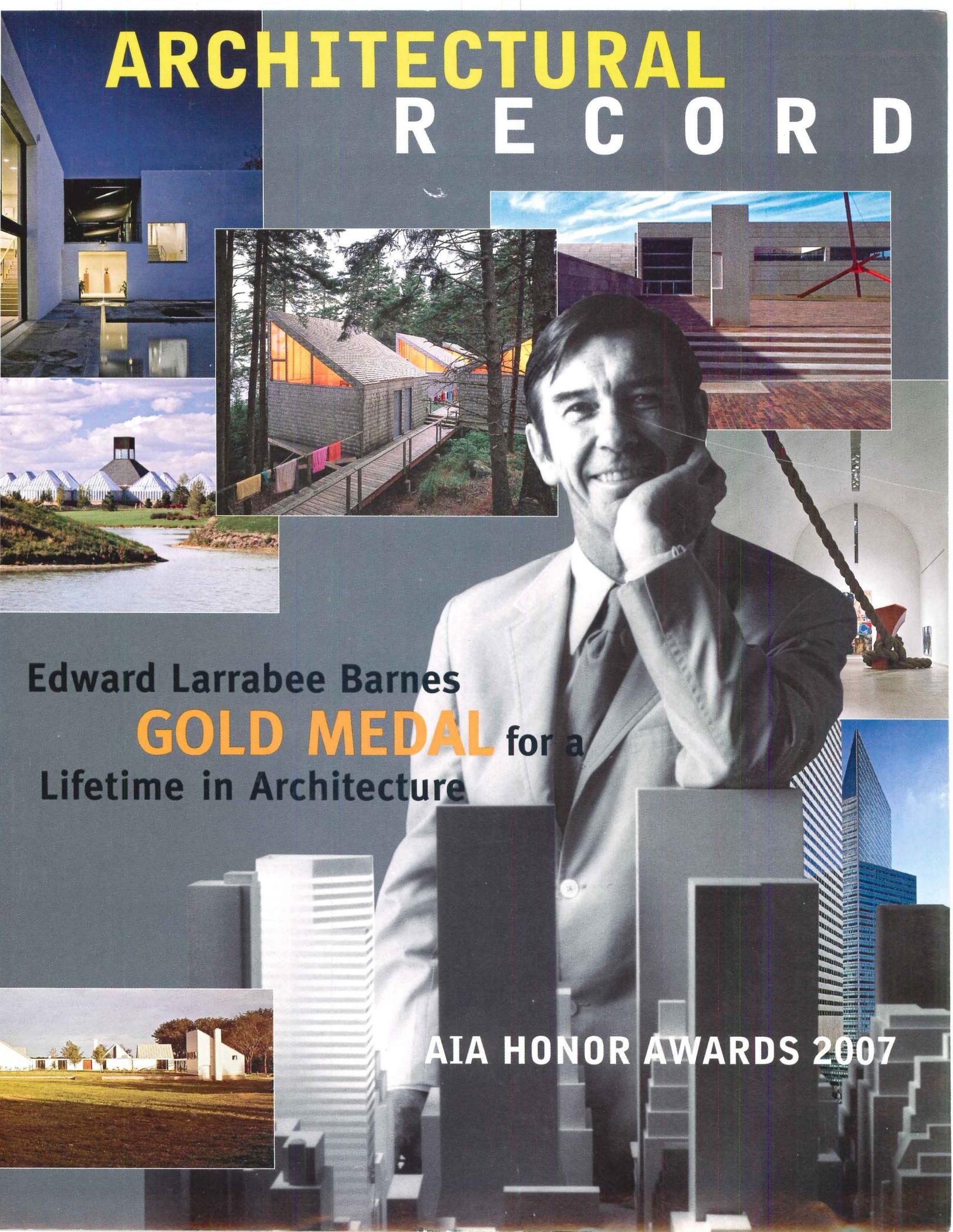


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Editorial

By Robert Ivy, FAIA



Architecture rises above abstractions. In case you have been seduced into thinking that our obligations to clients end when we hand over the keys to a project, or that all architecture inhabits a theoretical netherworld, think again. A building can engage an architect for a lifetime.

I was reminded in a most personal way last week, when a trip to my hometown took an unexpected turn. Stopping off to visit an old client and friend on a brilliant spring day, we revisited his home on a hilltop, out near the Natchez Trace Parkway. Prior to becoming the editor of this publication, my architectural firm had designed his family's house. Little did I realize that visiting the lawyer and his wife again would be like entering a time warp, or that it would teach me in an unforeseen way.

As fate would have it, the original contractor was at work on a modification to the house and was present that day. Fifteen years ago, I had suggested to Mike and Margaret that they hire the builder and his firm, a decision that proved right. Dick Featheringill had proved himself a skilled, intelligent, and ethical contractor—a combination of virtues that warranted immediate hiring, even at a slight premium over the field of his peers. Slim, clear-eyed, after all this time, there was Dick, figuring things out.

After lunch at the same kitchen table where we had sketched out our ideas together, we talked about craftsmen who had helped make the house a success, men like Jim McClellan, who was engaged again, 15 years later, to provide custom woodwork for the entertainment center. Then we toured a house that had seen two children grow to adulthood. We puzzled over suggested improvements. Dick reminded me that in adding on to the original structure, a simple, single-level ranch, we had created a cobweb of dual trusses, which would make any alterations to the roof complicated, particularly a new skylight. We scratched our heads, hemmed and hawed over how to get light into a family entertainment room.

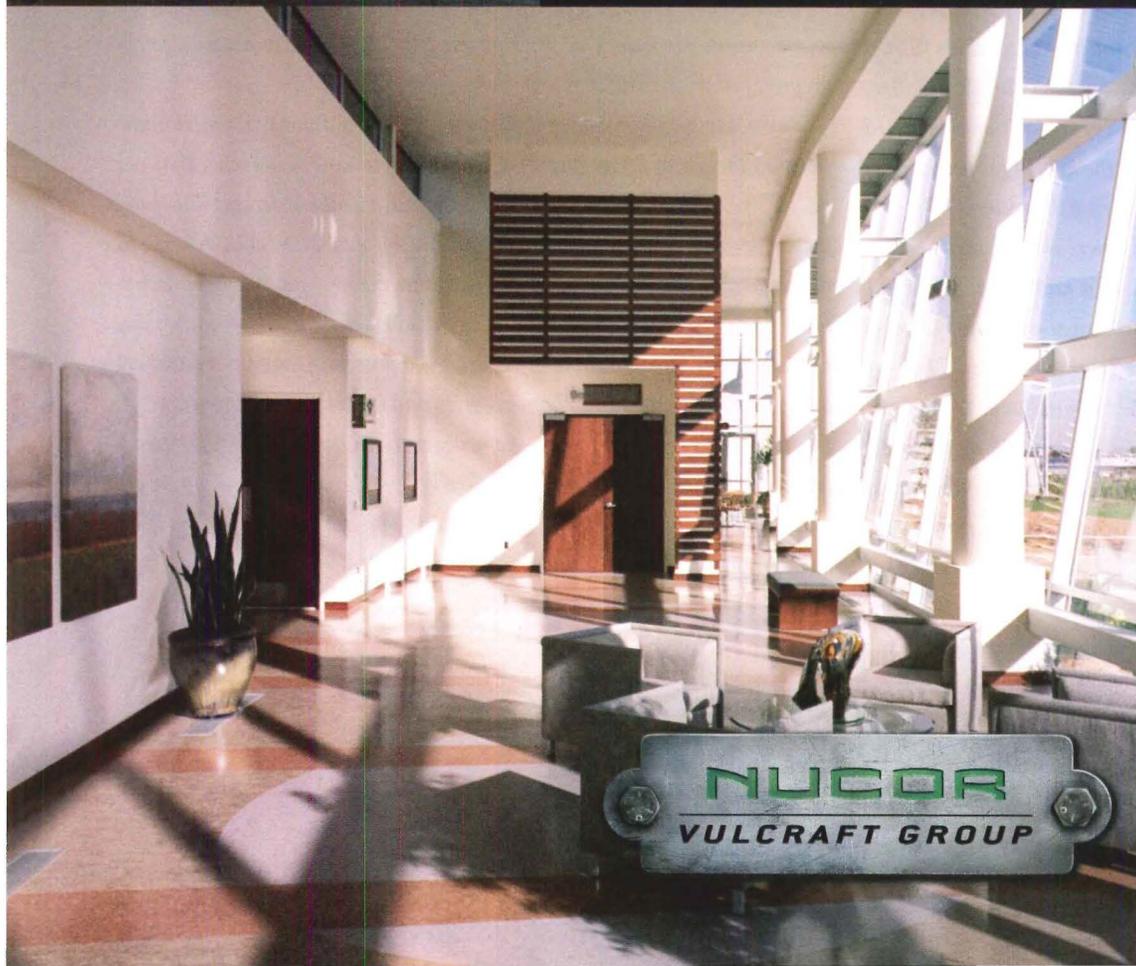
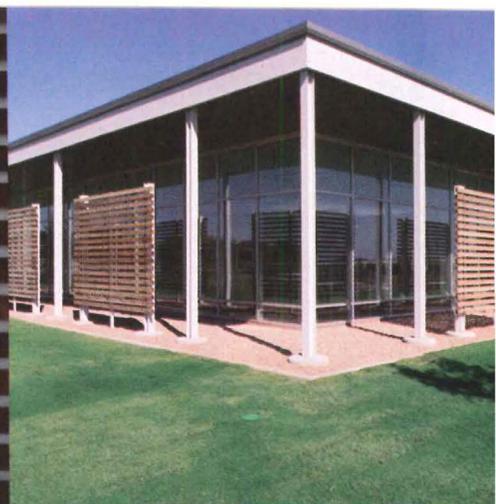
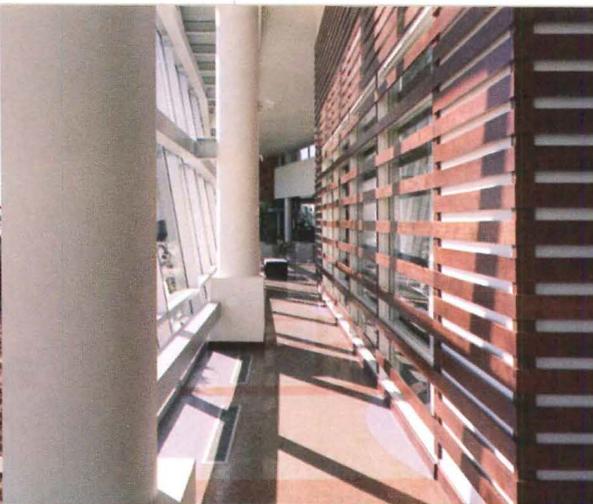
Mike, who had been an enthusiastic partner in obtaining unique materials from salvage sites and had been a stickler for quality, pointed out much that had worked out well, such as the broad front porch overlooking the hillside filled with hardwoods. I realized that Margaret had sat out there bird-watching and gathering her thoughts for her column on gardening for the

regional newspaper and a book on wildflowers she had authored. Mike had sweated out tough law cases on the tennis court he added.

It was rewarding to see that the main decisions still held. The proportions we had arrived at for the living and dining additions still lent a sense of importance to the human body. The sun streamed in through shaded south lights; the north elevation grabbed every scrap of ambient light and filtered it into an axial hallway. Not bad.

Time had passed. Shrubs that had been mere pips had filled out and blossomed, and trees now overhung the garden. But I could see that some decisions had gone wrong, such as the unprotected north windows, where rain splashing on a brick terrace had caused ponding and moss to grow. Unknown to this editor working in New York, Featheringill had been called in to the rescue and devised copper caps to shield the windows from winter rains. Architects, in spite of our best intentions and ideas, fail to account for all eventualities.

My own hometown called me onward, but not without ruminations on the life of an architect. How ironic, and how wonderful, that real people live in the designs that we labor over. Mike and Margaret illustrated for me, in a way that no textbook or continuing education class ever could, that lives are lived in the places and spaces we create, that families are sheltered and grow, that people's hopes are cradled there and can evolve and mature, sometimes with wonderful results. Architecture remains a social art, affecting real people at the moment of its making, but more important, for the days and years that follow. We never work in the abstract, despite our fascination with ideas, but for people who live, love, and grow up in our buildings. Even when we have moved on, our work remains and lives a life of its own: Architects create a framework for living.



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Eldorado Stone Adds Authenticity to Design and Architecture of La Bellezza

Scheurer Architects of Newport Beach, California and Keller Homes have recently designed and built La Bellezza at Peregrine, a beautiful, award-winning community in the foothills of Colorado Springs, CO. The goal was to create something very special by presenting fresh, new site plan concepts within the local housing market while remaining sensitive to the traditions and benefits of rustic, mountain living.

"We remained true to what the 'story' of the property was through our architectural plan and landscaping design," says Bernie Costello, vice president of architecture at Keller Homes. "Maintaining the simple warmth, almost agricultural base of the property definitely created the backbone for the creative process and a set of principles to adhere to as we moved forward."

"The result is authentic architecture that has an appropriate scale in relation to its mountain surroundings," says Dennis Danahy of Scheurer Architects. Historically correct detailing features wrought iron, rough stone and wood accents to combine seamlessly with dynamic indoor/outdoor spaces. "This community of distinct homes establishes a truly unique sense of place within the rustic, natural Colorado setting. It breaks out of the typical, static "big box" floor plan to offer an exceptional living experience," adds Danahy.

Dennis Danahy
Scheurer Architects
Newport Beach, CA



There was a focus on indoor/outdoor living reminiscent of historic villages with thoughtful organization of homes in clusters that maximizes open space, preserves views, and encourages contact with the natural surroundings.

**"This community
establishes a unique
sense of place."**

"The land was originally used as a dairy farm and we found existing stone on the old barn and area retaining walls that we wanted to incorporate into the new design," says Costello. "We had a three-part challenge in this project—we needed to find just the right stone for the homes that could blend and coordinate with the existing stone found on the retaining walls on site. It also had to work with a locally quarried stone being used for landscaping purposes," he says.

"By working closely with Colorist Ann Matteson, and Dennis Danahy at Scheurer, we agreed that Eldorado's Meseta Fieldledge combined with the custom overgrout technique offers even more authenticity to the project." Brenda Harris of Eldorado Stone adds, "This was truly an example of how teamwork can make all the difference in the success of the outcome. Having the support and commitment of everyone involved has helped create something we can all take pride in."

La Bellezza at Peregrine, Colorado Springs, Colorado
"Best Detached Community of the Year,"
PCBC Gold Nugget Awards, 2006

Builder: Keller Homes, Colorado Springs, CO

Architect: Dennis Danahy, Scheurer Architects, Newport Beach, CA

Colorist: Ann Matteson, Ann Matteson Consulting, Newport Beach, CA

Distributor: C&C Sand and Stone Company, Colorado Springs, CO

Mason: WW Masonry, Colorado Springs, CO

Eldorado Stone Profile Featured: Approximately 50,000-square-feet of Meseta Fieldledge with an overgrout technique application



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Record Houses Redux

Finally, something really different in ARCHITECTURAL RECORD's annual Record Houses issue! I was almost shocked to see the Boyarsky Murphy Architects' Christ Church Tower [page 134] in this year's collection. After thumbing through year after year of the same old regurgitated energy-guzzling, high-high-high-high-end suburban/rural houses, it's refreshing to see something really different: urban, restorative, very cool, and within walking distance to work!

Don't get me wrong. The mega-homes and jewel-like cabins you publish every year are all beautifully conceptualized and crafted. On the other hand, they never seem to veer far from very safe mid-20th-century ideas about house organization. They are also typically staged in natural settings that would get even a mobile home published. And if you start looking closely at the detailing, you might be tempted to borrow and butcher an expression made popular by Hillary Clinton: "It takes a virgin forest to build an ARCHITECTURAL RECORD house." By the way, please don't mention the budgets of these homes at any Habitat for Humanity meetings.

The Christ Church Tower is no Home Depot special, but just the audacious proposition of an 11-story house—and one in a ruined church—at least raises exciting questions about habitation (among other things). It takes little effort to imagine having enough mobility and money to live in any of the other houses published. This is a home you can at least debate at a cocktail party.

—Ron van der Veen
Seattle

I look forward to Record Houses every year, and the homes featured in this issue are individually very impressive. As a group, however, I found them quite disappointing in one important respect: Of the seven houses fea-

tured, all but one are located on sites that appear to be largely or completely isolated from other buildings and society in general. Even the Ring House in Japan, though it exists on a third-acre lot in a planned community, is described as a country retreat in a forested setting.

Although Sarah Amelar argues in her cover essay that "no two [of these] houses rose from similar circumstances," and that they emerged from "constraints and obstacles as colorful and varied as the venues themselves," six of the homes in fact are fundamentally similar in terms of having been built in an exurban or countrylike setting, with nary another building in sight and nature as the dominant context.

The challenges of designing a home in a context defined more by other buildings than by nature, and of designing a home that is attached on one or two sides, are at least as great as those of designing an unattached house in the countryside. And the results of successfully meeting such suburban and urban house-design challenges are at least as interesting, beautiful, and instructive to read about as the results of projects to build free-standing country homes.

Today, most of America's—and much of the world's—population lives in suburban or urban settings, and much of the best residential architecture, both in the U.S. and elsewhere, is being done in those settings. Record Houses 2007 appears largely oblivious to this, and is too enamored with a narrow and increasingly unattainable concept of the ideal home setting.

—Ronald O'Rourke
Washington, D.C.

I wonder if anyone at ARCHITECTURAL RECORD realizes what a disservice the Record Houses has been to architects over the years. I always

pass my copy to colleagues, and always get the same response: "Why would anyone want to live in these cold, rigid, uninviting structures?" This year I received a new response: "If ever there was a case for *not* hiring an architect to design my home, this issue makes that case." At least you did not call the issue Record Homes, because there is nothing about these structures that makes them warm, inviting, personal sanctuaries.

—Wayne Compton
Chino Hills, Calif.

Water feature

As a swimmer and admirer of Julia Morgan, I was really pleased to see your feature on swimming pools [April 2007, "Just Add Water," page 86] in the Record Houses issue. Brava! Keep up the great work!

—Tracey Hummer
Via e-mail

Everyday sustainability

I find it extremely inconsistent and highly disappointing that, on the same day, I receive two of your publications: *GreenSource*, which comes with no wrapper, is printed with soy inks on no-chlorine, 100 percent post-consumer recycled paper; and ARCHITECTURAL RECORD, which arrives in a plastic wrapper on glossy, white paper with no apparent paper recycling regimen or choice of environmentally preferable inks. What kind of message is this sending to the architectural community? One that says green thinking is reserved for a "special" class of architects, and the "rest of us" need not concern ourselves with such pedestrian, functionalist goals?

The only way we are going to seriously make a dent in reversing environmental degradation is to make green, sustainable thinking a part of the everyday thought processes we employ as architects, and not reserve it for special cases.

Your changing to an environmentally preferable printing process would be a powerful symbolic action as well as an extremely effective tangible measure toward that goal.

An even more effective measure would be to combine the two magazines into one, or, put another way, introduce the notion that the only architecture worth publishing is that which exhibits an aggressive sustainability agenda in addition to a thoughtful, poetic, transformative design agenda. And you would save a pile of trees in the process.

—Tom Hengelsberg, AIA
Burlington, Vt.

Boston's three-legged horse

Diller Scofidio + Renfro's ICA, featured on ARCHITECTURAL RECORD's March cover, while wonderfully detailed and boldly conceived, is odd looking, like a three-legged horse. The design does not express the powerful structure that obtains that 80-foot cantilever and ignores Geoffrey Scott's belief that "Thrust and balance, pressure and its support are the root of the language which architecture employs." If the ICA possessed the spectral presence of the Blur Building, which obviously it does not, then its irrational structural presentation, perhaps, would be moot.

—James A. Gresham, FAIA
Tucson

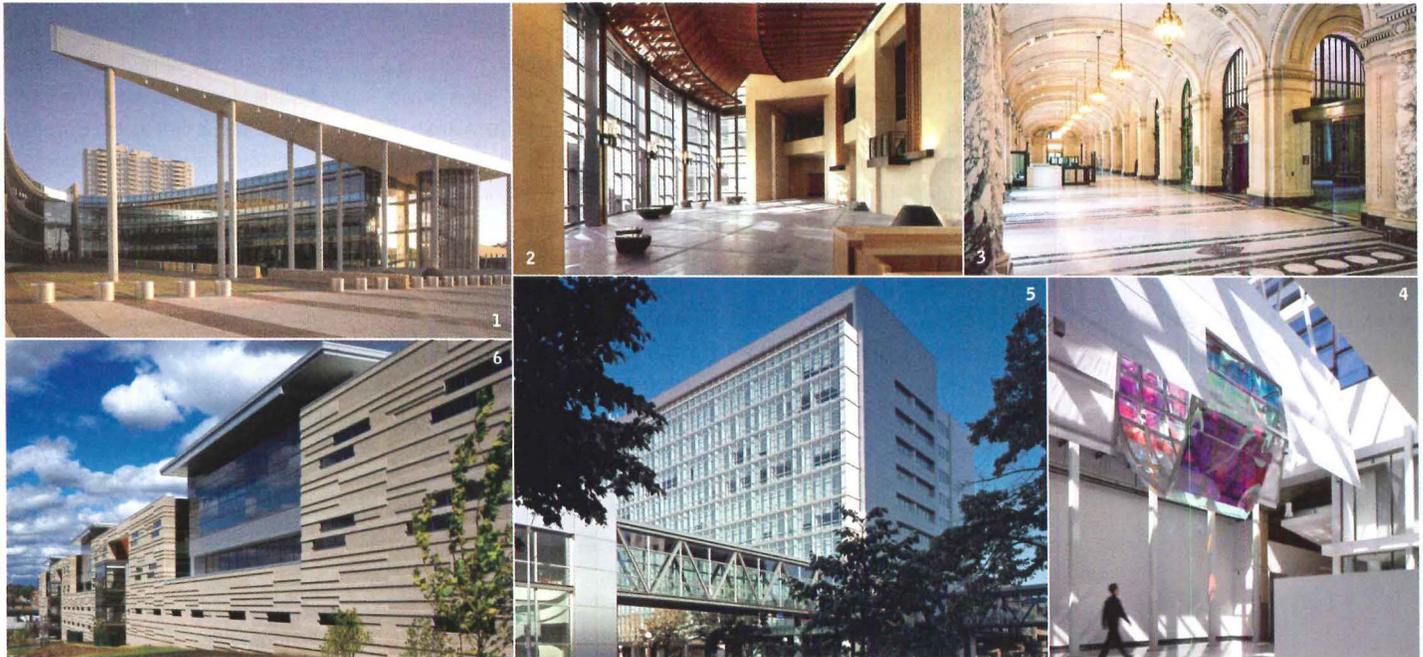
Corrections

An April news story [page 31] misspelled the name of the Pritzker Prize-winning architect James Stirling. Smiljan Radic's cantilevered swimming pool in Papudo, Chile [April 2007, page 88], was described as looking out over the Atlantic Ocean instead of the Pacific Ocean.

Please send your letters to rivy@mcgraw-hill.com.

Letters

GSA bestows biennial Design Awards



There's no escaping the fact that federal buildings are symbols. When improving government efficiency was the order of the day during the latter half of the 20th century, this ethos resulted in lackluster architecture. But a new attitude has developed within the past decade or so, producing dramatically different designs and drawing praise from critics, including *The New Yorker's* Paul Goldberger, who gave the keynote address at the General Services Administration's Design Awards ceremony, held on March 29, in Washington, D.C. These biennial honors recognize the finest government buildings—and plenty were in evidence.

Although the 18 award winners for 2006 were sufficiently stellar to speak for themselves, a no-nonsense jury of professionals from fields including fine art, architecture, engineering, and construction articu-

lated their qualities. Generalizing about the 121 entries, jury chair Joan Goody, FAIA, said, "We believe that GSA is producing some truly high-quality projects, efficient and elegant designs, on time and on budget delivery."

Citing specific projects, juror Randolph Croxton, FAIA, lauded the textured, precast-concrete panels that clad the U.S. Courthouse in Fresno, California, designed by Gruen Associates/Moore Ruble Yudell. "It's hard to imagine how you could get any more value from every taxpayer's dollar," Croxton said. "Every dimension of the design is effectively explored and employed—humanistic quality in scale, elevation differentiation, color, materials, and assembly techniques, coupled with a poetic interpretation of the landscape."

Peter Schaudt praised Bohlin Cywinski Jackson's Peace Arch

Point of Entry in Blaine, Washington, which he described as a "restrained and elegant solution" that emphasizes landscape over building.

Three projects reflect a variety of approaches in upgrading midcentury buildings. At the Des Moines Federal Building, in Iowa, the Smithgroup stripped a deteriorated, underengineered masonry facade dating to 1967 and substituted a lighter, glazed curtain wall that helped the building earn a LEED Silver rating. In Chicago, Berglund Construction and architect Kellermeyer Godfryt Hart sensitively repaired limestone panels cladding the 70-year-old U.S. Custom House, replacing just 12 percent of them and helping the project remain under its \$10 million budget. And architect Lehman Smith McLeish was cited for a new entry pavilion that simplifies circulation at the 1976-vintage Javits Federal Building in Lower Manhattan.

Design Award winners for 2006 include Oklahoma City Federal Building (1); U.S. Courthouse, Fresno, California (2); Des Moines Federal Building (3); Howard M. Metzbaum U.S. Courthouse, Cleveland (4); the Internal Revenue Service Center (5), and Bannister Federal Complex (6), both in Kansas City, Missouri.

The GSA launched the Design Excellence Program and biennial awards in 1994, inspired by guiding principles for improving federal architecture that the late Senator Daniel Patrick Moynihan laid out during the Kennedy administration. Better late than never. "Without the program, this year's award-winning projects wouldn't have existed at all, let alone received any awards," Goldberger said. Visit architecturalrecord.com for a complete list of winners. *Allen Freeman*

ON THE BOARDS

The Fort Worth Museum of Science and History unveiled plans last month for a new 133,000-square-foot building.



Designed by **Legorreta + Legorreta**, the Mexican father-son duo known for their use of texture and color, it will replace the museum's current, aging home. Construction is expected to conclude in 2009. *Elizabeth Lunday*

The Afro-American Cultural Center, in Charlotte, begins construction later this year on a new home downtown.

The Freelon Group designed a facade



inspired by the patchwork quilts that slaves once created to encode escape routes. Due to open in 2009, the 45,000-square-foot building will feature galleries and classrooms. *C.J. Hughes*

The Green Circle Shopping Center, in Springfield, Missouri, will be eligible for LEED Platinum certification.

Matthew Edwin Hufft, AIA, of **Hufft Projects**, says the 26,000-square-foot



retail building is "detailed around the LEED system, almost to a point." Sustainable features include a green roof, rainwater collection, and geothermal wells. Construction wraps up this fall. *David Sokol*

For full coverage on these projects: architecturalrecord.com/news/

Remember not to touch the Alamo

It's hard to imagine a battle raging where mariachi bands now play and tourists sip margaritas. Yet in 1836, the 187 defenders of the Alamo, including Davy Crockett and Jim Bowie, fought and died near the spot where later generations would build the San Antonio Riverwalk. Holes from bullets and cannon blasts remain in the old fort's walls as a reminder of the Mexican forces' siege.

It's not these battle scars that have preservationists worried—they're part of the building's history—but they are concerned about the effect of 2.5 million visitors a year. Although asked not to touch the garrison walls, many people are unable to resist, thereby wearing down the stones and leaving a build-up of oils and salts. Rising moisture from the ground, which reacts with limestone and causes it



to flake, poses another threat. While previous conservation efforts stabilized the damage, further restoration is now needed to preserve architectural details.

"The buildings aren't falling down, but we want to make sure they don't fall down," says David Stewart, director of the Alamo. "We want to make sure the Alamo is here for our great-grandchildren to enjoy."

The Daughters of the Republic of Texas (DRT) operates the facility on behalf of the State of Texas. This month it is releasing a master plan for the Alamo's preservation, prepared by Ford Powell & Carson. In addition to conservation, the plan addresses visitor flow through the site, the design of exhibits and interpretative materials, an expansion of the DRT's research library, and con-

struction of new educational facilities.

Perhaps surprising to some, since the Alamo is such a well-known symbol of Texas, the DRT wants to work with the city of San Antonio to create better

signage at Alamo Plaza, which surrounds the complex. Many visitors currently mistake a mission church there, with its iconic carved facade, as the Alamo itself because the locations of long-demolished fort walls are poorly marked. Other historic features, including the site of the barracks where Jim Bowie died, also could use a visibility boost.

The DRT expects to launch a capital campaign this summer to fund the improvements; it includes \$40 million for preservation and new construction, \$10 million for a permanent preservation endowment, and \$10 million for an educational endowment. The organization hopes that individuals, corporations, and foundations will remember the Alamo—this time with a check. *Elizabeth Lunday*

AIA will green its headquarters

The American Institute of Architects (AIA) is about to start walking the talk. Already garrulous on matters of sustainability, its leadership is evaluating a range of options for greening its headquarters in Washington, D.C. "We want to make our headquarters a demonstration project," says RK Stewart, FAIA, the AIA's president. "We have the opportunity to provide a great place for people to work and for our members to visit, and an opportunity to reach out and show the public what's possible."

Designed by The Architects' Collaborative, the Walter Gropius-led design firm based in Cambridge, Massachusetts, the 180,000-square-foot building has not seen significant renovations since it opened in 1973. The AIA occupies two floors, while related architecture associations and a law firm rent the remaining five levels. But the AIA's



office needs have changed over the years and this, coupled with the institute's focus on sustainability as part of its 150th anniversary celebrations, prompted it to begin thinking about the building's future. It hired Quinn Evans Architects to study its needs and suggest alternatives for updating the structure in a sensitive, green way.

"This is a future landmark building," observes Carl Elefante, AIA, a principal with Quinn Evans' D.C. office. "What we do now is going to affect its condition when it turns 50 and becomes eligible to be designated a landmark, so we should be thinking of that stewardship today."

The AIA is currently evaluating

Elefante's recommendations. Stewart says that although it's far from making any firm decisions, the AIA is considering everything from installing rainwater collection and graywater recycling systems, which would reduce water use, to adding wind turbines and photovoltaic cells on the roof, to generate power. "Everything is on the table," Stewart says. "We want to figure out how to demonstrate what really works for members and the public, and also be good stewards of the building at the same time as being stewards of the planet." He adds that the AIA hopes to finalize a design by the end of this year, but beyond that he is unable to lay out a construction timetable or budget.

The AIA built its headquarters during a 1970s effort to rejuvenate The Octagon House, its former home nearby. Dating to 1800, this William Thornton-designed building now houses the American Architectural Foundation. *James Murdock*

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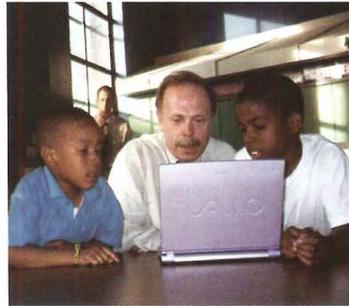
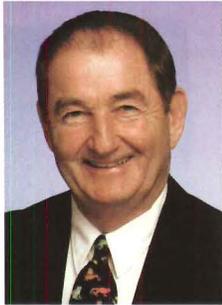
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AIA's Jefferson Award comes full circle

Michael A. Fitts, FAIA, didn't think he would receive the Thomas Jefferson Award for Public Architecture when he helped launch the prize in 1991. Back then, the American Institute of Architects' Committee on Public Architecture had a threefold objective: to recognize advocacy and achievement in public architecture; to raise the stature of public architects; and to promote architecture in the mainstream and in the profession. But fittingly, after 36 years pursuing exactly these goals as the state architect of Tennessee, Fitts is being lauded with one of two Jefferson awards at the AIA 2007 National Convention and Design Exposition this month.



Michael A. Fitts, FAIA (left), and David Dixon, FAIA (above), won this year's Jefferson awards.

ning and urban design at the Boston firm Goody Clancy, Dixon is the first urban designer to be honored in the category of private-sector architects who have produced noteworthy public projects.

Dixon's contributions aren't architectural. Rather, he applies smart-growth principles to high-density urban neighborhoods. Almost singlehandedly, Dixon has orchestrated the repopulation of city centers to ensure income diversity, public transit options, and open space. He points to the Civic Vision for Turnpike Air Rights Development, in Boston, and his role in lifting the development moratorium in Kendall Square, in Cambridge, Massachusetts, as case studies in this kind of deployment. The projects also highlight Dixon's extensive educational outreach to both communities and real estate developers to effect positive change.

Dixon happily professes his love for Boston, and cities in general, but says that nowadays 90 percent of his work takes him elsewhere. Regardless of location, the 59-year-old guesses that his devotion to the dynamism and diversity of traditional urban cores was propelled by a Los Angeles childhood in which "I only ran into people who were white, upper middle class, and Jewish." *David Sokol*

Like many architects, Fitts initially was prejudiced against a government career—"It's hard to get architects interested in government work," he admits—and calls his first job with government, as a civil engineer for the State of Tennessee, "a stopgap measure." But meeting then-state architect Clayton Dekle in 1963 changed his mind. "I became enamored with how he was working with a variety of architects and pushing them to produce excellence." Fitts went on to earn his M.Arch. at the University of Tennessee, returned to the office, and was promoted to the top position in 1971 at age 36. He also earned a third degree, in law, in 1980. Fitts cites the restoration of the State Capitol, headed by John Mesick, AIA, of the firm Mesick Cohen Wilson Baker, as a project of which he's particularly proud. He adds that high-quality buildings "attract better people who can perform better government service" and influence local architectural standards.

The other recipient of this year's Jefferson Award, David Dixon, FAIA, may not have expected to win either. As principal in charge of plan-

Latrobe Prize goes to urban flood researchers

Recognizing the role that architects can play in lessening the impact of climate change on the built environment, the American Institute of Architects (AIA) has awarded the 2007 Latrobe Prize to a team of architects and engineers who are researching waterfront development and the ramifications of severe urban flooding. Guy Nordenson, founder of Guy Nordenson Associates and a Princeton University structural engineering professor, leads the seven-member group. Also on the team are Stan Allen, AIA, dean of the Princeton University School of Architecture; Catherine Seavitt, AIA, and James Smith, of Princeton University; Michael Tantala, of Tantala Associates; and Adam Yarinsky, FAIA, and Stephen Cassell, AIA, of the Architectural Research Office.

The team receives \$100,000 to fund a two-year study of New York Harbor's rivers, bays, and tidal estuaries. This effort merges three studies already under way. In addition to researching the urban ecology of harbor waterways, the group will propose new public transportation corridors to link the New York and New Jersey waterfronts, and investigate the urban consequences of severe flooding. Elements include urban water systems research, GIS-based disaster mitigation analyses, and video docu-

mentation of the waterfront.

Nordenson hopes that his findings can help further the dialogue about global-warming impacts and perhaps serve as a starting point for architects and engineers to reexamine waterfront planning and development. "It's not just a passive response to global climate change," he says. "The real problem of designing for raised sea levels is a part of this. What we're trying to do here is to face up to reality and show people how serious this is."

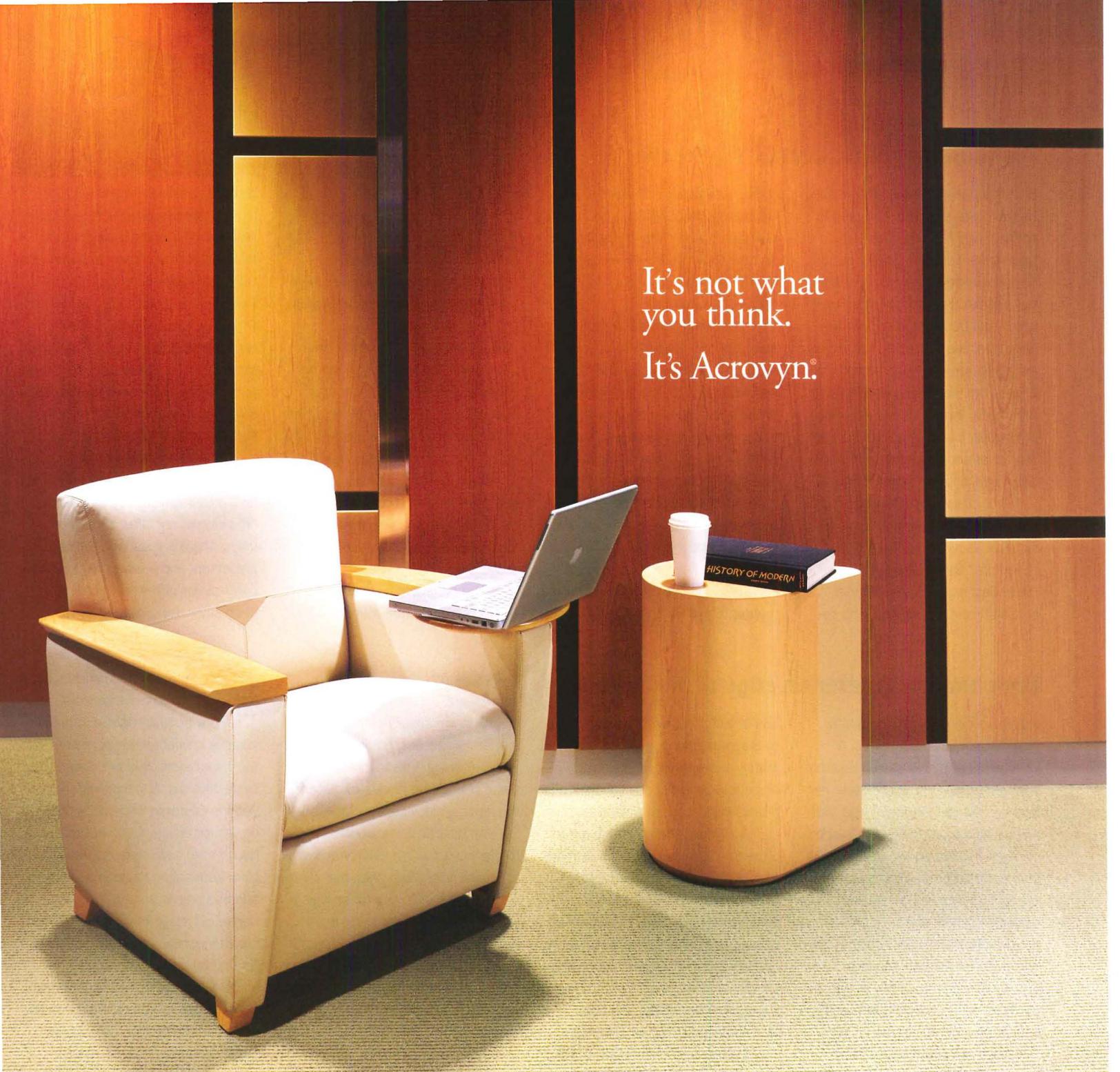
Stan Allen is proud that this year's award winners are largely based at Princeton. "Nordenson's project exemplifies the kind of work we would like to see at the School of Architecture. The Latrobe Prize helps to jump-start our new Center for Architecture, Urbanism, and Infrastructure," he says.

The Latrobe Prize, named after Benjamin Latrobe, one of America's first professional architects and designer of the U.S. Capitol, is awarded biennially to research efforts that show potential for launching significant advances in the architectural profession. The previous winner, Gordon Chong, FAIA, presents his work on the cultural impacts of health-care design at the AIA's convention this month. *John E. Czarnecki, Assoc. AIA*

AIA/ALA announce library design awards

The American Institute of Architects and the American Library Association (ALA) have announced nine winners of the 2007 Library Building Awards. These biennial honors, jointly sponsored by both associations, recognize the finest in library design. This year's projects range from public institutions and school libraries to Bill Clinton's Presidential Library. The winners are Robin Hood Foundation Library, New York City, by Gluckman Mayner Architects; Desert Broom Branch Library, Phoenix, by richard + bauer architecture; Shunde Library, Foshan, China, by P&T Architects and Engineers; Ballard Library and

Neighborhood Service Center, Seattle, by Bohlin Cywinski Jackson; Santa Monica College Library Expansion and Renovation, Santa Monica, California, by CO Architects; David Bishop Skillman Library, Easton, Pennsylvania, by Ann Beha Architects; William J. Clinton Presidential Center, Little Rock, by Polshek Partnership Architects; Fleet Library, Providence, by Office dA; La Grande Bibliothèque, Montreal, by Patkau, Croft-Pelletier, and Menkés Shoener Dagenais Architectes Associés. The ALA presents these awards at its national convention in June. For project photos, visit architecturalrecord.com. *J.M.*



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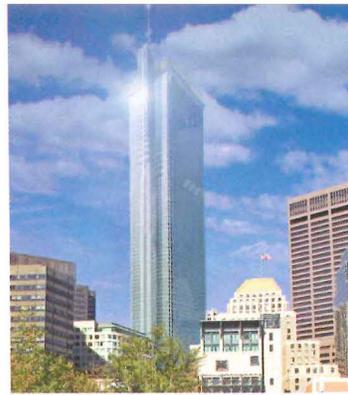
Piano quits controversial skyscraper

Efforts to take Boston's skyline spectacularly vertical have snagged in political and business realities. In March, Renzo Piano bowed out of developer Steve Belkin's controversial plan for an 80-story office tower, which at 1,000 feet would be New England's tallest. The city had already granted preliminary approval to the project, but preservationists objected that the scheme included demolishing a noted building by Paul Rudolph. The tower's scale and economic viability have also been questioned.

In a statement announcing his departure, Piano expressed support for what he termed a "challenging adventure." But sources familiar with the project say that the split was caused by creative differences, pri-

marily over Belkin's decision to widen the building from 140 feet per side to 160 feet, which Piano thought would ruin the tower's slim silhouette and deprive the building and surrounding space of light and air.

Following Piano's exit, Belkin's Trans National Properties tapped CBT Architects, a Boston-based firm that was working on the project with the Italian architect, to carry his scheme to completion. It also added Ove Arup & Partners and urban designer Ken Greenberg. "Now that we have a conceptual design for the tower, we are working diligently with our team to implement the vision," a Trans National spokesperson says. Even so, Piano is said to be unhappy with the degree to which the altered



Piano's tower (above) could replace a Rudolph building (right) in Boston.

design is being attributed to him.

Belkin's financial plan for the tower was due to the city in April. Kairos Shen, director of planning for the Boston Redevelopment Authority, says that shuffle of design team members won't scuttle the project, but it could create complications: "If we don't think they have the right people involved, the city may recommend changes."

The project has the backing of Boston's mayor, Tom Menino, who



last year solicited designs for an iconic tower to occupy the site of a city-owned parking garage in the financial district. Trans National was the sole respondent. It owns the Rudolph-designed Blue Cross/Blue Shield Building nearby and proposed to demolish the 1960-vintage structure to create space for a large public plaza. Piano was prepared to save some but not all of the building, according to sources.

The Boston Landmarks Commission issued a demolition stay for the Rudolph structure in March. "The city will not allow demolition unless there is a signed development agreement and a schedule for actual construction of the new building," Shen says. *Ted Smalley Bowen*

Baby boomers teeter on edge of vision crisis

It was a kitchen caper enough to give most people nightmares. A woman in her mid-70s, who recently suffered vision loss, would enter her kitchen and each time emerge with a black-and-blue marks. Diminished eyesight had stolen her ability to discern contrast between cabinets and the surrounding wall surfaces, explains Michael Honan, a clinical rehabilitation manager at Lighthouse International, a vision services agency. In the glare of two bright windows, she continually bumped into doors she was unable to see.

With the aging of the baby-boom generation, this senior's experience may soon be commonplace. Tara Cortes, president and C.E.O. of Lighthouse, points to several figures that suggest the U.S. is on the verge of a low-vision epidemic: Six million Americans are already affected with age-related macular degeneration, the primary cause of vision loss in the U.S., and as many as 15 million more are pre-symptomatic. In addition to age-related sight loss, 5.3 million

adults suffer impaired vision caused by diabetic retinopathy—approximately one quarter of diagnosed diabetics—and the obesity epidemic promises to boost that showing.

Low vision, along with boomers' propensity toward independent living, suggests a different set of design solutions from those addressing complete blindness, which affects only 8 percent of all visually impaired people. For now, the challenge is educating architects and planners about how the approaches differ—and ending a bias to design solely for blindness.

Danise Levine, assistant director of the IDEA Center at the University at Buffalo, says that while universal design principles take low vision into account, existing standards are prejudiced against low-vision building occupants. "Most accessibility codes are geared toward people with mobility issues, which is not what most low-vision people grapple with," she explains. In cities such as Atlanta, residential "visitability" regulations, which guarantee entry and bathroom access for disabled visitors in new

homes, also emphasize physical impairment. Even the best intentions, including mandatory curb cuts for wheelchair access, put low-vision pedestrians at a disadvantage, since these people are unable to discern the dip in a sidewalk's surface.

Architects are slowly waking up to the low-vision epidemic. According to Eunice Noell-Waggoner, president of the Center of Design for an Aging Society, they are "becoming more curious" about accommodating low-vision users. The American Institute of Architects now includes information about lighting techniques in its guidelines for health-care facilities.

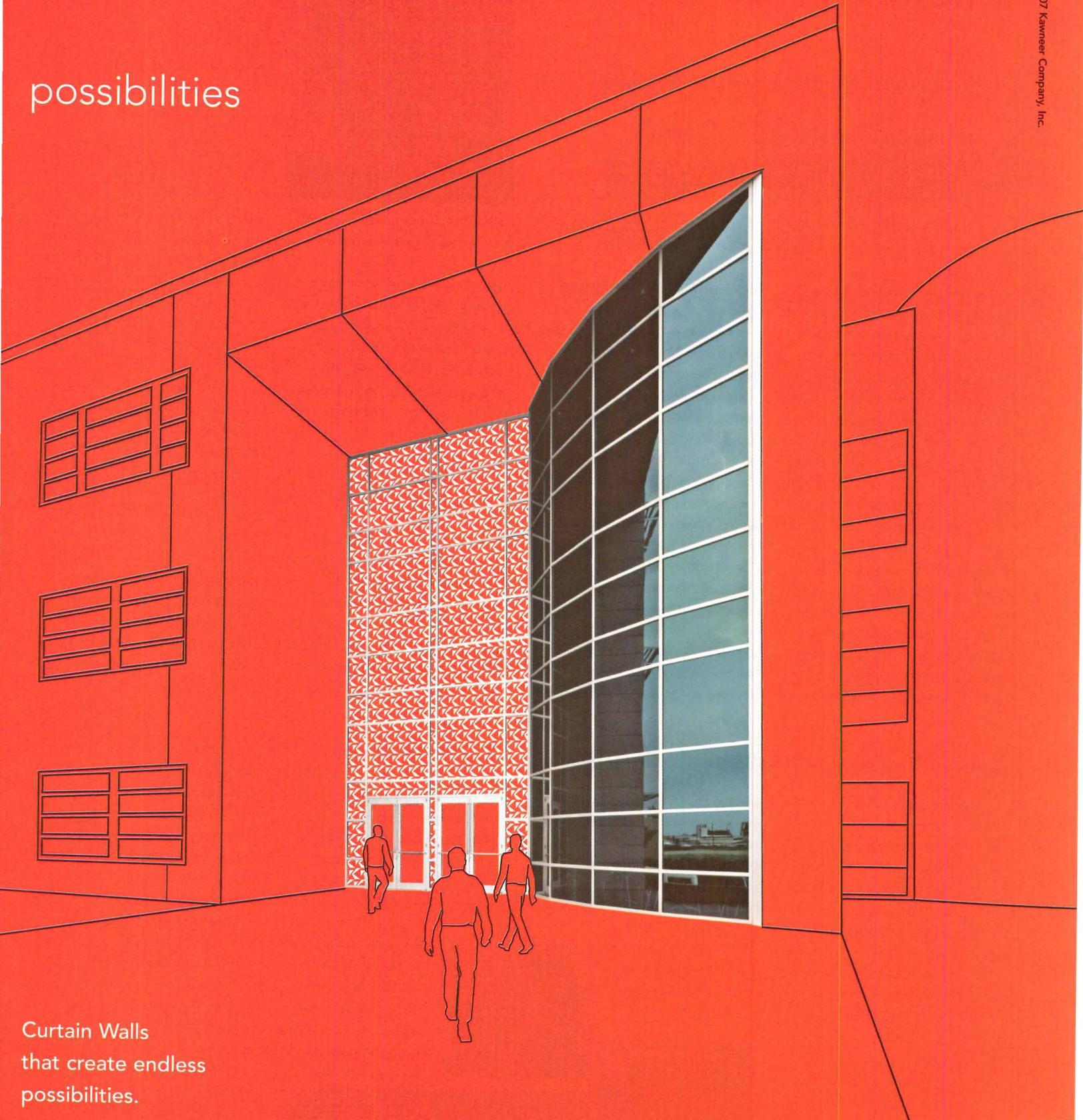
Remedies are easily at hand. Simple choices about materials, lighting direction, and color contrasts can ease low-vision users' assimilation to new construction. And an array of affordable modification devices, from talking calculators to nonglare light bulbs, allow homeowners and office workers to confidently maneuver daily life in existing spaces. Sustainability is also conducive to the phenomenon, since task lighting usually gobbles less energy than an all-out wash,

the glare from which diminishes people's ability to perceive contrast.

Further, systematic efforts to improve environmental conditions for the visually impaired are under way. Leslie Moldow, AIA, a principal at Perkins Eastman who specializes in design for aging, points out that in health-care development, better, nonglare illumination standards are being adopted one state at a time. The Center of Design for an Aging Society recently published a booklet about lighting for low vision. And Cortes reports that Lighthouse is lobbying Congress to approve reimbursement of vision modification devices currently not covered by Medicare.

Honan, the Lighthouse clinical worker who encountered the elderly bruise victim, helped improve her situation swiftly. Applying a border of electrical tape created contrast on her kitchen cabinets, and darker curtains reduced solar glare. Although solutions for low-vision environments are within reach, Noell-Waggoner says that awareness and education still has a way to go. Contractors, eye doctors, and architects all need to see the light. *David Sokol*

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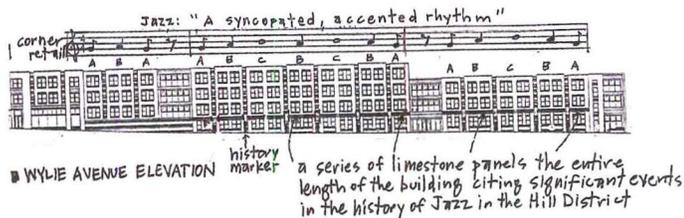
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Architects jazz up public senior housing



For too long, most publicly funded housing for seniors and the disabled bordered on being dull, if not downright dismal and "institutional." But thanks to architects who lavish the kind of thoughtful design attention hitherto rarely seen in such developments, and clients who are increasingly willing to take a chance on them, even some publicly funded projects are breaking the mold.

Victor Regnier, FAIA, a University of Southern California professor who specializes in senior-housing design, is currently writing a book on the subject—timely, given the growing demand for these buildings as baby boomers age. Regnier sees a dawning willingness on the part of housing officials to invite

innovative design. There's also a new political will to demand it.

One project resulting from this push is Near North Apartments, a single-room occupancy building designed by Helmut Jahn of Murphy/Jahn Architects. Mercy Housing Lakefront commissioned the \$14 million, 96-unit facility to provide permanent residences for low-income or formerly homeless people, some of whom are elderly and disabled. Completed this spring, it stands on the site of Cabrini-Green, an infamous Chicago housing project now mostly demolished. The five-story building is clad in rippled, satin-finish stainless-steel siding. This unpolished facade is tempered by round edges near the rooftop and



Rothschild Doyno's senior complex (left) and Murphy/Jahn's SRO (above).

large, punched windows whose e-coated glazing reflects a faint blue tint. Its elegant, Minimalist design stands out—which is exactly what Cindy Holler, the nonprofit's president, wanted. "It's stigma-smashing," she says. "It's okay not to blend in and to be provocative."

Other new buildings are aiming for a more subtle approach, evocative rather than provocative. A 108-unit public housing complex for the elderly in Pittsburgh, developed by McCormack Baron Salazar, incorporates the history of an African-American neighborhood into its facade. Architect Dan Rothschild, AIA, of Rothschild Doyno Architects, says he was inspired by the storied Hill District, a popular stop for jazz

musicians during the 1920s to 1940s. He incorporated the spirit of jazz into the building's plan by dividing the front elevation into segments whose widths vary to the relative length of musical notes—a quarter note, half note, or whole note—adding visual rhythm to the streetscape. Construction of the \$13 million complex finishes next month.

Regnier observes that more and more projects like this one are employing better design to serve the population they house. "There has been a stronger focus on developing contextually based designs that gear toward the community and reflect what the city is about," he explains.

Consideration of context can be achieved not only with exterior details, but also through the architectural program. Regnier cites the Burbank Senior Artists Colony, a complex of 141 senior apartments located near major movie studios in Burbank, California, developed by Meta Housing with some government support. Scheurer Architects designed two recording studios as well as a small theater so that the facility's residents can flex their creative muscles by producing plays and films. *Violet Law*

Catovic Hughes embraces context

It can be difficult for small, residential firms to get the recognition they crave if they turn out only a handful of designs a year—unless, of course, their work wins awards. Consistently. The husband-and-wife team of Michael Hughes and Selma Catovic Hughes belong to the latter category. Their Mooreland Residence, in Baton Rouge, Louisiana, recently earned a 2006–2007 Faculty Design Award from the Association of Collegiate Schools of Architecture. The same project also nabbed an Honor Award from the AIA Colorado Chapter—as did The Home, an elegant, ADA-friendly residence for Hughes's elderly parents in rural Georgia.

Although Catovic and Hughes design well at the building-specific scale, a hallmark of their work is an

intuitive feel for embracing context. The Mooreland House, for instance, occupies an infill, suburban site that the owners' jogging club had used as a warm-up area. By adding porches on the front and rear elevations, the architects established an open relationship with the neighborhood—creating, Hughes says, opportunities for



Hughes's parents live in The Home (left), while the Mooreland Residence welcomes joggers (far left). TrailerWrap reinvents mobile home design (below).



the owners to "offer friends an iced tea when they run past the house."

TrailerWrap, a project that will be completed this month, also explores community bonds. Working with students at the University of Colorado at Boulder, where he taught until last year, Hughes stripped a mobile home

to its chassis and developed a kit of parts to reconstitute it with an eye to sustainability. But as Hughes explored passive cooling methods, such as breezeways, he realized that the relationship between mobile homes was as important as the design of individual units: By orienting house entries toward each other in a cluster, developers can create courtyards where residents can socialize.

Catovic and Hughes both teach at the University of Arkansas School of Architecture, arriving there by way of Colorado; Washington, D.C.; and New Mexico. They've moved around a lot for a couple still in their thirties, but certain experiences inform everything they do. For Catovic, it was her childhood in Bosnia—interrupted by that country's civil war—and for Hughes it was working for Frank Gehry and Richard Meier. *J.M.*



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Creative Time is still creative—elsewhere

By accident or design, Creative Time helped catalyze the transformation of New York City's built environment. This nonprofit group has sponsored and commissioned public art to energize buildings and streetscapes



since 1974. Now it is looking outside the Big Apple. It recently sponsored a video installation along four blocks of the Strip in Las Vegas, and this spring will announce plans for an ambitious project in New Orleans—a city in transition that, like New York in the 1970s, could use a big dose of transformative art.

“Real estate is an important part of the history of the organization,” says president and artistic director Anne Pasternak, adding that developers generally follow in the footsteps of artists. Many of Creative Time's best remembered projects, she explains, occupied prominent sites now radically transformed by construction: a sandy landfill in Lower Manhattan that became the residential enclave of Battery Park City, and Times Square before Disney and other corporations edged out the XXX theaters.

But in addition to changing city spaces, Creative Time wants to spotlight its past. As part of its 33rd birthday celebration this month—a self-consciously arbitrary anniversary, Pasternak admits—artists are hanging plaques in 33 locations around New York that they deem important to the city's everyday history. Sites include a women's jail in Greenwich Village that counted Black Panther Angela Davis among its inmates, and Andy Warhol's Factory. *J.M.*

Rotterdam Biennale opens this month

What is the future of our cities and what role will architects and urban designers play in it? The 2007 International Architectural Biennale of Rotterdam (IABR), which runs from May 24 to September 2, seeks to answer these questions through a series of exhibitions that explore the theme of “Power: Producing the Contemporary City.”

This year's IABR, the third such event, is being curated by the Berlage Institute in Rotterdam, a renowned post-doctoral program for architects and city planners. Vedran Mimica, who heads the Berlage curatorial team, explains that his group wants the IABR to serve “the new generation of architects.” To this end, two of the main exhibitions are made for and by emerging archi-

itects and planners. One, *Visionary Power*, is a “worldwide appeal to young architects to take responsibility for the future of the city,” Mimica says, and invites 15 young international firms to contribute design proposals for cities as diverse as São Paulo, Ceuta, and Johannesburg. The second, *International Master Class*, gives architecture students the chance to design prototypical buildings for Rotterdam South, an area separated from the main city of Rotterdam by the Nieuwe Maas river. Like the outskirts of many European cities, Rotterdam South is currently blighted. But Mimica describes the neighborhood as “similar to the south bank of London in its potential for rebirth.”

The IABR is not the only biennial to focus on cities—the 2006 Venice Architectural Biennale explored a similar theme—and considering how countries such as China and India are embracing urbanism on an unprecedented scale, it is unlikely to be the last. Mimica says that

Rotterdam will differentiate itself from Venice through the content of its exhibitions. “Venice was concerned with the statistics and data of the megacity,” he says. “At the IABR we would like to go beyond exposing the phenomena to talk about designing and developing the cities.” As Rotterdam was practically rebuilt from scratch following World War II, it provides an excellent backdrop for the discussion.

This year's biennale is being held at Rotterdam's Kunsthall, designed by local firm Office of Metropolitan Architects, and at the Jo Coenen-designed Netherlands Architecture Institute. These buildings are also sites of exhibitions for a larger, citywide festival called “Rotterdam 2007: City of Architecture,” of which the IABR is just one small part. This yearlong event, sponsored by the city and international corporations, includes lectures, a competition to build follies in a dockyards district, an exhibition on Le Corbusier, and bicycle tours of Rotterdam's architecture. *Diana Lind*

Koolhaas tower ups the ante for Jersey City



The skyline of Jersey City, New Jersey, which faces Manhattan from across the Hudson River, increasingly seems like a mirror image of its neighbor: a parade of gleaming high-rise buildings line its waterfront. For developers and city officials, that's exactly the point. They hope to lure businesses by creating something that looks and feels like Manhattan, but with lower tax bills and cleaner streets.

Jersey City may have tipped the scales more in its favor with a proposed 1.2-million-square-foot, 52-story tower designed by Rem Koolhaas, the first major residential project in the U.S. for the Dutch architect's Office for Metropolitan

Architecture (OMA). The building resembles a stack of four giant Lego blocks, turned at alternating right angles. Its top block will feature 150 condominium units, with 180 more units and 252 hotel rooms in the shaft below it, and retail stores occupying 87,000 square feet in the pediment. To compensate for the demolition of artists' lofts that had occupied the site, plans also call for 120 lofts priced at below-market rental rates for artists, plus 19,000 square feet of galleries where these residents can show their work.

In choosing Jersey City for its debut, OMA joins Cesar Pelli's firm and Kohn Pedersen Fox, which have also recently designed buildings there. But Shohei Shigematsu, director of OMA's New York office, says that proximity to big-name architects did not affect the firm's decision—quite the opposite. The surrounding area's low density allows for a clear view of OMA's building from multiple vantage points. “In

New York, this would be just another facade,” Shigematsu says.

But there are some people who may not look upon the building admiringly—especially those who were locked in four years of court battles to prevent the developer, a partnership between the Athena Group and BLDG Management, from destroying a tobacco warehouse on the site that had been converted into residences.

“They're trying to cram in large buildings without regard to aesthetics, open space, historic resources, and community planning,” says Joshua Parkhurst, president of the Jersey City Landmarks Conservancy, which formed to slow the development boom. He would rather see OMA's tower built elsewhere, or its scale reduced. The building severs the waterfront from historic warehouses behind it, Parkhurst says, and people might never venture beyond it. “There's no transitional zone here, but this could be the gateway to the industrial past of the city.” *C.J. Hughes*



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Skywalk provides costly Grand Canyon view

While much of the Grand Canyon is accessible to camera-toting tourists, the West Rim, mostly occupied by the Hualapai Indian Reservation, remains desolate. Dirt roads are the primary transportation route, and only a few structures dot the landscape.



The Hualapai, along with Las Vegas developer David Jin and architect Mark Johnson, are hoping to change this—and improve the tribe's struggling economy—with the Grand Canyon Skywalk. This 70-foot-long, glass-bottomed walkway cantilevers over the ravine's edge, giving visitors a clear view 4,000 feet down to the canyon floor. "It's like nothing you could even imagine," says Johnson, who first set foot onto the Skywalk at its unveiling on March 20. "I'm sure I'll never work on anything like this again in my career."



The viewing platform projects over a relatively narrow side canyon known as Eagle Point. Two large box beams, composed of 21 welded pieces, form the horseshoe-shaped structure; steel caissons, attached to piles drilled 40 feet into thick limestone, anchor them. Johnson says its shape was developed to maximize visitors' perception of the dramatic surroundings—and the sensation that they are floating over the canyon.

The walkway measures 10 feet wide. Its transparent portions are made of five, 3-inch-wide structural-glass layers, each strengthened with an adhesive interlayer. The glass can support a live load of roughly 100 pounds-per-square-foot, or 800 people, but no more than 120 people will be allowed on it at a time. The entire Skywalk weighs more than 1 million pounds.

Regular admission price is a steep \$25 per visitor—and that's not counting a \$50 fee to enter the Hualapai reservation. Jin will split revenue from the project with the tribe,

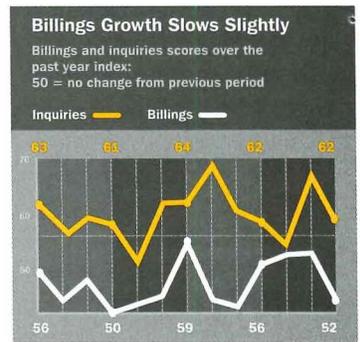
but he himself fronted most of the \$30 million to construct the walkway.

Critics say that the walkway disrupts the canyon's natural landscape, while some tribal elders express concern that it ruins sacred ground. Johnson responds that the Skywalk "doesn't detract at all," adding that it is barely noticeable in relation to the massive size of the canyon itself. But new criticism emerged in the month since the attraction opened. Some visitors express disappointment that the Skywalk's view is less expansive than anticipated; others balk at the dearth of amenities, including bathrooms, and the steep entry fees.

The tribe is working to address some of these problems. Future phases include a 27,000-square-foot museum, restaurant, visitor center, and event space located above the walkway's cliff-side elements. Its design, Johnson says, mimics the site's geographic formations, with a facade clad in sculpted concrete panels to match rock faces. Nearby, the tribe is developing a re-created Indian village, which they hope will be another tourist draw. "This is going to be their future. You feel a personal tie to that," Johnson says. "We've been fortunate to be here since it started. I guess sometimes you just luck out." *Sam Lubell*

ABI tracks slowdown

The American Institute of Architects' Architectural Billings Index for February indicates that the return of colder, more seasonal weather impacted billing activity at many of the 300, mainly commercial, firms surveyed. The index posted gains in January due to warmer temperatures nationwide that month. *J.M.*



China cracks down on copycat architects

In China, the business practice of bootlegging is not just confined to DVDs and Louis Vuitton handbags. Foreign architects have discovered that their designs, even their company names, are also attracting copycats. But some are beginning to fight back. In one of the first cases in which the government is allowing a foreign firm to sue a Chinese business, Woodhead International, Australia's second-largest design firm, filed a lawsuit in Shanghai earlier this year against its former local partner on the basis of "unfair competition." Very few of these cases ever made it to a Chinese court in the past because foreign companies had limited powers in China.

The firm being sued now, called 5+1 Werkhart International, is led by Liu Li, the former head of Woodhead's Chinese operations from 1999 to 2005. Woodhead alleges that Liu used its name to win commissions—then diverted these projects to a separate company. The Australian firm says that it learned of the scheme after clients began complaining about poor quality designs and shoddy drawings.

Woodhead fired Liu after learning of the alleged theft, but it claims that Liu's abuses didn't end there. For its Chinese operations, Woodhead had chosen the name "Wu He," an almost direct transliteration of its name. After being sacked, Liu established a firm called 5+1 Werkhart. Not coincidentally, Woodhead alleges, the words "five plus" are pronounced "wu he" in Mandarin.

"We believe it was a deliberate plan from day one to approach an

Australian-based company in China to build up a little bit of trust and confidence and use that name to build up his personal credibility," says Geoffrey Lee, Woodhead's managing director. "It can happen to anyone—SOM, RTKL—all these guys. Small architects who are opportunistic can register RTKL in Shanghai or Guangzhou or Shenzhen, for example, and there is no legal requirement that you have any relationship with the company."

Liu could not be reached for comment. Arguments in the lawsuit were expected to begin last month.

In this and similar cases, the problem stems from the fact that until 2004, when China joined the World Trade Organization, foreign-based companies were not permitted to establish wholly owned foreign enterprises (WOFE). This restriction meant that they were required to seek a local business partner, some of whom proved more interested in profiting from their partners' names than in establishing legitimate businesses.

But things are changing. Current practices make it financially feasible for companies to establish WOFEs, and so large firms who have worked in China for many years, such as Perkins Eastman, are beginning to expand under these new rules. "Intellectual property rights protection has improved sharply in China in the past five years," observes Boris Armstrong Qi, a Shanghai lawyer who specializes in intellectual property law and represents Woodhead. "There is no prejudice against foreign companies, I don't believe it." *Andrew Yang*

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News Briefs

The British architect Will Alsop is making his U.S. debut in Yonkers, New York. Developer Remi Companies unveiled his scheme to convert an 80,000-square-foot disused power station on



the Hudson River into 400 residential units and an art museum. "Good architecture does make a difference," Alsop said at a hearing in March. But community members expressed concern about the whimsical building's height. *C.J. Hughes*

The Kimbell Art Museum tapped Renzo Piano to design an expansion—a move that its April announcement touted as "predestined." Early in his career, the Italian architect worked for Louis I. Kahn, who designed the original structure that opened in 1972. But the 120,000-square-foot, Fort Worth museum is now unable to house both its permanent collection of Modern art as well as special exhibitions. The Kimbell purchased land for an expansion in 1998, but its initial plans met with controversy. *J.M.*

Herzog & de Meuron's addition to the Tate Modern, in London, won planning permission in March. When it opens in 2012, the new, 11-story tower, an off-kilter stack of glass boxes, will add 60 percent more space to the popular contemporary art gallery. Since opening in 2000, the Tate Modern has averaged 4 million visitors annually—double the predicted number. This is the Swiss architectural duo's second time working on the building, which occupies a converted 1930s-era power station. *Lucy Bullivant*



Metabolist pioneer Kisho Kurokawa entered Japanese politics this spring with a bid to become governor of Tokyo, a position equivalent to mayor. Although the architect placed fourth out of 14 in the April 8 election, his newly formed "Symbiosis New Party" will run candidates in national elections this July. Kurokawa's platform includes a controversial proposal to sell Tokyo's civic buildings, such as Kenzo Tange's City Hall. Curiously, he also suggests converting Raphael Viñoly's Tokyo International Forum into a hot spring. *Yuki Soloman*

Frank Gehry got his wish to expand the Weisman Art Museum, the institution announced in March. Gehry has always said that his original design for the 47,000-square-foot building, which opened in 1993, was unfinished. With its undulating stainless-steel forms that



seem to tumble down a riverbank, the Weisman was the first of many museum commissions that helped cement Gehry's reputation as an architectural star. Work on a 11,000-square-foot addition is expected to begin later this year. Located on the University of Minnesota's Minneapolis campus, the museum specializes in 20th-century and contemporary art. *Bette Hammel*

ENDNOTES

- Italian officials selected Tadao Ando's design for a contemporary art museum in Venice, to be located in the 17th-century Punta della Dogana.
- Jean Nouvel bested 97 competitors to win the commission for a new, 2,400-seat orchestra hall in Paris, to be called the Philharmonie de Paris.
- The Serpentine Gallery, in London, postponed the German architect Frei Otto's design for a pavilion in favor of one by Kjetil Thorsen, of Snøhetta. This annual architecture installation opens in June.
- Jeff Speck leaves his post as the National Endowment for the Arts's director of design this month, after completing two two-year terms.
- Hitoshi Abe took the helm in April as chair of the University of California at Los Angeles's Department of Architecture and Urban Design.
- Buildings, not transportation, contribute 79 percent of New York City's carbon emissions, according to a first-of-its-kind pollution inventory meant to help the city cut emissions 30 percent by 2030.

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DEPARTMENTS

Trust in action. That's what the two archrecord2 candidates featured this month have in common. For David Montalba, it's about running a successful firm by trusting what he learned from multiple mentors—treating employees, collaborators, and clients right. For Leslie Thomas, who organized and curates the traveling exhibition *Darfur/Darfur*, it's a belief that beautifully presented imagery will move people to act—and to help find solutions to a grave humanitarian crisis. More at archrecord.construction.com/archrecord2.

Design

Montalba Architects: An optimistic approach



David Montalba, AIA, has done a lot and gained a lot of mentors in his scant 35 years on the planet. As well as working for several prominent Los Angeles-based architecture firms—Gehry Partners, Pugh+Scarpa, Daly Genik, among others—

Montalba has succeeded in making a name for his three-year-old firm, Montalba Architects, in a region that is, well, lousy with quality architects. "It is difficult to establish a new practice and get clients when you've got Morphosis up the street and Frank Gehry around the corner," he says. "But somehow the nature of Los Angeles allows us all to coexist." It's that kind of optimism that has helped grow Montalba's client base from residential to retail, with civic and urban mixed-use projects ahead.

Montalba, who was born in Florence, Italy, and grew up in both Switzerland and Northern California, once dreamed of becoming a pro-surfer. Architecture won over waves, however. "My uncle is an architect in Switzerland, and my mother comes from a family of builders, so design was always in my life, and always invigorated me." Immersing himself in architecture, Montalba worked summers in architecture firms as he attended school at the New School of Architecture in San Diego, then finished his undergraduate degree at SCI-Arc's European program in Switzerland, and later earned a master's at UCLA. "The fact that I worked as I went to school really helped my understanding of how the practical and the theoretical aspects of design work together," he says. Connecting the two has led Montalba to be honest with materials, to use natural light to sculpt and design space, and to incorporate a certain restraint in his design (perhaps partly due to that Swiss influence). His values spill over from design into his practice. He started a firm with a partner after graduate school, but somehow it never gelled, so going out on his own seemed the right thing to do in 2004. Now with six

Culver City Muse, Culver City, Calif., unbuilt

A cluster of mixed-use buildings with outdoor public space.



Kara's Cupcakes, San Francisco, 2006

Shifting planes and pink translucent glass define a boutique cupcake store.



**Venice Properties,
Venice, Calif., 2005**

A 2,000-square-foot series of art and work spaces organized around a central interior kitchen/conference area.



Octavia Parcspace Lofts, San Francisco, unbuilt

Extensions of park space along a revitalized boulevard fold up and into these two, 7,000-square-foot, mixed-use infill developments.

full-time staff and two part-timers, Montalba is able to balance family (he has a baby daughter) and work. "A small firm allows me to be client-service centered, design conscious, and treat my employees well," he says. He claims that giving his employees benefits and midyear bonuses has helped with that. "It's important to do things like that, because we're a very busy firm, and everybody is juggling a lot."

As well as his residential and retail projects, such as fashion designer Monique Lhuillier's two Los Angeles boutiques and the pastry shop Kara's Cupcakes in San Francisco, Montalba is looking to use his European connections to get clients overseas. "We do one Swiss competition a year," he says, "and one day I plan to collaborate with my uncle on something."

Perhaps when he's not so busy with local projects, or with his roles as a member of the board of directors of the AIA Los Angeles and chair of its Academic Outreach Committee. The future? "I'm going to stay tuned," says Montalba. So will we. *Ingrid Spencer*

For additional photos and projects by Montalba Architects, go to architecturalrecord.com/archrecord2/.

Work

An architect brings awareness to a crisis



Leslie Thomas, partner with the Chicago-based firms Larc Inc. and Larc Studio, wasn't one to jump on causes and preach about them. However, when the architect, mother, and Emmy-winning art director (for art direction of the 1999 HBO movie *Introducing Dorothy Dandridge*) saw a photo of a victimized child in a March 2006 *New York Times* article about the genocide in Darfur, she

was changed. "I was holding my child, and I just thought, 'I have to do something about this.'" she says. After investigating the crisis in Darfur, where more than 300,000 people have been killed or injured by Sudanese government forces and militia groups since 2003, she sent an e-mail to everyone she knew. "I actually got some nice replies, and it made me think people might be interested in learning more about what was happening and what could be done about it," she says. Because Thomas had been so grabbed by a photograph, she thought other people would too. She spoke with a documentary filmmaker friend about the possibility of creating some sort of photographic installation, and after receiving positive feedback from the photographer who had taken the photo that initially spurred her call to action, *Darfur/Darfur* began to take shape. "The crisis was really only being presented on university campuses and in *Times* articles by Nicholas Kristof. I

thought about how a strong message could go out to people using beautiful imagery in a museum setting." As an architect, Thomas knew the value of creating powerful environments. By getting museums involved, she knew she could work with their own architecture to present the photos in such a way that viewers would be both intrigued and enraged.

Despite discouragement from outsiders, and because of the encouragement of coworkers and friends ("It's people like Greg Doench, my partner in Larc Inc. and Larc Studio, who really picked up my slack," says Thomas), she kept on. Completely



In April 2007, Darfur/Darfur was presented as an installation at Berlin's Jewish Museum (installation photo, top right; a flyer for the show, above).



supported by donations and the pro bono work of everyone involved, the traveling exhibition uses high-quality projectors to show the work of eight photo-journalists—three loops of 170 images over 6½ min-

utes—on the venues' walls, accompanied by traditional Sudanese music. The changing, digitally projected images provide visual education about the richly multicultural region while exposing the horrors of the ongoing crisis.

The installation has been shown at more than 10 venues so far, including the Hammer Museum in Los Angeles, the United States Holocaust Memorial Museum in Washington, D.C., the George Eastman House in Rochester, New York, and the Jewish Museum in Berlin. Speakers such as Mia Farrow and former United Nations Secretary General Kofi Annan have spoken at related events, which in the future will feature such luminaries as cellist Yo-Yo Ma. "I think people want to do good things," says Thomas, who has never been to Africa, "and when something stirs them, they will act. The images are beautiful, from

Mehr als 200.000 Zivilisten sind seit Februar 2003 Opfer der Gewalt in Darfur geworden. Hinrichtungen, Mord, Vergewaltigungen und das Niederbrennen von Dörfern sind an der Tagesordnung. Über zwei Millionen Menschen leben in Flüchtlingslagern; mindestens vier Millionen – mehr als die Hälfte der Bevölkerung Darfurs – sind von internationalen Hilfeleistungen abhängig.



REPORTAGE: DORIS GRUBER

a design perspective, and that may make people stop and look, and think, and write a letter or donate to a cause. Look at *Guernica*. Art can be about war, and can transcend distance and language to make a powerful statement." Thomas is currently working with Melcher Media to create a book about the project, to be published in September 2007. *I.S.*

For information on Darfur/Darfur and the work of Leslie Thomas's firms Larc Inc. and Larc Studio, go to architecturalrecord.com/archrecord2/.

Three years later: Does Gehry's Stata Center really work?

Critique

By Robert Campbell, FAIA

When Frank Gehry's Stata Center at MIT opened three years ago, it got a lot of press, especially for its novel appearance. I wrote at the time [RECORD, July 2004, page 61]: "It looks as if it's about to collapse. Columns tilt at scary angles. Walls teeter, swerve, and collide in random curves and angles. Materials change wherever you look: brick, mirror-surface steel, brushed aluminum, brightly colored paint, corrugated metal. Everything looks improvised, as if thrown up at the last moment." The Stata was even pictured in a *Doonsbury* comic strip, where a character calls it "pretty cool."

Then everybody forgot about it and moved on. There were fresher shocks to delight us. But the Stata, like any building, is more than a visual show. It's also a set of interior spaces where people study, play, socialize, and run experiments. The spaces either work or they don't. You can't make that judgment until a building has been around for a while.

So let's ask that simple question. Does the Stata work? Or is it merely an act of self-expression? Or is it— to use a word that now sounds quaint—functional? What were its purposes, anyway?

The biggest goal for the project was to get MIT scientists—and that includes students—to meet one another. Too often, it was felt, they were holed up in isolated labs,

apartments, and classrooms. Says Gehry: "The main problem I was given was that there are seven separate departments that never talk to each other. [But] when they talk to each other, if they get together, they synergize and and make things happen, and it's gangbusters."

The Stata, thus, was to be a mixing chamber. People would make connections. They'd begin to feel like members of a community. Barriers between disciplines would fall. Great minds would meet, copulate, and spawn brilliant ideas.

Two groups were to be the primary beneficiaries: computer sciences and artificial intelligence. Most of the people in the Stata are in one of those fields, figuring out how thinking takes place and how it can be improved and communicated, whether in a brain, a computer, a network, or a robot. Smaller groups at Stata are linguists, philosophers, and biologists who study DNA.

After a month of wandering the Stata's trackless and confusing floors (they are), and talking to its delighted inhabitants (they are), I'm ready to say: Yes, it does work. In the ways that count most, the Stata is a wonderful and astonishing building. Let's list its virtues. From here on, every comment in quotation marks was made to me by a Stata professor, researcher, student, or staff member.

The Stata is a building with lots of problems, inhabited by guys who love to solve problems. The MIT scientists would have been bored by a conventional building. Gehry gave them a building that needs to be solved. The floor plans

The sculptural forms of the Stata Center make it stand out on the MIT campus.

are at first a mess, as noted. As you hunt down the person you're there to see, you feel like a rat looking for the cheese in a maze. Except for the ground floor "Student Street," there isn't—at first—any apparent order to the circulation.

But the scientists love the complexity. You just wander around till you get where you're going. "You may run into people and projects you knew nothing of," says one. Says another, joyful at the memory: "It took them a day to cut my furniture to fit the sloping and bending walls in my office." That was a problem, and he found a solution. Another likens his office to living in a work by Richard Serra. These are guys who like challenges. They like having to figure things out. Life in the Stata can be a continual brain game. (Okay, it might not suit everyone.) "Nine out of 10 faculty would say they are really pleased," notes one. "Everyone wants to say they're unconventional."

The Stata is fractal instead of linear. Three professors compared the floor plan to fractals. "We made a 3D graph," says one, "of all the research groups we'd like to sit next to. We found that you couldn't do that in only two dimensions." Gehry's plan, which everyone calls "neighborhoods," gets as close to that ideal as possible.



A neighborhood is a cluster of private offices opening off a shared space that one staffer calls a "town green." Usually the shared space is two stories high and often it's skylit, so the neighbor connections work both horizontally and vertically.

Research at Stata is group focused, and the groups come in many sizes. There are, therefore, many possible orders of magnitude. You can define your research zone as a whole floor, or as two or three neighborhoods, or as just one neighborhood, or maybe as just your own office and a share of its town green. This is what makes Stata fractal, the way it breaks down in steps from large clusters to small, each one of which, at every scale, can be thought of as a centered whole.

"You can't do that in a linear building, with rooms off a corridor," says one person. Another sees the plan as metaphor: "For a lot of the deep issues in computer science

Contributing editor Robert Campbell, FAIA, is the Pulitzer Prize-winning architecture critic for The Boston Globe.

Critique

here, linear analysis doesn't work."

Fractals are the Stata. No two places are exactly the same: "The lack of repetition animates the building." Coffee and whiteboards seem to be everywhere, and people casually join discussions as they navigate their way through the plan: "You run into people you might not have seen in years. I get lost all the time."

A voice of mild disagreement is that of Noam Chomsky, the linguist and political activist who is the Stata's best-known inhabitant. Chomsky's world isn't fractal. It's a conventional suite of offices. He says he never meets anyone by accident. He complains about his sloping wall, which means he can't put bookshelves on it and can't reach the sunshade in its window. He misses the squirrels that used to run around inside the walls of his old office. He says of the Stata, "I'm fine with it." But he works mostly at home.

The Student Street is a great architectural space. It's an indoor walkway that meanders through the Stata's ground floor. It's endlessly varied. Sometimes it's narrow, sometimes wide, sometimes high, sometimes low. Sunlight falls from high windows. Walls angle in and out, often in bright colors.

The Street is like the high street in a British village. Everything seems to connect with it. In the morning, professors climb stairs from the underground garage, stop for a cappuccino, then stride the Street to their elevators (the Street, wisely, is the sole pedestrian way out of the garage). At five o'clock, tots pile out of the day-care center to meet their parents. Undergrads in gym shorts head for the health club and pool. Classes spill regularly from lecture halls and classrooms. Student advocates push petitions or memberships. Visitors stare at the life-size porcelain cow, enthroned atop a coffee shop, that MIT student hackers once, um, liberated from a suburban steakhouse. "There's a random collection of tables where students flop and

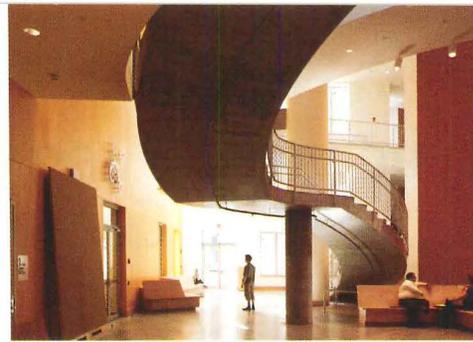
study. It's also a place to promenade." Students can plug in their laptops almost anywhere on the Street. "It's full of nooks and crannies where people stop and talk." The Street is a deliberate reinvention of MIT's famed "Infinite Corridor," the drab heart of the old campus. The Street is far better. And like any good public space, it's open day and night.

The building will never be finished. Says Gehry: "I'm happy when the building is forgiving enough so you can do things to it without destroying it. Put a new light where you want, knock out a wall." Says a Stata linguist: "Any kind of scientific work is always under construction, always still being built. When you publish a book or a paper it's never finished, it's just a step on the way to the next one."

It occurred to Gehry long ago that his buildings looked more interesting while they were under construction than when they were finished. Ever since, he's sought ways to give buildings that restless sense of something still happening. Nothing about the Stata feels finished. Since it opened, it's been in a constant state of minor modification, as the researchers fit it to their needs. The architecture is a metaphor for the science: always an open question, always a work in progress.

Not everyone loves the Stata's "unfinished" indoor materials, which are raw metal, glass, plywood, industrial lamps, exposed wires, and raw concrete. But they understand the motive, which is that Gehry wanted his building to feel like a warehouse, easy to change and rearrange.

The architecture recruits faculty. MIT's then-president, Chuck Vest, egged on by the dean of architecture and planning, Bill Mitchell, announced another Stata mission as follows: "I believe that the buildings at this extraordinary university should be as diverse, forward thinking, and audacious as the community they serve. They should stand as a metaphor for the inge-



Interiors provide a variety of spaces to gather.

nity at work inside them."

As a principle, I regard this statement as moronic nonsense. It's like saying Einstein should have worn a crazy hat to express the fact that his brain was thinking audacious things. But many of the scientists disagree with me. They want to be in a building that proclaims how special they are:

"It's an icon for this age. It helps attract new faculty because it says we take risks." "The notion was that MIT needed an icon other than the dome." "It captures a sense of MIT's inventiveness and playfulness." "The building's funny shape and bizarreness kind of matches up with the work we do. It looks as strange outside as the strange stuff going on inside" "This is world-changing research, and if the building looks like it's leaping off the planet, so are we."

There's lots of wasted space. Another winning move is the amazing amount of unprogrammed space. An efficiency expert would call it a total waste. This is space that isn't anyone's turf. It's everywhere. It's the stuff of those "village greens" and generous elevator lounges. People grab it when they need it. A space may become the overflow site for some experiment. Or students may clutter it with a newly invented game, or an impromptu discussion or party. They eat and study anywhere and everywhere: "The undergraduates really mill in the building. Some of them walk in out of curiosity and end up working with us."

Because so much space isn't under anyone's direct supervision, the Stata feels free and relaxed. And the openness means that its parts are visible to one another: "People can be seen to be working." "You can see the building is alive. You can feel part of a community that is working hard. I used to have to go to

a conference on the West Coast to find out what the guy next to me was working on." "There's connectivity. There are even windows in the fire stairs."

The skin-to-floor ratio is huge. There's a lot of exterior wall and

roof in relation to the indoor floor area. The most efficient building, as any developer or architect knows, is the one with the lowest such ratio. But that depends on what you mean by efficiency. The more surface you have, the more windows and skylights you can get. Almost everywhere in this huge building, despite its wide floor plates, you feel in touch with the sky and sun.

It looks more like a car smashup than a building. From outside, the Stata doesn't look like one thing, it looks like a pile of unrelated parts that somehow got compacted together, like a John Chamberlain wrecked-car sculpture. As a result, big as the building is, it doesn't feel in the least controlling.

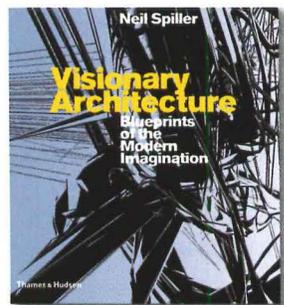
And in a move that reminds you of Charles Moore, Gehry scattered a bunch of brightly colored objects, looking like odd-shaped huts, across the building's numerous roofs. They are conference rooms. The scientists call them by the pet names the architects gave them—the Kiva, the Nose, the Helmet, and so on. In the largest, the Kiva, a third to a half of all visitors (including Gehry) get dizzy from the free-form walls. Some people have adjusted, others not. But most still like the pavilions: "The playfulness animates the environment. It reminds you of the student hacking."

The Stata has many faults that I'm ignoring, from early roof leaks (at least 50) to lack of acoustic privacy. But the faults pale next to the inventive virtues. I'll let Gehry have the last word. He likens the Stata to democracy itself and, well, to rabbinical bickering: "There is a growing model of urbanism in America, in the world, and I optimistically believe this has something to do with democracy. There's a pluralism and a collision of ideas, something almost Talmudic." ■

Futures past and present: the avant-garde then and now

Books

Visionary Architecture: Blueprints of the Modern Imagination, by Neil Spiller, New York: Thames & Hudson, 271 pages, 2007.



The use of the obsolete word “blueprint” in the title of this sprawling and erudite history of postwar experimental architecture is a key to the book’s spellbinding charm. Although U.K. architect and writer Spiller claims his history as “definitive,” its modest size belies such a claim. Further, Spiller’s definition of “experimental” and “visionary” architecture as construction (actual or virtual, built or unbuildable) that exemplifies the concept of architecture as a machine narrows his focus. But by tracing this orientation to ancient mysticism and limiting most of the text to U.K. architects only, he has created a very lively, unorthodox, backward-and-forward-looking perspective on lavishly imaginative, modern architectural thinking.

In keeping with the author’s commitment to probing fantastic architecture built on a machine premise, the opening chapters focus on medieval and Renaissance mystical concepts that seem to foreshadow modern machinery and

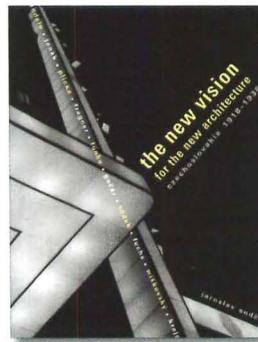
computers: alchemy, the memory theater, and Piranesi’s dreamy architecture sketches. Central to Spiller’s thesis is the idea that these ancient magical and mythical ideas can now be materialized, thanks to computer technology. Spiller intersperses his linear history of medieval-to-modern architectural visions with illuminating contemporary case studies from Diller+Scofidio, Asymptote, and Morphosis. His description of an environment by NOX, where boundaries between actual and virtual architecture are entertainingly blurred, underscores the alchemical metaphor of creating a seemingly impossible fusion of disparate elements, a building resembling a futuristic, Rube Goldberg contraption that shouldn’t work, but does.

Because of Spiller’s Anglophilia and machine-mania, Louis Kahn is given one sentence; Wright a few paragraphs; and visionary, vernacular architects who didn’t think in terms of building-as-machine, such as Simon Rodia, are absent entirely. And environmental and economic concerns central to mainstream architecture are largely absent, too. Yet this is an inspiring book of dreams for all architects who watch with amazement as new technologies quickly transform yesterday’s pipe dreams into today’s realities. *Norman Weinstein*

The New Vision for the New Architecture, Czechoslovakia 1918–1938, by Jaroslav Andel. Zurich: Scalo Verlag AG, 2006, 278 pages, \$58.

Central Europe is the forgotten region

of the interwar period. This is true for social, political, and economic history as well as for the arts. It is especially true for architecture. There is no Gerrit Rietveld, Alvar Aalto, or Giuseppe Terragni to bolster the theoretical caché of ideas emanating from Prague or Budapest. Czechoslovakia did boast Karel Tiege, a Middle European equivalent of Italy’s Massimo Bontempelli, or Holland’s Theo van Doesburg, that is, a sophisticated, profound intellectual who influenced his contemporaries, including Le Corbusier. And architects



like Bohuslav Fuchs are almost totally unknown in the West, despite the fact that his International Style buildings are exquisite, elegant, and as spatially complex as anything by Walter Gropius or J.J.P. Oud. Ironically, the most famous house of the period in Czechoslovakia, the Tugendhat, in Brno (1930), is by Mies van der Rohe.

This book may help restore the reputation of Czech Modernism. It is a beautifully produced collection of stunning black-and-white photographs of Modern architecture in Czechoslovakia, all taken during the 1920s and '30s. Collected, introduced, and explained by Jaroslav

Andel, the tome is organized by building type. The photos are of spanking white architecture, as pristine as the Villa Savoye was in 1930, and some of these buildings are breathtakingly beautiful. A few are known to westerners, like the Bata store in Prague and the Vesna School in Brno, but many are new, at least to this reader.

The introduction is clear and concise, and brings out some chronological errors in the standard texts of the Modern Movement, implying an influence for Czech architects and writers previously unseen in the epoch. *Thomas Schumacher*

Architecture in Switzerland, by Philip Jodidio. New York: Taschen, 2007, 192 pages, \$24.95.

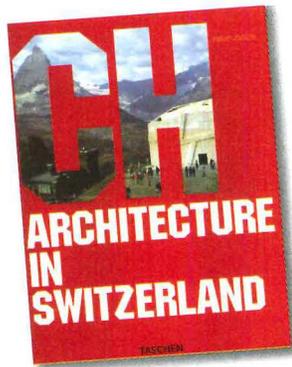
It might surprise us that a book on contemporary Swiss architecture ranks among the first six in a new Taschen series. (The other five volumes are, more predictably, on current design in the U.S., the U.K., the Netherlands, Japan, and France.) Tiny and landlocked Switzerland has a smaller population than New Jersey and is only twice its size. Moreover, the nation divides along three geographic and linguistic areas: German, French, and Italian. Yet Switzerland as a whole has been uniquely committed to Modern architecture and has had the advantage of closely integrated engineering and architecture since the time of Robert Maillart (1872–1940), known for his innovative Alpine bridges. The face of Le Corbusier, thought of as French but born in Chaux-le-Fonds, Switzerland, appears on the 10-franc bill.

Books

Architecture in Switzerland explores the work of Mario Botta, Peter Zumthor, and Herzog & de Meuron, as well as a younger generation, mostly protégés of the big three, including Davide Macullo and Aldo Celesia, Annette Gignon and Mike Guyer, and Philippe Rahm.

Jodidio also covers Santiago Calatrava who, though born in Spain, studied in Switzerland and opened his office in Zurich in 1981. Yet more questionable is the inclusion of Renzo Piano and Norman Foster, who have merely designed buildings in Switzerland—the Paul Klee Center in Bern by Piano and the Chesa Futura in St. Moritz by Foster.

Jodidio proceeds alphabetically—Botta, Calatrava, Celesia—representing each architect by two projects, a short biography, and contact information. No distinctions are made between masters and followers, which may be



politically correct and easier for the author. Taschen and Jodidio brought out all six of the series' first 200-page volumes in the same year. So there was little time for appraisal or imagination, and it shows. *Andrea Oppenheimer Dean*

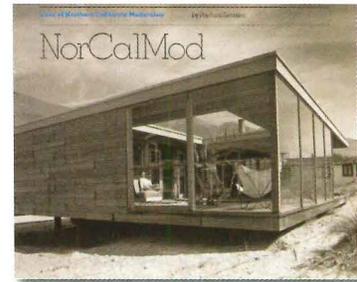
NorCalMod: Icons of Northern California Modernism, by Pierluigi Serraino; *San Francisco: Chronicle Books, 2006, 288 pages, \$35.*

The premise of Pierluigi Serraino's bountiful *NorCalMod* is that there's more to the Northern California region's 20th-century architecture

than Bernard Maybeck and Sea Ranch. The years after World War II saw buildings that were as inventively "Modern" as anything associated with Los Angeles and Chicago.

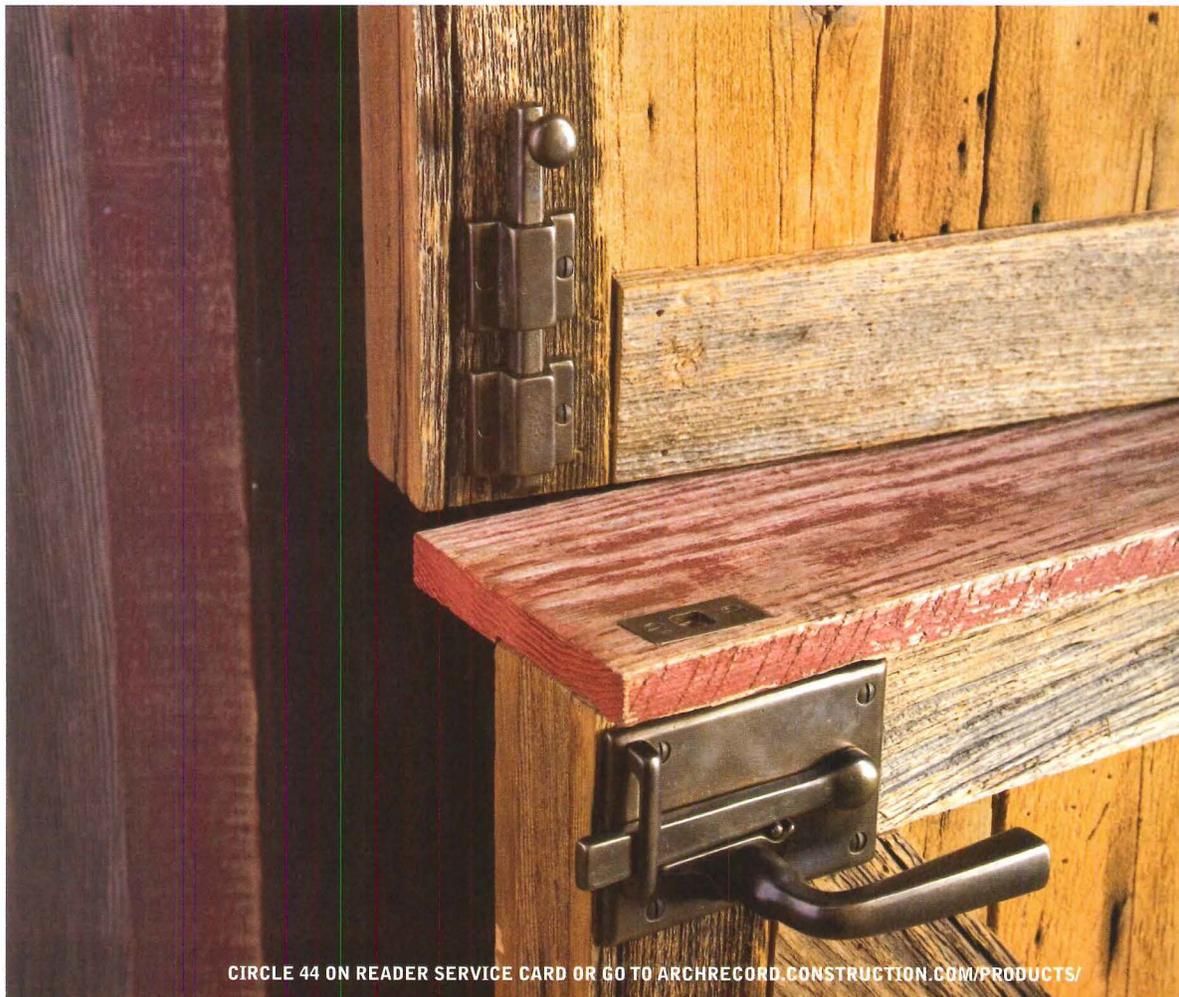
Serraino's interest isn't that of the archivist; his crusade is to win attention and respect for this lost strand of architectural culture, or at least give such long-neglected designers as Donald Olsen and Beverley Thorne their due. It's a fascinating story: architects who migrated to the Bay Area for the same reason as anyone else (the seductive blend of nature and urbanity) found themselves in the spotlight when Lewis Mumford used his *New Yorker* column in 1947 to proclaim the existence of a "Bay Regional Style." Mumford's benediction sparked local debate—did such a thing even exist?—but it became the organizing principle by which Northern California's 20th-century architecture is organized. And almost by default, the buildings that didn't reinforce the notion of soft woodsy Modernism fell from posterity's sight.

That alone is enough for a book—but Serraino's laudable determination to fill in the blanks and right the wrongs strays in every imaginable direction. There's a chapter on architectural photography in the region and lengthy interviews with surviving architects from the postwar era. He



analyzes at length how buildings drift into obscurity: Even a failure to catalog negatives can be a culprit, since it can prevent scholars from tracking down the initial images of a building.

There's a contemporary hook, as well. Serraino argues that the region's neglected Modernist tradition has made it difficult for innovative architecture to make a comeback in today's San Francisco.



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Books

"Memory loss comes at a price," he writes. "Younger practitioners in Northern California today find it impossible to claim other forms of Modernism as part of their design ancestry because these projects are unavailable—in fact, often invisible."

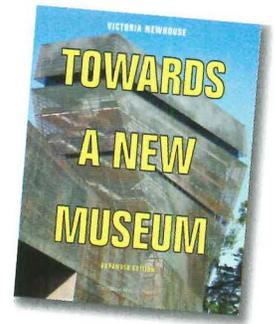
Put this all together and you've got too much, at least in terms of a focused narrative. But this is a labor of love, an effort to capture the flickering proof of what was. The prose is clear and the black-and-white photos from the era shine. In an odd way, *NorCalMod* is an act of historical preservation—and the result is of real value. *John King*

Towards a New Museum: Expanded Edition, by Victoria Newhouse. New York: Monacelli, 2006, 336 pages, \$50.

Like a handbook for a very rarified profession, Victoria Newhouse's

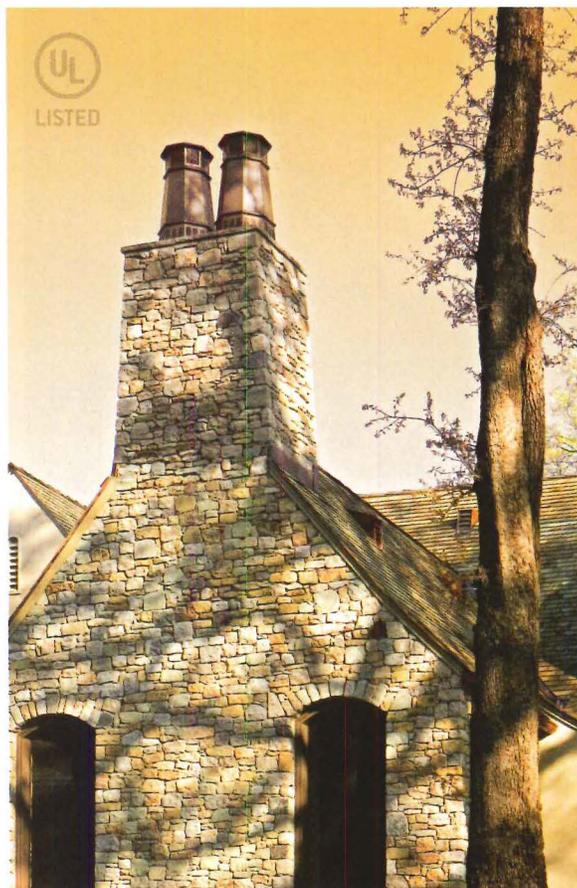
Towards A New Museum is a ubiquitous presence on the bookshelves of both museum builders and their architects. It is a reminder that this 1998 book, reissued now in an expanded edition, remains the best analysis of the current wave of museum architecture. No doubt it has even helped the phenomenon along. Just as museums ask visitors to consider their environment with a heightened intensity, this book reconnects architecture with its audience, which is to say with us. Many serious design books dwell on craft and tectonics—architects' architecture. But *A New Museum* takes a slight step back, judging architecture primarily by its capacity for pleasure, and inviting us to do the same. Newhouse thrills in the successes and failures of each museum, reminding us of the delightful human extravagance of the building type (and of art itself).

The original edition used a taxonomy of museum types—such as "The Museum as Sacred Space" or "The Museum as Entertainment"—and critical essays on selected projects to show how museums had changed in the 20th century, and particularly in the past 30 years, both architecturally and as a societal reflection. The new edition is a welcome chance to update the scorecard. When the book was first published, the Getty and Guggenheim (Bilbao) were dueling for the soul of the new museum. With that bout long ago decided, Newhouse adds recently completed projects to each museum type, and an entirely new chapter of critical essays on a dozen new buildings. She chooses a new pair to lead us into the future—Herzog & de Meuron's de Young in San Francisco and SANAA's 21st Century Museum of Contemporary Art in Kanazawa, Japan—but more striking is one particular take-down of the recent past. In 1998, the charrette for a new Museum of Modern Art in New York seemed like a thrilling opportunity; in



2006, she uses Taniguchi's building as a punching bag for the worst aspect of what she terms "The Museum as Entertainment." She writes, "MoMA, like most large art museums today, has exchanged the aura of culture for that of entertainment and corporate efficiency."

But unfortunately, she has a moving target on her hands. Just after the book was released, news arrived of what seems likely to herald the next era of museum architecture: the cultural Xanadu of Saadiyat Island, just off the coast of Abu Dhabi, where Gehry, Ando, and Nouvel will build their mega-museum projects. That will have to wait for the next edition. *Andrew Blum*



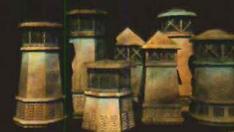
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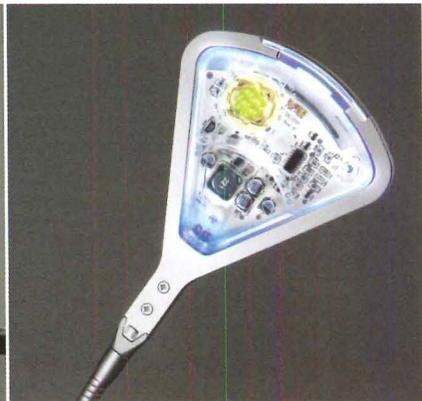
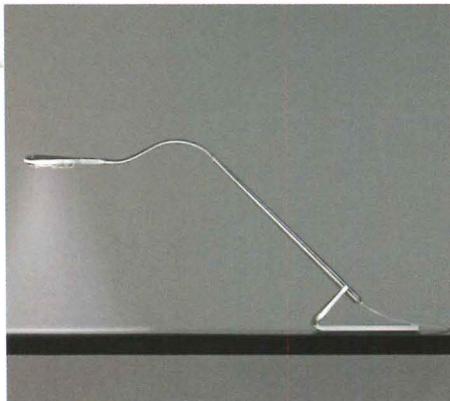
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Product View



Clockwise from top:
The base is designed to be the right weight to balance the lamp; the designers rearranged the lamp's circuit board in order to emphasize the flatness of LEDs; the body of the lamp is both flexible and rigid.



By Rita Catinella Orrell

Milan-based engineer Alberto Meda and architect Paolo Rizzatto took a new approach to the traditional look of the electronic circuit board while designing the Mix reading lamp for Luceplan. "We tried to change the distribution of the components, as in urban planning," says Meda, who is based in Milan along with Rizzatto. "In the end we had a circuit that looked like a garden city." To get the minimum thickness required for the design, they moved condensers and memory files toward the back "as if they were skyscrapers," leaving more space on the circuit board for logic-based devices, which appear "like single-family homes." This new arrangement allows for an ultra-slim head that houses the LEDs, a control lens, a heat sink, and a rotating filter that regulates color temperature. A graceful base holds a rigid conical tube and an attached flexible neck without "breaking the continuity of the cable," says Meda. Available in a table and wall version, Mix offers low energy consumption and a 50,000 hour life. When it's off, the lamp continues to make a statement, as its head softly glows with blue light. Luceplan USA, New York City. www.luceplanusa.com **CIRCLE 200**

Mixing it up to keep an LED reading lamp slim

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Trade Show Review Stockholm • Stockholm Furniture Fair

The Stockholm Furniture Fair is gaining international prominence. This year's February event hosted almost 41,000 visitors from around the world and served as a launch pad for the Nordic countries' most prestigious manufacturers, such as Swedese and fjordfiesta. For more evidence of the event's global stature, the goods on display this year defied the "Scandinavian Modern" stereotypes of clean lines and natural materials. *David Sokol*

Imported Talent

Many foreign designers received commissions from large manufacturers or came to peddle their own wares, demonstrating that Scandinavian inspiration is easily adapted to the world stage.

1 Pick-up sticks The ItoMaki table, designed by Swedish-born, Japanese-trained Dan Sunaga, features an inventive expandable base. When pushed inward to achieve the diameter of a side table, this web of interlocking wood pieces also rises to the appropriate height; pulled outward, it widens and lowers to coffee-table dimensions. Karl Andersson & Söner, Huskvarna, Sweden. www.karl-andersson.se **CIRCLE 202**

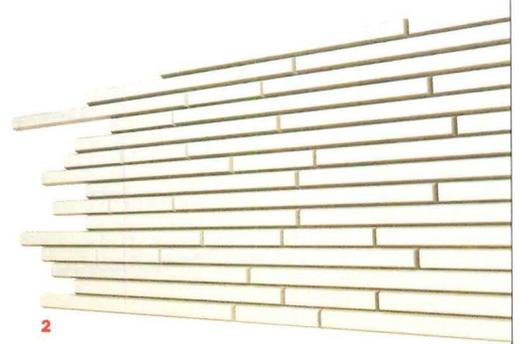
2 Can you hear me now? The Sticks felt-covered panels were designed by Jean-Marie Massaud as part of the Soundwave series of acoustical buffers. All Soundwave products are designed to absorb light, high-frequency noise at 500 Hz and above. Offecct, Tibro, Sweden. www.offecct.se **CIRCLE 201**

3 La Chapelle's show The table base of the La Chapelle Big dining table by Parisian Inga Sempé features an abstracted trumpet form comprising thin steel ribbons inserted into a plywood ring, and shoulders a lacquered oval top. David design, Malmö, Sweden. www.david.se **CIRCLE 204**

4 Fits like a glove Brits Edward Barber and Jay Osgerby went haute couture with Glove, a felt easy chair that features a wrist-like tapered base and a fabric or sheepskin trim. Swedese Möbler, Vaggeryd, Sweden. www.swedese.com **CIRCLE 203**

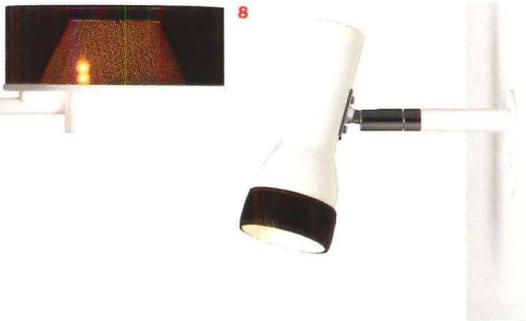
5 Tactile tambourines Japanese textile/fashion designer Akira Minagawa is known for his minä perhonen clothing line, which he says is not tied to fashion cycles. For Kvadrat, he created Tambourine, a pattern with rows of circles embroidered on upholstery fabric. Kvadrat, Ebeltoft, Denmark. www.kvadrat.dk **CIRCLE 205**

6 Child's play The Antropomorfo seating group by Danish designer Stine Gam and Italian designer Enrice Fratesi realizes a child's out-of-proportion drawings of furniture in a combination of oak, beech, and walnut covered in felt. GAMplusFRATESI, Pesaro, Italy. www.gamplusfratesi.com **CIRCLE 206**





7



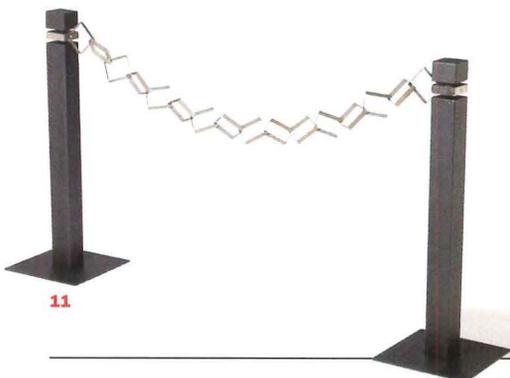
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11

Something Extra

While each of these pieces is eye-catchingly Minimalist, they include an additional feature that will stick in your memory for its humor, quirkiness, or sensuality.

7 Blowing in the wind The Breeze table designed by Monica Förster features a simple circular wood top—except for a pie slice that appears to be rippling in a gust—on a tubular steel frame. The Hightower Group, New York City.

www.hightoweraccess.com **CIRCLE 207**

8 Stretch Armstrong Because the hooks of Thomas Bernstrand's Gobble coat stand are attached to elastic bands, the shape of the rack changes according to the number of garments you pile on it. Materia, Tranås, Sweden.

www.materia.se **CIRCLE 208**

9 Talk to her The up-and-coming architects of the Stockholm-based firm Marge recently completed the interiors for the Rica Talk Hotel located on the Stockholm fairgrounds. The Talk wall bracket and table lamp are among the custom designs originally created for the hotel, and are now in production by Örsjö. The fixtures include hidden delights—such as the wall bracket's leather ring or the table lamp's asymmetrical glow—that are meant to inspire conversation between visitors. North American electrification available by custom order. Örsjö Belysning, Örsjö, Sweden. www.orsjo.com **CIRCLE 209**

10 Divided we sit Cylindrical pieces of beech or ash are glued in long series to create Outline, a modular screen system that cordons off straight and curvy enclosures for office uses. Damian Williamson's design also includes small slits, like the *meurtrière* openings in a turret, that permit a peek at neighbors. Gårnsnäs, Stockholm. www.garsnas.se **CIRCLE 210**

11 Bling it on Designers Josefin Hagberg and Marie-Louise Gustafsson elevate the common parking lot divider to urban-scale jewelry with Bling. Unassuming bollards are connected by glittering swags of interlocking stainless-steel squares. Nola Industrier, Stockholm. www.nola.se **CIRCLE 211**



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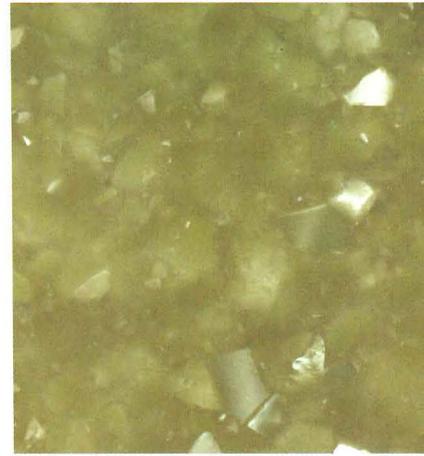
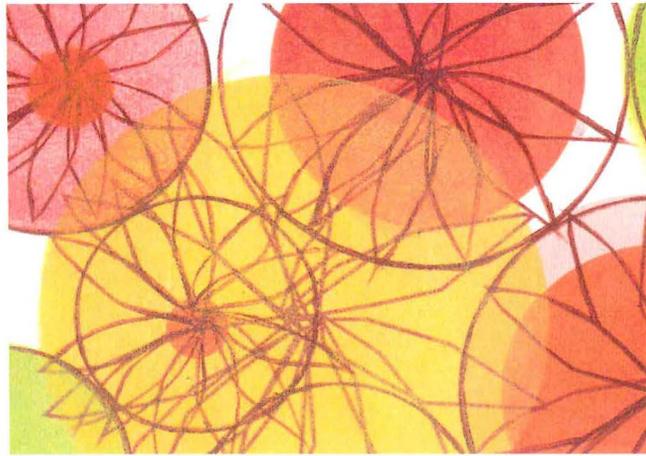
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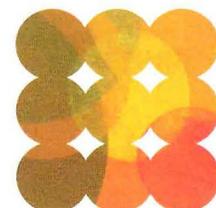
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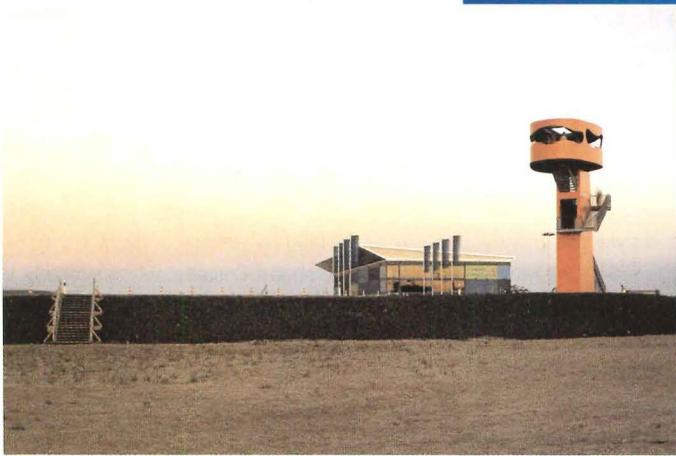
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Snapshot



By Christopher Kieran

Peeking out from a new harbor area development in Hamburg, Germany, is an unusual sort of periscope—the HafenCity View Point.

Currently the largest urban development project in Europe, HafenCity is a 383-acre conversion of centrally located, former industrial space, which will increase the area of the city center by 40 percent, adding 12,000 new occupants and 40,000 new jobs. When HafenCity Hamburg GmbH developers approached the architects at Hamburg-based Renner Hainke Wirth (RHW) in 2004, they requested several temporary platforms from which residents and tourists could watch the city grow and welcome cruise ships as they enter the harbor with fireworks displays. Skirting redundancy, RHW hatched a plan to create just one viewing platform that could be disassembled and moved from site to site.

Casting anchor in the Hamburg Harbor

Snapshot



The View Point overlooks the developing Hamburg Harbor (top), where people welcome cruise ships (above). Its detachable components can be reassembled at various sites (right).



The architect's initial inspiration came from the cranes that commonly pierce the flat expanse of the harbor. Reflecting this source, the View Point's long neck and bright orange color are sufficiently giraffelike to match the industrial equipment that set it in place. But RHW principal Karin Renner admits the tower looks and acts more like a submarine's periscope. Of course, the metaphorical connections to the harbor don't end there.

Two months in planning and six weeks in execution, the 12-ton steel View Point was assembled by Altenwerder Schiffswerft, a Hamburg Harbor-based shipyard steel company. The proximity enabled prewelding of parts in the workshop, avoiding many site work complications. Disassembly is similarly straightforward. The View Point consists of three major elements: a rounded head, a tower shaft, and a 16-by-26-foot concrete block foundation. The sections can be screwed apart and lifted by crane, piece by piece, onto a truck, then transported and reassembled at a new site.

The area around the View Point lacks identity—and, for that matter, inhabitants. Renner wanted to create a bold visual statement to anchor the sparse territory. "It is important for the View Point to have this loose shape," says Renner, who designed wavy, amoebalike view openings in the platform to avoid giving the impression of a shipyard survey tower. "But at the same time," she notes, "it needs color and form that are strong because there is nothing out there between city and 'not-city.'"

Renner's effort to create a cultural attraction have been successful. A theater group has begun performing around the structure (the recent

relocation of which may have lent new meaning to the term "traveling theater troupe"). And the tower's future looks bright. With a smart tactic for disassembly, it will never need to end up rubble in a landfill—it can just be reassembled somewhere else. Given the strong positive response it has received in Hamburg, it does not look like the View Point will be leaving the harbor anytime soon. ■





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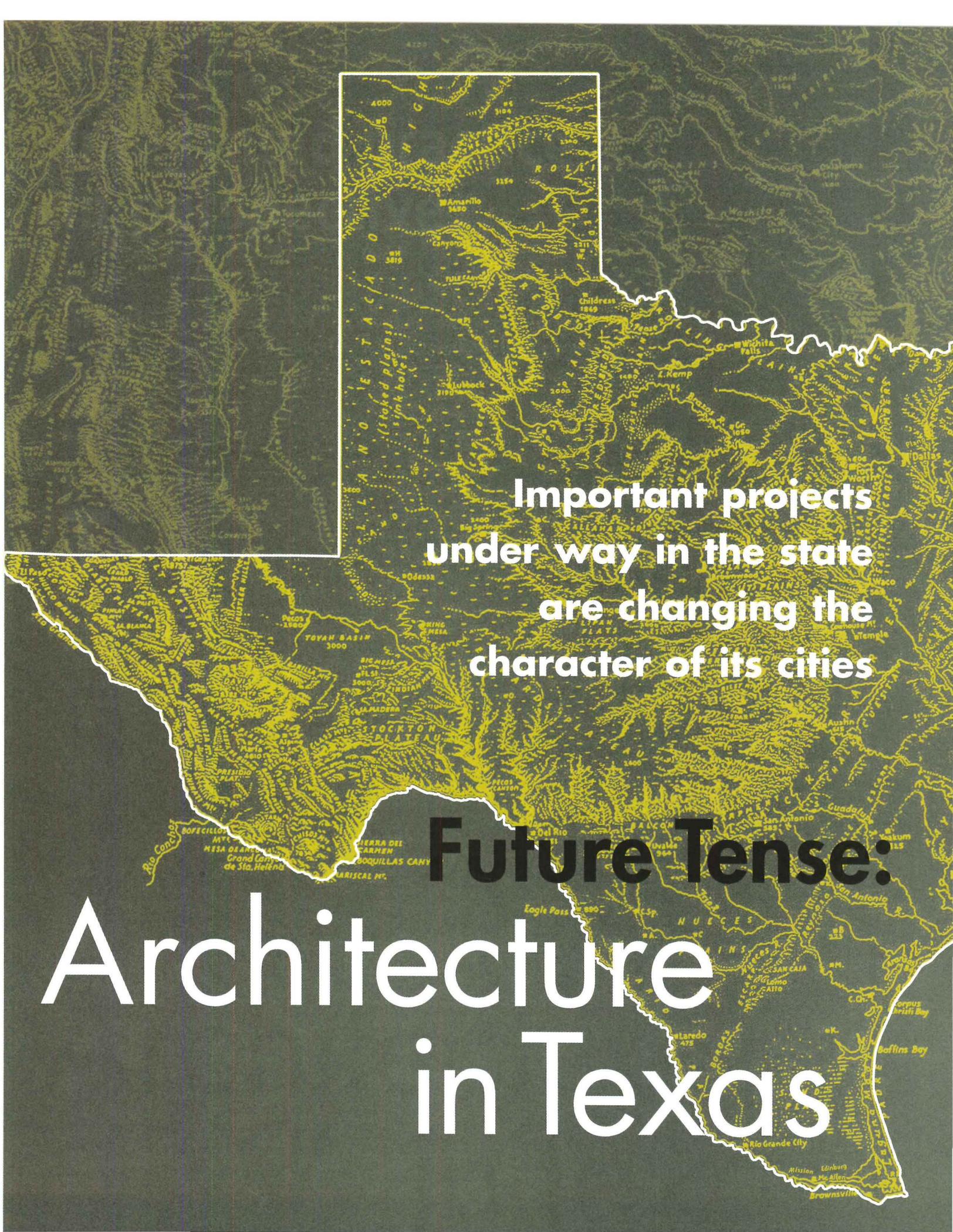
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Important projects
under way in the state
are changing the
character of its cities

Future Tense:

Architecture in Texas



In downtown Dallas, developer Ross Perot, Jr., is building a \$3 billion complex called Victory Park, which will include a 33-story W Hotel and Residences (left), designed by HKS Architects, and a 43-story tower with offices, condos, and a Mandarin Oriental Hotel (right), designed by Kohn Pedersen Fox. The ambitious complex will also offer high-end shops and restaurants and about six residential blocks.



By David Dillon

Three of the 10 largest cities in America are in Texas, with a fourth closing in fast. Yet when we think of Texas, we don't usually think of density and urbanity, tight congeries of streets, blocks and squares. We think of freeways and sprawl, of enveloping skies and infinite horizons, of glittering architectural objects floating in seas of space, gems without appropriate settings. "Anything goes" is the apothegm that pops to mind.

That Texas still exists, of course, more swaggering than ever in many places, yet amid all the entrepreneurial excess, we now also find light-rail stations with elaborate mixed-use appendages, downtown housing of all types—some of it even affordable—and a flurry of new parks and greenbelts for an expanding public realm that Texans have largely ignored in the past.

Dallas is not about to turn into Manhattan; yet along with Houston, San Antonio, and Austin, it is rethinking its "sky's the limit" development attitude, prodded by \$75-a-barrel oil, 2-hour commutes, and tough air-pollution mandates from Washington. The themes of Dallas's first-ever Comprehensive Plan, approved in 2006, are density, mobility, and connectivity, the staples of smart growth, which, if they haven't become offi-

cial policy, are at least getting serious attention around the state. One thing that hasn't changed is scale.

Victory Park, Ross Perot, Jr.'s \$3 billion island of entitlement in downtown Dallas, consists of a 33-story W Hotel and Residences (designed by HKS Architects), a companion 43-story hotel/condo/office tower by Kohn Pedersen Fox, a half dozen residential blocks, including one by Philippe Starck, plus dozens of chic shops and restaurants for hip professionals on the make.

Yet the most surprising thing about Victory Park is not its price tag or its roster of celebrity designers, but its density. Instead of scattering individual buildings across the landscape like confetti, in the Dallas way, the developers have clustered them to create parks, plazas, and other public spaces—classic urbanism transported to the frontier.

Block 21 in Austin (by Andersson Wise Architects with BOKA Powell of Dallas) also contains a W Hotel, with shops and restaurants on the ground floor, condos above, and new homes for Austin City Limits and the Austin Children's Museum. It will sit across the street from Antoine Predock's City Hall, and two blocks from the future federal courthouse by Mack Scogin Merrill Elam Architects—both evidence of Austin's growing architectural sophistication after decades as a dumping ground for second-rate civic and commercial buildings.

Block 21 also adjoins the emerging Second Street retail

Contributing editor David Dillon writes about architecture and urban planning from Dallas and Amherst, Massachusetts.



Block 21 (left) in Austin, designed by Andersson Wise Architects and BOKA Powell, will combine shops, condos, and a W Hotel with new venues for the Austin City Limits theater group and the Austin Children's Museum. Just two blocks away there will be a new federal courthouse by Mack Scogin Merrill Elam Architects (right).



district, a pedestrian enclave of shops, restaurants, and housing that brings a touch of kick to Austin's downtown. The State Capitol may still be the city's symbolic center, but this neighborhood will likely become its civic and entertainment heart.

Trinity River View, in some ways Fort Worth's answer to Victory, is a proposed 800-acre, \$450 million addition to downtown, complete with schools, shops, parks, and housing for up to 25,000 people. Planned by Vancouver architect Bing Thom, it will connect to the existing core via three fluid, curvilinear bridges that might have been sculpted from the Trinity floodplain.

These bridges are less tectonically expressive than the trio proposed by Santiago Calatrava for Dallas's monumental Trinity River project. The first, with a tall central arch recalling Eero Saarinen's Gateway Arch, will probably go ahead, even though the initial bids were 100 percent over budget. But the other two could be in trouble because of growing public skepticism about the rest of the project.

The original Trinity plan, estimated at \$1.75 billion, called for a chain of artificial lakes in the middle of the Trinity floodplain, with intense residential and commercial development on the downtown side and a tollway tucked into one levee. The tollway has always been controversial, and now that the Army Corp of Engineers, in a reflexive post-Katrina move, intends to push it farther out into the floodplain, environmentalists are saying the Trinity project is really just a road project in disguise.

At the same time, it is becoming clear even in Texas

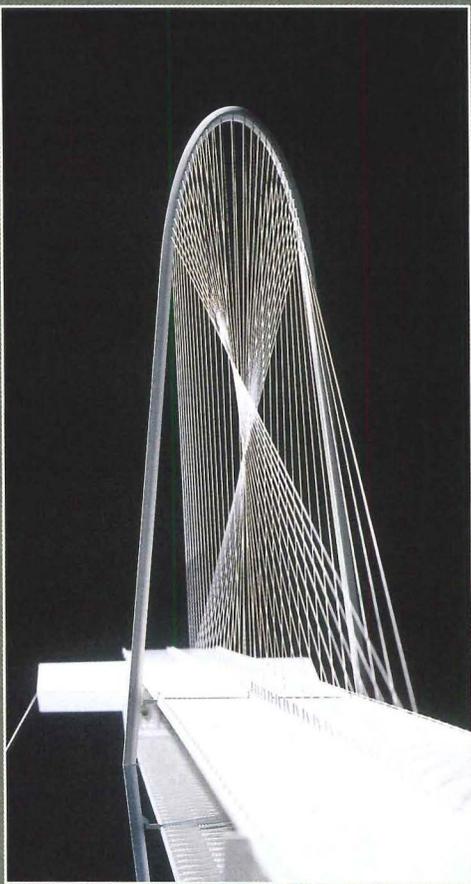
that cities that don't conserve their green infrastructure today will lose it tomorrow. The clock is ticking on global warming, with several new studies predicting a prolonged drought for Texas that could turn Austin into Arizona.

Green architecture is still a novelty in this part of the world, but new parks and greenways are flourishing. Houston is pouring \$115 million (private and public) into Discovery Green (the name was chosen in a contest!), a 12-acre park adjacent to the George R. Brown Convention Center in downtown. Designed by Hargreaves Associates and PageSoutherlandPage, it offers a range of formal and informal spaces at different scales, from undulating greens and concert lawns to playgrounds and bark parks.

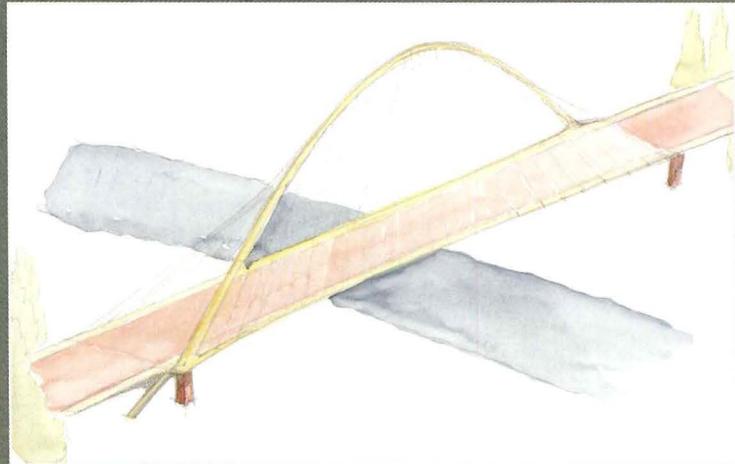
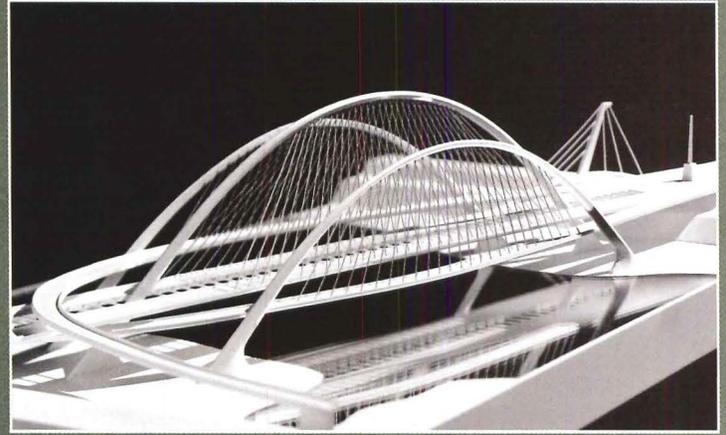
"People do get out of their cars in Houston, but the experience is usually not very pleasant," says park director Guy Hagstette. "We want this to be a place where Houstonians can enjoy being a citizen of the city."

A complementary initiative is the ongoing reclamation and restoration of Buffalo Bayou, an ecologically rich but chemically challenged stream that snakes through the heart of Houston. A master plan by the Thompson Design Group envisions a network of parks, trails, and "bayou friendly" activities that will help tie this sprawling, fragmented city together. The recently completed Sabine-to-Bagby Promenade has been a big hit, as has the astronomically tuned bridge and walkway lighting by Michael Korn and L'Observatoire International (see page 285).

These parks and greenways are becoming magnets for



Santiago Calatrava has designed a series of five bridges for the Trinity River (and future lakes) in Dallas, hoping to turn the neglected waterway into a green parkway. The ambitious project tries to weave together neighborhoods on either side of the river while creating a new linear park.



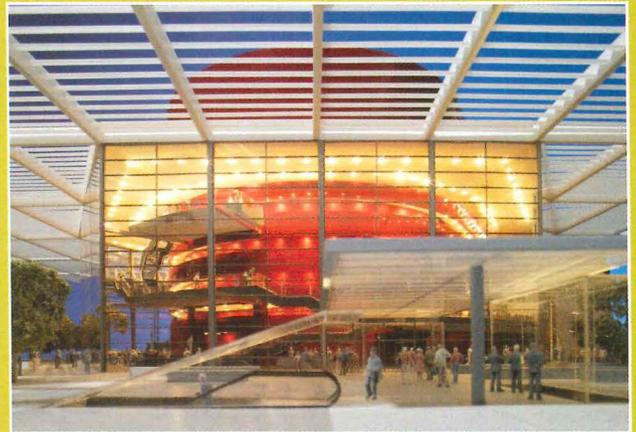
University building etches language into the minds of future educators

Located in Edinburg, Texas, in the Rio Grande Valley, some 20 minutes from the U.S.-Mexico border, the University of Texas-Pan American School of Education trains more bilingual teachers than any other program in the country. This posed both a challenge and an opportunity for Henry Muñoz, C.E.O. of San Antonio-based Kell Muñoz Architects, which designed for the school a new, 80,000-square-foot building containing classrooms, labs, lecture halls, office space, and research areas. It also renovated two existing buildings, adding offices and classrooms. "We had to ask ourselves, 'What is the cultural rationale for this building's existence?'" he says. "Nearly everyone in this region is bilingual, so we found language to be the point of departure for the design—language as the ultimate border, and as a point of unity." Setting out to create a design that was all about culture and language and could fulfill the program of an educational building, Muñoz created a three-story brick-clad building that would, on the outside, be congruent with the other, older buildings on the campus. Inside, however, the building's unique personality is revealed. Glass walls surround a



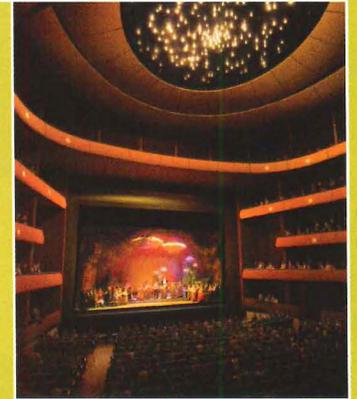
large open courtyard, and a transparent glass elevator takes students and faculty up the three floors, on what Muñoz calls "a journey through language." Colors—primary for the first floor, more complex secondary ones for the second floor, and tertiary for the third—serve as signposts along the journey, as do sayings (or *dichos*) that Mexican grandmothers hand down to their families. The *dichos* are etched into the glass in both English and Spanish, while words and phrases are embedded in metal railings. "All of it is meant to symbolize 'code switching,'" says Muñoz, "or identity markers—those interactions between English and Spanish—that are part of the culture of this region." Light, too, is important to the project, with bright, South Texas sunshine playing on the railings and etchings, leaving shadows on the concrete walls and floors. In addition, a light chimney above the elevator brings daylight into the core of the building. "It's a practical building," says Muñoz. "But we were able to address architecturally some of the controversies surrounding the country's shifting demographics in a way that is appropriate to the kind of education that occurs here." *Ingrid Spencer*





Hargreaves Associates and PageSouthernlandPage designed Discovery Green (above left), which will be a 12-acre park in Houston. The Dallas Center for the Performing Arts will feature an opera house by Foster + Partners

(right and above right), as well as the Booker T. Washington School for the Performing and Visual Arts (left) by Allied Works Architecture, a theater by Rem Koolhaas, another theater by SOM, and a park by Michel Desvigne.



Bishop and homeless share a mixed-use center in downtown Houston

Occupying a full city block, the renovation and expansion of the Diocesan Center of the Episcopal Diocese of Texas and Christ Church Cathedral—Houston's first religious congregation, founded in 1839—brings a radical, mixed-use project to a vibrant and diverse quadrant of downtown. Designed by Lawrence W. Speck, FAIA, for Leo A Daly/LAN + PageSouthernlandPage, a joint venture, the 99,700-square-foot group of buildings relocates the central offices for the Bishop of Texas and Diocesan Center to downtown Houston; establishes a center for the homeless; provides a four-story parking facility for the area, and creates a significant open public space for the neighborhood. "There are high-end hotels and even a jail across the street from the project," says Speck. "I love that aspect of downtown Houston. We hoped to put all the elements of this project together in such a way that there weren't conflicts. Homeless people have to do a lot of waiting, and we wanted to give them a shady place to gather where they wouldn't feel uncomfortable, while at the same time maintain the ceremonial quality of Texas Avenue," a prominent thoroughfare. Speck's



design for the complex places the Diocesan Center and a public park—a setting for weddings and other events—on Texas Avenue, with the bishop's offices in a subtle, two-story box with four different kinds of glass set behind ipé wood trellises. The 22,000-square-foot John S. Dunn Outreach Center and the Beacon, the cathedral's ministry to the homeless, faces an existing row of trees on the northern half of the complex, with a deep arcade buffered from the sidewalk by a long, narrow garden. The center offers facilities for the homeless, such as a soup kitchen, hygiene center, mental health clinic, and job and training center. As a backdrop to the complex, a 350-car parking garage completes the block. The garage's south wall is clad in a native Gulf Coast brick that evokes the brick of the original cathedral, as well as glass and a wood screen. Used by church visitors when events and services occur, the garage also provides paid parking for neighboring facilities such as courthouses and Minute Maid Ballpark. While the cathedral always had a historic presence in the neighborhood, says Speck, "It's now become a real landmark." *I.S.*



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Even secondary cities such as Plano are hoping to attract attention with cultural projects, such as the Collins County Performing Arts center (above) by BOORA. In San Antonio, Jackson and Ryan Architects converted an old movie theater near the Mercado into the Museo Americano (right and top right).



downtown development, particularly housing, which is sprouting like mushrooms after a spring rain. Discovery Gardens won't open for another year, yet already a 37-story condo tower is going up beside it. Austin's historic Republic Square will be the front lawn not only for the new federal courthouse but for at least three neighboring office/condo towers. And San Antonio is extending its famous River Walk another mile and a half to create a cultural corridor linking its major museums (San Antonio Museum of Art, Witte Museum) with an anticipated burst of new housing.

This boom marks a major turnaround for Texas downtowns where, except perhaps in San Antonio, people practically had to be bribed to move. In the early 1990s, downtown Dallas had 250 residents, most living in one building; today there are approximately 3,500, with another 7,500 within a mile radius of Main Street. Houston's numbers are comparable. Much of this new housing is in recycled warehouses and factories (Houston's Allen's Landing and Austin's Second Street District) or in luxury high-rises, as in Dallas's exploding Uptown neighborhood. The architecture is mostly generic and instantly forgettable, although here and there a project rises above dull normal. That's the case with both the W Hotel and Residences and the new KPF tower at Victory, as well as James Cheng's slick Azure in nearby Oak Lawn, and Austin City Lofts by Larry Speck of PageSoutherlandPage. At a different scale, Val Glitsch's Canal Street Apartments in Houston's Second Ward is a smart, contemporary SRO serving a population that has been totally ignored in the current boom.

New housing and new cultural facilities usually go together, and Texas is experiencing a boom on this front as well. Topping the list is the \$300 million Dallas Center for the Performing Arts, scheduled to open in 2009, which features an opera house by Foster + Partners, a theater by OMA, and a smaller City Performance Hall by SOM/Chicago. They all frame a large public plaza by Parisian landscape architect Michel Desvigne, with a civic exclamation point in the form of a new Arts Magnet High School by Brad Cloepfil of Portland's Allied Works Architecture. It is a thoroughly modern enclave, formally restrained but with Foster and Koolhaas pushing the technological envelope. While this may seem odd in a city overrun with big-hair houses of a neo-Georgian persuasion, it fits Dallas's image of itself as a with-it place.

Predictably, the presence of so much imported talent hasn't sat well with Dallas architects who claim, justifiably, that a few of these prestigious civic commissions should have gone to them. A thriving local architectural culture, the argument goes, is like a thriving local economy. You can't import everything; sooner or later you have to grow your own. But Dallas has always used celebrity to create cachet. Its Arts District boasts four Pritzker Prize winners—Foster, I.M. Pei, Koolhaas, and Renzo Piano—so this is nothing new.

And other Texas cities are playing the same game. The Dallas suburb of Richardson hired the local office of RTKL to design its strikingly contemporary Eisemann Center, but neigh-





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boring Plano brought in BOORA for the new Collin County Performing Arts Center. The design is appropriately suburban—more like Tanglewood or Wolftrap in their rural settings than anything in Dallas—with abundant wood and stone and a clear sensitivity to its surroundings and its SUV constituency.

After running off Herzog & de Meuron in 2002, the University of Texas in Austin hired Kallmann McKinnell & Wood to design its Blanton Museum of Art, a valuable addition to a museum-poor city but an overscaled and ponderous building nonetheless. Down the road in San Antonio, Jean Paul Viguier and Ford Powell & Carson are collaborating on a major addition to the McNay Art Museum, a romantic Moorish-Spanish Colonial concoction for which O'Neil Ford's office designed a handsome Modern wing in the 1970s.

Among Texas cities, San Antonio has always been the most comfortable with its architectural heritage, a low-key Spanish-Mission, Texas-Hill-Country blend to which Ford gave an understated Modern twist, and that newer offices—such as Lake/Flato, Kell Muñoz, and Overland Partners—continue to mine effectively. It has more grain and character and less pretense than its competitors. Even outsiders pick up on it. One of the most intriguing additions to the city's cultural life could be the Museo Americano, a restored atmospheric movie house near the Mercado that has been converted into a lively and colorful arts center by Jackson and Ryan Architects of Houston.

Texans are never going to abandon their cars. Deep down they believe that legs are purely decorative and the world looks best at 60 mph with the top down. That said, light rail is coming fast. Dallas's system, DART, is expanding to the north-

ern suburbs that initially spurned it, with weekday ridership approaching 65,000. Several other lines are under construction to the minority southern half of the city, including one to the new Dallas campus for the University of North Texas. Houston's new light-rail system is more skeletal, running from downtown to the Astrodome, with a second line being planned. Austin's starter line, scheduled to open in 2008, will cover 32 miles from the downtown convention center to the northwestern suburb of Leander.

Embryonic though they are, these rail projects point unmistakably to a different, denser future for Texas, with fewer single-family subdivisions and solitary office parks and more housing and mixed-use development along transit corridors. These corridors will gradually supplant freeways as public officials recognize they can never pour enough concrete to eliminate congestion.

Dallas and Fort Worth are already a single region economically and ecologically, as are Austin and San Antonio. Together with Houston, they form what's called the Texas Triangle, which accounts for two-thirds of the state's population and three-quarters of its economy. Like New York and New Jersey, Baltimore and Washington, and San Diego and Los Angeles, they are among the mega regions that planner Robert Yaro calls the "basic competitive units of the new global economy."

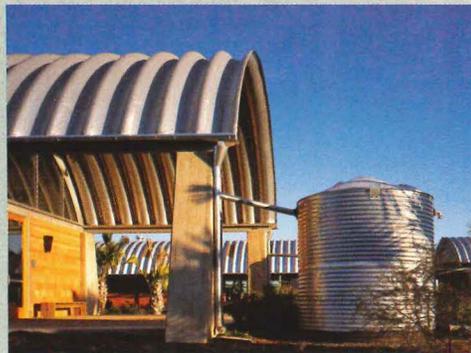
Over time, the Texas Triangle will function as a single economy, with jurisdiction over air, water, and transportation. The big issues won't be whether a city has a splashy new convention center or pro sports franchise, but how often the bullet train runs and how healthy the regional watershed is. ■

Energy-efficient design is for the birds (and the people who watch them)

Drawing inspiration from the low-tech, utilitarian ethos of the South Texas farm economy, Lake/Flato Architects designed a complex of long and narrow structures for the World Birding Center that sits lightly on a 60-acre site just outside the town of Mission. Three buildings, oriented in an east-west direction, contain administrative offices and a visitors center that serves bird-watchers who travel to this remote destination along North America's major migratory flyway.

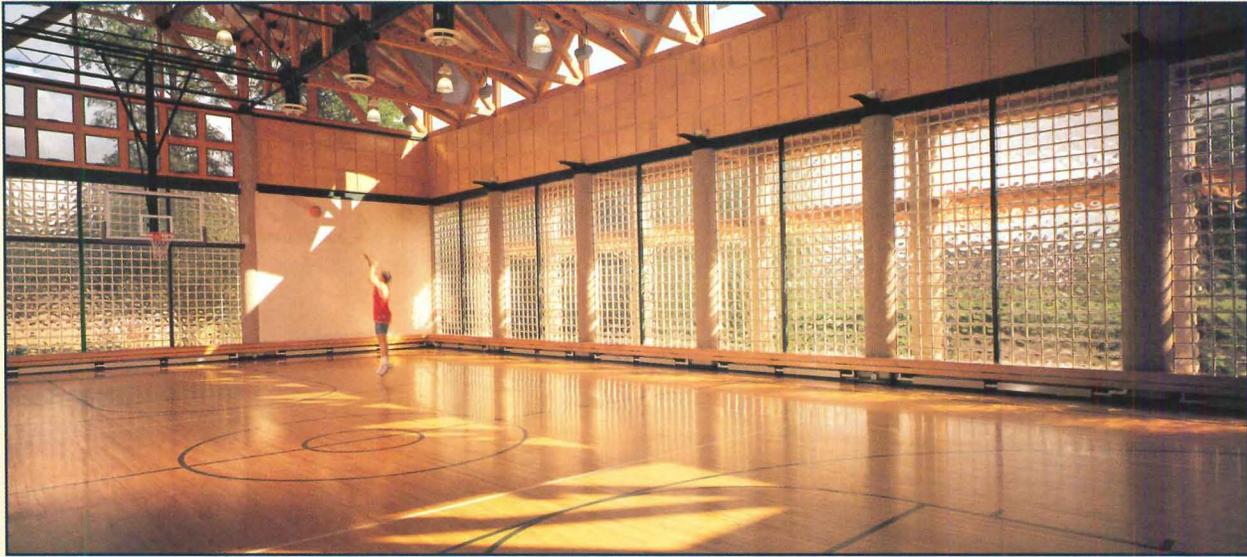
Roofed with Quonset-style corrugated metal arches that allow 32-foot clear spans, the buildings are models of energy efficiency and sustainable design. By using exterior circulation and creating flexible interior spaces, the architects were able to reduce the footprint from 20,000 to 13,000 square feet and save 35 percent in materials, energy, and maintenance costs. In addition, arch panels act as a combined structural and roofing system that uses 48 percent less steel by weight than traditional framing. Roofs feed rainwater to corner cisterns to harvest 47,000 gallons annually for irrigating gardens, while arches project out to create

deep porches at the ends of the buildings and shaded hallways along their south sides. Walkways connecting the buildings are paved in local brick and shaded from the relentless semitropical sun by flowering vines trained up galvanized metal arbors.



Lake/Flato integrated the buildings with surrounding gardens designed by Kingscreek Landscaping. The site is a former onion farm that has been replanted with native vegetation and enhanced with ponds that attract birds journeying north in summer and south in winter. Located in a state park, the complex is one of nine World Birding Center facilities in the Lower Rio Grande Valley, a migratory pinch point

that funnels more than 500 species through the region. Physically immersing visitors in nature was key to Lake/Flato's design, says project architect Robert Harris, AIA. "We want our building to fit into that experience in an elegant way," he says. "The building in essence disappears. I couldn't be happier if, as you approach this place, you see just a silver sliver of roof, and nothing but green." *Stephen Sharpe*



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Above, Lloyd Hall, Philadelphia, PA

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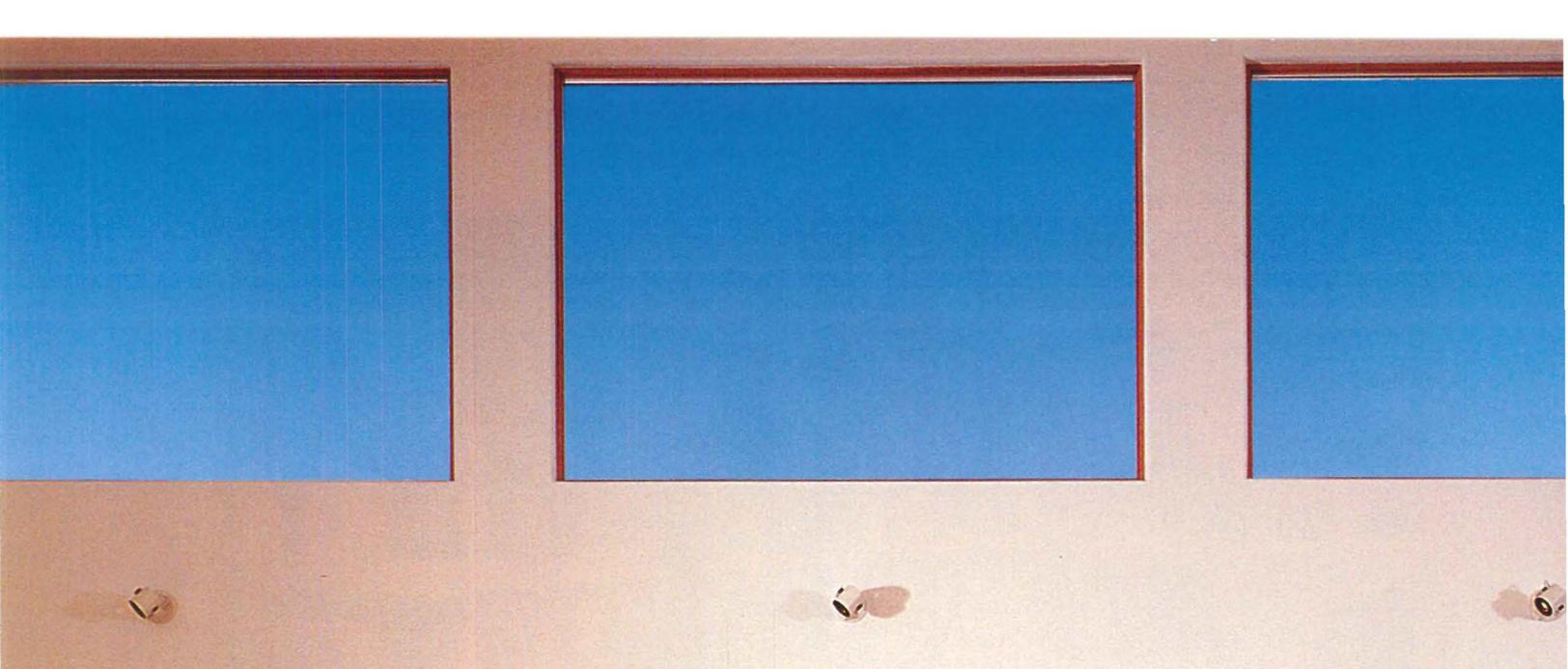


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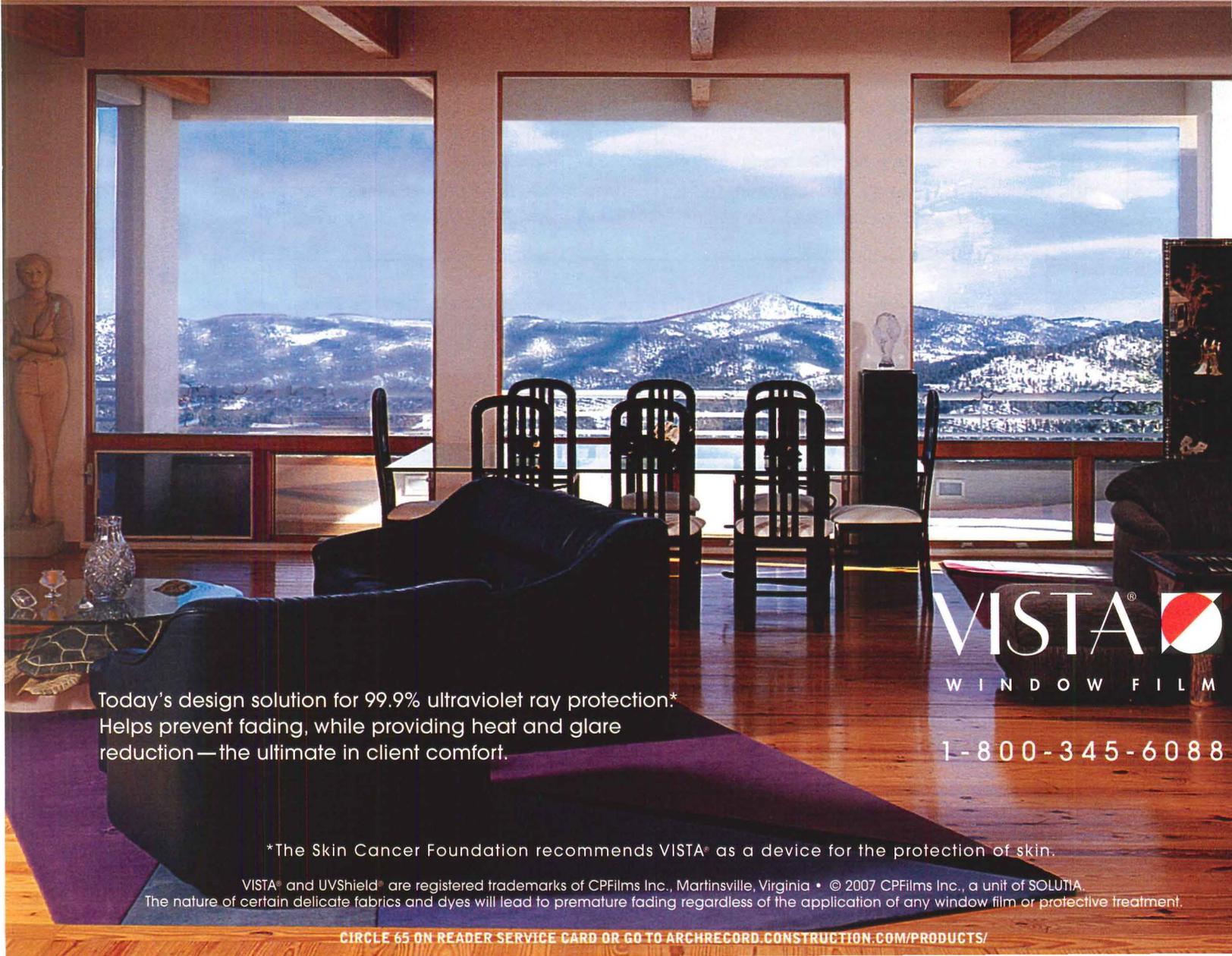
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Integrated practice in perspective: A new model for the architectural profession

The inefficiencies inherent in the process of design and construction are necessitating a shift to greater multidisciplinary collaboration and information sharing among project team members

By Andrew Pressman, FAIA

This is an exciting time to practice architecture. Architects and engineers seem to be able to design and construct almost anything they can imagine, and the data they use enables these buildings to be well managed by their owners. Architects, consultants, and owners are also working together more closely than ever.

Integrated practice (IP) is the term that is being assigned to this collaborative process. IP is a meaningful response to the ongoing marketplace mandate for buildings that are faster to design and construct, at lower cost, as well as more sustainable and of higher quality than those built in the past. Building information modeling (BIM) is enabling—some say forcing—this information-sharing, integrated-practice culture to emerge.

BIM, of course, is the parametric object-based software that is used to create not only a three-dimensional model of a virtual building, but also drawings and rich databases of information that can include such things as budget estimates, construction schedules, quantities takeoffs, and fabrication details. Parametric modeling allows for substantial changes to be made quickly and for easy interference-checking to occur. These and other features are discussed in RECORD's April architectural technology article, "Transformative Tools Start to Take Hold."

There is nothing new about architects, clients, and consultants collaborating. William Caudill, FAIA, of the firm Caudill Rowlett Scott, coined the term *squatters* in the 1950s to describe meetings between the architect, engineering consultants, owner, and users—on the owner's home turf before design began—to program, clarify values, and brainstorm design ideas. William Lam, the renowned lighting designer, who often worked with Caudill, says, "Rapport and sensitivity among individuals is essential so that meaningful dialogue can continue. An individual has to care more about results than his or her ego."

Lam could just as well have been describing how firms today should approach integrated practice. Although consultants often met during squatters and then went their separate ways, BIM demands that project teams meet and exchange information frequently. The shakeout of what the building information model and its supporting technology means for teams engaging in integrated practice has begun and continues

at a rapid pace. And there are a number of significant consequences that affect firm culture, standard contracts, liability insurance and risk management, compensation, and professional education. Those who think critically and innovatively about these new business practices will lead the way and prosper.

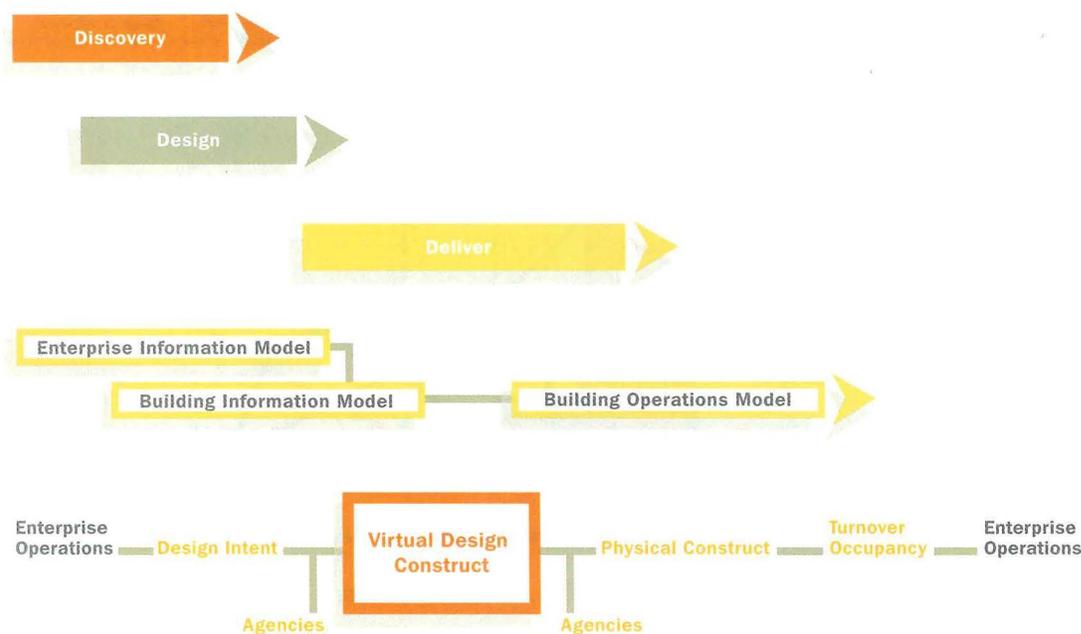
Firm culture

Perhaps the biggest cultural change is not learning how to use new tools and technology, but rather the attitude adjustment required to collaborate effectively with the entire team from the start. According to Volker Mueller, Assoc. AIA, design technology manager of NBBJ, this calls for "the alignment of project goals across the entire project team and a fundamental understanding that the project has to start coming together at kickoff rather than after procurement. Today's increasingly complex projects require the input of a broad-based team."

"Architects should concentrate on leadership rather than ownership; on design rather than avoiding risk," says Scott Simpson, FAIA, senior principal, KlingStubbins. "The efforts of dozens of consultants need to be managed and coordinated, placing a premium on architects' leadership skills." With the right people on the team, the right tools, and a smart process, effective leadership will orchestrate the creation of great architecture. That point is succinctly underscored by Andy Anway of the Boston exhibition design firm Amaze Design. "The senior-level people must be committed to achieving a common outcome, with financial or other incentives to keep that singular mind-set in place. The success of a team-based process is a function of mutual cooperation and mutual benefit," he says. Anway feels that, in this model, many architects will have to overcome a certain sense of loss about having total control over design.

It seems intuitive that not only will emerging architects have great design opportunities working in an IP model, but that they will have the opportunity to learn leadership skills. Diane J. Hoskins, AIA, the executive director of Gensler—where everyone in the 1,700-person firm is either involved in a project using BIM or learning how to use the technology—says, "With BIM, we no longer have an assembly-line process; this means our young staff need to understand the whole project so they can work effectively across plan, section, detail, and elevation. It is a steep learning curve in the first several years of one's architectural maturation."

Andrew Pressman, FAIA, is a practicing architect who resides in Washington, D.C. He is editor in chief of the 11th edition of *Architectural Graphic Standards* (2007).



This chart, authored by Volker Mueller, Assoc. AIA, of NBBJ, illustrates the way project phasing changes when BIM is used as the technology for an integrated practice project. The client's enterprise-operations model yields an idea for a facility that guides the development of a design-intent model. In turn, this design-intent model yields a virtual design and construct phase, in which manufacturers and builders construct the design-intent model digitally. This simulation includes construction scheduling required for a smooth execution of the project. With all constructability questions resolved, the team can move forward with the physical construction of the building. The virtual construction model develops into an as-built model that can serve the client as a building model for the operation of the facility.

Contract documents

Integrated practice will drive changes to contracts in order to facilitate working in teams, sharing information, and fairly allocating liability risk, compensation, and responsibility. Changes will most likely occur incrementally with “the continued growth of design-build, tweaked conventional contracts, and increased experimentation with transformational methods like ‘project alliancing,’ ” according to Cambridge, Massachusetts, attorney Chris Noble, of Noble & Wickersham. In this transition period, Noble believes that “there will be increased use of project conditions that will be attached to various multiple contracts to create a projectwide legal system to regulate intellectual property rights, resolve intra-project disputes, establish communication protocols, and allocate rewards commensurate with risks.”

According to Suzanne Harness, AIA, managing director and counsel for contract documents at the American Institute of Architects, the AIA Documents Committee is in a “research stage” regarding IP and is evaluating the risk-sharing and risk-allocation provisions in alliancing contracts, and a few domestic private contracts, as well. “We are looking at the design process as a continuum from no integration at one end to full integration at the other, and trying to identify the contracting needs at intervals along the way,” she says. She emphasizes that while there is an understandable outcry for the AIA to issue integrated practice documents immediately, it takes time to “get it right, and to act in concert with other stakeholders.”

Of course, there is no legal expectation that construction documents will be perfect; there are invariably a few errors and omissions. In general, the “standard of care” suggests that an architect must exercise the degree of skill and care other architects in the community ordinarily exercise under similar circumstances. As BIM becomes the prevailing method for project execution, its ability to detect conflicts and mistakes in the 3D model will cause the standard of care to evolve. Adam T. Mow, AIA, attorney at Babcock Scott & Babcock, predicts, “Professional liability claims against architects are unlikely to decrease with BIM because clients will have higher expectations of the skill and care to be exercised.”

Liability and risk management

“Choose your partner carefully!” underscores David W. Hinson, FAIA, program chair of the School of Architecture at Alabama’s Auburn University, in describing a formula for success for design-build projects. This advice could not be more salient for IP, particularly if the architect remains the legal

entity for delivering the project using BIM. Assuming the highest levels of expertise, trust, respect, and shared values among team members is still an essential component of managing risk in the context of full collaboration and blurring of responsibilities.

Echoing Bill Lam’s comments about squatters, Joseph H. Jones, Jr., AIA, director of A/E/C risk management services at Victor O. Schinnerer & Company, says that IP team members will have to surrender their individual identities as the success or failure of the project will belong to the new entity. He says that since most claims originate from the client, getting team composition right—choosing the right clients and project—is a project-management strategy that will never go out of style.

Lorna Parsons, the managing director at Schinnerer, elaborates: “Working collaboratively and on the Internet can expose firms to Internet, technology, sometimes media liability claims, or even copyright or libel claims.” But that at this stage she notes that her firm will not do much to dictate how IP teams work. “The insurance industry should not decide how to implement collaborative design because it is generally risk-adverse, and that inclination would be reflected in their decisions about how collaborative teams should practice.”

It is interesting to speculate about whether a 3D model will one day be seen as a document of record, to which a “seal” will be affixed, and used for construction in lieu of drawings. But no matter what technology is used, making sure that the firm continually gives its clients frequent, careful, and sensitive attention will always be one of the best strategies to avoid claims. It is too early for IP and BIM to have had an influence on developing model legislation for states, says NCARB executive vice president Lenore M. Lucey, FAIA. NCARB has recently established the BIM Task Force, which is expected to issue a report to its board in the spring of 2008.

Compensation

Few firms are tipping their hands about whether they see IP changing the way they negotiate fees with their clients and consultants. But surely new fee arrangements will align the collaborative effort, inherent risk, and whether

there is added value in leading this team-based design process. At the very least, all the front-end work associated with BIM suggests a reallocation of fee by phase—assuming traditional phases in this transition period.

James R. Brogan, AIA, senior associate principal at Kohn Pedersen Fox Associates and director of the firm's IT, claims that the clearly articulated lines between traditional phases of design will blur, and the way they are codified in standard AIA contracts will eventually be restructured. Business terms between owner, architect, and all stakeholders will reflect the new relationships and responsibilities among the design teams. It is even possible that the project-alliance system gaining acceptance in other parts of the world, in which bonuses or penalties are awarded or assessed based on overall team performance relative to specific outcomes, will gain acceptance here.

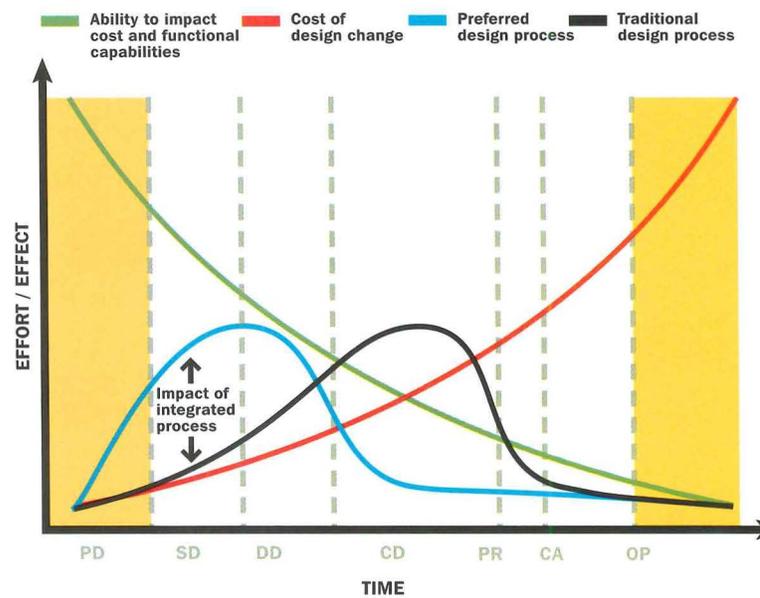
Notwithstanding competition and an awareness of what the market will bear, a fee for services based on value to the owner is perhaps a more salient method than ever with IP. Scott Simpson implores architects to be "more articulate about explaining their value propositions—what we do for clients that is worth real money." If that can be set forth, he says, "in ways that clients can relate to, the fees will take care of themselves." Certainly design efficiency and construction cost savings are factors that could contribute to value for the owner. Brogan agrees, noting, "The potential of fewer change orders and generally a smoother construction process would translate to better value." On the other hand, some people believe that it will be hard to convert this enhanced value for the owner into better fees in the long term: As more firms adopt an integrated-practice model, what has begun as an advantage for early adopters will simply become standard practice for the profession.

Implications for architectural education

Many academic programs still produce students who expect they will spend their careers working as heroic, solitary designers. But integrated practice is sure to stimulate a rethinking of that notion. Pedagogy must focus on teaching not only how to design and detail, but also how to engage with and lead others, and how to collaborate with the professionals they are likely to work with later. Renee Cheng, AIA, associate professor and head of the School of Architecture at the University of Minnesota, says, "While design remains central, critically important for studio and other courses are the ability to work successfully in interdisciplinary creative teams, write and speak effectively on professional topics, and be skilled in the arts of negotiation and facilitation." There are also questions of how to integrate BIM into curricula that are already packed. Cheng warns that "the careless introduction of BIM with all of its prerequisite skills could overwhelm the subtleties inherent in nurturing design thinking—displacing it from its central role in the architectural curriculum." How can virtual modeling software, then, be thoughtfully integrated into a curriculum without taking precious time away from learning basic design? Cheng describes a multivalent approach at her school, which incorporates BIM in a range of formats and levels, often complementing it with drafting and hand drawing.

The AIA's new Practice Academy initiative is intended to provide a framework for a rigorous internship by supporting innovative programs connecting academics and practitioners. The Boston Architectural College (BAC) is one of the first grant recipients; their Practice Academy is dedicated to understanding and teaching developments in IP and BIM in a unique connection with local cutting-edge firms. This pilot program could not be more timely since students will be engaged in BIM advancements in firms that are both leaders in the marketplace and initiating shifts within it.

Bruce E. Blackmer, FAIA, president-elect of the National Architectural Accrediting Board (NAAB), acknowledges that while there



The promise of integrated practice is that design decisions can be made earlier, when they can have a high impact but their cost is relatively low.

is no clarity at this time about the influence of IP on accreditation and education, "it is unlikely that skills in the use of particular technology tools will be expected, but those tools will be used by students to advance their demonstration of comprehensive, well-synthesized design solutions." And more emphasis will be placed on demonstration of integrative abilities such as

"collaboration and shared or teamed leadership." In October 2008, NAAB will host its next Accreditation Review Conference; how IP should be integrated into education will be debated.

And what about preliminary design?

In this big-picture perspective of IP, the discussion would not be complete without keeping in sharp focus our collective goal of creating magical, delightful, and wonderful places to live, work, and play. Developing those initial design concepts is sometimes very personal and idiosyncratic. Tools such as napkins and thick markers as well as the ability to deftly move in and out of different software—and between tools and media—will always have a place in the design process.

Geoffrey Adams, associate professor at the University of New Mexico, sheds light on this assertion by explaining that there is a fundamental difference between algorithmic computation and associative thinking, which lies at the heart of the human creative act and is the soul of design work. Adams argues, "Associative thinking, the ability to bring together disparate information from seemingly unrelated sources to create something new, is easily short-circuited when the mind is required to navigate numerous contingencies in advance of their useful deployment." The complete model approach of BIM software is very seductive, but it should be critically evaluated on each project for its exclusive use in the initial stages of the process.

No technology fully encompasses how a designer thinks. With all the significant innovations and possibilities envisioned with BIM, there are inherent biases with any modeling tool that make it less convenient to think in other ways. Earl Mark, associate professor at the University of Virginia's Department of Architecture, who was formerly a software engineer, explains that flexibility in describing geometry is slightly constrained because the template within the software uses fairly conventional language. However, there is capability to customize software to a specific

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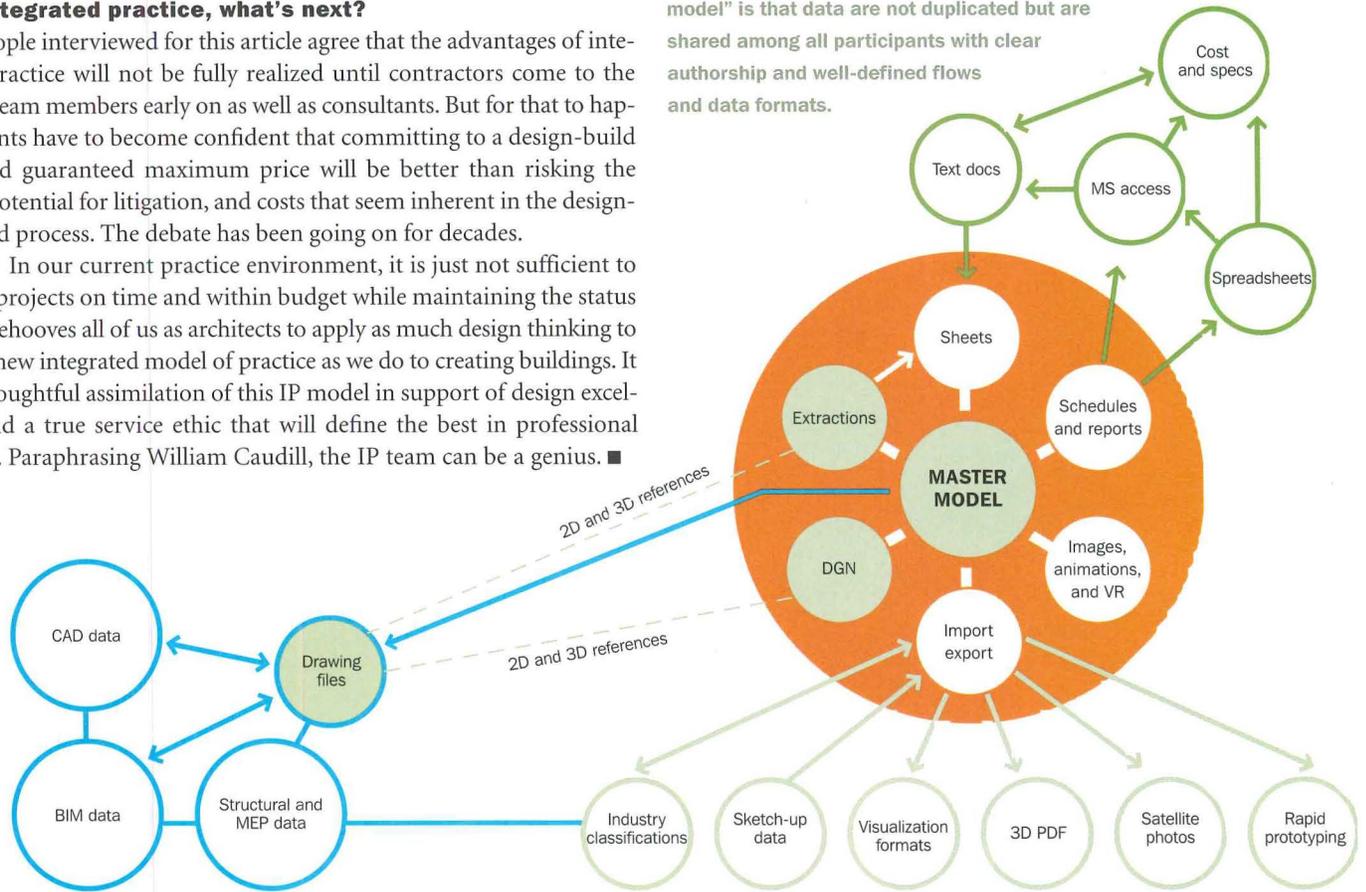
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work process. Adams adds, “The more complicated and layered a software tool is, the more likely it is to privilege certain methods of working.” Adams advises that one always be cognizant of both what the tool is doing to the design process as well as what it can do for it.

After integrated practice, what’s next?

Most people interviewed for this article agree that the advantages of integrated practice will not be fully realized until contractors come to the table as team members early on as well as consultants. But for that to happen, clients have to become confident that committing to a design-build team and guaranteed maximum price will be better than risking the delays, potential for litigation, and costs that seem inherent in the design-bid-build process. The debate has been going on for decades.

In our current practice environment, it is just not sufficient to execute projects on time and within budget while maintaining the status quo. It behooves all of us as architects to apply as much design thinking to shape a new integrated model of practice as we do to creating buildings. It is the thoughtful assimilation of this IP model in support of design excellence and a true service ethic that will define the best in professional practice. Paraphrasing William Caudill, the IP team can be a genius. ■



This diagram, also authored by Volker Mueller, shows the relationship between partners using integrated practice (IP). The design and construction process generates data with various software platforms. For IP to be effective, data must be exchanged efficiently with the least amount of loss of information. Here, the idea of the “single-building model” is that data are not duplicated but are shared among all participants with clear authorship and well-defined flows and data formats.

Will using integrated practice challenge intellectual property norms?

One question on many minds is whether the advent of integrated practice, with building information modeling as a primary tool for facilitating it, will change customs regarding copyright of information and intellectual property. In other words, who owns the data? According to Volker Mueller, Assoc. AIA, design technology manager at NBBJ, “Authorship of BIM is analogous to authorship of other construction documents. Every discipline authors their scope of work.” That seems simple enough. Consultants retain ownership of the data they plug into the model.

But some confusion exists because of persistent misunderstandings about what a BIM model really is. Davis Chauviere, principal and C.I.O. of HKS, says, “It is important to understand, in absolutely no

software being used today is there a single model if the project is done by multiple firms using BIM. Consultants create their own models that are referenced into the architectural model just as they do with drawings. There is absolutely no problem keeping track of who authored what.”

Tom Owens, principal and general counsel for NBBJ, adds, “To date, we have always had to extract traditional, two-dimensional prints from the model for someone on the project team or the jurisdictional authorities involved. When two-dimensional prints are extracted as the official ‘contract documents’ from the model, the model is no longer a ‘contract document.’ The difference lies with the new authors who might be involved in the model. If more folks contribute, including

folks who don’t have a contractual agreement regarding copyright, then the copyright ownership gets messy.”

So, for now, the small proportion of firms who use BIM for contract documents adopt the same procedures that protect two-dimensional drawings. An architect registers design documents for copyright, including all the engineering work supporting them, and may protect them with a digital signature. Architects and lawyers say that engineers and other specialists provide data into a three-dimensional model as part of a general contract and don’t try to own it. NBBJ may be slightly different in this respect. “We encourage consulting engineers to retain ownership, but to give us a license so that we may in turn license the work to the client.”

And, undoubtedly, clients state in their RFPs that they expect to be provided with the rich data yielded by the BIM model and to be able to use it to run their facilities. This superior work product is, after all, a key reason firms are migrating to the software. But will owners repurpose or modify the copyrighted material? Chauviere says the same issues came up 20 years ago, when firms started to migrate to CAD. “The concerns are more about being indemnified from improper use of the data than the actual release or compensation. Not wanting to lose the job over something that is created as a natural artifact of our services, our firm will almost always release the data.”

—Charles Linn, FAIA, with Alec Appelbaum, a New York City-based writer on architecture and planning.

American Institute of Architects

2007 Honor Awards

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Urban Design	p. 149
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It's no surprise that the vast majority of this year's AIA award winners share an interest in preserving the quality of the natural environment—architecture's future is undoubtedly “green,” and the firms featured here represent the profession's cutting edge. From Pugh + Scarpa's energy-neutral Solar Umbrella House to Lake/Flato's World Birding Center, which provides a conscientious gateway into the wild, to the seven regional and urban design winners, which consider sustainable ways to develop land—these projects exemplify how innovative design techniques can do more than just improve the aesthetics of a given site.

But while ecofriendly design is all the rage now, Maya Lin's Vietnam Veterans Memorial, the recipient of the 25 Year Award, has quietly demonstrated another approach to integrating architecture and nature, giving a different connotation to the word “sustainability.” The elegance, solemnity, and democratic accessibility of the structure's black

granite walls endow the memorial with a timelessness that makes this exemplar of bold form as relevant today as when it was erected in 1982.

Simple, timeless, unadorned geometric shapes also influenced the work of Edward Larrabee Barnes, FAIA, the posthumous winner of this year's AIA Gold Medal. Barnes's firm also received AIA's Firm Award in 1980 and, in 1994, the 25 Year Award for Haystack Mountain School of Crafts on Deer Isle, Maine. This grouping of shingled cottages proved that his ideas are as powerful in small scale as they are in large, urban buildings.

Indeed, a deft interpretation of scale may be the thread that links the aforementioned winners with Leers Weinzapfel, this year's winner of the Firm Award. The firm's projects are stellar without sticking out, gracefully insinuated into urban life. The meaningful dialogue between architecture and context is what transcends time and what will ultimately preserve the environment for generations to come. *Diana Lind*

ARCHITECTURE

**Meinel Optical Sciences
Expansion**

Tucson, Ariz.

Architect: *Richärd + Bauer*

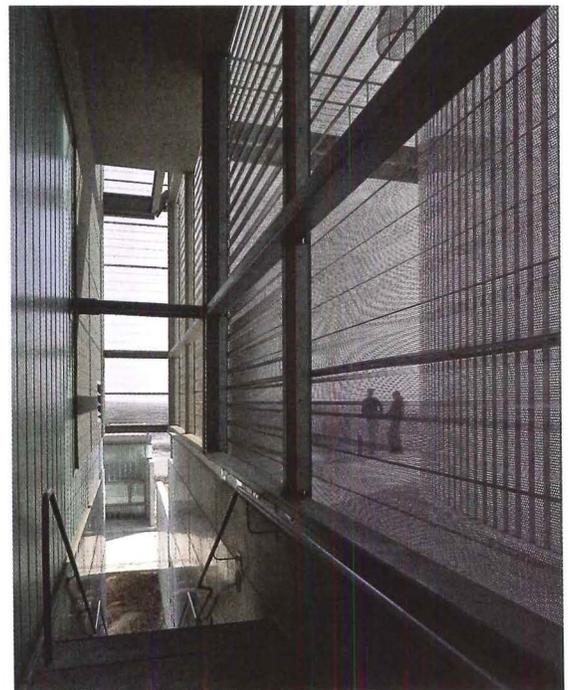
This research laboratory is a 47,000-square-foot expansion of the University of Arizona's optical sciences department. The building contains state-of-the-art optical research labs, teaching labs, classrooms, interaction areas, and research offices for the world-renowned program. The building's design is conceived as an abstraction of landmark inventions in the history of optics, such as the camera obscura. Within the simple volume, daylight is introduced by skylighted shafts that illuminate interior spaces. The cast-in-place concrete structure is sheathed in a copper alloy that patinates to a reddish bronze hue, recalling the color of the brick featured throughout the campus.

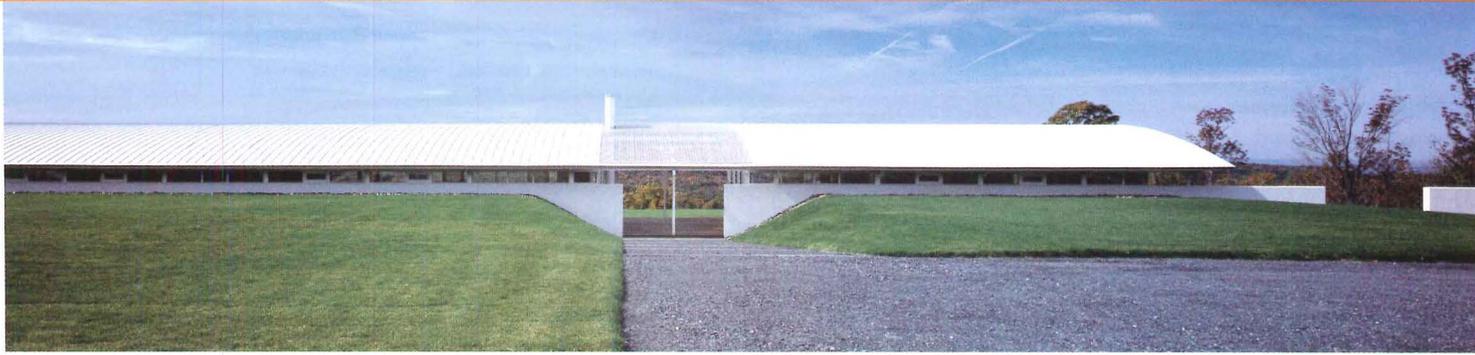


**University of California,
Merced Central Plant**
Merced, Calif.

Architect: *Skidmore, Owings
& Merrill*

As part of the first phase of construction of a new university campus serving the state of California, this plant plays a key role in achieving the ambitious sustainable-design goals outlined by its Board of Regents. The complex comprises a three-story plant building, a 30,000-ton-an-hour thermal storage tank, and a telecom building inspired by the Central Valley's vernacular architecture. The exterior walls of the plant and tank are clad in corrugated-metal panels similar to those found on the area's ubiquitous grain silos. Channel glass wraps the base of the building, allowing daylight inside. The project features numerous sustainable initiatives that include diverting 77 percent of waste from landfills and using recycled products.





Spencertown House

Spencertown, N.Y.

Architect: Thomas Phifer and Partners

[RECORD, April 2004, page 122]

The 6-foot-high concrete retaining wall of this 2,900-square-foot house defines and organizes the spaces within it. The entry and living spaces are open to views and arranged in a linear fashion along the downhill side of the wall under a gently vaulted, wing-like roof. Windows and doors are oriented to maximize cross ventilation, eliminating the need for air-conditioning. Banking the entire structure into the hillside created additional energy savings.

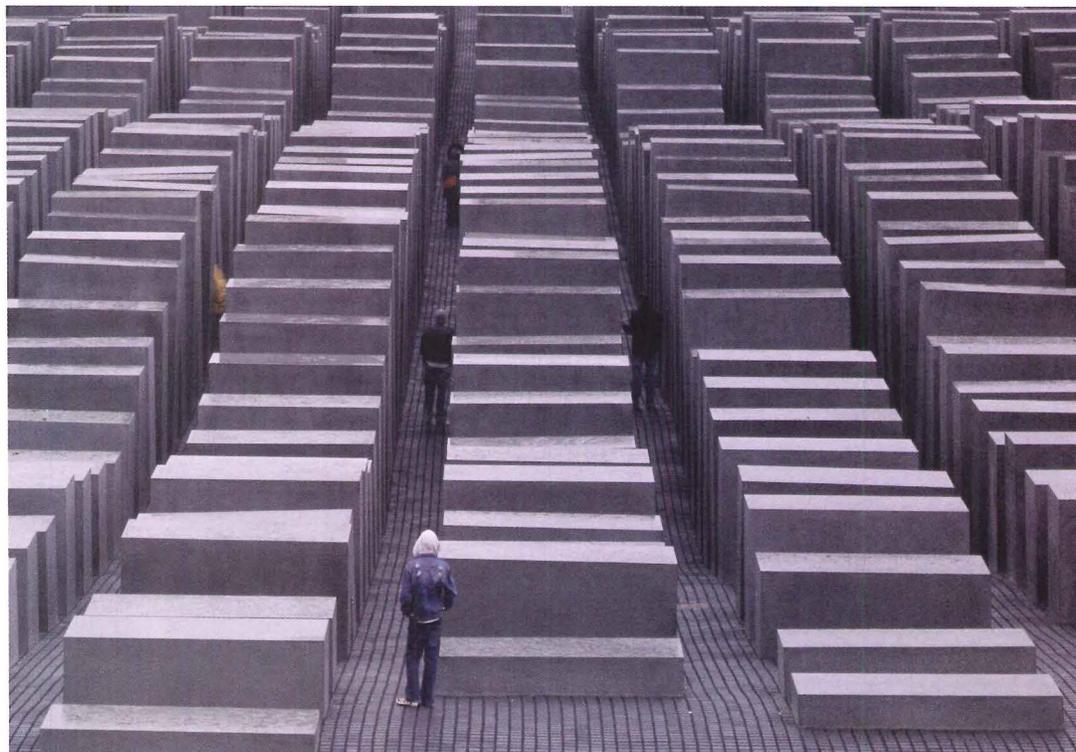
Memorial to the Murdered Jews of Europe

Berlin, Germany

Architect: Eisenman Architects

[RECORD, July 2005, page 120]

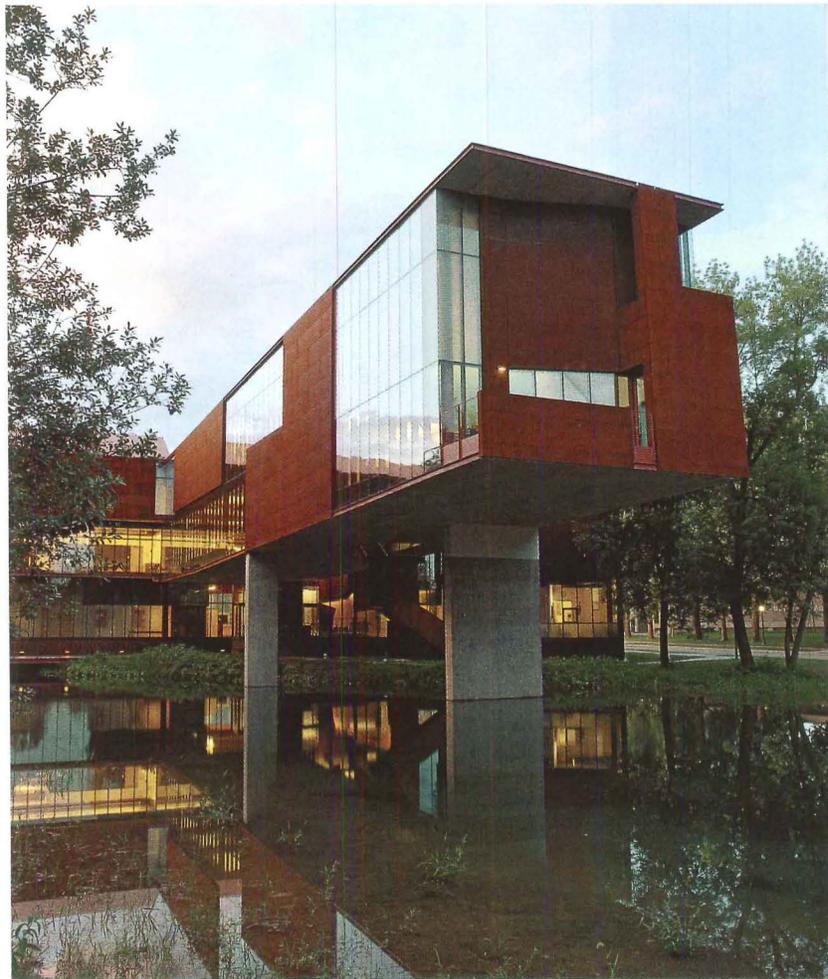
Previously a “no-man’s-land” in East Berlin, this 5-acre Memorial to the Murdered Jews of Europe is now filled with a grid composed of 2,711 concrete stelae, each approximately 37 inches wide, 8 feet long, and up to 13 feet high. The pillars, many of which lean 1 to 2 degrees off center, are set on an undulating ground and spaced so that only one person at a time can pass between them. Pedestrians can enter the site from any side, at any time, making it a truly public space. Beneath the field, four galleries present educational exhibitions.



**University of Michigan,
Biomedical Science Research
Building**
Ann Arbor, Mich.
Architect: *Polshek Partnership
Architects*

This 435,000-square-foot building provides state-of-the-art laboratory and research facilities, dramatized by a curved double-glass facade. This rain-screen curtain wall improves insulation, diminishes air filtration, and should minimize maintenance over time. The rectilinear biomolecular research labs, 250 in all, are clad in terra-cotta and stainless-steel panels. They are connected by four walkways bridging a central atrium that serves as a casual social space.





**School of Art and Art History,
University of Iowa**

Iowa City, Iowa

Architect: *Steven Holl Architects*

[RECORD, January 2007, page 92]

This 70,000-square-foot building includes facilities for sculpture, painting, printmaking, graduate studios, administrative offices, a gallery, and a library. The building

explores “formless” geometries, spaces where the outline of the volume is implied rather than explicitly rendered. Flexible studios open to the outdoors in warm weather. The main horizontal passages serve as meeting places with interior glass walls that reveal work in progress. Around the perimeter, spaces overlook, overlap, and engage the surrounding natural landscape.



**Dr. Theodore T. Alexander, Jr.
Science Center School**

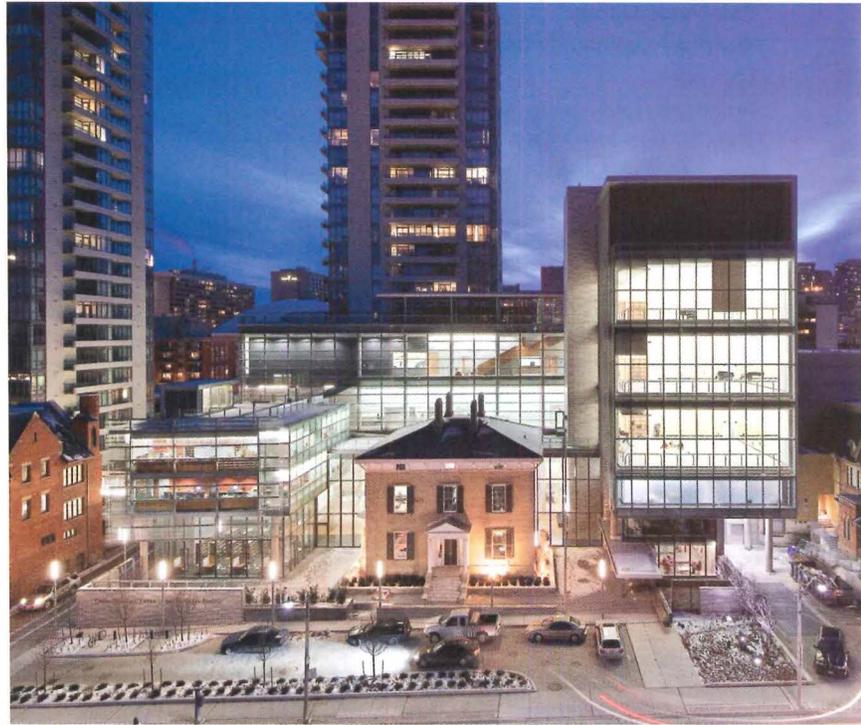
Los Angeles

Architect: *Morphosis*

[RECORD, May 2006, page 132]

Located in South Central Los Angeles, this public elementary school features a 1919 armory building converted into an open two-story atrium with a bamboo garden. Skywalks above the garden and meeting spaces within it create opportunities for social gathering. Libraries, laboratories, meeting rooms, and classrooms all flank this space. A new building burrowed into the ground dissolves the boundaries between land and structure. Clusters of classrooms share common rooms, fostering a flexible teaching environment.

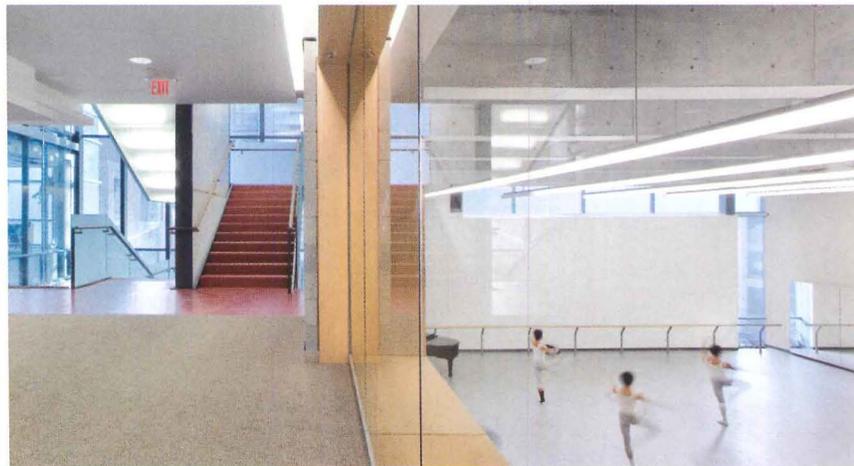




Canada's National Ballet School:
Project Grand Jeté,
Stage 1: The Jarvis Street Campus
Toronto, Canada
Architect: *Kuwabara Payne McKenna Blumberg Architects/ Goldsmith Borgal & Company Limited*

This ballet school is the only institution in North America to offer an integrated program of professional dance training, advanced-level academic education, and residential living all on one site. This project completes the first stage of

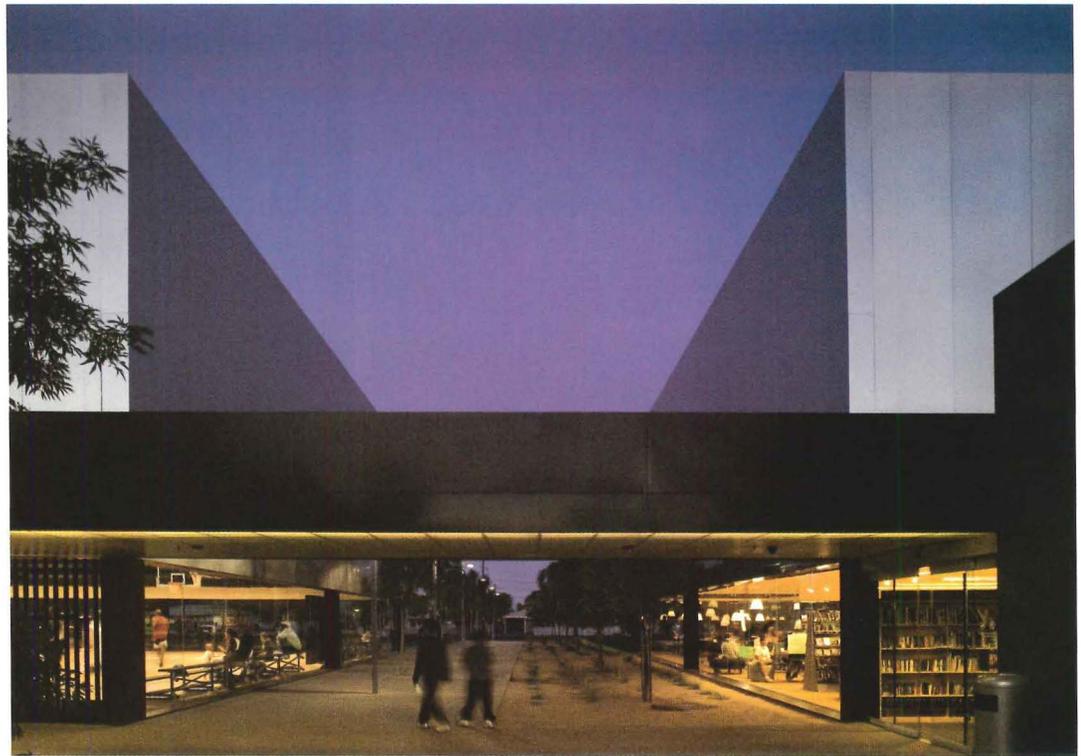
the school's plan to create a student-centered facility. Conceived as a vertical campus of three transparent buildings, the total project included 180,000 square feet of new construction and the adaptive reuse of two buildings. The tallest building fuses architecture, dance, movement, and spectacle in a series of stacked, horizontal platforms ("stages") that project the building's program out to the city. A fully glazed curtain wall on its east facade offers views of the dancers, who in turn have the city as both backdrop and audience.



**Palo Verde Library/
Maryvale Community Center**
Phoenix

Architect: *Gould Evans Associates/
Wendell Burnette Architects*
[RECORD, October 2006, page 125]

This 16,000-square-foot library and 27,000-square-foot community center bring together the activities of mind and body. The buildings sit at one edge of a public park and strengthen their connection to the outdoors with 8-foot-tall glass walls around their perimeter. The two volumes feature column-free, top- and bottom-lit spaces that allow for abundant daylight. To meet the acoustic requirements for the library, the interior is wrapped in recycled aspen panels inspired by handmade paper books.

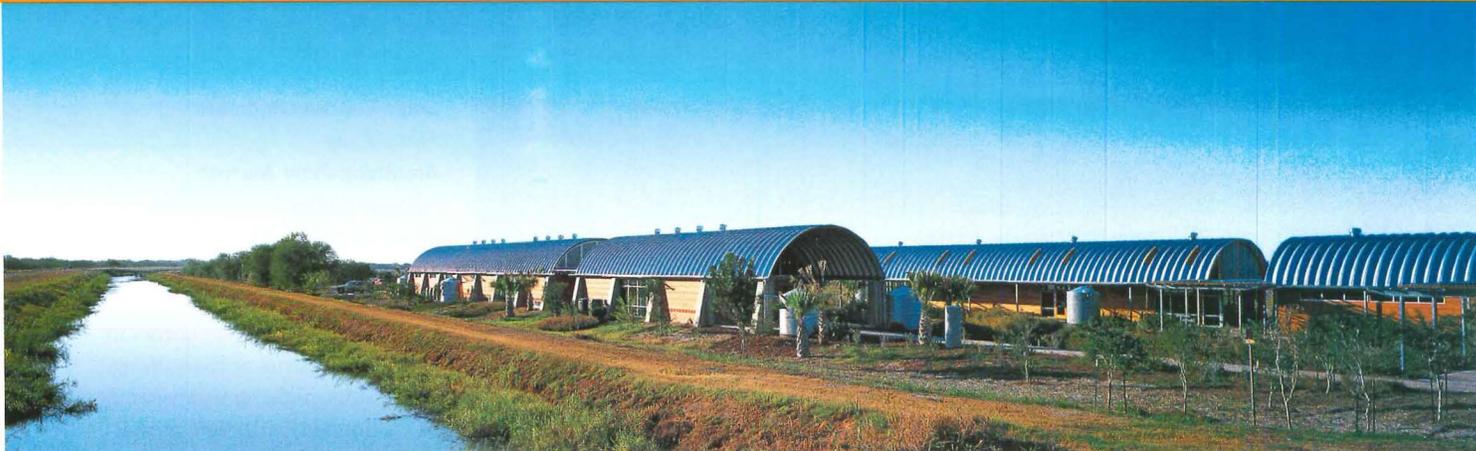


Solar Umbrella House
Venice, Calif.

Architect: *Pugh + Scarpa*
[RECORD, April 2005, page 176]

Located on a 41-foot-by-100-foot lot, the Solar Umbrella House (inspired by Paul Rudolph's 1953 Umbrella House) transforms an existing 650-square-foot bunga-

low into a 1,800-square-foot residence. Passive and active solar energy render the house 100 percent energy neutral. Recycled, renewable, and high-performance materials are specified throughout. Landscape treatments were designed for their aesthetic appeal as well as their physical impact on the natural setting.

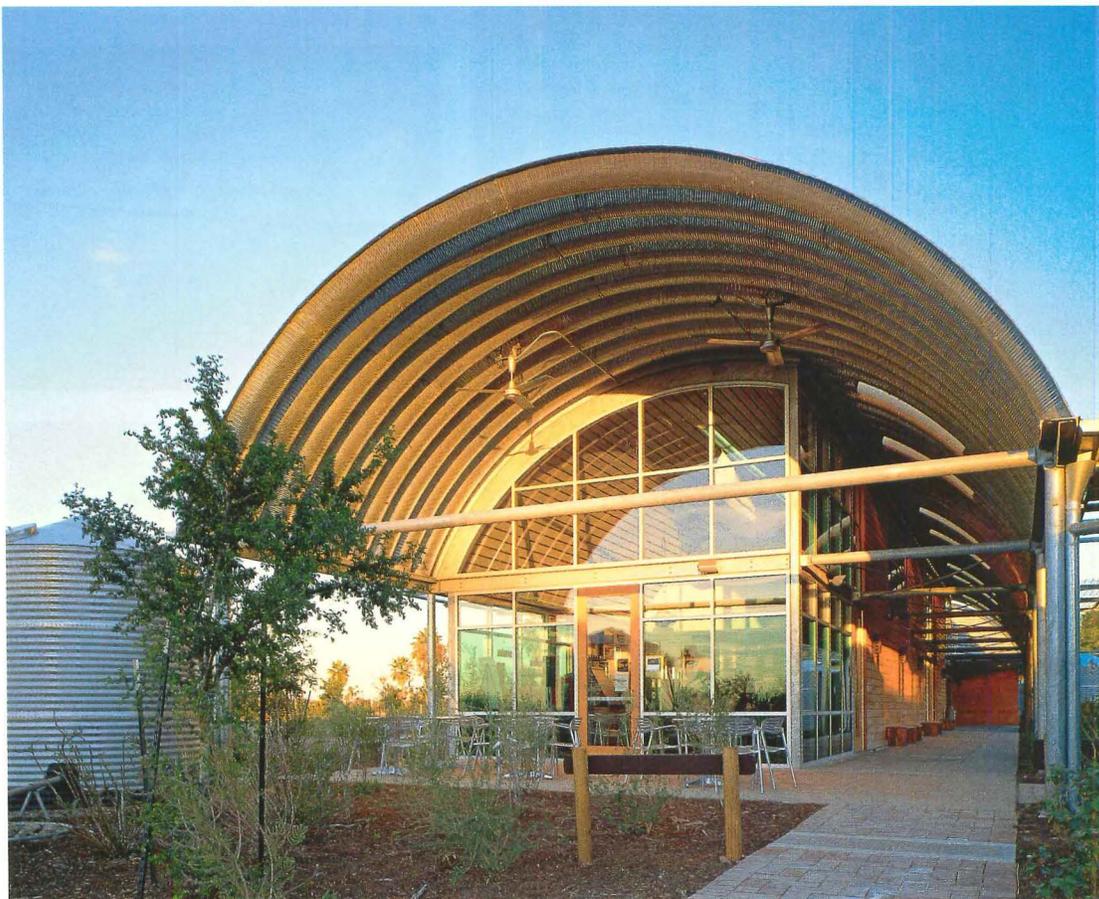


**World Birding Center
Headquarters**

Mission, Tex.

Architect: *Lake/Flato Architects*

This visitors' center is located in one of the richest bird habitats in the world. It creates a gateway between agricultural land and a 1,700-acre native habitat preserve. The architects aimed to "do more with less" by reflecting the regional vernacular, responding to the harsh climate, and minimizing disturbance of the existing habitat. Structures run east to west to maximize airflow; exterior trellises shade windows from the direct sun; and a narrow floor plate allows for optimal daylighting. Structural arch panels enclose spaces using 48 percent less steel by weight compared to traditional steel framing. A 47,000-gallon rainwater collection system is used for irrigation.



INTERIORS

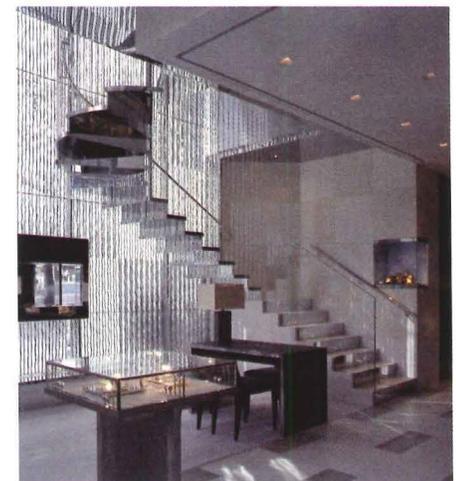
Louis Vuitton Landmark

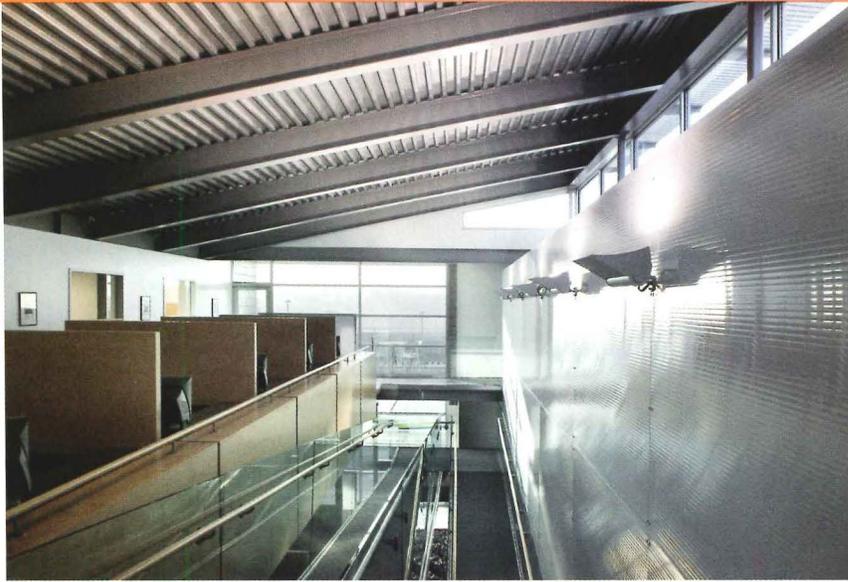
Hong Kong

Architect: Peter Marino

Architect; associate architect: dcmstudios (formerly Denton Corker Marshall, Hong Kong)

Occupying a prominent corner in the central district of Hong Kong, this 25-foot-high, semitransparent box is flooded by daylight as well as electric illumination. The main stair volume, designed to look as if carved from a solid block of stone, connects the project's three levels. Here, sandblasted-glass treads feature built-in LED panels projecting video images. These videos can be viewed while walking up the stairs or from ground level, looking at the reflected images in a ceiling mirror. A fine-jewelry store that can be accessed both from the boutique and from a separate entrance has its own suspended staircase, continuing the narrative of the main stair.





**Better Business Bureau
Heartland Office**

Omaha, Neb.

Architect: *Randy Brown
Architects*

The Better Business Bureau's previous location in a gloomy, leased office space in a strip mall did not provide the organization with enough room to offer basic services. For its new home, architect Randy Brown created a physical manifestation of the bureau's core values of integrity, stability, and openness—developing a design solution that is both cost-efficient and environmentally conscious. The small site dictated a two-story solution, with each level having an ADA-accessible entrance at grade. Brown manipulated the roof section (top left) so that a central clerestory window could bring extra daylight to the interior. The project was constructed from moderately priced local materials. Exposed structural systems convey the agency's modern image, while keeping the budget to \$100 per square foot.



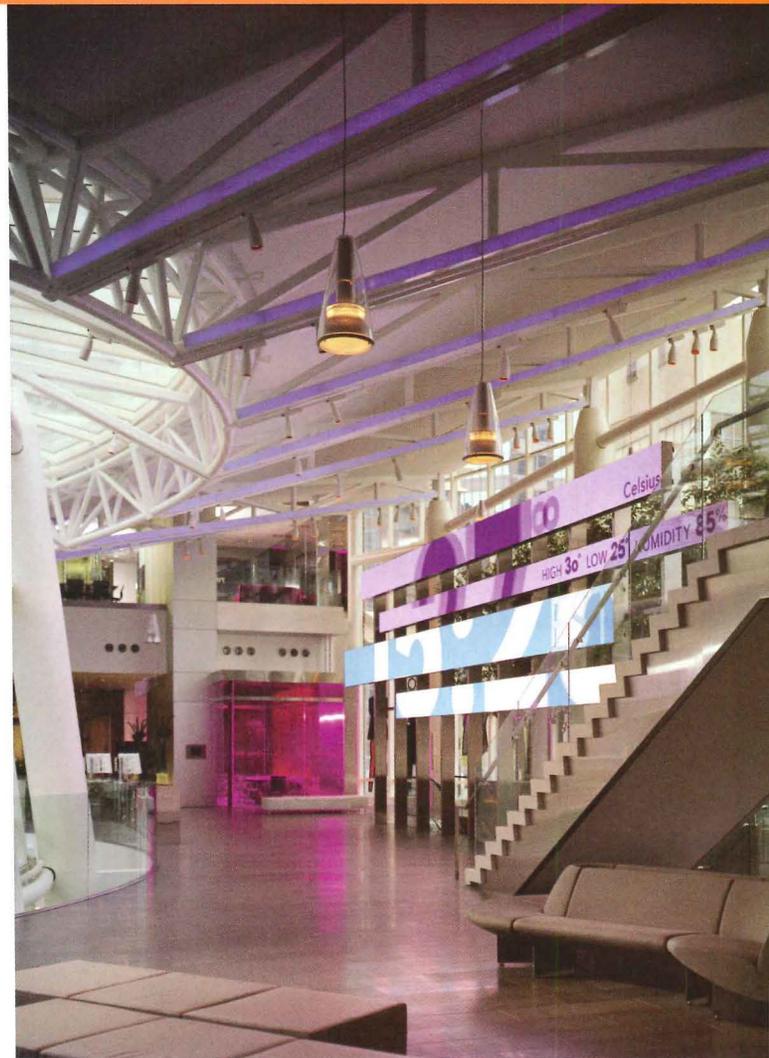
Bloomberg LP Headquarters

New York City

Architect: *STUDIOS Architecture*
 [RECORD, March 2006, page 138]

For this project, the architects eschewed conventional approaches to office space by rethinking circulation, privacy, graphics, and art. Everyone at the company, from the C.E.O. to the

interns, sits in an open-plan workstation environment. In order to make office space as economical as possible, the architects developed a flexible desk system and added many more conference rooms than the norm. Yet all the conference-room walls are glass, with a wide range of colors and textures used for variety, and to provide privacy.

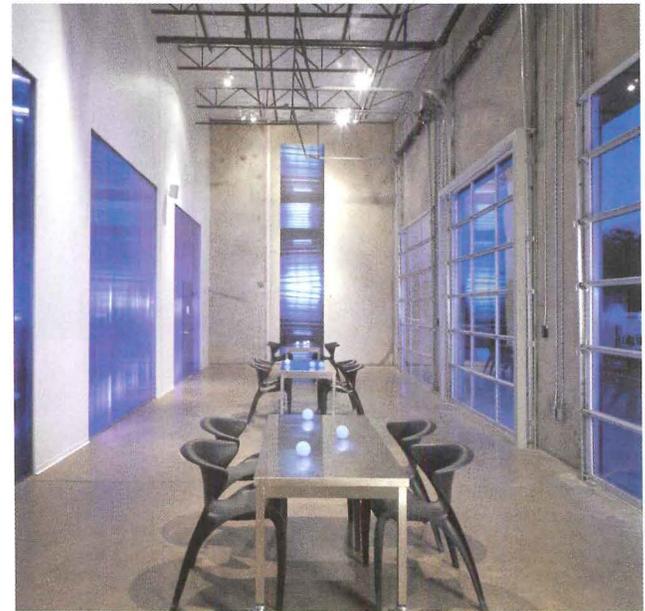
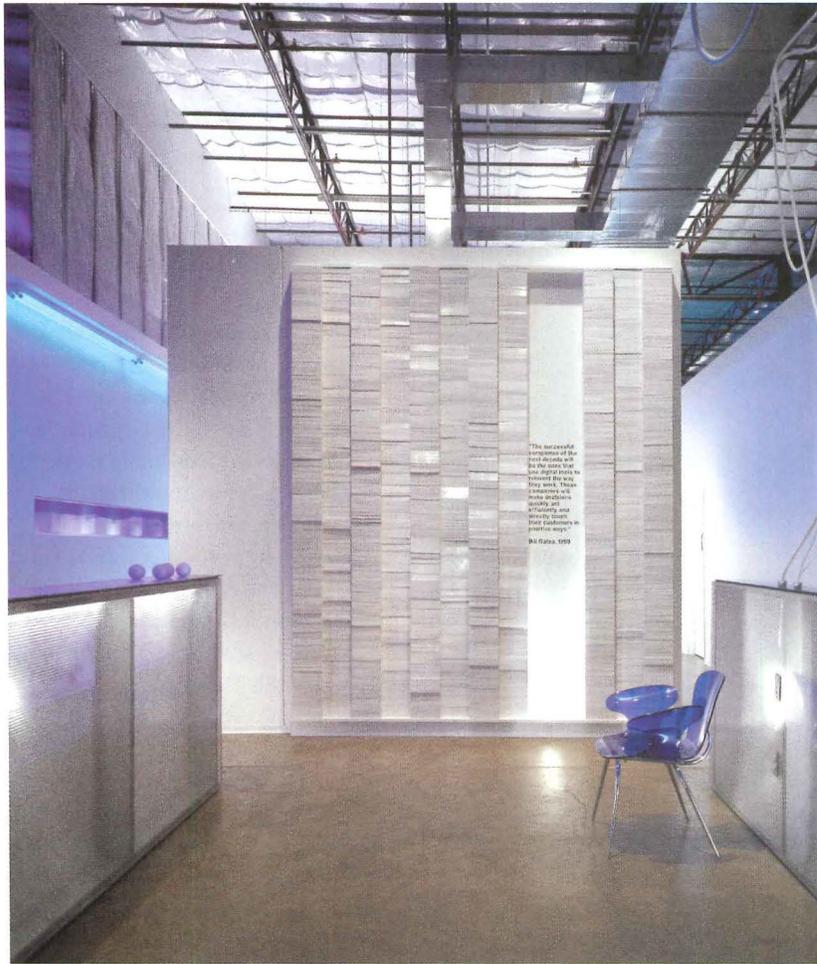


Haworth Chicago Showroom

Chicago

Architect: *Perkins + Will/
 Eva Maddox Branded
 Environments* [RECORD,
 September 2004, page 216]

A complete renovation of Haworth's 29,000-square-foot flagship showroom in Chicago's Merchandise Mart received a LEED Gold certification in the commercial interiors pilot program. Within a Modernist design setting, green performance features include separate low-energy, high-quality HVAC equipment, natural light throughout, reuse of materials salvaged from the prior showroom, and use of renewable materials.



ImageNet, Carrollton
 Carrollton, Tex.
 Architect: Elliott + Associates
 Architects

This project transformed a lifeless, tilt-up concrete building into a space of high drama for selling, servicing, and warehousing copy machines. The architects employed blue light to bring “sky” into the office space, and installed a new interior wall to create a covered, climate-controlled porch for client meetings and presentations. A tangle of data and power cords suggests the company’s inventiveness, while exposed concrete walls, vinyl-backed batt insulation, galvanized metal, and exposed steel studs all communicate an ethos of economy. After just two months of operating in the new facility, the company saw its sales skyrocket 50 percent.

The Modern

New York City

Architect: *Bentel & Bentel*
 [RECORD, September 2005,
 page 124]

Located in the Museum of Modern Art, this restaurant sits at the intersection of the original museum building from the 1930s, an adjacent museum annex and sculpture garden from the 1960s, and a two-year-old museum addition. The architects established a planar rectilinearity, with the main elements defining the restaurant space, then inserted sinuous, frosted-glass walls as counterpoints. The glossy white ceiling and polished stainless-steel columns in the bar room expand the apparent height and width of the original space.

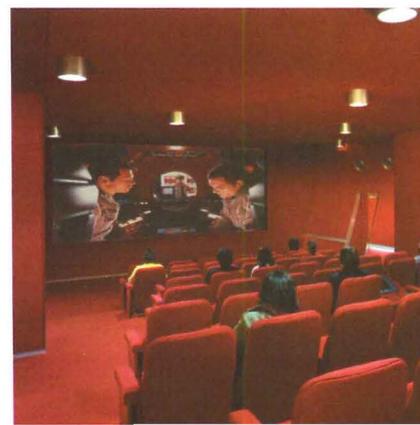
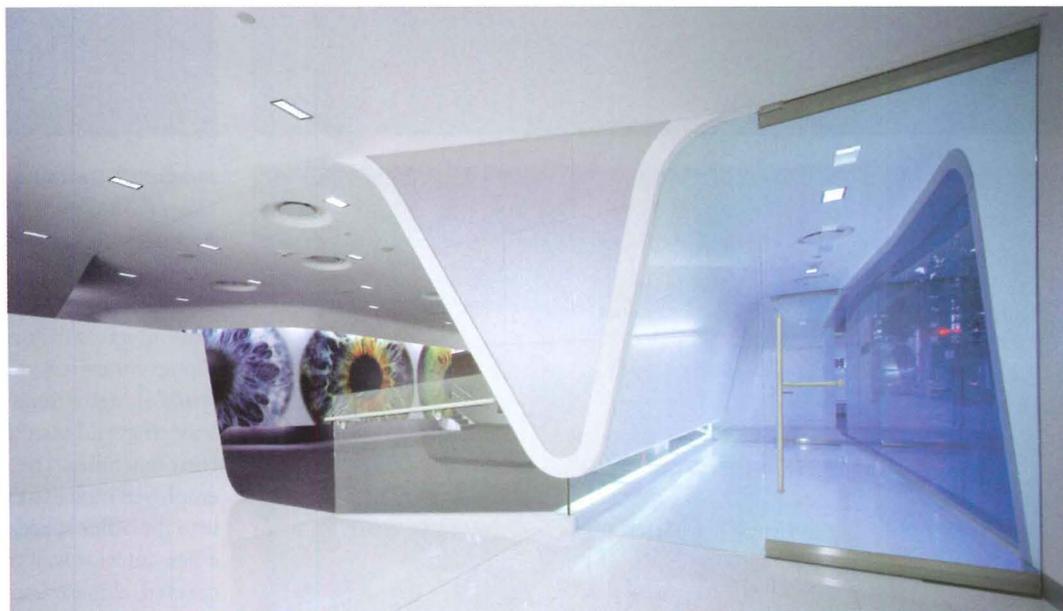


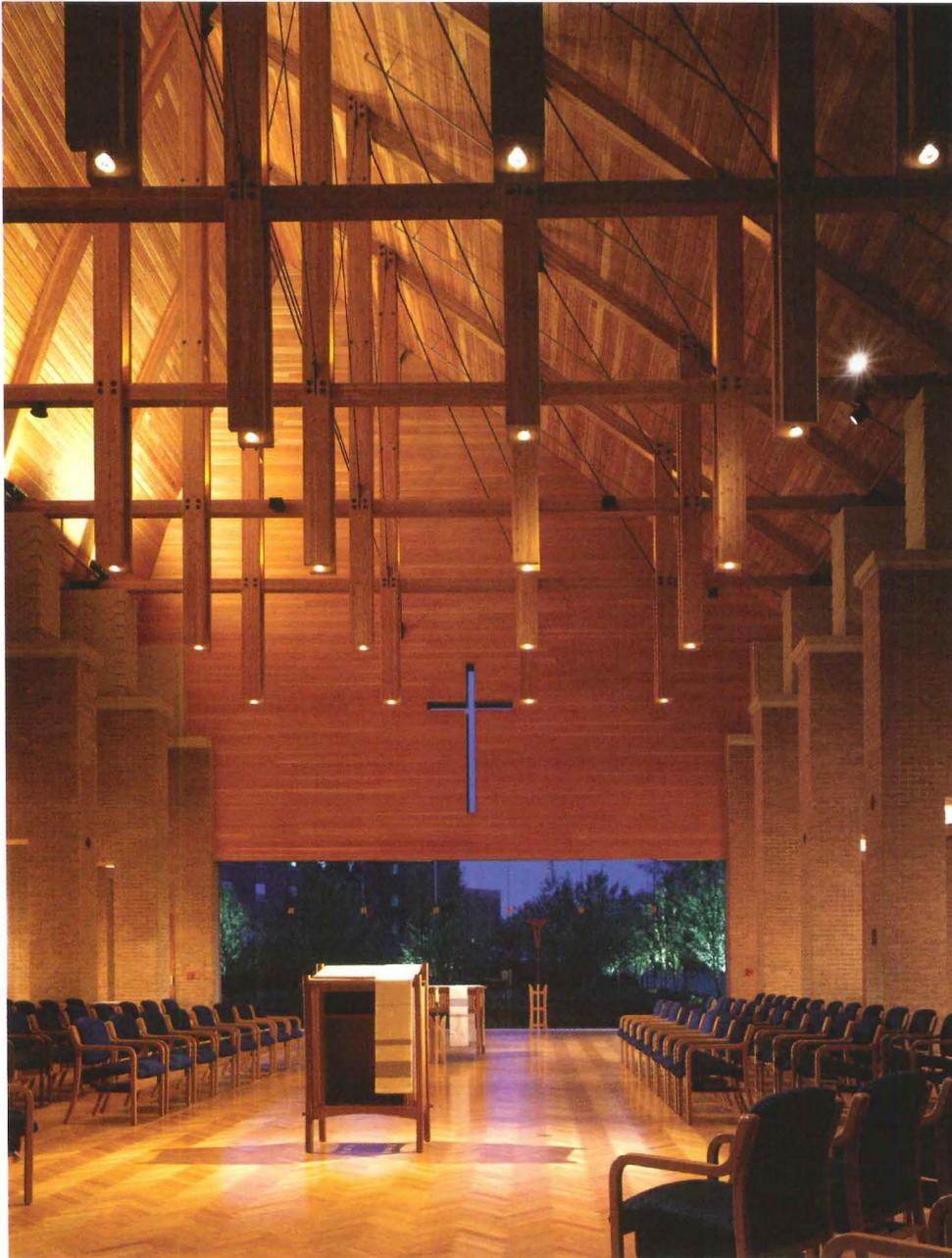
Endeavor Talent Agency

Beverly Hills, Calif.

Architect: *NMDA; associate architect: Interior Architects*
 [RECORD, September 2005,
 page 116]

This 63,000-square-foot headquarters for the world's third-largest talent agency occupies build-out space in a 1960s structure on L.A.'s Wilshire Boulevard. Designed for the agency's 200 employees, the offices feature curving walls and ceilings that wrap and shape spaces, creating an eerie sense of immateriality. Expressive design moves in ceiling/wall deformations surround the lobby and conference rooms. A first-floor screening room faces the street, creating a public identity for the agency; its folded facade and smooth, white undulating ceiling and wall surfaces allow passersby to peek in, inciting a kind of voyeurism similar to cinema or celebrity-watching.



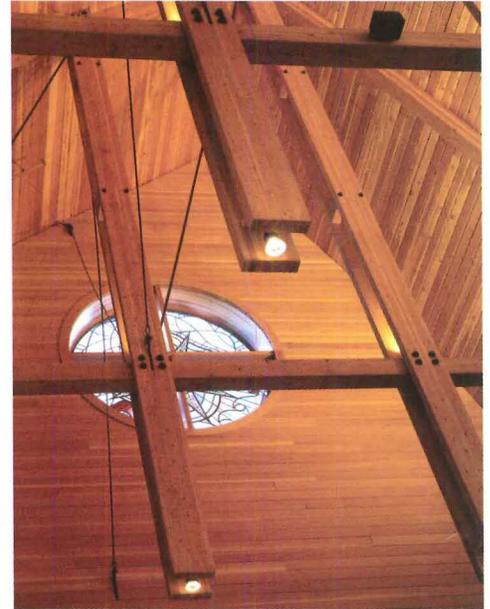


St. Mary of the Springs
Columbus, Ohio

Architect: Nagle Hartray Danker
Kagan McKay Penney Architects

The architects replaced a traditional dormitory-style residence hall with a 139,000-square-foot space that includes 90 resident rooms, a chapel, and dining and administrative areas. The congregation of Dominican Sisters promotes human rights, social justice, and world peace. The project's design features reflect this mission

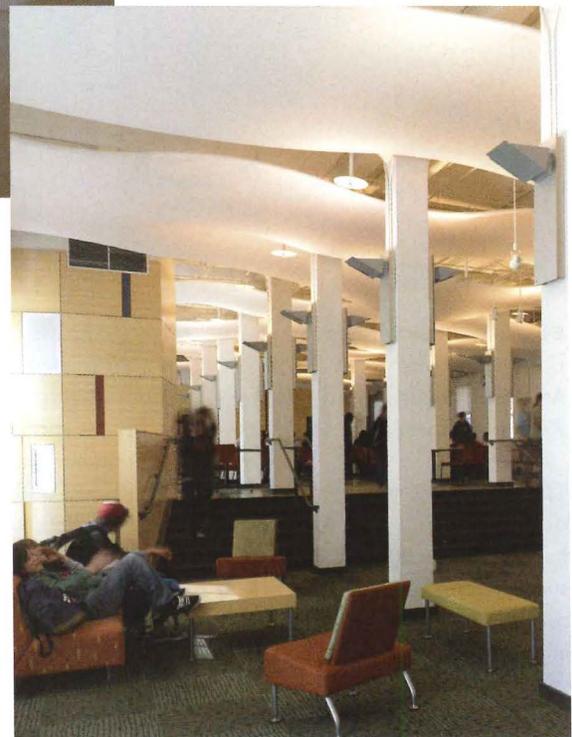
through the use of natural materials, a frameless, north-facing window that opens chapel views to a private garden, and masonry walls that curve as they extend upward, as if budding from the earth. The walls are supported by seven masonry buttresses, which have openings carved out of their bases to define interior side aisles. Arranged like a single-family home, rooms are clustered to support community living and are centered around a landscaped courtyard on a 30-acre site.





The Bay School of San Francisco
San Francisco
Architect: *Leddy Maytum*
Stacy Architects

Originally designed as a cavalry barracks, this 1912 building was converted into a school that places special emphasis on the interrelationship of science, technology, ethics, and world religions. The architects used these concerns as a metaphor for intertwining old and new elements in their design. Central concrete walls, perforated and brightly colored, slice through the full height of the building to skylights above. Sophisticated, new laboratories anchor both ends of the 400-foot-long building, while new cable trays hang lightly within the historic corridor, carrying lighting, building services, and wireless network transmitters. The design incorporates water and energy sustainability features and offers students a constant dialogue with history by combining old and new elements.



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Pierson and Davenport Colleges
New Haven, Conn.

Architect: Kieran Timberlake Associates [RECORD, March 2005, page 128]

These renovations rethink the program and materials of two 75-year-old residential colleges at Yale University. To meld the old and

new, the architects removed old building systems, finishes, and roofs, while restoring existing structures. The program was most notably modified in the basement, where pipes, storage, massive foundation walls, and squash courts were replaced with community spaces linked by passages washed in sunlight from above.



Top of the Rock
at Rockefeller Center

New York City

Architect: Gabellini Sheppard Associates; associate architect: SLCE Architects [RECORD, June 2006, page 297]

Following two decades of disuse, the historic observation decks

atop 30 Rockefeller Plaza were renovated. New interior spaces enhance the visitor's experience with dramatic features, including a triple-height atrium with an elliptical stair surrounding a light sculpture of 14,000 crystals suspended from above. This fixture, designed by the architect, has the form of an inverted Deco building.





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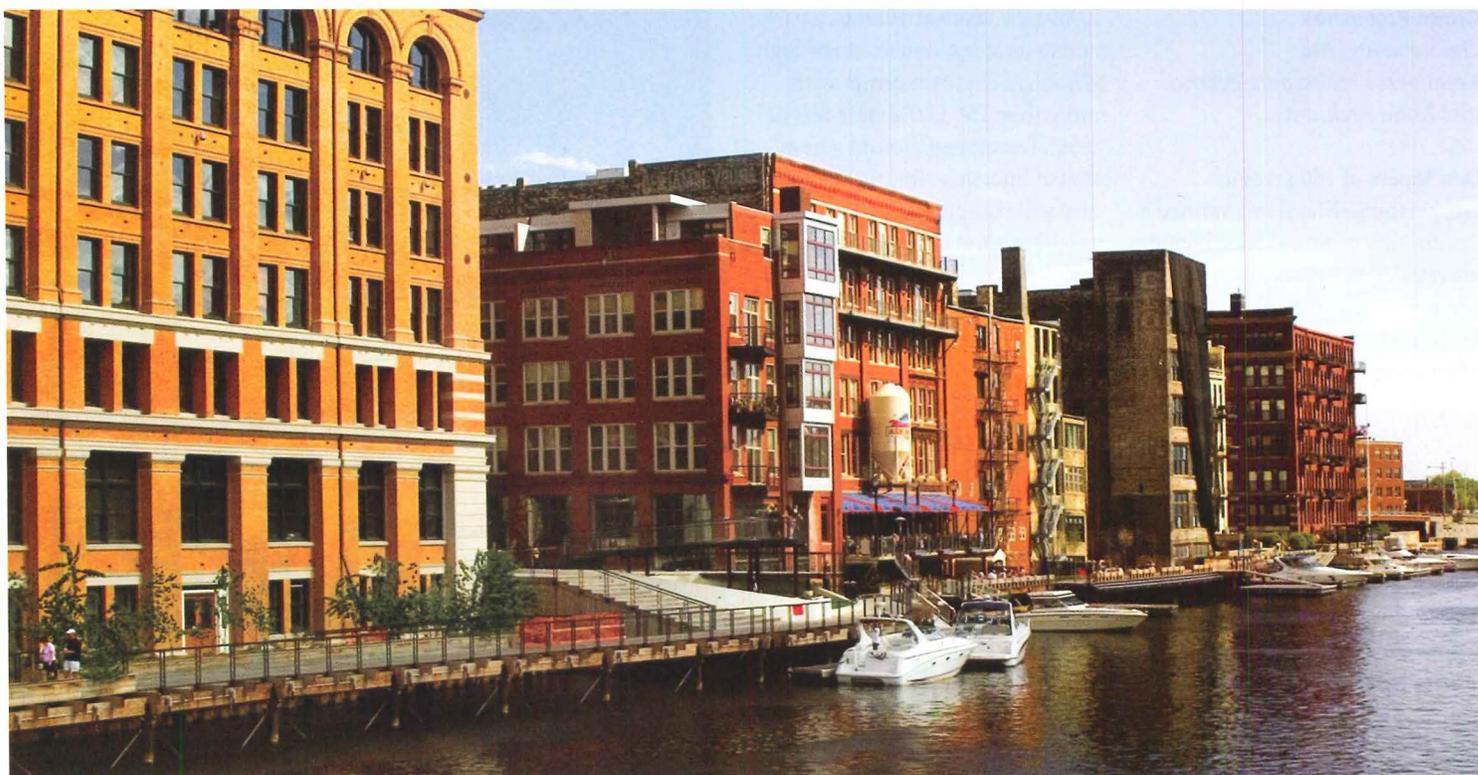
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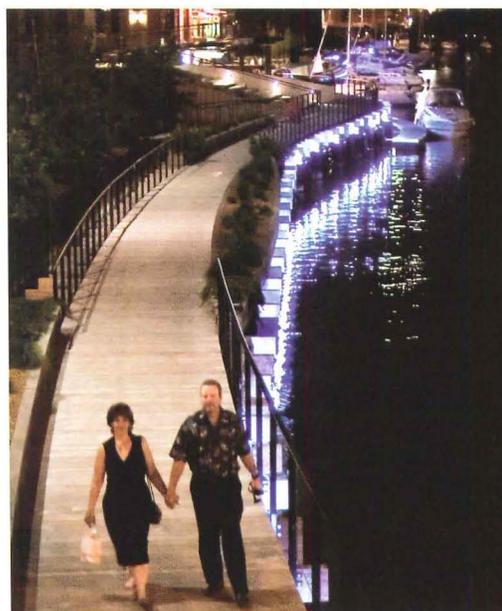
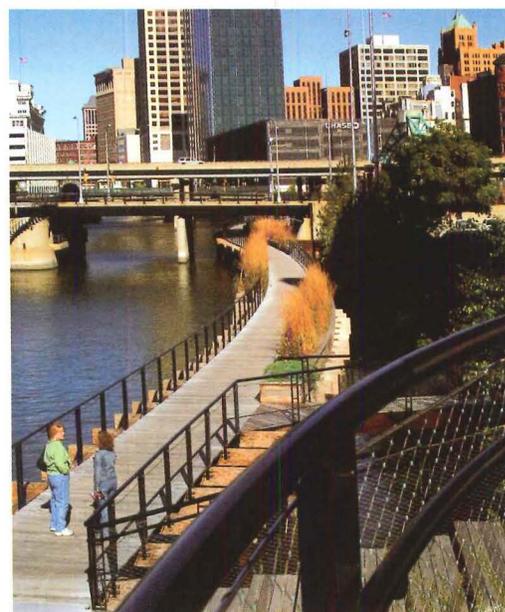
URBAN DESIGN



Historic Third Ward Riverwalk
Milwaukee

Architect: Engberg Anderson
Design Partnership

Transforming a forgotten riverfront lined with neglected buildings, abandoned street ends, and parking lots into a vibrant destination with green space and recreational opportunities defined the goals of this project. In addition to the creation of the Riverwalk, an adjacent $\frac{3}{4}$ -acre parking lot was converted into a new park. Inside the park, a 2,000-square-foot interpretive and educational center features exhibits on urban river ecological issues. The architects used renewable materials such as heavy-timber framing in the construction of Riverwalk, and designed the project's lighting to provide soft illumination reminiscent of moonlight.

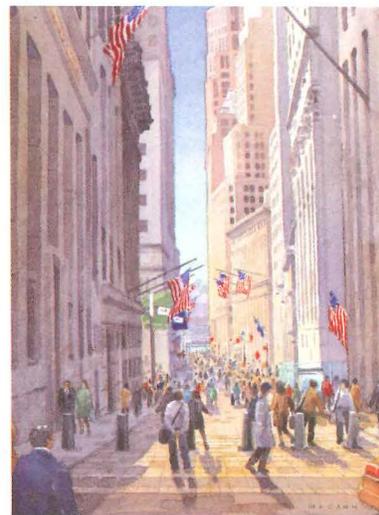


Crown Properties
Gaithersburg, Md.

Architect: Ehrenkrantz Eckstut and Kuhn Architects

Developers of 180 acres in Gaithersburg, Maryland, wanted a community of mixed uses, including retail, residential, green space, and public amenities. The architect developed a master plan which, when completed, will comprise over

2,000 new residential units, a park and open space system, a new high school, and a town center with more than 250,000 square feet of retail. Developed around a new transit line, this vibrant community will complement adjacent neighborhood developments with an interconnected system of streets, open space, and pathways. Sustainability will be a key element in the implementation of the plan.



**New York Stock Exchange
Financial District Streetscapes
and Security**
New York City
Architect: Rogers Marvel
Architects

This project evolved as an outcome of 9/11 and the need to create sufficient security for Lower Manhattan's financial district and the area's iconic institutions. Working with key stakeholders, including the police, city agencies, transportation officials, and designers, this comprehensive strategic plan knits together the cultural, historical, and financial landmarks with a security plan that includes a fountain sited in front of the Stock Exchange, as well as NOGO barriers (designed by the architects) that reduce the amount of space devoted to vehicle barriers by half.

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Boston's Newest Smart Growth Corridor: A Collaborative Vision for the Fairmount/Indigo Line

Boston

Architect: *Goody Clancy*

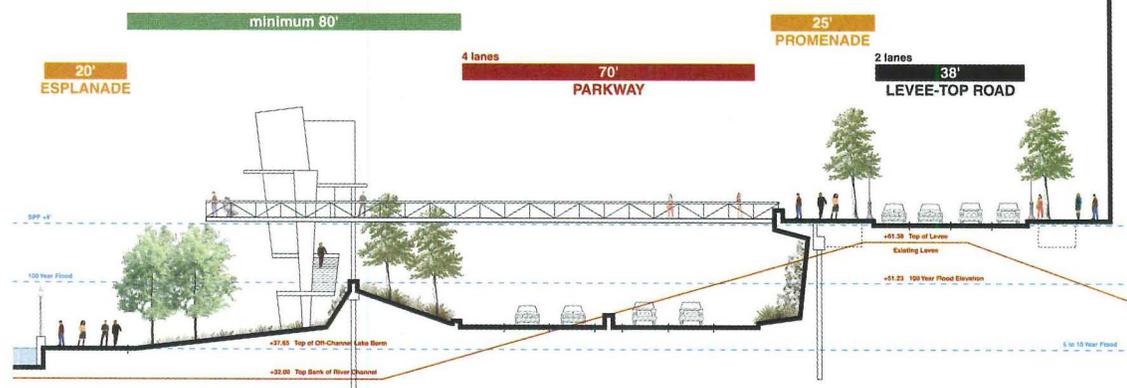
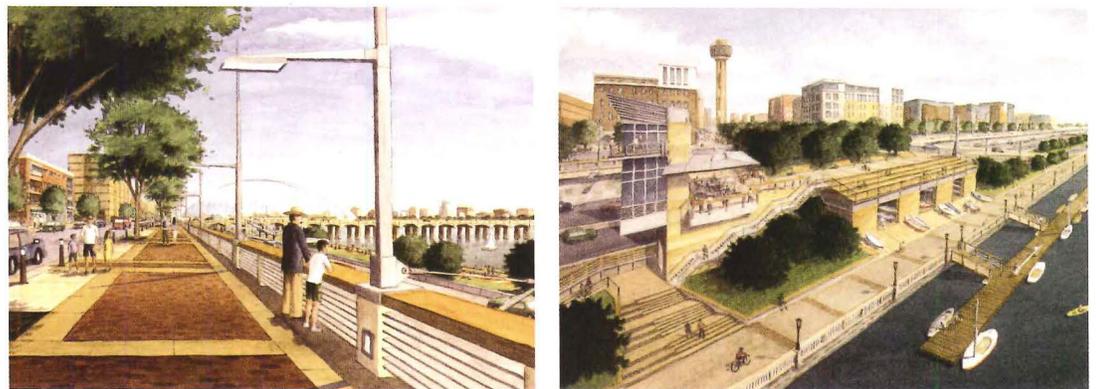
This collaborative, neighborhood-based initiative links several distinct neighborhoods along a 10-mile transportation corridor stretching from downtown to the city's suburban fringe. The plan calls for four rail stations along the new Indigo Line that will connect urban villages to be built on vacant, underused and/or brownfield sites where there is a combined potential for 5,000 new housing units (including affordable ones), and 700,000 square feet of new and rehabilitated commercial space. This mixed-income, mixed-use development will create new clusters of activity around the rail stations.

A Balanced Vision Plan for the Trinity River Corridor

Dallas

Architect: *Chan Krieger Sieniewicz*

For 75 years, the Trinity River has segregated downtown Dallas from the West Dallas and Oak Cliff neighborhoods of the city. Under the architects' new plan, the floodway will be transformed with a meandering river channel, newly forested pockets, wetlands, and 2-mile-long lakes fed with treated urban wastewater. The banks of the Trinity River will become desirable sites for residential and commercial development. Roadway infrastructure, including a reduced-speed parkway, will be designed to be compatible with the new park areas while providing better access and views to development and recreation.



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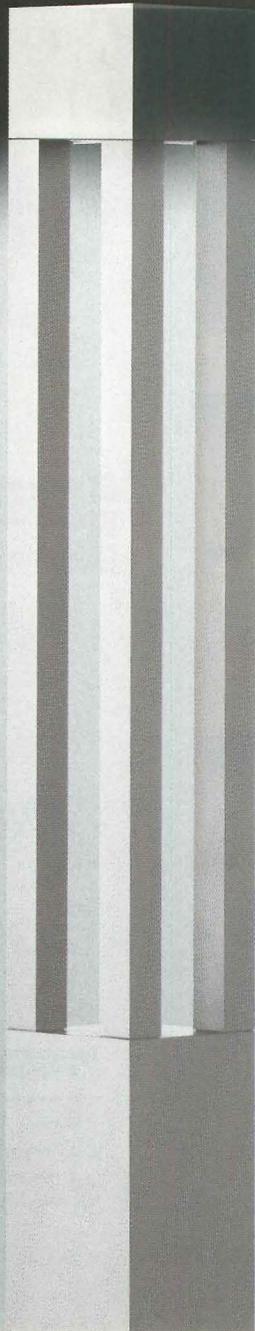
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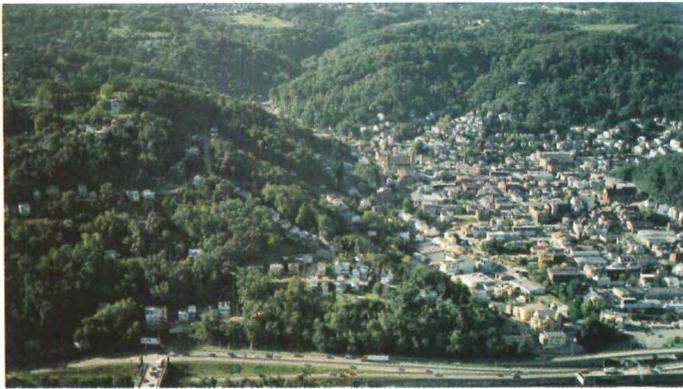
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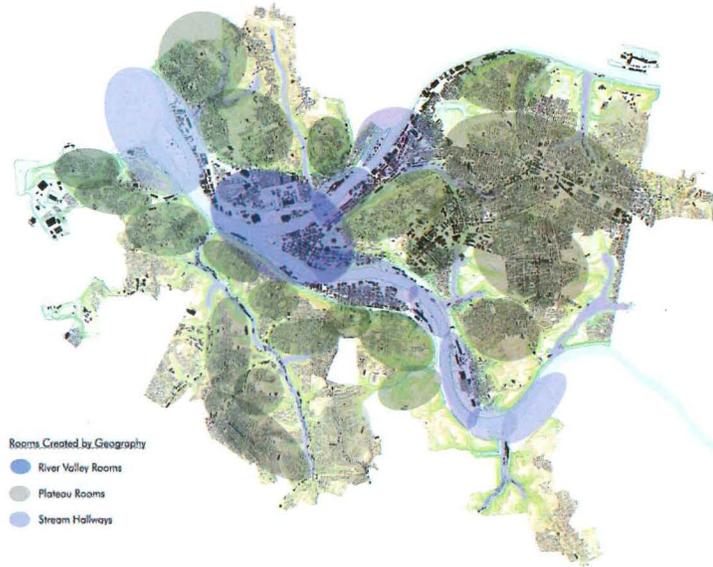
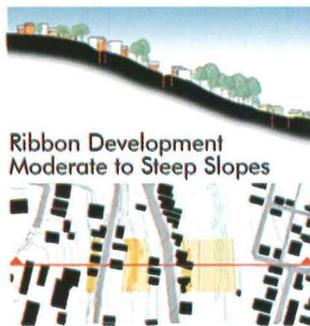
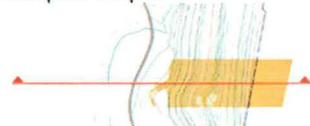
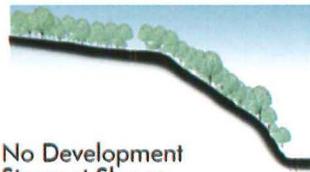




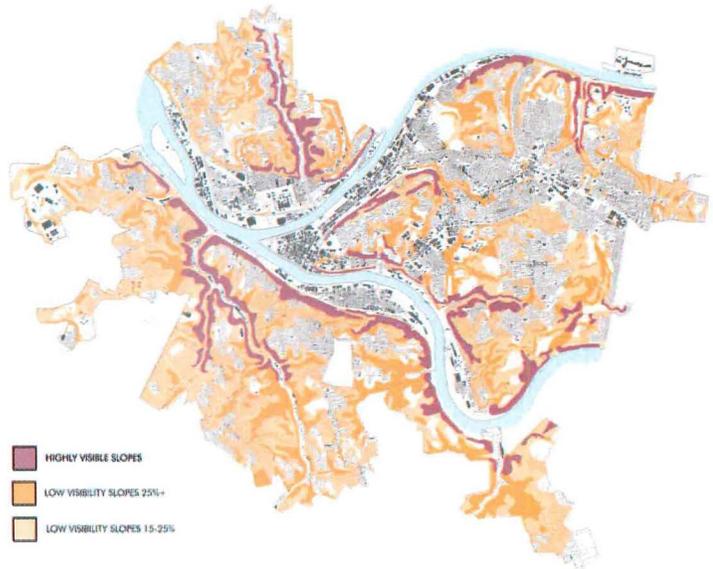
Zoning, Urban Form, and Civic Identity: The Future of Pittsburgh's Hillside
Pittsburgh

Architect: Perkins Eastman

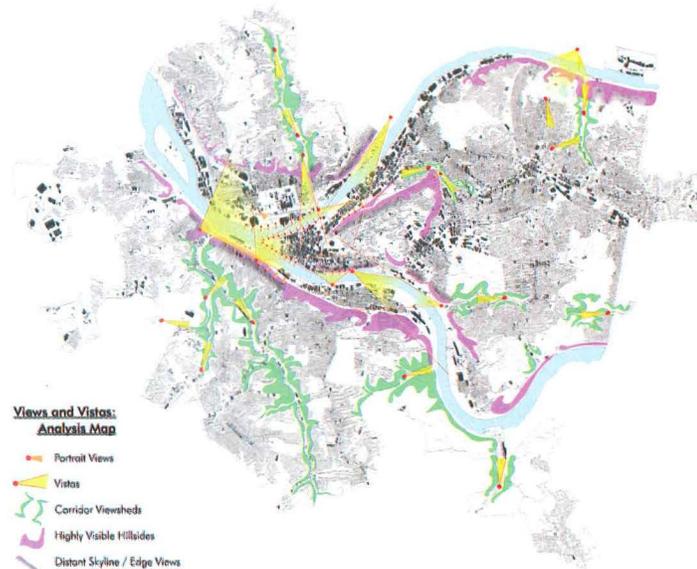
This urban design study makes recommendations for replacing zoning guidelines with specific regulations that maintain the character and identity of Pittsburgh's iconic hillsides. The architects clarified where hillside development should occur, striking a balance between buildings and green-space preservation. The project helped secure initiatives in the regional and state transportation plan for more rapid access to downtown. A pedestrian and bicycle greenway envisioned in the report provides added mobility to connect parks, schools, and other community centers.



Rooms Created by Geography
 ● River Valley Rooms
 ● Plateau Rooms
 ● Stream Hallways



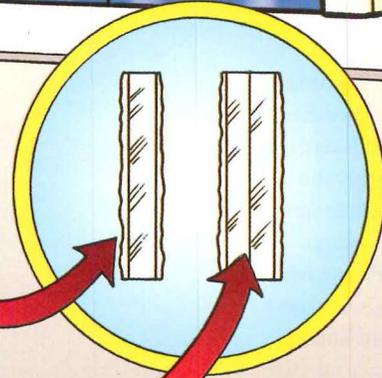
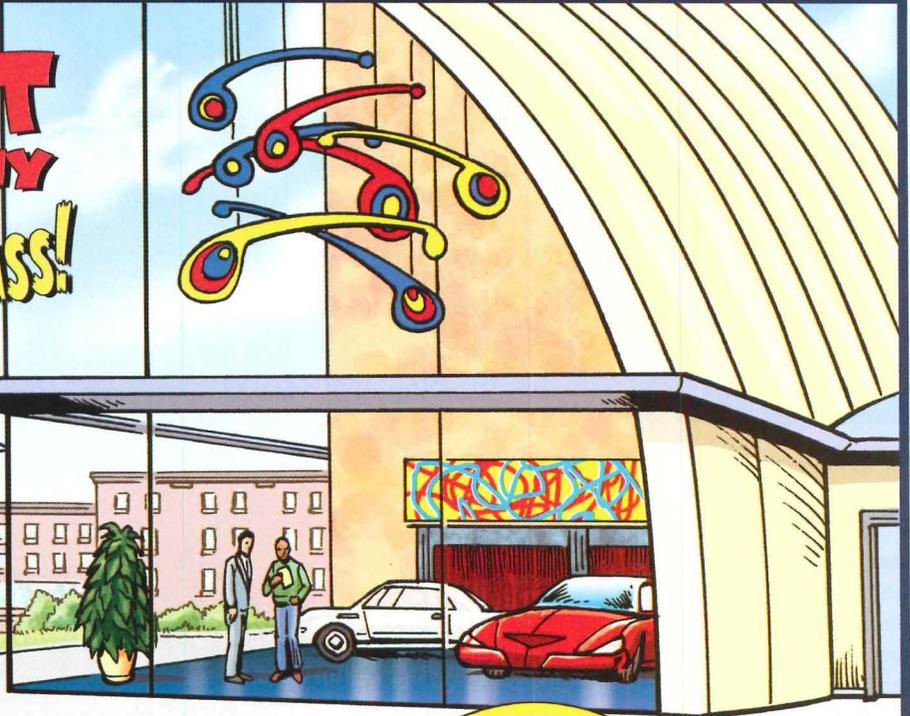
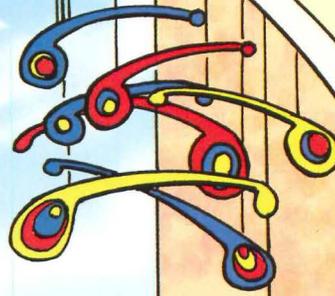
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 ● Vistas
 ● Corridor Viewsheds
 ● Highly Visible Hillside
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The Carneros Inn

Napa, Calif.

Architect: *William Rawn Associates; associate architects: Caspar Mol Architecture and Planning; Persinger Architects (formerly Persinger Hale Architects); RMW architecture & interiors; Les Girouard*

Located between the Sonoma and Napa wine regions in Northern California, this new, 27-acre inn and town center engages the broader community while serving as a “base camp” for visitors exploring the surrounding wine country. The plan calls for guest cottages and courtyard houses organized around a central open space and a pedestrian-oriented streetscape. The site culminates in the Hilltop, which includes a restaurant, reception building, and spa complex. The project uses geothermal heating and recycles storm water for on-site irrigation.





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25 YEAR AWARD

VIETNAM VETERANS MEMORIAL

WASHINGTON, D.C.

MAYA LIN, DESIGNER

COOPER-LECKY, ARCHITECT OF RECORD

A place to mourn, individually and as a nation



A controversial design honoring the lives lost in a controversial war, the Vietnam Veterans Memorial today stands as a nearly universally admired landmark. We still debate the war itself, but almost everyone agrees that Maya Lin's graceful, abstract monument touches people in a direct and profound way. While designing the project for a class during her senior year at Yale, Lin "always thought of the individual visiting it, the one-on-one experience," she recalled in a recent phone interview. She has been surprised, though, at how the memorial has become part of the nation's collective consciousness, a touchstone for people of widely different backgrounds and political views.

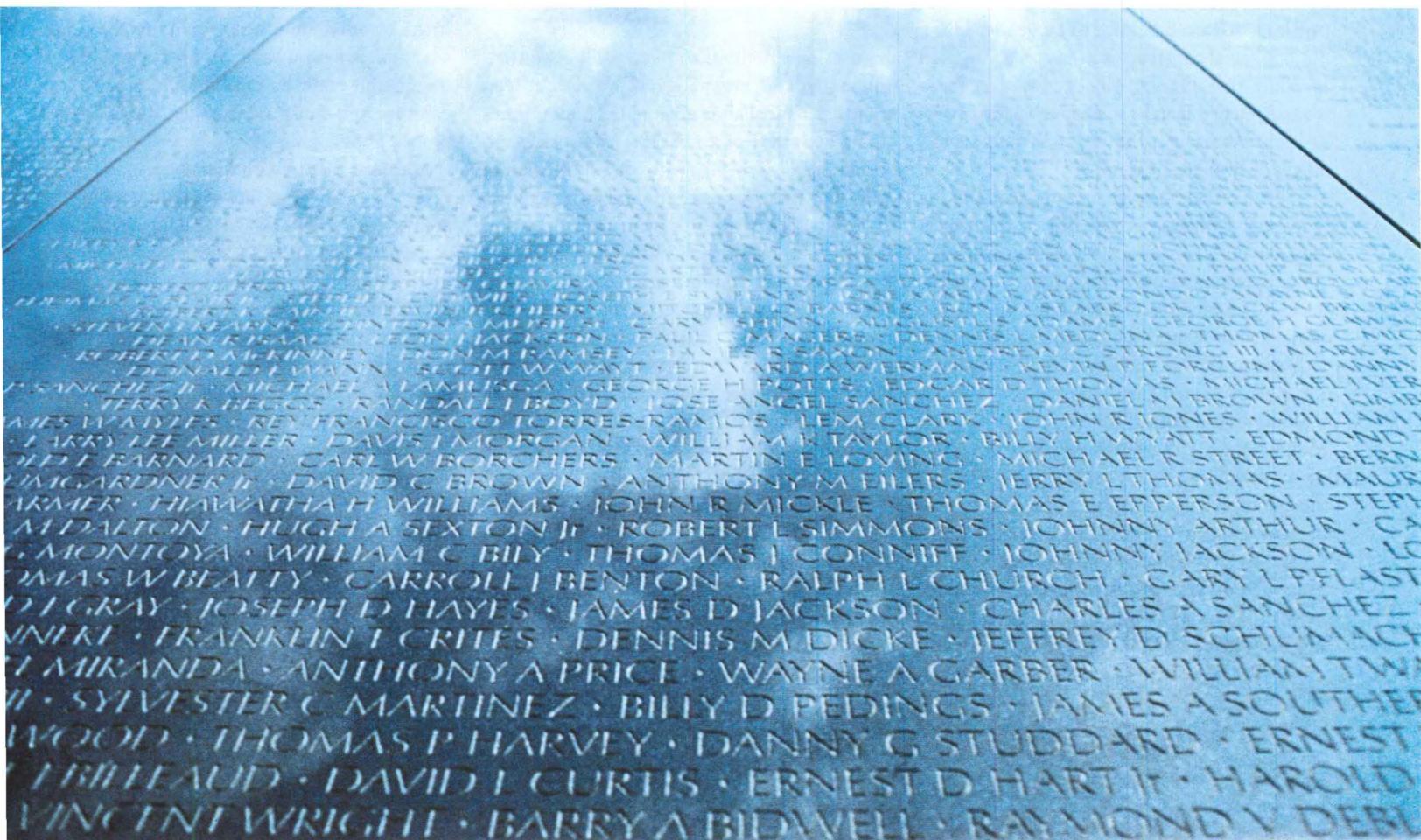
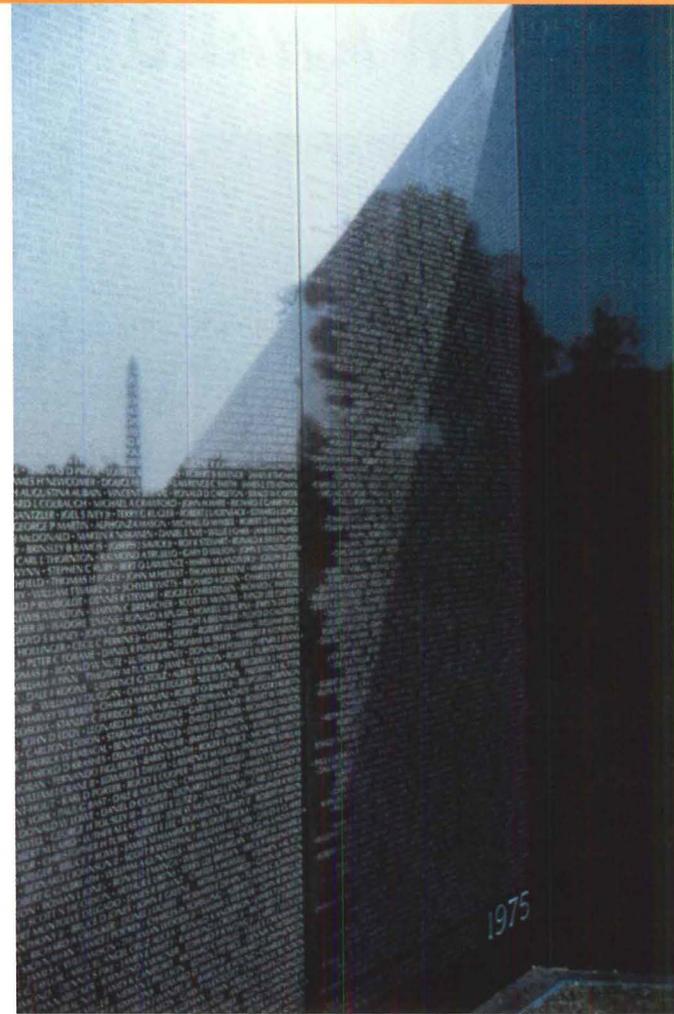
The project's early critics called it a scar, and in her 2000 book, *Boundaries*, Lin herself wrote, "I imagined taking a knife and cutting into the earth, opening it up, an initial violence and pain that in time would heal." But she now explains, "It is not a scar, but an interface, a thin boundary line, between two worlds." The monument's polished black granite surface, into which the names of 57,000 dead or missing Americans are engraved, reflects the images of the people who approach it. The living see themselves in the names of the fallen. "We can't enter that world. We have to turn around and go back to the light," she says.

Listing all the names of those lost in the war was required by



the rules of the design competition (which attracted more than 1,400 entries). One of Lin's seemingly odd, but ultimately key, decisions was to list the names not alphabetically, but in the order in which they died. This strategy requires visitors to consult a map to locate the name of a loved one, but places the fallen among those they died with—a powerful mnemonic for veterans who see the names of comrades together.

Today the memorial seems so logical, such a natural fit with its setting. But it was a radical design in 1982, when most people thought of monuments as figurative sculptures or vertical (read phallic) markers. Lin's scheme changed our basic notion of what a memorial is, speaking a language everyone understands. *Clifford Pearson*



FIRM AWARD



Leers Weinzapfel Associates takes the firm award, a first for women architects

While it might be sexist to call attention to the fact that this year's AIA Firm Award winner—Leers Weinzapfel Associates—will be the first woman-owned firm in history to win AIA's top firm award, there's no doubt it's timely. A number of architecture magazines recently featured stories on the role of women in architecture [see "Not Only Zaha," December 2006, *RECORD*, page 58]. Clearly, honoring a partnership like the Leers Weinzapfel duo is cause for celebration in a profession that seeks to loosen the knot on the tie of the old boys' network.

James Stewart Polshek, FAIA, wrote in his letter of recommendation in the award submission: "It would be nice to be gender blind, but our social construct is not yet reconfigured to allow that luxury. The fact is that for a woman-owned firm to succeed as spectacularly as Leers Weinzapfel did required persistence, diligence, and inventiveness."

Polshek's choice of words couldn't be more apt. *Diligence* is revealed in the team's dogged willingness over their 25-year history to undertake the design of many unsexy, utilitarian structures, which served as training grounds to refine their problem-solving and design acumen and weather the ups and downs of the construction market. As well, their *persistence* in working as Modernists in Boston's conservative, tradition-bound design culture has served them well, learning as they have to use historic buildings as inspiration for binding the past to the present in many of their designs. Lastly, *inventiveness* resides in their honesty about who they are; rather than making a case for a signature style, the firm tailors its design strategy to the challenges implicit in each project.

Andrea Leers, FAIA, and Jane Weinzapfel, FAIA, opened their Boston-based practice in 1982 in a converted warehouse in

Boston's Fort Point Channel district, which served as their home for a quarter century. They've recently moved the 24-person firm to a light-filled, open studio space in Chinatown.

This is a partnership rooted in a long-term friendship. Even after a career's span of working as partners, Leers and Weinzapfel are not only best friends, but find their professional relationship continues to grow. From the outset, they have worked together, alternating from project to project, with one serving as the other's assistant principal, allowing clients to

PERSISTENCE, DILIGENCE, AND INVENTIVENESS HAVE DRIVEN THEIR SUCCESS.

have a single point of contact, while encouraging a dynamic exchange of ideas between them. This collaborative pattern continues today with new partners, Joe Pryse, AIA, and Josiah Stevenson, AIA, who joined the firm in 1989 and 1986, respectively, and became principals in 1997. With four principals managing work, each project receives the close guidance of two partners from inception to completion.

Sketches, computer renderings, and models of various scales reside in the studio pin-up areas and project meeting spaces of the firm. "Although we are trained to visualize space before it exists," says Weinzapfel, "we use many methods to describe the evolving spaces to ourselves and to each other in the studio." Together in the studio, they develop a shared understanding of the specific project, its spaces, enclosure, and site integration. This process pays off: "As our clients are exposed to the results of these studies and to our shared project vocabulary, they become adept at visualizing the spaces and the ideas behind the emerging designs. We are lucky to have clients who have become

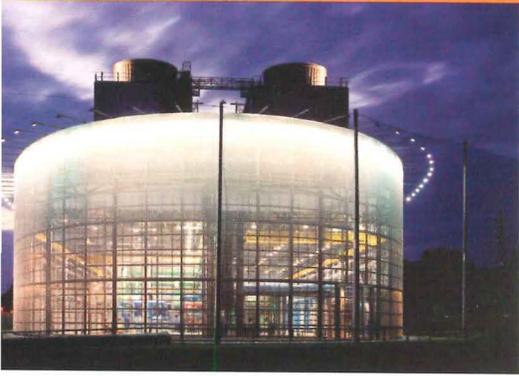
sophisticated architectural aficionados this way," Weinzapfel explains.

In the Leers Weinzapfel studio, design advances through office- and teamwide charrettes, where frequent brainstorming sessions and daily conversations gauge progress and ensure that results reflect a distillation of the experience of all members of the team. Once a year, the staff gathers to view and analyze the work of the past year; often an outside colleague joins the discussion. This process-oriented architecture encourages a shared vision of outcomes. As stated in the award entry materials: "The design team is dedicated to a 'signature process' rather than a 'signature design.'"

The jurors for the award cited the firm's resourcefulness; sensitivity to the client, site, and program; and its high standards of design and craft. Its careful handling of often complex and constrained urban sites also won praise. These qualities can be seen in many of the projects pictured on these pages.

"Their work lies at the intersection of architecture, urban design, and infrastructure," comments David B. Greenbaum, FAIA, chair of the AIA Committee on the Design Firm Award Jury Task Force, in his nomination letter. The firm's design for a chiller plant at the University of Pennsylvania's Gateway Complex in Philadelphia illustrates these qualities. The program combines a 70,000-square-foot, 500,000-ton watercooler with sports fields, locker rooms, press box, and seating, executed with stunning clarity, where mechanical activities are visible through a skin of perforated metal. The plant's curvaceous form reflects the contours of nearby rivers and roads and creates a new entry for the campus.

Leers Weinzapfel's projects reflect a blending of different eras and styles of design. The School of Architecture and Planning, located in MIT's main group of Neoclassical



University of Pennsylvania Gateway Complex, Philadelphia, 2000.

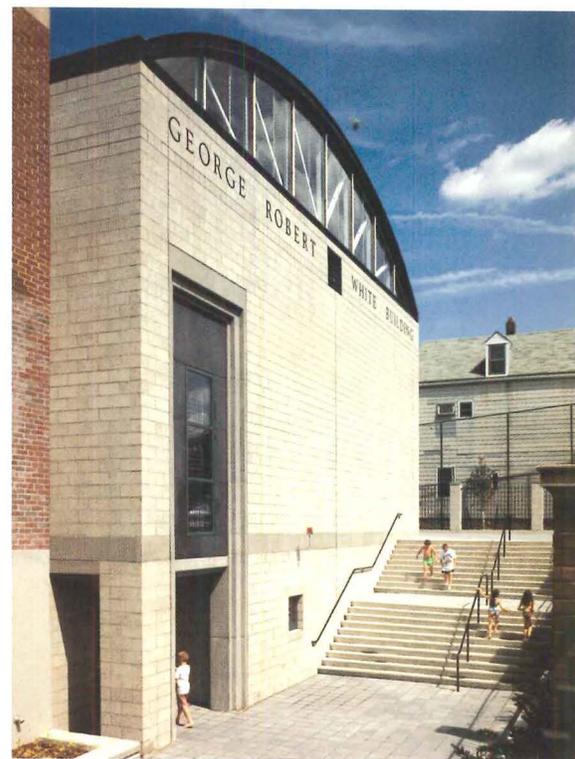


Princeton University Chilled Water Plant expansion, Princeton, N.J., 2005.

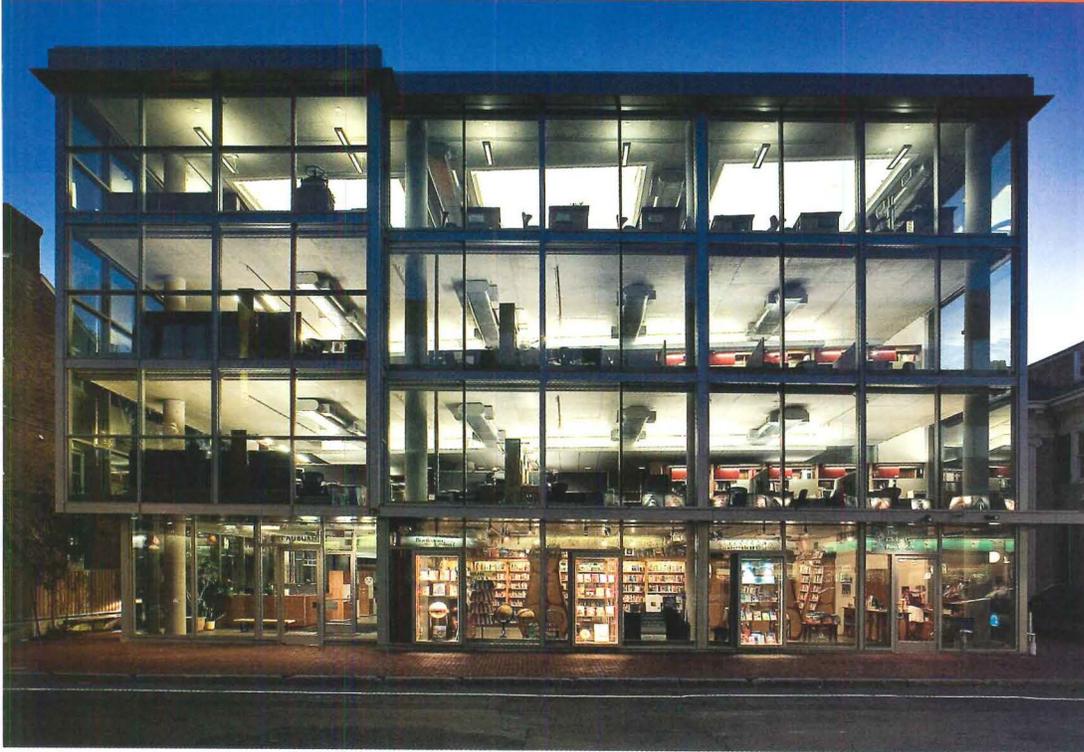


Courtroom at Fenton Judicial Center, Lawrence, Mass., 1998.

Blue Hill Avenue Youth Development Center, Boston, 1995.

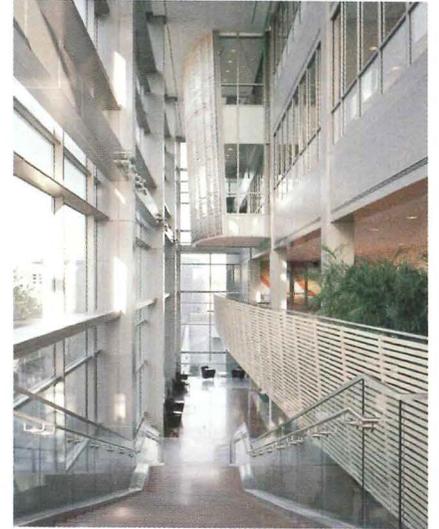


George R. White Gymnasium and Teen Center, South Boston, 1991.

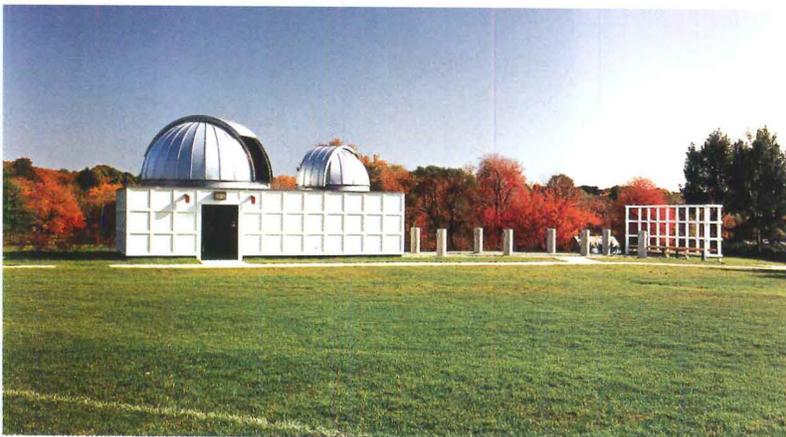


Harvard University Library Services Building, Cambridge, Mass., 2006.

University of Cincinnati University Pavilion, Cincinnati, 2004.

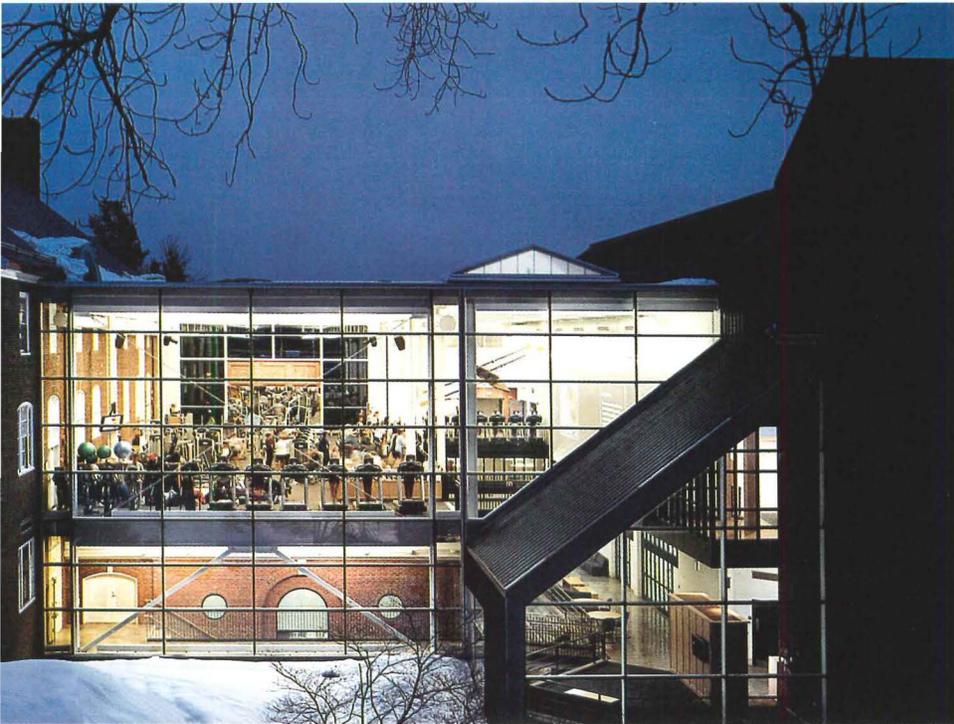


University of Cincinnati University Pavilion, Cincinnati, 2004.



Milton Academy Ayer Observatory, Milton, Mass., 1992.





Smith College Fitness Center, Northampton, Mass., 2004.

MIT School of Architecture and Planning, Cambridge, Mass., 1997–2004.



buildings in Cambridge, Massachusetts, was originally scattered in 12 different buildings. These were reunited into one Modern insertion on the attic floor encircling a historic rotunda, tying together the disparate program elements and, in the same gesture, creating a new heart of the architecture school.

Leers Weinzapfel's design style is typically spare, even austere, but the architects always find ways to celebrate materials and color. Consider the Youth Development Center, which

PROJECTS FEATURE A BLEND OF DIFFERENT ERAS AND STYLES OF DESIGN.

provides a new recreation, social, and learning center in a densely populated and multiracial urban neighborhood of Boston. Reusing an abandoned ice rink, the architects created a playful new entry, where a series of colorful elements, including a yellow steel canopy, wrap around a slender red steel column topped with a beacon of light. This simple yet elegant solution creates a lively community space on a limited budget.

Leers takes inspiration from Japanese architecture, traveling annually to Japan to further her lifelong interest in its culture and architecture. "Over the years, I have absorbed the Japanese aesthetic of construction, appreciation of the sensual quality of materials, the subtlety of light, the value of proportion into my own way of seeing architecture," she comments.

This influence is evident in many of her projects, showing a Japanese penchant for synthesizing building and landscape. For example, the Judicial Center in Lawrence, Massachusetts, an important civic center at the heart of the city, uses its location on a canal to good advantage. In one gesture, a large porch serves as a covered passageway to the entrance, a public promenade along an adjacent park, and sunshade for the south-facing public hall.

Despite Leers Weinzapfel Associates' national reputation—the firm has won almost 50 national and regional design awards—its mostly institutional work is predominantly located in New England, with about 25 percent in the Boston area. But it is spreading its influence outward. "It is great to seek the opportunity to challenge ourselves with new client viewpoints, environments, climates, and building methods," Weinzapfel reflects. *Jane F. Kolleeny*

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American Institute of Architects

Winners

and Jurors

2007

WINNERS

Architecture (page 130)

Meinel Optical Sciences Expansion: *Richard + Bauer*; **University of California, Merced Central Plant:** *Skidmore, Owings & Merrill*; **Spencertown House:** *Thomas Phifer and Partners*; **Memorial to the Murdered Jews of Europe:** *Eisenman Architects*; **University of Michigan, Biomedical Science Research Building:** *Polshak Partnership Architects*; **School of Art and Art History, University of Iowa:** *Steven Holl Architects*; **Dr. Theodore T. Alexander, Jr. Science Center School:** *Morphosis*; **Canada's National Ballet School: Project Grand Jeté, Stage 1: The Jarvis Street Campus:** *Kuwabara Payne McKenna Blumberg Architects/Goldsmith Borgal & Company Limited*; **Palo Verde Library/Maryvale Community Center:** *Gould Evans Associates/Wendell Burnette Architects*; **Solar Umbrella House:** *Pugh + Scarpa*; **World Birding Center Headquarters:** *Lake/Flato Architects*

Interiors (page 138)

Louis Vuitton Landmark: *Peter Marino Architect*; associate architect: *dcmstudios (formerly Denton Corker Marshall, Hong Kong)*; **Better Business Bureau Heartland Office:** *Randy Brown Architects*; **Bloomberg LP Headquarters:** *STUDIOS Architecture*; **Haworth Chicago Showroom:** *Perkins + Will/Eva Maddox Branded Environments*; **ImageNet, Carrollton:** *Elliott + Associates Architects*; **The Modern:** *Bentel & Bentel*; **Endeavor Talent Agency:** *NMDA*; associate architect: *Interior Architects*; **St. Mary of the Springs:**

Nagle Hartray Danker Kagan McKay Penney Architects; **The Bay of San Francisco:** *Leddy Maytum Stacy Architects*; **Pierson and Davenport Colleges:** *Kieran Timberlake Associates*; **Top of the Rock at Rockefeller Center:** *Gabellini Sheppard Associates*; associate architect: *SLCE Architects*

Urban Design (page 149)

Historic Third Ward Riverwalk: *Engberg Anderson Design Partnership*; **Crown Properties:** *Ehrenkrantz Eckstut and Kuhn Architects*; **New York Stock Exchange Financial District Streetscapes and Security:** *Rogers Marvel Architects*; **Boston's Newest Smart Growth Corridor: A Collaborative Vision for the Fairmont/Indigo Line:** *Goody Clancy*; **A Balanced Vision Plan for the Trinity River Corridor:** *Chan Krieger Sieniewicz*; **Zoning, Urban Form, and Civic Identity: The Future of Pittsburgh's Hillside:** *Perkins Eastman*; **The Carneros Inn:** *William Rawn Associates*; associate architects: *Caspar Mol Architecture and Planning*; *Persinger Architects (formerly Persinger Hale Architects)*; *RMW architecture & interiors*; *Les Girouard*

25 Year Award (page 158)

Vietnam Veterans Memorial: *Maya Lin Studio*

Firm of the Year (page 160)

Leers Weinzapfel Associates

Gold Medal (page 166)

Edward Larrabee Barnes, FAIA

JURORS



Architecture

Jury Chair

Richard Logan, AIA

A principal at Gensler, Logan has been with the firm for 29 years and is currently based in its

Atlanta office. His clients include the World Bank, HUD, General Motors, Arnold & Porter, and King & Spalding. Logan is a graduate of the University of Texas and the University of Pennsylvania.

Elizabeth (Zibby) Ericson, FAIA, Boston; **Kristal Peters, AIA, AS Representative, Howard University, Washington, D.C.;** **Philip Freelon, FAIA, Research Triangle Park;** **Thomas W. Kundig, FAIA, Seattle;** **Nicole Ludacka, Assoc. AIA, Omaha;** **Henry Siegel, FAIA, Emeryville, California;** **Victor Trahan III, FAIA, Baton Rouge, Louisiana;** **Jane Werner, Client Representative, Pittsburgh**



Interiors

Jury Chair

Ann Beha, FAIA

Principal of Boston-based Ann Beha Architects, her projects include the renovation and

expansion of the Portland Art Museum, the New Britain Museum of American Art, and renovations and expansion of the Taft Museum of Art. She is a graduate of Wellesley College and of MIT, and was later a Loeb Fellow at the Harvard Graduate School of Design.

Hank Hildebrandt, AIA, Cincinnati; **D.B. Kim, White Plains, New York;** **James Prendergast, AIA, Chicago;** **Ken Wilson, AIA, Washington, D.C.**



Urban Design

Jury Chair

J. Max Bond, Jr., FAIA

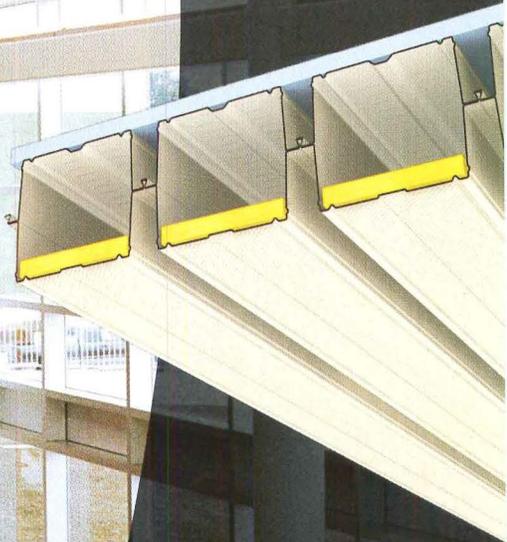
In addition to his role as partner of New York City-based Davis Brody Bond, Bond has long been involved with community initiatives as well as teaching. Projects include the Birmingham Civil Rights Museum, the Martin Luther King, Jr. Center for Nonviolent Social Change, and laboratories at Harvard, Columbia, and Northwestern Universities. He is a graduate of Harvard College and the Harvard Graduate School of Design.

Shalom S. Baranes, FAIA, Washington, D.C.; **Jean Carroon, AIA, Boston;** **David Crossley, Houston;** **Richard (Dick) Farley, FAIA, Denver;** **Mark Graham, AIA, Rancho Cucamonga, California**

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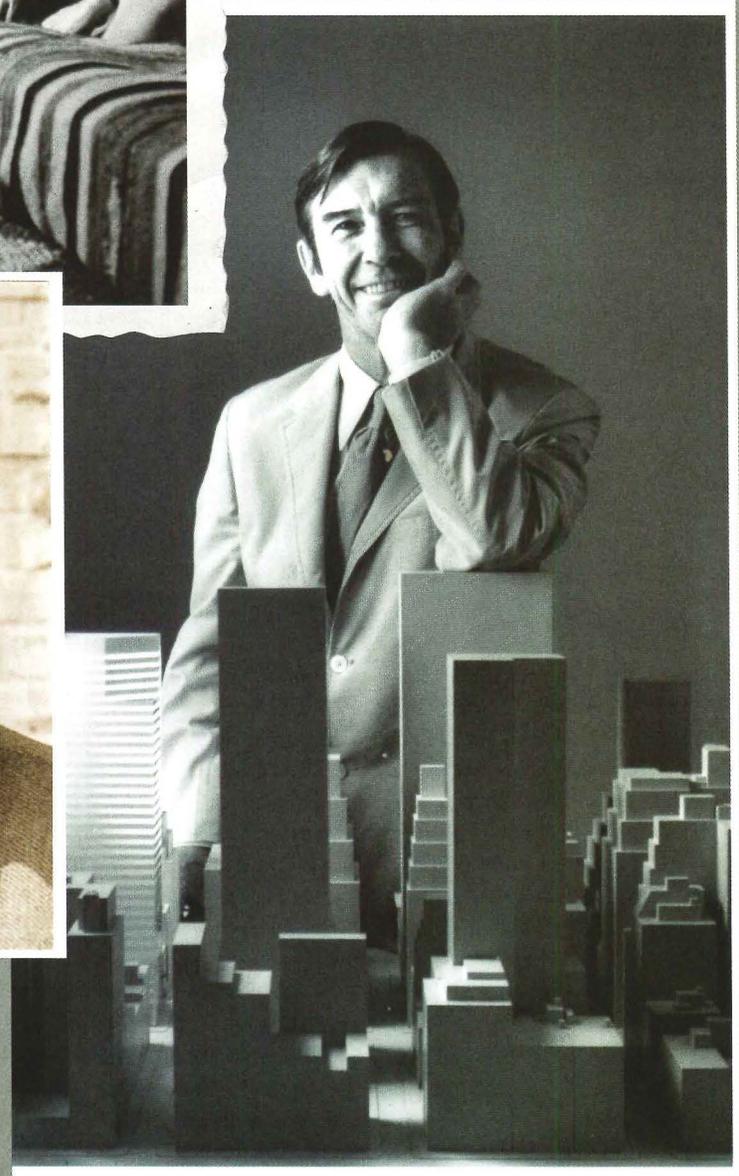
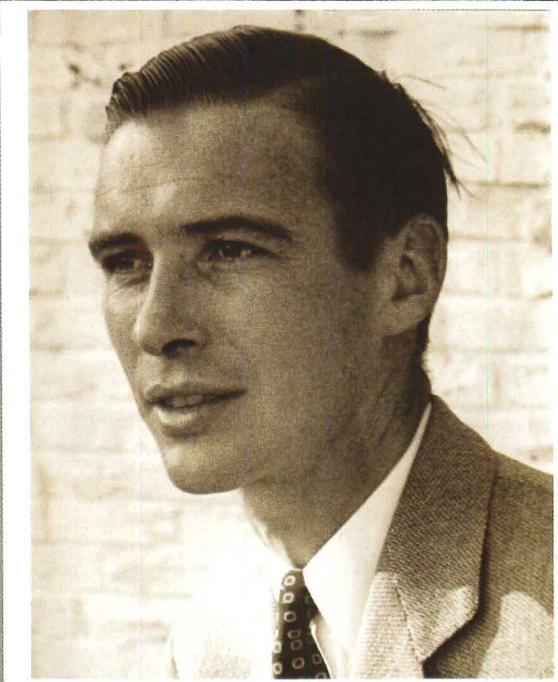
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Ed Barnes et al. at Marcel Breuer's house in New Canaan, Connecticut, circa 1947 (left). Shown (left to right): unidentified man (possibly Breuer), Joan McVitty, Barnes, Alexander Calder, Connie Breuer, Mary Barnes. Ed Barnes, circa 1942, at Harvard (below left). Barnes in New York City, 1984 (below).



GOLD MEDAL:

Edward Larrabee Barnes

Although the esteemed Modernist architect died in 2004, his legacy survives —for the most part intact

By Fred A. Bernstein

Edward Larrabee Barnes, FAIA, a seminal Modernist architect for nearly 50 years, died in 2004. But in 2007, Barnes is as big a presence as ever. In February, the AIA presented him with the 2007 Gold Medal, one of the few times the high honor has been bestowed posthumously. At its award ceremony, held in Washington, D.C., in February, Henry N. Cobb, FAIA, of Pei Cobb Freed, called him “arguably the most accomplished and influential” of a generation of architects trained by Gropius and Breuer at Harvard, “who went on to give Modernism a specifically American voice.”

While Barnes’s oeuvre, recipient of an AIA Firm Award in 1980 and a 25 Year Award in 1994, is getting a second look, some of his buildings are enjoying second incarnations—with the help of sensitive renovations. A number of architects are modifying his buildings—some of which are added on with extreme deference (such as Herzog & de Meuron’s 2004 expansion of the 1971 Walker Art Center in Minneapolis), or by making surgical incisions (such as Michael Maltzan, FAIA’s current reworking of the 1990 Armand Hammer Museum of Art and Cultural Center at UCLA). Given how well Barnes’s body of work encapsulated the architecture of the late 20th century, what happens to it now may predict the fate of a generation of buildings.

In retrospect, Barnes appears to be a kind of Everyman—the architect in the gray flannel suit. And yet he was hardly content to blend into the masonry. For one thing, he remained active in the profession even after retiring in 1994; living in Cambridge, Massachusetts, he attended crits at Harvard and participated in discussions outside the academy nearly until his death at 89. (Barnes urged Harry Parker III—with whom he had worked on the Dallas Art Museum, completed in 1984—to choose Herzog & de Meuron to design the new de Young Museum in San Francisco, which opened in 2005. Barnes had met Herzog & de Meuron when they consulted him about the Walker.) Then, too, he was charming with clients and inspiring with employees, leaving a large cadre of loyalists. They include Toshiko Mori, FAIA, chair of the architecture department at Harvard’s Graduate School of Design, who worked for Barnes in the 1970s. A tireless supporter of Barnes, Mori organized a symposium at the Museum of Modern Art (MoMA) in 2005, at which Jacques

Fred A. Bernstein, a regular contributor on architecture and design to The New York Times, spent a day touring Westchester County with Barnes in 2001.

Herzog, Charles Gwathmey, FAIA (another Barnes office alum), and the critic Robert Campbell, FAIA, spoke of the importance of Barnes’s work. And, along with more than 100 other former Barnes employees, Mori helped lobby for the Gold Medal. Few deceased architects could expect such an outpouring of support, which, to Mori, is merely about repaying a mentor who “always helped architects he believed in.”

But it is Barnes’s buildings, not the words spoken about them, that must stand the test of time. In that regard, it is ironic that his best buildings may be the ones seen by the fewest people. Many of the houses that Barnes designed early in his career—after a stint designing modular-

SOME OF BARNES’S BUILDINGS ARE ENJOYING SECOND INCARNATIONS—WITH THE HELP OF SENSITIVE RENOVATIONS.

home prototypes in Los Angeles right after World War II—still stand, but they are nearly invisible on their wooded lots. His Haystack Mountain School of Crafts on Deer Isle, Maine (1962), a series of shingled, shedlike buildings tumbling down a steep hill, is perfectly preserved, but, although it won the AIA 25 Year Award in 1994, it is so far off the beaten track that visitors are rare. Later, in 1974, Barnes designed the Heckscher House in Mount Desert Island, Maine, as a collection of small salt boxes forming a domestic village.

The buildings people are most likely to see are Barnes’s college campuses, including the State University of New York at Purchase, for which he began the master plan in 1967; his Manhattan office buildings, of which IBM, at 57th Street and Madison Avenue, is the hardest to avoid; and his museums, such as the Walker Art Center, the Hammer, the Dallas Art Museum, and the Sarah M. Scaife Gallery at Carnegie Institute in Pittsburgh (1974), the last of which Richard Gluckman, FAIA, has gently updated in recent years.

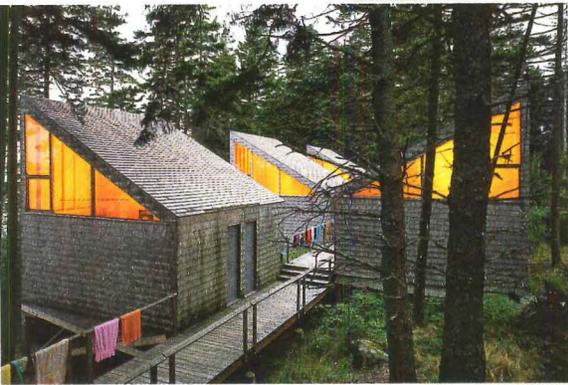
Also prominent is Barnes’s Asia Society and Museum (1981), on Park Avenue in Manhattan, which was largely reconfigured by Voorsanger Architects in 2001. A nasty spat ensued, and Bart Voorsanger, FAIA, still complains that Barnes secretly tried to block the renovation. (Barnes loyalists say that he was appalled by Voorsanger’s plan to rework nearly every aspect of the museum, leaving only its exterior intact.)

In the standard account of Barnes’s career, the best buildings



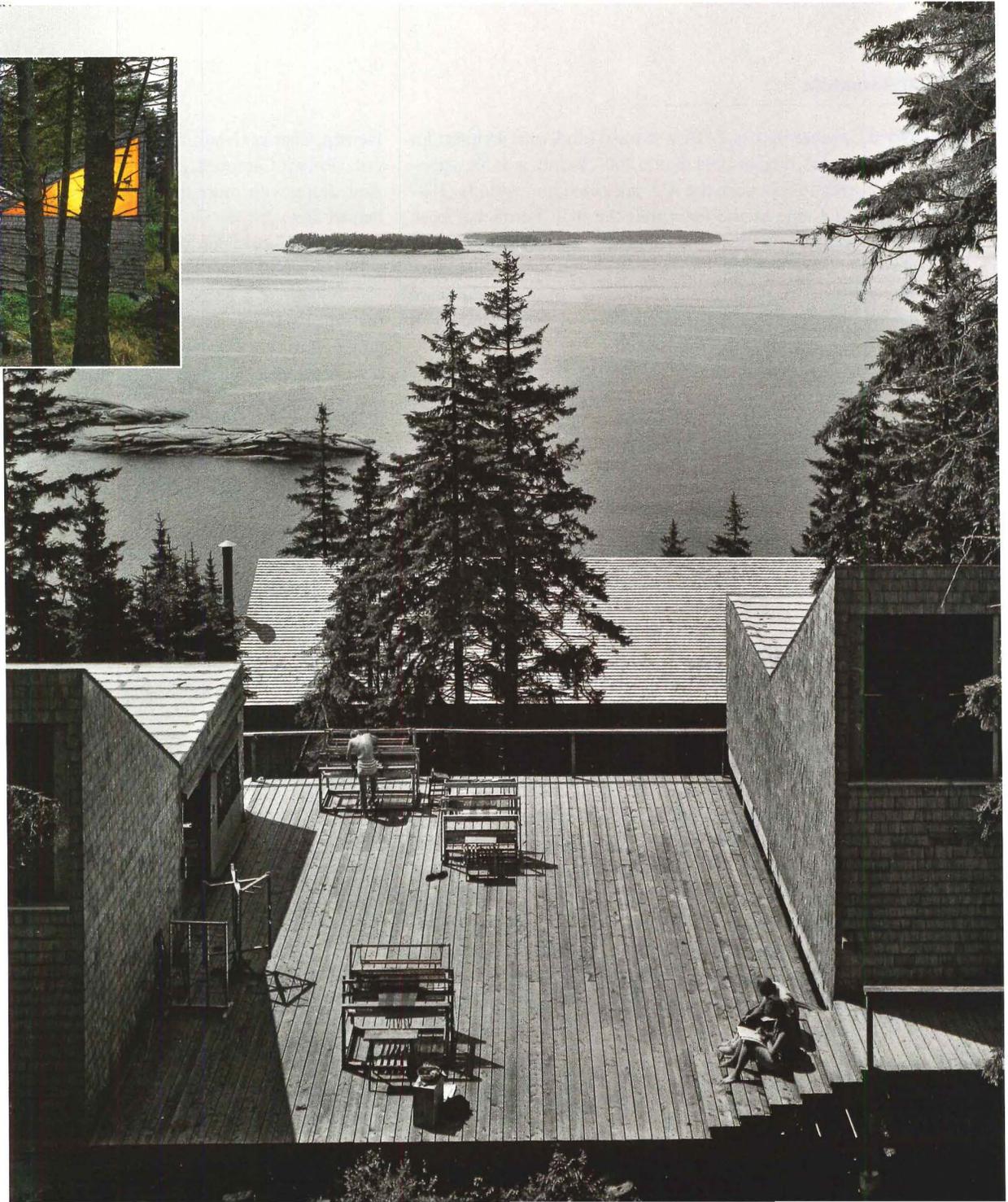
**Cowles House,
Wayzata, Minnesota
1962**

The stark white Modern forms evoke the vernacular look of simple rural outbuildings. The complex is grouped around a courtyard.



**Haystack Mountain
School of Crafts,
Deer Isle, Maine
1962**

The single-pitched roofs and shingle-clad geometric forms for the workshops and living accommodations of this summer school won Barnes the AIA 25 Year Award in 1994. An example of regional Modernism, its simple, shingled structures influenced a number of architects over the years.





were the early ones. Born in Chicago in 1915 (his father, Cecil Barnes, was a lawyer; his mother, Margaret Ayer Barnes, a Pulitzer Prize-winning novelist), the young Barnes studied English at Harvard, then spent a year teaching at Milton Academy in Massachusetts. Visits to houses by Gropius and Breuer in nearby Lincoln persuaded Barnes to return to Harvard to study architecture—where he graduated in 1942. By 1949, he had established his own firm in Manhattan. With his wife, Mary, herself an architect, running the office, Barnes had his greatest successes with buildings small enough to fit in simple, crisp containers. Barnes's son, John, now the campus planner for the University of California at Santa Cruz, remembers his father working at the family's home in Mount Kisco, New York, on weekends with a T-square and parallel rule, creating pencil drawings that his buildings then closely emulated in their clean-lined simplicity. Among the noteworthy works to emerge from that period is the Cowles House in Wayzata, Minnesota, of 1962.

Then came a series of institutional buildings in which the same forms were enlarged just enough to accommodate the public, without losing their crystalline clarity. Their overriding characteristic, as Mori sees it, is that they adapted the tropes of the International Style to American tastes. "The proportions of his building, and the sequences, were much more generous than European prototypes," says Mori, adding, "The buildings have an American flavor—often a regional flavor based on farm architecture," without, she notes, being too literal or Postmodern.

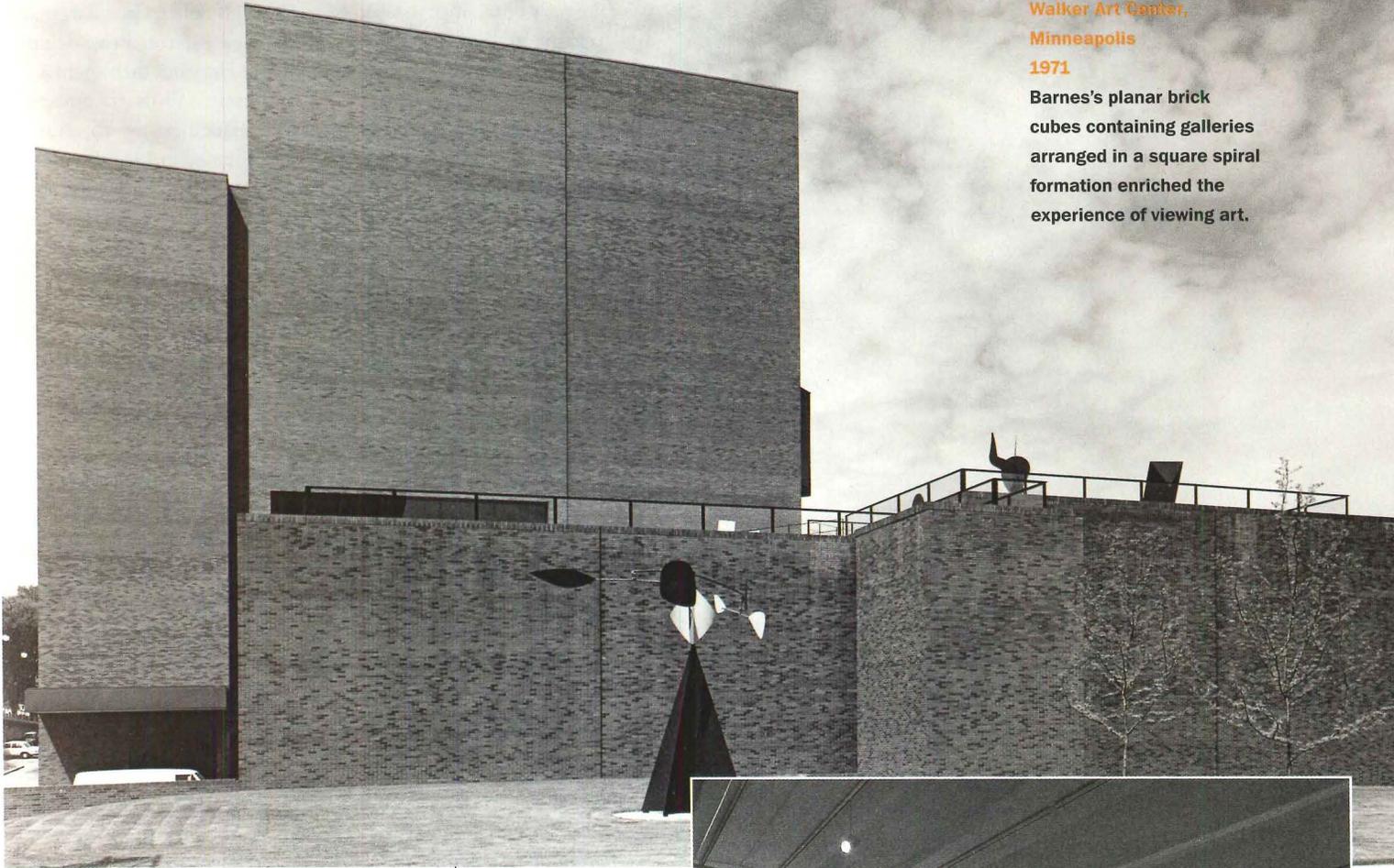
But the down-home approach didn't survive the trip to Manhattan intact. Barnes's granite-faced IBM tower, despite its death-defying cantilever, is considered blandly unattractive. (Architect Christian de Portzamparc once described the faceted surface of his LVMH Tower, which opened in 1999 across 57th Street, as designed to ensure that no one had to look at a full-on reflection of Barnes's building.) Barnes's metal-clad 599 Lexington (1986) is a bit freer, but still forgettable. The Equitable Center (1986), a few blocks west on Seventh Avenue, is a half-hearted attempt at Postmodernism. Barnes seemed to hint at his reasons in a 2001 interview: "In the city, you have to respond to context, which is a complicated thing." He preferred creating pure forms that could stand alone in nature.

But the Manhattan skyscrapers—because they are both huge and relatively new—remain as Barnes designed them. By contrast, his earlier institutional buildings, many approaching the half-century mark, are being transformed. And each of the projects, involving an attempt to rethink Barnes's architecture, forces an examination of what that architecture meant. First came the addition to his Walker Art Center, where Jacques Herzog and Pierre de Meuron took their cues from the neatly stacked galleries of Barnes's original building. For the Swiss architects, the issue was relating to a building that seemed formally complete, since Barnes's scheme was based on the idea of ramps

**Heckscher House,
Mount Desert Island,
Maine
1974**

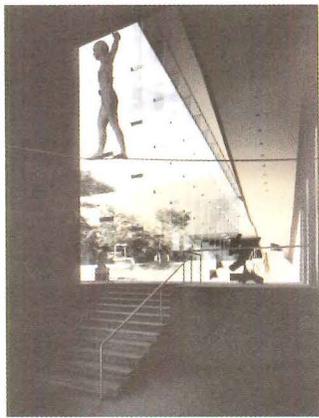
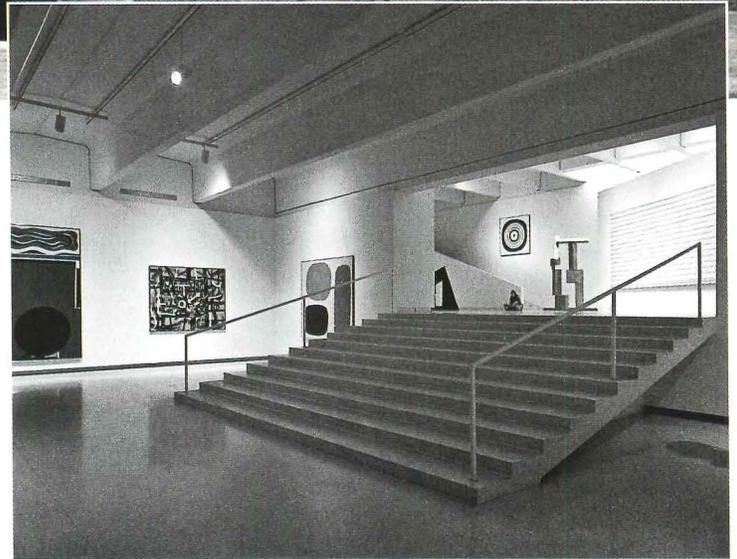
Not far from Haystack Mountain School of Crafts, a family with grown children decided they needed a vacation

house that afforded privacy to the inhabitants. The four-building compound expands on the Haystack school vocabulary, resembling a Maine fishing village in its scale and shingled roofs and siding.



**Walker Art Center,
Minneapolis
1971**

Barnes's planar brick cubes containing galleries arranged in a square spiral formation enriched the experience of viewing art.



**Sarah M. Scaife Gallery,
Carnegie Institute,
Pittsburgh
1974**

An addition became famous for its glass-mullioned wall (left) and light scoops in the galleries (below).



**Walker Art Center
Expansion,
Minneapolis
2005**

Herzog & de Meuron added a discrete (but not discreet) addition to Barnes's brick museum to provide more galleries, an auditorium, and a

café/restaurant. The new structure orients the museum to the main thoroughfare and is clad in crumpled aluminum panels. Its deformed trapezoidal structure links to the orthogonal original building to the north.



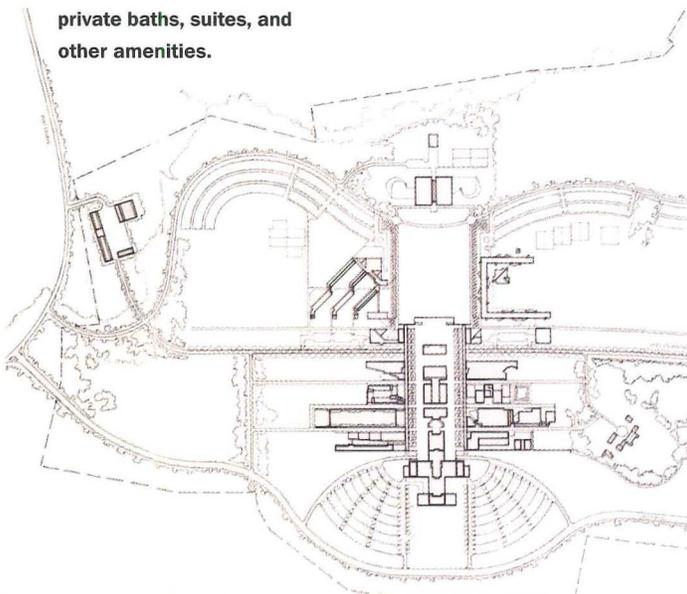
**Performing Arts Center,
Purchase College,
State University of New York,
Purchase, New York
1981**

**Barnes designed both the
master plan and the center-
piece performance hall
for the brown-brick campus.**



**Student dormitory,
Purchase College,
State University of New York,
Purchase, New York
2006**

**Einhorn Yaffee Prescott's
dormitory has been
officially named "Fort
Awesome" by the students,
who are fond of its
private baths, suites, and
other amenities.**



spiraling down the inside of a rectangular tower. Herzog & de Meuron hardly altered the existing structure, but instead added a second tower covered in an eccentrically perforated metal skin. A low circulation link slips behind the brick surface of Barnes's building. In Mori's view, the addition is an effort to "recontextualize the Walker compound by working on urban and landscape design plus the siting." In fact, the addition gives the museum two entrances, creating circulatory and conceptual redundancies. But Herzog & de Meuron did Barnes a big favor by creating a kind of fun-house version of his building. "It's a productive dialogue between the two types of architecture," says Mori, who adds, "Jacques and Pierre ended up making Ed's building look better."

Now the list of architects modifying Barnes buildings includes Architecture Research Office (ARO) of New York City, which has just completed an addition to his Packard Hall at Colorado College (1976), in Colorado Springs, and Michael Maltzan in Los Angeles, who, as noted, is reworking the Hammer Museum. They and the other architects reconfiguring Barnes's buildings for the 21st century say their goal is to burnish his legacy, not bury it. With the Packard Hall addition, ARO may have also made Barnes look better, though the firm's addition doesn't pull away from the existing building. "Our goal was always to make a new totality—not to have a little glass link to an addition," says ARO principal Adam Yarinsky, FAIA.

Barnes's Packard Hall consists of three articulated volumes—a 300-seat concert hall, a stack of studio spaces for art students, and a row of classrooms bordering a circulation spine—arranged around a courtyard. "The building has a very clear diagram," says Yarinsky, noting, "It's a modest building, with a timeless quality to it." When the school outgrew the building, ARO decided to add 10,000 square feet, containing music teaching spaces, rehearsal rooms, and an entry foyer for the concert hall—allowing the music department to surrender more of the original building to the visual artists. "We got hired," Yarinsky offers, "because the school thought we could work to decipher the underlying rationale of the building and then try to elaborate it." ARO covered the addition in preweathered zinc panels that would relate to the color of Barnes's stucco. The addition is playful in ways that the original buildings aren't: Inside, a wide stairway becomes a kind of stepped gathering place; outside, the zinc panels angle out as if to form permanent shutters. But the new vitality seems to represent the elaboration, not the negation, of Barnes's vision.

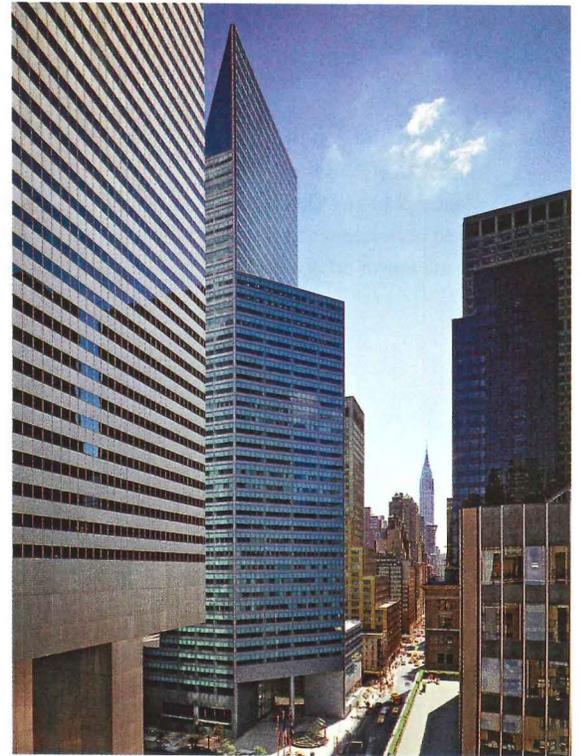
Things are very different in California, where Michael Maltzan, working with graphic designer Bruce Mau and landscape designer Petra Blaise—neither one a shrinking violet—has proposed redesigning the Hammer Museum, which was built by the oil magnate Armand Hammer to house his personal collection and is now affiliated with UCLA. (Maltzan's new theater within the museum was completed this year;





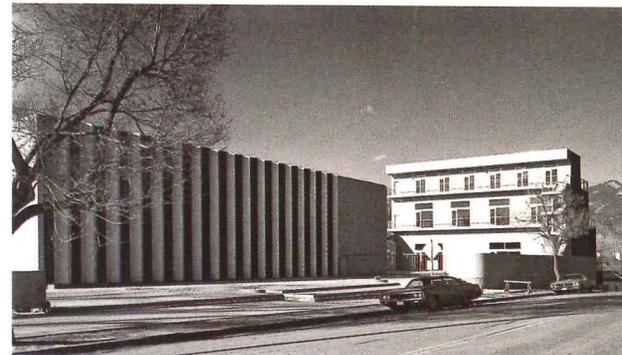
**590 Madison (formerly IBM),
New York City
1983**

The northeast corner of the granite-clad tower is carved out at the base, and offices are cantilevered over the sidewalk.



**599 Lexington Avenue,
New York City
1986**

Barnes sliced off the corner of the glass and aluminum tower at the base to create a plaza.



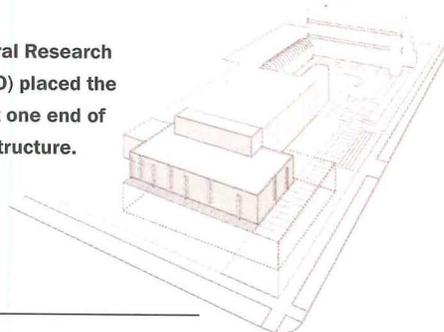
**Packard Hall,
Colorado College, Colorado
Springs, Colorado
1976**

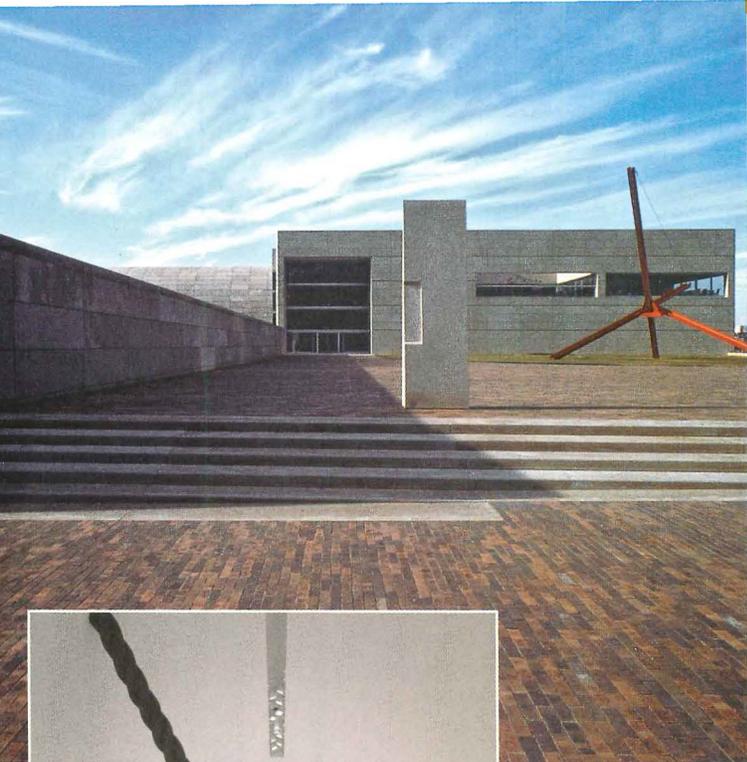
The music and art building includes a concert hall (foreground), linked to a studio tower by a skylit gallery (not shown).



**Packard Hall Addition,
Colorado College,
Colorado Springs,
Colorado
2005**

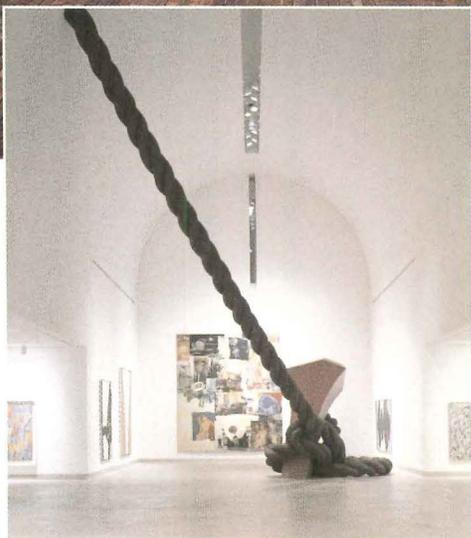
Architectural Research Office (ARO) placed the addition at one end of Barnes's structure.





Dallas Museum of Art, Dallas 1983

The museum, clad in limestone, is designed to avoid bulky masses (above). Inside, visitors encounter a large, vaulted gallery (left).



Armand Hammer Museum of Art and Cultural Center, Los Angeles 1990

The gray-and-white marble museum is trapezoidal in shape.



Auditorium, Armand Hammer Museum of Art and Cultural Center, Los Angeles 2007

Michael Maltzan is currently renovating the museum; he just finished the auditorium.



fund-raising is under way for future phases.) Barnes's building, a stunted box wrapped in gray-and-white-striped marble, is blank and impervious; inside, a confusing circulation system featuring three separate entries upstages the central courtyard that should have been the building's focus.

The planned renovation alters the museum's exterior, with glass-fronted entries eroding Barnes's stone facing and large, translucent panels providing bold signage at the corners of the building. In the renderings Maltzan presented at the 2005 MoMA symposium, it was hard to see Barnes's architecture as anything but a foil, with Maltzan cutting away like Gordon Matta-Clark chainsawing through an abandoned tenement. But, according to Maltzan, he is working to preserve the central element of Barnes's design, the courtyard, and leaves what he calls Barnes's "very successful galleries" untouched. "Barnes really encouraged us to take it on," says Maltzan. "He was a complete Modernist, somebody who started with the idea that a building springs from function, and when the function changes, the building has to change as well. It was amazing."

Something at least as radical—but not nearly as thoughtful—is happening in Purchase, New York. In the late 1960s, Barnes was the master planner for the State University of New York at Purchase, in rural Westchester County. His scheme involved locating a dozen buildings around a gigantic, raised plaza, set in the center of the college's 500 bucolic acres. At the west end of the plaza is the college's tallest building—the performing arts center (1981), designed by Barnes himself. Barnes left the east end of the plaza open to views of the countryside, making the campus a quadrangle in which nature provided the fourth wall.

Not everyone liked the campus's endless expanses of brown brick. "It's an exercise in sensory deprivation," said John Morris Dixon, FAIA, the editor in chief of *Progressive Architecture* from 1972 to 1996.

But Barnes made huge tree-filled allées part of his scheme, and rather than design the entire campus himself, he enlisted other architects, notably Philip Johnson and John Burgee; Gwathmey Siegel; Paul Rudolph, FAIA; Gunnar Birkerts, FAIA; and The Architects Collaborative (TAC). Some of their buildings—including Johnson/Burgee's terrific Neuberger Museum (1974)—have aged with grace.

The biggest change to Barnes's campus is from without: The hillsides to the east are now covered with town-house-style condos, tickytacky despite their hefty price tags. That means that the entire thrust of Barnes's plan—in which the arts and nature are in balance—has been sacrificed to sprawl. Other changes are coming from within.

The college's president, Thomas J. Schwarz, has called Barnes's architecture "overbearing," and the college has spent \$3 million in state money to overhaul the performing arts center, adding carpeting over the stone floor and painting its interiors bright colors. At the other end of the quadrangle, a new student service building (2006), by the New York firm of Kevin Hom + Andrew Goldman Architects, features exteriors of bright red, blue, and green. Even more surprising, a gabled, farm-style dormitory by the Boston office of Einhorn Yaffee Prescott Architecture has risen just south of the quadrangle; it has been depicted by administrators as an attempt to bring "new urbanism" to the campus.

In fact, the new building, a kind of oversize barn in multicolored brick, isn't the least bit urban, or even urbane. But it does call attention to itself. The same cannot be said of Barnes's buildings, which managed to be sophisticated without ever devolving into self-importance.

One of the greatest strengths of Barnes's architecture is its self-restraint. His buildings are geometrically precise, perfectly sited, and devoid of the flourishes that make some buildings look old before their time. They are not idiosyncratic or show-offy. That may be precisely what has enabled them to endure the vicissitudes of fashion and reemerge for a new era, altered but still vital. ■

Venetian Hotel Photo courtesy of Dryvit Systems, Inc.



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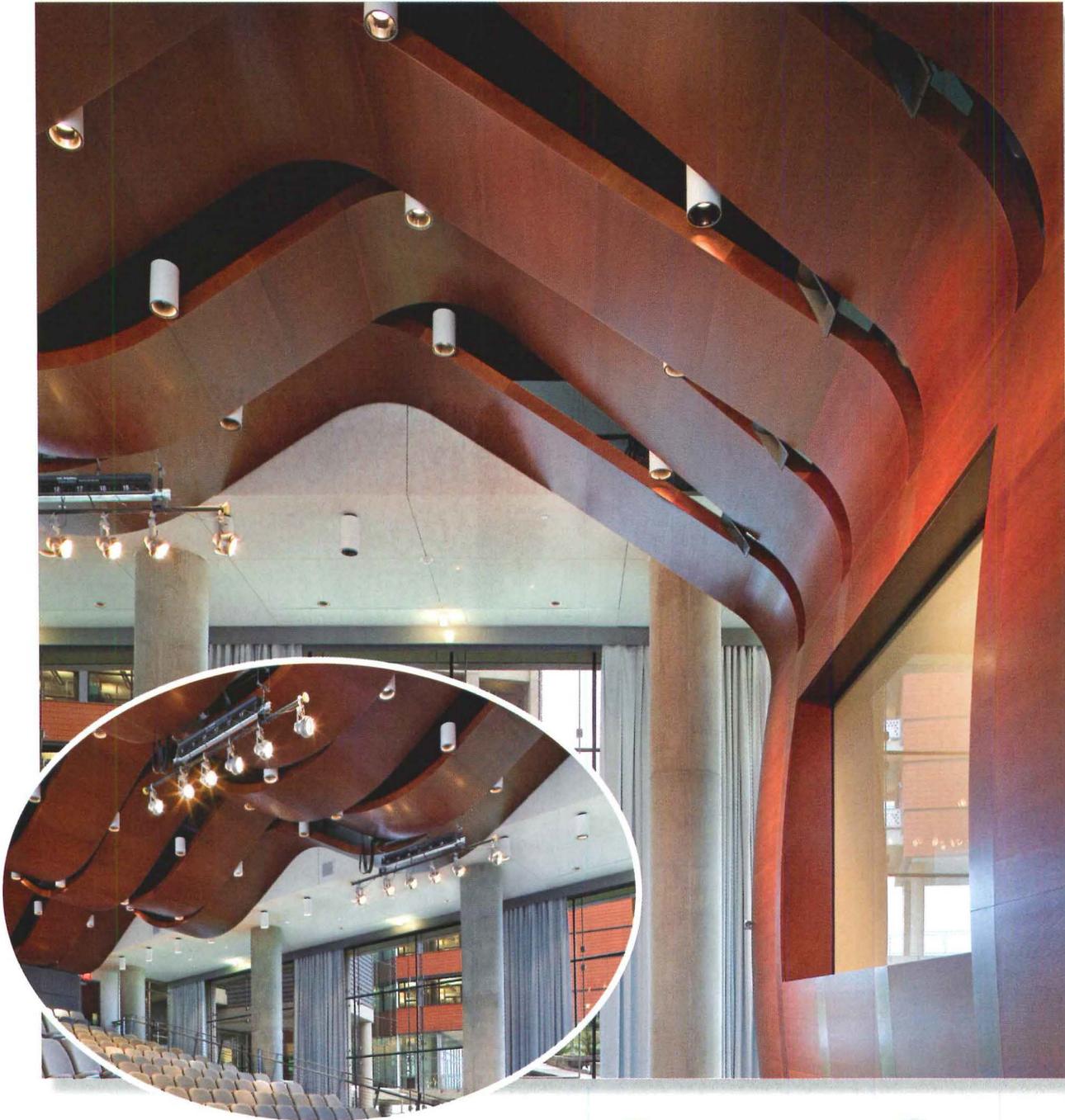
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The west end of the building ends at a deck surrounded by a shallow pool. To the eye, the glass storefront system appears to be semi-elliptical in plan, but it consists of slightly faceted panels.



Rand Elliott adds a delicate shell to the banks of a reinvented river for the new **CHESAPEAKE BOATHOUSE** in a renewed downtown Oklahoma City

By Russell Fortmeyer

Rand Elliott, FAIA, drives his white Porsche 911 around Oklahoma City, showing you his major projects, shifting gears, and sweeping through the sprawling landscape so quickly, authoritatively, you begin to understand how important the new Chesapeake Boathouse is to the career of this consummate Oklahoma architect.

But you first have to ask yourself: What is a boathouse doing in O-K City and, for that matter, who builds boathouses in this day and age? It sounds like some kind of country club folly, a euphemism for a garden shed, or an aluminum-sided marina on the banks of a red dirt reservoir, but rather it turns out to be exactly what you wouldn't expect in Oklahoma: one of the best facilities for competitive sculling in the country. The nonprofit Oklahoma City Boathouse Foundation asked Elliott to design the building on the banks of the Oklahoma River to accommodate an expanding program—the Oklahoma Association for Rowing counts 325 members and growing, while three local universities have implemented programs. The 14,578-square-foot boathouse provides these athletes and hobbyists with meeting space, offices, fitness facilities, and storage for nearly 100 racing shells—sleek, carbon-fiber-reinforced plastic boats in a variety of colors and lengths.

Like most athletes in America, rowers are obsessed with speed. Custom manufacturers optimize the shells like those stored at the Chesapeake Boathouse to within fractions of an inch. An elite single-person racing shell may measure 30 feet long, less than 24 inches wide, and weigh only 30 pounds. They slice through the water so easily, you forget the rower must maintain precise balance to keep the silvery thread of a vehicle from

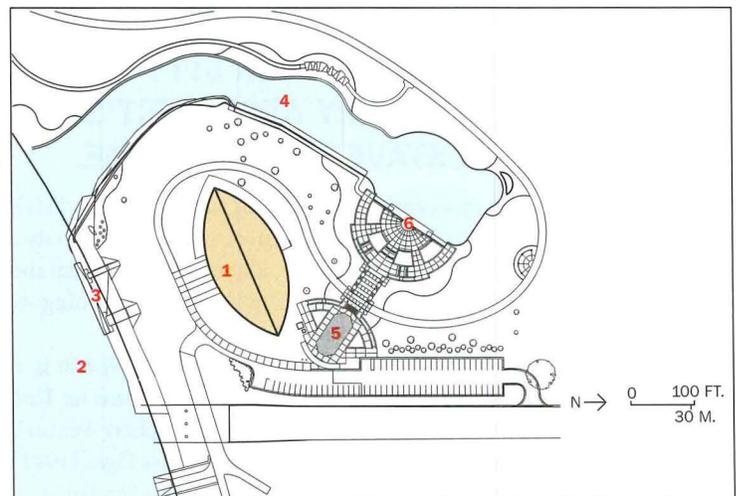
Project: Chesapeake Boathouse, Oklahoma City, Oklahoma
Architect: Elliott + Associates Architects—Rand Elliott, FAIA, Brian Fitzsimmons, AIA, Miho Koliopoulos, AIA, Joseph Williams, Assoc. AIA
Engineers: Grossman & Keith

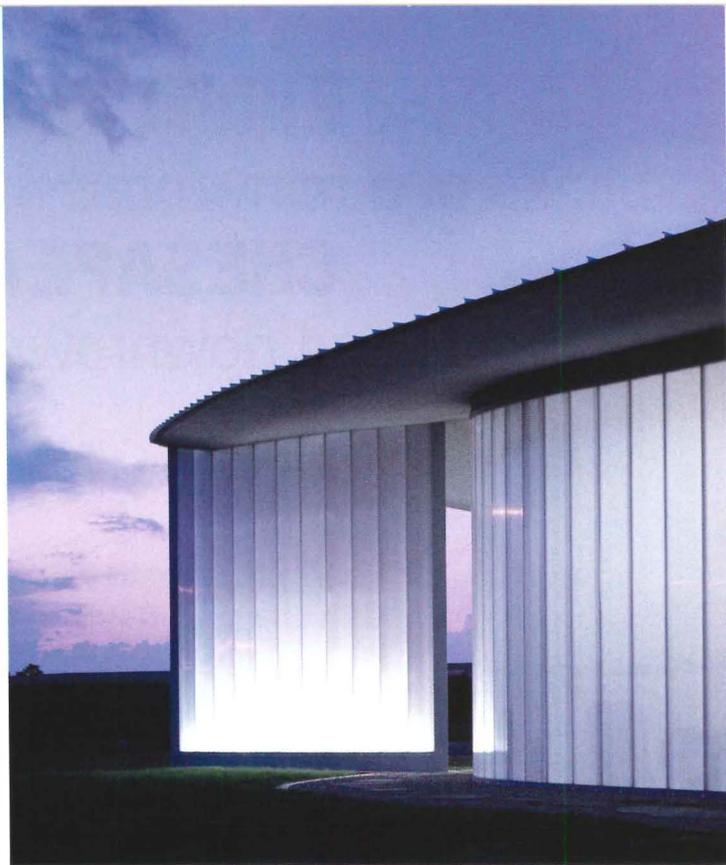
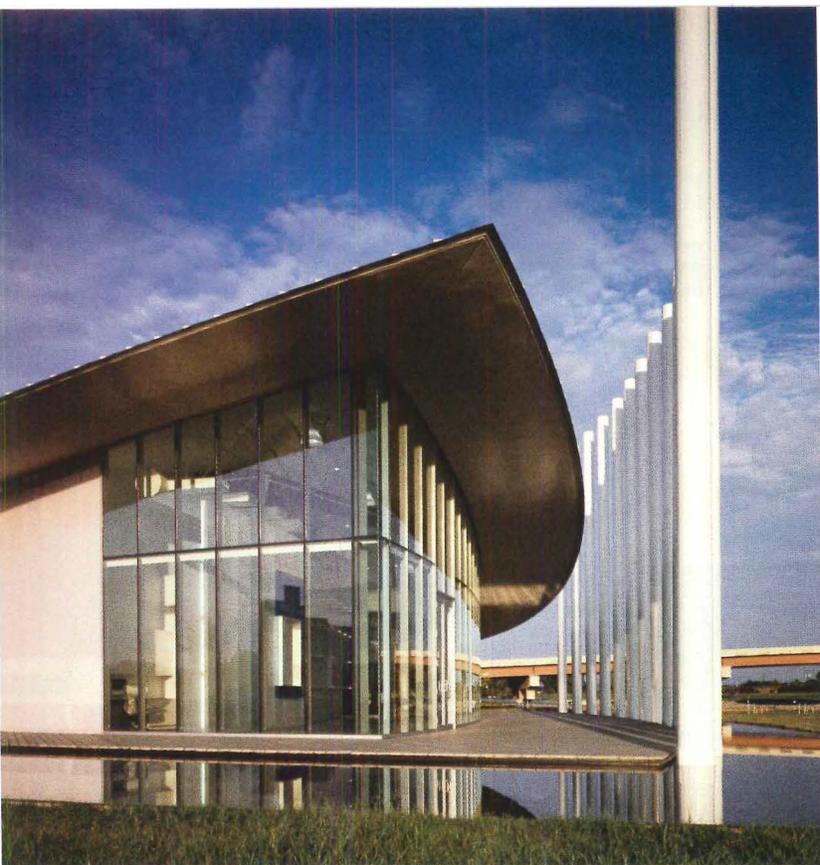
Engineering (civil); KFC Engineering (structural); PSA Consulting Engineers (m/e/p)
Consultants: Elliott + Associates Architects (landscape, lighting); Smith Lighting
Contractors: Smith & Pickel Construction (general)



The boathouse's site (above) lies in Regatta Park on the banks of the Oklahoma River, just west of the Lincoln Avenue Bridge.

1. Boathouse
2. Oklahoma River
3. Dock
4. Canal
5. Water taxi pavilion
6. Water taxi dock





Although the boathouse was built using a prefabricated metal system, the building's starkly symmetrical form and its restrained material use suggest

capsizing. Elliott paid close attention to these sorts of details when he began design. Throughout his more than 30 years of practice in the “City,” as everyone in Oklahoma calls it, he has consistently said he begins a project by looking at the culture prevailing at its inception, while also attempting a reading of the intangible qualities conveyed by the site’s physical context. Many architects say this, but not many architects are Rand Elliott.

The Chesapeake Boathouse has little in common with the traditions called to mind by Philadelphia’s Schuylkill River rowers forever in midstroke in a Thomas Eakins canvas. Rather, Elliott addresses the tricky architectural issue of origin head-on: through a deft evocation of our

TO DESIGN AN ICON FOR YOUR CITY SURELY REMAINS EVERY ARCHITECT’S DREAM SINCE GUSTAVE EIFFEL’S TIME.

modern fascination with sport and speed, mingled with Oklahoma City’s very real, shared civic desire for reinvention, in lock-step with the city’s larger ambitions to shed its Dust Bowl image. He sought to reinvent the typology of the boathouse, capsizing the racing shell and morphing its formal qualities onto an architectural project.

Elliott’s boathouse couldn’t be anything other than what it is, a statement that sounds like quackery because it very much means to: This building boldly testifies that the infamous “duck” in Robert Venturi, Denise Scott Brown, and Steven Izenour’s *Learning from Las Vegas* (1972) is alive and well and living in Oklahoma. “I’m not a rower, so I had no pre-

conceptions,” Elliott says. “I looked for a basis—the history and motivation for the project.” The architect, a native Oklahoman, says he wanted to embrace an architecture that would startle the locals in its departure from the city’s status quo. And while Oklahoma City may never quite qualify as a great river town like Philadelphia, Elliott’s boathouse makes a spirited case. Its sinuous form—elliptical in plan, topped with a sleek standing-seam metal roof—achieves the not-unimportant task of providing an icon for the river. It functions on two levels of iconicity: embodying what it purports to be (a house for boats that looks like a boat) and representing the city’s pride in its restored river (the icon as symbol). To design an icon for your city surely remains every architect’s dream since the time of Gustave Eiffel.

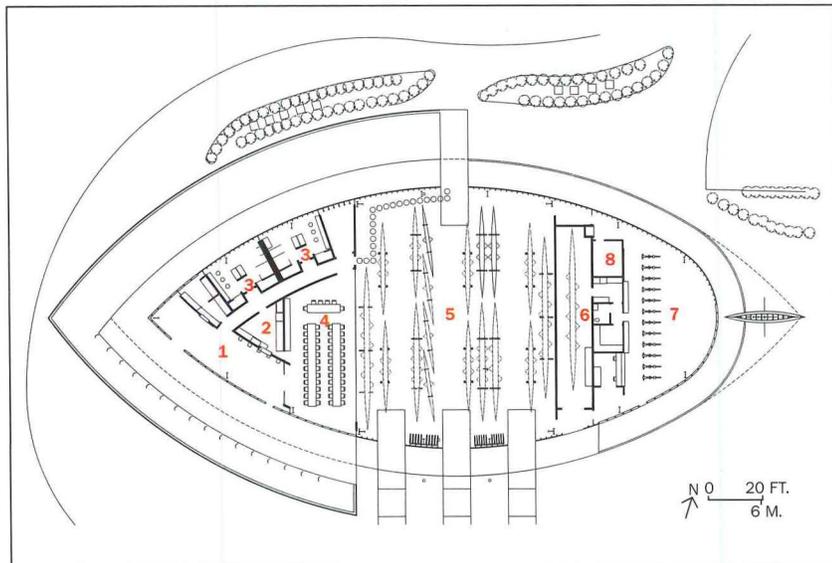
Although on paper the specifications for the boathouse indicate a conventionally steel-framed building with stained concrete floors, Elliott has a knack for putting his budget constraints—a mere \$3.5 million—to work. He’s a pragmatist with a Pop sensibility, calling to mind Venturi’s urge in his seminal 1966 book, *Complexity and Contradiction in Architecture*, to give “uncommon meaning to common elements by changing their context or increasing their scale.”

Attempting the strategy of architectural icon-making qualifies as precarious business; in lesser hands, it could have been kitsch or Disneyesque frivolity. Sixteen 40-foot-high steel tubes mounted vertically along the southwestern edge of the boathouse’s composite-wood-and-plastic exterior deck stand in as sculls, or oars. A shallow pool surrounds the deck along the building’s western half. Other rowing details emerge: An exterior column on the east appears as a rudder; the ridge of the roof



a more refined level of construction. The roof's appearance (above and below), suggesting a capsized shell, attracts attention to the city's developing riverfront.





- | | |
|----------------------|-----------------------------------|
| 1. Lobby | 5. Boat storage |
| 2. Kitchen | 6. Boat repair shop |
| 3. Locker room | 7. Fitness club |
| 4. Multipurpose room | 8. Electrical and mechanical room |



The lobby (above) includes a wall of glass shelves for regatta trophies. The steel structure was left in its base factory color of gray—a cost-cutting step, says the architect.

recalls the skeg, or short fin, along the bottom of a shell; and from the interior, the 1-inch insulated-glass storefront system falls across the distance like oars dipping into water.

The boathouse's overall symmetrical composition recognizes the need for precise balance in the sport, but this is less apparent than the effect of lightness Elliott achieved with the thin roof surface that seems barely tethered to the walls of glass and polycarbonate underneath. An

THE BOATHOUSE'S OVERALL SYMMETRICAL COMPOSITION RECOGNIZES THE NEED FOR PRECISE BALANCE IN THE SPORT.

interior detail, where the walls and ceiling planes stop just short of the structural elements, heightens the effect. An architect can draw balance and symmetry on paper, but creating the appearance of lightness in built form, whether in a racing shell or a boathouse, takes practice.

The form may begin with a boat, but the abstracted Minimalism of its design—its reduction to an unadorned state of materials and the subjection of the icon to the program of a boathouse—places the building in the category of significant architecture.

The stakes for architecture could not be higher. Local leaders have looked to architecture to provide evidence of the city's transformation, with much of that lately focused on the river. Oklahoma City's recent past is that oft-told American story of sprawl, downtown abandonment, and ill-conceived revitalization projects that go nowhere, all resulting in a

bad civic self-image. The reappearance of the river could not have come soon enough. In the 1950s, the Army Corps of Engineers, seeking to control flooding in the rapidly developing oil-rich town, undertook a channeling project that partially moved and totally transformed the North Canadian River into a mostly dry, glorified ditch. Although plans for redeveloping the river began in the 1970s, nothing happened until 1993, when the city's residents approved the Metropolitan Area Projects (MAPS), a sales-tax initiative for urban improvement that included multiple projects. The resulting \$56 million restoration of the rechristened Oklahoma River—really just a 7-mile stretch within the North Canadian—involved the construction of three dams and two locks, opening a huge tract of land to expansion south of the city's downtown.

The boathouse is architecture's first response to this new context. And it certainly doesn't lack for visitors; the last rowing event attracted 35,000 spectators. The Oklahoma Association for Rowing has played host to three regattas for the U.S. Rowing Association already, as well as innovated the concept of night rowing; there is even talk of Olympic team training, since the high-banked, wind-protected river's straight, 7,500-foot length of racing expanse provides ideal conditions for the sport. Oklahoma City understandably concerns itself with reinvention, while Elliott's architecture mines the field of architectural manifestoes and experiments hitherto dismissed. This has proved not only productive, but popular—even, as Venturi would say, almost all right. ■

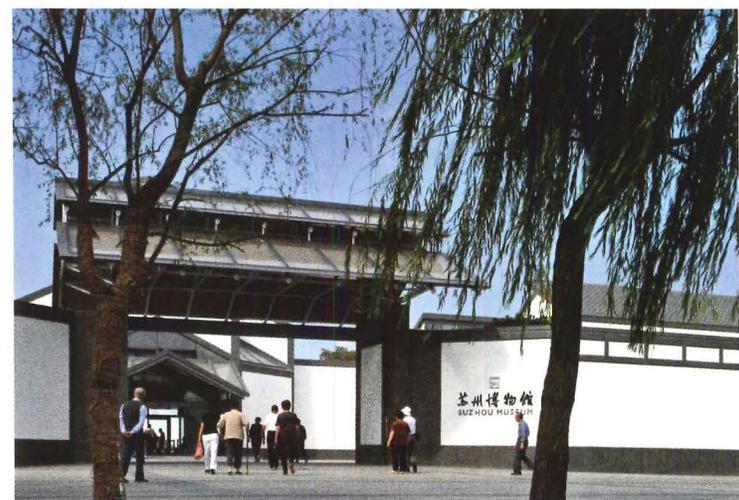
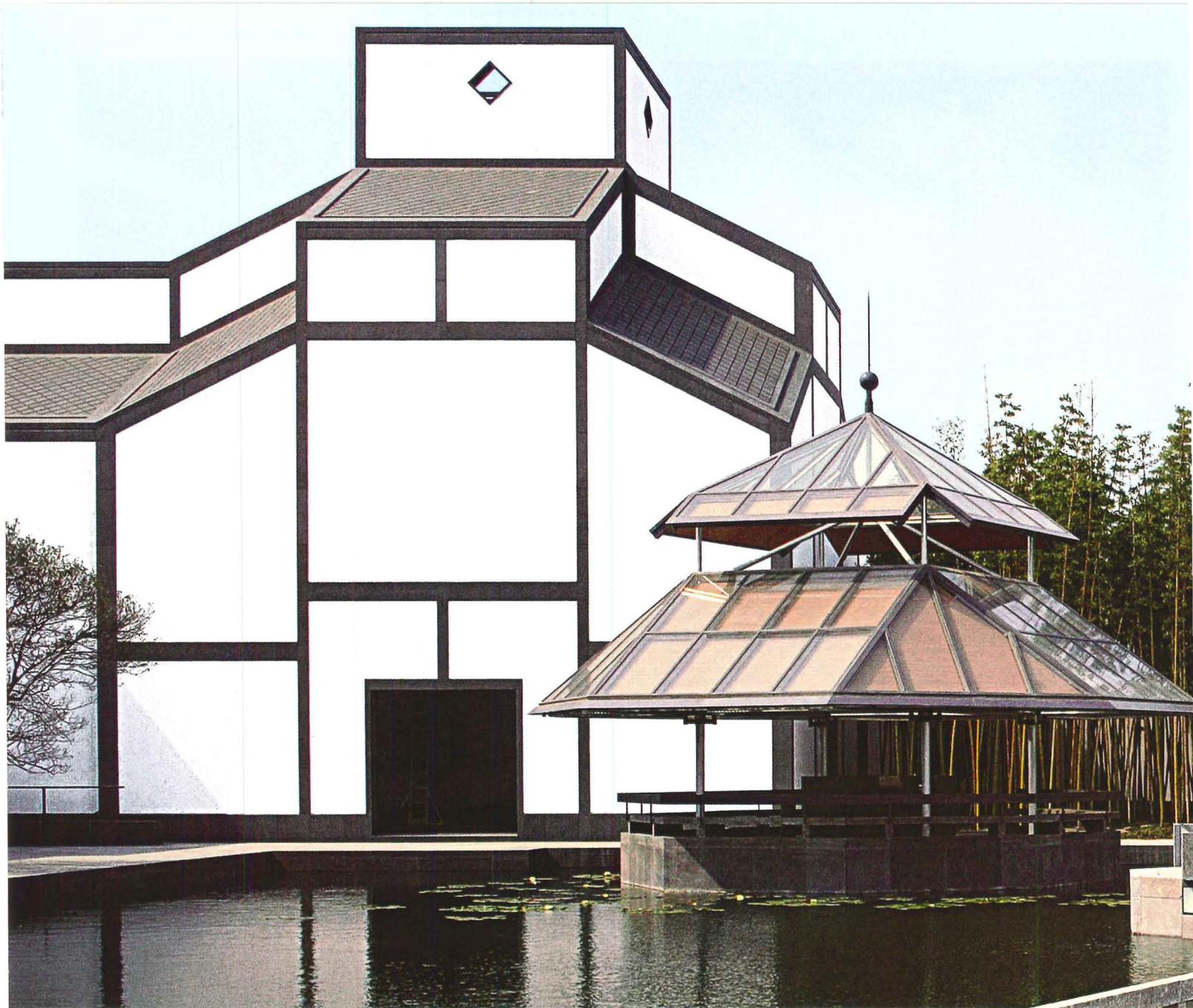
Sources, see page 208. To rate this project, go to architecturalrecord.com/projects/.



The central boat-storage room holds nearly 100 racing sculls of lengths ranging from 30 to 60 feet.

The fitness center (right) has become popular with members, especially given its ample light and view to the river. The multipurpose room (far right), used for meetings and social functions, includes a 62-foot window looking into the boat-storage room.





I.M. Pei returns to his family's hometown in China and designs the **SUZHOU MUSEUM** for a sensitive, historic site



A contemporary garden reinterprets historic Suzhou tradition with minimal planting. Granite pines, rooftops and white stucco walls with dark gray. The entrance gate and surrounding wall (below) relate to the city's history.

By Robert Ivy, FAIA

For any architect concerned with contextual design, Suzhou presents a formidable challenge. A Chinese canal city founded 2,500 years ago, set on the lower reaches of the Yangtze River on the verge of Lake Taihu, old Suzhou (center of silk cultivation and commerce) represented the apogee of urban sophistication—a place where the enclosed garden evolved into a naturalistic universe in miniature. In 1997 and 2000, UNESCO identified nine of the remaining 69 walled gardens as World Heritage Sites.

In 2001, the mayor of modern Suzhou, today a prosperous urban agglomeration of approximately six million people, approached the architect I.M. Pei, FAIA, to design a museum at a critical juncture: deep in the historic district at the intersection of two canals in the northeastern corner of the city, adjacent to a historic palace, and backed against an ultra-sensitive international treasure, the Garden of

the Humble Administrator (1506–21). Pei, whose own family had owned the Lion Grove Garden (1342) nearby, had declined previous requests to build in his family's hometown, but felt that the time was now right, particularly in the light of China's building boom. Suzhou could offer a case study for contemporary design in historic environs

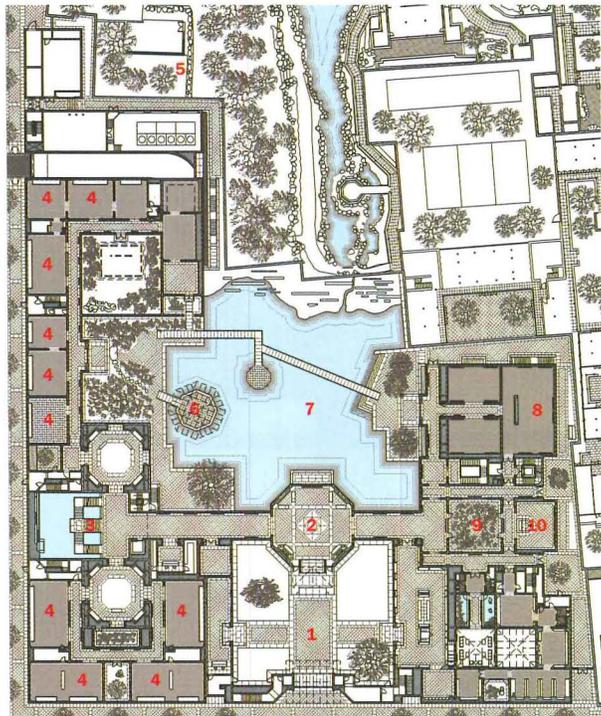
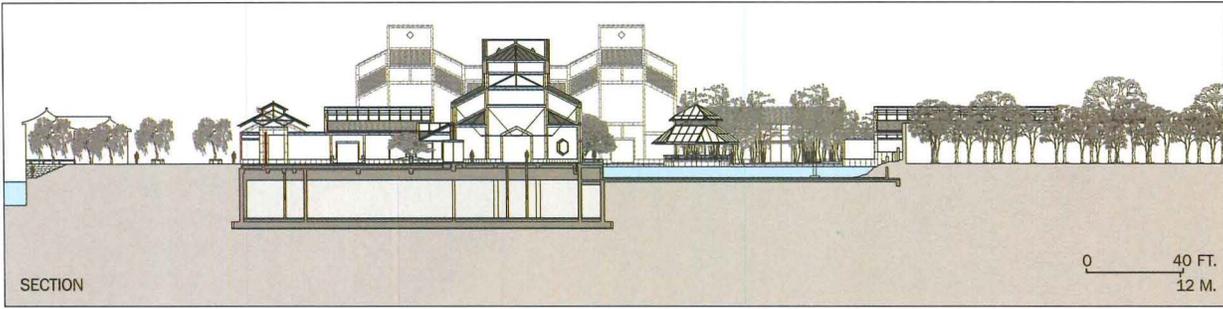
Project: Suzhou Museum, Suzhou, People's Republic of China

Architects: I.M. Pei Architect with Pei Partnership Architects—I.M. Pei, principal; Chien Chung Pei, Li Chung Pei, partners in charge; Gerald Szeto, project manager; Bing Lin, site architect; Flora Chen, Yi-Jiun Chen,

Haruko Fukui, Richard Lee, Kevin Ma, Hajime Tanimura, project team

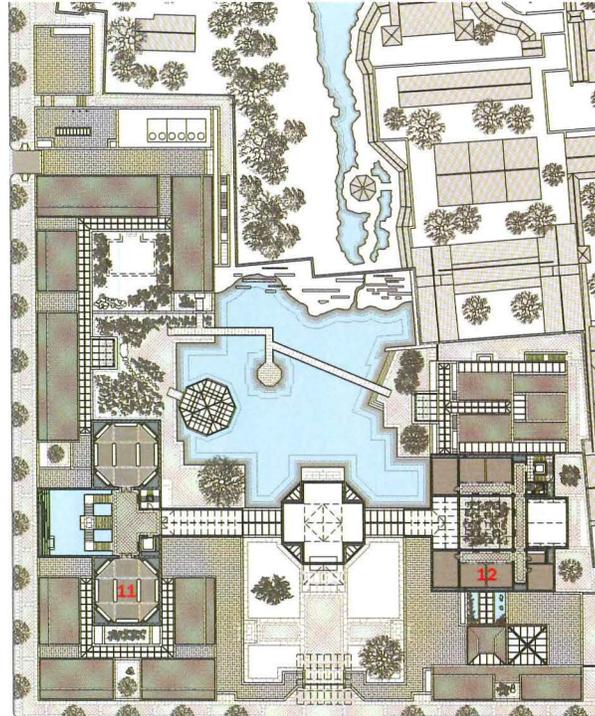
Local architect: Suzhou Institute of Architectural Design

Engineers: Leslie E. Robertson & Associates (structural); Jaros Baum & Bolles Consulting Engineers (mechanical)



GROUND FLOOR PLAN

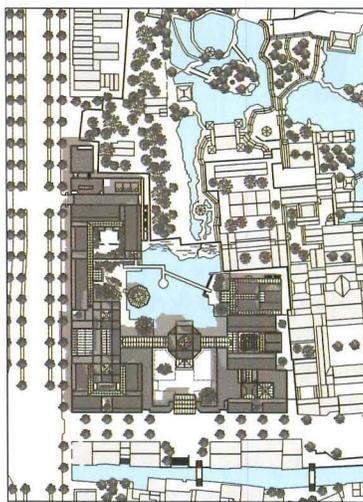
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SECOND FLOOR

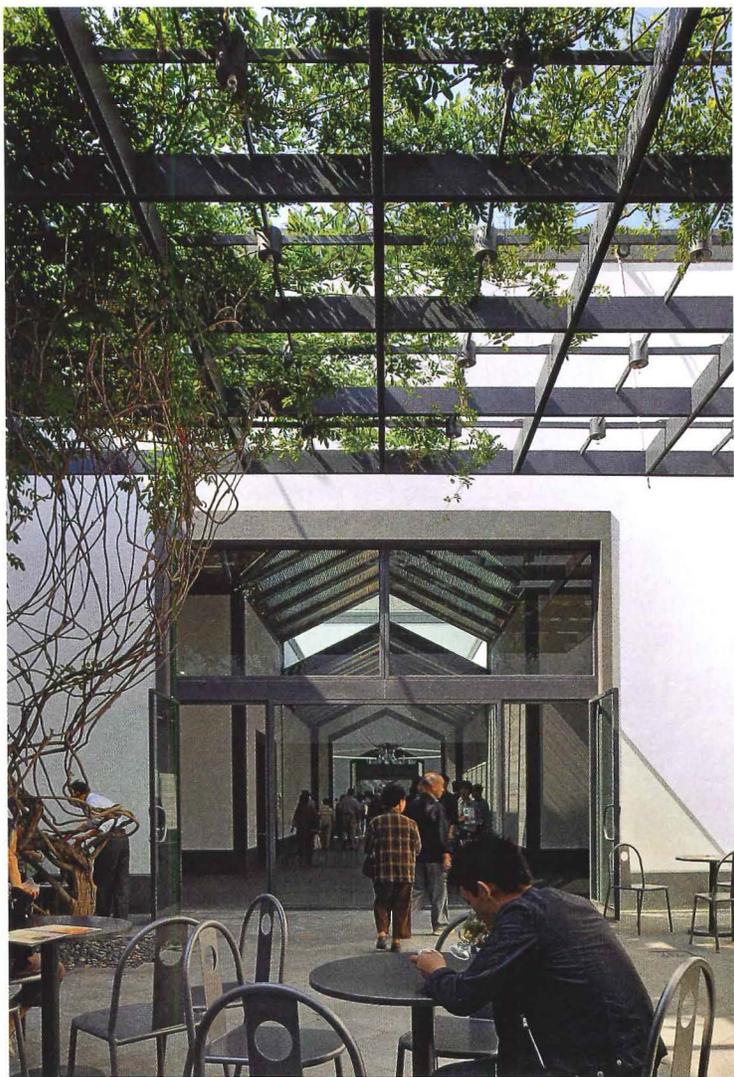
0 39 FT.
12 M.

1. Entry court
2. Great hall
3. Stair
4. Galleries
5. Garden of the Humble Administrator
6. Pavilion
7. Lotus pond
8. Contemporary gallery
9. Wisteria court
10. Tea room
11. Painting gallery
12. Offices



The museum lies at the northeastern corner of a historic district on two canals, adjacent to a palace and below the Garden of the Humble Administrator (left). The courtyard plan (above) deploys galleries around a lotus pond connected to an older garden.





for the new generation of Chinese planners, government officials, and designers.

Daunting limitations defined the project boundaries. First, the city required a 150,000-square-foot museum to showcase its 30,000-piece collection of Chinese art that spanned millennia. The design, according to officials, needed to reflect contemporary life, yet height limitations dictated that a structure not exceed 52.5 feet—no more than 20 feet adjacent to the existing historic buildings. Scholars at Beijing’s Tsinghua University suggested that the architect respect the prevalent Suzhou coloration, white and gray, colors that serve as a backdrop for the community’s leafy green gardens and streets.

The obvious solution to height limitations, which Pei had employed at the *Pyramide du Louvre* (1989), would be to depress the building’s mass into the earth. The high water table in Suzhou, a water-encircled city, compounded the difficulty of excavating very deep. Requirements demanding open space and greenery added complexity to a solution that ultimately split the difference: two stories above grade and one below, with a large quadrant on the ground plane left as garden space.

Responding to Suzhou’s heritage, the architect placed a walled garden with a void at the museum’s core. Rather than compete with the landscape iconography familiar to tourists (miniaturized trees, sculptural

The wisteria court (left) features grafts from an ancient vine (right) onto newer stock. Doors and windows frame views of the courtyard, out to a pavilion (opposite).



rock formations, scenic twists and turns), the garden’s emphasis lay in the simplicity of water, rocks, and sky—more akin to the Taoist philosophy of the Tang Dynasty (618–907) than to the elaborate conventions of later centuries.

Water provides a literal link to the Garden of the Humble Administrator, flowing through the common wall at the rear of the older garden into a new pond at the new museum, an open space punctuated by a stylized garden pavilion. The lotus pool formed by this stream acts as an orienting device throughout the museum, visible from multiple points within the courtyard plan, reflecting the sky into another dimension.

Plants provide an esoteric connection. In laying out a small courtyard as a wisteria court, the planners sought out a vine estimated to be 500 years old from the adjacent Prince Zhong’s Palace compound, then grafted 10 small branches from the older plant onto larger, newer wisteria stock. Blossoms, shade, and fragrance bring sensory stimulation to the present and recall the mythical past.

Surrounding the lotus pool, the building plan outlines a framework of galleries on the one hand and administrative spaces on the other. The octagonal great hall at the entry, lit by a custom chandelier, frames the garden while encouraging the visitor to turn and proceed. Protected exhibition spaces lie off passageways, sized to showcase the small, precious objects that characterized Suzhou craftsmanship for an aristocracy, including ceramics, paintings, jade, and woodcarvings. A painting gallery resides on the second level, up a grand staircase backed by a granite wall



I.M. Pei, FAIA, on the Suzhou Museum

On his reasons for accepting the commission: “The site that we were given is situated next to the biggest and best-known [garden], and not far from that is the garden that my family once owned—the Lion’s Grove Garden. Our family had owned it until 1948–49. I have a sentimental attachment to the city and to the site.”

On context: “I wanted it to be contextually correct. [The museum] is low-rise, and the garden is as important as the building. The two are related, not separate. We had to get the maximum variety out of the site.”

On differences, despite academic advice: “I decided not to use tile and used stone on the roof and the walls. It [allowed us to] create a three-dimensional effect. A tile roof creates a horizontal plane; you only get two dimensions. [With stone] it may prove that you can get volumetric variation that you could not get otherwise.”

On the design’s applicability in China: “I have not forgotten that Suzhou is not typical of China. You could not necessarily do this elsewhere. I am not trying to create a new vocabulary for young Chinese architects. But the people of Suzhou are not uncomfortable with it. It belongs to the Lake District.”

and smoothed by running water. On the garden’s eastern side, Pei insisted on a contemporary gallery to showcase new Chinese art.

The contemporary deployment of stone differentiates the Suzhou Museum from earlier Chinese building. Where roofs in generations of historic Chinese architecture had been tile-covered, curving upward at the edges, the Suzhou Museum substitutes granite. The architect contended that tile leaked and lacked uniformity. After studying the

“I HAVE NOT FORGOTTEN THAT SUZHOU IS NOT TYPICAL OF CHINA. YOU COULD NOT NECESSARILY DO THIS ELSEWHERE.”

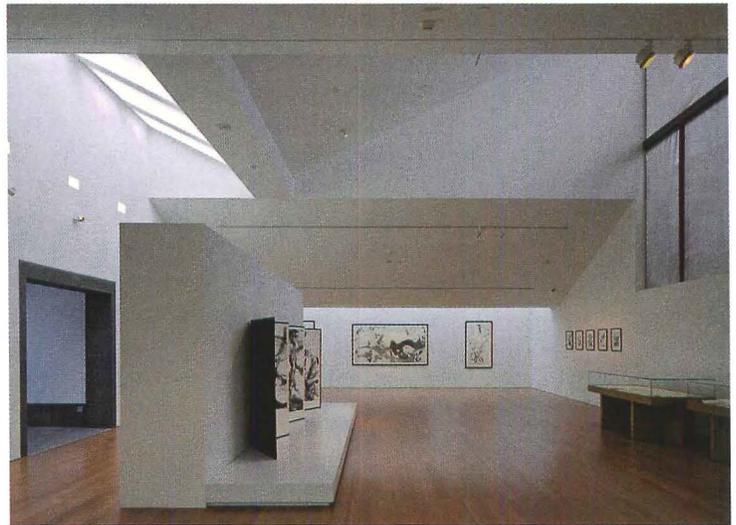
shapes of traditional buildings and the shades of stone readily available (including the effects of rain on the color), the Pei group settled on China Black granite, which now covers roofs, outlines windows, and caps white walls. The effect is crisp, articulated, and decidedly modern.

Pei involved himself in every aspect of the work. According to the Pei Partnership’s on-site architect, Bing Lin, ultimately Pei and his two sons, Chien Chung Pei and Li Chung Pei, selected every rock and every tree. The project opened with a celebratory event on the Night of the Mid-Autumn Festival on October 6, 2006. ■



The great hall (opposite, left) concatenates geometric motifs on the floor, walls, and ceiling. A custom metal chandelier punctuates the space above window walls overlooking the lotus pool. The grand stair seemingly floats between two upper levels and one below

grade. A water feature animates the rear wall, which flows into an interior pool (opposite, right). In the ceramics gallery (left) and the contemporary gallery (below), clerestories filter light through embedded sunshades that resemble indigenous wood patterns.



Analysis

How does an architect build adjacent to a World Heritage site? The contemporary response to a strong vernacular tradition continues both to stimulate and to vex designers. Too often, the answer lies in overstatement, though not for I.M. Pei. Modesty of scale and materials, born of sparseness, prescribed limits, and simplicity, mark the Suzhou Museum.

While a new generation might have hoped for an evolutionary project that captured the geometrical clarity of Pei's earlier signature works, such as the East Wing of the National Gallery, in Washington, D.C. (1974–78), or the aforementioned Louvre, instead the Suzhou Museum sacrifices bold formalism for a kind of Postmodern deconstructivism (not an oxymoron in this case), in which underlying historic themes are broken into shards, rendering prevailing geometries into motifs that fit within the strictures of the surrounding walled courtyard. The well-intentioned result seems focused on kinesthetic experience versus a static, elevational overview of the whole, familiar in the Beaux-Arts tradition.

Not a reprise of the finesse of the precious East Wing, where critical details have been honed to machined perfection, and with a smaller budget, the Suzhou Museum reflects its location at the heart of an ancient city in contemporary China. Walled in, literally surrounded by stucco walls capped with China Black granite, the entire project abstracts motifs from a remembered past, simplifying and reinterpreting them for the 21st century.

Seen from the lotus pool in the interior courtyard, planar walls and roofs achieve a monumentality of scale, in which three-dimensionality is heightened, even exaggerated, by dark granite outlines. Austere and blocklike, its unadorned interior courtyard walls sometimes stretched beyond expected proportions, the spaces beg for greenery and may ultimately be softened by the infill provided by waterborne lotus plants.

Inside, a surprising modulation of scales accompanies function: generously wide corridors in public areas achieve grandeur, while galleries and interior courtyards provide moments of intimacy for individuals to sit or converse. The pathway brings experiential richness. Natural light creates a soft ambience, even in galleries, illuminated by high clerestories, which filter light for ceramic objects from above and warm the wood walls. Hexagonal viewing windows frame controlled views to the exterior pavilion or to a poetic tree.

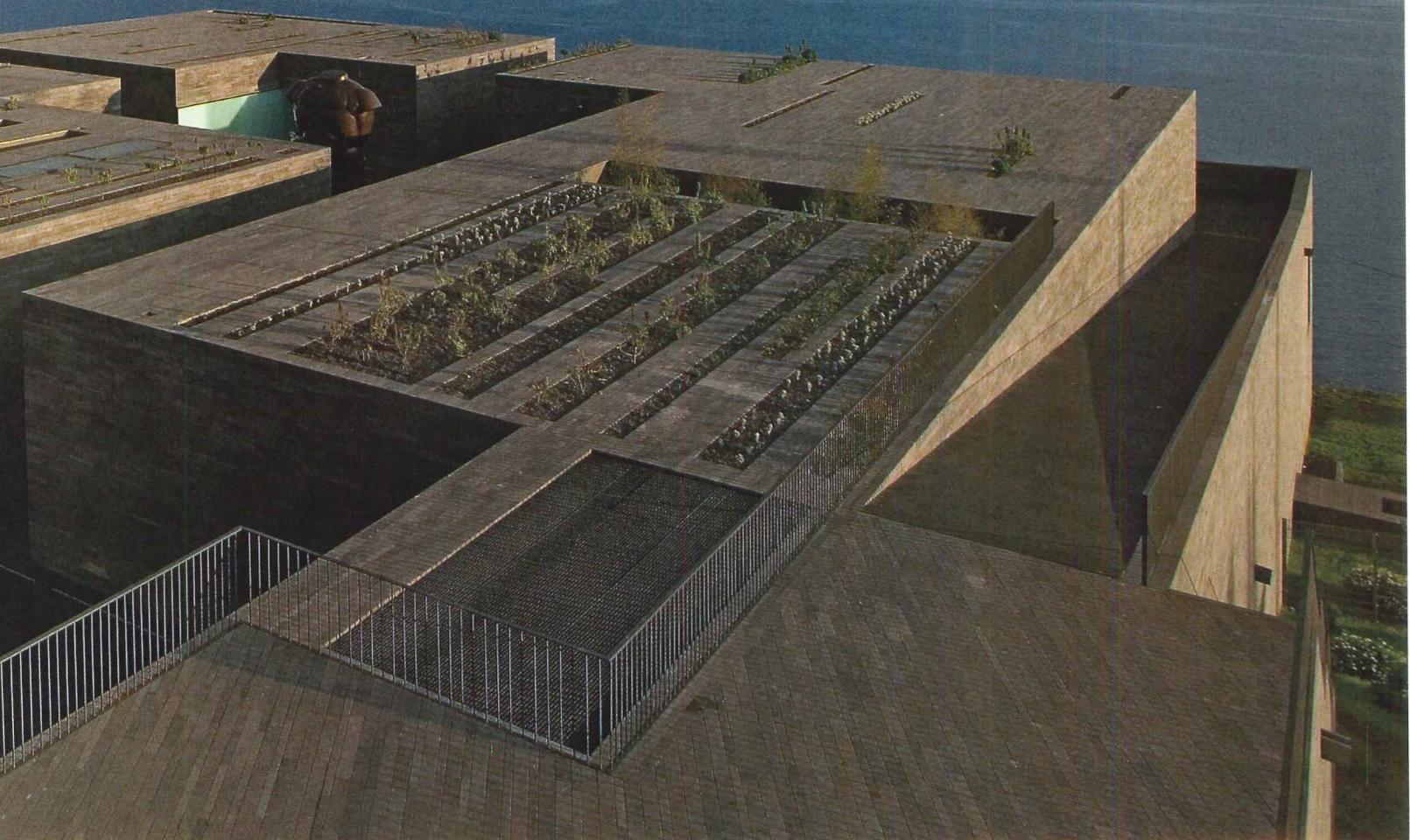
The Suzhou Museum represents Pei's highly personal essay on building in strong context in this cradle of Chinese culture. Referential without explicitly copying precedent, respectful of its surrounding constraints, the complex nevertheless breaks no new ground. If the Suzhou Museum sometimes reverts to the scenographic, the walled-in, three-dimensional project succeeds by doing no harm to its hypersensitive environment while offering a new generation of Chinese architects a modest model drawn from precedent—to reflect on, to debate and criticize, to react to, and to create their own new work. *R.I.*



The museum's entry level forms a man-made plateau, perched on a seaside cliff and incised with rows of planters. Deeper cuts in the great basalt-

clad platform give way to sunken patios and light wells. The stair leads down to a central patio that opens onto a labyrinth of interior spaces.

Paulo **David** creates a cliffside plateau,
carved with a labyrinth of
spaces at **CASA DAS MUDAS**
CENTRO DAS ARTES
in coastal Madeira, Portugal



The restaurant terrace offers a dramatic look-out to the sea. Planters (not shown here) now separate this terrace from the entry driveway (in the foreground).



The Casa das Mudanças Centro das Artes, on the Portuguese Island of Madeira, crowns a basalt promontory 600 feet above the Atlantic, but from its entry atop the precipice, the building disappears. Toward the cliff's edge, past the simple 16th-century house that gives the art center its name, an expansive, inaccessible platform of basalt starkly frames the sea and distant horizon. This stone surface bears what appear to be runic incisions, but are actually rows of planters, and the deeper erosions formed by sunken patios and light wells. Visitors arriving by car catch another plunging glimpse of the sea as they ramp down into the garage under the entry terrace.

From the approach by car or on foot, the art center unfolds as a labyrinthine excavation of this stunning man-made plateau. The route into the building descends from the entry terrace (or rises from the garage) to a central patio, open to the sky, where the lobbies of the new structure's three wings open to a changing spatial choreography, masterfully composed by local architect Paulo David, of narrow, descending stair shafts, expansive halls, and sudden exterior views.

Three hundred miles from the African coast and 625 miles southwest of Lisbon, this lushly vegetated volcanic island, bathed by the warm currents of the Gulf Stream, has been a crossroads of trade among six continents since the 15th century. At one of Europe's most far-flung corners, Madeira benefits today from European Union funds, which the regional government has invested in a coastal highway and an enlarged airport, spurring explosive tourist development over the past 10 years.

David's project for Casa das Mudanças ("Deaf Women's House," as the restored original structure, now used for small exhibitions, is called) was also made possible by European funding. His 130,000-square-foot building, completed for just under \$20 million, stands 15 miles west of Funchal, Madeira's capital, helping to decentralize the island's cultural offerings. Exhibitions at the center, dedicated to contemporary art, include rotating loans from the large collections in 20th-century painting, sculpture, and photography of Joe Berardo, a Madeira native and philanthropist. David, who had worked under architect Gonçalo Byrne in Lisbon, opened his own office 10 years ago and now has a staff of seven. His other recent works include a public swimming pool on Madeira's rocky coastline and a stark, Miesian apartment building in Funchal.

The island's near-vertical topography, cultural history, and rapid development all came to bear on his Casa das Mudanças design. Until the 1950s, the site was accessed mainly by boat, and later by a dangerous, snaking road above the coast. The new highway bores through the island's rocky terrain with dozens of tunnels. "With the tunnels, you go too fast, you are lost," the architect says. "But my images from my childhood are of stopping at lookouts to see the incidents of the landscape, the cliffs and valleys." And so, he decided to make a revelation of the site's sublime

David Cohn is RECORD's Madrid-based correspondent.

Project: Casa das Mudanças Centro das Artes, Madeira, Portugal

Architect (art center): Paulo David Arquitecto—Paulo David, principal; Rodolfo Reis, Filipa Tomaz, Silvia Arriegas, Luis Spranger, Luz Ramalho, Susanne Selders, Dirk Mayer, Inês Rocha, Patrícia Faria, team

Architects (auditorium interior):

Telmo Cruz, Maximina Almeida, and Pedro Soares, with Hugo Alves, Barbara Silva, Luis Monteiro, Alexandre Batista, team

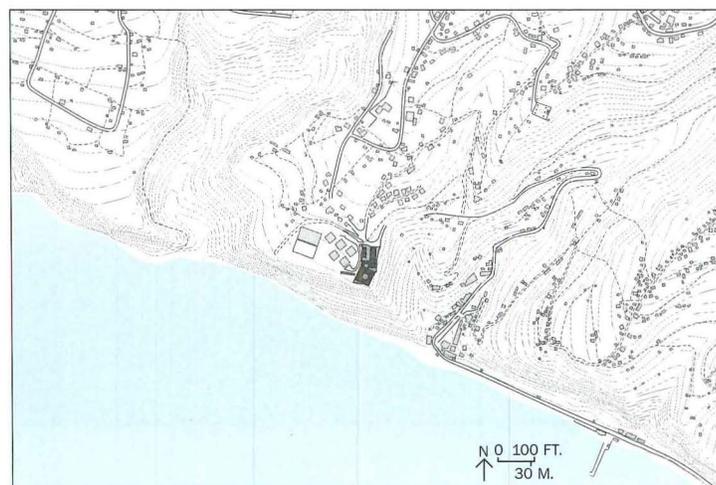
Engineer: Betar

Landscape: Proap

Lighting: Fernando Sousa Pereira

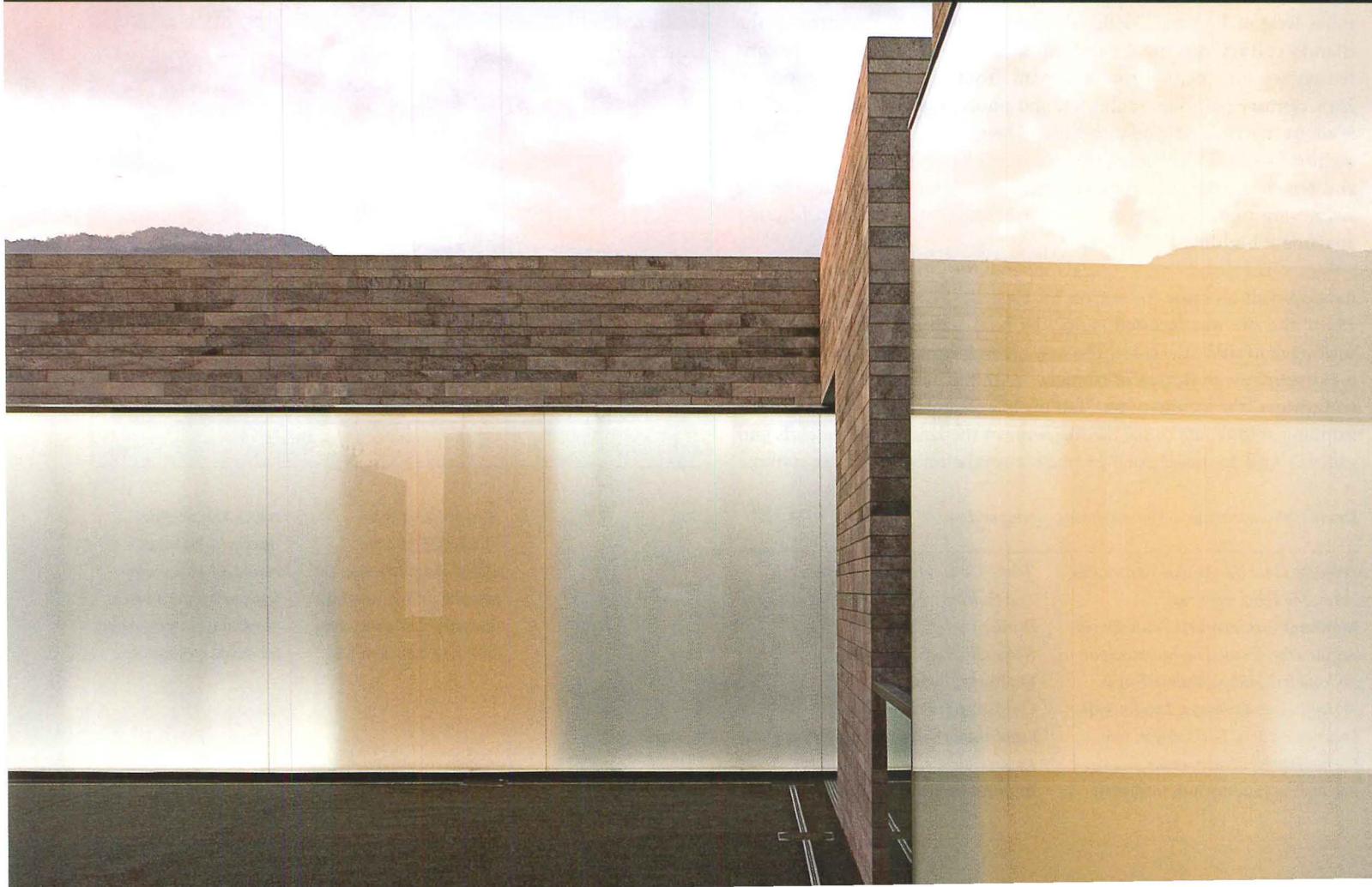
Acoustics: Certiprojecto

General contractor: Concreto Plano



The 16th-century Casa das Mudanças (Deaf Women's House) stands just up the hill from Paulo David's new building (top and site

plan). The original house (middle) is now part of the contemporary art center, providing gallery space for small exhibitions.

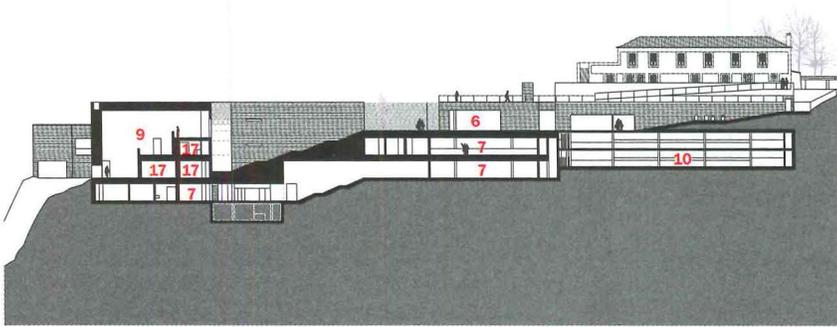




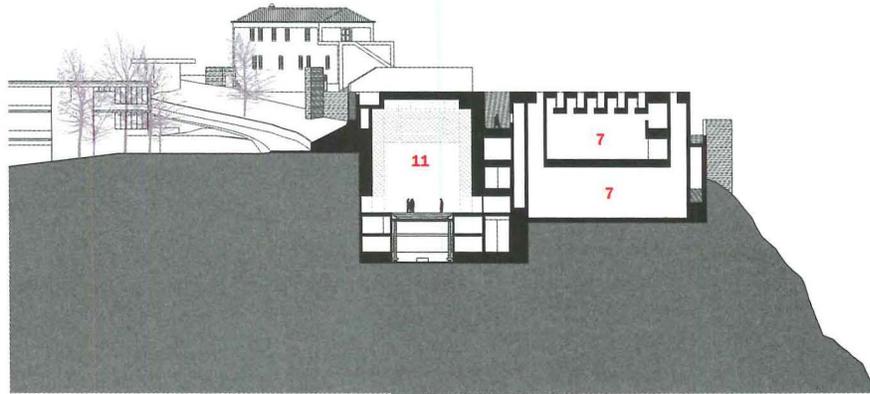
One level down from the planted entry terrace, the central courtyard (this page and opposite two) provides access to the art center's bookshop and three lobbies. LED strips at the tops and bottoms of translu-

cent glass panels illuminate them. The museum affixes exhibition posters to the exterior surfaces of these glowing rectangles. Some panes, but not all, admit light to the interior.





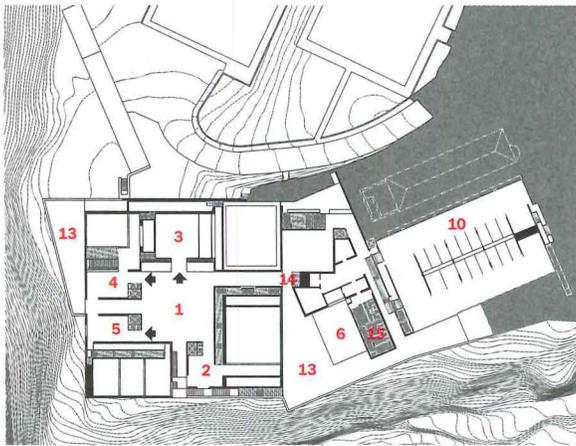
SECTION B-B



SECTION A-A

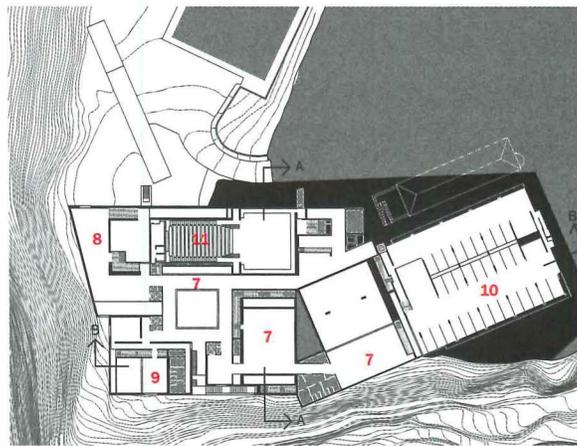
0 20 FT.
6 M.

1. Central courtyard
2. Entry to galleries
3. Museum bookshop
4. Entry to auditorium
5. Entry to library and workshops
6. Restaurant
7. Gallery
8. Auditorium lobby
9. Library
10. Garage
11. Auditorium
12. Storage
13. Terrace
14. Entry stair from above
15. Kitchen
16. Delivery
17. Classroom



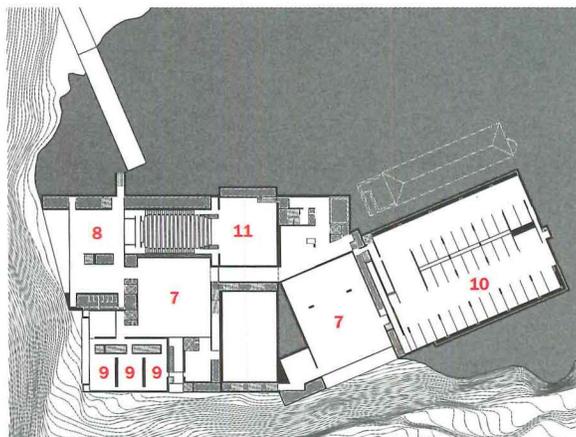
LEVEL 0

0 30 FT.
9 M.

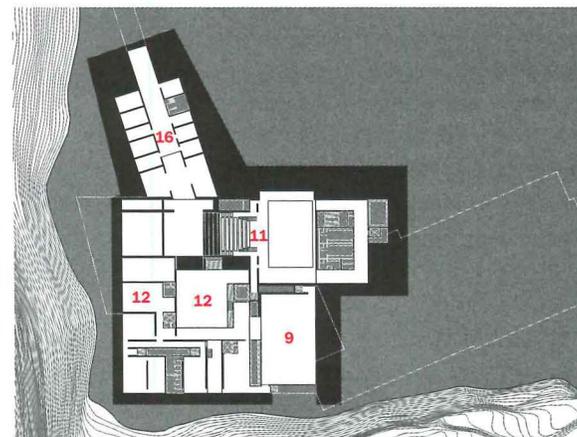


LEVEL -1

0 30 FT.
9 M.



LEVEL -2



LEVEL -3

From the entry plateau, the building steps down the slope (top section, above). A section through the theater and exhibition areas (bottom section, above) reveals baffled skylights in one gallery and deep perimeter light wells in the art space directly below it.

Casa das Mudas's numerous stairs vary in form, with some inserted between walls and others, like this one (top), freestanding. The galleries open to surprising views of the landscape (bottom).



“WE TRIED TO ELIMINATE DISTRACTING MURMURINGS, SO THE ART WOULD BE THE MOST IMPORTANT THING.”

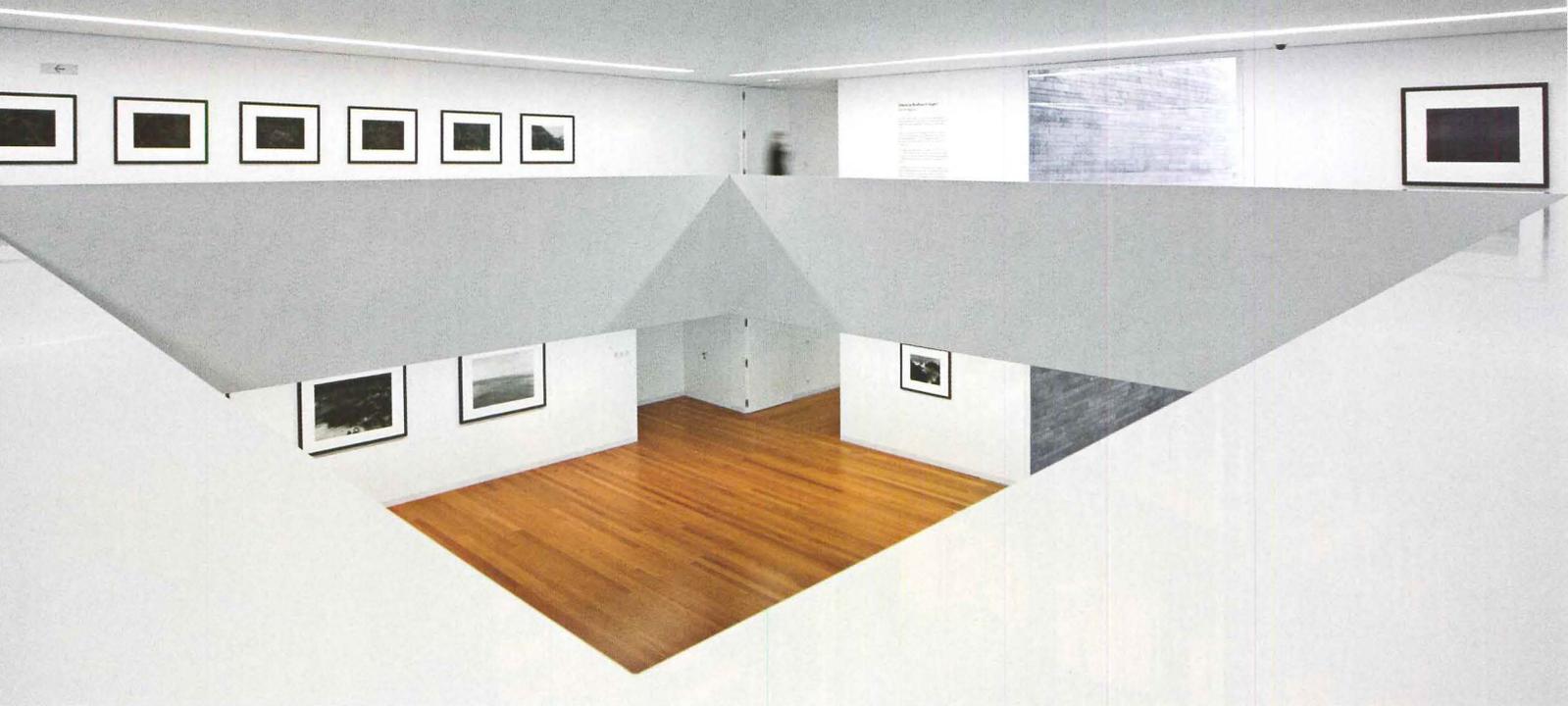
views the culminating point of orientation for visitors driving in from Funchal. “The building had to be at the summit of the mountain, but couldn’t compete with it,” he observes. His approach was to emulate the island’s traditional fusion of landscape and built form, characterized by houses on narrow platforms atop rough basalt retaining walls, perched on the steep slopes. Finishing his own building in gray basalt, the architect emphasized the material’s abstract, sculptural qualities by applying it in thin, smooth-cut, horizontal strips with minimal detailing: One-inch-thick pieces of the stone, dry-jointed and glued on, cover the building’s concrete walls and its concrete roof pavers, which float over a waterproof substrate for drainage. Though imported from the Azores for reasons of cost and availability, this basalt, handsomely textured with minute natural air pores, fits sympathetically into its surroundings

To bring this remote venue to life as a local meeting point—a social function that David praises in museums such as the Tate Modern in London—the architect emphasized a series of outdoor public spaces, including a restaurant terrace and seaside lookout carved out of the top platform, and a sunken court for sculpture near the entry.

Accessed from the central patio, the building’s various sections—a museum wing with a suite of galleries, a multifunctional auditorium, a library-workshop-classroom wing, and a bookshop—can function independently or together. Relying on a mixed structure of concrete with steel beams for large spans, David was able to create a descending chain of four double-height galleries in the museum wing, connected by narrow runs of stairs in the thick walls between the exhibition spaces—alternating the sense of compression and release. Introducing daylight into two of the galleries through clerestory windows and deep wells that illuminate even the lowest level, he opened the remaining galleries to heart-stopping views of the coastline below. The architect finished the spaces simply with white walls, floors of Brazilian garapa wood, and strips of warm fluorescent-tube lighting (modifiable according to exhibition needs), and in the stairs, tube-lit, carved Corian handrails. “We tried to eliminate distracting murmurings, so that the art would be the most important thing,” David explains. The library-classroom wing cascades through three levels with narrow stairs and open trays of space to a sunny seaside terrace. Architects Telmo Cruz, Maximina Almeida, and Pedro Soares, practicing independently from David’s office, designed the interior of the 200-seat auditorium with warmly upholstered seating and latticed wood walls.

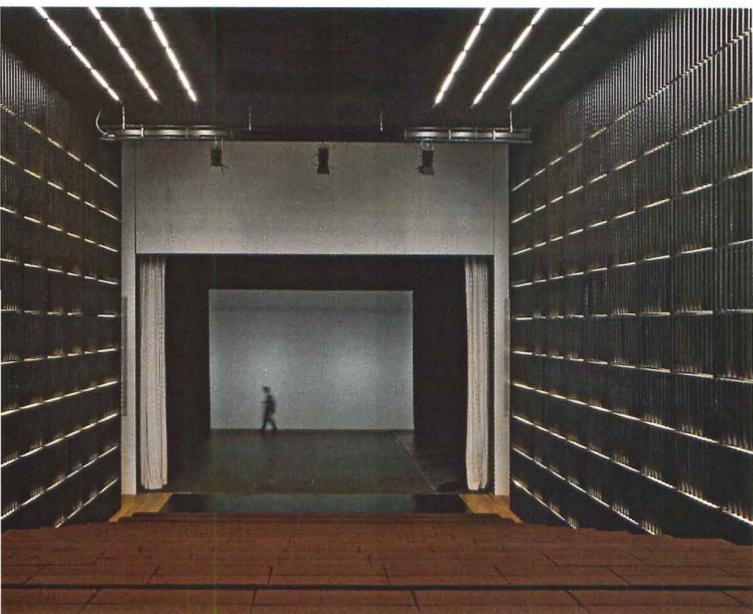
The building’s greatest strength and originality resides in its powerful encounter with nature. The exterior plinth has the iconic presence of a prehistoric temple, while the sophisticated, minimal detailing evokes the primitive simplicity of ancient construction, paying homage to sea and sky. ■

A long, straight run of steps connects three levels in the classroom wing. The same stair presents a strikingly different character in views from its bottom up (above) versus its top down (left).

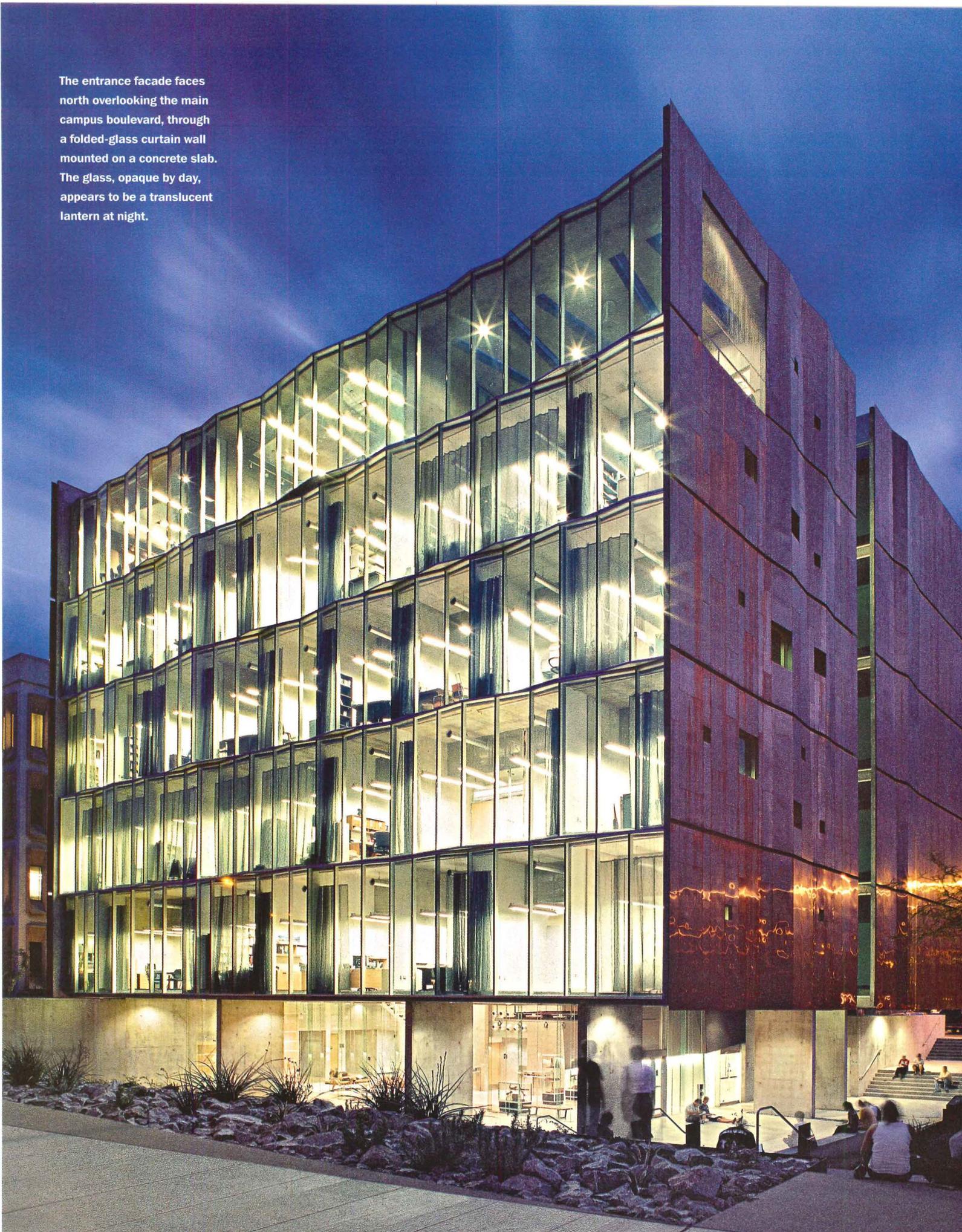


All the double-height spaces introduce themselves to the visitor from the upper level (above). Tube lights have varied configurations in the interior: set, for example, at the ceiling's perimeter (above)

or like lightning bolts in sculpted handrails (opposite, bottom) or in rows overhead (below right) or behind the wood lattice lining the theater (below left).



The entrance facade faces north overlooking the main campus boulevard, through a folded-glass curtain wall mounted on a concrete slab. The glass, opaque by day, appears to be a translucent lantern at night.



Richård and Bauer designs an outstanding laboratory space for the **MEINEL OPTICAL SCIENCES EXPANSION** at the University of Arizona in Tucson

By Suzanne Stephens

Richård + Bauer, a young Phoenix-based firm, has demonstrated numerous times in its 11-year history [see *RECORD*, December 2001, page 70] that it can still advance architectural quality in inexpensive institutional buildings. Its new Meinel Optical Sciences Expansion at the University of Arizona in Tucson makes an even more emphatic claim for architectural innovation, spatial complexity, and the arresting use of light and materials. On top of that, the 47,000-square-foot structure cost only \$14 million to build.

The commission from the College of Optical Sciences came with certain incentives. The three principals, James Richård, AIA; Kelly Bauer, an interior designer; and Stephen Kennedy, AIA, had studied at the university and wanted to leave a memorable mark on their alma mater. And since the college ranks as one of the top optical-science schools nationwide, it needed to “speak of its status in its field,” says May Carr, senior architect for the university’s office of Facilities Design and Construction.

In following this mandate, Richård + Bauer sought to bring about the same conflation of institutional identity with architecture achieved by a canonic predecessor in laboratory design, Louis Kahn’s Salk Institute for Biological Studies in La Jolla, California, of 1965. The firm emulated Kahn’s containment and manipulation of light and clarification of function at the Salk, as it admired the integration of architecture with nature displayed in Tod Williams and Billie Tsien’s 1995 Neurosciences Institute nearby. The Tucson project was to be an addition to a 1960s building fronting University Boulevard, the main street of the university campus. Since the 6-story expansion would occupy a corner site, the northern (entrance) facade and the west elevation would be seen easily from afar. (The east side hooks into the existing building, and the south side is bordered by a parking lot.)

The program called for flexible laboratories, where 200 undergraduate and more than 200 graduate chemists, physicists, optical engineers,

Project: Meinel Optical Sciences Expansion, University of Arizona, Tucson

Architect: Richård + Bauer—James Richård, AIA, Kelly Bauer, Stephen Kennedy, AIA, principals; Andy Timberg, project architect

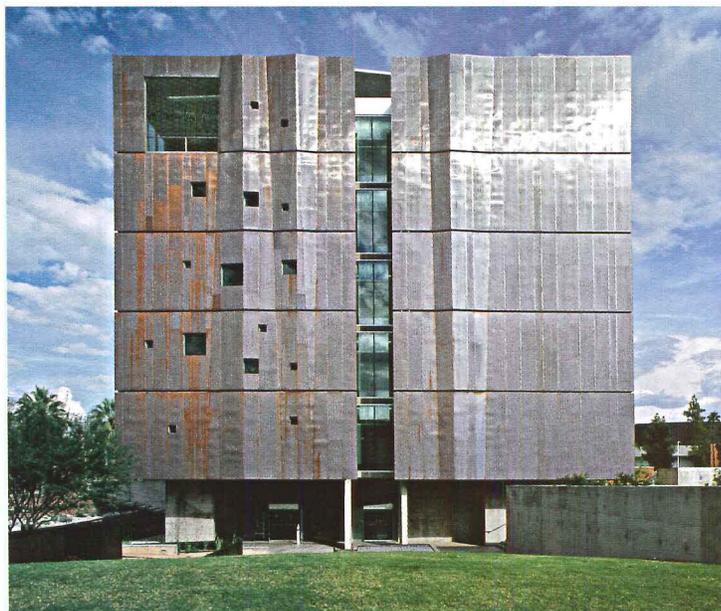
Engineers: Arup, Los Angeles (struc-

tural, m/e/p); KPFF Consulting Engineers (civil)

Landscape: Sage Landscape Architecture

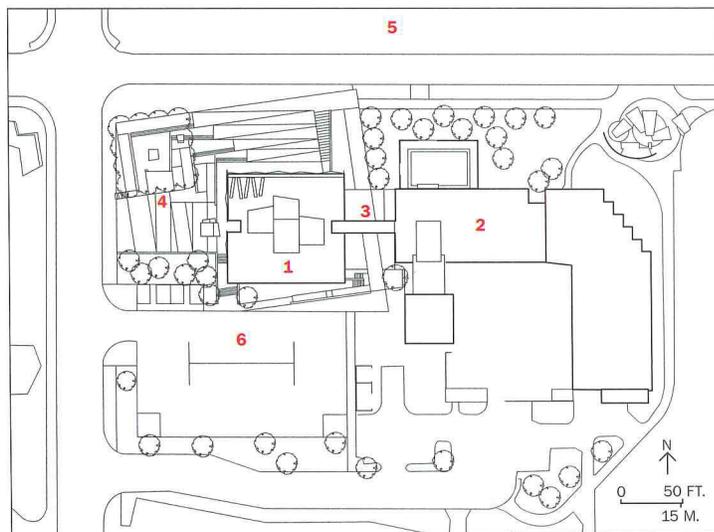
Consultants: Arup (IT); Earl Walls Associates (lab)

General contractor: Lloyd Construction

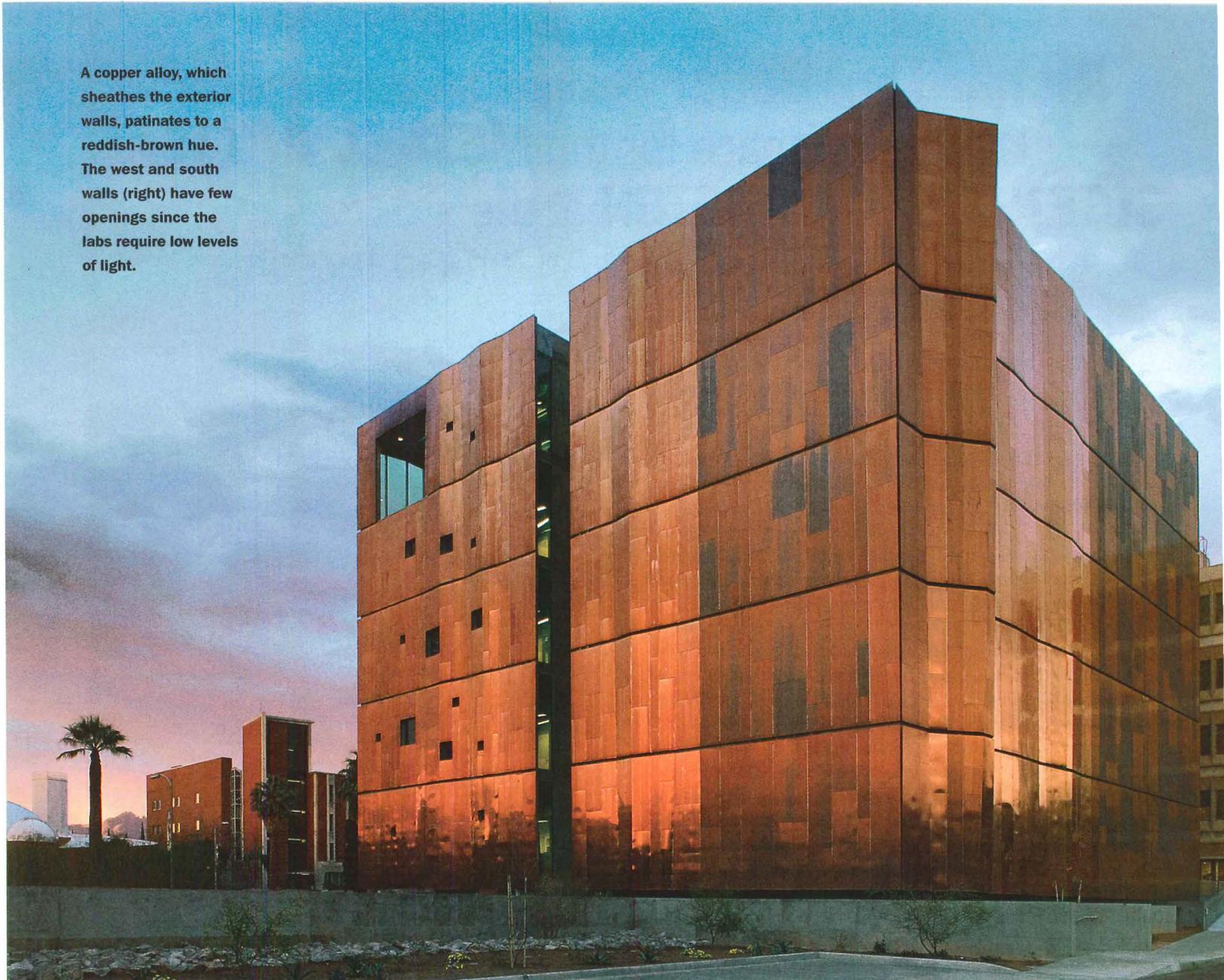


The lab building (above), depressed slightly below grade, features an outdoor sitting area at the glazed base of the gleaming copper cube.

1. Meinel Optical Sciences Expansion
2. Existing building
3. Pedestrian bridge
4. Bosque
5. Mall
6. Parking



A copper alloy, which sheathes the exterior walls, patinates to a reddish-brown hue. The west and south walls (right) have few openings since the labs require low levels of light.



and biologists would collaborate on research in geometrical, physical, quantum, and mathematical optics. Most labs required low to almost nonexistent light levels with no vibrations, and the floors needed to align with those of the building on the east—a reason why Richärd and Bauer depressed the building 7 feet below grade. In addition, the college wanted to provide informal gathering spaces, conference rooms, offices, and a lecture hall, elements not in full supply in the adjacent building.

The architects strategically placed the windowless labs behind solid walls facing west and south, where heat loads can be punitively high

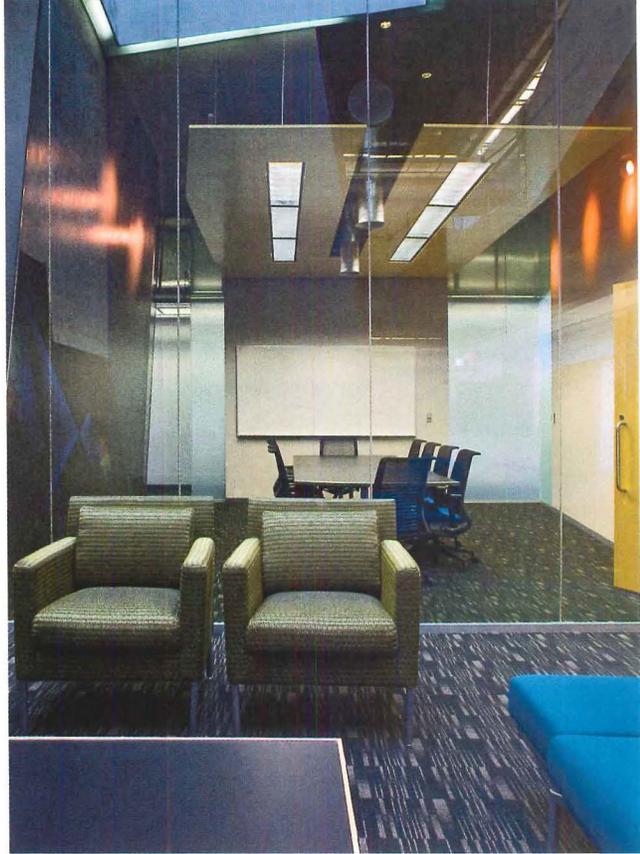
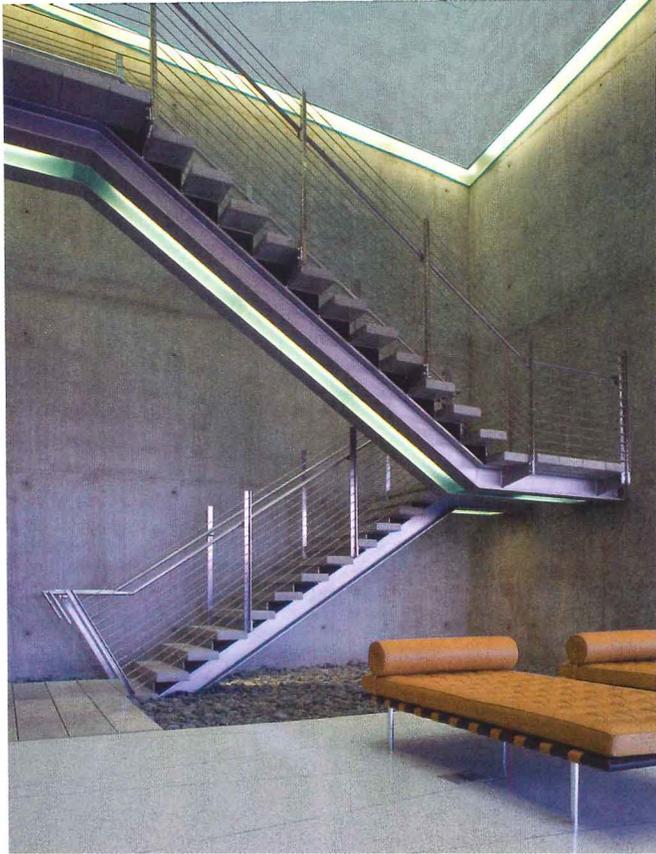
THE FRESNEL LENS AND CAMERA OBSCURA WERE SOURCES OF INSPIRATION FOR A BUILDING DEVOTED TO OPTICAL SCIENCES.

in the warm months. The walls, clad in a copper alloy that turns a reddish bronze as it patinates, conform in color to the redbrick buildings blanketing the campus. Since the shimmering skin stands at a remove from the inner core of poured-in-place concrete, heat from the sun rises behind the walls to the roof. This crisp outer carapace also acts as a rain screen,

owing to the fact that rainwater leaders and lab exhaust can be tucked into the interstitial space, reducing the presence of surface joints.

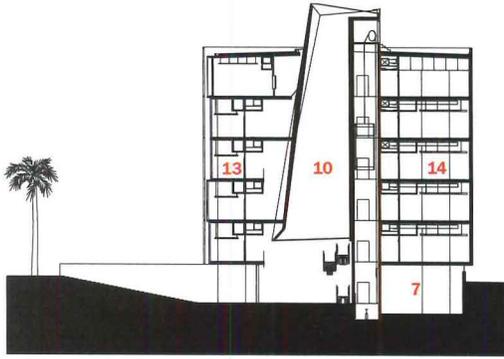
With regard to the particular needs of the labs, the architects installed a low-velocity laminar system to bring in outside air on a distribution path that hugs the perimeter spaces. Because optical-science experiments and research demand very stable work surfaces, the architects tied the edges of the concrete floor plates together to create a structural lattice that would help prevent vibrations.

Arranging the labs along the perimeter of the building presented a problem with the central spaces, however, where the college hoped to encourage students and professors to interact casually near the labs; these inner areas would look a bit gloomy without daylight. To brighten things up, the architects came up with the idea of light wells. Since fire codes demanded that the light wells could open on no more than two vertically connecting floors, Richärd and Bauer ingeniously decided to gang three shafts together: The main light well begins at the ground-floor lobby, known as Level 3, and connects to Level 4. While the skylit shaft is walled-in for the floors above, its hand-notched plaster finish creates a spectacularly luminous element visible from the lobby. A



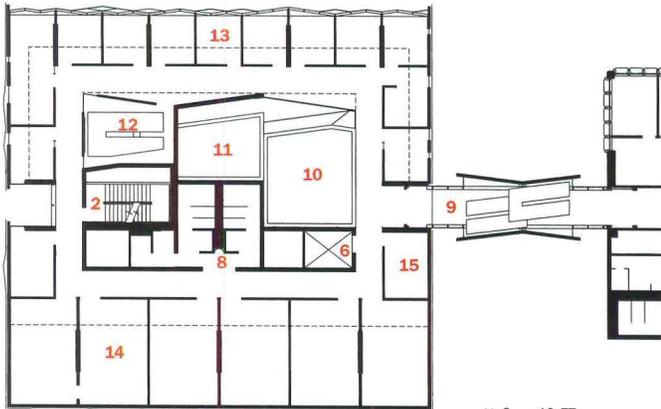
The admittance of light was an important factor in the public spaces of the lab building. It pours into the lobby from the light well above the stair (top left), enters the rest of the lobby through glass panels and mullions (right), and illuminates the sitting area (top right).



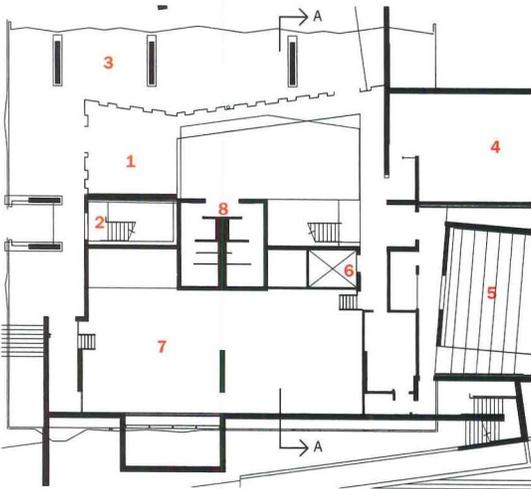


SECTION A-A

1. Lobby
2. Light well with fire stair
3. Plaza/entrance
4. Classroom
5. Lecture hall
6. Elevator
7. Mechanical room
8. Restroom
9. Bridge to existing building

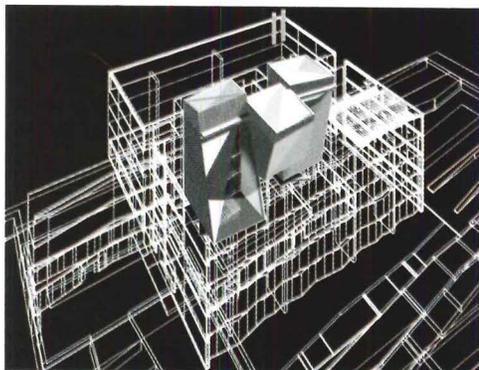


UPPER LEVEL



ENTRY LEVEL

10. Light well
11. Open to below
12. Conference room
13. Offices
14. Labs
15. Electronic/data



The wire-frame drawing (left) indicates placement of the three light wells. An enclosed terrace on the northwest corner of the building (above right) provides views of the Santa Catalina mountains. The walls of the 75-seat lecture hall (right) are sheathed in foamed aluminum panels.





second light well extends from what is called Level 5 to Level 6 before becoming an enclosed shaft puncturing the roof. The third light well is totally enclosed; a fire stair winds through its skylit core, also finished in hand-notched plaster. The effect is mesmerizing.

The architects grouped the college's offices and conference rooms along the north side of the structure, where a glass curtain wall with a folded profile offers views of the mountains beyond the campus. The glass appears opaque by day and transparent by night, a notion inspired, Richârd says, by the Fresnel lens, the prismatic device invented in 1822 to reflect beams of light from gas and oil lamps in coastal light-houses to seafaring vessels.

Other optical inventions besides the Fresnel lens offered sources of inspiration. In particular, Richârd says the light wells evoke the camera obscura, the 17th-century perceptual device where a room-size box is punctured by a small hole admitting light, which in turn allows an image outside to be projected upside down on an interior wall. "We wanted light entering from the top to alter what you see," Richârd says.

These abstracted allusions to historic optical devices as well as the exploration of formal themes relating to the play of dark and light, mass and

The main light well is open from the lobby to one level above, then enclosed to the skylight. The hand-notched plaster finish (above) adds luminosity.

void, and reflectivity and transparency heighten the architectural experience of the lab building. Although many of the materials and finishes are quite basic throughout the structure, the general level of craft and the interior furnishings installed by Bauer enhance its understated unity, making it all the more surprising that the finished building would come to no more than \$18 million in overall cost. To the credit of the university, it selected a contractor who assured quality of construction, not just the lowest bid. Carr observes that other factors helped: "Labs were electronic and not hood-intensive," she notes, and the college began construction before the huge price increases of 2003. Ultimately, the firm's investigation of light, mass, and materials in its aspiration to create a lab building worthy of paradigmatic precedents like the Salk provided the university with a structure that is gaining recognition and awards (see page 130). Indeed, it boldly affirms the notion that school buildings can still attain an unusual level of architectural accomplishment. ■

Sources, see page 208. To rate this project, go to architecturalrecord.com/projects/.

SOURCES/RESOURCES PROJECTS

CHESAPEAKE BOATHOUSE

Oklahoma City, Oklahoma

(page 180)

Sources

Structural system: Alliance Steel

Curtain wall: Kawneer (glass); Extech Exterior Technologies (polycarbonate)

Roofing: Alliance

Windows: Kawneer

Glazing: Extech (exterior polycarbonate); Polygal (interior polycarbonate); Kawneer (glass)



Doors: Kawneer

Hardware: Hager (locksets, hinges); Yale (locksets, closers); Peripheral Systems (security devices)

Interior finishes: Formica (plastic laminate); Dal-Tile (shower tile)

Cabinets and custom woodwork: Woodcrafters

Paints and stains: Sherwin Williams

Special surfacing: Keys Stainless, Woodcrafters (stainless counters)

Carpet: Daltonian

Furnishings: Umbra (chairs); Vecta (tables); Mayline (pedestals); Herman Miller (task chair);

Kartell (stools, restroom storage)

Lighting: Lithonia (fixtures, task, exterior); Parmate (downlights); Lancet, Hydrell, Paramount, Sportlight (fixtures)

Bathroom fixtures: Hewi (accessories); Symmons (showers);

Kohler (lavatory); Toto (toilets, urinals); Moen (faucets)

Kitchen fixtures: Whirlpool (appliances); Elkay (sinks, drinking fountains); Moen (faucets)

Boat racks: Focus Rack Systems

Boat docks: Zeiss Manufacturing; Connect a Dock

Boat stage wall: Dalmarc Signs

SUZHOU MUSEUM

Suzhou, People's Republic of China

(page 186)

Sources

Exterior cladding: Owens Corning

Doors: Kaba

Acoustical plaster ceilings: STO

Lighting: ERCO (interior ambient, downlights, task); William Artists International (interior ambient, exterior); Bega (exterior); Dynalite (controls)

Conveyance: OTIS

Plumbing: Toto; Sloan



CASA DAS MUDAS CENTRO DAS ARTES

Madeira, Portugal

(page 192)

Sources

Exterior cladding: José Damaso & Filhas LDA

Windows: GEZE (steel); Vitrosca (aluminum)

Glazing: St. Gobain

Doors: GEZE (entrances); Tecompart (fire-control, security grilles)



Hardware: Maury Ann (hinges); FSB (pulls)

Acoustical ceilings: KNAUF

Furnishings: Vitra (office furniture, chairs, tables)

Conveyance: Schindler

Bathroom fixtures: Catalano (toilets); Hans Grohe (tubs, jacuzzis)

MEINEL OPTICAL SCIENCES EXPANSION

University of Arizona, Tucson

(page 202)

Sources

Structural system: CECO Concrete Construction (concrete); Peck Steel (steel)

Exterior cladding: Young Block Company (masonry); Elward Construction (copper cladding)

Roofing: W.R. Grace & Co.

Windows: Southwest Aluminum Systems (curtain wall)

Glazing: Northwestern Industries (glass, skylights); Old Castle (glass); Southwest Aluminum Systems (skylights)

Doors: Southwest Aluminum Systems (entrances); Three G Industries

(metal); Algoma (wood)

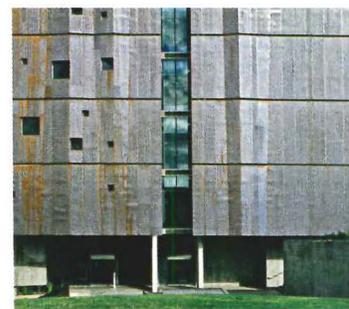
Hardware: Schlage (locksets); IVES (hinges); LCN, Rixson (closers); Blumcraft, Von Duprin (exit devices); Trimco (pulls); Blum (cabinet hinges); Ferum (cabinet pulls)

Interior finishes: Armstrong (acoustical ceilings, suspension grid); Cymat (foamed aluminum); Eagle One Millworks (cabinets and custom woodwork, paneling); Wilsonart International (plastic laminate)

Flooring: Advanced Terrazzo (terrazzo); Facings of America (tile); Mannington Commercial (resilient); Mohawk Industries (carpet)

Furnishings: Steelex (office furniture, chairs); Gordon International, Peter Pepper (reception); ICF (reception, chairs); American Seating Company (lecture hall seating); Brayton International (chairs, tables, upholstery); Carnegie Fabrics (upholstery)

Lighting: Zumtobel (interior ambient); Lithonia (track, striplights, downlights, task); LC+D Lighting Controls, Lutron



(controls)

Conveyance: ThyssenKrupp

Plumbing: Halsey Taylor (drinking fountains); Kohler (water closets); Chicago Faucet Company (faucets)

Cleanroom: Environmental Enclosures

MULTIFAMILY HOUSING

Being Neighborly

A new generation of downtown apartment buildings is using high design to regenerate once dicey areas and turn them into vibrant neighborhoods.

By Jane F. Kolleeny

165 CHARLES STREET

New York City

Richard Meier's 16-story residential tower rising above the Hudson River was conceived to continue the crystalline form and urban character of his two buildings nearby.



MUSEUM RESIDENCES

Denver

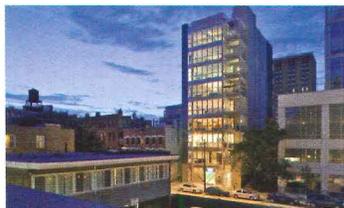
With this mixed-use project across from the Denver Art Museum, Studio Daniel Libeskind and Davis Partnership Architects take the museum experience to another level.



156 WEST SUPERIOR

Chicago

Miller/Hull's mid-rise residential tower sits on a narrow lot in the revitalized River North district of Chicago, paying tribute to its larger iconic neighbor, the John Hancock Center.



PORTICO SCOTS CHURCH REDEVELOPMENT

Sydney, Australia

Tonkin Zulaikha Greer's residential development sits atop an abandoned church and references its neo-Gothic massing in uniquely modern ways.



Jane Jacobs's famous statement that "a city cannot be a work of art" cautions us not to treat cities as aesthetic objects. Yet, within the multitude of elements contributing to the living organism of a city, artful forms can populate the urban landscape, enlivening it socially, economically, and aesthetically. With regard to cities, art might best be described as a measured and inspired response to the mixed variables that contribute to promoting a rich community life—an environmental response to a social and economic ecosystem.

In its own way, each of the projects featured here elevates the community life of the city it inhabits. Richard Meier and Partners' 165 Charles Street struts its stuff in a way that only New York architecture can. Rising in companionship with its fraternal twins down the block, this 16-story glass house adds glam and urbanity to the newly hip Meatpacking District it borders.

Miller/Hull Partnership's glass tower at 156 West Superior in Chicago also refers to its neighbor, in this case the X-braced, 100-story John Hancock Center. This nine-story little brother reflects its 1969 sibling's facade design, including a fresh take on structural bracing, while at the same time harmonizing with a block of unmatched buildings ranging from weathered brick low-rises to a new condo high-rise to an old Howard Johnson's motor court.

Tonkin Zulaikha Greer Architects' 146-unit apartment building, the Portico Scots Church Redevelopment, vertically extends an existing five-story church in downtown Sydney, Australia. The design adds modern detailing to the original neo-Gothic form of the structure. While the residences rise above noise and air pollution from a nearby railway and highway, they capture views of, and gain serenity from, the adjacent Wynyard Park.

Finally, Studio Daniel Libeskind/Davis Partnership's Museum Residences, a mixed-use development that invigorates downtown Denver, exists both as an extension of the architects' museum across the street and a sculptural form in its own right. It also serves many practical functions—hiding parking for the museum, promoting street life, and connecting the cultural and political districts of the Downtown Civic Center Park to bordering residential areas.

Each of these projects shows how residential design can contribute to and feed off the cultural life of cities. As people move back downtown, architects designing multifamily housing are helping to shape new urban communities and neighborhoods. ■

To rate these projects and for additional information on multifamily housing projects, go to Building Types Study at architecturalrecord.com/bts/.

One: 165 CHARLES STREET

New York City

Richard Meier & Partners sets a third crystalline tower beside its earlier duo along Manhattan's stylish downtown riverfront.

By Sarah Amelar

Architect: Richard Meier & Partners Architects—Richard Meier, FAIA, managing partner; Bernhard Karpf, AIA, associate partner; Don Cox, AIA, senior designer; Carlos Tan, Kevin Lee, project managers; Clay Collier, Gil Evan-Tsur, Milton Lam, Michael O'Boyle, Aaran Vaden-Youmans, Hyunjoon Yoo, team

Owner: Alexico Management Group
Engineers: Arup (structural); Ambrosino DePinto & Schmeider (mechanical, electrical)

Consultants: Zion Breen & Richardson (landscape); Fisher Marantz Stone (lighting); Shen Milsom Wilke (acoustic)

General contractor: Bovis Lend Lease

Size: 96,109 square feet

Cost: \$100 million

Completion date: June 2006

Sources

Cast-in-place concrete: Pinnacle Industries II

Roofing: American Hydrotech

Glass: Viracon

Doors: Enclos; LIF Industries;

Peterson Geller Spurge;

Blumcraft of Pittsburgh

Hardware: FSB; Dorma; Watermark

Lighting: Legion; Starfire;

Lightworks; Edison Price; Finline;

Nippo; Alcco; Bega; Leviton

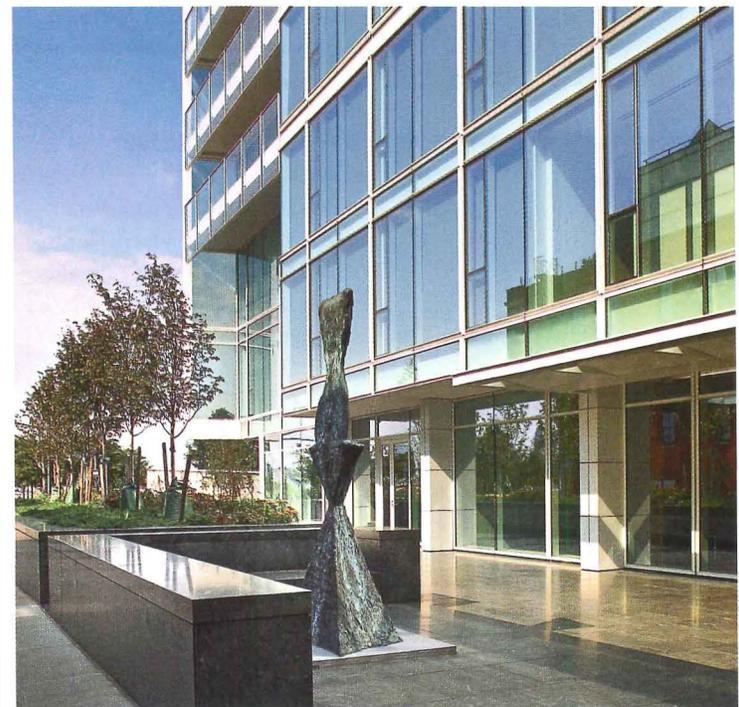
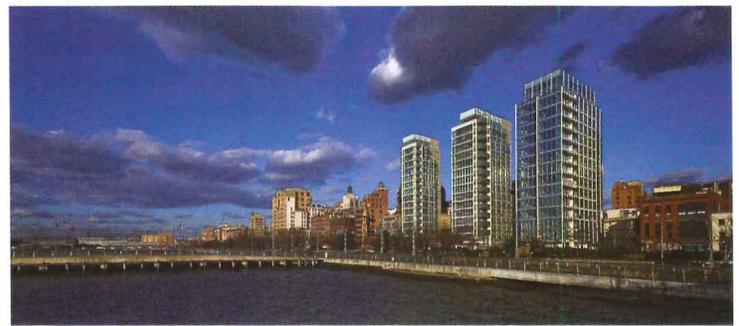
Elevator: Thyssen Krupp

To rate this project and for additional information, go to Building Types Study at architecturalrecord.com/bts/.

The cachet of the designer label has taken Lower Manhattan not by the collar, but by the cornice. Since the turn of the millennium, famous architects—including Herzog & de Meuron, Charles Gwathmey, Annabelle Selldorf, Winka Dubbeldam, Jean Nouvel, Richard Gluckman, and Bernard Tschumi—have been placing their signatures on glassy, new Modernist apartment buildings in New York City.

In the final decades of the 20th century, most new residential construction in this metropolis was architecturally bland and more or less anonymous. Very few of the world-renowned architects based here were actually building anything in their own city, least of all apartment towers. But an overblown real estate market, combined with architecture's growing allure for the general public—especially for a stylish high-end clientele—has fueled the demand for celebrity-designed residential projects. And while brick- or stone-clad apartment structures have long been the norm in New York City, many recent buildings for the rich and hip have featured variations on the curtain wall, rapidly making glass the luxury material of choice.

One of the first architects in this new wave was Richard Meier, FAIA, with his twin apartment towers, 173/176 Perry Street [RECORD, June 2000, page 42], completed along Manhattan's downtown Hudson River waterfront in 2002.



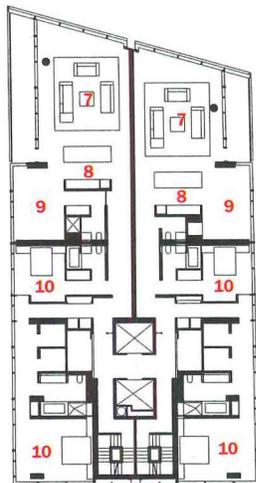
Soon after, another developer, Alexico Management Group, approached him to create a third tower—a potential fraternal triplet—at 165 Charles Street, just to the south of the original pair.

Program

Given the parameters of the zoning envelope and the opportunity to form a compatible trio, the architect made the Charles Street tower 16 stories tall, rising the same height as its Perry

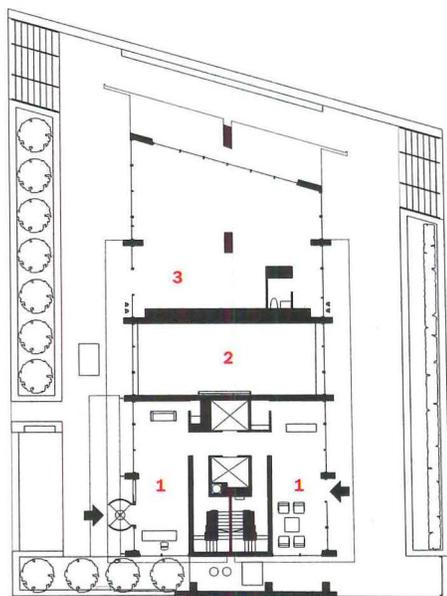
After Meier had completed the two north towers, a different developer commissioned a third one, immediately to the south (this page and opposite, top). Though distinct from one another, all three rise 16 stories and are skinned in glass with aluminum painted white (opposite, bottom).



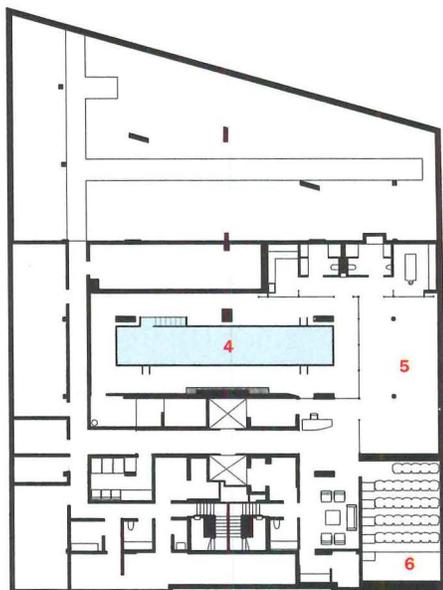
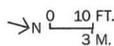


FOURTH FLOOR

1. Lobby
2. Open to below
3. Retail
4. Pool
5. Gym
6. Screening room
7. Living
8. Kitchen
9. Dining (convertible to bedroom)
10. Bedroom



FIRST FLOOR



CELLAR FLOOR

Street neighbors. While the two earlier buildings offer no more than one apartment per floor, 165 Charles houses two on most floors, with a total of 31 units: eight two-bedrooms (convertible to three), four studios, a duplex penthouse, and four one-bedroom units, two with double-height living rooms. The program also includes an 975-square-foot lobby, 1,670 square feet of retail space, a 650-square-foot gym, a 50-foot lap pool, a 35-seat screening room, a wine cellar (with individual temperature-controlled cabinets), and basement storage cages.

Solution

Learning from the first round—which burdened the Perry Street buildings with construction delays, roof leaks, and other glitches—Meier and Alexico agreed to dispense with value engineering at 165 Charles, in pursuit of uncompromised quality even at potentially high expense. While the architects had delivered the reportedly \$50 million Perry Street towers “shell and core,” with raw, loftlike spaces that the buyers could configure and fit out, Meier’s team designed all the interiors of the \$100 million Charles Street building, down to the fixtures and custom finishes.

From the exterior, this new tower conjures up an undeniable sense of déjà-vu—but with subtle aesthetic improvements over its twin predecessors. While all three buildings share similarities in scale, form, and skins of glass with extruded aluminum painted white, 165 Charles appears sleeker, more taut and self-contained. The streamlining here results, in part, from the treatment of balconies: edged in clear glass and inset on a side elevation, in contrast to the translucently enclosed decks projecting from a front corner of each Perry Street tower. Charles Street’s prime facade, forming a smooth, vertical, uninterrupted screen, like a huge sheet of glass, is split only down the middle, where a continuous spine separates each floor’s paired river-front units. Integrated tracks carry a motorized window-washing system.

Inside 165 Charles, the units all

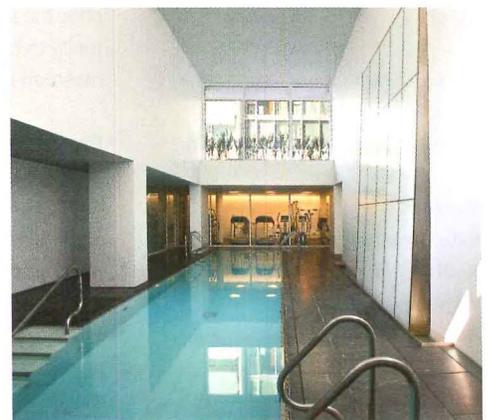
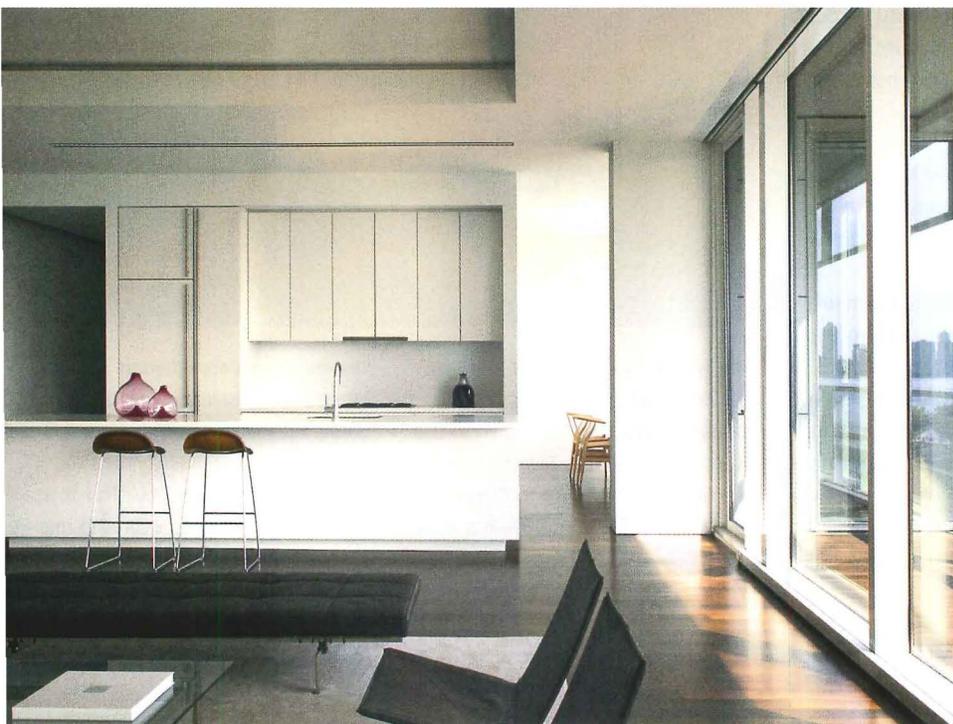
have 11.6-foot-high ceilings, pure-white kitchens with solid-surface counters, and walls with ¼-inch reveals, hovering above Wenge wood floors. Even the heating and air-conditioning vents appear minimally, as precise incisions set high in the walls or at the bases of the floor-to-ceiling windows. Kitchen islands, in most of the units, allow for free-flowing living and dining spaces. Everything is clean-lined—including the much-publicized 9-foot-high bathroom doors of translucent glass at \$6,500 each—placing the focus on views out.

Commentary

Glass houses, for all their glow and glamour, always come with a laundry list of pros and cons. For example, while opening the interiors to expansive views, the glass can also reveal too much to passersby and let in excessive sunlight. Meier’s team addresses some of these challenges with high-energy-rated, UV-filtering glass and, on the interior, electrically controlled sun and blackout shades. Acoustically improved glazing helps mute incoming noise—especially an issue on the lower floors, as a traffic artery comes between the river and this posh real estate (purchased at upwards of \$2,500 per square foot).

But the major roadway seems to matter little on this downtown stretch along the Hudson. Once the gritty domain of old brick buildings for light industry, meatpacking, and the occasional seedy nightlife venue, the strip has grown increasingly residential and chic. Quickly becoming a virtual *Who’s Who* in architecture, the area will soon showcase at least two other glass-sheathed, high-design structures: Frank Gehry’s nearly complete (nonresidential) IAC building and Nouvel’s future apartment tower.

Beyond coveted labels, the influx of celebrity architecture will also, ideally, help elevate the city’s ambitions for design, as have Meier’s precise and transparent, though hardly experimental, towers. Haute couture is thriving in this town, but the greater feat will be to raise the quality of housing for all income levels, making top architecture widely attainable off-the-rack. ■



From the higher floors, the major traffic artery tends to drop out of sight, in favor of panoramic river views (top). The pure-white kitchens include an island, around which the living and dining

space flows freely. Though the 50-meter lap pool (above) is below grade, daylight reaches it from high windows at both ends. A water wall beside the pool (above) adds to the spa atmosphere.

Two: MUSEUM RESIDENCES

Denver, Colorado

Studio Daniel Libeskind and Davis Partnership Architects wrap a parking garage with apartments and breathe life into a cultural district.

By Beth Broome

Architect: Studio Daniel Libeskind with Davis Partnership Architects, a joint venture—Daniel Libeskind, Brit Probst, AIA, partners in charge; Arne Emerson, Stefan Blach, Steven Haave, AIA, project architects; Jim Parker, AIA, Curtis Cox, AIA, Jimmy Schumacher, AIA, Alexander Pearson, Joe Lear, AIA, project team

Client: Museum Residences (Corporex Colorado/Mile High Development joint venture)

Consultants: J.F. Sato and Associates (civil engineer); Jirsa Hedrick & Associates (structural engineer); AMI Mechanical (design-build mechanical); Milender White Construction Company (general contractor)

Size: 126,000 square feet

Cost: \$21 million

Completion date: October 2006

Sources

Exterior cladding: Rheinzink

Roofing: Firestone TPO

Windows: Kawneer

Doors: Marshfield Door Systems (entry); Jeld-Wen (interior)

Hardware: Schlage

Cabinets: Berloni

Paints and stains: Sherwin-Williams

Resilient flooring: Oregon Lumber

Lighting: Prescolite; Alcco; Bega

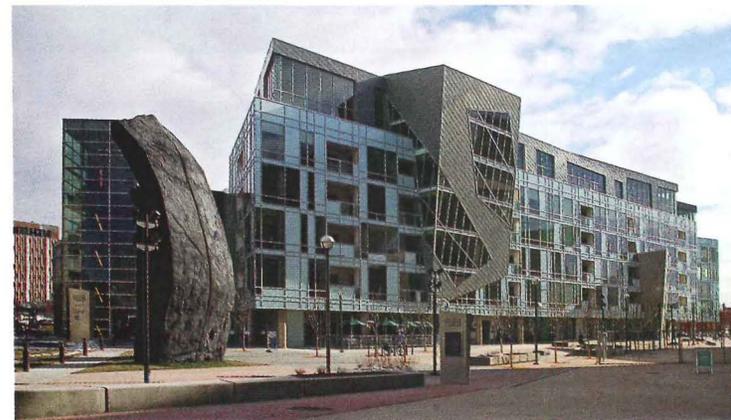
Plumbing: TOTO; Kohler; Dornbracht

To rate this project and for additional information, go to Building Types Study at architecturalrecord.com/bts/.

First there was the museum gift shop, then the café. Soon, signature museum architecture became a must-have. The commodification of the institution seemed complete. But museums have taken the phenomenon a step further with apartment towers, such as Studio Daniel Libeskind and local architect Davis Partnership Architects' Museum Residences, which sits directly across a small plaza from the Denver Art Museum's new Frederic C. Hamilton Building (another Libeskind-Davis Partnership joint venture [RECORD, January 2007, page 84]). These condominiums offer the ultimate amenity: an opportunity to bring—almost literally—the museum right into your home.

Program

When the Denver Art Museum first announced a competition for its expansion, the RFQ outlined the need for one building: the extension itself. Soon after Studio Daniel Libeskind was hired for the job, the project was ratcheted up with requirements for a parking facility to restore the spaces lost to the expansion and add to them. With budget constraints preventing a major excavation, the architects drew up plans for a five-story above-grade garage. But some people wanted more. For example, the city's director of community planning and development, Jennifer Moulton, had long championed a vision for promoting street



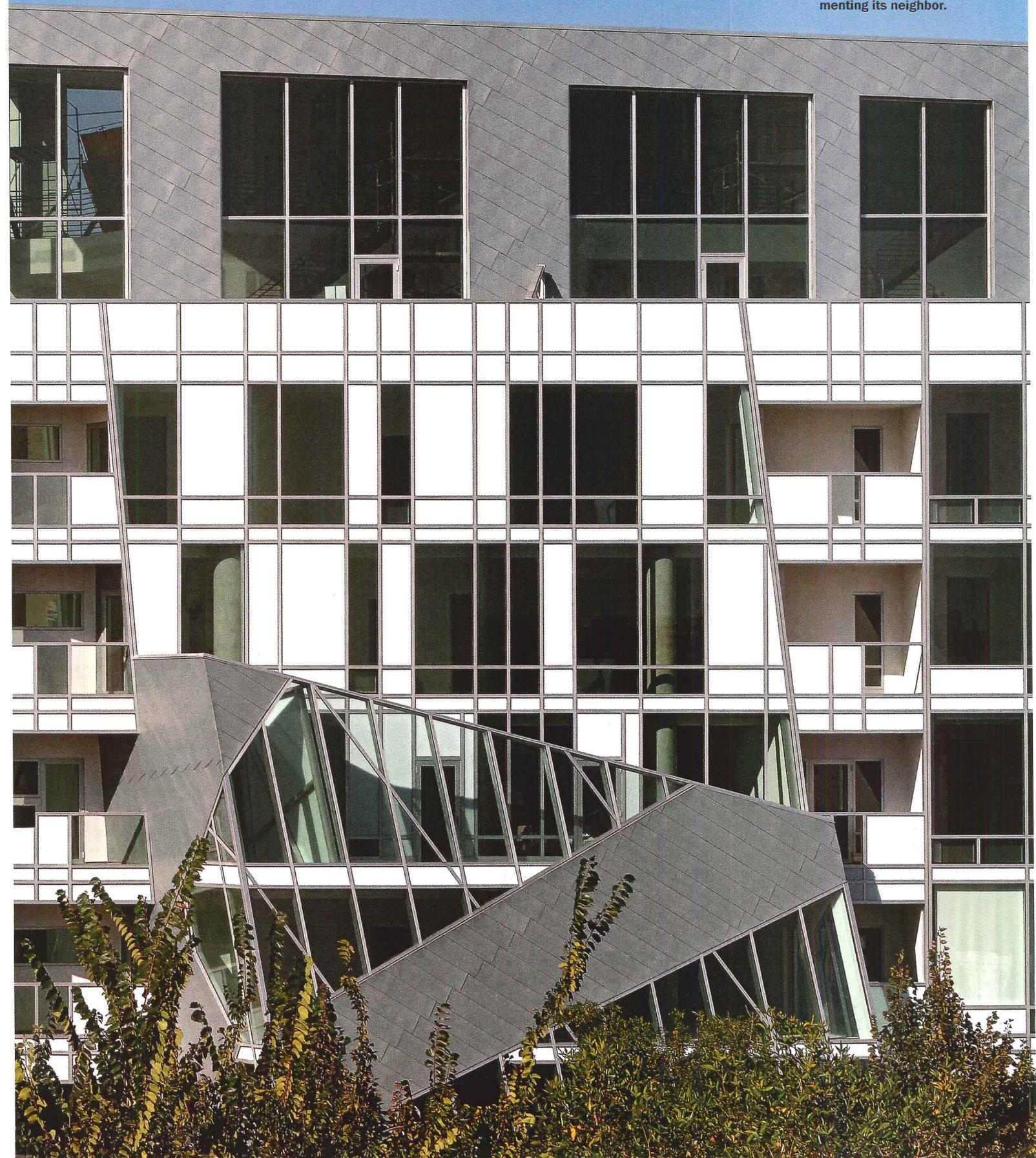
life with a mixed-use project that would connect Denver's cultural and political activities downtown to the gentrifying "Golden Triangle" residential neighborhood to the south.

Libeskind and his team quickly demonstrated they shared Moulton's vision. Instead of a freestanding garage, they proposed wrapping two sides of the 1,000-car concrete parking structure with a seven-story residential building anchored by retail

The residences are oriented to maximize views of the museum (top) and create the Acoma Plaza (bottom).

space on the ground level. The strategy provided a tidy solution to the problem of concealing the necessary but prosaic structure, while also bringing new residents and activities to the district. "For me, the project was about how to create an urban space activated by the neighbor-

The residences take cues from the museum, referencing its angular geometry while incorporating strategies for respecting and complementing its neighbor.





hood,” says Libeskind. “The idea was not to create a stand-alone building, but to create life.” The mixed-use Museum Residences building and its adjacent Acoma Plaza—along with a forthcoming hotel and residential tower that the architects also added to the master plan—are a testament to this commitment.

Solution

Two rectilinear volumes comprising 126,000 square feet and housing 55 apartments abut both the museum-facing Acoma Avenue side of the garage and the 12th Avenue side, which looks out toward the Rocky Mountains. A curtain wall glazed with transparent and opaque white panels shrouds the concrete-framed building, while a zinc-clad, shardlike volume thrusts like a javelin through the two facades where they meet at the garage’s corner. Zinc makes another appearance on one more multistory angular block that projects from the facade, “bowing” as if in deference to the museum’s adjacent entry.

The curtain wall lends a transparency and lightness to the residences, a respectful gesture to the museum. In yet another move to soften the potentially overbearing impact that a seven-story building might have on its culturally significant neighbor, eight steel-framed, zinc-clad penthouses, also offering views onto the garage’s green roof, are stepped back, creating ample terrace space. Nods to the museum are apparent in canted walls and jagged edges popping out of the building’s face.

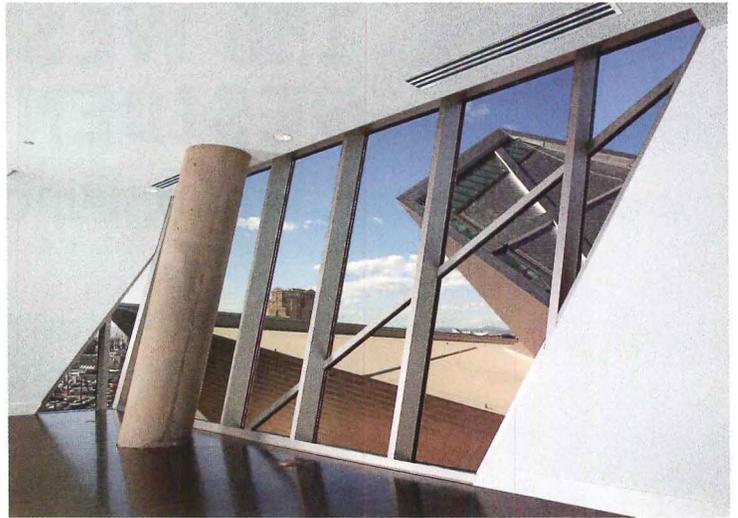
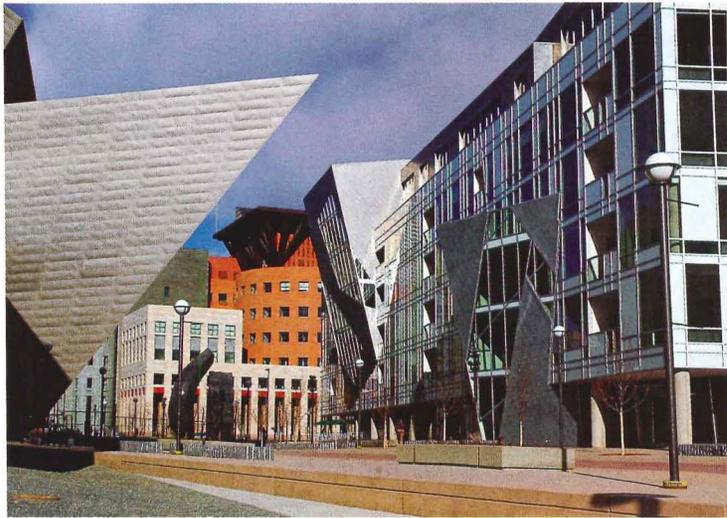
References continue inside, an extreme adherence to an angular parti that runs the risk of leaving residents exposed to catching “thematitis.” Floor plans, with few perpendicular lines, mimic the museum’s geometry, which, from the Acoma-facing side, is constantly on view, often through shardlike windows. The units themselves are modest in size, ranging from 750-square-foot studios to 2,200-square-foot two bedrooms. Designed by Libeskind and the Davis Partnership down to the cabinetry, the interiors are appointed with the expected luxury fittings and materials, such as Bosch appliances and



1. *Museum Residences*
2. *Denver Art Museum, Hamilton Building*
3. *Parking garage*
4. *Acoma Plaza*
5. *Rooftop garden*
6. *Services*
7. *Rooftop caterers’ kitchen*
8. *Rooftop restrooms*
9. *Garage entry*
10. *Corridor*
11. *Inset balcony*

TYPICAL FLOOR

0 20 FT.
6 M.



The Acoma Plaza runs between the museum and the residences (above). Apartments, some facing the museum (above right), have high-end finishes and appliances (middle and bottom).

mosaic tile, commensurate with the condominiums' price tags (ranging from \$340,000 to \$1.4 million).

Commentary

The Museum Residences are about looking out. The architects have created a viewing platform for admiring what they must consider one of their most significant built projects to date. A testament to this is the fact that the museum-view units have sold faster than those facing the Rockies—long considered Denver's money shot. While some have criticized the residences as riddled with "superficial gestures," the architects have established a dialogue between the apartment building and the museum. The relationship, points out Davis Partnership principal Brit Probst, "is about point and counterpoint": abundant fenestration versus virtually no windows at all, an active skin versus a more quiet wrapping, residential scale versus civic monumentality. And the architects have met their goal of breathing life into an urban center. In addition to masking a hulking garage and creating an inviting plaza, the residences, with their mixed-use functions, have great potential for serving as a bridge to the neighboring residential area and keeping the larger cultural center buzzing around the clock. ■



Three: 156 WEST SUPERIOR RESIDENCES

Chicago, Illinois

Miller/Hull Architects' light steel-and-glass mid-rise tower showcases an innovative exposed structural system.

By Blair Kamin

Architect: *The Miller/Hull Partnership—David Miller, FAIA, lead designer; Kurt Stolle, AIA, project manager; Brian Court, Doug Mikko, project team*

Architect of record: *Studio Dwell Architects—Mark Peters, AIA*

Client: *Ranquist Development*

Consultants: *Thornton Tomasetti Engineers (structural engineers)*

Size: *22,300 square feet*

Cost: *\$6 million*

Completion date: *July 2006*

Sources

Structural system: *Kingery Steel Fabricators*

Exterior cladding: *Peerless Products (metal/glass); Van Poppelen Brothers (masonry); Cerami Construction Company (concrete)*

Roofing: *Sika Sarnafil US*

Doors: *Vitralum Industries (entrances); Star Contractors Supply (metal doors); Stock Building Supply (wood and sliding doors)*

Hardware: *Schlage (locks); Von Duprin (exits, closers); Arclinea custom (cabinet hardware)*

Interior finishes: *USG Sheetrock (acoustical ceilings and suspension grid)*

Paint: *Benjamin Moore*

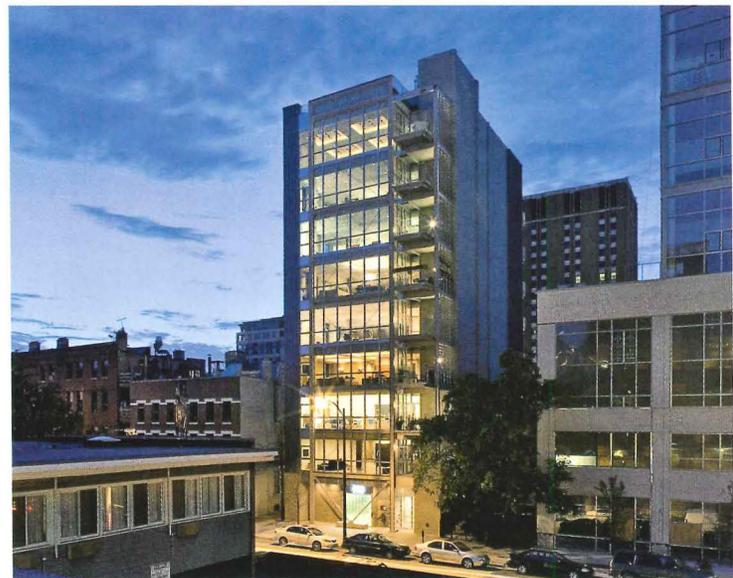
Floor and wall tile: *Ann Sacks*

Chicago's skyline boasts such muscular, structurally expressive towers as the John Hancock Center, the brooding, X-braced giant that is the city's Eiffel Tower. The 100-story Hancock was affectionately called "Big John" after its completion in 1969. Now it has a diminutive sibling, a nine-story condominium building by David Miller, FAIA, and Seattle's Miller/Hull Partnership that might well be called "Little John."

Miller once worked in the Skidmore, Owings & Merrill studio of Bruce Graham, FAIA, the architect of both the Hancock and the even taller Sears Tower. He freely acknowledges his debt to Graham and the Mies-influenced Second Chicago School of Architecture. Yet his building, known by its address of 156 West Superior, puts a fresh spin on this tradition, while offering a model of midblock infill design.

Program

Located in the gentrifying River North area, a few blocks west of Chicago's North Michigan Avenue shopping district, 156 West Superior was initially designed as a seven-story building that would slide just beneath the 80-foot limit where the costly provisions of Chicago's high-rise code kick in. But the developer, Ranquist Development, wound up adding two



stories because the economic benefits of the extra floors outweighed the added costs of sprinklers and other code-required features.

This shift improved the project's proportions, but the brief remained challenging: design a high-end, but not top-drawer, residential mid-rise for less than \$200 per square foot. Capturing unobstructed views in three directions, including prime south views of the Loop skyline, was essential to selling the units. And each unit would require its own parking space, a demand that has led developers of larger Chicago residential towers to plop their building atop street-deadening parking-garage podiums.

In addition to these internally driven requirements, Miller had to respond to the external needs of

architecture and urbanism: first, giving the building a presence that belied its Lilliputian size; second, making it a good neighbor on a mix-and-match block that includes weathered brick low-rises, a new condo high-rise, and an old Howard Johnson's motor court. The 11 condo units and 12 parking spaces were to be shoehorned into a narrow midblock site that measures 44 feet wide by 100 feet deep.

Solution

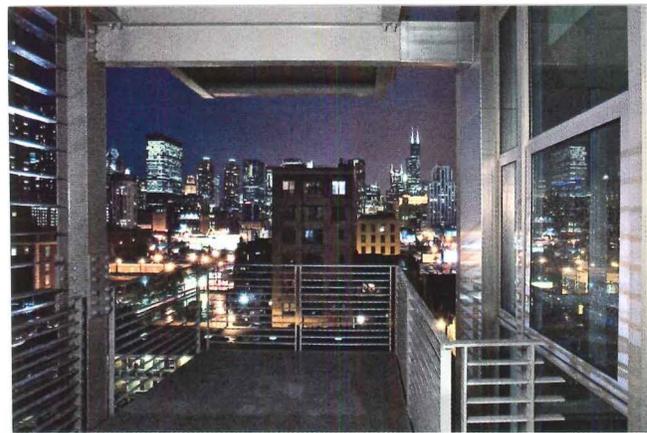
In keeping with the principles of the Second Chicago School, Miller and the architect of record, Studio Dwell Architect, made structure the essence of their solution, though their approach is loose enough to fit under the rubric of "relaxed rationalism."

To rate this project and for additional information, go to Building Types Study at architecturalrecord.com/bts/.

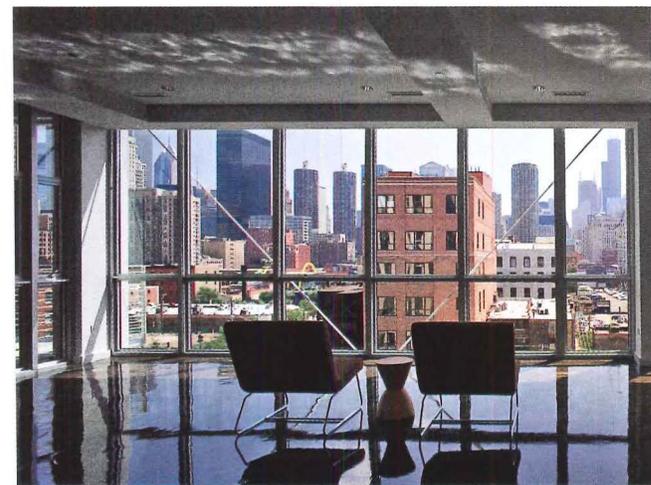
Blair Kamin is the Pulitzer Prize-winning architecture critic of the Chicago Tribune.

A steel frame structural bay fully enclosed in glass lends scale and identity to the exterior of the building, which fits on a narrow lot in the revitalized River North district of Chicago. Balconies slide out like trays from the structure and aluminum mullions frame the window wall.

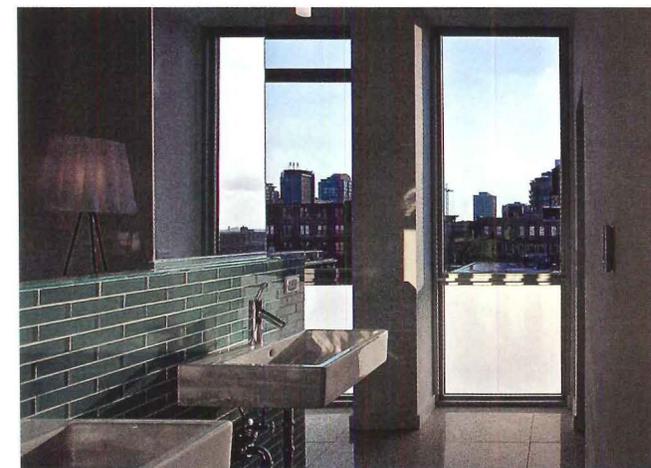




Steel-framed decks, enclosed with stainless-steel railings and louvers for privacy, serve as outdoor living rooms (left). Loftlike spaces with floor-to-ceiling windows are outfitted in sleek contemporary furnishings (below).



1. Lobby
2. Retail space
3. Elevator
4. Mechanical/electrical room
5. Bath
6. Bedroom
7. Walk-in closet
8. Living/kitchen/dining room
9. Terrace
10. Balcony
11. Mechanical area



SECTION A-A

0 10 FT.
3 M.

1. Retail space
2. Bath
3. Bedroom
4. Walk-in closet
5. Living/kitchen/dining room
6. Terrace
7. Balcony
8. Mechanical area



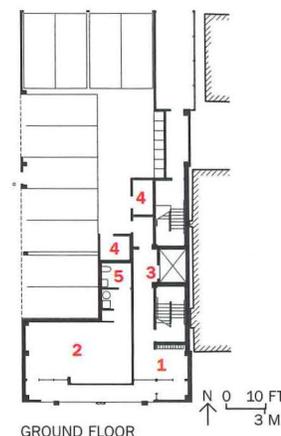
FLOORS 5-8



FLOORS 3-4



FLOOR 2



GROUND FLOOR

The main facades of the steel-framed building skillfully employ balanced asymmetry. A slablike end wall wrapped in standing-seam steel is matched on the other side by oversize, exquisitely detailed steel balconies. The composition gains added heft from the centrally located, wind-bracing exposed steel columns and diagonal tension rods, which are separate from the principal, weight-bearing structure. The end result satisfies the need for views, but with a robust urban presence and a sense of lightness and layering absent from more prosaic mid-rises.

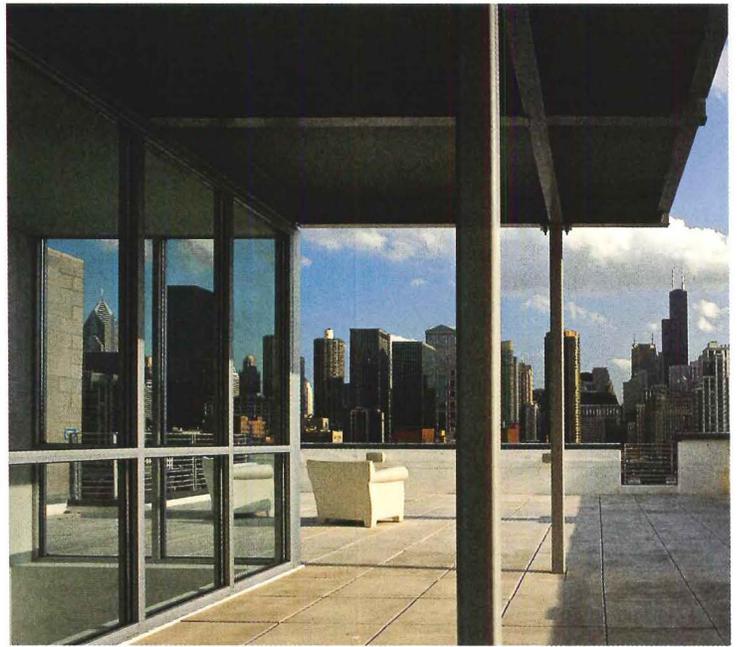
Miller configured the interior with equal deftness. To meet the program's economic demands, the building houses single-story flats, not multistory lofts. The light structure gives these units the feeling of urban tree houses. The 12 parking spaces, meanwhile, are accommodated solely at grade, not in a podium.

Commentary

While 156 West Superior uses an existing architectural language, it nonetheless plays with that language in creative ways, wisely tweaking a formal archetype rather than recklessly pursuing innovation for its own sake. Far from a slavish imitation of the Hancock Center, it is a light gem rather than a dark slugger—sinewy rather than muscular; street-engaging, not scale-shattering. This type does well by the city, though it is not faultless.

The expansion in the number of floors necessitated more at-grade parking, gobbling up space that was originally to be devoted to street-enlivening shops. In addition, the V-shaped steel tubes that complete the structural frame meet the ground somewhat awkwardly, partially blocking the pedestrian's path to the front door. But the scale, at least, is right for the street.

This mid-rise offers fresh evidence of the continued vitality of Chicago's legendary tradition of Modernism and serves as an example, at once architecturally striking and urbanistically sensitive, for other cities experiencing their own downtown development booms. ■



Ample deck space for entertaining is available on some floors (above). The open-plan interiors are airy, with abundant natural light flowing through commercial storefront windows (left). Kitchens feature contemporary Italian cabinets (below).



Four: PORTICO SCOTS CHURCH REDEVELOPMENT

Sydney, Australia

Tonkin Zulaikha Greer Architects extends the original Scots Church building upward with urban residences projecting into the sky.

By David Sokol

Architect: Tonkin Zulaikha Greer Architects—Tim Greer, principal; Paul Rolfe, project architect; Wolfgang Ripberger, Trevor Williams, Georgia Webb, Ruth Leiminer, Yannick Goldsmith, Kon Vourtzoumis, Roger O’Sullivan, Brian Zulaikha, John Chesterman, Angela Rheinlaender, David Jackson, Michael Bennett, Jan Ly, Helen Hughes, Trina Day, Bettina Siegmund, project team

Client: Westpoint Corporation

Consultants: Van der Meer Bonser (engineers)

General contractor: Westpoint Construction

Size: 204,000 square feet

Cost: \$48.4 million

Completion date: December 2005

Sources

Structural system: Condek

Metal/glass curtain wall: Permasteelisa

Metal roofing: BlueScope Steel

Aluminum windows, metal and sliding doors: Permasteelisa; JML

Hardware and pulls: Madinoz

Acoustical ceilings: CSR Gyprock

Stains and paints: Dulux Colours

Carpet: Supertuff Carpets

Lighting: Regal Lighting

Elevators: Thyssen Krupp

Plumbing fixtures: Duravit

To rate this project and for additional information, go to Building Types Study at architecturalrecord.com/bts/.

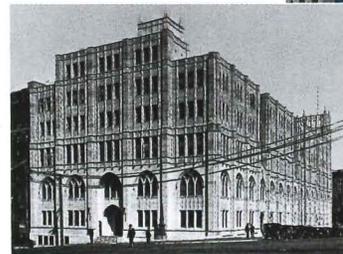
“An exquisite Glenn Murcutt pavilion sitting within a huge landscape is a complete misrepresentation of Australian architecture,” says Tim Greer, director of Tonkin Zulaikha Greer Architects (TZG), which is based in the hip Sydney neighborhood of Surry Hills. In fact, more than 95 percent of Australia’s 20-million-plus population lives within city limits, and the country is considered to be one of the most urbanized on the planet.

The national tendency to cluster means that architects are commonly asked to design multifamily buildings for urban sites—or transform existing buildings into higher-density uses. Scots Church in downtown Sydney, for example, sat neglected since the 1980s, when the building was sold by the church, except for the 2,500-seat, ground-floor assembly hall where its congregation still meets. By 2005, TZG had completed the conversion of the structure into a 146-unit, cooperative-style apartment building, now called Portico, which combines the neo-Gothic confection of the old building with unapologetically new towers perched on top.

Program

Begun in 1926, construction of Scots Church was capped at five stories during the Great Depression. But its trio of original architects intended the structure to reach 150 feet, and they

had engineered the frame accordingly. What seems like a gift for the next generation—enough bracing to support a profitable expansion—actually limited the possibilities of the final form. “The new addition could weigh no more



than the intended original,” Greer explains, because of Sydney’s conservative structural demands.

TZG worked with a host of additional constraints. For example, the building sits directly above the main railway line and overlooks the automobile route to Sydney Harbour Bridge. Noise and air pollution precluded balconies, although they are a popular feature in the city. Moreover, due to Portico’s adjacency to Wynyard Park, the designers had to follow a requirement for a 32.5-degree recession plane that would allow sunlight to penetrate the park.

Solution

With mezzanines supported by timber rather than steel, and partition



walls made of plaster instead of masonry (due to the load constraints), the 1926 base could support the weight of the new structure and its occupants.

Double-height fenestration in the duplex living units complements the tracery and casement windows of the historic church. “We knew intuitively that if we had a two-story-high space, we would get a vertical emphasis to the building,” Greer says. “While neo-Gothic buildings are perpendicular, apartment buildings tend to be a horizontal typology.”

Scots Church’s original design

David Sokol writes regularly for *Azure*, *Interior Design*, and *Metropolis*.

While 80 percent of the Scots Church units are duplexes on the new upper floors, offices in the existing building (opposite, left) have been converted to loft-style units, and the flamboyant former "Hall of Remembrance" became the lobby (opposite, right). To accommodate the recessed planes due to a series of light wells, TZG terraced the towers, ranging from eight to 21 stories, finishing each one in a pent-house structure with an inclined roof (right).





Apartments in the renovated lower portions of the structure enjoy original decorative features such as moldings, cedar joinery, and terrazzo floors (top). The new building's one-bedroom duplex units feature living and public areas on the lower level and an internal stair leading to sleeping quarters on a mezzanine (bottom).



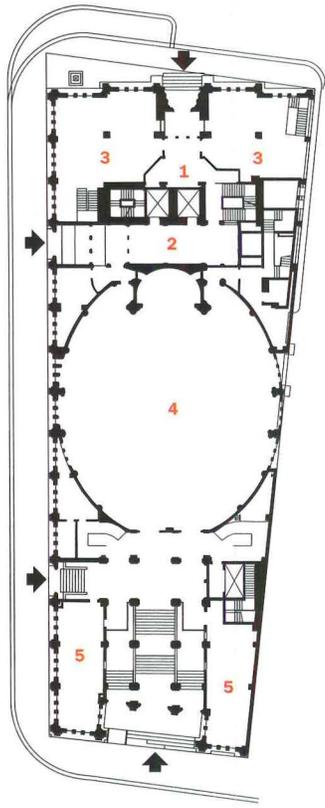
1. Lobby
2. Hall of Remembrance
3. Units
4. Assembly Hall
5. Church property
6. Wintergarden
7. Living room
8. Dining room
9. Kitchen
10. Studio/study
11. Bedroom
12. Terrace
13. Bath

called for four thin towers rising from a base. TZG honored that intention by designing a zinc-clad upper portion that appears as four unlinked volumes, thanks to a series of light wells dimpled into the western elevation. The architects didn't buck Sydneysiders' love of balconies entirely. They designed internal "wintergardens" between the lower-level living room and the building exterior of each unit. Sliding glass doors open onto the wintergardens but block ambient noise. Blinds on the exterior face of the wintergardens also reduce summer heat by blocking the sun and ventilating warm air by a stacking effect. This lessened air-conditioning capacity so much that the team could specify an additional apartment where there was once a mechanical room.

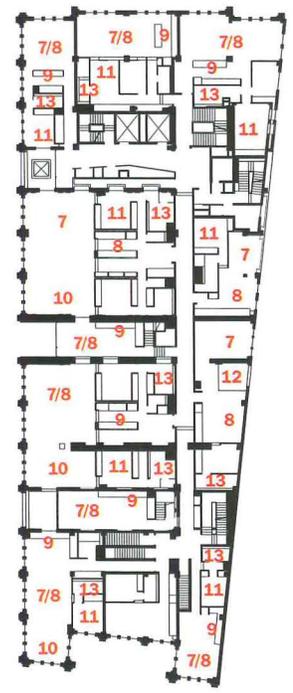
Commentary

While TZG's design reduces Sydney's noise and heat, it still encourages an occupant to feel part of the urban fabric. The firm restored the sandstone facade of Scots Church, which had been acid-etched into dull whiteness three decades ago—a popular practice in the 1970s—and splashed the western elevation of the zinc towers with red to make the different materials of the old and new facades more conversant. Inside, apartment dwellers in the old portion of the structure enjoy original decorative features like cedar joinery and terrazzo floors. On the upper floors, generous glazing in the open-plan units ensure that occupants are visually connected to the city.

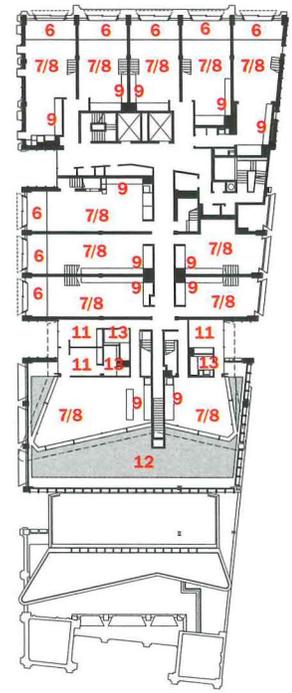
TZG won the Scots Church commission in 2000 as a result of a City of Sydney Design Excellence Competition, a program that was initiated to improve the architectural merits of center-city building. Scots Church was only the second competition of this type, and Greer reports that the contests are increasingly commonplace. While builders certainly appreciate the accompanying development bonuses, the program's attraction rests directly on the shoulders of ingenious solutions like TZG's. ■



GROUND FLOOR
N 0 20 FT.
6 M.



SECOND FLOOR



NINTH FLOOR

Getting Aggressive About Passive Design

ARCHITECTS CANNOT APPROACH THE FINAL FRONTIER IN LOW-ENERGY, ZERO-CARBON DESIGN WITHOUT ADDRESSING THAT OLD ENERGY HOG—AND BELOVED AMERICAN FRIEND—AIR-CONDITIONING

By Russell Fortmeyer

How sad that air-conditioning, perhaps the definitive building technology of the 20th century—responsible for the appearance of more architecture than all of the “isms,” genius practitioners, and political dictators put together—has increasingly become a dirty word among some architects. And how ironic that the more energy-hogging air-conditioning systems we build, the hotter the planet becomes.

In his 1969 book *The Architecture of the Well-tempered Environment*, Reyner Banham considered the air-conditioning unit a “portent in the history of architecture.” But might we be on the cusp of a decline in its dominance? Although basic, time-honored design strategies such as exterior shading, interior thermal mass, operable windows, and careful site orientation have reemerged in the past decade under the guise of green architecture, passive or natural ventilation remain exceptions.

According to McGraw-Hill Construction’s 2006 *Construction Outlook*, America built more than 150 million square feet of office space in 2005 alone, with the largest portion in Phoenix. We can safely assume that all of this space—and that in Phoenix in particular—came equipped with air-conditioning. This overwhelming evidence of our addiction to what Willis Carrier, the father of modern air-conditioning, called “man-made weather,” has not prevented an adventurous set of architects and engineers from aggressively pushing for more passive design strategies.

They call it the “Windy City”

Devon Patterson, AIA, a principal with Solomon Cordwell Buenz (SCB) in Chicago, calls the implementation of passive ventilation strategies—basically, anything to reduce dependence on air-conditioning—a



A library at Chicago's Loyola University uses a double-skinned glass curtain wall.

ARCHITECTURAL TECHNOLOGY

“forward-thinking” consideration. In the firm’s design for the 69,000-square-foot Information Commons and Digital Library at Chicago’s Loyola University, scheduled to open in November 2007, the need for energy efficiency that wouldn’t sacrifice the building’s transparency led the architects to knock on Matthias Schuler’s door. Schuler, a mechanical engineer who runs the Stuttgart-based climate engineering firm Transsolar, assisted SCB in developing a double-skinned glass curtain wall as part of an integrated system of radiant slabs, underfloor ventilation, and operable windows that would result in smaller overall mechanical systems. Patterson says Chicago’s extreme weather conditions—hot summers, cold winters—prevented an entirely natural scheme, but that so-called “mixed-mode” systems that combine conventional heating, ventilation, and air-conditioning (HVAC) with various levels of natural ventilation represent the best attempt to combat air-conditioning’s prevalence.

“We were initially going to install some sunshades, but we found this was a better way to mitigate heat gain,” Patterson says. Air enters the building off of Lake Michigan from the east through automatically operated clerestory windows on the glass curtain wall. It then moves across the interior to louvers at the top of the west wall, where it enters the 3-foot-wide cavity of the double-skinned curtain wall, a design-build point-supported glass system. This warmed air then exhausts via a natural stack effect through a large vent on the top of the building. There are basically two kinds of natural ventilation—the stack effect and wind. Loyola represents a combination of the two.

CONTINUING EDUCATION



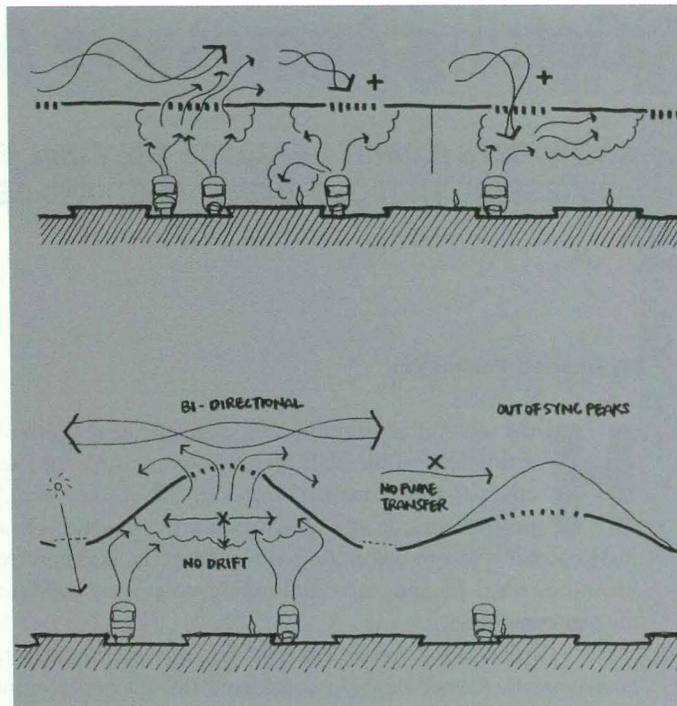
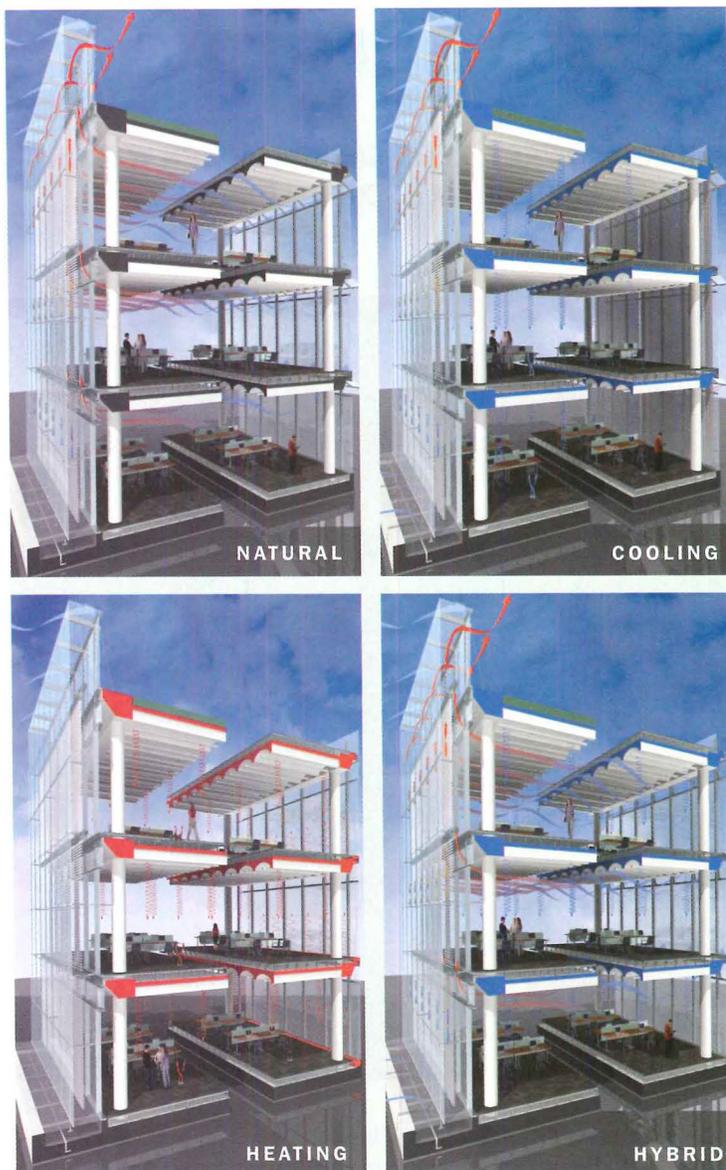
Use the following learning objectives to focus your study while reading this month’s ARCHITECTURAL RECORD/AIA Continuing Education article. To receive credit, turn to page 248 and follow the instructions. Other opportunities to receive Continuing Education credits in this issue can be found in sponsored sections beginning on page 255.

LEARNING OBJECTIVES

After reading this article, you should be able to:

1. Discuss how some passive ventilation systems work.
2. Explain the energy savings from passive ventilation systems.
3. Explain the advantages of mixed-mode ventilation systems.

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



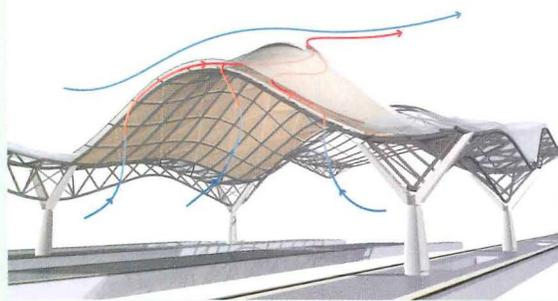
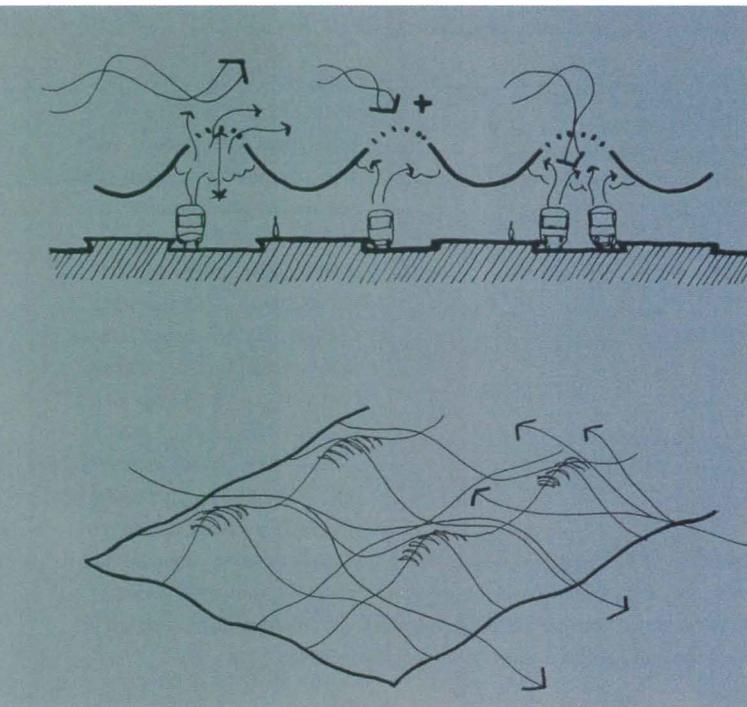
Solomon Cordwell Buenz architects developed four cooling and heating strategies for a digital library at Loyola University in Chicago (left). The natural ventilation scheme takes advantage of wind off of Lake Michigan on the east side of the building to pull air across the space and up through a double-skinned glass curtain wall on the west side. The other schemes show how mechanical systems operate in concert with passive and natural strategies.

Loyola is a simple enough solution—a tunable glass box wrapped around a concrete structure—but complexity resides in its details. For one, the east wall includes interior low-E shades that form a mini-double-skinned facade when early morning sunlight might otherwise overheat the space. (Europeans often place these shades on the exterior, Patterson says.) Two systems sandwich the air of the interior, which consists mostly of open space for computer workstations. A raised-floor displacement ventilation system provides conditioned air designed to handle the first 8 feet of vertical space, as opposed to conditioning the entire 12 feet to the ceiling. By locating the air supply in the floor, the architects could install in the exposed poured-concrete, barrel-vaulted ceiling the plastic tubing needed for radiant cooling and heating. Vaulting not only contributed more surface area for the radiant system, it also optimized reflection for the efficient T5 fluorescent indirect lighting system.

Of course, chilled slabs lead to worries of condensation and indoor rain showers, but Transsolar's modeling showed that with a minimum of 67 degrees Fahrenheit for the slabs, there would be only 10 days each year where the slabs would be colder than the dewpoint. The building's conventional HVAC system easily accommodates dehumidification for these instances. The west facade, though, remains the lynchpin in the

design. Early computational fluid dynamic (CFD) modeling of this side of the building showed air would flow over the top of the extended curtain wall and create a negative pressure zone on the backside that would pull air out of the wall's cavity. The curtain wall sits atop a trench, which pulls air in to facilitate the stack effect. In winter months, with the trench closed, warm air builds up in the wall cavity to help heat the building.

In 2004, the American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) revised its bible of air-conditioning—*Standard 55, Thermal Environmental Conditions for Human Occupancy*—to account for studies that proved that when people have more control over their environment, they typically accept a wider range of temperature conditions. In 2000, one influential study led by Gail Brager at the University of California at Berkeley's Center for the Built Environment showed that traditional research in human comfort expectations neglected to adequately consider three modes of adaptation: physiological, behavioral, and psychological. While Brager did not find that physiological adaptation, or how a body adjusts to a climate over a long duration, could account for much, she did find that behavior—removing clothing, turning up fan velocities—could significantly alter environmental perceptions with occupants. Brager also found that psy-



Grimshaw Architects' design for the Southern Cross Station in Melbourne, Australia, takes advantage of crosswinds to induce the stack effect in a double-skinned domed roof. The architects and engineers relied on 19th-century train-station designs to inspire the completely naturally ventilated station, since computational fluid dynamic modeling could not be undertaken until design had progressed significantly. The station, open since 2006, has been considered a success.



ARCHITECTURAL TECHNOLOGY

chologically, occupants of naturally ventilated buildings grow accustomed to less consistency in temperature, eventually coming to expect interior conditions that more closely hew to outdoor weather.

These shifts in perception undoubtedly encouraged SCB's architects to take advantage of Chicago's more temperate weather periods for natural ventilation. "A weather vane on the roof can open the facades and induce ventilation when outdoor temperatures fall within a range of 55 to 65 degrees," Patterson says, noting that the building's fullest potential lies in spring and fall. Still, he estimates that's enough time averaged across the year for the building to beat ASHRAE's 90.1 Energy Standard by 50 percent.

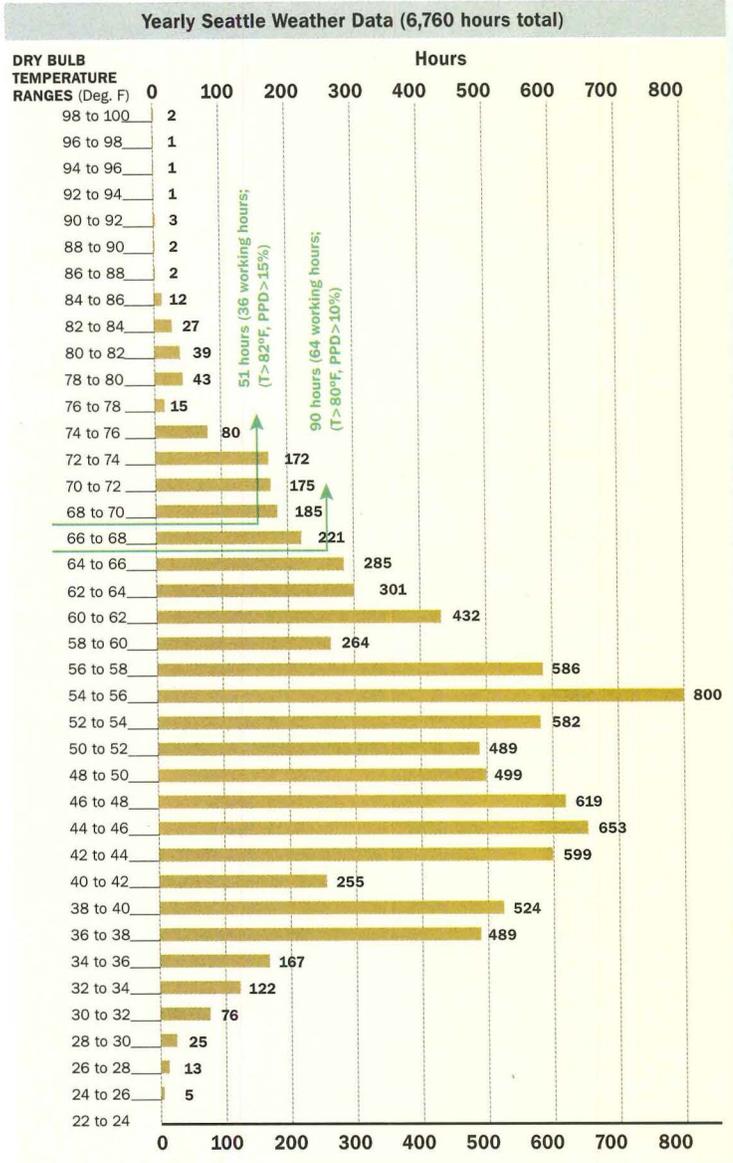
Green for open, red for closed

For architects and engineers, this sort of mixed-mode design probably represents the future direction of passive ventilation schemes. For risk-averse developers, mixed-mode designs offer flexibility—tenants who prefer air-conditioning can choose to ignore the windows—as well as a buttress against the unrelenting onslaught of humidity. At NBBJ's new offices in Seattle [RECORD, January 2007, page 110], Allan Montpellier, a mechanical engineer with the local office of Flack+Kurtz, developed a mixed-mode approach for an underfloor HVAC system that depends on

occupants to operate windows when the air-conditioning is off. Green and red indicator lights, tied to the building's HVAC control system, alert staff to when they can open windows. The approach can also backfire. "If you put a desk up against a window, that person will then 'own' that window," Montpellier says. "You really need space between desks and windows—you have to think psychologically about the space."

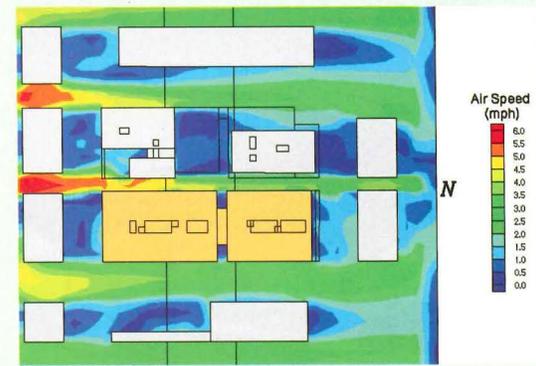
But before Montpellier could get to this point, he undertook a comprehensive review of what he terms a "typical meteorological year" in Seattle. He developed a chart for NBBJ that showed the number of hours in a year when the temperature would stay in a specific range; ever the jargonists, many engineers call this "binning up" temperatures. For example, the chart indicated 432 hours annually for a bin of 60 to 62 degrees, but Montpellier mainly focuses on the values above 80 degrees. "You really start to get uncomfortable around 80 to 85 degrees, even with a ceiling fan," Montpellier says. "Above that, people will complain." He found there were only 64 working hours per year where the temperature exceeded 80 degrees, which helped convince NBBJ to go with the mixed-mode design, though he notes each client tolerates different environmental conditions.

Having established a case for natural ventilation, Montpellier then had to determine if he could secure enough openings in exterior



Flack+Kurtz prepared a typical meteorological year chart for the design of the offices for NBBJ architects (far left). The chart indicates how many hours out of each year the outdoor temperature will fall into specific ranges. Temperatures above 80 degrees Fahrenheit are typically too uncomfortable to take advantage of natural ventilation. A CFD analysis of a typical office floor (below) indicates the air velocity across the floor plate on a particular day. Open offices facilitate airflow across the entire floor,

helped in part by a central atrium that draws air to exhaust through the roof. Architects at NBBJ (above) open and close windows based on green and red indicator lights installed throughout the offices.



walls to get the minimum amounts of air the scheme would require. The International Mechanical Code requires that for every square foot of floor area, you need 4 percent of the wall area for operable windows. Montpellier says he designs closer to 10 percent, as the code suggests a minimum that doesn't adequately address occupant comfort issues. At this point, Flack+Kurtz developed a CFD model of the building to gauge airflow patterns around and through the structure to ensure a natural ventilation scheme could accommodate the interior recesses of the building. Relatively standard design tactics—shallow, open floor plates no wider than 50 feet and a central atrium—facilitated air movement.

Engineers often refer to CFD modeling as definitive—a design tool producing results as good as the built thing. Paul Linden, chair of the department of mechanical and aerospace engineering at the University of California at San Diego, says CFD modeling can generate skewed results since most existing software, such as the widely used EnergyPlus from the Department of Energy, contains programming code that doesn't take into account internal heat gains. "EnergyPlus in its traditional form is for sealed, air-conditioned buildings," he says.

Linden, whose research has focused on airflow modeling, says updating EnergyPlus to consider natural ventilation schemes, transient envi-

ronmental conditions, more complicated geometries, and estimates of comfort levels for spaces will be key to the software's usefulness in design. Still, he says he worries that many consultants don't know how to read CFD analysis results, and even worse, hardly anyone monitors buildings post-occupancy to determine the accuracy of CFD predictions. "CFD models produce nice pictures," Linden says, "but who's to say what's right or wrong."

Model behavior

William McDonough + Partners developed a similar scheme as that at NBBJ for a mixed-use office project in Barcelona, with manually operable windows that allow cool air to filter into a central atrium and then exhaust through the roof. The architects produced a user's manual for the building, now under construction, explaining the role each occupant would play in how the building functions. John Easter, a director at McDonough, says the busy Barcelona streets surrounding the project certainly produce problems with indoor air quality and noise—two of the chief complaints of natural ventilation—but the city's commitment to reducing pollution should help in the long run. "There are times with heavy traffic where they will need to close up the building, but it's a system the tenants monitor and will have to adapt to," he says.

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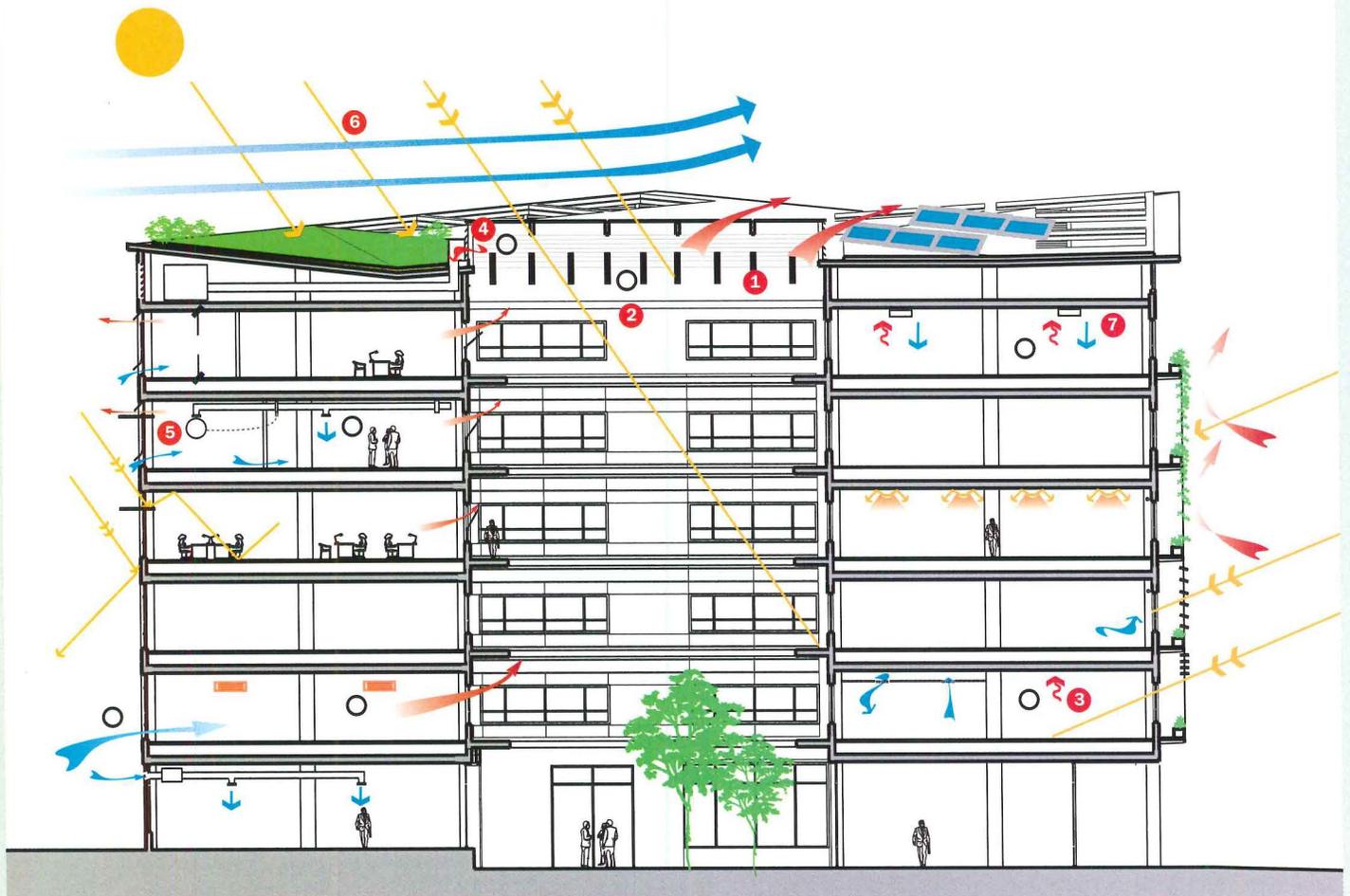
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Ecurban 22@, Barcelona, Spain, by William McDonough + Partners

1. Baffles to minimize solar heat gain and increase stack effect.
2. Air stratifies above this "neutral pressure level."
3. Exposed building thermal mass lessens temperature swings from day to night.

4. Louvers induce the stack effect, providing return air to the mechanical room.
5. CO₂ sensors reduce mechanical ventilation during unoccupied times.
6. Northwest winds assist ventilation with southeast facing openings.
7. Fan-coil units supply mechanical ventilation.

The term "risk" pops up frequently in discussions of natural ventilation and unconventional building systems. Matt Herman, an energy-modeling consultant with Buro Happold's New York office, worked on the McDonough project. He says the emergence of better performance-based analysis tools has instilled engineers with more confidence. After typical building energy modeling, or thermal analysis, is complete, Herman usually embarks on creating an airflow network. This relatively simple analysis, which he performs using the IES Virtual Environment software, models bulk air transfer around and through a building across an entire year. An airflow network primarily yields graphs that compare indoor to outdoor air temperatures throughout a year. It takes into account materials, solar obstructions, internal heat loads, and occupancy. Although it takes time to set up, running the program can take a few minutes to a few hours. A CFD model, on the other hand, can take days to calculate and, while it produces a high level of information about airflow, its data accounts for only one specific instance in time, usually a worst-case situation.

Although software tools have helped justify designs to risk-averse clients, some architects have returned to the pre-air-conditioning era for inspiration. Architects and engineers must discard a lot of cultural baggage to implement natural ventilation schemes. Modern air-conditioning,

arguably first installed in Brooklyn in 1902 by Carrier, took decades to become what Philip Johnson would call a crutch—an easy solution allowing architects to block out the real world, hermetically sealing our daily lives in a cocoon of ignorant bliss. Not until movie theaters widely adopted the technology in the 1920s did the public begin to demand it. ASHRAE first institutionalized occupant comfort levels with a chart for engineers in 1924. That became Standard 55 in 1974, which for years has supported the case for air-conditioning for nearly every building in America.

Grimshaw Architects looked at 19th-century European rail stations to find design tactics for the Southern Cross Station, completed in Melbourne, Australia, in 2006. Victorian stations typically had high barrel vaults that would help force a plume of smoke up away from travelers, with linear clerestory vents along the top of the arch for exhaust. Grimshaw implemented a more high-tech version of this with a domed, double-skinned roof that would absorb heat and contaminants into an open, gridlike inner layer, which would then exhaust through a 16-inch cavity out of "moguls" at each peak. CFD modeling showed that wind sweeping across the top of the roof would engender a pressure differential, or stack effect, at the mogul openings, naturally pulling the heat out of the cavity. Engineers considered a variety of airborne contaminants—sulfur



Boblolly House, Taylors Island, MD
Architect: Kieran Timberlake Associates
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dioxide, nitrous dioxide, and carbon monoxide—to ensure the system would work under every condition. Keith Brewis, a director in Grimshaw’s Melbourne office, says a 1-foot opening along the ground plane of each wall’s facade supplies the station’s air for the system to work. “During the competition phase, we hadn’t done the CFD analysis, so we made a provision in the plan and cost to put a fan in the apex of the domes,” Brewis says. “But we’ve been open and there hasn’t been a concern.”

Although Brewis says Grimshaw seeks to implement natural ventilation schemes on every project, he feels governments should lead the call to action since leasing agents can thwart a developer from even considering unconventional design approaches. While enlightened clients help, in nearly every case discussed in this article designers stressed the need to educate clients. SCB’s Patterson says Loyola approached the topic unenthusiastically until the architects took the university’s key players to visit similarly ventilated buildings Schuler had designed in Germany. Scott Frank, a mechanical engineer with Jaros Baum & Bolles in New York, says it can be a tough sell since owners view the components that make mixed-mode systems function as adding directly to cost and maintenance. “In the end, facades of buildings are going to have to be a more active component of design,” Frank says, suggesting perhaps the integration of radiant systems into facade components as one potential solution. Although eliminating air-conditioning sounds radical in 2007, the possibilities for an architecture unburdened by its demands clearly remain open to discussion. ■



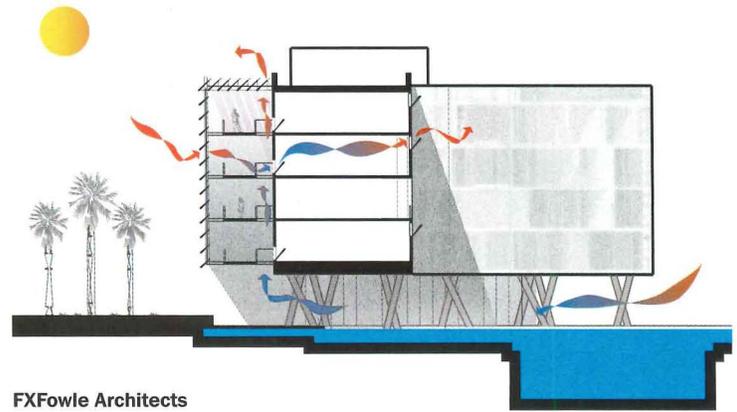
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INSTRUCTIONS

- ◆ Read the article “Getting Aggressive About Passive Design” using the learning objectives provided.
- ◆ Complete the questions below, then fill in your answers (page 249).
- ◆ Fill out and submit the AIA/CES education reporting form (page 249) or download the form at archrecord.construction.com to receive one AIA learning unit.

QUESTIONS

1. What are passive ventilation design strategies?
 - a. lower-cost ventilation methods
 - b. ventilation without using fans
 - c. harnessing wind and solar power
 - d. anything that reduces the dependence on air-conditioning
2. What is the result of an integrated system of passive ventilation?
 - a. less expensive to install the system
 - b. less design time is needed for passive systems
 - c. smaller overall mechanical systems
 - d. easier to calculate the capacity of the system
3. The Loyola University’s concrete barrel vaults will serve all except which purpose?
 - a. optimize the indirect lighting
 - b. carry radiant cooling/heating tubes for the floor
 - c. carry radiant cooling/heating tubes for the ceiling
 - d. contribute more surface area for the radiant system
4. How will the worries of condensation from cooling slabs of concrete be controlled?
 - a. the cooling would not be run on days colder than the dewpoint
 - b. portable dehumidifiers will run when the dewpoint is high enough for condensation
 - c. the building’s HVAC system will accommodate for the humidity
 - d. the climate in Chicago does not get humid when it is hot
5. In which way will the trench affect the heating/cooling at Loyola’s library?
 - a. the trench continuously feeds cool air into the building
 - b. the trench allows air to warm up before entering the building
 - c. the trench pulls air through when it is open, to both heat the building and facilitate the stack effect
 - d. the trench allows both warm and cool air to flow into the building
6. Studies prove that people accept a wider range of temperature conditions in which circumstance?
 - a. when they are paid well and praised
 - b. when they have control over their environment
 - c. when they are young
 - d. when they are happy
7. Creating an airflow network analysis takes all except which factor into consideration?
 - a. age of the building
 - b. internal heat load
 - c. occupancy
 - d. solar obstructions
8. Modern air-conditioning was not demanded by the public until which happened?
 - a. grocery stores adopted air-conditioning
 - b. the World’s Fair introduced air-conditioning
 - c. movie theaters adopted air-conditioning
 - d. ASHRAE produced a chart of occupant comfort levels
9. Air-conditioning became the standard for buildings in America due in part to which event?
 - a. Willis Carrier installed the first air-conditioning in Brooklyn
 - b. ASHRAE’s occupant comfort chart became Standard 55
 - c. the first enclosed shopping center was built
 - d. nuclear energy experiments were performed
10. What should you do to convince a client to approve mixed-mode ventilation?
 - a. chart the annual temperature fluctuations for the project’s climate
 - b. design more than 4 percent of the wall as operable windows for every square foot of floor area
 - c. develop a CFD model of the building to gauge airflow patterns
 - d. all of the above



FXFowle Architects designed this residential project for Dubai to take advantage of man-made lakes for natural cooling during the night. A screen on one side of the building filters sunlight to lessen heat gain on each apartment.





Program title: "Getting Aggressive About Passive Design," Architectural Record (05/07, page 241).

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| 2. a | b | c | d | 7. a | b | c | d |
| 3. a | b | c | d | 8. a | b | c | d |
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Tech Briefs

Heliostats, an old technology, harness the sun's power to provide daylight to otherwise dark spaces, while the sustainable design movement turns to the underdeveloped tool of life-cycle assessments to jump-start green building rating systems

Simple and bright, heliostats tap sunlight for lighting outdoor and, increasingly, indoor spaces

A sunny morning at the new Haus der Forschung in Vienna brings more than another day's work. Through a system of mirrors, prisms, and fiber cables, sunlight itself is funneled into the foyer. Snaking through the Forschung ceiling is the latest experiment in heliostatic lighting—bringing the sun inside the building.

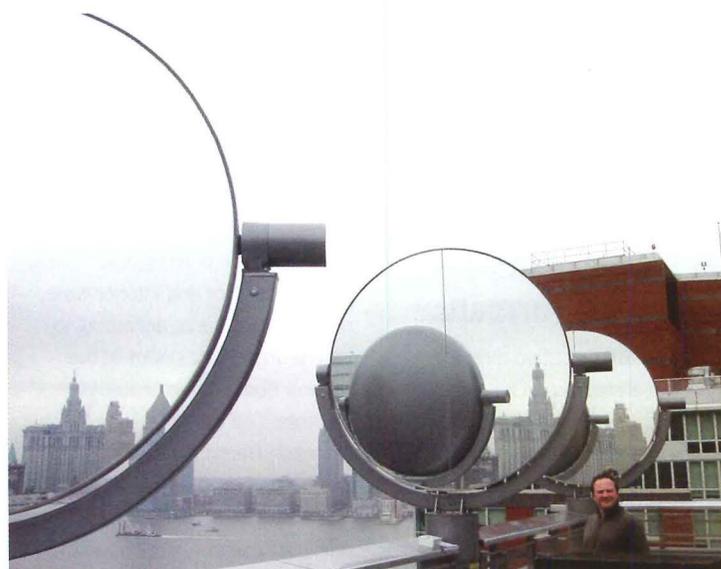
Heliostats are mirror arrays that track the sun, following preprogrammed sequencing directions from software or responding to exterior-mounted sensors. Sunlight can be reflected from a large, high-quality, roof-mounted circular tracking mirror to a secondary mirror or mirrors, and then directed inside a building, letting sunshine appear as if it were provided by electrical sources.

The mirrors have been around for decades. However, only recently, with increased interest in green energy and CNC cutting processes, which have reduced the costs of machining specialty optics, have architects begun to seriously consider using the mirrors for light and energy sources.

The designers James Carpenter and Davidson Norris, of New York's Carpenter Norris Consulting, have recently installed heliostats on a residential tower in Battery Park City. The mirrors bring daylight into a portion of the new Teardrop Park, a 2-acre park designed by landscape architect Michael Van Valkenberg, that would otherwise escape the path of the sun. Eight feet in diameter, the mirrors focus light that is 90 percent of the brightness of the sun onto an elliptical footprint on the ground. Norris says glare is not an issue, as the intense light source is no different than staring at the sun—a



At Battery Park City's Teardrop Park, Carpenter Norris Consulting installed three heliostats (left and below two) to bring daylight into a secluded urban landscape. The mirrors track the sun and reflect elliptical-shaped spots of daylight—at nearly 90 percent of the sun's brightness—onto eighteen places in the park. Alternately, fiber-optic cable (bottom) is used by Parans to bring daylight to otherwise conventional-looking light fixtures deep within a building.

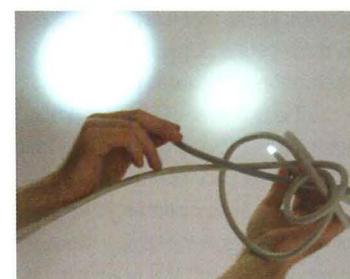


pastime few people willingly indulge in. Norris and Carpenter have designed a more complex version of a heliostat as a perforated metal lining for the interior of the dome of New York's new Fulton Street Transit Center. That nearly \$900 million project, designed by Grimshaw Architects and scheduled for completion in summer 2009, would reflect light down to multiple levels of subway platforms and corridors.

Although the technology has existed for centuries, new developments in light-delivery systems, particularly with fiber optics, have

been embraced in Europe in recent years. German artist and designer Andrea van der Straeten collaborated with Italian architect Angelo Stagno for the Haus der Forschung project, a foyer lighting scheme in a new center for science and research funding in Vienna's 9th District. The designer and architect worked with the Swiss heliostat manufacturer Lumena, Swedish natural lighting firm Parans, and the Bartenbach Light Laboratory, arguably Europe's leading innovator in lighting and architecture.

Stagno and van der Straeten



produced their design as the winner of an art and architecture competition sponsored by Austria's Bundes Immobilien Gesellschaft. They mounted a 5-foot heliostat mirror on the roof, which tracks the

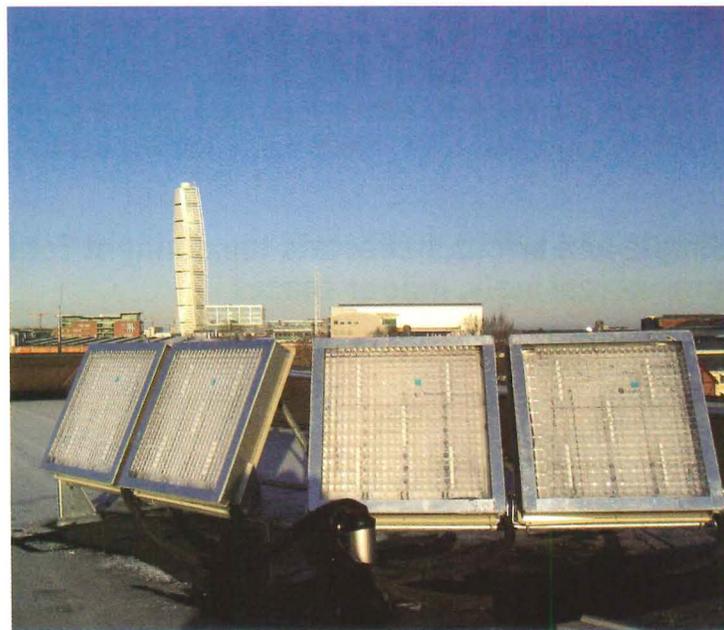
Tech Briefs

sun using photo-sensors. That light is reflected at a 35-degree angle down a 60-foot shaft to a set of lenses on top of the entrance awning, Stagno and van der Straeten say. The lenses, part of a Parans-built lighting module, connect directly to 25 fiber-optic cables that vary in length. The cables, ranging from 27 to 55 feet long, are routed into the foyer ceiling, at which point they snake down into the room. "Nobody could say how much light there would be at the end of the cable after about 45 feet," van der Straeten says. "Our experience now is that it changes color, not intensity. It's a little more green."

Excess heat—possibly even fire—is not a concern because heliostats designed for lighting do not concentrate the sunlight, says



Bartenbach's Wilfried Pohl, the firm's general manager for research. Bartenbach installed another kind of system that guides sunlight through 20-inch tubes into the firm's basement, where the light is distributed in a more central overhead array. Custom-built



The Swedish company Parans Solar Lighting has developed a range of products that take advantage of heliostats (above and top left) to deliver sunlight via fiber-optic cables to light fixtures in interior spaces (left).

heliostats are still fairly pricey at between \$13,000 and \$26,000, but firms like Parans are starting to make complex hybrid lighting systems using mirrors and natural light, with integral fluorescent lamps

taking over on cloudy days. Many occupants cannot tell the difference, though Stagno dreams of a day when buildings require no utility electricity connection at all.

Michael Dumiak

Green program developers embrace life-cycle assessments to gauge building performance

Efforts to make life-cycle assessment (LCA) an integral part of sustainable design practices are beginning to bear fruit. Since late 2004, the U.S. Green Building Council (USGBC) has been working to incorporate the methodology into its widely used building-rating system, LEED, and has committed to producing a detailed plan for integration by November 2007.

The two-year-old not-for-profit organization, Green Building Initiative (GBI), has already created a climate change calculator primarily intended for use with its own rating system, Green Globes. But the organization also plans to release a stand-alone version of the software, without charge, to other green-building organizations, trade associations, or state and municipal governments. "We thought this was too important to keep to ourselves," says Ward

Hubbell, GBI executive director.

The endeavors of both organizations should make LCA tools more accessible to architects, ultimately fostering a stronger connection between rating-system certification and environmental impact. LCA is a methodology that takes into account factors such as embodied energy, air pollution, and waste production associated with products through all stages of their life span, from material extraction and processing to eventual disposal. "We are helping strengthen the LCA infrastructure so that it can truly be useful to designers," says Scot Horst, chair of the USGBC LEED steering committee, the group charged with shaping the council's rating system.

The calculator created by GBI will allow designers to evaluate the global warming potential and other environmental impacts of 400 of the

most common building assemblies, such as exterior and interior walls, roofs, and windows, according to Wayne Trusty, president of the Athena Sustainable Materials Institute. The institute, along with Morrison Hershfield Consulting Engineers and the University of Minnesota's Center for Sustainable Building Research, developed the software tool for GBI.

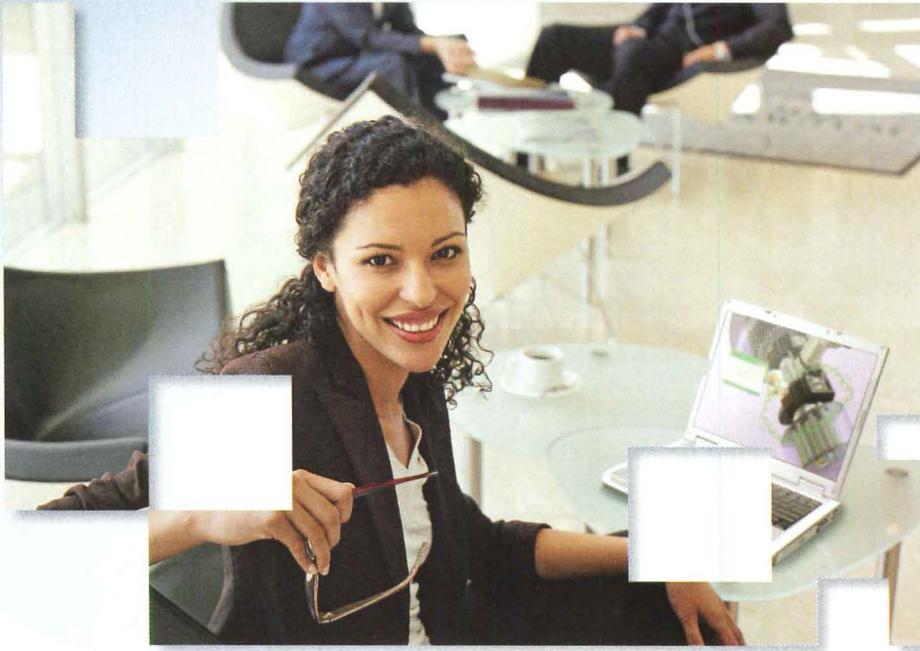
No timeline has been set for release of a version of Green Globes tied to the software because a technical committee is now reviewing the tool as part of an effort to make the rating system an American National Standard. However, as early as this month, GBI will make the generic calculator available at its Web site, www.athenasmi.ca.

The USGBC has resolved to use an approach similar to that of GBI: Both organizations' LCA tools will be modeled on the *Green Guide to Specification*, published by the U.K.-based certification, research,

and testing organization Building Research Establishment. The guide assigns ratings to building assemblies based on their relative environmental impact. This similarity "is not a big surprise," says Horst, who notes the involvement of Trusty from the Athena Institute in both endeavors. Trusty serves as chair of the GBI technical committee and a USGBC working group studying how best to integrate LEED and LCA. Horst, an Athena vice president, has not participated in the development of the GBI calculator.

Even after integration into the rating systems is accomplished, LEED and Green Globes will still need credits to address environmental-impact areas not easily evaluated using LCA, such as human health risks, indoor air quality, and land use issues, sources say. "LCA is just one component of a much broader design process," says Trusty. "It is not the be all and end all." *Joann Gonchar, AIA*

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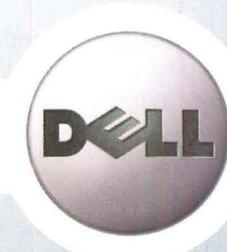


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Lighting

Working in three different scales, lighting designers titillate the senses

BRIEFS

Despite advances in making more stylish compact fluorescent lamps, consumers still resist giving up the look and color of their energy-guzzling incandescents. In February, GE Consumer Industrial announced that it had developed a **high-efficiency incandescent lamp** that rivals the environmental benefits of compact fluorescents. While initial production models should double the efficiency of standard incandescent lamps, the company says it can ultimately double that again. On the same day that GE unveiled its new technology, architecture mourned the loss of one of its leading lights, **Jules Horton**.

The 87-year-old had founded Jules G. Horton Lighting Design, now Horton Lees Brogden Lighting Design, in 1968. He will be remembered for major commissions such as the Dallas/Fort Worth International Airport, Jeddah International Airport, and Tour du Crédit Lyonnais. Go to the archrecord.com News section for a commemoration of Horton's life and career. To look into the future of urban lighting design, mark your calendars for May 23 and 24, when Philips Lighting hosts the **city.people.light** forum in Rotterdam, the Netherlands, in conjunction with the city's Year of Architecture. Participants will explore lighting designers' role in establishing a city's identity, preventing crime and vandalism, promoting tourism, and enriching urbanites' quality of life in general. For those lacking the frequent-flyer points to make the trip abroad, turn to page 215 to find out how SWA Group reclaimed a key amenity in downtown Houston and lighting designer L'Observatoire International gift-wrapped it in an illuminated bow. *D.S.*

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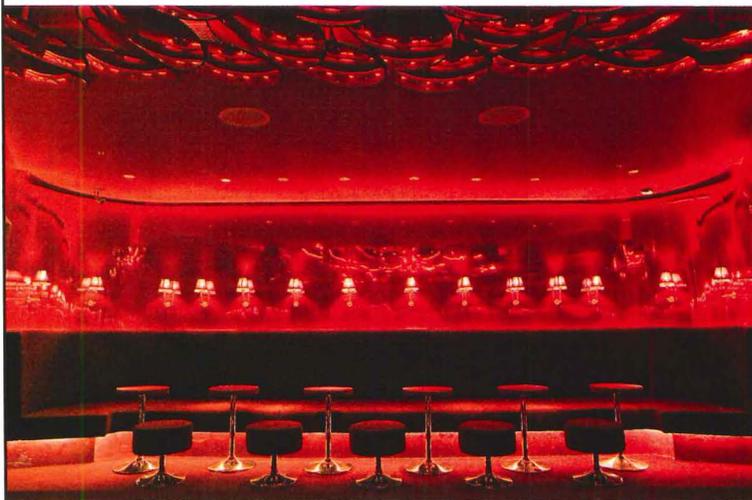
On a warm June evening last year, 10,000 well-wishers gathered at the banks of Houston's Buffalo Bayou to celebrate the opening of the Sabine-to-Bagby Promenade. The event was not intentionally planned to coincide with the full moon, so when it appeared, it was as if nature had conspired to put on a show.

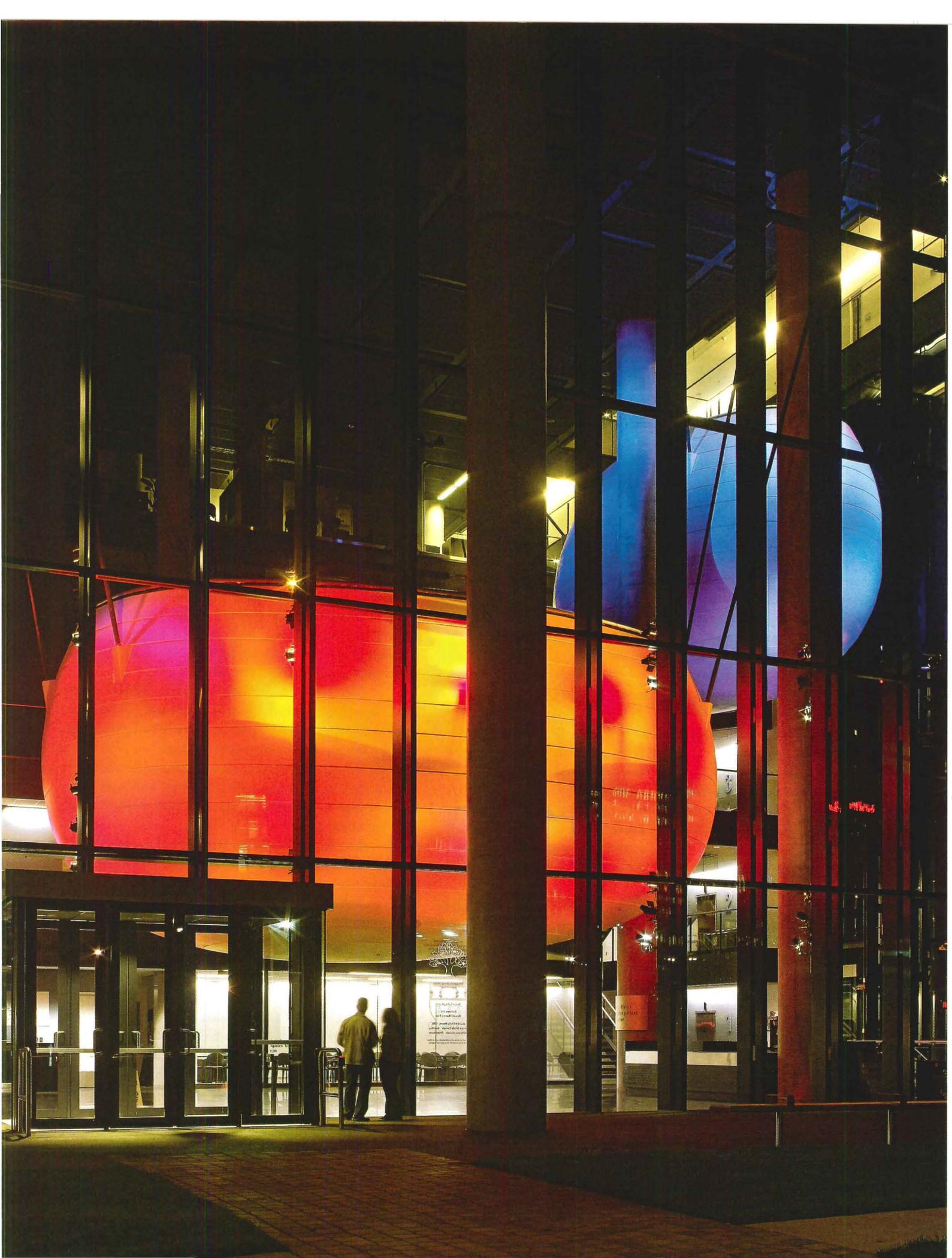
It was a fitting occurrence for this 23-acre park, in which lighting designer L'Observatoire International looked to mother nature as a collaborator. Path lights, for example, cast orbs of LED-generated colors that correspond with the lunar cycle. The effect is as stunning as the 300,000 plants carefully chosen by landscape architect SWA Group, and breathes new life into Houston's originating waterway. Where floodwaters would deposit harmful sediment, now art films are projected on a barge. Where homeless people had slept beneath overpasses, families stroll past muscular columns illuminated in sapphire blue.

While the Buffalo Bayou project exemplifies the power of light to communicate security and poetry in an urban environment, a Singapore nightclub's lighting and interior design meld seamlessly to create an alternative transporting experience. The Clinic, a joint project between the Amsterdam architecture firm Concrete and local lighting designer avoKinetix, pushes revelers beyond their personal safety limits.

The Clinic would be the kind of hospital you'd imagine after inhaling. Its jumble of rooms features all kinds of footprints, materials, and colors that represent different medical conditions and their treatments. The lounge dubbed Delusion is shown here, but the dizzying array of experiences is well suited to the person seeking refuge from the order of Singapore's conservative daily life.

The hard-core pleasure seekers at The Clinic may someday seek treatment from students now attending class at the Leslie L. Dan Pharmacy Building at the University of Toronto. Luckily, these Canadians don't have to travel to Singapore to see great design. Their new academic home's lighting scheme, by designer Claude Engle IV, of Claude R. Engle, Lighting Consultant, and Lighting Design Solutions/HH Angus, flatter suspended pods by architect Norman Foster in an array of colors. Although their orchestration is dramatic, Engle remarks that the project affordably deploys common theater equipment for big impact—perhaps a reminder to students to choose generics over brand names. *David Sokol*





For the Leslie L. Dan Pharmacy Building, Claude Engle bathes floating pills in an array of trippy colors

By Tim McKeough

At the Leslie L. Dan Pharmacy Building at the University of Toronto, Foster + Partners has turned contextual design on its head. Situated on a grassy lot at the intersection of College Street and University Avenue, the academic tower is located adjacent to the school's historic Tanz Building. "We looked at the program and decided that instead of aligning the top of our building with the Tanz Building, it would be more interesting to play an inverted game and create a void," says Nigel Dancey, senior partner at Foster + Partners. As a result, much of the building's bulk is raised on concrete stilts, leaving room below for a transparent glass cube precisely the five-story height of its neighbor.

Within the large, open void, the architects decided to suspend two massive classroom pods that they hoped would look as though they were floating on air. Working in collaboration with Chevy Chase, Maryland-based lighting firm Claude Engle, it didn't take long for all involved to realize they could make the lozenges the building's signature feature by illuminating them at night with a show of shifting hues.

"We had this idea of theatricality, which explains the colored lights," Dancey says. "Claude Engle III [the firm's founder] and his son Claude Engle IV had both been very involved in theater design and knew about using gels and mixing colored lights to create some interesting effects." The resulting display is managed by a preset computer-controlled-dimming system that changes the colors every 15 minutes throughout the night.

The team, led by Claude IV, originally thought about lighting the pods with concealed luminaires around the perimeter of each bulbous behemoth, but realized it couldn't work. As the younger Engle explains, that would have required attaching luminaires to Foster's glassy skin, which "would make the mullion become this fat thing" and muddle the architects' intentions. Instead, Engle's firm decided to use 128 actual 375-watt and 300-watt quartz halogen lamps in fixtures commonly used in theatrical lighting, attaching the plug-in lights to black theater pipes with standard C-clamps.

Thanks to the theater technique, "you can move these lights up and down for a totally flexible system," says local lighting consultant Kenneth Loach. Moreover, "The lights themselves become part of the experience," Claude III notes, adding that the team selected colors that were more sophisticated than those favored by local dramaturges: "It's the difference between something that looks like a champagne fountain and

Tim McKeough is a New York-based journalist who writes about architecture and design for Wired, Metropolis, Azure, and The New York Times.

Project: The Leslie L. Dan Pharmacy Building, Toronto

Lighting designer: Claude R. Engle, Lighting Consultant—Claude R. Engle III, founding member; Claude R. Engle IV, project designer

Local lighting consultant: Lighting

Design Solutions/HH Angus—Kenneth Loach, principal

Architect: Foster + Partners—Norman Foster, David Nelson, Nigel Dancey, Stephen Best, Luis Matania, James Barnes, Danny Shaw, Pietje Witt, Joost Heremans, project team



Two pods suspended within the Leslie L. Dan Pharmacy Building atrium (below) are illuminated by fixtures associated with theater lighting (opposite). Fluorescent lighting rings the 7-story upper volume (left).





The building provides facilities for more than 1,000 students; undergraduates attend classes in the lower floors and graduate research takes place above. The larger pod

includes a 60-person lecture hall and a reading room. A 24-person classroom occupies the smaller form, which is topped by a faculty lounge that opens to the atrium (above).

something as elegant as an educational building ought to be," he says.

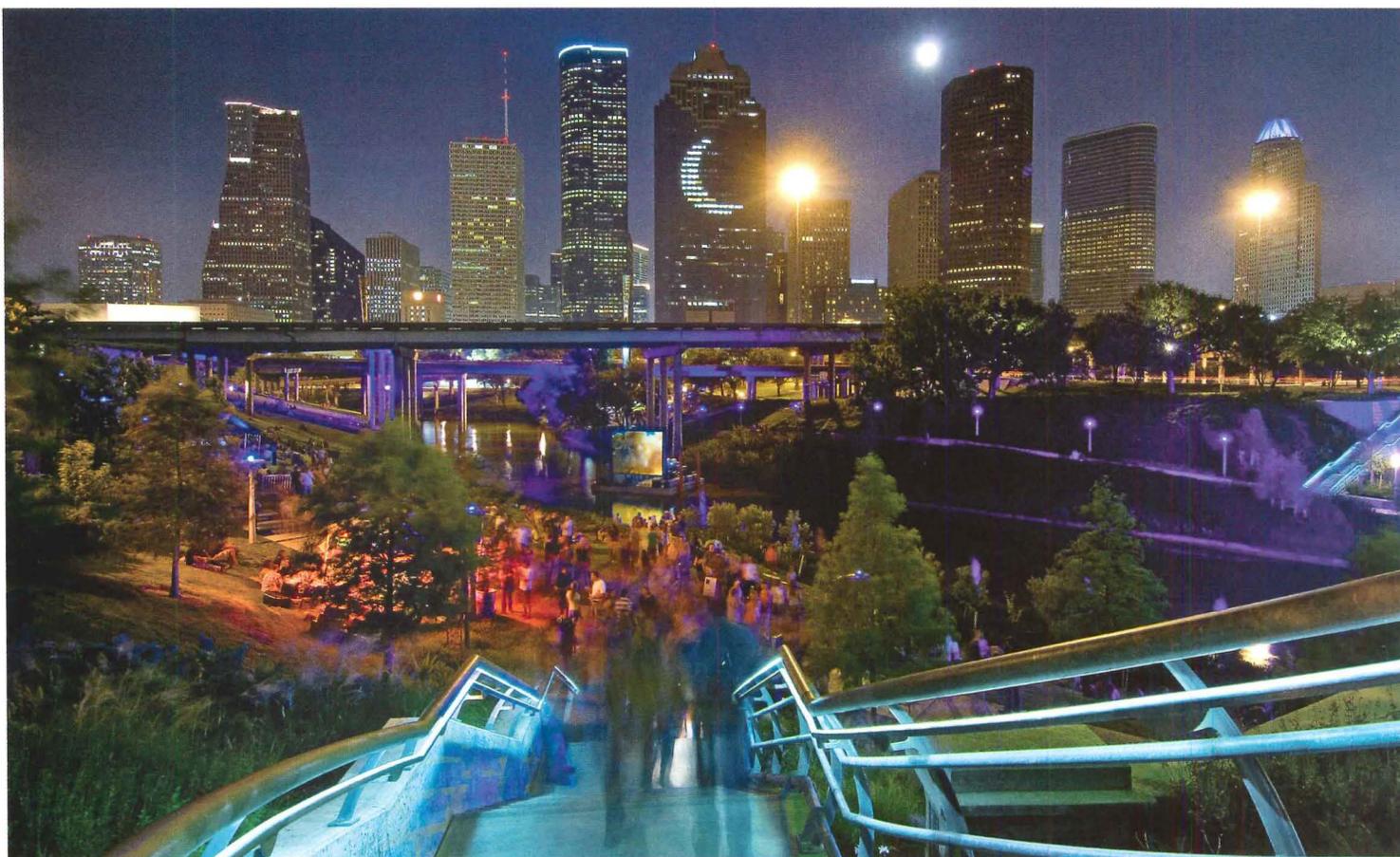
The lighting designers mixed primaries, outfitting luminaires with Apollo dichroic filters held in place by frames. At dusk, the pods perform a metaphorical sunset, exchanging fiery reds and deep blues. They then proceed to a sequence of blues, yellows, and greens in a deliberately tight palette; colors introduced on the underside of one pod are later introduced in its mate. The theater lights are outfitted with borosilicate glass lenses with four beam spreads ranging from very narrow to wide flood, and are supplemented by 1,000-watt quartz theatrical flood fixtures.

The building takes an equally inventive approach to daylight. An atrium slices vertically through the core of the 12-story structure, pulling sunlight deep inside. To balance concerns about solar heat gain with the desire for natural light, Foster's team covered the glazing on the south elevation of the glass cube with a large-dot frit pattern. The density of the frit pattern gradually decreases along the eastern elevation before opening up to mostly clear glass on the northern facade, where offices look out over Queen's Park, the home of Ontario's legislature.

In the offices and hallways lining the perimeter of the upper volume, "The fairly high window system allowed us to put in wall-wash lighting that is concealed and less expensive," Claude senior says. Off-the-shelf fluorescent T8 luminaires were inserted in architectural coves, which delineate the building edge at night. "You can see how the floor plates start and stop," his son adds. To reinforce the geometry of the interior architecture, the lighting consultants also integrated LEDs into the handrails of bridges and hallways that connect the labs, offices, and pods.

"This is an example of a very economic solution that's quite spectacular," says Claude III. "The building helps the lighting, and the lighting helps the building," a success he attributes to collaborating with the architects on myriad projects. "We've done so many things together that we almost know how to finish each other's sentences." ■





L'Observatoire International transforms a neglected stretch of Houston's **Buffalo Bayou** into Moon River

By David Sokol

Until recently, Houston's meandering Buffalo Bayou waterway had been a camera-ready place—if you were using a long-range lens. “What makes this site really impressive is its view of the downtown skyline,” says Anne Olson, president of the Buffalo Bayou Partnership.

The body of water was another story. Container ships' deep-water requirements had forced port uses to relocate to Galveston, and the bayou was only halfheartedly converted to a public amenity. Flooding from tropical storms eroded walking trails and bicycle paths, and non-native plants had invaded the remaining terra firma. Moreover, the city street grid and elevated Interstate 45 obscured views of the park to potential users above. Homeless people inhabited the raw infrastructure below.

Now the bayou is ready for its close-up. Twenty-three acres of this landscape, known as the Sabine-to-Bagby Promenade, was recently given a \$15 million overhaul as part of a 20-year-long master plan first released in October 2002. The site was reimagined by landscape architect SWA Group, and thanks to convincing by arts consultant Stephen Kornis, the funding originally earmarked for public art was mostly channeled into a lighting plan by New York-based lighting design firm L'Observatoire

David Sokol is a New York-based freelance writer.

L'Observatoire's lighting plan for Buffalo Bayou features a multilayered approach to various park elements.



Project: Sabine-to-Bagby Promenade, Houston
Lighting designer: L'Observatoire International—Hervé Descottes, Zac

Moseley, NatHalie Barends, Peiheng Tsai, project team
Architect: SWA Group—Kevin Shanley, principal in charge



Integral LEDs highlight pedestrian access; pole-mounted downlights illuminate paths; and stadium floods shine a blue wash on urban infrastructure.

International. Besides casting the park in a flattering light, L'Observatoire's multilayered scheme reconnects city dwellers to the nature at their doorstep.

Principal Hervé Descottes, recalling his first site visit in 2001, says, "The first need was obvious, the need to bring the park to the height of the city." Without a well-conceived intervention, Descottes feared the park would be fated to the same high-pressure sodium lamps as the nearby highway, forcing it into obscuring sameness.

L'Observatoire devised several means for grabbing the attention of passersby. Access ramps and stairs include LEDs embedded under-

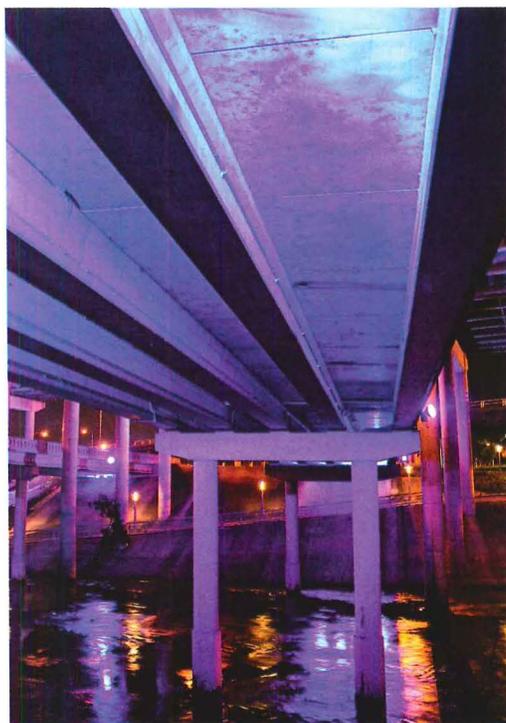
neath handrails to guide nighttime eyes toward the bayou. In addition, incandescent uplighting in the trees "gives more life to the plants," Descottes says. While the uplighting is meant to differentiate the green trees from the surrounding high-pressure-sodium-orange haze, Descottes admits that the effect is subtle: "It's to have a bit of an undiscovered feeling."

A romantic scene unfolds upon descending the access routes. Inspired by the historic outdoor leisure spaces of Paris—where Descottes lived until 1993—and London, the L'Observatoire team dotted the paths with pools of warm light, which also enhances a sense of security. The lamps are installed with a glass diffuser specifically chosen so that pedestrians can discern the shining filament; they are dimmed to enhance the old-time effect, and, Descottes adds, to extend the lamps' life spans.

The path lights are housed in submersible casing and mounted in a precast-concrete pole designed by SWA. Besides holding the incandescent downlight, its top is embedded with 20 white LEDs and 20 blue LEDs. The luminaire creates a halo of light whose color corresponds with the lunar cycle. An integrated control panel developed by Cooper Perkins synchronizes the poles so that the park is uplighted entirely in white for the full moon, transitioning to all blue for the new moon. When blue LEDs are activated beneath overpasses, stadium-size GE luminaires attached to the bridge columns turn on as well, flooding the gritty urban structures in a transcendent blue.

Descottes explains: "In the city after dark, you normally turn the switch on at dusk and turn it off at sunrise. There's no sense of time, no sense of direction, and the light drowns out our connection to the stars." Choreographing the LEDs allows park users to stargaze during the new moon, because they can see beyond the blue light. Moreover, he adds, "Every night you can go to a place and feel that it's different."

"You could include the city in the whole vision of the park," Descottes notes of the Sabine-to-Bagby Promenade's lunar ballet. The effect has been so hypnotic that Descottes's wish may come true. The Buffalo Bayou Partnership is expanding the light plan, and Olson reports that a new, unrelated downtown park initiative is adopting similar blue lighting. Soon, the city that signifies America's exploration of outer space may improve its view of the night sky. ■



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| Inspired by light



Delirium (above) and Sarin (below) are hidden lounges. The Aurum entrance (opposite) offers a peek into the morgue theme.



At Singapore's **The Clinic**, dramatic lighting by Concrete and avoKinetix transports club kids to new highs

By Ruth Altchek

In Singapore, where seemingly innocuous gum chewing can be prosecuted, a nightclub with an explicit drug theme seems impossible. But after locals shook off the initial stun, they now escape in droves to The Clinic, a macabre, hospital-themed playground designed by Amsterdam-based architect Concrete that taps into the city's work-hard-play-harder culture. The concept of this 6-month-old venue comprises a labyrinth of 13 pill-shaped rooms, each illuminated in distinct ways to heighten that room's particular theme or "side effect," as the architects put it.

LifeBrandz C.E.O. Clement Lee supplied Concrete with the name The Clinic, and a desire, he says, "to push the limits in a rather conservative society." Concrete's imaginative designers ran with it. "Our idea is that you go to a clinic, you are sick. Here, you are already feeling good," lead designer Joris Angevaare says. "This clinic has to make you feel even better." Angevaare and his associates threw a handful of pills onto a blank sheet of paper, did a little rearranging, and the floor plan was born. Concrete is an old hand at the nightclub/restaurant hybrid, with its wildly successful designs for Supperclub in Amsterdam, San Francisco, Rome, and Istanbul. While Angevaare argues that The Clinic is a departure from the Supperclub format, it shares the same ambitious edginess.

The 15,000-square-foot interior is divided in two: the ground-floor bars and dance club, featuring spaces named after medicines, and

the upstairs VIP lounges and restaurants, named after states of mind. The lighting, too, offers multiple layers of experience. For the club's main space, a 730-square-foot, capsule-shaped dance floor called Morphine, Concrete called in local lighting designer Jesmend Tham, principal of avoKinetix, to design a truss-system lighting rig based on Concrete's specifications. The rig is suspended from the upstairs Delirium lounge, which forms a mezzanine above Morphine. Following Concrete's suggestion for simplicity, Tham ringed the armature with adjustable-focus fresnel luminaires, bathing the seating of Delirium as well as the Morphine dance floor in warm halogen light.

Morphine's main event is a massive arch lined with computer-controlled LEDs. The denseness of the LED surface—the diodes are spaced 1 centimeter apart in a grid—produces a videolike effect. Tham and Lee created the imagery for the screens, a rotating program that includes creepy Big Brother eyeballs that canvass the dance floor, and trickles of blood that eventually "drip" down the sides of the arch. The LEDs are dimmed to 50

Project: *The Clinic, Clarke Quay, Singapore*

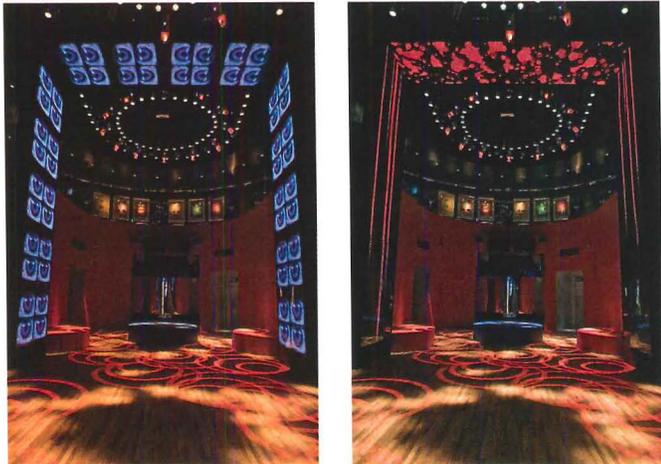
Lighting designer: *avoKinetix—Jesmend Tham, principal*

Architect: *Concrete Architectural Associates—Rob Wagemans, Joris*

Angevaare, Erik van Dillen, Melanie Knuwer, Onne Walsmit, Ulrike Lehner, project team

Sound designer: *Pure Fusion Systems—Austen Derek, principal*

Ruth Altchek is a senior editor at Domino magazine.



percent “to make it a little bit more sexy,” Angevaare says.

Despite these high-end touches, affordable halogen spots and LEDs imported from China constitute most of The Clinic’s ground-floor light plan. “It’s really just lots of different halogen downlights and LED snake lights underneath every surface and behind every seat, producing a glowing effect,” Angevaare says. Two rooms branching off of Morphine showcase the team’s skill at using ordinary lights to transformative effect. Visitors entering the semicircular barroom called Anthrax perceive it as fully round thanks to a mirror that reflects floor-mounted uplights. In the rainbowlike bar, called Caffeine, LEDs encased in multicolored acrylic glass bands seem to breathe as the stripes pulsate in intensity; the lights are programmed in DMX, the same theater-originated control system used for the arch in Morphine.

Upstairs plays host to two striking dining rooms, Aurum and Phobia. After passing through the entrance—a morguelike room complete with stainless-steel surgical tables and lamps—diners proceed into

The main dance floor of Morphine has a massive LED-lined arch that displays varied illumination (above). Aurum diners commune at a long surgical table beneath a starry sky of ceiling-mounted halogen spheres (left).

the glittering gold pill that is Aurum. Surface-mounted halogen sphere luminaires dot the walls and ceiling, which are covered with gold automotive paint, casting the beams of light in a warm yellow. “We really didn’t want too much white, which makes everything look flat and dead—

even in the morgue,” Angevaare jokes. Aurum’s centerpiece, hovering above the surgical-cum-dining table and two rows of golden wheelchairs, is a custom gold-plated disco ball illuminated by PAR 36 pin spots. After dinner, the room is transformed into a private dance space, the ball is lowered, and the ceiling opens to reveal a spectacular motorized lighting rig.

In the adjoining triangular-shaped dining room, Phobia, a simple LED-studded snake light crawls behind the banquettes, illuminating the matte black wall to reveal glossy black decals listing every known type of phobia. The sumptuous tufted velour ceiling is dotted with subtle halogen downlights surrounding the spidery Dear Ingo chandelier designed by Ron Gilad for Moooi, which adds to the luxuriously threatening atmosphere.

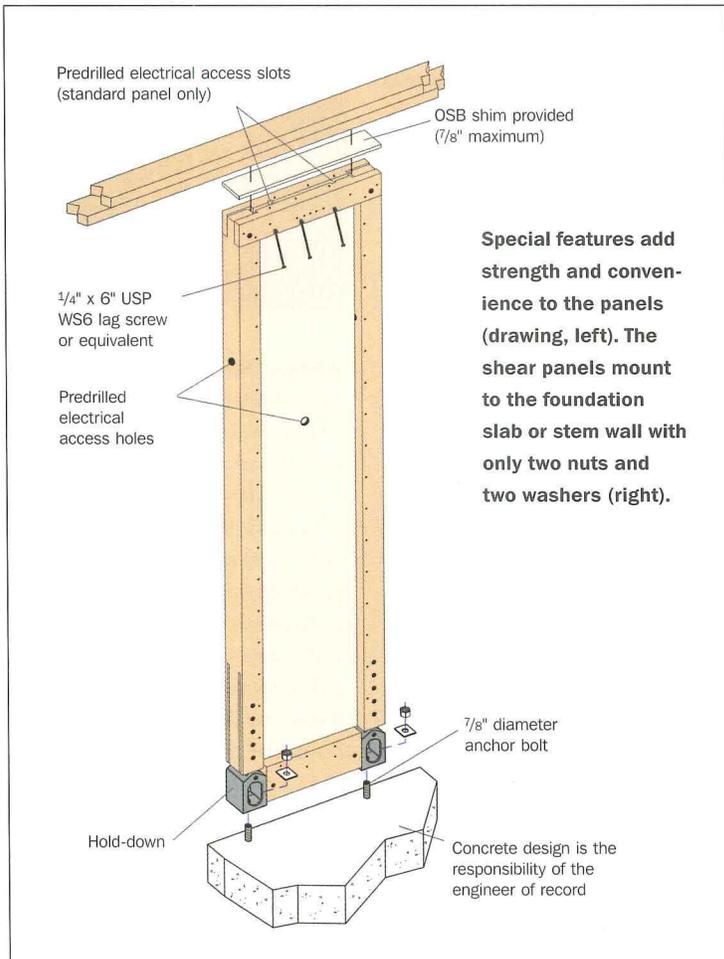
How the drug theme will wear as Singaporean society becomes more permissive (medicinal chewing gum became legal in 2001) remains to be seen. For his part, Lee is confident that The Clinic has a strong pulse. He compares the club’s design brief to the work of Damien Hirst, whose “expression of medical and taboo themes” is more shockingly stylish than awesomely tacky. It’s fitting, then, that Hirst’s prints line the walls of The Clinic. Here, a team of provocateurs have elevated an idiosyncratic idea for a nightclub to a work of art. ■

architecturalrecord.com/lighting/



Product Focus Walls & Ceilings

Our roundup of the latest ceilings, wall-framing, and wall-finishing products includes a new and improved plaster binder, formaldehyde-free and antimicrobial ceiling panels, a FSC-certified bamboo panel system, a vaulted ceiling daylighting system, and other interior solutions. *Rita Catinella Orrell*



Prefab shear panels gathering more attention

The prefabricated Trus-Joist TJ-Shear Panels from iLevel resist lateral loads from earthquakes and hurricanes, and offer design flexibility for walls with many windows and doors. While the panels have been on the market for several years in California, Washington, Baltimore, and elsewhere, they are now available nationwide and throughout Canada.

According to T-Shear Panel product manager Jay Shansby, a moving demo showcasing the panel's strength garnered a great deal of attention at this year's Builders' Show. "It got a lot of folks starting to

talk about the need for lateral bracing in markets we are aware of, or [markets that are] new to us," says Shansby. According to Shansby, forces driving demand include recent code changes in states in "Hurricane Alley" as well as shrinking lot sizes, which lead to building taller and narrower structures, increasing the weight to the wall lines.

Traditionally, shear walls were built on-site, a time-consuming process with unpredictable performance results. According to iLevel, the TJ-Shear Panel provides a more consistent performance under lateral

loads, and the one-piece construction can be installed by one person. Made from TimberStrand laminated-strand lumber (LSL) through a process that minimizes waste, the panels come in a range of widths and heights, and can resist bowing, shrinking, and twisting. The panels mount to the foundation slab or stem wall with only two nuts and two washers. Lag screw holes for connection to the framing top plate are pre-drilled at an angle for easy access. The panel is also pre-drilled for electrical wires,

helping installers save time and eliminate guesswork. A symmetrical panel design, concentric hold-downs, and double-shear nail connections also add strength to framing areas in the home susceptible to high lateral loads, including garage doors, window walls, and door openings.

A new manufacturing plant in Chino, California, will start producing panels to help meet demand this month. iLevel by Weyerhaeuser, Federal Way, Wash. www.iLevel.com

CIRCLE 221

Products Walls & Ceilings

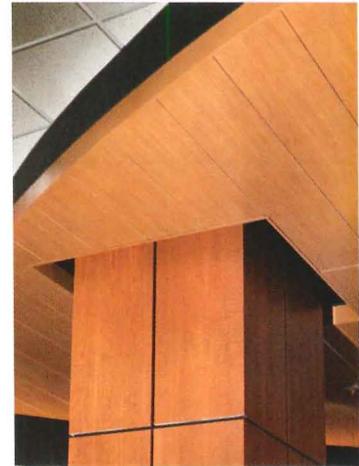


◀ VOC-free plaster binder

Mud Glue is a natural, cost-effective, zero-VOC dry-powder-binder alternative to the soy-resin acrylic Add Mix or Sanded Primer normally added to American Clay Earth Plaster's application systems. Mud Glue helps bind Earth Clay plasters to high gloss paint, dry wall, gypsum, portland cement products, and other finishes. It also inhibits mold growth, reduces the amount of water required for mixing, adds impact-resistance to the top coat, and is cheaper to ship due to reduced weight. American Clay Plaster, Albuquerque. www.americanclay.com **CIRCLE 222**

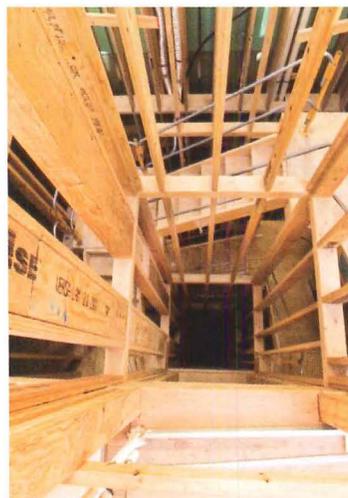
▶ Ceiling fans

To increase the acoustical properties of the interior spaces of Chicago's Sears Centre Arena, the design-build firm Ryan Companies specified Hunter Douglas Contract's Orchard Wood Ceiling and Luxalon Metal Ceilings lines. In the bar area near the luxury suites, the Orchard Collection was installed to provide a warm, handwrought ambience. This collection is a metal-backed, wood-veneered range durable enough to resist the wear, tear, and spills of thousands of patrons each season. Hunter Douglas Contract, Poway, Calif. www.hunterdouglascontract.com **CIRCLE 223**



▲ Certified bamboo finishes

FSC-certified and World Wildlife Fund-approved Bamboo Hardwoods offers a full line of formaldehyde-free and nontoxic UV-cured finished products. As part of its line, the Seattle-based company offers five species of bamboo poles for uses including wall and ceiling coverings, furniture, gazebos, and other applications. Each pole species offers different colors, diameters, and thicknesses. Shown above is a porch ceiling cover made with half-round and full bamboo poles. Bamboo Hardwoods, Seattle. www.bamboohardwoods.com **CIRCLE 224**



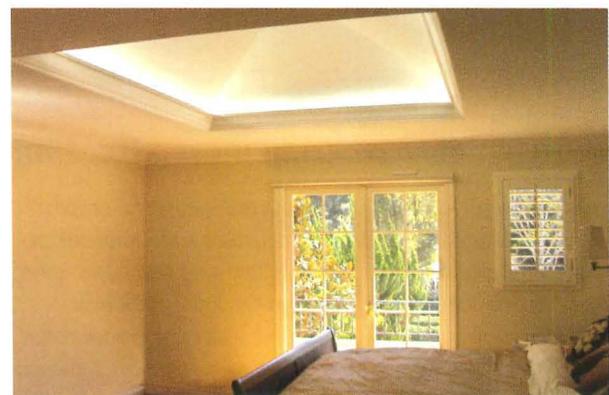
◀ Tougher framing lumber

Boise Cascade has introduced a new wall-framing product designed for tall walls and other applications where strong, straight framing materials are needed. Competitive with laminated-strand products, Versa-Stud offers at least 2.1 times more bending strength and 20 percent more stiffness than No. 2 SPF (Spruce-Pine-Fir) 2 x 6 studs, and none of the cracks or other issues that can plague solid lumber. Versa-Stud is available in a 1½" width and five depths: 3½", 5 ½", 7 ¼", 9 ¼", and 11 ¼", all in lengths up to 24'. Boise Cascade Engineered Wood Products, Boise. www.bc.com **CIRCLE 226**



◀ Breathing easier

With its newly reformulated ceiling panels, USG has become the first manufacturer to offer formaldehyde-free ceiling panels and the highest level of antimicrobial protection available on the market. Two levels of antimicrobial protection are offered, while more than 25 ceiling families deliver formaldehyde-free or low-formaldehyde performance standard, without any additional charges or lead time. Of those, eight product lines exceed the California Office of the Environmental Health Hazard Assessment standard. USG, Chicago. www.usg.com **CIRCLE 225**



▲ Naturally lit vaulted and panel ceilings

The Eisenbeisz Design Studio has created a new daylighting system where natural light is reflected by carefully engineered panels within the ceiling assembly. The suspended ceiling panels in the center are positioned to reflect the incoming light into the room regardless of the position of the sun, without the effects of damaging solar UV and heat gain. The panels are made of lightweight natural wood veneer with stained or painted surfaces. The perimeter is detailed with a soffit or crown molding to complement the overall architectural style of the residence or commercial building. Eisenbeisz Design Studio, Santa Barbara, Calif. john@eisendesignstudio.com **CIRCLE 227**

Product Briefs



◀ Supersize showerhead

The XL showerhead from Zucchetti is exactly that, an extra-large version of the typical rain-shower-style fixture. Alongside the various round, rectangular, modular, and combinable showerheads available from the company (and a range of sprays, chromatherapy, and music-therapy options), the Shower collection's 20"-wide stainless-steel showerhead features a circular rain jet spray with more than 400 nozzles. Installed flat on the ceiling, the shower head is available in a standard version or with a central LED light that creates a ceiling lamp effect. Zucchetti USA, New York City. www.zucchettidesign.com **CIRCLE 228**

▼ Sculpting with a palette of light

To create his glass-and-metal sculptures, Ken Leap draws inspiration from a formal education in art, as well as previous careers in science, mathematics, and engineering. Leap's Reflective Relief Sculpture technique is the focus of his current work. Similar to conventional methods of relief sculpture in producing a contoured surface, this technique forms the motif by refracting light through a stack of long, rectangular pieces of float glass, each having a curvilinear cut along one edge. The technique was used to create the Confluence interior sculpture (below), a public art commission for the City Hall in Yuma, Arizona. Ken Leap, Portales, N.M. www.kenleap.com **CIRCLE 230**



► Champagne for two

While a \$10,000 chair is unlikely to be in the budget for your next project, the limited-edition Clicquot love seat is certainly an eye-catcher with its glossy pink sheen. Designed and signed by New York-based industrial designer Karim Rashid, the uncushioned, two-seater chair marks the first time the renowned champagne producer Veuve Clicquot has lent its name to a piece of furniture. Designed to help promote the company's recently introduced Rosé champagne, the love seat is a fresh take on the 18th-century armchair, featuring two petal-shaped seats joined together on a chrome-plated pedestal topped by a pistil-shaped ice bucket in the brand's signature yellow color. More than 6 feet long, 4 feet high, and just under 3 feet wide, it is produced in Italy from high-quality fiberglass with a fireproof varnish. There is currently a 12 to 14 week lead time for delivery, and only 40 total pieces will be produced. The Conran Shop, New York City. www.conranusa.com **CIRCLE 232**



▲ Bespoke cabinetry

London-based Pinch is a collaboration between the husband-and-wife team Russell Pinch and Oona Bannon. Since 2004, Pinch has designed products, interiors, graphics, and branding for leading retailers and manufacturers. The recently introduced Armoire collection is the first one designed, manufactured, and distributed by Pinch directly. This collection of free-standing armoires for the home or office includes three editions, called Alba, Marlow, and Frey. Each piece is made to order by an individual craftsman at a leading British cabinet-maker. Interior shelving can be designed for a range of needs, such as media equipment or kitchen storage (above two). Pinch, London. www.pinchdesign.com **CIRCLE 229**



▲ Green roofing aid

The EnkaRetain & Drain is a new product developed by Colbond that combines an absorbent, nonwoven filter fabric bonded to a 3D Enkadrain 3000R series drainage core for use primarily in green-roof and planter applications. The Enkadrain drainage core is made of postindustrial, recycled polypropylene molded into a square, waffle pattern that allows water to flow from all directions. A water-retention fabric that holds 10 times its weight in water is bonded to one surface, replacing traditional filter fabric. It provides plant roots with a continuous source of moisture while allowing excess water to filter through and drain. Colbond, Enka, N.C. www.colbond-usa.com **CIRCLE 231**





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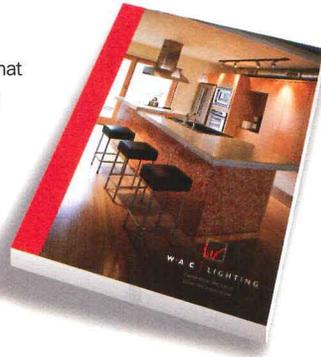


Attainable luxury

Steamist, a leading manufacturer of steam baths and saunas, has created a new full-color brochure that outlines installation tips and control options as well as the health benefits of the company's products. Steamist offers a full line of residential steam-bath and sauna products and systems, as well as a full commercial line. Steamist, Rutherford, N.J. www.steamist.com **CIRCLE 233**

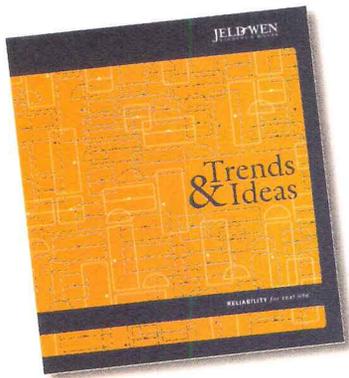
Innovative lighting

W.A.C. Lighting introduces a 284-page catalog that features the company's latest technologies and designs in accent, task, ambient, and decorative lighting. The catalog features a lineup of new product releases, full-color product and installation shots, as well as photometric and specification data. W.A.C. Lighting, Garden City, N.Y. www.waclighting.com/USA **CIRCLE 234**



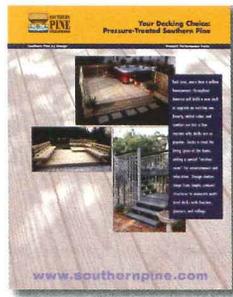
Trends and ideas

Jeld-Wen, a manufacturer of windows and doors, released *Trends & Ideas*, a 3-ring bound book that contains home design and building trends from the past two years, as well as recent trend forecasts for 2007. The book is accompanied by a CD with high-resolution images and text files. Future trend stories will be included in later editions. Jeld-Wen, Klamath Falls, Ore. www.jeld-wen.com **CIRCLE 235**



Reduced flood risk

Southern Pine Council has released a 48-page guide for building a raised-floor foundation system that takes a thorough look at its design and advantages. The guide covers a vast range of related topics, such as moisture control, soil and site preparation, foundation types, termite-resistant framing, design loads, span tables, and floor framing. Southern Pine Council, Kenner, La. www.southernpine.com **CIRCLE 236**



How do you Swing?



bare



diffused



indirect



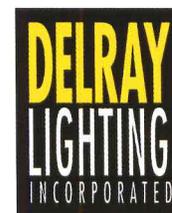
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Product Resources: On the Web

www.kepcoplus.com

Kepeco+ is a custom-cladding contractor specializing in the design, fabrication, and installation of natural stone, tile, and/or terra-cotta cladding systems. The Kepeco+ Web site provides a comprehensive look at the company's projects, including office, religious, historic, and government buildings. It also features a new section focusing on its various cladding systems, including a standard truss, the Cygnus panel system, handset applications, and the company's rain-screen technologies.



www.lamurrina.us

The easy-to-navigate site for this Los Angeles-based distributor of Italian-made Murano glass allows users to view lighting and sculptural glass objects in an online product-guide format. An illustrated portfolio section offers visitors the chance to see the products in real installations.

Prices, sizes, and available colors are not mentioned anywhere on the Web site, however, and need to be obtained directly from the contact information provided.

www.quikrete.com

The Quikrete Companies, the largest manufacturer of packaged concrete in the U.S., provides an easy-to-use Web interface in which customers have the ability to view the products and descriptions as well as download specs and material-safety data sheets. The interactive



Web site allows users to see actual images of the product as well as renderings demonstrating its use. The site also provides a thorough FAQ page and offers contact information for additional questions not answered on the site itself.



www.confindustriaceramica.it

The Confindustria Ceramica, the Italian Association of Ceramics, represents a wide range of companies that produce ceramics. In addition to ceramic tile and refractory manufacturers, ceramic dishware, decorative ceramics/vases, and sanitaryware are also manufactured. The Web site is organized into

five categories: Who We Are, Activities, Network, Sectors and Companies, and the Press Room. The site contains more than 200 pages, 81 downloadable documents, and 1,500 high-resolution images.

Dates & Events architecturalrecord.com/datesandevents/

New and Upcoming Exhibitions

Design for the Other 90%

New York City

May 4–Sept 23, 2007

This exhibition explores the variety of affordable and socially responsible objects designed for the more than five billion people across the globe (90 percent of world's total population) who often lack the means to purchase even the most basic goods. The exhibition will feature design solutions for the poor and marginalized around the world, ranging from the LifeStraw, a mobile personal water purification tool, to furniture made from hurricane debris through the Katrina Furniture Project, which works to rebuild the economic and social capabilities in New Orleans. At the Cooper-Hewitt, National Design Museum. Call 212/849-8400 or visit <http://ndm.si.edu/>.

Walking Tour—Midtown: City of Glass

New York City

May 5, 2007

Architectural historian Matthew Postal will discuss the history and development of glass as an important building material. Starts at Christie's. Call 212/501-3011 or visit www.bgc.bard.edu.

Islamic-Style Architecture Tour

Chicago

May 6, 2007

The themes of this bus tour are architectural form, style, and ornamentation, with comparisons between the role of ornamentation in Islamic and American Architecture. Included is an optional tour of the Smart Museum's Cosmophilia ("love of ornament") Exhibition, displaying treasures of Islamic Art from the David Collection, Copenhagen. At the Chicago Architecture Foundation. Call 312/922-3432 or visit www.architecture.com.

Snapshot 007:

Current Houston Design on View

Houston

May 18–June 16, 2007

The fifth open-call exhibition showcasing architecture, urban planning, preservation, landscape architecture, interiors, furniture, and graphics by more than 100 Houston architects and designers. At Lawndale Art Center. Call 713/348-4876 or visit www.rda.rice.edu.

EMERGENT + Buro Happold:

The Dragonfly

Los Angeles

May 18–July 8, 2007

SCI-Arc is pleased to present *Dragonfly*, a site-specific installation designed by Los Angeles-based architecture firm EMERGENT and international engineering firm Buro Happold. Rather than a sculpture, the biomimetic creation explores the relationship between structure and

form and is an experiment in the fluid feedback of design sensibility, engineering innovation, and the logic of digital fabrication. At SCI-Arc Gallery. Call 213/613-2200, x 328, or visit www.sciarc.edu.

George Yu Architects:

Honda Advanced Design Center

Los Angeles

May 18–July 8, 2007

This exhibition highlights the architects' transfor-



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Dates & Events

mation of a 6,000-square-foot retail space on the ground floor of a historic building into design studios and conference rooms using the same design technology as the carmaker for the new Honda Advanced Design Center. At SCI-Arc Library. Call 213/613-2200 x328 or visit www.sciarc.edu.

■AIA150

Studio @ the Center: Lighting Design New York City

June 7–August 4, 2007

This exhibition will highlight the work of 12 students from the High School of Art and Design who are taking part in the intensive after-school program that exposes them to one area of design through interaction with design professionals. At the Center for Architecture. Call 212/683-0023 or visit www.aiany.org.

IDEO Selects: Works from the Permanent Collection New York City

June 22, 2007–Jan. 20, 2008

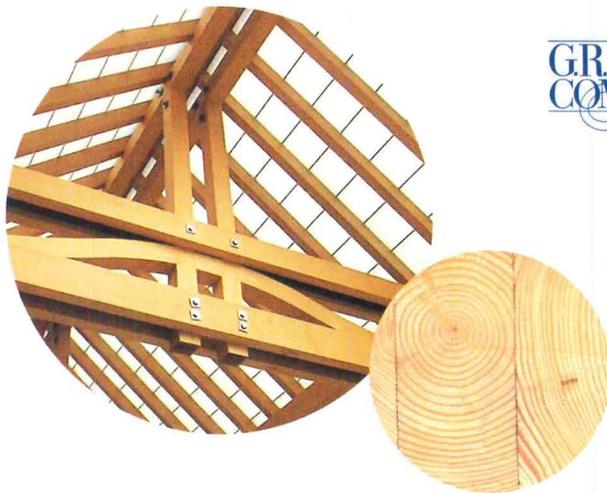
IDEO, a leading innovation and design firm for more than 20 years, mined the Cooper-Hewitt's permanent collection as the fourth guest curator in the exhibition series presented in

the Nancy and Edwin Marks Gallery. IDEO will organize works around the theme of "design thinking." The exhibition objects range from the 16th-century to the present, and despite their diversity of intent, media, and context, reveal a shared story about the ways in which the designer is called upon to solve everyday problems. At the Cooper-Hewitt, National Design Museum. Call 212/849-8400 or visit <http://ndm.si.edu/>.

On a Grand Scale: The Hall of Architecture at 100 Pittsburgh

September 22, 2007–January 13, 2008

In celebration of the 100th anniversary of the Carnegie Museum of Art's Hall of Architecture, the museum will present an exhibition surveying its collection of nearly 150 plaster architectural casts that Andrew Carnegie created specifically for this magisterial space. At the time of the hall's inauguration in April 1907, the museum joined the ranks of prominent American museums exhibiting plaster casts of monuments from around the world. To ensure the hall's relevance to visitors, Carnegie surveyed architects of the day to determine which casts the museum would acquire. At the Heinz Architectural Center. Call 412/622-3131 or visit www.cmoa.org.



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Ongoing Exhibitions

Some Assembly Required: Contemporary Prefabricated Houses Los Angeles

Through May 20, 2007

This exhibition presents eight projects by several of today's leading architects of modular dwellings, which take various approaches to prefab—from homes that are built by the owner out of a kit with an instruction manual to those that are delivered fully assembled. At the Museum of Contemporary Art. Call 213/621-1749 or visit www.moca.org.

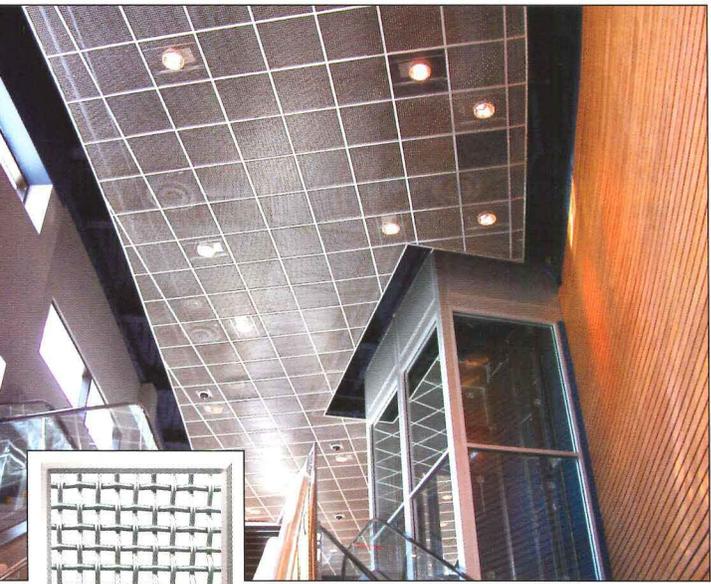
■AIA150

Growing Country, Growing Needs— Federal Architecture and Art Richmond, Va.

Through May 27, 2007

This one-time exhibition will showcase the new Richmond courthouse, a series of new U.S. border stations, and a selection of other Design Excellence Program projects that illustrate the government's goal to commission inspiring, contemporary civic architecture that reflects and promotes American ideals. At the Virginia Center for Architecture. Visit www.aia.org.

The Hole Choice



Hole Choice - Wire Mesh

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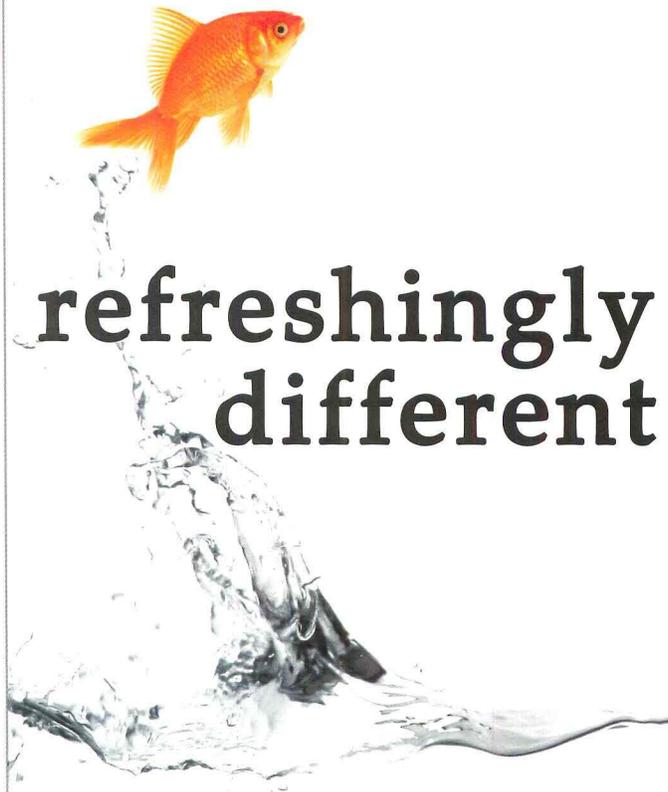
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Dates & Events

The Green House: New Directions in Sustainable Architecture and Design Washington, D.C.

Through June 3, 2007

This exhibition explores the building materials, consumer products, and energy systems that offer attractive and often affordable alternative sources for building. The show includes a life-size replica of California architect Michelle Kaufmann's Glidehouse, an example of a Green Trend House that demonstrates sustainable principles. It also features models, photographs, and

drawings of other contemporary projects around the world that show how sustainable principles are applied with innovation and beautiful results. At the National Building Museum. Call 202/272-2448 or visit www.nbm.org.

Gritty Brits: New London Architecture Pittsburgh

Through June 3, 2007

In recent years, a new generation of architects has emerged in London, operating mostly from the postindustrial East End and intimately

engaged with the city's contemporary urban condition. *Gritty Brits: New London Architecture* presents the work of six firms: Adjaye/Associates, Caruso St. John Architects, FAT [Fashion Architecture Taste], Níall McLaughlin, muf, and Sergison Bates architects. At the Heinz Architectural Center. Call 412/622-3131 or visit www.cmoa.org.



Powerhouse: New Housing New York New York City

Through June 16, 2007

This exhibition illuminates the people, projects, and public policies that fuel the affordable housing landscape in New York City, focusing on the New Housing New York Legacy Project (NHNY) competition. At the Center for Architecture. Call 212/683-0023 or visit www.aiany.org.

75 Years of Architecture at MoMA New York City

Through June 18, 2007

MoMA's Department of Architecture, founded in 1932, was the world's first curatorial department dedicated to the discipline. This installation of drawings and models from the collection celebrates the 75th birthday of the department and demonstrates the development of its collecting practice, with several recent acquisitions on view for the first time. At the Museum of Modern Art. Call 212/708-9400 or visit www.moma.org.



NY 150+: A Timeline: Ideas, Civic Institutions, and Futures New York City

Through June 23, 2007

To commemorate the 150th anniversary of the founding of the American Institute of Architects in New York City, the AIA New York Chapter will feature an exhibition charting the transformation of the city and the profession from 1857 through the present and into the future. Genetic lines tracing the founding of the institute will intersect with various democratic and social movements and the architecture of New York's civic structures. Fifteen buildings and public spaces will be presented with a factual overview and commentary by architects, critics, journalists, authors, and others to illustrate the ideas that define the city's history as well as its future. A preamble will frame the social, cultural, and historical discourse, giving special emphasis to the directions of architecture in the city as imagined within a puritan pastoral democracy. At the Center for Architecture. For additional information, call 212/683-0023 or visit www.aiany.org.

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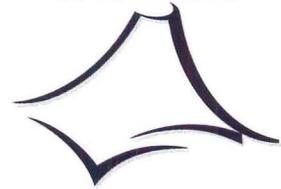
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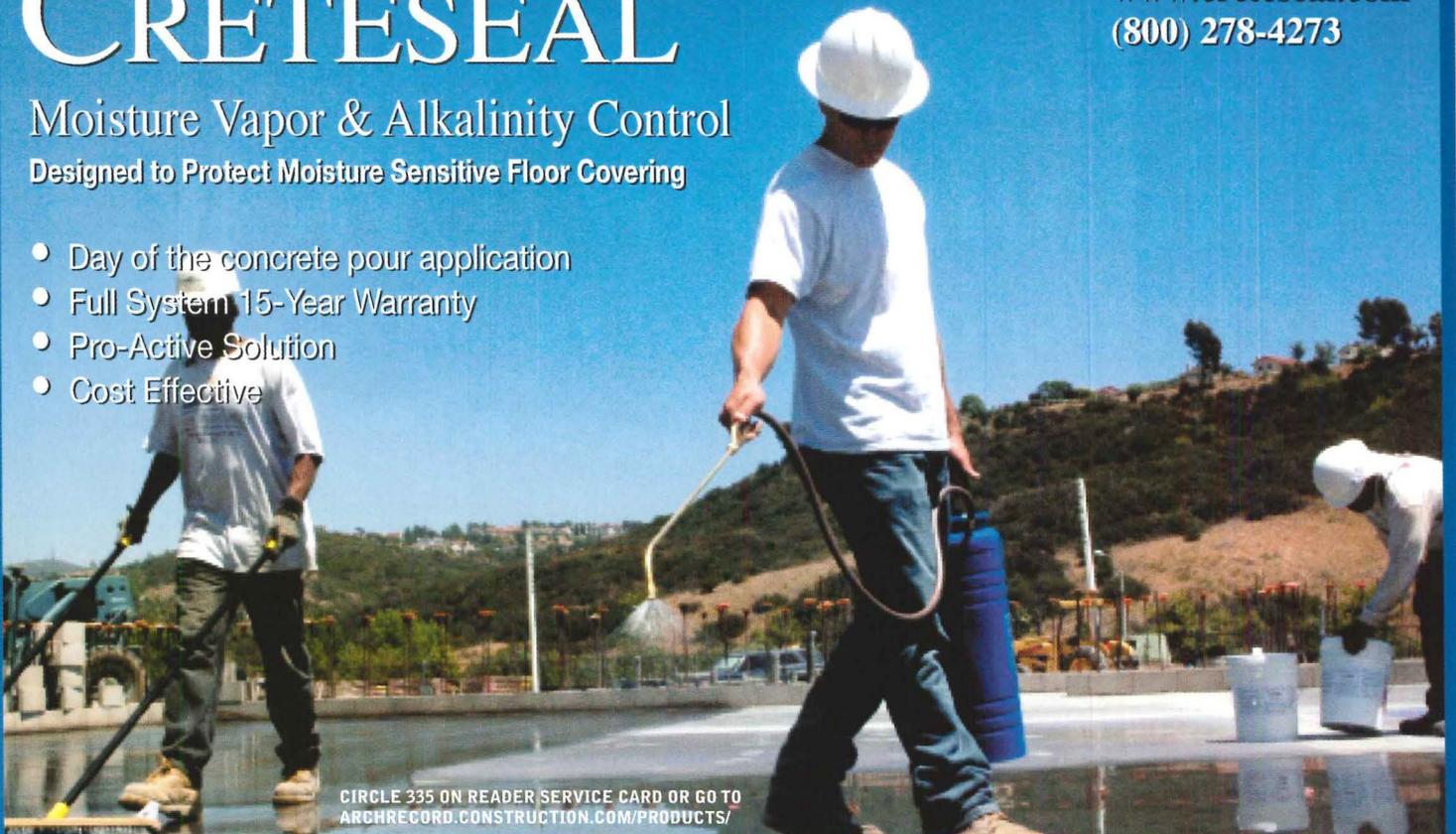
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Dates & Events

Open House: Architecture and Technology for Intelligent Living Los Angeles

Through July 1, 2007

This exhibition includes nearly 100 teams of emerging designers whose work focuses on technology and domestic architecture. The teams were invited to submit new designs that offer real-life solutions that incorporate the concepts of connectivity, well-being, flexibility, and sustainability. At Art Center College of Design's South Campus Wind Tunnel. Call 626/396-2380 or visit www.artcenter.edu.

■AIA150

2007 AIA New York Chapter Design Awards New York City

Through July 7, 2007

A showcase of the 2007 award-

winning projects in three categories: Architecture, Interiors, and Projects. At the Center for Architecture. Call 212/683-0023 or visit www.aiany.org.

The 2006 National Design Triennial: Design Life Now New York City

Through July 29, 2007

Inaugurated in 2000, the triennial seeks out and presents the most innovative American designs from the prior three years in a variety of fields, including product design, architecture, furniture, film, graphics, new technologies, animation, science, medicine, and fashion. On view throughout the museum campus will be the work of 87 designers and firms, ranging from established design leaders such as Apple Computer, architect Santiago Calatrava, and Nike to emerging designers like Joshua

Davis, Jason Miller, and David Wiseman. At the Cooper-Hewitt, National Design Museum. For more information, call 212/849-8400 or visit www.ndm.si.edu.

Devil in the White City Tour Chicago

*Select Fridays and Sundays,
Through October 28, 2007*

The tour is based on Eric Larson's best-selling book and focuses on two events: the World's Columbian Exposition of 1893 and the emergence of America's first serial killer to come to public attention. A slide presentation is followed by a bus tour of Prairie Avenue and Jackson Park with a visit to many buildings and places identified in the book. At the Chicago Architecture Foundation's ArchiCenter. For more information call 312/922-3432 or visit www.architecture.org.

Lectures, Conferences, and Symposia

■AIA150

AIA 2007 National Convention and Design Exposition San Antonio

May 3-5, 2007

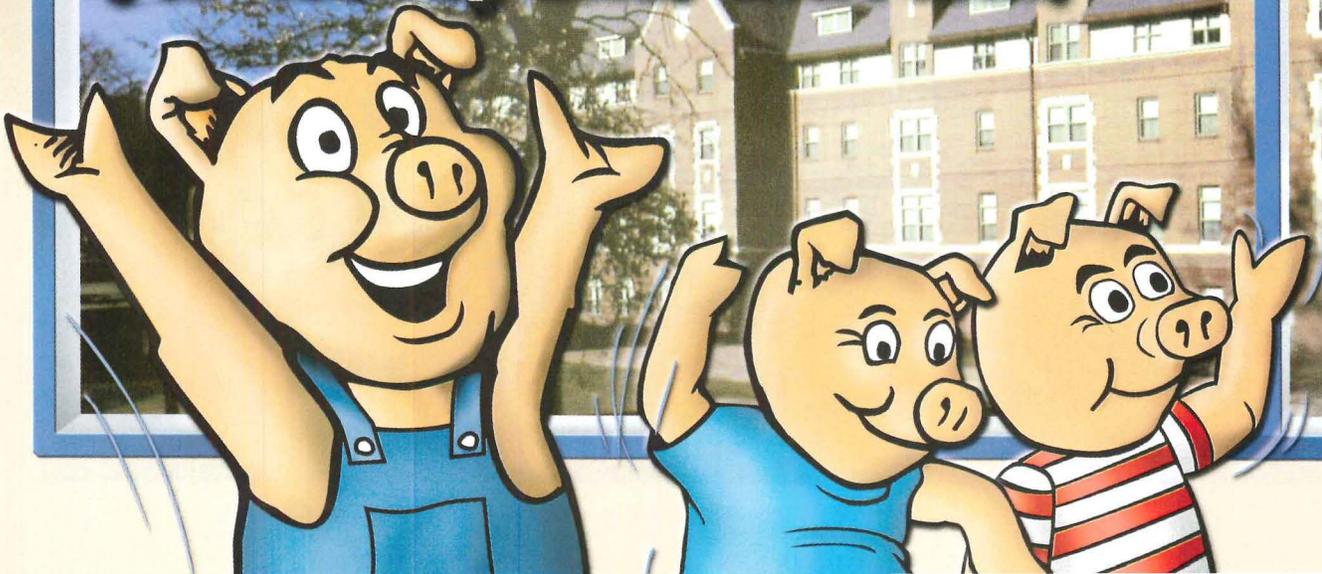
The convention theme, "Growing Beyond Green," spotlights sustainable design, how you can green your projects, educate your clients, and reduce the impact buildings have on the environment. Visit www.aiaconvention.com.

Lightfair International (LFI) 2007

New York City
May 6-10, 2007

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hours of programming. Strategically structured and designed in close partnership with industry experts, conference topics address everything from lighting software and applications to business and lighting fundamentals to design innovation and product updates. At the Jacob K. Javits Convention Center. Call 404/220-2822 or visit www.lightfair.com.

BKLYN DESIGNS 2007

Brooklyn, N.Y.

May 11-13, 2007

Celebrating its five-year anniversary, the show will take place in multiple venues throughout the DUMBO neighborhood, including St. Ann's Warehouse and the Smack Mellon Gallery. This year will also mark the launch of BKLYN DESIGNS +, a new cash-and-carry accessories market. For more information, call 718/243-1414 or visit www.bklyndesigns.com.

Lecture: Swedish Modernism in the Private Realm **New York City**

May 17, 2007

Architectural historian Nicholas Adams will survey Swedish Modern domestic architecture, highlighting works by Matthsson's contemporaries, including Gunnar Asplund, Per Friberg, Klas Anshelm, Peter Celsing, and Bengt Edman, at the Bard Graduate Center. For more information, call 212/501-3011 or visit www.bgc.bard.edu.

Downtown Third Thursdays

Lecture Series

New York City

May 17, 2007

The ongoing series celebrating Lower Manhattan's architectural treasures and history will feature Barbara Christen, architectural historian and Cass Gilbert scholar, speaking on "Cass Gilbert and

History: The Past as Present." At the New York County Lawyers' Association. For more information, visit www.downtownny.com/third.

AIA 150

Lecture: Victoria Meyers **Harrisburg, Pa.**

May 17, 2007

Victoria Meyers, a principal of hanrahanMeyers architects (hMa) in New York City, will make a presentation entitled "Framing Nature" as the Central Pennsylvania Chapter of the American Institute of Architect's Spring Lecture at the Commonwealth Keystone Building. For more information, call 717-236-8969 or visit www.aiacentralpa.org.

International Design

Conference

New York City

May 17-18, 2007

The third annual symposium on

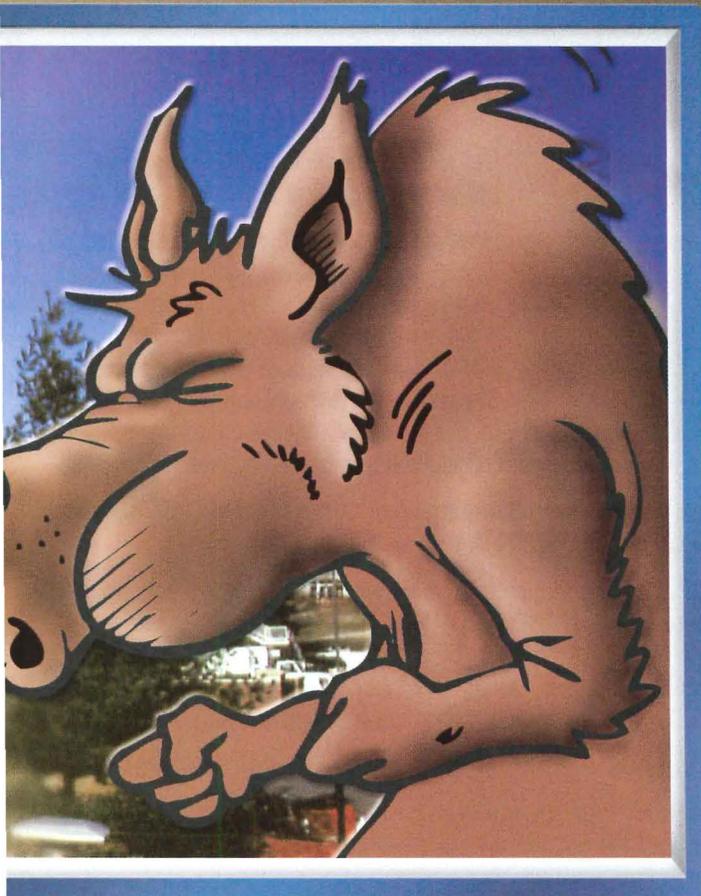
design and materials, celebrating ten designers whose work exhibits pioneering material innovation and execution. Material ConneXion has identified 10 disciplines that together represent the broad landscape of design, and asked the editors of prominent magazines within each discipline to provide nominees for their category. At the Equitable Auditorium. Visit www.materialconnexion.com.

Alternative Building Materials & Design Expo 2007

Los Angeles

May 18-19, 2007

The fourth annual Alternative Building Materials & Design Expo is the premier green building Expo in Southern California, expanding for the first time to two full days of exhibitors, hands-on workshops, panels, book signings, specially



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created presentations, and interactive take-home materials. At Santa Monica Air Center. Call 310/390-2930 or visit www.altbuildexpo.com.

33rd Annual Wright Plus Benefit Housewalk

Oak Park, Ill.
May 19, 2007

Interior tours of eight private residences in the Frank Lloyd Wright Historic District. Call 708/848-9518 or visit www.wrightplus.org.

The 19th Annual International Contemporary Furniture Fair

New York City
May 19-22, 2007

More than 600 exhibitors will display contemporary furniture, carpet and flooring, lighting, outdoor furniture, materials, wall coverings, accessories, textiles, and kitchens and baths for residential and commercial interiors. This assemblage of national and international exhibitors brings together a selective sampling of the world's most original and avant-garde home and contract products. At the Jacob K. Javits Convention Center. Visit www.icff.com.

AIA 150 Working With an Architect

Chicago
May 20, 2007

Recognizing that most people have never worked with an architect, AIA Chicago launched this public education series in 1994. Since then, the organization has helped hundreds of Chicago-area homeowners gain a better understanding of how to find the right architect for their project, what to expect during design and construction, and how to avoid costly surprises. At the American Institute of Architects Chicago Office as part of the Great Chicago Places and Spaces Weekend. Call 773/206-4798, 312/670-7770 or visit www.aiachicago.org.

The Forum Project: Form and the City

Rotterdam, The Netherlands
May 21-June 1, 2007

Part of the two-year program dedicated to exploring relationships between form, politics, and contemporary life. The invitational master class features instructors Pier Vittorio Aureli and Elia Zenghelis from the Berlage Institute as well as Joan Ockman from the Graduate School of Architecture, Planning and Preservation,



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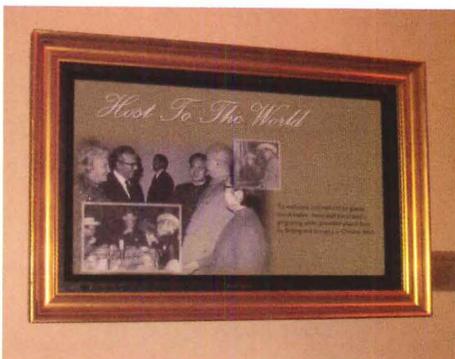
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Dates & Events

Columbia University. At Berlage Institute. Call 212/854-8165 or visit www.arch.columbia.edu.

Function, Form, and Meaning: Design Excellence in Federal Courthouses Washington, D.C.

June 1, 2007

A review and national conversation on federal courthouse design under the U.S. General Services Administration's award-winning Design Excellence Program. Architects, members of the federal judiciary, and GSA design and construction officials and project managers will focus on function, form, and meaning in creating appropriate and inspiring federal courthouses that represent the American judiciary in the 21st century. At the Ronald Reagan Building & International Trade Center. Call 202/219-1066 or visit www.designexcellence.gov.

45th International Making Cities Livable Conference on True Urbanism: Designing for Social & Physical Health, and Exhibit on New Designs for Mixed-Use Urban Fabric Portland, Ore.

June 10-14, 2007

An international conference for city officials, practitioners, and scholars in architecture, urban design, planning, landscape architecture, transportation planning, health policy, and social sciences. Participants will share ideas and establish working relationships. At the Governor Hotel. For more information, visit www.livablecities.org.

Mundaneum 2007 San Jose, Costa Rica

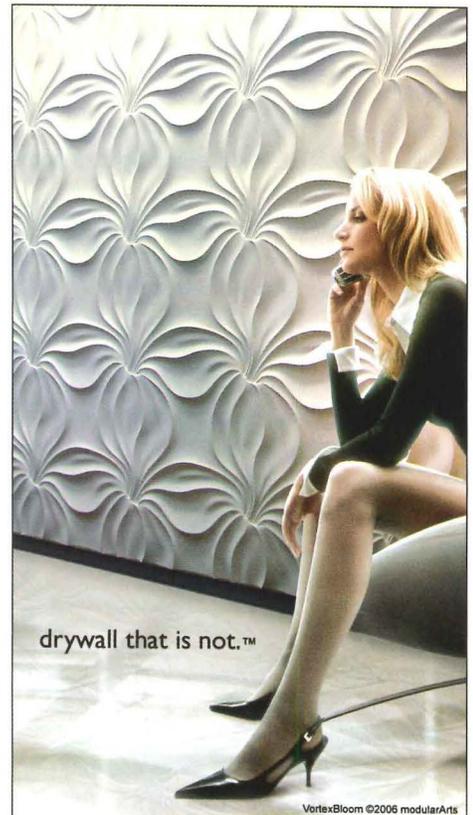
June 14-16, 2007

Mundaneum was the name given to one of Le Corbusier's projects for an eponymous educational world center aiming to serve a group of international organizations located in Geneva, Switzerland, in 1929. Although never built, the project triggered a theoretical argument between Corbusier and Czech critic Karel Teige. This conference brings together speakers on the topic of "rethinking architecture in the Americas," with utopian visions and nostalgia emerging in times of peace and collaboration during the postwar era. At Universidad del Diseño. Visit www.unidis.ac.cr.

Transparent Forum Tampere, Finland

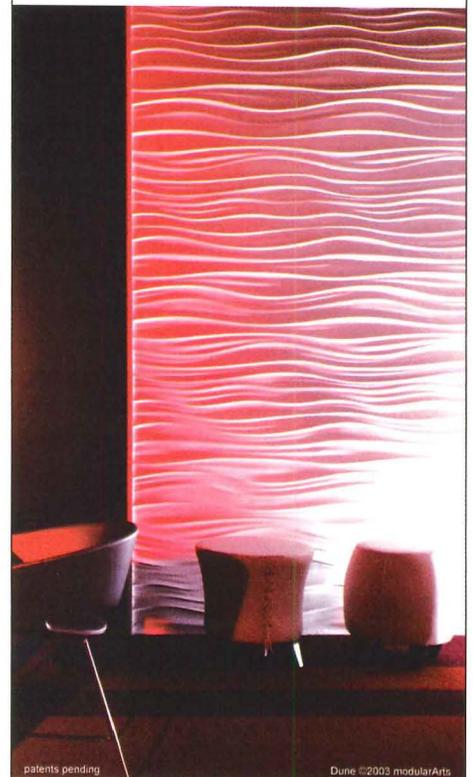
June 15-18, 2007

The guiding theme for the conference is green values, with the leading theme, "Kyoto Protocol



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Dates & Events

and Architecture—What Can Glass Technology Do for All of Us?" Sessions will cover the following main categories: glass processing, glass in architecture, glass in automotive, and changing markets. For more information, call 358/3 372-3216 or visit www.gpd.fi or www.glassfiles.com.

AIA 150

Workshop for the 2006 Guidelines for Design and Construction of Health-Care Facilities San Jose, Calif.

June 22–23, 2007

Designed for architects, engineers, facility managers, project managers, and contractors, this two-day program reviews codes and standards for health-care facilities, including changes and new material in Guidelines 2006, and features a lecture format with open forums and question-and-answer sessions. Visit www.aia.org.

Architecture Camp Pittsburgh

June 25–August 17, 2007

Architecture Explorations, a series of one- and two-week camps dedicated to architectural design, construction, form, and function, and presented in collaboration with Carnegie Mellon University's School of Architecture, are available for children ages four to 13, as well as high school students. The architecture camps are held at Carnegie Mellon University's architecture studios and in the Carnegie Museum of Art's Heinz Architectural Center. Call 412/622-3131 or visit www.cmoa.org.

Competitions

Open Architecture Prize

Deadline: Ongoing

The \$250,000 Open Architecture Prize is the largest prize in the field of architecture and is designed to be a multiyear program that will draw competition from design teams around the world. Each year, a winning design will be selected from a field of low-cost, sustainable design projects and built in a selected community. The first project for the Open Architecture Prize will be an "e-community center," a centralized building equipped with Internet connectivity solutions designed to enable an entire community to access the transformative power of the Internet. The winning designs will be built as part of the prize and in alignment with the 50x15 Initiative, a program founded by AMD to connect 50 percent

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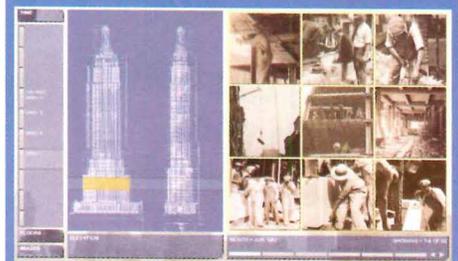
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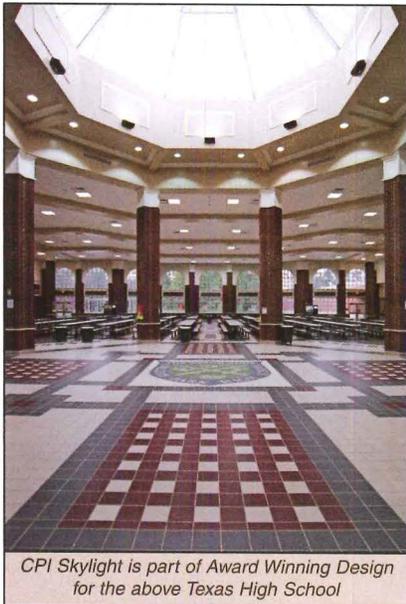


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Dates & Events

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For more information, visit www.50x15.com.

Envisioning Gateway: A Public Design Competition for Gateway National Park

Submission Deadline: May 7, 2007

An international public design competition to create a new vision for Gateway National Recreation Area, a 26,000-acre national park located in New York. The goal is to generate innovative, visionary, and compelling designs that reflect the area as a regional resource and national environmental asset. Visit www.vanalan.org/gateway.

Promosedia International Design Competition

Deadline: May 11, 2007

The Caiazza Memorial Challenge is a competition of ideas for the design of a chair. For more information, visit www.promosedia.it.

Ample Sample 2007

Deadline: May 15, 2007

Ample Sample 2007 challenges designers to "rethink, reuse, upcycle," and repurpose carpet samples. Entrants are asked to create designs that transform samples into a beautiful, functional fixture, piece of furniture, or any other interior product. Visit www.amplesample.net.



AIA Columbus Announces Transit Design Competition

Deadline: May 29, 2007

This competition will generate dialogue about the possibilities for the role of public transportation in Columbus, Ohio, with special emphasis on illustrating how multiple transportation modes can work together to provide a complete network that connects citizens with their community and sparks economic development. The competition will look for solutions for three specific sites prime for transportation infrastructure enhancements. For additional information, visit www.columbusrewired.org or call 614/469-1973.

The International Landscape Award 2007

Deadline: May 31, 2007

This award honors design that will enhance the quality of urban life through architectural, landscaping, social, economic, and ecological components. For further information, visit www.iula.com.

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For decades the National Building Museum has inspired children and families to learn more about building, construction, design, and engineering. From our family festivals and our exhibitions, to our school programs and our curriculum kits, we build enthusiasm about skyscrapers and homes, bridges and neighborhoods, and all of the extraordinary things between.



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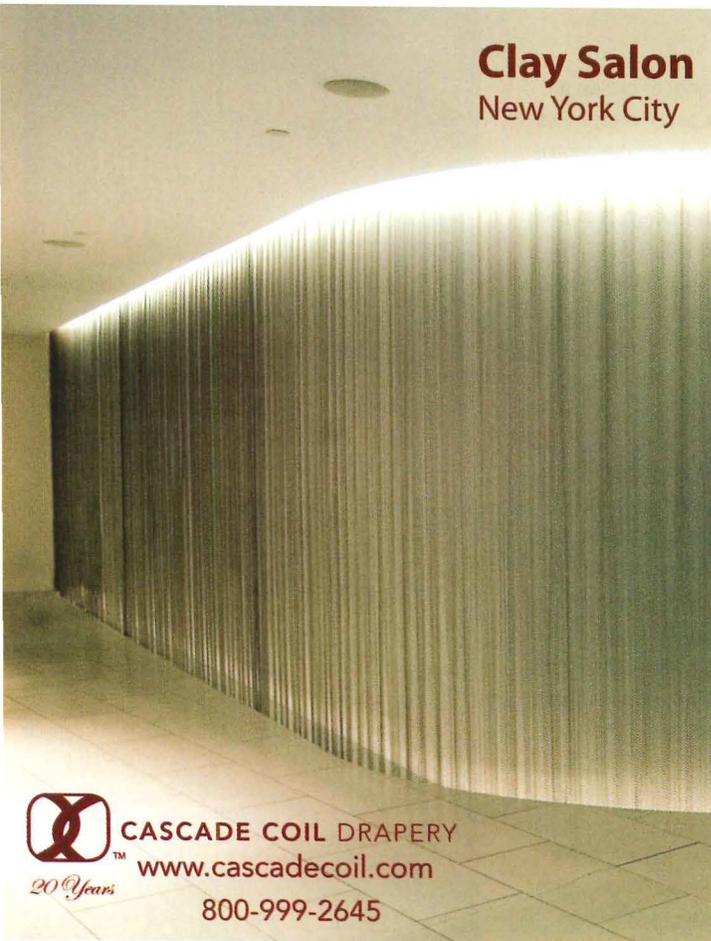
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Dates & Events

AIA 150

The AIA NY Chapter's Emerging New York Architects Call for Entries: Schedium

Registration Deadline: June 1, 2007

Submission Deadline: June 15, 2007

To celebrate the drawing abilities of today's emerging architects, Schedium extends an invitation to submit portfolios. Artists who are selected from the portfolio competition may be asked to participate in the live drawing series. International practitioners are welcome. Visit www.schedium.org.

Shrink This House

Deadline: June 15, 2007

This competition is open to all architects and architecture students. The winning entries will be published in the September-October issue of *Florida Insideout Magazine*. The program challenges the participants to take a 5,687-square-foot, two-story modern house going up in Miami Beach and, in expectation of high energy prices and an aging population in 2025, shrink it, creatively, to 2,000 square feet. For images, floor plans, and specs, visit www.floridainsideout.com or call 305/532-7027.

Heated Issue

Deadline: June 17, 2007

This competition asks participants to create an educational campaign to raise public awareness of the problem of global warming and the contribution of our daily lifestyle and activities to this phenomenon. The aim of the campaign is to provoke people to think about the issue and how their individual consumer choices and energy consumption enter into the equation. To learn more, visit www.design21sdn.com.

Child's Play

Deadline: June 17, 2007

This competition focuses on children and asks designers to create an affordable object (or objects) that encourage children to cultivate their own imagination and creativity. The function is open to interpretation and the objective of the design should be to encourage exploration and to inspire a child to derive his/her own associations and invent their own interaction or way of playing with the object. Visit www.design21sdn.com.

Shelter Me

Deadline: June 17, 2007

In the past two years, widespread catastrophic events have called forth large-scale relief efforts throughout both urban and rural areas of the

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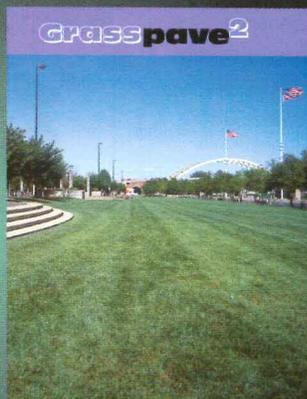


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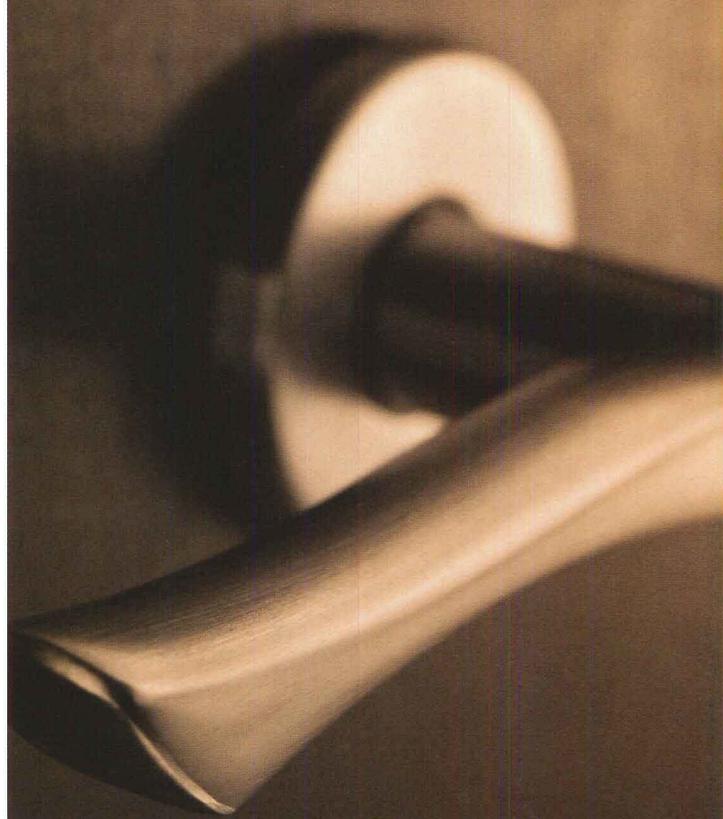


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Dates & Events

world. Shelter Me challenges designers to present a cost-effective short-term shelter that is affordable, lightweight, strong, and easily deployed. Visit www.design21sdn.com.

21st International Excellence on the Waterfront Awards

Deadline: June 29, 2007

This program will honor waterfront projects, plans, citizen efforts, and student awards. Winners will be announced on November 2 during the "Urban Waterfronts 25: the Next Wave" conference at the Seaport Hotel in Boston. For program details and entry forms, call 202/337-0356 or visit www.waterfrontcenter.org

AIA 150 The American Institute of Architecture Students' (AIAS) 2nd Annual National Student Design Competition

Deadline: November 5, 2007

Developed for advanced students, this competition will challenge participants to design a pediatric outpatient rehabilitation center and family support facility utilizing architectural aluminum building products and systems. Visit www.aias.org/kawneer.

Just Jerusalem

Deadline: December 31, 2007

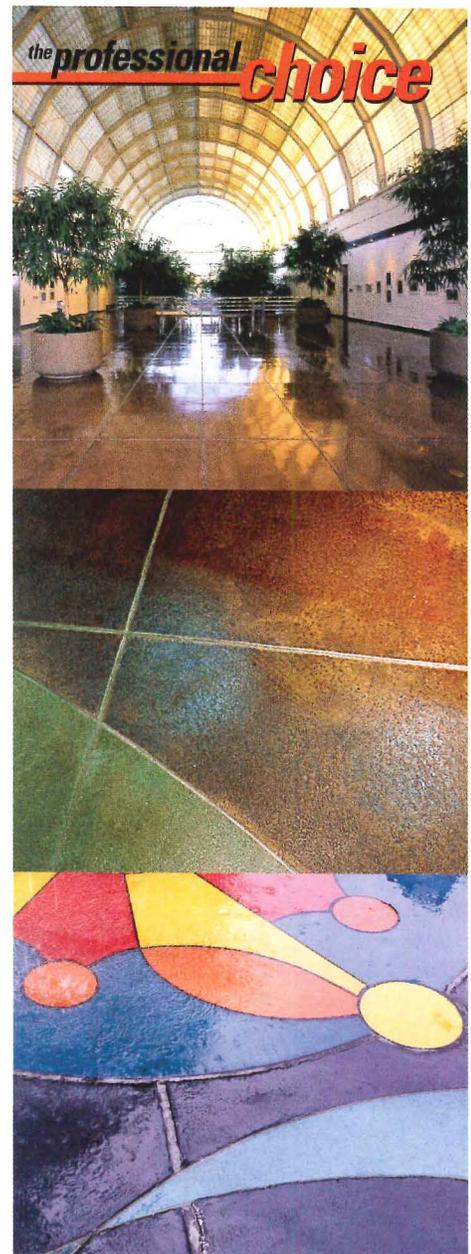
This competition invites participants worldwide to submit urban plans and other creative works that consider novel ways to transform this fractious city into a place where contending ideas and citizenries coexist in peaceful ways. An international panel of diplomats, researchers, and professionals will jury the competition. The winning participants will be awarded fellowships at MIT, a prize equivalent to \$50,000. Visit www.mit.edu/cis/jerusalem2050/.

Project New Orleans Call for Submissions

Ongoing

Project New Orleans is seeking to compile a record of all architectural and planning proposals created for the post-Katrina rebuilding of New Orleans. Submissions for proposals are welcome, both written and graphic, from the architectural to the regional, and from all engaged in thinking about the future of the city in physical terms. Visit www.project-neworleans.org.

E-mail event and competition information two months in advance to elizabeth_broome@mcgraw-hill.com.



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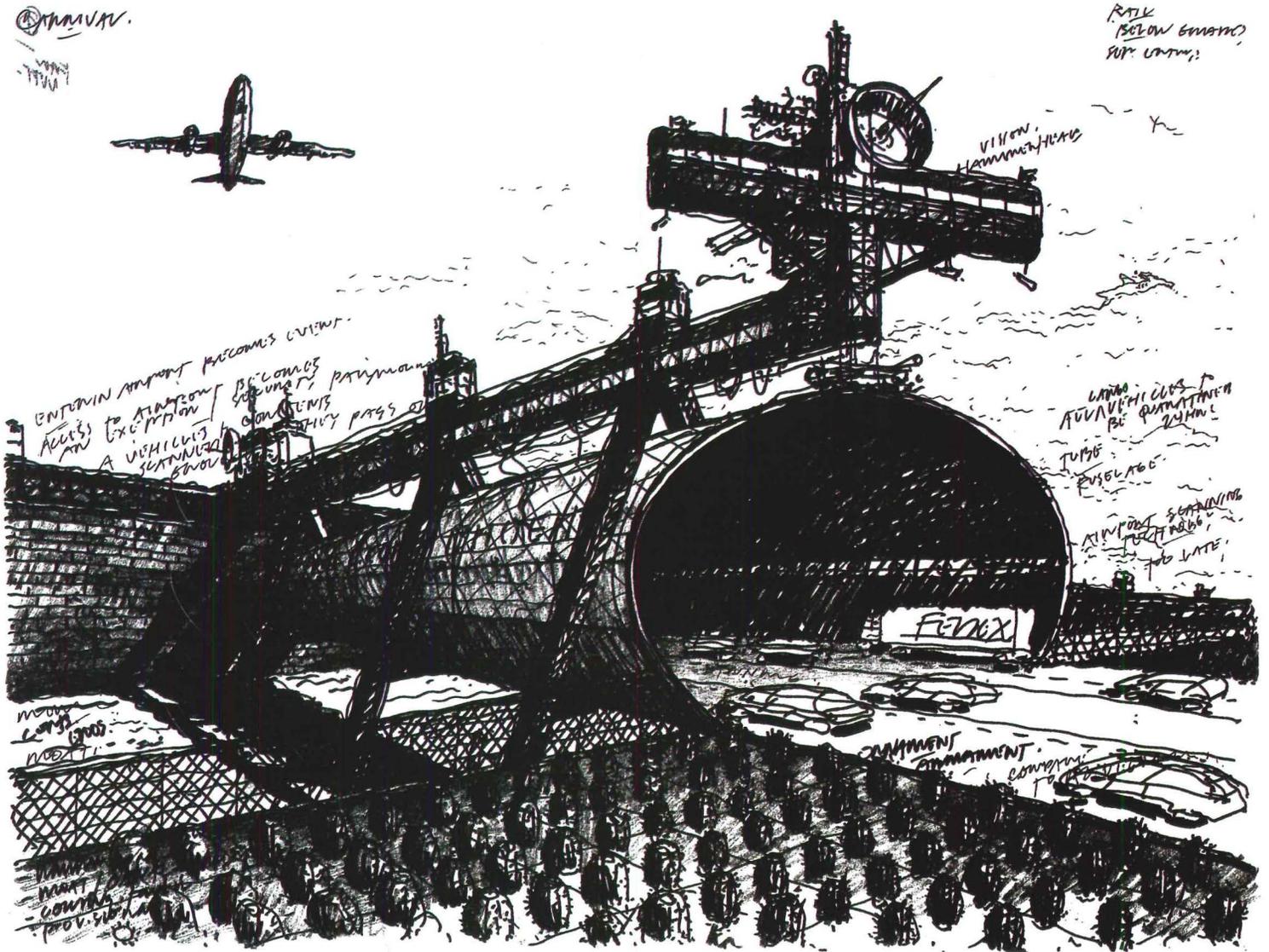
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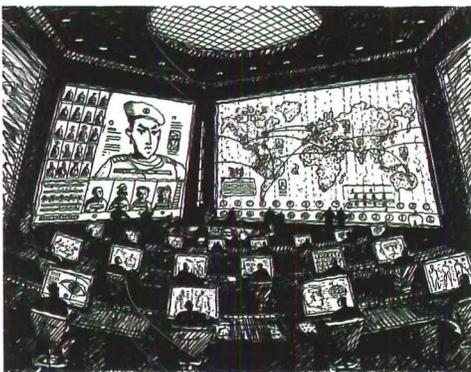
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326	339	5	illbruck <i>illbruck-archprod.com</i>
16	10		Indiana Limestone Company <i>indianalimestonecompany.com</i>
295	133		Insight Lighting <i>insightlighting.com</i>
239	107		InterEdge Technologies <i>firesafe-glass.com</i>
335	355	5	Invisible Structures Inc <i>invisiblestructures.com</i>
99	61		Invision/J&J Industries <i>invisioncarpet.com</i>
213	97	5	IR - LCN <i>lcn.ingersollrand.com</i>
157	86	5	IR - Von Duprin <i>vonduprin.ingersollrand.com</i>
78	46		Jack Arnold Architect <i>jackarnold.com</i>
39	21	5	JELD-WEN Windows & Doors <i>jeld-wen.com</i>
347	365		Jerusalem Stone Company <i>jerusalemstonecompany.com</i>
336	357		Joel Berman Glass Studios Ltd <i>jbermanglass.com</i>
237	105		Julius Blum & Co Inc <i>juliusblum.com</i>
53	29	5	Kawneer Company Inc <i>kawneer.com</i>
49	27		Kim Lighting <i>kimlighting.com</i>
312	145	5	Kingsley-Bate <i>kingsleybate.com</i>
301	138	5	Lafarge North America <i>lafargenorthamerica.com</i>
4	3		landscapeforms <i>landscapeforms.com</i>
236	104	5	Lehigh Cement Company <i>lehighwhitecement.com</i>
233	101		LG HI-MACS <i>lgcountertops.com</i>
276	124		LightingUniverse.com <i>lightinguniverse.com</i>
336	358		LM Scofield Company <i>scofield.com</i>
28-29	16		Loewen <i>loewen.com</i>
238	106		Lonseal <i>lonseal.com</i>
287	128		Lumec <i>lumec.com</i>
347	366	5	Lumicor <i>lumicor.com</i>
30	17	5	Lutron <i>lutron.com</i>
296	134		Manning Lighting <i>manningltg.com</i>
8-9	7		Marvin Windows & Doors <i>marvin.com</i>
254, 344			McGraw-Hill Construction <i>construction.com</i>
329, 338			McGraw-Hill Construction <i>construction.com</i>
339			McGraw-Hill Construction <i>construction.com</i>
321	331	5	McNichols Co <i>mcnichols.com</i>
245	109	5	MechoShade Systems Inc <i>mechoshade.com</i>
331	348		Modern Fan Co, The <i>modernfan.com</i>
328	342		modularArts <i>modulararts.com</i>
214	98	5	Mortar Net <i>mortarnet.com</i>
247	110	5	Nana Wall Systems Inc <i>nanawall.com</i>
332			National Building Museum <i>nbm.org</i>
240	108	5	National Gypsum Company <i>nationalgypsum.com</i>
271	118		Natural Carpet Company, The <i>naturalcarpetcompany.com</i>
313	146		Natural Stone Council <i>genuinestone.org</i>
111, 333	66, 351		NCARB <i>ncarb.org</i>
343	364		Noble Company, The <i>noblecompany.com</i>
12-13	8	5	Oldcastle Glass <i>oldcastleglass.com</i>
119	71		OMNIA <i>omniaindustries.com</i>
216	100	5	Owens Corning <i>owenscorning.com</i>
257-261	113	5	Pella® Windows & Doors <i>pella.com</i>
234	102	5	Petersen Aluminum <i>pac-clad.com</i>
122, 175	73, 88	5	Pilkington <i>pilkington.com</i>
109	64	5	Pittsburgh Corning <i>pittsburghcorning.com</i>
210	94		Poliform USA <i>trep-trepiu.com</i>
307	141		Poltrona Frau <i>frauusa.com.com</i>
24-25	14	5	PPG <i>ppgideascape.com</i>
36-37	20	5	PPG <i>ppgideascape.com</i>
291	129		Prescolite <i>prescolite.com</i>
322	333	5	Prosoco <i>prosoco.com</i>
337	360		Prudential Lighting <i>prulite.com</i>
114	69		Quality Stone Veneer <i>qualitystoneveneer.com</i>
361	368		Quickflash Weatherproofing Products Inc <i>quickflashproducts.com</i>
361	371		Rafael Vinoly Architects <i>rvatr.com</i>
361	369	5	Rakks <i>rakks.com</i>
292	130		Rambusch <i>rambush.com</i>
73	42		RHEINZINK <i>rheinzink.com</i>
125	76	5	Rixson <i>rixson.com</i>
176	89		Robinson Brick Company <i>robinsonbrick.com</i>
93	55		Rocky Mountain Hardware <i>rockymountainhardware.com</i>
270	117		Roof Products Inc <i>rpcurbs.com</i>
318	328		Rulon Company <i>rulonco.com</i>
335	356		Sargent <i>studlocollection.com</i>
23, 155	13, 85		Schott Corporation <i>us.schott.com</i>
337	361		Seattle Stained Glass <i>seattlestainedglass.com</i>
334	352		Seiho International Inc <i>seiho.com</i>
cov-3	372		Selux <i>selux.com/usa</i>
5	4	5	Sherwin-Williams <i>sherwin-williams.com</i>
211	95		Simpson Strong-Tie Company Inc <i>simpsonstrongtie.com</i>
330			Skyscraper Museum, The <i>skyscraper.org</i>
59	32	5	Sloan Valve Company <i>sloanvalve.com</i>
250	112		SMILMC <i>asm-expertise.com</i>
340	362		Smith & Fong <i>plyboo.com</i>
344	366		Spark Modern Fires <i>sparkfires.com</i>
347	367	5	Special-Lite <i>special-lite.com</i>
79	47		SSS Siedle <i>siedleusa.com</i>
105	62		St. Paul Travelers <i>stpaultravelers.com</i>
126	77		Steel Door Institute <i>steeldoor.org</i>
300	137	5	Sugatsune America Inc <i>sugatsune.com</i>
76	44		Sun Valley Bronze <i>svbronze.com</i>
41	325		Sunbrella brand fabrics <i>sunbrella.com</i>
2-3	2	5	Technical Glass Products <i>teglass.com</i>
44	24	5	Tectum Inc <i>tectum.com</i>
87	87	5	Thermador <i>thermador.com</i>
177	90		Tile of Spain <i>spaintiles.info</i>
123	74		Timely <i>timelyframes/ar.com</i>
315	148		Tindall Corp <i>tindallcorp.com</i>
274	122		Trespa <i>trespanorthamerica.com</i>
249	111		Unico System, The <i>unicosystem.com</i>
298-299	136		US Green Building Council <i>usgbc.org</i>
43		5	USG Corporation <i>usg.com</i>
273	121		Verizon Wireless <i>verizonwireless.com</i>
310	143		VERSA-LOK <i>versa-lok.com</i>
275	123		Victor Oolitic Stone Company <i>victoroolitic.com</i>
110	65		Vista Window Film <i>vista-films.com</i>
46	26		Vistawall Architectural Products <i>vistawall.com</i>
128	79		VT Industries <i>vtindustries.com</i>
32-33	18		Vulcraft, A Division of Nucor Corp <i>nucor.com</i>
297	135		WAC Lighting <i>waclighting.com</i>
327	340	5	Wagner <i>wagnercompanies.com</i>
178	91		Walker Zanger <i>walkerzanger.com</i>
344	367		Walpole Woodworkers <i>walpolewoodworkers.com</i>
303	140	5	Wausau Tile <i>wausautile.com</i>
65	38		Western Red Cedar Lumber Association <i>realcedar.org</i>
63	36	5	Williams Scotsman <i>williamsscotsman.com</i>
147	81	5	Yale <i>reflectionsbyyale.com</i>

The Architect's Hand



Untitled, ink on paper, 2006.



Untitled, ink on paper, 2006.

Wellington Reiter takes to the air

Sky Harbor International Airport in Phoenix, Arizona, served over 41 million passengers in 2006. The airport's importance to the city's economy and culture inspired Wellington Reiter, AIA, an architect and dean of Arizona State University's College of Design, to sketch out a vision of its future. Reiter penned the sketches for an exhibition organized by the university's art museum to explore various urban conditions of one of America's fastest-growing cities. "There's an interesting dichotomy to how people view airports as part fortress and part gateway to a vacation," Reiter says. "We have no coastline, so the airport is literally our edge, our way in and out." The architect conceived the highway pipeline into the airport as both a sort of utopian entry and a darker surveillance system, where each car's contents would be scanned and occupants interrogated. The control room appears straight out of *Dr. Strangelove*. He likens airport design to the "view corridors" invented by French architects in the 17th and 18th centuries as means for control and observation. Although Reiter says he hasn't sketched much in the past 10 years, "These big pieces of infrastructure, like the airport, open up opportunities for exploitation in an interesting way." *Russell Fortmeyer*



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