 750-foot-high towers, one can still feel the ghost of one of New York's greatest legends lurking in the shadows. In 1950, Robert Moses used his unprecedented power as chairman of both the Triborough Bridge and Tunnel Authority (today a subsidiary of the Metropolitan Transit Authority) and the Mayor's Committee on Slum Clearance to condemn the two blocks that lay between 58th and 60th Streets west of Columbus Circle. Under Federal Title I urban development laws, he could take those two blocks, vacate 59th Street, which aligned with Central Park South across the circle, and put up housing there. The Feds paid $6 million of the $9.5 million cost for the property and constructed a pair of modest apartment buildings on the west half of the site.

Moses often used laws intended to do one thing to accomplish something else, and this was no exception. The real purpose of his bureaucratic machinations was to create a piece of land on which to build a monumental investment vehicle for the millions of nickels he'd been collecting on New York's tollways. It was the New York Coliseum, a four-level, 595,000-square-foot exhibition hall over a 303,000-square-foot parking garage, flanked by a 660,000-square-foot, 20-story office building. When critics complained that the building was bland, Moses wrote in a letter to the *Herald Tribune* that the building was not a "competition for a civic monument for civic virtue," but "a business venture."

People have been fighting over the site ever since, and for good reason. In New York, a two-block-wide piece of unbroken frontage virtually never comes up for private development, and this one has location, location, location. The A, B, C, D, 1, and 9 subway trains all stop below Columbus Circle. Four major streets—Eighth Avenue, Broadway, Central Park South, and Central Park West—converge there. The southwest corner of Central Park sits across the street; Lincoln Center is a few short blocks away to the north, as is the Times Square district to the south. Each of these factors adds to the value of the site. Any developer who builds here will, for starters, have to put up a jewel of a building to get the approval of the city planning department and community groups.

The prominence of the site and its unique shape challenge city planners, the developer, and architect far more than if the site were still divided by 59th Street. If one could simply fill the two parcels across the street from one another with, say, an office building and a hotel, life would be simplified immeasurably. But it does not make economic sense to fill the much larger site Moses created with a single building type. Any developer awarded the right to build must decide what uses will create the most bene-

Alan Joch is a business writer who lives in Francestown, New Hampshire. Steve Greechie of the McGraw-Hill Business Information Center provided research.

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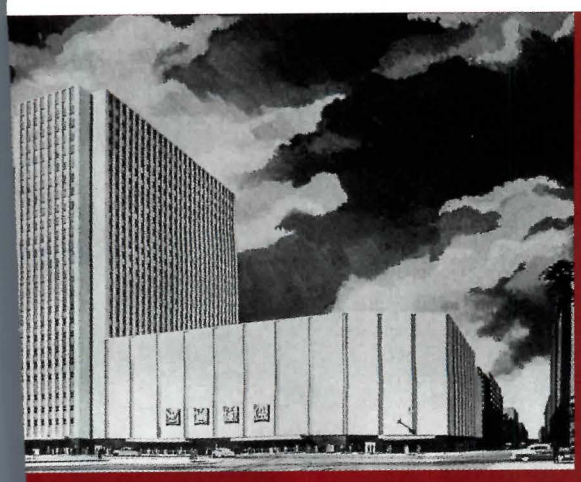


1954. With 59th Street gone, two full blocks of Columbus Circle frontage are available for the New York Coliseum (left). Today, the AOL Time Warner Center is under construction here.

1955. Frank Lloyd Wright with Robert Moses at the New York Coliseum in November. Wright says of Leon and Lionel Levy's bland, utilitarian style for the building, "It's all right for New York, but I hope it stays here."

ficial commercial synergies, and how many hundreds of thousands of square feet to devote to each. The next task would be coming up with enough cash to get started, and enough commitments from prospective tenants to convince lenders to loan the rest.

The building itself would have to be constructed for a reasonable cost and yet be attractive enough and of high enough quality that consumers would shop here and eat in its restaurants, that guests would stay in the hotel, and that prospective residents would buy the condos. Rents must be high enough to allow the developer, or the building's eventual owner, to cover the costs of land, construction, building operation, debt service, taxes, and utilities, and hopefully also generate a profit. Any miscalculation could mean financial doom for investors and create serious consequences for the city. This is one place where it would be very hard to hide a white elephant.

Steve Ross, chairman and C.E.O. of The Related Companies, won the right to develop the site. He says of the AOL Time Warner Center, "Whatever I do in life, I'll be known for having built this building."

And then there was Steve Ross

Decades later, Steve Ross, chairman and C.E.O. of The Related Companies, assumed Moses's mantle as master of the site and today is building AOL Time Warner Center there. Like all successful developers, he knows that large real estate projects live or die depending on how well developers recognize and ride the prevailing economic waves. "You're only as good as the economy allows," he says from his office on Madison Avenue, within eyeshot of AOL Time Warner's burgeoning towers.

A decade earlier, while the local economy struggled to grow, Ross was already thinking about developing the property. But in a way that shows how intricately developers' ambitions are linked to economic cycles, he was not considering a Rockefeller Center–class facility. "For 17 years, he had been staring at this site," says Marty Burger, executive vice president of Related and "the deal guy" who negotiated much of the financing for AOL Time Warner Center. "At one point, when the Coliseum was vacant, Steven said, 'For 10 years, let's put a Kmart there,'" until the time was right to develop it.

But by 1997, when The Related Companies, along with the Palladium Company and Apollo Real Estate Advisors, were putting their proposal together, high-end development was starting to make sense. Ross believed that with money in great supply, dollars would naturally flow to super-premium luxury construction, whether the tenant was retail, residential, or corporate. "When you're in a good economy, you're going to make more money at the luxury level than if you do something secondary," he says. Suddenly, even the hundreds of millions of dollars a developer would have to pay for Moses's 3.4-acre site seemed justifiable, as did the construction of the kind of architecture necessary to attract high-end tenants.

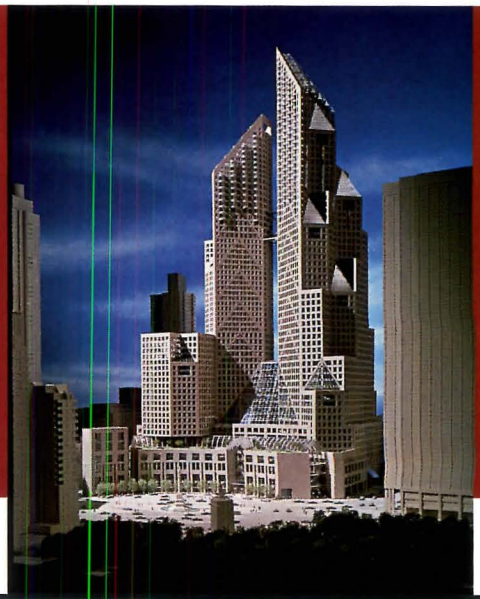
When Related won approval from the city of New York to become the lead developer of the former Coliseum site in 1998, the city was thriving. Billions of investor dollars were pouring into the new "tech economy," inflation was low, and interest rates were dropping. The stock market was booming, and so was tourism. Not only could people dream of great things, but if they had access to capital, they could do them, too. "The project grew into the economy. This is not something you would do in a poor economy. If they issued an RFP today, you wouldn't end up with this type of development," Ross says.

But he also knew that there was much more at stake. "This wasn't just another site, it was the most important site in New York. We had an opportunity to build something, and no one would ever have an opportunity like this anywhere else in the world. Whatever I do in life, I'll be known for having built this building." And that placed a heavy burden on Ross, because his project will be measured not just against itself—it will be measured by how miserably others failed when they attempted to build here.

The back story

Understanding why others failed to build here is important because it shows how money, politics, and changes in the economy influence what gets built. New York Coliseum was already obsolete when the Jacob Javits Convention Center opened on Manhattan's West Side in April of 1986, and speculation about what would go up on Columbus Circle had been going on for years. Apparently things at the MTA hadn't changed much since 1950, when Moses wrote that the Coliseum was just a business venture. The city and the MTA were going to divvy up the proceeds, and they were desperate for cash: the

1986. The opening of the Javits Center makes the Coliseum obsolete. The MTA and New York City put development rights for the site up for bids. The New York Land Company submits the high bid for the site and proposes a huge building complex (left) by Swanke Hayden Connell. Its offer for the site is $477 million.



Boston Properties' winning bid comes with this 925-foot-tall scheme by Moshe Safdie. Critics hate it, but the city finds Boston's deal with Salomon Brothers to lease and finance the project irresistible. Its offer is $455 million.

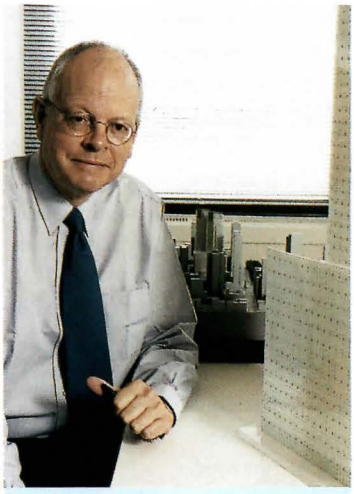
city to balance its budget, the MTA for funds to fix the ailing subways. The RFPs issued by the agency and the city stated that the proposals would be considered, first, upon how much money would be gained on the sale of the site; second, the proposals' economic viability. The benefit of each proposal to the city itself would be considered last. To sweeten the deal for themselves, the city and MTA required that proposals be based on a floor-to-area ratio (FAR) of 18—a 20 percent bonus over the FAR of 15 that zoning regulations allowed for the site—in exchange for $57 million for subway improvements. This meant that the price paid for the site would be high, and the building that would be built there would have to be huge, to pay for the land.

The New York Land Company, with its proposed design by Swanke Hayden Connell, had the high bid of $477 million for the land and the right to develop it. But Boston Properties, which bid $455 million, got the deal. Boston, led by real estate and media magnate Mortimer Zuckerman, had partnered with Philbro-Salomon, a financial services company, which agreed to lease half of the proposed building for 15 years. Its subsidiary, Salomon Brothers, had committed to finance the entire project. It was a low-risk deal for the city, which agreed to pay the MTA the $22 million difference between the high and low bids. Boston's winning proposal for the site featured a building designed by Moshe Safdie. It boasted twin towers of 68 and 58 stories, the taller topping out at 925 feet high. Almost 2.7 million square feet was packed inside. The building would have offices, retail, a hotel, and condominiums.

Paul Goldberger, then *The New York Times*' architecture critic, repeatedly attacked the design, writing at one point that it was "an arrogantly sculpted form, bearing little relationship to anything around it. Its abstraction seemed only to heighten the sense that this was a project imposed on New York City." But most of his wrath was reserved for city government. He wrote, "At Columbus Circle, the municipality abandoned all pretense of being a protector of the public interest … worse, it has goaded private developers on, pushing them toward bigger buildings when sensible planning judgement called for smaller ones."

The project unleashed anger about the unbridled overdevelopment of the city that had been growing for years. The Municipal Arts Society and other groups sued to stop the project, charging its overwhelming scale would exacerbate existing traffic and pollution problems at Columbus Circle. Hundreds of New Yorkers, including Jacqueline Kennedy Onassis, protested the soaring towers and the shadows they would cast across Central Park, by tracing the towers' outline with a mass of open black umbrellas.

Eventually an economic crisis added to Boston Properties' frustrations, and the bad publicity and delays began to fray its relationship with Salomon Brothers. When the stock market crashed in October of 1987, the financiers began desperately to search for a way out of the deal. They would eventually pay Boston $95 million to end it. In December of 1987, acting New York Supreme Court Justice Edward H. Lerner decided in favor of the Municipal Arts Society, ruling that the city could not "sell" a FAR bonus to get cash to improve the subways.



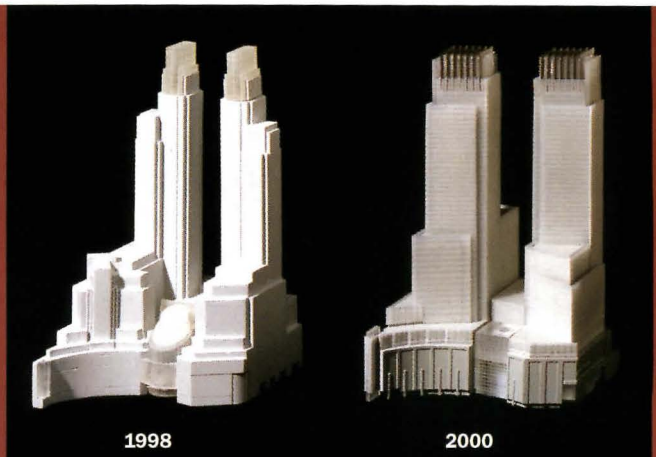
Speaking of how the economic forces behind development change over time, David Childs of SOM says, "If we could do it over again today and build it instantly, Steve Ross would have a very different building."

Late in 1987, Moshe Safdie resigned. Boston Properties hired David Childs, FAIA, of Skidmore, Owings & Merrill, to design a new building. Childs's first proposed design had retail with housing above it and was said to have taken its cues from apartment buildings on Central Park West. With the 20 percent FAR bonus thrown out by the courts, its height and bulk was reduced. The FAR dropped to 14.2, and Boston renegotiated a price for the property. It dropped by $98 million, to $357 million. As the community continued to protest the building, and the housing market bottomed out, Childs redesigned again, this time for offices and no housing. That scheme, with a FAR of 12, was shorter still and 620,000 square feet smaller than Safdie's original design. While the cash-strapped city and the MTA stood by, thinking of what might have been, the price for one of its most unique assets dropped yet again, this time to $337 million.

But problems with the project didn't end here. As the economy languished, the MTA, the city, developers, and community groups continued to wrangle with each other in court for the next half-decade. By 1994, Boston Properties' megastructure

1988

1987–94. As the economy crashes, the courts force Boston Properties to scale down its project. Safdie departs, and David Childs produces the first of several versions (left). Site price is $355 million, then $335 million. When Boston finally quits in 1994, the price for half the parcel it originally won is down to $100 million.



1998 2000

1996–2000. The city starts over. Steve Ross's and the Related Companies' winning bid uses a Childs design based on earlier work for Boston Properties (middle left). Related's offer for the site is $345 million, $110 million less than Boston Properties' winning 1986 bid. In 2000, SOM redesigned the project (left).

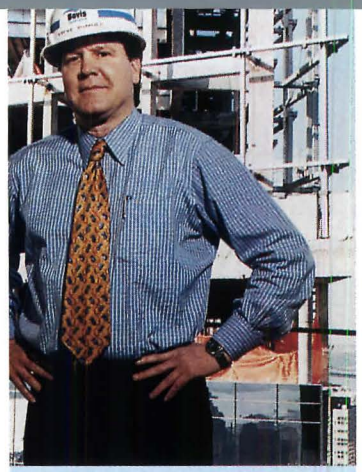
RENDERINGS: COURTESY SKIDMORE, OWINGS & MERRILL

had devolved into an office tower that would have been built north of the MTA's 40-year-old office building, which would remain. The MTA had agreed to give Boston Properties half of the site it had originally won for less than a quarter of the original price, $100 million, and the city had agreed to pay $20 million of that. In July of that year, after suing each other over delays and broken promises, Boston Properties finally gave up. It paid the city $17 million to get out of the deal once and for all.

In 1996, the city started the development process from scratch, this time trying much harder to ensure that what was built would be worthy of the unique site. A new RFP established a basic building envelope and footprint for the development and mandated that the winner of the RFP would be bound to construct a mixed-use facility there. The RFP was quite specific about the shape and size of the building. In general, the east streetwall would follow the shape of Columbus Circle, and it had to be between 85 and 150 feet tall. Two towers would be allowed as long as they were less than 750 feet tall, were at least 65 feet apart, and preserved the view corridor west from Central Park South. "We had a little flexibility within that envelope, but that's basically what it was," recalls Bruce Warwick, president and C.O.O. of AOL Columbus Centre LLC, a company established to manage the project.

The city also insisted on one other condition: Developers couldn't seek any tax breaks. "This site would have been eligible for certain breaks, but the city made it a requirement, during bidding, that we not seek incentives," says Burger. "These would have been substantial. We determined our bid based on the assumption that there wouldn't be any incentives."

Every high-profile developer in town sought the property, including Donald Trump, Millennium Partners, Corporate Realty Partners, and a dozen others. At the time, developers speculated in the press that the land would go for $150 to $200 million. In May of 1997, five firms were shortlisted. When it was rumored that Millennium was close to getting the deal, Mayor Rudolf Giuliani stepped forward and insisted on one more thing: The core and shell of a performing arts center would have to be incorporated into the design. He deemed that the developer would bear all but $1 of its cost. Hughlyn Fierce, president and chief executive of Jazz at Lincoln Center (JLC) argued that JLC would attract more people to the development than, say, opera, and could successfully raise the money to finish the space. JLC got it.



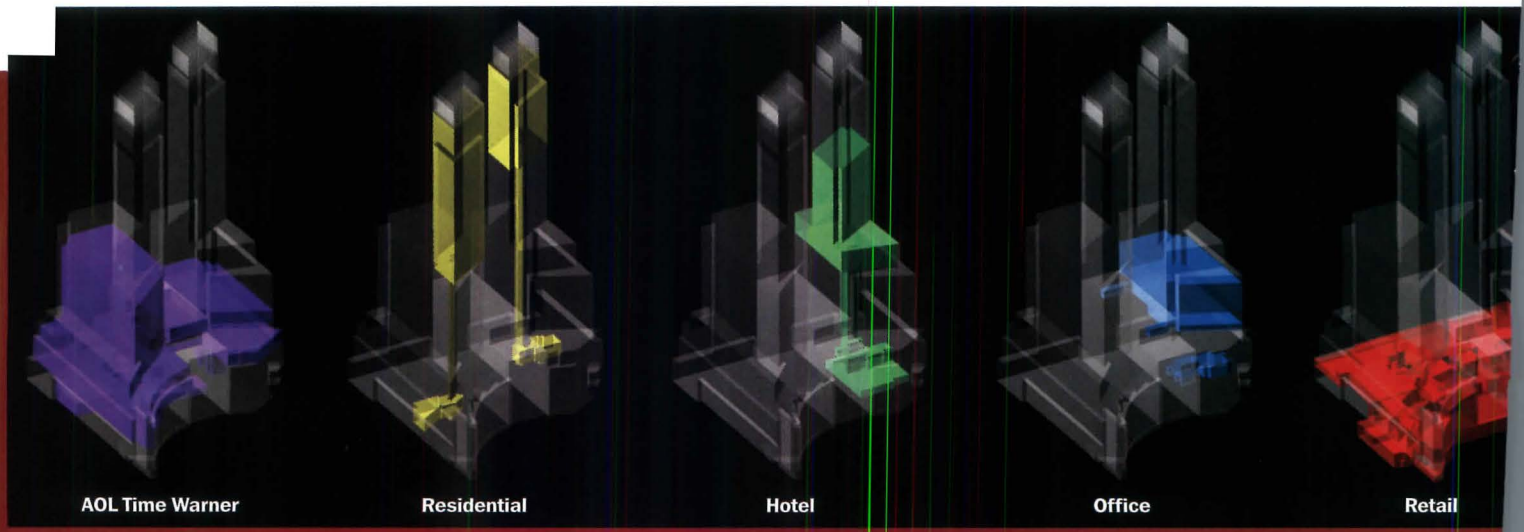
Steven Sommer, senior vice president of Bovis Lend Lease. The CMs tracked costs on over 1,000 line items for the project and had up to 1,800 workers on-site daily.

Related Properties' coup de grâce

By the time the last proposals were due, Related had gained a key strategic advantage. "We were one of first to recognize the resurgence of office demand in New York, so our plan was the heaviest on office space," says William Mack of Apollo Real Estate Advisors, one of Related's development partners. Sensing an opportunity, Steve Ross scheduled a meeting with Richard Parsons, then the president of Time Warner and now the chairman of AOL Time Warner. Ross thought the media powerhouse would bring Information Age cachet to his development, which would in turn attract financing and tenants. He was willing to make Time Warner's space into a loss-leader.

Ross recalls, "When I got there, Parsons said, 'Well, what are you here for?' I said, 'I'm here to talk about Columbus Circle.' He said, 'Every developer's been here. We don't need space. We have this building for 35 more years.'" Ross's strategy wasn't to pitch real estate, but to sell Parsons on the value of having a visible presence at this location, and in being an owner. "I told him, 'This is about showcasing your company. No one knows you exist at 75 Rockefeller Center. It's NBC's turf. The public's got to know what you own, and there's no better way to showcase it than here.' We hit a chord." Ross was talking about building an image, not about leasing space.

Image and public perception may have gotten the attention of Time Warner executives, but Ross recognized that a partnership with them would be the project's dealmaker. He gave Time Warner its 865,000 square feet of space *at cost*. It was able to claim the sections of the building that would be best for television broadcasting, an important criteria, since it planned to expand CNN's New York presence. "We wanted our broadcast operations to be in lower portions of the building because those floors have higher floor-to-floor heights than the upper floors," recalls Philip Pitruzzello, vice president of Real Estate Projects for AOL Time Warner. "Also, being lower to the ground looks better on television.



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You see some of the grittiness of urban New York."

For Related there was more to the prize than just finding a tenant that would give the project panache. "The MTA wanted surety of closing, and they were comfortable that Time Warner would stand behind us," says Marty Burger. "It took some of the risk out for us." The media giant would be putting up some of the early investment money. Related estimated development costs to be over $1.7 billion for the shell and core. "Finishes" would bring the cost up to $2.2 billion, but for the most part individual tenants would pay those expenses. During the bidding process, Related had gathered about $420 million from money it put up, as well as funds from Apollo, Time Warner, and Mandarin Oriental, a luxury hotel that had also bought in.

As good as the Time Warner deal was, Ross had one more ace up his sleeve. He had landed David Childs, who had been working on proposals for the site longer than any other person, as his architect. "I as much chose the developer as he chose me," says Childs. "Several people approached me, but Steve seemed to be the one who wanted to do a true mixed-use development, and that's what I thought the site really wanted to have." The design that was proposed, and ultimately won, was an evolved version of the schemes Childs had designed for Boston Properties in the mid-1980s. In August of 1998, with David Childs's building, and a bid of $345 million for the site, Ross and Related won the site.

Design, documents, and financing

Once the bid was won, the financial clock began ticking. The developers now had to race to get construction financing in place, get the rest of the building leased or sold, and get the shell and core built on an aggressive three-year schedule.

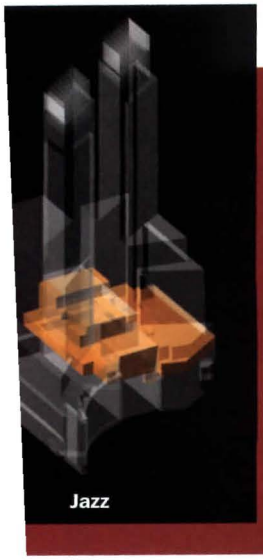
At the time, an internal debate developed within Related over whether to separately finance each component of the building—the retail, residential, office space, and so on—or to seek a lender who would provide the money for the entire structure. "We ultimately decided that it was the most efficient to finance as one unit, for the entire development," Burger says. Ken Himmel, president and C.E.O. of Related Urban Development made a presentation to the General Motors Acceptance Corporation (GMAC), the lending arm of General Motors. The developers decided the reason GMAC was interested in investing so heavily in such a large project was that Time Warner's presence had reduced the project's risks. The presentation later turned into a commitment to provide Related with a $1.3 billion construction loan, which closed in July 2001. It set a record as the biggest private construction loan in history.

But even though Related's proposal had been accepted, the design of the building had not been approved. The developers, SOM, and Mayor Giuliani's design advisory panel had tweaked the design until no one was happy with it. The idea of trying to jam the corporate headquarters of AOL Time Warner and Jazz at Lincoln Center into a form that had drawn much of its influence from a 1930s Central Park West apartment building was becoming more absurd all the time. Early in 2000, Childs and his partners, T.J. Gottesdiener and Mustafa K. Abandan, went back to the drawing board one more time to come up with a sleek glass building that was much better suited to the new century and the Information Age tenants who would occupy it. Everyone loved it.

The balancing act: establishing optimal mixed-use ratios

After the appearance of the design was finally approved, it was time to decide how much area was going to be dedicated to each of the uses the developers had chosen to include in the building. "The building's envelope didn't change, but in the interrelationships of the stake holders and how their space worked for them, there was a great deal of change," Warwick recalls. "When you're putting a project of this scope together, you can't really anticipate all the requirements. You can say, 'Okay, you want a million square feet? You want this or that?' We'll put it all together and say, 'This is how it is going to look.' But then when you get into all the details, the interrelationships between tenants, and there was a tremendous amount of change."

For example, early thinking about the design considered a larger, 400-room hotel, which was ultimately reduced to 251 rooms, when the



Jazz

Composite

These drawings show how space is distributed throughout the new building. How much of each type would be included was based on Related's financial modeling of what mix of uses would produce the best rate of return over the project's life. SOM had very little to do with these decisions except to make the spaces fit inside the envelope. Related's best guesses about what kinds of space will be in demand in the future is nothing less than a prediction permanently fixed within the architecture of what New York's real estate market will be like.

developers decided to add more office space. "This was pure instinct on Steve Ross's part," says Burger. The developers believed that building office space was a better financial wager than hotel rooms. "A hotel is riskier because it is less like real estate and more like an operating company." But having a hotel in the complex makes it easier to sell condos, because owners can contract for housekeeping and concierge services from the hotel. And condo space, which can sell for $1,300 to $3,500 per square foot, is extremely profitable. "We felt we could get higher prices than anywhere in New York City," Burger says.

"The developers have a very difficult job because they are trying to pick something off with an unbelievable amount of fineness of detail about things that are way out in the future and cannot be predicted," says Childs. "If we could do it again today, and could build it instantly, I think that Steve would have a very different project." But to keep the project on schedule, at some point the developers have to stop modeling how the complex might perform financially, and let the architects design.

Hughlyn Fierce, president and chief executive of Jazz at Lincoln Center, is leading the effort to raise $128 million to complete JLC's three new performance venues.

Construction: where the money goes

The building phase presents a series of new challenges whose solutions will also determine the financial success—not to mention the aesthetic quality—of the project. In the summer of 2000, while the $20 million demolition of the Coliseum was underway, Related sought a construction manager (CM) to direct the project, act as the prime contractor, and negotiate deals with materials suppliers and subcontractors. It issued RFPs for this contract to Turner Construction, HRH Construction, and Bovis Lend Lease. Eventually, Bovis won the guaranteed-maximum-price (GMP) at-risk contract, which allowed for aggressive scheduling and gave it more flexibility in determining how the building would be built, potentially saving money for Related while improving its own profit margin.

The GMP contract negotiations were based on SOM's detailed, but not final, construction drawings. Estimating the job using complete bidding documents would have got Related a lower price, but the extra months of time taken to create a final set would have made the job much more expensive overall. "There is a magic moment," says David Childs, "when you stop drawing and start negotiating." While not having every detail nailed down saves time, there is a certain amount of risk involved for everyone, especially the design team. Certain problems that might be anticipated by a full set of drawings can go undetected. The CM and developer certainly face the temptation to cut costs in ways that will compromise the quality of the building and that the architect will not agree with. "But that's where trust and mutual respect between the owner, the CM, and the architect comes in. You can't do this kind of contract without a lot of trust," says Childs.

Bovis was to build "shell and core," which includes the structural system; fenestration; waterproofing; vertical transportation; mechanical, plumbing, and electrical systems; site work; and the fit-out of the public spaces in the retail section. Also included were the fit-outs for the condos and the Mandarin Oriental Hotel, whose interior architecture is being designed by Brennan Beer Gorman Architects. Bovis is also responsible for building the "acoustical box" that will house Jazz at Lincoln Center, whose fit-out is being designed by Raphael Viñoly. To further complicate the work, Elkus/Manfredi is designing the retail space, and HLW International is responsible for AOL Time Warner.

According Steven Sommer, senior vice president of Bovis, labor and materials costs were estimated to total about $675 million. The CM then added $65 million in salaries for its staff, which at its height employed 110 people, plus expenses such as site cleanup, surveying, and construction

The street that starts in the lower left corner of the rendering and extends toward Columbus Circle is Central Park South. The space between the towers extends the street's view corridor into the western sky. Central Park occupies the rendering's lower right corner.

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scaffolding. On top of the estimated expenses, Bovis added a $13 million service fee, just under 2 percent of the construction costs, which formally represents its profit margin. Thus, the initial total worth of the contract for Bovis was $753 million, or about 34 percent of the shell and core costs. Other costs—land, legal fees, architectural and engineering fees, marketing, insurance, the $20 million restoration of the Columbus Circle garden, and so on—were paid by Related.

The $13 million service fee represents an on-paper profit, because it could grow or decline depending on how Bovis played conditions relating to materials costs and labor. According to Sommer, the GMP contains approximately 1,000 different line items with estimated costs for everything from structural steel to bathroom fixtures. Bovis derived many of these estimates while the drawings were still evolving, and cost estimates were educated guesses. "At the time we created the GMP, we didn't have any information about the finishes in the hotel or the finishes in any of the lobbies," Sommer recalls. "So we based our estimates on a specific lobby being, say, 5,000 square feet in area, and we might say, 'This feels like a $350-a-square-foot fit-out allowance' based on the finish costs of another Manhattan building Bovis recently completed." For the total $753 million GMP, Bovis included $127 million in allowances, "so we had a good amount of 'swag,'" Sommer says.

This flexibility also gave Bovis room to take advantage of market swings. It developed the contract during the last phase of a superheated up-cycle. "When we took this job in 2000, we didn't know how we were going to man it, we were so busy," says Sommer. "And materials prices were high." But when it came time to lock in prices for materials that would be delivered over the next two years, the 9/11 terrorist attacks and a faltering national economy were starting to drive prices down. "When you combine where the state of the economy was at that time with the size of this project, we were buying very aggressively," Sommer recalls.

Another factor that worked in favor of Bovis and the developers is that the size of the AOL Time Warner Center job, which at times employed 1,800 people at the site each day, was its own economic engine. "When you're negotiating a major contract with subcontractors and trade contractors, they recognize that if they can get a piece of this, their books will be full for a good 12 to 24 months. They're interested in giving you the best price possible," he says. Putting subs under contract also dissipates the risks of price fluctuations. "I lock in a price based on a competitive bid," Sommer explains. "If there's an adjustment in the market, either up or down, the risk is not mine, it is the risk of the contractor." For contractors who purchased materials from overseas sources, Bovis's contract included a provision that required that the subs absorb the negative impact of currency fluctuations if they rose above a set amount, usually 10 or 15 percent of the contracted price. "I'll insist that the contractor accepts that risk—it's not my cost," Sommer explains.

Once contracts are in place for all the tradespeople and material, it's Bovis's job to make sure late deliveries, foul weather, design changes, and other glitches don't delay the project and increase costs. New York high-rise construction strategies rely on getting all the various trades to dance in step with the lead of the concrete trades. The optimum schedule is to pour a concrete floor every two days, an aggressive schedule that's about twice as fast as what tradespeople do in other U.S. cities. "If one of the trades falls behind, you have a domino effect."

AOL Time Warner defies economic gravity

The AOL Time Warner Center is scheduled to open in September of 2003, with tenants moving in at different times over the following year. While it will not be possible to judge whether the complex is a complete success for years, tenants are leasing space and condos are selling in spite of the economy. People often ask whether AOL Time Warner itself might back out, but this isn't likely to happen. They own their space. The Related Companies is itself occupying space in the north tower, and Jazz at Lincoln Center has been successful at raising funds to finish its space. Some question remains whether shoppers will travel to the top of the six-story retail space, but retailers are gambling that JLC, at the mall's zenith, will pull them there. The retail section of the building has commitments from Whole Foods Market, an upscale grocery store; specialty shops like Williams Sonoma, Godiva, and the watch retailer, Tourneau; clothing retailers like Hugo Boss, Coach, A/X Armani Exchange, J. Crew, and Equinox, an upscale gym.

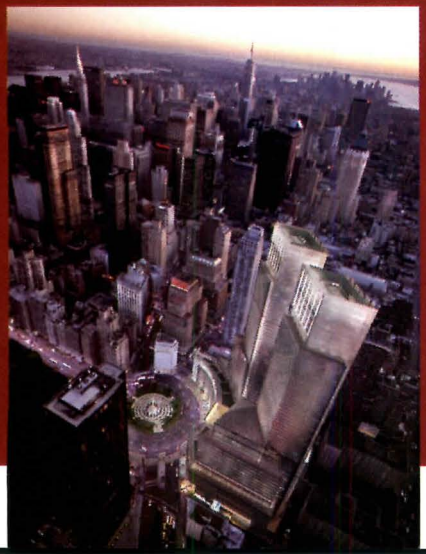
But, at this point, much of the risk would no longer seem to be Related's problem, anyway. In February, MacFarlane Partners, in partnership with the California Public Employees' Retirement System, agreed to purchase a 49.5 percent share of AOL Time Warner Center. The cost is between $425 and $500 million, including 211,000 square feet of office space; 347,000 square feet of retail space, and the 504-space parking garage, which, with the high price of parking in New York, is a cash cow. The partnership is also assuming $359 million of the $1.4 billion commercial mortgage loan.

As of this spring, about 40 percent of the condo space had been sold, according to Susan de França, senior vice president for The Related Companies. As a testament to that resiliency, Related has increased its condo prices a total of about 15 percent since 2001. Units range from relatively modest 1,380-square-foot condos selling for around $1.8 million to expansive, 8,400-square-foot penthouses costing $30 million.

Looking ahead: lessons for Ground Zero

As Ground Zero's stakeholders begin piecing together the puzzle of how it will be developed, they might learn something by looking at this 17-year journey. Even when a program is relatively well defined and there seems to be a market for what the city and developers agree should be built—which is not, so far, the case at Ground Zero—public pressure and rapid shifts in the economy can produce sea changes. A design that seems to be a sure thing at one point can be replaced by something that looks nothing like it. And when something finally gets built, it is because developers and financiers, market forces, political consensus, and architecture converge at one point in time. As David Childs, a veteran of this process says, a lot of it is just luck.

The AOL Time Warner Center is as much a symbol of the resilience of New York as everyone wants the Libeskind scheme at Ground Zero to be. It was conceived in the pre-9/11 world, when economic exuberance reined. After the terrorist attacks, the developers were forced to rethink their plans. They could have settled on something less grand, but they pressed on. As those involved at Ground Zero embark on the battles to come, AOL Time Warner Center with its new twin towers is testimony of how the people of the city can overcome great obstacles to get on with life. ■



This aerial perspective looks south toward Midtown and shows how AOL Time Warner Center's streetwall wraps around the southwest side of Columbus Circle. Ground Zero lies at the upper right corner of the rendering.

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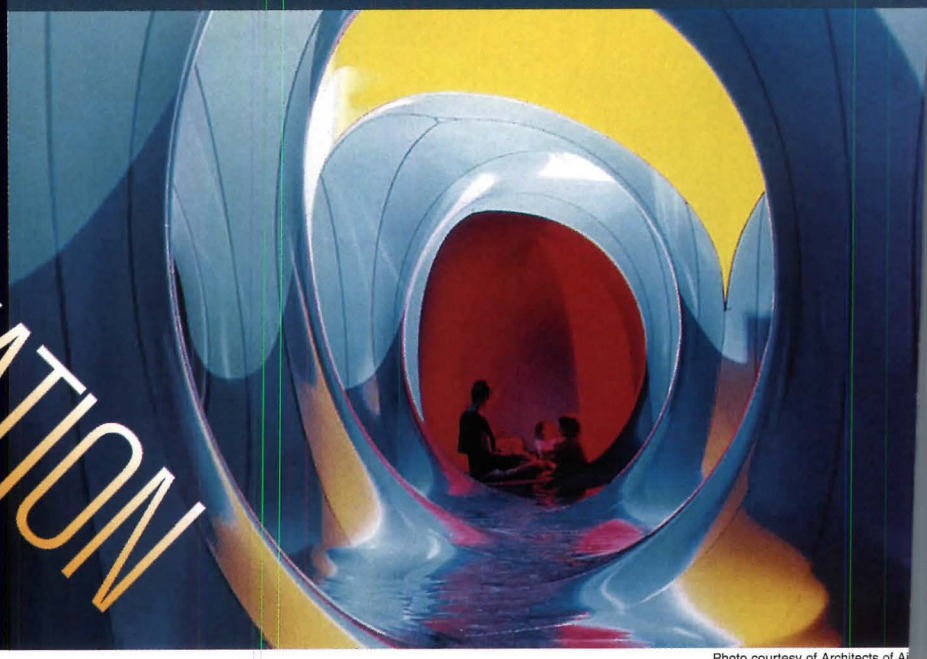

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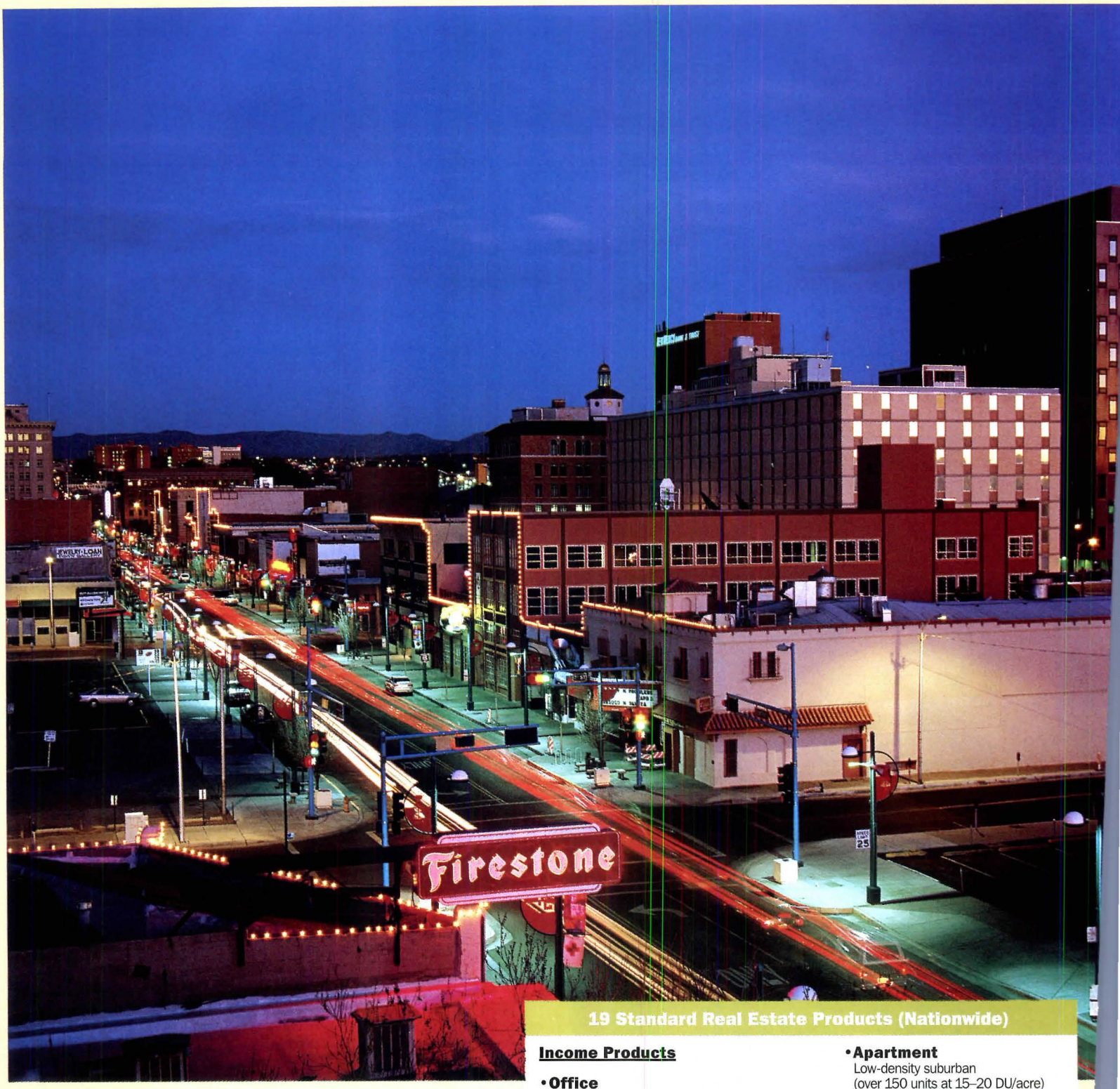


Recovering the Route 66 glitz of Central Avenue in Albuquerque (above) didn't fit today's rigid spec "product" categories (right). Fixing Albuquerque meant lengthening investment cycles that drive low up-front investment (opposite).

19 Standard Real Estate Products (Nationwide)

Income Products

- **Office**
  Build-to-suit
  Speculative suburban low-rise
- **Industrial**
  Build-to-suit
  Speculative warehouse (28-foot clear span)
  Research and Development/Flex
- **Retail**
  Neighborhood (between 80–120,000 square feet)
  Power (between 120–400,000 square feet)
  Urban entertainment
- **Hotel**
  Limited service
  Full-service business
- **Apartment**
  Low-density suburban
  (over 150 units at 15–20 DU/acre)
  High-density suburban
  (over 200 units at over 20 DU/acre
  stick-built construction)
- **Miscellaneous**
  Self-storage
  Assisted living

For Sale Products

- **Residential**
  Entry-level attached
  Entry-level detached
  Move-up attached
  Move-up detached
  Executive detached

Leading the Money

By James S. Russell, AIA

A new method for financing real estate could place architectural quality center stage. Can the hidebound real estate industry change?

For decades architects have been told they need to learn where the bottom line is and to adapt their aesthetic quests to the tastes of buyers and renters. But as they've done so, few have earned greater trust from their developer clients. Few are asked to innovate, to try new forms of expression, or to plan in a less sprawl-inducing manner.

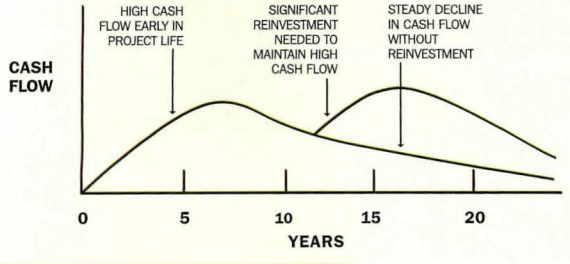
In most kinds of business there are commodity suppliers and people who seek an edge by delivering something special, new, innovative, intriguing. But real estate development today doesn't work that way. Uniqueness, innovation, and long-term durability have pretty much been driven out of the real estate calculation. Since these are the very qualities architects bring to the table, they find themselves marginalized in the construction segment that, at least in square-footage terms, builds most of America.

It wasn't always so, according to Christopher Leinberger. "We marvel at the architectural design and quality of construction seen in the great retail emporiums, apartments buildings, and office blocks built before World War II," he says. "We think of those builders as possessing immensely greater wealth than we have. In reality, the country's per capita gross domestic product is three times higher today in real terms than in, say, the 1920s."

Leinberger is convinced that innovation and higher quality belong in the real estate development process and that they can be valued—but not under the real estate–finance assumptions that apply today. The real difference between the prewar era and now, he contends, is that investors then expected to reap their rewards over a very long time—and did.

He offers a unique perspective. From 1981 until he sold his stake in the real estate consulting firm Robert Charles Lessor three years ago, Leinberger frequently advised clients to get out of declining downtowns and into shiny-windowed office parks on the outer beltways. ("The market was saying move out, and I was often quoted on that," he confirms.) He was one of the first to identify the suburban edge-city trend.

Conventional Development Investment Cycle



And yet he could not ignore the price premium commanded by such pioneering New Urbanist developments as Seaside, in Florida, which Robert Davis begat 21 years ago. Seaside, declares Leinberger, "turned the Redneck Riviera into the Hamptons of the Southeast." He also approves of Prairie Crossing, an hour's drive northwest of Chicago, where homes in the farmland-preserving development sell at a 40 percent premium.

Moved by such examples, Leinberger decided to get deeper into development himself. Now he is a partner in Albuquerque-based Arcadia Land Company, which he founded in 1997 with Seaside's Davis and James Duckworth of Philadelphia.

Real estate as commodity

Leinberger discovered, as previous New Urbanist developers have, that lenders don't like high densities, even when they are pedestrian-friendly. They couldn't value the mix of housing-unit types. And they couldn't reconcile the mixing of retail and residential uses that is key to these projects' character and their aspiration to reduce traffic and parking.

Determined to find out why what seemed to make good sense for communities seemed to make no sense to lenders, he set about categorizing the kinds of projects that could qualify for conventional financing. He found that they fell into only 19 highly simplistic, rigidly prescribed real estate "products" (see chart, opposite). Only such formulaic development could obtain competitive financing terms.

For lenders, requiring developers to build familiar product types is both a reaction to the overbuilding of the 1980s and a sign of the increasing influence of Wall Street on real estate finance

UNDERWRITING ALBUQUERQUE'S REVIVAL

Leinberger has sliced up the financing of the six-block infill project in Albuquerque both to create early momentum and to operate with more equity up-front. The Historic District Improvement Company (HDIC), a joint venture 75 percent owned by Leinberger's Arcadia Land Company, brought in conventional real estate investors, who will realize quick returns in the first time tranche, from four to six years. HDIC will share second tranche revenues (years six to 12) with its "patient money" investor, the McCune Charitable Foundation, which funds social services and arts programs throughout New Mexico. The foundation's long-term goals permit it to receive revenues later, as long as they are greater than short term gains. The nature of the investment is also consistent with its mission.

The city of Albuquerque is a third tranche investor, putting in dollars up front, primarily by underwriting the construction of a parking structure. Rather than a subsidy or land write-down, the city reaps the benefits in the future: Between years six and 12, it gets 25 percent of the HDIC development's profits; between years 13 and 20, it gets 50 percent, plus all the growth in tax revenues.

To date, HDIC has rehabilitated the American Warehouse into a 40,000-square-foot nightclub combined with an artist loft space. "Urban entertainment and one-of-a-kind attractions build interest in downtown," explains Leinberger. "We put on festivals to get people to come down and take a look."

That's why the Century Theatre Block, an 110,000-square-foot, 14-screen movie theater came next. It's windowless mass was placed in the center of the block, wrapped with restaurants and retail and office space. Under conventional financing, Leinberger explains, it would have been a $10 million project, and he would have had to put in $2.5 million in equity. "To get the quality we need, we had to spend $14 million," he explains. "With patient money involved, we did not have to ask the banks for more money; we raised it as equity." With a higher building budget, the design of the 300-foot-long block fronts could be broken up to reflect the typical scale of historic downtown development. "We were able to change materials and window types along the blockfront," explains Bill Dennis, the architect with the local office of Moule & Polyzoides. "In conventional development, all the materials and all the windows would have been the same." One of Leinberger's early partners actually bowed out because it could not countenance the $80-per-square-foot building costs. Their cinder-block-box norm was $35. Now complete, the theater block is 93 percent leased at rents far higher than average for the area, says Leinberger.

The $5 million first phase of Crossroads, a 55,000-square-foot restaurant, retail, and office rehabilitation project, is complete, with the second, $6 million phase to break ground by the end of the year. A loft-residence building with ground-floor retail and a 176-unit rental apartment building are about to begin construction. Four more largely residential projects are in the pipeline.

The scale of the development has spurred the opening of nine new restaurants and additional new residential development. Without the financing scheme, "I don't think we would see redevelopment at all," says Dennis. "This downtown was clinically dead. I don't think it is yet over the hump, but it's close." *J.S.R.*

This retail and office building, by Moule & Polyzoides, gives prominence to an important corner and wraps a cinema's blank walls.

that began in the early 1990s. It's safer to underwrite well-understood, generic real estate "products" because, says Leinberger, "they've become graded and commodified—just like pork bellies." This systemic rigidity cannot value almost any kind of architectural grace or planning innovation. That is the reason that stores are made of cinder blocks plopped on vast acreages of asphalt, and condo developments must rely on a few tack-on domestic gestures for "curb appeal." And it is why real estate development differs in no important way anywhere in the country.

If you wonder why bank branches look like discount drugstores instead of the massive stone fortresses of yore, Leinberger can explain that, too. From a tax perspective, commercial real estate has long been treated as a 40-year asset class, which reflected the presumed useful life of the building. But that long-term focus has been undercut by an accounting methodology called discounted cash flow (DCF). DCF analysis, which came to be the standard means for evaluating real estate investments about 40 years ago, tends to show the highest internal rate of return in the first five years of a project's life. With this approach, it naturally follows that the primary way to ensure high short-term returns is

The Design Group architects placed 41 for-sale residences over a retail base in Albuquerque's Gold Avenue Lofts. Entirely presold, it will start construction this month.

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1. *Century Theatre Block (completed)*
2. *Parking structure (completed)*
3. *Gold Avenue Lofts*
4. *Silver Court (in design)*
5. *Alvarado Transportation Center (completed)*
6. *Alvarado Transportation Center (phase 2)*
7. *American Warehouse (completed)*
8. *Crossroads Block (completed)*
9. *Apartments and retail (construction imminent)*

to reduce both hard and soft construction costs—decisions that typically translate into lower building quality.

DCF makes it particularly hard to justify mixed-use to lenders because the cash flows tend to peak much later than those for conventional developments (and require high capital investments every 15 years or so to keep performing; see chart, page 98). It is under DCF assumptions that buildings combining high amenity with low energy consumption multiply in Europe but don't pencil-out in the U.S.

The combination of lender-driven building-type rigidity and DCF-driven low-quality construction gives rise to the dispiriting growth that communities increasingly abhor. "All but two of the 19 conforming products create sprawl," says Leinberger.

A place for patient money

Leinberger has made Albuquerque a laboratory for a new finance methodology that could fundamentally change the real estate development process—and the architect's role in it. The city's downtown looks like many others in the American West: as if someone rolled asphalt over a couple of square miles, then dotted it with buildings here and there. Stroll its many pedestrian-free streets and behold an encyclopedia of failed urban-revitalization fads, like the empty pedestrian mall, the atrium skyscrapers riddled with vacant space, the underbooked convention center.

This scene has changed recently (see "Underwriting Albuquerque's Revival," page 100). Around Central Avenue (the old Route 66), $26 million of new commercial construction is in place. It is seeding new residential and mixed-use projects. In a downtown that had no new commercial construction in 15 years, Leinberger says a total of $120 million in work is built, about to begin construction, or in the pipeline.

The new methodology will reward those who build for the long term with innovation and quality as their cornerstones. Leinberger calls it "time tranching," a technique he borrowed from the Resolution Trust Corporation, the agency that found viable owners for all those early-1990s see-through towers left over from 1980s overbuilding. "Risk tranches emerged at that time as a way to grade assets so they could expeditiously be gotten off the books of banks and other lenders," he explains. Projects were sliced up according to risk, with the riskiest elements put first in line for repayment. And it worked.

CONVENTIONAL REAL ESTATE ASSUMPTIONS DRIVE QUALITY DOWN IN A QUEST FOR QUICK RETURNS.

HIDC is creating a critical mass of development by concentrating on a six-block area (regulatory plan by Moule & Polyzoides).

With time tranches, says Leinberger, investors can participate in the income stream at various periods in a project's life, depending on their cash-flow needs. Not all investors need to get their money out in the five to seven years measured by DCF accounting. Pension funds, institutions, publicly held real estate investment trusts (REITs), and foundations often can benefit from investments that pay back over a much longer time horizon—the sixth to the 12th year, for example, or the period beyond the 12th year. "We believe those who take the mid- or long-term piece will find dividends that vastly exceed their expectations," says Leinberger.

In this way, time tranching can make low-cost capital available for projects that have higher than average initial construction costs. Although the architectural design (by Moule & Polyzoides) is in an aesthetically safe, arguably too-ubiquitous neotraditional mode, conventional lenders would have looked askance at the fact that it is infill development and entails a complex mix of uses. The Historic District Improvement Company (controlled primarily by Leinberger's Arcadia Land Company) needed to get parking structures built and a sense of momentum going, which involved high up-front investment.

Time tranching is not likely a panacea for the rictus that afflicts conventional real estate development, but it offers broader lessons for architects. They can make their vision for the future come true if they are willing to pair architectural invention with financial and regulatory innovation. In this way, you don't "follow the money," you lead it.

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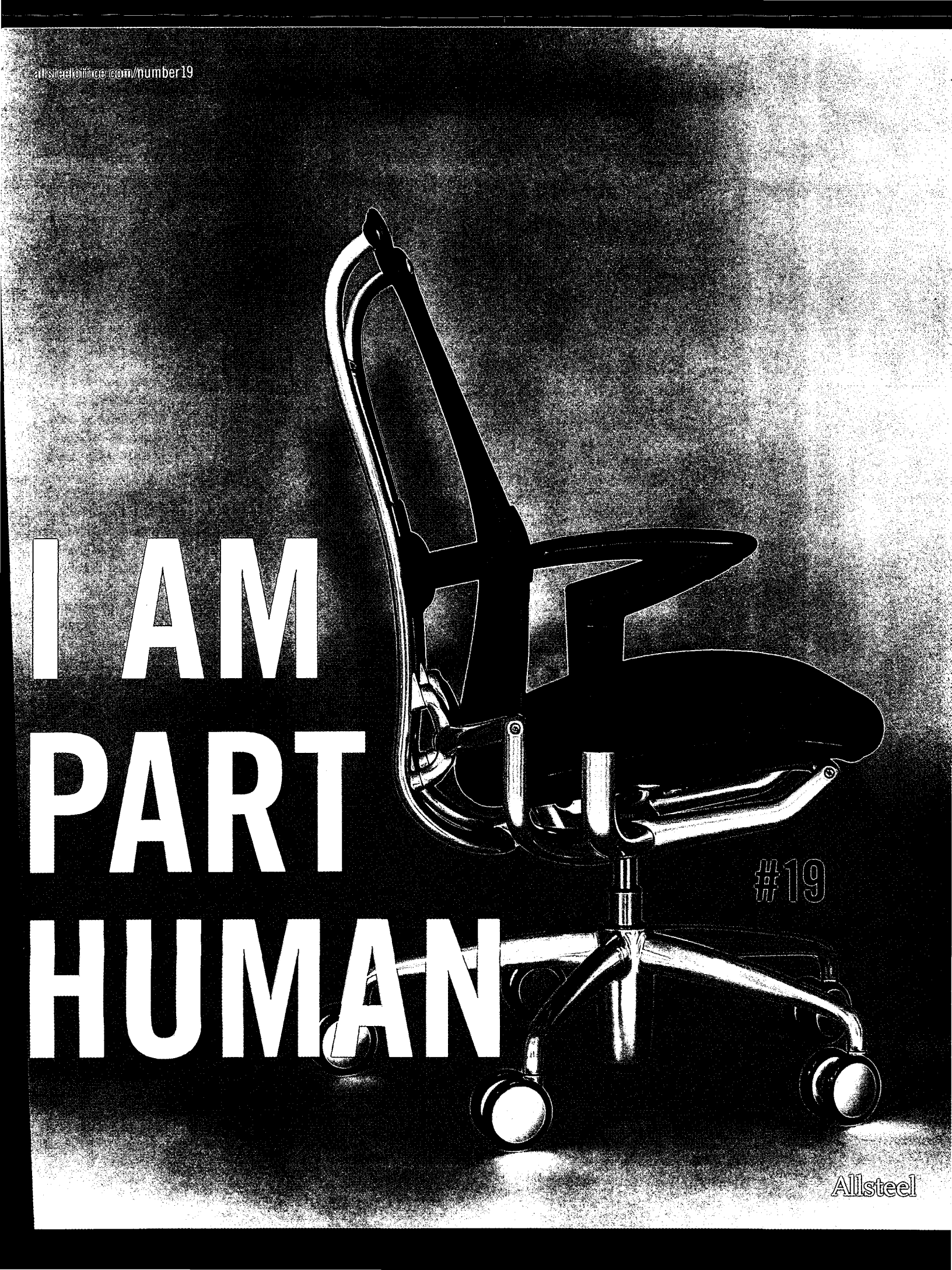

The Century Theatre block was HDIC's first major investment. With its auditoriums wrapped by retail and offices, it seeded redevelopment in Albuquerque by drawing people downtown who had rarely visited.

Working the system

Leinberger was impressed by how patient money worked at Seaside. Davis intentionally developed slowly. Nor did he rush to cash out as Seaside's success grew. "By going slowly, I was able to capture the value we had created." With one-bedroom cottages now commanding million-dollar price tags, Davis's patience has clearly paid off.

Jonathan Rose, a developer of planned infill communities, is not a time-tranche convert, but he sees a larger role for architects willing to understand the real estate finance system and work creatively with it. "One way architects can be useful is by understanding the difference between a securitized mortgage and a Fannie Mae mortgage so that you can do solutions that are easier to finance." (Fannie Mae is a private agency, backed by the government, that purchases bundles of commercial mortgages.)

With even locally originated loans now being sold off through Wall Street, "a kid out of business school who thinks he knows credit risk" is analyzing your loan proposal, he says, and is, in effect, "setting the benchmark for development in America." This dumbed-down lending system means that projects must navigate obsolete standards for parking, and ratios of construction cost to land cost that make sense in exurban greenfield sites but not in infill, urban-revitalization ones.

If short-term economic uncertainty does not stretch into long-run recession, development trends suggest a higher interest in diversity and creativity. One of the reasons Leinberger has confidence in Albuquerque's long-term success is that downtown revitalization has become a well-established and widespread trend. "The countertrend to sprawl is that over the past 10 years a huge market for walkable communities has developed. So 60 percent of downtowns are coming back. And in a few years the rest will come back. Even downtown Detroit has 20 new projects in the market," he says. Recent research at Georgia Tech appears to support Leinberger. In the traffic-snarled Atlanta area, 37 percent of people surveyed would prefer to live in a walkable community, even though places to walk are all but nonexistent in new developments. This sentiment explains why prices in close-in older neighborhoods are increasing much more rapidly than prices regionwide. "Clearly there's a market failure," says Lawrence Frank, the principle investigator.

FINANCIAL AND REGULATORY INNOVATION CAN MAKE BETTER ARCHITECTURE POSSIBLE.

Downtown's renewed appeal also has to do with the aspirations of what economic-development professor Richard Florida calls "the creative class," sought after by employers and urban developers alike. They seek diversity, nightlife, and an authentic sense of place. Younger generations see the presence of gays, Florida argues in his book *The Rise of the Creative Class* (Basic Books), as a proxy for the diversity, openness, and creativity they seek where they live and work, even if they are not themselves gay. Savvy city developers likewise monitor housing decisions made by young artists, architects, and students. Their propensity to fix up downtrodden neighborhoods offers a reliable harbinger of renewal.

While an ample supply of landmark-quality old buildings offers good bones for urban revival, insightful developers have created value with new architecture. In Seaside's cash-poor early days, Davis still found money to erect elaborate follies to bridge the ocean dunes. They are the community's iconic landmarks, and Davis is mystified why developers don't understand their value: "They paid off by creating a strong sense of place." He kept adding these and similar idiosyncratic grace notes even after the community's success was assured.

There are other developers who are in it for more than the money. Like many architects, they see inventive development as strengthening communities and improving the environment. To be a socially committed architect is not enough, however. "Too many well-meaning people cannot even balance their own checkbooks," says Leinberger. If you can't focus on finance, he stresses, "you'll get blown away." ■

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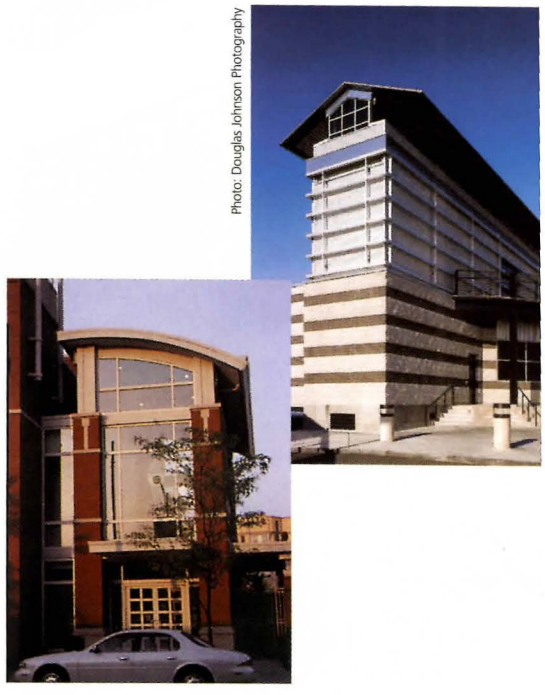

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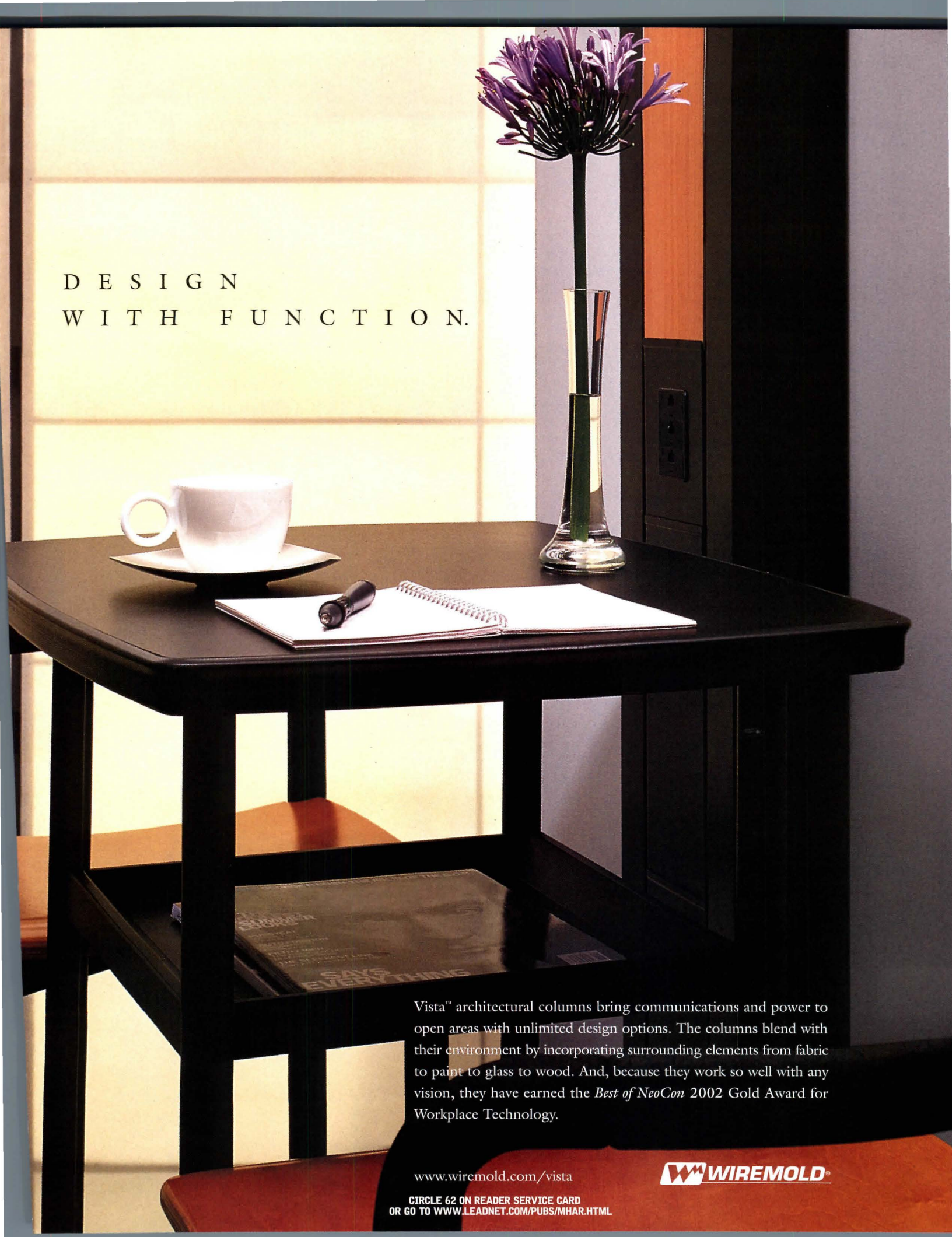
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Sandstone, zinc, and glass fractal facades give few clues to what lies within (this page). A new plaza deck extends across the railroad lines to one side (opposite).

The undulating **FEDERATION SQUARE**, designed by **Lab Architecture**, mirrors the city and country through dissonance and harmony

By Charles Jencks

In the 1960s, American architects took on the question of cultural pluralism and fashioned a new architecture from it. Robert Venturi's "complexity and contradiction" was the most notable statement of this shift, but it had different adherents, varying from the iconic populism of Charles Moore to the ad hoc informality of Frank Gehry to the eclectic classicism of Michael Graves. By the 1990s, these Postmodern currents had become so commercialized as to lead to a neoconservative backlash, a kind of Minimalist *genre de vie* that, however boring, at least had the virtue of being unnoticeable.

The argument for pluralism and difference in architecture moved out of the U.S. and landed, of all places, in the genteel former colony of Australia, where in 2001 the country celebrated its centenary and its Federation: that is, the semiautonomy of its eight different states and the ethnic variety of its diverse population. As a consequence of these millennial projects, the counterculture of the '60s was reborn, at least as architectural expression, with a vigor it had never quite realized before. Now, for the first time, architects were asked to express ethnic diversity and the tangled path of a national identity based on the suppression of minorities, and to do this right in the center of downtown on a major public building.

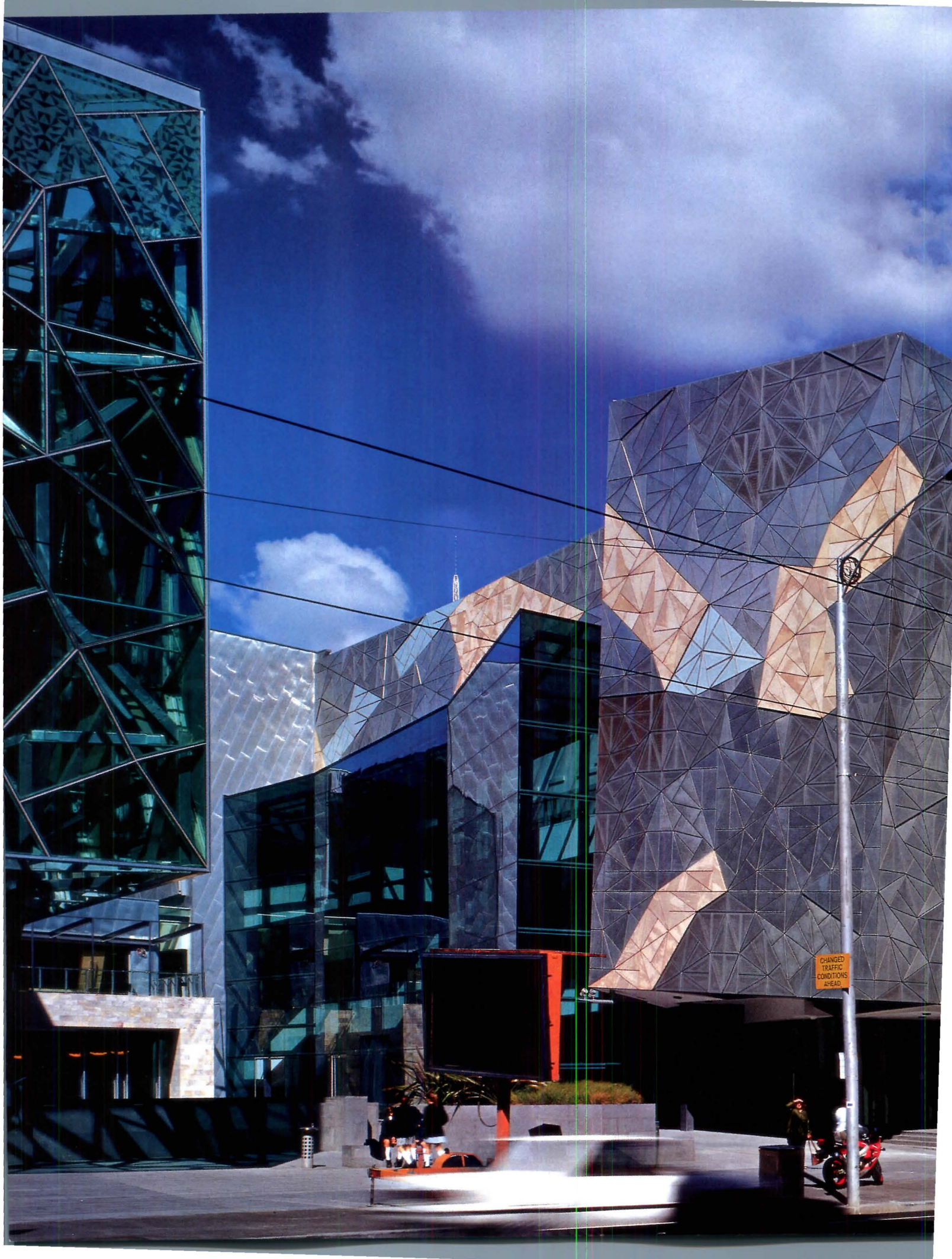
The two main exemplars of this development are the National Museum of Australia in Canberra, by Ashton, Raggatt and McDougall, perhaps the most extreme version of collage and contradiction as a receptacle of cultural pluralism; and the aptly named Federation Square in Melbourne, again a conglomerate building designed by a diverse team, Lab from Britain, Bates Smart from Australia, and landscape architects Karres en Brands from Holland. In these two monuments, Australia summarizes the ideas of American Postmodernism and develops them in a new direction: toward extreme fragmentation and the blurring of difference. Federation Square, in particular, aims at what its designers call "coherence out of difference," a typical phrase of younger architects leading the new paradigm.

This concept, also adopted by Foreign Office Architects (FOA), Greg Lynn, Jeff Kipnis, and many of the Dutch architects today, is understood as an alternative to Venturi's "contradiction and collage." Where pluralism used to result in conflicting geometries, oppositional aesthetics, and eclectic difference, the new digital generation is intent on showing it can be handled equally well by coherently varying the grammar of smaller parts. In effect, a fractal architecture of supple variation can be more subtly unified—hence "coherent"—than an amalgam of disparate parts, while still honoring pluralism.

Such is the argument of Federation Square. It faces the gridded Melbourne of Modernist skyscrapers, revivalist cathedrals, and 19th-cen-

Charles Jencks's The New Paradigm in Architecture *has recently been published by Yale University Press.*

Project: *Federation Square, Melbourne, Australia*
Architect: *Lab Architecture Studio—Bates Smart (associate architect); Donald L. Bates + Peter Davidson, principal architects; Tony Allen, project director*
Landscape architect: *Karres en Brands*
Civil/structural engineer: *Hyder Consulting*
Civil engineer: *Connell Wagner*
Structural/facade engineer: *Atelier One*
Structural engineer: *Bonacci Group*
Environmental engineer: *Atelier Ten*

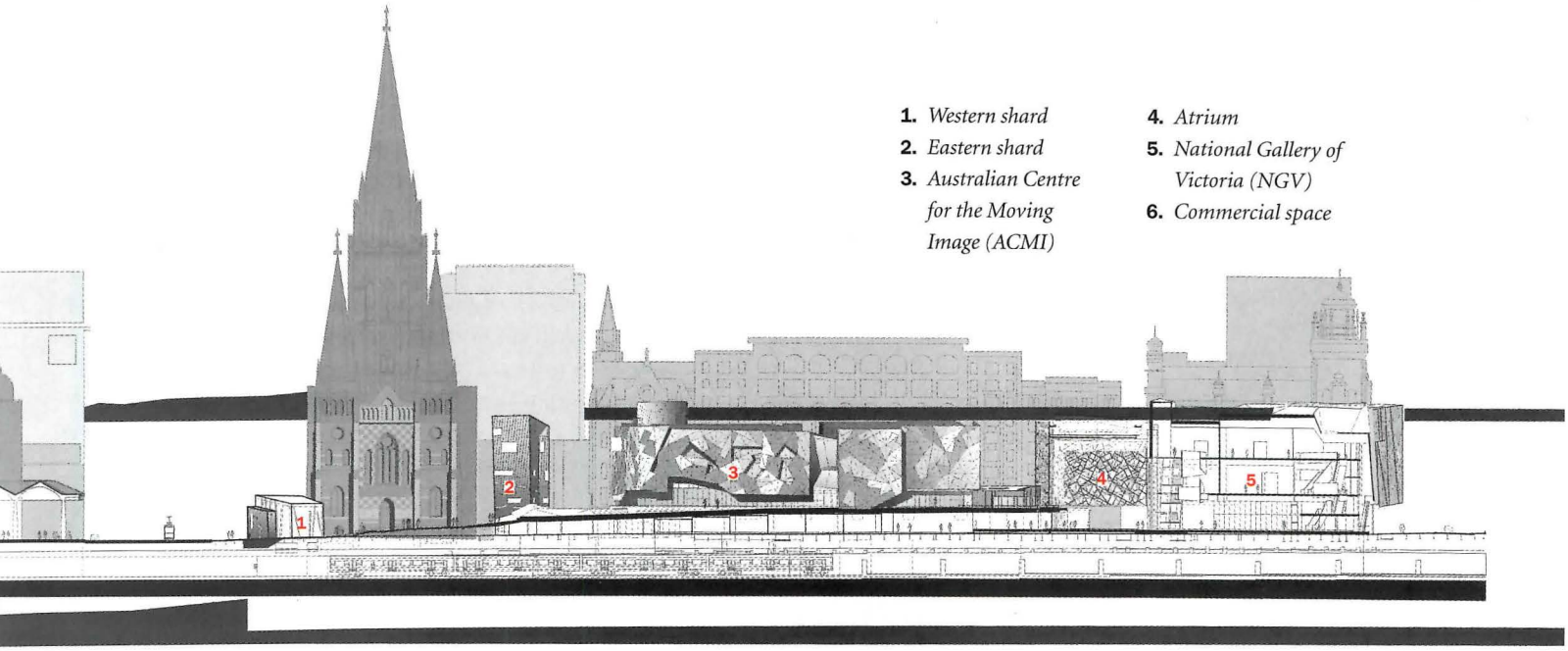

CHANGED
TRAFFIC
CONDITIONS
AHEAD

The basic facade modules are triangular tiles, in which five tiles make up one panel and five panels comprise a larger cladding unit. These standard components reflect a high degree of asymmetry and variability.

LEVEL TWO COMPOSITE

1. *Plaza*
2. *St. Paul's Court*
3. *North atrium*
4. *South atrium, amphitheater*
5. *Australian Centre for the Moving Image (ACMI)*
6. *ACMI cinema*
7. *ACMI offices*
8. *National Gallery of Victoria (NGV) circulation*
9. *NGV's Museum of Australian Art*
10. *Crossbar building*
11. *Crossbar offices*
12. *Yarra Building*
13. *Pub*
14. *Winebar*

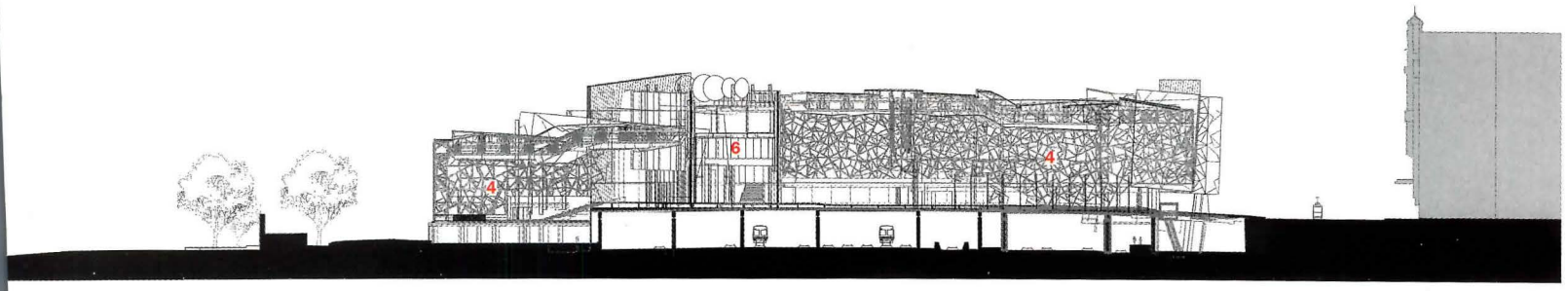
Federation Square is a place of transformation—facing Melbourne's skyscrapers and revivalist cathedrals on one side, straddling a railroad station on the other, with the River Yarra flowing on yet another side near a picturesque English-landscape park (this page). The plaza is surfaced in cobblestones of distinctly colored Kimberley sandstone (opposite).



1. *Western shard*
2. *Eastern shard*
3. *Australian Centre for the Moving Image (ACMI)*
4. *Atrium*
5. *National Gallery of Victoria (NGV)*
6. *Commercial space*

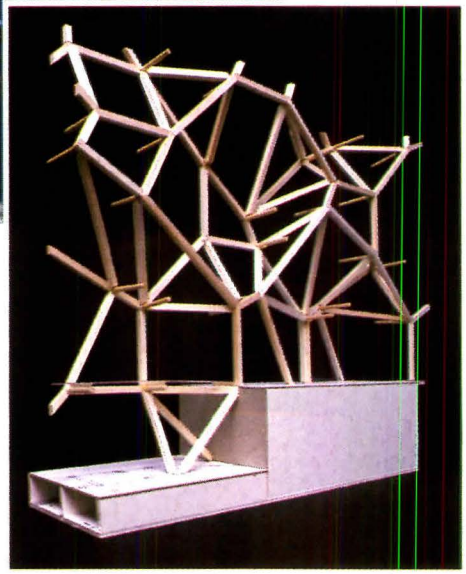
SECTION A-A

0 30 FT.
9 M.



SECTION B-B

0 50 FT.
15 M.



View from inside the north atrium looking out through a folded 3D glass structure (above). Primary frame development model of the atrium structure (right).

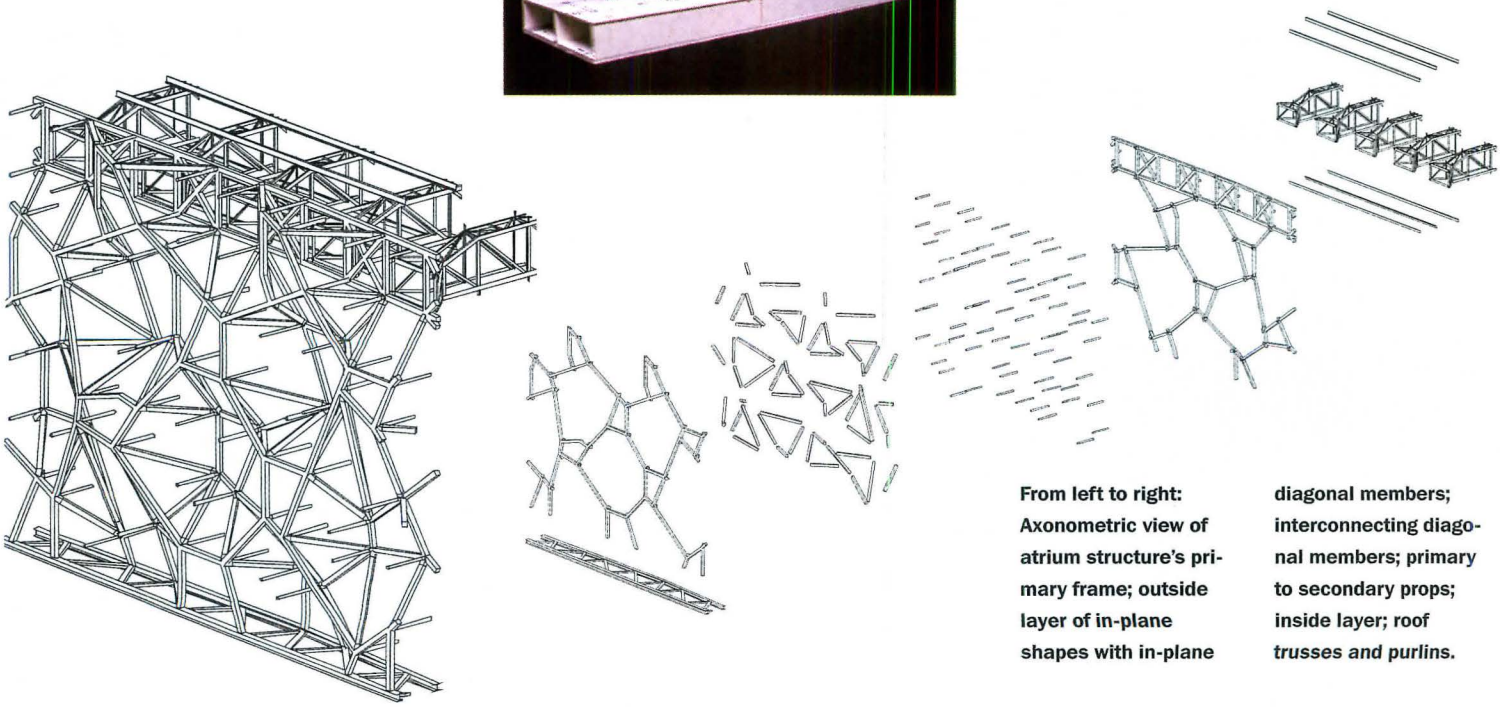
The atrium's inspired geometry

Because temperatures in Melbourne range from cool to very hot, Lab Architecture designed a covered public atrium to complement the open plaza at Federation Square. A three-dimensional interpretation of a pinwheel grid, the fractal framework of the space forms the basis of an intricate, variegated structure from a limited kit of parts. The primary structure is formed from square hollow sections. According to Tim Hill, project architect at Lab Architecture, "Elements of the pinwheel grid are separated into outer and inner structural planes to form two surfaces, known as primary shapes. These surfaces are then linked together with a series of diagonal interconnecting members to form a homogeneous open network of structure."

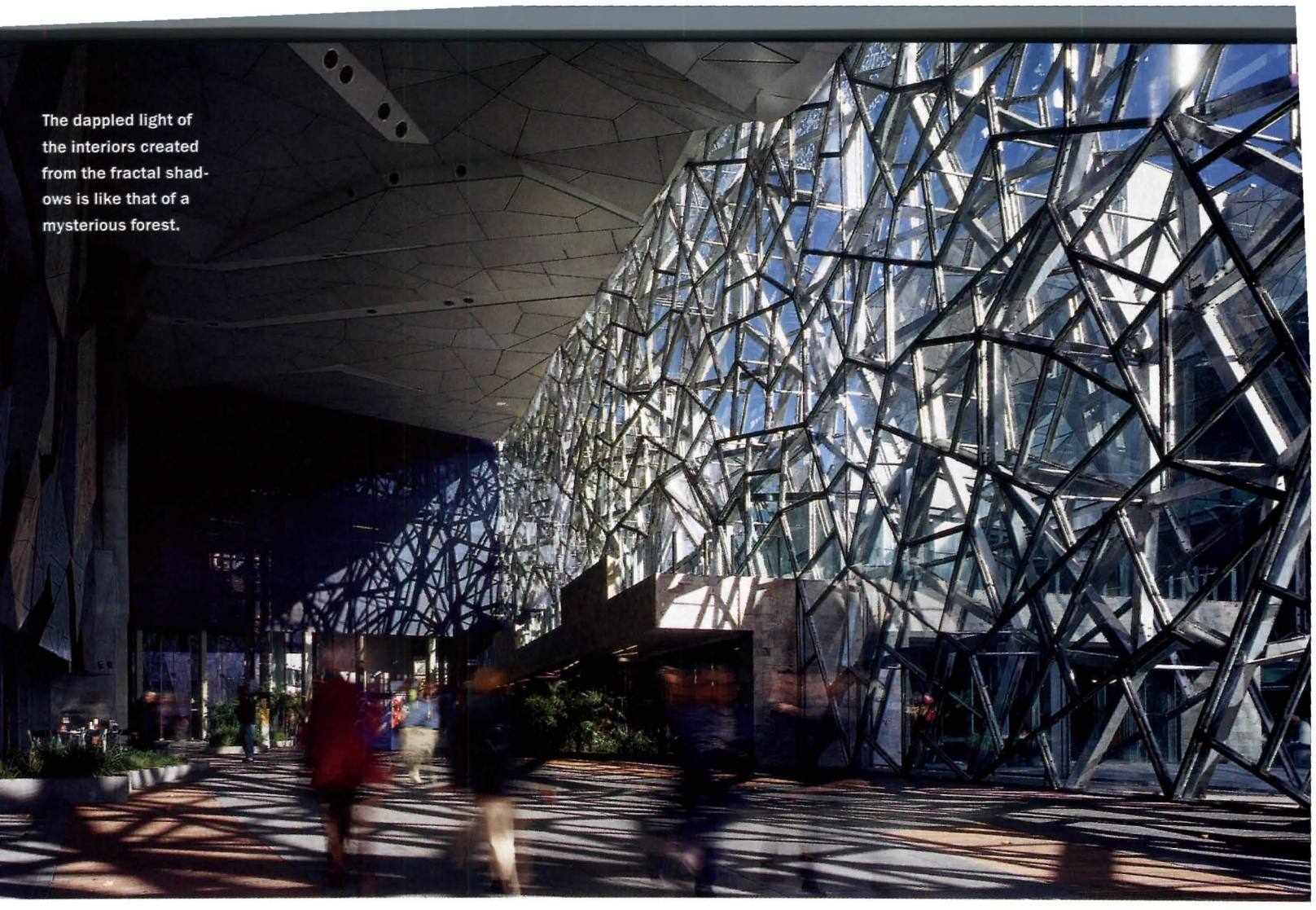
The secondary structure is a light lacework of elements formed from a finer interpretation of the pinwheel geometry. It creates zones of visual and structural coherence with the primary structure. Divided into north and south atria, the quality of the inner and outer skin transforms to support particular areas of the program. The north atrium opens to the city on the north and forms an indoor street, where cafés and shops operate within a tempered environment. "In this zone, the glass surfaces are laid directly over the secondary structures, the outer skin forming a rain screen and brise-soleil, while the inner, double-glazed surface provides the weather seal. The space between the two skins is a solar chimney, effectively insulating the atrium," notes Tim Hill.

Sheltered by buildings on three sides, the south atrium supports a flexible performance space. Its outer skin is formed from sealed, double-glazed units, while the inner skin is folded to follow the geometry of the primary framework, creating deeply bent ribbons of faceted glass.

With its dimensions of 59 feet high and wide, and 425 feet long, the atrium's expansive volume is conditioned by a passive cooling system known as the Labyrinth, that uses low-level air displacement to keep the temperature up to 50 degrees cooler than the temperature outside. *J.F.K.*



From left to right: Axonometric view of atrium structure's primary frame; outside layer of in-plane shapes with in-plane diagonal members; interconnecting diagonal members; primary to secondary props; inside layer; roof trusses and purlins.



The dappled light of the interiors created from the fractal shadows is like that of a mysterious forest.

tury technology, with a railroad station to one side (and underneath its new plaza). On the other side flows the River Yarra, near a picturesque English-landscape park. This key, contradictory position becomes one pretext to turn culture's repetitive grids into nature's varying fractals, a transformation communicated very strongly as one walks through the covered atrium from the main city thoroughfare to the tree-lined river. The overlapping polygonal mullions and their fractured shadows are the architectural equivalents of branches, twigs, and leaves—the dappled light produced is that of a forest. How extraordinary a public room; It is rather like crossing a nature temple with an upmarket car salesroom—and BMW appears to have branded the space.

Another rationale for the plural expression is the diversity of use: a new Museum of Australian Art, part of the National Gallery of Victoria, bars, digital cinemas, tourist offices, book and music stores, a large civic plaza, and the huge covered atrium that runs across the site (it might double as a wintergarden and perhaps hold parts of a rainforest!). A cynic might call the whole thing a shopping mall tarted up by an arts center; but, with a sympathetic reading, it's the new heart and public realm of a city that has never had a central piazza or place for the citizens to congregate.

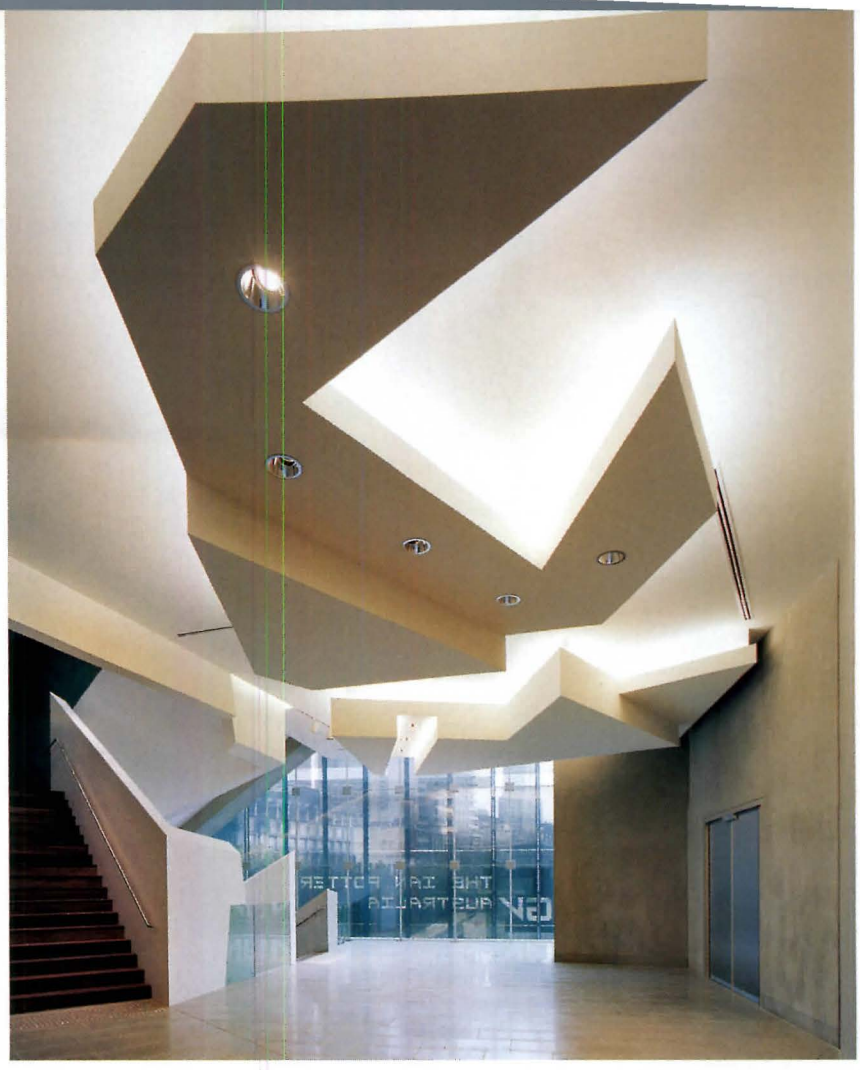
Mall or agora, the scheme hovers nicely between these banal and illustrious precedents. Its glass, steel, and zinc surfaces reflect the color and texture of the prosaic office buildings that make up downtown, while its beige sandstone picks up the polychromatic masonry of William Butterfield's Gothic Revival St. Paul's Cathedral, on the street corner opposite. This type of material contextualism, however, improves on its neighbors in so far as its fractal grammar shows greater scaling. From afar, the gently faceted masses appear like bulky geological strata or urban landforms, an infrastructural model that FOA has used recently at the Yokohama ship terminal in Japan, and Peter Eisenman has adopted at the cultural center now under construction in Santiago de Compostela, Spain. When commissions grow to a certain size larger than the type of a building, it makes sense to treat them as city fabric, one reason the urban landform has become so prevalent today.

Closer in, this fractured earth-grammar breaks up into irregular polyhedra of grays, silvers, and beige, figures that are larger than a person but smaller than the modules of the adjacent office blocks. Finally, the third and fourth level of scaling brings one up next to the lively surfaces—the triangular panels, about half the size of the human body, that pinwheel eight times about a center point—and the small

AHEAD OF THE GAME AS A LANDFORM—HOW COULD THESE YOUNG ARCHITECTS, ON THEIR FIRST COMMISSION, PULL IT OFF?

construction details. This scaling effectively breaks down the oversize grammar of the central city and blurs it together into smaller and "coherent" (if vibrating) polyhedra.

As the site plan reveals, the basic city geometry of the grid is also broken down and blurred together. What the architects call "shards" (after Daniel Libeskind's concept) define the sensitive edges of the site near the cathedral and rail station. Together with larger broken volumes, they enclose tight alleyway spaces and the L-shaped civic plaza. Again, like Eisenman's work at Santiago, it is a neomedieval urbanism married to a geological metaphor.



The exterior provides few clues to the drama within. Organized in chronological sequence, the National Gallery of Victoria's collection of Australian art presents a historical narrative that traces the story of Australia's settlement. As visitors move through the gallery, vertical expanses and interesting geometries become part of the building's internal surprises.

The crossbar shape of the National Gallery building provides an internal dynamic for the exhibition of the art. Displayed in a shifting matrix of long views and transverse connections, the objects facilitate straightforward wayfinding through the galleries, while lateral glimpses of the space hint at new perspectives into and across the building. The Australian Centre for the Moving Image (opposite, bottom and middle) preserves film, television, and video of cultural and historic significance and presents programs related to its collections.

As a popular meeting place at the crossroads of Melbourne's main streets, one can see Federation Square as a contemporary version of the Piazza San Marco in Venice—roughly the same proportion, also L-shaped, and similarly the culmiNation of main routes. It also includes shopping, gallerygoing, open-air cafés, continuous music, people watching, and the *passeggiatta*. Yet, in Venice there is no giant LED screen where 30,000 can relish England being beaten at football; nor is it likely that 150,000 Venetians might congregate in the piazza, as they did here in Melbourne, to demonstrate against the war in Iraq. Federation Square, as its name implies, is presently more of a true public realm than the glorious outdoor room of La Serenissima.

More relevant than Piazza San Marco, more successfully scaled than the Miesian skyscraper, ahead of the game as a landform—how could these young architects, on their first commission, pull it off? There must be something wrong. Well, it is true, some of the fabric is overwrought and other bits are downright maladroit. The brilliant conceptual idea of leaving a few window views as voids in the fabric simply makes some of the surfaces look unfinished and messy. The fractal atrium, with its beautiful dappled light, is surrounded on the outside by a clunky rectilinear frame that annihilates the internal geometry. One could go on finding minor lapses, but to what purpose?

The importance of this project is its place in unfolding, contemporary history. Picking up the ideas of what I have called the new paradigm in architecture, getting them straight from Eisenman, Libeskind, ARM, FOA, and a host of Dutch architects working on urban landforms, it sets a new standard for city fabric engaged with the issue of global pluralism. It adapts a fractal geometry and attendant scaling in its surfaces and internal spaces. I have not even mentioned the interesting spatial ideas that are developed between the gallery and museum, and around its foyer: Boxes of space snake

A FRACTAL ARCHITECTURE OF SUPPLE VARIATION CAN BE MORE SUBTLY UNIFIED THAN AN AMALGAM OF DISPARATE PARTS.

around each other and cross over, sometimes leaving "intrafilament space" crossed by bridges, an idea taken from Libeskind's Jewish Museum in Berlin and given an extra twist. In fact, Libeskind, one of the judges who picked the scheme in the competition of 1997, has obviously been an influence for the zinc shards and the crystalline grammar of the foyer (Donald Bates worked on the Jewish Museum and Peter Davidson taught at the AA in London, where these ideas are current). But, again, developing part of a new tradition is a virtue, and it is possible that Libeskind's work at Bern and at New York's Ground Zero will have, in turn, to take cognizance of moves made here. Placed in a larger perspective, we can see this city fabric as a step in a sequence, in the development of an urban order that is neither Classical nor Modern but, like the geometry of nature, based on ever-changing and slightly varying fractal patterns, an order much more amusing and interesting than those overly repetitive ones of the past. ■

Sources

Facades: *Permasteel*
Glazing: *DMS*
Atrium structure: *Riband*
Zinc walling and roofs: *HM Metalcraft; Hueston*
Plaza and stone flooring: *Meteor Stone*
Structural steel: *Alfasi; Chapel Brothers; GFC Industries*
Structural concrete: *Deco; Fitzgerald Industries*
Timber flooring: *Australian Recycled Timber*

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

The ministerial suite (pictured here from the courtyard) is a curving building that houses the foreign minister's office. In front of the suite, facing National Boulevard (opposite), is a ceremonial automobile court and the main entrance. Stone walls and integrated landscaping help create a highly secure environment.

Diamond and Schmitt integrate a sublime onyx jewel box into the highly secure ISRAELI FOREIGN MINISTRY

By Michael Levin with John E. Czarnecki, Assoc. AIA

We take it for granted that architects create beauty in the built environment. Their task is far more difficult, though, when they are asked to design a building that will be known as a potential target in a politically volatile part of the world. That was the task for the Toronto firm Diamond and Schmitt Architects, which designed the Israeli Foreign Ministry, a building that needed to appear inviting and open as well as protected and enclosed. Completed in November 2002, the Israeli Foreign Ministry, now considered the safest and most secure building in Israel, helps define Jerusalem's National Precinct.

Located on the ceremonial National Boulevard, the ministry is one of a number of important buildings of state that enclose Jerusalem's National Precinct, with the Supreme Court immediately to the south, and the parliament buildings (Knesset), The Israel Museum, and the Bank of Israel nearby.

The 419,000-square-foot project is a much-needed infrastructure improvement for the Israeli government. The offices of the foreign minister and staff had been in what is best described as single-story huts, like a military camp, since the foundation of the Israeli State in 1948. Half a century later, it was difficult for the foreign ministry staff to continue functioning in a rudimentary way, like pioneers, and with the maturity and institutionalization of the state, it was a necessity to construct a permanent home.

Diamond and Schmitt, with Jerusalem firm Kolker, Kolker Epstein as associate architects, was selected in a 1996 competition for the Israeli Foreign Ministry out of a field of 10 firms. Of the three finalists, the other two firms were Israeli—Goldenberg, Buchman Architects and Kenan Inbinder Architects. The international jury included U.S. architects Richard Meier, FAIA, James Ingo Freed, FAIA, and Romaldo Giurgola, FAIA. This was the second project for the Diamond and Schmitt and Kolker, Kolker Epstein team—they worked together on Diamond and Schmitt's first project in Israel, the Jerusalem City Hall, completed in 1993.

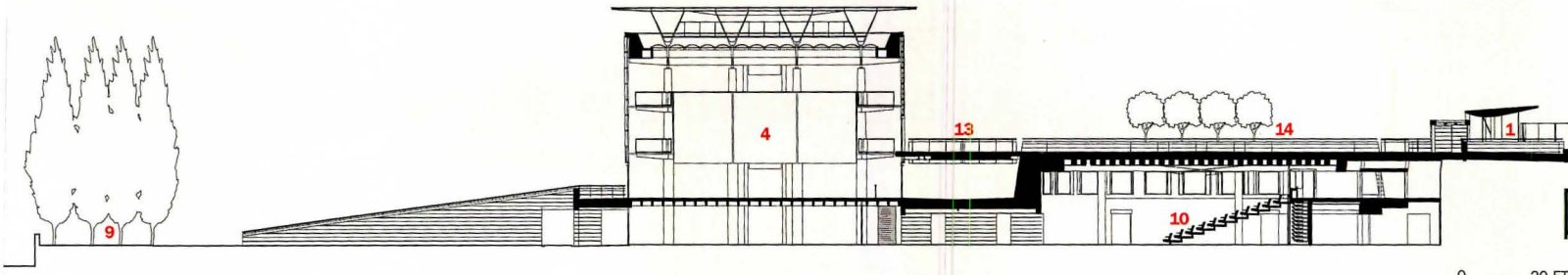
The author of Santiago Calatrava—Art Works: Laboratory of Ideas, Forms and Structures, *published in 2003, Michael Levin teaches the history of modern architecture and art at Shenkar College of Engineering and Design, Ramat Gan, Israel.*

One in a continuing wall of government buildings

The architects had a heady charge with the Israeli Foreign Ministry project. The building had to form part of a continuous wall of government buildings along the National Boulevard, and yet it had to have an importance of its own—a ceremonial and stately appearance—because it is the first port of call for visiting diplomats.

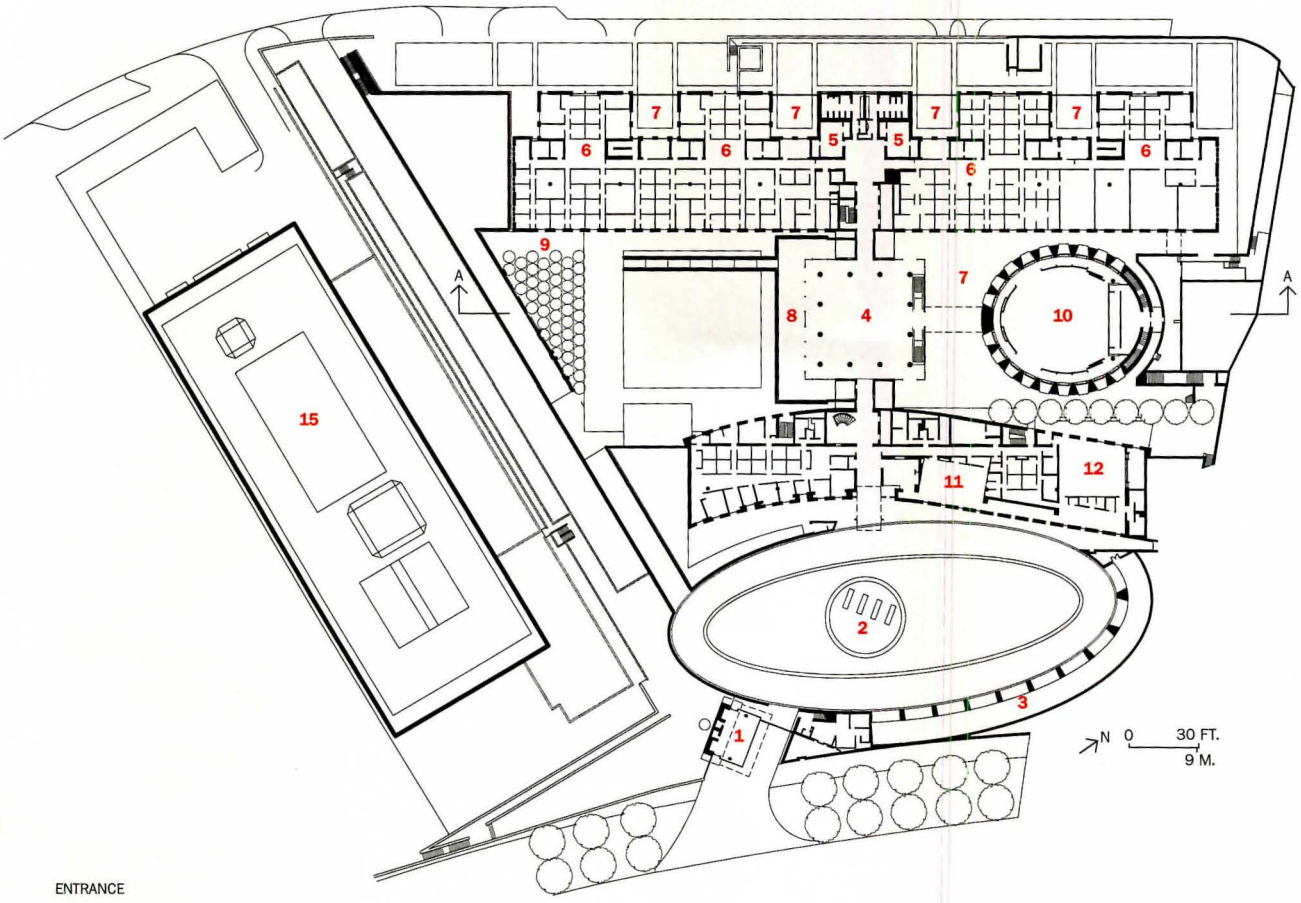
Although highly secure, the site of the new ministry does not have any fences. Instead, the design for perimeter security is integrated into plantings and walls surrounding an oval arrival court. A guard station stands before the main gate, which is through an aperture in the arrival court wall. The glass guard-station pavilion—a transparent cube of thick glass with a metal and glass roof—imparts a sense of welcome and lightness for the entrance. Protection devices embedded in the gate prevent the possibility of

Project: *Israeli Foreign Ministry, Jerusalem, Israel*
Owner: *State of Israel*
Architects: *Diamond and Schmitt Architects—A.J. Diamond, Hon. FAIA, partner in charge; Jon Soules, Birgit Siber, Michael Szabo, George Przybylski, Anna Kogan, Suzanne Graham, Sandor Rott, team; Kolker, Kolker Epstein Architects—Randy Epstein, Amir Kolker, Opher Kolker, Herschel Broncher, Tami Antebbi, team*
Engineers: *Yaron-Shimoni-Shacham (structural)*



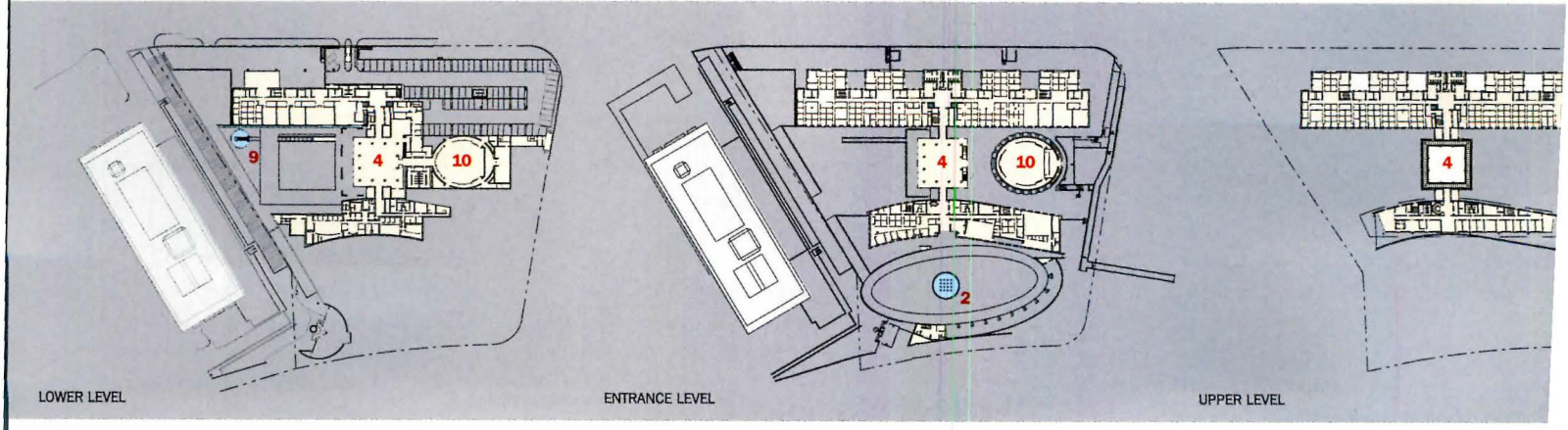
SECTION A-A

0 20 FT
6 M.



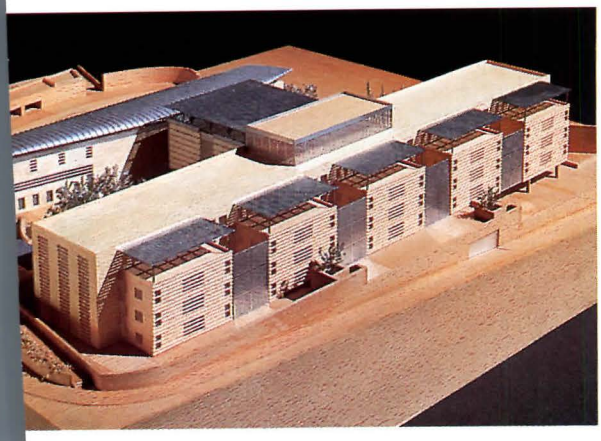
ENTRANCE

1. *Guard station*
2. *Arrival court*
3. *Parking*
4. *Ceremonial reception*
5. *Meeting rooms*
6. *Offices*
7. *Courtyard*
8. *Terrace*
9. *Cypress grove*
10. *Ballroom*
11. *Conference room*
12. *Press gallery*
13. *Bridge*
14. *Roof terrace*
15. *Supreme Court*



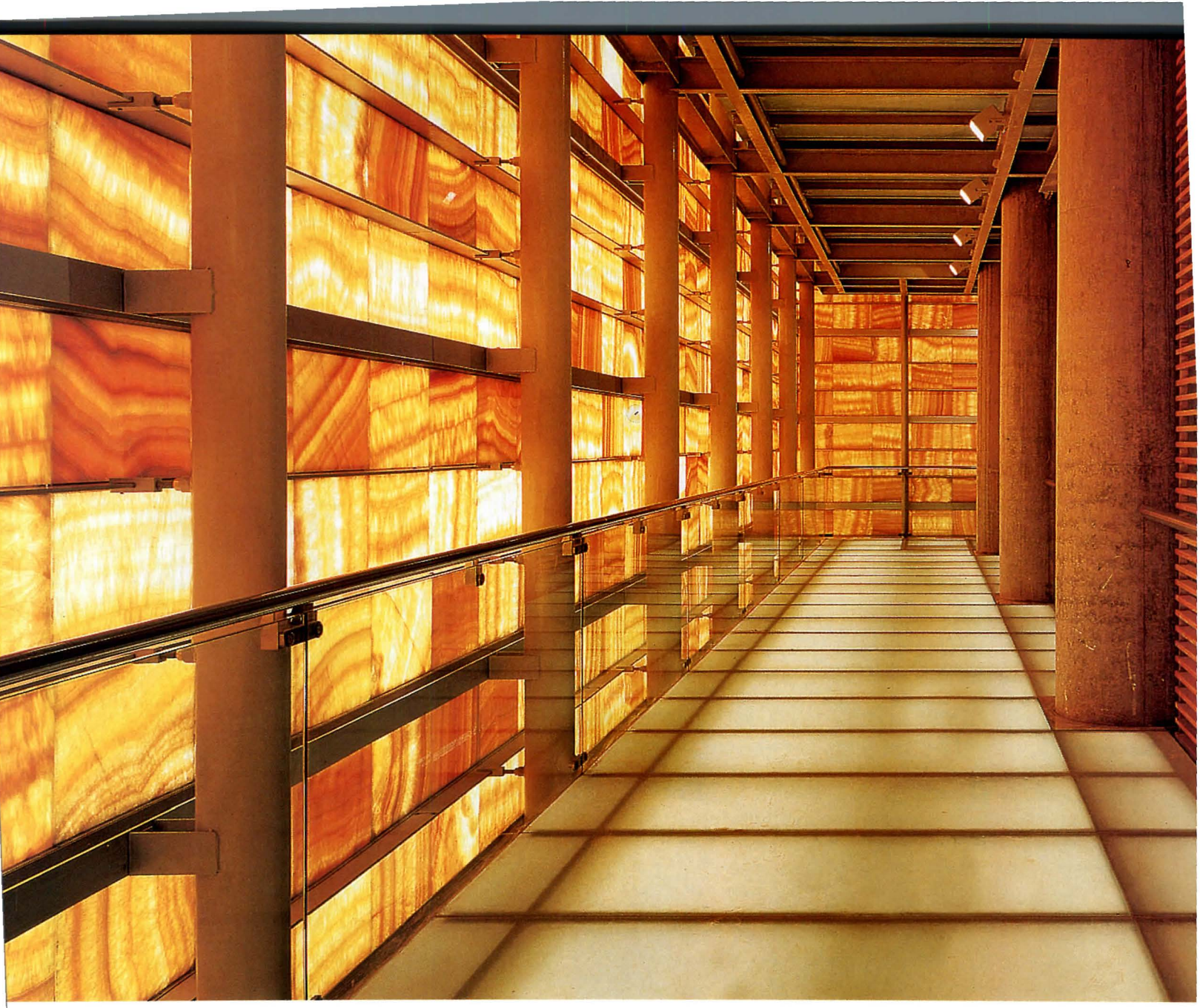
LOWER LEVEL ENTRANCE LEVEL UPPER LEVEL

A long building that is primarily staff offices (pictured right and in foreground of model, below) has rooftop terraces and defines the western edge of the complex.



The ceremonial reception hall with onyx facade (opposite) leads to a courtyard to the southwest and is connected by a bridge (below) to the ballroom—an oval structure with stone walls—to the northeast.

The interior of the ceremonial reception hall (this page above, and opposite) features walls of onyx stone that is thin enough to allow light into the space. Two levels of walkways with glass floors surround the hall. The oval ballroom (far left) is half sunken into the ground. Throughout the complex, the architects contrasted rectilinear geometries with light, curving forms, such as the stair shown here (left).



a vehicle crashing through into the court. With a reflecting pool in the middle signifying delicacy, the oval ceremonial arrival court lies buried within the landscape that slopes down from north to south. Thus, the curved wall surrounding the court appears to emerge from the landscape. At 265 feet long and 108 feet wide, the court was developed as a dignified, secure place for the arrival of up to 25 cars at one time; ceremonies welcoming diplomats occur in the court at the building's entrance.

In the "hyper-Democratic" Israeli society, as project partner in charge A.J. "Jack" Diamond, Hon. FAIA, described it, the government had initially wanted one entrance where all people, foreign dignitaries or ministry office staff, would enter. Although this was not feasible in the literal sense, Diamond did use the sloped landscape to create two means to enter the complex at the same location. Dignitaries enter from the oval court off of the National Boulevard, and employees enter one level higher, from Yitzhak Rabin Boulevard to the north. This way, the diplomatic corps can go into the complex without interrupting formal receptions being held on the lower floor.

Upon entry from the oval court, diplomats arrive in the ministerial suite, which is one of four distinct components of the ministry complex, including a ceremonial reception hall, a ballroom, and the staff office building. The ministerial suite, a curving building (pictured on pages 120 and 121) clad in Mitzbah Ramon limestone with a zinc roof, includes the offices of the Minister, the Deputy Minister, the office of protocol, conference rooms, and the press room. (For security reasons, details about sensitive interior spaces cannot be described).

Through the ministerial suite, visitors proceed to the ceremonial reception hall, the centerpiece of the complex. The hall, 75 by 75 feet

DURING DAYLIGHT HOURS, THE ONYX APPEARS WHITE ON THE EXTERIOR, LIKE THE MITZBAH RAMON LIMESTONE.

square and 40 feet tall, is supported by 12 tapered, cast-in-place-concrete columns that give a sense of elegance and height—an impression of nobility and sophistication, as Diamond intended. A perforated metal parasol shades the glass roof above the reception hall, and the hall is surrounded by glass on its ground floor and onyx panels above (see description of wall detail, page 128). The onyx changes with the hour.

Onyx wall assembly tested for blast

Intended as a prototype of secure office design in the Middle East, the Israeli Foreign Ministry complex has an innovative wall assembly that incorporates light materials in a design intended to protect people inside from a potential blast.

The onyx walls of the ceremonial reception hall (section, right, and pictured on pages 124–29) give the cubic room a warm backdrop for diplomatic receptions. "You want the state to look its best," says A.J. "Jack" Diamond, Hon. FAIA, the partner in charge. The unique detail of the wall assembly in the ministry's reception hall earned Diamond and Schmitt Architects a 2001 Royal Architectural Institute of Canada (RAIC) Excellence in Innovation in Architecture Award for building envelope innovation. The firm was also named last month as the first recipient of the RAIC's Architectural Firm Award.

The architects designed the reception-hall exterior materials to collapse and fly outward in the event of an explosion rather than absorb the impact and have a potential domino effect of collapse onto surrounding buildings. For this reason, the exterior of the 75-by-75-foot hall is built almost entirely with light materials, including mostly glass on the ground floor, onyx panels on the upper floors, and a glass ceiling.

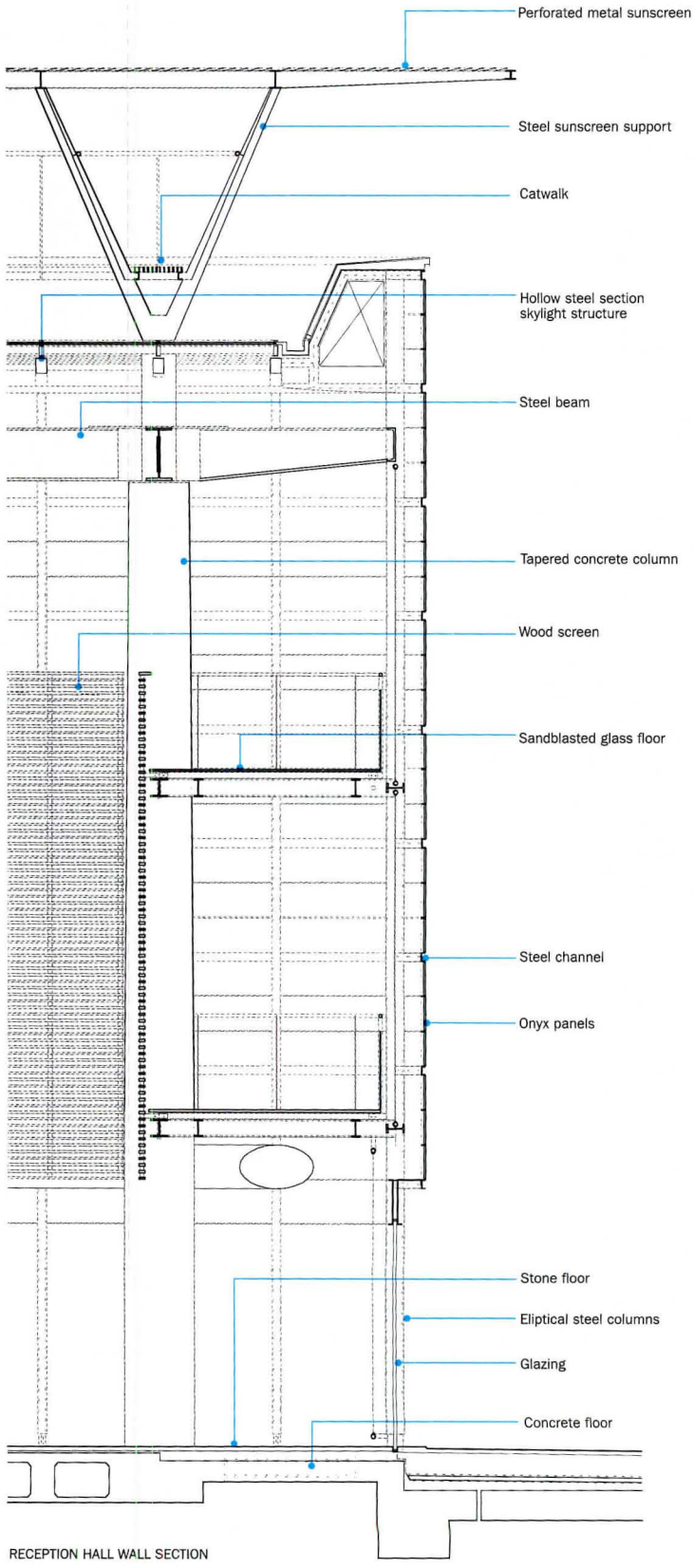
The onyx panels, 1 3/16 inches thick by 1 foot 3 3/8 inches high by 2 feet 7/8 inch wide, are installed on aluminum metal spring clips. In the event of an explosion outside, the onyx would recede inward a bit on the spring clips and then recoil outward. This reaction would be similar to the recoil on a gun as it is shot.

A walkway with a sandblasted glass floor surrounds the perimeter of the reception hall on two levels, including the employee entrance level. Employees can walk around the perimeter of the hall to get to the office building while a reception is occurring on the ground floor of the hall. The teak wood screen along the walkway provides a layer of rhythmic beauty, allowing light to penetrate while further defining the space, and it has a safety function—should any of the onyx blast inward, the teak would act as a shield for the main interior hall. Also, thin aeronautical cables connected to pipe rails on the ground floor serve as an additional means to block glass and onyx from flying inward in a blast. A perforated aluminum screen on steel supports shades the glass roof from glare and protects it from flying debris that could damage it.

Given security concerns, Israeli government authorities had to be convinced that the use of the light and transparent onyx and glass materials was appropriate for the hall. The design was approved only after a full-scale explosion experiment was held in a desert site. An initial mock-up blast "failed miserably," Diamond says, but a second blast test passed.

Michael Levin and John E. Czarnecki, Assoc. AIA

The onyx panels on the exterior wall of the reception hall are held in place with spring clips that, in case of an explosion, would allow the onyx to recede inward a bit before recoiling outward. The wood screen would also block onyx fragments from the interior.



RECEPTION HALL WALL SECTION

During daylight hours, it appears white on the exterior, like the Mitzbah Ramon limestone. On the interior, though, sunlight floods the hall with a soft, yellow light filtered through the onyx, and the veins within the stone show in random patterns. At night, the exterior cube glows through the onyx from the interior light.

In contrast to the transparent, thin onyx walls of the reception hall, the oval ballroom sits half-sunk into the ground with thick stone-clad walls. Inside, the ballroom has retractable seating, allowing flexibility for both performances and receptions. The sloping walls, with their small apertures and stone frames, accentuate the heaviness of the half-sunk structure, which serves as a platform for the employee entrance on its roof. Employees walk over a bridge leading to a stone-paved passage. A grove of orange trees in 7-foot containers shades the ballroom roof.

The western edge of the site is dominated by a long building that contains primarily offices for the ministerial staff, with a library, school for diplomats, and a consular department. Although long, the structure appears as a series of five-story pavilions with gardens in between to break down the scale. Thin teak wood, similar to that used in the ceremonial reception hall (pictured on this page), screens the gardens from the western sun and adds warmth and texture to the otherwise expansive limestone facade. Pergolas covering the rooftop terraces on the top floor of each pavilion also soften the severity of the elevation.

Inside the office building, Diamond designed modules, approximately 10 per floor, with workstations that vary from fairly open to semienclosed spaces. The introduction of open work space in Israel is significant, Diamond points out, because few Israeli offices have an open plan and the foreign ministry employees specifically had grown accustomed to their own offices in the rudimentary small buildings that had been the foreign ministry home.

The integration of landscape with the heavy stone structures, and the thoughtful placement of warm-toned, thin teak wood gives the Israeli Foreign Ministry complex a sense of permanence, as Diamond had wanted—allowing the buildings to appear like ruins in the landscape. Although modern and secure, the complex is, above all, humane. ■

Sources
Aluminum: *Alomayer*
Carpet: *Beaulieu Commercial*

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

Herzog & de Meuron's LABAN CENTRE FOR MOVEMENT AND DANCE casts an ethereal glow in lime, turquoise, and magenta

By Raymund Ryan

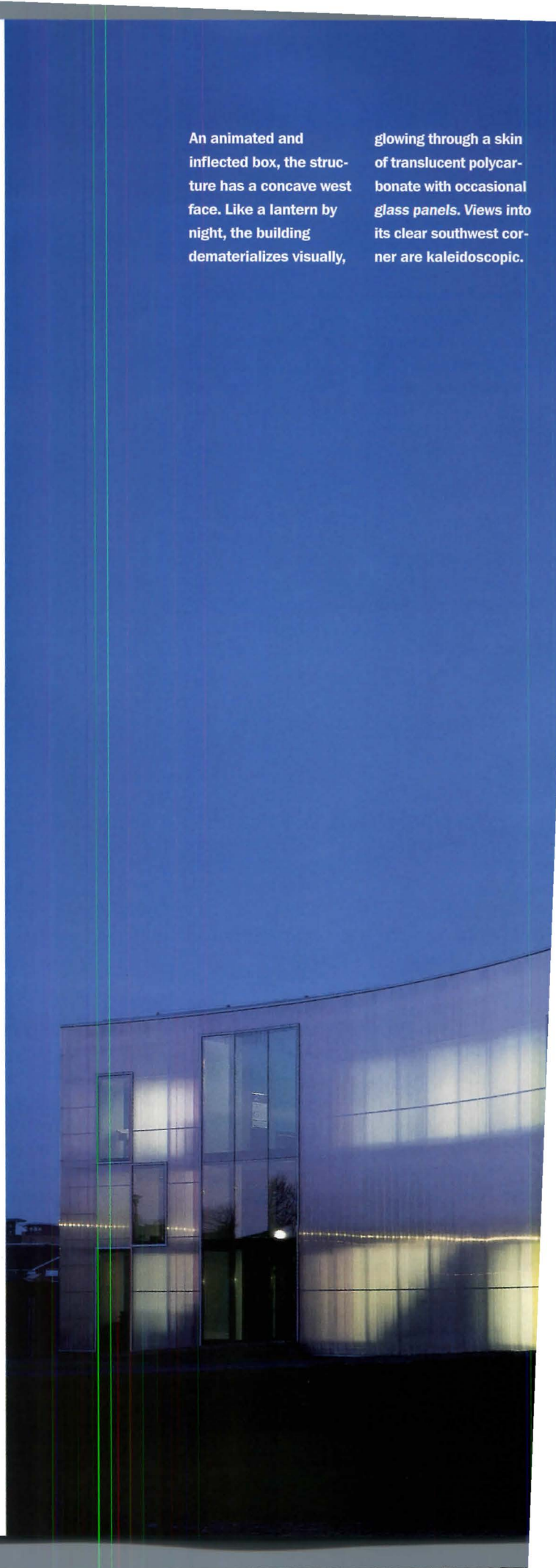
A tendency toward good taste and blandness," observes artist Michael Craig-Martin, marks many an artist/architect collaboration. Taste aside, few could accuse this Londoner of blandness in his recent work with Swiss architect Herzog & de Meuron on the Laban Centre for Movement and Dance in Deptford, a postindustrial suburb of the British capital. "Herzog & de Meuron had the idea of using polycarbonate and color," recalls Craig-Martin, referring to the facility's characteristic translucent skin. His own contribution, he says, focused on the questions: "How can color work? How can it make you do something?"

Multicolored polycarbonate sheathing gives the newly completed Laban Centre a sense of dynamism and enigma even in its dull, low-income neighborhood. The 88,300-square-foot building's four translucent flanks—two curved, two straight—are studded or inlaid with occasional planes of flush, mullionless glass that reveal luminous interiors by night and unexpected reflections of the surroundings by day. Sited above a soft curve of Deptford Creek—a tidal tributary of the Thames separating Deptford from Greenwich, with its great axial observatory and Royal Naval College—the center has glazing reflecting a contemporary hodgepodge of offices, retail outlets, and housing developments, as well as the rather romantic sight of barges or tugboats stranded at low tide.

Previously, Jacques Herzog and Pierre de Meuron had tapped inherent potential in similar areas around Basel, their base in Switzerland. Their siting of boxlike structures, such as the Ricola storage building in Laufen, and fabrication of each project's envelope were influenced by contemporary art. In the Ricola packing facility near Mulhouse, for example, or the Roche-Pharma Research Building in Basel, they worked with artists Thomas Ruff and Rémy Zaugg, respectively, throughout the design process. Craig-Martin—well known in Britain for vivid murals exploring aspects of Pop, perception, and geometry—saw the Laban collaboration as

Raymund Ryan is Curator of the Heinz Architectural Center, in Pittsburgh, and coauthor of Building Tate Modern *(Tate Publishing, London, 2000).*

Project: *Laban Centre for Movement and Dance, Deptford, London*
Architect: *Herzog & de Meuron—Jacques Herzog, Pierre de Meuron, Harry Gugger, Christine Binswanger, principals; Jayne Barlow, Konstanze Beelitz,Nandita Boger, Fun Budimann, Michael Casey, Peter Cookson, Irina Davidovici, Rita Maria Diniz, Hernan Fierro-Castro, Alice Foxley, Detlef Horisberger, Jean-Paul Jaccaud, Nick Lyons, Stefan Marbach, Christoph Mauz, Christopher Pannett, Kristen White, project team*



An animated and inflected box, the structure has a concave west face. Like a lantern by night, the building dematerializes visually, glowing through a skin of translucent polycarbonate with occasional glass panels. Views into its clear southwest corner are kaleidoscopic.

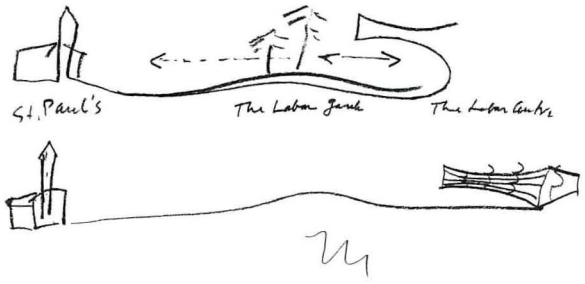
his first opportunity to tackle or "talk about a building before it existed."

The structure, as built, is an inflected box with a curved face masking the principal entry hall, or animated slot. In its departure from pure geometry, the form is akin to Herzog & de Meuron's plywood cabin at Bottmingen (gently canted about a preexisting tree) and its mixed-use Dornacherplatz building at Solothurn (bowed before a raised railroad). The dance center's west elevation arcs in response to views of the steeple and cylindrical front of St. Paul's Church (1712–30), a rare, monumental element in the low-lying neighborhood. The Laban's curve also embraces a zigzag pathway and mounds of recycled earth, designed in collaboration with Zurich's distinguished landscape practice, Vogt Landschaftarchitekten.

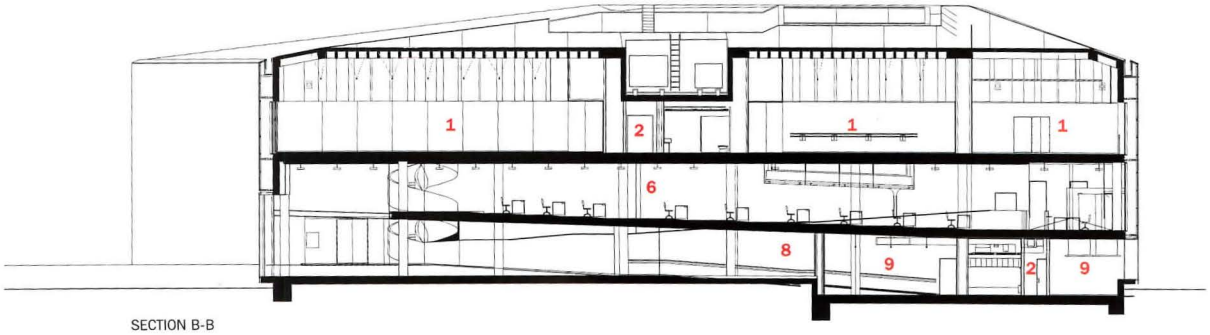
Kaleidoscopic reflections of the immediate context register on the concave elevation's sweep of glass panels, as in a hall of mirrors, while sliding glass doors in the southwest corner provide an entry. The exterior skin hovers just above the ground plane, accentuating the form's visual lightness and separating sheath from structure. The building thus appears to float. Air can circulate within a gap between the Laban's outer polycarbonate skin and its taut inner membrane of milky glass, creating an environmental buffer. Large, apparently blurry swatches of color—lime, turquoise, and magenta—consist of paint applied to the polycarbonate's inner surface.

The building's interior is a network of "streets," or corridors, and chambers on two full stories with an interstitial mezzanine. The entry hall floor splits around a dramatic spiral stair of black-lacquered concrete: On one side, the black resin ground plane descends to a public café, overlooking the creek; while on the other, it ramps up, edged by a wavy birch handrail that plays on the rigidity of a classical dancers' training barre. The ramp passes through a long, high hallway, turns at mezzanine level through doors in a glass screen, then steps up into a gently tiered library, and eventually halts in dramatic finale above the café. As in Rem Koolhaas's Rotterdam Kunsthal, folded floors and transverse views instigate an internal dynamic.

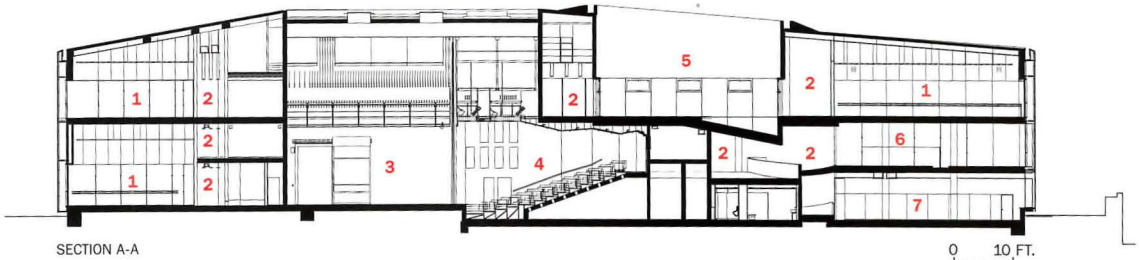
Laban's programmatic heart, and the generator of Craig-Martin's contribution, is an enclosed 300-seat performance space that rises through the center of the building to the apex of its barely visible pitched roof. Subtly splayed corridors, leading to a second corkscrew stair to the north, separate this theater from smaller-scale rooms. Whereas the entry and mezzanine levels accommodate hybrid functions and casual gatherings, the less public second floor is dedicated to dance studios. A narrow patio with a shallow pool slices through the building, illuminating the most internalized corridor. A second patio, at the upper level, folds downward, forming a crystalline skylight suspended over the linear entryway.



1. *Dance studio*
2. *Circulation*
3. *Stage*
4. *Auditorium*
5. *Court*
6. *Library*
7. *Cafeteria*
8. *Meeting*
9. *Therapy*



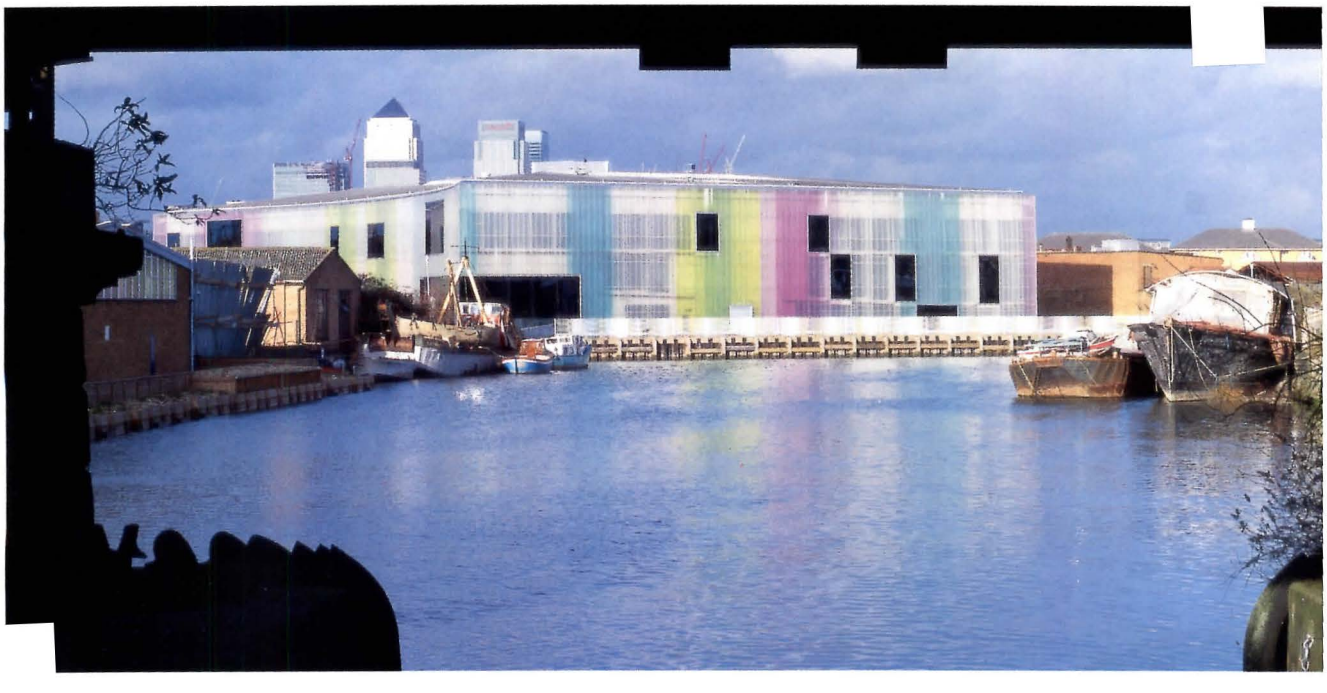
SECTION B-B

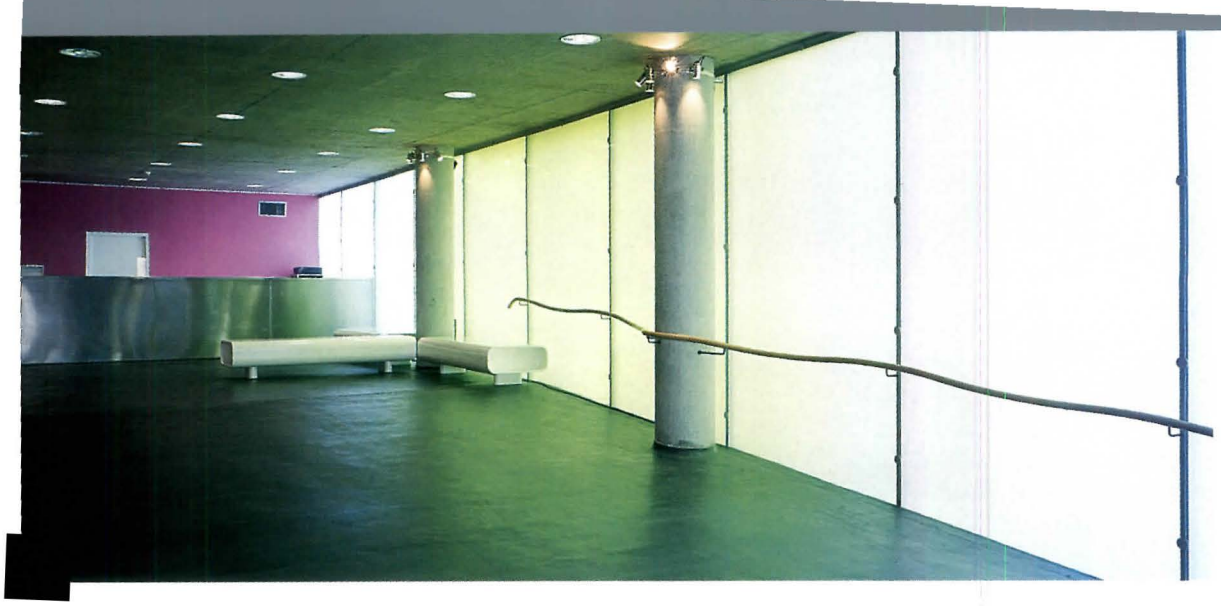


SECTION A-A

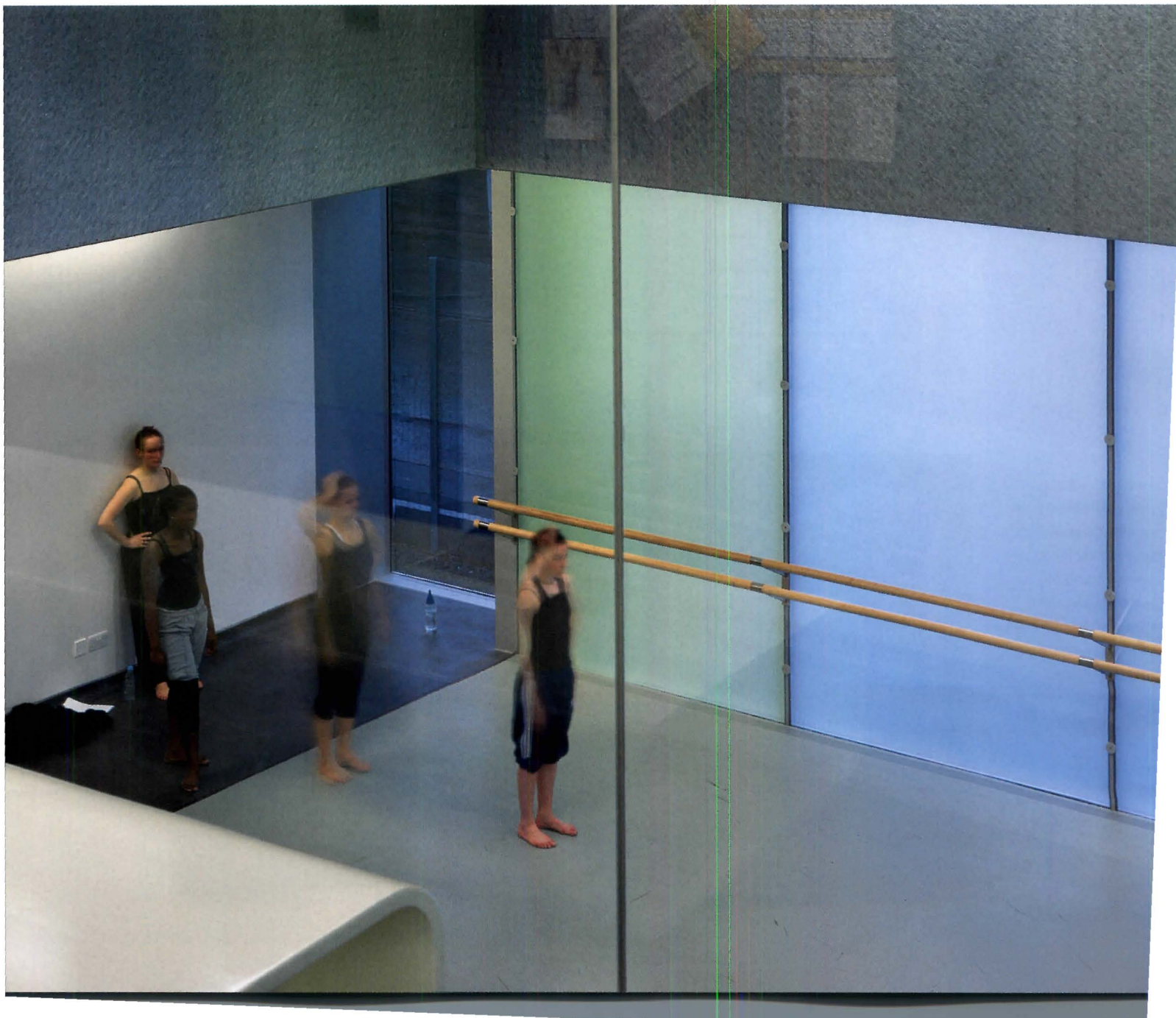
0 10 FT.
3 M.

With back-painted areas of vivid color, the polycarbonate sheath changes appearance with varying light (opposite and this page, top and right). Following the architect's concept sketch (top left), the building arcs in response to a nearby church.



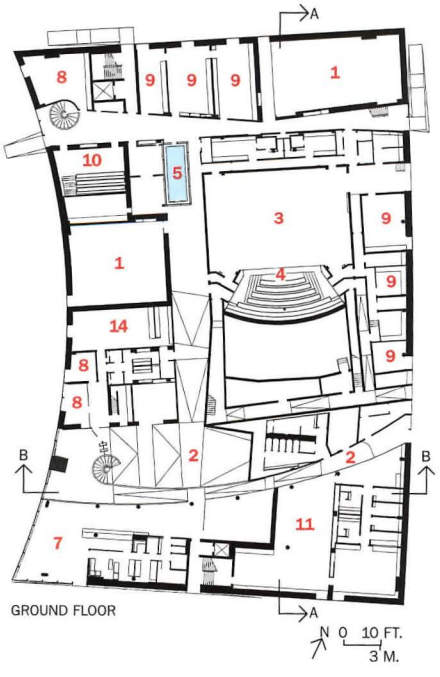


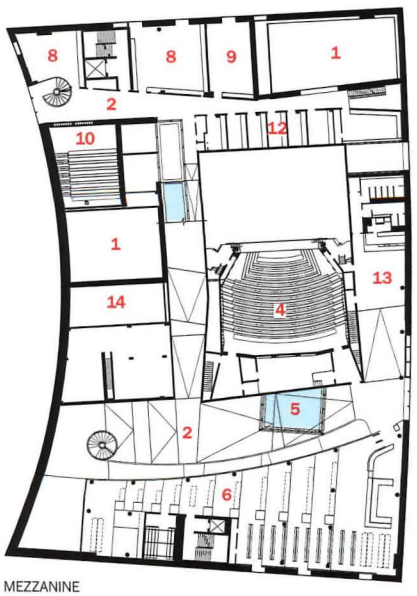
All studios (below) have at least one long, color-blushed, translucent wall with a clear glass panel, permitting dancers to orient themselves to weather and other aspects of external reality. Expressively wavy birch rails snake through the interior (left).

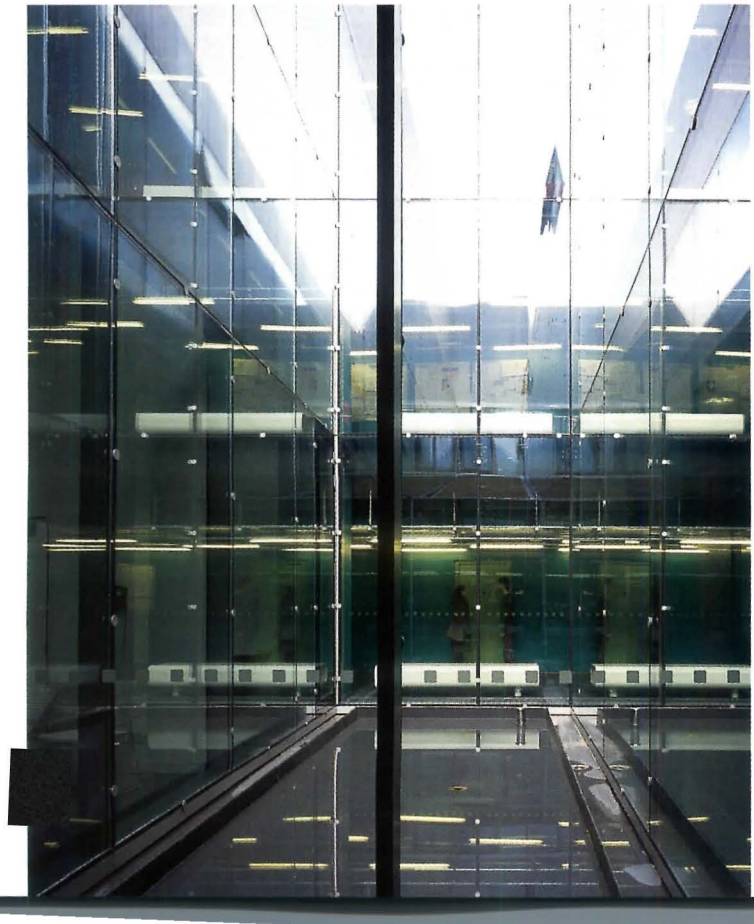


Courts containing reflecting pools penetrate the building (above), modulating the boxiness of its form, while bringing light, air, and weather to its innermost reaches.

1. *Dance studio*
2. *Circulation*
3. *Stage*
4. *Auditorium*
5. *Court/reflecting pool*
6. *Library*
7. *Cafeteria*
8. *Office*
9. *Workshop*
10. *Lecture theater*
11. *Therapy*
12. *Tutor*
13. *Bar*
14. *Staff*







Like the architects' REHAB clinic in Basel, the Laban presents an agglomeration of solids and voids within a light-permeable membrane. Craig-Martin has wrapped the principal interior solid—the theater—with computer-generated line drawings of everyday objects, such as sunglasses and earphones, chosen to signify the five senses. Responding to the three wedge-shaped corridors cutting through the building, he allotted a single color—lime, turquoise, or magenta—for the walls of each passageway and then used the remaining two colors for subsidiary elements, such as fire doors and student lockers.

Herzog & de Meuron has, of course, included vivid color before, as in the Tate Modern's Chinese red lecture theater. Within Laban's tight budget (less than $23 million), intense color provides a means of heightening the interior's streetwise vitality, prompting even the sedentary to move.

The legacy of Rudolf Laban—an émigré from Nazi Germany who developed important theories of choreography and dance notation (Labanotation) and of ergonomics in the industrial workplace—is now enshrined by a luminous vessel in a gritty urban setting. To passersby in the evening, the dancers' bodies appear as participants in a contemporary shadow play. The building seems to invite motion with its ramping floors, spiraling stairs, and dynamic curves. Human movement becomes its own advertisement, as the architecture recedes into Deptford's new lime, turquoise, and magenta light. ■

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

Glass walls offer views from the mezzanine (this page and opposite, top) into the library and cafeteria. Glazing around the courts (opposite, bottom) contributes to the building's interior transparencies and animated reflections.

The office of the Dutch Media Authority is situated on the outside, wooded edge of Hilversum's "Media Park." The facade opposite the park has much more glass than the one along the driveway, providing workers with privacy on one side and a green view on the other.

Koen **van Velsen** gives a Dutch media policing agency the new **MEDIA AUTHORITY**, a tranquil haven in a wooded park

By Tracy Metz

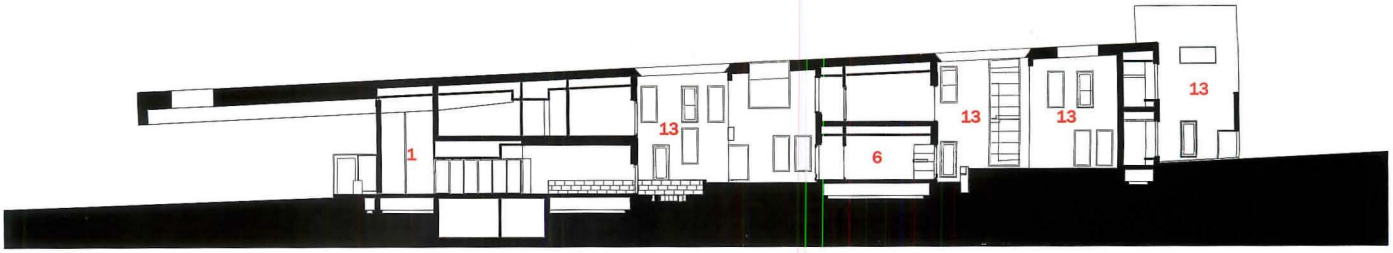
As befits a watchdog agency with the name "Commissariat for the Media," its building stands aloof, hidden from the busy road behind a former farmhouse, in a leafy area of the town of Hilversum, Holland's broadcasting capital. Architect Koen van Velsen, himself a native of Hilversum, has done a masterful job of capturing the character of both the location and the organization in a lyrical building made of glass and corrugated aluminum on the outside—decorated by the ever-changing patterns of trees' shadows—and wood, brick, and a lively color scheme on the inside.

Hilversum, traditionally known for its 19th-century grand brick villas with thatched roofs and the angular brick Modernism of its early-20th-century buildings, is expanding its architectural tradition with a new generation of striking buildings for broadcasting corporations. By far the best known are the innovative and controversial headquarters for VPRO and the Corten-steel box protruding from the ground for RVU, both by MVRDV and both just a stone's throw from the Commissariat for the Media. There is one significant difference in their locations, however: The VPRO and the RVU are inside the official "Media Park," whereas the Commissariat stands just outside, maintaining a small but symbolic distance from the bodies it is meant to police. The park's border was all but invisible until the murder of the Dutch politician Pim Fortuyn here in May 2002; now it is clearly demarcated by a high and inhospitable fence. Van Velsen feels strongly that the fence disrupts the natural setting that makes this set of buildings such an interesting ensemble in the park, but so far the authorities remain firm.

Tracy Metz is RECORD*'s Amsterdam correspondent and the author of* Fun! Leisure and Landscape, *published in September 2002 by NAi Publishers.*

Project: *Commissariat for the Media (Media Authority), Hilversum, the Netherlands*
Architect: *Koen van Velsen, principal; Gero Rutten, Marcel Steeghs, Gideon de Jong, Chris Arts, Merijn de Jong, Tom Bergevoet, project team*
Client: *Commissariaat voor de Media, Hilversum*
Contractor: *Van den Hengel*
Engineer: *D3BN (structural)*
Electricity and installations: *Huisman en van Muijen's (engineering); Lingestreek (contractor)*

Patios have been cut out of the building volume around several preexisting trees, including the one within the huge roof overhang at the main entrance.



SECTION A-A

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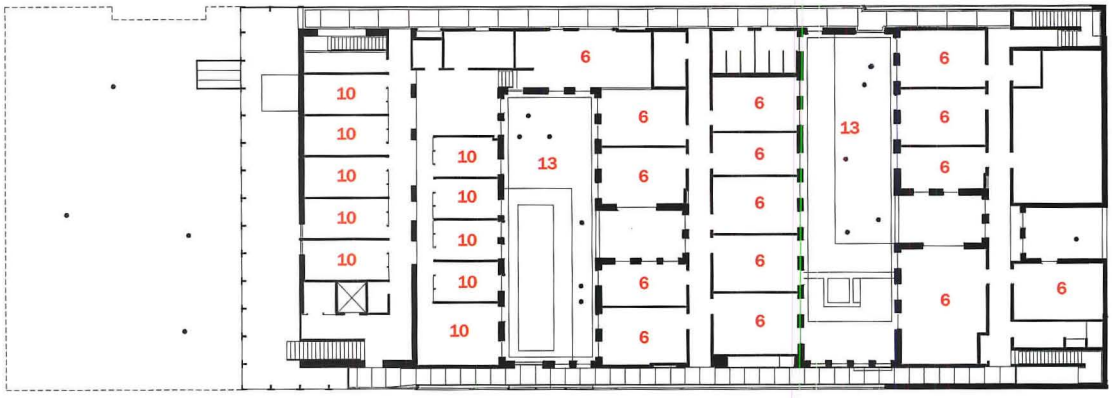
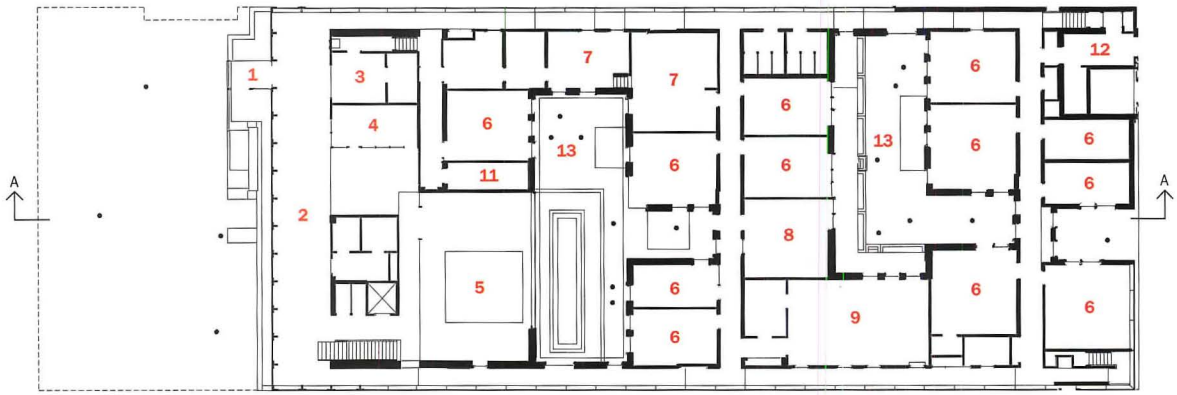


FIRST FLOOR

1. *Entrance*
2. *Hall*
3. *Reception*
4. *Interview room*
5. *Auditorium*
6. *Office*
7. *Archives*
8. *Library*
9. *Conference room*
10. *Monitoring room*
11. *Control room*
12. *Container space*
13. *Patio*



GROUND FLOOR

N 0 10 FT.
3 M.

The site did present Koen van Velsen with a rare gift for an architect in Holland: a height difference between the front and the back of the site of a full 6.5 feet. In order to take better advantage of the intimacy of the location, and as a counterpoint to the upward motion of RVU's steel box, he positioned the building lengthwise along the driveway, literally with its face to the Media Park. The visitor is drawn down the incline of the driveway toward the front of the building, where the entrance is ensconced under a broad cantilevered roof with Van Velsen's signature holes in it for the trees (existing as well as newly planted ones) to grow through. The canopy provides parking space for cars and bicycles, but just as important is its function as a prelude to the open-air patios inside. At the farthest edge of the roof, a spout channels the rain like a waterfall into a basin under the surface of the parking area.

THERE ARE ALSO VIEWING ROOMS, WHERE THE "MEDIA POLICE" MONITOR RADIO AND TV PROGRAMS.

The facade facing the Media Park has much more glass than the one along the driveway, providing the 50 workers with privacy on the one side and a green view on the other. All the offices look out on greenery, be it the park outside or the patios inside, where the architect added 50 acacia's to the existing arbor.

Van Velsen emphatically prefers the word *layers* to *floors*, and once inside it becomes apparent why. The building's two layers provide 6,562 square feet (2,000 square meters) of work space, most of it offices. The walls of the two patios are sprinkled with doors—not windows, doors. All the offices have, of course, doors on the inside to enter by, but also "doors" on the outside walls by way of windows, all operable and placed at various heights in the wall, lightheartedly ignoring any sort of mundane demarcation between the first and second floor. The randomness of the pattern makes the building less a two-floor office and more a single, coher-

The main entrance is ensconced under a broad, cantilevered canopy (top)—a prelude to the patios within. Exterior walls of glass and corrugated aluminum (bottom left and right) contrast with the wood, brick, and lively color scheme on the inside.

Staggered patterns of doorlike windows on patio walls purposely ignore any sort of mundane demarcation between the first and second floors (opposite). Adding to the laid-back atmosphere, windows and walls in every room afford views to the green landscape (this page), while first-floor hallway floors made of greenish glass covered with matte foil seem to float free of walls (near right).

The foyer (this page) houses a functional and playful unit combining a sleek wooden bench with a built-in TV, where three boulders serve as seats. Staircases (opposite, left) and hallways (opposite, right) serve as orientation points through their varying color schemes and window patterns.

ent spatial composition. Here and there Van Velsen has even substituted the horizontal white bricks on the patio walls with vertical ones, as if to suggest that an old window had been bricked up during remodeling.

In addition to offices, there are also viewing rooms, where the "media police," as they are sometimes called, monitor radio and TV programs for transgressions of laws on, say, hidden advertising. Van Velsen designed this area to look like an attic, disguising the large steel columns

VAN VELSEN'S COMMISSARIAT IS A CONTEMPORARY *GESAMTKUNSTWERK*: HE EVEN DESIGNED THE EXIT SIGNS.

that hold up the cantilever as the slanted wooden beams of an old-fashioned roof. Another of the spaces that distinguishes the Commissariat from a run-of-the-mill office building is the courtlike chamber where hearings are held. To emphasize the character of the space, Van Velsen furnished it not only with chairs by the designer Maarten van Severen, but also with benches. Upon closer inspection, the benches are revealed to be hollow inside, and perfectly shaped to store Van Severen's chairs.

Van Velsen's Commissariat is a contemporary *gesamtkunstwerk*: he designed not only the building, but also the interior, including the furnishings, the color scheme, even the coffee nooks, the toilets, and an aesthetically pleasing variation on the usually dreary emergency exit signs. The foyer, for example, houses a functional and playful object combining a long, sleek wooden bench with a built-in TV and three adjacent boulders that serve as viewing seats: Flintstone meets Mies.

At all four corners of the building there are staircases, each different and recognizable, so that they function as orientation points. The hallways, too, are different, with varying patterns in the windows and the color scheme. The hallways along the first floor facades have floors of greenish glass covered with matte foil and seem to float free of the walls, making the building feel light on its feet. That same effect is created by small windows on the corners, keeping the box from feeling boxy, and by the colored foils on the windows, throwing patches of color on the floor as the sun moves overhead and adding brightness to the serenity of Koen van Velsen's design. ■

Sources

Metal/glass curtain wall: *Saint Gobain Veromco*
Built-up roofing: *Cazdak Cazemier*
Glass: *Saint Gobain Veromco*
Wood doors: *Van den Hengel*
Acoustical ceilings: *Rigips Benelux*
Paint: *Sigma Coatings*
Office furniture: *SV Interieurgroep*
Reception furniture: *Peter Vocking Meubelmakers*
Tables: *Peter Vocking Meubelmakers*
Downlights: *Hoffmeister*
Natural stone floor: *Carrara Natuursteen*
Signage: *DD Reklame*

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

WHERE WE STAND

First Quarter 2003 Results

To Members of the AIA,

On behalf of the AIA Board of Directors, I am pleased to report that your Institute is in sound financial condition. Continuing three years of financial growth, financial performance for the first quarter of 2003 has been strong. Revenue has exceeded projections by 0.5% while expenses have been 2.5% less than budgeted, resulting in a 2.6% increase in total net income for the quarter.

This stability in financial performance allows us to focus on improving and increasing services to AIA members, the public, and the industry. Here are highlights of our recent growth in services:

- Available in late summer, re-designed AIA Contract Documents software will include Microsoft® Word and PDF file sharing.
- A new AIA printed quarterly publication for members will address theoretical and practical aspects of architecture practice. The first issue of *AIA/J – The AIA Journal of Architecture*, featuring research and design, has been mailed to all AIA members.
- With the support of AIA San Diego, the national component and its leadership, the San Diego Architectural Foundation has established a not-for-profit Academy of Neuroscience for Architecture to foster the collection and dissemination of scientific data on the human brain's function in perceiving and physiologically responding to physical environments.
- The first consumer book resulting from the partnership between The AIA and Taunton Press, *The Distinctive Home* by Jeremiah Eck, FAIA, features the work of AIA members and promotes excellence in home design to the public.
- A new AIA-Wiley publication, *Interior Graphic Standards*, has just been released.
- The new Best Practices section of aia.org is there to facilitate sharing gems of practical knowledge between you, your clients, and your peers for the benefit of all. What best practices will you share?
- The new Internship Tools page on aia.org is a clearinghouse for information for emerging professionals. This site is being used by students, interns and ARE candidates to further their development as professionals in architecture.

We are committed to maintaining the financial discipline that will enable continual improvement of services, benefits, resources, and public advocacy for all AIA members.

I welcome your comments.

Sincerely,

Norman L. Koonce, FAIA
Executive Vice President/Chief Executive Officer

AIA Financial Results March 2003 ($000's)

	YTD March Budget	YTD March Actual
Revenue	$ 21,379	$ 21,477
Operating Expense	(8,807)	(8,585)
Operating Net Income	12,572	12,892
Non-Operating Income	40	35
Unrestricted Net Income	12,612	12,927
Restricted Expense	(10)	(2)
Total Net Income	$ 12,602	$ 12,925

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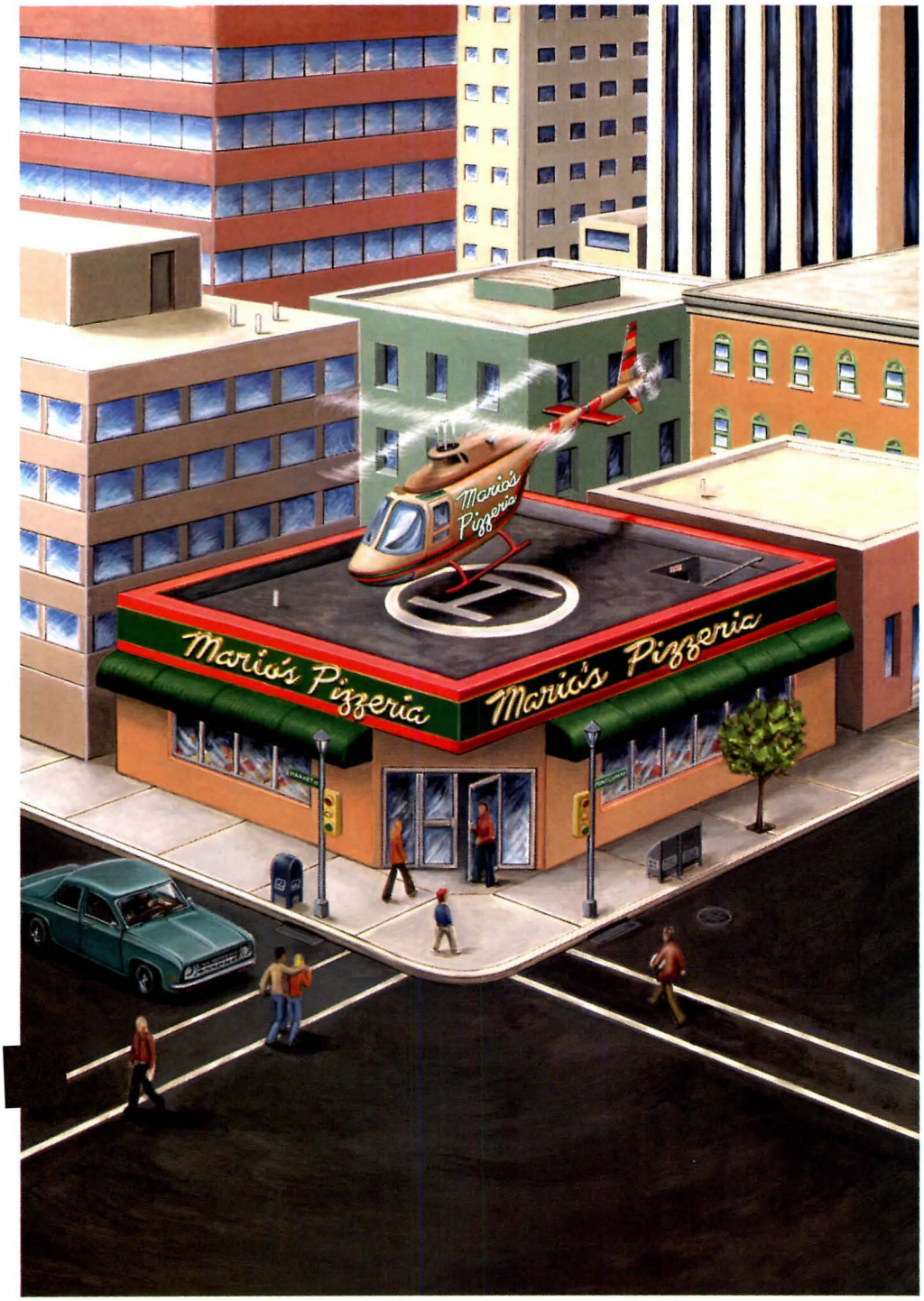

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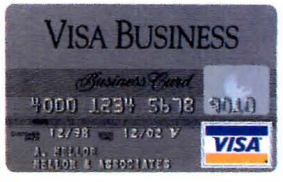

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WITH INSIGHTFUL CLIENTS AND RULE-BENDING ARCHITECTS, OFFICE-BUILDING DESIGN CONTINUES TO EVOLVE, ADAPTING TO CHANGING WORKPLACE TRENDS AND EMERGING TECHNOLOGIES.

By James S. Russell, AIA

It's not easy to innovate in an era of slack demand, but a heartenингly scrappy bravura survives nevertheless. Some of the projects in these pages were conceived at the recent dizzy peak of economic optimism and have successfully adjusted to a leaner, tougher era. The Twin Cities firm of ADC thought it would ride the internet wave to years of double-digit growth. Instead, the overbuilt telecommunications sector has driven the company to concentrate almost its entire business in a structure conceived as a headquarters. But with its collaboration-enhancing atria and meeting spaces, and a literal and organizational transparency, that headquarters is proving a strategic asset in the company's climb back to eminence in the wake of the dot-com bust.

Highly talented staff are easier to find in this economy, but many companies have learned from experience that the quality of facilities remains a selling point, one that will come in handy as the labor market tightens. That's why ADT, which operates in the tumultuous and highly competitive financial services arena, didn't scrimp on staff amenities.

Online sales, media, and advertising are brightening spots in the pervasive dot-com gloom, and Montreal's Cité Multimédia is poised to take advantage of improved business conditions with new construction appealing to the so-called culture creatives whose entrepreneurial inclinations, many analysts say, will drive renewed economic growth.

While the Montreal project airily positioned itself contrapuntally to the industrial heft of its environs, BOORA reconceived the suburban office park to fit comfortably within one of Portland's established residential neighborhoods. You don't have to accept the downtown/suburb duality, these projects say. You can succeed in between.

Among the projects with the most potential to change the norms of office building is Foundry Square. By combining the large, open floors of the suburban technology park with the amenities and collaborative possibilities of downtown, it may define a way to have the best of both worlds.

If you can make it in these challenging times, these projects promise, you can only flourish when office-growth returns. ■

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

1.

Mt. Pleasant, South Carolina

For ADT, Helfand Meyerberg Guggenheimer combined private offices for concentrated work with soaring spaces for collaboration.

2.

Eden Prairie, Minnesota

Hammel, Green and Abrahamson foster collaboration at ADC in a light-filled complex designed from the workstation outward.

3.

San Francisco, California

In Foundry Square, Studios Architecture rejiggered the standard technoburb workplace to take advantage of downtown amenities.

4.

Portland, Oregon

Boora Architects nestled a boldly patterned five-building corporate campus for Adidas into a hilly residential neighborhood.

5.

Montreal, Quebec

With a translucent veil of patterned glass, Dupuis Le Tourneux signals an industrial district's high-tech transformation to Cité Multimédia.

ATD Technology Campus
Mt. Pleasant, South Carolina

1 **MARGARET HELFAND COMBINES MODERNIST FORMS AND VERNACULAR DESIGN ELEMENTS IN A PASTORAL SETTING FOR ATD'S HEADQUARTERS.**

By Suzanne Stephens

Design architect: *Helfand Myerberg Guggenheimer Architects—Margaret Helfand, FAIA, principal in charge; Nial Cain, AIA, project architect; Peter Guggenheimer, AIA, collaborating principal; Jennifer Tulley, Tom Chang, George Scarpidis, Leslie Hamanaka, John Tinmouth, Tom Ambler, Omayya Kanafani, design team*
Executive architect: *McKellar & Associates; Peter McKellar III, AIA, Alan Jackson, AIA, Anne Maguire, Clay Shackelford, Evelyn Jackson, Angie Brose, project team*
Client: *Automatic Trading Desk, Mt. Pleasant, S.C.*
Consultants: *Johnson & King (structural); Barrett, Woodyard & Associates (m/e/p); Susan Nelson/Warren Byrd Landscape Architects (landscape design); Seamon, Whiteside and Associates (civil engineering and landscape architecture)*
Size: *68,000 square feet*
Cost: *$26 million, including site work*
Completion date: *Fall 2002*

Sources
Laminated wood beams and deck: *Structural Wood Systems*
Brick: *Hanson Richtex Brick*
Copper flat-seam siding and standing-seam roofing: *Charleston Metalworks*

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

Architects like to say that good design is good business, although empirical proof can be hard to come by. Nevertheless, Automated Trading Desk (ATD), a high-tech financial research and investment company outside Charleston, South Carolina, was more than willing to test the axiom. The serenely elegant complex, which occupies 23 acres of land in Mt. Pleasant, appears to be, at first glance, a well-funded retreat for scholars. The tripartite plan, conceived by Margaret Helfand, FAIA, and her former firm, Helfand, Meyerberg, Guggenheimer (now Helfand Architecture and Guggenheimer Architects), provides private offices to every employee and offers visual and physical accessibility to its parklike setting at every turn and glance.

In a part of the country where the preferred architecture comes with columns, capitals, and cornices, ATD was slightly apprehensive about taking the scheme—with its planar surfaces and asymmetrical geometries—before the local design review board. The board passed it at the first meeting. According to one report, a board member exclaimed, "This architecture raises the bar."

Program

The 15-year-old trading and research firm, started by David Whitcomb (now nonexecutive chairman) and led by his henchmen, the president and C.E.O. Steve Swanson and the C.T.O. Jonathan Butler, formerly occupied a

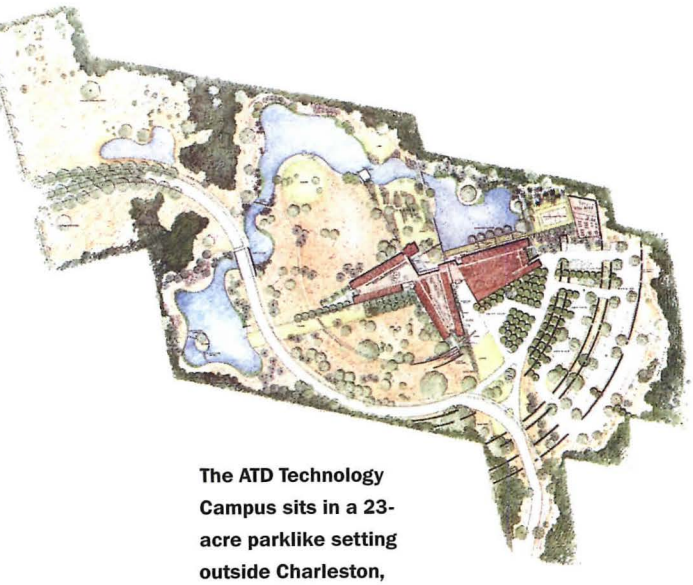
dumpy, increasingly cramped low-rise structure on a commercial strip in Mt. Pleasant. Yet even then everyone had an office (although traders tended to double up as the company grew). The company, which numbers 60, not including 30 in the Chicago office, wanted to expand in such a way that the corporate culture would not be jeopardized. In an organization where traders and software developers work closely together, the staff needed and wanted spaces to allow informal interaction as well as privacy for concentration.

In addition, ADT desired its architecture to reflect an innovative image and impress retail and institutional investors with the company's up-and-coming role as a player in the world of Wall Street. For her part, Helfand desired to create a setting where the employees would experience design as a continuum, extending from the offices to the indoor public spaces and finally out to the landscaped surroundings.

In addition, the program called for a 6,000-square-foot trading room, plus a highly secure 5,000-square-foot data center, with redundant backup energy sources to guard against any contingency, from hurricanes to bombs. On top of that, Helfand needed to fit the 70,000-square-foot building into a site dotted by landmarked live oak trees and laced with cleaned-up storm water retention ponds.

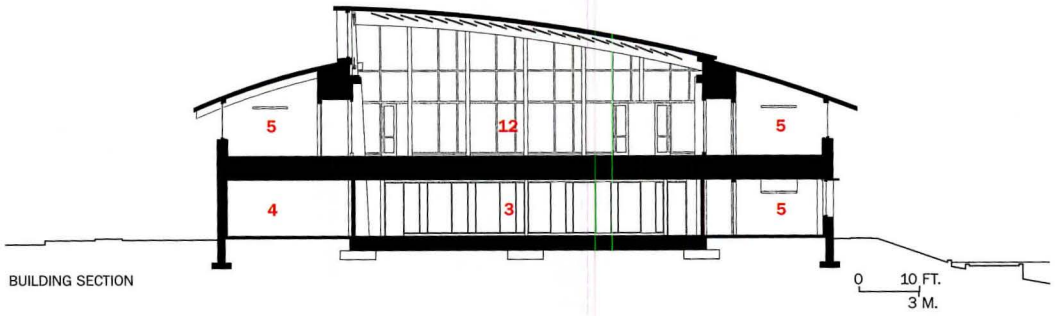
Solution

In order to allow for growth in an unpredictable economic atmosphere, Helfand devised a complex where three wings, each two-stories high, would accommodate 120 offices. Only two wings, with 80 offices, are occupied at this moment. The third wing, at the south end of the complex, contains offices, an executive boardroom, and screened porch with a fireplace all waiting for final fit-out.



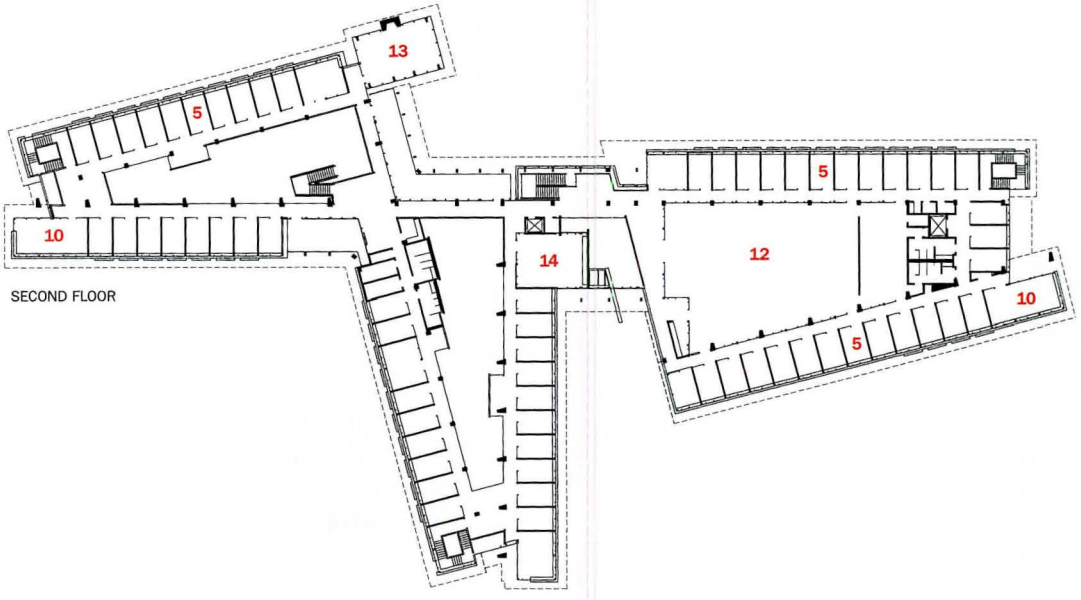
The ATD Technology Campus sits in a 23-acre parklike setting outside Charleston, designed around existing live oaks and drainage ponds.

The trapezoidal wings of the two-story building are pulled apart to admit natural light and views through double-height window walls, clerestories, and punched windows. The structure of long-span, glue-laminated beams; steel framing; and concrete pylons permits a variety of vertical spaces as high as 26 feet. Curved copper roofs slip past each other, and brick walls are treated as screens that yield to glass, which covers more than half the exterior surface.



BUILDING SECTION

0 10 FT.
3 M.



SECOND FLOOR

GROUND FLOOR

N 0 20 FT.
6 M.

1. *Atrium*
2. *Lobby/reception*
3. *Data center*
4. *Network operation center*
5. *Office*
6. *Screened porch*
7. *Administration*
8. *Kitchen/dining*
9. *Exercise room*
10. *Conference room*
11. *Mechanical/storage*
12. *Trading room*
13. *Boardroom*
14. *Training center*

In the main atrium, floors are surfaced in bluestone, the balcony balustrades are makore wood slats, and offices have sliding doors of translucent glass with windows shaded by wood blinds.

The central stair in the lobby heightens the architectonic quality of the space, with a sculptural composition of granite treads cantilevered from offset stringers of steel and edged with a slatted makore wood balustrade.

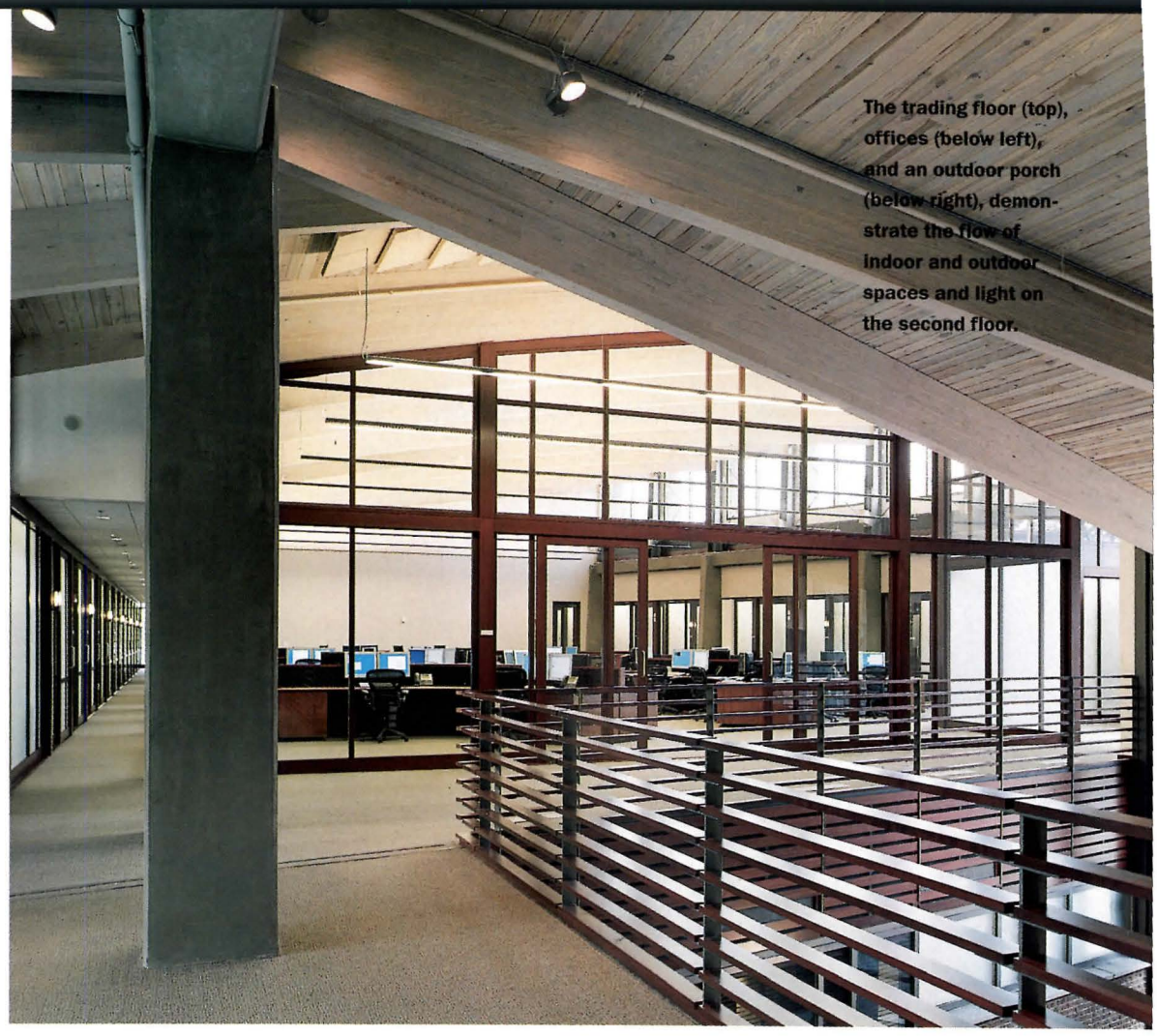
While adhering to this Modernist deployment of fragmented forms, Helfand and her team looked closely at the local vernacular of old agricultural, commercial, and even residential construction. The roofs' deep overhangs, the second-story porches, the dark, blood-red local brick, and the granite lintels and sills around the windows represent some of the materials and elements well known to low-country architecure.

Helfand also designed the building to voluntarily comply with the International Building Code for seismic resistance and other safety concerns, since ATD wanted to ensure its electronic functions would always operate reliably. In addition, windows contain a polycarbonate film laminated between two panels of glass, as a further measure against hurricane damage.

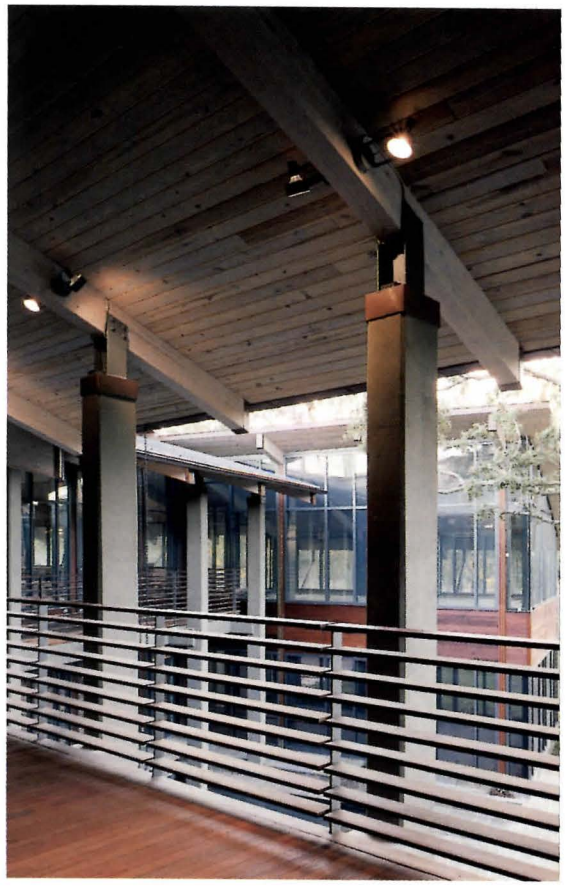
Commentary

The level of the craftsmanship and materials, the flow of spaces, emphasized by ample natural light, and the overall integration of forms in the landscape attain a quality rare in office buildings. And for those of us drones in open-plan offices who share all the details of our neighbors' professional and personal lives, it is almost too painful to see everyone with a private office. The sense of calm pervading the dramatically high spaces throughout the complex, and the ease with which one can see and experience the outdoors, only adds to acute office envy.

It comes as no surprise that the environment works well for the company. The design is largely credited with boosting revenues from institutional investor clients during the first six months that the building was occupied, from a negligible factor to 18 percent of the firm's business. And while no quantitative studies have been undertaken on employee productivity, informal comments and surveys (e.g., cars in the lots in off hours) suggest that the employees are using and enjoying the building more. As Steve Swanson put it, "I never would have guessed how dramatically this building would change people's perception of who we are." ■



The trading floor (top), offices (below left), and an outdoor porch (below right), demonstrate the flow of indoor and outdoor spaces and light on the second floor.



ADC World Headquarters
Eden Prairie, Minnesota

2 **HAMMEL, GREEN AND ABRAHAMSON FOSTER COLLABORATION IN A LIGHT-FILLED COMPLEX DESIGNED FROM THE WORKSTATION OUTWARD.**

By Camille LaFevre

Architect/Engineer: *Hammel, Green and Abrahamson—Manos Ginis, principal in charge; Dave Taeyaerts, project manager; Leigh Rolfshus, senior project architect; Jennifer McMaster, Christine Peterson, Ginny Lackovic, Jian Lan, Peter Haag, Lauren Wold, Joann McCullough, Naresh Pellegar, Bill Blanski, Doris Rolfshus, Bob Wilcox, Pat Hunt, John Crosby, Mark Johnson, Mark Benjamin, team*
Consultants: *ESI Engineering (acoustical); Robert Rippe Associates (food service); Mary Dreblow (art); Kroll Schiff & Associates (security)*
Contractor: *Kraus Anderson Construction*

Size: *477,000 square feet*
Cost: *$105 million*

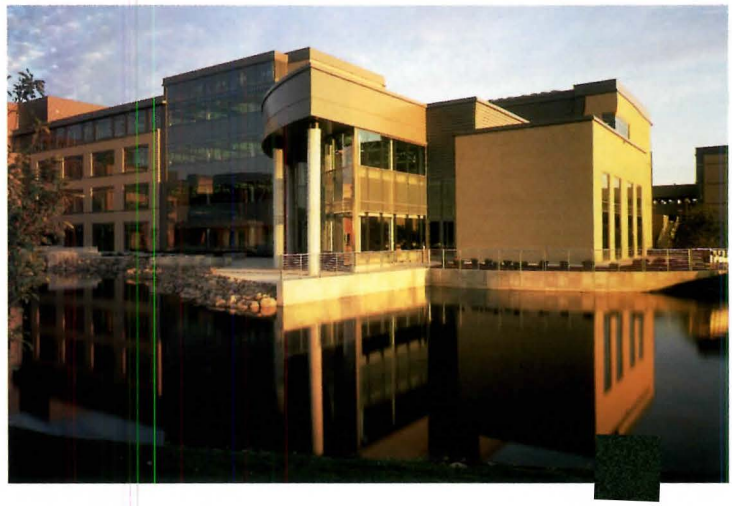
Sources
Exterior concrete/masonry: *Gresser*
Curtain wall, glazing, entrances: *Harmon*
Glass: *Viracon*
Carpet: *Milliken*
Raised access floor: *Tate*
Furniture: *Herman Miller*
Lighting: *Prescott; Lightolier*
Lighting controls: *Lutron; Triatek*
Building management system: *Johnson Controls*

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

In 1998, ADC Telecommunications—a global equipment, software, and integration-services company—faced dramatic growth and change as the appetite for communications and data services exploded. It planned a new headquarters campus to spur high-speed, cross-discipline collaboration. By the time of its completion, ADC, along with its competitors, had rapidly contracted due to the dot-com bust; but unlike some competitors, it survives. Now leaner, ADC has consolidated operations in this 477,000-square-foot, three-building headquarters. The design's operational and technical flexibility "allowed us to do what was needed with tremendous adaptability and minimal business disruption," says Scott Reinke, ADC's director of real estate and facilities services.

Program

ADC approached Hammel, Green and Abrahamson (HGA), Minneapolis, which had designed the company's prior facilities, about integrating offices, laboratories, and several business units into one campus location. "To strengthen its technologies and product lines, ADC wanted to increase collaboration among its scientific and engineering staff," explains Manos Ginis, AIA, principal and senior designer at HGA. "They asked us to design a work environment that would help employees participate in multiple projects and teams simultaneously." ADC also stipulated that the new building should express the company's "bold and confident business spirit," Reinke says, in order to tap national and international talent.



Solution

HGA designed the campus from the workstation outward, Ginis says, with employee comfort, control, and productivity in mind. Access floors, raised 24 inches, house easily reconfigurable conduit, wire, and data cabling, as well as an underfloor air-distribution system that allows each workstation to have a personal energy-management system. With this feature, employees can control the temperature and lighting of their immediate surroundings.

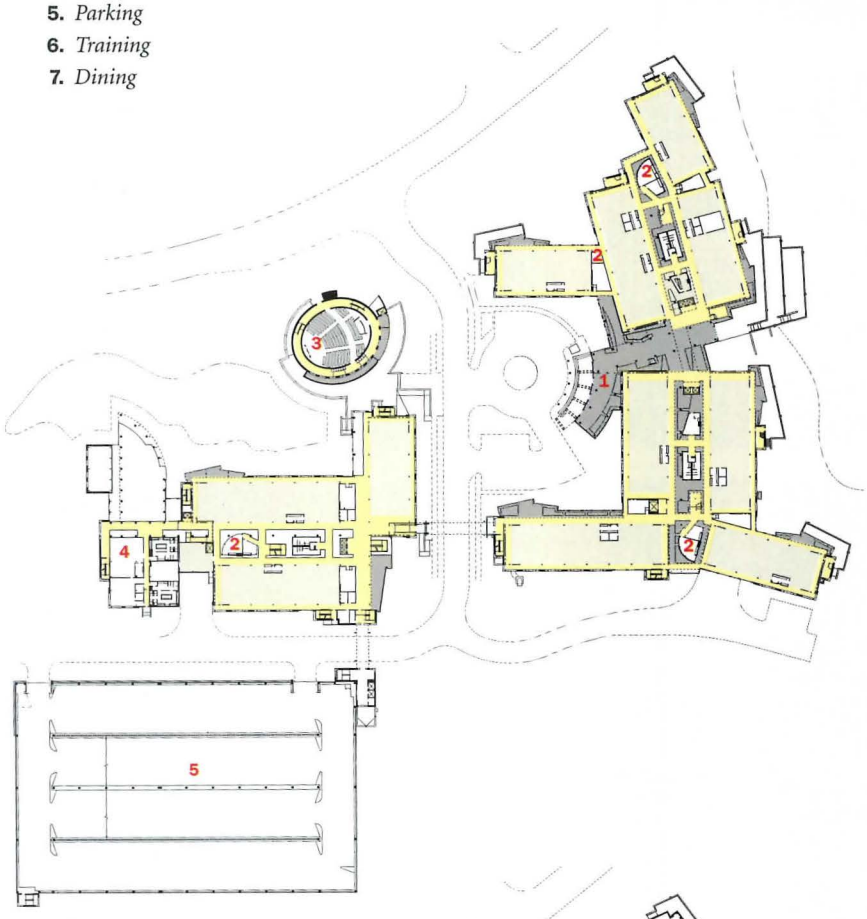
During a companywide survey conducted prior to design, natural light was the amenity most requested by employees. To ensure natural light reaches every workstation, HGA divided the floor plates with full-height, skylighted atria (plans, page 164), stacked with glass-wall conference rooms and open stairs. Most people work close to an atrium or an outside wall.

To support this strategy, HGA conducted extensive energy studies to calculate the optimum balance of exterior fenestration and energy use. At intervals, the architects pushed out the exterior walls to create sun-drenched edge atria with their own connecting stairs and team work areas. The inventive use of the atria creates more "exterior" exposure for workers without pro-

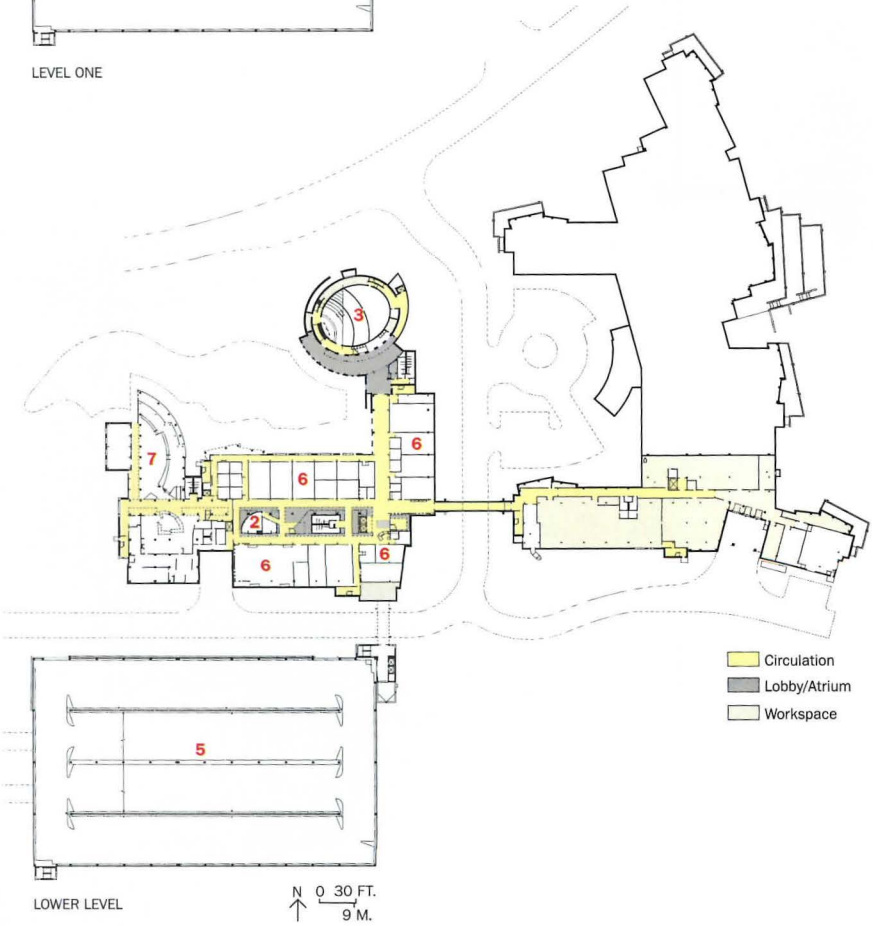
Camille LeFevre, a writer, is editor of Architecture Minnesota.

What was once conceived of as a discipline-mixing corporate headquarters in the Twin City suburbs now houses most of the operations of ADC. The entrance (right), with conference rooms stacked above, immediately expresses the collaborative intention. Additional gathering places are expressed by the projecting sections of the exterior (below), including the lofty dining area, which opens onto a terrace (opposite).

1. *Lobby*
2. *Conference*
3. *Auditorium*
4. *Fitness*
5. *Parking*
6. *Training*
7. *Dining*



LEVEL ONE



LOWER LEVEL

N 0 30 FT. 9 M.

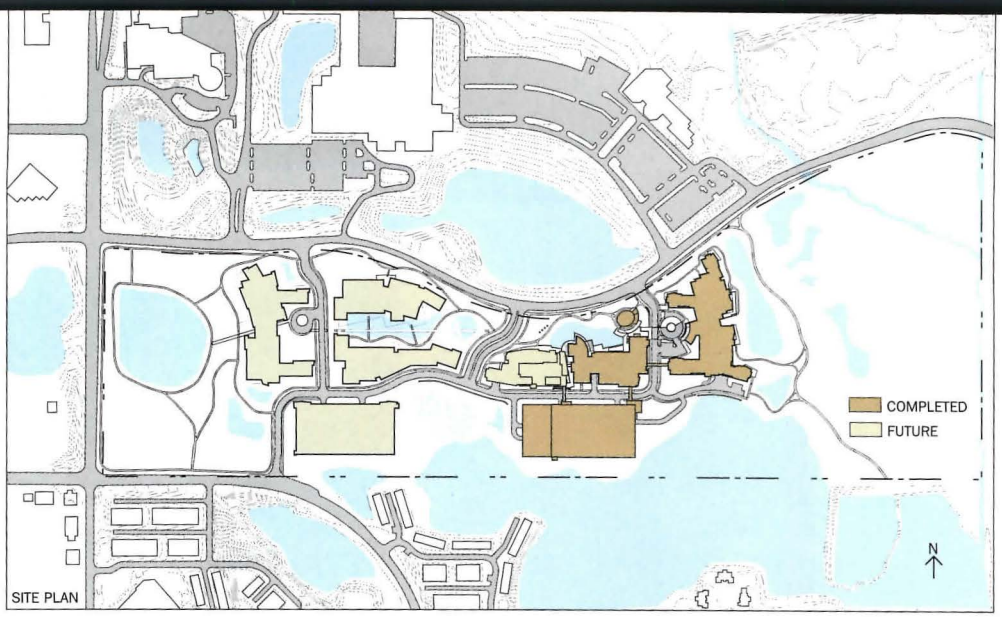
An oval, 300-person auditorium and a light-filled dining pavilion (plans, left) draw people to the edges of the complex, encouraging interaction.

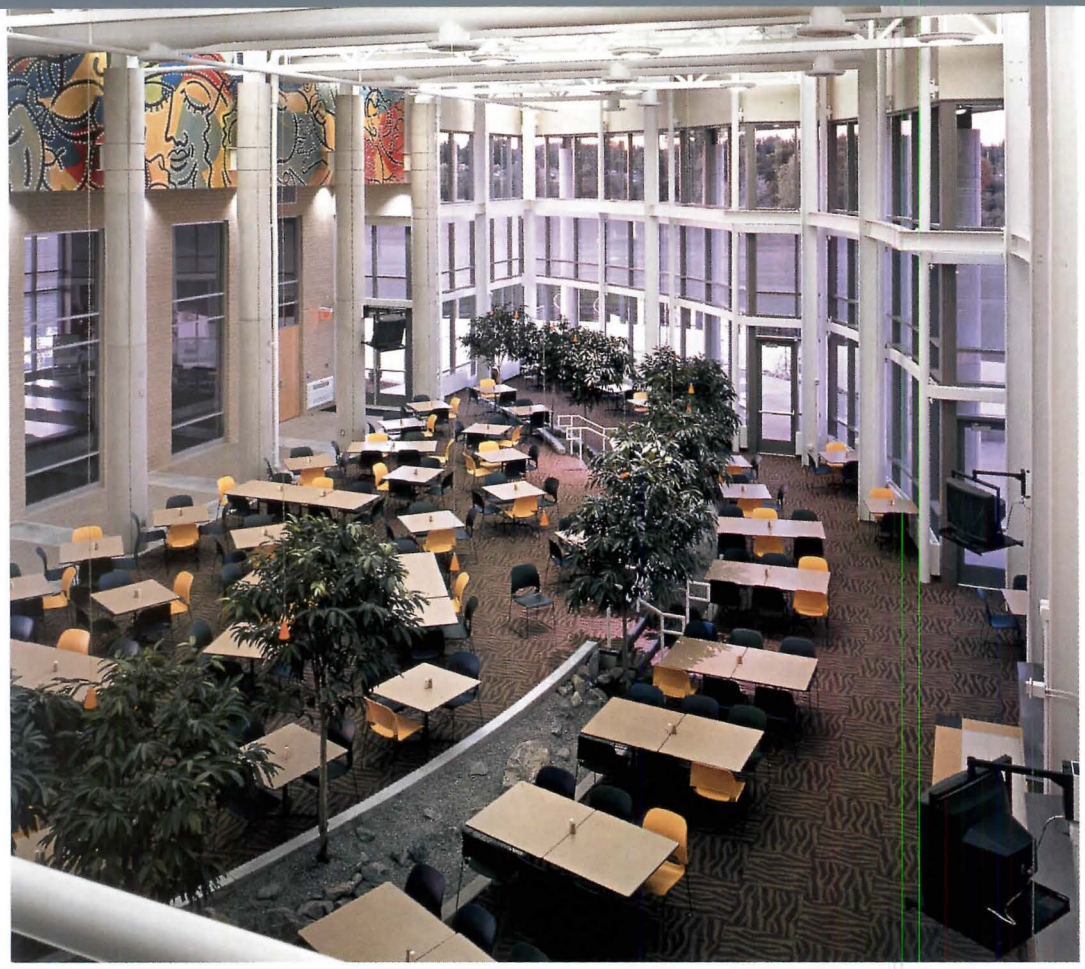
ducing an excessive amount of building perimeter (expensive in terms of construction cost and energy use).

"Employees are aware of their immediate surroundings, as well as the entire complex," Ginis says. "The goal was to design a work environment that provides a sense of place for each employee while reinforcing the notion that everyone is part of the whole." The visual connectivity is systematically supported by the open stairs and corridors, providing a plethora of opportunities for impromptu meetings.

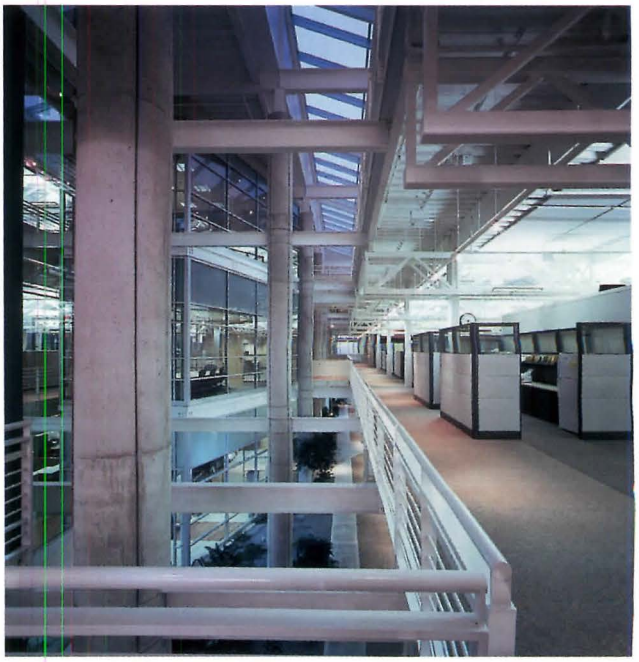
Through a combination of sustainable-design strategies—including lighting occupancy controls, high-efficiency chillers and boilers, and premium efficiency motors for fans and pumps—the ADC facility has reduced total energy use by 45 percent compared to code-performance requirements. Because the site is dotted with ponds and wildlife-sheltering marshes, the five-level parking structure took the place of extensive surface parking

With unique functions brought to the exterior and differences punctuated by the use of masonry and glass, the campus takes on a villagelike richness (below). Atria open onto terraces offering panoramic views of the pond-dotted landscape (site plan, right, and photo, opposite).





With circulation on the outside (below) and floor-to-floor heights of 16 feet, natural can light reach the deepest part of the floor. Conference rooms are stacked in an atrium (left). Light, spacious dining (above).



that would otherwise be required, while reducing runoff that could damage water quality. ADC threaded the 93-acre property with walking paths, transforming a legal obligation into an amenity.

Commentary

Before the design process was initiated, ADC employees stipulated a healthy daylit interior environment, while ADC mandated a facility that would set a new benchmark for employee recruitment and retention, and operational flexibility. On all counts, the facility beautifully delivers. With its premium indoor air quality, soaring light-filled spaces, open, fluid floor plan, and transparent boundaries between indoors and outdoors, the facility promotes a communal atmosphere both uplifting and unburdened by the low ceilings and undifferentiated fluorescent glare that is the corporate norm. The troubled telecommunications market won't make the short-term future easy for ADC. It sees this new facility as more than a tangible asset in an economy of volatile stock valuations. By offering a pleasing and invigorating environment that supports teamwork, and one that communicates a business culture of innovation and employee equity, ADC sees its campus as a significant competitive tool. ■

The extensive use of atria and glass and the exposed-steel interior structure, as in the lobby (this page), create an environment of unusual transparency—a workplace goal as well as an amenity.

Foundry Square
San Francisco, California

3 **STUDIOS ARCHITECTURE REJIGGERED THE STANDARD TECHNOBURB WORKPLACE TO TAKE ADVANTAGE OF DOWNTOWN AMENITIES.**

By Lisa Findley

Architect: *Studios Architecture—Darryl T. Roberson, FAIA, principal in charge; David M. Johnson, AIA, design team leader; Clifford Wong, Peter Buffington, Cliff Peterson, AIA, Melissa Duffy, AIA, Vera Tse, Tetsu Nagata, Jeffrey Benningfield, Joseph King, Joseph Trott, Sharon Lahr AIA, project team*
Consulting architect: *Jim Jennings Architecture*
Engineers: *Nishkian Menninger (structural); Flack + Kurtz (m/e/p)*
Consultants: *The SWA Group (landscape); Auerbach + Glasow (lighting); Israel Berger & Associates (curtain wall); Erler & Kalinowski (environmental)*

Size: *Building Two: 600,000 square feet gross with floor areas of 65,700 square feet and 37,100 square feet; Building Four: 280,000 square feet gross with floor areas of 29,100 square feet and 17,600 square feet*
Completion date: *2003*

Sources
Stone-clad wall panels: *Clark Pacific*
Curtain wall: *Architectural Glass and Aluminum*
Flooring: *Flamed Black Chinese Granite; American Terrazzo; Endicott Clay Products (brick)*
Raised access floor: *Tate*

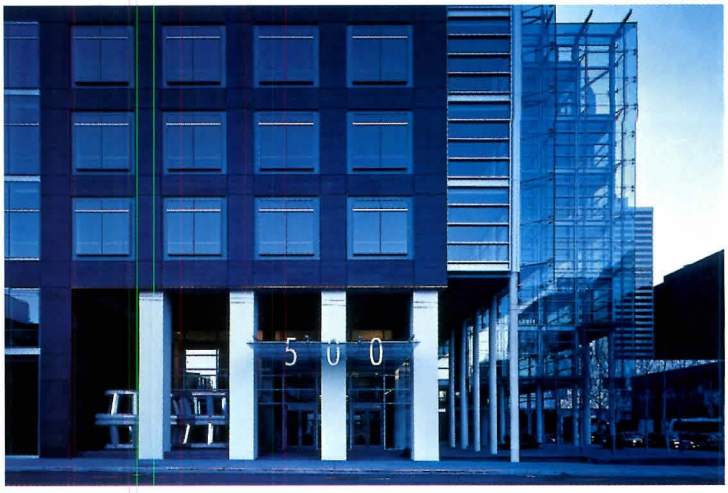
For more information about this project, go to Projects at **www.architecturalrecord.com**.

One outcome of the blossoming of high-tech office spaces in the past decade has been the discovery that creative business culture thrives when the environment enables a great deal of interaction. An increasing number of companies want to be downtown but see the chief limitation of high-rise buildings as the inability to get working groups together on the same floor. In the San Francisco Bay Area, large floor plates were easy to achieve in the office-park settings of Silicon Valley. With small parcel sizes typical of downtown San Francisco, however, buildings with generous contiguous space are rare. Developer Bill Wilson set out to capitalize on this shortage by assembling a large block of land in the South of Market neighborhood. He then hired Studios Architecture, a firm with deep experience in the Silicon Valley marketplace, to design space that made the most of in-city advantages. The result is Foundry Square.

Program

Bill Wilson is not just any developer. He is a respected art collector who lives in a house designed by San Francisco archi-

Contributing editor Lisa Findley writes about architecture and teaches at the California College of Arts and Crafts in San Francisco.



1. *Lobby*
2. *Office*
3. *Retail*
4. *Plaza*
5. *Parking/service*

An undulating roofscape signals the presence of the mid-rise Foundry Square against the high-rises of downtown and the encircling ramps of the TransBay bus terminal and Bay Bridge (below).

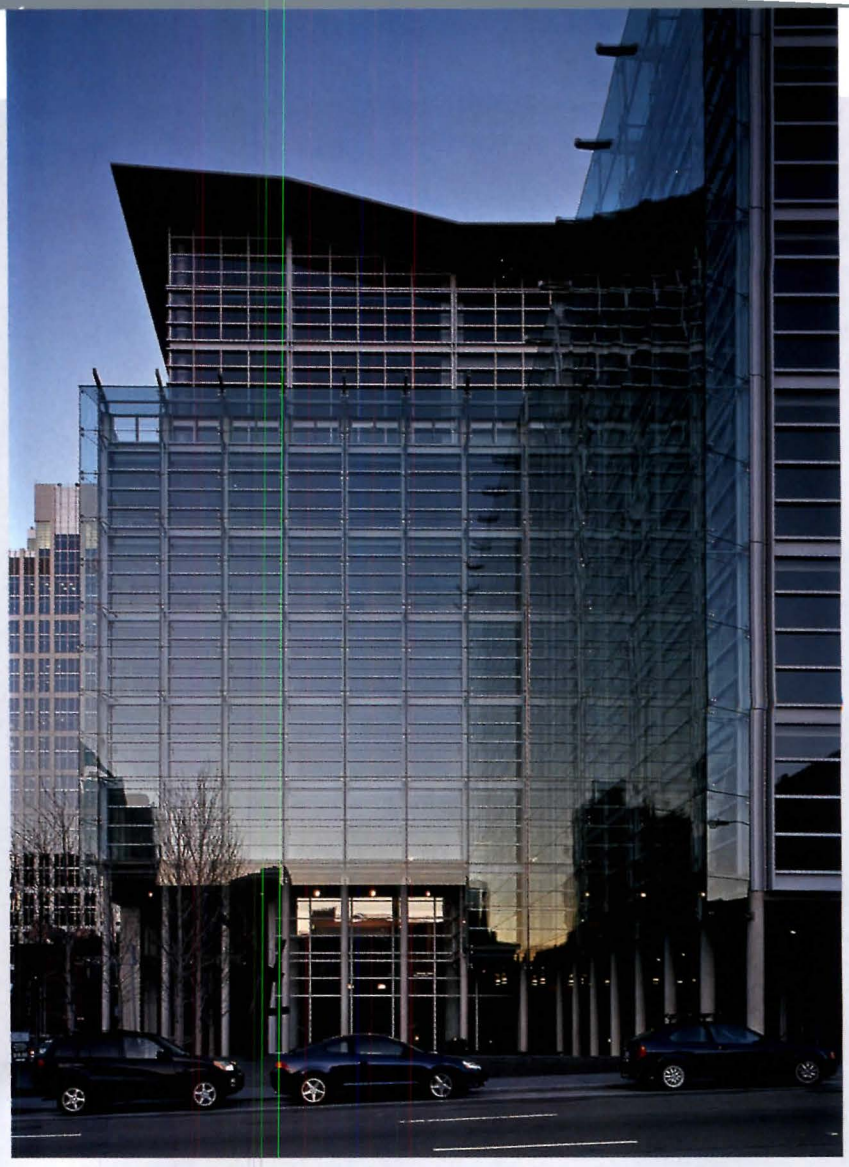
Masonry-faced concrete panels address South of Market's history of industrial-brick toughness (opposite), while double-walls of glass present a suave backdrop to intimate plazas (right).

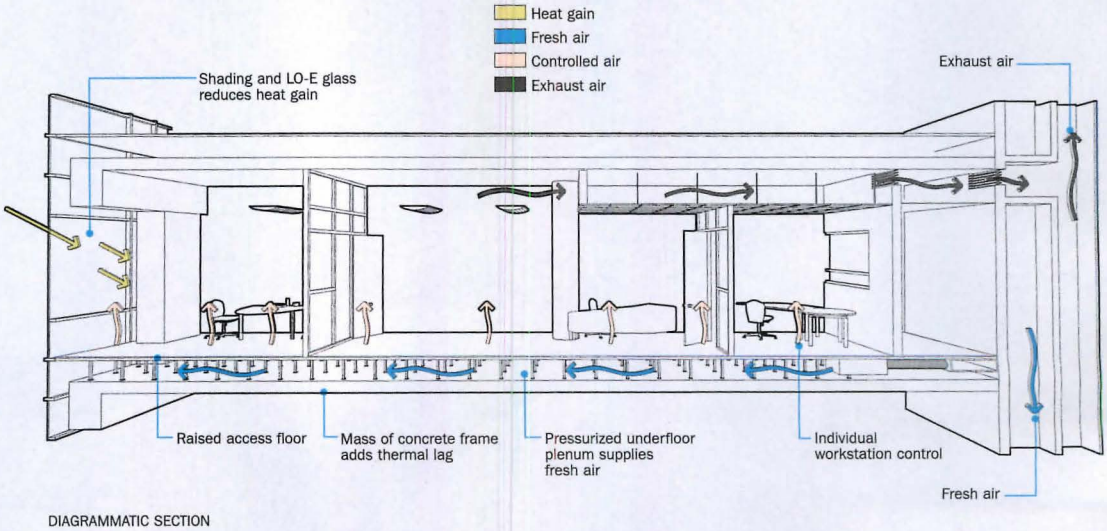
Competing on Comfort

The Foundry Square campus may be the first American speculative project to incorporate the kind of energy-conserving and amenity-enhancing technologies that have now become common in Europe.

The raised floor system, which conceals a modular, completely flexible wire-feeding system, also forms a continuous plenum pressurized with supply air (section diagram, below). Because San Francisco's climate is moderate, the system most often delivers 100 percent fresh air that is neither heated nor cooled. (The thermal lag added by the building's concrete frame further levels temperature fluctuations.) To offer the same cooling, a ceiling-delivery method would have required mechanical systems to remove 10 additional degrees of heat. The floor system allows individual control of air to every workstation. Outside air can also purge the entire building of accumulated heat during the night.

The double-wall curtain walls facing the plazas act as thermal and acoustic buffers but cannot vent exhaust air, as do many advanced European buildings, because openings from the building interior to the air space are proscribed by U.S. model building codes. (The concern is that the thermal chimney could funnel smoke and flames from floor to floor. European codes deal with this risk in a different way.) It took a year to get local officials to approve the assembly that was ultimately installed—testimony to the tenacity of both developer and architect. *L.F.*





DIAGRAMMATIC SECTION

The roof overhang and the mullion projections of the upper-level glass pavilions contribute to solar shading (above). The double-glass walls facing the plazas thermally buffer interior space while offering an ever-changing play of light and reflections (opposite and above).

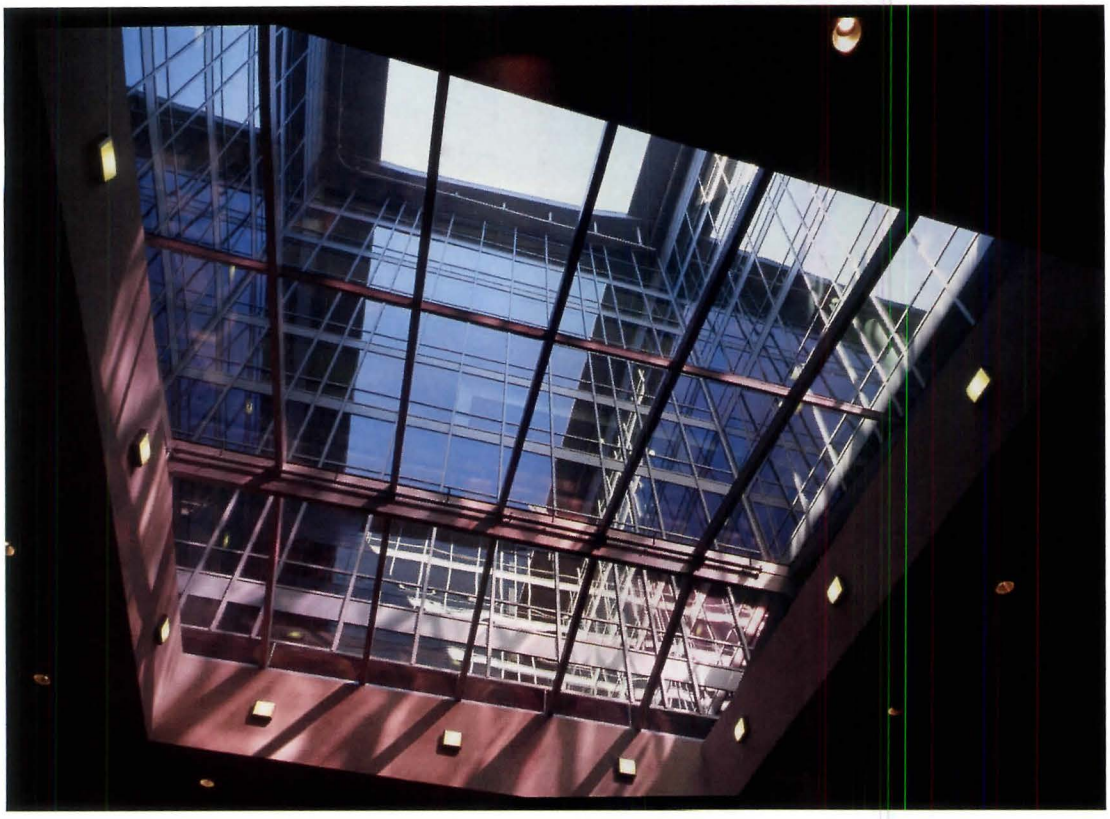
tect Jim Jennings. His high architectural ambitions for Foundry Square were clear at the outset when he hired Studios Architecture, then retained Jennings to serve as a consulting architect. And the site he put together wasn't just another vacant lot. Wilson obtained land on four corners of the intersection of First Street and Howard, the long-empty site of a foundry. The busy intersection is wrapped by looping elevated ramps dropping from the Bay Bridge to the bustling TransBay bus terminal next door.

Even at 1.25 million square feet, a mid-rise project can't assert its identity the way a high-rise can—especially in a location outside the traditional downtown core. The architects gave presence to the four-building complex through gestures that unified the four sites while recognizing the unique aspects of each. Wilson originally targeted technology and multimedia tenants, who already were comfortable in the neighborhood, with Class A office space that included underground parking, ground-floor retail, and that downtown rarity, public open space. Wilson also thought tenants would appreciate efficient and environmentally conscious building systems. (See "Competing on Comfort," page 170.)

Solution

The architects approached the design of Foundry Square on three scales simultaneously: that of the sidewalk, the street, and the city.

The architects created breathing space for the commuter throngs passing through the intersection by carving a plaza at each corner. (The open space was required by the city, but Studios could have simply pushed it all onto one site.) The result is a huge implied square that straddles the intersection. A grid of young trees planted on each corner, along with stone planters offering wide edges for sitting in the sun, enliven these spaces. A café opens onto the largest plaza from a colonnade of slender columns. The result is a handsome, 200-foot-square, glass-lined outdoor room that cars



Technology firms have embraced large, often dark floor plates in the suburbs. In housing as much as 65,700 square feet on a floor, Studios has enhanced the environment by providing loftlike floor-to-floor heights, recesses to reduce the depth of the plan, and a generous light court punched through the middle (top). Stores will open to the generous lobby. Stairs (above) reconcile a grade change.

and people pass through. In a city where most buildings resolutely hold the corner, this petite piazza surprises the passerby.

The first seven floors hug the street edges up to the height of the old warehouse buildings that still dot the neighborhood. Glassy three-story pavilions, set back, rise out of this hefty base. They reduce the apparent mass of the buildings and open to roof terraces with panoramic views. It's easy to pick out the undulating roof profile of the eight-story project from the Bay Bridge, the TransBay Terminal bus ramps, and the high-rise buildings that loom only a block away.

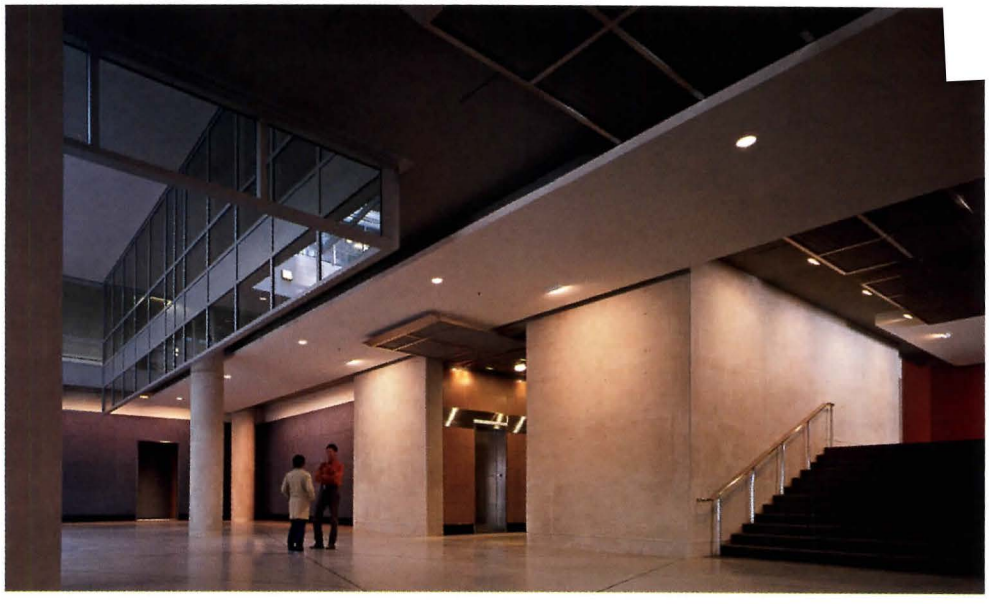
Alternating recesses and projecting curtain-wall mullions not only give the facades a tactile depth and a comfortable scale, they shade the interior. A separate, external curtain wall veils the elevations that line the square. These strategies result in a building envelope that significantly exceeds the new California Title 24 energy-performance requirements.

A 30-foot-square concrete structural grid and office floor-to-slab heights of 12 feet offer appealing and flexible space. For warehouse-chic tenants, an energy-conserving underfloor HVAC system permits the unobstructed concrete ceilings to be left exposed. On the desirable top floor, the ceilings soar under the roof's curves. A mezzanine is tucked under the highest pitch.

Commentary

The dot-com crash and the national economic slowdown has meant that only two of the four corners of Foundry Square have been finished so far. They sit opposite each other, the promised urban square bracketed but not complete enough to be easily discerned. What is easy to tell is that the project far surpasses most recent office construction in San Francisco in its sensitive detailing, design, and execution. Even in a glutted office market, it was 60 percent leased before it opened. From the top deck of the Bay Bridge, the folded roofs of the two completed buildings promise a new icon in the city. ■

The contemporary, adaptable interiors, like the lobby (this page), were targeted to technology-sector tenants. With that industry in retreat, they have proved appealing to a different class A lessee entirely: The prime tenant is a law firm.



Adidas Village
Portland, Oregon

4 **BOORA ARCHITECTS NESTLED A BOLDLY PATTERNED FIVE-BUILDING CORPORATE CAMPUS INTO A HILLY RESIDENTIAL NEIGHBORHOOD.**

By Randy Gragg

Architect: *BOORA Architects—John Meadows, AIA, Denny O'Toole, AIA, Eric Cugnart, Phill Chubb, AIA, Tom Bauer, AIA, Janet Bebb, Greg Flinders, AIA, Bronson Graff, Michael Gregg, AIA, Sallie Martinson, Randall Heeb, AIA, Jennifer Korbich, Kevin Nyhoff, Dave Perzik, AIA, Chad Schmidt, Bill Small, AIA, Amy Smith, Stuart Spafford, AIA, Chris Spurgin*
Interiors architect: *LRS Architects—Steven A. Lee, AIA, Michael Roberts, Marci Krauss, Todd Lenthe, Kevin Underwood, Sidney Hunt, Michael Lehner, Jennifer Wright-Dykhouse, Michelle Startt, Ken Dixon, Bob Easton*
Engineers: *KPFF (structural); Glumac International (mechanical); Christenson Electric*
Consultants: *David Evans & Associates and Lango Hansen Landscape Architects (landscape)*
Contractor: *R&H Construction*
Size: *360,000 square feet (offices and support); 318,000 square feet (parking)*

Sources
Metal/glass curtain wall: *Arcadia*
Metal panel: *Alucobond*
Glass: *PPG*
Acoustical ceilings: *Armstrong; Illbruck Architectural Products; Alpro Acoustics*

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

More babies were born in Bess Kaiser Medical Center than any other hospital in the city of Portland. But when the hospital moved in 1996, the building needed its own rebirth. Built in five phases over 30 years, it had been—like most hospitals—designed like a bunker, the internal connections maximized with no attention to the surrounding neighborhood. But open floor plates offering panoramic views of downtown, the Willamette River, and the forested West Hills—plus acres of parking with direct freeway access—virtually guaranteed this suburban island in the city could have a second life.

When Adidas America signed on as the new occupant, however, Portland got more than it bargained for: a bouncing baby urban village. Designed by BOORA Architects, with LRS Architects overseeing most interiors, the new Adidas Village offers a polite architectural handshake to the pre–World War II neighborhood next door while being the most exuberant architectural addition to the city since Michael Graves's Portland Building.

Program

BOORA and LRS faced no shortage of challenges. Adidas wanted 360,000 square feet, with room for future expansion to 680,000. The former hospital's 10.5-acre site was ample, but it was divided by a four-lane truck route and a 30-foot grade change, connected solely by a skybridge. While two of the hospital's existing wings had shallow, 80-foot-wide floor plates ideal for offices, vast portions of the 240,000-square-foot complex were far deeper. The existing 8-foot ceiling heights were fine for patients, but hardly the most uplifting environment for a youthful corporate creative headquarters.

As well, the designers had to reflect the company's internal ethic of equality, negating any perception of a preferred side of campus. Then-president of Adidas Steven Wynne asked for "a village" that would unify the campus and transform the drab, beige buildings into a symbol of a company devoted to sport.

Solution

Led by Eric Cugnart, BOORA's team conceived of a multitier scheme of urban connection and chromatically boisterous architecture. The finished campus comprises the renovated hospital to the west and two office buildings on the east, bracketing an iconic, elliptically shaped athletic and conference facility.

Using the grade change to advantage, BOORA designed an 830-car garage to slide into the excavated hillside, roughly retaining its former contours. Load-bearing fins face the street, providing a screen of strong vertical elements while creating bays for landscaping that eventually will further obscure

Randy Gragg is architecture critic of The Oregonian, *in Portland.*

A wide stair and a bridge over a busy street invite staff and visitors to the upper-plaza entrance to the East Village (this page), which opens onto playing fields over a parking structure (opposite).

The bright blue oval of the fitness center (top) contrasts with the boldly patterned office structures. The patterned cladding totally covers two of the new buildings except for the inexpensive slate tile anchoring their bases. On the former hospital buildings (above), the patterned skin provides only an accent (though on one elevation it entirely replaced a rotted, asbestos-laced curtain wall), creating the effect of a reflection of the new buildings on the old.

the garage's horizontal voids.

The entire east campus sits atop the parking deck, with the trio of buildings separated from the adjacent residential neighborhood by a soccer field and tennis courts. A new, gently arched concrete bridge supported by canted, contoured columns connects the campus halves at an upper level. A wedge-shaped plaza also unites the campus across the four-lane divide at the street.

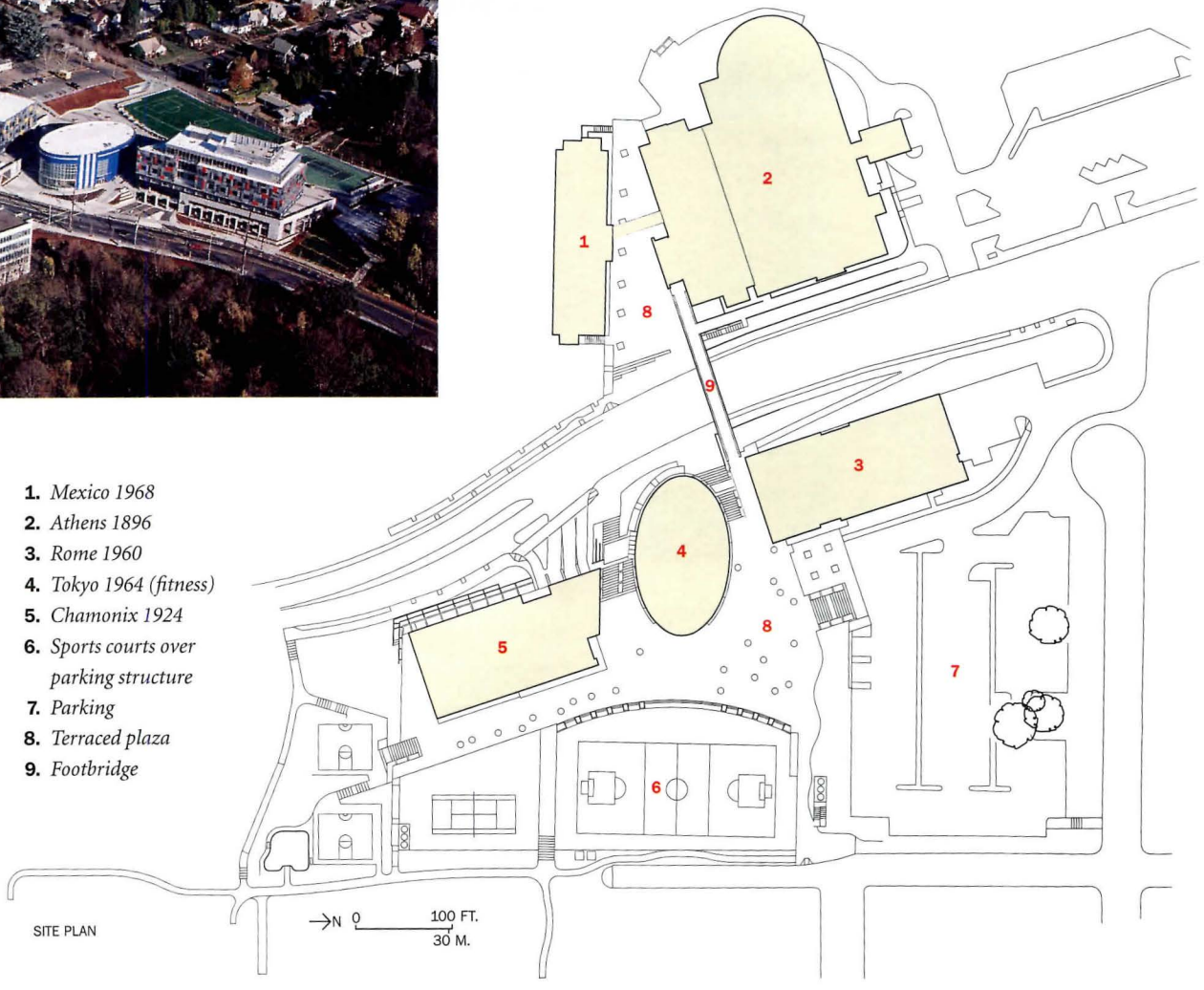
The design incorporates several measures to balance any employee preferences of old buildings over new. Adidas suggested the employee cafeteria be located in the former hospital so that every employee used the building. Cugnart convinced the company to forgo any direct elevator access for car commuters from the garage directly into the buildings. Instead, three garage elevators feed drivers through the east plaza to various building entrances, activating the plaza as commuters arrive and leave.

Further unifying the upper, lower, new, and old, is a cladding Cugnart dubbed the "active skin," designed, as he describes it, to "stretch like fabric around the volumes." Using a dry-joint system of metal panels painted with Kynar, the pattern rotates around alternating vertical and horizontal windows in a complex system of grays punctuated by a single bright color for each building, drawn from one of the seven Olympic rings. Window sizes were limited by the varied ceiling heights of the buildings, with the surrounding pattern's proportions growing or shrinking accordingly.

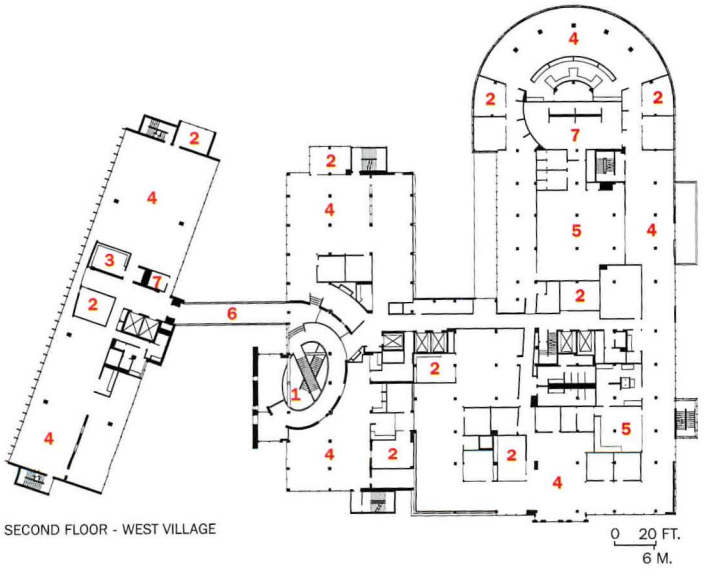
With the deep joints further articulating each panel, the active skin has the subtle complexity of an intricate masonry pattern. The athletic facility stands apart, clad in brilliant blue but inset with sneaker-like silver stripes. With the campus labeled by only two small versions of the Adidas logo, the company lets the architecture announce its presence, the 20-foot-high windows of the athletic center acting as the campus' chief advertisement.

LRS's Michael Roberts expressed what he describes as

1. *Mexico 1968*
2. *Athens 1896*
3. *Rome 1960*
4. *Tokyo 1964 (fitness)*
5. *Chamonix 1924*
6. *Sports courts over parking structure*
7. *Parking*
8. *Terraced plaza*
9. *Footbridge*



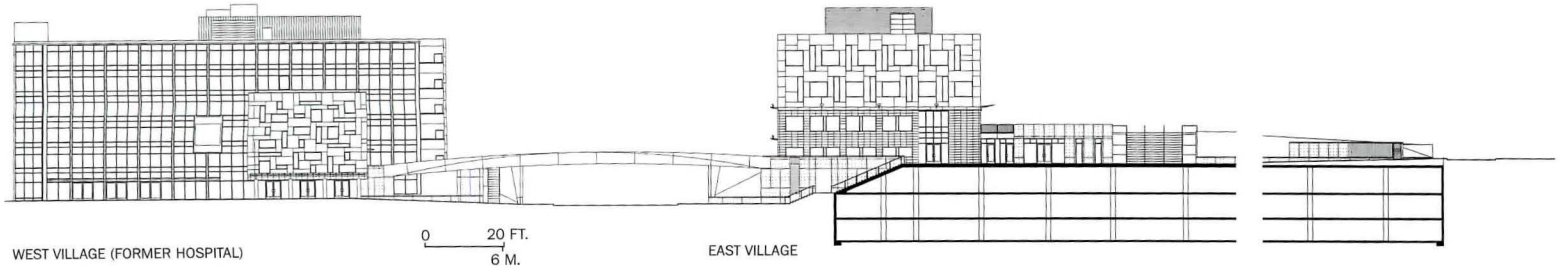
SITE PLAN



SECOND FLOOR - WEST VILLAGE

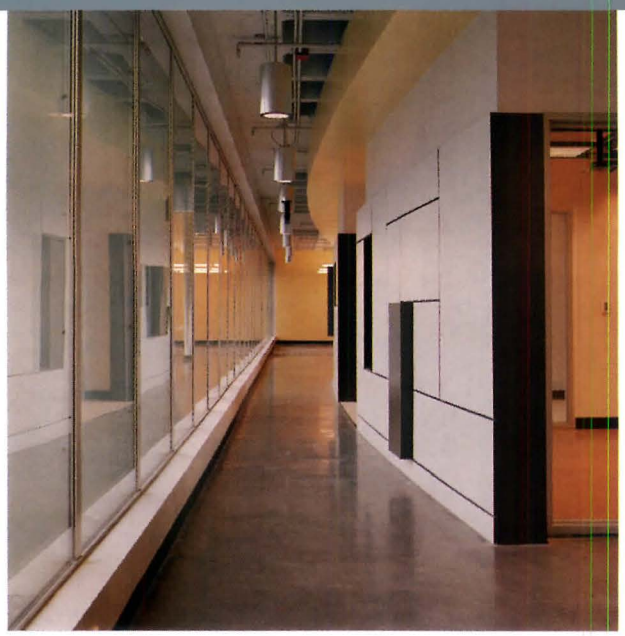
1. *Atrium*
2. *Conference room*
3. *Library*
4. *Office*
5. *Lab*
6. *Skybridge*
7. *Storage*

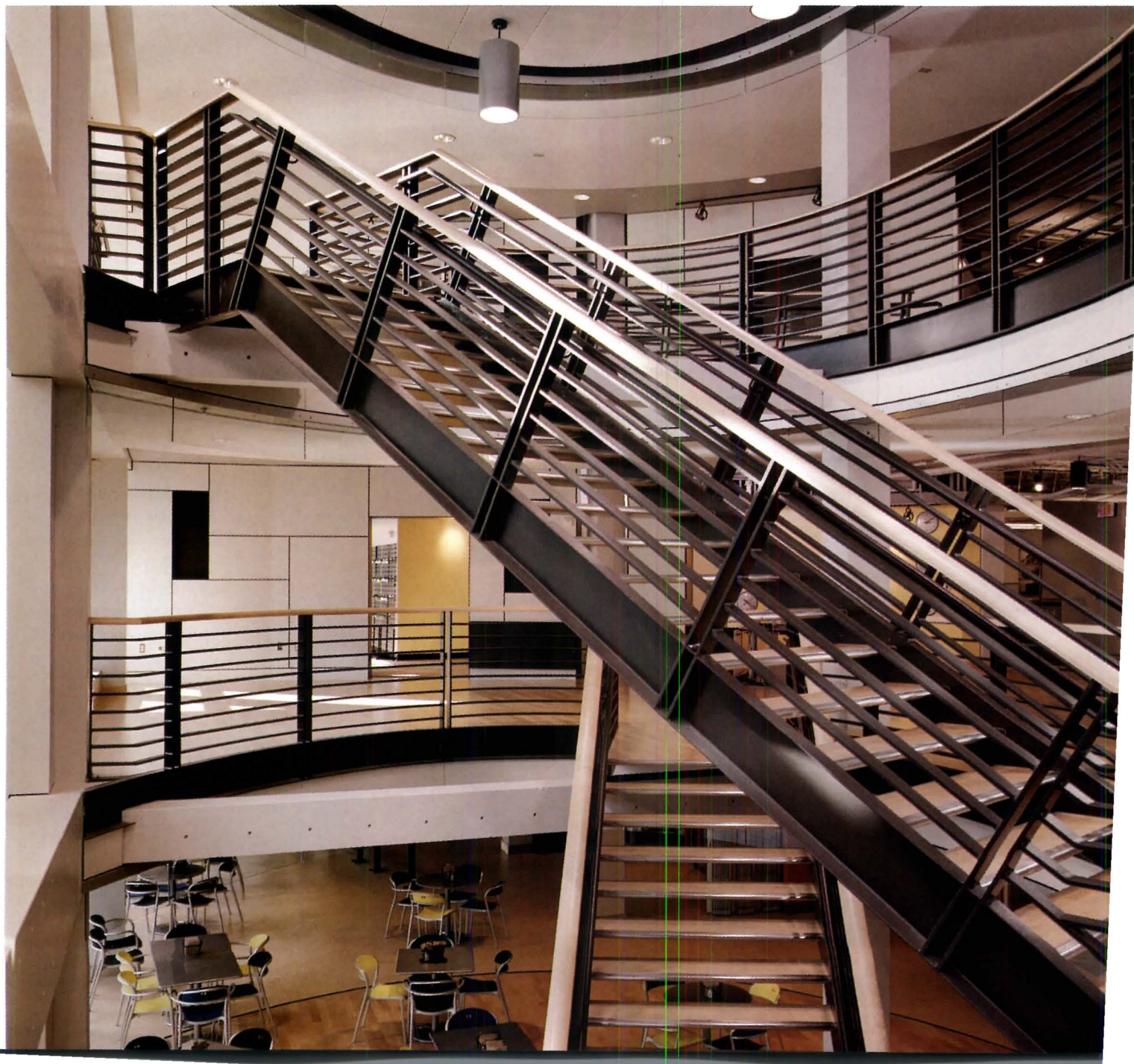
City officials vetoed BOORA's wise plan to articulate the plaza across the dividing street by pouring an inlaid walk in the asphalt. But an intimate patio at the west plaza's apex (site plan) and a gracious, Baroque-like staircase rising around the elliptically shaped athletic facility (photo, top) handily make the implied connection.



WEST VILLAGE (FORMER HOSPITAL)

EAST VILLAGE





Adidas's "corridor culture" of constant movement between departments by keeping the circulation and conference rooms at the center, saving the views for those at their desks. A double-height, elliptically shaped atrium lobby in the former hospital greets those arriving on the bridge with an echo of the athletic center. To make the best of the low ceiling heights in the former hospital, LRS kept the ductwork and wires exposed and easily accessed through black metal grates reminiscent of gym-locker doors. Circular, double-height gathering areas help break up the sprawling floor plates of the old hospital's lower levels. The circle motif is echoed in cutouts in the new seismic sheer walls on each floor.

Inside the athletic facility, Cugnart designed an innovative sunshade system comprising 170 2-foot-by-20-foot louvers made of lightweight aluminum skin sandwiching paper honeycombs. Swiveling on vertical pivots and rods, they move, six at a time, with no more effort than a push of a finger, to either mitigate the sun's rays or darken the room entirely for company presentations.

Largely designed before LEED certification, the campus nevertheless won local certification by Portland General Electric's Earth Advantage program for the recycling of construction refuse, reuse of the old mechanical systems, and energy efficiency.

LRS made the most of the company's "corridor culture" of informal idea-sharing by offering appealing places to pause, as at the low-ceilinged lobby in the former hospital (below) and on the atrium stair (opposite, bottom). High glass walls, protected by winglike pivoting louvers (right and opposite, top) open into the fitness center, "advertising" the company's purpose to passersby.

Commentary

While the interiors are gracious and the views stunning, the greatest successes of the Adidas Village are its benefits for the neighborhood, the city, and the Adidas brand. In stark contrast to the famously bermed suburban campus of its local competitor, Nike, the new Adidas America headquarters offers an urban version of the corporate campus. Cugnart describes his design as "friendly Modern architecture that doesn't compromise." Indeed, it respects the surrounding neighborhood without stooping to palliative domestic touches—boldly embracing the city while proudly standing out. ■

Cité Multimédia Phase 8
Montreal, Canada

5 **DUPUIS LE TOURNEUX SIGNALS AN INDUSTRIAL DISTRICT'S HIGH-TECH FUTURE WITH A TRANSLUCENT VEIL OF PATTERNED GLASS.**

By Rhys Phillips

Architect: *Menkes Shooner Dagenais/Dupuis Le Tourneux Architects—Anik Shooner, Jean-Pierre Le Tourneux, Benoît Dupuis, Julie Morin, Paolo Zasso, Alain Boudrias, Isabelle Landry, Alexandre Parmentier, Guillaume DeLorimier, Anne-Sophie Allard, Benoît Gérard, Caroline Élias, Catherine Bélanger, Dominique Genest, Harvens Piou, Isabelle Roy, Marc Aubry, Marc-Antoine Larose, Pierre Gervais, Réal Leblanc, Robert Dequoy, Stéphanie Bastien, Sylvain Gagné, Vincent Lauzon, Yvon Lachance*
Engineers: *Nicolet Chartrand Knoll, Martoni Cyr & Associates (structural); Leroux, Beaudoin, Hurens & Associates, Bouthillette, Parizeau & Associates (mechanical); Énerpro (electrical)*
Contractor: *Verreault/Marton*

Size: *377,000 square feet*
Cost: *$33.8 million (Canadian)*

Sources
Masonry: *Endicott*
Curtain wall: *Thermalite*
Metal windows and doors: *Industries Gamma*
Metal cladding: *VM Zinc*
Tile: *Ceragres/Tuiles Cremazie*
Resilient floor: *Forbo*
Lighting: *Novus; Lightolier*

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

Cité Multimédia is a major urban redevelopment initiative in Montreal's Faubourg des Récollets district. Located west of the city's old town and immediately north of the now-restored Lachine Canal, this historic industrial area bustled during the 19th and early 20th centuries, then slipped into decline. An intrusive off-ramp terminating the Bonaventure freeway as it careens into Montreal's core did little to help.

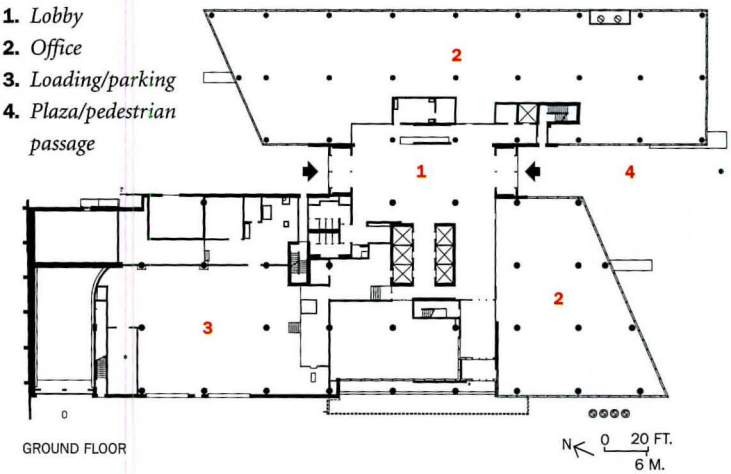
In 1998, however, the city's public land development corporation formed a partnership with the Quebec government's public-investment fund and the Quebec Labour Unions' Economic Development Fund to redevelop the area as a business-incubator hub focused on high-tech media. To date, eight buildings have been realized within an urban plan, by Groupe Cardinal Hardy with Provencher Roy and Associates, that retains both the district's historic industrial buildings and the Faubourg's intimate street scale and low-rise building pattern.

Program

Phase Eight, designed by Dupuis Le Tourneux Architects in partnership with Menkes Shooner Dagenais Architects, is the second of three

Rhys Phillips writes about architecture and urban design and was recently inducted as an Honorary Fellow of the Royal Architectural Institute of Canada.

1. *Lobby*
2. *Office*
3. *Loading/parking*
4. *Plaza/pedestrian passage*



planned buildings intended to form a protective screen in front of the freeway. Given its location below the elevated bend of the off-ramp, the city demanded an architectural "billboard" signaling the presence of the Cité Multimédia and a clear gateway to the downtown core.

Equally important, the design had to respect and enhance the area's remarkably intimate urban fabric of narrow streets and relatively low buildings while providing marketable, flexible, and humane working space.

Solution

The architects first convinced the city to abandon its initial requirement for a 12-story tower and return to the urban design plan's idea of compact, linked volumes. They convinced officials that a lower building could, with another planned building on the west side of the highway, create the powerful emblem the city desired.

Dupuis and Le Tourneux split the complex into two parallel slabs pushed out to the street edges (plan, above). On the eight-story wing, facing west, a glass-screen facade seems almost to float above the highway like a giant suspended plasma screen animated by the profiles of workers moving behind its ceramic-frit, patterned glass (opposite). "We like to work with different layers and transparencies of architectural skins that separate the users from the environment but create a sense of seeing and being seen," says Jean-Pierre Le Tourneux. At the same time, its pattern alludes to a giant printed circuit board.

The scale and materials of the lower wing, a five-story, Minimalist, brick-and-zinc box punched with large

A lobby and pedestrian passage (right) from outdoor plazas (plan, opposite) separates the zinc-clad, eight-story wing from its five-story, masonry-faced, punch-windowed partner (below). The glass "circuit board" signals the Faubourg's new "industry" (far right).

windows, reflects the scale, simplicity, and materiality of its historic industrial neighbors. "By lowering the scale of this side of the complex," says Le Tourneux, "we protected the existing scale of the inner neighborhood and the intimacy of its lanelike streets."

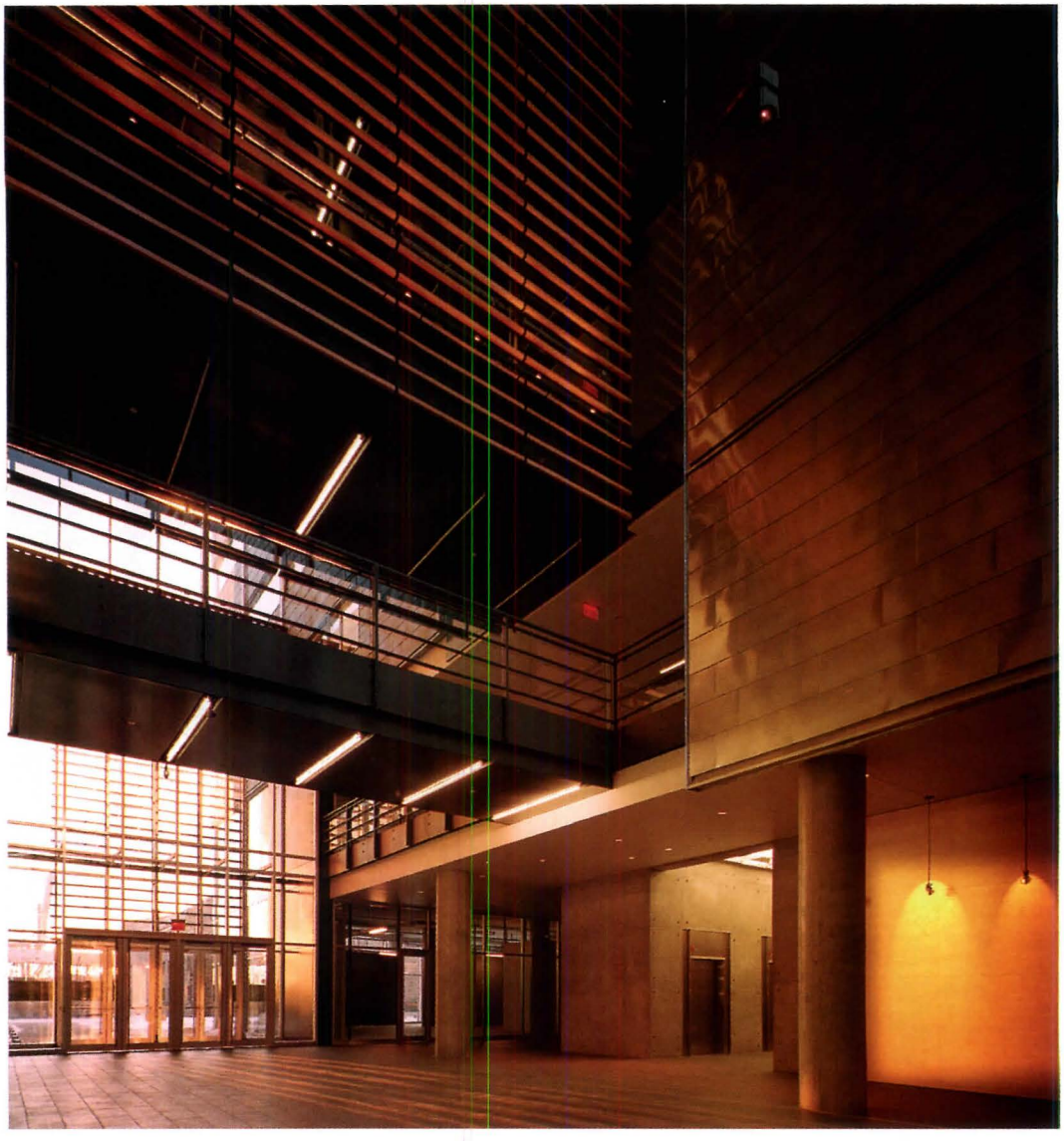
Because long north–south blocks dominate the Faubourg, Cité Multimédia buildings have been careful to introduce a secondary grid of east–west pedestrian lanes. With Phase Eight, the architects sliced back the north end of the shorter wing and the south end of the larger wing, echoing the diagonal of nearby Rue Wellington. Imposing, bladelike corners result, extending a semienclosed court across one street as well as beckoning strollers from a broad entry plaza across Rue Brennan at the edge of the canal. Into the gap between the street-hugging slabs, the design team inserted a five-story glass connecting atrium.

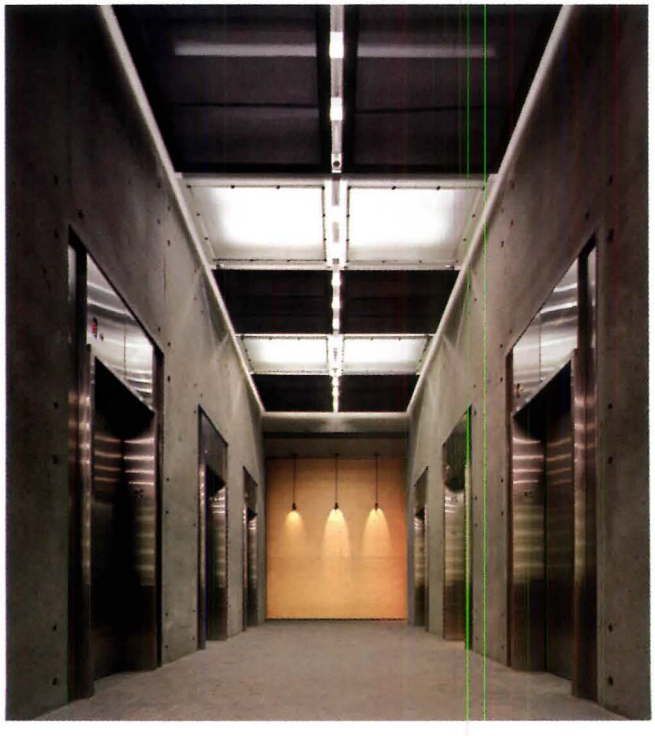
By breaking down the two volumes into relatively narrow, staggered slabs, the architects ensure no occupant is more than 33 feet from natural light as well as picturesque views of Montreal's skyline, canal, and harbor.

"It is a simple building, but with great attention to its plan and a few repeated details," explains project architect Anik Shooner.

Commentary

Phase Eight is a success, from its urban-savvy plan to such details as the iron oxide in the dark gray brick that responds to Montreal's unique winter morning sunlight by turning nuanced shades of yellow. The simple, unadorned massing elegantly complements the Faubourg's 19th-century stone warehouses. In making a transparent atrium and in the all-glass ground level, Dupuis and Le Tourneux have provided a counterpoint of lightness and openness that relieves the narrow streets lined by dark industrial buildings. The patterned-glass screen not only adds a little function-specific imagery, it succeeds in creating a memorable insignia of the Faubourg's new life. ■





A single service core in the larger structure economically serves both wings through open bridges spanning the transparent, public atrium space (above). Screens of Eastern white cedar soften the building's industrial palette (elevator lobby, left). At night, a slice of light glows from between the two wings.

International Village
Vancouver, British Columbia

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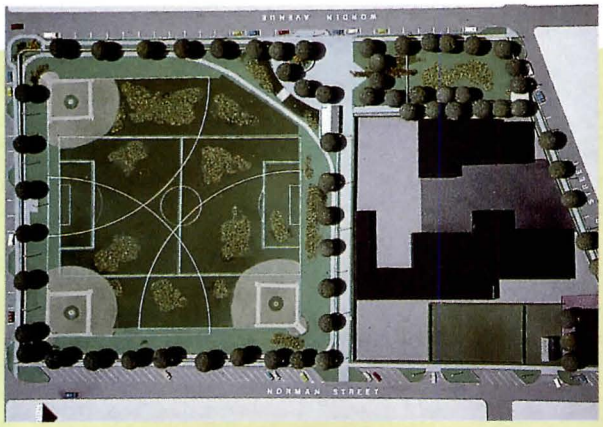


Donald Watson, FAIA, facilitated community participation in the design of Went Field. The original park (above) was surrounded by brownfields. The new park (right) was enlarged after the contaminated land was cleared and cleaned up.

By Nancy B. Solomon, AIA

The times they are a-changin': Not too long ago, the word *brownfield* would send developers scampering away, not wanting to get involved in potentially contaminated sites. And architects would stay clear of the topic for the usual liability reasons. But today, more and more brownfields are being remediated and redeveloped, and architects are finding ways to contribute to this potentially complex endeavor. Says Daniel F. Hellmuth, AIA, of Hellmuth & Bicknese Architects in St. Louis, "We jump for joy when we find a brownfield that can be developed for a project."

The reasons for this shift are many. The environmental benefit of reusing already disturbed property instead of virgin land has been increasingly emphasized through the growing sustainable-design movement and the various "smart growth" initiatives across the country. The U.S. Green Building Council's LEED certification system, for example, gives points to a project situated on a former brownfield because it allows for rehabilitation of damaged land while reducing pressure on undeveloped property. State tax incentives and other financial assistance are also luring developers in. And improved technology and more streamlined remediation strategies have facilitated the actual process of sampling, analyzing, and cleaning up.

Brownfields reclamation gained increasing recognition on January 11, 2002, when President George W. Bush signed The Small Business Liability Relief and Brownfields Revitalization Act. The bill provides liability protection for prospective purchasers, contiguous property owners, and innocent landowners, and authorizes increased funding for state and local programs that assess and clean up brownfields.

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

Some basics

According to the U.S. Environmental Protection Agency, brownfield sites are "abandoned, idled, or underused industrial and commercial facilities where expansion or redevelopment is complicated by real or perceived environmental contamination." A brownfield, therefore, can range from a dilapidated but harmless property to a highly toxic Superfund site. The agency estimates that there are between 500,000 and one million brownfields in the United States.

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

CONTINUING EDUCATION

Use the following learning objectives to focus your study while reading this month's ARCHITECTURAL RECORD/ AIA Continuing Education article. To receive credit, turn to page 192 and follow the instructions.

LEARNING OBJECTIVES

After reading this article, you should be able to:

1. *Explain the impact of recent legislation on brownfield development.*
2. *Discuss the process of developing brownfield sites.*
3. *Identify brownfield remediation techniques and practices.*

Because the degree and type of contamination ranges greatly on these lands—from none to severe—potential developers must consider each site individually, weighing its advantages and liabilities and the financial and technical assistance that may be available to bring it up to acceptable standards.

The first step in the brownfield process should be familiar to most architects: When a client or developer is considering buying any existing structure, it has become good business practice to hire an environmental engineer to test for lead and asbestos. An environmental assessment for a potential brownfield site is no different, except broader in scope. Says Tom Liebel, AIA, associate architect at Design Collective in Baltimore, "It's simply a matter of adding to the list of things to investigate and possibly abate."

ASTM has developed protocols for these assessments, which typically consist of two phases. In Phase I, an environmental consultant researches historic and current uses of the site through visual inspection, documents, and interviews. If such research indicates activities associated with possible toxic materials, the environmental consultant proceeds to phase 2—sampling soil, soil gas, groundwater, surface water, or sediment, depending on the results of phase 1—to determine the type and quantity of contaminants.

Next, a work plan is developed that outlines how the site will be cleaned up for the intended use in accordance with EPA's prescriptive standards plus any additional state requirements. An owner or potential owner could elect to undertake this cleanup himself or, if available, apply to the state's voluntary brownfield cleanup program. If the latter, the state would review the work plan and request changes as necessary. Once the work plan was accepted by the public agency, the developer would be eligible for various tax credits, grants, or loans—depending on the state program—to help with cleanup costs. In some cases, explains Kevin McGrew, St. Louis's federal brownfield coordinator, tax credits alone can cover the entire cost of remediation. Once the approved work plan is implemented, the state provides the developer with a letter certifying that the work has met its standards for cleanup. "It's a good piece of documentation in case you want to sell the property in the future," notes McGrew.

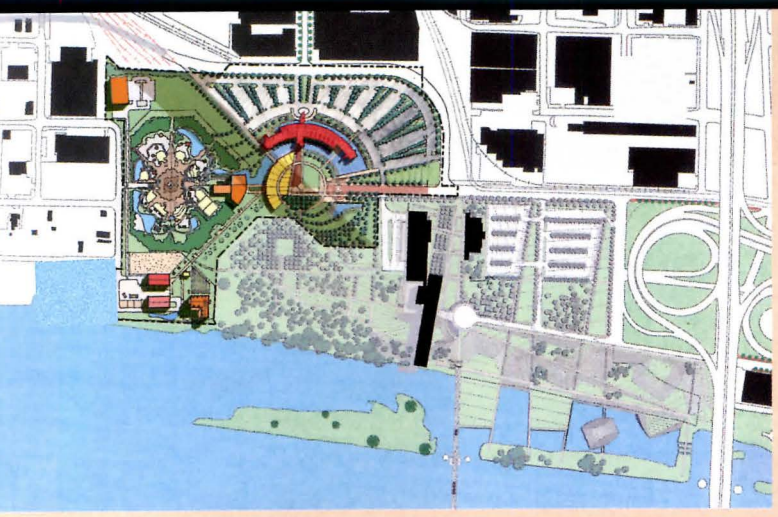
ONCE THE WORK PLAN WAS ACCEPTED BY THE PUBLIC AGENCY, THE DEVELOPER WOULD BE ELIGIBLE FOR VARIOUS TAX CREDITS, GRANTS, OR LOANS.

In addition, according to the 2002 brownfield legislation, if EPA has determined that the cleanup of a particular site can be monitored at the state level, the federal agency will relinquish power of enforcement for that site to the state unless deemed necessary due to an imminent danger. "That is a major change," observes attorney Baerbel Schiller of the law firm Spencer Fane Britt and Browne in Kansas City, Missouri. In the past, owners who had cleaned up a site according to the state's standards had little assurance that it was acceptable to

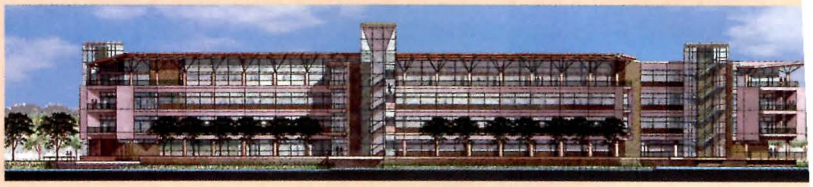
REMEDIES FOR TYPES OF CONTAMINANTS FOUND AT TYPICAL BROWNFIELDS SITES

CONTAMINANT TYPE*	SOILS, SEDIMENTS, AND SLUDGES	GROUNDWATER, SURFACE WATER, AND LEACHATE
FUELS AND NON-HALOGENATED VOCS (GASOLINE, DIESEL, MOTOR OIL, BTEX, ACETONE, TPH, PAH)	BIOPILE; BIOVENTING; INCINERATION; NATURAL ATTENUATION; SOIL FLUSHING; SOIL VAPOR EXTRACTION (SVE); SOLIDIFICATION/STABILIZATION; SOIL WASHING; THERMAL DESORPTION	AIR SPARGING; BIOSLURPING; BIOSPARGING; BIOREACTORS; DUAL-PHASE EXTRACTION; PERMEABLE REACTIVE BARRIERS; PHYTOREMEDIATION; UV OXIDATION
HALOGENATED VOCS (PCE, TCE, VINYL CHLORIDE)	BIOVENTING, BIOREMEDIATION; SOLVENT EXTRACTION	AIR SPARGING DUAL-PHASE EXTRACTION; PERMEABLE REACTIVE BARRIERS; PUMP AND TREAT
NON-HALOGENATED SVOCS (CHRYSENE, NAPHTHALENE, PHENANTHRENE, PYRENE)	SOLVENT EXTRACTION; THERMAL DESORPTION; THERMALLY ENHANCED SVE	BIOREACTORS; BIOSLURPING PERMEABLE REACTIVE BARRIERS; SOIL/STEAM FLUSHING
HALOGENATED SVOCS (CHLORDANE, PCBS, PCP, DIOXINS, FURANS, PESTICIDES)	INCINERATION; THERMAL DESORPTION; THERMALLY ENHANCED SVE	BIOREACTORS; BIOSLURPING PERMEABLE REACTIVE BARRIERS
INORGANIC COMPOUNDS (ARSENIC, CADMIUM, CHROMIUM, MERCURY, LEAD)	CHEMICAL OXIDATION/REDUCTION; ELECTROKINETIC SEPARATION; SOIL FLUSHING; SOIL WASHING; SOLIDIFICATION/STABILIZATION; PHYTOREMEDIATION; SOLVENT EXTRACTION	PERMEABLE REACTIVE BARRIERS; PHYTOREMEDIATION; PUMP AND TREAT USING ION EXCHANGE FOR ADSORPTION
EXPLOSIVES (TNT, RDX, HMX)	BIOREMEDIATION; SOIL WASHING; SOLVENT EXTRACTION; THERMAL DESORPTION	BIOREACTOR PERMEABLE REACTIVE BARRIERS; PHYTOREMEDIATION
OXYGENATES (MTBE, ETHANOL, ETBE, TAME)	SVE; THERMAL DESORPTION; BIOREMEDIATION	PUMP AND TREAT USING GRANULAR ACTIVATED CARBON (GAC); AIR SPARGING; BIOREMEDIATION; CHEMICAL OXIDATION; DUAL-PHASE EXTRACTION

* The contaminants in *parentheses are examples* of each type of contaminant.



The Heifer's site (below left) was once bisected by a railroad switching yard (plan, left). This swath will form a buffer between the proposed headquarters (below) and outdoor exhibition space. A wetland (bottom) will be constructed around the office building.



CASE STUDY

Heifer International Center, Little Rock, Arkansas. Estimated date of completion: 2005

A nonprofit organization, Heifer International facilitates donations of farm animals to poor families in undeveloped countries to foster self-reliance. Consistent with its global mission of sustainability, it is building an environmentally sensitive headquarters on a 30-acre urban site that includes remnants of an abandoned trucking company and a railroad switching yard. The property is near the Clinton Presidential Library site and the Arkansas River.

According to Gerald Cound, Heifer's director of facilities, "This is a great location for us: near the river, the city, the library. Once we got into the site and understood its problems, we decided it would be part of the story we tell, so that we can encourage others to do the same elsewhere."

Heifer started its cleanup by removing underground diesel supply lines from the trucking area, in keeping with state regulations. Much of the excavated, diesel-contaminated soil, however, still sits on the site. They also began demolishing existing structures and crushing the concrete into gravel, to be reused on site as the base for a new parking lot.

Heifer hired Ecologic, an environmental consulting firm in Little Rock, to undertake an initial assessment of the property. In the subsurface soils of the switching yard, which bisects the property, they found a residual amount of polycyclic aromatic hydrocarbons (PAHs)—probably from the deterioration of railroad ties, which had been removed by a previous owner. In the southwest corner, around the site of the trucking company, they found a layer of asphalt about 3 feet below the surface. Here, they also found an inconsistent mixture of low-level contaminants—probably due to unclean fill delivered to the site to level the area.

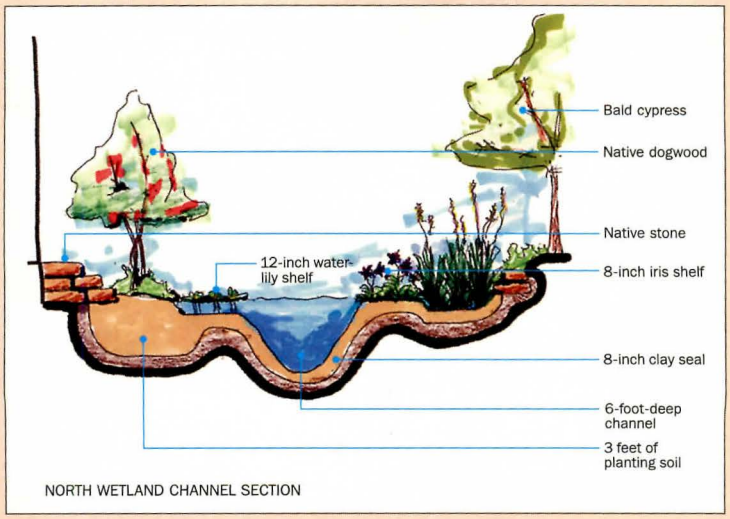
Anne Woker, president of Ecologic, recommended that Heifer conduct a more thorough site assessment and remediation plan only after design development was complete. "When you have the time, you should target the comprehensive site assessment to the planned use. Otherwise, you can waste a lot of money pin-cushioning the entire site," she says.

So the ball went into the architect's court: Polk Stanley Yeary Architects of Little Rock developed the master plan. The old rail yard became a logical buffer between a more formal, industrialized headquarters to the southwest and exterior exhibits of underdeveloped nations, to be designed by Cambridge Seven Associates in Cambridge, Massachusetts, on the northeast. Straddling the two worlds will be a visitor center. The old rail yard will include constructed wetlands to filter storm-water runoff—thereby cleaning the site of future pollutants—and provide habitat for native flora and fauna. The architects phased construction so that the headquarters could be built on what is thought to be relatively clean ground while the truck and rail yard sites are remediated. The visitor center will be built after remediation is complete.

Ecologic will now undertake a comprehensive site assessment, which Heifer will submit to the Arkansas Department of Environmental Quality (ADEQ). Following ADEQ's approval, Ecologic will provide the department with a property development plan, which will present the compatibility of Heifer's planned use of the site to its existing environmental conditions and will propose specific remedial actions if needed. Once ADEQ accepts this plan, remediation and construction may begin.

In all likelihood, predicts Woker, some of the shallow soils will be excavated and tested to determine their final destination. The diesel-contaminated soil already excavated may be landfarmed on-site—in other words, aerated so that volatile hydrocarbons will be released—before being disposed of off-site. The layer of asphalt and miscellaneous, low-level contaminants in the old trucking area will probably remain in situ, safely capped below several feet of clean fill and a new parking surface.

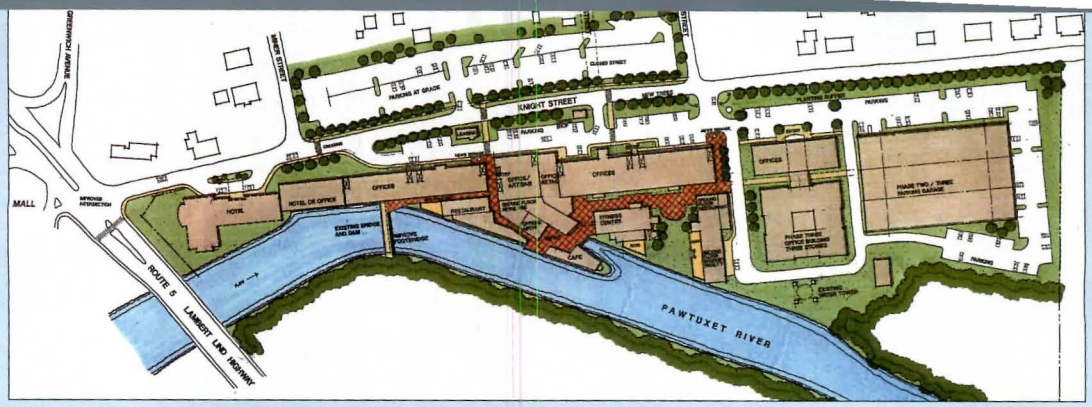
"It will be a risk-based assessment," notes Woker. "This process supports development in a way that is crucial for revitalizing downtown areas." *N.B.S.*



NORTH WETLAND CHANNEL SECTION

CASE STUDY

Historic Pontiac Mills, Warwick, Rhode Island. Estimated date of completion: not available



Historic Pontiac Mills (left), once home to Fruit of the Loom, is to be converted into multipurpose spaces (master plan, above).

The firm of D'Agostino Izzo Quirk Architects (D'AIQ), based in Somerville, Massachusetts, has taken a prominent role in addressing brownfield conditions at Historic Pontiac Mills, in Warwick, Rhode Island. The 350,000-square-foot site along the Pawtuxet River was home to the original Fruit of the Loom textile mill, dating back to the mid-1800s. Production stopped in the 1970s.

In 1986, a landfill east of the property was designated by EPA as a potential hazardous-waste site; a tiny portion of this landfill extended onto the Pontiac Mills site. In addition, fuel oil, arsenic, beryllium, and lead were found in other locations. The property owners at the time wanted to sell, but no lender would touch such a site unless it also received brownfield designation.

In 1996, D'AIQ began helping a developer interested in the property. Neither had prior experience with brownfields. "But we had experience with other types of consultants," says project architect John Giangregorio, a principal at D'AIQ. The architecture firm found an environmental engineer with whom they felt comfortable, and so began the complex process.

Although the first developer never exercised his option to buy, nor did a second developer for whom D'AIQ also worked, the firm gradually became attached to the site. Explains Giangregorio, "We had been developing good relationships with the town while shepherding the various master plans through the city development process." So when the third developer put an option on the property, they too hired D'AIQ and the team of technical consultants that they had cultivated over the years. This third developer, Hampton Hodges, bought the property in January 2003, soon after the brownfields settlement agreement was reached.

The architecture firm managed the whole project. "Environmental engineers take a narrower focus: If they can satisfy the state's department of environment, their job is done." The environmental engineer worked directly for the developer, so the architect had no liability for that part of the work. The civil engineer and landscape architect worked under the architect. All four professionals—with their varying expertise—looked at options together.

The most recent master plan calls for the conversion of existing structures into office, hotel, and retail spaces. New construction will include a portion of the hotel complex and a three-story office building. The project will be implemented in three phases, progressing from the west side, which requires minimal environmental remediation, to the more complicated cleanup on the east. In this way, the owner will begin to generate income from the development in one phase to undertake the more costly remediation in the next.

The design team negotiated with the Rhode Island Department of Development to cap the landfill portion of the site—which, as it turned out, only contained relatively nonhazardous automobile fluff and textile remnants—rather than excavate and remove it, and to build the parking in phases. Two layers of asphalt matching the footprint of the planned garage will be applied as an impermeable cap over the northern portion of the landfill in the first phase of construction. The southern portion will be covered by an impermeable membrane sheet and 18 inches of soil supporting low-growing vegetation. Piles, which will minimize disturbance of the contaminants and extend deep enough below the landfill to more stable ground, will be driven for the garage's foundation at the beginning of the second phase.

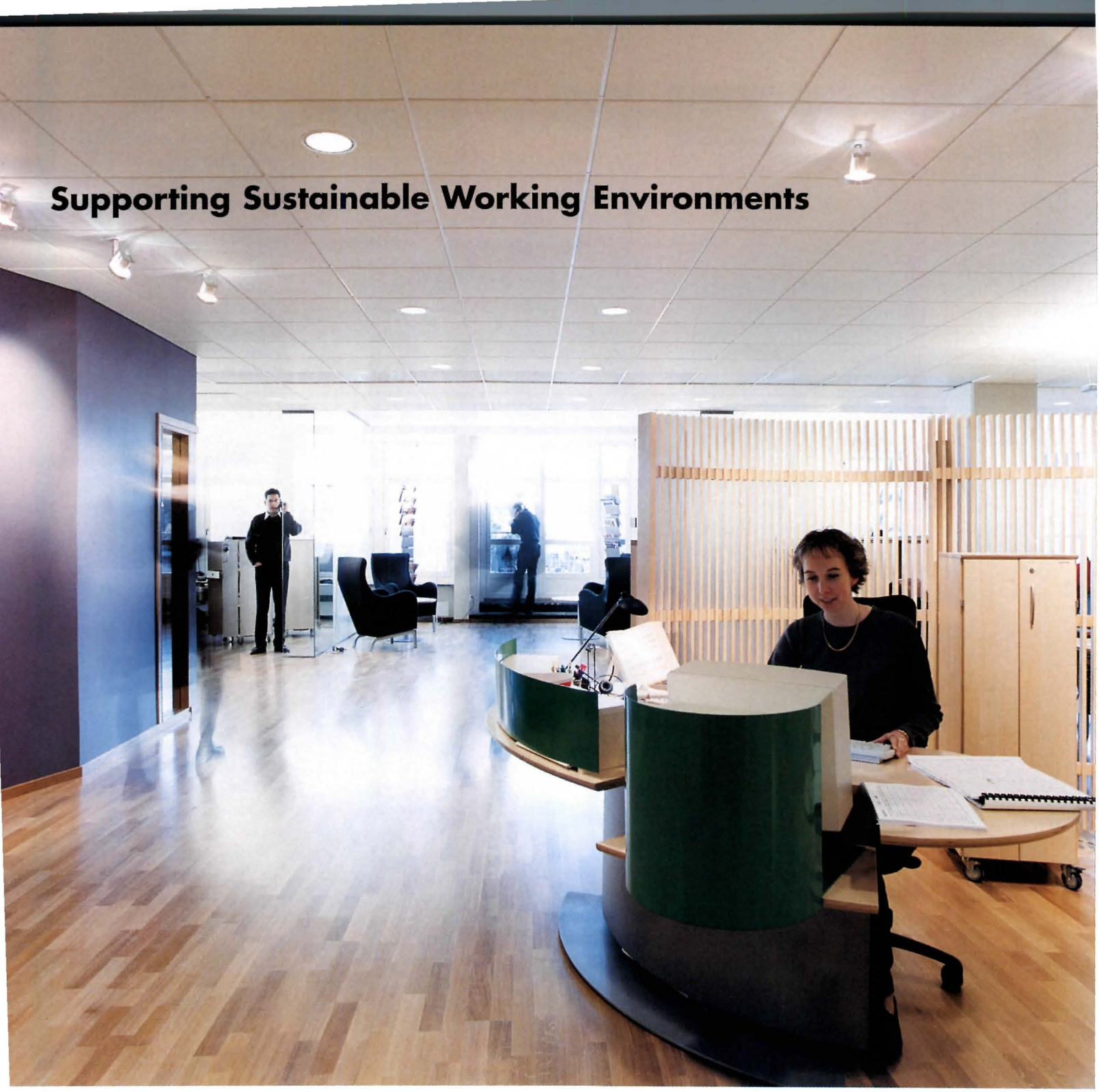
Giangregorio's advice: "Know the process. Some can be learned by having a good relationship with the regulatory agencies. And find an environmental engineer whom you can trust." *N.B.S.*

the federal government. Furthermore, the 2002 legislation relieves new owners of brownfield sites bought after January 1, 2002, of any liability for contamination created by others in the past as long as they comply with certain requirements prescribed in the law.

Plans for the Cottonbelt project in St. Louis call for conversion of the abandoned industrial riverfront site (left) into housing and commercial/retail space (below).

Greater efficiency

In recent years, the EPA has promoted a triad approach to site investigation to maximize efficiency and minimize costs. The three-pronged process consists of systematic planning, a dynamic work plan, and on-site analytical tools. Taken together, these approaches generate a more streamlined process that has reduced the costs associated with brownfield investigations. Explains Dan Powell of EPA's Brownfields Technology Support Center (www.clu-in.org/brownfieldstsc), "With the triad approach, you are continually adjusting



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CASE STUDY

Monarch Range
Beaver Dam, Wisconsin.
Completion of initial buildings: 1996

Architect and real estate developer Martin Sell, AIA, president of RKETEK.COM, a design-build firm in Juneau, Wisconsin, firmly believes architects should lead the way on brownfield projects. "The up-front work is facilitation, which is what architects do well, and the creativity architects bring to the process can open up the thinking in a room full of public officials and engineers."

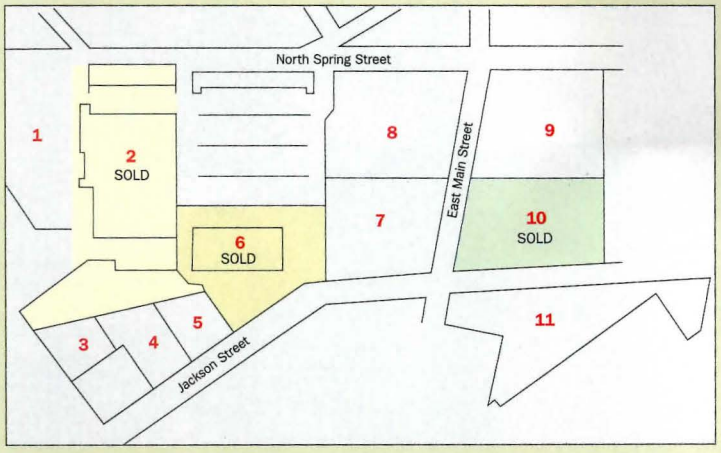
Sell learned this firsthand—and prior to his founding RKETEK.COM—when working on a 14-acre property that had sat idle for years in the midst of Beaver Dam, a small rural community in Dodge County, Wisconsin. Beginning in 1896, the site had been home to Monarch Range Company, which manufactured kitchen appliances and, during World War II, munitions. In 1984, the company sold its assets to MAFCO, which soon declared bankruptcy and abandoned the property. In 1987, EPA cleaned up some of the toxins through its Superfund program. Dodge County gained ownership in 1988.

The remaining contamination, however, prevented the county from selling the property. According to Sell, the project lay dormant for several years, because no one was spearheading it.

In 1991, Sell approached Dodge County with a novel proposal: He would facilitate the cleanup and undertake site planning for the property in exchange for being able to buy a parcel at a time—once a client was found who wanted to build on a particular site—at its pre-cleanup price, to be determined by an independent appraisal. The county would be responsible for the actual cost of remediation, unless third-party funding could be found, and would indemnify the developer and future owners from liability. The county agreed.

Facilitation was no easy task, as the project had many participants. The key public stakeholders included the city, the county, four state agencies, and the Wisconsin and Southern Railroad Company. Private stakeholders included surrounding property owners, county and city taxpayers, environmental remediation firms, engineers, contractors, suppliers, and potential buyers and tenants. As facilitator, Sell had to make sure everyone was talking to—and understanding—each other. "We had to listen and learn, and teach the other players what was involved. What is the chemical, what does it mean?" recalls Sell.

Initial environmental testing indicated inconsistent contamination of the site. "There were four or five hot spots, but other places were clean," explains Sell. In developing the master plan, the architect considered the nature and location of contamination. For example, an area whose soil had to be excavated due to heavy-metal contamination was designated for surface parking.



1. *Retail/office*
2. *Rechek Food Store*
3. *Residential*
4. *Residential*
5. *Residential*
6. *Retail stores*
7. *Commercial*
8. *Commercial*
9. *Commercial*
10. *Dodge Central Credit Union*
11. *Residential*

Architect-developer Martin Sell facilitated the cleanup of the Monarch Range industrial site (above). He divided the property into parcels (plan) for development.

The environmental engineer discovered that 14 inches of fuel oil was floating on the water table serving Beaver Dam's drinking supply. This was removed immediately, and a system of underground piping was installed throughout the site so that clean water could be cycled through the soil.

Sell not only made a profit from the typical architectural and construction management fees, but also by the sale of land for significantly more than the purchase price. "We earned most of our money on this project by creating more value for the property," says Sell. And the community profited by eliminating the blight on their neighborhood.

"[Brownfields] is a market that architects aren't tapping, because they are messy projects that are not usually published. I'm most remembered for this brownfield because it cleaned up a virtual wasteland in this community." *N.B.S.*

your strategy in response to data you are finding in the field, rather than collecting a batch of data and waiting for results to come back before going back to collect more." This method also allows for a more efficient—and therefore more cost-effective—cleanup: By pinpointing the exact location of contamination, the remediation strategies can be targeted to those areas, rather than the entire site.

Over the years, EPA has fine-tuned its cleanup goals as well. At one time it was assumed that an entire site would have to be returned to a pristine condition. But now the agency encourages remediation to follow projected reuse. "Although it can be done, it's very expensive to clean up a site for 24/7 so that kids can eat the soil," explains Donald Watson, FAIA, of Trumbull, Connecticut, who provides facilitation and design services for brownfield redevelopment projects. Now the level of cleanup is related to the level of risk.

Technology options

There are a host of remediation techniques (see chart, page 186), depending on the type and location of the contaminant, among many other factors. In some cases the contaminant is physically removed from the site,

REMEDIATION STRATEGIES CAN BE TARGETED TO THE LOCATION OF CONTAMINATION, INSTEAD OF TO THE ENTIRE SITE.

in others it is treated on-site, and in yet others the pollutants are simply contained on-site so as not to spread. A listing of available technologies, an overview of the cleanup process, and many helpful resources can be found in *Road Map to Understanding Innovative Technology Options for Brownfields Investigation and Cleanup*, available free from the EPA.

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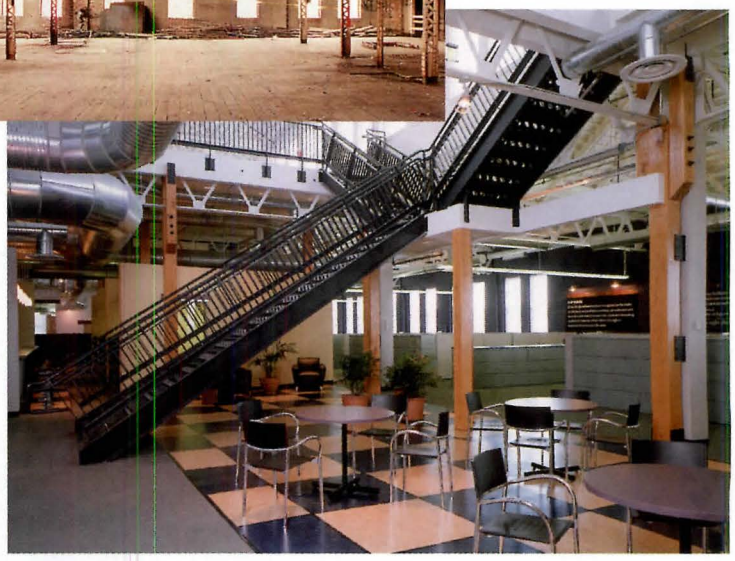
"One size doesn't fit all," explains Liebel. "One needs to custom craft a solution to each situation." It is, of course, the environmental consultant who takes the lead in this task, but the architect can weigh in on how the proposed remediation strategy may affect construction cost and schedule, future maintenance, and even community goodwill. And initial site planning can shape the remediation strategy.



Dating back to 1895 (left), buildings at Baltimore's American Can Company were adapted for the DAP Corporation in 1998 (below).

Architect's role

Site selection and remediation has never been a traditional architectural service. Most architects do not have the technical expertise—nor the liability insurance—to be responsible for the actual testing, analysis, or cleanup. But they do have the planning, facilitation, and management skills required to see the big picture and coordinate the many players. In exchange, as some of the following case studies attest, practitioners who do venture into brownfields can earn financial rewards while at the same time find tremendous satisfaction in knowing that they have helped revitalize communities at multiple levels. ■

MOST ARCHITECTS DO NOT HAVE THE EXPERTISE TO BE RESPONSIBLE FOR THE ACTUAL TESTING, ANALYSIS, OR CLEANUP.

AIA/ARCHITECTURAL RECORD CONTINUING EDUCATION

INSTRUCTIONS

- **Read the article "Taking the Brown Out of Brownfields" using the learning objectives provided.**
- **Complete the questions below, then fill in your answers (page 254).**
- **Fill out and submit the AIA/CES education reporting form (page 254) or download the form at www.architecturalrecord.com to receive one AIA learning unit.**

QUESTIONS

1. Brownfield land is being developed now because of which reason?
- **a.** architects no longer have the liability for cleanup
- **b.** tax incentives and financial assistance are luring developers
- **c.** the contamination has leached out of the soil
- **d.** it is the only land available

2. The Brownfields Revitalization Act of 2002 provides for all except which?
- **a.** liability protection for prospective purchasers
- **b.** increased funding for state and local programs that assess and clean up brownfields
- **c.** labor for cleaning up brownfields
- **d.** liability protection for adjacent property owners

3. Brownfield sites are defined as which?
- **a.** abandoned sites
- **b.** underused industrial sites
- **c.** sites with perceived environmental contamination
- **d.** all of the above

4. The steps in the brownfield cleanup process can include all except which?
- **a.** the architect researches the historic and current uses of the site
- **b.** hire an environmental engineer to test for contaminants
- **c.** develop a plan for the owner to clean up the site
- **d.** apply for tax credit, grants, or loans to help with clean-up costs

5. The triad approach to site investigation consists of all except which?
- **a.** continually adjusting your strategy in response to data collected
- **b.** collecting a batch of data and waiting for the results before collecting more
- **c.** targeting remediation strategies to contamination locations
- **d.** pinpointing exact location of contamination

6. What were the benefits of having the Pontiac Mills project managed by the architect?
- **a.** the architect had more experience with the regulatory agencies
- **b.** engineers take a narrower focus than architects
- **c.** the architect worked directly for the environmental engineer
- **d.** a and b only

7. Which is the first step in Heifer's plan to develop their headquarter site?
- **a.** begin remediation and construction
- **b.** undertake a comprehensive site assessment
- **c.** submit the site assessment to the ADEQ
- **d.** design development

8. The Monarch Range site lay dormant for several years for which reason?
- **a.** the county was spearheading the project
- **b.** no one was spearheading the project
- **c.** there were too many participants
- **d.** the Wisconsin and Southern Railroad was the major stakeholder

9. A system of underground piping was installed throughout the Monarch Range site for what reason?
- **a.** to provide drinking water
- **b.** to provide landscape irrigation
- **c.** to remove any remaining petroleum
- **d.** to keep the site from settling

10. What was the benefit of having Heifer do their site assessment after design development was complete?
- **a.** to provide a more thorough site assessment
- **b.** to save time and money
- **c.** to start work sooner
- **d.** to delay the start of work

Mold growth requires moisture, oxygen and an organic food source such as found in paper and wood building materials. Concrete masonry, however, is not a food source for mold. That's just one of the many advantages of using concrete masonry in construction projects of all types.

Mold Prevention requires proper design and climate control in buildings.

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AIA/ARCHITECTURAL RECORD CONTINUING EDUCATION Series

Weather Shield Windows & Doors

Impact-Resistant Systems: Security in a Tiffany Setting

A New Generation of Windows and Doors is Taking the Coast by Storm.

It has been a decade. Still, we are talking about Hurricane Andrew. Andrew, upgraded last month by federal researchers from a Class 4 to a Class 5 storm, was the costliest natural disaster in U.S. history. In the past century, only two other hurricanes of similar magnitude have struck the U.S. mainland: Camille in 1969, the summered storm that hit the Florida Keys in 1935.

Andrew packed winds of 165 mph and came within 20 miles of a direct strike on downtown Miami. It was directly responsible for $26.5 billion in damage. More than 135,000 single-family homes were destroyed or damaged; 160,000 people were left homeless.

Subsequent analysis yielded the observation that up to a quarter of the losses attributed to Andrew were attributable to construction that failed to meet codes, poor enforcement of codes, and deficiencies in the codes themselves.

In the 10 years since Andrew, building codes in Florida, Texas, the Carolinas and other coastal states have undergone significant overhauls, many of them focused on vulnerable window openings.

Windows and doors were universally found to be the weakest building link, and their failure has been shown to lead to a domino effect that ends in catastrophic losses during major storms.

The highest priority amendment for all retrofit and new construction, according to code officials from Florida to New York, are impact-resistant windows and doors.

This continuing education section is intended to familiarize readers with the new code demands and details of a new generation of impact-resistant glass products with which to meet the new codes.

Florida Led the Change

Florida recently implemented the nation's first statewide building code. The most dramatic change: the new Florida Uniform Building Code requires approved impact-resistant glazing in windows and doors (or other protection devices).

Just a few months later, the Falls Church, Va.-based International Code Council, a body created in 1994 by officials of Building Officials and Code Officials International, Inc. (BOCA), International Conference of Building Officials (ICBO), and the Southern Building Code Congress International (SBCCI), developers of the three model codes used throughout the U.S., issued a similar mandate: windows and doors would be required to be assembled using impact-resistant glazing or shutter systems to lessen the hurricane threat.

Fourteen Texas counties also have adopted the stricter codes, and they are expected to be implemented statewide by the end of the year.

The strengthened codes are intended to improve construction techniques in order to prevent losses during natural disasters.

Advertising supplement provided by Weather Shield Windows & Doors

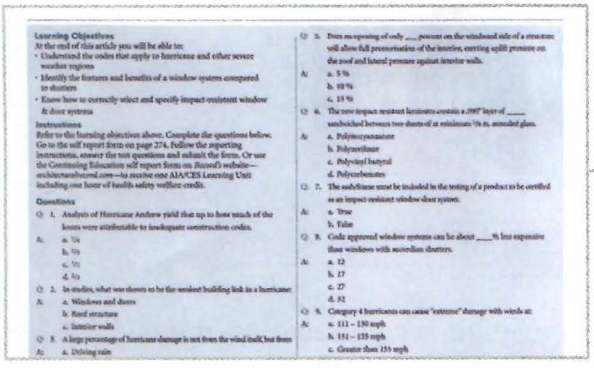
AIA/ARCHITECTURAL RECORD CONTINUING EDUCATION Series

Use the learning objectives below to focus your study as you read Impact-Resistant Systems: Security in a Tiffany Setting. To earn one AIA/CES Learning Unit including one hour of health safety welfare credit, answer the questions on page 210, then follow the reporting instructions on page 274 or use the Continuing Education self report form located at architecturalrecord.com.

Learning Objectives

At the end of this article you will be able to:

- Understand the codes that apply to hurricane and other severe weather regions
- Identify the features and benefits of a window system compared to shutters
- Know how to correctly select and specify impact-resistant window & door systems



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Instructions

Refer to the learning objectives above. Complete the questions below. Go to the self report form on page 274. Follow the reporting instructions, answer the ten questions and submit the form. Or use the Continuing Education self report form on Record's website—architecturalrecord.com—to receive one AIA/CES Learning Unit including one hour of health safety welfare credit.

Questions

Q 1. Analysis of Hurricane Andrew yield that up to how much of the losses were attributable to inadequate construction codes.

A: a. ¼ b. ⅓ c. ½ d. ⅔

Q 2. In studies, what was shown to be the weakest building link in a hurricane:

A: a. Windows and doors b. Roof structure c. Interior walls

Q 3. A large percentage of hurricane damage is not from the wind itself, but from

A: a. Driving rain

Q 5. Even an opening of only ___ percent on the windward side of a structure will allow full pressurization of the interior, exerting uplift pressure on the roof and lateral pressure against interior walls.

A: a. 5 % b. 10 % c. 15 %

Q 6. The new impact-resistant laminate contains a .060" layer of _____ sandwiched between two sheets of at minimum ⅛ in. annealed glass.

A: a. Polymethylmethacrylate b. Polyurethane c. Polyvinyl butyral d. Polycarbonates

Q 7. The sash/frame must be included in the testing of a product to be certified as an impact-resistant window door system.

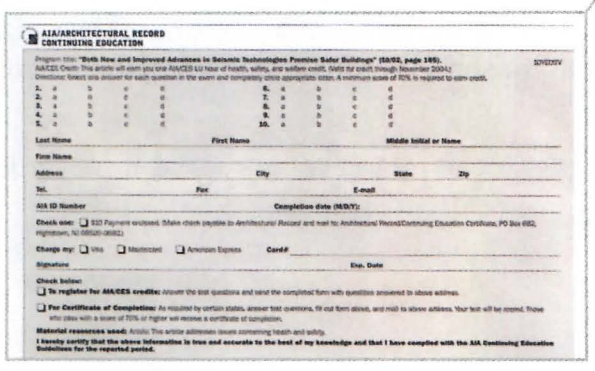
A: a. True b. False

Q 8. Code approved window systems can be about ___% less expensive than windows with accordion shutters.

A: a. 12 b. 17 c. 27 d. 32

Q 9. Category 4 hurricanes can cause "extreme" damage with winds at:

A: a. 111 – 130 mph b. 131 – 155 mph c. Greater than 155 mph



AIA/ARCHITECTURAL RECORD CONTINUING EDUCATION

Program title: "Both New and Improved Advances in Seismic Technologies Promise Safer Buildings" (10/02, page 109).

AIA/CES Credit: This article will earn you one AIA/CES LU hour of health, safety, and welfare credit. Valid for credit through November 2004.

Directions: Select one answer for each question in the exam and completely circle appropriate letter. A minimum score of 70% is required to earn credit.

1.	a	b	c	d	6.	a	b	c	d
2.	a	b	c	d	7.	a	b	c	d
3.	a	b	c	d	8.	a	b	c	d
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5.	a	b	c	d	10.	a	b	c	d

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Material resources used: Article. This article addresses issues concerning health and safety.

I hereby certify that the above information is true and accurate to the best of my knowledge and that I have complied with the AIA Continuing Education Guidelines for the reported period.

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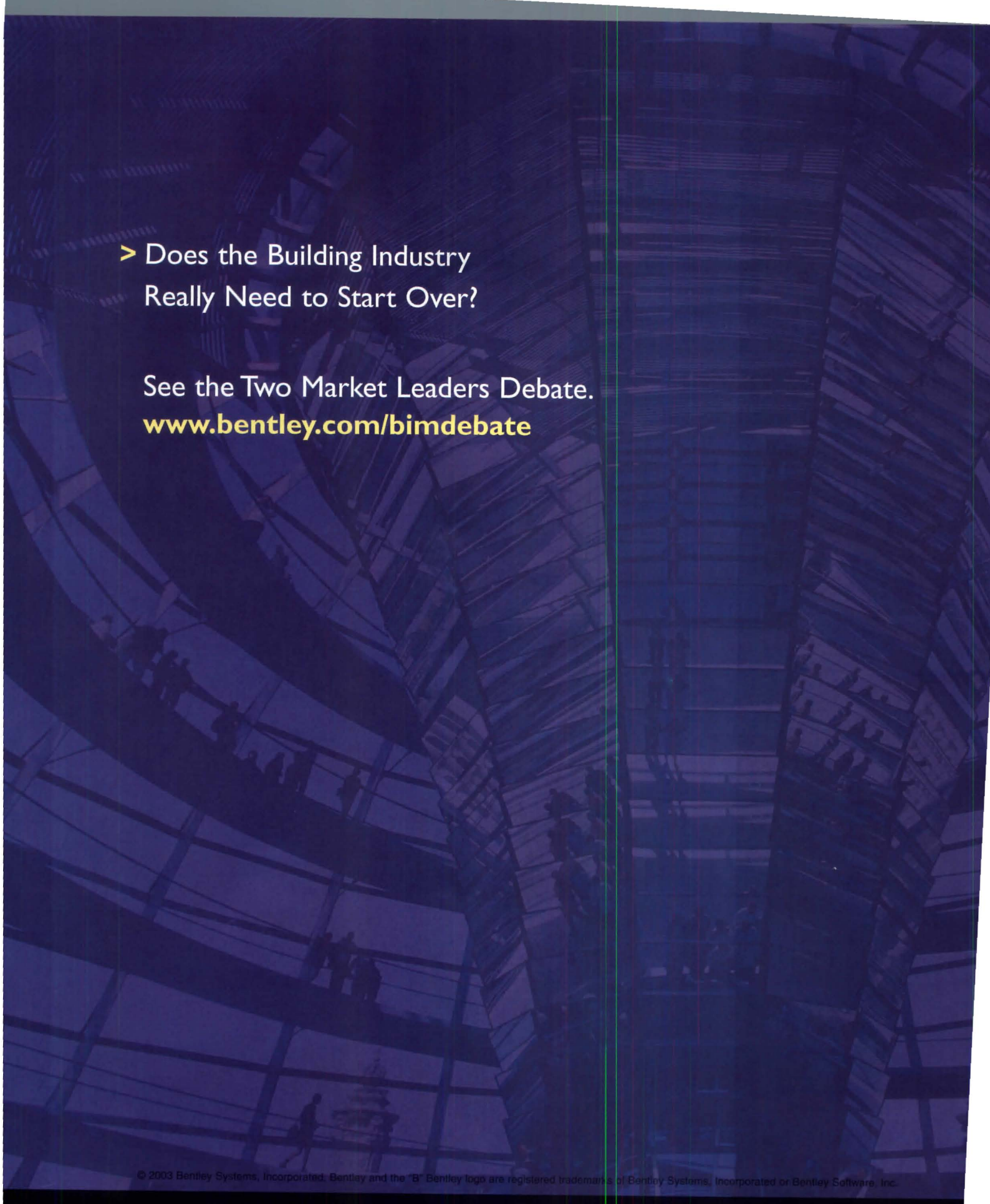


BENTLE

Digital Practice

IN THIS SECTION: Johnson Controls teams with Microsoft to build a better building system; MIT concocts ideas for a digital neighborhood in Asia [this page] • A shopping center in Las Vegas raises the bar for multimedia technology in a public space [page 193] • Digital Architect: A Boulder architect says technology changed his practice for the better [page 201]. *Deborah Snoonian, P.E.*

BYTES

The AIA has compiled electronic copies of component best practices on their Web site. To access these resources, visit the members-only area at www.aia.org.

A new Web site, FreeCAD.com, allows users to download hundreds of CAD applications free of charge. Each software package is usable for 180 days or longer.

The Art Institute Online, a division of the Art Institute of Pittsburgh, has begun offering an online bachelor's degree program in interior design.

AutoCAD for OS-X? Autodesk is researching the possibility of developing its leading design software for the Macintosh platform. Provide feedback to the AutoCAD product manager at eric.stover@autodesk.com.

The American Society of Interior Designers has created an online information center for sustainable design. Visitors to www.asid.org/green.asp will find green design guidelines, message boards, a glossary, and other resources.

Architecture students at Ball State University recently designed a digitally enhanced newsroom for the campus. The project, whose construction is also being overseen by students, will be completed by fall 2003.

At the University of Illinois, research by architecture professor George Elvin concluded that using tablet PCs and wearable computers to design and construct buildings reduced rework time, compared to employing desktop PCs and paper documents.

HVAC maker uses Microsoft tools to streamline building operation

Johnson Controls, a leading manufacturer of HVAC and other building systems, announced that its equipment is now operable from standard PCs equipped with Microsoft's Internet Explorer, rather than the expensive custom-built workstations that have been standard for years.

Johnson's Metasys building automation system (BAS), the digital language used by controllers on systems like HVAC, life safety, and security, now relies on Microsoft's .NET technology. Users can log on to a Web site from a PC, and for any building (or group of buildings) view and use operation data such as electricity usage, indoor temperatures, and humidity levels. Typically, this information was only accessible through dedicated, proprietary workstations with complex data entry and retrieval methods.

A simple, well-understood interface for building operation has long been a goal for the controls industry. Because the Web is a common data-exchange platform for existing applications for accounting, human resources, and scheduling, Johnson Controls expects this innovation will give rise to new products and services for facility owners and managers. "Johnson Controls recognized that taking this approach would give us the best tool to manage the interaction between an organization's systems, which in turn provides a tremendous competitive advantage for our customers," said Brian Stark, president of the controls group.

The improvement may also allow nontraditional facility managers—like architects—to use operation data for new purposes in building planning and design. "We don't know yet how owners or others in the AEC industry will use the data that are accessible now," said Brady Nations, manager of business development for Johnson Controls. "But we look forward to finding out." *Deborah Snoonian, P.E.*

With MIT's help, Seoul plans an always-on street life

Pedestrian areas of Seoul will connect visitors to the world—and each other.

Seoul, South Korea, one of the world's most digitally connected cities and a fierce competitor with other Asian metropolises for high-tech businesses, is intent on making its mark as a digital hub. It has enlisted technology and urban planning experts from MIT and other U.S. schools to develop The Digital Media City (DMC), an entertainment and digital media center located in a rare undeveloped 1,600-acre section of the city's Sangam district, slated for completion in 2010. Planners hope the DMC will lure companies and become a hip, tech-savvy destination.

The plans for the DMC include ultra-high-speed communications networks on the ground and wireless Internet access throughout the Digital Media Street, the area's main thoroughfare. Curving through the center of the DMC, the street is a concrete-and-asphalt symbol of the project's aspirations. Like most of the DMC, it will be a proving ground for new technology, equipped with cutting-edge electronics designed "to draw people into spontaneous activity," describes project consultant Michael Joroff, a senior lecturer at MIT's department of urban studies and planning. Adds consultant Anthony Townsend, a research scientist with the Taub Urban Research Center at NYU, "We want to know: What can we do here that has never been done before?" The Korean firm Archiplan and Dennis Frenchman, head of the city design and development program in MIT's department of urban studies and planning, are also advising on the project.

Ideas for the street are flourishing. They include wireless network kiosks that would enable Internet access; the "Sister Wall," a composite video wall to display real-time Web camera feeds from Seoul's sister cities around the world; an "Urban Odometer," a display of giant bar graphs—much like

Digital Practice

Planners want technology-rich neighborhoods to lure businesses to Seoul.

the output meter on a stereo amplifier—that registers the amount of data flowing into and out of the DMC at any given moment; and a "location-aware" information delivery system, which will enable pedestrians with handheld organizers and mobile phones to receive information such as movie listings and retail coupons that are relevant to their physical location. The idea even extends to the transportation network, where small electric-powered "EtherBeetles" equipped with voice recognition software would respond to passengers' requests.

Joroff stresses that the street, like the entire DMC, should be spontaneous and flexible to change. "We're no smarter than [other] people out there. Our ideas are not necessarily the right ideas," he says, adding that he is recommending that Seoul establish a quasi-public organization to control the street's technologies and content and to ensure that enough design ideas are generated from the bottom up.

Like other cities that have created technology zones—Shanghai, Helsinki, Singapore—Seoul is banking on these ideas to generate cash. The DMC is expected to create about 270,000 jobs, while construction investment and industrial activities will induce an estimated $13 billion in spending. The DMC, Joroff says, hopes to differentiate itself from other technology hubs by creating a pedestrian-friendly environment that will cater to technology companies and the people who like to work at and live near them. Townsend says, "Companies in digital media thrive on being located in exciting urban areas. Most don't see a digital media hub as a Silicon Valley-type place. They've envisioned it as a more Manhattan-style place: creative, hip, interactive." And walkable.

The consultants admit that plugging the concept of an active street life in this neighborhood took some work. Said MIT's Frenchman, "In Korea, they wanted six lanes of traffic, and we had to convince them there would be no place to go if it was all oriented to the car." He is also encouraged by technologies that allow people to become familiar with both their immediate surroundings and those of other areas, as the Sister Wall does. "I think it's a very healthy direction for cities," he says. "People think of technology as cold and sleek, but in this case, it's going to encourage a more intimate environment."

Sam Lubell

Signs of Life: A New Lesson from Las Vegas

A SOUPED-UP SHOPPING CENTER ON THE STRIP USES TECHNOLOGY TO ANNOUNCE ITSELF AS A RETAIL, CULTURAL, AND CIVIC DESTINATION. MEDIATED ARCHITECTURE CAN FINALLY MAKE A PUBLIC PLACE.

By Gregory Beck, AIA

Many of us have come to realize, sometimes begrudgingly, that the quirky, irreverent landscape of Las Vegas can be a spectacular laboratory of design ideas. Behind the fantasy, however, the architecture of Las Vegas is a blood sport. Environments here must produce results at an unforgiving pace, then change, and change again—or be imploded for the next new thing. Here buildings may be signs, or may not need signs, but most importantly, they are understood to be temporary expressions of a temporal society. It's a town built by pop-culture Medicis, writing checks to fuel adventures in environments. Where else could the Rat Pack, Rem Koolhaas, and a Sphinx coexist?

But this oasis of iconography has yet to show us its version of a civic place, a setting where its residents and 36 million annual visitors might choose to congregate. What could happen if we mixed architecture and new media technologies with this spirit of consumption, and rolled the dice down Las Vegas Boulevard?

In the city with a tradition of recasting itself for each new generation, the newest game in town may be the third-oldest profession: shopping. Las Vegas is home to one of the most profitable retail environments in the world, the oft-imitated Forum Shops at Caesar's Palace. So when developer The Rouse Company acquired the aging Fashion Show Mall on the Strip in 1997, its charge was nothing less than to define a first-of-its-kind public space, crafted around new media concepts in a city that literally breathes the new.

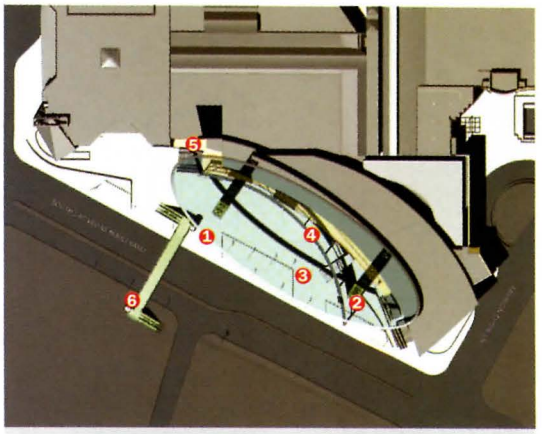
Gregory Beck, AIA, practices architecture in New York City and is codirector of the Urban Narratives Design Research Group at MIT.

Retail developer as show producer

Known for its urban marketplaces and place-based retail design, Rouse creates in each project a reflection of its vernacular setting. Ironically, the company had to reverse this rule for Las Vegas, a city constructed entirely of fictional narratives, what we've come to call "themed" environments. The new Fashion Show would have to find a new way to be cool.

To this end, the developer opted to incorporate media technologies as well as drop the name "mall" from the project. "We saw an electronic platform of media as a way to activate and renew [the retail] environment," says Laurin B. "Monk" Askew, Jr., FAIA, the longtime director of design for Rouse before retiring in 1998 (he now leads his own practice, MONK LLC, in Baltimore). Askew believed the project could be developed as both concept and destination, a place that integrates the marketing of fashion (and being fashionable) into all aspects of contemporary life, from food and apparel to music and entertainment [RECORD, October 1999, page 160].

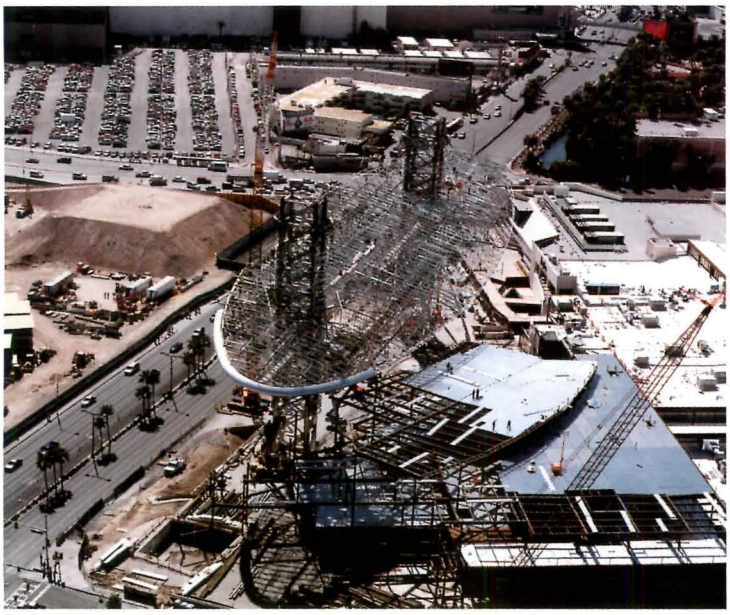
The project evolved into a fusion of innovative retailing, contemporary environments, and communication systems capable of



1. *The Cloud*
2. *Cloud column*
3. *Plaza*
4. *Media curve wall*
5. *Runway*
6. *Pedestrian bridge*

The Cloud defines a new entryway for the Fashion Show (above), articulating the outdoor plaza area while also shielding pedestrians from the merciless desert sun (left).

The Cloud, rising up along the infamous Las Vegas Strip (this page), will officially begin "broadcasting" this fall. Its sleek lines stand in contrast to neighboring structures, but it is already becoming an icon in its own right.



telegraphing the fast-changing nature of style, from the catwalks of Paris to the innovations at the Tokyo Auto Show to the latest New York City gallery openings. Eight new anchor stores were added to create 2 million square feet of retail space under one roof. An initial phase opened last year; the plaza and its media components are slated to open in October.

The place is the medium

The front door of a typical Las Vegas project would feature a supersize themed icon—part architectural fantasy, part sign, and part performance event. But the Fashion Show is anything but typical: Its 57,000-square-foot, crescent-shaped plaza, with its crisp, modern aesthetics, stands as a counterpoint to the high-octane character of its surroundings. And its media technologies give the Boulevard its first taste of a civic space.

The "Cloud" is Fashion Show's icon, a 500-foot-long, wing-shaped structure wrapped in a bright aluminum skin (construction

THE USE OF NEW MEDIA AT FASHION SHOW RESCUES IT FROM THE CONFINES OF A TRADITIONAL RETAIL SETTING.

photos, this page). Suspended 150 feet above the street, it will be a sunshade by day and a skylike canopy of projected images by evening: think cloud patterns, stargazing, and possibly midnight screenings of *Ben-Hur*.

Myriad messaging systems are integrated into the plaza area. Five full-color projectors, housed in glass cubes, are each capable of projecting a 70-foot-square image on the underside of the Cloud. Facing the Plaza and Boulevard, four 24-foot-by-43-foot LED monitors will move continuously along an elevated steel track called the "Media Curve." Like the images on the Cloud, these displays can be viewed individually or combined to form a stunning 172-foot-wide digital canvas. Together with

The shopping center's interior is enlivened by huge displays capable of broadcasting events and content from within, around, and well beyond Las Vegas.

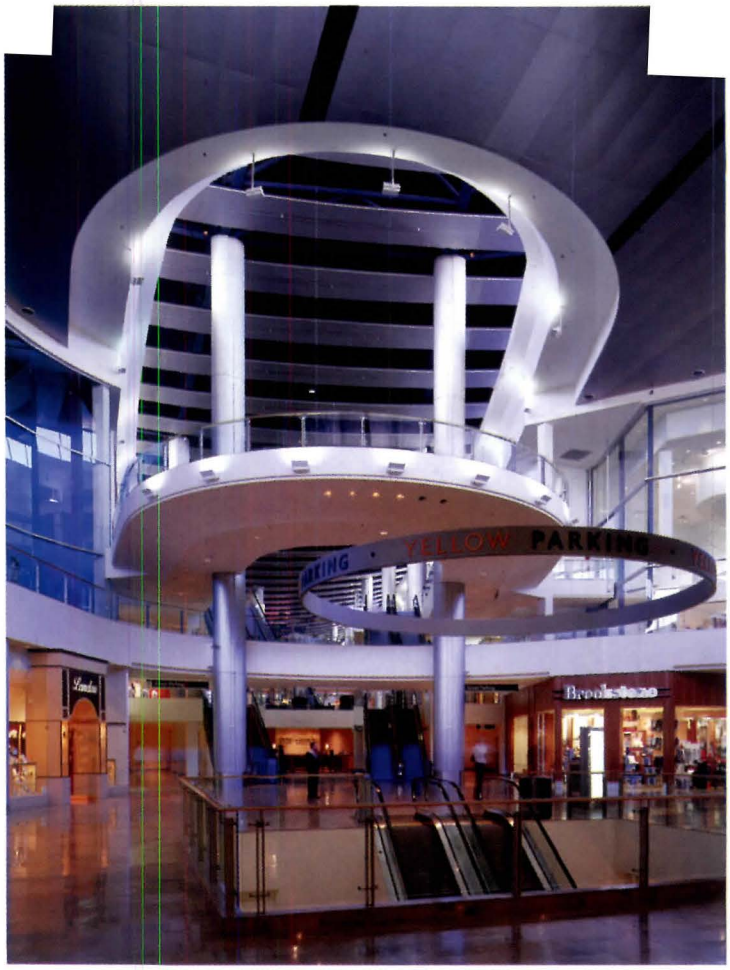
sound and lighting, these systems will create the "media space" that defines the Fashion Show experience.

"We want to be the anti-theme in Las Vegas, using media to create a sense of participation in the 'now,' " says Richard Orne, AIA, the architect responsible for orchestrating this retail hybrid. Working in conjunction with Rouse's Askew and Los Angeles architects Altoon + Porter, Orne's firm tackled the challenge of integrating theatrical media systems into traditional building standards.

Orne pushed for a dynamic interplay between media and physical space, underscoring for the developer the financial benefits of this arrangement. "The expense of these technologies makes it impossible to justify them simply as visual excitement," he says. "You must position them as integrated content that helps the environment tell its story." What emerges is a revenue-generating opportunity, with the Fashion Show's tenants and outside sponsors purchasing time on the display network.

"There is a significant difference between entertainment venues with stagnant, packaged content, and places that inspire events and create memories," adds Ronald A. Altoon, FAIA, partner for design at Altoon + Porter. "At Fashion Show, the building itself is transformed, continually redefining space and the manner in which it is used."

Sophisticated software developed by the New York interactive media firm R/GA (interview below) powers the plaza's media systems. Honed first for film and television, these tools allow savvy slicing and dicing of images and video, bringing a new intelligence to the information displayed. For example, live content from inside Fashion Show will be combined with television feeds, Internet data, and preproduced videos to engage the thousands who pass under the Cloud every day; the developer is betting these will lure shoppers inside to spend their hard-won dollars.



Behind the scenes, audiovisual "producers" vary lighting, music, displays, and other interior elements to entertain and educate visitors at the Fashion Show—visitors the developers hope will shop till they drop.

Every shopping center needs a runway

Inside the Fashion Show one would expect nothing less than a fashion show. Centered in the Great Hall is an 80-foot-long runway, which lies flush when not in use but rises from the floor (along with a 28-foot-square glass stage house) for shows, promotional events, and other spectacles. Gear for the shows is loaded into the stage house from the basement, unseen for these events, and three high-resolution LED dis-

Robert Greenberg, R/GA's visionary founder, sees new media transforming architecture

Academy Award–winning designer Robert Greenberg's work crosses over the worlds of film, advertising, information design, and Internet media. His New York–based firm R/GA takes these ideas from the screen into public spaces, creating new techniques for integrating media content with architecture. R/GA developed the software that powers the Reuters sign at 3 Times Square, and designed the moving "Media Curve" display at Fashion Show.

GREGORY BECK: *Architecture has been slow to embrace new media technologies—what role can they play in enhancing buildings?*

ROBERT GREENBERG: Technologies like databases, satellite, cable, and wireless can enable media in the form of data, text, video, music, environmental sound, and the Internet to be seamlessly integrated into buildings of the future. They make it possible to incorporate information and entertainment into spaces in an entirely new way. A great example is the automobile—it's essentially a moving network, incorporating media and communications into its structure.

GB: *How will wireless networks change the way we use buildings?*

RG: We're just beginning to move from the "home theater" phase to understand how technologies like Wi-Fi will remake the city. Wireless information breaks down the "architecture" that has defined how we interact—now "work," for example, is taking place in every place. More than ever, we'll need environments that support a high quality of social interaction, surrounded by a sphere of information, not simply rooms devoted to functions.

GB: *How can architects be more effective in leading teams on media-intensive projects?*

RG: Architects hold on tightly to creative control, but a project like Fashion Show has content being generated by many people. I see a great similarity between moviemaking and the building design process. Hollywood has a tradition of collaboration not seen since the Renaissance—films simply could not be made without a great number of people working together. Media environments require a higher degree of team integration, and architects may better position themselves as "producers" in order to be successful. Producers manage creative, technical, and financial interests, while keeping everyone focused on the big idea.

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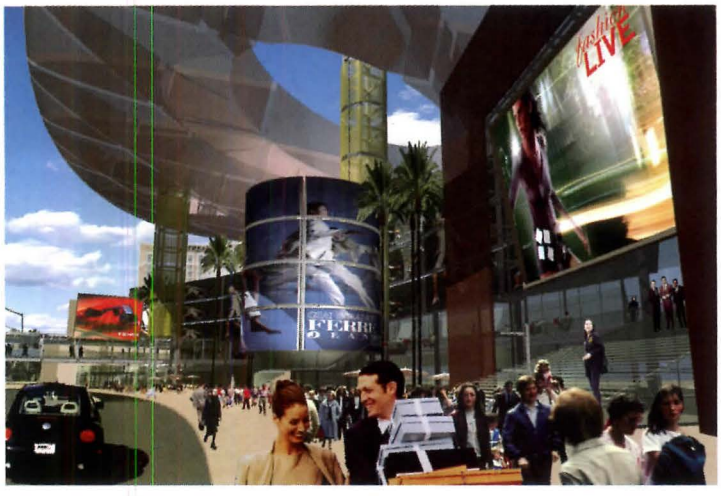
The runway is unobtrusive when not in use (left), but it rises up to create a stage for shows and exhibitions. Most spectacle in Las Vegas is designed to lure gamblers inside, but this outdoor plaza (above and below), enriched by style-conscious content from local and far-flung sources, is expected to draw visitors for many different purposes.

plays and theatrical lighting descend from the ceiling. If you're on the plaza when the show starts, never fear—you can catch the simulcast outside. Savvy retailers may well jockey for adjacency to this feature: With a short walk from runway to front door, every customer can be a model for a day.

Overlooking the Great Hall is a space never before programmed into a shopping mall—a staffed audiovisual control center. From here, a "retail DJ" can adjust the emotional temperature of the environment, linking it to a world of ideas and events. Its sweep of monitors and hard drives reveals a new set of retail design values: the shopping environment as equal parts broadcast center, event space, and brand performance arena.

OUTDOORS AND IN, FASHION SHOW'S VISITORS ARE DRAWN INTO A WORLD OF STYLE AND STYLISHNESS.



Duck or shed—or video projector?

At Fashion Show we see building surfaces turned into media content, and communications displays transformed into architectural expressions. The integration of media adds value here because it is neither used as an appliance nor viewed as a piece of hardware. We are reminded that mediated places, like good architecture, cannot be specified from *Sweets*. Its design values—effective communication, environmental richness, ultimately the "guest experience"—are alive and well here. Here, in Las Vegas, just across the street from the live ship battles of Treasure Island and down the Boulevard from a pseudovolcano programmed to erupt 11 times a day.

What insights can we gain from this experiment? The first lesson is that mediated places dissolve boundaries—the traditional ones between public and private, inside and outside, even the celebrated metaphors of duck and shed. The tension between architectural form and content, while perhaps not completely dissipated, is eased.

Second, the concept of media as environmental storyteller encourages the development of places that are at once entertaining, educational, and cultural, thus confounding and then liberating preconceptions about building types and human nature. Multitasking, multifunctional spaces make mixed-use look so yesterday. Designers of public spaces can now harness the power of technology as a tool for the effective integration of traditionally separate uses in a single setting.

Finally, digital media offers another way for environments to speak, in literal and nonverbal terms. When things start to think, and bricks learn to communicate, places will at last have a voice. ■

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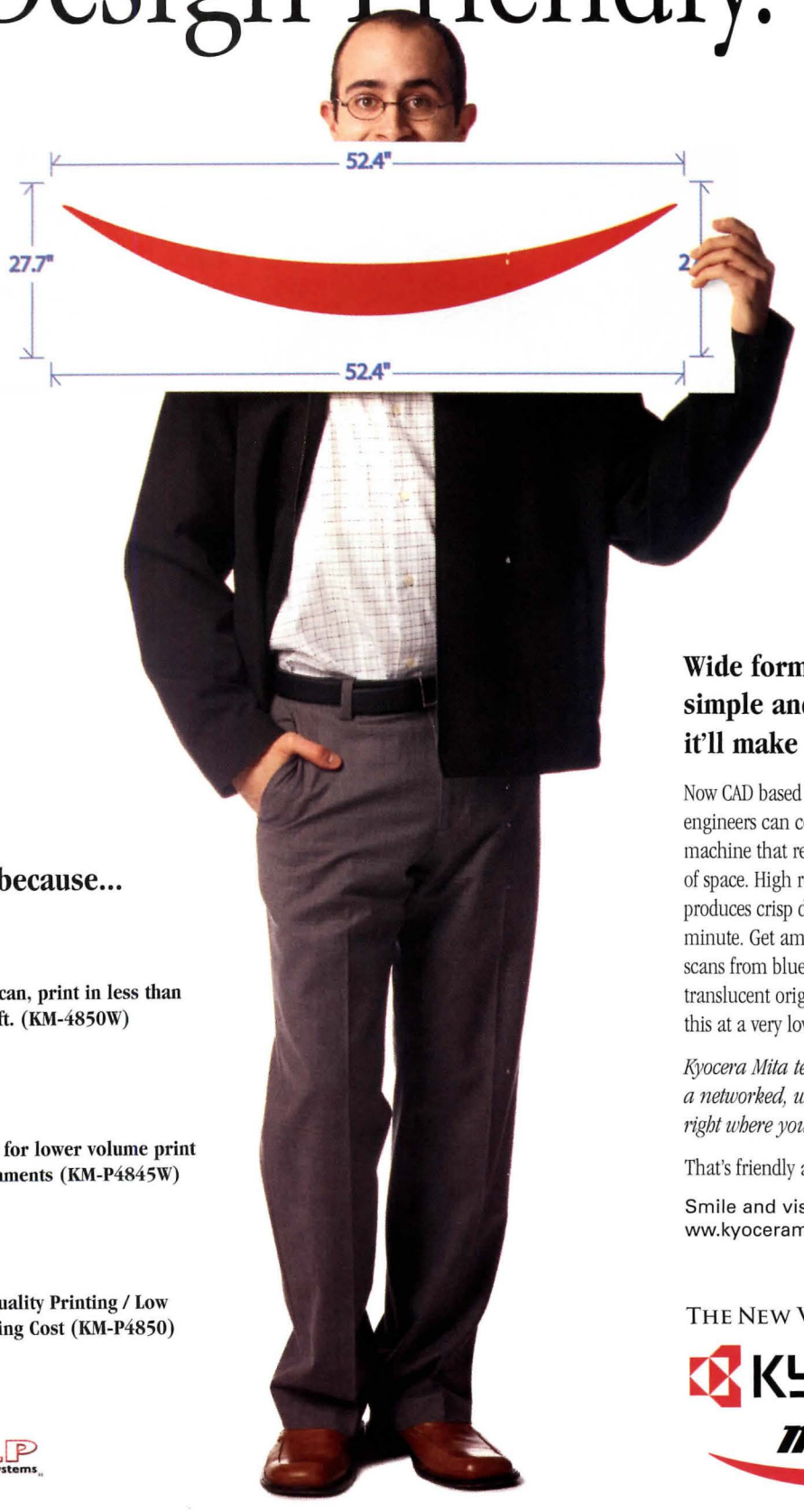

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Digital Architect

Interview: A Visit with Richard Epstein

By Deborah Snoonian, P.E.

Richard Epstein, AIA, has had his own firm in Boulder, Colorado, since 1992 and has designed a variety of commercial, residential, and mixed-use projects. Public art and sustainability have been the mainstays of his practice. For more than 20 years he has collaborated with the renowned artist Michael Singer, whom he met as an architecture student at MIT. Together they designed the Phoenix Recycling Center as well as numerous projects at the Denver International Airport.

ARCHITECTURAL RECORD: *What kinds of digital tools are integral to your firm's practice?*

RICHARD EPSTEIN: We're a PC office, and for design we use primarily AutoCAD and Form-Z. We do a lot of Form-Z modeling of every project—we often begin with that, and then we use AutoCAD to generate production drawings.

AR: *Have you explored other 3D design programs?*

RE: We've explored to some degree the idea of parametric modeling, using some of the software packages that are available right now. But at this point, I've determined that between the amount of computer horsepower needed to keep a model updated and the time it takes, especially with multiple people working on a project, it's not as efficient as allowing different people to work on portions of a project at the same time. The models ended up getting in the way, we found. I can imagine that on a very complex building it might be the only way you can get fast results, but I'm still unconvinced of the value of parametric modeling.

AR: *What are your major hardware needs?*

RE: We don't buy computers premade from Dell or Gateway or any of those companies. We always need better graphics cards and other features like that, and we find the machines are much more affordable and functional if we piece them together ourselves. We have a part-time guy, Ferdinand Schmidt, who's an IT manager for Architectural Energy Corporation, a large firm nearby. He builds the computers for us and provides technical support for them, as well as our printers and other hardware.

AR: *How has technology affected the way you practice architecture?*

RE: Technology has become a great equalizer. Even though we're a small firm—just four people—we're able to compete with larger firms and be efficient in our practice because of the level of technological proficiency we've achieved. I think the quality of our modeling work is as good as most firms in our area, if not better. So we can offer those benefits to our clients, as well as the advantages of working with a smaller firm.

We've seen more and more benefits in doing 3D modeling in the early stages of a project to explore design options like material and color with our clients. In some cases this work has helped us convince clients of the value of our ideas in a way that wouldn't have been possible before. For instance, the renderings for a project that's under construction right now, a renovation of an existing building [see images below], sold the developer on a more radical design concept than he'd originally been comfortable with.

We use the Internet extensively to search product catalogs. Looking up specific manufacturers and products online saves us a lot of time. Many companies also provide dimension information for their products on their Web sites, along with CAD details you can download.

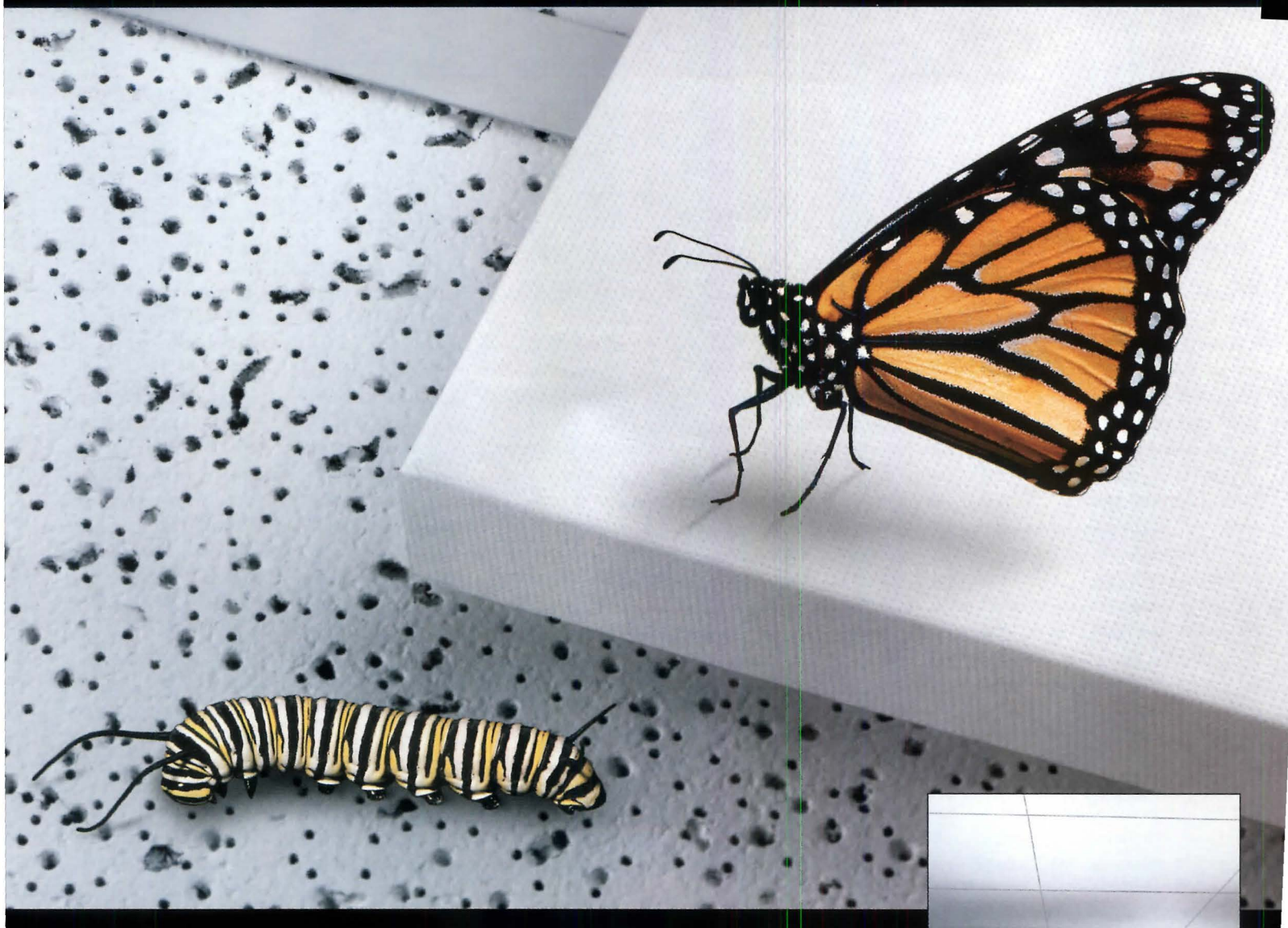
I'm also acting as a developer for a mixed-use project in Longmont, Colorado, and being able to use the Internet to research material costs has been crucial to doing this in conjunction with my practice. ■

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

Epstein's Prospects Lofts mixed-use development (left and right) has been modeled extensively in 3D as he and his partners seek funding to build it.

Using models created in Form-Z (left), Epstein showed clearly how the firm would transform a tilt-up concrete industrial building into office space with a new facade, more windows, and a glass corner.

Ceilings tra sformed...



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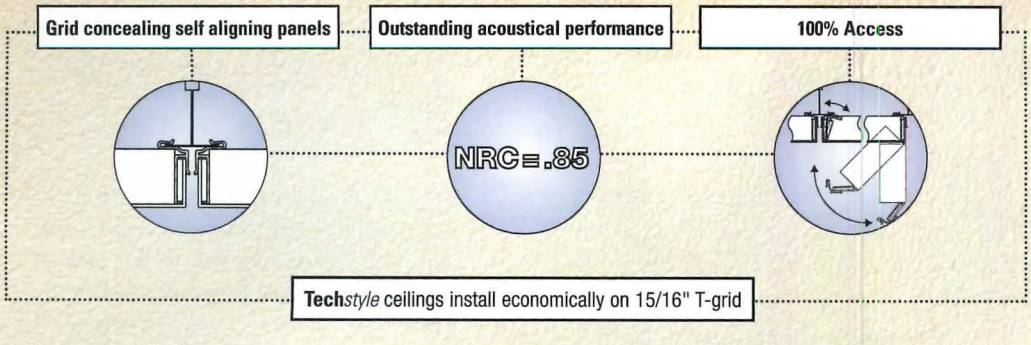

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Interiors

Regional vernacular, adaptive reuse, and subdued Modernism: Three routes to hotels with pride of place

BRIEFS

The Roosevelt Hotel in Hollywood has unveiled the first phase of a $15 million renovation by the Hong Kong–based architecture and interior design firm Team HC. The husband-and-wife principals, Clarence Chiang, Jr., and Hanna Lee, have introduced clean, Minimalist lines to the hotel's historic Spanish aesthetic, revamping 237 guest rooms, a reception area, and a restaurant/cabaret. **The Maritime Hotel**, in New York City, has docked in a quirky 1966 building originally designed as a headquarters for the Maritime Union. Clad in white ceramic tile with porthole windows that only face west, the hotel features 120 rooms with interiors by Eric Goode and Sean MacPherson. *W.W.*

CONTENTS

With recent reports of airline layoffs and Chapter 11 filings, SARS outbreaks in Asia and Toronto, and the political and economic repercussions of the war in Iraq, the travel industry has been taking a serious beating. Continuing a downturn begun in 1999, domestic hotel and motel construction starts were down again in 2002, to a level of 40 million square feet, according to forecasts by F.W. Dodge. But there may be a brighter hotel future coming into view on the horizon. As Dodge reports, many analysts predict a robust turnaround in the hotel market by 2004, with inflation-adjusted profit gains returning to levels witnessed in the flush days of the mid-1990s. As customer demand improves, hotel construction starts will unfold, forecast to grow 16 percent in 2004, 34 percent in 2005, and 8 percent in 2006, when they are expected to reach 65 million square feet.

This month's interiors section visits three hotels that were already on the boards during more favorable market conditions, and which are thriving during today's tighter travel climate. Stylistically, they take different routes toward creating a distinctive sense of place. For the Lodge at Torrey Pines, in La Jolla, California, a hotelier embraced the architectural legacy of works by Greene and Greene, adapting the firm's century-old signature details to create an Arts and Crafts retreat by the sea.

In Washington, D.C., a 19th-century federal building was retrofitted as the new Hotel Monaco. A cooperative alliance with the General Services Administration and landmark guidelines that limited interior interventions were two of the unusual project parameters for the design team. While the building's Neoclassical shell was restored, the hotel's eclectic interiors do not embrace a specific historical style, instead juxtaposing classic Modern pieces by icons like Mies van der Rohe with bright fabrics and finishes (right).

Tokyo's newest Four Seasons Hotel is one of the chain's smallest, with only 57 rooms. Perched within a glass office tower built in a business zone, the hotel features interiors by Yabu Pushelberg that employ luxurious materials and a subdued palette to cloister guests in clublike spaces. It's a serene retreat in the center of a frenetic global capital, perhaps an inviting spot to buffer the latest headlines. *William Weathersby, Jr.*

Room 606: In Copenhagen, one hotel room preserves in microcosm the masterwork of architect Arne Jacobsen

On the sixth floor of the SAS Royal Hotel in Copenhagen, a single space, Room 606, preserves in microcosm the masterwork of Danish architect Arne Jacobsen (1902–71). The last surviving original interior of the SAS House, a hotel and airline terminal completed for the Scandinavian Airline System (SAS) in 1960, the guest room provides a portal into Jacobsen's world, where Modernist forms were abstracted from nature, and architectural and interiors elements were melded into an integrated whole.

Visitors to Copenhagen can still rent Jacobsen's remarkable room as they would any other, and one guest who was captivated by the environment was architect Michael Sheridan. After his stay in Room 606, he later delved into the design history of the hotel, which in turn served as a jumping-off point for reflections on Jacobsen's oeuvre. In his new book, *Room 606: The SAS House and the Work of Arne Jacobsen* (Phaidon, 2003), Sheridan notes that the project distilled the architect's themes into an encyclopedic array of architecture, furniture, and the applied arts: "Examined in the context of Jacobsen's vanished masterpiece, [the room] provides entry into a much larger setting, a world of sensuous utility and industrial craft that is essentially timeless and utterly contemporary." With insightful text supported by lush photography and original sketches and drawings, the book is an engaging study of classic hotel design worth taking on the road. *William Weathersby, Jr.*

PHOTOGRAPHY: © PAUL WARCHOL, EXCEPT AAGE STRÜWIG (THIS PAGE, BOTTOM)

Wenge wood paneling creates a horizon for furnishings and finishes in shades of green and gray (left and opposite, top). The original lobby (opposite, bottom) featured a marble floor and a ceiling of green metal panels punctuated by recessed downlights.

A lobby ceiling supported by Douglas fir rafters complements mahogany window frames. Lounge chairs are based on designs by Gustav Stickley.

Inspired by the houses of Greene and Greene, Arts and Crafts vernacular enriches the **Lodge at Torrey Pines**

By William Weathersby, Jr.

With broad roof overhangs shading a low-slung facade clad in cobblestone, shingles, and gunite, the new Lodge at Torrey Pines, in La Jolla, California, recalls an earlier era in the region's history. Designed by architects of record Wimberly, Allison, Tong & Goo with a team of interior architects and designers, the 175-room hotel embraces the rustic vernacular of the Arts and Craft Movement seeded in Southern California at the beginning of the last century. The building is an architectural homage to the residential designs of architects Charles and Henry Greene, the legendary brothers whose houses and bungalows, built mostly in the town of Pasadena, California, 100 years ago, epitomize the American version of the style that also came to be called Craftsman. Overlooking the manicured greens of a golf course at the edge of craggy cliffs that descend to the Pacific Ocean, the hotel aims to reflect the Greenes' passion for straightforward materials and handcraftsmanship, respect for the natural landscape, and integration of indoor and outdoor living.

The historical style of the hotel was envisioned by client William Evans of Evans Hotels, a family-owned chain of properties in the San Diego area encompassing La Jolla. Seven years ago, after Evans toured the Gamble House, a restored Greene residence in Pasadena (a two-hour

Contributing editor William Weathersby, Jr., is a freelance writer based in New York City. He edits the interiors and lighting sections of RECORD.

Project: *The Lodge at Torrey Pines, La Jolla, California*
Architect of record: *Wimberly, Allison, Tong & Goo—Don Fairweather, principal in charge; Carol Craddock, project architect; Diane Hardy, designer*
Associate architects: *William M. Hughes; Harvey S. Christensen*
Consulting architect (historical): *RLM Associates—Randell Makinson*
Interior designer: *Kristine Smith Design Studio—Kristine Smith*

The elevation's massing, with shingle and gunite cladding beneath broad roof overhangs, evokes houses by Greene and Greene (above). A backlit ceiling (below) is based on one from the Thorsen House.

A pergola-covered deck off the main restaurant overlooks the grounds and golf course (above). The sitting area of the Blacker Suite (below) features wood-framed furniture, Tiffany-style lamps, and a fireplace bordered with mottled green tile.

drive north of San Diego) that is now a museum, Evans says he pursued the idea of honoring the architectural heritage of Greene and Greene at his new property, which was slated to be built on the site of a smaller motel. "The Gamble House embodies architectural integrity and attention to detail in a style that speaks to California before the advent of Hollywood and beach culture," Evans says. "We felt these values could be translated to the larger scale of a modern, intimate hotel, with authenticity as our goal. We didn't want to create a theme-park ambience."

Although the hotel references at least five houses designed by the Greenes at the peak of their career, it is most similar in style and detail to two projects considered their masterworks, the Blacker (1907) and Gamble (1908) Houses. "The Lodge was never meant to be a replica," says architect and engineer William M. Hughes, who collaborated on the interiors with designer Kristine Smith. Instead, building techniques and details embraced by the Greenes—the mortise-and-tenon joinery of mahogany beams, clinker-brick and cobblestone foundations, and earth-toned palettes suffused by art-glass lighting fixtures—are translated to the larger canvas of the lodge. Architect and historian Randell Makinson, an

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authority who has studied Greene and Greene for a half-century, served as a project consultant to ensure faithfulness to the spirit of their work.

A sense of history is established as guests arrive beneath the entry's porte cochere, whose timber roof members are supported by a massive, brick-and-cobblestone stanchion at the center of the circular drive. The structure adapts this detail from the Blacker House, here with a roof span of 45 feet rather than the original dimension of 25 feet. The three-panel, stained-glass front door evokes that of the Gamble House,

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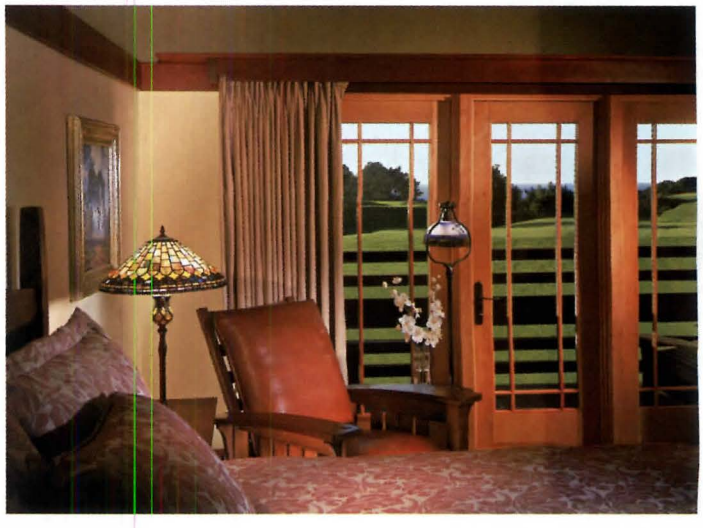
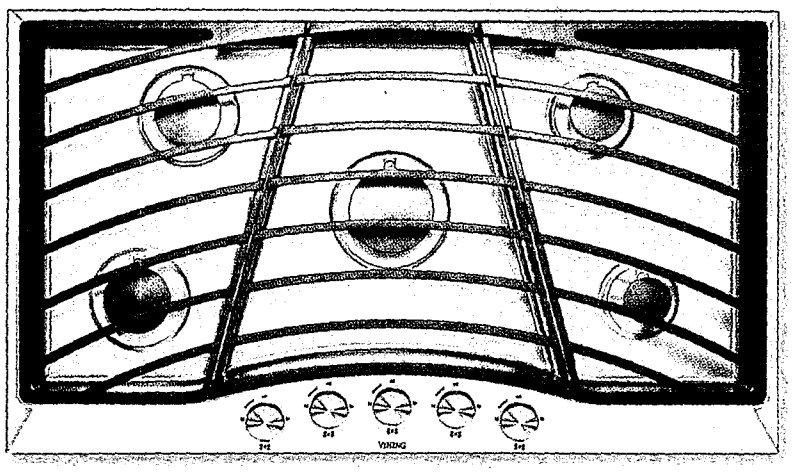
and in fact was crafted at the same workshop favored by the Greenes, Judson Studios. At the Lodge, however, the art-glass design incorporates images of the local Torrey pine tree, rather than the original's oak.

Inside, the legacy of the Greenes is signaled by original stained-glass window panels from their Tichenor House in Long Beach, California (purchased at auction by Evans), set behind a reception desk of Brazilian cherry inlaid with tiger maple. Beneath the lobby's 28-foot-tall ceiling, supported by metal-strapped, tongue-and-groove rafters of Douglas fir, reproduction lounge chairs in the style of Gustav Stickley rest atop hand-woven Oriental rugs. One suite of green-velvet-upholstered

The hotel spa (above) departs from the work of the Greenes to offer an interpretation of designs by their contemporary Charles Rennie Mackintosh. Guest rooms showcase millwork and furnishings that recall the early days of California Arts and Crafts (below).





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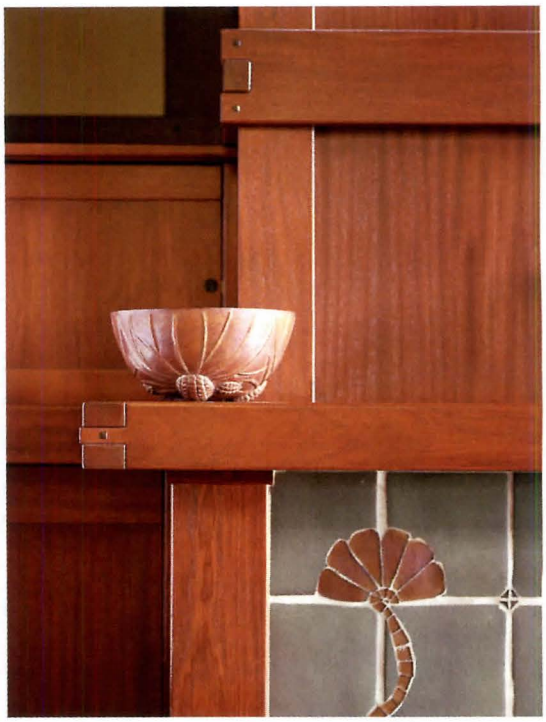

A clerestory lets daylight into the lobby (left). Throughout the hotel, reclaimed old-growth fir timbers are combined with jatoba, teak, ebony, and mahogany details for a period ambience. Decorative motifs inspired by botanical specimens are carried through in accessories such as reproduction pottery and fireplace tile work (above).

furniture is adapted from Greene designs. Nearby, wood rocking chairs surround a fireplace whose metalwork detail of polished steel inlaid with copper is a stylized reference to the site's trees and cliffs.

The main restaurant, A.R. Valentien, is named after a San Diego painter and artisan who was a contemporary of the Greenes. Displayed throughout the restaurant are his original illustrations of the area's botanical specimens. The room showcases metal-strap, post-and-beam structure, wood-framed windows, and stained-glass lanterns.

AUTHENTICITY REIGNS, FROM LIGHT FIXTURES HUNG BY LEATHER STRAPS TO COPPER INLAYS CIRCLING A FIREPLACE.

Guest rooms range in size from 520 to 1,500 square feet. Solid wood doors with latches, Brazilian cherry moldings and picture rails, and Stickley-inspired furnishings evoke the Greenes' golden era. Earth-toned wallpaper, carpets, and fabrics—adapted from designs by William Morris—are accompanied by Hiroshige prints and reproductions of California plein-air paintings. Lavish marble bathrooms break the spell of historicism, but they are a test-marketed concession to the preferences of modern guests, according to management.

Convincing in its adaptation of Arts and Crafts tenets, the hotel offers details that catch the eye at every turn. A remote back-of-house staircase, for example, is bordered by a scalloped molding that evokes a waterfall—quoting a detail from the Blacker House. "No guest may ever notice this millwork," Evans says proudly, "but the design team knows it's there, and the legacy of the work that inspired it." ■

Sources

Windows, doors: *Pacific Architectural Millwork; Pella*

Hardwood floors: *Richard-Marshall Fine Flooring*

Cabinetry, millwork: *Pacific Architectural Millwork; Artisans Du Bois; Graham Lee Associates*

Wall coverings: *Sellers & Josephson; Bradbury & Bradbury; Sanderson*

Furnishings: *Stickley; Graham Lee Associates; Jensen Custom Furniture*

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In Washington, D.C., the landmark Tariff Building is restored and retrofitted as the new **Hotel Monaco**

The marble facade of the 19th-century office building (top) was restored by Oehrlein & Associates. Draperies and rugs visually break up the length of block-long corridors (above).

By John Peter Radulski

The historic Tariff Building in Washington, D.C., has gained new life as the grand Hotel Monaco, sparked by a successful collaboration between the public and private sectors. Rising halfway between the U.S. Capitol and the White House on 7th Street Northwest, the imposing, block-long marble structure houses a new 184-room hotel whose interiors set colorful furnishings, fabrics, and fixtures against a restored backdrop rich in 19th-century Neoclassical detail. Michael Stanton Architecture, Oehrlein & Associates Architects, and interior designer Cheryl Rowley Design were part of the project team.

When a federal commission vacated offices within the building in the late 1980s, the General Services Administration concluded that the outmoded spaces were no longer suitable as a federal facility. After plans to convert the building into a museum fell through, the GSA sponsored an open competition to develop new adaptive reuse proposals. The Kimpton Hotel and Restaurant Group was selected in 1998 to reconfigure the interiors as a hotel, with a plan to lease the building for 60 years. Kimpton covered the $34 million renovation costs, qualifying for a 20 percent rehabilitation tax credit, and agreed to pay a leasing fee to the federal government based on hotel earnings. Under National Historic Preservation Act guidelines, rents paid to the GSA will support the preservation of other historic properties in the agency's inventory, in this case revitalization in the surrounding Pennsylvania Quarter neighborhood.

What Washingtonians call the Tariff Building evolved from the General Post Office Building completed in 1842 by architect Robert Mills, designer of the Washington Monument and the Treasury Building. Inspired by the Temple of Jupiter in ancient Rome, it was the first marble building in the city. In 1866, Thomas U. Walter, architect of the Capitol's dome and wings, expanded Mills's original structure with a north-side addition. It was designated a National Historic Landmark in 1971.

Oehrlein & Associates Architects helped prepare Kimpton's proposal to the GSA and served as preservation architect, while architect of record Michael Stanton came aboard with plans to transform the "mothballed" property into a luxury-class hotel. Because the building is landmarked, Kimpton was not allowed to make significant changes that would alter the original architecture. The first phase of the restoration, led

John Peter Radulski is the former editor of Hospitality Design. *He is a freelance writer and editor based in Westport, Conn.*

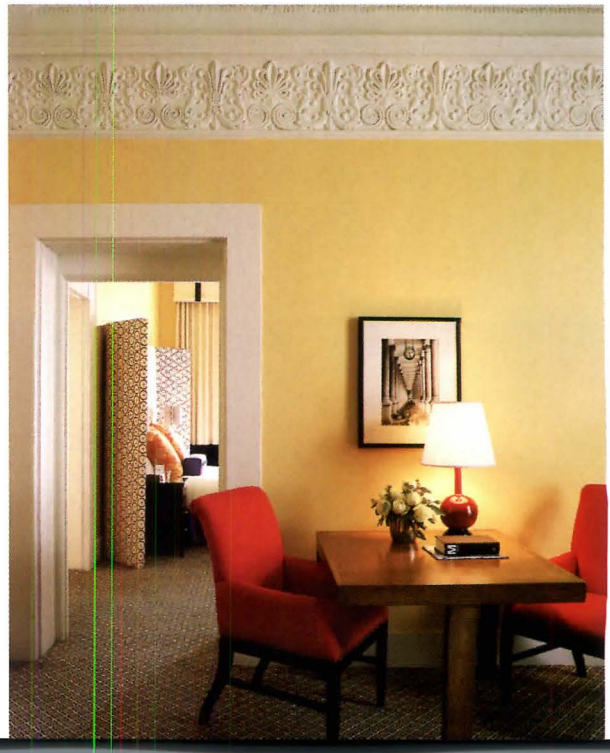
Project: *Hotel Monaco, Washington, D.C.*
Architect of record: *Michael Stanton Architecture*
Architect: *Oehrlein & Associates Architects—Mary Oehrlein, FAIA, principal architect (exterior and interior restoration)*
Interior designer: *Cheryl Rowley Design—Cheryl Rowley, principal designer; Robert L. LaCour, senior project designer; Sandy Ahn, design assistant; Maricris Climaco, project manager; Joseph Paz, production*
Consultants: *Heritage Consulting Group; Robert Truax Lighting*

The lobby lounge is grounded by crest-patterned carpeting. A Neoclassical mantle was faux-painted to resemble marble.

Folding screens employed as headboards mask sealed doorways and balance the scale of cavernous guest rooms (left). Restored cornices and doorways frame vibrant furniture and painted surfaces (below).

by Mary Oehrlein, FAIA, was demolition and abatement that removed hazardous materials and a snarl of dropped ceilings and other modern interventions. Plumbing and electrical systems were replaced, with new components running horizontally between the first-floor ceiling and second-level floor. Vertical runs now provide these services to guest rooms, while the attic houses ductwork and other mechanical support systems. Original vaulted ceilings, spiral staircases, and plasterwork were restored. Oehrlein was also retained by the GSA to restore or replicate the building's exterior stonework, iron fencing, roof, windows, and light fixtures.

The interior design team, led by Cheryl Rowley, also maneuvered around structural and technical confines. Doors along the guest-room corridors could not be moved, although the former offices could be combined to achieve a variety of guest-room configurations. Large upholstered folding screens serving as headboards obscure unused doors as well as fuse panels that could not be set into the walls. Armoires are employed in place of closets. Separate modules serve as bathrooms, since ceilings could not be altered. "Thirty percent of the guest rooms were below grade and the windows were at almost ceiling height," Rowley notes, "so we installed backlit sheer screens to add brightness."



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Working within the shells of the guest rooms and grandly scaled public areas, Rowley mixed traditional and contemporary furniture, fabrics, and lighting. The lobby's original columns are uplit by chrome-and-alabaster torchères. A Mies van der Rohe daybed sitting beneath swags of black-and-cream awning-striped fabric looks perfectly at home in a lounge area. Reproductions of furniture designed by Warren Platner and Le Corbusier add to the eclectic composition.

Guest rooms, many with 15-foot-high vaulted ceilings, are painted pale yellow and offset by periwinkle-blue fabric upholstery on lounge chairs and ottomans, red cashmere bed throws, and Neoclassical elements such as mahogany armoires. In every guest room, including 16 suites, a reproduction of Jean-Antoine Houdon's 1789 bust of American architecture patriarch Thomas Jefferson adds Federalist flavor.

It seems appropriate that the Hotel Monaco has rescued this stately building from neglect: The first building recorded at the site was Blodgett's Hotel, built in 1795 and destroyed by fire in 1836. ■

Sources

Furniture: *Troy Wesnidge; Knoll; Vaughan Benz; Jensen Custom Furniture; Les Meubles; David Edwards; Shelby Williams*

Fabric, upholstery: *Architex; Pierre Frey; Valley Forge; Knoll; Kravet; Clarence House; Maharam; Cortina Leather; Jack Lenor Larsen; Mark Tursi Leather; Old World Weavers*

Carpet: *Alarwool; Milliken*

Wall covering: *Koroseal; Metro; Sellers & Josephson*

Lighting: *Translite Sonoma; Robert Abbey; Sirmos; Leucos USA; Donghia*

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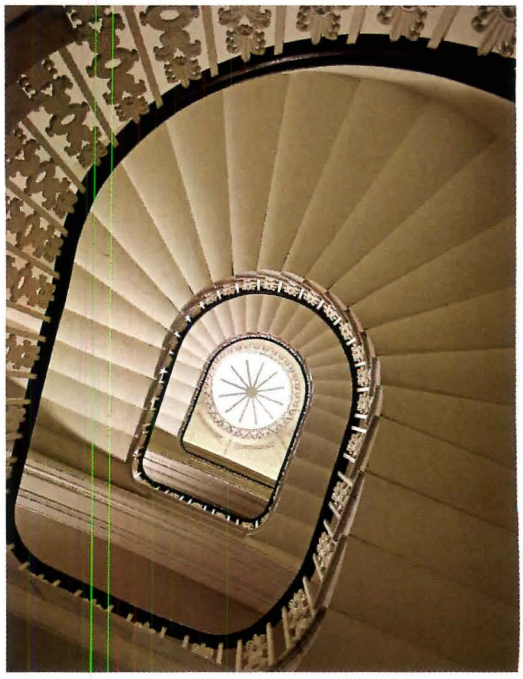
The Hotel Monaco offers 7,000 square feet of meeting space, including the Paris Ballroom (above), which showcases original columns and arches. A dramatic spiral staircase designed by 19th-century architect Robert Mills was also restored (below).



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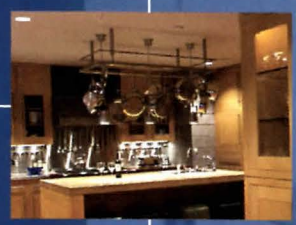

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Interdisciplinary Design Institute
Spokane, WA

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Hitomi Hayashi
Project: Restaurant of Illumination, Modern and Asian style
University of Bridgeport
Bridgeport, CT

Student Honorable Mention

Emily R. Dow
Project: It's About Time
University of Cincinnati
Cincinnati, OH

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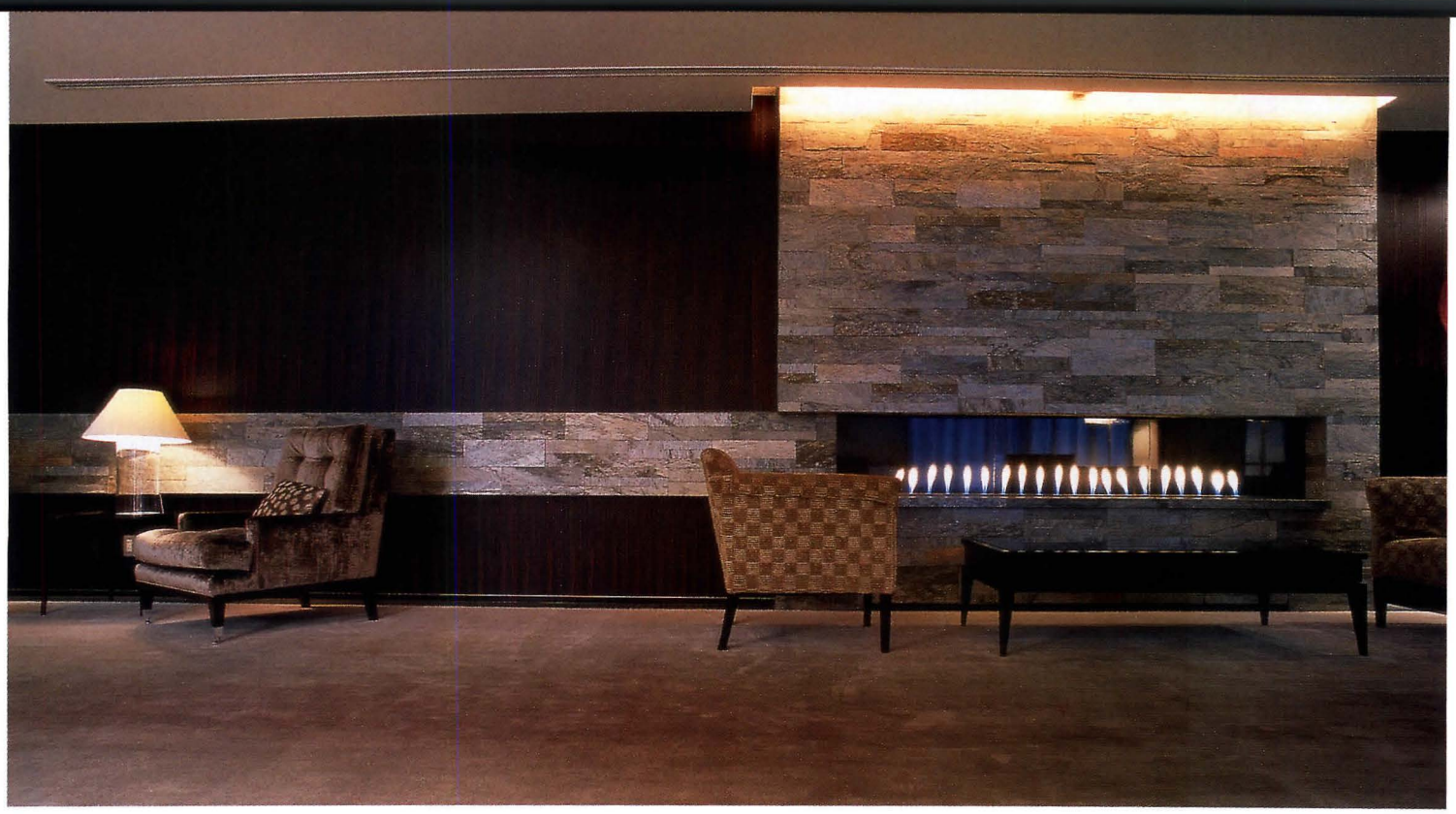


Yabu Pushelberg creates a an oasis of calm for the new **Four Seasons** hotel in Tokyo's Marunouchi district

By Leanne B. French and Clifford A. Pearson

Tucked within a 31-story glass office tower designed by the joint-venture team of architect Nikken Sekki and Takenaka Corporation, one of Japan's largest design-build companies, the newest Four Seasons hotel creates an intimate reserve hovering above the bustle of Tokyo's Marunouchi business district. With only 57 guest rooms (including nine suites) and contemporary interiors designed by Yabu Pushelberg, the hotel is a trendier younger sibling of the Four Seasons family, a retreat that adheres to the hotel chain's tradition of opulence while striking out in a less traditional architectural style.

Toronto-based partners Glenn Pushelberg and George Yabu were brought in by the Four Seasons management group to forge the hotel's fresh identity and reflect the modern tastes of its young owner, Hong Kong businessman Richard Li. "The owner, who was 32 at the time, wanted a hotel that spoke more to him and his generation," says Pushelberg. Here, sharp, rectilinear architectural lines and a textured collage of stone, wood, and glass embody the notion of luxury.

Originally slated as apartments, the lower floors of the building were converted to hotel use only after construction had begun on Li's Pacific Century Place tower. "Accommodating a five-star hotel in the existing space was a challenge," admits Tetusuji Yuki, an architect with Takenaka who worked on the project with colleague George Kurumado. Changes to the apartment-floor sector included adding two extra elevators, space for back-of-house hotel services, and triple glazing for improved sound insulation.

The reception area (above) and lobby lounge (top) juxtapose warm-toned wood, stone, and upholstery.

Inserted between the third and seventh floors, the hotel was lim-

Leanne B. French is a freelance writer based in New York City. Senior editor Clifford A. Pearson was on a fellowship in Japan this spring.

Project: *Four Seasons Hotel Tokyo at Marunouchi, Tokyo, Japan*
Architects: *Nikken Sekki; Takenaka Corporation—George Kurumado, project director; Tetsuji Yuki, project architect*
Interior designer: *Yabu Pushelberg—George Yabu, Glenn Pushelberg, principals; Christopher Koroknay, Lizette Viloria, Kelly Buffy, Ayako Sugino, Anthony Tey, Paul Pudjo, Minh Duong, Polly Chan, Sunny Leung, James Robertson, Christina Gustavs, project team*

ited in square footage and suffered from low ceilings and wide, flat floor plates. Yabu Pushelberg saw the constraints as design providence, allowing the team to approach the hotel as it would a private club. "Because it was so small, the challenge was to link the spaces as an intimate series of salonlike rooms, rather than trying to evoke a grand, sweeping hotel," explains Pushelberg.

The concept of secluded luxury suited the hotel's busy location neighboring Tokyo Station, with the Imperial Palace and Ginza shopping district also nearby. Despite the bustle, guests can escape from the fast-paced surroundings via the hotel's entrance, placed discreetly at the side

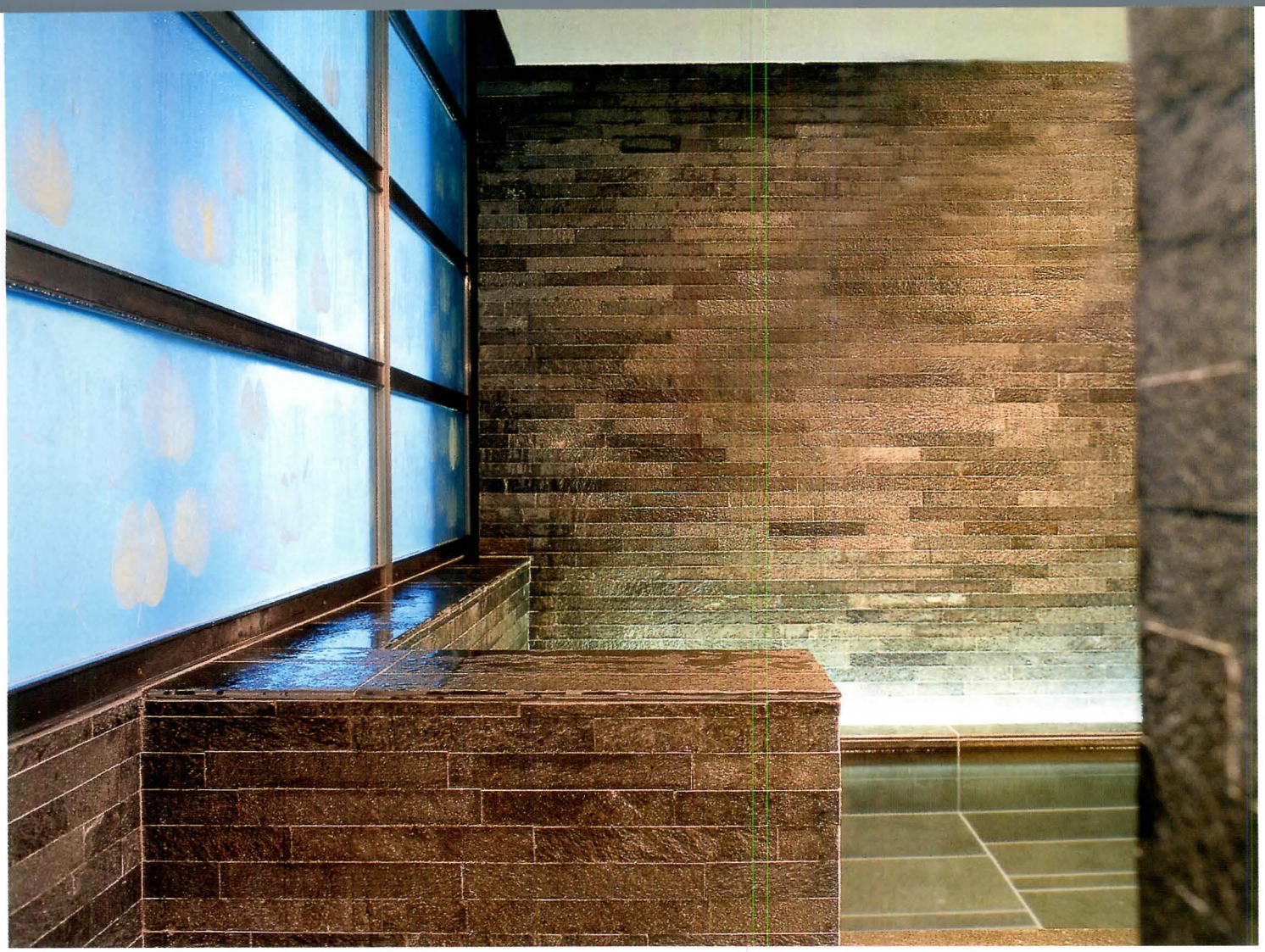
WITH INTIMATE PUBLIC SPACES AND ONLY 57 GUEST ROOMS, THE HOTEL HAS THE AMBIENCE OF A PRIVATE CLUB.

of the building. Just outside the entry, water cascades down a freestanding quartzite-clad wall, creating a serene welcome. Stepping inside to the first-floor transfer lobby, the urban noise is moderated by triple-glazed windows that provide a hushed soundscape. Rising from the corner of the building, a 13-foot-diameter structural column, required by earthquake codes, is transformed into an organic curvilinear form wrapped in steel bands. Ebony-clad walls draw guests toward elevators that take them to public areas and guest rooms on upper levels.

The hotel's main public venues are centrally located on the seventh floor. Inspired by the lobby of the Four Seasons Hotel Milan, the

In a lounge area, low-rise seating surrounds a gas-jet fireplace faced in quartzite. Red Zulu hats are displayed as art atop a table. A structural column banded in steel and a wall of elevators faced in ebony create a strong presence in the transfer lobby (below).

A wall of quartzite topped by macassar ebony borders a path through the lobby (above). Restaurant chair frames are mahogany, while table-tops are ebony with rosewood trim (left).



reception area, lobby, bar, restaurant, and spa are arranged as a series of spaces connected along a central walkway. Yabu Pushelberg arranged furniture in the lobby lounge in seating groups of varying sizes to encourage meeting and mingling. Unspectacular views from most vantage points prompted the designers to shift focus inward. In the bar, attention is redirected with the placement of five metal-framed panels of white onyx laminated to glass and backlit at night. In the lobby lounge, a stone-slab hearth surrounds a gas-jet fireplace as a sculptural presence in the cloistered environment.

Public areas are enveloped in warm colors, from plaster wall finishes accented with mother-of-pearl inlay to handmade Chinese carpets

WHEN THE LOWER FLOORS OF AN OFFICE TOWER WERE ADAPTED AS A HOTEL, A LAYERING OF TEXTURES TRUMPED VIEWS.

in gradations of taupe to cream. The central walkway leads to the 65-seat restaurant, Ekki, which translates as "train station," a nod to its views overlooking the rails. High-backed banquettes divided by steel rectangles are placed around the perimeter, while two groups of four tables in the center of the restaurant are separated by freestanding carbon-fiber rods that form screens. While not typically Japanese, the decor is infused with an Asian flair by a large pair of hands from an antique Burmese Buddha, as well as a hand-painted screen adorning a wall.

On the four floors below the lobby level, guest rooms combine

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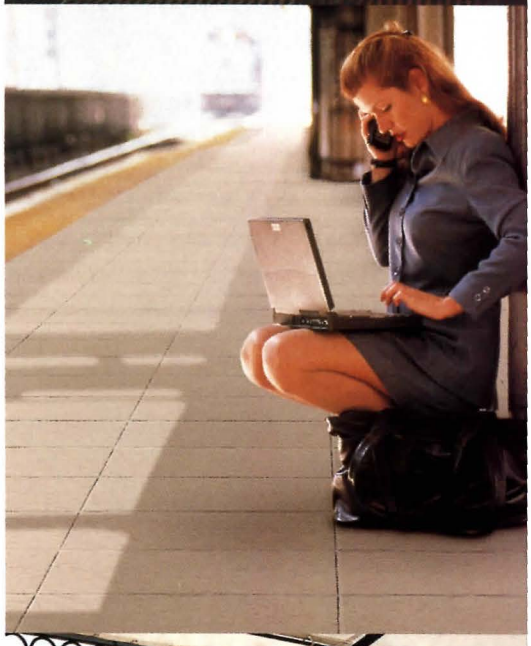

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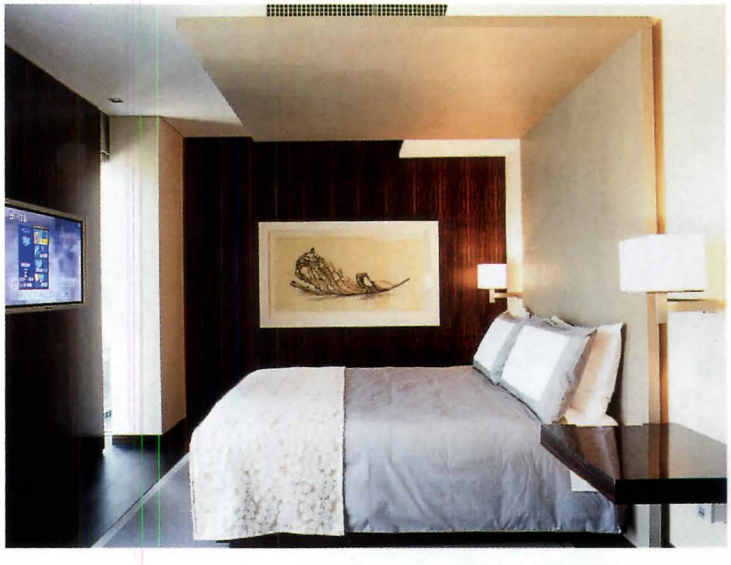
The Four Seasons Hotel Tokyo presidential suite (above and right) features ebony flooring. Custom furniture is constructed of woods including ebony, sycamore, and rosewood. Built-in cabinetry and a streamlined canopy add sculptural interest to the suite.

richly textured materials to evoke a high-end home away from home. Rooms range in size from 474 to 1,722 square feet in 17 configurations. Neutral tones and floor-to-ceiling windows framed by sheer draperies or wood-framed panels of glass-laminated fabric create a subdued landscape. Within each room, the placement of custom furniture—displaying the patinas of ebony, sycamore, and rosewood—focuses attention away from the outside world and inward to comfort.

Italian sycamore wall panels and dark South American wood flooring in standard guest rooms and ebony in suites envelop the rooms in warmth. Plush beds with leather headboards and bathrooms clad in Italian limestone and black slate are luxury creature comforts. Sculpted Italian tubs positioned in the corners of suites offer panoramic views of the city. An ambitious program of original work by Asian and Western artists further enriches the visual experience.

"Hotels are as much an emotional experience as a studied architectural experience," says Pushelberg. At the hotel at Marunouchi, Yabu Pushelberg's take on Four Seasons style introduces an oasis of calm at the center of a global capital. ■



Sources

Furniture: *Decca; Knoll; Palumbo; Pucci; Louis Interiors; Minotti; B&B Italia; Void; Hickory*

Upholstery: *Donghia; Pollack; Jack Lenor Larsen*

Carpet: *Tai Ping*

Lighting: *Eurolight; McGuire; Ralph Lauren Home; John Saladino; Tango*

Plumbing: *Dornbracht*

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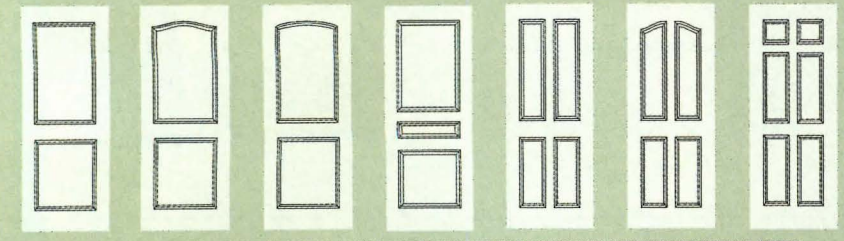

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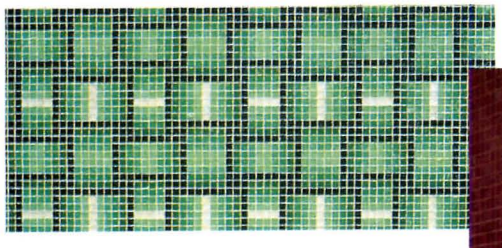
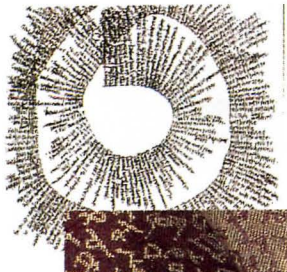
Interiors Products

▲ The next legendary longue?
The Musa chaise, designed by Davide Varotto, features a multilayer birch structure veneered in cherry, light cherry, kajal, amber, or dune oak on a base of solid cherry or oak. It comes with a leather or fabric roll cushion and an optional leather or fabric seat cushion. The modern chaise longue measures 62" x 12" x 30". 866/3HABITA. Habita Collections, Pacific Palisades, Calif. **CIRCLE 200**



▲ Preprogrammed mosaic patterns
Bisazza has added three new series of preprogrammed patterns to showcase the design potential of its mosaics, including Stripes, Camouflage, and Basket—a basket weave pattern available in blue, brown, gray, and green (above). Another new addition is Gloss (right), iridescent ¾" tiles available in 12 shades. 305/597-4099. Bisazza, Miami, Fla.. **CIRCLE 201**



◄ Noteworthy upholstery
Pallas has introduced a collection of jacquard upholstery inspired by the calligraphic art of Jan Baker, professor of graphic design at the Rhode Island School of Design. Created by designer Lori Weitzner, the Jottings Collection features the visual notes taken by Baker at lectures, poetry readings, and faculty meetings that have been "woven" into visual verse (above left). These calligraphic markings have been adapted by Weitzner into designs (left) made of recycled yarns woven on looms powered by windmills. 800/4-PALLAS. Pallas Textiles, Green Bay, Wis. **CIRCLE 203**

Interiors Product of the Month
Painted Canvas Rugs

Artist and rug maker Patricia Baun (above) saw a niche in the interiors market for hand-painted canvas rugs featuring striking color combinations and modern patterns. Baun says the heavyweight cotton canvas rugs, available through her Vancouver-based design studio, PMB Designs, offer the best attributes of textile-based floor coverings, including organic texture, pliable feel, and handcrafted quality, while featuring the vivid colors and ease of maintenance generally associated with synthetic flooring. The rugs are hemmed to give a finished appearance, and the painted surfaces are sealed with several coats of clear varathane to protect them from wear and moisture. While the three existing patterns are appropriate for both residential and commercial indoor applications, Baun can also create her designs in custom sizes, colors, shapes, and patterns. 604/879-7775. PMB Designs, Vancouver, Canada. CIRCLE 202

▼ Scotland yarns
Ted Boerner and Frank Pontes, partners in San Francisco–based Ted Boerner Furniture, have introduced the FrankFabrik textile collection to complement the company's classic modern furniture. FrankFabrik's initial series, Scottish Moors, offers five colorways of striped neutrals and were conceived to pair with Ted Boerner's existing solids. Scottish Moors is woven in Scotland of 100 percent wool and is available in two patterns inspired by the landscape of the Scottish countryside, Highland and Furrows. The fabrics' colors feature rich combinations of tobacco, coffee, olive, khaki, sage, mushroom, and sand. 415/487-0110. Ted Boerner, San Francisco. **CIRCLE 204**

Interiors Products

Showcase Ireland

From crystal chandeliers to turnkey pubs primed for your local main street, the best of handicrafts and interior products made in Ireland was on display at the country's annual trade fair held in Dublin last January. *William Weathersby, Jr.*

◄ A flair with chairs

Operating from a workshop in Ballymahon, the seven-year-old company Robert English Designs creates custom commissioned furniture pieces constructed of wood. A three-person team led by craftsman Robert English fabricates designs primarily in a contemporary style, including beds, tables, chairs, desks, chests of drawers, and armoires. Most pieces, for residential or commercial use, are solid wood, accented by detailing with specialty veneers and inlays, including masur birch, bird's-eye maple, oak burr, cherry, walnut, and cedar. Natural finishes are hand-buffed and waxed. 353 090 643 2487. Robert English Designs, Ballymahon, County Longford, Ireland. **CIRCLE 205**

▲ Import an Irish pub

A design-build exporter of traditional Irish dining and drinking establishments, the Irish Pub Company crafts custom-fitted bars for commercial locations or privates houses. The company visits the site and specifies shell preparation to be fitted out by local contractors, including mechanical, electrical, and structural services. All furniture, fittings, and fixtures are shipped and then assembled by a team of Irish craftsmen. The company also consults on food and beverage, entertainment, and training operations. 702/795-0090. The Irish Pub Company/McNally Design Group, Las Vegas. **CIRCLE 206**

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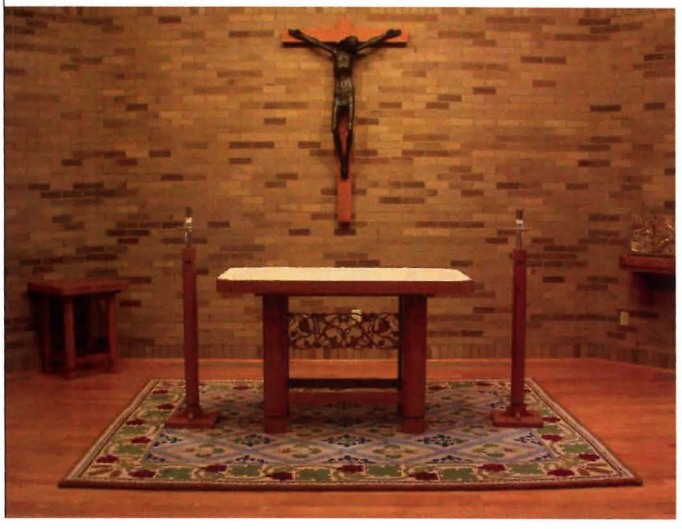
◄ Mirror image

Trained in Ireland at the National College of Art and Design, artisan Christine Hughes produces a range of ceramic objects including mirror and picture frames, lamps, bowls, and vases. The line is handcrafted through a stoneware technique whose finished texture is inspired by natural forms. Each piece comes in a range of sizes and colors, in addition to custom specifications. 353 1 670 3699. Christine Hughes Ceramics, Dublin. **CIRCLE 207**

▼ Wool finery underfoot

After support from the Irish State helped to revive the dormant company, Donegal Carpets is again producing custom wool rugs. Hand-knotted carpets have been made over the years for clients including the White House and the Vatican. For a new rug at the University of Notre Dame, in Indiana (below), consultant Eileen Hampshire and architect John Hampshire reworked an Arts and Crafts design that had been in the company's repertory since its founding in 1898. 941/312-0075. Art To Walk On, Sarasota, Fla. **CIRCLE 209**



► Crystal clear

Helmed by Joseph Williams, the family-owned Heritage Irish Crystal Company manufactures a line of full-lead-crystal decorative accessories that includes table lamps and chandeliers. For pieces such as the Cricklewood Lamp (right), one of more than a dozen lighting designs, the company employs a hand-dipped polishing process that preserves the crystal object's crisp edges and sharply defined angles. 212/686-5138. Heritage Irish Crystal, New York City. **CIRCLE 208**

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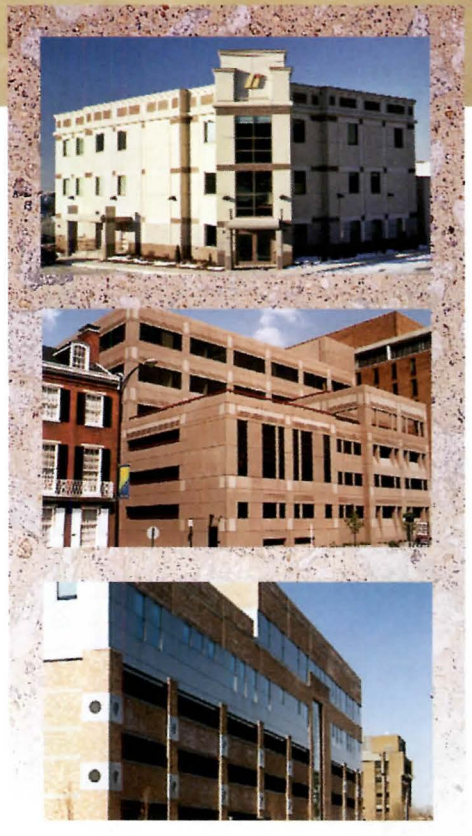

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New Products

The following **contract furnishing and carpeting** choices can enhance a variety of commercial settings, from the conservative investment bank office to the avant-garde advertising firm. This month, specifiers will gather to see the latest technology-integrated conference tables and **grime-fighting carpet tile** at NeoCon, held June 16–18 at the nation's second-largest building, Chicago's Merchandise Mart. *Rita F. Catinella*

Company rebrands to reflect its focus on modern contract furnishings

Founded as a tool and die shop in the 1930s, contract furnishing manufacturer Bretford has dropped the company's "Manufacturing" surname as part of a new branding campaign. Along with a new logo and Web site, the company plans to introduce several product lines this year, as well. The first new offering, the Plus soft seating and table collection, resulted from the creative energies of the Formway Design Studio in New Zealand, which commissioned Bang Design of Australia to produce a soft-seating line that answered the need for breakout and meeting areas in an open office. The Plus collection includes chairs and sofas with or without arms that feature a plush foam body and hard cast-aluminum frame; benches in two sizes that feature a lightweight frame allowing for easy reconfiguration; and tables available in a clear glass, frosted glass, or wood top in a choice of nine veneers. All chairs, tables, and benches in the collection are fitted with glides on the legs for easy shifting. 847/678-2545. Bretford, Franklin Park, Ill. **CIRCLE 210**

Plus tables are available in either a wood (left) or glass top (right).

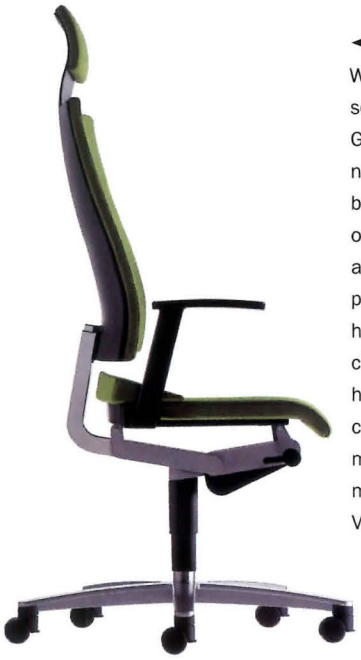
Linking training tables to technology

Nienkämper introduces the Vox Linked Table for corporate, executive, institutional, and public training centers where connectivity is essential. Designed by Mark Müller, Vox Linked Tables are constructed at two heights to accommodate wheelchair access. The Vox Forum, which is UL and CSA listed, is secured into the tabletops and allows for all forms of power, voice, and data connection. The base includes a channel and allows the routing of cables from the floor and the storage of excess cable. The units are available in wood finishes from light to dark as well as laminate, and specifiers can choose from three solid wood edge details. All aluminum components—the base, Vox Forum, and privacy screens—are available in five anodized aluminum finishes.

Vox accessories include wire managers and grommets with security loops. The faceted modesty panels are offered in a range of heights. 800/668-9318. Nienkämper, Toronto. **CIRCLE 211**

Child-care facility departs from A-B-C color scheme

The 2002 DuPont Antron Design Award Grand Prize was presented to C&R/Rizvi for its use of carpet in the Reebok Childcare Center for Reebok International's headquarters in Canton, Massachusetts. Carpet was the preferred floor covering in the design since it offered a soft and warm play area for children; floor tiles were chosen for their ease of replacement. Entendre, a product from Bentley Prince Street constructed of Antron Legacy nylon, and Interface Flooring Systems' Paintbox in Antron Lumena solution-dyed nylon, provided the right range of secondary colors for the facility. The team broke away from the primary colors generally used for children, instead using soothing but rich tones of apricot, lavender, and chartreuse for the child-care facility. 800/458-4329. DuPont Commercial Flooring, Kennesaw, Ga. **CIRCLE 212**

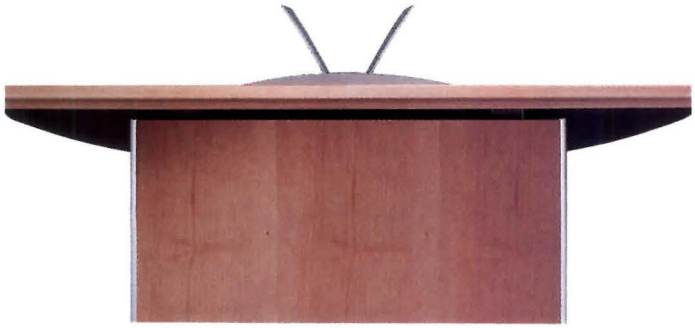


◄ Award-winning seat

Winner of the Orgatec Award for seating last October, Solis German–designed office seating is now available in America. Solis may be specified with mid or high backs, optional headrests, and auxiliary adjustable back and pelvic-region seat pads. Adjustable features include seat height, swivel, lumbar support, synchronous tilt, seat depth, and armrest height and width. Structural and base components are high-grade cast aluminum in combination polished and matte black finishes. 972/641-2860. Vecta, Grand Prairie, Texas. **CIRCLE 213**

► Putting your work space to work

The horizontally supported components of the Xsite office system allow the work surface, storage, and structure of each office area to be altered with ease. The system's 3" deep structure accommodates Xsite performance tiles that turn otherwise wasted space into file holders, display areas, and hideaways for storage. The modularity of the tiles can help personalize the look of each individual employee area. 800/482-1818. Kimball Office, Jasper, Ind. **CIRCLE 215**



▲ For those intense conferences

Following last year's Origin casegood systems line, Nucraft returns to its conferencing roots with Avid. The Avid conference table provides extensive technology capacity concealed beneath arched doors traversing the center of the table. Avid eliminates the need for ancillary storage and is available in a wide array of shapes, sizes, and materials. 877/NUCRAFT. Nucraft, Grand Rapids, Mich. **CIRCLE 217**

▼ Chipper seating

Chip is an armless, stackable chair from the Good Design Award–winning Finnish designer Antti Kotilainen. Chip is made of melamine-covered birch sheets and a chrome-plated or steel frame and is available in a range of vibrant and neutral colors. Suitable for cafeterias, conference rooms, or as an office side chair, Chip can stack 12 high or 20 on a dolly cart. KnollStudio will serve as the exclusive distributor of the product for the U.S. and Mexico. 212/343-4125. Knoll, New York City. **CIRCLE 214**

◄ Welcoming office furnishings

The Hello Scoot mobile seat is part of Haworth's newest introduction, the Hello Collection. The Hello Scoot can fit under a conference-room table and features a swivel base, oversize casters, and an optional upholstered arm bolster.

The other members of the collection include a guest chair with a sweeping back and curved arm, a stationary lounge (one- or two-seat version), and a mobile lounge with a power pack, tablet arm, and swivel base. 616/393-3000. Haworth, Holland, Mich. **CIRCLE 216**

▲ No unwanted pop-ups

When the deQuorum Worksurface Portal is installed into existing conference tables, workstations, mobile teaming tables, or other work surfaces, it provides ready access to power, voice, and data without the pop-up components or lids that must remain open during use. The system is designed so that wires and cables exit the device while the cover is closed and flush with the table. Communication ports can easily be replaced to accommodate changing work-surface function and technology. 800/621-0049. The Wiremold Company, West Hartford, Conn. **CIRCLE 218**

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▲ Back to neutral

Milliken Carpet's Simply This collection of 36" loop-pile modular carpets was created by Milliken's Design Studios in response to designer requests for more "back to basics" carpet styles that offer a feeling of longevity while reflecting present fashion trends. Simply This comes in 15 designs organized into five families to help designers coordinate or mix and match patterns, scales, and neutral colors in interactive interior schemes. 800/241-4826, ext. 5200. Milliken Carpet, LaGrange, Ga. **CIRCLE 219**

▼ Solid color choices

Designed by Suzanne Tick exclusively for the Prince Street line, Crepe Suzette (below left) achieves a contemporary shag texture with a high loop construction. Available in 18 standard colorways, the high-performance 12' carpet is made of Prince Street approved Type 6,6 Premiere Nylon. Kings Road (below right) solid-color cut-pile commercial carpet was introduced in 1983 and is still the cornerstone of the Bentley line. Kings Road has recently undergone a color update and is available in 138 colorways, 72 of which are brand-new. 800/423-4709. Bentley Prince Street, City of Industry, Calif. **CIRCLE 220**

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Belden Brick offers thirteen different textures that range from silky smooth finishes to rugged randomly textured styles. Each texture can make its own distinctive contribution to the visual impact you seek.

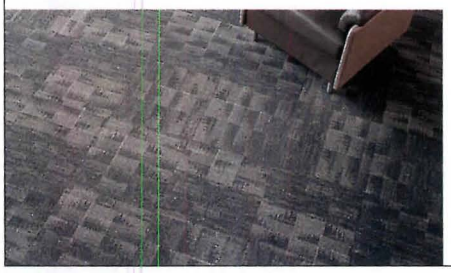
New Products Contract Carpet

▼ Blooming broadloom

All 12 colors in Lees Colorburst broadloom carpeting feature a space-dyed yarn designed with either bright primary colors or jewel tones that pop randomly from complementary backgrounds. Colorburst, which may appeal to specifiers in markets from education to retail, is offered in both broadloom and 6-foot, and utilizes the Lees Duracolor patented stain-resistant dye technology. The collection also features the Lees new Unibond RE backing system, which has been certified as containing 20 percent postconsumer recycled content. 336/379-2000. Lees, Greensboro, N.C. **CIRCLE 221**

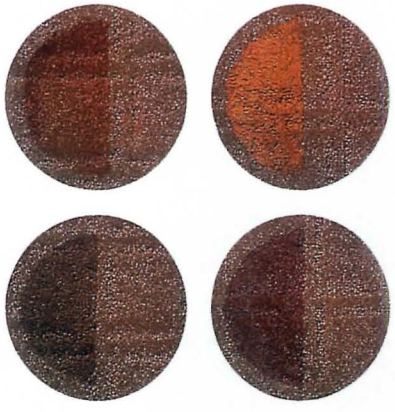
▼ Complexity of the carpet

Collaborating again with designer Jhane Barnes, C&A Floorcoverings has introduced Chaos, a new geometric design for carpet tile. Drawing on Barnes's expertise in mathematically based design, Chaos in based on the principles of Chaos Theory and fractal mathematics. "Chaos is an abstract geometric that becomes almost organic when installed in a totally random manner," explains Barnes. 706/259-9711. C&A Floorcoverings, Dalton, Ga. **CIRCLE 222**



► Carpet for clumsy people

The Mohawk Group's EverSet Technology carpet-protection system alters the chemistry of any nylon fiber to make it resistant to spills such as betadine, mustard, and fabric dye. While these stains ordinarily require the use of special cleaning agents, they can now be cleaned with nothing more than water. In addition, the technology does not hinder the colorfastness of the fibers. 800/554-6637. The Mohawk Group, Kennesaw, Ga. **CIRCLE 223**



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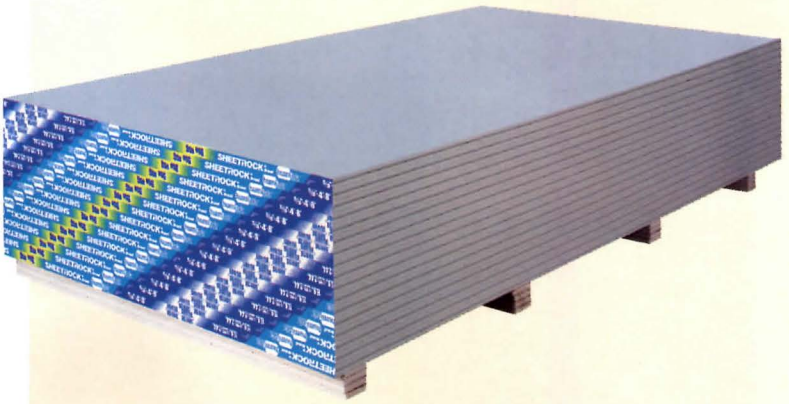
Product Briefs

◄ Organically tanned

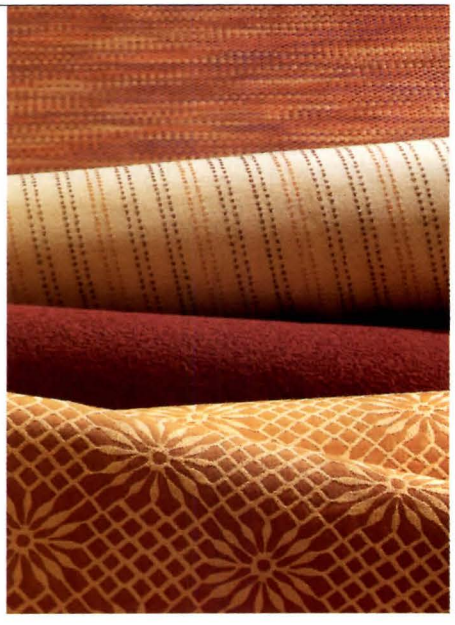
Available in 42 colors, Terraverde leather is organically tanned using a chrome-free process with a water-based semi-aniline finish. The tanning process results in low environmental impact, brighter colors that are consistent from batch to batch, and an overall "better hand." The cleanliness of the process also allows necessary chemical treatments (such as fire retardants) to adhere to the structure of the leather. 800/668-9318. Nienkämper, Toronto. **CIRCLE 224**



Product of the Month Humitek Gypsum Panels

After studying the issue from a variety of perspectives, USG has decided that the key to minimizing mold and mildew growth is to select the most practical ingredient to remove from the three elements that create the problem: mold spores, the nutrients they feed on, and moisture. While mold spores are everywhere, and even common dust can be a food source, moisture control arose as the answer. USG's first major product launch for 2003, Sheetrock brand Humitek gypsum panels have a noncombustible, moisture- and mold-resistant gypsum core that is encased in moisture-resistant, 100 percent recycled blue-face and brown-back papers. The Humitek line is designed specifically for use in residential and commercial interior areas such as basements, garages, and bathrooms (although not for tub or shower surrounds), elevator shaft walls, and areas near air-handling units. USG emphasizes that the panels are to be used as just one part of a comprehensive approach to controlling the problem. 800/USG-4YOU. USG, Chicago. CIRCLE 225

► A day at the playa



The Del Mar Collection, from Unika Vaev, brings a Latin sensibility to the contract market. The Del Mar Collection is comprised of Balcón, a cotton/polyester fabric in a vibrant pattern reminiscent of filigree wrought-iron work; El Paseo, a subtle broken double stripe suggestive of pathways that is 92 percent wool; Playa, a rich solid blend with a soft hand; and Parasol, a cotton/rayon blend in a rattanlike pattern with an interweave of color and texture. Even though the Del Mar Collection explores new color combinations, all the fabrics coordinate with the balance of Unika Vaev's existing products. 800/237-1625. Unika Vaev, Taftville, Conn. **CIRCLE 226**

▲ Proper alignment

Crown Heritage Stair Company has developed a patent-pending stair system that precisely aligns standard balusters with the rake of the rail and the tread—something previously unavailable in a 34" rake rail height. The system provides a solution to the stair-system industry's problem of uneven alignment, which emerged from a change in building codes. 336/667-5976. Crown Heritage, North Wilkesboro, N.C. **CIRCLE 228**

▼ Modern gazebo

A pavilion from Richard Schultz Design will be in production this fall for residential and commercial applications. The basic module is a 10' square structure made of bead-blasted stainless steel. The module can have additional columns and top beams added as required. Pleated vinyl mesh shading curtains designed to operate on a stainless-steel cable will be available for the top or any of the sides. 215/679-2222. Richard Schultz, Palm, Pa. **CIRCLE 229**

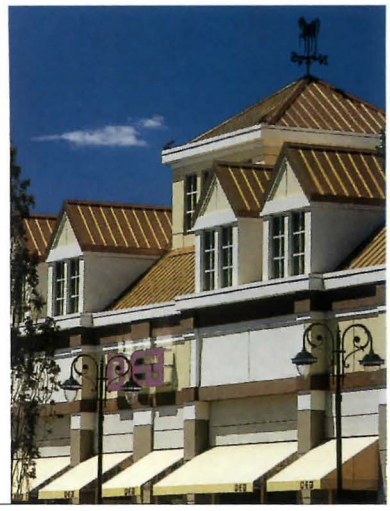
► No pins or holes needed

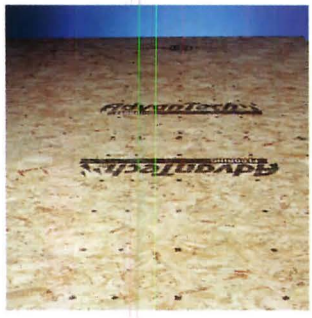
VT Industries is now offering cross-corridor wood doors that meet positive-pressure fire-door standards without having to install thermal pins or drill holes into floors. The cross-corridor wood doors meet approval as long as they are manufactured with a new mineral core from Georgia Pacific, Firestop stiles and rails, and follow the procedures used to construct the original test doors. 712/368-4381. VT Industries, Holstein, Iowa. **CIRCLE 227**

Product Briefs

▲ Shades of the seaside
Conrad introduces DesignerLine, four new custom handwoven window shades in a range of modern neutrals inspired by the sea. Each shade is handcrafted of continuous strands of natural wood-pulp fibers to customer size specifications. Shell is a light neutral shade, washed with subtle tints of rose and sandstone; Starfish is a sun-bleached brown highlighted with notes of honey and gold; Seagrass (above left) is a classic neutral that combines taupe with undertones of weathered green; and Moss is a soft, dusky green (above right). 866/426-6723. Conrad, San Francisco. **CIRCLE 230**

► Complementary roofing
In order to help create a "main street" shopping environment in this Bowie, Maryland, town center, six complementary Pac-Clad colors were utilized, including Copper Penny, Hemlock Green, Slate Gray, Forest Green, Terra-Cotta, and Colonial Red. More than 50,000 square feet of Petersen's Snap-On Panels were installed. The panels are produced in factory-formed lengths of up to 55 feet. 800/323-1960. Petersen Aluminum Corporation, Elk Grove Village, Ill. **CIRCLE 231**





◄ Complete building system
The performance of AdvanTech flooring is now available in a complete building system. Huber introduces a new AdvanTech Building System that includes the manufacturer's signature flooring, rim board, and sheathing and the all new I-joists available in two series. All components are covered by 50-year limited warranties. 800/933-9220. Huber Engineered Woods, Charlotte, N.C. **CIRCLE 232**

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▼ American-made mosaics

Exmore, Virginia–based New Ravenna Mosaics' line of hand-fashioned, museum-quality mosaics has been extended with a new line of topical, contemporary repeating patterns that are applied to tabletops and vanities as well as horizontal and vertical surfaces. Shown here are the new Tatami (below left) and Banana (below right) designs. New Ravenna customers can choose custom designs from the Sara Baldwin Design Studio or select existing designs, borders, and field tile from the company's catalog in more than four dozen colors of marble. 757/442-3379. New Ravenna Mosaics, Exmore, Va. **CIRCLE 233**

▲ Get a good stretch

The six new Action Fabrics textiles from Maraham marry the casual aesthetic of high-fashion sportswear with performance, including high-abrasion resistance. As three-dimensional polyester knits, the new Action Fabrics are characterized by a two-way stretch and a pliable construction that allows for a fitted appearance on the most challenging forms. Select patterns include postindustrial recycled content and flame retardance. 800/645-3943. Maharam, New York City. **CIRCLE 234**

▼ More secure exteriors

Enhancing security while protecting aesthetic values has become a significant challenge for designers. The Annapolis bollard, a first from Landscape Forms, was designed to complement the company's site furniture. The steel bollard offers low-level lighting and features a replaceable polyethylene sleeve that protects the structure from dents and scratches. 800/521-2546. Landscape Forms, Kalamazoo, Mich. **CIRCLE 235**

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Product Literature

Revamped brochures

AGI recently revamped brochures of several of its most popular furniture lines for the health-care and business markets. The Flex and Briar product brochures detail the collections' ergonomic features—designed to offer a shortcut on the road to recovery. Other new material includes product brochures with new photography for the Grand Salon and Zylo collections of seating options. 800/424-2432. AGI, High Point, N.C. **CIRCLE 236**

Vanity and cabinet catalog

The Furniture Guild introduces the new *Vanity Flair 2003 Catalog*, a showcase of more than 50-pages of the company's complete offering of individually crafted furniture for the bath and kitchen. More than 40 styles of vanities and cabinets are displayed, ranging from casual country to contemporary to formal European classic designs. 888/479-4108. The Furniture Guild, Canton, Ga. **CIRCLE 237**

Interactive molding CD

WindsorONE now offers an interactive CD-ROM showcasing the company's entire molding product line, complete with product specs and CAD drawings. 888/229-7900. WindsorONE, Windsor, Calif. **CIRCLE 238**

Tile and stone catalog

Walker Zanger's new full line *Stone & Tile Catalogue* includes 284 pages of collections of handmade ceramic tile, terra-cotta, metal, stone tile and slabs, mosaics, and glass. The catalog's high-quality photography makes it graphically strong enough to double as a coffee-table book. 818/504-0235. Walker Zanger, Sylmar, Calif. **CIRCLE 239**

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Product Literature

Period-authentic fixtures

Rejuvenation, a manufacturer of made-to-order period lighting, has introduced 73 new products in its *Lighting & House Parts 2003 Resource Guide*. The *Resource Guide* enables readers to explore more than 100 years of old-house culture through the lens of period lighting and hardware. It showcases six major collections of period-authentic light fixtures, including Period Basics, Early Eclectic, Historic Revival, Arts & Crafts, Colonial Revival, and Modern America. Rejuvenation also offers house parts (door sets, cabinet pulls, hinges, and bathroom hardware) to complement its light fixtures. 888/343-8548. Rejuvenation, Portland. **CIRCLE 240**

30th birthday CD

To celebrate its 30th anniversary, U.S. Tile has developed a CD demonstrating the company's growth and roofing product offerings through the past 30 years. U.S. Tile claims to be the largest producer of authentic clay roofing tile in the nation. 800/252-9548. U.S. Tile, Corona, Calif. **CIRCLE 241**

Ceramic tile catalog

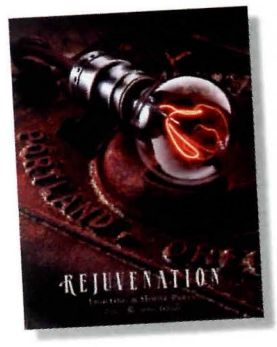
The second edition of Pratt & Larson Ceramics' 24-page color catalog gives an overview of its handcrafted tile line. Four glaze lines and 14 decorative-style lines are showcased, as well as metallic specialty glazes, mosaics, architectural trims, and a wide range of field sizes and shapes. 503/231-9464. Pratt & Larson Ceramics, Portland. **CIRCLE 242**

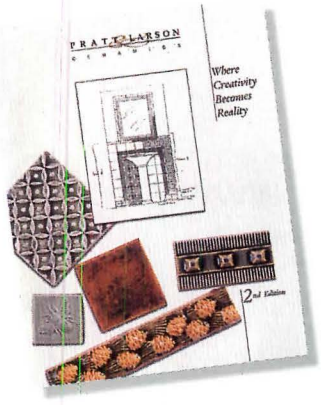
Door fabrication software

Coastal Industries has introduced the CrystalBall 2003 version of its software system. The software allows Coastal's distributors and fabricators to configure, design, and customize a product application in a real-world, user-friendly environment. 800/874-8601. Coastal Industries, Jacksonville, Fla. **CIRCLE 243**

Estimate roofing energy costs

The National Roofing Contractors Association (NRCA) has released RoofWise Version 2.0, a software application that provides an interactive, graphical method of constructing virtual roof assemblies to evaluate thermal efficiency and proper vapor-retarder placement, as well as approximate annual energy costs. It is available for $50 to members and $75 to nonmembers. 847/299-1183. NRCA, Rosemont, Ill. **CIRCLE 244**





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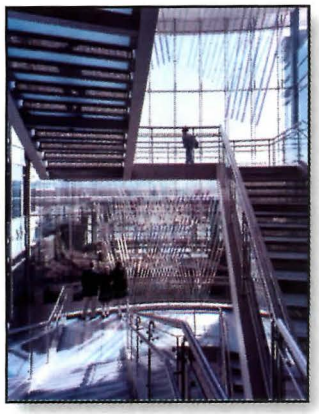

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Architect: Looney Ricks Kiss

Library Planning + Design Consultant:
Shepley Bulfinch Richardson + Abbott

General Contractor: Hunt Construction Group
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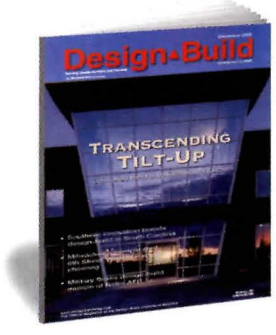

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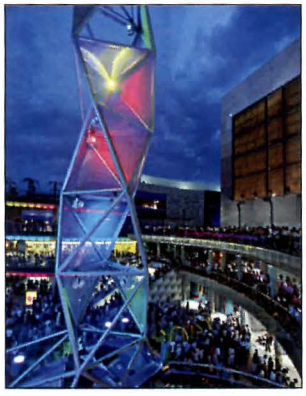
Space Cannon Vh



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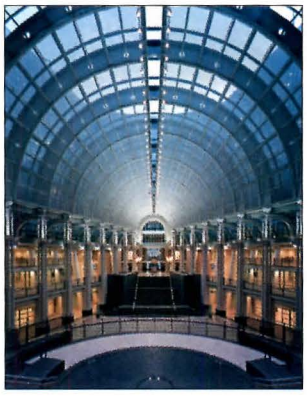

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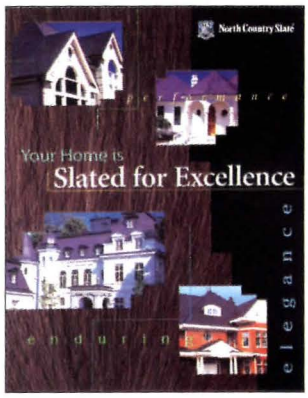

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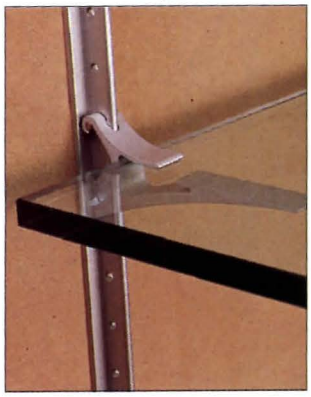

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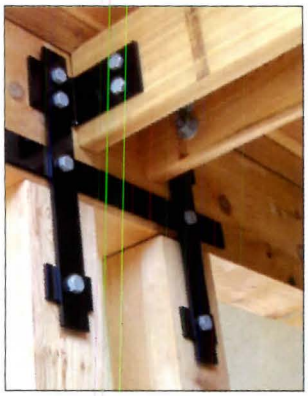

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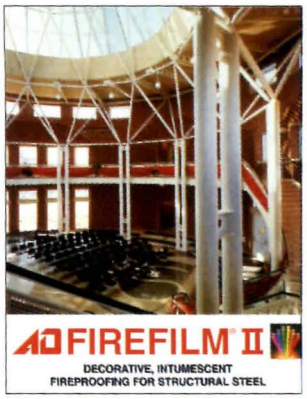

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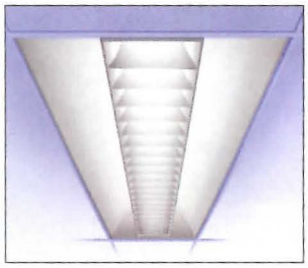

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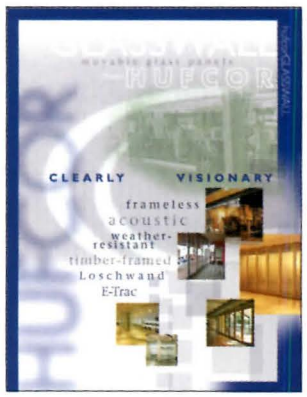

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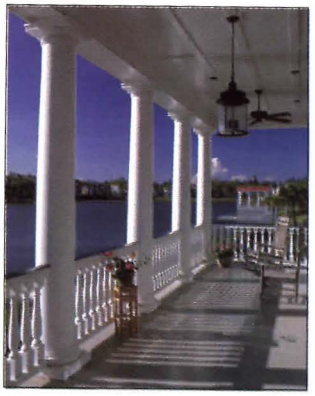

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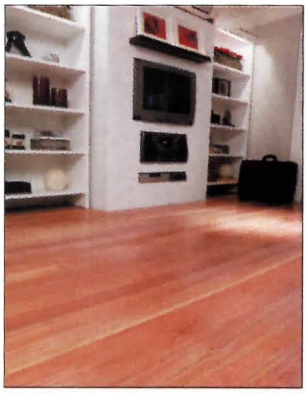

Weyerhaeuser Building Materials is offering its Lyptus® High-Grade Hardwood cabinetry brochure to consumers, architects & builders interested in manufacturing, installing or just learning more about these ecologically-friendly hardwood cabinetry. Full-color raw material & end-use application photos, plantation growth and processing information, & details on sustainable forest management. For free brochure, call 877-235-6873 or visit us at www.weyerhaeuser.com/wbm.

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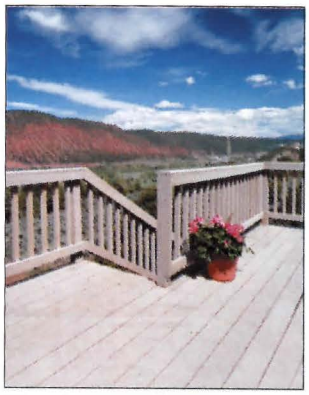

Weyerhaeuser Building Materials is offering its ChoiceDek® Decorative Railing System brochure to builders and homeowners who are interested in using the most innovative composite railing system for deck projects. The tri-fold brochure offers full-color product photos, technical information and specifications, and warranty. To receive a free information kit, call Weyerhaeuser Building Materials at 877-235-6873 or visit www.weyerhaeuser.com/wbm.

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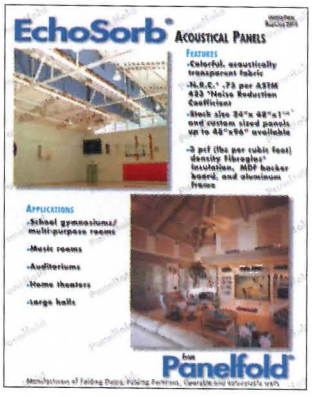

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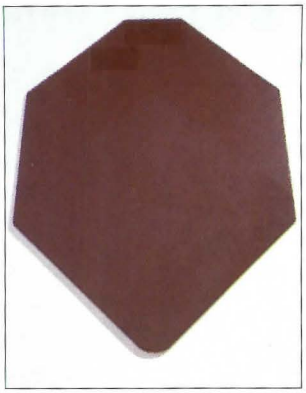

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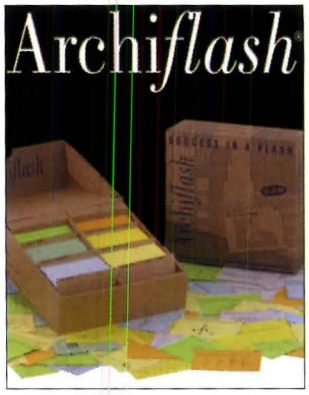

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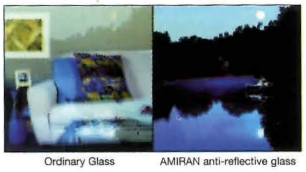

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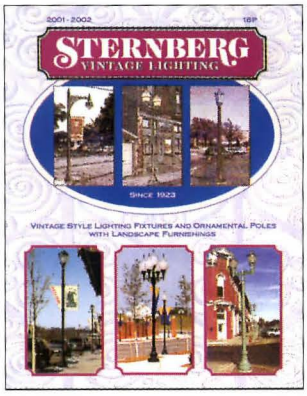

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PUBLIC SCHOOL FACILITIES AUTHORITY DIRECTOR

Reports To: Public School Capital Outlay. Location: Santa Fe. Pay Band: 34. Position Classification: Governor Exempt Salary: To be negotiated based on experience and qualifications, up to the Max of Pay Band $51.269 (hourly) or $106,640 (annually) Purpose of Position: Manage the Public School Facilities Authority (PSFA) and assist in its original creation; provide recommendations to the Public School Capital Outlay Council (PSCOC) on the ultimate structure of the PSFA; manage and oversee school district construction activities statewide; provide assistance to the 89 school districts with the development and implementation of five-year facility plans, preventive maintenance plans, and procurement of architectural and engineering services. The PSFA is charged with conducting ongoing reviews of five-year facilities plans, preventive maintenance plans and performance pursuant to those plans; ensuring that public school capital outlay projects are in compliance with applicable building codes; and conducting on-site inspections as necessary to ensure that the construction specifications are being met. The facilities authority is also charged, in coordination with the state department of education, to ensure facilities meet program needs; to maintain the database of the condition of school facilities and maintenance schedules and to ensure that the outstanding deficiencies identified by the district and verified by the deficiencies correction unit pursuant to Section 22-24-4.1 NMSA 1978 are corrected; including overseeing all aspects of the contracts entered into by the Public School Capital Outlay Council to correct the outstanding deficiencies. Education: Bachelor's degree in Architecture; Engineering; Administration; Management or other construction management related fields of work as described below. Experience: Ten (10) years experience in: administration and construction, architecture, engineering or project management; including familiarity with project bidding and contracting, on-site inspections, plan review and change order pricing; construction estimating procedures and cost projections. Demonstrated experience in supervising personnel and contractors, state procurement and construction procurement process and working with other staff. Demonstrated experience directly overseeing the management of construction projects. Demonstrated experience in overseeing contracts and all documents related to construction projects such as construction plans and construction change orders. Working Conditions: Work is performed in the field and in the office. Frequent overnight statewide travel is required. FLSA Exempt. Recruitment Begin Date: 5/16/03 Recruitment End Date: 6/10/03 Agency Contact Person: Michael Davis, Superintendent Of Public Instruction. Applicants Interested in this position must submit a letter of interest and resume to the Superintendent of Public Instruction's Office at SDE, 300 Don Gaspar, Santa Fe, NM 87501-2786, within the recruitment period.

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ARCHITECT FOR THE UNIVERSITY

The University of Virginia invites letters of application, curriculum vitae, and nomination for the position of Architect for the University. The Architect for the University will be a principal adviser in the institutional planning process.

Qualifications: The candidate will be a nationally recognized registered architect, landscape architect or planning professional or architectural historian. The candidate will possess a high level of professional and academic qualifications (licensed professionals preferred), and a demonstrated understanding of the principles of classical and traditional architecture and landscape architecture. He/she should have practical experience in the management of historic preservation projects. He/she should possess accomplishments in the planning and design of college and university campuses. He/she should have experience in building design, project direction and project management, and possess excellent verbal, writing, and graphic skills.

For a complete job description visit **http://www.virginia.edu/vpmb/**. Application letters, curriculum vitae, and names and addresses of five references should be addressed to: **Architect of the University Search Committee, University of Virginia, c/o University Recruitment & Staffing, P.O. Box 400127, Charlottesville, VA 22904-4127,** Or email to:**executivesearch@virginia.edu, Attn: Architect of the University Search Committee**

Applications will be considered until the position is filled; however responses by June 16, 2003, are encouraged. For more information contact **University Recruitment & Staffing** at: **executivesearch@virginia.edu.** All inquiries, applications and nominations will be held in the strictest of confidence.

The University of Virginia is an Equal Opportunity/Affirmative Action Employer. Women and members of minority groups are strongly encouraged to apply.

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Sr. Interior Designer to design & render interior environments of commercial, residential and industrial bldgs. thru independent evaluation, selection & application of standard architec. & interior design tech., using AutoCAD, Microstation, Adobe Illustrator, MS Office Suites, freehand sketching & knowledge of space planning; Perform and/or supervise design/drafting of production of design drawings, presentation sketches, models & working drawings; Consult manufacturers & evaluate materials/systems for proper incorporation into project; Supervise work of other team members & ensure project progresses on schedule & within prescribed budget. Require: Bachelor's degree in Interior Design with 2 yrs of exp. in the job offered. Portfolio must demonstrate artistic abilities and tech. skills commensurate with previous work exp. Competitive salary offered. Send resume to: Nancy Boyer, Jova Daniels Busby, Inc., 1389 Peachtree St., NE, Ste. 200, Atlanta, GA 30309; Attn: Job SP.

INTERN ARCHITECT (MULTIPLE OPENINGS)

Under supervision of licensed architect, perform preliminary architectural design, computer-aided drafting using Microstation, Illustrator, ArchiCAD, Photoshop, detailing, freehand sketching, color rendering; prepare schematics & design development drawings; coordinate with structural, mechanical & electrical drawings; construct physical study models; prepare construction documents. Req. MS or foreign equiv degree in Architecture or related & demonstrated ability to perform stated duties by portfolio plus 1 yr exp in job offered or 1 yr in related occupation as Intern Architect, Architect or any suitable combo of edu., training, and/or work exp. Send resume to CCCA, 1708 Peachtree St. NW, Ste 309, Atlanta, GA 30309. Ref CW

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PROJECT MANAGER
needed for architectural firm. Experience in cruise ship design and rules required. Send resumes to: Joseph Farcus, Joseph Farcus Architect, P.A. 5285 Pine Tree Drive, Miami Beach, FL 33140

RESIDENTIAL PLANNING MANAGER
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SENIOR VENETIAN
ARCHITECTURAL DESIGNER
(Atlanta, Ga.) Analysis , design and implementation of detailed interior and exterior residential Venetian architectural design. Prepare hand drawings and sketch custom plans, elevations, sections and details. Participate in construction estimation and coordination of project to advise and ensure theory and practice of Venetian design are met. Must have a Bach. deg. or foreign deg. equiv. in Architecture and 5 yrs of exp. in a position involving Venetian architectural design. Must also submit acceptable portfolio of interior and exterior Venetian architectural design, which includes hand sketches. Must have legal authority to work in U.S. Please send resume to S. Risdon (REF:VAD), Marketing Consultants, Inc., 1616 Piedmont Rd. NE, Atlanta, GA 30324.

INTERN ARCHITECT (MULTIPLE OPENINGS)
Participate with a project team that will research, plan and design building projects under the supervision of licensed architects; Provide support to architectural design services from conceptual design through construction documents on a wide variety of projects; Provide computerized schematic design, construction drawing, architectural detailing and documentation using AutoCAD R14, AutoCAD2000, Adobe Photoshop, Macromedia Freehand and Microsoft Word; and Provide building and zoning code research. Must have Bachelor's Degree in Architecture, or related, or foreign degree equiv. and 2 years exp. in the job offered, or 2 years exp. in a related occupation, or any suitable combo of edu, training and/or work exp. 9:00 am to 5:00 pm, M-F. Send resume to L. Taylor Robertson., Pres., Robertson/Loia/Roof, P.C., 3460 Preston Ridge Rd, Suite 275, Alpharetta, GA 30005 and Reference JCB001.

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Variations on an enigma: Nathaniel Kahn's new film revisits his famous father

Interviewed by Leslie Yudell

Filmmaker Nathaniel Kahn's most recent project, My Architect, *is a feature-length documentary about his father, the architect Louis I. Kahn. Conceived as a journey of filial discovery, it is both a moving tribute to a great artist and a candid portrait of a complex, elusive man. The film premiered last March at the 32nd New Directors New Films festival in New York City and is being distributed theatrically in the U.S. by New Yorker Films; it will open at the Film Forum in New York on November 12 (for more information, including a schedule of screenings around the country, go to www.myarchitectfilm.com).*

Q: *What did you learn about your dad from making this film?* My father died when I was 11. My early vision of him was based on my experience as a little boy and was very limited. I remember a warm and loving man, but I also knew he had a bigger world, from the amazing stories he told me about it: of India and Bangladesh, of tigers, of people who built buildings carrying baskets on their heads. For a child, it was intoxicating. But in making my film, I discovered much that I didn't know before—about his struggle, his persistence, his conflicts, his achievements. He went from being a mythological character to being a man.

Your dad had a very unconventional personal life, which he kept secret. Do you have any misgivings about revealing it? My film shows that I have great respect for my father, but I also have questions about the choices he made. I tried not to judge him. As he said, "You can be critical of someone, but you should never judge them." My father was a great mystery, and I didn't want to dispel that but to examine it. That's why I designed the film as a journey: You end up with a multifaceted impression of Lou Kahn that preserves his complexity.

What were the challenges of filming your dad's buildings? The big challenge was, how do you get the emotional power of these buildings into a movie? I found it's not by filming good angles, but by moving through the space of the buildings with people who had a real connection to Lou, using the buildings as dramatic settings. And you have to be willing to wait for a building; you can't just show up one day and say, "We're going to do Kimbell today." I went to the site and stayed for a while, then captured the buildings in different conditions. I used time-lapse photography to show how the buildings changed over time.

Which building do you admire most? They are all equally interesting, and in different ways. In filming, each required a very specific situation; we had to search for solutions to convey the character of each one. This revealed to me how much depth of imagination went into their design. They really kept me on my toes as a filmmaker. I was also surprised by how the buildings seem both big and small at the same time. Lou Kahn's sense of scale is astonishing and mysterious. I felt it was essential to capture this: How do you make something feel both monumental and intimate? I hope we succeeded.

Photographs © Louis Kahn Project; Harriet Pattison (left and middle)